Finance Committee Agenda

Tuesday, July 11, 2023
8:30 a.m.
Executive Conference Room and
Hampton Inn & Suites Lodi, Lobby,
1337 S. Beckman Rd., Lodi, CA 95240

MEMBERS: Mayor Marty Simonoff and Council Member Steven Vargas
ALTERNATES: Council Member Cecilia Hupp and Mayor Pro Tem Christine Marick

This agenda contains a brief general description of each item the Committee will consider. The Administrative Services Department has on file copies of written documentation relating to each item of business on this Agenda available for public inspection. Contact the Administrative Services Department Office at (714) 990-7676 or view the Agenda and related materials on the City's website at https://www.ci.brea.ca.us/509/Meeting-Agendas-Minutes. Materials related to an item on this agenda submitted to the Committee after distribution of the agenda packet are available for public inspection in the Administrative Services Department's Office at 1 Civic Center Circle, Brea, CA during normal business hours. Such documents may also be available on the City's website subject to staff's ability to post documents before the meeting.

Procedures for Addressing the Committee
Members of the public may offer comment in advance or may attend the meeting in person. All requests to offer comment must be submitted via phone by calling 714-990-7676 or by emailing arlenem@cityofbrea.net by 12:00 p.m. on Monday, July 10, 2023.

PLEASE SILENCE ALL PAGERS, CELL PHONES AND OTHER ELECTRONIC EQUIPMENT WHILE THE COMMITTEE IS IN SESSION.

CALL TO ORDER / ROLL CALL

1. **Matters from the Audience**

DISCUSSION

2. **BOUSD Building Utilities and Services Agreement for Fiscal Years 2023-28** - Staff recommends that the Finance Committee recommend the City Council approve, by consent, a five-year Building Utilities and Services Agreement with the Brea-Olinda Unified School District for Fiscal Years 2023-28.

   Attachments
   Agreement for Building Utilities and Services
   Office Lease Comparable

3. **Authorize the Purchase of Playground Equipment and Shade Structures in the amount of $636,519.00 for the Arovista Park Modernization Project, CIP 7978** - Approve the purchase of playground equipment from Landscape Structures for a total of $189,582.00; Approve the purchase of shade structures from Landscape Structures for a total of $446,937.00; and Authorize the City Manager to issue a Purchase Order Change Notice in a not-to-exceed amount of ten percent of the total purchase price and authorize a vendor or manufacturer change for an approved equal.

Attachments

Landscape Structures - Playground Equipment Quote

Landscape Structures - Shade Quote #1

Landscape Structures - Shade Quote #2

Landscape Structures - Shade Quote #3

4. **Accept a $96,093.80 California Highway Patrol Cannabis Tax Fund Grant Program Award for DUI Enforcement Training** - Adopt a Resolution accepting a State of California Cannabis Tax Fund Grant Program (CTFGP) Award for the education, prevention, and enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis, in the amount of $96,093.80, for the one-year grant program which begins July 1, 2023 and ends June 30, 2024.

Attachments

Resolution

5. **Annual Vehicle and Equipment Purchase Plan for Fiscal Year 2023-24** - Authorize the Purchasing Agent to issue purchase orders in an amount not-to-exceed $1,378,000 for various City vehicles and equipment described in the Annual Vehicle Replacement Plan for Fiscal Year (FY) 2023-24.

Attachments

Annual Vehicle Equipment Replacement Plan FY 2023-24

6. **Award Contract to Sol Construction, Inc. in the amount of $779,353.00 for the Berry Street Reservoir Ring Road Rehabilitation, CIP No. 7965** - Approve the Plans and Specifications; Receive bid; Award Contract to the lowest responsive and responsible bidder, Sol Construction, Inc. in the amount of $779,353.00; and Authorize the City Engineer to issue Change Orders up to a "not to exceed" amount of 10% of the Contract Price.

Attachments

Attachment A - Location Map

Attachment B - Bid Documents

Attachment C - Sol Construction, Inc. Bid Proposal

Attachment D - Construction Contract Agreement

7. **Award Contract to International Line Builders, Inc. dba ILB Electric, for the Traffic Signal Modification Project, CIP No. 7717** - Approve the Plans and Specifications; Receive bids; Award Contract to the lowest responsive and responsible bidder, International Line Builders, Inc. dba ILB Electric, in the amount of $335,940.00 Base Bid (Schedule A) and Additive Bid (Schedule B); and Authorize the City Engineer to issue Change Orders up to a "not-to-exceed" amount of 10% of the Contract Price.

Attachments

Attachment A - Location Map

Attachment B - Bid Documents

Attachment C - International Line Builders Bid Proposal

Attachment D - Construction Contract Agreement

8. **Award Contract to R.J. Noble Company for the Brea Boulevard Street Improvements W. Juniper St. to Imperial Highway (SR90), CIP Project No. 7299** - Approve the Plans and Specifications; Receive bids; Award Contract to the lowest responsive and responsible bidder, R.J. Noble Company in the amount of $758,639.45; and Authorize the City Engineer to issue Change Orders up to a "not-to-exceed" amount of 10% of the Contract Price.

Attachments

Attachment A - Location Map

Attachment B - Bid Documents

Attachment C - R.J. Noble Bid Proposal

Attachment D - Construction Contract Agreement

9. **Approval of Fiscal Year 2023-24 Property Tax Rate to Fund the City's Paramedic Program** - Approve resolution.

Attachments

Resolution

10. **Purchase Replacement Network Hardware, Network (Host) Servers and Storage Area Network (SAN) for the City's Virtual Network** - Authorize the City's Purchasing Agent or Designee to procure the replacement of Network Servers and Storage Area Network (SAN) in the amount of $135,812.36.

Attachments

Attachment A

Attachment B

11. **CIP Project Update by Ryan Chapman** - Informational

12. **Schedule Next Meeting: July 25, 2023**

Special Accommodations

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Administrative Services administrative office at (714) 990-7676. Notification 48 hours prior to the meeting will enable City staff to make reasonable arrangements to ensure accessibility. (28 CFR 35.102.35.104 ADA Title II)

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Brea-Olinda Unified School District Building Utilities and Services Agreement for Fiscal Years 2023-28

RECOMMENDATION

Staff recommends that the Finance Committee take the following action:

1. Recommend the City Council approve, by consent, a five-year Building Utilities and Services Agreement with the Brea-Olinda Unified School District for Fiscal Years 2023-28.

BACKGROUND/DISCUSSION

Since 1980, the Brea-Olinda Unified School District (School District), has occupied a 9,300 square foot office space in Brea's Civic and Cultural Center. The School District has occupied this office space through a 48-year lease agreement which established the lease rate of $1.00 per year and is set to expire on June 30, 2028. As a companion to the aforementioned lease agreement, the City and School District also executed a Building Utilities and Services Agreement (Agreement). Components of this Agreement include, but are not limited to the following:

- School District's use of the Council Chambers twice per month for School Board meetings
- Assigned and reserved parking spaces at the Civic and Cultural Center
- Utilities and janitorial services

The current Agreement expired on June 30, 2023. Under this Agreement and previous Agreements, the annual maintenance and operations fees have been based on a percentage of the Civic and Cultural Center's operating budget. For reference, the average fees paid by the School District for Fiscal Years 2017-22 was $85,636.58 ($9.21 per square foot annually). The estimated amount for Fiscal Year 2022-23 is $94,287.13 ($10.14 per square foot).

At this time, it is recommended that the City enter into a new five-year Building Utilities and Services Agreement (included as Attachment No. 1) with the School District, utilizing a calculation method based on the open market trends for commercial rentals rather than the City's operating budget. Staff compared the square footage rate of approximately 21 commercial lease spaces in Brea (comparison included as Attachment No. 2). Based on these market trends, City staff and School District staff reached a tentative agreement on the proposed annual building utilities and services fee, which starts at $14.83 per square foot annually in Year One and increasing by eleven percent (11%) annually thereafter.

On June 15, 2023, the new five-year Agreement was reviewed and approved by the Brea-Olinda Unified School District Board.

SUMMARY/FISCAL IMPACT

This new Agreement will generate $137,919.00 in additional revenue in Year One of the five-year agreement (an increase of approximately 46% over the Fiscal Year 2022-23 Agreement). The fees for the next five years are proposed as follows:

- July 1, 2023 - $137,919.00 annually ($11,493.25 per month)
- July 1, 2024 - $153,090.09 annually ($12,757.51 per month)
- July 1, 2025 - $169,930.00 annually ($14,160.83 per month)
- July 1, 2026 - $188,622.30 annually ($15,718.53 per month)
- July 1, 2027 - $209,370.75 annually ($17,447.56 per month)

Based on this new calculation method and negotiated rate, the Agreement will have a positive effect on the General Fund revenues for the next five years.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Marie Dao, Management Analyst, Community Development Department
Concurrence: Melissa Davis, Community Development Manager and Jason Killebrew, Community Development Director

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Attachments

Agreement for Building Utilities and Services

Office Lease Comparable

AGREEMENT
FOR
BUILDING UTILITIES AND SERVICES

This Agreement is made and entered into by and between the CITY OF BREA, a municipal corporation ("City" hereinafter) and BREA-OLINDA UNIFIED SCHOOL DISTRICT, a unified school district ("District" hereinafter).

WITNESSETH

A. Recitals.

i. District currently leases space in City's Civic and Cultural Center for the operation of its district education center.

ii. City provides building utilities and services for the maintenance and operation of the Civic and Cultural Center, and the cleaning of shared spaces at the Civic and Cultural Center.

iii. District desires to obtain building utilities and services under the terms and conditions set forth herein.

B. Agreement.

NOW, THEREFORE, in consideration of the respective agreements herein contained, the parties hereto agree as follows:

1. City shall provide to District building utilities and services.

2. City shall allow District the use of the Council Chambers two (2) times per month, not to conflict with the City's use of this facility, for School Board meetings. In lieu of the Council Chambers, the City will provide another location within the Civic and Cultural Center for the School Board meetings, based on City's need for the Council Chambers.

3. City will provide District 12 reserved parking spaces on Level P2 of the Civic and Cultural Center: five (5) will be interior spaces and seven (7) will be exterior spaces.

4. City and District hereby agree that any person, firm or corporation providing services hereunder shall be deemed an independent contractor and in no way shall the same be deemed an officer, employee, or agent of District.

5. It is understood and agreed by the parties hereto that no alteration or variation of the terms and provisions of the Agreement shall be valid unless such alteration or variation is made in writing and duly executed by the parties.

6. This Agreement shall be effective July 1, 2023 and shall end on June 30, 2028, unless sooner cancelled or modified. Commencing on July 1, 2023, the maintenance and operations charges shall be $11,493.25 per month ($137,919 annually). The monthly rate shall be increased annually, effective on July 1 of each year, as outlined below.

    a. Effective July 1, 2024, the maintenance and operations charges shall be $12,757.51 per month ($153,090.09 annually).

    b. Effective July 1, 2025, the maintenance and operations charges shall be $14,160.83 per month ($169,930.00 annually).

    c. Effective July 1, 2026, the maintenance and operations charges shall be $15,718.53 per month ($188,622.30 annually).

    d. Effective July 1, 2027, the maintenance and operations charges shall be $17,447.56 per month ($209,370.75 annually).

    Monthly charges shall be due and payable on or before the first day of each month without notice from the City.

7. Any notice or payment due hereunder shall be mailed or delivered to the respective parties as set forth below:

    DISTRICT: Brea-Olinda Unified School District
    Attention: Superintendent
    1 Civic Center Circle
    Brea, California 92821

    CITY: City of Brea
    Attention: Community Development Director
    1 Civic Center Circle
    Brea, California 92821

8. This Agreement may be terminated only for cause.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth below opposite the respective parties' signatures.

SIGNATURES ON FOLLOWING PAGE

BREA-OLINDA UNIFIED SCHOOL DISTRICT

Dated: 6/15/2023

Deana Miller

Deana Miller, President, Board of Education

Dated: 6/15/2023

Brinda Leon

Brinda Leon, Secretary, Board of Education

CITY OF BREA

Dated:_____

Marty Simonoff, Mayor

Dated:_____

Lillian Harris-Neal, City Clerk

Office Lease Comparable - March 2023

Property Address	Per SF/Yr	Per SF/Mo
500 S Kraemer Blvd	$ 28.20	$ 2.35
3 Pointe Dr	$ 24.00	$ 2.00
3000 E Birch St	$ 24.00	$ 2.00
1203 W Imperial Hwy	$ 22.80	$ 1.90
120 S State College Blvd	$ 35.40	$ 2.95
265 S Randolph Ave	$ 24.00	$ 2.00
3010 Saturn St	$ 28.80	$ 2.40
2801 Saturn St	$ 18.00	$ 1.50
770 S Brea Blvd	$ 24.00	$ 2.00
512 E Lambert Rd	$ 18.00	$ 1.50
3230 E Imperial Hwy	$ 31.20	$ 2.60
405 S State College Blvd	$ 23.88	$ 1.99
203 N Brea Blvd	$ 28.80	$ 2.40
210 W Birch St	$ 30.60	$ 2.55
2601 Saturn St	$ 24.00	$ 2.00
3010 Saturn St	$ 30.60	$ 2.55
330 E Lambert Rd	$ 33.00	$ 2.75
1698 Greenbriar Ln	$ 22.80	$ 1.90
3350 E Birch St	$ 27.84	$ 2.32
1 Pointe Dr	$ 18.24	$ 1.52
1800 E Lambert Rd	$ 38.06	$ 3.17
Average	$ 26.49	$ 2.21

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Authorize the Purchase of Playground Equipment and Shade Structures in the amount of $636,519.00 for the Arovista Park Modernization Project, CIP 7978

RECOMMENDATION

1. Approve the purchase of playground equipment from Landscape Structures for a total of $189,582.00;
2. Approve the purchase of shade structures from Landscape Structures for a total of $446,937.00; and
3. Authorize the City Manager to issue a Purchase Order Change Notice in a not-to-exceed amount of ten percent of the total purchase price and authorize a vendor or manufacturer change for an approved equal.

BACKGROUND/DISCUSSION

In the fall of 2020, the City's Parks, Recreation and Human Services Commission adopted their Goal Setting Executive Summary highlighting several improvements needed at Arovista Park. The City Council directed staff to explore the modernization of Arovista Park at their May 4, 2021, meeting, emphasizing an all-accessible playground and other park improvements. These included upgrades to existing fields and courts, the addition of multi-generational recreational opportunities, and the desire for an all-accessible play area.

Extensive community outreach and engagement followed through the remainder of 2021, resulting in an initial concept plan for the park. At their Special Meeting on March 8, 2022, the City's Parks, Recreation and Human Services Commission established a base project with other priorities for the Arovista Park Modernization Project. The base project included the following:

- An all-accessible playground
- Skate park sound wall
- Parking lots
- Restrooms
- Golf safety netting
- Tracks trailhead lighting and design

Other priorities included baseball fields; a theater; Jubilee Grove; an active adult area; and pickleball, basketball, and volleyball courts. There was a consensus to include relocating the sound wall in the base project, and staff also recommended safety netting at the golf course, which is currently underway.

In June 2022, the City Council awarded a design services agreement to David Volz Design for plans, specifications, and estimates (PS&E) for Arovista Park Modernization, CIP 7978.

On February 7, 2023, the City Council authorized the purchase of a prefabricated restroom/concession building, restroom/storage, and two trash enclosures. The concept plan for the all-accessible playground was also shared and approved by the City Council at the February 7, 2023, meeting. Since then, staff has received project cost estimates that were higher than anticipated and have been working on mitigating some of those costs without compromising the original priorities of the City Council, the Parks, Recreation and Human Services Commission, and the community.

At their April 18, 2023, meeting, the City Council authorized the purchase of various playground equipment from various manufacturers totaling $903,821.00, and the purchase of a prefabricated storage building from Public Restroom Company totaling $159,922.00. Cost Estimates from Landscape Structures were outstanding at that time, but have since been provided and are now available for City Council consideration. Due to lead times for the playground equipment and shade structures, staff has recommended orders be placed now with the different manufacturers to avoid cost increases of up to 30-50%, which could occur in a general contractor's bid. The proposed playground equipment and shade structures are detailed in the table below, in addition to the equipment and restrooms that were previously authorized:

Manufacturer/Vendor	**Cost**
Landscape Structures - Playground Equipment	$189,582.00
Landscape Structures - Shade Structures	$446,937.00
Sub-total	$636,519.00
Previously Authorized Play Equipment and Pre-Fabricated Storage Building (April 18, 2023, City Council Meeting)	$1,063,473.00
Total	$1,699,992.00

Once the purchase orders are issued, the general contractor will be required to coordinate the delivery of the equipment. The table above does not include installation costs reflected in specific attached quotes that the general contractor will address in their bids. The specifications will require a certified playground installed and certified playground inspector to handle and observe the equipment installation.

SUMMARY/FISCAL IMPACT

Staff recommends purchasing the playground equipment and shade structures, as detailed above, for the Arovista Park Modernization at $636,519. Funding is available in the CIP budget.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Jenn Colacion, Community Services Senior Management Analyst and Sean L. Matlock, Deputy Director of Community Services
Concurrence: Michael Ho, P.E., Director of Public Works/City Engineer

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Attachments

Landscape Structures - Playground Equipment Quote

Landscape Structures - Shade Quote #1

Landscape Structures - Shade Quote #2

Landscape Structures - Shade Quote #3

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landscape structures®

ALL PURCHASE ORDERS, CONTRACTS, AND CHECKS TO BE MADE OUT TO:
LANDSCAPE STRUCTURES, INC.
601 7TH STREET SOUTH
DELANO, MN 55328 U.S.A.
763-972-3391 800-328-0035
Fax: 763-972-3185

CMAS Contract No. 4-10-78-0057A

PROPOSAL

CMAS Approved Contractor
DGS California Multiple Award Schedules
CMAS

Customer Information

CONTACT: Jennifer Calocion
PHONE 714.671.4452
FAX:

SHIP TO: **500 W Imperial Hwy, Brea, CA 92821**
Maintenance Kit/Info ?

BILL TO: **City of Brea**
1 Civic Center Circle
Brea, CA 92821

Destination
F.O.B.
FREIGHT ☑ Prepaid ☐ Collect

Net 30
TERMS (Subject To Credit Approval By LSI)
23+ Weeks
SHIPPING TIME

Pricing Good for 60 days from Date of Proposal

We are pleased to submit this proposal to supply the following items:

QTY	ITEM NO.	DESCRIPTION	UNIT WT	UNIT PRICE	WEIGHT	EXTENDED AMT
		Arovista Park - CoolToppers				
2	CP028746	21'8" ROPE PULL FOR 120" ELEVATION DB 3 steel posts, 10 ball knots.f		$3,739	-	$ 7,480.00
2	CP032248	ARCH NET CLIMBER FOR 88' ELEVATION CHANGE DB Includes 2-arches; ball clamps; net climber.		$30,859	-	$ 61,718.00
1	CP032247	HILLSIDE DOUBLE RING TANGLE CLIMBER FOR 88" ELEVATION DB Similar to ringtangle but outside arcs 5" tube		$10,898	-	$ 10,898.00
11	CP001153	SINGLE HILL LOOP, 36"OC DB		$193	-	$ 2,123.00
1	249558A	We-Go-Round w/Kite DigiFuse Panels 2 Seats DB Only1			-	$ 39,462.00
2	158105A	Wobble Pod DB Only		1,996.00	-	$ 3,992.00
1	182504C	Welcome Sign Ages 5-12 years Direct Bury			-	$ 466.00
1	277778B	We-Go-Swing w/2 Accessible Bays DB Only1			-	$ 39,670.00
1	186490A	We-Saw DB Only		13,836.00	-	$ 13,836.00
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -

Standard Terms and Conditions for Installation Apply

SIGNATURE BELOW ACCEPTING THIS PROPOSAL WILL CONSTITUTE A PURCHASE ORDER ONLY UPON APPROVAL BY LANDSCAPE STRUCTURES, INC. CUSTOMER RECEIPT OF AN ORDER ACKNOWLEDGEMENT CONSTITUTES SUCH APPROVAL.

Total Weight	-	
SUBTOTAL MATERIAL		$ 179,645.00
8% CMAS Discount		-$14,372.00
INSTALLATION		Not Included

ACCEPTED BY CUSTOMER	DATE		FREIGHT	$11,500
PRINT NAME				
Allison Hepburn	6.29.23	7.75%	SALES TAX	$ 12,809.00
PROPOSED BY LSI REPRESENTATIVE	DATE			
Allison Hepburn			***TOTAL***	$ 189,582.00
PRINT NAME				

Taxable: Freight _____ Installation _____

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PROPOSAL

CMAS Approved Contractor
DGS California Multiple Award Schedules
CMAS

Customer Information

CONTACT: Jennifer Calocion
PHONE 714.671.4452
FAX:

SHIP TO: **500 W Imperial Hwy, Brea, CA 92821**
Maintenance Kit/Info ?

BILL TO: **City of Brea**
1 Civic Center Circle
Brea, CA 92821

Destination
F.O.B.
FREIGHT ☑ Prepaid ☐ Collect

Net 30
TERMS (Subject To Credit Approval By LSI)
Estimated 20+ Weeks
SHIPPING TIME

Pricing Good for 60 days from Date of Proposal

We are pleased to submit this proposal to supply the following items:

QTY	ITEM NO.	DESCRIPTION	UNIT WT	UNIT PRICE	WEIGHT	EXTENDED AMT
		Arovista Park - Flower Shades				
7	CP030674	SKYWAYS FABRIC FLOWER STRUCTURE SkyWays® 20' Diameter Flower, With Curved Post – 1 Column + 8 HDPE Tops with 14' Entry		$35,548	-	$ 248,836.00
					-	$ -
					-	$ -
					-	$ -

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FREIGHT ☑ Prepaid ☐ Collect

Net 30
TERMS (Subject To Credit Approval By LSI)
23+ Weeks
SHIPPING TIME

Pricing Good for 60 days from Date of Proposal

We are pleased to submit this proposal to supply the following items:

QTY	ITEM NO.	DESCRIPTION	UNIT WT	UNIT PRICE	WEIGHT	EXTENDED AMT
		Arovista Park - CoolToppers				
4	154883E	201"Steel Post (60" Bury) For CoolTopper Single Post Pyramid Roof		$995	-	$ 3,980.00
4	154884A	CoolToppers Single Post Pyramid Roof DB Only1		$4,306	-	$ 17,224.00
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -

Standard Terms and Conditions for Installation Apply

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Total Weight	-	
SUBTOTAL MATERIAL		$ 21,204.00
6% CMAS Discount		-$1,273.00
INSTALLATION		Not Included
FREIGHT		$2,500
7.75% SALES TAX		$ 1,545.00

ACCEPTED BY CUSTOMER DATE

PRINT NAME

Allison Hepburn 6.29.23

PROPOSED BY LSI REPRESENTATIVE DATE

Allison Hepburn

PRINT NAME

TOTAL $ 23,976.00

Taxable: Freight _____ Installation _____

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Pricing Good for 60 days from Date of Proposal

We are pleased to submit this proposal to supply the following items:

QTY	ITEM NO.	DESCRIPTION	UNIT WT	UNIT PRICE	WEIGHT	EXTENDED AMT
		Arovista Park - Shade Sails				
1	CP033710	SKYWAYS HYPAR SAIL 4 Columns + 1 HDPE Top / 10' - 16' Entry Approx. 702 Sq. Ft.			-	$ 37,499.00
1	CP033711	SKYWAYS JOINED SAILS MIX 7 Columns + 3 HDPE Tops / 10' - 16' Entry Approx. 1869 Sq.Ft. / t *Including Electronically Sealed Engineeering for project			-	$ 76,784.00
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
					-	$ -
		Standard Terms and Conditions for Installation Apply				

SIGNATURE BELOW ACCEPTING THIS PROPOSAL WILL CONSTITUTE A PURCHASE ORDER ONLY UPON APPROVAL BY LANDSCAPE STRUCTURES, INC. CUSTOMER RECEIPT OF AN ORDER ACKNOWLEDGEMENT CONSTITUTES SUCH APPROVAL.

Total Weight	-	
SUBTOTAL MATERIAL		$ 114,283.00
8% CMAS Discount		-$9,143.00
INSTALLATION		Not Included
FREIGHT		$9,000
7.75% SALES TAX		$8,149
TOTAL		$ 122,289.00

ACCEPTED BY CUSTOMER DATE
PRINT NAME
Allison Hepburn 6.29.23
PROPOSED BY LSI REPRESENTATIVE DATE
Allison Hepburn
PRINT NAME

Taxable: Freight _____ Installation _____

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Accept a $96,093.80 California Highway Patrol Cannabis Tax Fund Grant Program Award for DUI Enforcement Training

RECOMMENDATION

Adopt a Resolution accepting a State of California Cannabis Tax Fund Grant Program (CTFGP) Award for the education, prevention, and enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis, in the amount of $96,093.80, for the one-year grant program which begins July 1, 2023, and ends June 30, 2024.

BACKGROUND/DISCUSSION

The Police Department has once again secured the State Cannabis Tax Fund Grant that funds: various DUI enforcement-related training opportunities including Impaired Driving and Traffic Safety, Standardized Field Sobriety Test (SFST), Advanced Roadside Impaired Driving Enforcement (ARIDE), and Drug Recognition Expert (DRE); attendance at the National Highway Traffic Safety Administration (NHTSA) Lifesavers Conference and the International Association of Chiefs of Police (IACP) Impaired Driving and Traffic Safety Conference; and, a variety of educational materials for traffic safety and impaired driving outreach. In addition, the grant funds a portion of the Sworn and Nonsworn Grant Manager and Social Media Coordinator's salaries, for time spent managing the grant.

Fiscal Year	Personnel Costs	Travel Costs	Other Direct Costs	Total
2023-24	$48,245.94	$12,860.73	$34,987.13	$96,093.80

The grant funds the above for FY 2023-24. Under the terms of the grant, the Brea Police Department will improve the Department's effectiveness by training police personnel in the area of drug and alcohol detection in order to more effectively identify and convict DUI drivers, as well as training Traffic personnel on best practices of traffic collision investigation.

SUMMARY/FISCAL IMPACT

There is no negative impact to the City's General Fund as all costs related to the grant's performance will be fully reimbursed by the State.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Jamie McDonald, Management Analyst II
Concurrence: Dave Dickinson, Police Captain
Adam Hawley, Police Chief

Attachments

Resolution

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BREA TO ACCEPT GRANT FUNDS IN THE AMOUNT OF $ $96,093.80 FROM THE STATE OF CALIFORNIA, DEPARTMENT OF HIGHWAY PATROL, CANNABIS TAX FUND GRANT PROGRAM, AND AMENDING THE FISCAL YEAR 2023-24 ANNUAL BUDGET

A. RECITALS:

(i) The Brea Police Department, on behalf of the City of Brea, is interested in participating in the Cannabis Tax Fund Grant Program, which is made available through the California State Controller's Office and administered by the California Department of Highway Patrol (CHP) to support project categories in accordance with California Code of Regulations (CCR) Sections 1890.05 through 1890.07; and

(ii) Following the City's submittal of a proposal for the Program, the State of California CHP offered to award $ $96,093.80 for the one-year grant program beginning July 1, 2023 and ending June 30, 2024; and

(iii) Grant funds will be used to fund training in the areas of education, prevention, and enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis, educational materials, and staff time; and

(iv) In order to be considered eligible to receive grant funding, the City must submit a completed Grant Agreement and a governing body Resolution providing approval to receive funding.

B. <u>RESOLUTION:</u>

NOW THEREFORE, it is found, determined and resolved by the City Council of the City of Brea to:

(i) Authorize the City Manager or a designated representative to, on behalf of the City, accept grant funding in the amount of $ $96,093.80 from the State of California CHP.

(ii) Authorize and direct the City Manager or a designated representative to execute the grant documents and to submit all documents, including, without limitation, contracts, amendments, extensions, and payment requests as appropriate to accept the funds under and comply with the conditions of the grant.

(iii) Authorize and direct the City Manager or a designated representative to establish all required accounts and make any and all expenditures, appropriations, transfers, and/or distributions of funds on behalf of the City as are necessary and appropriate to carry out the purpose and intent of this resolution.

(iv) Certify that grant funds received hereunder shall not be used to supplant ongoing law enforcement expenditures.

APPROVED AND ADOPTED this 18th day of July 2023.

_____
Mayor

ATTEST: _____
City Clerk

I, Lillian Harris-Neal, City Clerk of the City of Brea, do hereby certify that the foregoing Resolution was adopted at a regular meeting of the Council of the City of Brea, held on the 18th day of July 2023 by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

Dated: _____

_____
Lillian Harris-Neal, City Clerk

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Annual Vehicle and Equipment Purchase Plan for Fiscal Year 2023-24

RECOMMENDATION

Authorize the Purchasing Agent to issue purchase orders in an amount not-to-exceed $1,378,000 for various City vehicle and equipment described in the Annual Vehicles Replacement Plan for Fiscal Year (FY) 2023-24.

BACKGROUND/DISCUSSION

Each fiscal year, the vehicles used by various City departments are assessed to determine whether it is best to continue maintenance, retire, replace, or add new units. The determining factors include excessive mileage, unit hours, service life expectancy, maintenance cost history, safety and environmental impacts. The attached equipment list indicates the replacements or additions that were approved by the City Council as part of the FY 2023-24 Operating Budget. This list provides the equipment descriptions, quantities, estimated costs and departments where they will be assigned. The Purchasing Division will solicit bids for the listed equipment per the formal bidding requirements of the Brea Municipal Code, utilize competitively bid national cooperative agreements, or piggyback contracts to obtain the best available pricing.

Staff requests that City Council authorize the Purchasing Agent to issue purchase orders immediately after completing the best available pricing analysis without the need to return to City Council for approval of the individual awards for the following main reasons:

- Ensure the needed equipment is replaced in a timely fashion and without interruption in service
- Meet manufacturer production cutoff dates
- Take advantage of incentives and discounts
- Expedite the purchase of these items

Should any of the listed equipment be limited to a single source, the Purchasing Agent will verify and document the reasons for the sole source procurement prior to award.

To help facilitate operational and budgetary requirements, staff requests that City Council authorize the Fleet Supervisor and Purchasing Agent to make changes in the type and quantity of the listed equipment, subject to budget appropriations and the not-to-exceed amount requested.

SUMMARY/FISCAL IMPACT

The City Council adopted Fiscal Year 2023-24 Budget has sufficient funding available for the requested not-to exceed amount for these purchases in the Public Works Department, Equipment Maintenance Division, expenditure account in Mobile Equipment (480-51-5161-4641), Field and Shop Equipment (480-51-5161-4621), Community Development Fund (110-22-2231-4641, 110-32-3242-4641, 110-51-5171-4641), and General Fund (110-51-5141-4641).

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Rudy Correa, Superintendent, Fleet and Water Divisions
Concurrence: Michael Ho, P.E., Public Works Director/City Engineer

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Attachments

Annual Vehicle Equipment Replacement Plan FY 2023-24

VEHICLE REPLACEMENT SCHEDULE
Fiscal Year 2023-24

DEPARTMENT	UNIT #	REPLACEMENT	BUDGET	ACCESSORIES
***POLICE*-480-51-5161-4641**				
Admin Dodge Charger (Capt.)	1522	SUV/Sedan	$ 47,000	$ 6,000
BMW Motorcycle	1535	Motorcycle	$ 37,000	$ 1,000
VIPS	1617	Van/Truck	$ 37,000	$ 14,000
Detective	1715	SUV/Sedan	$ 37,000	$ 6,000
Detective	1717	SUV/Sedan	$ 37,000	$ 6,000
UV Interceptor -(994)	1430	Ford SUV	$ 55,000	$ 12,000
SEDAN-K9 (983K)	1801	Ford SUV	$ 55,000	$ 18,000
COMMAND-PATROL (967)	1629	Ford SUV	$ 55,000	$ 16,500
UV Interceptor -Patrol (952)	1813	Ford SUV	$ 55,000	$ 16,500
UV Interceptor -Patrol (956)	1814	Ford SUV	$ 55,000	$ 16,500
***PUBLIC WORKS*-480-51-5161-4641**				
Code Enforcement	1419	Pick up/SUV	$ 37,000	$ 1,000
Pickup-S	1405	3/4 Ton Pick up	$ 75,000	$ 8,000
Dump Truck 10-Wheeler-W	20010	Dump Truck	$ 195,000	$ 1,000
Dump Truck 6-Wheeler-W	20023	Dump Truck	$ 170,000	$ 1,000
Emergency Response Vehicle	27014	1-Ton Truck	$ 85,000	$ 1,000
NPDES	1412	Truck/SUV	$ 37,000	$ 1,000
***ADITTIONS*- 110-51-5141-4641**				
1/2 TON PICKUP-P (addition)		Truck	$ 45,500	
1/2 TON PICKUP-P (addition)		Truck	$ 45,500	
COMMUNITY DEVELOPMENT **110-22-2231-4641** **110-32-3242-4641** **110-51-5171-4641**				
Passenger Car (Addition)		Passenger Car	$ 35,000	
Passenger Car (Addition)		Passenger Car	$ 35,000	
		Total	**$1,230,000**	**$ 125,500**
***PUBLIC WORKS*-480-51-5161-4621**				
Brake Lathe	2003	B rake Lathe	$ 15,000	
Reference Software Tool	2015	Software Tool	$ 7,500	
480-5161-4621		**Total**	**$ 22,500**	
	Grand Total		**$ 1,378,000**	

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Award Contract to Sol Construction, Inc. in the amount of $779,353.00 for the Berry Street Reservoir Ring Road Rehabilitation, CIP No. 7965

RECOMMENDATION

1. Approve the Plans and Specifications;
2. Receive bid;
3. Award Contract to the lowest responsive and responsible bidder, Sol Construction, Inc. in the amount of $779,353.00; and,
4. Authorize the City Engineer to issue Change Orders up to a "not to exceed" amount of 10% of the Contract Price.

BACKGROUND/DISCUSSION

Berry Street Reservoir Ring Road Rehabilitation, CIP 7965 (“Project”) was programmed within the FY 2021-22 Capital Improvement Program (“CIP”). The Project is located at the Berry Street Public Works Department 30 million gallon reservoir at 545 N. Berry Street in Brea (Attachment A). The initial design was completed in the spring of 2022, which included various pavement rehabilitation improvements to the ring road. However, after an additional geotechnical investigation was completed to assess the stability of the dam portion of the road, it was determined that a more extensive slope stabilization design was warranted. Therefore, the design was enhanced pursuant to the geotechnical report recommendations, which included improvements such as, clearing and grubbing, slope grading, slope excavation, concrete slope paving, excavation and removing existing asphalt concrete (AC) pavement sections, milling, furnishing and placement of aggregate base and AC pavement, and all other requirements and incidentals to complete the road and slope work adjacent to the 30-million-gallon reservoir.

On March 31, 2023, the Final Plans and Specifications (“Bid Documents”) were accepted by staff, and the Project was advertised for bids on the CIPlist.com website and subsequently published in the Star Progress paper prior to bid opening. A hard copy of the Bid Documents is available at the City Clerk’s office for review (Attachment B). There were no addenda issued during the bid period. Therefore, staff recommends City Council approve the Plans and Specifications as bid.

On April 18, 2023, the Public Works Department held a mandatory pre-bid meeting at the Project site. Six (6) potential bidders attended the meeting.

On May 2, 2023, staff received one (1) bid proposal out of the six (6) potential bidders. Soon

thereafter, staff tabulated the bid proposal and determined that the apparent low bid amount was $779,353.00 from Sol Construction, Inc. ("Sol") from Riverside, CA (Attachment C). The Engineer's Estimate was $790,000. Staff evaluated the bid proposal and determined that the bid unit prices from Sol's proposal were considered reasonable as compared to the Engineer's Estimate.

Sol has been in the construction business for 17 years and has completed construction of similar slope paving, reservoir protection, and excavation improvement projects for the County of Orange. Their California Contractor's license is 812330 – A (General Engineering), and Department of Industrial Relations registration number is 1000012204; both have been verified by staff, and their bid package meets the City's proposal requirements. In addition, staff contacted Orange County Public Works, where the contractor received a favorable review. Furthermore, based on the aforementioned bid review, staff has determined Sol's bid as responsive and that they are a responsible bidder. Therefore, staff recommends that the City Council consider awarding a Construction Contract to Sol as the apparent lowest responsive and responsible bidder, in the amount of $779,353.00 (Attachment D).

SUMMARY/FISCAL IMPACT

The approved FY 2023-24 CIP Project budget for Construction and Construction Engineering is $941,000. The total cost for Construction and Construction Engineering is $931,000.30, which includes the apparent low bid amount ($779,353.00), a 10% contingency ($77,935.30), and Construction Engineering costs ($73,712.00). The sources of funds within the approved budget are from the Water Fund (Fund 420). Therefore, there are sufficient funds to complete the Project construction. Upon completion of the Project, the remaining fund balance will be de-obligated and transferred back into the Water Fund (Fund 420). There is no fiscal impact to the General Fund from this Project. See budget table below:

Description	Amount
Construction (Sol Contract)	$779,353.00
Construction Contingency (10%)	$77,935.30
Construction Engineering	$73,712.00
Total Construction Cost	**$931,000.30**
Approved FY 2023-24 Budget	**$941,000.00**

The Project will regrade and complete slope stabilization improvements along the reservoir dam and rehabilitate the ring road AC pavement along the perimeter of the 30-million-gallon reservoir. If City Council approves staff recommendations, the Project is anticipated to start construction in August 2023 and be completed by November 2023.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Ryan Chapman, P.E., Assistant City Engineer
Concurrence: Michael Ho, P.E., Public Works Director / City Engineer

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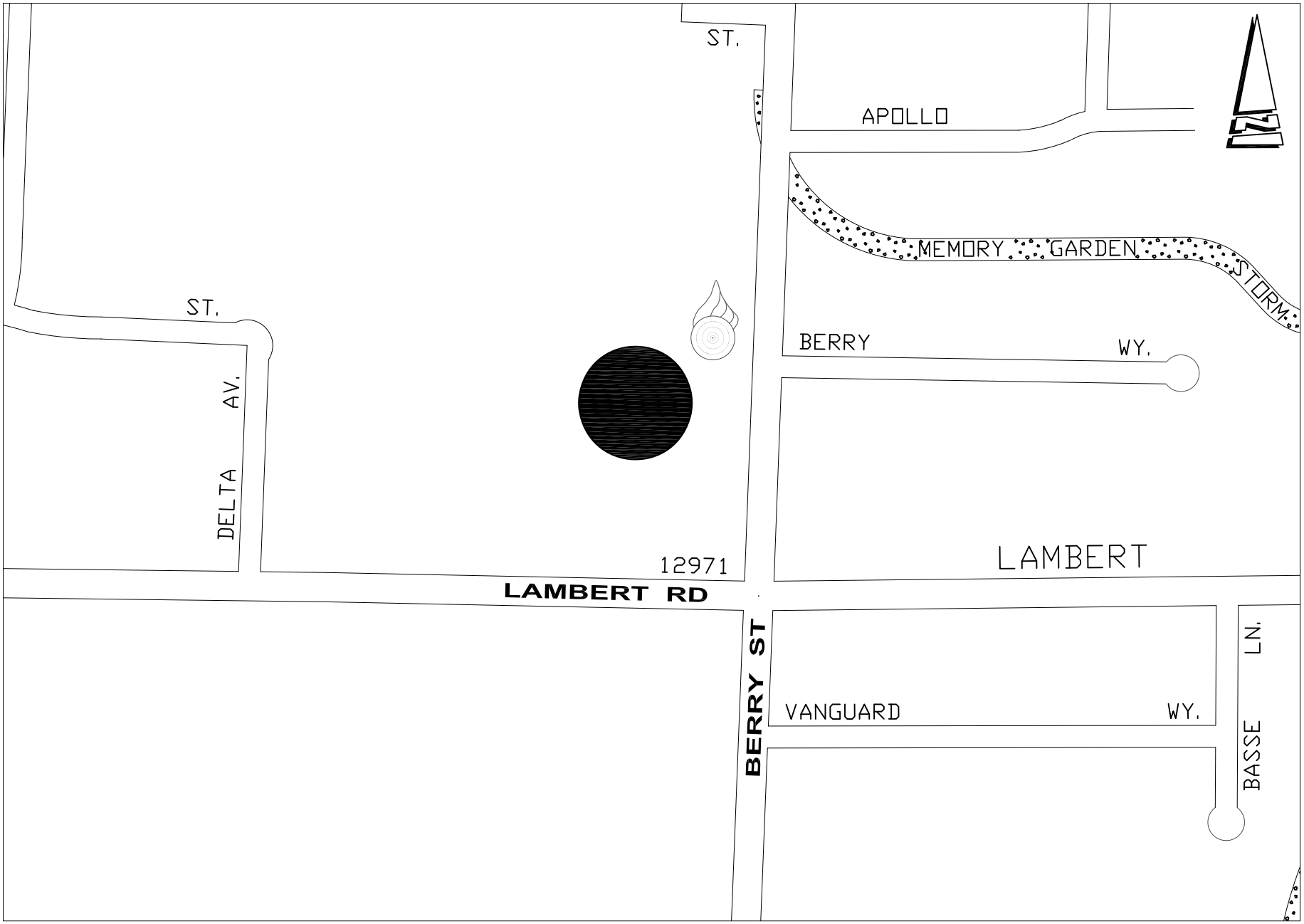
Attachments

Attachment A - Location Map
Attachment B - Bid Documents
Attachment C - Sol Construction, Inc. Bid Proposal
Attachment D - Construction Contract Agreement

PROJECT 7965

WATER IMPROVEMENTS -
REHABILITATE RING ROAD AT BERRY STREET RESERVOIR



VICINITY MAP

NOT TO SCALE

CONSTRUCTION PLANS

FOR

BERRY STREET RESERVOIR RING ROAD

REHABILITATION

CIP NO. 7965

IN THE

CITY OF BREA, CALIFORNIA

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

THE CONTRACTOR AND ALL SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTOR'S AND ALL SUBCONTRACTOR'S COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CIVIL ENGINEER.

PROJECT CONTACTS

SERVICES / COMPANY	CONTRACT PERSON	EMERGENCY TELEPHONE NO.
TIME WARNER COMMUNICATION	DAVE GATE	(714) 903-8380 OR 903-8260
AT&T-TCA	MARIA GUZMAN	(714) 666-5467
SOUTHER CALIFORNIA GAS CO.	STEVE ALCALA	(714) 634-3185
SOUTHERN CALIFORNIA EDISON	VICTOR PEDROZA	(714) 870-3228
VERIZON TELEPHONE	TOM MONAHAN	(562) 903-7939
CALIF. DOMESTIC MUN. WATER CO.	CHE VENEGA	(562) 947-3811
GOLDEN STATE WATER CO.	STAN YARBROUGH	(714) 535-8010 EXT. 320
OC METROPOLITAN WATER DIST.	KIERAN CALLANAN	(213) 217-7474
CHEVRON OIL	MIKE ROBERTS	(714) 228-1530
SHELL PIPELINE., LP	DAVID FELGER	(310) 816-2063
EXXON-MOBIL PIPELINE CO.	TERI SHINDE	(310) 212-1794
CONOCO PHILLIPS	LEO MARTINEZ	(805) 226-2656
CENTURYLINK - LEVEL 3	CALEB KING	(918) 547-0007
CRIMSON PIPELINE, LP	APRIL C. HARVEY	(562) 285-4112
PLAINS ALL AMERICAN PIPELINE	MICHAEL EIDMAN	(562) 728-2394
CITY ENGINEER		(714) 990-7667
BREA MAINTENANCE DEPT.		(714) 990-7691
BREA POLICE DEPT.		(714) 990-7625
BREA FIRE DEPT. - ADMINISTRATION		(714) 990-7655
BREA-OLINDA UNIFIED SCHOOL DIST.		(714) 990-7800
BREA DISPOSAL		(714) 238-3300
BREA POST OFFICE		(714) 529-2163

SURVEY NOTES

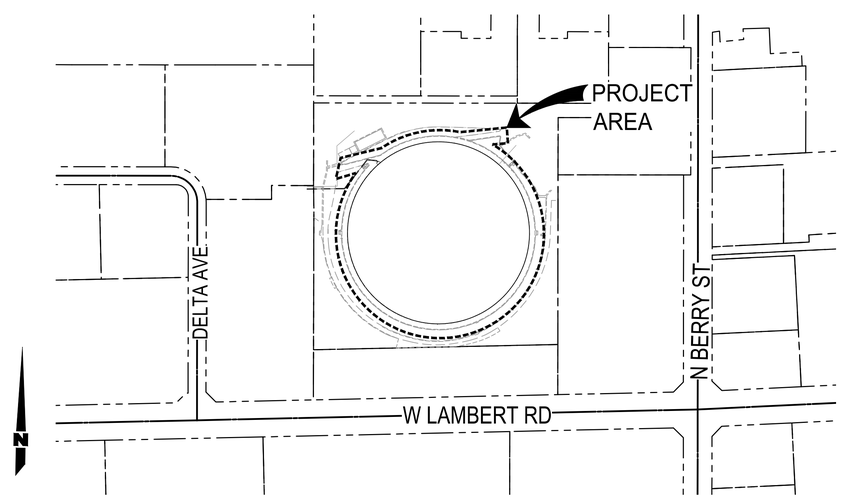
BASIS OF BEARING

THE BASIS OF BEARING FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 6, NAD 83 EPOCH 2017.50 AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER.

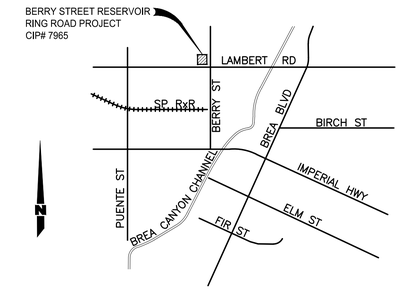
BENCHMARK

FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "2C-117-05", SET IN THE SOUTHEASTERLY CORNER OF A 29.0 FT. BY 6.0 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWESTERLY CORNER OF THE INTERSECTION OF CENTRAL AVENUE AND BERRY STREET, 85 FT. NORTH OF THE CENTERLINE OF CENTRAL AND 42 FT. WEST OF THE CENTERLINE OF BERRY. MONUMENT IS SET LEVEL WITH THE SIDEWALK

ELEV = 427.814 NAVD 1988



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES TO CONTRACTOR

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BREA STANDARD PLANS, CALTRANS STANDARD PLANS, SPPWC STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AS SPECIFIED.
2. THE CONTRACTOR SHALL MAKE A PHYSICAL INSPECTION OF THE PROJECT SITE AND REPORT ALL VARIATIONS, INCONSISTENCIES, OR CHANGED CONDITIONS TO THE ENGINEER PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSUMPTIONS, REMEDIAL ACTIONS, OR ADAPTATIONS MADE IN THE FIELD WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGES OR ALTERATIONS TO EXISTING PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER AT NO COST TO THE CITY.
4. ALL DIMENSIONS SHALL BE VERIFIED BY PLANS OR FIELD INSPECTION. AT NO TIME SHALL ANY DIMENSIONS BE SCALED FROM PLANS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL VARIATIONS IN DIMENSIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. ALL JOINTS AND JOIN LOCATIONS AND UNDERGROUND UTILITY LOCATIONS SHALL BE FIELD VERIFIED.
6. AT ALL TIMES, GUTTER AND SWALE GRADES SHALL BE MAINTAINED, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AND EFFECTED AGENCIES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. ALL ASPHALT PAVEMENT IMPROVEMENTS INDICATED TO BE REMOVED SHALL BE SAWCUT WITH STRAIGHT LINES AT THE LINE OF REMOVAL.
9. ALL WORK IN THE PUBLIC RIGHT-OF-WAY, ONCE BEGUN, MUST BE DILIGENTLY PURSUED UNTIL COMPLETION AS SOON AS POSSIBLE.

UNAUTHORIZED CHANGES AND USES:

THE CIVIL ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND CITY OF BREA.

SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES AND LEGEND
3	RING ROAD AND SLOPE IMPROVEMENTS
4	RING ROAD AND SLOPE SECTIONS
5	CONSTRUCTION DETAILS

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

BERRY STREET RESERVOIR RING ROAD REHABILITATION

CIP 7965

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED UNDER THE SUPERVISION OF:

R.A. Kreuzer 2/23/23

RICK KREUZER, PE — DATE
R.C.E. NO. 42407

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

CITY REVIEW BLOCK

	REVIEWED BY	DATE
ENGINEERING		
TRAFFIC ENGINEERING		
MAINTENANCE - STREET		
MAINTENANCE - WATER		
MAINTENANCE - PARKS		

APPROVED BY:

MICHAEL S. HO, CITY ENGINEER — DATE
R.C.E. NO.: 70299

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION

TITLE SHEET

SHEET 1 OF 5

BID DOCUMENT-PLANS FOR BIDDING PURPOSES ONLY

3/30/2023 3:11:14 PM – L:\112-BREA\021-BERRY RESERVOIR RING ROAD\DESIGN\SHEETS\01- TITLE RING.DWG – ROBBIE KREUZER

GENERAL NOTES

1. WORK NOT DONE IN THE PRESENCE OF THE CITY INSPECTOR IS SUBJECT TO REJECTION.
2. WORK, ONCE BEGUN, SHALL BE COMPLETED WITHOUT DELAY.
3. ANY WALLS, FENCE, STRUCTURE AND/OR APPURTENANCE ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF THE CONTRACTORS ACTIVITIES DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY.
4. ALL DAMAGED AND/OR REMOVED DRIVEWAY APPROACH, P.C.C SIDEWALK OR CURB AND GUTTER SHALL BE RECONSTRUCTED ACCORDING TO THE CITY OF BREA STANDARD DRAWINGS (UNLESS NOTED OTHERWISE).
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING OF THE PROPOSED WORK AREA.
6. THE CONTRACTOR IS RESPONSIBLE FOR OVERALL JOBSITE MAINTENANCE; INCLUDING BUT NOT LIMITED TO STREET/SITE SWEEPING, TRASH AND/OR CONSTRUCTION-RELATED DEBRIS/WASTE, STORMWATER POLLUTION PREVENTION BMP'S, ETC.
7. NO TRENCHES MAY BE LEFT OPEN OVERNIGHT UNLESS APPROVED IN WRITING BY THE CITY ENGINEER. SHOULD THE CONTRACTOR REQUEST TO LEAVE THE TRENCHES OPEN A PLAN FOR PROTECTING THE TRENCH AND THE PUBLIC SHALL BE SUBMITTED TO THE CITY ENGINEER IN WRITING FOR APPROVAL BEFORE BEING IMPLEMENTED.
8. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A) AS REQUIRED PRIOR TO THE START OF THE WORK. UPON EXPOSING ANY UTILITY'S UNDERGROUND FACILITY, THE CONTRACTOR SHALL NOTIFY THAT UTILITY IMMEDIATELY. IF ANY UTILITIES OR FACILITIES CONFLICT WITH PROPOSED IMPROVEMENTS, THE CITY ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
9. ALL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE IN PLACE PRIOR TO BEGINNING OF EXCAVATION, TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY ENGINEER.
10. THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BETWEEN 5:00 PM AND 7:00 AM ON ANY WEEK DAY AND NOT ON SATURDAY, OR SUNDAY, OR HOLIDAYS AT ANY TIME EXCEPT AS APPROVED IN WRITING BY THE CITY ENGINEER.
11. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY/ SUBSTRUCTURE CROSSINGS AND WITHIN THE ALIGNMENT OF THE PROPOSED IMPROVEMENTS BEFORE CONSTRUCTING ANY WATER ON SEWER LINES. THE CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING UTILITIES/ SUBSTRUCTURES ON THESE PLANS AND THOSE FOUND DURING CONSTRUCTION.
12. THE CONTRACTOR IS ADVISED THAT ALL EXCAVATED MATERIALS SHALL BECOME HIS PROPERTY AND MATERIAL SHALL BE DISPOSED OF UNLESS INSTRUCTED BY THE CITY ENGINEER TO DO OTHERWISE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE DURING ALL PHASES OF THE WORK TO PROVIDE FOR PUBLIC SAFETY AND CONVENIENCE.
14. THE CONTRACTOR SHALL ADJUST MANHOLES AND VALVE COVERS TO FINISHED GRADE. THE CONTRACTOR SHALL ADJUST, TIGHTEN AND/OR REPAIR MANHOLES, LIDS AND COVERS AT CONTRACTOR'S OWN EXPENSE. SHOULD NEW VALVES OR COVERS BE NEEDED THEY SHALL BE INCLUDED IN THE COST TO COMPLETE SAID WORK.
15. ALL PORTLAND CEMENT CONCRETE (P.C.C.) AND ASPHALT CONCRETE (A.C.) SHALL BE REMOVED TO A SAWCUT, COLD JOINT, SCORE MARK OR EDGE OF PAVEMENT. NO "FLOATER" SLABS WILL BE PERMITTED. SAWCUT SLURRY SHALL BE REMOVED WITH A VACUUM MACHINE AND DISPOSED OF PROPERLY. NO SLURRY SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM.
16. THE CITY SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS' COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR OR WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDER".
17. THERE SHALL BE A MINIMUM OF 1 CERTIFIED EMPLOYEE ON SITE AT ALL TIMES OF CONSTRUCTION WITH RED CROSS FIRST AID TRAINING INCLUDING CPR TRAINING FOR THIS PROJECT. ALL EMPLOYEES ON THE PROJECT ARE TO HAVE CERTIFIED TRAINING FOR CONFINED SPACE WORK IN VICINITY OF SEWER. COPIES OF THE EMPLOYEE CERTIFICATES SHALL BE PROVIDED TO THE CITY ENGINEER. ALL EQUIPMENT NEEDED TO ENTER CONFINED SPACE/SEWER MANHOLES SHALL BE STORED ON THE PROJECT SITE AND USED FOR ANY AND ALL SUCH INSTANCES.
18. TREES, FOLIAGE, SIGNS, PARKING METERS AND OTHER IMPROVEMENTS SHALL BE PROTECTED IN PLACE AND ANY DAMAGE TO EXISTING IMPROVEMENTS, PUBLIC OR PRIVATE, SHALL BE REPLACED IN KIND.
19. THE CONTRACTOR SHALL POTHOLE IN ADVANCE OF OPENING A TRENCH TO VERIFY LOCATIONS OF UTILITY/ SUBSTRUCTURES AT NO EXTRA COST TO THE CITY. ALL POTENTIAL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
20. ABANDONMENT AND/OR REMOVAL OF CONDUITS AND STRUCTURES SHALL BE PER SECTION 306-5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

NPDES NOTES:

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS OR NATURAL DRAINAGE COURSES.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION BY RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. ACCIDENTAL DEPOSITIONS MIST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY THE RAIN.
7. THE CONSTRUCTION WORK WITHIN CALTRANS RIGHT-OF-WAY MUST COMPLY WITH CONSTRUCTION SITE BEST MANAGEMENT PRACTICE (BMP'S) AS PER CALTRANS PROJECT PLANNING AND DESIGN GUIDE (PPDG), LATEST EDITION INCLUDING ADDENDUMS.
8. WORKS RELATED TO DRAINAGE SYSTEM, WATER POLLUTION CONTROL AND EROSION CONTROL WITHIN THE STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST CALTRANS STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. THE TEMPORARY DRAINAGE INLET PROTECTION SHALL COMPLY WITH THE CALTRANS STANDARD SPECIAL PROVISIONS, SSP 130620.
9. THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTOR).

   NS-2 DEWATERING OPERATIONS
   NS-3 PAVING & GRINDING OPERATIONS
   WM-1 MATERIAL DELIVERY AND STORAGE
   WM-2 MATERIAL USE
   WM-4 SPILL PREVENTION AND CONTROL
   WM-5 SOLID WASTE MANAGEMENT
   WM-8 CONCRETE WASTE MANAGEMENT
   SC-21 VEHICLE AND EQUIPMENT CLEANING
   SC-20 VEHICLE AND EQUIPMENT FUELING
   SC-22 VEHICLE AND EQUIPMENT REPAIRS
   EC-2 PRESERVATION OF EXISTING VEGETATION
   WE-1 WIND EROSION CONTROL
   SE-8 SAND BAG BARRIER
   SE-10 STORM DRAIN INLET PROTECTION
   WM-9 SANITARY / SEPTIC WASTE MANAGEMENT

10. CONSTRUCTION SITE SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302. POTENTIAL POLLUTIONS INCLUDE BUT ARE NOT; SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/ EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/ EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, DISPOSABLE, OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
11. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

GENERAL NOTES FOR STREET IMPROVEMENTS

1. ALL APPLICABLE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS", LATEST REVISIONS, ARE HEREBY MADE A PART OF THIS PLAN AND ALL STREET IMPROVEMENTS SHALL BE IN ACCORDANCE WITH SAME.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. PAVEMENT SHALL CONSIST OF A MINIMUM OF 4" (INCHES) ASPHALT CONCRETE ON 6" (INCHES) AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE. 4" ASPHALT CONCRETE PAVING SHALL CONSIST OF 2" WEARING COURSE III-C3-PG-64-10 OVER 2" BASE COURSE III-B2-PG-64-10.
4. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MONUMENTS OF EVERY NATURE, WHETHER SHOWN ON PLANS AND/ OR HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES AND MONUMENTS DAMAGED OR DESTROYED.
5. ALL CONCRETE SHALL BE CLASS 560-C-3250 (6 SACK MIX) AND SHALL BE CURED WITH TYPE-1 (CLEAR) CURING COMPOUND IMMEDIATELY AFTER FINISHING.
6. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE CITY AND SHALL BE RESPONSIBLE FOR REPAIR AND OR REPLACEMENT OF ALL FAILURES DETERMINED BY THE CITY ENGINEER CAUSED BY WORKMANSHIP OR SUBSTANDARD MATERIALS.
7. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN PROPER BARRICADING, DUST CONTROL, TRAFFIC CONTROL, SHORING AND SAFETY MEASURES OF EVERY NATURE.
8. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM THE CITY OF BREA PUBLIC WORKS DEPARTMENT AND AFFECTED AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
9. ANY CHANGES FROM THE PLAN, STANDARD NOTES, STANDARD DESIGNS OR SPECIFICATIONS SHALL BE CONSIDERED NON-CONFORMING UNLESS APPROVED IN WRITING BY THE CITY ENGINEER PRIOR TO INSTALLATION.
10. INSTALLATIONS NOT CONFORMING TO THE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS" SHALL BE REMOVED, REPLACED AND OR CORRECTED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED NY THE CITY ENGINEER.
11. BASIC TRENCH REPAIR PROCEDURES SHALL BE PRE BREA STD PLAN 102.

LEGEND & ABBREVIATIONS

- ROADWAY R&R
- PROPOSED SLOPE PAVING
- MILL PAVEMENT
- PROP C/G
- EX C/G
- EX EP
- EX STRUCTURE
- EX FENCE
- SECTION VIEW

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
RICK KREUZER, P.E.
R.C.E. NO. 42407
2/23/23
DATE

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

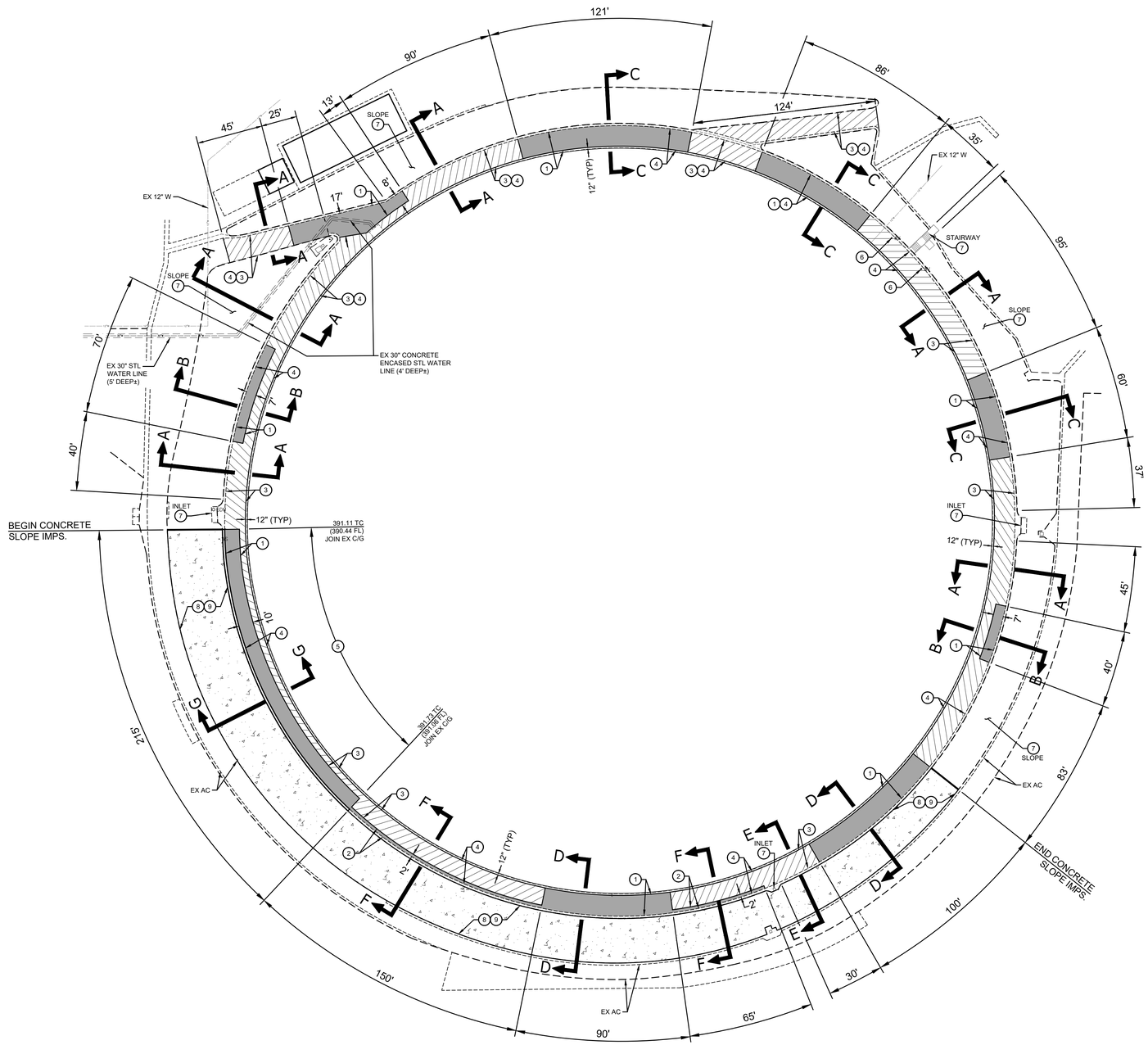
BERRY STREET RESERVOIR RING ROAD REHABILITATION

GENERAL NOTES AND LEGEND

SHEET 2 OF 5

3/30/2023 3:11:19 PM – L:\12-BREA\021-BERRY RESERVOIR RING ROAD\DESIGN\SHEETS\02_NOTES_RING.DWG – ROBBIE KREUZER

BID DOCUMENT-PLANS FOR BIDDING PURPOSES ONLY



CONSTRUCTION NOTES

1. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE. FURNISH AND PLACE 4" AC OVER 6" CAB STRUCTURAL SECTION OVER NG AT 90% RELATIVE COMPACTION. LEAVE 2" BELOW PROPOSED ROADWAY FINISH SURFACE.
2. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE. FURNISH AND PLACE 10" AC DEEPLIFT STRUCTURAL SECTION OVER NG AT 90% RELATIVE COMPACTION. LEAVE 2" BELOW PROPOSED ROADWAY FINISH SURFACE.
3. MILL (VARIABLE DEPTH) EXISTING ROADWAY TO A DEPTH OF 2" BELOW PROPOSED ROADWAY FINISH SURFACE. SEAL CRACKS LESS THAN 3/16" WIDE ON MILLED SURACE WITH HOT POUR RUBBERIZED LONG-LASTING FLEXIBLE SEALANT BEFORE PLACING AC OVERLAY.
4. FURNISH AND PLACE 2" AC OVERLAY.
5. SAWCUT AND REMOVE EXISTING CURB AND GUTTER. CONSTRUCT 8" CURB AND GUTTER, TYPE A-2, PER CITY OF BREA STD. NO. 106-0.
6. ADJUST EXISTING WATER VALVE TO GRADE.
7. PROTECT IN PLACE.
8. CLEAR VEGETATION, REMOVE AND CAP IRRIGATION. OVEREX AND GRADE SLOPE PER DETAIL 1 ON SHEET 5.
9. CONSTRUCT CONCRETE SLOPE PAVING PER DETAIL 2 ON SHEET 5.

LEGEND

- ROADWAY R&R
- MILL PAVEMENT
- PROPOSED SLOPE PAVING
- SECTION VIEW
- PROP C/G
- EX C/G

NOTES

(1) LONGITUDINAL DIMENSIONS SHOWN ARE ALONG OUTSIDE LIP OF GUTTER. EXACT REMOVAL LIMITS SHALL BE CONFIRMED WITH THE ENGINEER.

(2) CROSS SECTION DIMENSIONS ARE FROM TANK WALL ON THE INSIDE AND GUTTER LIP ON THE OUTSIDE UNLESS OTHERWISE NOTED.

(3) CROSS SECTIONS A-A THROUGH G-G ARE DEPICTED ON SHEET 4.

N

SCALE: 1"= 40'
0 40 80 120
FOR REDUCED PLANS

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

RICK KREUZER, P.E.
R.C.E. NO. 42407
2/23/23
DATE

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION

RING ROAD AND SLOPE IMPROVEMENTS

SHEET 3 OF 5

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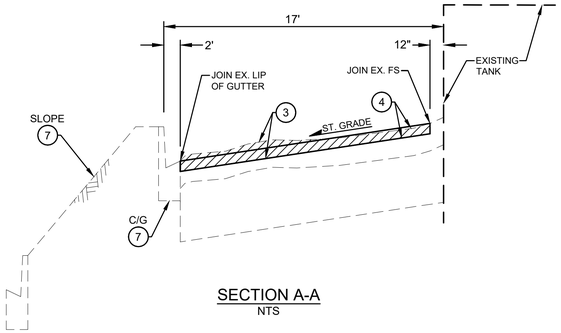
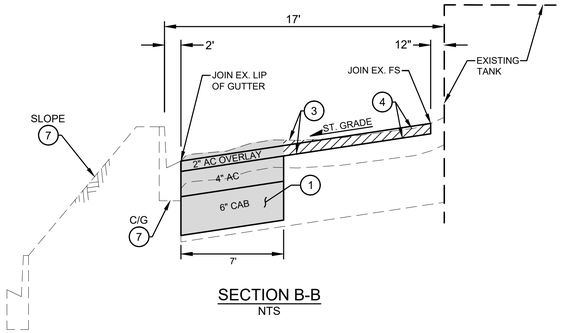


SECTION A-A
NTS



SECTION B-B
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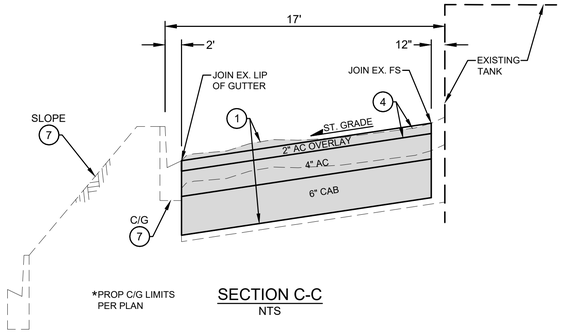
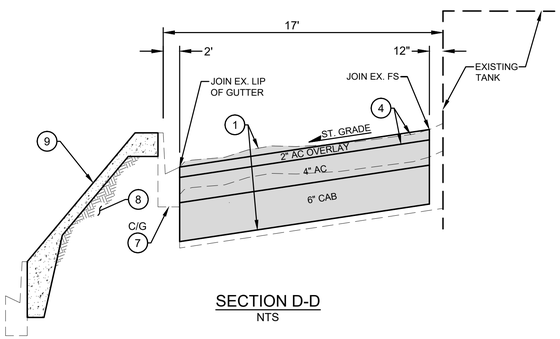


*PROP C/G LIMITS PER PLAN

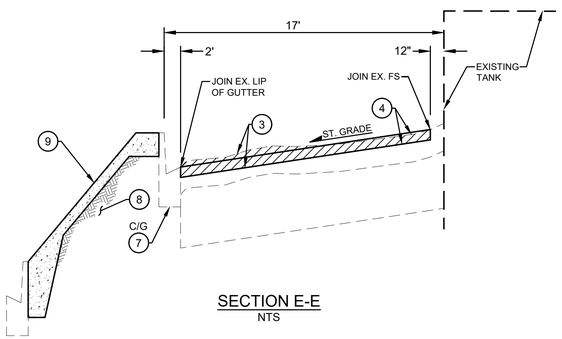
SECTION C-C
NTS

LEGEND

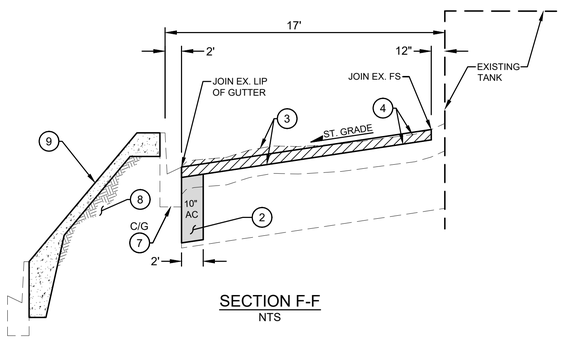
- ROADWAY R&R
- MILL PAVEMENT
- PROPOSED
- EXISTING



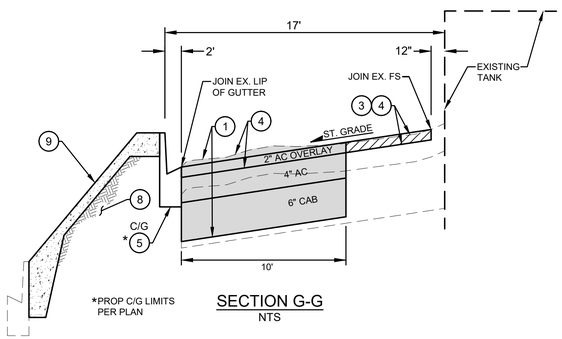
SECTION D-D
NTS



SECTION E-E
NTS



SECTION F-F
NTS



*PROP C/G LIMITS PER PLAN

SECTION G-G
NTS

Know what's below. Call before you dig.

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Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
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R.C.E. NO. 42407
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CITY OF BREA
PUBLIC WORKS DEPARTMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION

RING ROAD AND SLOPE SECTIONS

SHEET 4 OF 5

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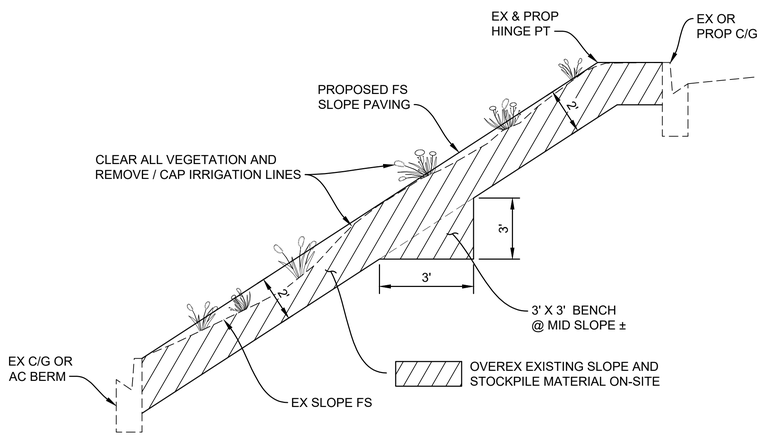
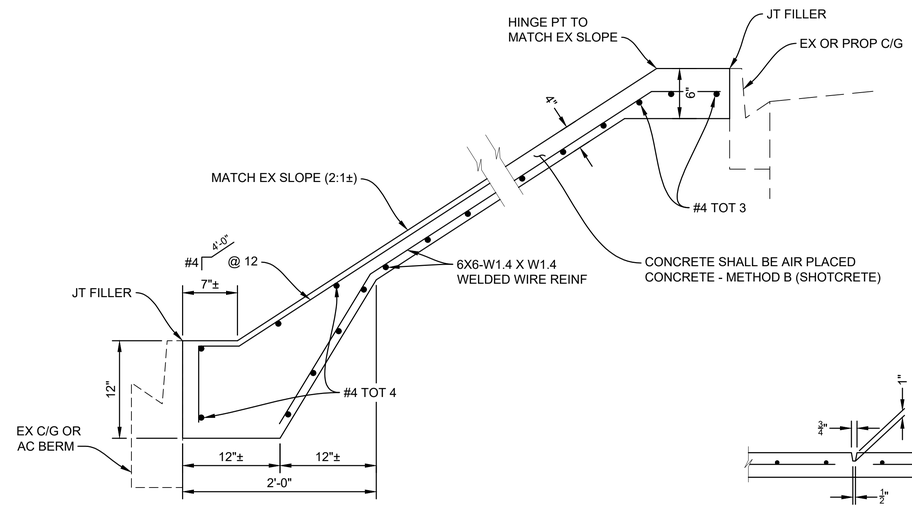
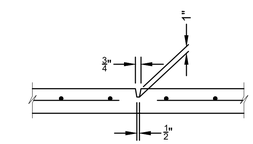


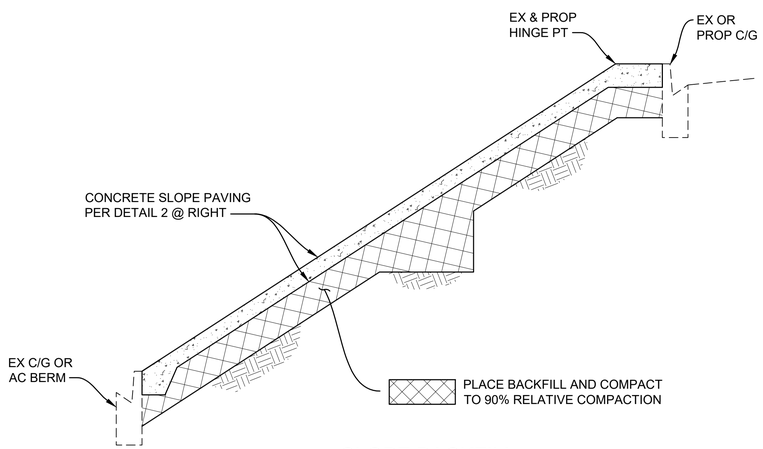
SLOPE OVER EXCAVATION
NTS



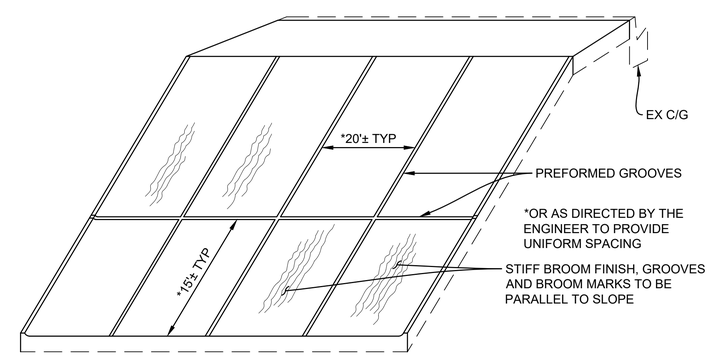
TYPICAL SECTION - SLOPE PAVING
NTS



PREFORMED GROOVE
NTS



SLOPE BACKFILL
NTS



SLOPE PAVING
PICTORIAL VIEW OF TYPICAL INSTALLATION
NTS

SLOPE GRADING DETAIL 1/-
NTS

CONCRETE SLOPE PAVING DETAIL 2/-
NTS

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811 Know what's below. Call before you dig.

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PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

RICK KREUZER, P.E.
R.C.E. NO. 42407
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REGISTERED PROFESSIONAL ENGINEER
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CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION

CONSTRUCTION DETAILS

SHEET 5 OF 5

BID DOCUMENT-PLANS FOR BIDDING PURPOSES ONLY

WARRANTY BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Brea ("Owner") has awarded to

_____

("Principal"), a contract ("Contract") for the work described as follows:
_____

WHEREAS, Principal is required under the terms of the Contract to furnish a **one (1) year warranty** to make repairs or replacements made necessary by defects in materials, equipment or workmanship related to the Principal's construction of the Improvements.

NOW, THEREFORE, we, the undersigned Principal, and _____
_____
(Insert name, address , and telephone number of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto Owner in the penal sum of _____**Dollars ($XXX.XX)**, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his, her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements concerning the one (1) year warranty as set forth in the Contract and any alteration thereof made as therein provided, on the Principal's part to be kept and performed, all within the time and in the manner therein specified, and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees to pay all court costs and reasonable attorneys' fees in an amount fixed by the court.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City of Brea is the principal beneficiary of this bond and has all rights of a party thereto.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

"Principal"	"Surety"
_____	_____
_____	_____
By: _____ Its	By: _____ Its
By: _____ Its	By: _____ Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

CITY OF BREA

BUSINESS LICENSE TAX APPLICATION
OUT-OF-CITY CONTRACTORS

Please submit completed application with payment (see fee schedule below) and copy of current contractor's license (pocket card) to:

City of Brea, Business License Division,
1 Civic Center Cir., Brea, CA 92821
(714) 990-7686 office Fax (714) 671-4484
BusinessLicenseInfo@CityOfBrea.net

1. BUSINESS NAME (use exact name as contractor's license)	START DATE (Brea)	
2. BUSINESS ADDRESS (physical address)	BUSINESS TELEPHONE NO.	BUSINESS FAX NO.
3. MAILING NAME AND ADDRESS (if different from business address) Include corp. name if applicable	NO. OF EMPLOYEES (Brea)	
	LOCAL CONTACT NAME, TITLE, RESIDENCE PHONE NO.	
4. TYPE OF BUSINESS: State fully the exact nature of business.		
5. FEDERAL EMPLOYER ID NO.	STATE EMPLOYER ID NO. (EDD #)	
6. CALIFORNIA STATE CONTRACTOR'S LICENSE NO. & CLASSIFICATION	CALIFORNIA SELLER'S PERMIT NO./ RESALE NO. (if applicable)	CALIFORNIA STATE PROFESSIONAL LICENSE NO. (if applicable)

OWNER/OFFICER INFORMATION

7. Please check the type of ownership and complete information.

☐ Sole Proprietorship	☐ Partnership	☐ Husband & Wife	☐ Limited Liability	☐ Corporation	☐ Trust

Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Sole or Partnership):	DL # (Only Sole or Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Partnership):	DL # (Only Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:

PAYMENT OF THIS TAX DOES NOT CONSTITUTE ZONING, BUILDING, OR FIRE CODE APPROVAL. CHECK WITH THE DEVELOPMENT SERVICES DEPARTMENT TO DETERMINE IF YOUR BUSINESS CAN BE LEGALLY ESTABLISHED AT YOUR LOCATION.

8. **I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

Signature _____ Print Name _____ Title _____ Date _____

FOR OFFICE USE ONLY

ACCOUNT NO.	ORDINANCE	CLASSIFICATION
EFFECTIVE DATES	ISSUE DATES	FEE

NOTES:

SCHEDULE OF FEES (based on State contractor's classification):

	3-Months	6-Months	1-Year
CLASS A- General Engineering Contractor	$50.00	$90.00	$150.00
CLASS B- General Building Contractor	$40.00	$60.00	$100.00
CLASS C- Specialty Contractor	$20.00	$36.00	$ 60.00

Rev. 01/10

CONTRACT DOCUMENTS
SPECIFICATIONS AND STANDARD DRAWINGS

for the

`BERRY STREET RESERVOIR RING ROAD REHABILITATION
CIP NO. 7965

in the

CITY OF BREA

One Civic Center Circle, Brea, California 92821
(714) 990-7667

<u>BIDS DUE:</u>
May 2, 2023 @ 2:00 PM, 3rd FLOOR
City Clerk's Office

MICHAEL HO, P.E.
PUBLIC WORKS DIRECTOR

CITY OF BREA

PLANS
SPECIFICATIONS AND CONTRACT DOCUMENTS

for the

Berry Street Reservoir Ring Road Rehabilitation
CIP NO. 7965

PREPARED BY;
Kreuzer Consulting Group
320 Main Street, Unit D
Seal Beach, CA 90740

Prepared Under the Supervision of:

2/23/23

Rick Kreuzer, PE #42407 Ex 3/31/24 Date

Approved by:

Director of Public Works/ City Engineer Date
RCE No. 70299 Exp. 12/31/24

NOTE: *If there are any questions relative to this project, please call Michael Ho, P.E. at:*

CITY OF BREA
PUBLIC WORKS DEPARTMENT
One Civic Center Circle
BREA, CALIFORNIA 92821
(714) 990-7667

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SECTION A

NOTICE INVITING SEALED BIDS

NOTICE IS HEREBY GIVEN that the City of Brea, as AGENCY invites sealed bids for the below stated project and will receive sealed bids for the materials, supplies, equipment and/or services set forth herein, subject to all conditions outlined in the Bid Package **until 2:00 p.m. on May 2, 2023.**

1. **Project Name: BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965**

   The work to be constructed hereunder is located at the Berry Street Reservoir, 545 N. Berry Street, Public Works Maintenance Yard in the City of Brea, California. The project generally consists of, but is not limited to, mobilization, clearing and grubbing, slope grading, slope excavation, concrete slope paving, excavation and removing existing AC pavement sections, milling, furnishing and placement of CMB and AC pavement and all other requirements and incidentals to complete the road and slope work at the Berry Street Reservoir Ring Road location in accordance with the Plans and Specifications.

2. **Obtaining Bid Documents:** A copy of the Bid Package (including the plans, specifications, and contract documents) may be downloaded at no cost from the CIPList.com. All bidders shall register with CIPList.com in order to retrieve plans, specifications, addenda, bidders' list, etc.

3. **Bid Opening:** Bids will be publicly opened and read at reasonable time following the time stated above in the City Conference Center, located at 1 Civic Center Circle, Brea, California 92821 on **MAY 2, 2023.** Sealed bids will be received at all times during normal business hours prior to the date and time stated above, at the Office of the City Clerk, One Civic Center Circle, Brea, California 92821. The **outside** of the sealed envelope of each bid submitted shall be clearly marked: **"SEALED BID FOR BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965.**

4. **Mandatory Pre Bid Meeting:** A mandatory pre-bid meeting will be held on **APRIL 18, 2023.** The pre-bid meeting will be held at the **City of Brea Public Works Maintenance Yard, 545 N Berry Street, Lunch Room, CA 92821 at 2:00 pm.**

5. **Contractor's License:** In accordance with provisions of Section 3300 of the California Public Contract Code, the AGENCY has determined that the Contractor shall possess a valid **California Contractor's License Class "A" (General Engineering) and Class "C-12" (Earthwork and Paving Contractor).** Failure to possess such license may render the bid non-responsive and bar the award of the contract to that non-responsive Bidder. The successful Contractor and his subcontractors will be required to possess business licenses from the AGENCY.

6. **Registration with the Department of Industrial Relations:** The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

7. **Prevailing Wages:** In accordance with the provisions of Section 1770, et seq., of the Labor Code, the Director of the Industrial Relations of the State of California has determined the general prevailing rate of wages applicable to the work to be done. The Contractor will be required to pay to all persons

employed on the project by the Contractor sums not less than the sums set forth in the documents entitled "General Prevailing Wage Determination made by the Director of Industrial Relations pursuant to California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773, 1773.1." These documents can be obtained from the State at the following website: http://www.dir.ca.gov/OPRL/pwd/.

8. **Bid Security:** Each bid shall be accompanied by bid security in the form of a cashier's check, certified check or bid bond in the amount of 10% of the total bid amount. All cashier's checks or certified checks must be drawn on a responsible bank doing business in the United States and shall be made payable to THE CITY OF BREA. A bonding company admitted and licensed to do business in the State of California must issue bid bonds. Bids not accompanied by the required bid security shall be rejected. Cash and personal or company checks are **NOT** acceptable.

9. **Payment Bond and Performance Bond:** A Payment Bond and a Performance Bond, each in the amount of 100% of the contract amount, will be required of the Contractor.

10. **Retention:** In accordance with the Contract, five percent (5%) of any progress payment will be withheld as a retention. Pursuant to Section 22300 of the Public Contract Code, at the request and expense of the Contractor, approved securities equivalent to the amount withheld may be deposited with the AGENCY or with a state or federally chartered bank as the escrow agent, and AGENCY shall then pay such moneys to the Contractor. Refer to the Contract for further clarification.

11. **Contact Person:** Questions regarding this Notice Inviting Bids shall be directed to: **Ryan Chapman, PE, Assistant City Engineer at (714) 990-7763.**

ALL BONDS ISSUED SHALL BE FROM A BONDING COMPANY ADMITTED AND LICENSED TO DO BUSINESS IN THE STATE OF CALIFORNIA.

THE AGENCY RESERVES THE RIGHT TO REJECT ANY BID OR ALL BIDS AND TO WAIVE ANY INFORMALITY OR IRREGULARITY IN ANY BID AND TO TAKE ALL BIDS UNDER ADVISEMENT FOR A MAXIMUM PERIOD OF 60 DAYS. ANY CONTRACT AWARDED WILL BE LET TO THE LOWEST RESPONSIVE AND RESPONSIBLE BIDDER. NO BID SHALL BE CONSIDERED UNLESS IT IS PREPARED ON THE APPROVED PROPOSAL FORMS IN CONFORMANCE WITH THE INSTRUCTIONS TO BIDDERS.

SECTION B

INSTRUCTIONS TO BIDDERS

1. Proposal Forms

Bids shall be submitted in writing on the Proposal forms provided by the AGENCY. All information requested therein must be clearly and legibly set forth in the manner and form indicated. The AGENCY will reject any proposal not meeting these requirements. The bid shall be filed with the City Clerk, Third Floor City Hall, One Civic Center Circle, Brea, California, which shall be endorsed with the Project Title and Project Number as it appears on the Notice Inviting Sealed Bids. The sealed envelopes will be publicly opened and read at the time and place stated in the Notice Inviting Bids. Bidders or their authorized agents are invited to be present at the opening. Unauthorized conditions, limitations, or provisions attached to a proposal will render it informal and may cause its rejection. The complete proposal forms shall be without interlineations, alterations or erasures. Alternative proposals will not be considered unless requested. No oral, telegraphic, or telephonic proposals or modifications will be considered. The proposal may be withdrawn upon request by the bidder without prejudice to himself prior to, but not after the time fixed for opening of bids, provided that the request is in writing, that it has been executed by the bidder or his duly authorized representative, and that it is filed with the AGENCY.

2. Proposal Guarantee

Proposals must be accompanied by a proposal guarantee consisting of a certified or cashier's check or bid bond payable to the AGENCY in the amount not less than 10% of the total amount named in the proposal. Any proposal not accompanied by such a guarantee will not be considered. Said check or bond shall be made payable to the AGENCY, and shall be given as a guarantee that the bidder, if awarded the Work, will enter into a contract within 10 working days after the award and will furnish the necessary bonds as hereinafter provided. In the case of refusal or failure to enter into said contract, the check or bond, as the case may be, shall be forfeited to the AGENCY.

3. Proposal Signature

If the proposal is made by an individual, it shall be signed and his full name with his address shall be given; if it is made by a firm, it shall be signed with the copartnership name by a member of the firm who shall sign his own name and the name and address of each member shall be given; and if it is made by a corporation, the name of the corporation shall be signed by its duly authorized officer or officers attested by the corporate seal, and the names and titles of all officers of the corporation shall be given.

4. Delivery of Proposal

Proposals shall be enclosed in a sealed envelope plainly marked on the outside:

"SEALED BID"

for

BERRY STREET RESERVOIR RING ROAD REHABILITATION
CIP NO. 7965

CITY OF BREA - DO NOT OPEN WITH REGULAR MAIL

Proposals may be mailed or delivered by messenger. However, it is the bidder's responsibility alone to ensure delivery of the proposal to the hands of the AGENCY's designated official prior to the bid opening hour stipulated in the Notice Inviting Sealed Bids. Late proposals will not be considered.

5. Return of Proposal Guarantees

The proposal guarantees of the second and third lowest bidders will be held until the awarded bidder has properly executed all contract documents. Within 10 working days after the award of contract, the remaining proposal guarantees accompanying all other proposals will become null and void and returned to the unsuccessful bidders.

6. Taxes

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

7. Disqualification Of Bidders

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

8. Contractor's License Requirement

This project requires the Contractor to possess a valid State of California contractor's license as stated in Section A “Notice Inviting Sealed Bids”.

9. Registration with the Department of Industrial Relations

The Bidder’s attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

10. References

All reference information called for in the bid proposal must be submitted with the bid proposal.

11. Listing Of Subcontractors

Bidders shall list in the bid proposal the name and place of business of each subcontractor who will perform work or labor or render services for the Contractor in an amount in excess of one-half of one percent of the Contractor's total bid.

12. Discrepancies And Misunderstandings

Bidders must satisfy themselves by personal examination of the work site, plans, specifications and other contract documents, and by any other means as they may believe necessary, as to the actual physical conditions, requirements and difficulties under which the Work must be performed.

No bidder shall at any time after submission of a proposal make any claim or assertion that there was any misunderstanding or lack of information regarding the nature or amount of work necessary for the satisfactory completion of the job. Should a bidder find any errors, omissions, or discrepancies in the plans, specifications, and other contract documents or should he be in doubt as to their meaning, he shall notify the AGENCY. Should it be found necessary, a written addendum will be sent to all bidders. Any addenda issued during the bidding period shall form a part of the contract an shall be included with the proposal.

13. Equivalent Materials

Requests for the use of equivalents to those specified, must be submitted to the AGENCY. Only substitutions approved prior to bid due date via addenda Product Substitutions, will be considered. No substitutions will be considered after bid due date and contract award. It is the sole responsibility of the successful bidder to prove to the AGENCY that such a material is truly an equivalent.

14. Legal Responsibilities

All proposals must be submitted, filed, made and executed in accordance with State and Federal laws relating to bids for contracts of this nature whether the same or expressly referred to herein or not. Any bidder submitting a proposal shall by such action thereby agree to each and all of the terms, conditions, provisions and requirements set forth, contemplated and referred to in the Plans, Specifications and other contract documents, and to full compliance therewith. Additionally, any bidder submitting a proposal shall, by such action thereby, agree to pay at least the minimum prevailing per diem wages as provided in Section 1773, et. seq. of the labor code for each craft, classification or type of workman required as set forth by the Director of Industrial Relations of the State of California.

15. Award of Contract

The award of contract, if made, will be let to the lowest responsive and responsible bidder as determined solely by the AGENCY. The AGENCY reserves the right to reject any or all proposals, to waive any irregularity, and to take the bids under advisement for a maximum period of 60 days. In no event will an award be made until all necessary investigations are made to the responsibility and qualifications of the bidder to whom the award is contemplated.

16. Material Guarantee

The successful bidder may be required to furnish a written guarantee covering certain items of work for varying periods of time from the date of acceptance of the work by the AGENCY. The work to be guaranteed, the form, and the time limit of the guarantee will be specified in the special provisions. Said guarantee shall be signed and delivered to the AGENCY before acceptance of the contract by the AGENCY. Upon completion of the contract, the amounts of the two contract bonds required in Section 2-4, “CONTRACT BONDS”, of the Standard Specifications for Public Works Construction, may be reduced to conform to the total amount of the contract bid prices for the items of work to guaranteed, and this amount shall continue in full force and effect for the duration of the guarantee period. However, the Labor and Material Bond cannot be reduced until the expiration of 35 days after the date of recordation of the Notice of Completion.

17. Execution of Contract

The successful bidder shall execute a written contract with the AGENCY on the form of agreement provided, and shall secure all insurance and bonds required by the Specifications within 10 working days from the date of the award. Failure to enter into a contract shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee. If the successful bidder fails to execute the contract, the AGENCY may award the contract to the second lowest responsive and responsible bidder. If the second lowest responsive and responsible bidder fails to execute the contract, the AGENCY may award the contract to the third lowest responsive and responsible bidder. On the failure of such second or third lowest responsive and responsible bidder to execute the contract, such bidder's guarantees shall be likewise forfeited to the AGENCY. The work may then be re-advertised.

18. Submission of Bonds And Insurance

The successful bidder will be required to furnish the necessary bonds and insurance to the AGENCY within 10 working days from the award of contract. Prior to issuance of Notice to Proceed, the AGENCY must be furnished with a Policy endorsement as required in the sample agreement depicted in Section D.

19. Addenda

The effect of all addenda to the contract documents shall be considered in the bid package and said addenda shall be made part of the contract documents and shall be returned with the bid package. Failure to submit any such addenda with the bid package may render the bid irregular and result in its rejection by the AGENCY.

20. Not Used

21. Questions to the Engineer

Questions regarding the bid documents (i.e. plans, specifications, contract documents, bid forms, etc.) will be received by the Engineer up to **ten (10) working days** prior to the bid opening as specified in SECTION A. Questions asked of the Engineer after this time will not be addressed.

22. RFI (SEE NEXT PAGE)

For Requests for Information (RFI) the contractor shall use the form on the following page for submittal in writing.

CITY OF BREA

BERRY STREET RESERVOIR RING ROAD REHABILITATION
CIP NO. 7965

REQUEST FOR INTERPREPARATION OF CONTRACT DOCUMENTS

Date: _____

Time: _____

Company: _____

Contact Person: _____

Address:

_____

Telephone: _____ **FAX:** _____

Plan Sheet: _____
Specification Section:

INTERPRETATION REQUESTED:

_____

_____

_____

_____

REPLY:

_____

_____

_____

_____

T0 A/E: _____

Bidder:_____

SECTION C

PROPOSAL

for

BERRY STREET RESERVOIR RING ROAD REHABILITATION
CIP NO. 7965

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within a total of **40** working days, starting from the date of the first Notice to Proceed until project completion.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enterinto a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Accompanying this proposal of bid, find_in the amount of $_____which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

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

Addenda No.	***Date Received***	***Bidder's Signature***

SECTION C

Berry Street Reservoir Ring Road Rehabilitation
CIP NO. 7965

PROJECT BID SCHEDULE

Berry Street Reservoir Ring Road Rehabilitation CIP NO. 7965					
ITEM #	**DESCRIPTION**	**UNIT**	**EST. QTY**	**UNIT PRICE (in figures) DOLLARS**	**ITEMS TOTAL (in figures) DOLLARS**
1	Mobilization and Demobilization (5% Max)	LS			$
2	Clearing and Grubbing	LS			$
3	Over-Excavate Existing Slope per Detail 1 on Sheet 5	SF	22,336		$
4	Backfill Slope Area per Detail 1 on Sheet 5	SF	22,336		$
5	Construct Concrete Slope Paving per Detail 2 on Sheet 5	SF	22,336		$
6	Remove Existing Curb & Gutter	LF	215		$
7	Mill Existing Pavement (Variable Depth)	SF	15,340		$
8	Sawcut and Remove Existing Roadway Structural Section	CY	395		$
9	Construct 8" Curb & Gutter, Type A-2	LF	215		$
10	Furnish and Place Asphalt Concrete	TON	606		$
11	Furnish and Place Crushed Miscellaneous Base	TON	371		$
12	Adjust Water Valve to Grade	EA	2		$
13	NPDES/BMP's	LS			$
				TOTAL AMOUNT	**$**

TOTAL BID AMOUNT (Words):

_____

_____

_____

1. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders_____ (Bidders Initials)**

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	***% Portion of Work***	***Name, Address and E-mail of Subcontractor***	***State License Number***	***Class***	***DIR Registration Number***

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I,_____, am the
(Print Name)

_____ of_____,
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this _____day of_____, 20_.

_____
Name of Bidder

_____
Signature of Bidder

_____
Address of Bidder

BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed _____

Title _____

Firm _____

Date _____

UTILITY AGREEMENT

HONORABLE MAYOR AND CITY COUNCIL CITY OF BREA, CALIFORNIA

Council Members:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **BERRY STREET RESERVOIR RING ROAD REHABILITATION CIP NO. 7965.** (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"**Qualified Person:** *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

_____
Contractor

_____
By

_____
Title

Date: _____

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 space provided.

_____

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_____

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

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

_____
Contractor

_____
By

_____
Title

Date: _____

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

_____
Bidder Name

_____
Business Address

_____
City, State Zip

( ) _____
Telephone Number

_____
Email Address

_____
State Contractor's License No. and Class

_____
DIR Registration Number

_____
Original Date Issued (State Contractor's License)

_____
Expiration Date

The work site was inspected by_____of our office on_____, 20__.

The following are persons, firms, and corporations having a principal interest in this proposal:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

_____
Company Name

_____
Signature of Bidder

_____
Printed or Typed Signature

Subscribed and sworn to before me this____day of_____, 20 .

NOTARY PUBLIC _____

NOTARY SEAL

Listed below are the names, address and telephone numbers for **three** public agencies for which the bidder has performed similar work within the past **five** years:

1. _____
Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: _____

_____
Contract Amount Type of Work Date Completed

2. _____
Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: _____

_____
Contract Amount Type of Work Date Completed

3. _____
Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: _____

_____
Contract Amount Type of Work Date Completed

Responsible Bidder – Supplemental Questionnaire

1. How many years has your organization been in business in California as a contractor under your present business name and license number?

   _____Years

2. Is your firm currently the debtor in a bankruptcy case?

   ❑ Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

_____	_____	_____
Case Number	Bankruptcy Court	Date Filed

3. Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

   ❑ Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

_____	_____	_____
Case Number	Bankruptcy Court	Date Filed

4. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

   ❑ Yes ❑ No

5. At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

   ❑ Yes ❑ No

6. Has your firm ever defaulted on a construction contract?

   ❑ Yes ❑ No

If "yes," explain on a separate page.

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

   ❑ Yes ❑ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

   ❑ Yes ❑ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

   ❑ Yes ❑ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

    ❑ Yes ❑ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

    ❑ Yes ❑ No

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

    ❑ Yes ❑ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

    ❑ Yes ❑ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

    ❑ Yes ❑ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

    ❑ Yes ❑ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

    %

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when on was required?

    ❑ Yes ❑ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

❑ Yes ❑ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

❑ Yes ❑ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

❑ Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

❑ Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non-responsive.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE

_____

_____as PRINCIPAL, and

as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $_____. THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled "_____

_____

_____

"For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on_____.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this_____day of

_____, 20_.

_____ _____

Principal Surety

By: _____

BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of California)
County of _____)
)

On _____before me, _____
_____
(insert name and title of the officer)

personally appeared _____

_____.

who provided to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____(Seal)
(Signature of Notary Public)

SECTION D

SAMPLE CONTRACT

SECTION D

SAMPLE CONSTRUCTION AGREEMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and [contractor name], a [state] [type of entity] ("Contractor"). Contractor's CSLB license number is _____. Contractor's DIR registration number is _____.

R E C I T A L S

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. <u>GENERAL SCOPE OF WORK</u>: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. <u>CONTRACT PRICE AND PAYMENT</u>:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of $ **_____.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. CUSTOMER CARE: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. INCORPORATED DOCUMENTS: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2015 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. COMPLETION DATE / LIQUIDATED DAMAGES:

A. Contractor shall complete the Project within **40** working days from the date of the Notice to Proceed ("Completion Date").

B. Liquidated damages will be assessed in the amount of **$1,200.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

7. <u>INSURANCE</u>:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

> "It is hereby understood and agreed that this policy may not be canceled nor the amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the

general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project.

Contractor agrees to not be debarred at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. UNRESOLVED DISPUTES:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. ANTI-TRUST CLAIMS: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. THIRD PARTY CLAIMS: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. RIGHT TO AUDIT: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

13. TRENCHING AND EXCAVATIONS:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. UTILITIES: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. LOCATION OF EXISTING ELEMENTS: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. CONTRACTOR'S LIABILITY:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or

independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. <u>ASSIGNMENT</u>: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. <u>CONTRACTOR'S REPRESENTATIONS</u>: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. <u>NOTICES</u>: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

To City:
Director of Public Works
City of Brea
1 Civic Center Circle
Brea, California 92821

To Contractor:
_____
_____
_____

20. NON-DISCRIMINATION: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. APPLICABLE LAW: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. INCORPORATION OF MANDATORY LANGUAGE: Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

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

24. NON-WAIVER OF TERMS: Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. AUTHORITY: Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. COUNTERPARTS: This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

[CONTRACTOR NAME]

[use this signature block if Contractor is a corporation]

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

[use this signature block if Contractor is a limited liability company]

_____	_____
Manager	Manager

[Pursuant to California Corporations Code Section 17703.01(d), both signature lines must be executed unless the articles of incorporation state that the firm is managed by only one manager.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

SECTION E

SPECIAL PROVISIONS

All the Work to be done under this contract shall be in accordance with these Special Provisions and the **"GREENBOOK" Standard Specifications for Public Works Construction**, 2015 edition, as written and promulgated by the Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association and the Southern California District of Associated General Contractors of California. Copies of the Standard Specifications are available from the publisher:

BNi Building News
1612 S. Clementine Street
Anaheim, California 92802
(714) 517-0971

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

The section numbers of these Special Provisions coincide with those of the said Standard Specifications. Only those sections requiring amendment, elaboration, or specifying options, are called out.

PART 1
GENERAL PROVISIONS

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

1-2 TERMS AND DEFINITIONS

[Add or redefine the following:].

AGENCY - The City of Brea.
Board - The City Council of the City of Brea.
Caltrans - The State of California Department of Transportation.
County - The County of Orange.
Engineer - The City Engineer of the City of Brea or his authorized representative.

SECTION 2
SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT

[Replace with the following:].

Within **10 working days** after the date the AGENCY'S award of contract, the Contractor shall execute and return all contract documents required by the AGENCY. The AGENCY reserves the right to terminate the award if the above requirement is not met. Such termination will result in the forfeiture of the Proposal Guarantee.

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

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

2-3 SUBCONTRACTS

2-3.2 Self Performance

[amend the first sentence to state:].

The Contractor shall perform, with its own organization, Contract work amounting to at least **30** percent of the Contract Price.

2-4 CONTRACT BONDS

[add the following:].

The Faithful Performance Bond shall remain in force until the date of recordation of the Notice of Completion.

In conformance with the State of California Government Code, Chapter 13, Section 4590, the Contractor may substitute securities for any monies withheld by the City to endurance under the contract.

At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the AGENCY, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the Contractor upon notification by AGENCY of Contractor's satisfactory completion of the contract.

The type of securities deposited, and the method of release shall be approved by the AGENCY.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General

[Add the following:].

Only written authorization from the AGENCY shall be binding over any deviation or change in the Plans and Specifications. Please refer to SECTION 3 - CHANGES IN WORK for further explanation. The Contractor shall maintain a control set of Plans and Specifications on the project site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show the as-built conditions. Upon completion of all Work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met. Reference in the Special Provisions to "State Standard Specifications" shall mean the Standard Specifications, 2018 edition, of the State of California, Department of Transportation. Copies of these specifications may be obtained from:

State of California – Department of General Services Publications
Distribution Unit
P.O. Box 1015
North Highlands, California 95660

Reference in the Special Provisions to Standard Plans shall mean the Standard Plans of the City of Brea, and where applicable, the following:

Standard Plans for Public Works Construction (SPPWC), published by the Public Works Standards, Inc., 2015 edition.

Standard Plans, published by the State Department of Transportation, 2018 edition.

Standard Plans, published by the City of Brea.

Applicable Standard Plans for this project are contained in Appendix A of these Special Provisions.

2-5.3 Submittals

2-5.3.1 General

[Add the following].

Within 10 working days after the date the AGENCY'S award of contract, the Contractor shall identify submittals which will be required by each section of the specifications and determine the date on which each submittal will be made. Submittal schedule shall be in matrix form. Submittals shall be consecutively numbered and shall include the specification section number to which they pertain. Contractor shall be responsible for on time delivery and processing of submittals so as not to impede progress of work. The Contractor shall submit all Submittals to the Engineer via the Internet utilizing a web site address VPM @ www.virtual-pm.com **managed by the Agency.**

2-6 WORK TO BE DONE

[Add the following].

The work to be constructed hereunder is located at the Berry Street Reservoir, 545 N. Berry Street, Public Works Maintenance Yard in the City of Brea, California. The project generally consists of, but is not limited to, mobilization, clearing and grubbing, slope grading, slope excavation, concrete slope paving, excavation and removing existing AC pavement sections, milling, furnishing and placement of CAB and AC pavement and all other requirements and incidentals to complete the road and slope work at the Berry Street Reservoir Ring Road location in accordance with the Plans and Specifications.

2-9 SURVEYING

[Replace with the following].

The Contractor shall be responsible for the accuracy of surveying adequate for construction; however the task of surveying itself shall be performed under the direction of a Licensed Land Surveyor or Professional Engineer, whom is authorized to practice land surveying in the State of California, retained or provided for by the Contractor.

All construction surveying necessary to complete the work as shown on the plans and provided for in these contract documents and specifications shall be accomplished by or under the direction of a Licensed Land Surveyor or Professional Engineer, with the authority to practice land surveying in the State of California, retained or provided by the Contractor. The AGENCY reserves the right to direct additional construction surveys to be performed by the Contractor when it feels it is required to adequately construct the work.

The Contractor shall be required to provide an as-built field survey to establish adequate survey control for the reconstruction of all curb returns where new curb ramp construction is required and any street requiring total removal of the existing pavement section, in order to re-establish the horizontal locations and final elevations of new ramp and curb returns, centerline and/or crown line and existing vertical curves, as directed by the Engineer, prior to the start of any construction. The as-built field survey shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

In accordance with Senate Bill 1563, the Contractor shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer. The Contractor shall bear the expense of replacing any that may be disturbed. Replacement shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

The centerline monuments for all intersections within the project limits shall be permanently tied out prior to cold milling and overlay and re-established after the final asphalt concrete paving. Upon submittal of all corner records and centerline tie notes and monuments to the Office of Orange County Surveyor, the Contractor shall submit copies of the same records to the City of Brea. Contractor shall also submit accepted and filed corner records upon acceptance by the Office of the County Surveyor prior to completion of the project.

Upon completion of the project, a Notice of Completion shall not be filed until the monuments have been restored and corner records filed to the satisfaction of the County Surveyor.

2-10 AUTHORITY OF BOARD AND ENGINEER

[Add the following].

The Contractor shall give at least 48 hours (2 working days) advance notice when he/she/it or his/her/its subcontractor will start or resume the work.

The above notice is to be given during working hours, exclusive of Saturday, Sunday or AGENCY holidays for the purpose of permitting the Engineer to make necessary assignments of his representatives.

2-11 INSPECTION

[Add the following].

If the Contractor elects to work under this Contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays, he/she/it shall arrange with the Engineer for the required inspection service and pay the **Special Inspection Fees** which will be charged at the following rates:

4 hrs. or less/day - $500.00
4 hrs. to 8 hrs./day - $1,000.00

When Special Inspection is required, the Contractor shall notify the AGENCY and pay inspection fees 24 hours in advance. If the Contractor is directed by the AGENCY to work under this contract more than 8 hrs./day or more than 40 hrs./week, the Special Inspection fee requirements will be waived.

If the Contractor elects to work under this Contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays without prior authorization, he/she/it shall pay double the rates mentioned herein to the AGENCY.

SECTION 3
CHANGES IN WORK

3-3 EXTRA WORK

3-3.2 Payment

3-3.2.1 General.

[Add the following:].

Extra work compensation will be made for labor, equipment and materials used in the specific work zone where the extra work is being performed and not for all crew and materials on-site. When extra work or utility interference is encountered, contractor shall contact City and jointly evaluate if workforce and/or trucking should be reduced or remain as compensable.

All extra work truck material weight tickets must be completely filled out with times, location and material dumped to be eligible for extra work payment. All extra work must be approved by authorized City representatives prior to commencing work. Without said approval, contractor will be working at risk hence compensation is not guaranteed.

3-3.2.3 Markup.

[Delete Subsection in total and replace with the following:]

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

1) Labor.....15
2) Materials 10
3) Equipment Rental 10*
4) Other Items and Expenditures 10

* Equipment Rental rates shall be based on the latest applicable Caltrans Equipment Rental Rates

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

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

(c) **Unknown Facilities**. In the event the Contractor suspects or begins to locate a utility pipe, conduit, structure or other unknown underground mass not depicted on the Plans or identified within these Specifications, he/she/it shall continue to uncover and investigate the limits of the item and contact USA as part of the bid item scope of work. Once the unknown underground facility is sufficiently viewed and identified, any stand-by-time, during which no constructive work is being accomplished with respect to the bid item scope of work, will be paid at the base rate for Labor + 10% and for Equipment not working will be paid applying the Delay Factor to the hourly rental rate per the Caltrans Rental Guide with no further mark-up.

SECTION 4
CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General

[Add the following:].

The Contractor and all subcontractors, suppliers, and vendors, shall guarantee that the entire Work will meet all requirements of this contract as to the quality of materials, equipment, and workmanship. The Contractor, at no cost to the AGENCY, shall make any repairs or replacements made necessary by defects in materials, equipment, or workmanship that become evident within one year after the date of recordation of the Notice of Completion. Within this one year period, the Contractor shall also restore to full compliance with requirements of this contract any portion of the Work which is found to not meet those requirements. The Contractor shall hold the AGENCY harmless from claims of any kind arising from damages due to said defects or noncompliance.

Security of this guarantee shall be in the form of a Warrantee Bond furnished to the AGENCY by the Contractor. There shall be specific wording in the Warrantee Bond that includes the guarantee or warranty of the labor and materials for a one year period, commencing from the recording date of the Notice of Completion by the County Recorder. The guaranteed amount shall be for 100 percent of the total amount earned to date as indicated on the final progress payment. The AGENCY reserves the right to withhold the retention until the Warrantee Bond has been accepted by the AGENCY.

The Contractor shall make all repairs, replacements, and restorations covered by the Warrantee Bond within ten (10) working days after the date of the Engineer's written notice. Failure to comply with such notice, will cause the AGENCY to file claim against the bond.

Excepted from the Warrantee Bond will be defects caused by acts of God, acts of the AGENCY, acts of vandals, or by acts of others outside or beyond the control of the Contractor.

4-1.4 Test of Materials

[Replace the third sentence of the first paragraph with the following:].

All onsite and offsite tests which require the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory in the vicinity of Southern California, pre-approved by the Engineer. The laboratory shall be staffed with experienced technicians, properly equipped, and fully qualified to perform the tests in accordance with the specified standards.

The City reserves the right to visit approved testing laboratories anytime during the duration of the testing for the specified project. This random inspection will not require any prior confirmation for the visit date and time of the visit.

Field sampling and testing shall be performed under the direction of the Engineer. The Engineer will determine the exact time and location of all field sampling and testing. Written reports of tests and engineering data furnished by the Contractor for the Engineer's review shall be submitted in

the same manner as specified for Shop Drawings.

The testing laboratory shall furnish three copies of a written report of each test performed by laboratory personnel. Two copies of each test report will be transmitted to the Engineer and one copy to the Contractor within three (3) calendar days after each test is completed.

The Contractor shall not retain any testing laboratory firm against which the City has reasonable objection. If at any time during the construction process, the services become unacceptable to the City and the Engineer determines that sufficient cause exists, the Contractor shall terminate the services and engage a different testing laboratory firm, approved by the Engineer.

Unless otherwise provided, all testing shall be performed under the direction of the Engineer and the AGENCY will bear the cost of the initial testing of material and workmanship which are required by the Standard Specifications and the Special Provisions. The cost of all other tests, including the retesting of material or workmanship that fails to pass the first test, shall be borne by the Contractor.

4-1.6 Trade Names or Equals

[Replace the last two sentences of the first paragraph with the following:].

Approval of equipment and materials offered as equivalents to those specified must be obtained as set forth in the Instructions to Bidders.

SECTION 5
UTILITIES

5-1 LOCATION

[Replace the first sentence of the last paragraph with the following:].

It shall be the Contractor's responsibility alone to determine the location of underground utilities or substructures of every nature and to protect them from damage.

The Contractor shall pothole all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by the Work.

The Contractor shall perform the utility location pothole exploration efforts along the proposed improvement locations 48 hours prior to beginning the excavation work and shall submit a pothole schedule and plan identifying the locations of the potholes to the Engineer in advance of initiating said work for review and approval. All vertical and horizontal locations of the exposed existing utility shall be documented by the Contractor and provided to the Engineer. All potential conflicts with respect to the proposed work and existing utilities shall be brought to the attention of the Engineer prior to trenching at the potential conflict location.

Any pothole work with a diameter less than or equal to 6-inches in asphalt to be backfilled with black colored concrete to the finish surface.

The Contractor shall sawcut straight clean lines at each pothole location.

Payment for the pothole of existing utilities is considered in the various contract bid items of work and no additional compensation will be allowed therefore.

5-4 RELOCATION

[Replace the second sentence of the last paragraph with the following:].

When not otherwise required by the plans and specifications and when directed by the Engineer, the Contractor shall arrange for the relocation of service connections, as necessary, between the meter and property line, or between the meter and limits of construction.

5-5 DELAYS

[Add the following paragraph:].

All notification to utility companies insofar as the relocation or removal of a utility shall be made by the Engineer based on Contractor's request as submitted to the Engineer at least 48-hours in advance of the needed work. Any costs for delay of the Contractor of utility companies in this regard shall be assigned to the Contractor, if these costs are a result of the Contractor's request being untimely in any respect excepting thereof any delay cost incurred as a result of the utility company not responding at their agreed time.

SECTION 6
PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

[Replace the first sentence of the first paragraph with the following:].

The Contractor's proposed Baseline Construction Schedule shall be submitted to the Engineer within ten (10) working days after the date of the AGENCY'S execution of the Agreement. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered. Prior to issuing the Notice to Proceed, the Engineer will schedule a preconstruction meeting with the Contractor to review the proposed Baseline Construction Schedule and delivery dates, arrange utility coordination, discuss construction methods, and clarify inspection procedures. The Contractor shall submit progress reports to the Engineer by the tenth day of each month. The report shall include an updated Construction Schedule. Any deviations from the original schedule shall be explained. Progress payments will be withheld pending receipt of any outstanding reports.

The Contractor shall furnish the Agency with a 3 week look ahead-schedule in a tabular format at every weekly construction meeting. The 3-week look ahead-schedule shall be linked to the Approved Baseline Construction Schedule milestones with any subsequent deviations within this 3-week window, and shall include the sub-activities that rolls-up into the associated milestone.

Payment for the preparation, update, and submittal of the Baseline Construction Schedule shall be considered as included in the various item of work and no additional compensation will be allowed thereof.

6-2 PROSECUTION OF WORK

[Add the following paragraph:].

The order of work for this project shall be as follows:

1. Haul Route and Staging plans submittals
2. Slope Grading and Paving Improvements
3. Reconstruct curb and gutter improvements
4. Asphalt concrete pavement base repairs
5. Surface pavement work, including cleaning, sweeping milling and crack sealing
6. Asphalt concrete surface course
7. Adjust valves to grade
8. Final Punch List

[Add the following:]

Record Keeping: The Contractor shall submit daily progress reports to the Engineer via the Internet utilizing a web site address VPM@www.virtual-pm.com managed by the Agency. This web site, "Virtual Project Manager" will be used exclusively by the site foreman to record daily progress, problems, addition/deletions and or request change orders for review by the engineer/inspector and the Project Manager. The Job site supervisor (Contractor) is required to have access and knowledge to utilize a digital camera and internet. Daily use of computer is required to input aforementioned documents.

If the Engineer determines that the Contractor is failing to prosecute the work to the proper extent, the Contractor shall, upon order from the Engineer, immediately take steps to remedy the situation. All costs of prosecuting the work as described herein shall be included in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes after orders of the Engineer; the work may be suspended in whole or part, or payment withheld, until the Contractor takes said steps.

If work is suspended through no fault of the City, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the work during periods of suspension, the City may elect to do so, and deduct the cost thereof from monies due the Contractor. Such actions will not relieve the Contractor from liability.

6-7 TIME OF COMPLETION

6-7.1 General

[Add the following:].

The total time within which the Work must be completed by the Contractor is fixed at **FOURTY (40) working days**, including material delivery, starting from and after the date in the **Notice to Proceed** with the Work.

6-7.2 Working Day

[Add the following:].

The Contractor's activities shall be confined to the hours between 7:00 A.M. to 4:00 P.M., Monday through Friday, excluding holidays (For lane closure restrictions see 7-10.1 "Traffic Access."). Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property. In the event of either a requested or emergency deviation, inspection service fees will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead, and travel time. The service fees will be deducted from any amounts due the Contractor.

[Delete subsection in total and replace with the following:].

A working day is any day within the period between the date of the start of the Contract time as specified in 6-1 and the date of field acceptance of the Work by the Engineer, other than:

1. Saturday and Sunday.
2. Any day designated as a holiday by the Agency.
3. Any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a contractor association.
4. Any day the Contractor is prevented from working at the beginning of the workday for cause specified in 6-6.1.
5. Any day the Contractor is prevented from working during the first 5 hours with at least 60 percent of the normal work force for cause specified in 6-6.1.

6-9 LIQUIDATED DAMAGES

[Amend the liquidated damage amount to read:].

Liquidated damages shall be **$1,200.00** for **each calendar day** in excess of the contract time for the total project.

SECTION 7 RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

7-1.1 General

[add the following:].

A noise level limit of 95 dbl. at a distance of 50' shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

The Contractor shall use low ground pressure equipment when completing the associated work on the Ring Road (i.e small excavator, bobcat, etc.). No heavy excavating or truck equipment will be allowed on the Ring Road. The Contactor can use the two access ramps to the Ring Road for the dump trucks and other heavier equipment to haul excavation and waste material to and from the work area on the Ring Road via haul transfer low ground pressure equipment.

The Contractor may use the lower road area around the Reservoir to and from the work area for work operations on the slope using the appropriate equipment necessary to complete the works of improvements.

The Contractor shall provide the equipment list being used for this project as part of the submittals for acceptance by the Engineer, prior to mobilizing to the site.

7-2 LABOR

7-2.1 General

[Add the following:].

The Contractor will be required to submit weekly certified payrolls for the project. The Contractor shall also submit payrolls for all subcontractors who perform work in excess of $1,000.

The payrolls reflect payment of the prevailing wage to all employees plus required fringe benefits. Failure to comply with this requirement may be cause for the City to stop construction or to withhold contract payments until the Contractor shows compliance.

7-2.2 Laws

[Add the following:].

The Contractor, and all subcontractors, suppliers and vendors, shall comply with all AGENCY, State and Federal orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments.

The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

7-3 LIABILITY INSURANCE

[Delete the entire subsection:].

7-3.1 Insurance

[Add the following:].

Contractor shall, prior to execution of an Agreement with the AGENCY, comply with the provisions of AGENCY's insurance requirements as follows:

Except as provided in the Contract Agreement, Contractor hereby agrees to protect, defend indemnify and hold harmless AGENCY, its officers, elected or appointed officials, employees, agents, and volunteers from and against any and all, claims, damages, losses, expenses, judgments, demands defense costs, and consequential damage or liability of any kind or nature, however caused, including those resulting from death or injury to Contractor's employees and damage to Contractor's property arising directly or indirectly out of the obligations or operations herein undertaken by Contractor, caused in whole or in part by any negligent act or omission of the Contractor, any subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, including but not limited to concurrent active or passive negligence, except where caused by the active negligence, sole negligence, or willful misconduct of the AGENCY. Contractor will conduct all defense at its sole cost and expense and AGENCY shall approve selection of Contractor's counsel. City shall be reimbursed for all costs and attorney's fees incurred by the AGENCY in enforcing this obligation. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by Contractor. The AGENCY will not be liable for any accident, loss or damage to the Work prior to its completion and acceptance, except as provided in the Contract Agreement.

The cost of this insurance shall be included in the Contractor's Bid.

7-5 PERMITS

[Delete Subsection in total and substitute with the following:].

Prior to the start of any work, the Contractor shall take out the applicable AGENCY permits and make arrangements for AGENCY inspections. The AGENCY will issue the permits at no charge to the Contractor. The Contractor and all subcontractors shall each obtain an AGENCY business license, and shall be licensed in accordance with State Business and Professions Code. The Contractor, at no additional cost to the AGENCY, shall also obtain any and all other permits, licenses, inspections, certificates, or authorizations required by any governing body or entity.

Pursuant to State Bill 854, the following new requirements apply to all public works projects:

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the

contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded. The website for contractor registration with the Department of Industrial Relations (DIR) is https://efiling.dir.ca.gov/PWCR; the annual non-refundable fee, valid July 1 through June 30 (state fiscal year), is $300.

Contractors who are awarded a public works project must submit electronic payroll records to the DIR's Compliance Monitoring Unit (CMU) in addition to providing wet-ink original copies to the City or its designated labor compliance enforcement officer.

7-8 WORK SITE MAINTENANCE

7-8.1 General

[Add the following:].

Throughout all phases of construction, including suspension of work, and until the final acceptance, the Contractor shall keep the site clean and free from rubbish and or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

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

Before the final inspection, the site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. This is to include the removal of <u>all</u> utility markings (Underground Service Areas – USA) made as a part of the project.

7-8.2 Air Pollution Control

[Add the following:].

Unless directed otherwise by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean wherever construction, including restoration, is incomplete. If the Contractor fails to perform the required sweeping, the AGENCY will complete the work and deduct the costs from the Contractor's progress payment for all costs associated with the air pollution control efforts.

7-8.4.2 Storage of Equipment and Material in Public Streets

[Add the following:].

Construction materials shall not be stored at the City facility for more than 2 days prior to usage on the project. All materials or equipment not installed or used in construction within 2 days after unloading shall be stored elsewhere by the Contractor – at Contractor's expense, unless authorized additional storage time. All material used for the construction of the improvements, shall be placed so as to provide clear access within the work zone with one lane open at all times, unless otherwise approved by the Engineer.

Construction equipment shall not be stored at the work site before its actual use on the work, nor

for more than 2 days after it is no longer needed.

Contractor to obtain City approval on storage of equipment location within the Work Zone prior to start of work.

Excavated material, except that which is to be used as backfill for the works of improvement, shall not be stored in public streets nor at the City Facility unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

In no event is Contractor to stockpile material, tools or equipment in the parkways or other areas not permitted by the City.

Payment for "Final Cleaning-up" is considered included in the various contract bid items of work and no additional compensation will be allowed therefore.

7-8.4.3 Temporary Light, Power & Water

[Add the following subsection:].

A Construction Water Meter shall be obtained through the AGENCY's Finance Department. In order to obtain construction water from an AGENCY fire hydrant, the Contractor will be required to obtain an AGENCY supplied hydrant meter. A $2,650 refundable deposit is required on the meter.

An "Eddy" valve must be attached to the temporary meter for the purpose of operating the hydrant.

The cost for the meter and water used shall be charged in accordance with City Council Resolution No. 95-95 and 2018-048. These charges are as follows:

Meter Service Charge Per Month	Rate Per 100 Cubic Feet
$130.00	$7.17

Any unauthorized use of AGENCY water from a fire hydrant or other AGENCY facility will be estimated by the AGENCY as to usage and invoiced to the Contractor at three times the rate schedule above and a fine of $300 per citation and deducted from progress payments. The Contractor shall not use water or power from private residences.

The cost of water and power used by the Contractor is considered included in the various contract bid items of work and NO additional compensation will be allowed therefore.

7-8.6.1 General

[Add the following to the end of the section:].

Waste Discharge Requirements for Discharge of Storm Water Associated with Construction Activities:

a) The CONTRACTOR shall be responsible for identifying and obtaining all permits and licenses required for this project. Cost and fees associated with said permits regardless of whether obtained by the COUNTY, CITY or by CONTRACTOR, shall be borne solely by the CONTRACTOR.

The CONTRACTOR shall comply with all rules and regulations included in said permits and

licenses. Should the CONTRACTOR fail to conform to said rules and regulations, the CITY reserves the right to perform the work necessary to conform to the rules and regulations. The cost of such work will be deducted from any funds to become due to the CONTRACTOR.

It is noted that multiple permits are required from the various regulatory agencies. CONTRACTOR is to abide by and follow the requirements of all such permits.

b) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES WATER QUALITY ORDER NO. 2009-0009-DWQ (GENERAL PERMIT)

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 permit and related documents/attachments may be found on the internet at:

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 as described above. Section XV, "Municipal Construction Projects/Activities," of the Municipal Permit describes specific compliance with the latest version of the State's CGP within the Santa Ana Region.

7-8.6.4 Dewatering

[Add the following to the end of the section].

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 III.3.ii. of this permit authorizes de minimus types of discharges listed in the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters, Order No. R8-2009-0003, from CITY owned and/or operated facilities and activities (including construction).

A copy of the CITY's Municipal NPDES Permit (Order No. R8-2009-0030) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_oc_stormwater_ms4_permit.pdf

A copy of the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters (Order No. R8-2009-0003) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

[Delete the second paragraph and substitute with the following:].

The Contractor shall relocate, repair, replace or reestablish all existing improvements within the project limits which are not designated for removal (e.g., curbs, gutters, sidewalks, driveways, fences, walls, sprinkler systems, signs, utility installations, pavements, and structures.) which are damaged or removed as a result of his operations.

Where existing traffic striping, pavement markings and curb markings are damaged or their reflectivity reduced by the Contractor's operations, such striping or markings shall also be considered as existing improvements and the Contractor shall repaint or replace such improvements.

Relocations, repairs, replacements or reestablishments shall be equal to the existing improvements and shall match such improvements in finish and dimensions unless otherwise specified.

[Delete the last paragraph and substitute the following:].

All cost to the Contractor for protecting, removing, restoring, repairing, replacing, or reestablishing existing improvements shall be included in the bid in other items of work unless otherwise specified.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Traffic and Access

[Add the following]

The Contractor shall coordinate with the City with respect to using the PW Maintenance Yard area for parking and arrange for access in and out of the yard.

The Contractor shall provide, to the Engineer, a telephone number at which the Contractor's representatives can be reached, at any hour, should an emergency occur on-site that requires immediate attention.

Prior to the start of construction, the Contractor shall inform the AGENCY's trash haulers, Police and Fire departments and US Postal Service, of the project location, approximate starting date, completion date, and the name and telephone number of contractor representatives who may be contacted at any hour in the event of an emergency.

POLICE DEPARTMENT: *Watch Commander @ (714) 990-7626*
FIRE DEPARTMENT: *Battalion Chief @ (714) 990-7658*

The Contractor shall adhere to applicable sections of California Administrative Code, Title 8, concerning electrical and construction safety standards and practices.
Contractor shall require that an approved safety vest be worn by all personnel who are working at this project site. Any worker without a vest may be ordered off the job by the Inspector until such apparel is acquired. Questions as to approved vests shall be directed to the Engineer.

If the traffic cones or portable delineators are damaged, displaced or are not in an upright position,

for any reason, the contractor shall immediately replace or restore to their original location, in an upright position, the cones or portable delineators.

The Contractor shall provide and maintain all signs, barricades, flashers, delineators and other necessary facilities for the protection of the City employees within the limits of the construction area. He/she/it shall also post proper signs to notify the public regarding detours and conditions of the roadway, all in accordance with the provisions of the Vehicle Code, the current State of California Department of Transportation "Manual of Traffic Controls for Construction and Maintenance Work Zones", and the State of California Department of Transportation Standard Plans.

The Contractor shall furnish such flagmen and equipment as are necessary to give adequate warning to traffic or to the public of any dangerous conditions in accordance with the current Department of Transportation "Instructions to Flagmen".

All existing traffic signs and street signs shall be maintained in visible locations during construction. Signs designated for removal shall be salvaged and delivered to the AGENCY Yard or disposed of as directed by the AGENCY.

Plans indicating the travel (haul) route for the Contractor's equipment movement in and out of the site must be submitted to the Engineer for approval at least seven (7) working days prior to commencement of any work. The travel route plans, which meet the City's requirements, will be approved and returned to the Contractor; otherwise, further revisions are required until they are acceptable to the AGENCY. The Contractor shall submit one travel plan for each phase to the Engineer for approval, and the approved travel plans shall be strictly adhered to by the Contractor during all phases of the construction.

The Contractor shall limit excavation for curb and/or gutter, driveways, sidewalk, cross gutter and spandrels that will leave an open excavation for only one weekend in a continuous two-week period. Open excavation is only allowed to open for only one weekend with proper traffic control as specified elsewhere and as directed by the Engineer.

The Contractor is not allowed to drive his/her/its fully loaded trucks on the new material.

Any deviation from these requirements is not permitted. All the Contractor's operations will be ceased at once if the Contractor violates any of these requirements. No further payments will be made to the Contractor until problems are resolved according to the AGENCY'S requirements.

Full compensation for Parking and Construction Staging Plans will be considered included in the various items of work and no additional compensation will be allowed therefore.

The Contractor shall be required to coordinate his/her/its operations with the delivery of City materials/equipment etc.. schedules in and out of the project area.

The Contractor shall install skid resistant steel plates over any open trenches which are not back-filled by the end of each day. Steel plates need to be recessed while covering open trenches in the street.

The order of work, except where otherwise specifically required by the Plans and Specifications, such as the phasing requirements, shall be determined by the Contractor who shall be solely

responsible for coordinating all subcontract and direct contract work to minimize delays during construction.

7-10.3 Street Closures, Detours, Barricades

[Add the following:].

Street closures will not be allowed except as specifically permitted by the Engineer.

7-10.5 Protection of the Public

[Add the following section:].

It is part of the service required of the Contractor to make whatever provisions are necessary to protect the public and City employees. The Contractor shall use foresight and shall take such steps and precautions as his/her/its operations warrant to protect the public and City employees from danger, loss of life or loss of property, which would result from interruption or contamination of public water supply, interruption of other public service, or from the failure of partly completed work or partially removed facilities. Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss, or damage to life and property, due directly or indirectly to prosecution of work under this contract.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the public safety, protection of utilities and protection of adjacent structures or property, which may be damaged by the Contractor's operations and when, in the opinion of the Engineer, immediate action shall be considered necessary in order to protect the public or property due to the Contractor's operations under this contract, the Engineer will order the Contractor to provide a remedy for the unsafe condition. If the Contractor fails to act on the situation, the Engineer may provide suitable protection to said interests by causing such work to be done and material to be furnished as may be necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as are deemed necessary, shall be borne by the Contractor. All expenses incurred by the AGENCY for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the AGENCY does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety. No additional compensation will be allowed therefore.

SECTION 8

FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL

[Add the following:].

No field offices for AGENCY personnel will be required, however, the AGENCY personnel shall have the right to enter upon the project at all times and shall be admitted to the offices of the Contractor, at any time during the operation of the Work.

SECTION 9

MEASUREMENT AND PAYMENT

9-3 PAYMENT

9-3.1 General

[Delete the last paragraph and substitute with the following:].

At the expiration of 35 days from the filing and recording of the Notice of Completion of the Work, the amount deducted from the final estimate and retained by the AGENCY will be paid to the Contractor except such amounts as required to be withheld by properly executed and filed to stop payment, or as may be authorized by the contract.

When no bid item is provided for work/improvement shown or indicated on the plans and specifications, payment for such work/improvement will be considered to be included in various applicable items of work.

9-3.2 Partial and Final Payment

[Amend the first sentence of the first paragraph to read:].

The closure date for the purpose of making partial progress payments will be the last day of each month. The Contractor may request, in writing, that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the AGENCY'S payment procedure.

Each month, the Contractor shall meet with the Engineer, a minimum of three (3) working days prior to the submittal of the progress payment to the AGENCY, to finalize and receive approval regarding the measurement of the Work performed through the closure date and the estimated value of the progress payment based on the contract Unit Prices or as provided for in Section 9-2. Any progress payment submitted without such approval will be considered incomplete and returned to the Contractor and no payment shall be considered until such approval is obtained.

[Add the following to the end of the section:].

Payments will be withheld pending receipt of any outstanding reports required by the contract documents. In addition, the final progress payment will not be released until the Contractor returns the control set of specifications and plans indicating the as-built conditions. At the request and expense of the Contractor, who shall retain beneficial ownership and receive interest, if any thereon, the AGENCY shall permit the substitution and deposit therewith of securities equivalent to the amount of any monies withheld by the AGENCY.

9-3.5 Description of Bid Items

[Add the following section:].

The unit prices and lump sum amounts to be paid for under the bid items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the completion of the work and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Specifications. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing, obtaining required permits and permit fees, mobilization, traffic control, public convenience and

safety, protective barricading/fencing, sanitary facilities, storage of equipment and materials, security against theft and vandalism, project site maintenance, dust and runoff control, clean-up and all other items related to the work.

Payment for unit price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be specified in SSPWC, Section 9-1, and "Measurement of Quantities for Unit Price Work." Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with SSPWC, Section 9-2, "Lump Sum Work,"

Payment for all work shall be included in the various bid items. No additional compensation shall be made therefore. Work associated with each bid item shall include, but not be limited to the following description of bid items:

Bid Item No. 1 – Mobilization and Demobilization (5% Max)

Mobilization and demobilization shall conform to the provisions of Sections 9-3.4 of the Standard Specifications.

Mobilization and demobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials, 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, and financing prior to beginning work on the various contract items on the project site. Mobilization shall also include the time, materials, and labor to move the necessary construction equipment to and from the 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 at all times and for all non-working days during the construction period. The Contractor is responsible for securing an adequate storage site for equipment and materials.

Payment for **Mobilization and Demobilization (5% Max)** shall be included in the **Lump Sum (LS) Price** basis and shall be considered full compensation for obtaining all business licenses and permits, as required for the entire project, from all related agencies, including, but not limited to, utility companies, private and public agencies and the City of Brea; and complying with the requirements specified in those licenses and permits; coordination, field office facility (if required), and incidentals necessary to perform all related items of work. Progress payments for mobilization bid item shall be paid for in accordance with the completion percentage of the project to the Contractor and shall include the cost of such mobilization and administration during the entire Contract period.

Bid Item No 2. – Clearing and Grubbing

Clearing and Grubbing shall consist of removing all vegetation and specified materials from the project area and other such areas as may be shown in the documents. This work shall be performed in advance of grading as in accordance with the requirements herein specified, subject to erosion control requirements. The area shall be cleared of all vegetation, such as palms; trees; logs; stumps; bushes; hedges; roots, up to 36" below the existing ground surface; brush; grass; weeds; mulch and all other objectionable materials with the demolition limits shown on the plans.

Clearing and grubbing shall also include removal of any and all items not specifically covered under a separate bid item.

Payment for **Clearing and Grubbing** shall be made at the **Lump Sum (LS) Price** bid and shall include full compensation for sawcutting, removal, moving; transportation and disposal of all the resulting material including all dump fees and permits.

Bid Item No 3. – Over-Excavate Existing Slope per Detail 1 on Sheet 5

Payment for **Over-Excavate Existing Slope per Detail 1 on Sheet 5** shall be made at the Contract unit price bid per **Square Foot (SF)** of slope surface area, as shown in the Bid Schedule and as depicted on the plans. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work as depicted on Detail 1 on Sheet 5, including slope benching and stockpiling and haul off of excess material, as required. No further compensation will be allowed.

Bid Item No. 4 – Backfill Slope Area per Detail 1 on Sheet 5

Payment for **Backfill Slope Area per Detail 1 on Sheet 5** shall be made at the Contract unit price bid per **Square Foot (SF)** of slope surface area, as shown in the Bid Schedule and as depicted on the plans. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work as depicted on Detail 1 on Sheet 5, including slope backfill, grading and compaction. No further compensation will be allowed.

Bid Item No 5. – Construct Concrete Slope Paving per Detail 2 on Sheet 5

Payment for **Construct Concrete Slope Paving per Detail 2 on Sheet 5** shall be made at the Contract unit price bid per **Square Foot (SF)** of slope paving surface area, as shown in the Bid Schedule and as depicted on the plans. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work as depicted on Detail 2, Sheet 5, including all forming, concrete and reinforcement. No further compensation will be allowed.

Bid Item No. 6 – Remove Existing Curb and Gutter

Payment for **Remove Existing Curb and Gutter** shall be made at the Contract unit price bid per **Lineal Foot (LF)**, as shown in the Bid Schedule, and shall include saw cutting, removal and off-site disposal of all curb materials as designated on the project plans. This work shall include all labor, tools, materials, transportation, equipment and incidentals required to complete the work.

Bid Item No. 7 – Mill Existing Pavement (Variable Depth)

Payment for **Mill Existing Pavement (Variable Depth)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule and as depicted on the plans. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work, including crack sealing of the milled surface, as required. No further compensation will be allowed.

Bid Item No. 8 – Sawcut and Remove Existing Roadway Structural Section

Payment for **Sawcut and Remove Existing Roadway Structural Section** shall be made at the Contract unit price bid per **Cubic Yard (CY)**, as shown in the Bid Schedule, and shall include all saw cutting, removal and off-site disposal of all asphalt concrete and underlying subgrade materials as designated on the project plans. This work shall include all labor, tools, materials, transportation, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 9 – Construct 8" Curb & Gutter, Type A-2

Payment for **Construct 8" Curb and Gutter, Type A-2** shall be made at the Contract unit price bid per **Lineal Foot (LF)**, as shown in the Bid Schedule and as shown on the plans. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 10 – Furnish and Place Asphalt Concrete

Payment for **Furnish and Place Asphalt Concrete** shall be made at the Contract unit price bid per **Tonnage (TON)**, as shown in the Bid Schedule to the limits as shown on the plans. Payment shall be based on certified weighmaster tickets for AC material delivered to the jobsite. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work, including compaction of underlying base material. No further compensation will be allowed.

Bid Item No. 11 – Furnish and Place Crushed Miscellaneous Base

Payment for **Furnish and Place Crushed Miscellaneous Base** shall be made at the Contract unit price bid per **Tonnage (TON)**, as shown in the Bid Schedule to the limits as shown on the plans. Payment shall be based on certified weighmaster tickets for CMB material delivered to the jobsite. This bid item shall include all materials, labor, tools, equipment and incidentals required to complete the work, including compaction of underlying subgrade. No further compensation will be allowed.

Bid Item No. 12 – Adjust Water Valve to Grade

Payment for **Adjust Water Valve to Grade** shall be made at the Contract unit bid price for **Each (EA)** valve adjusted as shown in the Bid Schedule, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and doing all the work involved adjusting the existing valves as shown on the plans, as specified in these specifications and as directed by the Engineer. No further compensation will be allowed.

Bid Item No. 13 – NPDES / BMP's

Payment for **NPDES / BMP's** shall be made at the **Lump Sum (LS) Price** bid, as shown in the Bid Schedule, and shall include furnishing, installing, and maintaining Best Management Practices (BMP's), monitoring and reporting (if required) and all applicable NPDES requirements. This item shall be considered full compensation for doing all work as specified herein. Progress payments for this item shall be paid for in accordance with the completion percentage of the project. No further compensation will be allowed.

PART 2

CONSTRUCTION MATERIALS
SECTION 200 ROCK MATERIALS

200-1 ROCK PRODUCTS

200-1.5 SAND

200-1.5.1 General

[Add the following to the end of the section:].

Sand bedding shall conform to the requirements in this section and shall consist of washed granular material with a sand equivalent greater than or equal to 30.

200-2 UNTREATED BASE MATERIALS

200-2.1 General

[Add the following to the end of the section:].

Untreated base to be used for the base course under asphalt concrete pavement shall be Crushed Miscellaneous Base (CMB).

200-2.4 Crushed Miscellaneous Base

Crushed Miscellaneous Base material for replacement of over-excavated unsuitable materials, and construction shall conform to Subsections 200-2.4 and 301-2 of the Standard Specifications, as directed by the Engineer.

200-2.4.2 Grading

[Add the following to the end of the section:].

The sieve size shall be 3/4” (fine).

SECTION 201
CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements

201-1.1.2 Concrete Specific by Class and Alternate Class

[Revise portion of Table 201-1.12 with the following:].

Concrete class and alternate class for curb and gutter improvements shall be 560-C-3250.

Concrete class for Air Placed Concrete (Method B) shall be 650-DFW-3250P.

201-1.2.4 Admixtures

[Delete Subsection in total and replace with the following:].

Admixtures will not be permitted.

201-1.2.5 Fly Ash

[Delete Subsection in total and replace with the following:].

Fly Ash will not be permitted.

201-1.4 Mixing

201-1.4.1 General

[Add the following to the end of the section:].

Mixed concrete delivered to the site shall be by Transit Mixer as called for in Section 201-1.4.3 "Transit Mixer" of the Standard Specifications.

201-4 CONCRETE CURING COMPOUND

201-4.1.1.1 General:

Concrete curing compound shall be Type II for Class 560-C-3250.

SECTION 203
BITUMINOUS MATERIALS

203-6 ASPHALT CONCRETE

203-6.1 General

[Delete the second paragraph and replace with the following:].

Asphalt Concrete Base Course shall be the ¾" aggregate type III-B2-PG64-10.

Asphalt Concrete Surface Course shall be ½" aggregate Type III-C2-PG64-10.

PART 3

CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.1 General

[Add the following:]

CLEARING AND GRUBBING shall include but not be limited to the following:

All items requiring removal for the contract to proceed as designed unless otherwise listed separately in these Special Provisions or as directed by the ENGINEER.

Remove all items designated as "To Be Relocated" and "Remove". Areas to be cleared, including slopes, shall be grubbed to a depth necessary to remove all stumps, roots, buried logs, and all other objectionable material.

Areas to be cleared shall be limited to the immediate construction area only and shall not include the entire right-of-way.

Demolition and removal of irrigation equipment, and such other items not mentioned that are required by the Plans and Specifications, are part of this work in this section.

Coordination with utility companies, as requested, to facilitate disconnection of existing utility services and removal and dispose of all existing equipment and facilities.

All obstructions within project limits shall be removed to a minimum of 12-inches below subgrade.

All equipment and facilities shown on the Plans to be salvaged, removed and stockpiled, adjusted, and/or relocated shall be measured, marked, and identified in the field.

Contractor shall note the locations, dimensions, and configurations of all existing equipment to be salvaged, and shall clearly mark or tag all equipment to be reused in the field prior to removal to facilitate reassembly. Contractor shall notify Engineer of any damaged or non-salvageable materials prior to commencing any removal or grading operations. Materials found to be damaged after the work commences shall be assumed to be the responsibility of the Contractor.

Contractor will not be paid for the replacement or repair of facilities or equipment believed by the Engineer to be damaged after the work commences.

[Add the following subsection:]

300-1.1.2 Preservation of Property

Existing improvements, adjacent property, utility and other facilities, trees and plants that are not to be removed, and all items shown on the approved plans to be protected in place, or stated in the City's Special Provisions or Conditions to be protected in place, shall be protected from injury or damage as provided in accordance with Section 400, "Protection and Restoration," regardless of whether or not these items are found within the grading limits. If an item to be protected in place is found within the grading limits, the Contractor shall grade around the item to be protected in place as required.

Any structure or facility to be protected which is damaged as a result of the Contractor's construction operation, shall be replaced by the Contractor, at their cost, to the satisfaction of the Engineer.

[Add the following subsection:]

300-1.1.3 Removal and Disposal of Materials

Unless otherwise stated on the Plans or Specifications, all material removed from the Work site shall become the property of the Contractor and shall be disposed of in a lawful manner. Burning shall not be permitted on the site.

The Contractor shall conform to the following requirements:

1. The Contractor shall be responsible for recycling and for obtaining a suitable disposal site for the material not suited for recycling, and pursuant to Section 300-2.6, "Surplus Material," of the Standard Specifications, shall, upon request, file with the Engineer the written consent of the owner of the property upon which he intends to dispose of such material.

2. Any concrete crushing of the removed concrete is not allowed at the job site at any time.

3. The Contractor shall notify the Engineer, in accordance with Subsection 2-9, "Changed Conditions," of the Standard Specifications, of any changed conditions or material differing from that represented in the contract which the Contractor believes to be hazardous waste.

4. All combustible waste materials resulting from clearing and grubbing or from any construction operations of this contract shall be removed from the site as directed by the Engineer.

The Contractor is responsible for securing all required haul permits to transport removal material from the project site to the approved disposal site and the paying of all fees associated with the disposal of this material.

Disposal of trash and construction debris shall be in accordance with the "Recycling / Disposal of Construction Debris" Section of these Special Provisions.

300-1.6 Bituminous Pavement

[Add the following:].

Sawcutting shall be accomplished by the use of a power-driven saw. The depth of the cut shall be deep enough to provide a clean, straight break without loosening, cracking, or damaging adjoining asphalt or concrete. A clean sawcut edge shall be maintained until new pavement is constructed.

All necessary sawcutting of AC or any underlying existing improvements shall be to the lines as shown on plans or as directed by the City Engineer. Sawcutting shall be included in the concrete unit prices bid for the various items of work involved and no further compensation shall be made.

300-2 UNCLASSIFIED EXCAVATION

300-2.1 General

[Add the following:]

This item shall also include all necessary grading work including excavation, backfilling, and compaction, moving and placing of materials and disposing of excess materials. Backfilling is defined as all suitable fill material generated from the excavation that is used for the backfilling of all low areas including planters and includes the moving, grading, filling and compacting and all other activity related to filling.

The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 4:1 or flatter to the bottom of the excavation. During excavation operations, native material may be used for this purpose; however, once the placing of the structural section commences, structural material shall be used. No payment is allowed for excavated material used for flattening slopes in temporary conditions.

If unsuitable material is encountered during normal excavation or other construction operations, the Contractor shall remove said material to the limits determined by the Engineer and replace said material with Compacted Fill, unless otherwise directed by the Engineer.

300-2.2 Unsuitable Material

300-2.2.1 General

[Remove and replace the entire section with the following:]

Some of the unclassified excavated material on this project may be unsuitable for reuse. This unsuitable material shall be excavated and disposed of as directed by the engineer. Unsuitable material will include, but is not limited to asphalt; PCC roadway; drainage structures and all PCC footings to their full depths. Base material will generally be acceptable for use as fill material, but not as base material and will not be removed from the project unless directed by the Engineer. The excavation and backfill for necessary structures and foundations will be paid for under their respective bid items.

Excavation, filling with suitable material and disposal of unsuitable and excess material is regarded as a single operation for this item of work and will only be paid as an excavation operation.

The site shall be graded to the limit lines and elevations shown on the drawings with such allowances as may be required for the construction of walks, and other site improvements. Tolerance for rough grading is 1/10th of a foot, plus or minus, at drainage swales, and paved areas. At other areas, appearance shall be the governing factor.

Finish grades shall slope to drain without water pockets or irregularities and shall conform to the intent of all plans and sections, after thorough settlement, and compaction of the soil. Finished grades shall meet all existing or established controls of sidewalks, curbs, and walls and shall be of uniform slope and grade between points of fixed elevations or elevation controls from such point to established grades. Tolerance for finish grading is 1/4 inch, plus or minus.

Rocks, broken concrete, or other solid materials which are larger than 1 inch in greatest dimension shall not be placed in fill areas that are to be planted.

Clods or hard lumps of earth 1 inch or more in greatest dimension shall be broken up before compacting the material in fill areas to be planted. Material containing large rocks, boulders, or hard lumps (such as hardpan or cemented gravel which cannot be broken readily) over 12 inches in greatest dimension shall not be incorporated in the fill. Such materials shall be removed from the site.

All surplus material shall be disposed of in a legal manner at the expense of the contractor. Contractor shall make all arrangements for disposal of the material at off-site locations in accordance with all applicable ordinances.

SECTION 302
ROADWAY SURFACING

302-1 COLD MILLING OF EXISTING PAVEMENT
[replace entire section with the following;].

302-1.1 General

The work to be done here under consists of cold milling and removal of the designated thickness of existing pavement surface, including asphalt concrete, macadam, PCC, pavement reinforcement fabric (Petromat), or other miscellaneous improvements, at those locations and per Typical Sections and Details as shown on the Plans.

The existing A.C. pavements shall be cold milled to the depths required per grades as shown on the Plans and in accordance with the Standard Specifications. The pavement shall be removed by the use of a cold milling machine designed for this purpose and capable of performing a satisfactory job. Burning or heat planing will not be permitted. The planed pavement shall provide a maximum bond surface suitable for resurfacing. The milling equipment shall adhere to the low ground pressure requirements as specified within these Special Provisions.

Except as otherwise called for on the plans, all A.C. pavement cold milling cuts shall be cut to neat, clean, and straight lines to the satisfaction of, and as directed by, the Engineer.

The final depth, width, length and shape of the cold milling cut shall be as indicated on the plans and the Typical Sections and Details as shown on the Plans. The final cold milling cut shall result in a uniform surface conforming to the typical section(s) except as otherwise directed by the Engineer.

Surveyor's street and property line monuments, not scheduled for removal shall be protected. The City has made every reasonable effort to locate and mark on the plans all known metal roadway improvements such as sewer manhole covers, water valve covers, catch basin covers, which, if struck, could damage the cold milling cutting drum and/or carbide tipped cutting teeth and makes no guarantee that it has successfully done so or shall, therefore, contractor must thoroughly inspect the work site in advance of the cold milling operation to minimize the risk of striking any unseen under surface object(s) and shall include in the price bid for cold milling the removal work, additional amount sufficient to cover the cost of damage related down time and the cost of repair of damage to said cold milling cutting drum and/or carbide tipped cutting teeth.

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 residues shall be completely removed by sweeping and properly disposed. No washing of residues into drainage structures will be allowed.

Temporary ramping, where required by the Engineer for traffic control or other purposes, shall be considered included in the various applicable bid prices and no further compensation will be allowed.

302-1.2 Milling Machine

The Contractor shall furnish a self-propelled machine especially designed and built for grinding flexible and rigid pavements to the depth shown on the plans in one pass. The machine shall be equipped with standard automatic depth controls and must maintain a constant cutting depth and width without tearing or gouging the underlying surface and blade material into a windrow. The machine shall consist of a minimum width cutting drum with carbide tip teeth that completes the work. Drum lacing patterns shall permit a grooved or smooth surface finish as selected by the Engineer and the drum shall be totally enclosed in a shroud to prevent discharge of any loosened material into adjacent work areas. The machine shall be capable of operating at speeds from 5 to 50 feet per minute and designed such that the operator can observe the work without leaving his control area. It shall be adjustable as to crown and depth by tilting the drum axis and shall have a guidance system furnished to assist the operator in control grade and in matching adjacent pavements or cuts. The equipment shall be demonstrated to have been operated on similar work completed prior to the award of this contract and shall comply with the requirements of low ground pressure equipment used on the Ring Road as specified within these Special Provisions.

302-1.3 Cold Milling to Specified Elevations

The operator shall furnish the milling machine, operated by experienced workmen. The surface tolerance produced shall be such that a 10-foot straight edge laid laterally will indicate variances of less than 3/8" (except in the crown area) and the same straight edge laid longitudinally will indicate variances of less than 3/16".

Removal shall consist of milling the pavement where indicated and removing the planed material. No aggregate shall remain on the project at the end of each workday. Aggregate material loosened and directly removed shall become the property of the Contractor. The Contractor shall dispose of all planed surplus materials at a legal dump site, in accordance with Subsection 300-2.6 of the Standard Specifications.

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

[Add the following:].

Tarpaulins shall be used to cover all loads from plant to project.

Each layer of asphalt concrete shall not exceed 4 inches in compacted thickness. Each layer shall be completely placed and compacted prior to commencement of successive layers. Tracks or wheels of spreading equipment shall not be operated on the top layer of asphalt concrete in any area until final compaction has been completed.

Three-wheeled rollers shall not be permitted, and pneumatic rollers shall be used only on lower layers as applicable. The paving machine shall adhere to the low ground pressure equipment requirements as specified in these Special Provisions.

Initial breakdown compaction shall consist of a minimum of three coverages of layer of asphalt mixture. A pass shall be movement of a roller in both directions over the same path. A coverage shall consist of as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage, made to insure compaction without displacement of material in accordance with good rolling practices, shall be considered to be part of the coverage being made and not part of a subsequent coverage. Each overage shall be completed before subsequent

coverage is started.

Prior to placement of asphalt concrete, a tack coat of SS 1H emulsified asphalt shall be applied to all contact surfaces. Tack coat shall be Grade SS-lH per subsection 302-5.4 of the Standard Specifications. Tack coat shall be applied at a rate not to exceed one-tenth (1/10) gallon per square yard uniformly in one coat on all vertical joints of A.C. patching and P.C.C. surfaces, and edges against which AC is to be placed.

An asphalt leveling course shall be applied in depressed areas, as directed by the Engineer. An automatic leveling device shall be used on the paver unless omitted by the Engineer.

Longitudinal joints between successive paving runs shall coincide with the traffic lanes lines. Contractor will be provided with striping plans for those roads where the striping will change prior to the start of work. Local streets will not be striped except for special cases for which striping plans will be provided. All other roads will be striped to match the existing pattern.

302-5.5 Distribution and Spreading

[Add the following:].

Prior to placing asphalt pavement overlay, all vegetation shall be removed from the cracks in the pavement and all joints between the pavement and concrete gutters by the Contractor. The surface to be overlaid shall be cleaned by the Contractor to remove moisture, dirt, grease, or other foreign matter which would reduce the bond between the overlay and the pavement.

302-5.10 Crack Repair

[Is hereby added to Section 302-5:].

Cracks ¼ inch and greater shall be cleaned for the entire crack depth using sandblasting, brushing, and air blowing techniques as required to provide a crack free from all debris, dust, loose material and moisture. Gouging or plowing may be required to remove incompressible debris deep in the crack. The cleaned crack shall be filled with granulated tire rubber, plasticizer and filler, as manufactured by Crafco as Road Saver 203, or approved equal. All crack filler material shall be in conformance with the following specifications and detail A on sheet 5. The crack sealant placed shall be slightly below the pavement surface to avoid over-application and minimize bumps and wicking through the AC surface during compaction. Deep cracks should be filled with sand and covered with a thin layer of sealant.

ASTM D6690, D3405, AASHTO M173 and Federal SS-S-164 and SS-S 1041C.

All holes shall be cleaned of loose materials and filled with Asphalt Concrete Type C2 PG 70- 10 and compacted to a smooth even surface with the adjacent existing pavement.

SECTION 303
CONCRETE AND MASONRY CONSTRUCTION

303-2 AIR PLACED CONCRETE

303-5.1.1 General

[Add the following:].

Air place concrete shall be Method B (Shotcrete).

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

303-5.1 Requirements

303-5.1.1 General

[Add the following:].

New improvements shall be constructed to grades indicated on the plans and in such a manner as to match existing improvements and field conditions with proper grade to form a safe and smooth riding surface.

The Contractor shall be responsible to oversee the curing of all concrete improvements to prevent graffiti damage or other unauthorized markings in new concrete surfaces. Any concrete surface deemed unacceptable to the Engineer, shall be replaced by the Contractor at no cost to the City.

Damage to any existing improvements shall be remedied by saw cutting, removal and reconstruction at the Contractor's expense and to the satisfaction of the Engineer. Removals, relocations, and/or adjustments not covered by a separate bid item but necessary for the proposed concrete construction shall be included in the unit price bid for the various items of work involved.

303-5.4 Joints

303-5.4.2 Expansion Joints

[Add the following:].

Expansion joints shall be constructed only where specifically designated per details on the plans, and as directed by the Engineer.

303-5.5 Finishing

303-5.5.4 Gutter

[Add the following:].

When gutter is constructed at a rate of grade less than 0.30% it shall be water tested. If any portion of the newly constructed gutter is shown to pond water, that portion, including curb if applicable, shall be removed, reconstructed, and retested by the Contractor at no additional cost to the AGENCY.

PART 4
EXISTING IMPROVEMENTS

SECTION 400 – PROTECTION AND RESTORATION

SECTION 401 – REMOVALS

401-2 ASPHALT CONCRETE PAVEMENT

[Add the following:]

Remove AC Pavement shall be in accordance with Section 300-2, "Unclassified Excavation," and this section of the Standard Specifications and shall consist of excavating and disposing of existing AC pavement, which includes asphalt concrete and underlying untreated base, to facilitate the construction of new asphalt concrete pavement.

Contractor shall sawcut pavement around all areas to be removed, prior to the start of any excavation.

All materials removed shall be lawfully disposed of at a site secured by the Contractor. The Contractor shall make effort to recycle excavated and demolition materials, as referenced in the "Recycling and Disposal of Construction Debris," Section of these Special Provisions. The Contractor shall provide the Engineer with a letter indicating the final disposition of all excavated and demolition materials from the project within five (5) working days after project completion. No excavated or demolition materials shall be left in the public right of way overnight.

Remove AC Pavement shall consist of removing AC pavement to a depth specified and in areas shown on the Plans. Locations and area size are as shown on the Plans, outlined by paint on the roadway, or as required by the Engineer.

401-3 CONCRETE AND MASONRY IMPROVEMENTS

[Add the following:]

Sawcutting shall conform to the provisions of Section 3-12, "Work Site Maintenance" (with special regard to 3-12.1, "General," 3-12.2, "Air Pollution Control," 3-12.3, "Noise Control," and 3-12.6, "Water Pollution Control") and 300-1.1.3, "Removal and Disposal of Materials," of the Standard Specifications and these Special Provisions.

Sawcutting shall be accomplished by the use of a power driven saw. The depth of cut shall be deep enough to produce a clean, straight break without loosening, cracking, or damaging adjoining asphalt or concrete. Waste material from sawcut operations shall be broom cleaned or vacuumed, and disposed of in accordance with the "Recycling / Disposal of Construction Debris" Section of these specifications. Cleaning of sawcut area by washing and directing waste to public storm drains shall not be permitted.

Existing concrete and miscellaneous removals shall be immediately removed from the project site and disposed of by the Contractor at his own expense at a legal dump and/or recycling site. Refer

to the "Recycling / Disposal of Construction Debris" Section of these specifications.

All materials removed shall be lawfully disposed of at a site secured by the Contractor. The Contractor shall make effort to recycle concrete, steel, and other excavated materials. The Contractor shall provide the Engineer with a letter indicating the final disposition of all excavated and demolition materials from the project within (5) working days after project completion. No excavated or demolition materials shall be left in the public right of way overnight.

SECTION 404 – COLD MILLING

404-1 General.

[After the last paragraph, ADD the following:]

Cold milling shall be a variable or constant depth cut for the various widths of cold millings called for on the plans. Cold milling shall conform to the details shown on the plans and these Special Provisions. All temporary striping required after cold milling operations shall be installed per City Standards. All required temporary striping shall be considered paid for under the bid item for Traffic Control. No additional compensation will be allowed.

Cold milling shall not be performed more than three (3) days ahead of leveling course paving.

Residue from grinding shall not be permitted to flow or travel into gutters, onto adjacent street surfaces or parkways. All residues shall be completely removed by a vacuum sweeper and properly disposed. Sweeping shall take place immediately after the grinding has been completed, continue daily until all residue is removed, and as directed by the Engineer. No washing of any residue into gutters and/or drainage structures shall be allowed. The Contractor shall cover and protect all storm drain inlets prior to the start of cold milling operations.

All pavement transitions and temporary striping/markings shall be in place prior to the opening of a lane for traffic. Any pavement grade differential between adjacent lanes that will, with the permission of the Engineer, remain during non-working hours shall be indicated with the appropriate warning signage.

Cold mix A.C. shall be placed and maintained at the interface between milled and non-milled areas to eliminate the hazard caused by sudden elevation differences, especially in pedestrian path of travel areas adjacent to wheelchair ramps, and shall be removed prior to placement of surface course pavement.

The Contractor shall notify the Engineer at least two (2) working days prior to and immediately after the cold mill operations so that observations and measurements may be made of areas before placement of permanent asphalt.

APPENDICES

APPENDIX A
STANDARD PLANS

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

1. ALL APPLICABLE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS", LATEST REVISIONS, ARE HEREBY MADE A PART OF THIS PLAN AND ALL STREET IMPROVEMENTS SHALL BE IN ACCORDANCE WITH SAME.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. PAVEMENT SHALL CONSIST OF A MINIMUM OF 4" (INCHES) ASPHALT CONCRETE ON 6" (INCHES) AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE. 4" ASPHALT CONCRETE PAVING SHALL CONSIST OF 2" WEARING COURSE III-C3-PG-64-10 OVER 2" BASE COURSE III-B2-PG-64-10.
4. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MONUMENTS OF EVERY NATURE, WHETHER SHOWN ON PLANS AND/ OR HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES AND MONUMENTS DAMAGED OR DESTROYED.
5. ALL CONCRETE SHALL BE CLASS 560-C-3250 (6 SACK MIX) AND SHALL BE CURED WITH TYPE-1 (CLEAR) CURING COMPOUND IMMEDIATELY AFTER FINISHING.
6. ALL ASPHALT CONCRETE STREET SURFACES SHOWN HEREON SHALL BE SEAL-COATED, WHEN DIRECTED BY THE CITY ENGINEER, FULL-WIDTH USING AN APPROVED TYPE SS-1H EMULSION WITH NO MORE THAN 50% WATER ADDED. A TRUCK MOUNTED SPRAY BAR SHALL BE UTILIZED FOR SPREADING.
7. THE CONTRACTOR SHALL COORDINATE ALL SIGN INSTALLATIONS WITH THE CITY ENGINEER PRIOR TO SIDEWALK INSTALLATION.
8. AN APPROVED SOIL STERILANT SHALL BE UNIFORMLY APPLIED IN ALL AREAS TO BE PAVED UNDER THE DIRECTION OF THE CITY ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MAILBOX BLOCK-OUT LOCATIONS WITH THE U.S. POSTAL SERVICE PRIOR TO SIDEWALK INSTALLATION.
10. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE CITY AND SHALL BE RESPONSIBLE FOR REPAIR AND OR REPLACEMENT OF ALL FAILURES DETERMINED BY THE CITY ENGINEER CAUSED BY WORKMANSHIP OR SUBSTANDARD MATERIALS.
11. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN PROPER BARRICADING, DUST CONTROL, TRAFFIC CONTROL, SHORING AND SAFETY MEASURES OF EVERY NATURE.
12. THE CONTRACTOR SHALL MAKE APPLICATION TO THE CITY OF BREA, AND OBTAIN A CONSTRUCTION WATER METER (IF APPLICABLE) PRIOR TO COMMENCEMENT OF CONSTRUCTION.
13. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM THE CITY OF BREA PUBLIC WORKS DEPARTMENT AND AFFECTED AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. EXCAVATION IN STREETS WHICH HAVE BEEN CONSTRUCTED OR RECONSTRUCTED WITHIN THE PAST FIVE (5) YEARS AND SEAL COATED WITHIN THE PAST TWO (2) YEARS SHALL BE SUBJECT TO RESTRICTIONS.

BREA CALIFORNIA CITY OF BREA	GENERAL NOTES - STREET IMPROVEMENTS		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 101-0 SHEET 1 OF 2

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

15. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A "C-8" OR "A" LICENSED CONTRACTOR.

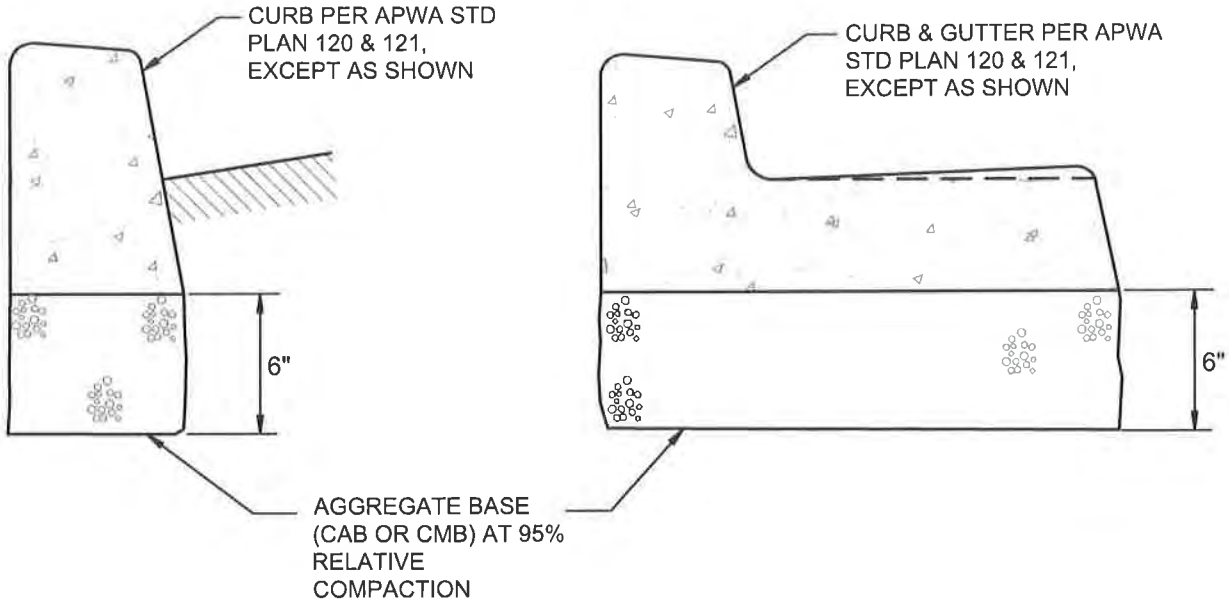
16. 24-HOUR NOTIFICATION IS REQUIRED FOR ALL PUBLIC WORKS INSPECTIONS. CONTACT THE CITY OF BREA PUBLIC WORKS DEPARTMENT, MONDAY TO THURSDAY (EXCLUDING HOLIDAYS), 8 a.m. to 5 p.m., AT (714) 990-7650.

17. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN CONFORMING TO THE CITY OF BREA TRAFFIC CONTROL REQUIREMENTS.

18. ANY CHANGES FROM THE PLAN, STANDARDS NOTES, STANDARD DESIGNS OR SPECIFICATIONS SHALL BE CONSIDERED NON-CONFORMING UNLESS APPROVED IN WRITING BY THE CITY ENGINEER PRIOR TO INSTALLATION.

19. INSTALLATIONS NOT CONFORMING TO THE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS" SHALL BE REMOVED, REPLACED AND OR CORRECTED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED BY THE CITY ENGINEER.

20. BASIC TRENCH REPAIR PROCEDURES SHALL BE PRE BREA STD PLAN 102.



TYPE A1 OR B1

TYPE A2 OR B2

NOTES:

1. UNLESS OTHERWISE SPECIFIED ON PLANS AND SPECIFICATIONS, CONCRETE SHALL BE PER BREA STD PLAN 101.
2. MEDIAN CURBS SHALL NOT BE SLOPED AWAY FROM MEDIAN WITHOUT PRIOR APPROVAL BY THE CITY ENGINEER.
3. ADDITIONAL NOTES SHALL BE PER APWA STD PLAN 120 & 121.

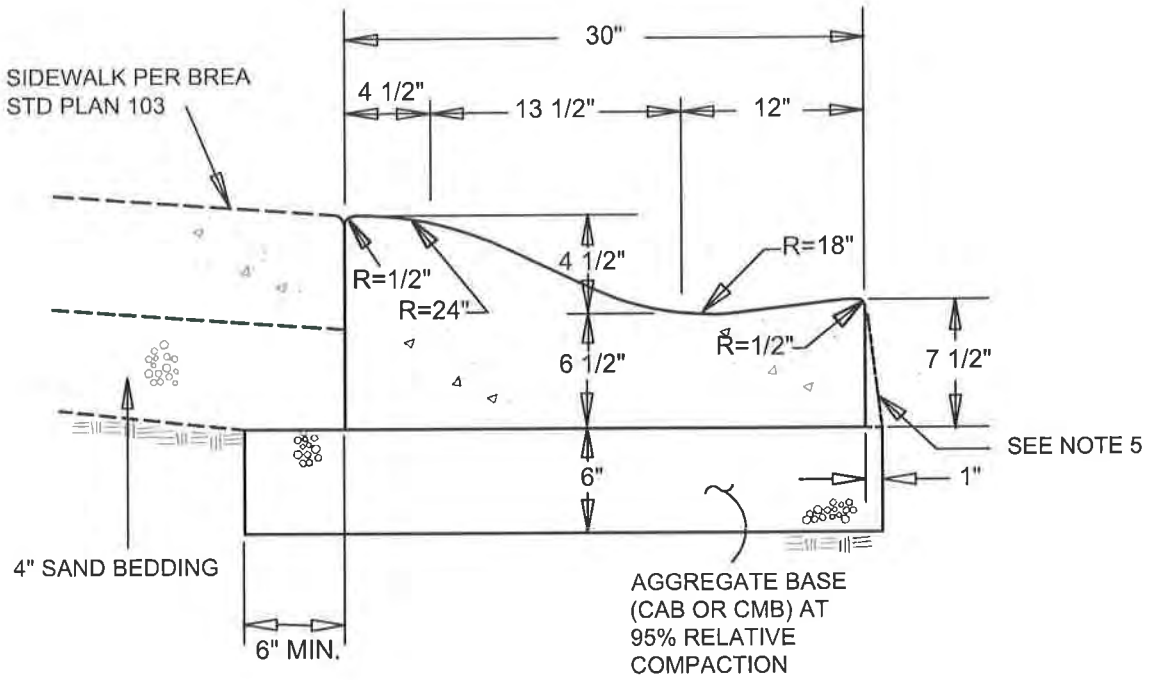
BREA CALIFORNIA
CITY OF BREA

CONCRETE CURB AND GUTTER

APPROVED: _____ CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER
106-0
SHEET 1 OF 2



ROLLED CURB AND GUTTER

NOTES:

1. USE OF ROLLED CURB MAY BE RESTRICTED BY SURFACE DRAINAGE CONSIDERATIONS.
2. SIDEWALK CONSTRUCTED CONTIGUOUS TO ROLLED CURB SHALL BE 6 INCHES THICK MINIMUM.
3. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.40 % THE FLOW LINE SHALL BE WATER TESTED.
4. CONSTRUCT 1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF CURB RETURNS, AND AT 300 FT. MAX. INTERVALS FOR EXTRUDED CURB AND 30 FT. MAX. INTERVALS FOR FORMED CURB. WEAKENED PLANE JOINTS SHALL BE FORMED AT THE REMAINING 20-FOOT INTERVALS.
5. ONE INCH BATTER AT CURB FACE IS OPTIONAL.
6. ROLLED CURBS ARE PROHIBITED IN AREAS WHERE FLOW LINE GRADIENT IS LESS THAN 0.80 % UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
7. ALL UTILITY BOXES AND COVERS ADJACENT TO ROLLED CURB SHALL BE HS-20 RATED "TRAFFIC BEARING" TYPE.

BREA CALIFORNIA CITY OF BREA	CONCRETE CURB AND GUTTER		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 106-0 SHEET 2 OF 2

APPENDIX B
CONTRACTORS BUSINESS LICENSE APPLICATION

CITY OF BREA

BUSINESS LICENSE TAX APPLICATION
OUT-OF-CITY CONTRACTORS

Please submit completed application with payment (see fee schedule below) and copy of current contractor's license (pocket card) to:

City of Brea, Business License Division,
1 Civic Center Cir., Brea, CA 92821
(714) 990-7686 office Fax (714) 671-4484
BusinessLicenseInfo@CityOfBrea.net

1. BUSINESS NAME (use exact name as contractor's license)	START DATE (Brea)	
2. BUSINESS ADDRESS (physical address)	BUSINESS TELEPHONE NO.	BUSINESS FAX NO.
3. MAILING NAME AND ADDRESS (if different from business address) Include corp. name if applicable	NO. OF EMPLOYEES (Brea)	
	LOCAL CONTACT NAME, TITLE, RESIDENCE PHONE NO.	
4. TYPE OF BUSINESS: State fully the exact nature of business.		
5. FEDERAL EMPLOYER ID NO.	STATE EMPLOYER ID NO. (EDD #)	
6. CALIFORNIA STATE CONTRACTOR'S LICENSE NO. & CLASSIFICATION	CALIFORNIA SELLER'S PERMIT NO./ RESALE NO. (if applicable)	CALIFORNIA STATE PROFESSIONAL LICENSE NO. (if applicable)

OWNER/OFFICER INFORMATION

7. Please check the type of ownership and complete information.

☐ Sole Proprietorship	☐ Partnership	☐ Husband & Wife	☐ Limited Liability	☐ Corporation	☐ Trust

Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Sole or Partnership):	DL # (Only Sole or Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Partnership):	DL # (Only Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:

PAYMENT OF THIS TAX DOES NOT CONSTITUTE ZONING, BUILDING, OR FIRE CODE APPROVAL. CHECK WITH THE DEVELOPMENT SERVICES DEPARTMENT TO DETERMINE IF YOUR BUSINESS CAN BE LEGALLY ESTABLISHED AT YOUR LOCATION.

8. **I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

Signature _____ Print Name _____ Title _____ Date _____

FOR OFFICE USE ONLY

ACCOUNT NO.	ORDINANCE	CLASSIFICATION
EFFECTIVE DATES	ISSUE DATES	FEE

NOTES:

SCHEDULE OF FEES (based on State contractor's classification):

	3-Months	6-Months	1-Year
CLASS A- General Engineering Contractor	$50.00	$90.00	$150.00
CLASS B- General Building Contractor	$40.00	$60.00	$100.00
CLASS C- Specialty Contractor	$20.00	$36.00	$ 60.00

Rev. 01/10

APPENDIX C
INSURANCE AND INDEMNITY REQUIREMENTS

INSURANCE REQUIREMENTS FOR CONTRACTORS / CONSULTANTS

CONSTRUCTION PROJECT
(e.g., capital improvement projects, other construction and remodeling)

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW. THEY SUMMARIZE, BUT DO NOT SUPERSEDE, THE INSURANCE REQUIREMENTS ADDRESSED WITHIN THE BODY OF THE BID SPECIFICATIONS. YOU ARE ADVISED TO REFER TO THE BID SPECIFICATIONS IN ADDITION TO THE INFORMATION PROVIDED BELOW. PARTICULAR ATTENTION SHOULD BE GIVEN TO BEST'S GUIDE RATING REQUIREMENT LISTED BELOW.

IT IS HIGHLY RECOMMENDED THAT YOU CONSULT YOUR INSURANCE CARRIER(S) OR BROKER(S) TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE AS PRESCRIBED AND PROVIDED HEREIN. FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS MAY RESULT IN YOUR BID OR PROPOSAL NOT BEING CONSIDERED FOR AWARD OF CONTRACT.

TYPE OF INSURANCE COVERAGE	GENERAL LIABILITY	AUTO LIABILITY	WORKERS' COMPENSATION
REQUIRED BY CONTRACT?	YES	YES	YES
MINIMUM LIMITS OF COVERAGE	$2,000,000 Combined Single Limit Per Occurrence See also Comments	$2,000,000 Combined Single Limit Per Accident See also Comments	Workers' Compensation to Statutory Limits; $1,000,000 Employers' Liability limit
MINIMUM BEST'S GUIDE RATING/OTHER REQUIREMENTS	B+ / VII; must be Admitted Insurer	B+ / VII; must be Admitted Insurer	B+ / VII, admitted if commercial policy; OR State Compensation Insurance Fund
ADDITIONAL INSURED?	YES	YES	YES
WAIVER OF SUBROGATION?	YES	YES	YES
COMMENTS	Minimum Limits are subject to change based upon scope of project	Minimum Limits are subject to change based upon scope of project	

APPENDIX D
UNDERGROUND SERVICE ALERT IDENTIFICATION NUMBER FORM

UNDERGROUND SERVICE ALERT
IDENTIFICATION NUMBER

(To be completed only by the awarded Contractor prior to excavation)

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

Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a Permit to Excavate will be valid.

To obtain a Dig Alert Identification Number, call Underground Service Alert at **1-800-422-4133** a minimum of two working days before scheduled excavation.

Dig Alert Identification Number: _____

_____
Contractor

_____
By

_____
Title

Date: _____

Note: ***This form is required for every*** *Dig Alert Identification Number* ***issued by U.S.A. during the course of the Work. Additional forms may be obtained from the AGENCY upon request***

APPENDIX E
WARRANTY BOND SAMPLE

WARRANTY BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Brea ("Owner") has awarded to

_____

("Principal"), a contract ("Contract") for the work described as follows:
_____

WHEREAS, Principal is required under the terms of the Contract to furnish a **one (1) year warranty** to make repairs or replacements made necessary by defects in materials, equipment or workmanship related to the Principal's construction of the Improvements.

NOW, THEREFORE, we, the undersigned Principal, and _____
_____
(Insert name, address , and telephone number of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto Owner in the penal sum of _____**Dollars ($XXX.XX)**, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his, her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements concerning the one (1) year warranty as set forth in the Contract and any alteration thereof made as therein provided, on the Principal's part to be kept and performed, all within the time and in the manner therein specified, and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees to pay all court costs and reasonable attorneys' fees in an amount fixed by the court.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City of Brea is the principal beneficiary of this bond and has all rights of a party thereto.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

"Principal"	"Surety"
_____	_____
_____	_____
By: _____ Its	By: _____ Its
By: _____ Its	By: _____ Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

APPENDIX F
NPDES INFORMATION

Construction Runoff Guidance Manual

for Contractors, Project Owners, and Developers

December 2012

Orange County Stormwater Program:
A Cooperative Project of the County of Orange,
Cities of Orange County and
Orange County Flood Control District

PROJECT Pollution PREVENTION

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1 Introduction and Overview

1.1 Introduction

This Construction Runoff Guidance Manual (Manual) is intended to enable applicants for building or grading permits to understand and comply with the regulatory requirements for creek, river, stream and coastal water protection during the construction phase of new development and significant redevelopment projects. Project owners and developers should be able to use this Manual as a guide to understand which permits and ordinances apply to their construction project. Contractors should be able to use this Manual as a guide to the Best Management Practices (BMPs) typically needed to be implemented at a construction site to ensure compliance with the Construction General Permit (CGP) and local ordinances.

1.2 Overview

The goal of this Manual is to provide useful, succinct information to enable contractors to control pollutant discharges from construction sites. Activities and materials used on a construction site may be a source of pollutants, including but not limited to sediment, concrete and grout; paints, lacquers, and primers; herbicides and pesticides; soaps and detergents; wood preservatives; equipment fuels, lubricants, coolants, and hydraulic fluids; and cleaning solvents. Water from construction sites can be a major transporter of these pollutants, which can leak from heavy equipment, be spilled, or can be eroded by rain from exposed soil or stockpiles. Once released, they can be transported into the receiving waters of the County of Orange (Orange County or "the County"), where they may enter aquatic food chains and cause fish toxicity problems, contribute to algal blooms, impair recreational uses, and degrade drinking water sources.

2 Regulatory Requirements

2.1 State and Regional Permit Requirements

Construction activity in Orange County is subject to regulation by both the Santa Ana and the San Diego Regional Water Quality Control Boards (Regional Boards or RWQCBs). The Regional Boards are responsible for implementing the Clean Water Act and the California Porter-Cologne Act. The boundary between the two Regional Board jurisdictions approximately follows El Toro Road in Lake Forest, separating the Santa Ana Region (Regional Board 8 or RB8) (north of El Toro Road) from the San Diego Region (Regional Board 9 or RB9) (south of El Toro Road). While some of the permits listed in Table 1 are issued statewide by the State Water Resources Control Board (State Board or SWRCB) and implemented throughout the state by the Regional Boards, other permits, like dewatering or de minimus permits, are issued and implemented on a Region-by-Region basis. Additionally, the Regional Boards issue Municipal Separate Storm Sewer System (MS4) Permits to the County and cities, which include additional requirements for managing construction sites.

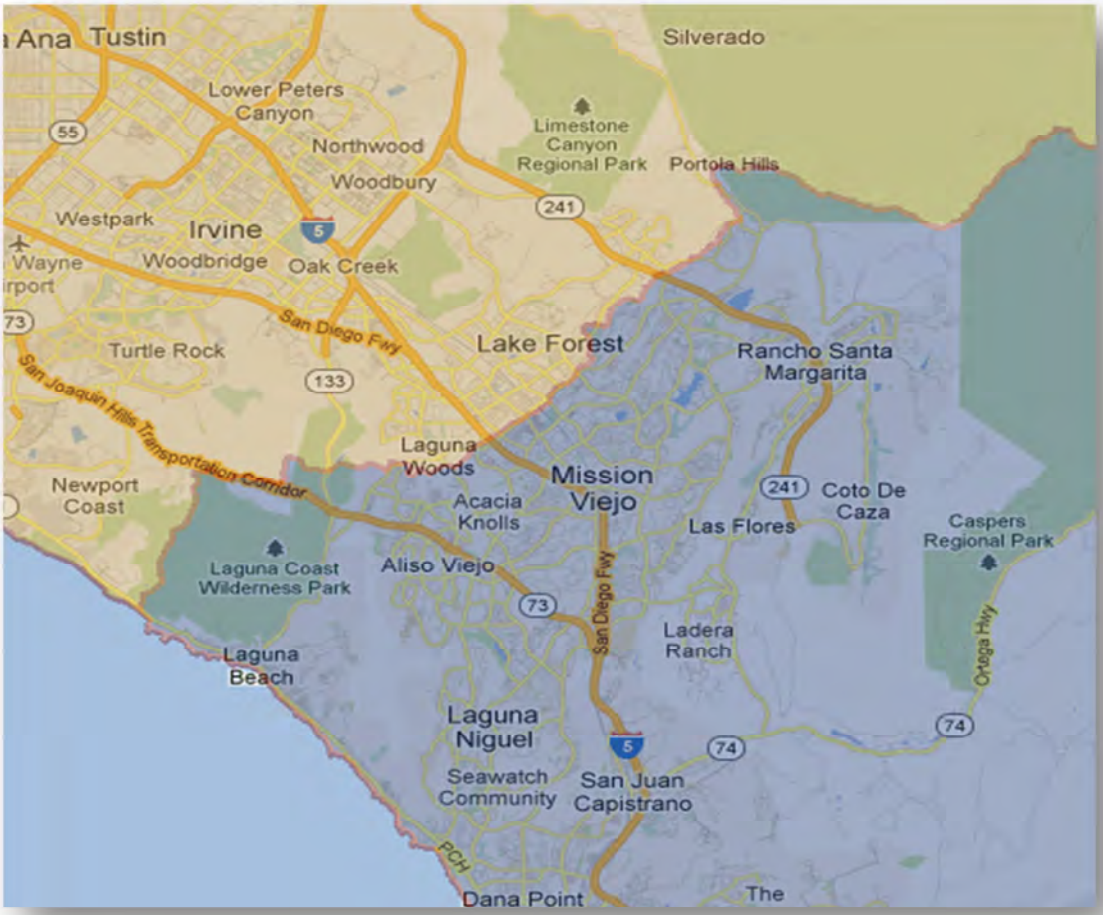


Figure 1: Map of Boundary between Santa Ana Regional Board (Yellow) and San Diego Regional Board (Blue)

Table 1 includes a list of all State or Regional permits related to runoff water quality that may apply to construction projects in Orange County. To determine which, if any, of these permits affect your construction project, go to Appendix A and follow the three flow charts. Appendix B includes a brief summary of each permit shown in Table 1. A list of web links for each permit is included in the Reference section at the end of this Manual.

Table 1: Summary of State and Regional Permits that May Affect Construction Projects in Orange County

	Order Number / NPDES Number	Permit Name	Affected Area
CGP	2009-0009-DWQ/ CAS000002	National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
MS4	R8-2009-0030/ CAS618030	Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated Cities of Orange County within the Santa Ana Region (MS4 Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2009-0002/ CAS0108740	Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated Cities of Orange County, and The Orange County Flood Control District Within the San Diego Region (MS4 Permit for San Diego Region)	San Diego Region within Orange County
Discharge To Land	2003-0003-DWQ	Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality (WDR for Discharge to Land)	Statewide
Groundwater Dewatering	R8-2007-0041/ CAG918002	General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts (Dewatering Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2008-0002/ CAG919002	Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay (Dewatering Permit outside of San Diego Bay for San Diego Region)	San Diego Region within Orange County
Potable Water	R8-2009-0003/ CAG998001	General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality (De Minimus WDRs for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2010-0003/ CAG679011	General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region (Potable Water WDRs for San Diego Region)	San Diego Region within Orange County

In 2009, the SWRCB adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP). The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by the County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

More details regarding the CGP and other State and Regional permits can be found in Appendix A.

2.2 Local Agency Requirements

Each city, as well as the County of Orange, has a Municipal Code that establishes requirements for erosion and sediment control on grading projects. All project owners must meet the requirements of the applicable code prior to, during, and after construction. Additionally, through the MS4 Permits listed in Table 1 and described in Appendix B, each city or the County is responsible for periodic inspections of construction sites within its boundaries. (All project owners must allow city or County inspectors onto the project site for these inspections.)

2.2.1 Local Grading Code

The Grading Code sets the rules and regulations for grading operations including operations preparatory to grading on private property. In addition to other requirements, the Grading Code requires that a project owner, developer or contractor prepare erosion control plans (ECPs), obtain a grading permit, and implement and maintain erosion and sediment control BMPs. Refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal grading code.

2.2.2 Local Water Quality Ordinance

The County and cities in Orange County have adopted Water Quality Ordinances for the purpose of improving water quality and compliance with NPDES permit requirements and for the control of urban pollutants. The Water Quality Ordinances are part of their municipal codes and are, in effect, laws that contractors are required to comply with. Non stormwater discharges to the municipal storm drain system are prohibited unless covered by a discharge exception. Prohibited non-stormwater discharges include wastewater from concrete truck washing, paint equipment cleaning, spill cleanup, etc. (See Table 3). Please refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal water quality ordinance.

Table 2: Allowed and Prohibited Discharges

Allowed	Prohibited (not allowed)
▪ Discharges composed entirely of stormwater ▪ Projects permitted under the CGP may be authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: A. fire hydrant flushing, B. irrigation of vegetative erosion control measures (only in Region 8), C. pipe flushing and testing, D. water to control dust, and E. uncontaminated ground water from dewatering. Consult a construction stormwater professional to review the specific conditions. ▪ Discharges that are authorized by a De Minimus or Dewatering permit.	▪ Trash / debris / litter ▪ Concrete waste ▪ Sanitary waste ▪ Fuel or oil (Dumping, Spills, or Leaks) ▪ Non-stormwater discharges to the municipal storm drain system or receiving water (unless covered by an NPDES Permit, such as CGP or De Minimus) ▪ Projects in Region 9 permitted under the CGP are not authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: F. irrigation of vegetative erosion control measures

3 Best Management Practices (BMPs)

Best Management Practices (BMPs) collectively refer to a variety of pollution prevention controls implemented throughout the project site at various times of the project. BMPs discussed herein are specifically aimed to control pollution in stormwater runoff during the construction phase of the project. The major construction BMP categories can be broken down into

- Erosion Control (EC)
- Sediment Control (SE)
- Wind Erosion Control (WE)
- Tracking Control (TC)
- Non-Stormwater Management (NS)
- Waste Management and Materials Pollution Control (WM)

These BMPs will be discussed in detail throughout the remainder of this section. Permanent post-construction BMPs are not addressed in this document. Post construction BMP requirements are detailed in the Model Water Quality Management Plan (WQMP) as required by the MS4 Permits of either the Santa Ana Region or San Diego Region.

3.1 BMP Overview Diagram

The BMPs that are commonly used on construction sites are shown in Figure 2.

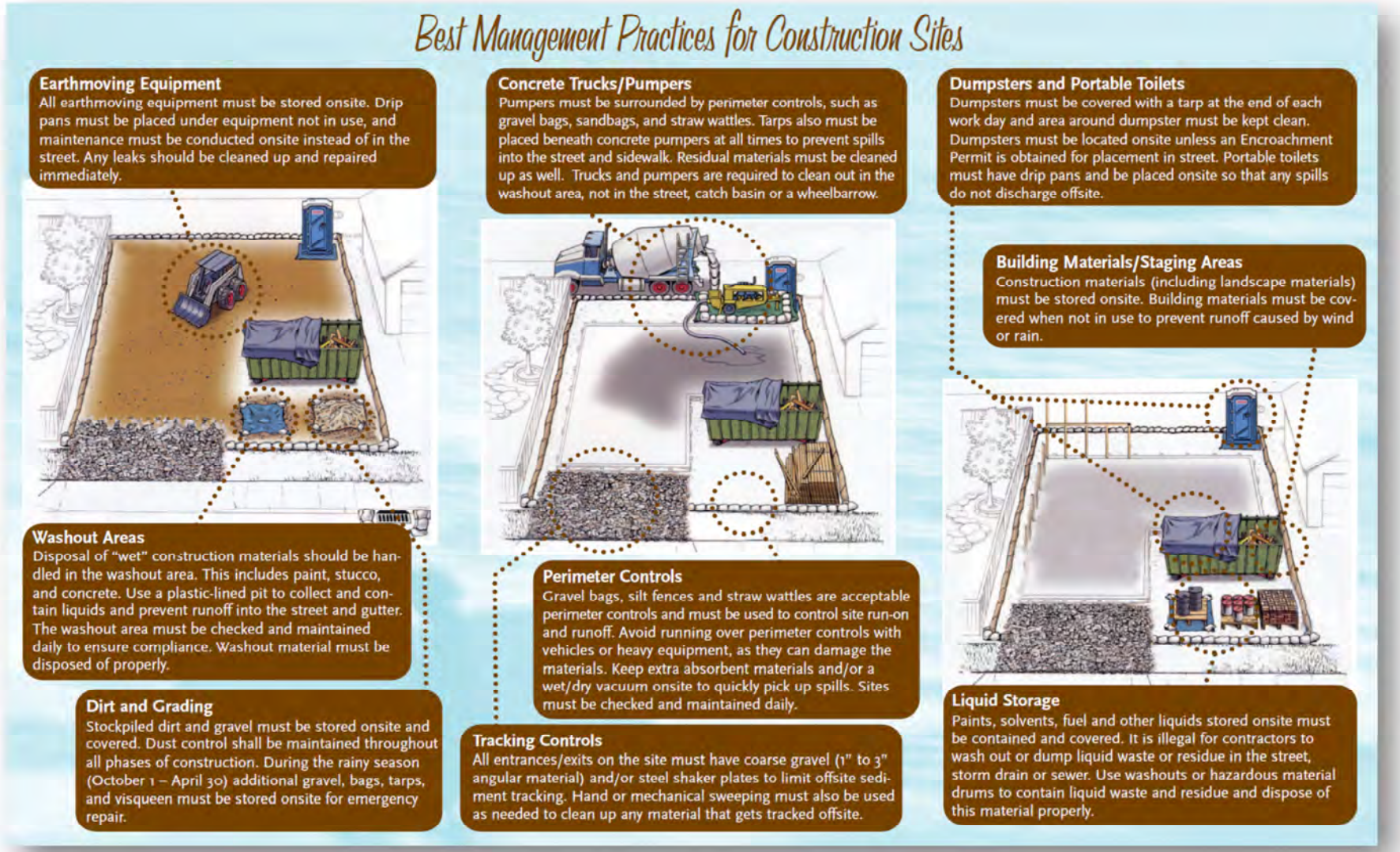


Figure 2: Typical Construction Site BMPs (Graphic provided by the City of San Clemente)

3.2 Minimum Site BMP Requirements

The following requirements are for deployment of selected construction BMPs and apply year-round (not just during the rainy season) to all projects.

A. Pollution prevention where appropriate.

B. Development and implementation of a site specific run-off management plan.

C. Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction.

D. Minimization of exposure time of disturbed soil areas.

E. Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible.

F. Limitation of grading to a maximum disturbed area as determined by the County / city before either temporary or permanent erosion controls are implemented to prevent stormwater pollution. The County / city has the option of temporarily increasing the size of disturbed soil areas by a set amount beyond the maximum, if the individual site is in compliance with applicable stormwater regulations and the site has adequate control practices implemented to prevent stormwater pollution.

G. Temporary stabilization and reseeding of disturbed soil areas as rapidly as feasible.

H. Non-stormwater management measures to prevent illicit discharges and control stormwater pollution sources.

I. Erosion Control BMPs shall be implemented.

J. Wind erosion control BMPs (dust control) shall be implemented.

K. Sediment control BMPs shall be implemented at all appropriate locations along the site perimeter, at all operational storm drain inlets and at all non-active slopes.

L. Tracking control BMPs to control off-site sediment tracking shall be implemented and maintained.

M. Waste management and materials pollution control BMPs shall be implemented to prevent the contamination of stormwater by construction wastes and materials.

N. Non-stormwater BMPs shall be implemented to reduce or prevent the contamination of stormwater from construction activities.

O. Weather tracking: projects shall monitor the National Weather Service (www.weather.gov) probability of precipitation. When a rain event is predicted (forecast predicts a greater than 50% probability of precipitation), the project must be inspected and BMPs must be maintained or deployed as needed to protect the project from discharging pollutants. (CGP projects only)

P. BMP failures must be repaired or replaced with an acceptable alternate as soon as it is safe to do so. Repairs or replacements must result in an adequate BMP, or additional BMPs should be installed to provide adequate protection.

Q. Active exposed areas: Sufficient materials needed to install standby erosion and sediment control BMPs necessary to protect all active exposed areas from erosion and to reduce or prevent sediment discharges shall be stored on site. The total active exposed area shall not exceed that which can be adequately protected by deploying standby erosion control and sediment control BMPs prior to a predicted rain event.

R. Inactive exposed areas: All exposed areas not being actively worked in shall be protected from erosion with temporary or permanent BMPs (erosion and sediment control). The ability to deploy standby BMP materials is not sufficient for these areas; erosion and sediment control BMPs must actually be deployed.

S. Completed areas: Areas that have already been protected from erosion using permanent erosion control BMPs (physical or vegetation) are not considered "exposed". Deployment of permanent erosion control BMPs should commence as soon as practical on completed areas.

T. Preservation of natural hydrologic features where feasible.

U. Preservation of riparian buffers and corridors where feasible.

V. Evaluation and maintenance of all BMPs, until removed.

W. Retention, reduction, and proper management of all stormwater pollutant discharges on site to the Maximum Extent Practicable (MEP) standard.

3.3 CASQA BMP Handbook

The California Stormwater Quality Association (CASQA) has prepared a handbook providing details about all of the recommended BMPs. The current version of this handbook is the CASQA Best Management Practice Handbook, Construction, 2009 Edition. A membership to CASQA can be obtained at www.casqa.org. Access to the BMP Fact Sheets referenced in this section is included with the CASQA membership. The Handbook contains six major categories of BMP fact sheets with guidelines on how to select each BMP. The six categories include: Erosion Control (EC), Sediment Control (SE), Wind Erosion Control (WE), Tracking Control (TC), Non-Stormwater Management (NS), and Waste Management and Materials Pollution Control (WM).

These categories of BMPs and their applicability are discussed in the following sections.

3.4 BMP Directory

In order to meet the requirements of the Permits and Ordinances mentioned in Section 2, BMPs must be selected, installed, and maintained properly throughout the duration of construction projects. BMPs must be discussed with all project contractors, subcontractors, and any party involved, because education is the most important BMP.

3.4.1 Erosion Control (EC)

Erosion control BMPs focus on preventing soil from being eroded by stormwater and potentially discharged from the construction site. Erosion control is more effective than sediment control for reducing sediment discharge. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common erosion control BMPs for construction projects.

Erosion prevention is to be used as the most important measure for keeping sediment on site during construction. Permanent revegetation or landscaping shall be done as early as feasible at a minimum.

Table 3: Physical / Vegetative Stabilization BMPs

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
Scheduling	Sequencing construction activities to reduce the amount of exposed soil during seasons of higher precipitation probability. All projects should consider scheduling activities to minimize the amount of disturbed area during seasons of higher precipitation probability. Phasing can be used to maintain stabilized areas (vegetation or impervious cover) as much as possible during construction. Disturbed areas should be stabilized as soon as practical. Attempt to schedule grading outside of seasons of higher precipitation probability. Reference: CASQA EC-1, EC-2
Seeding	Applying seed to a surface with the intention of achieving vegetation which can effectively protect soils from erosion while reducing runoff by encouraging infiltration / transpiration. Seeding is effective for temporary and permanent stabilization of slopes, stock piles, and other disturbed soils. Seeds can be combined with mulch and water then sprayed onto surfaces (also referred to as hydro seeding) for immediate erosion protection. Without combining or covering seeds with mulch seeds will be susceptible to erosion until vegetation has sufficiently established. Supplemental irrigation may be required to establish vegetation. Scarifying surfaces prior to seed application can increase its effectiveness. Reference: CASQA EC-4
Soil Binders	Spraying a liquid compound to disturbed soils to bind and stabilize the soil surface (forming a crust). This process reduces the potential for wind and water erosion. Examples include: guar, psyllium, starch, gypsum, pitch and rosin emulsion, polymers, and acrylates. Soil binders are effective for temporary stabilization of slopes, stockpiles, and other disturbed areas. Soil binders need time to cure and should not be applied less than 24 hours before predicted precipitation. The specific soil binder selected depends on the type of soil. Soil binders must be non-toxic and environmentally benign. Soil binders will need to be reapplied as needed based on the specific soil binder and visual inspection. Soil binders are much less effective in areas that receive traffic. Reference: CASQA EC-5
Mulching	Covering disturbed soils with a fibrous wood, straw, or similar material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Mulching is effective for temporary stabilization of slopes, stock piles, and other disturbed soils. Mulch materials can be combined with water then sprayed onto surfaces (also referred to as hydraulic mulch) for increased wind erosion protection. Typically, mulch must be reapplied every 6 to 12 months. Soil roughening prior to mulch application can increase its effectiveness. Reference: CASQA EC-3, EC-6, EC-8
Geotextiles and Mats	Covering disturbed soils with a natural or synthetic blanket or mat. This process greatly reduces the potential for wind and water erosion. Some rolls and mats physically hold the soil in place. Example include: geotextiles, plastic covers, rolled erosion control blankets / mats, straw / mulch blanket, coconut fiber blanket, and plastic netting. Geotextiles and mats are effective for temporary stabilization of steep slopes with high erosion potential, stockpiles, and channels that will be vegetated. Geotextiles and mats are more expensive than other erosion control BMPs. Materials may need to be removed prior to final stabilization. Mats / blankets are most effective when in direct contact with the soil; do not roughen soil or leave significant rocks / roots. Mats / blankets typically require an anchoring mechanism to hold them in place. Mats / blankets should be laid parallel to the

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
	direction of flow. Mats / blankets should allow water to flow on top of them and not below which would cause the soil to wash out. Reference: CASQA EC-7
Non-Vegetative Stabilization	Covering disturbed soils with a non-vegetative material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Examples include: decomposed granite, gravel, and rock slope protection. Other non-vegetative stabilization is effective for temporary and permanent stabilization of areas with heavy vehicular or pedestrian traffic or areas where a vegetative cover is infeasible. Other non-vegetative stabilization is intended to be used in combination with additional erosion control and sediment control BMPs. If used for permanent stabilization, periodic inspection and maintenance may be required. Material should be selected based on the slope and use of the area. Reference: CASQA EC-16 and Caltrans Standard Specifications May 2006 Section 72-2.

Table 4: Concentrated Flow Erosion Control BMPs

Concentrated Flow Erosion Control: Reducing concentrated flow velocity or protecting concentrated flow paths to prevent erosion.	
Type	**Description**
Dikes, Swales, and Slope Drains	Grading and compacting soil or installing pipe to control / divert / direct runoff. Dikes, swales, and slope drains can be combined to safely convey runoff down a slope, direct runoff to a stabilized channel, reduce potential for flooding, direct runoff to sediment traps / basins. Dikes, swales, and pipes that are used to direct runoff must be properly sized based on the specific application. Typically, slope drains require energy dissipation. Monitor swales and dikes for erosion or accumulation of sediment or debris. Swale and dike slopes should be 2:1 or less. Use vegetation, geotextiles, or mats to stabilize swales. Temporary devices must be removed. Reference: CASQA EC-9, EC-11
Energy Dissipation	Placing rock, riprap, or similar material to reduce erosion from concentrated, high velocity flows. Energy dissipation is effective at pipe outlets, channel linings, and transitions from stabilized to un-stabilized conveyances. Line the area with filter fabric prior to placing rock or riprap. Accumulated sediment may be difficult to remove from energy dissipation area. For pipe outfalls the size of the energy dissipation area will increase with flow rate and/or pipe size. Temporary devices must be removed. Reference: CASQA EC-10, EC-12
Soil Roughening	Mechanically roughening soil (track walking or imprinting) to prepare soil for additional BMPs or create small terraces to break up sheet flow. Soil roughening can be applied to slopes, stockpiles, basins, and other disturbed soil areas. Soil roughening is intended to be used in combination with additional erosion control and sediment control BMPs. A common implementation method is to drive heavy equipment with its treads parallel to the contours of the slope. For long slopes additional terracing may be required. Reference: CASQA EC-15

3.4.2 Sediment Control (SE)

Sediment control BMPs focus on preventing eroded soil from being discharged from the construction site. The demand placed on sediment control BMPs is dependent upon the effectiveness of the erosion control BMPs. More robust erosion controls will reduce the need for sediment controls and vice versa. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common sediment control BMPs for construction projects.

At a minimum, sediment controls are to be used as a supplement to erosion prevention for keeping sediment on-site during construction, and slope stabilization must be used on all active slopes during rain events regardless of the season and on all inactive slopes during the rainy season and during rain events in the dry season.

Table 5: Perimeter / Linear Control BMPs

Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**
Linear Sediment Controls	Installing sediment control BMPs along contours to reduce runoff velocity, remove sediment, and discourage rill erosion. Examples include: fiber rolls, sand / gravel bags, and straw bales. Linear sediment controls are effective parallel to contours on the face of slopes and at the top and toe of slopes. Linear sediment controls are typically implemented temporarily until slope is stabilized. Straw bales must be anchored and should not be used on the face of slopes. Fiber rolls must be trenched and staked during installation. For Risk Level / LUP Type 2 and 3 projects, the CGP specifies minimum uninterrupted sheet flow lengths for slopes to be 20 feet for slopes under 25%, 15 feet for slopes 25-50%, and 10 feet for slopes over 50%. Reference: CASQA SE-5, SE-6, SE-8, SE-9, SE-14
Perimeter Controls	Installing a barrier to prevent sediment discharges by controlling run-on and run-off around the perimeter of the construction site or limits of grading. Examples include: silt fence, fiber rolls, sand / gravel bags, and straw bales. Perimeter controls are effective when implemented around the perimeter of the construction site or limits of grading. Perimeter controls are not effective when used in a concentrated flow path. Silt fence and fiber rolls require proper installation which includes trenching and staking. Typically, perimeter controls should be installed prior to grading and remain functional until final stabilization is achieved. Maintenance of perimeter controls must be performed as needed. Perimeter controls are a minimum BMP requirement of the CGP. Reference: CASQA SE-1, SE-5, SE-6, SE-8, SE-14

Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**

Table 6: Storm Drain Inlet Protection BMPs

Storm Drain Inlet Protection: Ponding and/or filtering stormwater to remove pollutants (primarily sediment) from entering the storm drain system.	
Type	**Description**
Storm Drain Inlet Protection	Filtering or ponding of stormwater before it enters a storm drain inlet to reduce the amount of sediment that discharges. Storm drain inlet protection should be implemented at every storm drain inlet that receives runoff from active construction areas. Ponding of sediment laden stormwater can provide the best results if the ponding capacity is appropriate for the tributary drainage area. Ponding may be limited by street traffic constraints. Other sediment controls such as check dams should be used upstream to reduce the amount of sediment that reaches the storm drain inlet protection. After a storm sediment that has settled must be cleaned up. Reference: CASQA SE-10, SE-14.

Table 7: Sediment Capture BMPs

Sediment Capture: Capturing sediment in channelized stormwater to reduce sediment discharge.	
Type	**Description**
Sediment Trap / Basin	Constructing a temporary containment area to detain runoff to allow for deposition of sediment prior to stormwater discharge. Sediments traps / basins are effective when implemented within the downstream section of a construction site or at discharge points. Sediment traps can be effectively implemented throughout a large construction site. Sediment basins can efficiently be developed at locations where future post-construction basins will be utilized. Sediment traps should only be used for tributary drainage areas below 5 acres. Sediment basins should be used for tributary drainage areas between 5 and 75 acres. Sediment traps / basins can be large and may not be suitable for small construction projects. Sediment traps / basins should be sized by a Registered Civil Engineer to ensure they have sufficient capacity. Sediment traps / basins should not hold water for longer than 72 hours. Local agencies may have stricter vector control and child safety fence requirements. Typically dikes, swales, or piping are required to direct runoff to traps / basins. Reference: CASQA SE-2, SE-3
Check Dams	Constructing small barriers along a swale or channel to reduce channel erosion and allow for deposition of sediment. Check dams are effective for sediment control within un-stabilized concentrated flow paths on the construction site such as swales, ditches, or channels. Typically, check dams are constructed of rock, sand / gravel bags or fiber rolls. Effective check dams will collect sediment behind each check dam which must be removed regularly to maintain the performance of the check dam. Check dams should not be constructed with straw bales or silt fence. Reference: CASQA SE-4, SE-5, SE-6, SE-8

Table 8: Street Cleaning BMPs

Street Cleaning: Cleaning streets and other paved areas that have collected sediment and/or debris to prevent it from entering the storm drain system.	
Type	**Description**
Street Sweeping and Vacuuming	Cleaning sediment from streets and roadways to reduce the potential discharge to storm drain inlets or receiving waters. Sweeping and vacuuming should be implemented on all paved areas within and adjacent to construction sites. Inspect and maintain areas subject to sediment tracking on a daily basis. Utilize methods that collect and remove sediment instead of methods that simply spread the sediment around. Reference: CASQA SE-7

3.4.3 Wind Erosion Control (WE)

Wind Erosion Control is any practice that protects the soil surface and prevents the soil particles from being detached by wind. Wind Erosion Control is also referred to as dust control.

Table 9: Wind Erosion Control BMPs

Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**
Wind Erosion Control	Preventing wind from causing erosion or dust. Examples include: wet suppression, chemical dust suppression, covering exposed sediment, and minimizing disturbed area though scheduling. Wind erosion control should be implemented at every construction project throughout all disturbed areas. Wet suppression is sufficient for most projects if implemented regularly. Other requirements (Clean Air Act, Air Quality Management Districts, etc.) typically address wind erosion control. Chemical dust suppression should only be implemented when it will have no negative environmental impacts. Reference: CASQA WE-1

Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**

3.4.4 Tracking Control (TC)

Tracking Control is any practice that prevents or reduces the amount of sediment that is tracked to paved areas from unpaved areas by vehicles or construction equipment.

Table 10: Tracking Control BMPs

Tracking Control: Reducing the amount of sediment that leaves the site from vehicles and construction equipment.	
Type	**Description**
Stabilized Construction Entrance / Exit	Constructing a stabilized surface where sediment can be dislodged from vehicle and equipment tires before being tracked onto off-site paved roads. Stabilized construction entrance / exits should be implemented at every construction project to prevent sediment tracking from the site. Stabilized construction entrances / exits should be 50 feet or more in length. The most common method is to place 3-6 inch rock at least 1 foot high over filter fabric. Additional rock may need to be added as sediment accumulates. Rumble plates can be added for additional sediment removal. Tracking controls are a minimum BMP requirement of the CGP. Reference: CASQA TC-1

3.4.5 Non-Stormwater Management (NS)

Non-stormwater management is any practice that limits or reduces potential pollutants at their source before they are exposed to stormwater. Non-stormwater management typically involves day-to-day operations of the construction site and is usually under the control of the contractor. Non-stormwater management is often referred to as good housekeeping practices.

Table 11: Non-Stormwater Management BMPs

Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
Vehicle and Equipment Pollution Prevention	Preventing, containing, and disposing of pollutants from cleaning, fueling, and maintaining vehicles and equipment. Vehicle and equipment pollution prevention should occur at every construction project that cleans, fuels, or maintains vehicles or equipment. All cleaning, fueling, and maintenance performed on the site should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Avoid "topping-off" of fuel tanks. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Use drip pans or a secondary containment area for fueling and maintenance. Inspect for equipment leaks daily. Prevent wash water from entering storm drain system. Reference: CASQA NS-8, NS-9, NS-10
Dewatering Operations	Managing and/or treating the discharge of accumulated stormwater or non-stormwater (groundwater or water used during construction activities) to prevent unauthorized discharge. Dewatering operations should be implemented for any discharge of accumulated stormwater or non-stormwater. Primary concern with accumulated stormwater is sediment. Common methods for reducing sediment from a discharge are sediment traps / basins, weir tanks, dewatering tanks, filter bags / socks, media / cartridge filters. Risk Level and LUP Type 2 and 3 projects must sample accumulated stormwater discharge. As an alternative, accumulated stormwater can be pumped to another area on the site for infiltration to eliminate the need to discharge. Non-stormwater discharges typically require a separate discharge permit. An example of a dewatering filter bag for stormwater dewatering discharges is provided below. Reference:

Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
	CASQA NS-2
Paving and Grinding Operations	Managing paving and grinding operations to reduce the potential for pollutant discharge. Paving and grinding operations should be implemented at every construction project that involves paving, resurfacing, of saw cutting. Avoid paving operations when rain is forecasted. Grindings, saw-cutting slurry, and waste / debris must be collected and recycled or properly disposed of; none of this should be allowed to enter the storm drain system. Do not apply seal coat, tack coat, slurry seal, or fog seal if rain is forecasted within the curing period. Reference: CASQA NS-3

3.4.6 Waste Management and Materials Pollution Control (WM)

Waste management and materials pollution control are practices that limit or reduce or prevent the contamination of stormwater by construction wastes and materials. Potential wastes include solid, sanitary, concrete, hazardous, and equipment-related. Waste management and materials pollution control is also often referred to as good housekeeping practices.

Table 12: Materials Pollution Management BMPs

Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Stockpile Management	Covering or stabilizing stockpiles and providing sediment controls around the perimeter of stockpiles. Stockpile management should occur at every required stockpile within a construction project. Require stockpiles include those of soil, sand, PCC or AC rubble, cold mix asphalt, aggregate base or sub base, and treated wood. Stockpile management is effective against stormwater and wind erosion. All stockpiles can be covered with plastic or similar material. Alternatively, soil stockpiles may be protected with an erosion control (stabilization) practice. Raw materials such as cold mix treated wood should also be placed on top of plastic. Typical sediment controls placed around the perimeter of stockpiles are fiber rolls, silt fence, and sand / gravel bags. All stockpiles should be placed at least 50 feet away from downstream storm drain facilities. Reference: CASQA WM-3, SE-1, SE-5, SE-6, SE-8

Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Material Delivery, Storage, and Use	Preventing and containing pollutant discharges from materials that are delivered, stored, and used on-site. Materials of concern include: petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, and other hazardous chemicals. Material delivery, storage, and use management should occur at every location of a construction project where materials of concern are delivered, stored, or used. All material delivery and storage should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Minimize the quantities of materials of concern. Store materials in an enclosed area with secondary containment. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors on proper spill prevention, control, and cleanup procedures. Avoid over-application of soil binders, pesticides, herbicides, and fertilizers. Reference: CASQA WM-1, WM-2, WM-4

Table 13: Waste Management BMPs

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Spill Prevention and Control	Preventing, controlling, and cleaning up spills to reduce pollutant discharges from construction activities. Spill prevention and control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, or other hazardous chemicals. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Do not bury or wash spills away with water. Keep absorbent spill cleanup materials available; dispose of used materials properly. Report significant spills (those that cannot be contained by personnel in the immediate vicinity) to a local agency, such as the Fire Department, for cleanup assistance. Additional agencies may need to be contacted in the event of a significant spill. Reference: CASQA WM-4
Solid Waste Management	Containing and disposing of debris and non-hazardous waste to prevent it from being discharged to the storm drain system. Solid waste management and materials pollution control should occur throughout every construction project for non-hazardous

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
	construction waste and scraps, trash from employees or subcontractors, and waste generated from demolition. Waste should be collected and contained in designated areas. Avoid using waste containers that do not have lids or are not watertight. Collect and dispose of loose trash and waste weekly. Reference: CASQA WM-5
Hazardous Waste Management	Containing and disposing of hazardous waste to prevent it from being discharged to the storm drain system. Hazardous waste management and materials pollution control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, pesticides, herbicides, fertilizers, wood preservatives, or other hazardous chemicals. Train employees and subcontractors proper hazardous waste management and materials pollution control procedures. Store hazardous wastes in an enclosed area with secondary containment. Do not allow hazardous wastes to infiltrate at the site. Avoid overfilling hazardous waste containers. Hazardous wastes should be handled as required by Title 22. For projects that require demolition, lead-, cadmium-, or chromium-based paints, asbestos, and PCBs may exist and will require special treatment. All hazardous waste storage should occur in a designated area at least 50 feet away from downstream storm drain facilities. Hazardous wastes should be disposed of by a licensed hazardous waste transporter. Reference: CASQA WM-6
Concrete Waste Management	Containing and disposing of concrete waste to prevent it from being discharged to the storm drain system. Concrete Waste Management should occur at every construction project where concrete is poured, saw cut, grinded, or demolished. Inform all employees and subcontractors that washout from concrete trucks and concrete waste should be collected in concrete washout. Concrete washouts should be watertight and prevent any concrete waste from being able to discharge to the storm drain system. Avoid allowing concrete washout to become greater than 75% full. Concrete demolition debris may be stored by following the stockpile management BMP. Reference: CASQA WM-8, WM-3

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Sanitary Waste Management	Containing and disposing of sanitary waste to prevent it from being discharged to the storm drain system. Sanitary Waste Management should occur at every construction project that contains portable or permanent sanitary facilities. Avoid placing portable sanitary facilities in a concentrated flow path, such as a gutter. Use secondary containment under portable sanitary facilities. Contract a licensed sanitary and septic waste hauler to maintain portable sanitary facilities. All portable sanitary facilities should be located at least 50 feet away from downstream storm drain facilities. If a spill occurs, follow federal, state, and local regulations for containment and cleanup. Reference: CASQA WM-9

3.4.7 Inspection and Maintenance Frequency Summary

	Santa Ana Region Criteria (only one need apply)			Inspection Frequency	
				Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
High	All sites 20 acres and larger	Sites over 1 acre tributary to Clean Water Act Section 303(d) waters listed for sediment or turbidity impairment.	Sites tributary to and within 500 feet of an Area of Special Biological Significance (ASBS).	Monthly	Conduct at a frequency to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-stormwater discharges are prevented.
Medium	All sites between 5 to 20 acres where none of the other above criteria apply.			Twice during wet season	
Low	All sites less than 5 acres where none of the other above criteria applies.			Once during wet season	

When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance (regardless of site prioritization).

San Diego Region Criteria (only one need apply)			Inspection Frequency	
			Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
All sites 30 acres or more in size with rough grading or active slopes occurring during wet season.	All sites one acre or more, and tributary to a CWA section 303(d) water body segment impaired for sediment or within or directly adjacent to, or discharging directly to, the ocean or a receiving water within an ESA.	Other sites determined by the Copermittees or the Regional Board as a significant threat to water quality.	Biweekly (Once every two weeks)	As needed during the dry season. Sites that meet any of the criteria for biweekly inspections during the wet season must be inspected at least once in August or September each year.
All sites one acre or larger where none of the above criteria apply.			Monthly	
All sites less than one acre where none of the above criteria apply.			As needed to ensure compliance with ordinances and MS4 Permit.	

Reinspection frequencies must be determined by each Copermittee based upon the severity of deficiencies, the nature of the construction activity, and the characteristics of soils and receiving water quality.

4 References

Web links to permits listed in Table 1.

- National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Order number 2009-0009-DWQ. NPDES number CAS000002.

  www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

- Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated cities of Orange County within the Santa Ana Region. Order number R8-2009-0030. NPDES number CAS618030.

  www.waterboards.ca.gov/rwqcb8/water_issues/programs/stormwater/oc_permit.shtml

- Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated cities of Orange County, and The Orange County Flood Control District Within the San Diego Region. Order number R9-2009-0002 NPDES number CAS0108740.

  www.waterboards.ca.gov/rwqcb9/water_issues/programs/stormwater/oc_stormwater.shtml

- Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality. Order number 2003-0003-DWQ.

  www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

- General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts. Order number R8-2007-0041. NPDES number CAG918002.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2007/07_041_gen_wdr_sandiego_crk_11302007.pdf

- Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay. Order number R9-2008-0002. NPDES number CAG919002.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2008/r9-2008-0002.pdf

- General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality. Order number R8-2009-0003. NPDES number CAG998001.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

- General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region. Order number R9-2010-0003. NPDES number CAG679011.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2010/r9-2010-0003.pdf

5 Glossary

ASBS – Area of Special Biological Significance. The Water Quality Control Plan for Ocean Waters of California (California Ocean Plan) designates 35 Areas of Special Biological Significance, two of which lie within the Santa Ana Regional Board jurisdiction:

- Newport Beach Marine Life Refuge (HU801.110)
- Irvine Coast Marine Life Refuge (HU801.110)

BMP – Best Management Practices (BMPs) are activities, practices, procedures, or facilities implemented to avoid, prevent, or reduce pollution of the stormwater system and receiving waters.

Common Plan of Development – Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Any of these documents could delineate the boundaries of a common plan area. However, broad planning documents, such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.

Construction General Permit (CGP) – A National Pollution Discharge Elimination System (NPDES) permit (No. CAS000002) issued by the State Water Resources Control Board for the discharge of stormwater associated with construction and land disturbance activities of one acre or more (Order No. 2009-0009-DWQ).

Construction Project – any site for which building or grading permits are issued and where an activity results in the disturbance of soil such as soil movement, grading, excavation, clearing, road construction, structure construction, or structure demolition; and sites where uncovered storage of materials and wastes such as dirt, sand, or fertilizer occurs; or exterior mixing of cementaceous products such as concrete, mortar, or stucco will occur.

Demolition – an activity involving the demolishing or the destruction of a structure, facilities, or associated appurtenances.

Discharge – the release spill, leak, pump, flow, escape, leaching, dumping or disposal of any liquid, semi-solid, or solid substance.

Environmentally Sensitive Area (ESA) – includes but is not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated in the Ocean Plan as Areas of Special Biological Significance (ASBS) or by the State Water Resources Control Board (Water Quality Control Plan and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan and amendments); areas designated as preserves or equivalent under the Natural Community Conservation Planning Program; and any areas designated as Critical Aquatic Resources (CARS) or other equivalent environmentally sensitive areas which have been identified by the County or city.

Erosion – the wearing away of the ground surface as a result of the movement of wind, water, and/or ice

Erosion Control – the activity of reducing or eliminating erosion by using a combination of Best Management Practices to protect adjacent private property, watercourses, public facilities, and receiving waters from an abnormal deposition of sediment or dust.

Erosion Control Plan – A plan (including drawings, specifications, or other requirements) detailing the methods of implementing an erosion control system.

Municipal Separate Storm Sewer System (MS4) – the street gutter, channel, storm drain, catch basin, constructed drain, lined diversion structure, wash area, inlet, outlet, or other facility, which is part of or tributary to the County-wide stormwater runoff system and owned, operated, maintained, or controlled by the County / city, and used for the purpose of collecting, storing, transporting, or disposing of stormwater.

NPDES Permit – NPDES is an acronym for National Pollution Discharge Elimination System. NPDES is the national program for administering and regulating Sections 307, 318, 402 and 405 of the Clean Water Act (CWA).

Non-stormwater – any runoff or discharge not entirely composed of stormwater.

Notice of Intent (NOI) – an application submitted by the owner / operator of a project that constitutes his intent to be authorized by an NPDES permit issued for stormwater discharges associated with the construction activity indicated.

Notice of Termination – a form to discontinue coverage under an NPDES general permit for stormwater discharges associated with industrial activity and stormwater discharges associated with construction activity.

Pollutant – any liquid, solid or semi-solid substances that will interfere with or adversely affect the beneficial uses of the receiving waters, flora, or fauna of the state. A more detailed definition is included in the Water Quality Ordinance. Generally, pollutants can include such items as:

- Artificial materials
- Household wastes
- Metals and Non-metals
- Petroleum and related hydrocarbons
- Animal wastes
- Substances having a pH less than 6.5 or greater than 8.6, or unusual coloration, turbidity or odor
- Waste materials, sediment, and wastewater generated by construction sites and construction activities
- Pollutants defined by the Federal Clean Water Act
- Other constituents or materials, including but not limited to pesticides, herbicides, fertilizers, fecal coliform, fecal streptococcus or enterococcus, or eroded soils, sediment and particulate materials.

Post-Construction BMPs – Structural and non-structural controls which detain, retain, or filter the release of pollutants to receiving waters after construction is complete and final stabilization is attained.

Qualified SWPPP Developer (QSD) – Individual who is authorized per the requirements of Order No. 2009-0009-DWQ to develop and revise SWPPP's.

Qualified SWPPP Practitioner (QSP) – Individual assigned responsibility by the owner for non-stormwater and stormwater visual observations, sampling and analysis, and responsibility to ensure full compliance with the Construction General Permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

RARE – Rare, Threatened, or Endangered Species (RARE) Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Receiving Water – A river, lake, ocean, stream, or other watercourse identified in the Basin Plan into which waters may be discharged.

Regional Board – Regional Water Quality Control Boards administer water quality requirements within a watershed region. There are nine Regional Boards under the SWRCB. The SWRCB is one of five branches of the California Environmental Protection Agency The San Diego Regional Board and the Santa Ana Regional Board have jurisdiction in Orange County.

Runoff – Water originating from rainfall, melted snow, and other sources (e.g., sprinkler irrigation) that flows over the land surface to receiving waters.

Run-on – Off site stormwater surface flow which enters your site.

Scour – The erosive and digging action in a watercourse caused by flowing water.

Secondary Containment – Structures, usually dikes, berms, or large containers, surrounding tanks or other storage containers, designed to catch spilled material to prevent it from being discharged.

Sediment – Solid particulate matter, both mineral and organic that comes from the weathering of rock.

Sedimentation – The process of depositing soil particles, clays, sands, or other sediments that were picked up by runoff.

Sheet Flow – Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

Storm Drains – Above- and below-ground structures for transporting stormwater to streams or outfall for flood control purposes.

Stormwater – Urban runoff and snowmelt runoff consisting only of those discharges, which originate from precipitation events.

Stormwater Pollution Prevention Plan (SWPPP) – Document required by the General Construction Permit to be developed and implemented by construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development. The SWPPP emphasizes the use of appropriately selected, correctly installed, and maintained

pollution reduction BMPs. This approach provides the flexibility necessary to establish BMPs that can effectively address source control of pollutants during changing construction activities.

State Water Resources Control Board (SWRCB) – California agency that implements and enforces water quality and NPDES permit requirements and oversees the Regional Boards.

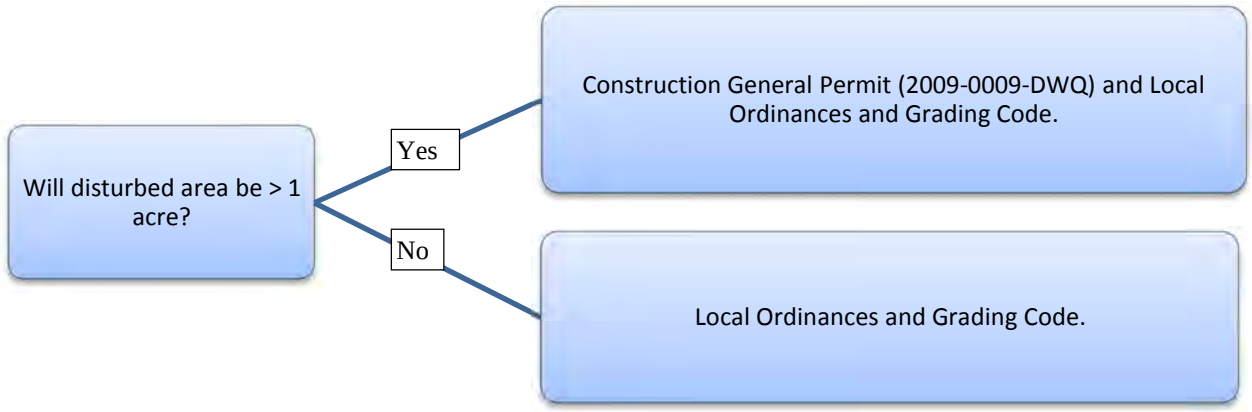
Waste Discharge Identification (WDID) Number – an identification number assigned by the State Water Resources Control Board upon receipt of a complete NOI.

Appendix A: Permit Determination Flowcharts

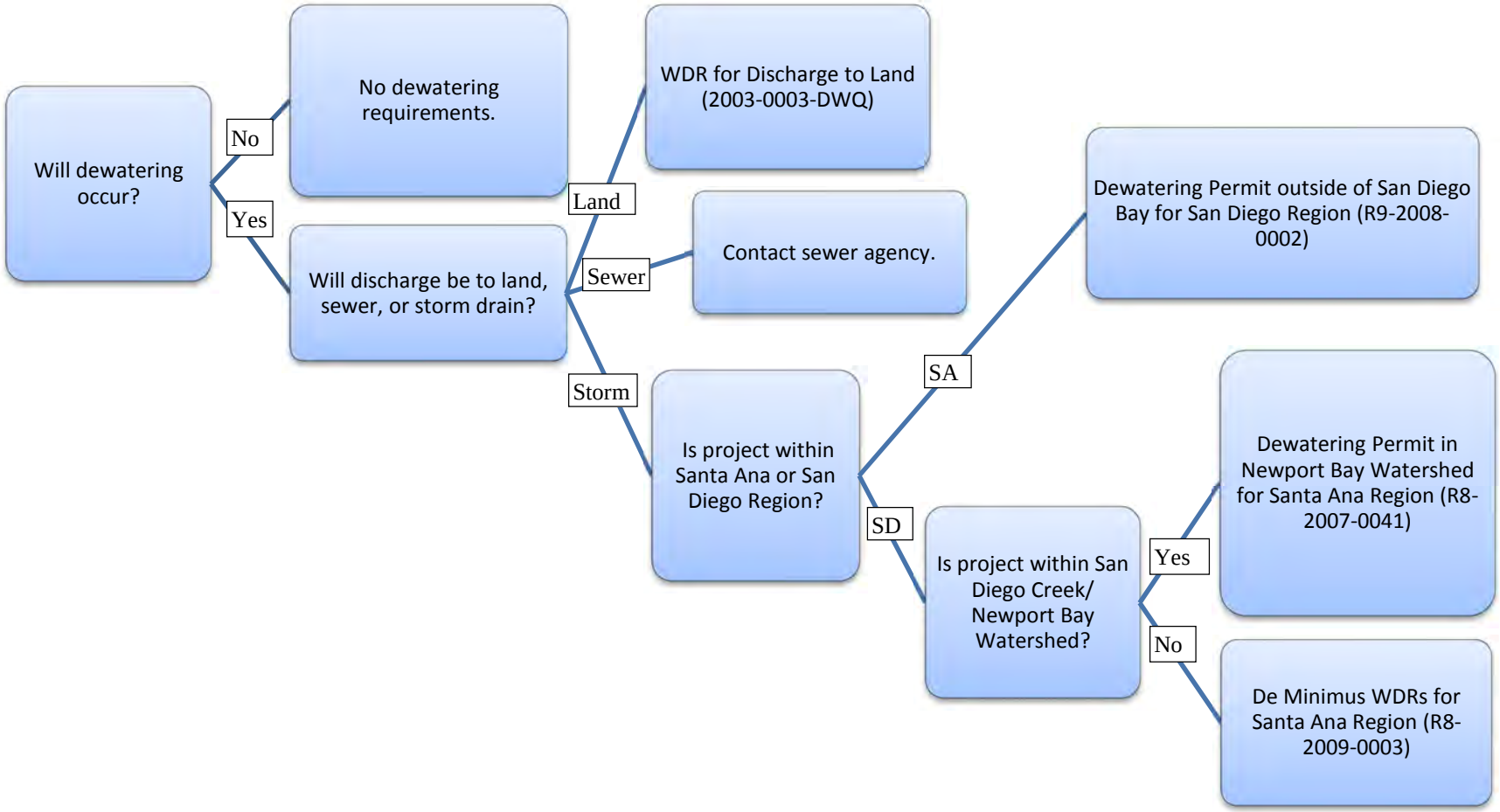
This appendix includes flowcharts for project owners or developers to quickly determine which permits are required for a particular project and a short description of each permit. For each project, follow the questions in each of the three flow charts to determine construction permitting and site management requirements. For example if a project is less than an acre, but requires dewatering, the reader should quickly understand that the CGP does not apply to them, but that they need to read more about dewatering permits.

To use this appendix, follow Steps 1-3 for each project. After following the steps, refer to Sections 2.1 and 2.2 for details on the specific permits and ordinances that may affect your project.

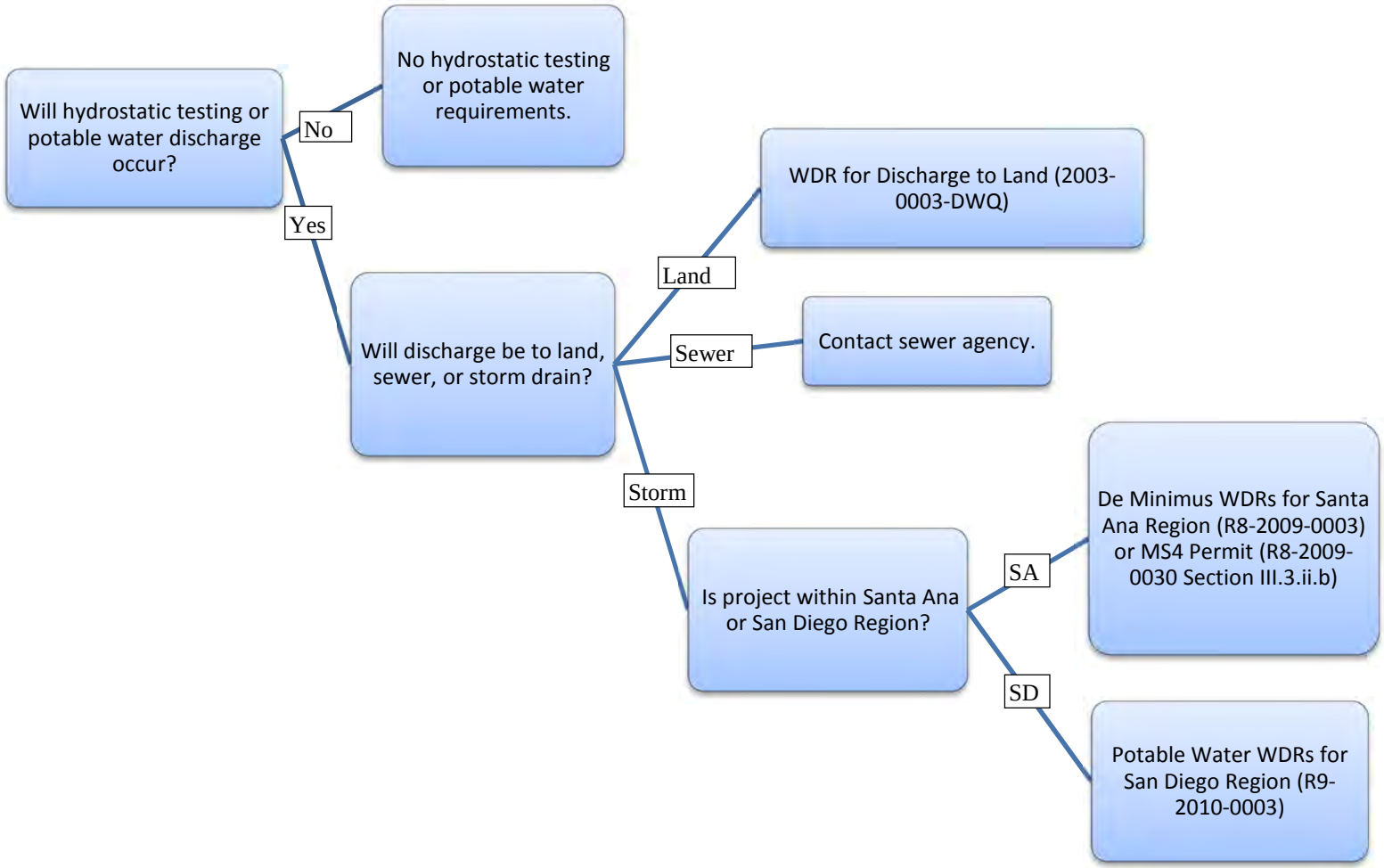
Step 1: Project Size



Step 2: Dewatering



Step 3: Hydrostatic Testing or Potable Discharge



Appendix B: Permit Descriptions

1. Construction General Permit (2009-0009-DWQ / CAS000002)

Note: This Section applies only to projects with greater than or equal to one acre of disturbed area.

In 2009, the State Water Resources Control Board (SWRCB) adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP).

The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

The following briefly summarizes the process for a construction project that is subject to the CGP:

- The project owner, Legally Responsible Person (LRP), is responsible for obtaining CGP coverage. Permit coverage is obtained by preparing and certifying the Permit Registration Documents (PRDs). PRDs must be uploaded and certified by the LRP in the SWRCB Storm Water Multi Application Report Tracking System (SMARTS, https: / / smarts.waterboards.ca.gov /).
- Each project subject to the CGP requires the services of a Qualified SWPPP Developer (QSD) and a Qualified SWPPP Practitioner (QSP). These titles are defined in the CGP, Section VII.
- Each year an Annual Report must be submitted and certified in SMARTS. The reporting period is from August 1 to June 30 and Annual Reports are due on September 1.
- After construction is completed and the site fully complies with the final stabilization requirements of the CGP, the owner must terminate permit coverage through SMARTS.

2. MS4 Permit for Santa Ana Region (R8-2009-0030 / CAS618030)

In 2009, the Santa Ana Regional Board issued its fourth term MS4 permit, Order No. R8-2009-0030. This permit regulates stormwater discharge from municipal storm drain systems. The permit is issued to the County of Orange and the cities within the Santa Ana Region boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best

Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

3. MS4 Permit for San Diego Region (R9-2009-0002 / CAS0108740)

In 2009, the San Diego Regional Board issued its fourth term NPDES permit, Order No. R9-2009-0002. This permit regulates stormwater discharge from municipal storm drain systems. The permits issued to the County of Orange and the cities within the San Diego Region Boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

4. WDRs for Discharge to Land (2003-0003-DWQ)

This permit, Order No. 2003-0003-DWQ, applies to projects that discharge to land where the discharge has a low threat to water quality. These are typically low volume discharges with minimal pollutant concentrations. The primary difference between this permit and the permits described in herein is the destination of the water. This permit regulates discharges to land, while the following two sections discuss discharges to storm drains or receiving waters. For instance, if a dewatering discharge will be piped to an infiltration basin during construction, this permit should be used.

5. De Minimus WDRs for Santa Ana Region (R8-2007-0041 / CAG918002 and R8-2009-0003 / CAG998001)

There are two permits within the Santa Ana Region that regulate dewatering discharges to a storm drain or receiving water. Order No. R8-2007-0041, NPDES No. CAG918002, regulates dewatering discharges in the San Diego Creek / Newport Bay watershed. And, Order No. R8-2009-0003, NPDES No. CAG998001, amended by R8-2012-0062, regulates dewatering discharges for the Santa Ana Region. Refer to the permit text for specific circumstances allowing projects to be covered under the region-wide permit even though it is located within the San Diego Creek / Newport Bay watershed.

Dischargers subject to the San Diego Creek / Newport Bay Permit (Order No. R8-2007-0041) formed a Working Group and funded the development of a Work Plan to develop a management plan for nitrate and selenium discharges to surface waters that result from groundwater-related inflows. If those entities that participate in the Working Group (refer to Order for enrollees list), can demonstrate that compliance with the numeric selenium effluent limitations identified in the Order is infeasible, the groundwater-related discharge is allowed provided that the Working Group implements the Work Plan in a timely manner and that the discharger fulfills its financial and participatory requirements established by the Group. For dischargers who are not participating in the Working Group and cannot comply with the numeric effluent limitations, the discharger must either not proceed with the planned discharge or must identify and participate in a program that assures that selenium discharges in excess of those allowed by the Order are offset on at least a one-to-one basis.

To obtain coverage under either of these permits, the general guidelines below should be followed:

Existing Dischargers

1. Submit an updated Notice of Intent (NOI) to continue discharging; and
2. A copy of the current Monitoring and Reporting Program along with any proposed treatment modifications.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the Nitrogen and Selenium Management Program (NSMP).

New Dischargers

At least 45 days (180 days if applying under Order No. R8-2007-0041) before the start of a new discharge, the Discharger needs to submit an application for coverage and obtain a letter of authorization from the Executive Officer for the dewatering discharge. The application needs to include:

1. A Notice of Intent (NOI) to be covered under the Order.
2. A site characterization study that identifies the presence of contaminated groundwater onsite (constituents of concern listed with the Orders), its properties, and a three-dimensional assessment of the extent of concentration of contaminants in the subsurface; which includes a description of the geologic and hydrologic factors that control the migration of the contaminants; and, if adjacent to a contaminated site, the Discharger has to evaluate the depth and flow rate of the extraction as well as the possibility of extracting the contaminated groundwater from the adjacent site.
3. A report including the following:
    a. A list of constituents and the discharge concentration of each constituent from each source (See the Order for constituent of concern); and for coverage under Order No. R8-2007-0041 only, a chemical analysis of the untreated groundwater for organic pollutants using EPA method 8260B (See the Order for specific constituent testing and reporting requirements);
    b. Estimated average and maximum daily flow rates in million gallons per day (mgd), the frequency and the expected start date and duration of the discharges;
    c. Proposed discharge location(s) and the latitude and longitude of each discharge point;
    d. A description of the proposed treatment system (if applicable);
    e. The affected receiving water and a map showing the path from the point of initial discharge to the ultimate receiving water; and
4. Any other information deemed necessary by the Regional Board Executive Officer.

It should be noted that coverage under Order No. R8-2007-0041 requires several extra steps and it is highly recommended to review those requirements within the Order. Some of those additional items are:

1. An evaluation of selenium and nitrogen concentrations and the feasibility of meeting the numeric effluent limitations specified in the Order. The conclusion of which has varying impacts on coverage as specified in the Order;
2. A fixed hardness value for sites polluted with metals needs to be submitted for approval by the Regional Executive Officer as outlined in the Order; and
3. A description of run-on, interception and diversion of runoff.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the NSMP.

6. Dewatering Permit Outside of San Diego Bay for San Diego Region (R9-2008-0002 / CAG919002)

This permit, Order No. R9-2008-0002, applies to discharges of extracted groundwater to receiving waters or storm drains within the San Diego Regional Board jurisdiction (South of El Toro Road). To qualify for this permit, a laboratory analysis of the groundwater must show that the water quality is within the limits set by the permit. The permit requires sampling and analysis of dewatering discharges, and reporting to the Regional Board on a periodic basis.

7. Potable Water Discharges in Santa Ana Region (R8-2009-0003 / CAG998001)

The permit identified in Section 2. 1 for de minimus discharges, Order No. 2009-0003, is also the permit that applies to discharges of potable water during construction. This may include discharges of hydrostatic test water for pipes or tanks.

8. Potable Water Discharges in San Diego Region (R9-2010-0003 / CAG679011)

This permit, Order No. R9-2010-0003, regulates discharges of hydrostatic test water and/or potable water to storm drains or receiving waters in the San Diego Region, to all receiving waters except for San Diego Bay and its tributaries. Activities covered may include discharge from testing, repair and maintenance of pipelines, tanks and vessels dedicated to drinking water purveyance.

Appendix C: Erosion Control Best Management Practices Field Evaluation – Summary

Background

The County of Orange conducted a field evaluation of five erosion control BMPs to evaluate their effectiveness in the field. A full copy of the Erosion Control Best Management Practices Field Evaluation (Study) may be found on the OC Watersheds website (http: / / www.ocwatersheds.com / documents / OCErosionControl_FINALReportJan07II.pdf), and a brief summary of the Study is provided here. The Study included development of a study plan, selection of an appropriate test site with soils and slopes commonly found in Orange County, selection of erosion controls for evaluation, study implementation, monitoring and maintenance of the test plots.

BMPs Selected

Four erosion control BMPs were selected for the Study:

- UltraTack- UltraTack is a low molecular weight polyacrylamide product. UltraTack is a spray on binder or tackifier, and is nontoxic to plant and animal life. UltraTack must be applied 24 hours prior to a storm event, and must be reapplied as needed, but generally every three months at a minimum.
- EarthGuard – EarthGuard is a high molecular weight polyacrylamide product. Earth Guard is a spray on binder and is nontoxic to plant and animal life. It is effective immediately, even when applied during a rain event, and may provide erosion control for up to three months.
- EarthGuard Fiber Matrix (recycled paper mulch and wood fiber mulch) – This BMP combines Earth Guard and fiber to form a matrix that provides erosion control for a full rainy season. The binder plus fiber harden after application to form a crust that protects soil from raindrop impact. Two types of EarthGuard fiber mulch were used; one consisting of 100% recycled paper mulch, and the other wood fiber mulch.
- Landscaping Mulch – The wood mulch tested for this study was a typical landscaping mulch made of shredded wood mulch and bark. Wood mulch helps reduce soil erosion by protecting bare soil from rainfall impact, increasing infiltration and reducing runoff.

Test Plots

A total of fifteen test plots were used in the Study, three for each of the BMPs selected. Each BMP was tested on a slope of 2% (flat slope), 5% (mild slope) and 50%. Each test plot was approximately 25 feet by 100 feet, with flow in the long direction.

Test Period

Each of the test plots was observed over the course of the 2004-2005 wet season. Observations of the performance of each type of control were made before and after forecast events, as well as once per month. The condition of each test plot and the location and mechanism of any failures were documented, along with evidence of erosion and unraveling of erosion control materials.

Findings

The 2004-2005 water year was one of the wettest on record, with the Study site receiving over twice the normal amount of precipitation for the area. The relative performance of the selected erosion controls was evaluated qualitatively using the results of the visual monitoring. BMPs were considered to have "failed" when rilling or similar evidence of erosion became visually apparent. In general, the hydro mulches outperformed the binders; whereas landscape mulch performed best on all slopes. The binders and hydro mulches did not hinder growth of volunteer vegetation. Although seed mix was not added to the controls, new vegetation was observed on all test plots except for the landscape mulch.

Recommendations

The Study provides erosion control recommendations based on the findings of the Study (see **Table C-1**). These recommendations are based on appropriate slope, application rate, duration of effectiveness, application methods, inspection requirements and costs

Table C-1: Recommendations from the Erosion Control Best Management Practices Field Evaluation

EC Control	Amount Rain / Duration[1]		Appropriate Site Applications	Application Methods	Inspection Requirements	Costs
	Flat Area (< 5%)	Slope Area (> 5%)				
PAM (low weight)	1"; 1 storm	Not recommended	Temporary, single storm event; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
PAM (high weight)	< 2"; 2+storm	1"; 2+ storm	Temporary, two storm events; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
Wood Hydro-mulch[2]	<12"; 1 season	<12"; 1 season	Steep slopes, steeper than 3:1; high erosion potential slopes; slopes where anchored mulch is needed; disturbed areas where plants slow to develop; stockpiles; slopes adjacent to ESAs	3,000 lb / acre to 4,000 lb / acre based on the manufacturer's recommendation, 12-24 hours to dry and become effective	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season (nrs)	$6,000 per acre
Landscape Mulch[3]	< 12"; 1 season	< 12"; 1 season	Flat areas, steep slopes, cohesive soils	Distribute by hand or use pneumatic methods, 2-3- inch depth (thickness) per CASQA guidance	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the nrs	$4,000 per acre

[1] When used per manufacturer recommendations.

[2] When used with a high-weight binder. Hydro mulch consisting only of paper fiber is not recommended. Wood hydro mulch may not contain more than 25% paper fiber.

[3] Tested at about 5-inch depth (thickness).

APPENDIX G
GEOTECHNICAL STUDY

Harrington Geotechnical Engineering, Inc.

December 9, 2022

CITY OF BREA
c/o Kreuzer Consulting
1 Civic Center Circle
Brea, CA 9282190732

RE: Geotechnical Investigation for Observed Distress to Berry Street Reservoir Ring Road Located at 545 N. Berry Street, Brea, CA 92821
HGEI Project No. 22-BREA-0074

Dear Mr. Kreuzer:

This report presents the preliminary results of a geotechnical engineering investigation performed under contract to Kreuzer Consulting on behalf of the City of Brea to establish information on the materials underlying the site and based thereon, form an opinion about the possible causes of the observed distress in the ring road surrounding the Berry Street reservoir. Additionally, this report contains preliminary recommendations for remedial repair of the road. It should be noted that these recommendations are preliminary due to the ongoing nature of our monitoring services and may be updated later based on inclusion and interpretation of additional data as part of periodic slope monitoring via slope inclinometers.

Information provided by City staff, historic aerials and maps, as well as design documents associated with 1970s era additions to the reservoir, and previous geotechnical reports for the site were used in determining the scope of the investigation and preparing this report in accordance with generally accepted geotechnical engineering practice in this area.

Based on analysis and evaluation of the data obtained it has been preliminarily concluded that observed distress is primarily due to past and recent soil settlement, expansive soil conditions, past and on-going lateral fill extension/slope creep, inadequate drainage, poor quality control during construction, and outdated construction practices. Preliminary remedial repair recommendations are presented herein that could be incorporated into the future road repairs.

Thank you for this opportunity to be of service. If you have any questions concerning this report or if we can be of further assistance, please call at your convenience.

Very truly yours,
HARRINGTON GEOTECHNICAL ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER
BENJAMIN R. GRENIS
No. C-83971
CIVIL
STATE OF CALIFORNIA

Benjamin R. Grenis, P.E.
Project Engineer

BRG: sg
Distribution: Addressee via E-mail

1590 N. Brian Street, Orange, CA 92867-3406 FAX (714) 637-3096 PHONE (714) 637-3093
Please visit our website at www.harringtongeotechnical.com

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INTRODUCTION

This report presents the results of a geotechnical investigation of the subject reservoir site. The purposes of the investigation were to: 1) determine the type and condition of the earth materials underlying the site; 2) establish static, physical, and limited chemical properties of the soil; 3) determine groundwater conditions; 4) determine the possible causes of the noted distress; 5) provide recommendations for remedial repairs to the ring road.

SCOPE OF WORK

The scope of work for this geotechnical investigation consisted of the following:

Review of published regional geologic maps, topographic maps, historic aerials, as well as geotechnical reports made available through City of Brea and within our own library (See References).

Field exploration was conducted on September 27 and 28, 2022 which consisted of drilling, sampling, and logging six small-diameter exploratory borings (B-1 through B-6) to a maximum depth of 41-feet; three of the borings on the south half of the ring road were set with inclinometer pipe as part of a long term monitoring program of slope performance. The inclinometers were initialized on October 11, 2022. The field exploration is described in detail in Appendix A.

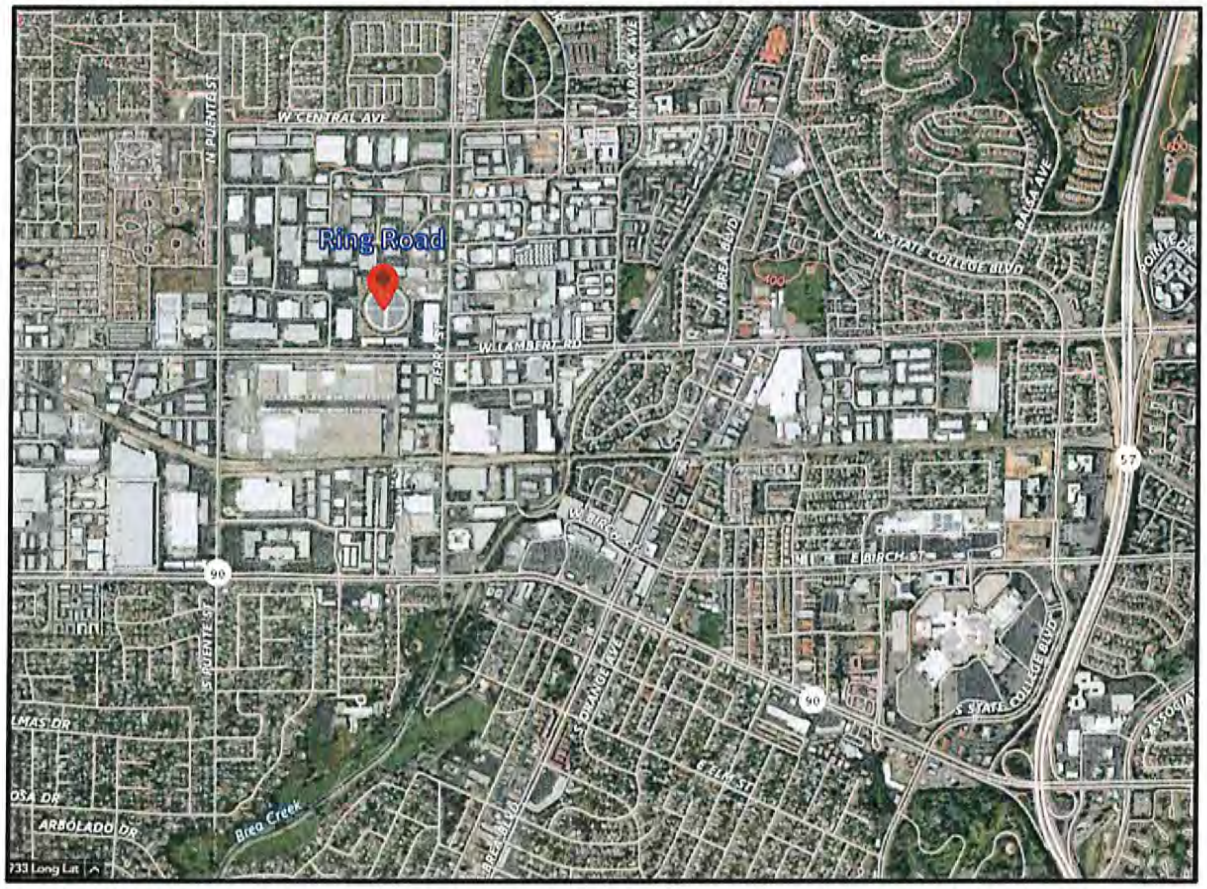
Selected samples were tested in HGEI's AMRL Accredited Geotechnical Laboratory to develop data necessary for analysis of subsurface conditions and used in preparation of this report. A description of the geotechnical laboratory testing conducted for the samples collected from the site and presentation of the results are found in the Laboratory Procedures & Test Results in Appendix B.

HGEI conducted engineering analysis, constructed figures, and prepared this report depicting the findings and conclusions of the investigation.

SITE LOCATION and DESCRIPTION

The site is located at 545 Berry Street, Brea, CA as shown on the Vicinity Map, Figure 1, which follows.

Vicinity Map - Figure 1



The developed property is a part of a City service yard containing offices, maintenance buildings, service facilities and the 30 million gallon reservoir around which, the ring road is constructed.

The lot is bordered on all sides by commercial/warehouse properties. Access to Berry Street is provided at the northeast segment of the site. The exterior slope below the ring road was to be constructed using a 2:1 (horizontal : vertical) slope and is variable in height from approximately 8-feet in the north to approximately 18-feet in the south. The exterior slope does not have any terrace drains and is generally landscaped with low height shrubs. The interior slope is reportedly 1.5:1, approximately 25- to 30-feet high and has been provided with concrete cover and waterproofing liner.

SITE HISTORY

A review of historic aerial imagery and topographic maps dating to the 1930s, as well as design plans and geotechnical reports provided by the city and within our own library, in conjunction with conversations with city staff have helped to construct a general timeline of construction and maintenance affecting the property.

- Topographic maps dating to 1935 show oil tanks and oil reservoirs in the general vicinity; specifically, the extent of the current water reservoir was occupied by an oil reservoir.
- Aerial imagery from 1938 appears to corroborate the identification of the current water reservoir as an oil reservoir
- In the period from 1938 to 1970, the oil tanks and other oil reservoirs were slowly removed from the area.
- The Reservoir improvement plans dated 1972 outline the planned construction of a roof over the reservoir, widening of the top of reservoir berm to accommodate a road (3" AC/ 4" AB), retaining walls on the south half below the reservoir, as well as piping and pump house improvements.
- Aerial imagery suggests the slope surrounding the reservoir was planted in the early 2000s with subsequent imagery appearing to show periods of increased and decreased foliage density, presumably due to changes in watering practices.
- The draft Koury report from 2018 documented pavement sections in excess of the original design, suggesting periodic repairs and additions to the pavement structural section since construction in the 1970s
- Of note, the region experienced a drought from 2012 to 2016; due to the clayey nature of the soils onsite, we would expect a multi-year lag between drought (and associated watering practice changes) and observed effects on the road.
- City staff report an increase in the distress noted in the ring road in about 2019
- Two rainfall events in the time between inclinometer installation and the first monthly reading show minor surficial movement within the slope.

PROJECT DESCRIPTION

The project involved forming an opinion on the possible causes of the observed distress and providing recommendations for remedial repairs to the reservoir ring road. Potential repair options include structural support of the road and modifications to the slope to reduce the effects of expansive soils. Grade changes are anticipated to be minor.

REGIONAL GEOLOGIC SETTING

The subject site is situated along the southern flank of the Puente Hills in the north-central part of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges Geomorphic Province is characterized by elongated northwest to southeast trending ridges and valleys subparallel to faults branching from the San Andreas Fault. Published maps have been used to identify the geologic units underlying the property. As shown on Figure 2, these maps indicate that the property is underlain by very old alluvial fan deposits of middle to early Pleistocene geologic age.

SUBSURFACE CONDITIONS

Earth Materials

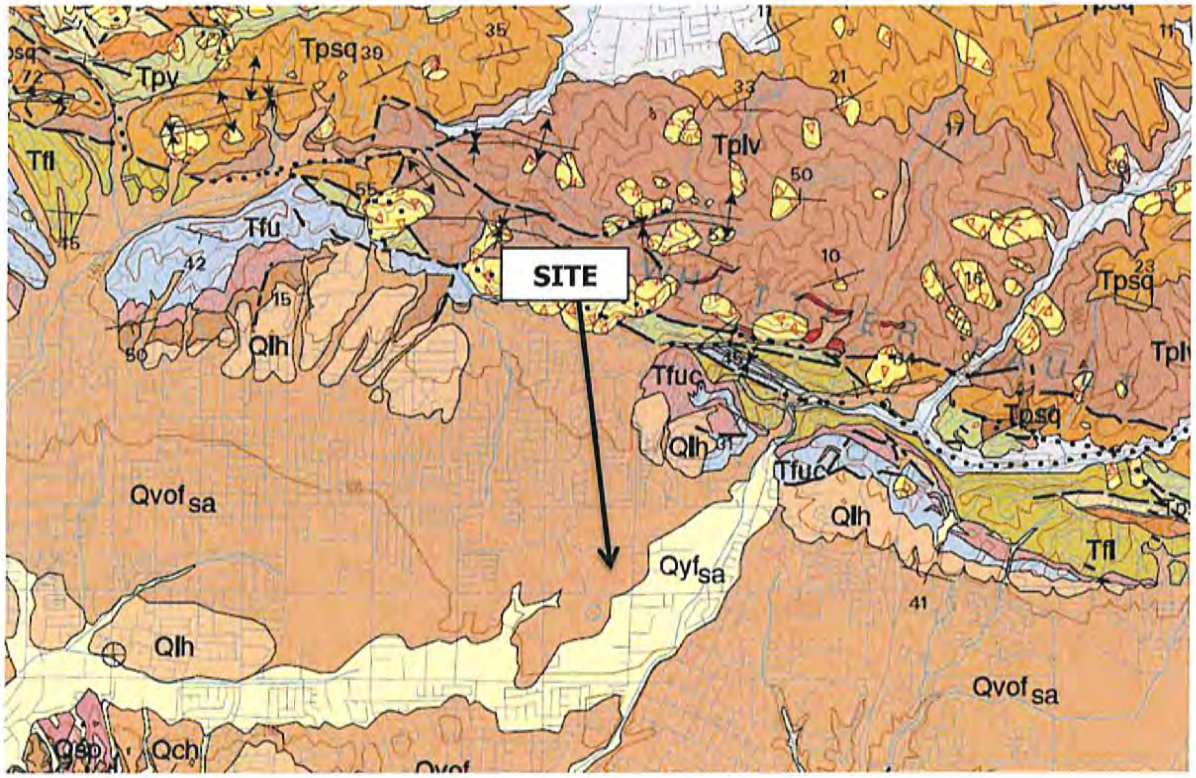
Subsurface conditions encountered during this investigation are described in more detail on the logs of the borings, Plates A-2 through A-7, in Appendix A. The subsurface exploration locations and surface geologic conditions are indicated on Plate A-1.

The borings drilled for this study show the site to be immediately underlain by artificial fill with alluvial deposits buried below.

Artificial fill (Af) is composed of mottled brown/dark brown/orange sandy clay that varies in moisture content from dry to very moist with a consistency that was generally very stiff. Artificial fill generally extended to 12- to 30-feet below ground surface, and in one boring, a fill/alluvium contact was not encountered to the maximum depth explored, 41-feet.

Alluvium (Qvof) is composed of brown/orange sandy clay and is generally moist and very stiff. Varying amounts of stringers and caliche were present throughout the alluvial samples returned to the surface.

Regional Geologic Map - Figure 2



Groundwater

Groundwater was not encountered in the shallow exploratory borings drilled for this study and is not expected to adversely affect the proposed development under normal conditions in the future. Historic groundwater depth in the area has not been established (Reference 1) in the Qvof mapped onsite, but is mapped in the young alluvium to the southeast. We anticipate groundwater to be in excess of 41-feet (max depth drilled) based on the site elevation.

Caving

Caving of the borings did not occur, in part due to the type of auger used. Due to the presence of generally cohesive soil, caving is not expected to be a major concern during construction. The regulations of Cal/OSHA should be complied with during performance of all underground construction.

Consolidation

Samples of soils were loaded in increments from 400 to 6400 pounds per square foot (psf) at their overburden pressure and were inundated to determine their hydro-collapse or expansion potential. Most samples exhibited variable hydro-collapse, ranging from less than 0.25% to nearly 4%, while one sample (B-2 @ 10 feet) exhibited approximately 2% expansion.

Expansion Potential

Based on the results of laboratory testing (Table 1, Appendix B) the Expansion Index of the typical near-surface material ranged from 43 to 55 in the material tested as part of this report. Laboratory testing presented in the draft Koury report indicated an Expansion Index of 73 with 77% fines. The 2019 California Building Code (Section 1803.5.3) categorizes this material as being expansive and special design is required per Section 1808.6.

Recommendations for mitigating post-construction movement due to this characteristic have been incorporated into the design recommendations presented herein and are consistent with the requirements of Section 1808.6.4 of the 2019 California Building Code.

Water-Soluble Sulfate

Soil samples were delivered to a state approved analytical laboratory for testing to evaluate water-soluble sulfate content. Based on the results of laboratory testing (Table 2, Appendix B) a negligible (S0) exposure category is indicated (ACI 318-14, Table 19.3.1.1).

GEOLOGIC CONDITIONS

Faulting/Fault Rupture

The site is in a portion of California that is seismically active and anticipated to be subjected to strong ground motions by earthquakes generated by active faults in the area. The site is not within a presently designated earthquake fault zone as established by the Alquist-Priolo Fault Zoning Act (References 2 and 3).

The fault nearest the site is the Whittier Segment of the Lake Elsinore Fault Zone located approximately 2.9 km to the north-northeast. The likelihood of surface rupture occurring at the site is therefore considered low.

Liquefaction/Seismically Induced Settlement

The site is not located in a potential liquefaction hazard zone as shown on the State of California Earthquake Zones of Required Investigation, La Habra Quadrangle Sheet (References 2 and 3). Therefore, a liquefaction/dry sand settlement assessment was not conducted.

Earthquake Induced Landslide Potential

As shown on the State of California Earthquake Zones of Required Investigation, La Habra Quadrangle Sheet (References 2 and 3), the property is not located within a potential earthquake induced landslide zone.

PRELIMINARY CONCLUSIONS

There appear to be several different possible contributing elements to the observed distress to the ring road. Observed distress is primarily due to age of the road/slope, past and recent soil settlement, expansive soil conditions, past and on-going lateral fill extension/slope creep, lack of quality control during construction and outdated construction practices, variable landscape watering practices, and lack of maintenance to the road as distress has developed.

- The core of the reservoir is presumed on the order of 90 years old while the outer slope is on the order of 40-50 years old. Grading and construction practices at that time were far less stringent than they are today. Fill compaction criteria including the burial of oversize rocks are presently held to a more conservative standard. Graded fill slopes are typically constructed at no steeper than 2:1, primarily as a result of previously constructed steeper slopes resulting in failure or lateral fill extension/soil creep related problems. The use of subdrains and terrace drains are consistently employed to collect and transmit subsurface and surface water to suitable drainage receptacles.

- Soil settlement is often idealized as a one-time event, but additional events can occur as site conditions change. Settlement normally occurs during the first ten to fifteen years of construction. The subgrade soil responds to the change in loading and changes in moisture content. This slope is over 40 years old so it may be assumed loading has not changed appreciably since the time it was built. Some settlement may have initially occurred and then more recent moisture content changes can drive additional settlement. The observed inconsistencies in moisture and density may have created pockets within the fill that were vulnerable to settlement. The majority of observed recent settlement appears to be concentrated on the south half of the ring road; where the slope is the tallest and steepest.

- Expansive soils are present and their effects are on-going and generally cyclical in response to seasonal changes in soil moisture. When the moisture content decreases the clay-rich soil contracts and when the moisture content increase the clay-rich soil expands. Expansive soils can swell and exert enough force to cause damage in the form of lifting and cracking to foundations, curb & gutter, and pavements. In addition to vertical expansion effects, expansive soils located on/near slopes may be susceptible to horizontal expansion effects of lateral fill extension or slope creep.

- Lateral fill extension/slope creep is occurring as the subject road and associated slope has expansive soils and is situated at the top of a 8- 18-foot high variable fill slope with variable gradients of 1.75:1 to 2.2:1 (horizontal: vertical). Lateral fill extension is generally associated with manufactured fill slopes constructed using clayey materials. As water from irrigation, precipitation and leaks migrate into the subsurface over time; the clayey materials can expand in the direction of least resistance which is laterally toward the slope. The resulting movement may be observable as surface improvements elongate towards the slope and separations/cracks appear.

  Slope creep occurs on the outer faces of slopes due to the effects of gravity and moisture content changes when expansive soils are present. When the soil is wet it expands, then when it dries it contracts, both vertically and horizontally. It is a slow long term and generally imperceptible process that is inevitable. Creep zones are typically considered to range from about 2- to 10-feet in vertical height. Based on the expansivity of site soils, we generally anticipate the creep zone to be about 5-feet in vertical height, which is in general agreement with the observed distress. Anything built in this zone may show some distress after a period of time.

  Lateral fill extension and slope creep can be difficult to distinguish from one another but evidence of their effects are seen in the general tilt/separation of the curb and gutter, as well as the transverse cracking in the road. The results are cumulative so that while in any one year there may be no movement that does not mean it has stopped.

- Inadequate drainage around the perimeter of the road has developed, presumably as a result of slope creep and lateral fill extension. The drainage issues contribute further to the cycle of slope creep and lateral fill extension by allowing water to collect and infiltrate the subsurface.

PRELIMINARY RECOMMENDATIONS

Given the extent of observed distress and the consideration that the distress appears to have been repaired in the past and has reoccurred, the following preliminary recommendations are being provided. As part of our scope of work, we are continuing to monitor slope performance via slope inclinometers, the results of which may affect these preliminary recommendations.

Based on conditions encountered/established during this investigation, it is our preliminary conclusion that the ring road may be adequately supported from a geotechnical engineering standpoint provided the recommendations which follow are implemented during design and construction of the project.

The ring road may be reconstructed as a structural slab with thickened edge deriving support below the creep zone.

Alternatively, a row of caissons may be installed on the outside edge of the ring road to provide lateral restraint and existing conventional pavement section repaired/reconstructed.

In lieu of structural support of the road; consideration may be given to shotcreting the face of the slope. Shotcrete will serve to minimize moisture changes in the slope face, thereby mitigating the effects of expansive soil and associated slope creep/lateral fill extensionon the road. The existing conventional pavement section will need to be repaired/reconstructed as part of shotcreting the slope face.

The following preliminary recommendations reflect our best assessment of project conditions and requirements based on analysis and evaluation of results reported herein. Anticipated conditions and these recommendations are subject to confirmation during additional investigative work, grading and/or construction, and continued slope monitoring. Additional recommendations may be provided during the course of work if warranted by conditions encountered.

Structural Slab with Thickened Edge (Option 1)

The ring road may be designed and constructed using a structural slab with thickened edge. The slab should be a minimum of 5-inches thick with No. 4 rebar at 18-inches on-center, each way and provided with a thickened edge (minimum 12-inches wide) on the outside. The thickened edge should extend to a depth of one-third the slope height, this will result in an approximate 6-foot deepened edge on the south portion of the ring road. The thickened edge should be appropriately reinforced and tied to the structural slab. Actual thickness and reinforcing should be determined by the structural engineer

and in consideration of design traffic loads. If needed for design, the structural engineer may use a modulus of subgrade support of 125 pci for design of the structural slab.

Caisson Supported Edge (Option 2)

In Lieu of a structural slab with thickened edge, we have found the following recommendations to provide adequate lateral support for sensitive site walls (CMU block and glass) located at tops of slopes; we believe they will provide adequate support for the ring road. Lateral support may be provided by Cast-in-Drilled-Hole (CIDH) Piers or caissons with a minimum diameter of 12-inches and embedded a minimum of 10-feet below top-of-slope. Caissons should be constructed at a maximum lateral spacing of 10-feet on-center and be reinforced with a minimum of four (4) No.4 vertical bars and provided with No.3 rebar hoops at a maximum vertical spacing of 16-inches on-center. The tops of caissons should be provided with a grade beam a minimum of 12-inches wide, 12-inches deep, and provided with 2x No.4 rebar, top and bottom. This grade beam should be installed at a depth to abut the pavement structural section and may be made contiguous with a curb and gutter.

As an alternative to the prescriptive CIDH Pier dimensions above, the structural designer may elect to design piers to resist creep load forces. Creep forces may be calculated using an equivalent fluid pressure equal to 58 pounds per square foot, per foot of depth (psf/ft or pcf), applied over the tributary area between piers. The creep force should be considered to be present in the upper 5-feet of slope (within about 10-feet of the slope face, when measured laterally). For the purpose of resisting lateral forces, pier footings may use an allowable passive bearing pressure of 165 pounds per square foot per foot of embedment, and should neglect the upper 5-feet. Where piers are spaced a minimum of 3-diameters on-center, the passive resistance may be doubled. An appropriate safety factor must be applied. Pier reinforcement will be determined by structural design.

It is recommended that the geotechnical engineer observe and/or test the pier excavations in order to verify compliance with the recommendations of the report.

Shotcrete the Face of Outer Slope (Option 3)

In the event that structural options provided above to address the distressed road are not favored, consideration may be given to shotcreteing the face of the slope. Shotcrete will serve to reduce moisture transmission into/out of the slope, thereby reducing the effects of slope creep affecting the road. Shotcrete should be a minimum of 4-inches thick and appropriately reinforced. As preparation for shotcreteing, the slope should be

cleared and grubbed, and any loose soils or erosion removed to competent soil. The slope face should be benched to provide the shotcrete with adequate support and avoid "pasting" shotcrete on a sloped face. Alternatively, the shotcrete may be provided with anchors/collars installed at appropriate intervals to support the shotcrete. Shotcrete mix should be formulated to reduce permeability.

Site Clearing and Grading

Significant grading is not expected to be required for this project and should mostly involve corrections to the existing drainage. More specifically, existing curb and gutters have separated from the road and are allowing infiltration of water into the slope.

Prior to grading, any existing vegetation that is to be removed and construction debris resulting from removal of the curb and gutter and any prior improvements that are being demolished should be stripped and disposed of offsite according to the city's requirements. Where the landscaping is to be removed, organic mass including shallow roots should be completely removed.

New hardscape and road areas should be over-excavated a minimum of 1-foot deep, scarified 12 inches deep (to penetrate the surficial disturbed zone), and moisture conditioned and compacted as indicated above.

Any fill material required should be approved by the geotechnical engineer and spread in thin, loose lifts (approximately 6 inches thick), and moisture conditioned and compacted as indicated above. Additional compaction tests should be performed as necessary for proper control during grading and to confirm the data in Table 3 of Appendix B.

If any imported soil is required it should be approved by the geotechnical engineer for expansion, sulfate, and strength qualities prior to being transported to the project site. Final acceptance of any imported soil will be based on observation and/or testing of soil actually delivered to the site.

It is recommended that grading and construction operations be monitored by a representative of this office in order to confirm compliance with these recommendations and, where used, the foundation design recommendations which follow.

Seismic Design

The provisions of Chapter 16, Section 1613, of the 2019 California Building Code and the Structural Engineer Associates of California guidelines are considered appropriate for design of the project.

Seismic factors were determined using the ASCE and Structural Engineers of California data base websites and Chapter 16 requirements and are presented in Appendix C.

Temporary Excavations/Caving

Due to the presence of cohesive soil, caving is not expected to be a major concern during construction. The regulations of Cal/OSHA should be followed during performance of all subsurface work. Temporary excavations up to 5-feet are anticipated to stand vertically due to the apparent cohesion of the material present.

Flatwork

Portland cement concrete should be placed on subgrade which is tested to reflect compaction of at least 90 percent (based on the results of compaction tests performed in accordance with ASTM Test Method D1557). More importantly, the subgrade moisture content should be at least 2 to 3% above optimum moisture content to a depth of 18 inches below subgrade elevation. This requirement is due to the expansive characteristics of the soil.

Concrete should be at least 4 inches thick, reinforced with No. 4 bars spaced 18 inches apart, each way, and provided with control joints in accordance with ACI recommendations. Low slump concrete should be used for all flatwork to further minimize cracking.

It should be noted that due to the expansive characteristic of the site material normal concrete shrinkage some minor cracking of the miscellaneous flatwork may occur. Additional reinforcement beyond that recommended herein and careful control of concrete slump would be beneficial in reducing such cracking.

Pavement

Final pavement conditions for the ring road are partially dependent upon the selected remediation option, as well as intended traffic loading. While the ring road is not subject to frequent traffic, it may be subjected to unusually high loading conditions due to the equipment present onsite. A pavement section can be provided upon request after loading parameters are defined by the City.

Concrete Quality

A negligible amount of water-soluble sulfate is indicated for the prevalent surface material and special sulfate-resistant concrete will not be required on this project. The exposure class (ACI 318-14, Table 19.3.1.1) is S0. Based on this test result concrete may contain Type II cement (Section 1904.2 of the 2019 CBC and ACI 318-14 (Table 19.3.2.1).

Site Drainage

The 2019 CBC Section 1804.4 requires that the minimum drainage for the ground around the perimeter of a building should be 5% away from the foundation for a distance of 10 feet. Impervious surfaces within 10 feet of the building foundation shall be sloped a minimum of 2%. All drainage should be directed to suitable drains or gutters which carry the water to a suitable receptacle.

In no case should the surface waters be allowed to flow over the slope surfaces in an uncontrolled manner. In general, drainage should be provided as necessary to direct surface water away from the slope face. Only rain falling on or irrigation directed onto the face should be permitted to travel across and down the slope. All other water should be intercepted and diverted before it can reach the face of the slope.

Controlling the moisture content in the soil and keeping it fairly consistent year-round is the most cost effective way to deal with expansive soil. Vegetation requiring less irrigation should be considered.

Plan Review

It is recommended that final project plans, details and specifications be submitted to this office for geotechnical review for compliance with the findings and recommendations of this report. Additional recommendations can then be provided if deemed necessary.

Grading Observations and Testing

Grading, foundation construction and trench backfills should be observed and tested by members of our staff so that anticipated soil conditions can be confirmed and the recommendations contained herein validated. If deemed necessary, as a result of changed conditions, supplemental recommendations may then be provided. Results of those observations and tests should be provided in the final report which should include a statement by the geotechnical engineer concerning the adequacy of the completed work.

Miscellaneous Backfills

Backfill for structural excavations and utility trenches associated with this project should consist of site material (the use of imported sand is not recommended) that must be adequately compacted to preclude detrimental settlement. It is recommended, therefore, that backfills placed below the building foundation and to a distance of five feet outside thereof, and/or below concrete flatwork, be placed in appropriate lifts, moisture conditioned and mechanically compacted to at least 90 percent of maximum dry density.

Pre-Grade/Construction Meeting

A pre-grade/construction meeting attended by the owner or his authorized representative, members of the design team, grading contractor, city/county inspector, and a representative from HGEI at the site to review the findings and recommendations of this report and project plans and specifications prior to starting work on the project.

GENERAL COMMENTS

The services provided under the purview of this report have been performed in accordance with generally accepted geotechnical engineering principals and standards of practice in this area. The comments and recommendations presented are professional opinions based on observations and our best estimation of project conditions and requirements as indicated by presently available information and data. No further warranty, express or implied, is intended by issuance of this report.

The investigation did not include: 1) detailed study of geologic and seismic conditions; 2) assessment of the liquefaction potential or earthquake induced slope instability (site is not in a mapped zone); or 3) sampling, field measurements or laboratory tests for the presence of any toxic/hazardous substances in the earth materials at the site. However, this does not imply that the site is subject to any unusual geologic, seismic or environmental hazard.

Any unanticipated condition encountered in the course of grading and/or construction should be brought to the attention of the geotechnical engineer for evaluation prior to proceeding with the work.

This report has been developed for the sole use of the client and/or clients authorized representative. These conclusions and recommendations should be verified by a qualified geotechnical engineer based in part upon additional subsurface information obtained during

grading and/or foundation construction. No part of the report should be taken out of context, nor utilized without full knowledge and awareness of its intent.

This report is issued on condition that HGEI will be retained to observe the grading and foundation construction operations. If another firm provides this service then that firm must review and accept this report, or provide alternate recommendations, and assume responsibility for the project. This report will be valid for a period of one year form date of issue and will then require updating.

0-0-0

REFERENCES

1. California Department of Conservation, Division of Mines and Geology, 2001, Seismic Hazard Zone Report for the La Habra 7.5-Minute Quadrangle, Los Angeles and Orange Counties, California, Seismic Hazard Zone Report 009.

2. California Department of Conservation, Division of Mines and Geology, April 15, 1998, State of California, Seismic Hazard Zones, La Habra 7.5-Minute Quadrangle, Scale 1:24,000.

3. California Department of Conservation, California Geological Survey, Earthquake Zone App, https://maps.conservation.ca.gov/cgs/EQZApp/

4. Dibblee, JR., Ehrenspeck, H.E., Geologic Map of the Whittier and La Habra Quadrangles (Western Puente Hills), Los Angeles and Orange Counties, California, Map No. DF-74, 2001.

5. USGS, 2006, Morton, D.M., and Miller, F.K., Geologic Map of the San Bernardino and Santa Ana 30'x 60' Quadrangles, Southern California, version 2.0: U.S. Geological Survey Open-File Report 99-0172.

6. OC Survey, 2020, 1m DEM, Tile F9, downloaded as 2-foot contours, produced from USGS LiDAR data sets

7. ASCE 7 Hazard Tool, https://asce7hazardtool.online/, December 7, 2022.

8. International Code Council (ICC), 2019, California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2 of 2.

9. USGS Unified Hazard Deaggregation Tool , https://earthquake.usgs.gov/hazards/interactive/#, dated December 7, 2022.

10. Keith & Associates Consulting Civil Engineers, 1972, Plans for 30 MG Central Reservoir, City of Brea, Orange County California, Sheets 3 (Grading Plan) and 4 (Supply, Draw, Drain & Subdrainage Details) of 20, dated September 23, 1972, Signed July 24, 1974.

11. Various Consultants, 1977, "As Built" Construction Plans for Additions to the Water System, Phase IIB – Water Bond Program in the City of Brea, California, 30 MG. Central Reservoir & Pump Station, EDA No. 07-01-01560, 18 Sheets, Approved July 24, 1974, As Built dated September 26, 27, and 29, 1977
    a. Sheet 5 Reservoir Lining Details prepared by Hovater-Way Engineers Inc. Consulting Engineers
    b. Sheet 6 (General Notes and Retaining Wall and Misc Details) and Sheet 7 (Roof Framing Plan and Details) prepared by McLean Schultz Civil & Structural Engineers.

12. Koury Engineering & Testing, Inc., 2018, Draft Limited Geotechnical Study, Phase 1, Upper Ring Road Pavement Improvement/Rehabilitation, Central Reservoir, 545 North Berry Street, Brea, California 92821, Project No. 18-0580, dated September 21, 2018.

13. Harrington Geotechnical Engineering, Inc., 2004, Post-Construction Geotechnical Investigation of Maintenance Building Floor Slab Subgrade Soil at Service Center, 545 Berry Street, Brea, CA, Project No. 04-BREA-0003, dated March 14, 2004.

APPENDIX A

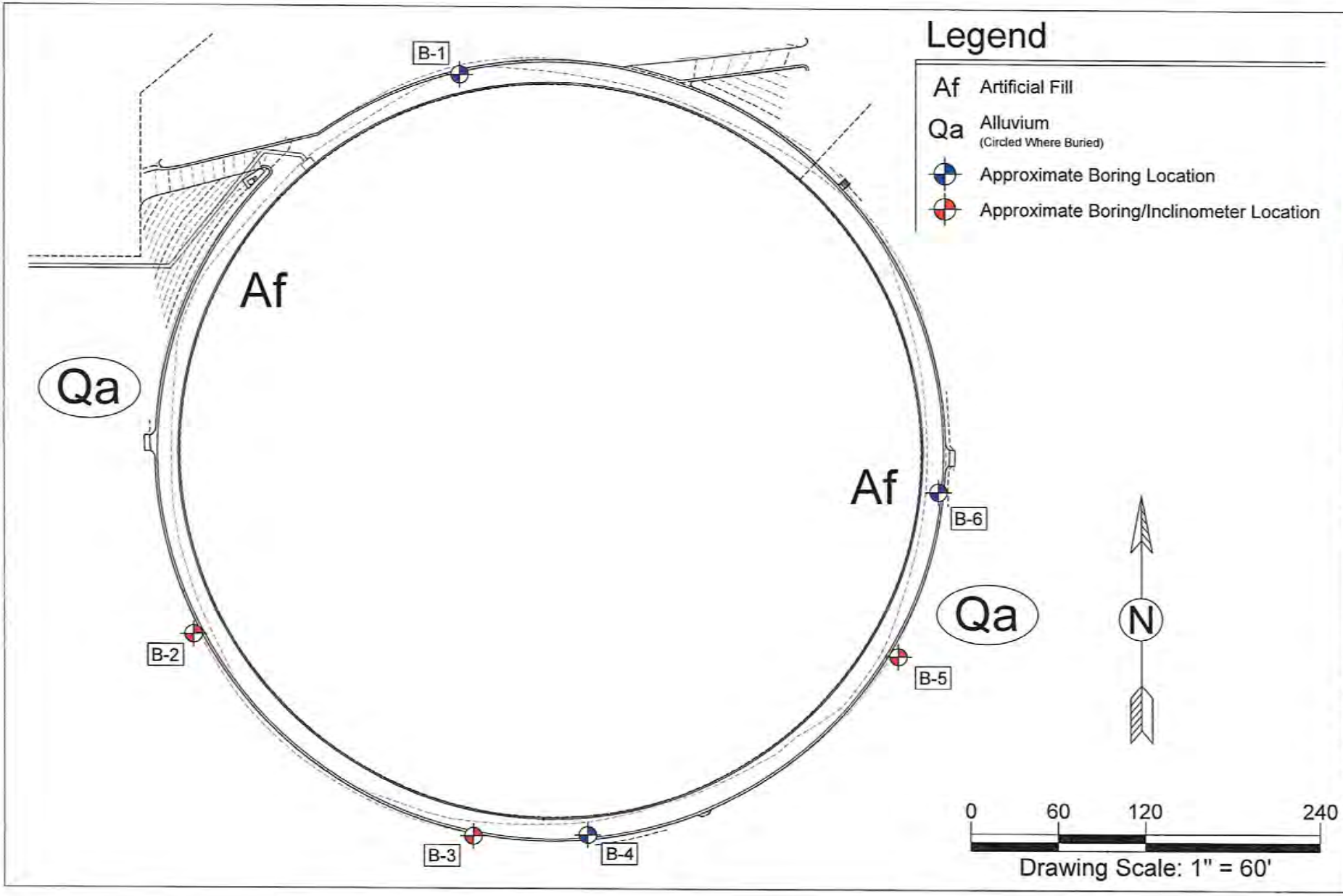
FIELD INVESTIGATION

The field investigation was conducted on September 27 and 28, 2022, consisting of drilling, logging and sampling six exploratory borings, drilled with a nominal 8-inch-diameter hollow stem auger to a maximum depth of 41.0 feet. Three of the borings were set with inclinometer casing as part of a long term slope monitoring program. The boring locations are indicated on Plate A-1 and the logs of the borings are presented on Plates A-2 through A-7. The descriptions represent the prevalent soil types and slightly different material types may be present within the major groupings. Also, the transition from one soil type or condition to another may be gradual rather than abrupt as implied, and differing conditions may exist in unexplored areas.

Unified Soil Classification System Classification Criteria/Symbols are presented on Plate A-8.

A representative of the geotechnical engineer observed the field work, collected samples for transportation to our geotechnical laboratory, and prepared field logs by visual/tactile examination of the materials. Samples were obtained at discreet intervals using a modified California split-spoon sampler loaded with 2.42" I.D. x 1" long, thin-wall, brass rings. Bulk samples of the materials were also collected. Samples were placed in plastic bags immediately upon removal from the sampler to conserve moisture and labeled for identification.

The borings were backfilled with excavated soils immediately upon completion of sampling.



HARRINGTON GEOTECHNICAL ENGINEERING, INC. ORANGE, CA

Project: Brea Reservoir Geotechnical Investigation

Address: 1 Civic Center Cir, Brea, CA 92821
HGI Project No. Brea-0012

Drawing Name: GEOTECHNICAL MAP

DRAWN BY: SBM
CHECKED BY: BG
DATE: 10/10/2022
REVISIONS:

Plate A-1

LOG OF BORING B-1

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					11" ASPHALT CONCRETE / 0" BASE			
						ARTIFICIAL FILL (Af): SANDY CLAY (CL), mottled dark brown/grey/orange, dry to damp, very stiff, coarse to medium grained, some black and orange spotting, trace small angular gravel up to 1/2" diameter	72	121	8
	5						61	123	8
							70	119	9
	10					SANDY CLAY (CL), mottled dark grey/dark brown, damp to moist, very stiff, coarse to medium grained, trace roots, some black spotting	28	112	13
						ALLUVIUM(Qvof): SANDY CLAY (CL), brown/orange, moist, very stiff, fine to medium grained - SAMPLE HIGHLY DISTURBED	46	118	12
	15					@ 15' increased sand content	34	114	10
						@ 17.5' trace small angular gravel up to 1/8" diameter	26		14
	20					SILTY CLAY (CL), brown/orange, moist, very stiff, some medium grained sand, grey banding	60	117	14
	25						20		16
	30					SILTY SAND (SM), grey/brown, moist, very dense, fine to medium grained	50/4"	118	10
	35					SANDY CLAY (CL), brown/orange, moist, very stiff, fine to medium grained	37		12
	40					SANDY CLAY (CL), orange/brown/white, moist, very stiff, medium grained, abundant white seams (caliche)	50/6"	121	11

Completion Depth:	41.0
Date Boring Started:	9/27/22
Date Boring Completed:	9/27/22
Logged By:	SBM
Drilling Contractor:	OWD

Remarks:
No groundwater. No caving.

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

PLATE A-2

LOG OF BORING B-2

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					**ARTIFICIAL FILL (Af):** SANDY CLAY (CL), mottled dark brown/orange, dry to damp, very stiff, medium to coarse grained, trace small angular gravel up to 1/4" diameter	63	105	8
	5					@5' trace asphalt fragments up to 1/2" diameter	50/5"	115	7
							50/6"	119	7
	10						50	116	7
						SILTY TO SANDY CLAY (CL), dark brown/orange, moist, very stiff, fine to medium grained, trace small angular gravel up to 1/8" diameter	30		
	15					SANDY SILT (ML), grey/brown, moist, very stiff	49	114	12
							60		11
	20					SANDY CLAY (CL), dark grey/dark brown, moist, very stiff, medium to coarse grained, trace small angular gravel up to 1/8" diameter	50/5"	104	24
	25					**ALLUVIUM (Qvof):** SANDY CLAY (CL), orange/brown, moist, very stiff, medium to coarse grained, trace small angular gravel up to 1/8" diameter	27		17
	30					SILTY CLAY (CL), dark brown/orange, damp, moist, very stiff, medium to coarse grained	58	101	21
	35					SANDY SILT (ML), orange/brown, moist, stiff	14		18
	40					SANDY CLAY (CL), orange brown, moist, very stiff, trace caliche	50/6"	114	14

Completion Depth:	41.0
Date Boring Started:	9/27/22
Date Boring Completed:	9/27/22
Logged By:	SBM
Drilling Contractor:	OWD

Remarks:
No groundwater. Minor caving past 35'. Inclinometer inserted in boring.

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

LOG OF BORING B-3

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					**ARTIFICIAL FILL (Af):** SANDY CLAY (CL), mottled dark brown/orange, very stiff, dry to damp, coarse to medium grained			
							28	111	10
	5						31	110	9
						@ 7.5' trace small angular gravel up to 1/4" diameter	61	117	10
	10					@ 10' trace organics	34	114	9
						SANDY TO CLAYEY SILT (ML), dark grey/brown, moist, very stiff, medium to fine grained, petroliferous odor	27	104	15
	15					SANDY CLAY (CL), brown/orange, moist, very stiff, medium to coarse grained	36	109	16
						SANDY CLAY (CL), dark grey/dark brown, moist, stiff, medium to fine grained, petroliferous odor	9		13
	20						23	106	15
	25					@ 25' strong petroliferous odor	21		18
	30					**ALLUVIUM (Qvof):** CLAYEY SAND (SC), orange/brown, moist, dense, medium to coarse grained, trace small angular gravel up to 1/2" diameter	48	117	7
	35					SILTY CLAY (CL), orange/brown, moist, very stiff	24		16
	40					SANDY CLAY (CL), orange/brown, moist, very stiff, fine grained, trace white striping (caliche)	73	118	13

Completion Depth:	41.0
Date Boring Started:	9/27/22
Date Boring Completed:	9/27/22
Logged By:	SBM
Drilling Contractor:	OWD

Remarks:
No groundwater. Minor caving near bottom of boring. Inclinometer inserted in boring.

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

LOG OF BORING B-4

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					12" ASPHALT CONCRETE / 0" BASE			
						ARTIFICIAL FILL (Af): SANDY CLAY (CL), mottled brown/orange, very moist, stiff, medium to fine grained			
	5						11	106	17
							18	104	18
	10						24	103	19
						SANDY CLAY (CL), dark grey/brown, moist, stiff, medium to fine grained, petroliferous odor	14	102	19
	15					@ 15' organic odor	12	106	18
						@ 17.5' strong petroliferous odor	10		13
	20					SANDY CLAY (CL), dark brown/orange, moist, very stiff, medium to fine grained, petroliferous odor	25	104	17
	25						16		15
	30					@ 30' very dark brown/slight orange	32	111	15
	35						50/5"		9
	40					SANDY CLAY (CL), brown/orange, moist, very stiff, medium to coarse grained, petroliferous odor	50/6"	117	11

Completion Depth:	41.0
Date Boring Started:	9/27/22
Date Boring Completed:	9/27/22
Logged By:	SBM
Drilling Contractor:	OWD

Remarks:
No groundwater. No caving.

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

PLATE A-5

LOG OF BORING B-5

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					**ARTIFICIAL FILL (Af):** SANDY CLAY (CL), brown with slight orange, dry to damp, very stiff, medium to coarse grained, trace small angular gravel up to 1/4" diameter			
	5						40	113	7
							50/4"	120	7
	10						45	108	8
							50/6"	117	11
	15					SANDY CLAY (CL), grey/brown, moist, very stiff, medium grained, strong petroliferous odor	26	104	16
						@ 17.5' dark grey/dark brown	20		17
	20						25	113	13
	25						21		16
	30					@ 30' rock in sampler, no recovery	50/5"		
	35					**ALLUVIUM (Qvof):** SANDY CLAY (CL), brown/orange, moist, fine to medium grained, trace white striping (caliche)	33		14
	40					@ 40' very stiff, moderate white striping (caliche)	50/6"	120	10

Completion Depth:	41.0
Date Boring Started:	9/27/22
Date Boring Completed:	9/27/22
Logged By:	SBM
Drilling Contractor:	OWD

Remarks:
No groundwater. Minor caving near boring invert.

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

LOG OF BORING B-6

Project:	BREA RESERVOIR	Surface Elev.:	Grade
Job No.:	22-BREA-0074	Top of Casing Elev.:	N/A
Location:	BREA, CA	Drilling Method:	8" Hollow-Stem Auger
Coordinates:		Sampling Method:	Cal-Mod/SPT

Elevation, feet	Depth, feet	Sample No.	Sampler Graphics	Symbol / USCS	Recovery %	MATERIAL DESCRIPTION	Blow Counts	Dry Unit Weight, lb/cu ft.	Water Content %
	0					**ARTIFICIAL FILL (Af):** SANDY CLAY (CL), dark brown/orange, moist, stiff, medium to coarse grained, trace small angular gravel to 1/4" diameter			
	5						14	104	16
	10					SANDY CLAY (CL), mottled, brown/dark gray/orange, moist, firm	10	106	12
	15					SANDY CLAY (CL), dark brown/orange, moist, very stiff, medium to coarse grained, strong petroliferous odor	50/6"	123	8
	20					**ALLUVIUM (Qvof):** SANDY CLAY, orange, moist, very stiff, fine grained, trace black stringers	50/3"	110	16
	25						50/3"		16
	30					@ 30' trace white banding (caliche)	50/4"	115	6
	35						44		15
	40					SANDY CLAY (CL), orange/brown, moist, very stiff, medium to fine grained, trace white stringers (caliche)	50/4"	114	15

Completion Depth:	41.0	Remarks: No groundwater. No caving.
Date Boring Started:	9/27/22	
Date Boring Completed:	9/27/22	
Logged By:	SBM	
Drilling Contractor:	OWD	

The stratification lines represent approximate boundaries.
The transition may be gradual.

Harrington Geotechnical Engineering, Inc.

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SAND, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

HARRINGTON
GEOTECHNICAL • ENGINEERING • INC.
1590 NORTH BRIAN STREET, ORANGE, CA. 92867 T: (714) 637-3093 F: (714) 637-3096

DRAWN BY: BBC | USCS | CHECKED BY: MVD

SOIL CLASSIFICATION CHART

12/09/2022 HGEI Project No. 22-BREA-0074 -PLATE A-8

APPENDIX B

LABORATORY PROCEDURES & TEST RESULTS

The samples collected during the field investigation were examined and classified by the geotechnical engineer/engineering geologist in the laboratory using the visual/tactile method and selected samples were assigned laboratory testing. Tests were performed in general accordance with latest ASTM standards. The following is a description of the laboratory testing and presents the results which are incorporated in the previous sections of the report.

Moisture and Density Determination (ASTM D2216-10 & D7263-09)

Field Moisture contents were determined for all samples. The core samples were trimmed and weighed and the dry densities of the material calculated. Moisture and dry density data are presented on the logs in Appendix A.

Expansion Index Test (ASTM D4829-11)

Expansion Index Tests were conducted on samples considered representative of the site material to establish data on which to base recommendations for design. The test results are presented in Table 1.

Water-Soluble Sulfate Test (EPA 300.0)

In order to determine the proper cement type for the site, the amount of water-soluble sulfate present in selected samples of the surface material was determined. The test results are presented in Table 2.

Compaction Test (ASTM D1557-12$^{\varepsilon 1}$)

The maximum dry density unit weight and optimum moisture content was established for typical surface/near-surface soil for use in evaluation of existing conditions and initial use during grading. Test results are presented in Table 3.

Consolidation Tests (ASTM D2435/D2435-11)

Consolidation tests were performed on undisturbed samples to determine the magnitude and rate of consolidation of the soil when subjected to incrementally applied controlled-stress loading. Graphs of the test results are presented on Plates B-1 through B-6.

Direct Shear (ASTM D3080/D3080 M-11)

Direct Shear tests were performed on undisturbed and remolded samples to determine the static strength of the soil. The tests were performed at increased moisture contents and at various confining pressures using a displacement rate of 0. 0012 in./min. to establish peak and ultimate strength parameters under adverse conditions of moisture. The shear test results (graphs) are presented on Plate B-7.

TABLE 1 Expansion Index Test Results (ASTM D4829-11)						
Sample Id.	Moisture Content (%)		Dry Unit Weight (pcf)		Calculated Expansion Index	Expansion Potential
	Initial	Final	Initial	Final		
B-1 @ 2'-5'	12.4	26.6	99.5	95.3	43	Low
B-2 @ 2'-7'	12.1	22.8	104.8	99.6	55	Medium

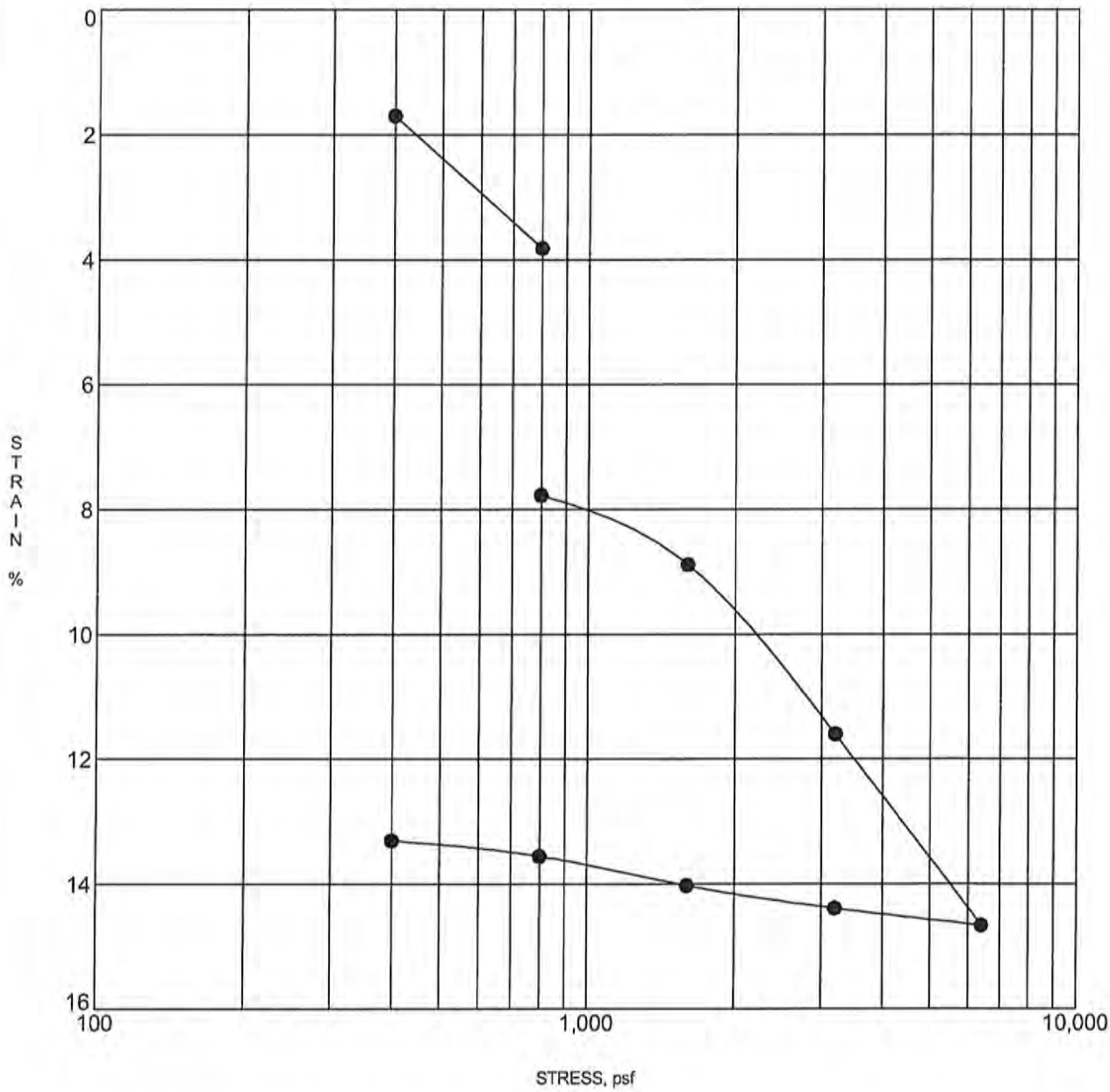
TABLE 2 Wate5r Soluble Sulfate Test Results (EPA 300.0,)	
Sample ID	**Water-Soluble Sulfate (%)**
B-1 @ 2'-5'	0.0063

TABLE 3 Compaction Test Results (ASTM D1557-12ε1)		
Sample ID	**Maximum Dry Density, pcf**	**Optimum Moisture Content, %**
B-1 @ 2'-5'	119.5	11.5

SAMPLE STORAGE

Soil samples presently stored in our laboratory will be discarded 30 days after the date of this report unless this office receives a written request to retain the samples for a longer period. Note that prolonged storage will result in sample degradation and may render them unsuitable for testing.

0-0-0



Specimen Identification		Classification	DD	MC%
● B-1	5.0	SANDY CLAY (CL)	108	8

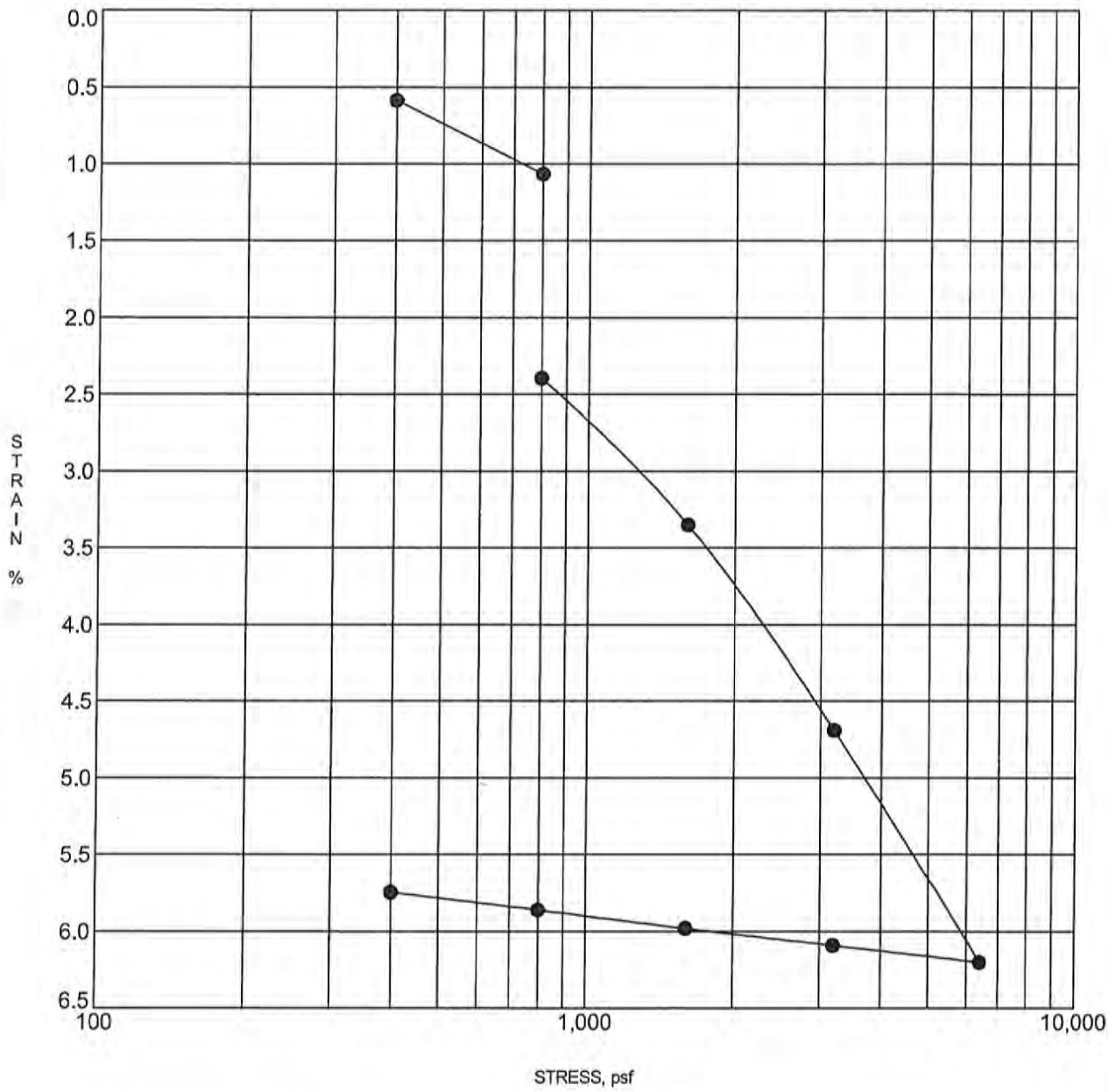
PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-1



Specimen Identification			Classification	DD	MC%
●	B-1	15.0	SANDY CLAY (CL)	110	9

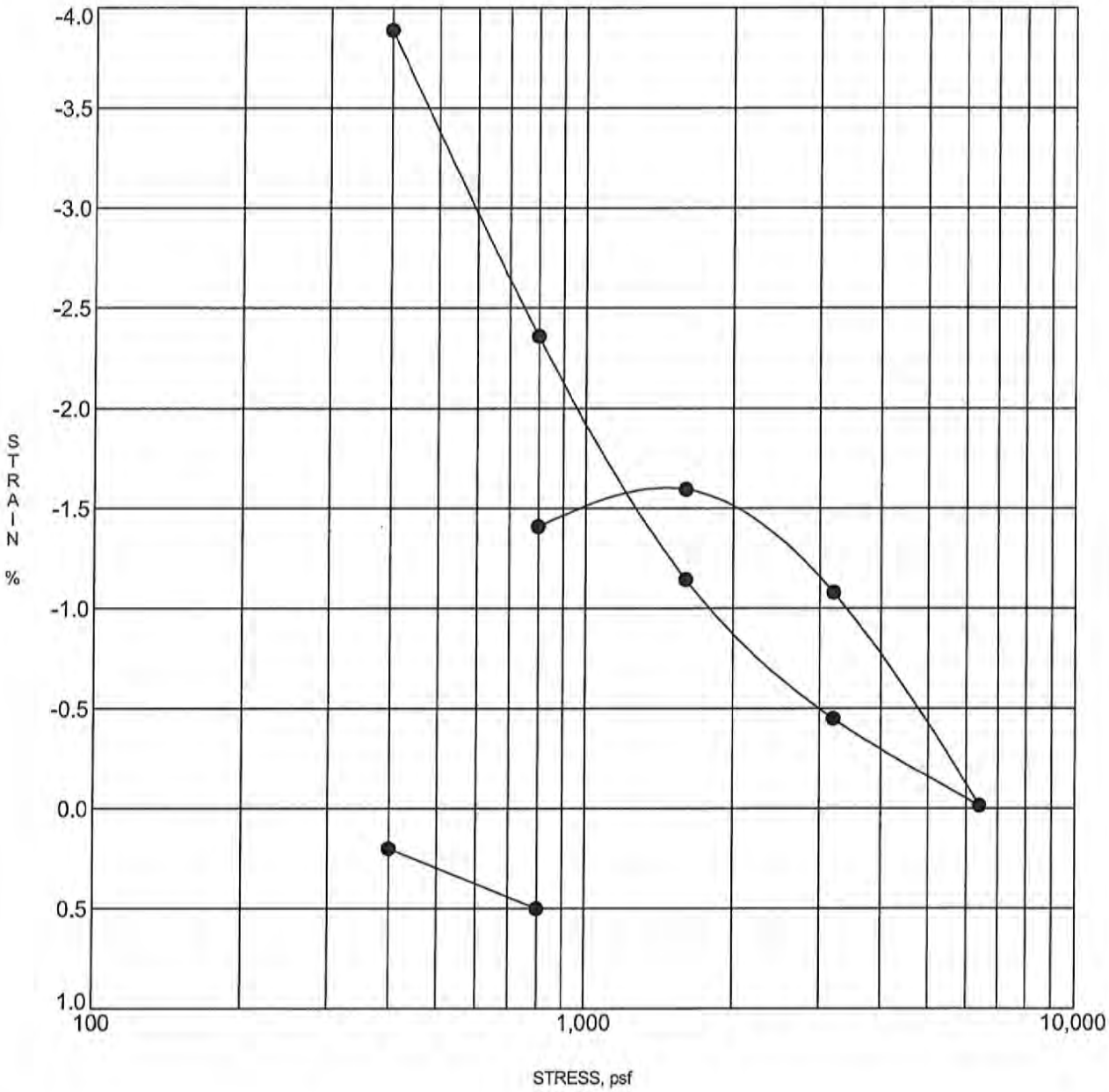
PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-2



	Specimen Identification		Classification	DD	MC%
●	B-2	10.0	SANDY CLAY (CL)	118	11

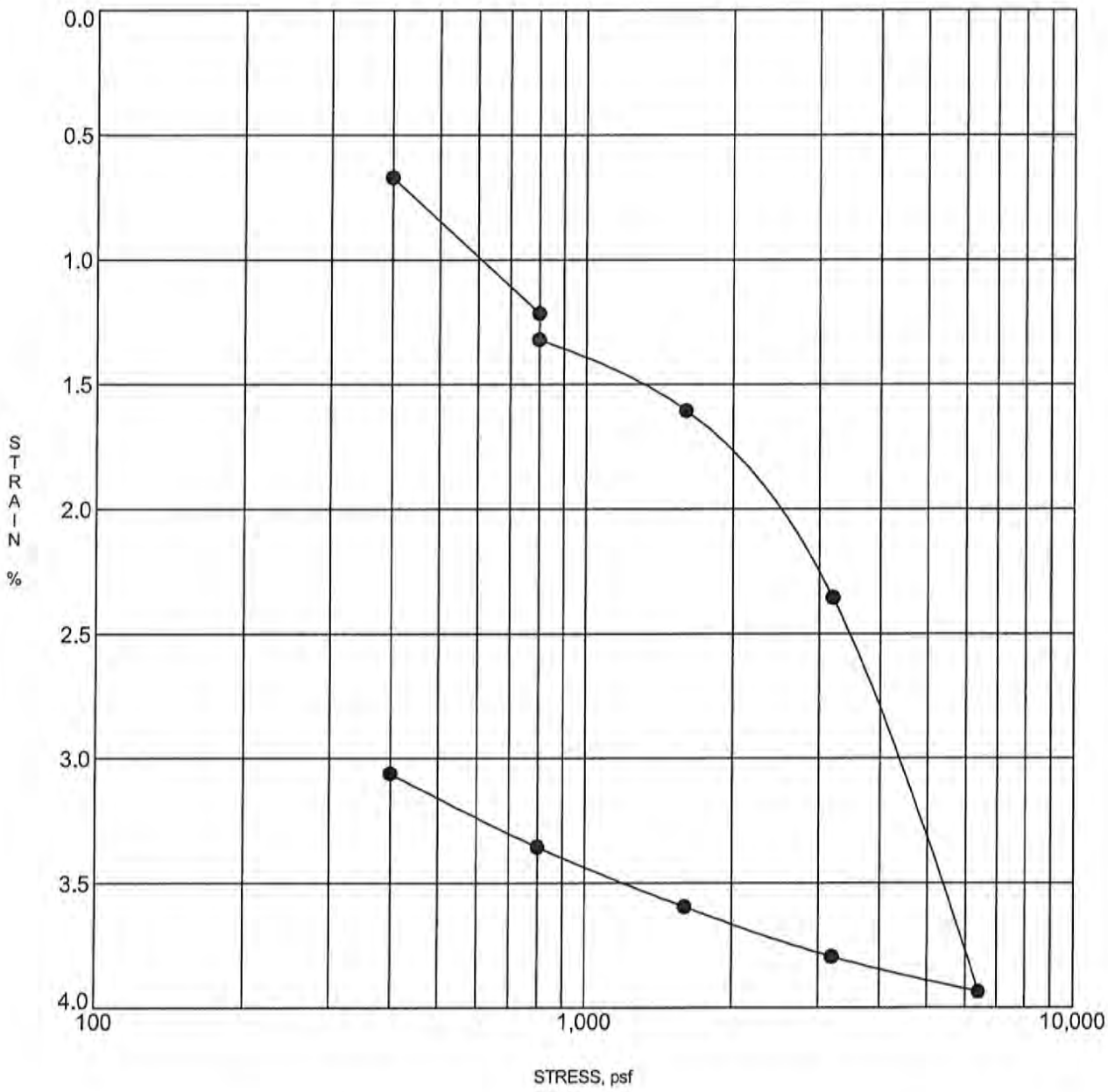
PROJECT BREA RESERVOIR - BREA, CA

JOB NO. 22-BREA-0074
DATE 12/9/22

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-3



Specimen Identification			Classification	DD	MC%
●	B-2	20.0	SANDY CLAY (CL)	111	11

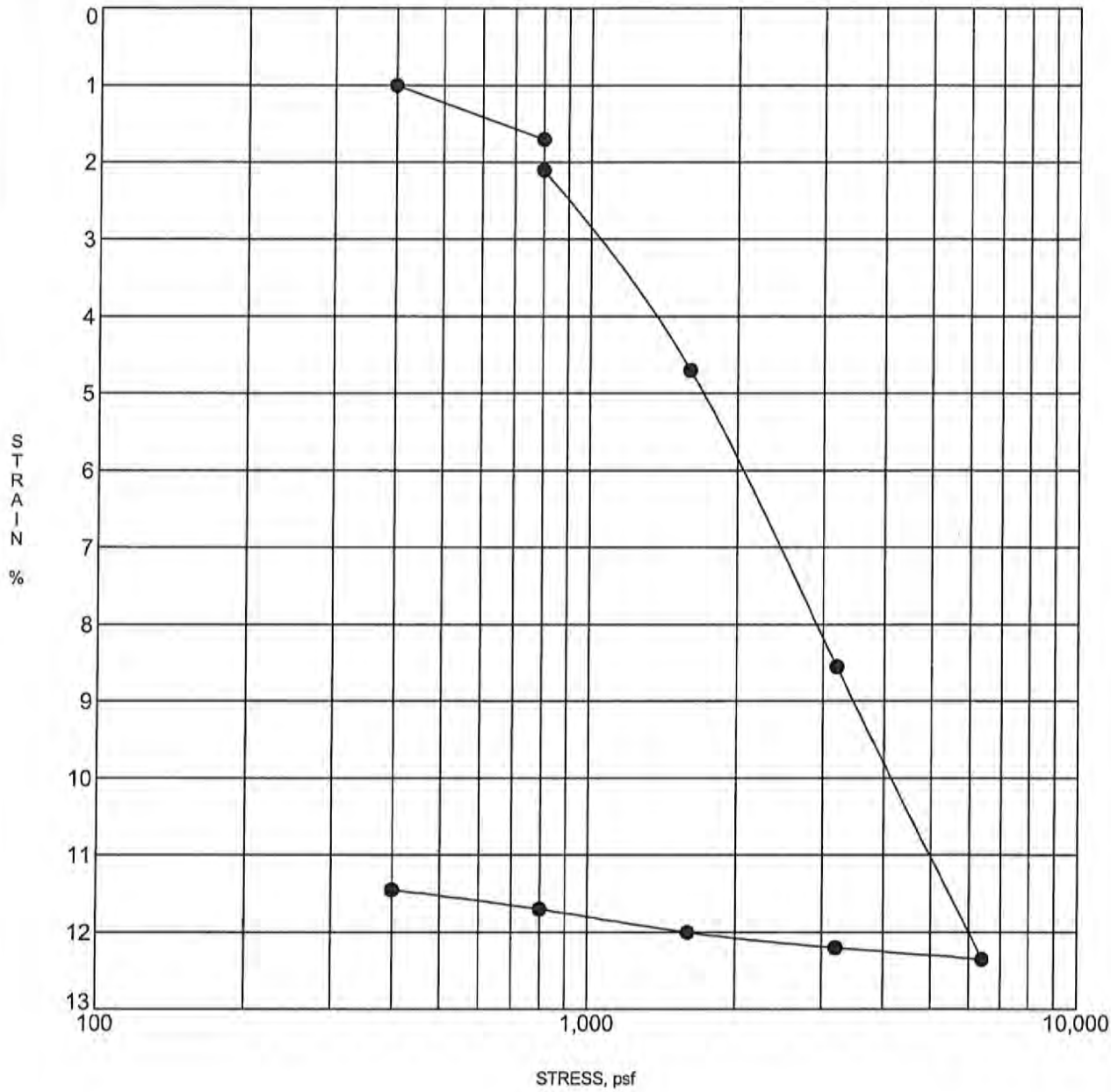
PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-4



Specimen Identification		Classification	DD	MC%
● B-3	20.0	SANDY CLAY (CL)	98	15

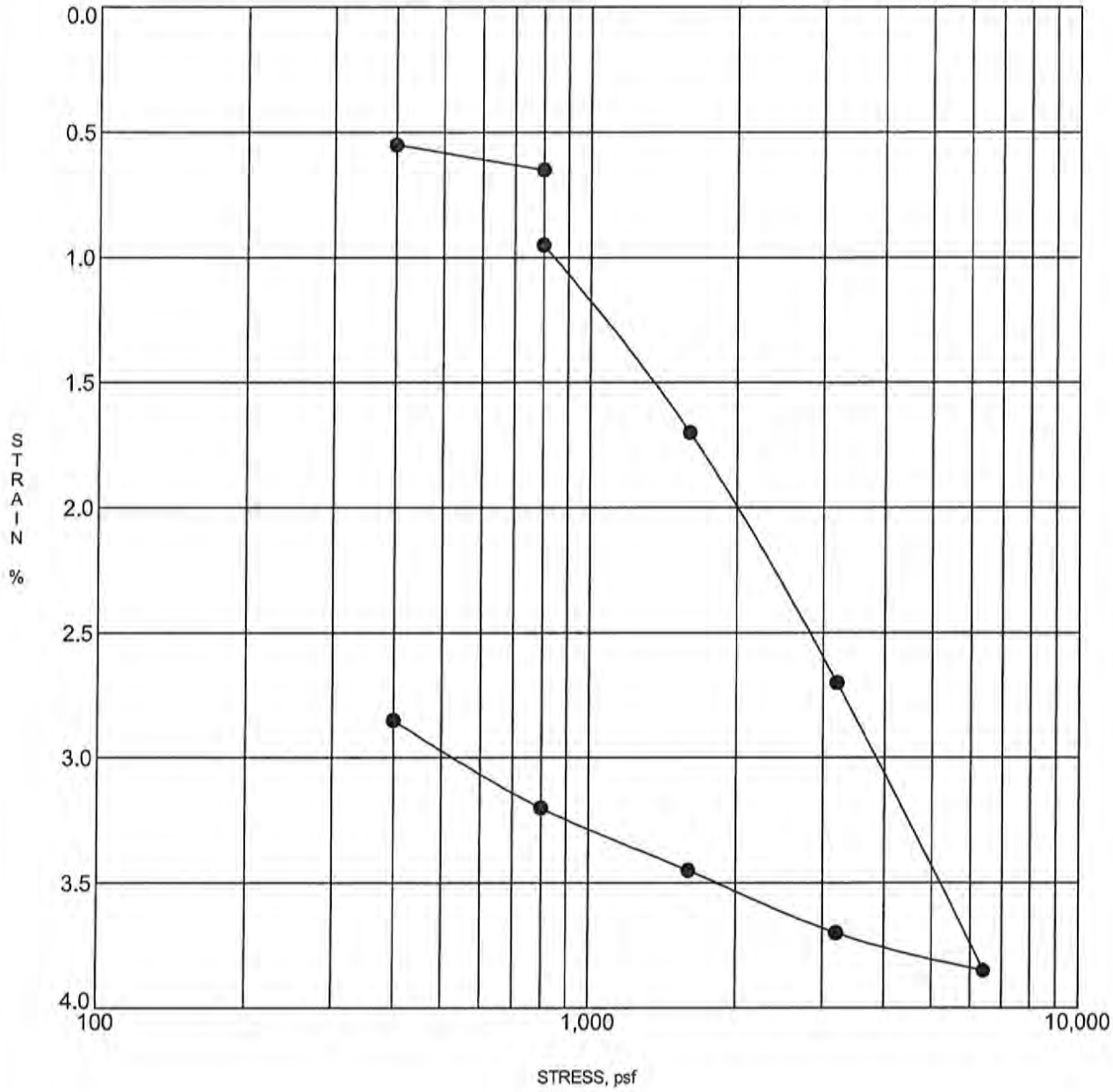
PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-5



	Specimen Identification		Classification	DD	MC%
●	B-3	30.0	SILTY SAND (SM)	113	10

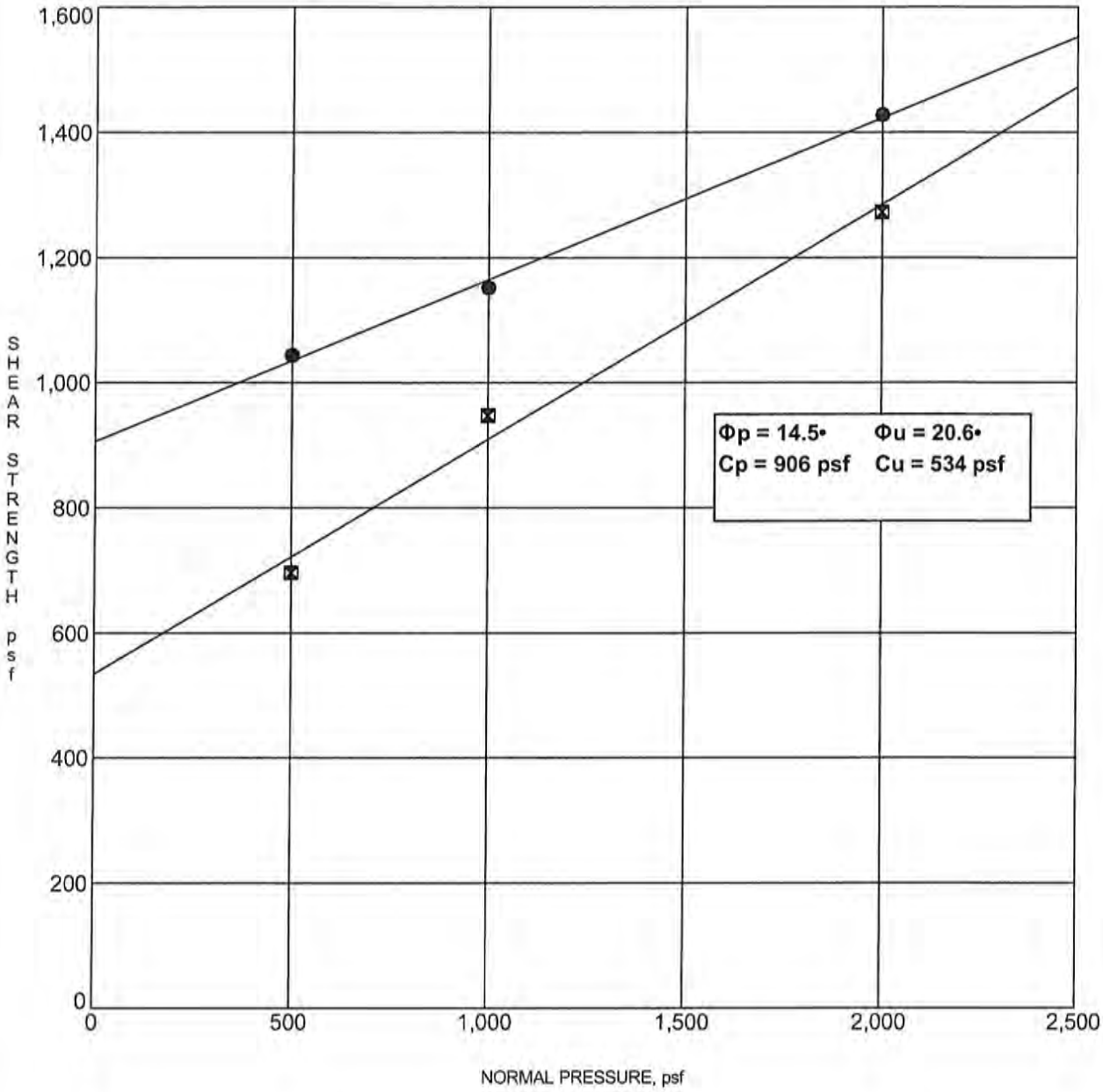
PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

CONSOLIDATION TEST

Harrington Geotechnical Engineering, Inc.

PLATE B-6



	Specimen Identification		Classification	DD	MC%
●	B-1	7.5	SANDY CLAY (CL), (Peak)	108	12
⊠	B-1	7.5	(Ultimate)		

PROJECT **BREA RESERVOIR - BREA, CA**

JOB NO. **22-BREA-0074**
DATE **10/27/22**

SHEAR TEST DIAGRAM

Harrington Geotechnical Engineering, Inc.

PLATE B-7

APPENDIX C

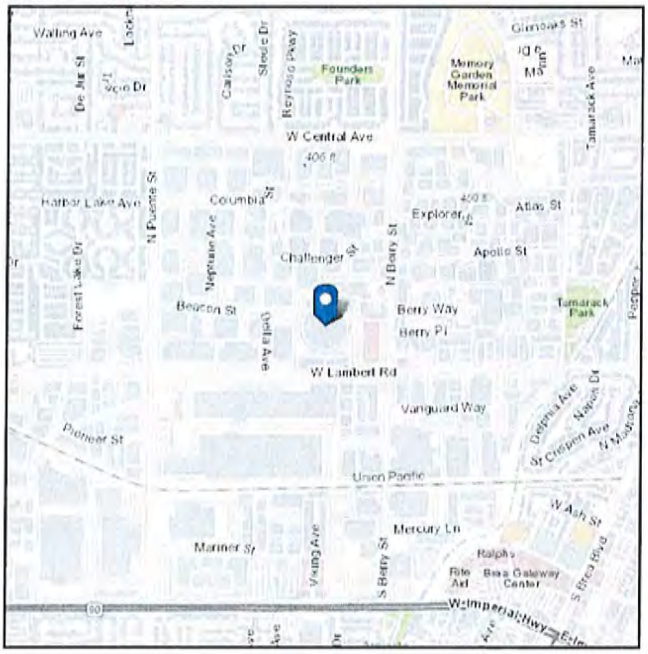
SEISMIC DATA AND RESPONSE SPECTRUM

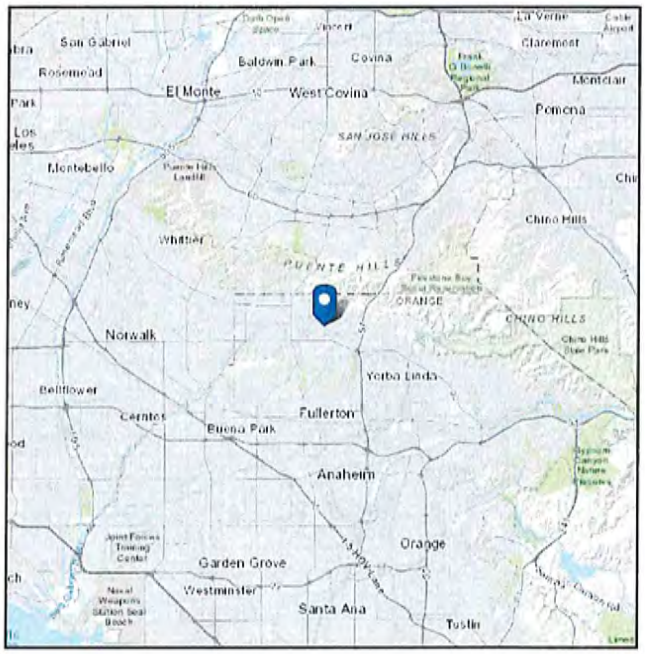
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-22
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 33.926038
Longitude: -117.909126
Elevation: 391.75 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

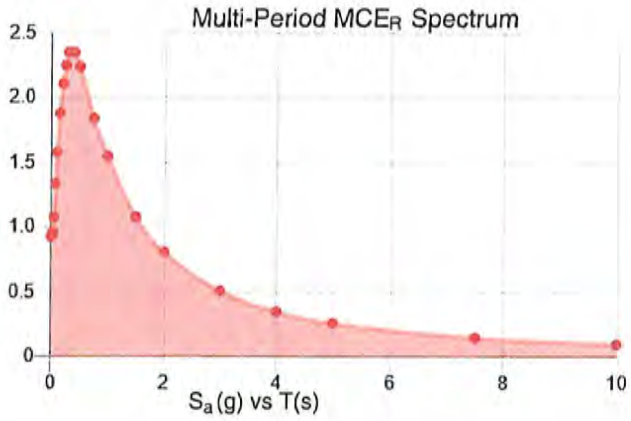
D - Stiff Soil

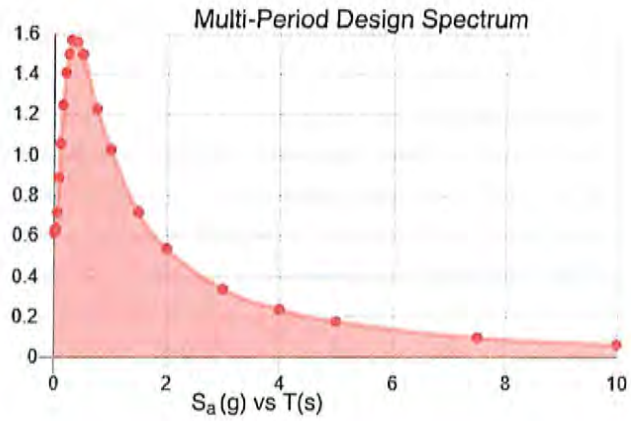
Site Soil Class:

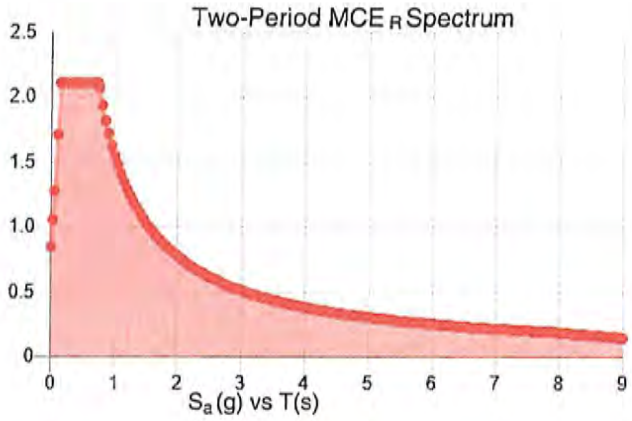
Results:

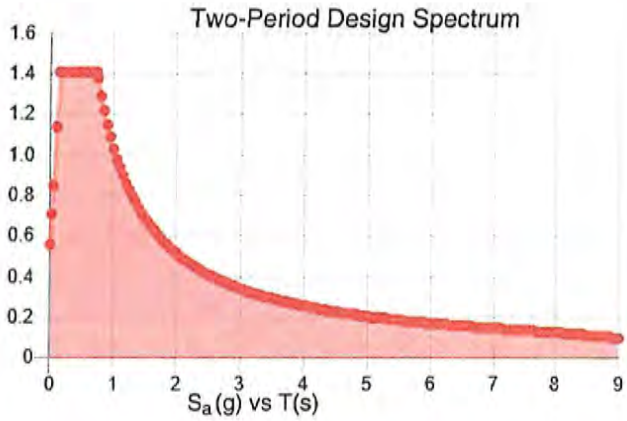
PGA_M :	0.81	T_L :	8
S_{MS} :	2.11	S_S :	2.05
S_{M1} :	1.55	S_1 :	0.72
S_{DS} :	1.41	V_{S30} :	260
S_{D1} :	1.03		

Seismic Design Category: D









MCE$_R$ Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Design Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Data Accessed: Fri Dec 09 2022

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-22 Ch. 21 are available from USGS.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

LIMITED GEOTECHNICAL STUDY

UPPER RING ROAD PAVEMENT
IMPROVEMENT/REHABILIATION
CENTRAL RESERVOIR
545 NORTH BERRY STREET
BREA, CALIFORNIA

PREPARED FOR
BREA SERVICE CENTER
PUBLIC WORKS DEPARTMENT
545 NORTH BERRY STREET
BREA, CALIFORNIA

PREPARED BY
KOURY ENGINEERING &TESTING, INC.
14280 EUCLID AVENUE
CHINO, CALIFORNIA

PROJECT NO. 18-0580

SEPTEMBER 21, 2018

Draft

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4. SITE CONDITIONS 2
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10. RECOMMENDATIONS 6
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12. CLOSURE 8
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Draft

September 21, 2018
Project No. 18-0580

Mr. Rudy Correa, Water Distribution Supervisor
Public Works Department
Brea Service Center
545 N. Berry Street
Brea, CA 92821

SUBJECT: Limited Geotechnical Study, Phase 1
Upper Ring Road Pavement Improvement/Rehabilitation
Central Reservoir
545 North Berry Street
Brea, California 92821

Draft

1. INTRODUCTION

This report presents the results of a preliminary Geotechnical and Geological Investigation performed by Koury Engineering & Testing, Inc. (Koury) for the proposed pavement improvements to the upper Ring Road of the Central Reservoir located at 545 N. Berry Street in the City of Brea, California (see Figure 1 in Appendix A for Vicinity Map). The study was performed to evaluate the surface and subsurface conditions at the site in order to determine the probable cause (s) of the Ring Road pavement distress and to provide recommendations for repair. This report provides geotechnical recommendations to improve the conditions or to rehabilitate the upper ring access road circling the 30 million gallon (MG) Central Reservoir.

Our professional services have been performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared exclusively for the City of Brea Service Center, Public Works Department and their design consultants for the subject project. The report has not been prepared for use by other parties, and may not contain sufficient information for the purposes of other parties or other uses.

2. PROPOSED IMPROVEMENTS

Koury Engineering & Testing, Inc. (Koury) understands that the City of Brea Public Works Department plans to improve/rehabilitate the pavement along the upper ring road adjacent to the Central Reservoir.

3. BACKGROUND

The original reservoir was constructed as an earth retention dam in 1924 and due to its dimensions and the volume of water stored, it is under the jurisdiction of the California Division of Safety of Dams. The presently existing partially-above-ground concrete water reservoir, with a capacity of 30 million gallons, was constructed in 1979 to replace the earlier dam. In 1987/1988 the wooden roof was replaced with aluminum cladding panels. About 5 to 6 years ago, a series of solar panels were installed on top of the roof. The 30-foot high reservoir has a diameter of about 500 feet and is surrounded by a 2½- to 7-foot high block wall extending above the inner road (upper ring road). We understand that about 5 years ago the upper ring road was overlain with 3 to 4 inches of asphalt concrete placed directly over the previously existing asphaltic pavement surface.

A review of the 2003 Google air photo indicates that the upper ring road contained longitudinal cracks and localized asphalt patches at that time. In the 2007 air photo the cracks had become more numerous and larger. The cracks were furthermore accentuated in the 2013 air photo prior to the construction of the asphalt overlay.

4. SITE CONDITIONS

The main site feature is the 30-million-gallon reservoir with a diameter of about 500 feet. We understand the reservoir shell bottom extends partially below the outer/lower ring road elevation, which range between about 370 and 380 feet (NAVD88). The 15-foot wide upper ring road surrounding the reservoir has curbs and gutters at its outer edge, which are generally located about 1 to 3 feet away from descending slopes (see Figure A-2b for Geotechnical Cross Section).

The lower/outermost ring road is about 12 to 14 feet wide and is separated from the upper ring road by a slope ranging in heights from about 4 to 13 feet. From curb to curb, the upper and

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lower ring roads are about 30 to 32 feet apart on the south side of the reservoir and about 23 to 25 feet apart on the north side of the reservoir. The slopes between the upper and lower ring roads have inclinations of 2:1 (H:V) or flatter. The slopes are landscaped with bushes, shrubs, and localized ground cover; there was localized bare ground in several areas at the time of our site exploration.

Based on our site visit on June 5, 2018, we observed longitudinal cracks ranging from about ⅛ to 2 inches in width, and localized differential settlement along the upper ring road (Photos 1 and 2, Appendix A). Some areas have multiple cracks (Photo 3) and other areas indicate separation between the asphalt pavement and the curb (Photo 4). The cracks were previously filled in some areas (Photo 5). The previously repaired separation between the block wall and the upper road is apparently on the order of 1 to 2 inches wide. There are areas where we observed pavement separation on the order of ¼ to 2 inches between the asphalt pavement and the gutter. There were localized small cracks, possibly shrinkage cracks, on the block wall by the reservoir and slopes between the upper ring road and the lower ring road. There was no sign of major erosion on the slope face. However, in localized areas, the curbs & gutters exhibit cracks and separation along the joints.

5. FIELD EXPLORATION

The field exploration program consisted of drilling three soil test borings and coring through the pavement at eleven locations. The borings were drilled to depths of 21½ and 26½ feet on August 15, 2018, using 8-inch diameter hollow stem auger drilling equipment. The core holes were drilled on August 15 and 16, 2015, using a portable coring machine with 4-inch and 6-inch diameter core barrels. Not all the holes could be cored with a 6-inch diameter core bit due to the difficulty of properly anchoring the coring machine into the sun-heated asphalt. Hand augering was performed within Core Holes C-1, C-4 and C-5, which were cored with 6-inch core barrels. The locations of the borings and core holes are shown on the Boring and Coring Location Map, Figure A-1 presented in Appendix A.

Standard penetration test samples, California ring samples and bulk samples were obtained from the hollow-stem auger borings for laboratory testing. Asphalt samples were obtained from the core holes. The depths, blow counts, and description of the samples are shown on

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the attached boring logs presented in Appendix B of this report. The contractor used a 140-lbs. automatic hammer to drive the samplers 18 inches into the soils.

6. LABORATORY TESTING

Laboratory tests, including moisture content, #200 sieve wash, pocket penetrometer, direct shear, consolidation, expansion index, and asphalt core density were performed on selected samples obtained from the borings and core holes to aid in the classification of the materials encountered and to evaluate their engineering properties. The results of pertinent laboratory tests are presented on the boring logs in Appendix B, and/or in Appendix C.

7. SUBSURFACE CONDITIONS

The subsurface soil profile consists of fill underlain by older alluvium. Fill was encountered in all borings and core holes. Based on one of our borings, the fill depth below the upper ring road is on the order of 23½ feet.

Within the upper ring road, the fill generally consists of sandy lean clay and lean clay with sand overlain by aggregate base and asphalt concrete. The thickness of aggregate base encountered in the borings ranges from about 3 to 6 inches. The asphalt concrete consists of two layers; a base layer and an overlay layer. Based on the borings and core holes, the base asphalt layer ranges in thickness from about 2.8 to 5.7 inches with an average of approximately 3.8 inches. The asphalt cap overlay ranges in thickness from about 3 to 5.3 inches with an average of about 3¾ inches. The total thickness of existing asphalt ranges from about 6.5 to 9.1 inches.

No groundwater was encountered in the borings drilled during our field investigation.

The moisture contents of the clay generally range from moist to very moist and from about 9½ to 24½ percent with an average of about 17½. The dry unit weights of the clay soils range from 93 and 121 pcf with an average of about 106½ pcf. Our #200 sieve wash tests indicate that the clays have 50 to 84 percent fines contents (average of about 61%).

One direct shear test on the clay sample indicated a peak friction angle of about 27 degrees with a cohesion of approximately 520 psf. The corresponding ultimate values are about 26 degrees and 104 psf, respectively. The consolidation test on a clay sample indicated some swelling

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despite the high moisture and relatively high degree of saturation and the expansion index test result shows medium expansion potential (Expansion Index of 76). The consolidation test also indicated moderate consolidation potential for the clay fill.

The pocket penetrometer test results show that the unconfined compressive strength of the tested samples ranges between approximately 0.75 and 4.5 tsf with an average of about 3.0 tsf (tons per square foot).

The asphalt core density tests indicate bulk specific gravity between about 2.1 and 2.4 with an average of about 2.3 and unit weights/density ranging from about 130.9 to 149.1 pcf with an average of about 142.9 pcf. Based on an assumed maximum density of the asphalt of 151 pcf, the relative compaction of the asphalt ranges between about 93 and 97 percent with an average slightly below 95 percent.

Detailed descriptions of the soil stratigraphy are presented on the attached boring logs in Appendix B. The soil conditions described in this report are based on the soils observed in the test borings and in some of the core holes excavated for this investigation and the laboratory test results. Variations between and beyond the borings and core holes should be anticipated.

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8. SITE GEOLOGY

The site is located within the Los Angeles physiographic basin. The Los Angeles physiographic basin is part of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges extend north to the San Gabriel Mountains and south into Mexico to the tip of Baja California. The Peninsular Ranges Province is characterized by alluviated basins, elevated erosion surfaces, and northwest-trending mountain ranges bounded by northwest trending faults. The area is within the southeastern portion of the Los Angeles physiographic basin, which is characterized by sedimentary rocks of Tertiary age.

Based on the Geologic Map of the Santa Ana 30’x60’ Quadrangle compiled by D.M. Morton, the site is underlain by very old alluvial fan deposits. Our borings encountered fill to a depth of 23½ feet and older alluvium below that depth.

9. CONCLUSIONS

The pavement distress in the form of cracks and deformation appears to be mostly localized. Most of the cracks are in the longitudinal direction and roughly parallel to the curbs.

No groundwater was encountered in our borings and no seepage was observed on the slopes. It does not appear that groundwater has contributed to the pavement distress.

The subgrade soils were found to be firm to stiff with moderate compressibility, and some of the pavement cracking is attributed to soil settlement. Some of the cracking is also attributed to lack of construction uniformity and inadequate compaction. There are also seam/shrinkage cracks where the paving machine did not get close enough to the curb or to the previously laid asphalt; these areas are often the first ones to develop shrinkage cracking. Soil expansion may also have contributed to the separation of the pavement from the block wall and separation of the pavement from the road gutter.

During coring, several of the cores separated between the overlay and the old asphalt base. The tack coating that was used prior to placement of the overlay appears to have been inadequate in some areas.

Large portions of the asphalt pavement distress appear to have been caused by reflection cracking; the cracks in the old pavement are being reflected through the pavement overlay (see Figure A-2c for old pavement cracking conditions). We understand that no pavement grinding and/or pavement repair was performed prior to placement of the overlay about 5 years ago. No pavement fabric was used either based on our observation of the asphalt core obtained during this study. The old pavement conditions are, therefore, judged to be contributing to the distress of the asphalt overlay pavement.

10. RECOMMENDATIONS

A combination of repair methods can be used to improve the pavement conditions; namely, ongoing maintenance with crack filling, grinding and overlay, and removal and replacement of the overlay and the underlaying cracked pavement.

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Crack filling: Crack filling may be used for single random individual cracks that are less than 3/16 inch wide. It is recommended to use hot pour rubberized long-lasting flexible sealant.

Removal and reconstruction: Removal and reconstruction is recommended where there is differential settlement within the pavement and multiple cracks in close vicinity from each other (within 3 feet of each other). The existing pavement section should be removed to expose the subgrade soils. If the subgrade soils are excessively soft or loose, they should be excavated at least one additional foot. The depth of removal may have to be extended deeper if very loose/soft soils conditions are encountered at the excavation bottom. The Geotechnical Engineer should observe the excavation bottoms prior to scarification and recompaction and provide recommendations accordingly. The excavation should extend approximately 18 inches laterally on both sides of the cracks.

The new pavement section should consist of at least 6 inches of aggregate base overlain by 6 inches of asphalt concrete. At the patch locations, the asphalt thickness should be adjusted as needed in order not to be one inch less than the existing asphalt thickness. The clay subgrade should be recompacted to at least 90 percent relative compaction at a moisture content of at least 115 percent of optimum prior to placement of the aggregate base. The subgrade should be in a non-pumping condition at the time of compaction.

The aggregate base and asphalt should be compacted to at least 95 percent relative compaction. Base course material should consist of Crushed Aggregate Base (CAB) or Crushed Miscellaneous Base (CMB) as defined, respectively, by Sections 200-2.2 and 200-2.4 of the Standard Specifications for Public Works Construction ("Greenbook").

Drainage: Pavement performance depends greatly on proper drainage within and along the boundary of the pavement. We observed that separation of the pavement from the concrete along the edge of the pavement in localized areas has created avenue for water to enter the pavement subgrade. It is recommended that these areas be sealed, or strips of pavement replaced in these areas to prevent water from entering the subgrade.

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11. OBSERVATIONS AND TESTING

This report has been prepared assuming that Koury will perform all geotechnically-related field observations and testing during construction. If the recommendations presented in this report are utilized, and observation of the geotechnical work is performed by others, the party performing the observations must review this report and assume the responsibility for the recommendations contained herein. That party would then assume the title "Geotechnical Consultant of Record."

A representative of the Geotechnical Consultant should be present to observe all grading operations as well as pavement construction.

12. CLOSURE

The findings and recommendations presented in this report were based on the results of our field and laboratory investigations, combined with professional engineering experience and judgment. The report was prepared in accordance with generally accepted engineering principles and practice. We make no other warranty, either expressed or implied. Soil characteristics can vary throughout the site. Koury should be notified if subsurface conditions are encountered, which differ from those described in this report since updated recommendations may be required. Samples obtained during this investigation will be retained in our laboratory for a period of 45 days from the date of this report and will be disposed after this period.

Should you have any questions concerning this submittal, or the recommendations contained herewith, please do not hesitate to call our office.

Respectfully submitted,
Koury Engineering and Testing, Inc.

Jacques B. Roy, P.E., G.E.
Principal Geotechnical Engineer

Mehrab Jesmani, PhD, PE, M. ASCE
Project Engineer

Distribution: 1. Addressee (a pdf copy via e-mail)
2. File (B)

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Appendix A: Maps, Plans and Photos

Vicinity Map – Figure A-1
Boring and Coring Location Map – Figure A-2a
Geotechnical Cross Section S-A' – Figures A-2b
Site Aerial Photo – 2013 – Figure A-2c
Geology Map – Figure A-3
Photo 1 – Figure A-4
Photo 2 – Figure A-5
Photo 3 – Figure A-6
Photo 4 – Figure A-7

Appendix B: Field Exploratory Boring Logs

Borings B-1 through B-3 and C-1, C-4 and C-5

Appendix C: Laboratory Test Results

Consolidation
Direct Shear
Expansion Index
Asphalt Core Density

Draft

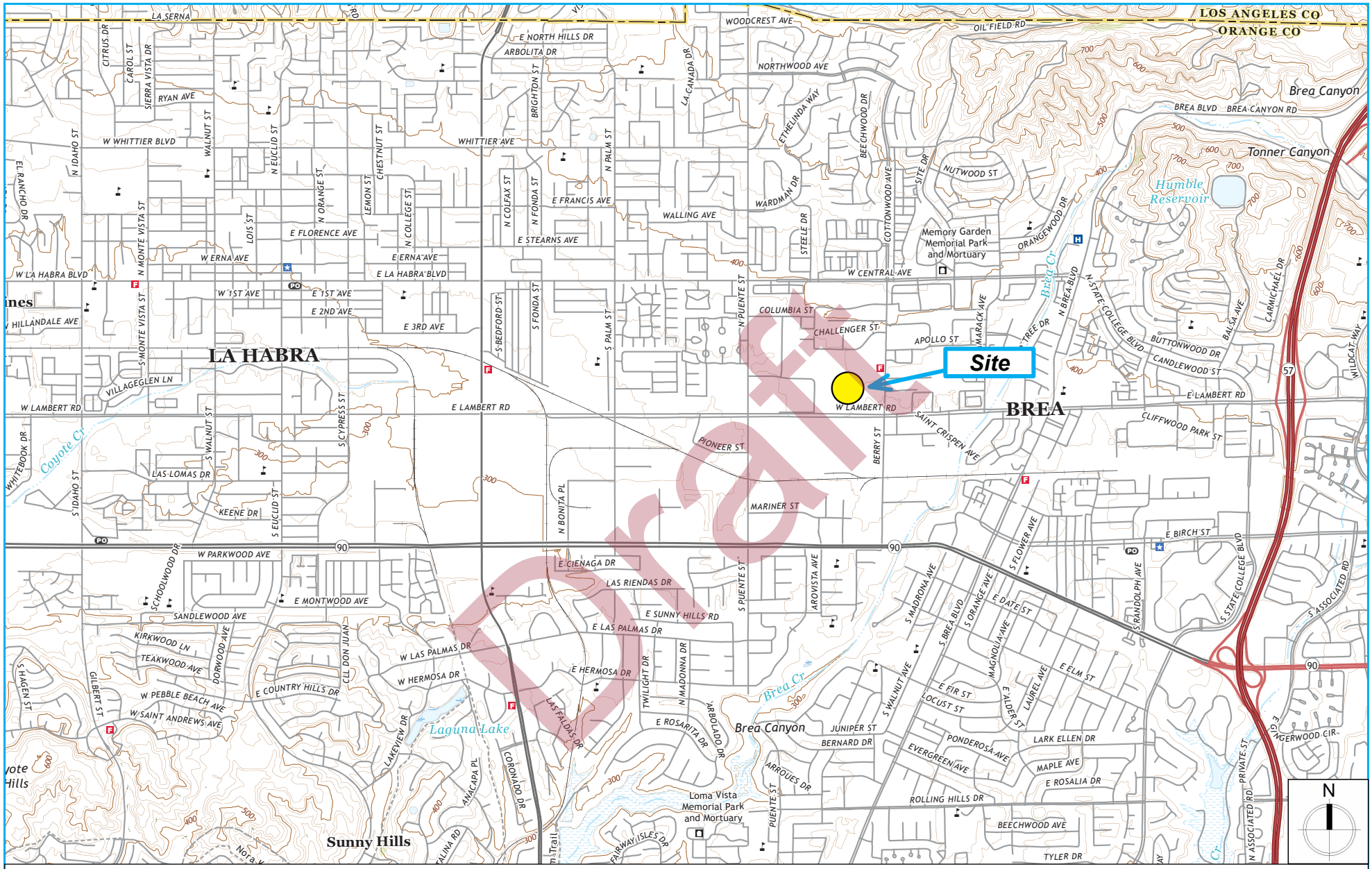
REFERENCES

1. City of Brea General Plan, Draft 2014-2021, Housing Element.
2. Standard Specifications for Public Works Constructions, 2018
3. USGS, 2004, Preliminary Digital Geologic Map of the Santa Ana 30'x60' Quadrangle, Southern California, Version 2, Open File report 99-172, Compiled by D.M. Morton.
4. United States Geological Survey, 2015, La Habra Quadrangle, California-Orange County, 7.5-Minute Series (Topographic) Map Quadrangle.

APPENDIX A

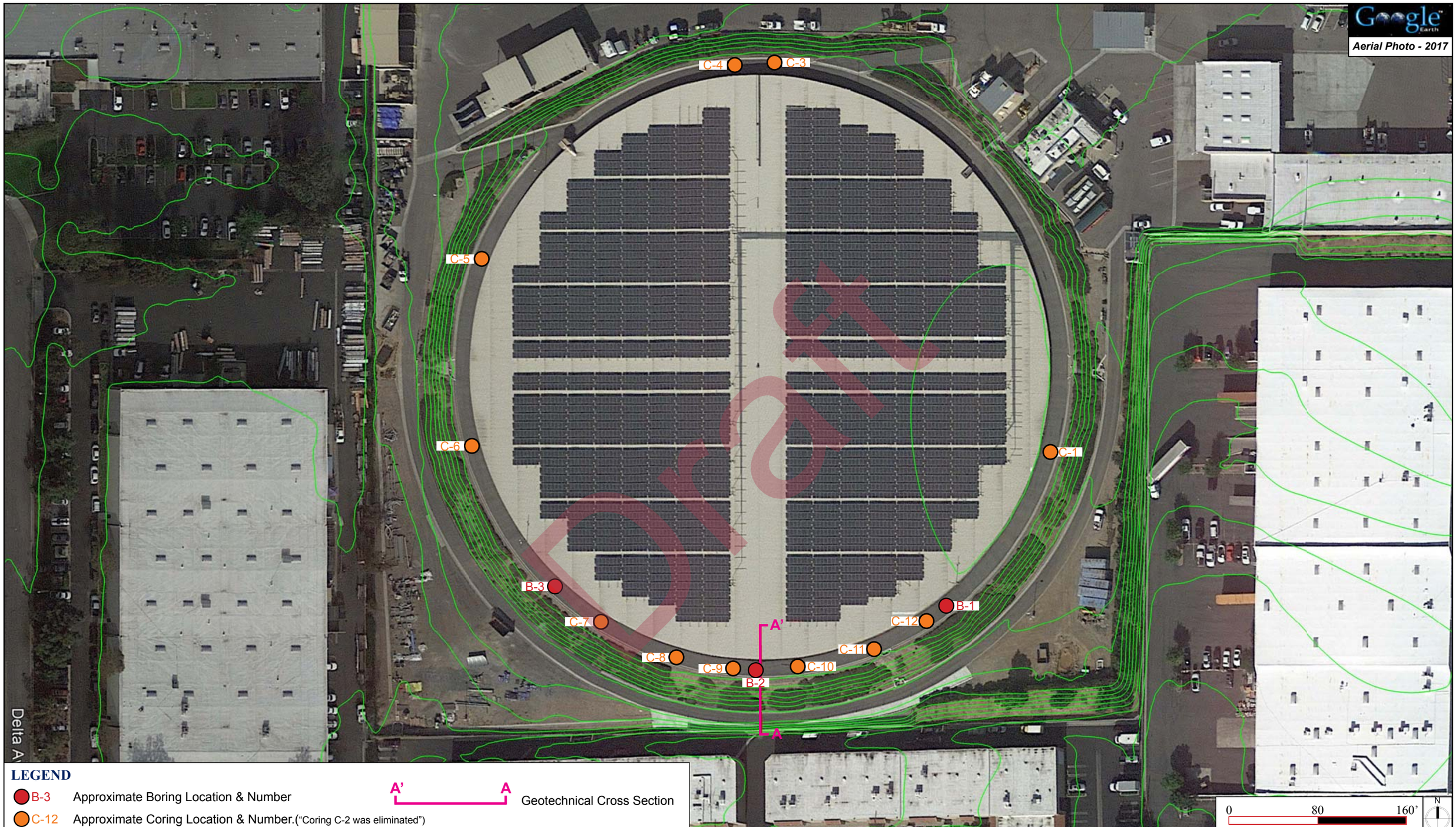
Maps, Plans and Photos

Draft



Reference: USGS Topographic Map, La Habra Quadrangle, California, 7.5-Minute Series 2018
Contour Interval 20 feet, NAVD 1988

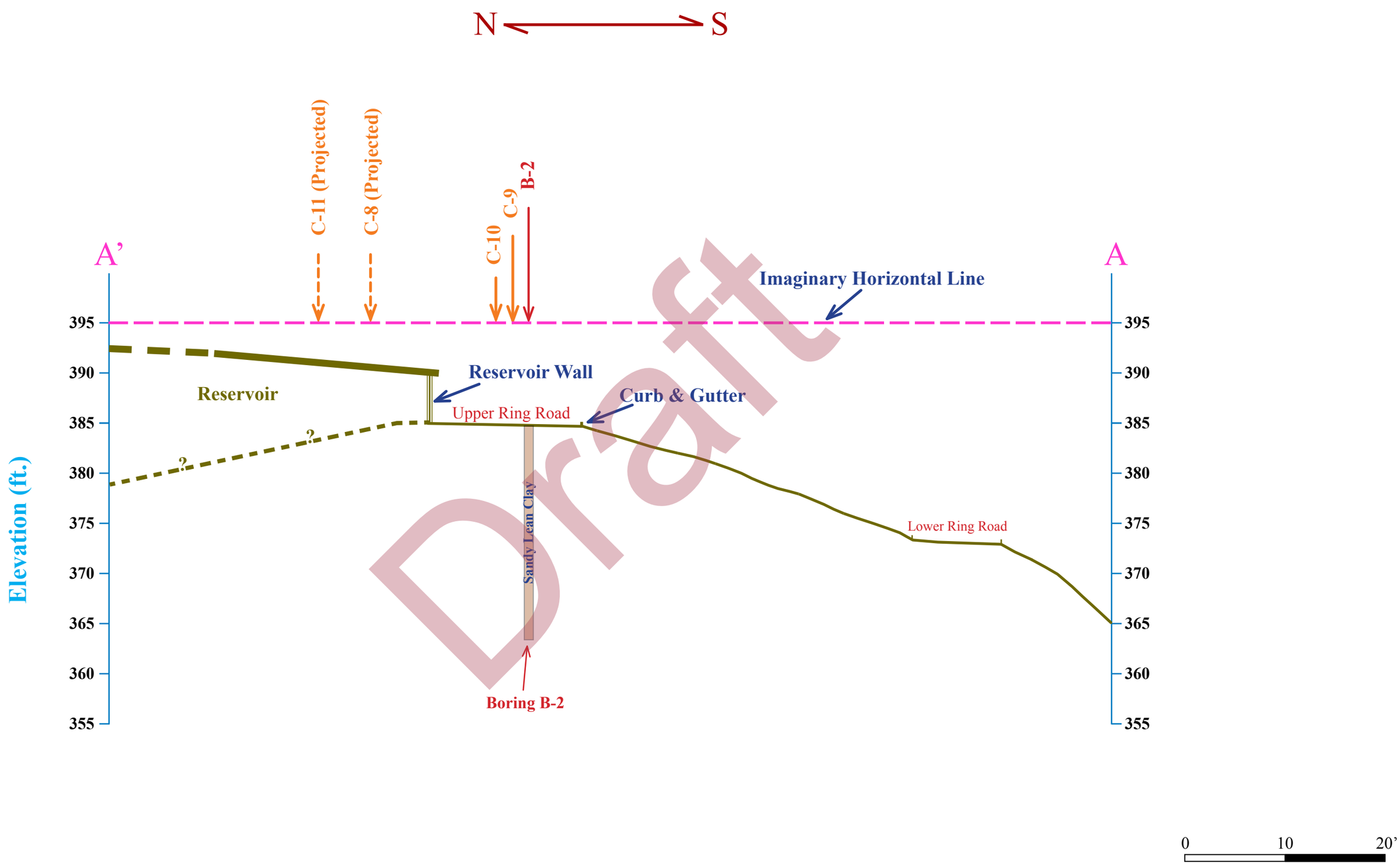
KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: 18-0580 Date: September 2018	Drawing Title: Vicinity Map	Figure: A-1



LEGEND

- B-3 Approximate Boring Location & Number
- C-12 Approximate Coring Location & Number.("Coring C-2 was eliminated")
- A' — A Geotechnical Cross Section

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: 18-0580 Date: September 2018	Drawing Title: Boring & Coring Location Map	Figure: A-2a



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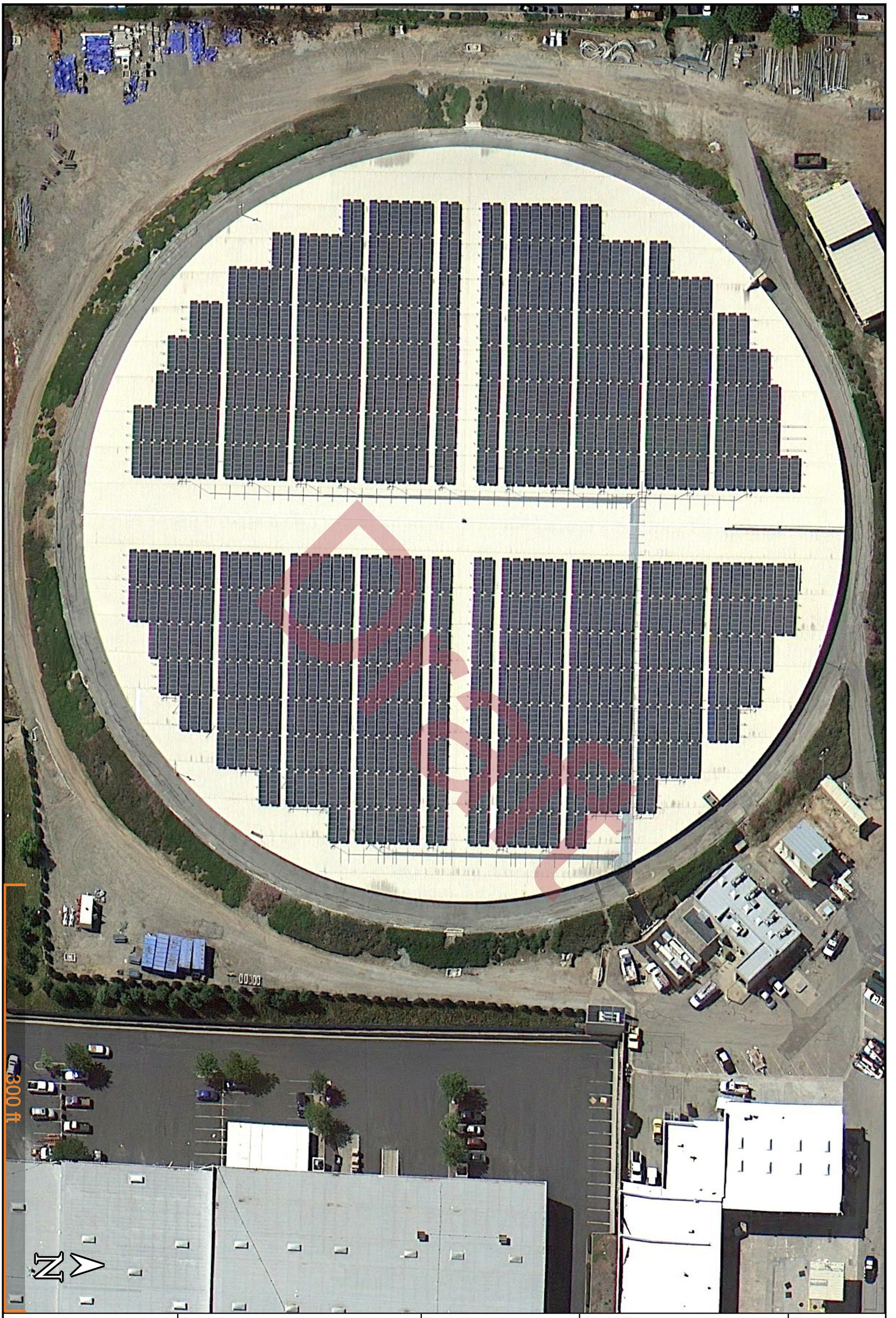
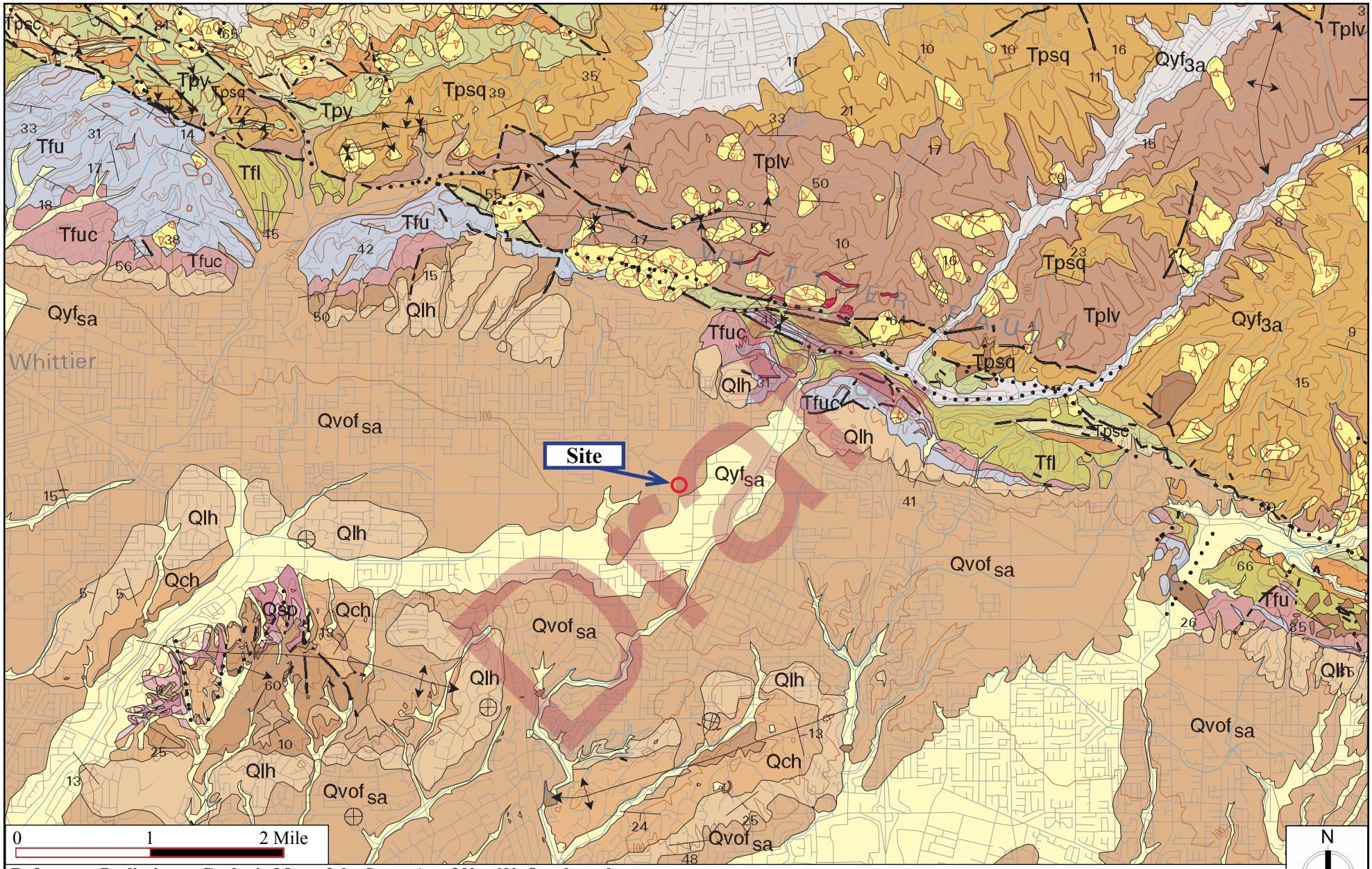
KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: 18-0580 Date: September 2018	Drawing Title: Geotechnical Cross Section A-A'	Figure: A-2b



KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: 18-0580 Date: September 2018	Drawing Title: Site Aerial Photo - 2013	Figure: A-2c



Reference: Preliminary Geologic Map of the Santa Ana 30' x 60' Quadrangle Southern California, Compiled by D. M. Morton, Version 2.0, 2004

Qvof — Very Old Alluvial Fan Deposits - Sandy Alluvium

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: 18-0580 Date: September 2018	Drawing Title: Geology Map	Figure: A-3

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: Date: September 2018	Drawing Title: Photo No. 1 Previously Filled Cracks & Longitudinal Random Cracks	Figure: A-4

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: Date: September 2018	Drawing Title: Photo No. 2 Pavement Differential Settlement	Figure: A-5

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: Date: September 2018	Drawing Title: Photo No. 3 Multiple Cracking	Figure: A-6

KOURY ENGINEERING & TESTING, INC.	Project Name: City Of Brea Ring Road Pavement Investigation	Project No.: Date: September 2018	Drawing Title: Photo No. 4 Separation Along Curb & Gutter	Figure: A-7

APPENDIX B

Field Exploratory Boring Logs

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KEY TO LOGS

SOILS CLASSIFICATION					
MAJOR DIVISIONS			GRAPHIC LOG	USCS SYMBOL	TYPICAL NAMES
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS LESS THAN 5% FINES		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES MORE THAN 12% FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS 50% OR MORE OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS LESS THAN 5% FINES		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES MORE THAN 12% FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS 50% OR MORE OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS 50 OR MORE			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR GRAVELLY ELASTIC SILTS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

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GRAIN SIZES							
SILT AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
	#200	#40	#10	#4	3/4"	3"	12"
SIEVE SIZES							

KEY TO LOGS (continued)

SPT/CD BLOW COUNTS VS. CONSISTENCY/DENSITY					
FINE-GRAINED SOILS (SILTS, CLAYS, etc.)			GRANULAR SOILS (SANDS, GRAVELS, etc.)		
CONSISTENCY	*BLOWS/FOOT		RELATIVE DENSITY	*BLOWS/FOOT	
	SPT	CD		SPT	CD
SOFT	0-4	0-4	VERY LOOSE	0-4	0-8
FIRM	5-8	5-9	LOOSE	5-10	9-18
STIFF	9-15	10-18	MEDIUM DENSE	11-30	19-54
VERY STIFF	16-30	19-39	DENSE	31-50	55-90
HARD	over 30	over 39	VERY DENSE	over 50	over 90

* CONVERSION BETWEEN CALIFORNIA DRIVE SAMPLERS (CD) AND STANDARD PENETRATION TEST (SPT) BLOW COUNT HAS BEEN CALCULATED USING "FOUNDATION ENGINEERING HAND BOOK" BY H.Y. FANG. (**VALUES ARE FOR 140 Lbs HAMMER WEIGHT ONLY**)

DESCRIPTIVE ADJECTIVE VS. PERCENTAGE	
DESCRIPTIVE ADJECTIVE	PERCENTAGE REQUIREMENT
TRACE	1 - 10%
LITTLE	10 - 20%
SOME	20 - 35%
AND	35 - 50%

*THE FOLLOWING "DESCRIPTIVE TERMINOLOGY/ RANGES OF MOISTURE CONTENTS" HAVE BEEN USED FOR MOISTURE CLASSIFICATION IN THE LOGS.

APPROXIMATE MOISTURE CONTENT DEFINITION	
DEFINITION	DESCRIPTION
DRY	Dry to the touch; no observable moisture
SLIGHTLY MOIST	Some moisture but still a dry appearance
MOIST	Damp, but no visible water
VERY MOIST	Enough moisture to wet the hands
WET	Almost saturated; visible free water

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Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : B-1
Sheet : 1 **of :** 1

Drilling Method : Hollow Stem 6" Auger
Sampling Method : Bulk - CD - SPT
Hammer Weight : 140 lbs **Drop Height :** 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Geoboden, Inc.
Date Drilled : 8/15/2018

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
				0				7.5 " of asphalt over 4" of aggregate base	
1	14.6							**FILL: Sandy Lean CLAY**; trace of gravel, moist, dark yellowish brown	#200 Wash Fines = 51%
2	24.3								#200 Wash Fines = 77%
3								**Lean CLAY with SAND;** stiff, moist to very moist, dark brown	
4	23.4	104	4 6 11	5					#200 Wash Fines = 76% PP = 2.5 - 3 tsf
5	19.0	104	3 5 7					**Sandy Lean CLAY;** firm to stiff, moist, dark brown	#200 Wash Fines = 50% PP= 0.75 - 1 tsf
				10			CL		
6	17.7		4 4 6	15				relatively dry, strong petroleum odor, gray zones	#200 Wash Fines = 66% PP=4.5-1.75tsf
7	17.3		2 3 5	20					#200 Wash Fines = 55% PP= 3 - 4.5 tsf
								End of Boring @ 21' 6" No groundwater encountered	
				25					
				30					
				35					
				40					

Bulk ⊠ CD ■ SPT ⊠

Draft

Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : B-2
Sheet : 1 **of :** 1

Drilling Method : Hollow Stem 6" Auger
Sampling Method : Bulk - CD - SPT
Hammer Weight : 140 lbs **Drop Height :** 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Geoboden, Inc.
Date Drilled : 8/15/2018

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
				0				6" of asphalt concrete over 6" of aggregate base	
1	14.5							**Sandy Lean CLAY;** trace of gravel, firm to stiff, moist, brown	#200 Wash Fines = 70%
2	14.8								#200 Wash Fines = 61%
3	16.0		3 3 4	5				firm, bottom very moist	#200 Wash Fines = 54%
4	20.6	97	3 6 7					stiff, very moist	#200 Wash Fines = 64% PP = 2.5 tsf
5	16.8		1 3 4	10			CL	very dark gray, firm, petroleum odor, oily zone	#200 Wash Fines = 62%
6	20.7	111	6 10 14	15				oily zone, stiff	#200 Wash Fines = 52%
7	14.8		4 5 7	20					#200 Wash Fines = 50% PP = 3.5 - 4 tsf
				25				End of Boring @ 21' 6" No groundwater encountered	
				30					
				35					
				40					

Bulk ⊠ CD ■ SPT ⊠

Draft

Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : B-3
Sheet : 1 **of :** 1

Drilling Method : Hollow Stem 6" Auger
Sampling Method : Bulk - CD - SPT
Hammer Weight : 140 lbs **Drop Height :** 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Geoboden, Inc.
Date Drilled : 8/15/2018

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
				0				4.5" asphalt concrete over 6" of aggregate base	
1	15.8						CL	**FILL:** **Sandy Lean CLAY;** stiff, moist, very dark brown	#200 Wash Fines = 60% PP = 4.0 tsf
2	16.7							brown	Fines = 60% PP=2.5 - 4.5 tsf
3	12.8			5				dark brown	Fines = 59%
4	18.9	113	9 9 8					oily smell, trace of gravel, stiff to very stiff, dark brown	Fines = 70% PP = 4- 4.5 tsf
5	22.4		2 3 5						Fines = 73%
6	23.4	93	4 6 8	10				**Lean CLAY with SAND;** stiff, moist to very moist, brown with dark brown inclusions	#200 Wash Fines = 84% PP=1.5 - 2.5 tsf
7	18.0		4 5 5	15				**Sandy Lean CLAY;** stiff, moist, brown with dark brown	#200 Wash Fines = 54% PP= 3.5 - 4 tsf
8	14.8		5 9 9	20					Fines = 50% PP = 4.5 tsf
9	22.0	110	9 32 50/3"	25				**OLDER ALLUVIUM:** **Sandy Lean CLAY;** very stiff to hard, moist, brown with dark brown layers	#200 Wash Fines = 70% PP = 4.5 tsf
				30 35 40				End of Boring @ 26' 6" No groundwater encountered	

Bulk ☒ CD ■ SPT ☒

Draft

Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : C-1
Sheet : 1 of : 1

Drilling Method : Coring and 4" Hand Auger
Sampling Method : Bulk - SPT
Hammer Weight : 140 lbs Drop Height : 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Koury
Date Drilled : 8/15/18

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
				0				8.6" of asphalt concrete over 3" of aggregate base	
1	15.7						CL	**FILL:** **Sandy Lean CLAY;** firm, moist, dark brown	PP = 2.5 tsf Fines = 57%
2	16.1								Fines = 57%
3	17.6							stiff, trace of gravel	Fines = 63%
				5				End of Boring @ 4' 3" No groundwater encountered	
				10					
				15					
				20					
				25					
				30					
				35					
				40					

Bulk ☒ CD ■ SPT ☒

Draft

Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : C-4
Sheet : 1 of : 1

Drilling Method : Coring and 4" Hand Auger
Sampling Method : Bulk
Hammer Weight : 140 lbs Drop Height : 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Koury
Date Drilled : 8/15/18

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
1	5.1			0				6.4" of asphalt concrete over 6" of aggregate base	Fines = 10% Gravel = 45%
2	13.2						CL	**FILL:** **Sandy Lean CLAY;** trace of gravel, stiff, moist, brown	Fines = 58% Gravel = 5%
3	9.7								Fines = 53% Gravel = 4%
4									
				5				End of Boring @ 4' No groundwater encountered	
				10					
				15					
				20					
				25					
				30					
				35					
				40					

Bulk ☒ CD ■ SPT ☒

Draft

Boring Log

KOURY ENGINEERING & TESTING, INC.

Project No. : 18-0580
Project Name : Ring Road Reservoir Pavement

Boring No. : C-5
Sheet : 1 of : 1

Drilling Method : Coring and 4" Hand Auger
Sampling Method : Bulk - CD - SPT
Hammer Weight : 140 lbs Drop Height : 30"
Location : See Figure A-2

Ground Elevation:
Drilling Co. : Koury
Date Drilled : 8/16/18

Sample No.	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per 6"	Depth (ft)	Sample Location	Graphic Log	Soil Type (USCS)	Description	Additional Tests
				0				5.8" of asphalt concrete over 4" of aggregate base	
1	15.8								Fines = 59%
									PP = 2.5 tsf
2	11.1	121					CL	**FILL:** **Sandy Lean CLAY;** trace of gravel, stiff, moist, very dark brown with grayish brown inclusions	Fines = 60%
									PP = 3 - 4.5 tsf
3	15.7								Fines = 62%
									PP = 2.5 tsf
4	14.4								Fines = 55%
				5				End of Boring @ 4' No groundwater encountered	
				10					
				15					
				20					
				25					
				30					
				35					
				40					

Bulk ☒ CD ■ SPT ☒

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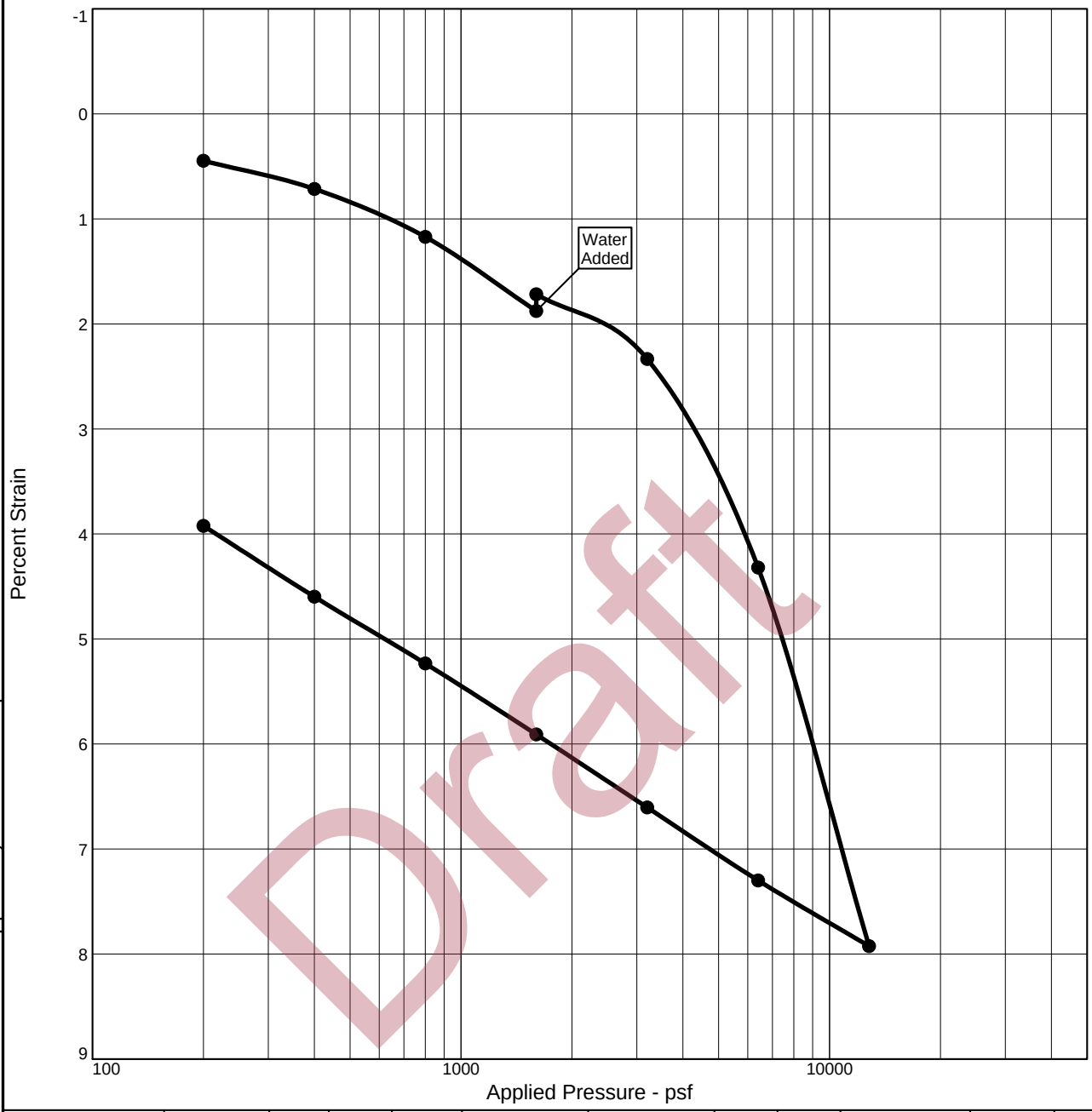
APPENDIX C

Laboratory Test Results

Draft

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_s	Swell Press. (psf)	Swell %	e_o
88.9 %	24.4 %	96.8			2.7		4802	0.21	0.04	432	0.2	0.741

MATERIAL DESCRIPTION	USCS	AASHTO
Observed as: Brown and Greenish Grey Silty Clay	Observed as: CL	

Project No. 18-0580 **Client:**

Project: Brea Ring Road

Location: B1 @ 6' **Sample Number:** 2018-231

Remarks:

Lab #: 5272.

Koury Engineering & Testing, Inc.

Chino, CA

Figure

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical samples.

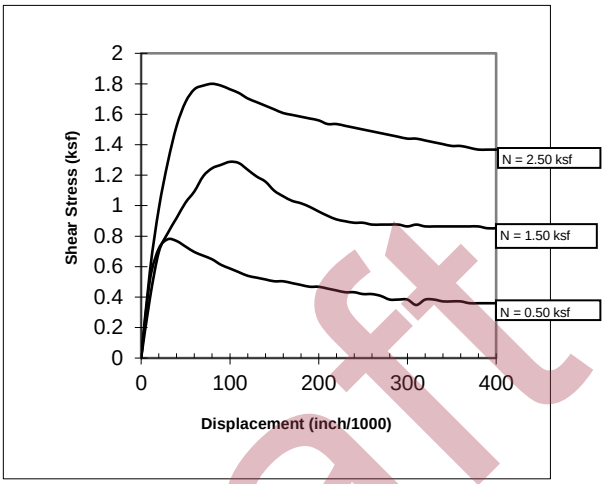
Tested By: Mathew F. Perry **Checked By:** _____

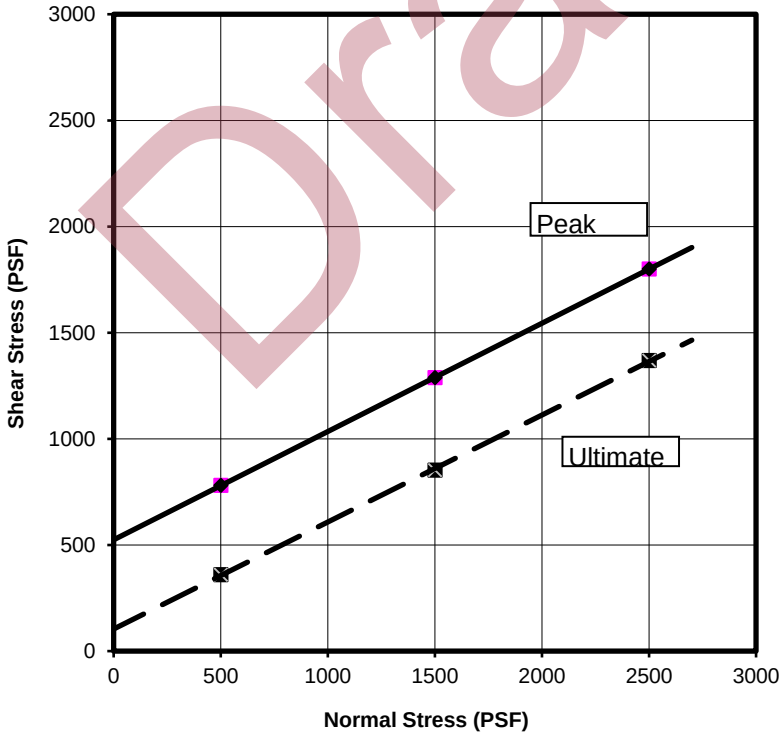
Direct Shear Test Report

Sample Identification	Sample Description	Sample Test State
B1 @ 6'	Dark Brown Clay	Saturated-Consolidated

Peak:	**Phi (Degrees)**	**27.0**	(Avg.Dry Dens. = 101.2 pcf)
	Cohesion (PSF)	**524.3**	(Avg.Moist. = 20.9 %)
Ultimate:	**Phi (Degrees)**	**26.7**	
	Cohesion (PSF)	**104.0**	

☑ **Relatively Undisturbed**
☐ **Remolded**





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KOURY ENGINEERING & TESTING, INC.	Project Name: Ring Road Pavement Investigation	Project No.: 17-0157 Date: 9/1/18	Lab # 5260

EXPANSION INDEX TESTS

DENSITY AND MOISTURE CONTENT DATA - EI TEST

Location/ Elevation	B1 @ 2' - 3'	
USCS Symbol	CL	
Normal Load (psf)	144	
SAMPLE CONDITION	Initial	Final
Wt Specimen & Ring (gr)	733.070	
Wt. of ring (gr)	364.15	
Wt. Specimen (gr)	368.920	
Specimen diameter (in)	4.010	
Specimen radius (cm)	5.09	
Area of Specimen (cm^2)	81.479	
Init. Spec. height (in)	0.9995	N/A
Height change (final)(in)	N/A	0.0761
Adjusted Spec.height(in)	1.00	0.9234
" " (cm)	2.539	2.345
Specimen Volume (cm^3)	206.854	
Moist Density (pcf)	111.34	
MOISTURE CONTENT		
Wt. moist soil+tare(gr)	211.73	211.73
Wt. dry soil+tare(gr)	188.02	188.02
Wt. of tare(gr)	19.68	19.68
Wt. dry soil (gr)	168.34	168.34
Wt. of water (gr)	23.71	23.71
M/C (%)	14.08	14.08
DRY DENSITY (pcf)	97.6	
% Saturation* (48%-52%)	52.3	

*Assumes Gs =	2.7
EXPANSION INDEX =	76
Potential Expansion *(per ASTM 4829-08)*	Medium

Draft

KOURY ENGINEERING & TESTING, INC.

Project Name:	Project No.: 18-0580	Run by: MFP	Lab:
Brea Ring Road	Date: 9/5/18	QA:	5262

Asphalt Core Density

Sample ID and Location	Initial Weight of Untrimmed Core - (lbs)	Initial Size of Sample - Approximate Measurements - (in)		Fabric on Initial Core Sample (Yes or No)	Size of Trimmed Sample (in)		Trimmed Sample Weight (lbs)			Water Absorption (%)	Bulk Specific Gravity at 25°C	Density at 25°C (pcf)
		Diameter	Length		Diameter	Length	Dry in Air	SSD in Air	in Water			
							A	B	C	100x(B-A)/(B-C)	SG=A/(B-C)	SGx62.24
C-01	19.59	5.95	8.594	No	5.95	7.7795	17.8920	17.9695	10.3245	1.0	2.340	145.7
C-03_1	11.14	5.95	5.3185	No	5.95	4.452	10.0470	10.1190	5.7910	1.7	2.321	144.5
C-04 - Upper Portion	7.91	5.95	3.6035	No	5.95	3.5225	7.7375	7.8550	4.4620	3.5	2.280	141.9
C-04 - Lower Portion	5.84	5.95	2.8135	No	5.95	2.514	5.0925	5.2615	2.8990	7.2	2.156	134.2
C-05 - Upper Portion	6.81	5.95	3.0055	No	5.95	2.934	6.6735	6.7145	3.8830	1.4	2.357	146.7
C-05 - Lower Portion	6.34	5.95	2.843	No	5.95	2.881	5.6715	5.8620	3.1645	7.1	2.103	130.9
C-06 - Large Diameter	7.95	5.95	3.3615	No	5.95	3.236	7.3780	7.4050	4.2695	0.9	2.353	146.5
C-06 - Small Diameter	5.15	3.75	5.7045	No	3.75	5.18	4.7010	4.7150	2.7185	0.7	2.355	146.6

Draft

KOURY ENGINEERING & TESTING, INC.	Project #: 18-0580	Project Name: Brea Ring Road Pavement	Date: 8/29/18	Lab #: 5253
				By: MFP

Asphalt Core Density

Sample ID and Location	Initial Weight of Untrimmed Core - (lbs)	Initial Size of Sample - Approximate Measurements - (in)		Fabric on Initial Core Sample (Yes or No)	Size of Trimmed Sample (in)		Trimmed Sample Weight (lbs)			Water Absorption (%)	Bulk Specific Gravity at 25°C	Density at 25°C (pcf)
		Diameter	Length		Diameter	Length	Dry in Air	SSD in Air	in Water			
							A	B	C	100x(B-A)/(B-C)	SG=A/(B-C)	SGx62.24
C-07	2.60	3.75	2.9815	No	3.75	2.745	2.4495	2.4540	1.4190	0.4	2.367	147.3
C-08	6.39	3.75	7.786	No	3.75	5.704	4.8970	4.9905	2.8215	4.3	2.258	140.5
C-09	5.52	3.75	6.487	No	3.75	5.301	4.6390	4.6930	2.6580	2.7	2.280	141.9
C-10	6.17	3.75	7.907	No	3.75	3.8915	3.3740	3.4030	1.9085	1.9	2.258	140.5
C-11	3.22	3.75	3.8045	No	3.75	3.24	2.8490	2.8640	1.6195	1.2	2.289	142.5
C-12 - Upper Portion	3.14	3.75	3.5815	No	3.75	3.417	2.9975	3.0155	1.7255	1.4	2.324	144.6
C-12 - Lower Portion	3.24	3.75	3.8545	No	3.75	2.939	2.5820	2.5845	1.5065	0.2	2.395	149.1

Draft

KOURY ENGINEERING & TESTING, INC.	Project #: 18-0580	Project Name: Brea Ring Road Pavement	Date: 8/29/18	Lab #: 5253
				By: MFP

Bidder: Sol Construction Inc

SECTION C

PROPOSAL

for

BERRY STREET RESERVOIR RING ROAD REHABILITATION
CIP NO. 7965

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within a total of **40** working days, starting from the date of the first Notice to Proceed until project completion.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enterinto a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Accompanying this proposal of bid, find_in the amount of $ 10% of bid bond which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

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

Addenda No.	*Date Received*	*Bidder's Signature*

SECTION C

Berry Street Reservoir Ring Road Rehabilitation
CIP NO. 7965

PROJECT BID SCHEDULE

Berry Street Reservoir Ring Road Rehabilitation CIP NO. 7965					
ITEM #	**DESCRIPTION**	**UNIT**	**EST. QTY**	**UNIT PRICE (in figures) DOLLARS**	**ITEMS TOTAL (in figures) DOLLARS**
1	Mobilization and Demobilization (5% Max)	LS		77,064.00	$ 77064.00
2	Clearing and Grubbing	LS		24,168.00	$ 24,168.00
3	Over-Excavate Existing Slope per Detail 1 on Sheet 5	SF	22,336	2.25	$ 50.256.00
4	Backfill Slope Area per Detail 1 on Sheet 5	SF	22,336	3.00	$ 67,008.00
5	Construct Concrete Slope Paving per Detail 2 on Sheet 5	SF	22,336	13.00	$ 290.368.00
6	Remove Existing Curb & Gutter	LF	215	12.00	$ 2,580.00
7	Mill Existing Pavement (Variable Depth)	SF	15,340	2.00	$ 30,680.00
8	Sawcut and Remove Existing Roadway Structural Section	CY	395	191.00	$ 75,445.00
9	Construct 8" Curb & Gutter, Type A-2	LF	215	55.00	$ 11,825.00
10	Furnish and Place Asphalt Concrete	TON	606	188.00	$ 113,928.00
11	Furnish and Place Crushed Miscellaneous Base	TON	371	61.00	$ 22,631.00
12	Adjust Water Valve to Grade	EA	2	700.	$ 1,400.00
13	NPDES/BMP's	LS		12,000	$ 12,000.00
			TOTAL AMOUNT	**$**	779,353.00

TOTAL BID AMOUNT (Words):

Seven hundred Seventy nine Thousand Three hundred Fifty Three Dollars.

1. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders_____ (Bidders Initials)**

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	*% Portion of Work*	*Name, Address and E-mail of Subcontractor*	*State License Number*	*Class*	*DIR Registration Number*
1	.64%	Onyx Paving Company Inc		Same	Same
7	1.7%	2890 E. La Cresta Ave.		Same	Same
10	12.5%	Anaheim, CA. 92806	630360	A & C	1000004798
TOTAL	15% +				

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I, Manuel Andrade, am the
(Print Name)

President of Sol Construction, Inc.
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this 2nd day of April, 20 23

Sol Construction Inc.
Name of Bidder

Signature of Bidder

231 E. Alessandro Blvd # A445
Riverside CA 92508
Address of Bidder

BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed _____

Title Manuel Andrade President.

Firm Sol Construction, Inc.

Date 4-2-2023

UTILITY AGREEMENT

HONORABLE MAYOR AND CITY COUNCIL CITY OF BREA, CALIFORNIA

Council Members:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **BERRY STREET RESERVOIR RING ROAD REHABILITATION CIP NO. 7965.** (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"**Qualified Person:** *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

Sol Construction, Inc.
Contractor

By Manuel Andrade

President
Title

Date: 4-2-2023

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 space provided.

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

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

Sol Construction, Inc
Contractor

By Manuel Andrade
President
Title

Date: 4-2-2023

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

Sol Construction, Inc.
Bidder Name

231 E. Alessandro Blvd. # A445
Business Address

Riverside CA 92508
City, State Zip

(951) 653-1155
Telephone Number

Mandrade@Sol-Construction.com
Email Address

812330 A - General.
State Contractor's License No. and Class

1000012204
DIR Registration Number

9-10-2002
Original Date Issued (State Contractor's License)

9-30-2024
Expiration Date

The work site was inspected by Adrian Andrade of our office on 4-18-, 2023

The following are persons, firms, and corporations having a principal interest in this proposal:

Manuel Andrade	President Sol Construction.

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

Company Name

Signature of Bidder

Manuel S Andrade.

Printed or Typed Signature

Subscribed and sworn to before me this 02 day of MAY, 20 23

NOTARY PUBLIC

JASON WONG
COMM. #2306941
Notary Public - California
Los Angeles County
My Comm. Expires Sep. 26, 2023

NOTARY SEAL

Listed below are the names, address and telephone numbers for **three** public agencies for which the bidder has performed similar work within the past **five** years:

1. OCDPW 1152 E. Fruit ST. Santa Ana. CA. 92701

Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: Mario Garcia (714) 599-0681

Contract Amount	Type of Work	Date Completed
$ 2,415,348.95	Slope Paving Sunset Channel channel access ramps.	from. 4-7-21 - TO - 7-23-21

2. ~~La Pata Reservoir~~ OCDP 1152 E. Fruit St. Santa Ana CA 92701

Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: Michael Hatch. (714)-6674989

Contract Amount	Type of Work	Date Completed
1,523.616.	La Pata. Reservoir	7-9-2020

3. OCDPW. 1152 E. Fruit ST. Santa Ana CA. 92701

Name and Address of Public Agency

Name and Telephone No. of Project Manager for Agency: Mario Garcia. (714) 599-0681

Contract Amount	Type of Work	Date Completed
609,323.17	Channell Access rds. Bolsa Chica Channell.	8-20-2020

Responsible Bidder – Supplemental Questionnaire

1. How many years has your organization been in business in California as a contractor under your present business name and license number?

   21 Years

2. Is your firm currently the debtor in a bankruptcy case?

   ☐ Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

Case Number	Bankruptcy Court	Date Filed

3. Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

   ☐ Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

Case Number	Bankruptcy Court	Date Filed

4. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

   ☐ Yes ☒ No

5. At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

   ☐ Yes ☒ No

6. Has your firm ever defaulted on a construction contract?

   ☐ Yes ☒ No

If "yes," explain on a separate page.

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

☐ Yes ☒ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

☐ Yes ☒ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

☐ Yes ☒ No

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

    ☐ Yes ☒ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

    ☐ Yes ☒ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

    ☐ Yes ☒ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

    ☐ Yes ☒ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

    %

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when on was required?

    ☐ Yes ☒ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

☐ Yes ☐ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

☐ Yes ☒ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

☐ Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

☐ Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non-responsive.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE *Everest Reinsurance Company

Sol Construction, Inc.

as PRINCIPAL, and*

as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $ Ten Percent of Total Amount Bid-- (10% of Bid). THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled " BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965

"For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on May 2, 2023.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 28th day of April, 20**.

**23

Sol Construction, Inc.
Principal

By: [signature]

Everest Reinsurance Company
Surety

By: [signature]
Rebecca Haas-Bates, Attorney-in-Fact

PLEASE SEE ATTACHED

BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of California)
County of LOS ANGELES)
)

On 02 MAY 2023 before me, JASON WONG (NOTARY PUBLIC)
(insert name and title of the officer)

personally appeared MANUEL SALVADOR ANDRADE

who provided to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)
(Signature of Notary Public)

NRO1 JASON WONG
COMM. #2306941
Notary Public - California
Los Angeles County
My Comm. Expires Sep. 26, 2023 NRO1

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On 04/28/2023 before me, Alma Karen Hernandez, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Rebecca Haas-Bates
Name(s) of Signer(s)

,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

ALMA KAREN HERNANDEZ
Notary Public - California
Orange County
Commission # 2390908
My Comm. Expires Jan 16, 2026

Signature
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Bid Bond Document Date: 04/28/2023
Number of Pages: Two(2) Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Rebecca Haas-Bates
☐ Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General
☐ Individual ☑ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other:
Signer Is Representing:
Everest Reinsurance Company

Signer's Name:
☐ Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other:
Signer Is Representing:

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everest™

POWER OF ATTORNEY
EVEREST REINSURANCE COMPANY

KNOW ALL PERSONS BY THESE PRESENTS: That Everest Reinsurance Company, a corporation of the State of Delaware ("Company") having its principal office located at 100 Everest Way, Warren, New Jersey, 07059, do hereby nominate, constitute, and appoint:

William Syrkin, Rebecca Haas-Bates, Megan Hilke, Richard Adair

its true and lawful Attorney(s)-in-fact to make, execute, attest, seal and deliver for and on its behalf, as surety, and as its act and deed, where required, any and all bonds and undertakings in the nature thereof, for the penal sum of no one of which is in any event to exceed UNLIMITED, reserving for itself the full power of substitution and revocation.

Such bonds and undertakings, when duly executed by the aforesaid Attorney(s)-in-fact shall be binding upon the Company as fully and to the same extent as if such bonds and undertakings were signed by the President and Secretary of the Company and sealed with its corporate seal.

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Board of Directors of Company ("Board") on April 21, 2016:

***RESOLVED**, that the President, any Executive Vice President, and any Senior Vice President are hereby appointed by the Board as authorized to make, execute, seal and deliver for and on behalf of the Company, any and all bonds, undertakings, contracts or obligations in surety or co-surety with others and that the Secretary or any Assistant Secretary of the Company be and that each of them hereby is authorized to attest to the execution of any such bonds, undertakings, contracts or obligations in surety or co-surety and attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the President, any Executive Vice President, and any Senior Vice President are hereby authorized to execute powers of attorney qualifying the attorney named in the given power of attorney to execute, on behalf of the Company, bonds and undertakings in surety or co-surety with others, and that the Secretary or any Assistant Secretary of the Company be, and that each of them is hereby authorized to attest the execution of any such power of attorney, and to attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the signature of such officers named in the preceding resolutions and the corporate seal of the Company may be affixed to such powers of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be thereafter valid and binding upon the Company with respect to any bond, undertaking, contract or obligation in surety or co-surety with others to which it is attached.*

IN WITNESS WHEREOF, Everest Reinsurance Company has caused their corporate seals to be affixed hereto, and these presents to be signed by their duly authorized officers this 15th day of February 2023.

Everest Reinsurance Company CORPORATE SEAL 1973 DELAWARE

Everest Reinsurance Company

By: Anthony Romano, Senior Vice President

On this **15th day of February 2023**, before me personally came Anthony Romano, known to me, who, being duly sworn, did execute the above instrument; that he knows the seal of said Company; that the seal affixed to the aforesaid instrument is such corporate seal and was affixed thereto; and that he executed said instrument by like order.

LINDA ROBINS
Notary Public, State of New York
No 01R06239736
Qualified In Queens County
Term Expires April 25, 2027

Linda Robins, Notary Public

I, Nicole Chase, Assistant Secretary of Everest Reinsurance Company do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the bylaws and resolutions of said Corporation as set forth in said Power of Attorney, with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID CORPORATION, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, this 28th day of April 2023.

Everest Reinsurance Company CORPORATE SEAL 1973 DELAWARE

By: Nicole Chase, Assistant Secretary

ES 00 01 04 16

SECTION D

CONSTRUCTION AGREEMENT

BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and Sol Construction, Inc. a California Corporation ("Contractor"). Contractor's CSLB license number is 812330 A - General. Contractor's DIR registration number is 1000012204.

R E C I T A L S

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. GENERAL SCOPE OF WORK: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **BERRY STREET RESERVOIR RING ROAD REHABILITATION, CIP NO. 7965** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. CONTRACT PRICE AND PAYMENT:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of $ 779,353.00**.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. CUSTOMER CARE: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. INCORPORATED DOCUMENTS: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2015 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. COMPLETION DATE / LIQUIDATED DAMAGES:

A. Contractor shall complete the Project within **40** working days from the date of the Notice to Proceed ("Completion Date").

B. Liquidated damages will be assessed in the amount of **$1,200.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

7. INSURANCE:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

> "It is hereby understood and agreed that this policy may not be canceled nor the amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this

Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project. Contractor agrees to not be debarred at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. UNRESOLVED DISPUTES:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. ANTI-TRUST CLAIMS: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. THIRD PARTY CLAIMS: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. RIGHT TO AUDIT: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

13. TRENCHING AND EXCAVATIONS:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. UTILITIES: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. LOCATION OF EXISTING ELEMENTS: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. CONTRACTOR'S LIABILITY:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof,

or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. <u>ASSIGNMENT</u>: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. <u>CONTRACTOR'S REPRESENTATIONS</u>: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and

expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. **NOTICES**: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

To City:
Director of Public Works
City of Brea
1 Civic Center Circle
Brea, California 92821

To Contractor:
Manuel Salvador Andrade
Sol Construction Inc.
231 East Alessandro Blvd. #A445
Riverside, CA 92508

20. **NON-DISCRIMINATION**: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. **APPLICABLE LAW**: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. **INCORPORATION OF MANDATORY LANGUAGE:** Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

23. **ENTIRE AGREEMENT:** This Agreement, including the Contract Documents, and any other documents incorporated herein by specific reference, represents the entire and integrated agreement between the parties. This Agreement supersedes all prior oral or written negotiations, representations or agreements. This Agreement may not be modified or amended,

nor any provision or breach waived, except in a writing signed by both parties which expressly refers to this Agreement.

24. <u>NON-WAIVER OF TERMS</u>: Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. <u>AUTHORITY</u>: Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. <u>COUNTERPARTS</u>: This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

SOL CONSTRUCTION INC

[use this signature block if Contractor is a corporation]

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Award Contract to International Line Builders, Inc. dba ILB Electric, for the Traffic Signal Modification Project, CIP No. 7717

RECOMMENDATION

1. Approve the Plans and Specifications;
2. Receive bids;
3. Award Contract to the lowest responsive and responsible bidder, International Line Builders, Inc. dba ILB Electric, in the amount of $335,940.00 Base Bid (Schedule A) and Additive Bid (Schedule B); and,
4. Authorize the City Engineer to issue Change Orders up to a "not-to-exceed" amount of 10% of the Contract Price.

BACKGROUND/DISCUSSION

During several regular Traffic Committee and City Council meetings, staff presented and discussed the Cliffwood Neighborhood Traffic Calming Improvements, CIP 7717 (“Project”). Following Traffic Committee and City Council feedback with approval to move forward on the design, the Plans and Specifications for the overall Project were developed, and the funding was programmed and approved in the Fiscal Year 2021/22 Capital Improvement Program (“CIP”) budget.

The Project includes modifications to traffic signals and equipment, pavement striping, and signage at the following three intersections (Attachment A):

1. Lambert Road at Cliffwood Avenue-Cliffwood Park Street (Schedule A)
2. State College Boulevard at Cliffwood Avenue (Schedule B)
3. State College Boulevard at Balsa Avenue (Schedule B)

On August 9, 2022, staff presented the current plans for the three intersections. It recommended the City Council approve the purchase of the signal pole equipment from Walters Wholesale Electric Co. for $72,995.24 and approve the plans and specifications only for the Lambert Road at Cliffwood Avenue-Cliffwood Park Street intersection project. City Council approved the staff’s recommendations. Soon thereafter, staff ordered the signal pole equipment, which took seven months to deliver to the City. Concurrently, based on the long lead time for the signal pole equipment, staff completed a value engineering assessment for the improvements at the three intersections and developed a combined set of Plans and Specifications for an economy-of-scale bid set. As previously mentioned, the Plans and

Specifications were approved by City Council on August 9, 2022, for Lambert Road at Cliffwood Avenue-Cliffwood Park Street Project (herein referred to as Schedule A). However, the bid-ready set was modified to include the State College Boulevard at Cliffwood Avenue & Balsa Avenue project (Schedule B). Therefore, at this time, the staff recommends City Council consider approving the Plans and Specifications for the Schedule A and Schedule B Projects.

On April 14, 2023, the Final Plans and Specifications ("Bid Documents") were accepted by staff, and the Project was advertised for bids on the CIPlist.com website and subsequently published in the Star Progress paper before bid opening. A hard copy of the Bid Documents is available at the City Clerk's office for review (Attachment B). There were no addenda issued during the bid period. Therefore, the staff recommends City Council approve the Plans and Specifications as bid.

On May 16, 2023, staff received seven (7) bid proposals (see Bid Result Table). Soon thereafter, staff tabulated the bid proposal and determined that the apparent low Base Bid (Schedule A) amount was $137,067.00 with an Additive Bid (Schedule B) amount bid of $198,873.00 from International Line Builders, Inc. dba ILB Electric ("ILB") from Corona, CA (Attachment C). The combined Bid Amount for Schedule A and Schedule B is $335,940.00. The Engineer's Estimate was a combined $320,000.00. Staff evaluated the bid proposal and determined that the bid unit prices from ILB's proposal were considered reasonable as compared to the Engineer's Estimate and current unit prices.

BIDDER NAME	BID AMOUNT
Comet Electric	SCH A (Base Bid): $172,861.00
	SCH B (Add Bid): $146,868.00
	TOTAL A+B: $319,729.00
DBX, Inc.	SCH A (Base Bid): $181,851.00
	SCH B (Add Bid): $248,830.00
	TOTAL A+B: $430,681.00
International Line Builders (ILB Electric)	SCH A (Base Bid): $137,067.00
	SCH B (Add Bid): $198,873.00
	TOTAL A+B: $335,940.00
Crosstown Electric	SCH A (Base Bid): $161,512.00
	SCH B (Add Bid): $221,455.00
	TOTAL A+B: $382,967.00
Belco Elecnor Group	SCH A (Base Bid): $267,500.00
	SCH B (Add Bid): $166,000.00
	TOTAL A+B: $433,500.00

California Professional Engineering	SCH A (Base Bid): $142,900.00
	SCH B (Add Bid): $217,695.00
	TOTAL A+B: $360,595.00
Select Electrical Engineering	SCH A (Base Bid): $183,513.00
	SCH B (Add Bid): $113,984.00
	TOTAL A+B: $297,497.00

The Bid Documents specify that the basis of the award will be determined on the lowest responsive and responsible bid for Schedule A. However, the City Council may consider awarding the Base Bid (Schedule A) and Additive Bid (Schedule B), only awarding the Base Bid (Schedule A), only Additive Bid (Schedule B), or rejecting all bids.

ILB Electric has been in the construction business for 39 years and has completed the construction of similar signal improvement projects for the City of Los Angeles, City of Norwalk, and City of Downey. Their California Contractor's license is 782515 – A (General Engineering) and C-10 (Electrical), and Department of Industrial Relations registration number is 1000007032. Staff verified both, and their bid package meets the City's proposal requirements. In addition, staff contacted the City of Downey, where the contractor received a favorable review. Furthermore, based on the aforementioned bid review, staff has determined ILB Electric's Base Bid (Schedule A) and Additive Bid (Schedule B) be responsive and that they are a responsible bidder. Therefore, staff recommends that the City Council consider awarding a Construction Contract to ILB Electric as the apparent lowest responsive and responsible bidder for the Base Bid (Schedule A) and that the City Council also consider including the Additive Bid (Schedule B) as part of Contract for a total Contract amount of $335,940.00 (Attachment D).

SUMMARY/FISCAL IMPACT

The approved FY 2023-2024 CIP Project budget for Construction, Signal Pole Equipment, and Construction Engineering is $505,465.00. The total cost for Construction, Signal Pole Equipment, and Construction Engineering for the recommended Contract award (Schedule A and Schedule B) is $492,529.24, which includes the apparent low Base Bid (Schedule A) + Additive Bid (Schedule B) amount ($335,940.00), a 10% contingency ($33,594.00), Signal Pole Equipment ($72,995.24), and Construction Engineering costs ($50,000.00). The sources of funds within the approved budget are from Traffic Impact Fund (Fund 540). Therefore, there are sufficient funds to complete the Project construction. Upon completion of the Project, all remaining funds will be retained in Project 7717 for further traffic improvements. There is no fiscal impact on the General Fund from this Project. See the budget table below:

DESCRIPTION	AMOUNT
Construction (International Line Builders Contract)	$335,940.00
Construction Contingency (10%)	$33,594.00
Signal Pole Equipment Purchase	$72,995.24
Construction Engineering	$50,000.00

Total Construction Cost	**$492,529.24**
Approved FY 2023-24 Budget	**$505,465.00**

The Project will modify traffic signals, pavement striping, and signage at three locations as part of the Cliffwood Neighborhood Traffic Calming Improvements. If City Council approves staff recommendations, the Project is anticipated to start construction in August 2023 and be completed by November 2023.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Ryan Chapman, P.E., Assistant City Engineer
Concurrence: Michael Ho, P.E., Public Works Director / City Engineer

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Attachments

Attachment A - Location Map

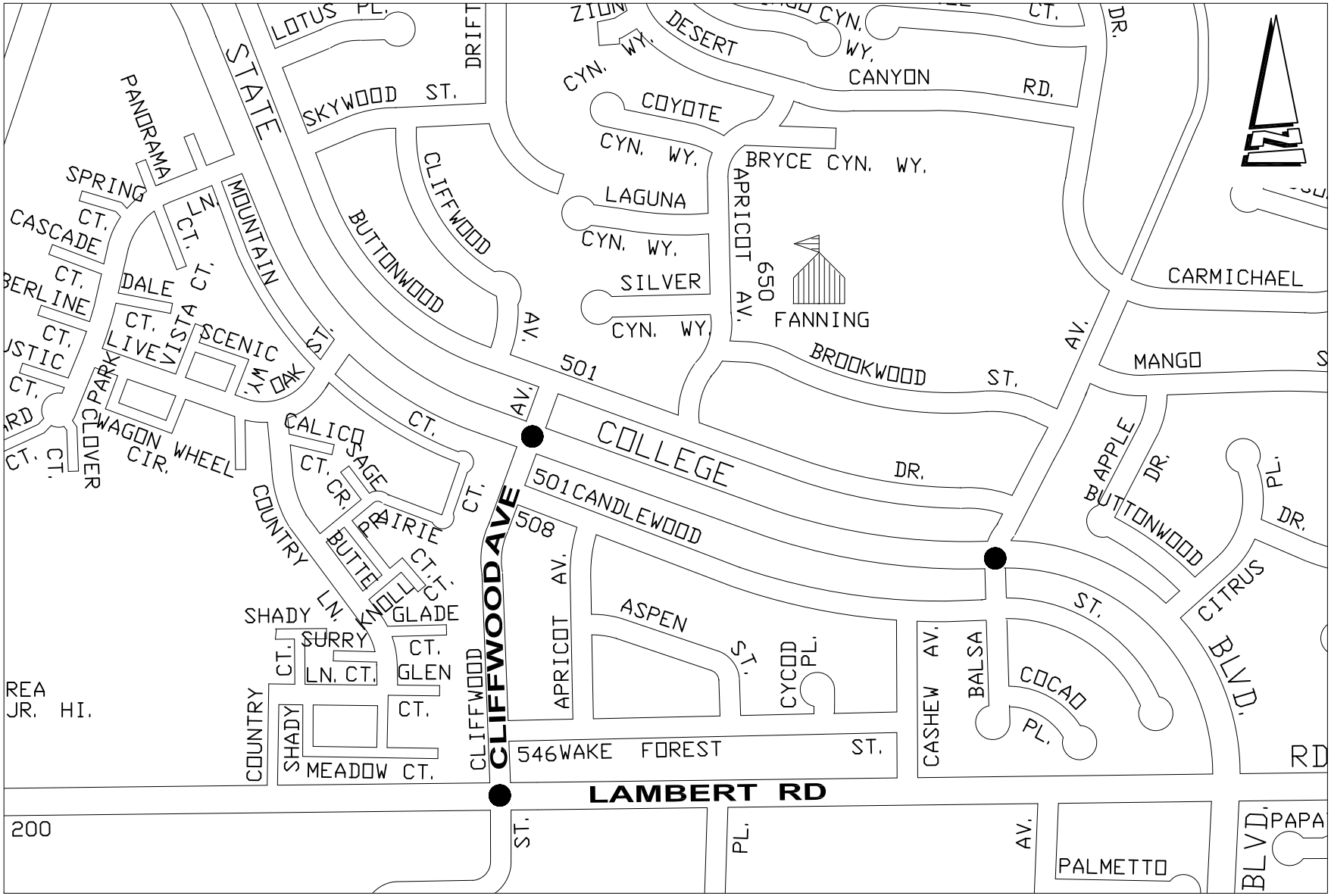
Attachment B - Bid Documents

Attachment C - International Line Builders Bid Proposal

Attachment D - Construction Contract Agreement

PROJECT 7717

TRAFFIC SAFETY ENHANCEMENTS - CLIFFWOOD NEIGHBORHOOD TRAFFIC CALMING IMPROVEMENTS



VICINITY MAP

NOT TO SCALE

CITY OF BREA

PUBLIC WORKS DEPARTMENT

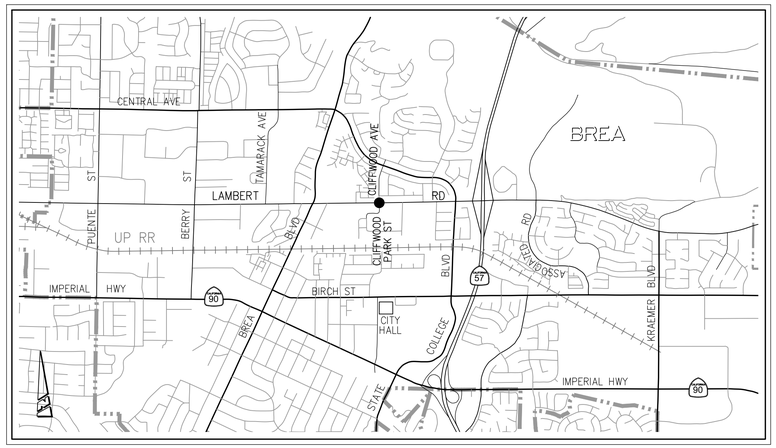
TRAFFIC SIGNAL MODIFICATION PROJECT

LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET

SCHEDULE A

GENERAL NOTES (ALL SHEETS) :

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BREA STANDARDS AND SPECIFICATIONS, THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND STANDARD SPECIFICATIONS LATEST EDITION AND UPDATES, CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD 2014), THE SPECIAL PROVISIONS, AND AS DIRECTED BY THE CITY'S REPRESENTATIVE.
2. LOCATION OF UTILITIES AND SUBSTRUCTURES HAVE BEEN SHOWN FROM A SEARCH OF THE AVAILABLE RECORDS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811, AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGING EXISTING UTILITIES.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL AFFECTED AGENCIES AND UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. WHERE DAMAGE IS CAUSED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL AT HIS EXPENSE REPAIR OR REPLACE DAMAGED FACILITIES PROMPTLY IN ACCORDANCE WITH CALTRANS SPECIFICATIONS, TO THE SATISFACTION OF THE AFFECTED UTILITY, AND THE ENGINEER IN THE FIELD. WHERE SIDEWALKS, CURBS, OR GUTTERS ARE TO BE REPAIRED, THE REPAIRS SHALL BE MADE BY REMOVING AND REPLACING THE ENTIRE SECTION BACK TO THE NEAREST SCORING LINES AND NOT BY REFINISHING THE DAMAGED PORTION.
5. ALL EXISTING EQUIPMENT AND MATERIALS REMOVED AS PART OF THE UPGRADE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR OR SALVAGED TO THE CITY AT THE CITY'S REQUEST.
6. SPLICING OF SIGNAL CONDUCTORS IS NOT PERMITTED. CONDUCTOR CONNECTIONS WILL ONLY BE MADE AT THE TERMINAL COMPARTMENTS, AND CONTROLLERS. ALL WIRING AND EQUIPMENT SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER CABINET FOR PHASE IDENTIFICATION.
7. ALL NEW CONDUIT SHALL BE SCHEDULE 80 POLYVINYL CHLORIDE (PVC) TYPE UNLESS OTHERWISE NOTED. NEW CONDUIT SHALL BE PULLED THROUGH OPPOSITE ENDS OF PULL BOXES USING 45° U.L. APPROVED ELBOWS, UNLESS OTHERWISE INDICATED ON THE PLANS.
8. ALL CONDUIT SHALL BE INSTALLED A MINIMUM OF 18" UNDER SIDEWALK AND 30" UNDER PAVEMENT, UNLESS DIRECTED OTHERWISE BY THE CITY'S REPRESENTATIVE. TRENCHED CONDUIT SHALL BE SECURED IN A MANNER TO PREVENT FLOATING WHEN BACKFILLED WITH SLURRY.
9. BORE AND JACK METHOD SHALL BE USED FOR THE INSTALLATION OF CONDUIT, UNLESS OTHERWISE APPROVED BY THE CITY'S REPRESENTATIVE.
10. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL EQUIPMENT PRIOR TO INSTALLATION OF EQUIPMENT OR WIRING.
11. NO LANES MAY BE CLOSED OR OBSTRUCTED AT ANY TIME UNLESS SPECIFICALLY ALLOWED AND AS DIRECTED BY THE CITY'S REPRESENTATIVE. SINGLE LANE CLOSURES ARE ALLOWED ON LAMBERT ROAD BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM.
12. THE TRAFFIC SIGNALS SHALL REMAIN IN OPERATION AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE CITY'S REPRESENTATIVE.
13. POTHOLING REQUIRED FOR UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST FOR THE POTHOLING REQUIRED SHALL BE INCLUDED IN THE CONTRACT BID PRICE.
14. THE CONTRACTOR SHALL FULL DEPTH POTHOLE THE NEW TRAFFIC SIGNAL FOUNDATION LOCATIONS BEFORE USING MECHANICAL DIGGING EQUIPMENT TO CONFIRM THERE ARE NO UNDERGROUND CONFLICTS WITH PROPOSED FOUNDATIONS.
15. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER 72 HOURS PRIOR TO CONSTRUCTION FOR SCHEDULING ALL INSPECTIONS.
16. SIGNAL CONDUCTORS AND COMMUNICATION CABLES BEING REMOVED AND REINSTALLED AS PART OF THE PROJECT SHALL BE RECONNECTED.
17. CONTRACTOR SHALL REMOVE ALL EXISTING WIRING AND CONDUCTORS NOT REUSED.
18. SHADED AREAS DENOTE VEHICLE DETECTION ZONES.
19. VEHICLE DETECTION ZONES SHALL BE PRECISELY MEASURED AND THE CONTRACTOR SHALL MARK THE LOCATION WITH TEMPORARY MARKINGS THAT ARE READILY VISIBLE ON THE VIDEO DETECTOR MONITOR. RELOCATION OF EXISTING VIDEO DETECTION CAMERAS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. EXACT LOCATION OF THE DETECTION ZONES SHALL BE DETERMINED IN THE FIELD BY THE CITY ENGINEER OR HIS REPRESENTATIVE. EXACT PLACEMENT OF THE VIDEO CAMERAS SHALL BE DETERMINED IN THE FIELD BY THE MANUFACTURER'S REPRESENTATIVE.
20. ALL SIGNAL HEADS SHALL BE 12".
21. ALL PEDESTRIAN INDICATIONS SHALL LED COUNTDOWN PEDESTRIAN HEADS.
22. ALL WIRES SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER UNIT CABINET FOR IDENTIFICATION.
23. CONDUCTOR SCHEDULE IS PROVIDED AS AN INSTALLATION GUIDELINE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
24. NEW PEDESTRIAN PUSH BUTTON ASSEMBLIES SHALL BE MOUNTED AT 3'-6" ABOVE THE FINISHED SURFACE, MEASURED FROM THE SURFACE WHERE THE PEDESTRIAN IS LOCATED. PEDESTRIAN BUTTONS SHALL COMPLY WITH ADA REQUIREMENTS.
25. ANY MODIFICATION OF OR CHANGES TO APPROVED PLANS MUST BE APPROVED BY THE CITY ENGINEER.
26. EXISTING CONDUIT NOT SHOWN TO BE ABANDONED SHALL BE REUSED. ALL EXISTING CONDUIT NOT SHOWN TO BE REUSED SHALL BE ABANDONED.
27. ALL PULL BOX LIDS SHALL BE IN PLACE AT THE END OF EACH WORKING DAY TO PREVENT TRIP/FALL HAZARDS.
28. THE LOCATION OF PROPOSED POLES ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
29. THE CONTRACTOR SHALL ARRANGE TO HAVE TECHNICIANS QUALIFIED TO WORK ON THE INSTALLATION AND RELOCATION OF THE VIDEO DETECTION CAMERA, AND EMERGENCY VEHICLE PRE-EMPTIOM (EVP). EACH TECHNICIAN EMPLOYED BY THE INDICATED MANUFACTURER OR THE MANUFACTURER'S REPRESENTATIVE, SHALL BE PRESENT AT THE TIME OF THE SYSTEM TURN-ON.
30. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING.



LOCATION MAP
NOT TO SCALE

31. ALL TRAFFIC CONTROL EQUIPMENT, SIGNS, BARRICADES, AND FLASHING BEACONS USED IN THE PUBLIC RIGHT-OF-WAY AND DISPLAYED ON CONSTRUCTION VEHICLES ARE TO BE IN ACCORDANCE WITH STATE OF CALIFORNIA REQUIREMENTS AND BE IN LIKE NEW CONDITION. ALL LANE AND SIDEWALK CLOSURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE CA MUTCD AND/OR WATCH MANUAL TO THE SATISFACTION OF THE CITY INSPECTOR AND CITY TRAFFIC ENGINEER.
32. ALL INACTIVE VEHICLE AND PEDESTRIAN INDICATIONS ARE TO BE COVERED WITH FITTED COVERS DESIGNED FOR SUCH PURPOSE. TURNING VEHICLE INDICATIONS AWAY FROM TRAFFIC DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
33. THE CONTRACTOR IS TO COORDINATE THE INSTALLATION OF THE NEW INDICATIONS FOR NORTHBOUND TRAFFIC WITH THE CITY SUCH THAT INSTALLATION OF THE NORTHBOUND VEHICLE INDICATIONS OCCURS AFTER THE NEW TIMING AND PHASING SEQUENCE HAS BEEN IMPLEMENTED.
34. ALL PAVEMENT MARKINGS ARE TO BE PER PLANS AND SPECIFICATIONS.
35. CONTRACTOR SHALL INSTALL TEMPORARY ORANGE WARNING FLAGS ON ALL MAST-ARMS AND NEW SIGNAL INDICATIONS.
36. FINAL LOCATION OF NEW TRAFFIC SIGNAL POLES SHALL BE DETERMINED IN THE FIELD, AFTER THE PERFORMANCE OF POTHOLING, AND SHALL BE APPROVED BY THE CITY REPRESENTATIVE.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	NO. OF SHEETS
1	TITLE SHEET	1
2	TRAFFIC SIGNAL MODIFICATION PLAN	1
		2

ENGINEER'S NOTICE TO CONTRACTOR:

THE EXISTENCE AND APPROXIMATE LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE TO THE PROPOSED IMPROVEMENTS. TO THE BEST OF OUR KNOWLEDGE, AT THE LOCATIONS ON THE PLANS THAT SHOW UTILITIES, THERE ARE NO OTHER EXISTING UTILITIES OR STRUCTURES EXCEPT AS SHOWN ON THOSE PLANS. THE ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITIES OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK ON EXCAVATION TO DETERMINE EXACT LOCATION OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON, AND FOR ANY DAMAGE OR PROTECTION OF THESE LINES.

THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (U.S.A.) PHONE 811 TWO WORKING DAYS PRIOR TO DIGGING. NO CONSTRUCTION PERMIT INVOLVING UNDERGROUND FACILITIES, ISSUED BY ANY OF THE VARIOUS PUBLIC WORKS DEPARTMENTS, SHALL BE VALID UNLESS THE APPLICANT HAS AN INQUIRY IDENTIFICATION NUMBER ISSUED BY U.S.A.

LAMBERT RD AT CLIFFWOOD AVE-CLIFFWOOD PARK ST TRAFFIC SIGNAL MODIFICATION PROJECT NUMBER: 7717

AGA Job No. : 105-004
AGA File Name: LAMCLIMD.dwg
Print Date : 7/11/2022
Last Revision : 7/11/2022

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

AGA Engineers, Inc.
(714) 992-4592
agaengineersinc.com
TRANSPORTATION CONSULTING ENGINEERS
211 Imperial Highway, Suite 208 Fullerton, CA 92835

	INITIALS	DATE
DRAWN BY:	J.E.	4/5/2022
DESIGNED BY:	J.E.	4/5/2022
CHECKED BY:	I.S	4/5/2022

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER IGNACIO SANCHEZ HERNANDEZ No. 72073 CIVIL STATE OF CALIFORNIA

Ignacio Sanchez 7/11/22
IGNACIO SANCHEZ H. R.C.E. NO. 72073 DATE

APPROVED BY:

MICHAEL HO, P.E., DEPUTY DIRECTOR/CITY ENGINEER DATE
R.C.E. NO.: 70299 EXP. DATE: 9/20/2024

BREA CALIFORNIA
CITY OF BREA
PUBLIC WORKS DEPARTMENT

TRAFFIC SIGNAL MODIFICATION
TITLE SHEET

SHEET 1 OF 2

BID DOCUMENTS - FOR BIDDING PURPOSES ONLY

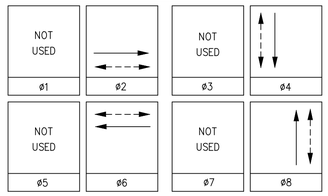
CONDUCTOR SCHEDULE

AWG SIZE, WIRE OR CABLE TYPE	STD	PHASES	CONDUIT SIZE AND RUN NUMBER 1	2	3	4	5
12 WIRE CONDUCTOR CABLE 11–#14 1–#12	1	ø1,ø6,ø6P /ø7PPB	1/1	1/1	1/1	1/1	–
	2	ø8,ø7P /ø6PPB	1/1	1/1	1/1	1/1	–
	3	ø1,ø8,OLA,ø4P /ø6PPB	–	1/1	1/1	1/1	–
	4	ø5,ø6,ø6P /ø4PPB	–	1/1	1/1	1/1	–
	5	ø2,ø5,ø2P –	–	–	1(N)/–	1(N)/–	–
	6	– /ø4PPB	–	–	–/1	–/1	–
	7	ø3,OLB,ø8,OLA,ø4P /ø2PPB	–	–	1/1	1/1	–
3 WIRE CONDUCTOR CABLE	8	ø3,OLB,ø7P /ø2PPB	–	–	1/1	1/1	1/1
	9	/ø7PPB	–	–	–/1(N)	–/1(N)	–/1(N)
	10	ø1,ø2,ø2P	–	–	1/1(R)	1/1(R)	1/1(R)
		TOTAL CABLES	2/2	4/4	8/8	8/8	2/2
#10		LUMINAIRE	2	2	4	4	2
		OPTICOM MODEL 1070 GPS CABLE	–	–	1(N)	1(N)	–
12SMFO		SINGLE MODE FIBER OPTIC CABLE (BY OTHERS)	–	–	–	1	–
72SMFO		SINGLE MODE FIBER OPTIC CABLE (BY OTHERS)	–	–	1	–	1
*		VIDEO CABLE	1	2	3,1(N)	3,1(N)	1
3#16		VIDEO POWER CABLE	1	2	3,1(N)	3,1(N)	1
CONDUIT PERCENT FILL			38%	19%	30%	34%	29%
CONDUIT SIZE			2"	4"	2–2.5",3"	2–3"	2.5"

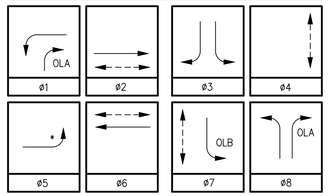
* BELDEN #8281 COAXIAL CABLE
ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE INDICATED AS NEW (N), REMOVE (R), OR BY OTHERS.

NOTE: THE CONDUCTOR SCHEDULE IS PROVIDED AS A GUIDELINE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE NECESSARY CONDUCTORS FOR THE INTENDED OPERATION.

EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM



OPERATION: * ø5 LEAD/LAG CONDITIONAL SERVICE OPERATION
OLA: RIGHT–TURN OVERLAP
OLB: LEFT–TURN OVERLAP
EXCLUSIVE PHASES: ø3, ø4, & ø7
ø8 EXCLUSIVE LAG PHASE

POLE SCHEDULE

No.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE HPS	RSNS LEGEND	SIGNAL MOUNTING VEHICLE				PED	PPB PHASE	POLE LOCATION A	B	C	D	E	REMARKS
1	29–5–100	30'	45'*	15'	250W(R)	Cliffwood Ave(R)	MAS	MAS	MAS	SV–1–T	SP–1–T	ø7	–	–	7'	–	4'	
2	1–A(E)	10'	–	–	–	–	–	–	–	TV–1–T	SP–1–T(E)	ø6	EXISTING					
3	17–3–70(E)	30'	15'(E)	10'(E)	250W(E)	Lambert Rd(R)	MAS–5A	–	–	SV–1–T	SP–1–T(E)	ø6	EXISTING					
4	1–A(E)	10'	–	–	–	–	–	–	–	TV–2–T	SP–1–T(E)	ø4	EXISTING					
5	29–5–100	30'	45'*	15'	250W(R)	Cliffwood Ave(R)	MAS	MAS	MAS	SV–1–T	SP–1–T	–	–	–	9.5'	–	4'	FLAT LUMINAIRE
6	PPB POST(E)	4'–6"	–	–	–	–	–	–	–	–	–	ø4(E)	EXISTING					
7	1–A(E)	10'	–	–	–	–	–	–	–	TV–2–T	SP–1–T(E)	ø2	EXISTING					
8	17–3–70(E)	30'	20'(E)	10'(E)	250W(E)	Lambert Rd(R)	MAS–4B	–	–	SV–1–T	SP–1–T(E)	ø2	EXISTING					
9	PPB POST	4'–6"	–	–	–	–	–	–	–	–	–	ø7	24'	–	–	–	3'	
10	1–A(E)	10'	–	–	–	–	–	–	–	TV–2–T	SP–1–T(E)	–	EXISTING					

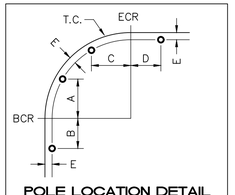
ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED AS (E) EXISTING OR (R) RELOCATED.
NOTE: LOCATION OF POLES IN POLE SCHEDULE IS TENTATIVE, FINAL LOCATION OF THE POLES SHALL BE DETERMINED IN THE FIELD BY THE CITY REPRESENTATIVE AFTER POTHOLING IS PERFORMED.
RSNS = REFLECTORIZED STREET NAME SIGN.
* INSTALL AN ADAPTER PLATE FOR 45' MAST–ARM.

STANDARD NOTES (THIS SHEET):

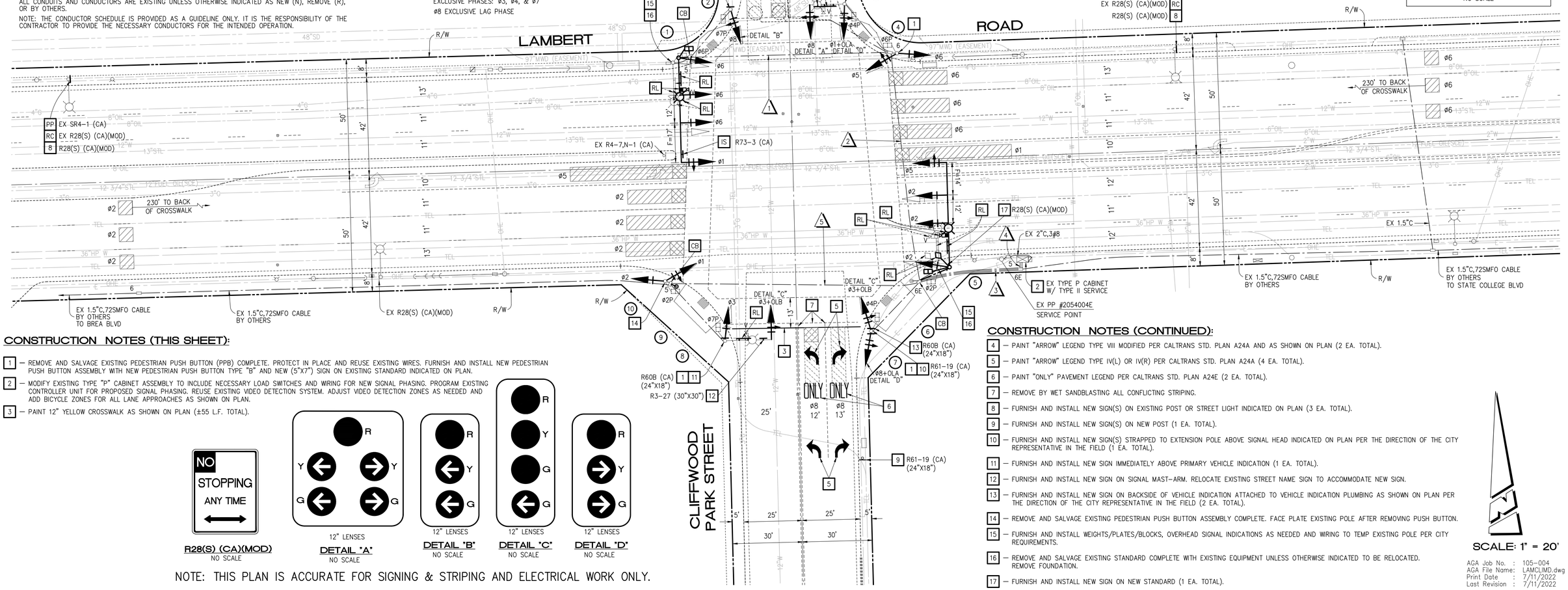
CB – INSTALL CONDUIT INTO EXISTING PULL BOX
IS – INSTALL SIGN ON SIGNAL MAST ARM
PP – PROTECT IN PLACE
RC – EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RL – RELOCATE EQUIPMENT

ABBREVIATIONS:

EVP	EMERGENCY VEHICLE PRE–EMPTION
EX	EXISTING
RC	RED CURB
LED	LIGHT–EMITTING DIODE
ECR	END OF CURB RETURN
BCR	BEGINNING OF CURB RETURN
TC	TOP OF CURB
R/W	RIGHT–OF–WAY
MOD	MODIFIED



POLE LOCATION DETAIL
NO SCALE



CONSTRUCTION NOTES (THIS SHEET):

1 – REMOVE AND SALVAGE EXISTING PEDESTRIAN PUSH BUTTON (PPB) COMPLETE. PROTECT IN PLACE AND REUSE EXISTING WIRES. FURNISH AND INSTALL NEW PEDESTRIAN PUSH BUTTON ASSEMBLY WITH NEW PEDESTRIAN PUSH BUTTON TYPE "B" AND NEW (5"X7") SIGN ON EXISTING STANDARD INDICATED ON PLAN.

2 – MODIFY EXISTING TYPE "P" CABINET ASSEMBLY TO INCLUDE NECESSARY LOAD SWITCHES AND WIRING FOR NEW SIGNAL PHASING. PROGRAM EXISTING CONTROLLER UNIT FOR PROPOSED SIGNAL PHASING. REUSE EXISTING VIDEO DETECTION SYSTEM. ADJUST VIDEO DETECTION ZONES AS NEEDED AND ADD BICYCLE ZONES FOR ALL LANE APPROACHES AS SHOWN ON PLAN.

3 – PAINT 12" YELLOW CROSSWALK AS SHOWN ON PLAN (±55 L.F. TOTAL).

R28(S) (CA)(MOD) NO SCALE
DETAIL "A" NO SCALE
DETAIL "B" NO SCALE
DETAIL "C" NO SCALE
DETAIL "D" NO SCALE

NOTE: THIS PLAN IS ACCURATE FOR SIGNING & STRIPING AND ELECTRICAL WORK ONLY.

CONSTRUCTION NOTES (CONTINUED):

4 – PAINT "ARROW" LEGEND TYPE VIII MODIFIED PER CALTRANS STD. PLAN A24A AND AS SHOWN ON PLAN (2 EA. TOTAL).
5 – PAINT "ARROW" LEGEND TYPE IV(L) OR IV(R) PER CALTRANS STD. PLAN A24A (4 EA. TOTAL).
6 – PAINT "ONLY" PAVEMENT LEGEND PER CALTRANS STD. PLAN A24E (2 EA. TOTAL).
7 – REMOVE BY WET SANDBLASTING ALL CONFLICTING STRIPING.
8 – FURNISH AND INSTALL NEW SIGN(S) ON EXISTING POST OR STREET LIGHT INDICATED ON PLAN (3 EA. TOTAL).
9 – FURNISH AND INSTALL NEW SIGN(S) ON NEW POST (1 EA. TOTAL).
10 – FURNISH AND INSTALL NEW SIGN(S) STRAPPED TO EXTENSION POLE ABOVE SIGNAL HEAD INDICATED ON PLAN PER THE DIRECTION OF THE CITY REPRESENTATIVE IN THE FIELD (1 EA. TOTAL).
11 – FURNISH AND INSTALL NEW SIGN IMMEDIATELY ABOVE PRIMARY VEHICLE INDICATION (1 EA. TOTAL).
12 – FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST–ARM. RELOCATE EXISTING STREET NAME SIGN TO ACCOMMODATE NEW SIGN.
13 – FURNISH AND INSTALL NEW SIGN ON BACKSIDE OF VEHICLE INDICATION ATTACHED TO VEHICLE INDICATION PLUMBING AS SHOWN ON PLAN PER THE DIRECTION OF THE CITY REPRESENTATIVE IN THE FIELD (2 EA. TOTAL).
14 – REMOVE AND SALVAGE EXISTING PEDESTRIAN PUSH BUTTON ASSEMBLY COMPLETE. FACE PLATE EXISTING POLE AFTER REMOVING PUSH BUTTON.
15 – FURNISH AND INSTALL WEIGHTS/PLATES/BLOCKS, OVERHEAD SIGNAL INDICATIONS AS NEEDED AND WIRING TO TEMP EXISTING POLE PER CITY REQUIREMENTS.
16 – REMOVE AND SALVAGE EXISTING STANDARD COMPLETE WITH EXISTING EQUIPMENT UNLESS OTHERWISE INDICATED TO BE RELOCATED. REMOVE FOUNDATION.
17 – FURNISH AND INSTALL NEW SIGN ON NEW STANDARD (1 EA. TOTAL).

SCALE: 1" = 20'

AGA Job No. : 105–004
AGA File Name: LAMCLIMD.dwg
Print Date : 7/11/2022
Last Revision : 7/11/2022

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

AGA Engineers, Inc.
(714) 992–4592
agaengineersinc.com
TRANSPORTATION CONSULTING ENGINEERS
211 Imperial Highway, Suite 208 Fullerton, CA 92835

	INITIALS	DATE
DRAWN BY:	JE	4/5/2022
DESIGNED BY:	JE/IS	4/5/2022
CHECKED BY:	IS	4/5/2022

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER IGNACIO SANCHEZ HERNANDEZ No. 72073 CIVIL STATE OF CALIFORNIA
Ignacio Sanchez 7/11/22
IGNACIO SANCHEZ H. R.C.E. NO. 72073 DATE

CITY OF BREA
BREA CALIFORNIA
PUBLIC WORKS DEPARTMENT

TRAFFIC SIGNAL MODIFICATION PLAN
SCHEDULE A
LAMBERT ROAD
AT
CLIFFWOOD AVENUE – CLIFFWOOD PARK STREET

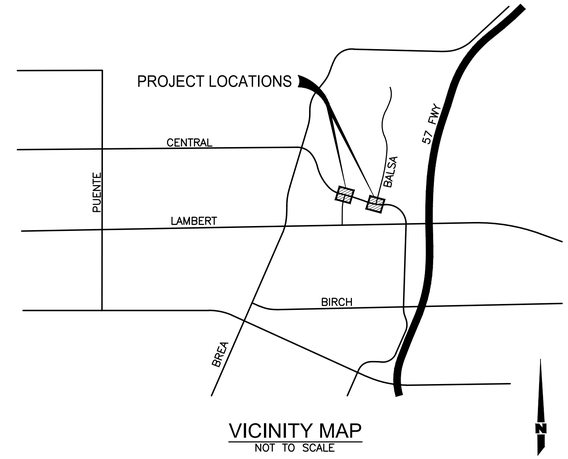
SHEET 2 OF 2

BID DOCUMENTS - FOR BIDDING PURPOSES ONLY

CONSTRUCTION PLANS
FOR
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE
TRAFFIC SIGNAL MODIFICATION PLANS
CIP NO. 7717
SCHEDULE B

BREA CALIFORNIA

IN THE
CITY OF BREA, CALIFORNIA



VICINITY MAP
NOT TO SCALE

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

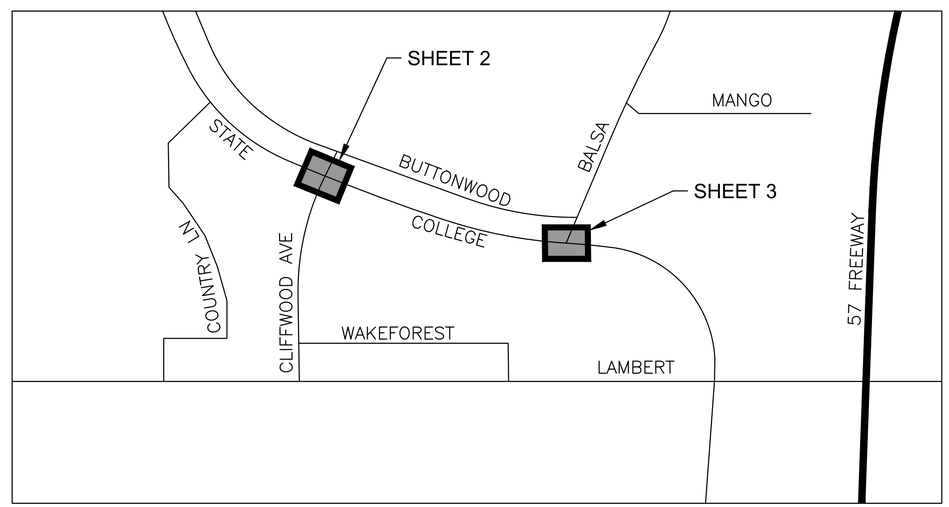
THE CONTRACTOR AND ALL SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTOR'S AND ALL SUBCONTRACTOR'S COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

CONTRACTOR FURTHER AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CIVIL ENGINEER.

PROJECT CONTACTS

SERVICES / COMPANY	CONTRACT PERSON	EMERGENCY TELEPHONE NO.
TIME WARNER COMMUNICATION	DAVE GATE	(714) 903-8380 OR 903-8260
AT&T-TCA	MARIA GUZMAN	(714) 666-5467
SOUTHER CALIFORNIA GAS CO.	STEVE ALCALA	(714) 634-3185
SOUTHERN CALIFORNIA EDISON	VICTOR PEDROZA	(714) 870-3228
VERIZON TELEPHONE	TOM MONAHAN	(562) 903-7939
CALIF. DOMESTIC MUN. WATER CO.	CHE VENEGA	(562) 947-3811
GOLDEN STATE WATER CO.	STAN YARBROUGH	(714) 535-8010 EXT. 320
OC METROPOLITAN WATER DIST.	KIERAN CALLANAN	(213) 217-7474
CHEVRON OIL	MIKE ROBERTS	(714) 228-1530
SHELL PIPELINE., LP	DAVID FELGER	(310) 816-2063
EXXON-MOBIL PIPELINE CO.	TERI SHINDE	(310) 212-1794
CONOCO PHILLIPS	LEO MARTINEZ	(805) 226-2656
CENTURYLINK - LEVEL 3	CALEB KING	(918) 547-0007
CRIMSON PIPELINE, LP	APRIL C. HARVEY	(562) 285-4112
PLAINS ALL AMERICAN PIPELINE	MICHAEL EIDMAN	(562) 728-2394
CITY ENGINEER	MICHAEL HO	(714) 990-7666
BREA WATER DEPARTMENT		(714) 990-7697
BREA MAINTENANCE DEPT.		(714) 990-7691
BREA POLICE DEPT.		(714) 990-7626
BREA FIRE DEPT. - ADMINISTRATION		(714) 990-7644
BREA-OLINDA UNIFIED SCHOOL DIST.		(714) 990-7800
BREA DISPOSAL		(714) 238-3300
BREA POST OFFICE		(714) 529-2163



INDEX TO SHEETS
NOT TO SCALE

ENGINEER'S NOTES TO CONTRACTOR

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BREA STANDARD PLANS, CALTRANS STANDARD PLANS (2018), SPPWC STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2015).
2. THE CONTRACTOR SHALL MAKE A PHYSICAL INSPECTION OF THE PROJECT SITE AND REPORT ALL VARIATIONS, INCONSISTENCIES, OR CHANGED CONDITIONS TO THE ENGINEER PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSUMPTIONS, REMEDIAL ACTIONS, OR ADAPTATIONS MADE IN THE FIELD WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGES OR ALTERATIONS TO EXISTING PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER AT NO COST TO THE CITY.
4. ALL DIMENSIONS SHALL BE VERIFIED BY PLANS OR FIELD INSPECTION. AT NO TIME SHALL ANY DIMENSIONS BE SCALED FROM PLANS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL VARIATIONS IN DIMENSIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. ALL JOINTS AND JOIN LOCATIONS AND UNDERGROUND UTILITY LOCATIONS SHALL BE FIELD VERIFIED.
6. AT ALL TIMES, GUTTER AND SWALE GRADES SHALL BE MAINTAINED, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AND EFFECTED AGENCIES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. ALL ASPHALT PAVEMENT IMPROVEMENTS INDICATED TO BE REMOVED SHALL BE SAWCUT WITH STRAIGHT LINES AT THE LINE OF REMOVAL.
9. ALL WORK IN THE PUBLIC RIGHT-OF-WAY, ONCE BEGUN, MUST BE DILIGENTLY PURSUED UNTIL COMPLETION AS SOON AS POSSIBLE.
10. ALL TEMPORARY TRAFFIC CONTROLS AND WORK HOURS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BREA AND THE LATEST EDITIONS OF THE CAMUTCD AND THE WORK AREA TRAFFIC CONTROL HANDBOOK.

UNAUTHORIZED CHANGES AND USES:

THE CIVIL ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE CITY OF BREA.

SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET
2	STATE COLLEGE AT CLIFFWOOD TRAFFIC SIGNAL IMPROVEMENTS
3	STATE COLLEGE AT BALSA TRAFFIC SIGNAL IMPROVEMENTS

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED UNDER THE SUPERVISION OF:
RICK KREUZER, PE — DATE 04/13/23
R.C.E. NO. 42407
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

CITY REVIEW BLOCK

	REVIEWED BY	DATE
ENGINEERING		
TRAFFIC ENGINEERING		
MAINTENANCE - STREET		
MAINTENANCE - WATER		
MAINTENANCE - PARKS		

APPROVED BY:
CITY ENGINEER
R.C.E. NO.: EXP. DATE:

CITY OF BREA
PUBLIC WORKS DEPARTMENT

STATE COLLEGE BOULEVARD AT CLIFFWOOD AVE & BALSA AVE
TRAFFIC SIGNAL MODICATION PLANS
TITLE SHEET

SHEET 1 OF 3

STATE COLLEGE BLVD – CLIFFWOOD & BALSA SIGNAL MODS. CIP 7717

4/13/2023 2:26:57 PM – L:\112-BREA\026- STATE COLLEGE & CLIFFWOOD TRAFFIC SIGNAL\DESIGN\SHEETS\01 STATE COLLEGE.DWG – EDDIE MENDOZA

BID DOCUMENTS - FOR BIDDIING PURPOSES ONLY!

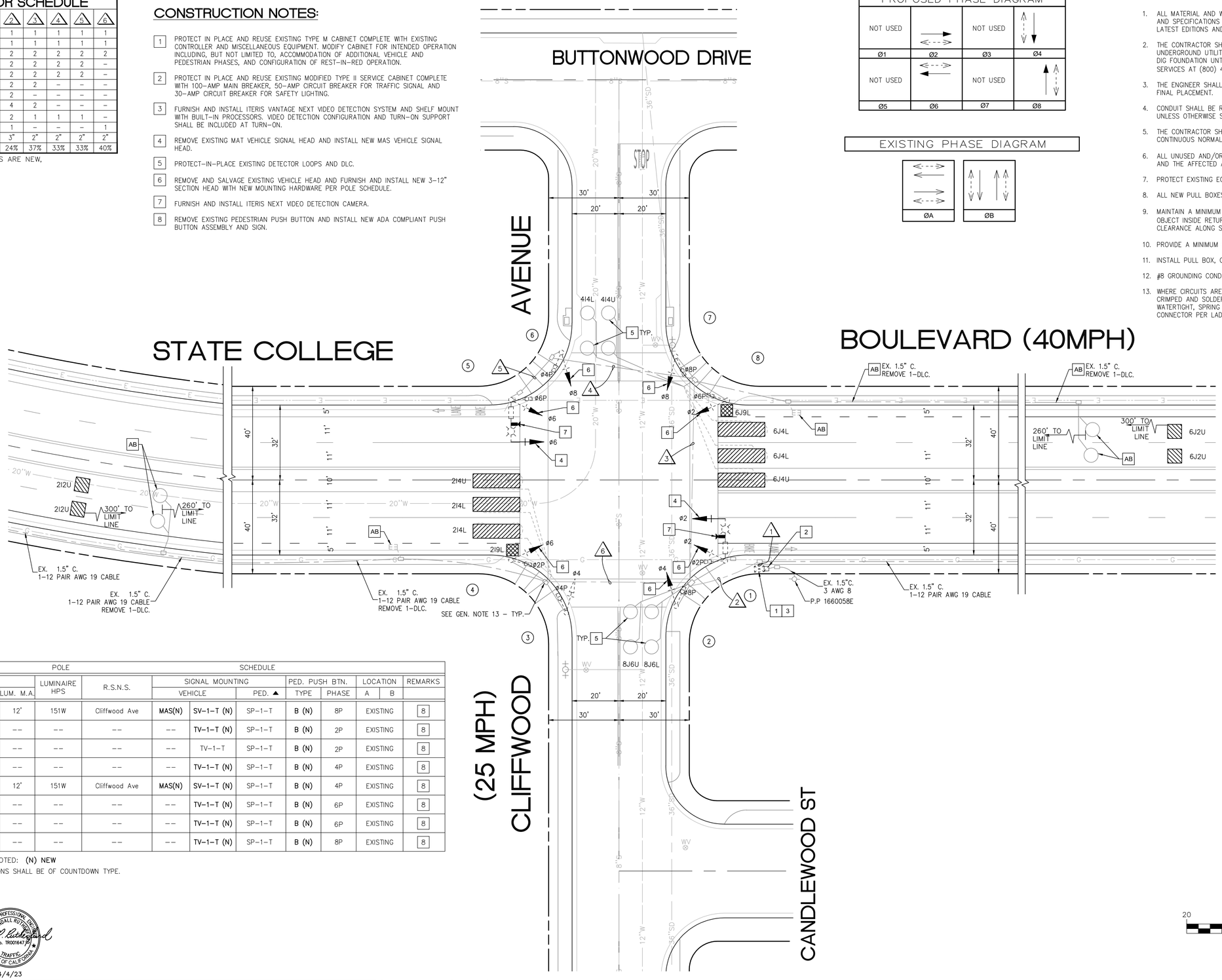
CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CIRCUITS	1	2	3	4	5	6
28CSC	C1 – ø2PPB,ø2P,ø2,ø4PPB,ø4P,ø4	1	1	1	1	1	1
	C2 – ø6PPB,ø6P,ø6,ø8PPB,ø8P,ø8	1	1	1	1	1	1
	TOTAL	2	2	2	2	2	2
#10	LUMINAIRE	2	2	2	2	2	–
	TOTAL	2	2	2	2	2	–
4 #18 DLC	ø4 DETECTION	2	2	2	–	–	–
	ø8 DETECTION	2	2	–	–	–	–
	TOTAL	4	4	2	–	–	–
VIDEO DETECTION CABLE – CAT5		2	2	1	1	1	–
INTERCONNECT 12PR#19(E)		1	1	–	–	–	1
CONDUIT SIZE		2–3"	3"	2"	2"	2"	2"
CONDUIT FILL		12%	24%	37%	33%	33%	40%

ALL CONDUITS ARE EXISTING AND CONDUCTORS ARE NEW, UNLESS OTHERWISE NOTED.
(E) = EXISTING

CONSTRUCTION NOTES:

1. PROTECT IN PLACE AND REUSE EXISTING TYPE M CABINET COMPLETE WITH EXISTING CONTROLLER AND MISCELLANEOUS EQUIPMENT. MODIFY CABINET FOR INTENDED OPERATION INCLUDING, BUT NOT LIMITED TO, ACCOMMODATION OF ADDITIONAL VEHICLE AND PEDESTRIAN PHASES, AND CONFIGURATION OF REST-IN-RED OPERATION.
2. PROTECT IN PLACE AND REUSE EXISTING MODIFIED TYPE II SERVICE CABINET COMPLETE WITH 100-AMP MAIN BREAKER, 50-AMP CIRCUIT BREAKER FOR TRAFFIC SIGNAL AND 30-AMP CIRCUIT BREAKER FOR SAFETY LIGHTING.
3. FURNISH AND INSTALL ITERIS VANTAGE NEXT VIDEO DETECTION SYSTEM AND SHELF MOUNT WITH BUILT-IN PROCESSORS. VIDEO DETECTION CONFIGURATION AND TURN-ON SUPPORT SHALL BE INCLUDED AT TURN-ON.
4. REMOVE EXISTING MAT VEHICLE SIGNAL HEAD AND INSTALL NEW MAS VEHICLE SIGNAL HEAD.
5. PROTECT-IN-PLACE EXISTING DETECTOR LOOPS AND DLC.
6. REMOVE AND SALVAGE EXISTING VEHICLE HEAD AND FURNISH AND INSTALL NEW 3-12" SECTION HEAD WITH NEW MOUNTING HARDWARE PER POLE SCHEDULE.
7. FURNISH AND INSTALL ITERIS NEXT VIDEO DETECTION CAMERA.
8. REMOVE EXISTING PEDESTRIAN PUSH BUTTON AND INSTALL NEW ADA COMPLIANT PUSH BUTTON ASSEMBLY AND SIGN.



PROPOSED PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
NOT USED		NOT USED	
Ø5	Ø6	Ø7	Ø8
NOT USED		NOT USED	

EXISTING PHASE DIAGRAM

ØA	ØB

GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE 2018 STANDARD PLANS AND SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION LATEST EDITIONS AND THE SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF UNDERGROUND UTILITIES AND VERIFY ALL LOCATIONS ON THE JOB SITE. HAND DIG FOUNDATION UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICES AT (800) 422-4133 48 HOURS IN ADVANCE OF WORK.
3. THE ENGINEER SHALL APPROVE THE EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT.
4. CONDUIT SHALL BE RIGID STEEL. MINIMUM CONDUIT SIZE SHALL BE 2 INCH UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL MAINTAIN OPERATION OF SIGNAL AND LIGHTING IN CONTINUOUS NORMAL OPERATIONS
6. ALL UNUSED AND/OR PULL BOXES AND FOUNDATIONS SHALL BE REMOVED AND THE AFFECTED AREA REPAIRED OR RESTORED TO MATCH SURROUNDING.
7. PROTECT EXISTING EQUIPMENT IN PLACE UNLESS OTHERWISE INDICATED.
8. ALL NEW PULL BOXES SHALL BE NO. 6 UNLESS OTHERWISE INDICATED.
9. MAINTAIN A MINIMUM 36" CLEARANCE FROM FACE OF CURB TO ANY FIXED OBJECT INSIDE RETURNS AND NEAR DRIVEWAYS, AND A MINIMUM 18" CLEARANCE ALONG SIDEWALKS.
10. PROVIDE A MINIMUM CLEARANCE OF 48" FOR WALKWAY.
11. INSTALL PULL BOX, CONDUIT AND POLES OUTISDE OF CURB RAMPS.
12. #8 GROUNDING CONDUCTOR MUST HAVE GREEN COLORED INSULATION.
13. WHERE CIRCUITS ARE TO BE SPLICED IN PULL BOXES, EACH SPLICE SHALL BE CRIMPED AND SOLDERED WITH ROSIN CORE THEN SEALED WITH VINYL, WATERTIGHT, SPRING TENSIONED, SILICONE FILLED, DIRECT BURIAL WIRE CONNECTOR PER LADOT SPECIFICATION 56-002-04 OR LATEST VERSION.

POLE SCHEDULE

NO.	STANDARD TYPE	STANDARD HEIGHT	STANDARD SIG. M.A.	STANDARD LUM. M.A.	LUMINAIRE HPS	R.S.N.S.	SIGNAL MOUNTING VEHICLE		SIGNAL MOUNTING PED. ▲	PED. PUSH BTN. TYPE	PED. PUSH BTN. PHASE	LOCATION A	LOCATION B	REMARKS
1	17	30'	18'	12'	151W	Cliffwood Ave	MAS(N)	SV-1-T (N)	SP-1-T	B (N)	8P	EXISTING		8
2	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	2P	EXISTING		8
3	1A	10'	--	--	--	--	--	TV-1-T	SP-1-T	B (N)	2P	EXISTING		8
4	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	4P	EXISTING		8
5	17	30'	18'	12'	151W	Cliffwood Ave	MAS(N)	SV-1-T (N)	SP-1-T	B (N)	4P	EXISTING		8
6	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	6P	EXISTING		8
7	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	6P	EXISTING		8
8	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	8P	EXISTING		8

ALL EQUIPMENT IS EXISTING UNLESS NOTED: (N) NEW
▲ ALL PEDESTRIAN SIGNAL HEAD INDICATIONS SHALL BE OF COUNTDOWN TYPE.

REGISTERED PROFESSIONAL ENGINEER KENDALL ROTHFUSS No. TR001647 TRAFFIC STATE OF CALIFORNIA
4/4/23

PROJECT NO. 7717

PREPARED BY:
Stantec
38 TECHNOLOGY
IRVINE, CA 92618
949-923-6000
SUSAN E. REID RCE 56872 4/4/23 DATE

REGISTERED PROFESSIONAL ENGINEER SUSAN E. REID No. 56872 Exp. 6/30/2023 CIVIL STATE OF CALIFORNIA

BENCH MARK:
CITY OF BREA
BENCH MARK NO. xx
ELEV=xx NAVD 88
xx

REVISIONS	DATE	DRAWN BY	CHKD BY	APPROVED

DATE: 11/17/21 JOB NO.: -- DRAWN BY: CC DESIGNED BY: XX
SCALE: PROJ. NO.: -- CHECKED BY: RK PROJ. ENGR.: RK
APPROVED BY: XX
CIVIL ENGINEER RCE DATE

CITY OF BREA
PUBLIC WORKS DEPARTMENT

TRAFFIC SIGNAL MODIFICATION PLAN
SCHEDULE B
STATE COLLEGE BOULEVARD
AT CLIFFWOOD AVENUE

SHEET 2 OF 3
DRAWING NO.

BID DOCUMENTS - FOR BIDDIING PURPOSES ONLY!

4/4/2023 4:22:52 PM – \\US0300-PPFSS01\SHARED_PROJECTS\204262940\DRAWING\SHEET_FILES\629400C-1001TS.DWG – HO, VIEN

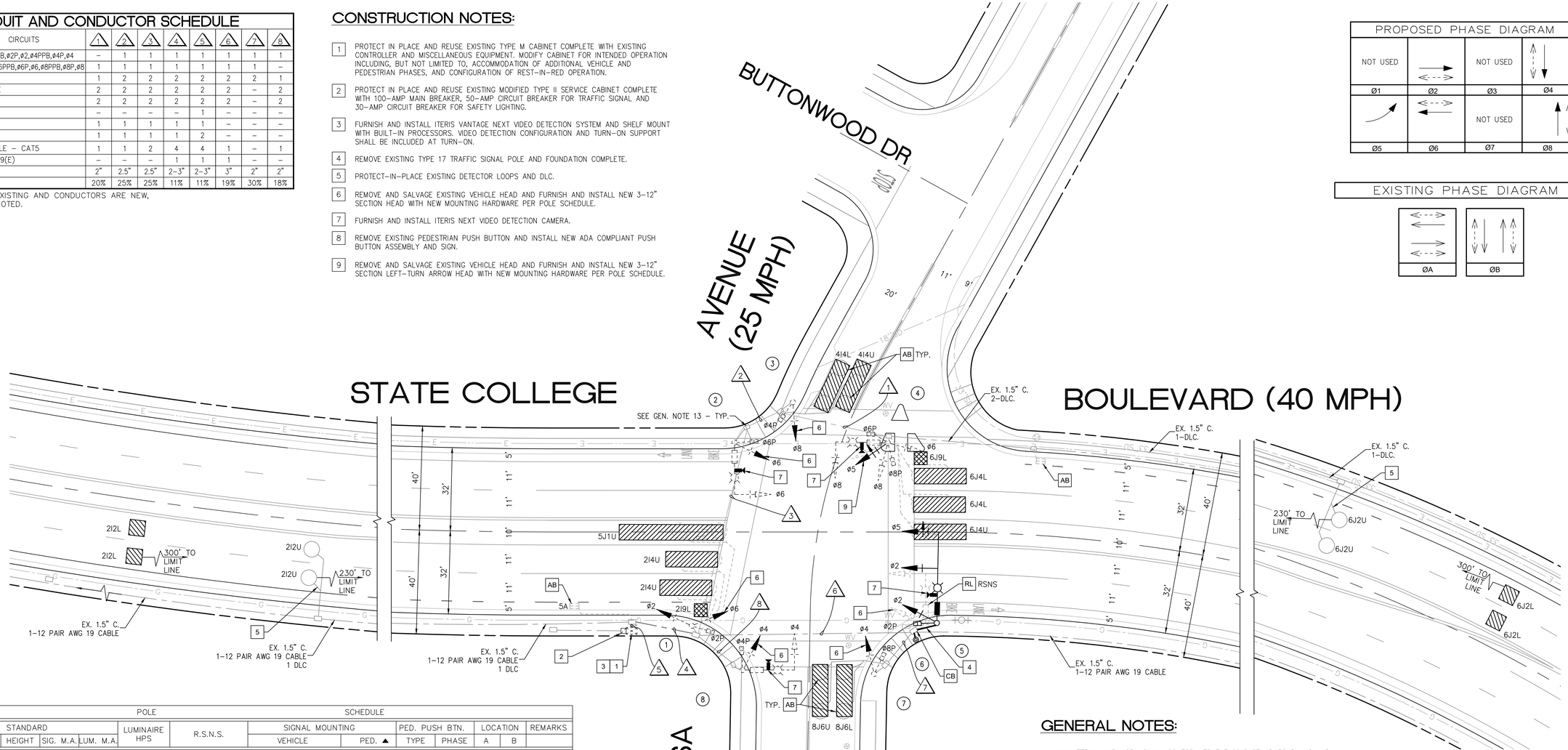
CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CIRCUITS	1	2	3	4	5	6	7	8
28CSC	C1 – ø2PPB,ø2P,ø2,ø4PPB,ø4P,ø4	–	1	1	1	1	1	1	1
	C2 – ø5,ø6PPB,ø6P,ø6,ø8PPB,ø8P,ø8	1	1	1	1	1	1	1	–
	TOTAL	1	2	2	2	2	2	2	1
#10	LUMINAIRE	2	2	2	2	2	2	–	2
	TOTAL	2	2	2	2	2	2	–	2
4 #18 DLC	ø2	–	–	–	–	1	–	–	–
	ø6	1	1	1	1	1	–	–	–
	TOTAL	1	1	1	1	2	–	–	–
VIDEO DETECTION CABLE – CAT5		1	1	2	4	4	1	–	1
INTERCONNECT 12PR#19(E)		–	–	–	1	1	1	–	–
CONDUIT SIZE		2"	2.5"	2.5"	2–3"	2–3"	3"	2"	2"
CONDUIT FILL		20%	25%	25%	11%	11%	19%	30%	18%

ALL CONDUITS ARE EXISTING AND CONDUCTORS ARE NEW, UNLESS OTHERWISE NOTED.
(E) = EXISTING

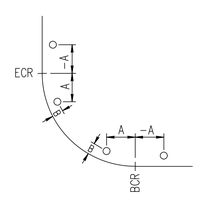
CONSTRUCTION NOTES:

1. PROTECT IN PLACE AND REUSE EXISTING TYPE M CABINET COMPLETE WITH EXISTING CONTROLLER AND MISCELLANEOUS EQUIPMENT. MODIFY CABINET FOR INTENDED OPERATION INCLUDING, BUT NOT LIMITED TO, ACCOMMODATION OF ADDITIONAL VEHICLE AND PEDESTRIAN PHASES, AND CONFIGURATION OF REST-IN-RED OPERATION.
2. PROTECT IN PLACE AND REUSE EXISTING MODIFIED TYPE II SERVICE CABINET COMPLETE WITH 100-AMP MAIN BREAKER, 50-AMP CIRCUIT BREAKER FOR TRAFFIC SIGNAL AND 30-AMP CIRCUIT BREAKER FOR SAFETY LIGHTING.
3. FURNISH AND INSTALL ITERIS VANTAGE NEXT VIDEO DETECTION SYSTEM AND SHELF MOUNT WITH BUILT-IN PROCESSORS. VIDEO DETECTION CONFIGURATION AND TURN-ON SUPPORT SHALL BE INCLUDED AT TURN-ON.
4. REMOVE EXISTING TYPE 17 TRAFFIC SIGNAL POLE AND FOUNDATION COMPLETE.
5. PROTECT-IN-PLACE EXISTING DETECTOR LOOPS AND DLC.
6. REMOVE AND SALVAGE EXISTING VEHICLE HEAD AND FURNISH AND INSTALL NEW 3-12" SECTION HEAD WITH NEW MOUNTING HARDWARE PER POLE SCHEDULE.
7. FURNISH AND INSTALL ITERIS NEXT VIDEO DETECTION CAMERA.
8. REMOVE EXISTING PEDESTRIAN PUSH BUTTON AND INSTALL NEW ADA COMPLIANT PUSH BUTTON ASSEMBLY AND SIGN.
9. REMOVE AND SALVAGE EXISTING VEHICLE HEAD AND FURNISH AND INSTALL NEW 3-12" SECTION LEFT-TURN ARROW HEAD WITH NEW MOUNTING HARDWARE PER POLE SCHEDULE.



POLE						SCHEDULE								
STANDARD					LUMINAIRE HPS	R.S.N.S.	SIGNAL MOUNTING			PED. PUSH BTN.		LOCATION		REMARKS
NO.	TYPE	HEIGHT	SIG. M.A.	LUM. M.A.			VEHICLE		PED. ▲	TYPE	PHASE	A	B	
1	1A	10'	--	--	--	--	--	TV-2-T (N)	SP-1-T	B (N)	4	EXISTING		8
2	17-3-70	30'	20'	12'	151W	Balsa Ave	MAS	SV-1-T (N)	SP-1-T	B (N)	4	EXISTING		8
3	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	6	EXISTING		8
4	17-3-70	30'	20'	12'	151W	St College Bl	MAS	SV-3-TA	SP-2-T	2-B (N)	6, 8	EXISTING		8
5	24-4-100 (N)	30'	35'(N)	12'(N)	151W(N)	Balsa Ave (RL)	2-MAS(N)	SV-1-T (N)	SP-1-T (N)	–	–	6'	2.5'	RELOCATE EX. RSNS
6	PPB POST (N)	4'-7"	--	--	--	--	--	--	--	B (N)	8	14'	6'	
7	1A	10'	--	--	--	--	--	TV-1-T (N)	SP-1-T	B (N)	2	EXISTING		8
8	17-3-70	30'	20'	12'	151W	St College Bl	MAS	SV-1-T (N)	SP-1-T	B (N)	2	EXISTING		8

ALL EQUIPMENT IS EXISTING UNLESS NOTED: (N) NEW OR (RL) RELOCATED
▲ ALL PEDESTRIAN SIGNAL HEAD INDICATIONS SHALL BE OF COUNTDOWN TYPE.



SIGNAL POLE LOCATION CODE

GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE 2018 STANDARD PLANS AND SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION LATEST EDITIONS AND THE SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF UNDERGROUND UTILITIES AND VERIFY ALL LOCATIONS ON THE JOB SITE. HAND DIG FOUNDATION UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICES AT (800) 422-4133 48 HOURS IN ADVANCE OF WORK.
3. THE ENGINEER SHALL APPROVE THE EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT.
4. CONDUIT SHALL BE RIGID STEEL. MINIMUM CONDUIT SIZE SHALL BE 2 INCH UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL MAINTAIN OPERATION OF SIGNAL AND LIGHTING IN CONTINUOUS NORMAL OPERATIONS
6. ALL UNUSED AND/OR PULL BOXES AND FOUNDATIONS SHALL BE REMOVED AND THE AFFECTED AREA REPAIRED OR RESTORED TO MATCH SURROUNDING.
7. PROTECT EXISTING EQUIPMENT IN PLACE UNLESS OTHERWISE INDICATED.
8. ALL NEW PULL BOXES SHALL BE NO. 6 UNLESS OTHERWISE INDICATED.
9. MAINTAIN A MINIMUM 36" CLEARANCE FROM FACE OF CURB TO ANY FIXED OBJECT INSIDE RETURNS AND NEAR DRIVEWAYS, AND A MINIMUM 18" CLEARANCE ALONG SIDEWALKS.
10. PROVIDE A MINIMUM CLEARANCE OF 48" FOR WALKWAY.
11. INSTALL PULL BOX, CONDUIT AND POLES OUTISDE OF CURB RAMPS.
12. #8 GROUNDING CONDUCTOR MUST HAVE GREEN COLORED INSULATION.
13. WHERE CIRCUITS ARE TO BE SPLICED IN PULL BOXES, EACH SPLICE SHALL BE CRIMPED AND SOLDERED WITH ROSIN CORE THEN SEALED WITH VINYL, WATERTIGHT, SPRING TENSIONED, SILICONE FILLED, DIRECT BURIAL WIRE CONNECTOR PER LADOT SPECIFICATION 56-002-04 OR LATEST VERSION.

GRAPHIC SCALE
20 0 20 60
SCALE: 1" = 20'

REGISTERED PROFESSIONAL ENGINEER RANDALL ROTHSCHILD No. TR001647 TRAFFIC STATE OF CALIFORNIA
4/4/23

PROJECT NO. 7717

PREPARED BY:
Stantec
38 TECHNOLOGY
IRVINE, CA 92618
949-923-6000
SUSAN E. REID RCE 56872 4/4/23
DATE

REGISTERED PROFESSIONAL ENGINEER SUSAN E. REID No. 56872 Exp. 6/30/2023 CIVIL STATE OF CALIFORNIA

BENCH MARK:
CITY OF BREA
BENCH MARK NO. xx
ELEV=xx NAVD 88
xx

REVISIONS	DATE	DRAWN BY	CHKD BY	APPROVED

DATE: 11/17/21 JOB NO.: -- DRAWN BY: CC DESIGNED BY: XX
SCALE: PROJ. NO.: -- CHECKED BY: RK PROJ. ENGR.: RK
APPROVED BY: XX
CIVIL ENGINEER RCE DATE

CITY OF BREA
PUBLIC WORKS DEPARTMENT

TRAFFIC SIGNAL MODIFICATION PLAN
SCHEDULE B
STATE COLLEGE BOULEVARD
AT BALSA AVENUE

SHEET 3 OF 3
DRAWING NO.

BID DOCUMENTS - FOR BIDDIING PURPOSES ONLY!

4/4/2023 4:30:37 PM – \\US0300-PPFS501\SHARED_PROJECTS\204262940\DRAWING\SHEET_FILES\629400C-1002TS.DWG – HO, VIEN

CONTRACT DOCUMENTS
SPECIFICATIONS AND STANDARD DRAWINGS

for the

TRAFFIC SIGNAL MODIFICATION PROJECT

LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A)
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B)

CIP NO. 7717

in the

CITY OF BREA

One Civic Center Circle BREA, CALIFORNIA 92821
(714) 990-7667

BIDS DUE:

May 16, 2023, 2:00 PM, 3rd FLOOR
City Clerk's Office

MICHAEL HO, P.E.
PUBLIC WORKS DIRECTOR/CITY ENGINEER

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

CITY OF BREA

PLANS
SPECIFICATIONS AND CONTRACT DOCUMENTS

for the

TRAFFIC SIGNAL MODIFICATION PROJECT

LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A)
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B)

CIP NO. 7717

Prepared Under the Supervision of:

REGISTERED PROFESSIONAL ENGINEER
IGNACIO SANCHEZ HERNANDEZ
No. 72073
CIVIL
STATE OF CALIFORNIA

For Schedule A Work

Ignacio Sanchez 3/27/2023

Ignacio Sanchez Hernandez, R.C.E. No. 72073 Exp. 06/30/2024 **Date**

For Schedule B Work

4/4/23

Rick Kreuzer, R.C.E. No. 42407 Exp. 03/31/2024 **Date**

Approved by:

Michael S. Ho, Director of Public Works **Date**
RCE No. 70299 Exp. 12/31/2024

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NOTE: *If there are any questions relative to this project, please call Michael Ho, P.E. at:*

CITY OF BREA
PUBLIC WORKS DEPARTMENT
One Civic Center Circle
BREA, CALIFORNIA 92821
(714) 990-7667

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BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION A

NOTICE INVITING SEALED BIDS

NOTICE IS HEREBY GIVEN that the City of Brea, as AGENCY invites sealed bids for the below stated project and will receive sealed bids for the materials, supplies, equipment and/or services set forth herein, subject to all conditions outlined in the Bid Package **until 2:00 p.m. on MAY 16, 2023.**

1. **Project Name: TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO. 7717**

   This Project consists of installation and modifications to the traffic signals and equipment at the intersections of Lambert Road and Cliffwood Ave./Cliffwood Park Street (Schedule A) and State College Blvd. at Cliffwood Ave. and Balsa Ave. (Schedule B) in the City of Brea, California. The Work generally includes, but is not limited to, furnishing all materials, labor, and equipment, and installing three new signals, PPB Post (furnished by City), furnishing and installing various segments of new conduit and pull boxes, traffic signal equipment upgrades, relocate and reuse traffic signal controller assemblies, electrical service enclosures, controller units, video detection systems, communication switches, and communications equipment, installing signing and striping, develop and implement traffic control, temp signal poles, PCC sidewalk removal and replacement, and all other incidentals to complete the Work. The Work shall be completed in accordance with the Plans and Specifications entitled, "Traffic Signal Modification Project, Lambert Road at Cliffwood Avenue-Cliffwood Park Street (Schedule A), State College Boulevard at Cliffwood Avenue & Balsa Avenue (Schedule B), CIP 7717" ("Project").

2. **Obtaining Bid Documents:** A copy of the Bid Package (including the plans, specifications, and contract documents) may be downloaded at no cost from the CIPList.com. All bidders shall register with CIPList.com in order to retrieve plans, specifications, addenda, bidders' list, etc.

3. **Bid Opening:** Bids will be publicly opened and read at reasonable time following the time stated above in the City Conference Center, located at 1 Civic Center Circle, Brea, California 92821 on **May 16, 2023.** Sealed bids will be received at all times during normal business hours prior to the date and time stated above, at the Office of the City Clerk, One Civic Center Circle, Brea, California 92821. The **outside** of the sealed envelope of each bid submitted shall be clearly marked: **"SEALED BID FOR TRAFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO. 7717 - DO NOT OPEN WITH REGULAR MAIL".**

4. **Non-Mandatory Pre-Bid Meeting**: A non-mandatory pre-bid meeting will be held on **Thursday April 27, 2023.** The pre-bid meeting will be held at the **City of Brea Civic Center, 1 Civic Center Cir, 2nd Floor, CA 92821 in Conference Center at 2:00 pm.**

5. **Contractor's License:** In accordance with provisions of Section 3300 of the California Public Contract Code, the AGENCY has determined that the Contractor shall possess a valid **California Contractor's License Class "A" (General Engineering) and Class "C-10" (Electrical Contractor).** Failure to possess such license may render the bid non-responsive and bar the award of the contract to that non-

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

responsive Bidder. The successful Contractor and his subcontractors will be required to possess business licenses from the AGENCY.

6. **Registration with the Department of Industrial Relations:** The Bidder's attention is directed to Labor Code Section 1725.5 and 1771.1, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

7. **Prevailing Wages:** In accordance with the provisions of Section 1770, et seq., of the Labor Code, the Director of the Industrial Relations of the State of California has determined the general prevailing rate of wages applicable to the work to be done. The Contractor will be required to pay to all persons employed on the project by the Contractor sums not less than the sums set forth in the documents entitled "General Prevailing Wage Determination made by the Director of Industrial Relations pursuant to California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773, 1773.1." These documents can be obtained from the State at the following website: http://www.dir.ca.gov/OPRL/pwd/.

8. **Bid Security:** Each bid shall be accompanied by bid security in the form of a cashier's check, certified check or bid bond in the amount of 10% of the total bid amount. All cashier's checks or certified checks must be drawn on a responsible bank doing business in the United States and shall be made payable to THE CITY OF BREA. A bonding company admitted and licensed to do business in the State of California must issue bid bonds. Bids not accompanied by the required bid security shall be rejected. Cash and personal or company checks are **NOT** acceptable.

9. **Payment Bond and Performance Bond:** A Payment Bond and a Performance Bond, each in the amount of 100% of the contract amount, will be required of the Contractor.

10. **Retention:** In accordance with the Contract, five percent (5%) of any progress payment will be withheld as a retention. Pursuant to Section 22300 of the Public Contract Code, at the request and expense of the Contractor, approved securities equivalent to the amount withheld may be deposited with the AGENCY or with a state or federally chartered bank as the escrow agent, and AGENCY shall then pay such moneys to the Contractor. Refer to the Contract for further clarification.

11. **Contact Person:** Questions regarding this Notice Inviting Bids shall be directed to:
    Ryan Chapman, PE, Assistant City Engineer at (714) 990-7763.

ALL BONDS ISSUED SHALL BE FROM A BONDING COMPANY ADMITTED AND LICENSED TO DO BUSINESS IN THE STATE OF CALIFORNIA.

THE AGENCY RESERVES THE RIGHT TO REJECT ANY BID OR ALL BIDS AND TO WAIVE ANY INFORMALITY OR IRREGULARITY IN ANY BID AND TO TAKE ALL BIDS UNDER ADVISEMENT FOR A MAXIMUM PERIOD OF 60 DAYS. ANY CONTRACT AWARDED WILL BE LET TO THE LOWEST RESPONSIVE AND RESPONSIBLE BIDDER. NO BID SHALL BE CONSIDERED UNLESS IT IS PREPARED ON THE APPROVED PROPOSAL FORMS IN CONFORMANCE WITH THE INSTRUCTIONS TO BIDDERS.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION B

INSTRUCTIONS TO BIDDERS

1. **Proposal Forms**

Bids shall be submitted in writing on the Proposal forms provided by the AGENCY. All information requested therein must be clearly and legibly set forth in the manner and form indicated. The AGENCY will reject any proposal not meeting these requirements. The bid shall be filed with the City Clerk, Third Floor City Hall, One Civic Center Circle, Brea, California, which shall be endorsed with the Project Title and Project Number as it appears on the Notice Inviting Sealed Bids. The sealed envelopes will be publicly opened and read at the time and place stated in the Notice Inviting Bids. Bidders or their authorized agents are invited to be present at the opening. Unauthorized conditions, limitations, or provisions attached to a proposal will render it informal and may cause its rejection. The complete proposal forms shall be without interlineations, alterations or erasures. Alternative proposals will not be considered unless requested. No oral, telegraphic, or telephonic proposals or modifications will be considered. The proposal may be withdrawn upon request by the bidder without prejudice to himself prior to, but not after the time fixed for opening of bids, provided that the request is in writing, that it has been executed by the bidder or his duly authorized representative, and that it is filed with the AGENCY.

2. **Proposal Guarantee**

Proposals must be accompanied by a proposal guarantee consisting of a certified or cashier's check or bid bond payable to the AGENCY in the amount not less than 10% of the total amount named in the proposal. Any proposal not accompanied by such a guarantee will not be considered. Said check or bond shall be made payable to the AGENCY, and shall be given as a guarantee that the bidder, if awarded the Work, will enter into a contract within 10 working days after the award and will furnish the necessary bonds as hereinafter provided. In the case of refusal or failure to enter into said contract, the check or bond, as the case may be, shall be forfeited to the AGENCY.

3. **Proposal Signature**

If the proposal is made by an individual, it shall be signed and his full name with his address shall be given; if it is made by a firm, it shall be signed with the co-partnership name by a member of the firm who shall sign his own name and the name and address of each member shall be given; and if it is made by a corporation, the name of the corporation shall be signed by its duly authorized officer or officers attested by the corporate seal, and the names and titles of all officers of the corporation shall be given.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

4. **Delivery of Proposal**

Proposals shall be enclosed in a sealed envelope plainly marked on the outside:

"SEALED BID"

for

TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B)
CIP NO. 7717

CITY OF BREA - DO NOT OPEN WITH REGULAR MAIL

Proposals may be mailed or delivered by messenger. However, it is the bidder's responsibility alone to ensure delivery of the proposal to the hands of the AGENCY's designated official prior to the bid opening hour stipulated in the Notice Inviting Sealed Bids. Late proposals will not be considered.

5. **Return of Proposal Guarantees**

The proposal guarantees of the second and third lowest bidders will be held until the awarded bidder has properly executed all contract documents. Within 10 working days after the award of contract, the remaining proposal guarantees accompanying all other proposals will become null and void and returned to the unsuccessful bidders.

6. **Taxes**

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

7. **Disqualification of Bidders**

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

8. **Contractor's License Requirement**

This project requires the Contractor to possess a valid State of California contractor's license as stated in Section A "Notice Inviting Sealed Bids".

9. **Registration with the Department of Industrial Relations**

The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

10. **References**

All reference information called for in the bid proposal must be submitted with the bid proposal.

11. **Listing of Subcontractors**

Bidders shall list in the bid proposal the name and place of business of each subcontractor who will perform work or labor or render services for the Contractor in an amount in excess of one-half of one percent of the Contractor's total bid.

12. **Discrepancies and Misunderstandings**

Bidders must satisfy themselves by personal examination of the work site, plans, specifications and other contract documents, and by any other means as they may believe necessary, as to the actual physical conditions, requirements and difficulties under which the Work must be performed. No bidder shall at any time after submission of a proposal make any claim or assertion that there was any misunderstanding or lack of information regarding the nature or amount of work necessary for the satisfactory completion of the job. Should a bidder find any errors, omissions, or discrepancies in the plans, specifications, and other contract documents or should he be in doubt as to their meaning, he shall notify the AGENCY. Should it be found necessary, a written addendum will be sent to all bidders. Any addenda issued during the bidding period shall form a part of the contract and shall be included with the proposal.

13. **Equivalent Materials**

Requests for the use of equivalents to those specified, must be submitted to the AGENCY. Only substitutions approved prior to bid due date via addenda Product Substitutions, will be considered. No substitutions will be considered after bid due date and contract award. It is the sole responsibility of the successful bidder to prove to the AGENCY that such a material is truly an equivalent.

14. **Legal Responsibilities**

All proposals must be submitted, filed, made and executed in accordance with State and Federal laws relating to bids for contracts of this nature whether the same or expressly referred to herein or not. Any bidder submitting a proposal shall by such action thereby agree to each and all of the terms, conditions, provisions and requirements set forth, contemplated and referred to in the Plans, Specifications and other contract documents, and to full compliance therewith. Additionally, any bidder submitting a proposal shall, by such action thereby, agree to pay at least the minimum prevailing per diem wages as provided in Section 1773, et. seq. of the labor code for each craft, classification or type of workman required as set forth by the Director of Industrial Relations of the State of California.

15. **Award of Contract**

The award of contract, if made, will be let to the lowest responsive and responsible bidder as determined solely by the AGENCY. The AGENCY reserves the right to reject any or all proposals, to waive any irregularity, and to take the bids under advisement for a maximum period of 60 days. In no event will an award be made until all necessary investigations are made to the responsibility and qualifications of the bidder to whom the award is contemplated.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

16. **Material Guarantee**

The successful bidder may be required to furnish a written guarantee covering certain items of work for varying periods of time from the date of acceptance of the work by the AGENCY. The work to be guaranteed, the form, and the time limit of the guarantee will be specified in the special provisions. Said guarantee shall be signed and delivered to the AGENCY before acceptance of the contract by the AGENCY. Upon completion of the contract, the amounts of the two contract bonds required in Section 2-4, "CONTRACT BONDS", of the Standard Specifications for Public Works Construction, may be reduced to conform to the total amount of the contract bid prices for the items of work to guaranteed, and this amount shall continue in full force and effect for the duration of the guarantee period. However, the Labor and Material Bond cannot be reduced until the expiration of 35 days after the date of recordation of the Notice of Completion.

17. **Execution of Contract**

The successful bidder shall execute a written contract with the AGENCY on the form of agreement provided and shall secure all insurance and bonds required by the Specifications within 10 working days from the date of the award. Failure to enter into a contract shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee. If the successful bidder fails to execute the contract, the AGENCY may award the contract to the second lowest responsive and responsible bidder. If the second lowest responsive and responsible bidder fails to execute the contract, the AGENCY may award the contract to the third lowest responsive and responsible bidder. On the failure of such second or third lowest responsive and responsible bidder to execute the contract, such bidder's guarantees shall be likewise forfeited to the AGENCY. The work may then be re-advertised.

18. **Submission of Bonds and Insurance**

The successful bidder will be required to furnish the necessary bonds and insurance to the AGENCY within 10 working days from the award of contract. Prior to issuance of Notice to Proceed, the AGENCY must be furnished with a Policy endorsement as required in the sample agreement depicted in Section D.

19. **Addenda**

The effect of all addenda to the contract documents shall be considered in the bid package and said addenda shall be made part of the contract documents and shall be returned with the bid package. Failure to submit any such addenda with the bid package may render the bid irregular and result in its rejection by the AGENCY.

20. **(Blank)**

21. **Questions to the Engineer**

Questions regarding the bid documents (i.e. plans, specifications, contract documents, bid forms, etc.) will be received by the Engineer up to **ten (10) calendar days** prior to the bid opening as specified in SECTION A. Questions asked of the Engineer after this time <u>will not</u> be addressed.

22. **Request for Information – RFI (SEE NEXT PAGE)**

For Requests for Information (RFI) the contractor shall use the form on the following page for submittal in writing.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

CITY OF BREA

TRAFFIC SIGNAL MODIFICATION PROJECT
LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A),
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE
CIP NO. 7717

REQUEST FOR INTERPREPARATION OF CONTRACT DOCUMENTS

Date: _____

Time: _____

Company: _____

Contact Person: _____

Address:

_____

Email: **Telephone:**	**FAX:**

Plan Sheet: _____
Specification Section:

INTERPRETATION REQUESTED:

_____

_____

_____

_____

REPLY:

_____

_____

_____

_____

T0 A/E: _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Bidder: _____

SECTION C

PROPOSAL

For

TRAFFIC SIGNAL MODIFICATION PROJECT
LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A),
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE

CIP NO. 7717

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within a total of **50 Working Days (Schedule A) and 30 Working Days (Schedule B)**, starting from the date of the first Notice to Proceed until project completion.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Accompanying this proposal of bid, find_in the amount of $_____which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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

Addenda No.	*Date Received*	*Bidder's Signature*

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION C

TRAFFIC SIGNAL MODIFICATIO PROJECT
LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE
CIP NO. 7717

PROJECT BID SCHEDULE

BASE BID (SCHEDULE A)					
ITEM #	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE (in figures) DOLLARS	ITEMS TOTAL (in figures) DOLLARS
1	Mobilization and Demobilization (5% Maximum)	1	LS	$	$
2	Traffic & Pedestrian Control and Construction Phasing	1	LS	$	$
3	Traffic Signal Modification	1	LS	$	$
4	Traffic Signing, Striping, Markings & Raised Pavement Markers	1	LS	$	$

TOTAL BASE BID (SCH. A) AMOUNT (in Figures) **$**

TOTAL BASE BID (SCH. A) AMOUNT (in Words):

_____

_____

_____

ADDITIVE BID (SCHEDULE B)					
ITEM #	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE (in figures) DOLLARS	ITEMS TOTAL (in figures) DOLLARS
1	Mobilization and Demobilization (5% Maximum)	1	LS	$	$
2	Traffic & Pedestrian Control and Construction Phasing	1	LS	$	$
3	Traffic Signal Modification	1	LS	$	$
4	Traffic Signing, Striping, Markings & Raised Pavement Markers	1	LS	$	$

TOTAL ADDITIVE BID (SCH. B) AMOUNT (in Figures) **$**

TOTAL ADDITIVE BID (SCH. B) BID AMOUNT (in Words):

_____

_____

_____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

TOTAL BASE BID (SCH. A) + ADDITIVE BID (SCH. B) AMOUNT (in Figures) **$**

TOTAL BASE BID (SCH. A) + ADDITIVE BID (SCH. B) AMOUNT (in Words):

_____

_____

_____

1. **The basis of the bid award will be on the lowest responsive and responsible bidders Base Bid Amount. However, the City Council at its discretion may elect to award the Base Bid Schedule A only, Base Bid Schedule A + Additive Bid Schedule B; only Additive Schedule B; or reject all bids.**

2. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders_____ (Bidders Initials)**

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	***% Portion of Work***	***Name, Address and E-mail of Subcontractor***	***State License Number***	***Class***	***DIR Registration Number***

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I,_____, am the
(Print Name)

_____ of_____,
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this _____day of_____, 20_.

_____
Name of Bidder

_____
Signature of Bidder

_____
Address of Bidder

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed _____

Title _____

Firm _____

Date _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

UTILITY AGREEMENT

HONORABLE MAYOR AND CITY COUNCIL
CITY OF BREA, CALIFORNIA

Gentlemen:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B) , CIP No.7717**, (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"**Qualified Person:** *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

_____
Contractor

_____
By

_____
Title

Date: _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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 space provided.

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

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

_____
Contractor

_____
By

_____
Title

Date: _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

_____
Bidder Name

_____
Business Address

_____
City, State Zip

( ) _____
Telephone Number

_____
Email Address

_____
State Contractor's License No. and Class

_____
DIR Registration Number

_____
Original Date Issued (State Contractor's License)

_____
Expiration Date

The work site was inspected by_____of our office on_____, 20__.

The following are persons, firms, and corporations having a principal interest in this proposal:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

_____
Company Name

_____
Signature of Bidder

_____
Printed or Typed Signature

Subscribed and sworn to before me this____day of_____, 20__.

NOTARY PUBLIC _____

NOTARY SEAL

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

The Bidder shall list the names, address, telephone numbers, and contract work for a minimum of **three** California public agencies for which the bidder has performed **traffic signal work** within the past **five** years:

1. Name and Address of Public Agency:_____

   Name and Telephone No. of Public Agency Project Manager: _____

   _____

   Contract Amount Type of Work Date Completed

   Description of Work:

   _____

   _____

   _____

2. Name and Address of Public Agency:_____

   Name and Telephone No. of Public Agency Project Manager: _____

   _____

   Contract Amount Type of Work Date Completed

   Description of Work:

   _____

   _____

   _____

3. Name and Address of Public Agency:_____

   Name and Telephone No. of Public Agency Project Manager: _____

   _____

   Contract Amount Type of Work Date Completed

   Description of Work:

   _____

   _____

   _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Responsible Bidder – Supplemental Questionnaire

1.How many years has your organization been in business in California as a contractor under your present business name and license number?

_____Years

2.Is your firm currently the debtor in a bankruptcy case?

❑Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

Case Number	Bankruptcy Court	Date Filed

3.Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

❑Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

Case Number	Bankruptcy Court	Date Filed

4.Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

❑Yes ❑ No

5.At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

❑Yes ❑ No

6.Has your firm ever defaulted on a construction contract?

❑Yes ❑ No

If "yes," explain on a separate page.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

❑ Yes ❑ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

❑ Yes ❑ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

❑ Yes ❑ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

❑ Yes ❑ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

❑ Yes ❑ No

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

❑Yes ❑ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

❑Yes ❑ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

❑Yes ❑ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

❑Yes ❑ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

_%

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when one was required?

❑Yes ❑ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

❑Yes ❑ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

❑Yes ❑ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

❑Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid and the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

❑Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid and the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non- responsive.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE

_____

_____as PRINCIPAL, and

as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $_____. THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled "_____

_____

_____

"For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on_____.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this_____day of

_____, 20____.

_____ _____

Principal Surety

By: _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of California)
County of _____)
)

On _____before me, _____
_____
(insert name and title of the officer)

personally appeared _____
_____.

who provided to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____(Seal)
(Signature of Notary Public)

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SE C T I O N D

SAMPLE CONTRACT

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION D

SAMPLE CONSTRUCTION AGREEMENT

TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO.7717

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and [contractor name], a [state] [type of entity] ("Contractor"). Contractor's CSLB license number is _____. Contractor's DIR registration number is _____.

R E C I T A L S

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **TRAFFIC SINGAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO. 7717** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. <u>GENERAL SCOPE OF WORK</u>: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE AND BALSA AVENUE (SCHEDULE B), CIP NO. 7717** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. <u>CONTRACT PRICE AND PAYMENT</u>:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of $ **_____.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. CUSTOMER CARE: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. INCORPORATED DOCUMENTS: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2015 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. COMPLETION DATE / LIQUIDATED DAMAGES:

A. Contractor shall complete the Project within **50** working days from the date of the Notice to Proceed for Schedule A work and **30** working days from the date of the Notice to Proceed for Schedule B work ("Completion Date").

B. Liquidated damages will be assessed in the amount of **$1,700.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

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7. INSURANCE:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

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ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

> "It is hereby understood and agreed that this policy may not be canceled nor the amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the

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Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project. Contractor agrees to not be debarred at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty

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trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. UNRESOLVED DISPUTES:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. ANTI-TRUST CLAIMS: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. THIRD PARTY CLAIMS: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. RIGHT TO AUDIT: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

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13. TRENCHING AND EXCAVATIONS:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. UTILITIES: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. LOCATION OF EXISTING ELEMENTS: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. CONTRACTOR'S LIABILITY:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

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B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. <u>ASSIGNMENT</u>: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. <u>CONTRACTOR'S REPRESENTATIONS</u>: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. <u>NOTICES</u>: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

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To City:
Director of Public Works
City of Brea
1 Civic Center Circle
Brea, California 92821

To Contractor:

_____
_____
_____

20. NON-DISCRIMINATION: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. APPLICABLE LAW: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. INCORPORATION OF MANDATORY LANGUAGE: Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

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

24. NON-WAIVER OF TERMS: Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. AUTHORITY: Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. COUNTERPARTS: This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

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TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

[CONTRACTOR NAME]

[use this signature block if Contractor is a corporation]

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

[use this signature block if Contractor is a limited liability company]

_____	_____
Manager	Manager

[Pursuant to California Corporations Code Section 17703.01(d), both signature lines must be executed unless the articles of incorporation state that the firm is managed by only one manager.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

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SECTION E

SPECIAL PROVISIONS

All the Work to be done under this contract shall be in accordance with these Special Provisions the **"GREENBOOK" Standard Specifications for Public Works Construction**, 2015 edition, written and promulgated by the Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association and the Southern California District of Associated General Contractors of California. Copies of the Standard Specifications are available from the publisher:

BNi Building News
1612 S. Clementine Street
Anaheim, California 92802
(714) 517-0971

Where specified in these specifications, the 2018 edition of the "Standard Specifications and Standard Plans of the State of California, Department of Transportation, Division of Highways," shall apply or unless otherwise noted in these specifications or at the direction of the ENGINEER.

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

The section numbers of these Special Provisions coincide with those of the said Standard Specifications. The Technical Specifications section numbers are as stated. Only those sections requiring amendment, elaboration, or specifying options, are called out.

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PART 1
GENERAL PROVISIONS

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

1-2 TERMS AND DEFINITIONS

[Add or redefine the following:].

AGENCY - The City of Brea.
Board - The City Council of the City of Brea.
Caltrans - The State of California Department of Transportation.
County - The County of Orange.
Engineer - The City Engineer of the City of Brea or his authorized representative.

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SECTION 2
SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT

[Replace with the following:].

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

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

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

2-4 CONTRACT BONDS

[add the following:].

The Faithful Performance Bond shall remain in force until the date of recordation of the Notice of Completion.

In conformance with the State of California Government Code, Chapter 13, Section 4590, the Contractor may substitute securities for any monies withheld by the City to endurance under the contract.

At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the AGENCY, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the Contractor upon notification by AGENCY of Contractor's satisfactory completion of the contract.

The type of securities deposited and the method of release shall be approved by the AGENCY.

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2-5 PLANS AND SPECIFICATIONS

2-5.1 General

[Add the following:].

Only written authorization from the AGENCY shall be binding over any deviation or change in the Plans and Specifications. Please refer to SECTION 3 - CHANGES IN WORK for further explanation. The Contractor shall maintain a control set of Plans and Specifications on the project site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this **Control Set** to show the as-built conditions. Said "as-built" redline set shall indicate any deviations from the plans inclusive of pole locations, pull boxes and runs, depth of conduit, number of conductors, and other appurtenant work for future refence and development of "Record Drawings." Upon completion of all Work, the Contractor shall return the Control Set to the Engineer. Final payment will not be made until this requirement is met. Reference in the Special Provisions to "State Standard Specifications" shall mean the Standard Specifications, 2018 edition, of the State of California, Department of Transportation. Copies of these specifications may be obtained from:

State of California – Department of General Services
Publications Distribution Unit
P.O. Box 1015
North Highlands, California 95660

Reference in the Special Provisions to Standard Plans shall mean the Standard Plans of the City of Brea, and where applicable, the following:

Standard Plans for Public Works Construction (SPPWC), published by the Public Works Standards, Inc., 2015 edition.

Standard Plans, published by the Orange County Public Works Department, 2018 edition.

Standard Plans, published by the State Department of Transportation, 2018 edition.

Standard Plans, published by the City of Brea (latest edition).

Applicable Standard Plans for this project are contained in Appendix A of these Special Provisions.

2-5.3 Submittals

2-5.3.1 General

[Add the following].

Within 10 working days after the date the AGENCY'S award of contract, the Contractor shall identify submittals which will be required by each section of the specifications and determine the date on which each submittal will be made. Submittal schedule shall be in matrix form. Submittals shall be consecutively numbered and shall include the specification section number to which they pertain. Contractor shall be responsible for on time delivery and processing of submittals so as not to impede progress of work. The Contractor shall submit all Submittals to the Engineer via the Internet utilizing a web site address VPM @ www.virtual-pm.com **managed by the Agency.**

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For all other submittal requirements please see Submittals within these Special Provisions.

2-6 WORK TO BE DONE

[Add the following].

This Project consists of installation and modifications to the traffic signals and equipment at the intersections of Lambert Road and Cliffwood Ave./Cliffwood Park Street (Schedule A) and State College Blvd. at Cliffwood Ave. and Balsa Ave. (Schedule B) in the City of Brea, California. The Work generally includes, but is not limited to, furnishing all materials, labor, and equipment, and installing three new signals, PPB Post (furnished by City), furnishing and installing various segments of new conduit and pull boxes, traffic signal equipment upgrades, relocate and reuse traffic signal controller assemblies, electrical service enclosures, controller units, video detection systems, communication switches, and communications equipment, installing signing and striping, develop and implement traffic control, temp signal poles, PCC sidewalk removal and replacement, and all other incidentals to complete the Work. The Work shall be completed in accordance with the Plans and Specifications entitled, "Traffic Signal Modification Project, Lambert Road at Cliffwood Avenue-Cliffwood Park Street (Schedule A), State College Boulevard at Cliffwood Avenue & Balsa Avenue (Schedule B), CIP 7717" ("Project").

The Contractor shall furnish and install all appurtenances required by the Southern California Edison Company for completion of the power supply. Other items of work or details not mentioned above that are required by the Standard Specifications or these Special Provisions, shall be performed, placed, constructed or installed.

2-9 SURVEYING

[Replace with the following].

The Contractor shall be responsible for the accuracy of surveying adequate for construction; however, the task of surveying itself shall be performed under the direction of a Licensed Land Surveyor or Professional Engineer, whom is authorized to practice land surveying in the State of California, retained or provided for by the Contractor.

All construction surveying necessary to complete the work as shown on the plans and provided for in these contract documents and specifications shall be accomplished by or under the direction of a Licensed Land Surveyor or Professional Engineer, with the authority to practice land surveying in the State of California, retained or provided by the Contractor. The AGENCY reserves the right to direct additional construction surveys to be performed by the Contractor when it feels it is required to adequately construct the work.

The Contractor shall be required to provide an as-built field survey to establish adequate survey control and construction staking for the construction of the new signal footings for line and grade.

The as-built field survey shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

In accordance with Senate Bill 1563, the Contractor shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer. The Contractor shall bear the expense of replacing any that may be disturbed. Replacement shall be done only under the direction of a Licensed Land

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Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

Upon submittal of all corner records and centerline tie notes and monuments to the Office of Orange County Surveyor, the Contractor shall submit copies of the same records to the City of Brea. Contractor shall also submit accepted and filed corner records upon acceptance by the Office of the County Surveyor prior to completion of the project.

Upon completion of the project, a Notice of Completion shall not be filed until the monuments have been restored and corner records filed to the satisfaction of the County Surveyor.

2-10 AUTHORITY OF BOARD AND ENGINEER

[Add the following].

The Contractor shall give at least 48-hours (2-working days) advance notice when he or his subcontractor will start or resume the work.

The above notice is to be given during working hours, exclusive of Saturday, Sunday or AGENCY holidays for the purpose of permitting the Engineer to make necessary assignments of his representatives.

2-11 INSPECTION

[Add the following].

If the Contractor elects to work under this Contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays, he shall arrange with the Engineer for the required inspection service and pay the **Special Inspection Fees** which will be charged at the following rates:

4 hrs. or less/day - $500.00
4 hrs. to 8 hrs./day - $1,000.00

When Special Inspection is required, the Contractor shall notify the AGENCY and pay inspection fees 24 hours in advance. If the Contractor is directed by the AGENCY to work under this contract more than 8 hrs./day or more than 40 hrs./week, the Special Inspection fee requirements will be waived.

If the Contractor elects to work under this Contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays without prior authorization, he/she/it shall pay double the rates mentioned herein to the AGENCY.

For all other inspection requirements please see the relevant sections within these Special Provisions.

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SECTION 3
CHANGES IN WORK

3-3 EXTRA WORK

3-3.2 Payment

3-3.2.1 General.

[Add the following:].

Extra work compensation will be made for labor, equipment and materials used in the specific work zone where the extra work is being performed and not for all crew and materials on-site. When extra work or utility interference is encountered, contractor shall contact City and jointly evaluate if workforce and/or trucking should be reduced or remain as compensable.

All extra work truck material weight tickets must be completely filled out with times, location and material dumped to be eligible for extra work payment. All extra work must be approved by authorized City representatives prior to commencing work. Without said approval, contractor will be working at risk hence compensation is not guaranteed.

3-3.2.3 Markup.

[Delete Subsection in total and replace with the following:]

1. **Work by Contractor**. The following percentages shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits:

1. Labor 15
2. Materials 10
3. Equipment Rental 10*
4. Other Items and Expenditures 10

* Equipment Rental rates shall be based on the latest applicable Caltrans Equipment Rental Rates

To the sum of the costs and markups provided for in the subsection, 1 percent shall be added as compensation for bonding upon City's receipt of updated Bonds with the new contract amount.

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

3. **Unknown Facilities**. In the event the Contractor suspects or begins to locate a utility pipe, conduit, structure or other unknown underground mass not depicted on the Plans or identified within these Specifications, he/she shall continue to uncover and investigate the limits of the item and contact USA as part of the bid item scope of work. Once the unknown underground facility is sufficiently viewed and identified, any stand-by-time, during which no constructive work is being accomplished with respect to the bid item scope of work, will be paid at the base rate for Labor + 10% and for Equipment not working will be paid applying the Delay Factor to the hourly rental rate per the Caltrans Rental Guide with no further mark-up.

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SECTION 4
CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General

[Add the following:].

The Contractor and all subcontractors, suppliers, and vendors, shall guarantee that the entire Work will meet all requirements of this contract as to the quality of materials, equipment, and workmanship. The Contractor, at no cost to the AGENCY, shall make any repairs or replacements made necessary by defects in materials, equipment, or workmanship that become evident within one year after the date of recordation of the Notice of Completion. Within this one-year period, the Contractor shall also restore to full compliance with requirements of this contract any portion of the Work which is found to not meet those requirements. The Contractor shall hold the AGENCY harmless from claims of any kind arising from damages due to said defects or noncompliance.

Security of this guarantee shall be in the form of a Warrantee Bond (Appendix F) furnished to the AGENCY by the Contractor. There shall be specific wording in the Warrantee Bond that includes the guarantee or warranty of the labor and materials for a one-year period, commencing from the recording date of the Notice of Completion by the County Recorder. The guaranteed amount shall be for 100 percent of the total amount earned to date as indicated on the final progress payment. The AGENCY reserves the right to withhold the retention until the Warrantee Bond has been accepted by the AGENCY.

The Contractor shall make all repairs, replacements, and restorations covered by the Warrantee Bond within ten (10) working days after the date of the Engineer's written notice. Failure to comply with such notice, will cause the AGENCY to file claim against the bond.

Excepted from the Warrantee Bond will be defects caused by acts of God, acts of the AGENCY, acts of vandals, or by acts of others outside or beyond the control of the Contractor.

For all other warranty requirements please see the specific sections within these Special Provisions.

4-1.4 Test of Materials

[Replace the third sentence of the first paragraph with the following:].

All onsite and offsite tests which require the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory in the vicinity of Southern California, pre-approved by the Engineer. The laboratory shall be staffed with experienced technicians, properly equipped, and fully qualified to perform the tests in accordance with the specified standards.

The City reserves the right to visit approved testing laboratories anytime during the duration of the testing for the specified project. This random inspection will not require any prior confirmation for the visit date and time of the visit.

Field sampling and testing shall be performed under the direction of the Engineer. The Engineer

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will determine the exact time and location of all field sampling and testing. Written reports of tests and engineering data furnished by the Contractor for the Engineer's review shall be submitted in the same manner as specified for Shop Drawings.

The testing laboratory shall furnish three copies of a written report of each test performed by laboratory personnel. Two copies of each test report will be transmitted to the Engineer and one copy to the Contractor within three (3) calendar days after each test is completed.

The Contractor shall not retain any testing laboratory firm against which the City has reasonable objection. If at any time during the construction process, the services become unacceptable to the City and the Engineer determines that sufficient cause exists, the Contractor shall terminate the services and engage a different testing laboratory firm, approved by the Engineer.

Unless otherwise provided, all testing shall be performed under the direction of the Engineer and the AGENCY will bear the cost of the initial testing of material and workmanship which are required by the Standard Specifications and the Special Provisions. The cost of all other tests, including the retesting of material or workmanship that fails to pass the first test, shall be borne by the Contractor. The Contractor is responsible to complete its own QC/QA testing to assure the works of improvements are constructed per the Plans and Specifications.

4-1.6 Trade Names or Equals

[Replace the last two sentences of the first paragraph with the following:].

Approval of equipment and materials offered as equivalents to those specified must be obtained as set forth in the Instructions to Bidders.

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SECTION 5
UTILITIES

5-1 LOCATION

[Replace the first sentence of the last paragraph with the following:].

The location and existence of any underground utility or substructure was obtained from a search of available records. No guarantee is made or implied that the information is complete or accurate.

It shall be the Contractor's responsibility alone to determine the location of all underground utilities or substructures of every nature and to protect them from damage.

The Contractor shall pothole all utilities, including service connections, which have been marked by the respective owners or shown on the plans which may affect or be affected by the Work. The Contractor shall provide pothole records which include information of type and material of existing utility found, depth to top of cover, depth to bottom of utility, size of utility, paving type and thickness of paving.

Any pothole work with a diameter less than or equal to 6-inches in asphalt to be backfilled with black colored concrete to the finish surface. All other pothole excavation work that exceeds 6-inches in diameter shall be properly backfilled with AC base pavement in accordance with the Specifications.

CONTRACTOR shall call Underground Service Alert at (800) 227-2600, 48-hours before digging for location of underground utilities.

Attention is directed to the existence of certain hazardous underground utility lines within the construction area which include, but not limited to, natural gas and electrical. It shall be the CONTRACTOR'S responsibility to "pot hole" or expose any utility facilities that need protection under direction of the utility owner(s) or Engineer.

The contractor must coordinate with all the utility companies that have facilities which might be affected by the construction, including among others Chevron Pipe Line Company (CPL) at (714) 228-1500 or current phone number, and comply with their requirements.

No contractual work will be permitted over, or within 10' horizontally of, any hazardous underground utility line to be rearranged, until such rearrangement work is completed.

The Contractor shall perform the utility location pothole exploration efforts along the proposed excavation locations 48 hours prior to beginning trenching and provide said results to the Engineer. All vertical and horizontal locations of the exposed existing utility shall be documented by the Contractor and provided to the Engineer. All potential conflicts with respect to the proposed work and existing utilities shall be brought to the attention of the Engineer prior to trenching at the potential conflict location.

Where rearrangement hazardous utility lines are not required and the CONTRACTOR is directed, or opts under his/her own accord, to protect or insulate said utility lines to maintain minimum required clearance while performing contractual work, all costs associated shall be borne solely by the CONTRACTOR.

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The Contactor shall comply with Government Code Section 4215.

Payment for the requirements of utility location and pothole work shall be included in the applicable items of work, and no additional compensation will be allowed therefore.

5-4 RELOCATION

[Replace the second sentence of the last paragraph with the following:].

When not otherwise required by the plans and specifications and when directed by the Engineer, the Contractor shall arrange for the relocation of service connections, as necessary, between the meter and property line, or between the meter and limits of construction.

5-5 DELAYS

[Add the following paragraph:].

All notification to utility companies insofar as the relocation or removal of a utility shall be made by the Engineer based on Contractor's request as submitted to the Engineer at least 48-hours in advance of the needed work. Any costs for delay of the Contractor of utility companies in this regard shall be assigned to the Contractor, if these costs are a result of the Contractor's request being untimely in any respect excepting thereof any delay cost incurred as a result of the utility company not responding at their agreed time.

5-7 UTILITY MARKINGS

[Is hereby added to Section 5]:

Upon completion of the project, the Contractor shall be required to remove, to the satisfaction of the Engineer, all utility locator markings and utility tie-out paint markings that either the contractor, the City or utility companies make during the course of the work from the surfaces of sidewalks, driveway approaches, curb and gutters using the removal method acceptable to the Engineer. Any damage to the existing improvements due to the Contractor’s removal operation shall be repaired at the Contractor’s expense.

Payment for removing utility markings shall be included in the various applicable items of work, and no additional compensation will be allowed therefore.

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SECTION 6
PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

[Replace the first sentence of the first paragraph with the following:].

The Contractor's proposed Baseline Construction Schedule shall be submitted to the Engineer within ten (10) working days after the date of the AGENCY'S execution of the Agreement. The proposed Baseline Construction Schedule shall depict the main milestones, sub-activities links, durations, start and finish dates, and predecessors/successors, and other relevant fields needed to demonstrate the overall delivery schedule within the Contract Works Days as defined within these Special Provisions and within the Agreement Section D of these Specifications, and be submitted in MS Project File and pdf formats. Additionally, the schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered. Prior to issuing the Notice to Proceed, the Engineer will schedule a preconstruction meeting with the Contractor to review the proposed Baseline Construction Schedule and delivery dates, arrange utility coordination, discuss construction methods, and clarify inspection procedures. The Contractor shall submit progress reports to the Engineer by the tenth day of each month. The report shall include an updated Construction Schedule. Any deviations from the original approved Baseline Construction schedule shall be explained. Progress payments will be withheld pending receipt of any outstanding reports.

The ***Contractor shall furnish the Agency with a 3 week look ahead-schedule in a tabular format at every weekly construction meeting. The 3-week look ahead-schedule shall be linked to the Approved Baseline Construction Schedule milestones with any subsequent deviations within this 3-week window, and shall include the sub-activities that rolls-up into the associated milestone.***

Payment for the preparation, update, and submittal of the Baseline Construction Schedule, 3-week look ahead schedule and attendance of the weekly meeting shall be considered as included in the various items of work and no additional compensation will be allowed thereof.

6-2 PROSECUTION OF WORK

[Add the following paragraph:].

The order of work for this Project shall be as follows:

1. Survey staking (New Signal Footings)
2. Set-up Traffic Control
3. Pothole
4. Service Utility Relocation as required
5. Demolition/Preparation Work
6. Temp Signal Work
7. Traffic signal foundations
8. Install traffic signal equipment and signage
9. Striping and Pavement Markings

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10. Signal Testing

11. Final Inspection and Punch list

The Contractor may propose parallel activities for various components of work or modify the order of work as part of the Baseline Schedule Submittal for City review and acceptance.

For additional specifics on sequencing, scheduling and project conditions please refer to the relevant sections within these Special Provisions.

[Add the following:]
Record Keeping: The Contractor shall submit daily progress reports to the Engineer via the Internet utilizing a web site address Virtual Project Manager (VPM) at www.virtual-pm.com managed by the Agency. This web site, "Virtual Project Manager" will be used exclusively by the site foreman to record daily progress, problems, addition/deletions and or request change orders for review by the engineer/inspector and the Project Manager. The Job site supervisor (Contractor) is required to have access and knowledge to utilize a digital camera and internet. Daily use of computer is required to input aforementioned documents.

If the Engineer determines that the Contractor is failing to prosecute the work to the proper extent, the Contractor shall, upon order from the Engineer, immediately take steps to remedy the situation. All costs of prosecuting the work as described herein shall be included in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes after orders of the Engineer; the work may be suspended in whole or part, or payment withheld, until the Contractor takes said steps.

If work is suspended through no fault of the City, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the work during periods of suspension, the City may elect to do so, and deduct the cost thereof from monies due the Contractor. Such actions will not relieve the Contractor from liability.

6-7 TIME OF COMPLETION

6-7.1 General

[Add the following:].

The total time within which the Work must be completed by the Contractor is fixed at **FIFTY (50) WORKING DAYS (SCHEDULE A) AND THIRTY (30) WORKING DAYS (SCHEDULE B)**, including material delivery, starting from and after the date in the **Notice to Proceed (NTP)** with the Work. The City may elect to issue two separate NTP's if both Schedule A and B are awarded.

6-7.2 Working Day

[Add the following:].

The Contractor's activities shall be confined to the hours between 7:00 A.M. to 4:00 P.M., Monday through Friday, excluding holidays (For lane closure restrictions see 7-10.1 "Traffic Access.") for work that does not require traffic control. If the work requires any traffic control, the working hours shall be from **9:00 AM** to **3:00 PM**. Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property. In the event of either a requested or emergency deviation, inspection service fees will be

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charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead, and travel time. The service fees will be deducted from any amounts due the Contractor.

[Delete subsection in total and replace with the following:].

A working day is any day within the period between the date of the start of the Contract time as specified in 6-1 and the date of field acceptance of the Work by the Engineer, other than:

1. Saturday and Sunday.
2. Any day designated as a holiday by the Agency.
3. Any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a contractor association.
4. Any day the Contractor is prevented from working at the beginning of the workday for cause specified in 6-6.1.
5. Any day the Contractor is prevented from working during the first 5 hours with at least 60 percent of the normal work force for cause specified in 6-6.1.

6-9 LIQUIDATED DAMAGES

[Amend the liquidated damage amount to read:].

Liquidated damages was calculated to be **$1,700.00** for **each calendar day** in excess of the contract time for the total project.

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SECTION 7
RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

7-1.1 General
[add the following:].

A noise level limit of 95 dbl. at a distance of 50' shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

7-2 LABOR

7-2.1 General
[Add the following:].

The Contractor will be required to submit weekly certified payrolls for the project. The Contractor shall also submit payrolls for all subcontractors who perform work in excess of one half of one percent of the total contract amount.

The payrolls reflect payment of the prevailing wage to all employees plus required fringe benefits. Failure to comply with this requirement may be cause for the City to stop construction or to withhold contract payments until the Contractor shows compliance.

7-2.2 Prevailing Wages
[Add the following:].

The Contractor, and all subcontractors, suppliers and vendors, shall comply with all AGENCY, State and Federal orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments.

The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

7-3 INSURANCE
[Delete the entire subsection:].

7-3.1 General
[Add the following:].

Contractor shall, prior to execution of an Agreement with the AGENCY, comply with the provisions of AGENCY's insurance requirements as follows:

Except as provided in 6-10, Contractor hereby agrees to protect, defend indemnify and hold harmless AGENCY, its officers, elected or appointed officials, employees, agents, and volunteers from and against any and all, claims, damages, losses, expenses, judgments, demands defense costs, and consequential damage or liability of any kind or nature, however caused, including those resulting from death or injury to Contractor's employees and damage to Contractor's property

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arising directly or indirectly out of the obligations or operations herein undertaken by Contractor, caused in whole or in part by any negligent act or omission of the Contractor, any subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, including but not limited to concurrent active or passive negligence, except where caused by the active negligence, sole negligence, or willful misconduct of the AGENCY. Contractor will conduct all defense at its sole cost and expense and AGENCY shall approve selection of Contractor's counsel. City shall be reimbursed for all costs and attorney's fees incurred by the AGENCY in enforcing this obligation. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by Contractor. The AGENCY will not be liable for any accident, loss or damage to the Work prior to its completion and acceptance, except as provided in 6-10.

The cost of this insurance shall be included in the Contractor's Bid.

7-5 PERMITS

[Delete Subsection in total and substitute with the following:].

Prior to the start of any work, the Contractor shall take out the applicable AGENCY permits and make arrangements for AGENCY inspections. The AGENCY will issue the permits at no charge to the Contractor. The Contractor and all subcontractors shall each obtain an AGENCY business license, and shall be licensed in accordance with State Business and Professions Code. The Contractor, at no additional cost to the AGENCY, shall also obtain any and all other permits, licenses, inspections, certificates, or authorizations required by any governing body or entity.

Pursuant to State Bill 854, the following new requirements apply to all public works projects:

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded. The website for contractor registration with the Department of Industrial Relations (DIR) is https://efiling.dir.ca.gov/PWCR; the annual non-refundable fee, valid July 1 through June 30 (state fiscal year), is $300.

Contractors who are awarded a public works project must submit electronic payroll records to the DIR's Compliance Monitoring Unit (CMU) in addition to providing wet-ink original copies to the City or its designated labor compliance enforcement officer.

Payment for "Permits" is considered included in the various contract bid items of work and no additional compensation will be allowed therefore.

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7-8 WORK SITE MAINTENANCE

7-8.1 General

[Add the following:].

Throughout all phases of construction, including suspension of work, and until the final acceptance, the Contractor shall keep the site clean and free from rubbish and or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

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

Before the final inspection, the site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. This is to include the removal of <u>all</u> utility markings (Underground Service Areas – USA) made as a part of the project.

7-8.2 Air Pollution Control

[Add the following:].

Contractor to sweep daily and control any dust from the Project site to the satisfaction of the Engineer and remove all debris from the work area. All material stockpiles shall be properly covered and secured to protect from wind/rain.

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

7-8.4.2 Storage in Public Streets

[Add the following:].

Construction materials shall not be stored in streets more than 2 days prior to usage on the project. All materials or equipment not installed or used in construction within 2 days after unloading shall be stored elsewhere by the Contractor – at Contractor's expense, unless authorized additional storage time. All material used for the construction of the improvements, shall be placed so as to provide clear public access within the work zone with one lane open at all times, unless otherwise approved by the Engineer.

Construction equipment shall not be stored at the work site before its actual use on the work, nor for more than 2 days after it is no longer needed.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

Contractor may utilize certain areas within the Project site for storage of equipment and materials as determined by the AGENCY.

In no event is Contractor to stockpile material, tools or equipment in the parkways.

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Payment for "Final Cleaning-up" is considered included in the various contract bid items of work and no additional compensation will be allowed therefore.

7-8.4.3 Temporary Light, Power & Water
[Delete the final paragraph and replace it with the following to the end of the section:]

Water shall be obtained through the AGENCY's Finance Department. In order to obtain construction water from an AGENCY fire hydrant, the Contractor will be required to obtain an AGENCY supplied hydrant meter. A $2,650 refundable deposit is required on the meter.

An "Eddy" valve must be attached to the temporary meter for the purpose of operating the hydrant.

The cost for the meter and water used shall be charged in accordance with City Council Resolution No. 95-95 and 2018-048. These charges are as follows:

Meter Service Charge Per Month	Rate Per 100 Cubic Feet
$130.00	$7.17

Any unauthorized use of AGENCY water from a fire hydrant or other AGENCY facility will be estimated by the AGENCY as to usage and invoiced to the Contractor at three times the rate schedule above and a fine of $300 per citation and deducted from progress payments. The Contractor shall not use water or power from private residences.

The cost of water and power used by the Contractor is considered included in the various contract bid items of work and NO additional compensation will be allowed therefore.

7-8.6.1 General
[Add the following to the end of the section:].

Waste Discharge Requirements for Discharge of Storm Water Associated with Construction Activities:

a) The CONTRACTOR shall be responsible for identifying and obtaining all permits and licenses required for this project. Cost and fees associated with said permits regardless of whether obtained by the COUNTY, CITY or by CONTRACTOR, shall be borne solely by the CONTRACTOR.

The CONTRACTOR shall comply with all rules and regulations included in said permits and licenses. Should the CONTRACTOR fail to conform to said rules and regulations, the CITY reserves the right to perform the work necessary to conform to the rules and regulations. The cost of such work will be deducted from any funds to become due to the CONTRACTOR.

It is noted that multiple permits are required from the various regulatory agencies. CONTRACTOR is to abide by and follow the requirements of all such permits.

b) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES WATER QUALITY ORDER NO. 2009-0009-DWQ (GENERAL PERMIT)

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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 permit and related documents/attachments may be found on the internet at:

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 as described above. Section XV, "Municipal Construction Projects/Activities," of the Municipal Permit describes specific compliance with the latest version of the State's CGP within the Santa Ana Region.

7-8.6.4 Dewatering

[Add the following to the end of the section].

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 III.3.ii. of this permit authorizes de minimus types of discharges listed in the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters, Order No. R8-2009-0003, from CITY owned and/or operated facilities and activities (including construction).

A copy of the CITY's Municipal NPDES Permit (Order No. R8-2009-0030) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_oc_stormwater_ms4_permit.pdf

A copy of the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters (Order No. R8-2009-0003) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

All cost to the Contractor for the requirements of this Section shall be included in the bid in other items of work unless otherwise specified and no further compensation will be allowed therefore.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

[Delete the second paragraph and substitute with the following:].

The Contractor shall relocate, repair, replace or reestablish all existing improvements within the project limits which are not designated for removal (e.g., curbs, gutters, sidewalks, driveways, fences, walls, sprinkler systems, signs, utility installations, pavements, and structures.) which are damaged or removed as a result of his operations.

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Where existing traffic striping, pavement markings and curb markings are damaged or their reflectivity reduced by the Contractor's operations, such striping or markings shall also be considered as existing improvements and the Contractor shall repaint or replace such improvements.

Relocations, repairs, replacements or reestablishments shall be equal to the existing improvements and shall match such improvements in finish and dimensions unless otherwise specified.

[Delete the last paragraph and substitute the following:].

All cost to the Contractor for protecting, removing, restoring, repairing, replacing, or reestablishing existing improvements shall be included in the bid in other items of work unless otherwise specified and no further compensation will be allowed therefore

7-10 SAFETY

7-10.1 Traffic and Access

[Add the following:].

The AGENCY's intent is to restore all traffic lanes to workable condition as soon as possible. **One lane of traffic shall be maintained at all times. Work associated with the closure of the lanes on Lambert Road and State College shall not commence until <u>9:00 AM and be completed by 3:00 PM Mondays through Fridays, excluding holidays</u>**. Temporary Traffic Control measures for lane closures may begin set-up at 8:30 AM and shall be removed no later than 3:00 PM.

All traffic control shall be in accordance with the latest edition of the following documentation:

Caltrans - Manual of Traffic Control Devices for Construction and Maintenance Work Zones, Traffic Manual, Sign Specifications, Standard Plans, Standard Specifications

State of California, Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD)

Work Area Traffic Control Handbook (WATCH Manual)

Construction Traffic Control Plans shall be prepared for work on all streets depicted on the project plans.

Prior to the beginning of work, the Contractor shall prepare and process a traffic control and construction phasing plan for AGENCY'S approval, in conformance with current MUTCD and AGENCY'S guidelines. Contractor shall implement the approved traffic control and construction phasing plan to safely prosecute the construction work involved with a minimum of inconvenience to the existing residents and the motoring public.

Construction Traffic Control Plans shall be prepared in accordance with the AGENCY's latest Traffic Control Plan Preparation Guidelines and shall be reviewed and approved by the Engineer. The plans shall be signed and stamped by a Traffic or Civil Engineer. The Contractor shall submit the plans to the Engineer for approval or correction at least 10 working days before approved plans will be required for commencing the work.

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Approval of the Traffic Control Plans by the Engineer shall not relieve the Contractor from the responsibility for errors or omissions in the plans or from deviations from the Contract Documents. The Contractor shall be responsible for the correctness of the plans and for the results obtained by the use of such plans.

The Contractor shall provide, to the Engineer, a telephone number at which the Contractor's representatives can be reached, at any hour, should an emergency occur requiring replacement or relocation of the required traffic control devices.

Prior to the start of construction, the Contractor shall inform the AGENCY's trash haulers, Police and Fire departments and US Postal Service, of the project location, approximate starting date, completion date, and the name and telephone number of contractor representatives who may be contacted at any hour in the event of an emergency. Contactor to coordinate all scheduled work with the AGENCY during the work day.

POLICE DEPARTMENT: *Watch Commander @ (714) 990-7626*
FIRE DEPARTMENT: *Battalion Chief @ (714) 990-7658*

Information signs shall be required on all arterial streets one (1) week prior to beginning of roadway construction projects.

The Contractor shall adhere to applicable sections of California Administrative Code, Title 8, concerning electrical and construction safety standards and practices.

Contractor shall require that an approved safety vest be worn by all personnel who are working at this project site. Any worker without a vest may be ordered off the job by the Inspector until such apparel is acquired. Questions as to approved vests shall be directed to the Engineer.

Any relocation of travel lanes longer than three calendar days shall be delineated by removing the existing striping and legends by wet sandblasting and placing new striping and legends as required. Upon completion of the work and the restoration of the road surface to its final condition, the Contractor shall remove temporary striping by wet sandblasting.

If the traffic cones or portable delineators are damaged, displaced or are not in an upright position, for any reason, the contractor shall immediately replace or restore to their original location, in an upright position, the cones or portable delineators.

The Contractor shall provide and maintain all signs, barricades, flashers, delineators and other necessary facilities for the protection of the motoring public within the limits of the construction area. He shall also post proper signs to notify the public regarding detours and conditions of the roadway, all in accordance with the provisions of the Vehicle Code, the current State of California Department of Transportation "Manual of Traffic Controls for Construction and Maintenance Work Zones", and the State of California Department of Transportation Standard Plans.

The Contractor shall furnish such flagmen and equipment as are necessary to give adequate warning to traffic or to the public of any dangerous conditions in accordance with the current Department of Transportation "Instructions to Flagmen".

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All existing traffic signs and street signs shall be maintained in visible locations during construction. Signs designated for removal shall be salvaged and delivered to the AGENCY Yard or disposed of as directed by the AGENCY.

Plans indicating the travel (haul) route for the Contractor's equipment movement in and out of the site must be submitted to the Engineer for approval at least seven (7) working days prior to commencement of any work. The travel route plans, which meet the City's requirements, will be approved and returned to the Contractor; otherwise, further revisions are required until they are acceptable to the AGENCY. The Contractor shall submit one travel plan for each phase to the Engineer for approval, and the approved travel plans shall be strictly adhered to by the Contractor during all phases of the construction.

The Contractor shall limit excavation for curb and/or gutter, driveways, sidewalk, cross gutter and spandrels that will leave an open excavation for only one weekend in a continuous two-week period. Open excavation is only allowed to open for only one weekend with proper traffic control as specified elsewhere and as directed by the Engineer.

The Contractor is not allowed to drive his/her fully loaded trucks on the new material.

Any deviation from these requirements is not permitted. All the Contractor's operations will be ceased at once if the Contractor violates any of these requirements. No further payments will be made to the Contractor until problems are resolved according to the AGENCY'S requirements.

Full compensation for Construction Traffic Control Plans is considered included in the Traffic & Pedestrian Control and Construction Phasing bid item of work and no additional compensation will be allowed therefore.

Warning Signs

Adequate warning signs for motorists and pedestrians shall be placed and maintained throughout all applicable phases of the work including speed limit reduction, loose gravel, fresh oil, and open trench. Signs shall be 36-inch x 36-inch size within the street area and 24-inch x 24-inch within the Project site; shall be on site ready for placement prior to start of the applicable phase of work and shall be placed in advance on all streets approaching the work zone.

The Contractor shall not park any equipment or store any materials on the street during non-working hours.

The Contractor shall reopen all streets at the end of each working day.

The Contractor shall maintain access for emergency vehicles, local residents, businesses, and commercial vehicles at all times on all streets.

Pedestrian traffic shall be detoured to the opposite side of the street, away from the construction area, whenever possible.

The Contractor shall be required to coordinate his operations with the delivery of mail, the school bus and trash pick-up schedules in the project area, and the Contractor shall make provisions for passage of trash collection trucks to alleys and to trash receptacles in streets where work is being

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performed.

The Contractor shall install skid resistant steel plates over any open trenches which are not back-filled by the end of each day. Steel plates need to be recessed while covering open trenches in the street.

The order of work, except where otherwise specifically required by the Plans and Specifications, such as the phasing requirements, shall be determined by the Contractor who shall be solely responsible for coordinating all subcontract and direct contract work to minimize delays during construction.

The Contractor shall maintain pedestrian and vehicle access to driveways for ingress and egress by the end of each workday. If necessary, the Contractor shall install skid resistant steel plates over disturbed pavement in front of driveways in order to provide for smooth access to and from the driveways.

Advisory Signs

The Contractor shall provide 2 electric power changeable message advisory signs as required for each stage of work/Schedule within the beginning and end of the construction limits with the following language:

MAJOR ROAD CONSTRUCTION ON
XXXXXXX AVENUE
FROM <MONTH-YR> TO <MONTH YR>
EXPECT DELAYS
PLEASE USE ALTERNATIVE ROUTES

These signs shall be placed at a minimum of one week prior to commencement of the construction starting. Failure to coordinate with the City may result in delay of start of construction and no extension of contract days or compensation will be given. The Engineer shall approve the verbiage of signage prior to fabrication and Engineer or their designee shall determine the location in the field with the Contractor prior to placement.

Full compensation for warning and advisory signs is considered included in the Traffic & Pedestrian Control and Construction Phasing bid items of work and no additional compensation will be allowed, therefore.

7-10.1.1 Street Closures, Detours, Barricades
[Add the following:].

Street closures will not be allowed except as specifically permitted by the Engineer.

7-10.5 Security and Protective Devices
[Add the following section:].

It is part of the service required of the Contractor to make whatever provisions are necessary to protect the public. The Contractor shall use foresight and shall take such steps and precautions as his operations warrant to protect the public from danger, loss of life or loss of property, which would result from interruption or contamination of public water supply, interruption of other public service, or from the failure of partly completed work or partially removed facilities. Unusual conditions may arise on the work which will require that immediate and unusual provisions be made

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to protect the public from danger or loss, or damage to life and property, due directly or indirectly to prosecution of work under this contract.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the public safety, protection of utilities and protection of adjacent structures or property, which may be damaged by the Contractor's operations and when, in the opinion of the Engineer, immediate action shall be considered necessary in order to protect the public or property due to the Contractor's operations under this contract, the Engineer will order the Contractor to provide a remedy for the unsafe condition. If the Contractor fails to act on the situation, the Engineer may provide suitable protection to said interests by causing such work to be done and material to be furnished as may be necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as are deemed necessary, shall be borne by the Contractor. All expenses incurred by the AGENCY for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the AGENCY does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety. No additional compensation will be allowed therefore.

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SECTION 8
FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL

[Add the following:].

No field offices for AGENCY personnel will be required, however, the AGENCY personnel shall have the right to enter upon the project at all times and shall be admitted to the offices of the Contractor, at any time during the operation of the Work.

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SECTION 9
MEASUREMENT AND PAYMENT

9-3 PAYMENT

9-3.1 General

[Delete the last paragraph and substitute with the following:].

At the expiration of 35 days from the filing and recording of the Notice of Completion of the Work, the amount deducted from the final estimate and retained by the AGENCY will be paid to the Contractor except such amounts as required to be withheld by properly executed and filed to stop payment, or as may be authorized by the contract.

When no bid item is provided for work/improvement shown or indicated on the plans and specifications, payment for such work/improvement will be considered to be included in various applicable items of work.

9-3.2 Partial and Final Payment

[Amend the first sentence of the first paragraph to read:].

The closure date for the purpose of making partial progress payments will be the last day of each month. The Contractor may request, in writing, that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the AGENCY'S payment procedure.

Each month, the Contractor shall meet with the Engineer, a minimum of three (3) working days prior to the submittal of the progress payment to the AGENCY, to finalize and receive approval regarding the measurement of the Work performed through the closure date and the estimated value of the progress payment based on the contract Unit Prices or as provided for in Section 9-2. Any progress payment submitted without such approval will be considered incomplete and returned to the Contractor and no payment shall be considered until such approval is obtained.

[Add the following to the end of the section:].

Payments will be withheld pending receipt of any outstanding reports required by the contract documents. In addition, the final progress payment will not be released until the Contractor returns the control set of specifications and plans indicating the as-built conditions. At the request and expense of the Contractor, who shall retain beneficial ownership and receive interest, if any thereon, the AGENCY shall permit the substitution and deposit therewith of securities equivalent to the amount of any monies withheld by the AGENCY.

9-3.5 Description of Bid Items

[Add the following section:].

The unit prices and lump sum amounts to be paid for under the bid items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the completion of the work and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Specifications. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing, obtaining required permits and permit fees, mobilization, traffic control, public convenience and safety, protective barricading/fencing, sanitary facilities, storage of equipment and materials,

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security against theft and vandalism, project site maintenance, dust and runoff control, clean-up and all other items related to the work.

Payment for unit price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be specified in SSPWC, Section 9-1, and "Measurement of Quantities for Unit Price Work." Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with SSPWC, Section 9-2, "Lump Sum Work,"

Payment for all work shall be included in the various bid items. No additional compensation shall be made therefore. Bid Items 1-4 cover work item descriptions for both Schedule A and B work. The Contractor shall determine the applicable work associated with each Plan per Schedule and provide a bid price accordingly within each bid schedule. Work associated with each bid item shall include, but not be limited to the following description of bid items:

Bid Item No. 1 (Sch A/B)– Mobilization and Demobilization (5% Maximum)

Mobilization and demobilization shall conform to the provisions of Sections 9-3.4 of the Standard Specifications.

Mobilization and demobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials, 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, and financing prior to beginning work on the various contract items on the project site. Mobilization shall also include the time, materials, and labor to move the necessary construction equipment to and from the 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 at all times and for all non-working days during the construction period. The Contractor is responsible for securing an adequate storage site for equipment and materials.

Payment for **Mobilization and Demobilization (5% Maximum)** shall be included in the contract **Lump Sum (LS) Price** bid per **Schedule A and B**, and shall be considered full compensation for obtaining all business licenses and permits, as required for the entire project, from all related agencies, including, but not limited to, utility companies, private and public agencies and the City of Brea; and complying with the requirements specified in those licenses and permits; coordination, field office facility, and incidentals necessary to perform all related items of work. The maximum lump sum price for this bid item shall not exceed 5 percent of the total contract price at the time of award. Progress payments for mobilization and demobilization bid item shall be paid for in accordance with the completion percentage of the project to the Contractor and shall include the cost of such mobilization and administration during the entire Contract period.

Bid Item No. 2 (Sch A/B) – Traffic & Pedestrian Control and Construction Phasing

Payment for the requirements of **Traffic & Pedestrian Control and Construction Phasing** shall be at the **contract LUMP SUM (LS) price bid per Schedule A and B**, and shall include all labor tools, equipment and materials required for preparation and implementation of a traffic and pedestrian control and construction phasing plan, and travel (haul) route plans, flashing arrow signs; flagging and/or flagger costs; project notifications, temporary asphalt work and non-skid steel plates as required by the Engineer to maintain driveway access, temporary striping and

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temporary asphalt work as required by the Engineer to maintain driveway access, and all labor, tools, equipment, materials and incidentals required to complete the work. The cost and expense of said labor and material, together with the cost and expense of such repairs as are deemed necessary, shall be borne by the Contractor. All expenses incurred by the AGENCY for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the AGENCY does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety. Progress payments for this bid item shall be paid for in accordance with the completion percentage of the project. No additional compensation will be allowed therefore.

Bid Item No. 3 (Sch A/B) – Traffic Signal Modification

Payment for the requirements of **Traffic Signal Modification** shall be at the **contract LUMP SUM (LS) price bid per Schedule A and B,** and shall include all labor tools, equipment and materials required to modify the existing traffic signals and assemblies as shown on the Plans, per Caltrans Standard Plans, 2018 edition with amendments, and these Special Provision. The work includes, but is not limited to: surveying, potholing, utility locations, remove and/or salvage existing Type 17 and 19 standards complete with foundations, installing Type 29 standards, Type 24 standard, and PPB Posts (furnished by City), furnish and install all signal and pedestrian equipment, excavation, backfill, compaction, signal foundations, maintaining existing signal communication, material removal and disposal, and other required miscellaneous equipment fittings etc... necessary to complete the signal work, furnish and install new 12" LED vehicle heads, remove and relocate existing equipment to new signal standards, trenching/boring, furnish and install conduit and reinstall conductors including new conductor cable and wiring where indicated, pull boxes, disposal or salvaging equipment and material as indicated and approved by the City of Brea, removing and re-installing existing reflective street signs on poles, install new video detection systems adjust video detection zones, removal and replacement of PCC sidewalk necessary to complete the signal work, and all other incidentals to complete the work in accordance with the Plans (Schedule A and B) and Specifications, and no additional compensation will be allowed therefore.

Bid Item No. 4 (Sch A/B) –Traffic Signing, Striping, Markings & Raised Pavement Markers

Payment for the requirements of **Traffic Signing, Striping, Markings & Raised Pavement Markers** shall be at the **contract LUMP SUM (LS) price bid per Schedule A and B**, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and doing all the work involved in removing or relocating all existing signs, furnishing and installing new signs, pavement striping, markings and raised pavement markers as shown on the Plans (Schedule A and B), as specified in these Specifications and as directed by the Engineer, and no additional compensation will be allowed therefore.

[Add the following subsection:]

9-4 Description of Owner Furnished Materials

It shall be understood that the contractor is to provide all labor, equipment, and miscellaneous materials to install the Owner Furnished and purchased Type 24 and 29 Signal Poles/Mast Arms and Luminaire Arms, and PPB Post. All owner supplied materials and quantities are listed below. Additional materials required to complete this Project should be included in the Contractor's bid. Contractor will be responsible to coordinate Signal equipment pick-up at the

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City Public Works Yard at 555 with the City, load and unload all materials, and deliver safely and securely to the Project site.

Any material or quantities required to complete the signal modification work to those listed in the Brea OFCI table below shall be Contractor purchased to complete the work.

Brea OFCI Materials		
SCHEDULE A		
Item # Per Plan Pole Schedule	**Standard Type**	**Quantity**
1	29-5-100-45-15 with Luminaire and Anchor Bolts	1
5	29-5-100-45-15 * Flat Luminaire M.A, Luminaire, and Anchor Bolts	1
9	PPB Post 4-6" with Anchor Bolts	1
SCHEDULE B		
5	24-4-100-35-12 with Luminaire and Anchor Bolts	1
6	PPB Post 4-5" with Anchor Bolts	2

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PART 2

CONSTRUCTION MATERIALS

SECTION 200 ROCK MATERIALS

200-1 ROCK PRODUCTS

200-1.2 CRUSHED ROCK AND ROCK DUST

200-1.2.1 General

[Add the following to the end of the section:]

Rock dust blotter material shall be required immediately after the completions of the "finish rolling" and prior to opening to traffic to prevent bleeding and tracking of the asphalt rubber material.

Rock dust blotter shall conform to Rock Dust quality requirements in Table 200-1.2.1(A).

200-1.5 SAND

200-1.5.1 General

[Add the following to the end of the section:].

Sand bedding under miscellaneous PCC improvements and used as bedding in the trench pipe zone, shall conform to the requirements in this section, shall consist of washed granular material, shall not contain any contamination or reclaimed/recycled materials, and shall meet the following specifications:

Sieve Size	Percent Passing
4.75 mm (#4)	98-100
2.36 mm (#8)	93-98
1.18 mm (#16)	92-95
600 um (#30)	85-91
300 um (#50)	75-85
150 um (#100)	40-50
75 um (#200)	15-20

SG, Bulk S.S.D.	2.74
SE, CT 217	>= 30
ASTM -1557-91	112.0 lbs. @ 14% moisture
Plastic Limit ASTM D 4318	0
Plastic Index ASTM D 4318	0 (non-plastic)
Expansive Classification	Non-expansive
pH, CT – 422	8.36
Chloride, CT 417	42 ppm
Sulfate, CT – 417	40 ppm
Resistivity, CT – 417	5,300 (ohm-cm)

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200-2 UNTREATED BASE MATERIALS

200-2.1 General

[Add the following to the end of the section:].

Untreated base to be used for the base course under miscellaneous PCC pavement, as trench backfill and under other miscellaneous PCC improvements shall be Crushed Aggregate Base (CAB), as shown on the plans.

200-2.2 Crushed Aggregate Base

Crushed Aggregate Base material shall conform to Subsections 200-2.2 and 301-2 of the Standard Specifications, as directed by the Engineer.

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SECTION 201
CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements

201-1.1.2 Concrete Specific by Class and Alternate Class

[Revise portion of Table 201-1.1.2 with the following:].

- Concrete class and alternate class for Street Surface Improvements shall be 560-C-3250.
- Concrete for Signal Foundations shall conform to Section 90, "Concrete," of the Standard Specifications, and to Section 90-2, "Minor Concrete." Concrete for reinforced pile foundations and shall contain not less than 590 pounds of cementitious material per cubic yard.

201-1.2.4 Chemical Admixtures

[Delete Subsection in total and replace with the following:].

Admixtures will not be permitted.

201-1.2.5.3 Fly Ash

[Delete Subsection in total and replace with the following:].

Fly Ash will not be permitted.

201-1.4 Mixing

201-1.4.1 General

[Add the following to the end of the section:].

Mixed concrete delivered to the site shall be by Transit Mixer as called for in Section 201-1.4.3 “Transit Mixer” of the Standard Specifications.

201-4 CONCRETE CURING MATERIALS

201-4.1.1 General:

- Concrete curing compound shall be Type II for Class 560-C-3250 for street improvements
- Concrete curing compound shall comply with Section 90 “Concrete,” of the Standard Specifications, and to Section 90-2, "Minor Concrete" for reinforced pile foundations.

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SECTION 203
BITUMINOUS MATERIALS

203-6 ASPHALT CONCRETE

203-6.1 General

[Delete the second paragraph and replace with the following:].

Asphalt concrete for slot paving, base course pavement as required for trench resurfacing per Details on Plans, and localized reconstruction of the roadway (digouts), as directed by the Engineer, shall be Dense Graded Asphalt Concrete (DGAC) Pavement Type B PG-70-10. A maximum of 10% RAP shall be allowed. Sieve Size shall be ¾-inch.

Asphalt Concrete for final course pavement, as required for roadway resurfacing per Typical Sections and Details on Plans, shall be Type C3 PG-70-10. A maximum of 10% RAP shall be allowed. Sieve size shall be 1/2–inch.

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SECTION 210

PAINT AND PROTECTIVE COATINGS

210-1 PAINT

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

[add the following section:].

Paint for traffic lane lines, turn pocket lines, edge lines, channelizing lines, bike lane lines, chevrons, pavement legends, pavement symbols, pavement arrows, cross walks, parking stall markings, stop bars and curbs shall be rapid dry water borne conforming to CALTRANS Specification No. PTWB-01. Glass beads shall be applied to the surface of the rapid dry water borne paint and shall conform to the requirements of CALTRANS Specification No. 8010-004 (Type II). CALTRANS Specifications for water borne paint and glass beads may be obtained from the CALTRANS Transportation Laboratory, P.O. Box 19128, Sacramento, CA 95819, telephone number (916) 227-7000. No thermoplastic paint will be allowed.

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PART 3
CONSTRUCTION METHODS

SECTION 300
EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.3 Removal and Disposal of Materials

300-1.3.1 General
[Delete Subsection in total and substitute with the following:].

No burning will be permitted.

No accumulation of flammable material shall remain on or adjacent to the right-of-way. The roadway and adjacent areas shall be left with a neat and finished appearance.

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

300-1.4 Payment
[Delete Subsection in total and substitute with the following:].

Full compensation for clearing and grubbing shall be considered as included in the contract unit prices or lump sum prices bid for the various items of work involved and no additional compensation will be allowed therefore.

300-1.6 Bituminous Pavement
[Add the following:].

Sawcutting shall be accomplished by the use of a power-driven saw. The depth of the cut shall be deep enough to provide a clean, straight break without loosening, cracking, or damaging adjoining asphalt or concrete. A clean sawcut edge shall be maintained until new pavement is constructed.

All necessary sawcutting of AC or any underlying existing improvements shall be to the lines as shown on plans or as directed by the City Engineer. Sawcutting shall be included in the unit price and no further compensation shall be made.

300-2 UNCLASSIFIED EXCAVATION

300-2.1 General
[Add the following:].

Unclassified excavation shall include saw cutting, excavating, removing, hauling and disposal of all material including asphalt concrete (A.C.) pavement, P.C.C. pavement, macadam, Petromat/pavement reinforcing fabric, slurry backfill, aggregate base materials, interfering

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structures and objects to the sub-grade elevations indicated on the plans as required to construct the new improvements.

All roots and stumps shall be removed and/or ground to eight (8) inches below subgrade within the roadway section. The locations and dimensions of excavation areas are as shown on the plans and/or directed in the field by the Engineer.

All existing asphalt concrete pavement joining new construction shall be saw cut in a straight line. Contractor shall exercise due caution to avoid any damage to the existing improvements to be protected in place. Any damage caused by Contractor and/or his equipment shall be repaired or replaced as called out in Section 7-9 of the Standard Specifications at Contractor's expense.

Unclassified excavation shall include the removal of unclassified fill material encountered within the proposed roadway section. Unclassified fill may consist of broken concrete, broken asphalt pavement, brick, rubble, and debris.

All unclassified fill material found within the new roadway section shall be removed and paid in accordance with the bid item for unclassified excavation

All removed material becomes the property of the Contractor and shall be hauled away and properly disposed.

The Contractor's attention is directed to the fact the thickness of the existing asphalt concrete pavement is approximate and may vary from this thickness. In addition, substantially thicker sections of pavement may be occasionally encountered, especially where utility trench and pothole patches are encountered.

If a significant deviation in pavement thickness is encountered by the Contractor during the removal process, that may significantly impact the Contractor's cost of removal, the Contractor shall immediately notify the Engineer. The Engineer will review the field condition(s) encountered and determine the appropriate remediation. The Engineer shall have sole authority to decide the method and amount of additional compensation due the Contractor, if any.

Unless directed by the Engineer, backfilling and compacting is considered included in each respective bid item and no additional compensation will be allowed therefore.

The areas and quantities shown on the Plans are given only for the Contractor's aid in planning the work and preparing bids. It is the Contractor's responsibility to determine actual area and quantities based on the Plans and field conditions. If there is a significant deviation in area and quantities, the Contractor shall immediately notify the Engineer.

300-2.2 Unsuitable Material

300-2.2.2 Wet Material

[Remove the first sentence and replace it with the following:].

If, in the opinion of the Engineer, the existing materials of areas more than 6" below the existing grade are wet, unsuitable, and/or contaminated, the Contractor may be ordered to over-excavate those areas to a depth to be determined by the Engineer, and either process the material to reduce the moisture content to an optimum condition or to remove and dispose of the material and replace it with suitable material. All Work will be done in accordance with Section 301-1 "Subgrade

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Preparation" and Section 301-2 "Untreated Base" of the Standard Specifications.

Crushed Aggregate Base (CAB) compacted to 95% Relative Compaction and conforming to Section 200 "Rock Materials" of the Standard Specifications shall be used to replace materials over-excavated. The removal and replacement of unsuitable material, as determined and authorized by the Engineer, shall be paid for pursuant to Section 3 of these Special Provisions.

300-2.9 Payment
[Add the following:].

Full compensation for the requirements of unclassified excavation shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed therefore.

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

301-1 SUBGRADE PREPARATION

301-1.1 General
[Add the following to the end of the section:].

Prior to the placement of new asphalt pavement or concrete, the subgrade shall be prepared in accordance with the plans and applicable sections of the Standard Specifications and these Special Provisions.

Placement of Aggregate Base

In locations where the existing pavement section contains aggregate base, placement of aggregate base will be required prior to asphalt surfacing to the thickness and elevations as required. The base shall not be placed until the backfill has been thoroughly compacted to the required relative compaction.

After the bottom of the trench subgrade has been properly prepared per Section 301-1, the aggregate base shall be placed and compacted per Section 301-2 of the standard specifications to the limits and dimensions required.

If the Contractor elects to perform the excavation and placement of the aggregate base after the surrounding pavement has been removed, it shall be performed in a manner that does not adversely affect the adjoining aggregate base to remain.

301-1.7 Payment
[Delete the first paragraph and replace with the following:].

Payment for sub-grade preparation shall be considered included in the contract unit prices bid for the various items of work requiring sub-grade preparation involved, and shall include full compensation for furnishing the labor, tools, materials, equipment and incidentals, and for doing all the work and rework involved in processing, compacting and trimming the material as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

301-2 UNTREATED BASE

301-2.1 General
[Revise the first sentence to read as follows:].

Untreated base for pavement, curb, curb and gutter, cross gutters and similar types of improvements shall be constructed of material as specified in Section 200-2 of the Standard Specifications and as called for on the plans, Standard Specifications and in these Special Provisions.

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SECTION 303

CONCRETE AND MASONRY CONSTRUCTION

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

303-5.1 Requirements

303-5.1.1 General

[Add the following:].

New improvements shall be constructed to grades indicated on the plans and in such a manner as to match existing improvements and field conditions with proper grade to form a safe and smooth riding surface.

The Contractor shall be responsible to oversee the curing of all concrete improvements to prevent graffiti damage or other unauthorized markings in new concrete surfaces. Any concrete surface deemed unacceptable to the Engineer, shall be replaced by the Contractor at no cost to the City.

Damage to any existing improvements shall be remedied by saw cutting, removal and reconstruction at the Contractor's expense and to the satisfaction of the Engineer. Removals, relocations, and/or adjustments not covered by a separate bid item but necessary for the proposed concrete construction shall be included in the unit price bid for the various items of work involved.

The Contractor shall maintain safe access to all residents/business establishments at all times throughout the duration of the contract. The only permitted interruption to access will be during the placement of concrete.

No establishment shall be denied access more than one day at a time. Contractor shall install steel plates after finishing the concrete, to provide access during the cure period. The Contractor shall pour new P.C.C. improvements in such a fashion as to not interrupt access to residents near the job site.

Should a driveway be excavated at the end of a workday, the Contractor shall provide a temporary access ramp to residences. The temporary access ramp shall be removed by the Contractor on the following day so that driveway construction can be completed. Access to building over newly placed ramp shall be provided the day following the placement of ramp. New ramp shall be protected by the contractor with the use of materials such as roofing paper, plywood, or other means approved by the Engineer. The cost for the placement of the temporary ramp/plate and its removal shall be included in the unit cost bid for the various items of work involved, and no additional compensation will be allowed therefore.

Concrete sidewalk and curb ramps shall be placed on 4” sand bedding per City Standard Plan No. 103-0 and details per Plans. Sand bedding shall consist of washed granular material with a sand equivalent greater than or equal to 30, conforming to Section 200-1.5.3 of the Standard Specifications. Payment for sand bedding shall be included in the contract unit price bid for the various items of work involved. No additional compensation will be allowed therefore.

Concrete curb, curb and gutter, and cross gutters and spandrels shall be placed on 6” crushed aggregate base (CAB) per applicable City Standard Plans and details per Plans. Crushed Aggregate Base material shall conform to Subsections 200-2.2 and 301-2 of the Standard Specifications, as directed by the Engineer. Payment for CAB bedding shall be included in the contract unit price bid for the various items of work involved. No additional compensation will be

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allowed therefore.

The exact limits of removal of the PCC sidewalk will be determined based on the need for the installation of traffic signal pull boxes, fiber optic cable, conduits, and foundations, and as approved by the Engineer. All concrete improvements, including sidewalks, shall be poured back within two (2) days after removal and completed prior to the weekend. Full compensation for the requirements of removing and replacement of PCC sidewalk shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed therefore.

303-5.4 Joints

303-5.4.2 Expansion Joints
[Add the following:].

Expansion joints shall be constructed only where specifically designated per details on the plans, and as directed by the Engineer.

303-5.5 Finishing

303-5.5.4 Gutter
[Add the following:].

When gutter and/or cross gutter is constructed at a rate of grade less than 0.30% it shall be water tested. If any portion of the newly constructed gutter is shown to pond water, that portion, including curb if applicable, shall be removed, reconstructed, and retested by the Contractor at no additional cost to the AGENCY.

303-5.5.5 Alley Intersection, Access Ramps, and Driveways
[Add the following:].

All limits of removal for the replacement of existing concrete work item shall be per plan unless otherwise directed by the Engineer in the field. It will be the sole responsibility of the Contractor to remove and reconstruct any curb and gutter damaged by the Contractor during the construction. No additional compensation will be allowed.

Removal of any private improvements should be coordinated in writing with the owner and it is Contractor's responsibility to obtain owner's written approval for removal prior to construction. Right-of-Way Entry should be signed by the owner prior to removal of any private improvements at no additional cost to the City.

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SECTION 306
OPEN TRENCH CONDUIT CONSTRUCTION

306-1 GENERAL

306-3 Trench Excavation

306-3.1 General

Excess Material - It shall be the Contractor's responsibility to remove and dispose of all excess material resulting from earthwork operations, including pavement, macadam, Petromat, PCC, and excavation material of any character that is not suitable for use in fill or backfill. The Contractor shall provide and maintain, at the construction site, ample means and devices with which to remove and properly dispose of all water entering the excavation. Diversion of surface water from the excavation site shall be the responsibility of the Contractor, and no separate compensation will be allowed for the removal of surface water from the excavation site. Dewatering for the structure and pipelines shall commence when ground water is first encountered, shall be continuous, and shall be accomplished by well points or some other method which will ensure a dry hole and preservation of final lines and grade of the bottom of excavation.

Contractor shall be required to verify depths of utility lines crossings prior to excavation and to adjust grade to avoid utility lines at no additional compensation.

For the purpose of shoring or bracing, a trench is defined as an excavation in which the depth is greater than five feet. All trench excavations shall be vertical cuts. Laying back the excavation to avoid shoring will not be allowed unless approved in writing by the Engineer.

The Contractor shall provide and maintain at all times during construction ample means and devises to promptly remove and properly dispose of all water entering the excavations or other parts of the work.

Removal of groundwater shall be performed to ensure a firm and stable subgrade for the construction of structures. All costs for such dewatering shall be included in the prices bid for the various items of work except as may be otherwise provided for in the bid form.

No concrete footing or floor shall be laid in water, nor shall water be allowed to rise over them until the concrete or mortar has set at least eight (8) hours. Water shall not be allowed to rise unequally against walls for a period of twenty (28) days. Dewatering for the structures and pipelines shall commence when ground water is first encountered and shall be continuous until such time as water can be allowed to rise in accordance with the above. Dewatering shall be accomplished by trash pumps or some other method which will insure a dry hole and preservation of final lines and grade of the bottoms of excavation, all subject to the approval of the Engineer.

When the actual elevation or position of any existing pipe, conduit, or other underground appurtenances cannot be determined without excavation, the Contractor shall excavate and expose the existing improvements at the location shown on the plans and any other locations deemed necessary by the Engineer. Such excavation shall be considered as part of the excavation necessary for the work. The Engineer shall be given the opportunity to inspect the existing improvement when it is exposed. Any adjustments in line or grade which may be necessary to accomplish the intent of the plans shall be approved by the Engineer.

The Contractor shall make arrangements for a disposal site, but in no instance shall any material be wasted

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or dumped in any area until permission of the owner of the property has been secured in writing, and a copy of the permit has been furnished to the Engineer. The cost of disposal of excess or waste material shall be borne by the Contractor.

306-1.5.1 Temporary Resurfacing

Temporary patching or steel plating work area is required immediately after backfilling in the paved or surfaced portions of the Project. The Contractor shall be responsible for maintaining said temporary patching and plating at all times, until permanent resurfacing has been completed by the Contractor. Steel plating shall include temporary asphalt concrete pavement transitions, as required by the Engineer.

The cost of furnishing, placing, maintaining, removing and disposing of temporary resurfacing materials shall be included in the contract unit price bid for the various items of work involved and no additional compensation will be allowed.

306-1.5.2 Permanent Resurfacing

The Contractor shall replace the street section, pavement, and aggregate base in accordance with the plans and specifications and to the satisfaction of the Engineer .

306-3 TRENCH EXCAVATION

306-3.2 Removal of Surface Improvements

[add the following:]

All pavement shall be sawcut with clean, straight, vertical edges for the trench work as required. The Contractor shall protect all AC pavement and adjacent concrete surfaces outside the work area to avoid damaging the existing AC pavement and concrete. All damage to existing AC pavement and concrete surfaces that are determined by the Engineer to be the result of the Contractor's operation, and not considered a pre-project condition, shall be repaired pursuant to the Specifications by the Contractor at no cost to the AGENCY.

306-4 SHORING AND BRACING

[add the following:].

The Contractor will be required to show proof to the CITY that necessary permit(s) and notification(s) have been made to the proper authorities regarding trench excavation five (5) feet or deeper prior to start of any work. Shoring is also required in proximity of existing water mains as required to prevent side blow-outs and as required to maintain existing service during construction of the new water mains. The Contractor will NOT be allowed to begin work until this has taken place. The Contractor will not be allowed any additional work days for delays associated with receiving the required permit(s) or submitting the required notification(s).

Payment for shoring and bracing excavations is considered included in the contract unit prices bid for the various items of work involved, and no additional compensation will be allowed therefore.

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SECTION 310
PAINTING

[Delete Section in total and substitute with the following:]

TRAFFIC SIGNING, STRIPING AND MARKINGS

Pavement traffic signing, striping and markings including raised lane line and fire hydrant reflective markers (RPM's) shall be provided and installed at the locations and per the Standard Drawings indicated on the plans, as directed by the Engineer and in accordance with the following Special Provisions.

Contractor shall restore pavement traffic striping and marking damaged during construction to original condition.

Pavement marking and striping shall conform to the provisions of Section 84, "Traffic Stripes and Pavement Markings," of the Caltrans Specifications and these Special Provisions.

Paint and glass beads shall be furnished and applied by the Contractor. Stripes and pavement legends shall be reflectorized.

The contractor shall furnish the necessary control points for all striping and markings and shall be responsible for the completeness and accuracy thereof to the satisfaction of the engineer.

Two (2) coats of paint shall be applied to painted striping lane and control lines with a minimum seven (7) days between coats. Reflective material consisting of glass beads shall be applied to the surface of each coat of paint prior to setting so that the beads shall have proper adhesion.

Glass beads shall conform to State Specifications 8010-IIE-22 Type II and shall be mechanically applied at a rate of six (6) to eight (8) pounds of beads per gallon of paint. Glass beads shall be applied to pavement striping by a dispensing device developed for this purpose or other methods approved by the Engineer.

Where sandblasting is used for the removal of traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within ten feet of the traveled way, 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 operations.

Contractor will not be required to use a vacuum attachment under the following conditions:

1. When approved by Agency
2. When the blasting sand will be confined by mechanical means to a small area.
3. When a sweeper (preferably a vacuum type) will immediately follow the blasting operation or when traffic can be safely routed around the sand until swept up.

The contractor shall perform all layout, alignment, and spotting for traffic stripes and markings. Traffic striping shall not vary by more than 0.5 inch in 50 feet from the alignment shown on the plans. The dimensional details of the stripes and markings shall conform to the provisions set forth in the Manual of Uniform Traffic Control Devices available from Caltrans.

Spotting shall be completed prior to the removal of any temporary striping of traffic control devices. Existing temporary stripes and markings shall be removed prior to painting new ones, but in no case shall any section of street be left without proper striping for more than 24 hours or over weekends or holidays.

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All legends, including limit lines, **shall be striped within 72 hours** after the street (if applicable) has received the final surface course.

Contractor shall be responsible to place and maintain temporary traffic control(s) during the period that the lane lines are obliterated.

Striping shall be supplemented with raised pavement markers as required by the Standard Drawings, referenced on the plans. In addition, blue raised pavement markings shall be installed adjacent to fire hydrants and fire department connection in conformance with City of Brea Standard Drawing 306-0.

- One marker for every fire hydrant
- Two markers for hydrants located at corners

Raised pavement markers shall conform to provisions in Section 85, "Pavement Markers" of Caltrans Specifications, State of California Traffic Manual and these Special Provisions.

Hot melt bitumen adhesive shall be used to cement the markers to the pavement.

Grinding shall not be permitted.

All pavement striping and markings shall conform to the standards of applicable portions of the current State of California, Department of Transportation **Manual on Uniform Traffic Control Devices (MUTCD)**, and **Standard Plans** A20A-C and A24A-D.

Temporary Striping, Signing, Raised Pavement Markers:

The Contractor shall be responsible for the placement of all required temporary signing, striping, and markings and the removal of existing stripes and markings in the installation of required temporary striping.

Traffic striping and markings shall be removed before any change is made in the traffic pattern. Removal shall be coordinated with the installation of new pavement markings to provide continuous, non-conflicting guidance to public traffic.

Should temporary striping be required on the finished asphalt surface, the method and configuration must be approved by the Engineer for approval prior to placement.

At no time shall the street be open to traffic without delineation to separate opposing traffic. Temporary delineation type shall be at the inspector's discretion.

In general, temporary reflectorized markers are the preferred type of temporary delineation.

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PART 7
STREET LIGHTING AND TRAFFIC SIGNALS
SECTION 700
MATERIALS

[Amend Section 700 and 701 with the following:]

Refer to the "Caltrans" Standard Specifications sections referenced herein for these additions to the "Standard Specifications".

"CALTRANS" STANDARD SPECIFICATIONS

The following Sections of the "Caltrans" Standard Specifications, and California Manual on Uniform Traffic Control Devices latest editions, shall be used for all work specified in these sections:

Section 86: GENERAL
Section 87: ELECTRICAL SYSTEMS

The following additions, as revised, to Sections 86 and 87 of "Caltrans" Standard Plans and Specification latest edition shall apply.

700-1 GENERAL.

700-1.1 Standard Specifications

The Standard Specifications for traffic signals and the work to be performed as part of this project shall be Section 82, Section 84, Section 86, and Section 87 of the State of California, Department of Transportation, Standard Specifications dated 2018 and latest updates, excepting Part I, "General Provisions" as modified by AGENCY, unless specifically referenced in these Special Provisions.

700-1.2 Scope of Work

The work to be performed shall include the modification of the existing traffic signal and street lighting systems at:

Lambert Road and Cliffwood Avenue-Cliffwood Park Street (Schedule A)
State College Blvd. at Cliffwood Ave. and Balsa Ave. (Schedule B)

For the traffic signal modification, the City will be furnishing the new traffic signal poles, mast arms, and PPB post for the Project. The Contractor will be responsible for picking up these materials up from the City Public Works yard at N. 545 Berry Street, transporting them to the Project site and installing them per the Project plans or coordinating the delivery from the signal pole manufacture for site delivery.

Other than the material identified within Section 9 of these Specifications, the Contractor shall furnish and install all material, equipment and appurtenances as necessary to accomplish the work indicated on the Plans and specified in these Specifications.

The work to be performed shall include, but is not limited to, furnishing equipment and installation of new pull

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boxes with various sections of conduit, traffic signal upgrades, installing new traffic signal standards and PPB Post (furnished by City), reuse controller units, video detection system, installing signing and striping, develop and implement traffic control plans, temp signal poles PCC sidewalk removal and replacement, and all associated work for intended construction identified on the Plans, Specification, and Detail Construction Drawings and defined within these Special Provisions.

Should any items or details to make a complete installation be found missing from the Specifications, same shall be supplied as if distinctly specified.

Before starting any construction, the Contractor shall notify the City Engineer in writing, giving the name, address, and telephone number where he can be reached when work is not in progress as well as giving twenty-four (24) hours notice prior to commencing any construction. Should the progress of the work cease for more than a normal working day, the Contractor shall again notify the City Engineer as to when the work will again begin. Any work done without proper notification shall be subject to disapproval by the City Engineer.

The Contractor shall furnish and install all appurtenances required by the Southern California Edison Company for completion of the power supply.

Other items of work or details not mentioned above that are required by the Standard Specifications or these Special Provisions, shall be performed, placed, constructed or installed.

The Contractor shall be responsible to call Underground Service Alert at 1-800-422-4133 a minimum of 5 (five) working days prior to any construction.

700-1.3 Record Drawings

The Contractor is required to submit to the Engineer "Record Drawing" prints prior to the City's acceptance of the work. The prints shall indicate in, red, all deviations from the contract plans such as location of poles, pull boxes and runs and depths of conduit, number of conductors and other appurtenant work for future references.

Failure to comply with this requirement may result in the City not accepting the project as complete.

700-3 STANDARDS, PEDESTALS AND POSTS

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

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

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

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

Plumbing of the standards shall be accomplished by adjusting the nuts on the anchor bolts before the foundation cap is placed. Shims or other similar devices for plumbing the standard or raking will not be permitted. After plumbing the standard, anchor bolts shall be cut off 0.250-inch above the nuts. The newly exposed surfaces shall be repaired by thoroughly wire brushing the damaged areas to remove all loose and cracked coating. The

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cleaned exposed areas shall be painted with two (2) applications of unthinned zinc-rich primer (organic vehicle type) conforming to the provisions in Section 91, "Paint." of the Standard Specifications. Paint cans containing aerosol propellant shall not be used.

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

700-4 CONDUIT

Conduit shall conform to the provisions of Section 86-1.02B, "Conduit and Accessories," and Section 87-1.03B "Conduit Installation," of the Standard Specifications, except as amended herein within these Special Provisions.

Conduit shall be Type 3 rigid nonmetallic PVC conduit.

700-5 CONDUCTORS AND WIRING

Conductors and wiring shall conform to the provisions in Section 86-2.08, "Conductors," and Section 86-1.02F, "Conductors and Cables," and Section 87-1.03F Conductors and Cable Installation," of the Standard Specifications, except as amended herein within these Special Provisions.

Neutral and ground shall be No. 10 AWG copper. Three (3) feet of slack shall be provided for each conductor in each pull box.

700-6 VEHICULAR TRAFFIC SIGNAL ASSEMBLIES

The vehicular signal assemblies shall be furnished 12-inch LED signal head as indicated on plans. LED signal heads shall conform to the provisions in Sections 86-1.02R/87-1.03R Signal Heads" of the State Specifications, the Standard Plan ES-4A and Revised Standard Plan RSP ES-4E of the CALTRANS Standard Plans and these Special Provisions as shown on plans.

All signal faces shall be 12-inch light emitting diode (LED) signal modules. LED signal modules shall conform to Institute of Transportation Engineering (ITE) Specifications. Prior to placing the intersection in operation, all lenses and/or reflectors shall be cleaned of dirt, grease, fingerprints, etc., with a liquid cleaner. No cleaner with ammonia content, or type leaving a residue, will be accepted.

The top head gasket for all signal and pedestrian heads shall have a minimum thickness of 1/8- inch and shall be neoprene. A metal washer of the same diameter size shall be placed on the top of the neoprene gasket to secure and provide a watertight fitting.

All signal mounting framework shall incorporate the use 1-1/2" lock nipples for the mounting of signal and pedestrian heads.

Backplate sections shall be joined using: (1) aluminum rivets and washers; or (2) machine screws #8 or #10 x 32 with washer, lock washer and nut; or (3) a combination of (1) and (2). Rivets, washers and nuts shall be painted to match backplate. Note all fastener holes in backplate shall contain a fastener.

Any LED module proposed for use under this CONTRACT shall be listed as a STATE pre-qualified product.

All lenses shall be glass.

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Signal head mountings with terminal compartments shall be used. All mountings shall be located to provide a minimum of 24-inch horizontal clearance from the edge of the signal visor or pedestrian head to the curb face. All terminal compartments shall be bronze.

700-7 LED COUNTDOWN PEDESTRIAN SIGNAL FACE MODULES

LED countdown pedestrian signal face modules shall conform to the provisions in Section 86-1.02S(3)(c), "LED Countdown Pedestrian Signal Face Modules," of the Standard Specifications, the most current Americans with Disabilities Act (ADA) requirements, and these Special Provisions.

All new pedestrian indications shall be countdown signal module. The message bearing surface of the module shall be supplied with an outline “HAND” and “MAN” symbol, overlapping, that comply with Institute of Transportation Engineer’s (ITE) Publication ST-011B “Pedestrian Traffic Control Signal Indications” (PTCSI) standard for these symbols. The numbers 00 to 99 on the numerical display shall have a minimum height of 7 inches.

700-8 PUSH BUTTON ASSEMBLIES

Pedestrian push buttons shall conform to the provisions in Section 86-1.02U, "Push Buttons Assemblies," and Section 87-1.03U “Push Button Assemblies,” of the Standard Specifications, the most current Americans with Disabilities Act (ADA) requirements, and these Special Provisions.

Pedestrian push buttons shall be metal Type “B” per Caltrans Standard Plans ES-5C, with new 5”X7” R10-4b sign or City of Brea approved equal.

The entire push button housing shall be metal.

The plunger/actuator surface shall have a minimum diameter of 2 inches.

Where existing pedestrian bush button assemblies are removed, the remaining holes in poles shall be repaired per Section 86-2.04A of the Standard Specifications.

700-9 PHOTOELECTRIC CONTROLS

Photoelectric controls shall conform to the provisions in Section 86-6.07, "Photoelectric Controls," of the Standard Specifications, except as amended herein and the Special Provisions.

The photoelectric controls shall be Type V for luminaires.

700-10 DETECTORS

Detectors shall conform to the provisions in Section 87-1.03V, "Detectors," of the Standard Specifications and these Special Provisions.

The Contractor furnish and install new Iteris Vantage Next video detection systems including detection cameras and processors and arrange configuration and turn-on support (Schedule B), and reuse existing Iteris Vantage Video Detection System (Schedule A).

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The Contractor shall furnish and install CAT5 cable or the manufacturer's recommended cables from the controller cabinet to each of the cameras on the poles indicated on construction plans.

The camera shall be installed on the traffic signal pole luminaire arm, or on a signal arm where indicated on plans per the camera manufacturer's specifications.

The Contractor shall set the video detection zones per City of Brea representative in the field.

The Contractor shall furnish and install **16-3 SJO power cables** and **Belden No. 8281** coaxial cables from the controller cabinet to the cameras. The Contractor shall also install a 15 ampere circuit breaker for camera power in the in the service enclosure or inside the controller cabinet as directed by the Engineer. Cameras shall be installed on the traffic signal pole luminaire arms as indicated in the TABLE OF REQUIRED WORK on the plans. The power and coaxial cables shall be enter the luminaire arm via the luminaire and run through the pole and the conduit runs indicated in the TABLE OF REQUIRED WORK on the plans to the controller cabinet.

Existing loop detectors located in left turn lanes, bike lanes and at crosswalks will no longer be used. The Contractor shall remove loop detector lead-in cable (DLC) (s) from the nearest pullbox to the controller cabinet via the conduit runs indicated in the TABLE OF REQUIRED WORK on the plans. DLCs for advance loop detectors that are to remain in operation shall be protected in place. The cables shall not be removed until the video cameras have been installed. The video camera power and coaxial cables shall be installed on the same day the DLCs are removed. The video detection system shall be operational within 48 hours after the DLCs are removed.

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SECTION 701
CONSTRUCTION

700-1 GENERAL

The Standard Specifications for traffic signals and the work to be performed as part of this Project shall be Section 82, Section 84, Section 86, and Section 87 of the State of California, Department of Transportation, Standard Specifications dated 2018 and latest updates, excepting Part I, “General Provisions” as modified by AGENCY, unless specifically referenced in these Special Provisions.

700-1.1 Equipment List And Drawings

Equipment list and drawings of electrical equipment and material shall conform to the provisions in Section 86-1.03, "Equipment List and Drawings." of the Standard Specifications and these Special Provisions.

The Contractor shall furnish 3 copies of the maintenance manual for all auxiliary equipment and video detection system. The maintenance manual and operation manual may be combined into one manual. The maintenance manual or combined maintenance and operation manual shall be submitted at the time the cabinet is delivered for testing or, if ordered by the Engineer, prior to purchase.

The maintenance manual shall include, but need not be limited to, the following items:

1. Specifications
2. Design Characteristics
3. General Operation Theory
4. Function of all Controls
5. Trouble Shooting Procedure Diagnostic Routine)
6. Block Circuit Diagram
7. Geographical Layout of Components
8. Schematic Diagrams
9. List of Replaceable Component Parts with Stock Numbers

Failure to comply with this requirement may result in the City not accepting the project as complete.

701-2 MAINTENANCE OF EXISTING AND TEMPORARY ELECTRICAL SYSTEMS

Maintaining existing and temporary electrical systems shall conform to the provisions in Section 86-1.05, "Maintaining Existing and Temporary Electrical Systems," of the Standard Specifications and these special provisions.

All work to be done in connection with the modification of traffic signals shall be performed in such a manner that the signals will be in continuous operation except for a one-hour period between the hours of 9:00 AM and 3:00 PM on weekdays when they may be turned off for necessary work.

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The placement of any temporary wiring necessary to maintain traffic signal operations, if needed, shall provide a minimum of 18 feet vertical clearance for vehicles and a minimum of 10 feet clearance over pedestrian areas. All safety regulations and precautions shall be observed in the installation of any temporary wiring.

Two weeks prior to any proposed turn off of the traffic signal, the Contractor shall advise the Engineer and Caltrans of his anticipated schedule for turn off. Notice of the firm schedule for turn of the signals shall be made to the Engineer and Caltrans at least 72 hours prior to the turn off and the Contractor shall make arrangements with the Police Department for police officer traffic control during the shutdown.

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

Full compensation for maintaining existing and temporary electrical systems shall be considered as included in the price paid for Signal Modification bid item and no additional compensation will be allowed therefore.

701-3 COORDINATION WITH THE SERVING ELECTRICAL UTILTY

The Contractor shall inspect the location of each Standard for safety clearance requirements and notify the Engineer and servicing electrical utility, in writing, of the locations where safety clearances are required. The Contractor shall be responsible to coordinate with Southern California Edison with respect to servicing the electrical service work.

Request for safety clearances shall be made at least 21 days in advance of the date the Contractor will be working at each location requiring safety clearance by the servicing electrical utility.

701-4 DAMAGE TO EXSTING SYSTEMS

Any damage to the existing electrical system which is not part of the work or shown on the plans shall be immediately repaired by the Contractor at his cost. The Contractor shall notify the Engineer immediately of the damage, provide the repair scope of work, and immediately arrange for the repair work. The repair work shall comply with these Special Provisions and be approved by the Engineer.

701-5 TEMPORARY SYSTEMS

The Contractor shall be responsible to provide all temporary street lighting and/or traffic signal systems as part of the removal and replacement of the existing system. Construction of the temporary system shall be shown as an individual activity within the Construction Schedule and within working drawings as part of the submittals.

701-6 ORDERING MATERIAL

Contractor shall submit as part of the submittal matrix a letter from the supplier stating that the Contractor-furnished material has been ordered with supplier name, material ordered, and delivery dates.

701-7 EXCAVATION AND BACKFILL

Excavation and backfill for the signal work shall comply with these Special Provisions.

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701-8 FOUNDATIONS

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

Portland cement concrete shall conform to Section 90, "Portland Cement Concrete," of the Standard Specifications, and to Section 90-10, "Minor Concrete." Concrete for reinforced pile foundations shall contain not less than 590 pounds of cementitious material per cubic yard.

Section 86-2.03, “Foundations,” of the Standard Specifications is amended by deleting the last paragraph.

701-9 ANCHOR BOLTS, NUTS, AND WASHERS

Anchor Bolts, Nuts, and Washers shall conform with the provisions of the Standard Specifications, the Standard Plans, except as amended herein within these Special Provisions.

701-10 STANDARDS, PEDESTALS AND MAST ARMS

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

701-11 PULL BOXES

Pull boxes shall conform to the provisions in Section 86-1.02C, "Pull Boxes," and Section 87-1.03C “Installation of Pull Boxes,” of the Standard Specifications, Standard Plans, except as amended herein within these Special Provisions.

Pull boxes shall be concrete with fibrolite lids. Pull boxes shall not have plastic coating on the top. Pull box lids shall not have bolt-down feature.

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

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

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

Pull boxes shall not be installed in any part of a driveway, wheelchair access ramp or other traveled way.

Pull box lids shall be labeled “TRAFFIC SIGNAL,” for traffic signal, “TRAFFIC SIC,” for traffic signal interconnect cable, and “TRAFFIC FOC,” for fiber optic cable.

701-12 CONDUIT

Conduit shall conform to the provisions of Section 86-1.02B, "Conduit and Accessories," and Section 87-1.03B “Conduit Installation,” of the Standard Specifications, except as amended herein within these Special Provisions.

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Section 87-1.03B(3)(b), "Conduit Installation under Paved Surfaces," first sentence shall be deleted.

All conduit runs under roadways shall be installed by approved boring, jacking or drilling methods.

Conduit runs under some areas of A.C. pavement or dirt parkways may be placed using the "Trenching in Pavement Method" with permission of the Engineer. Material and compaction for backfill shall be as specified by the Engineer.

The Contractor shall notify the Engineer immediately of any necessity to use "Trenching in Pavement Method" on any portion of the street right-of-way. After gaining permission from the Engineer to open cut the street, the Contractor shall obtain a Street Excavation Permit from the City of Brea, Public Works/Engineering Department.

Duct sealant satisfactory to the Engineer shall be applied around underground conduit terminating inside the traffic controller cabinet at the point where the conduit enters the cabinet to prevent moisture intrusion.

701-13 WIRES, CONDUCTORS AND CABLES

701-13.1 General

Conductors and wiring shall conform to the provisions in Section 86-2.08, "Conductors," and Section 86-1.02F, "Conductors and Cables," and Section 87-1.03F Conductors and Cable Installation," of the Standard Specifications, except as amended herein within these Special Provisions.

Where new conductors are to be added to existing conductors in a conduit, the Contractor shall:

a) Pull out existing conductors in the conduit and test the conductors for any defects per the Standard Specifications.
b) Clean the conduit per the Standard Specifications.
c) Replace all defective conductors with new conductors. Replacement of damaged conductors will be made by the Contractor. Compensation will be granted for the replacement of the conductors in accordance with Section 2-8 "Extra Work," of the "GREENBOOK, Standard Specifications for Public works Construction, latest edition.
d) Pull both the old and new conductors into the conduit as a unit.

Unless specified otherwise or permitted by the Engineer, splices shall conform to the provisions in Section 87-1.03H "Conductor and Cables Splices," and will be permitted only in the following types of circuits at the following locations:

1. Grounding signal light conductors in pull boxes.
2. Pedestrian push buttons circuits in pull boxes.
3. Multiple lighting conductors in bases of standards or in pull boxes.

701-13.2 Splices

No splices shall be made in conduits.

Unless otherwise specified or permitted by the Engineer, there will be no looping of phase wires between poles.

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Cable is required per plan.

701-13.3 Bonding And Grounding

Bonding and Grounding shall conform to the provisions in Section 86-1.02F(2)(c)(ii), "Bonding Jumpers and Equipment Grounding Conductors," of the Standard Specifications, except as amended herein within these Special Provisions

,

Grounding jumper shall be attached by a 0.187-inch or larger brass bolt in the standard or pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box.

Grounding jumper shall be visible after cap has been poured on foundation.

701-14 SERVICES

701-14.1 General

Contractor shall obtain daily circuit clearance from the serving electrical utility. All equipment and material to complete the connection work as shown on the plans shall be furnished and installed by the Contractor.

Upon the Contractor's written request, the Engineer will arrange with the serving utility to complete the service connections for permanent installations.

701-15 BLANK

701-16 BLANK

701-17 TRAFFIC SIGNAL CONSTRUCTION

701-17.1 General

Traffic signal materials and installation shall comply with Caltrans Standard Plans and Specifications (2018 Edition) and these Special Provisions.

701-18 TESTING

Testing shall conform to the provisions in Section 86-2.14, "Testing," of the Standard Specifications, except as amended herein within these Special Provisions,

In lieu of State testing, the testing of traffic signal equipment, including controller units, fully wired cabinets and auxiliary equipment as specified in Section 86-3, "Controller," of the Standard Specifications shall be tested by Team Econolite. The bid price shall include the cost of testing by Team Econolite and no further compensation will be allowed.

The Engineer/Traffic Engineer shall be notified, in writing, at least five (5) days prior to the intended "turn-on" and beginning of functional test.

Turn-on of the new traffic signal system shall not be on, nor shall the five (5) day functional test start on a

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Friday, Saturday, Sunday, holiday or any day proceeding a holiday. No exceptions will be made.

The Contractor shall arrange to have a City signal technician to work on controller and the controller cabinet manufacturer, or his representative, present at the time the equipment is turned on during the first day of the functional test and upon completion of the field installation.

Prior to turn-on, all equipment, and wiring as shown on the plans, shall be installed and operable. A qualified representative from the Contractor shall be present to immediately correct any deficiencies (i.e., loop wiring, signal wiring, head adjustments, etc.) that are discovered subsequent to the turn-on. All louvers, hoods and signal heads shall be directed to provide proper visibility. All signs, striping and pavement markings as required on the plans shall be in place prior to turn-on.

701-19 BLANK

701-20 SALVAGE

Unless otherwise specified, wires/conductor/cables, Standards, mast arms, pedestals, electrical equipment, and foundations that are not specified in these Special Provisions or shown on the Plans to be salvaged shall become the property of the Contractor and shall be removed from the Work site at no cost to the Agency.

MEASUREMENT AND PAYMENT

All provisions mentioned herein within Part 7 of these Special Provisions shall be considered included in the Traffic Signal Modification Bid items and no further compensation will be allowed.

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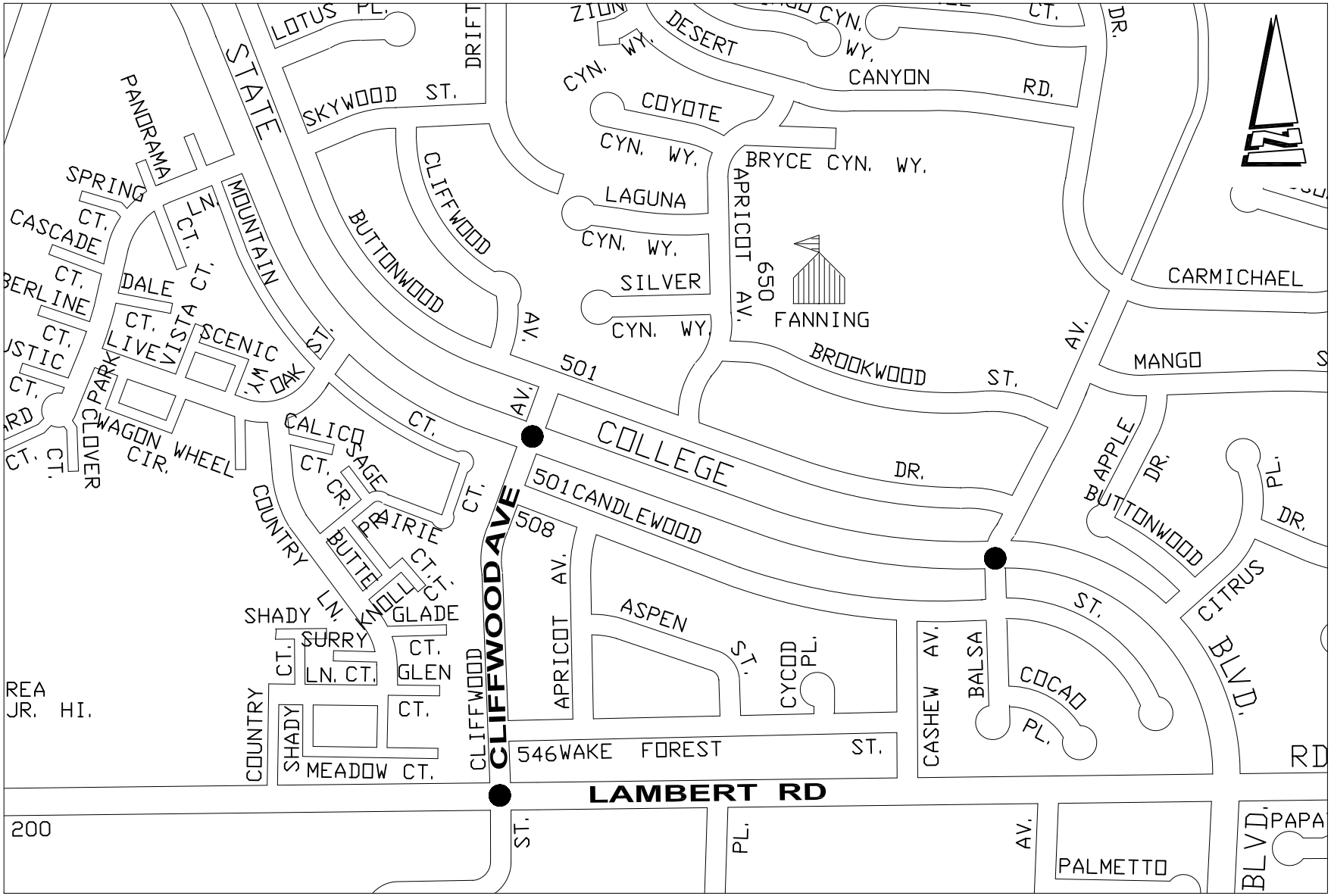
APPENDIX A

STANDARD PLANS/SITE MAP

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

PROJECT 7717

TRAFFIC SAFETY ENHANCEMENTS - CLIFFWOOD NEIGHBORHOOD TRAFFIC CALMING IMPROVEMENTS



VICINITY MAP

NOT TO SCALE

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

1. ALL APPLICABLE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS", LATEST REVISIONS, ARE HEREBY MADE A PART OF THIS PLAN AND ALL STREET IMPROVEMENTS SHALL BE IN ACCORDANCE WITH SAME.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. PAVEMENT SHALL CONSIST OF A MINIMUM OF 4" (INCHES) ASPHALT CONCRETE ON 6" (INCHES) AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE. 4" ASPHALT CONCRETE PAVING SHALL CONSIST OF 2" WEARING COURSE III-C3-PG-64-10 OVER 2" BASE COURSE III-B2-PG-64-10.
4. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MONUMENTS OF EVERY NATURE, WHETHER SHOWN ON PLANS AND/ OR HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES AND MONUMENTS DAMAGED OR DESTROYED.
5. ALL CONCRETE SHALL BE CLASS 560-C-3250 (6 SACK MIX) AND SHALL BE CURED WITH TYPE-1 (CLEAR) CURING COMPOUND IMMEDIATELY AFTER FINISHING.
6. ALL ASPHALT CONCRETE STREET SURFACES SHOWN HEREON SHALL BE SEAL-COATED, WHEN DIRECTED BY THE CITY ENGINEER, FULL-WIDTH USING AN APPROVED TYPE SS-1H EMULSION WITH NO MORE THAN 50% WATER ADDED. A TRUCK MOUNTED SPRAY BAR SHALL BE UTILIZED FOR SPREADING.
7. THE CONTRACTOR SHALL COORDINATE ALL SIGN INSTALLATIONS WITH THE CITY ENGINEER PRIOR TO SIDEWALK INSTALLATION.
8. AN APPROVED SOIL STERILANT SHALL BE UNIFORMLY APPLIED IN ALL AREAS TO BE PAVED UNDER THE DIRECTION OF THE CITY ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MAILBOX BLOCK-OUT LOCATIONS WITH THE U.S. POSTAL SERVICE PRIOR TO SIDEWALK INSTALLATION.
10. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE CITY AND SHALL BE RESPONSIBLE FOR REPAIR AND OR REPLACEMENT OF ALL FAILURES DETERMINED BY THE CITY ENGINEER CAUSED BY WORKMANSHIP OR SUBSTANDARD MATERIALS.
11. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN PROPER BARRICADING, DUST CONTROL, TRAFFIC CONTROL, SHORING AND SAFETY MEASURES OF EVERY NATURE.
12. THE CONTRACTOR SHALL MAKE APPLICATION TO THE CITY OF BREA, AND OBTAIN A CONSTRUCTION WATER METER (IF APPLICABLE) PRIOR TO COMMENCEMENT OF CONSTRUCTION.
13. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM THE CITY OF BREA PUBLIC WORKS DEPARTMENT AND AFFECTED AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. EXCAVATION IN STREETS WHICH HAVE BEEN CONSTRUCTED OR RECONSTRUCTED WITHIN THE PAST FIVE (5) YEARS AND SEAL COATED WITHIN THE PAST TWO (2) YEARS SHALL BE SUBJECT TO RESTRICTIONS.

BREA CALIFORNIA CITY OF BREA	GENERAL NOTES - STREET IMPROVEMENTS		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 101-0 SHEET 1 OF 2

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

15. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A "C-8" OR "A" LICENSED CONTRACTOR.

16. 24-HOUR NOTIFICATION IS REQUIRED FOR ALL PUBLIC WORKS INSPECTIONS. CONTACT THE CITY OF BREA PUBLIC WORKS DEPARTMENT, MONDAY TO THURSDAY (EXCLUDING HOLIDAYS), 8 a.m. to 5 p.m., AT (714) 990-7650.

17. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN CONFORMING TO THE CITY OF BREA TRAFFIC CONTROL REQUIREMENTS.

18. ANY CHANGES FROM THE PLAN, STANDARDS NOTES, STANDARD DESIGNS OR SPECIFICATIONS SHALL BE CONSIDERED NON-CONFORMING UNLESS APPROVED IN WRITING BY THE CITY ENGINEER PRIOR TO INSTALLATION.

19. INSTALLATIONS NOT CONFORMING TO THE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS" SHALL BE REMOVED, REPLACED AND OR CORRECTED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED BY THE CITY ENGINEER.

20. BASIC TRENCH REPAIR PROCEDURES SHALL BE PRE BREA STD PLAN 102.

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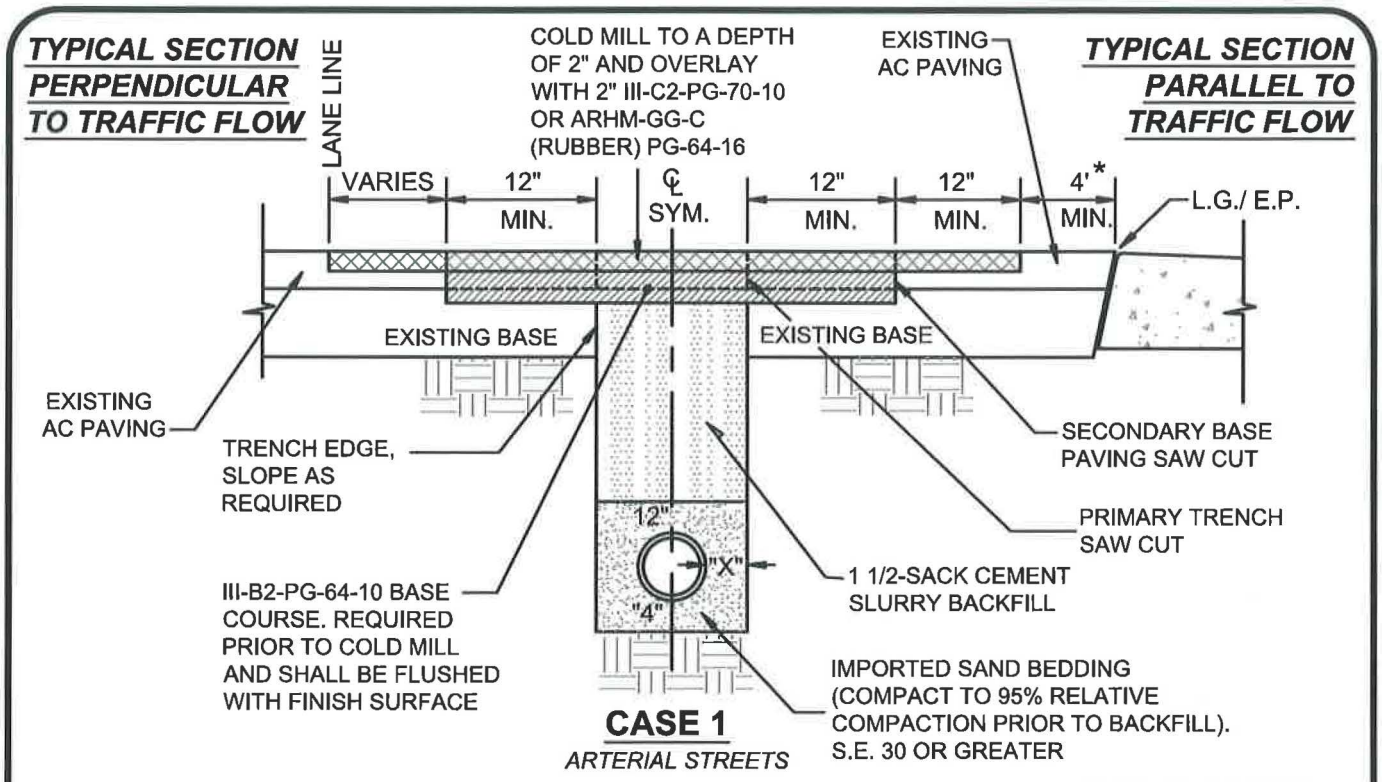
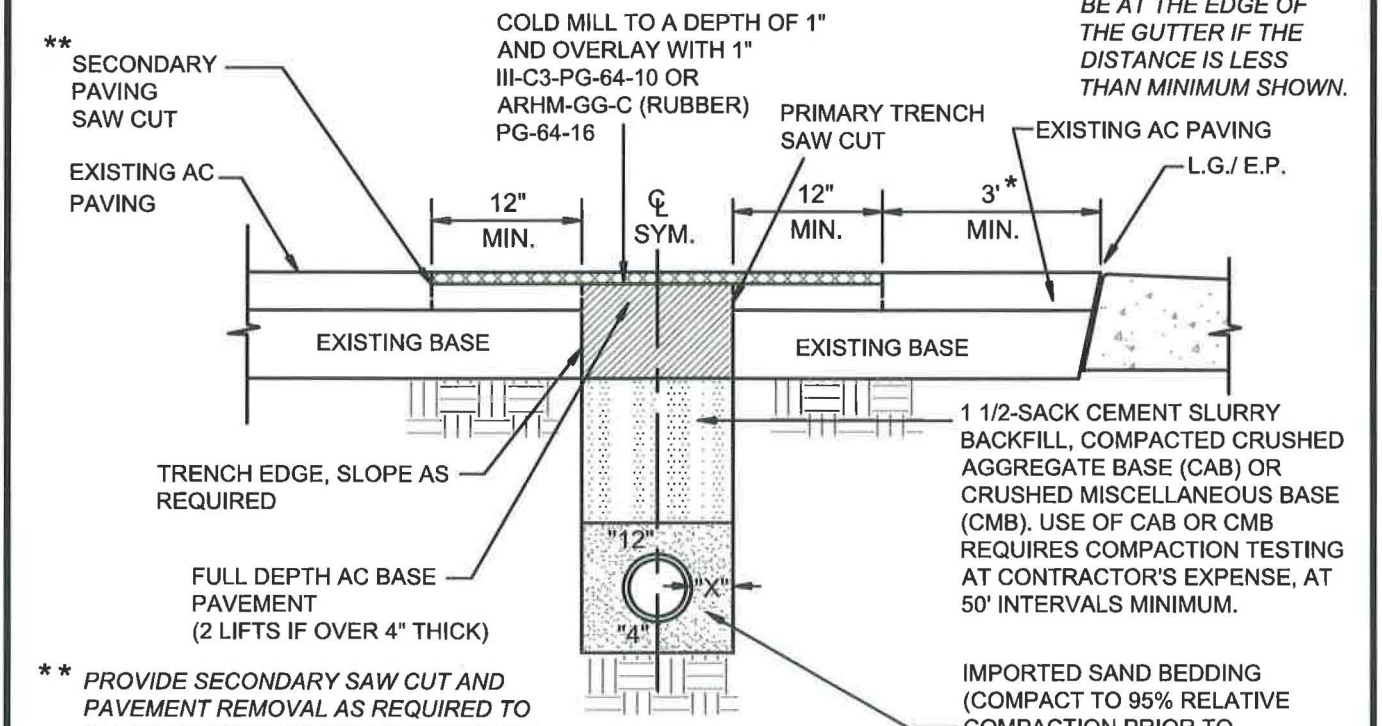


CASE 1

ARTERIAL STREETS

**OVERLAY LIMIT SHALL BE AT THE EDGE OF THE GUTTER IF THE DISTANCE IS LESS THAN MINIMUM SHOWN.*



*** PROVIDE SECONDARY SAW CUT AND PAVEMENT REMOVAL AS REQUIRED TO CLEAN UP ANY BROKEN, UNDERCUT OR UNEVEN EDGES.*

CASE 2

LOCAL STREETS

BREA CALIFORNIA

CITY OF BREA

TRENCHING DETAILS

APPROVED: CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER 102-0

SHEET 1 OF 3

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NOTES:

1. BASE COURSE SHALL BE B2-PG-64-10, AND SHALL BE CONSTRUCTED AT 1" GREATER DEPTH THAN EXISTING PAVING, BUT NO LESS THAN 4" THICK.
2. FINAL CAP SHALL BE III-C2-PG-70-10 OR ARHM-GG-C (RUBBER) PG-64-10.
3. APPLY #30 SILICA SAND EVENLY TO FINISHED PAVEMENT AND EXPOSED TACK COAT.
4. AC PAVEMENT SHALL BE SAW CUT OR COLD MILLED. NO PAVEMENT BREAKERS ALLOWED.
5. ALL LIQUIDS GENERATED BY SAW CUTTING SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH THE CITY'S NPDES PERMIT.
6. EDGES OF SAW CUT AND SURFACE, SHALL BE TACK COATED WITH AN APPROVED TYPE SS-1H EMULSION WITH NO MORE THAN 50% WATER ADDED. EDGES SHALL BE CLEAN AND DRY BEFORE TACK COAT APPLICATION.
7. SAW CUTTING MUST BE COMPLETED IN ADVANCE OF PAVING WITH SUFFICIENT TIME TO ALLOW MOISTURE TO EVAPORATE BEFORE APPLYING SS-1H TO EDGES.
8. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE PUBLIC RIGHT-OF-WAY EACH WORK DAY AND DELIVERED TO AN APPROVED LANDFILL OR ALTERNATE SITE WITH CITY ENGINEER'S APPROVAL.
9. THE CONTRACTOR SHALL FILE WITH THE CITY ENGINEER A RECYCLED MATERIALS CERTIFICATE TO COMPLY WITH AB 939 AS REQUIRED.
10. COMPACTION TEST SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY ENGINEER.
11. IF SOFT, SPONGY OR UNSTABLE MATERIAL IS ENCOUNTERED AT TRENCH BOTTOM, THE MATERIAL SHALL BE REMOVED AND REPLACED WITH BASE MATERIAL TO A DEPTH ORDERED BY THE CITY ENGINEER.
12. DISTANCE "X" SHALL BE 6" MINIMUM OR AS SPECIFIED ON PLAN, STANDARD PLAN, OR BY UTILITY.
13. UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY, PROVIDE A TRAFFIC CONTROL PLAN PER WATCH MANUAL OR AS REQUIRED BY TRAFFIC ENGINEER.
14. AN INSPECTION REQUEST MUST BE MADE 24 HOURS PRIOR TO WORK.
15. CONTRACTOR SHALL SET UP TRAFFIC CONTROL IN COMPLIANCE WITH WATCH MANUAL,OR AS THE APPROVED TRAFFIC CONTROL PLANS.
16. ALL FINISHED REPAIRS SHALL BE WITHIN 0.125" OF EXISTING AC SURFACE.
17. SECONDARY SAW CUT (IF REQUIRED) SHALL BE CLEAN, STRAIGHT, VERTICAL EDGES A MINIMUM OF 12" BEYOND THE PRIMARY TRENCH CUT. SAW CUT AS REQUIRED TO ACHIEVE A CONTINUOUS STRAIGHT EDGE INCORPORATING ANY AREAS OF PAVING BROKEN OUT OR UNDERMINED DURING CONSTRUCTION.
18. SUB-GRADE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE DENSITY.
19. FINISHED PAVEMENT SURFACE SHALL EXHIBIT A SMOOTH, UNIFORM APPEARANCE FREE OF VOIDS AND SEGREGATION.
20. TRAFFIC CONTROL MEASURES ARE TO REMAIN IN PLACE UNTIL THE NEW PAVEMENT IS ALLOWED TO COOL AND WILL ACCEPT TRAFFIC WITHOUT SCUFFING OR RUTTING.
21. COLD MILL (2" MIN.) SHALL BE COMPLETED A MAXIMUM OF 10 DAYS AFTER COMPLETION OF BASE COURSE.
22. COLD MILL SHALL EXTEND 10' (FEET) OUTSIDE OF EXCAVATION LIMITS PERPENDICULAR TO TRAFFIC FLOW AND 12" (INCHES) OUTSIDE OF EXCAVATION PARALLEL TO TRAFFIC FLOW.

BREA CALIFORNIA CITY OF BREA	TRENCHING DETAILS		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 102-0 SHEET 2 OF 3

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NOTES:

23. FOR LONGITUDINAL TRENCHES OVER 150' IN LENGTH, A MINIMUM 10' WIDE, 2" GRIND AND OVERLAY IS REQUIRED.
24. THE PIPE ZONE WIDTH SHALL BE A MINIMUM OF 12" PLUS THE PIPE DIAMETER AND THE MAXIMUM OF 20" PLUS THE PIPE DIAMETER, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK).
25. IN THE EVENT OF TRENCH WALL FAILURE, TRENCH LIMITS MAY BE EXTENDED AS DETERMINED BY THE CITY ENGINEER. ADDITIONAL BACKFILL REQUIREMENTS MAY BE REQUIRED.
26. FULL AC REPLACEMENT OF THE ASPHALT BETWEEN THE TRENCH AND THE CURB OR GUTTER SHALL BE REQUIRED FOR ANY TRENCH WHERE THE PAVEMENT REMOVAL IS WITHIN 3' OF CURB OR GUTTER.
27. REMOVAL OF 5 OR MORE SEPARATE AREAS OF PAVEMENT WITHIN A 150' LONGITUDINAL LENGTH OF STREET SHALL REQUIRE A TYPE II SLURRY SEAL EXTENDED 5' BEYOND THE LIMITS OF THE OUTERMOST PAVEMENT REMOVAL.

BASIC TRENCH REPAIR PROCEDURES:

A. VERIFY COMPLIANCE WITH ALL PERMIT, INSPECTION AND TRAFFIC CONTROL REQUIREMENTS.

B. PERFORM PRIMARY TRENCH SAW CUT AND COMPLETE UTILITY INSTALLATION AND BACKFILL. TEMPORARY STEEL TRENCH PLATE COVERS SHALL BE PLACED EVEN WITH ADJACENT PAVEMENT SURFACES ON ARTERIAL HIGHWAYS.

C. VERIFY TRAFFIC CONTROL AND INSPECTION REQUIREMENTS ARE IN COMPLIANCE.

D. PERFORM SECONDARY BASE PAVING SAW CUT AND CONSTRUCT BASE COURSE AND FINAL CAP PER REQUIREMENTS.

E. ALLOW AC TO COOL (SEE NOTE 20), CLEAN UP AND RESTORE TRAFFIC ACCESS.

F. OBTAIN APPROVAL FROM THE CITY ENGINEER TO PERFORM COLD MILL AND FINAL PAVING.

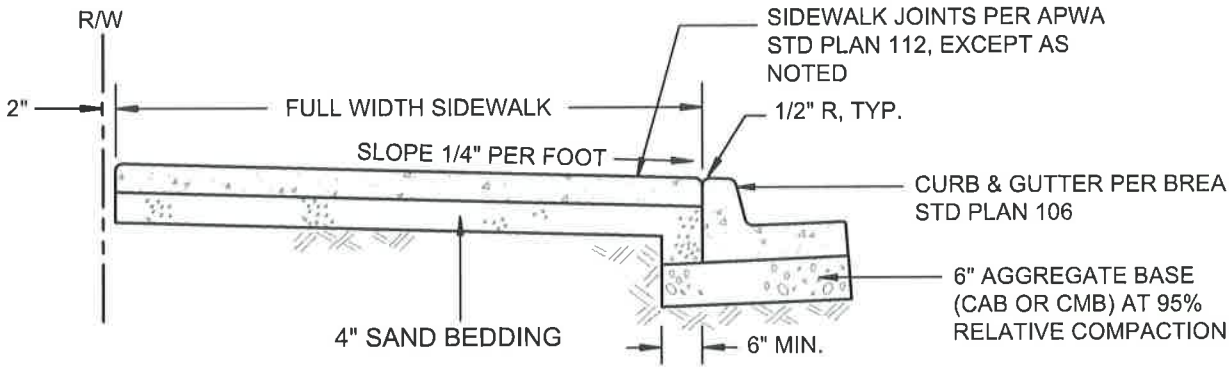
G. PERFORM ANY REPAIR NECESSARY TO TRENCH PAVING AS DIRECTED BY THE CITY ENGINEER.

H. COMPLETE COLD MILL AND FINAL PAVING OPERATION.

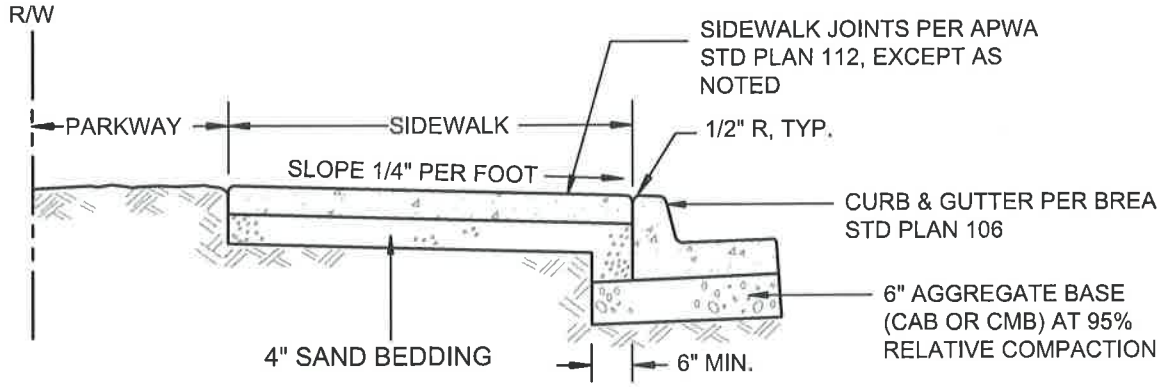
I. EXCAVATION IN STREETS WHICH HAVE BEEN CONSTRUCTED OR RECONSTRUCTED WITHIN THE PAST FIVE (5) YEARS AND SEAL COATED WITHIN THE PAST TWO (2) YEARS SHALL BE SUBJECT TO RESTRICTIONS.

BREA CALIFORNIA CITY OF BREA	TRENCHING DETAILS		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 102-0 SHEET 3 OF 3

BID DOCUMENT - FOR BIDDING PURPOSES ONLY



SECTION-1



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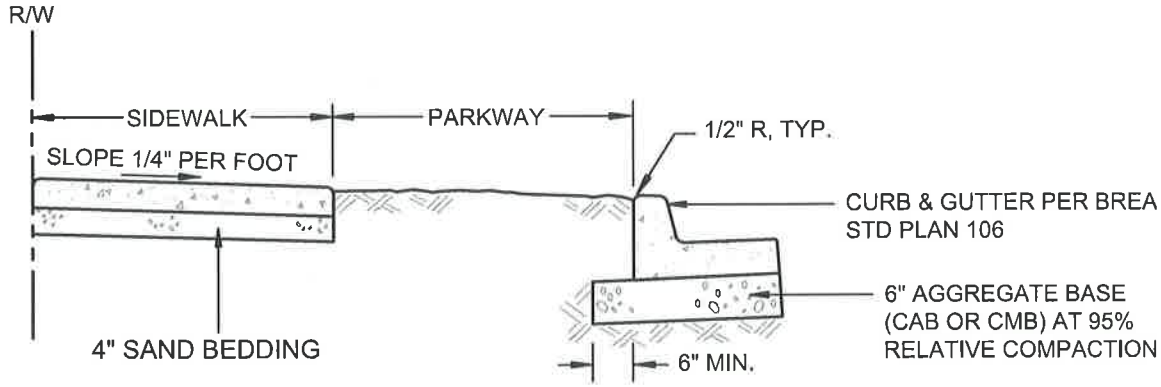


SECTION-3

TYPICAL SECTIONS

NOTES: SEE SHEET-2

CITY OF BREA

SIDEWALK

APPROVED: _____ CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER
103-0
SHEET 1 OF 2

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NOTES:

1. WIDTH OF SIDEWALK SHALL BE AS SHOWN ON PLANS OR DIRECTED BY CITY ENGINEER. CONSTRUCT FULL WIDTH SIDEWALK IN COMMERCIAL ZONES, OR WHERE LOTS BACK TO THE STREET.
2. SIDEWALK THICKNESS = 4"
3. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 60' INTERVALS AND AT ENDS OF ALL CURB RETURNS, WEAKENED PLANE JOINTS SHALL BE PLACED AT 20' INTERVALS, OR AS DIRECTED BY CITY ENGINEER.
4. EXPANSION JOINTS, WEAKENED PLANE JOINTS AND SCORING LINES FOR SIDEWALKS SHALL BE PLACED TO COINCIDE WITH JOINTS AND MARKINGS OF THE CURB.
5. CONCRETE SHALL BE PER CITY OF BREA STD PLAN 101.
6. MAKE TRANSVERSE JOINTS AND SCORING RADIAL ON CURVED STREETS.
7. TRANSVERSE "LIGHT BROOM" FINISH FOR LONGITUDINAL GRADES UNDER 10%. TRANSVERSE "HEAVY BROOM" FINISH FOR LONGITUDINAL GRADES OVER 10%.
8. SEE BREA STD PLAN 101 GENERAL NOTES, NOTE NO.4, FOR MONUMENTATION.

BREA CALIFORNIA
CITY OF BREA

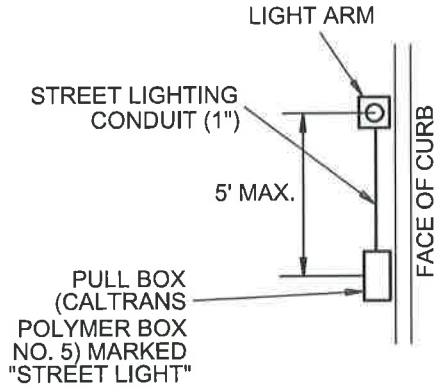
SIDEWALK

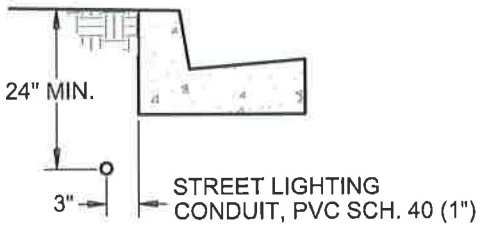
APPROVED: _____ CITY ENGINEER

DATE: 10-15-2013

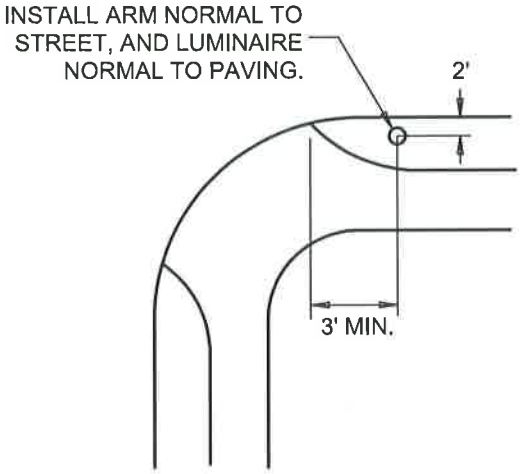
STD. PLAN NUMBER
103-0
SHEET 2 OF 2

BID DOCUMENT - FOR BIDDING PURPOSES ONLY





CONDUIT LOCATION



NOTE: STREET NAME SIGNS MAY BE MOUNTED ON ELECTROLIERS WITH "SIDE-ARM" BRACKETS. SEE BREA STD PLAN 506.

CORNER INSTALLATION

CITY OF BREA

STREET LIGHTING LOCATION DETAILS

APPROVED: CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER 505-0

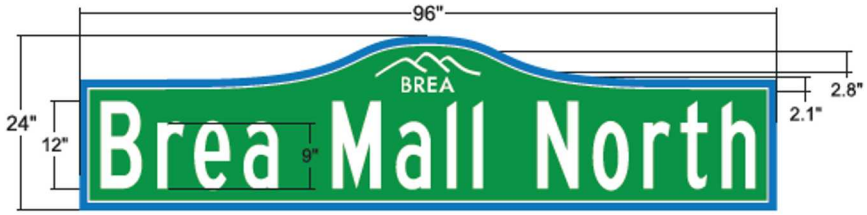
SHEET 1 OF 1

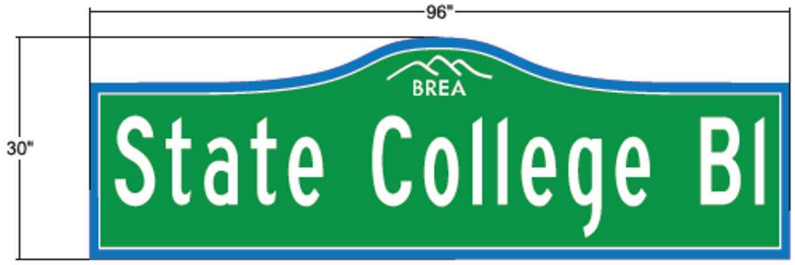
BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Order Layout Form

Date: 9/4/2018	Customer name: Brea
Salesperson: Erick / Marina	Work order #: Layout Account #: 2010

Designed By: AA





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BREA OVERFHEAD SPECIFICATIONS:

HIP (High Intensity Prismatic) 3M – type 4.
.040" aluminum - 5052 H38 alloy
Double Sided - Border is traffic Blue, White lettering on Traffic green background

12" Upper case, 9" Lower caser
96" x 30" (with decending Letters) - 96" x 24"
72" x 30" (with decending Letters) - 72" x 24"

ZUMAR SINCE 1947
INFO@ZUMAR.COM | ZUMAR.COM

ARIZONA | 7833 N. 106th Avenue | Glendale, AZ 85307 | 623-931-7446
CALIFORNIA | 9719 Santa Fe Springs Road | Santa Fe Springs, CA 90670 | 562-941-4633
WASHINGTON | 12015 Steele Street South | Tacoma, WA 98444 | 253-536-7740

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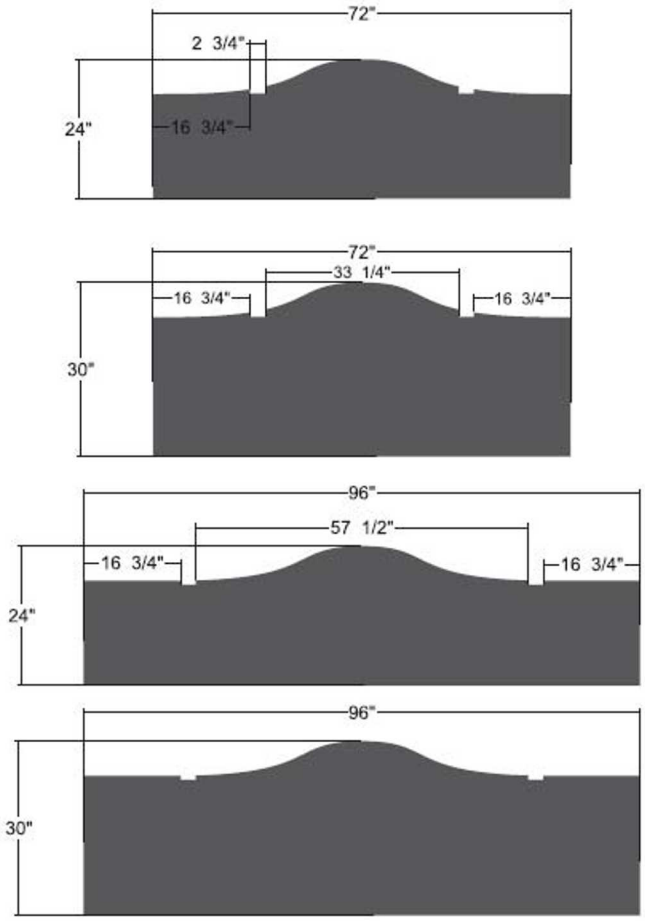
Order Layout Form

Date: 9/4/2018	Customer name: Brea
Salesperson: Erick / Marina	Work order #: Layout Account #: 2010

.040" Aluminum Blanks - 5052 H38 alloy



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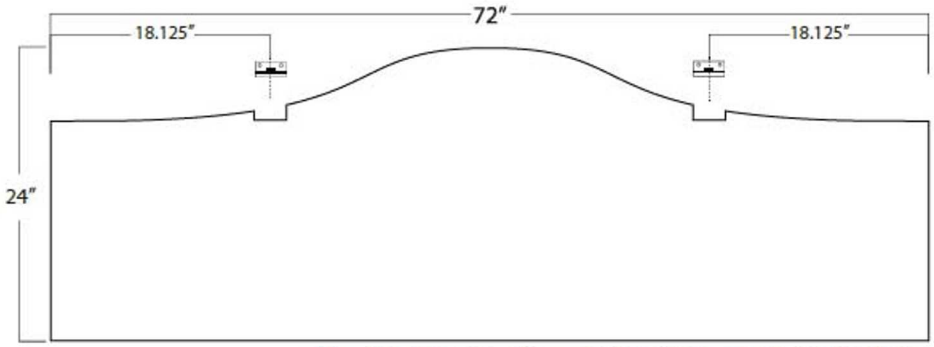
WASHINGTON | 12015 Steele Street South | Tacoma, WA 98444 | 253-536-7740

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

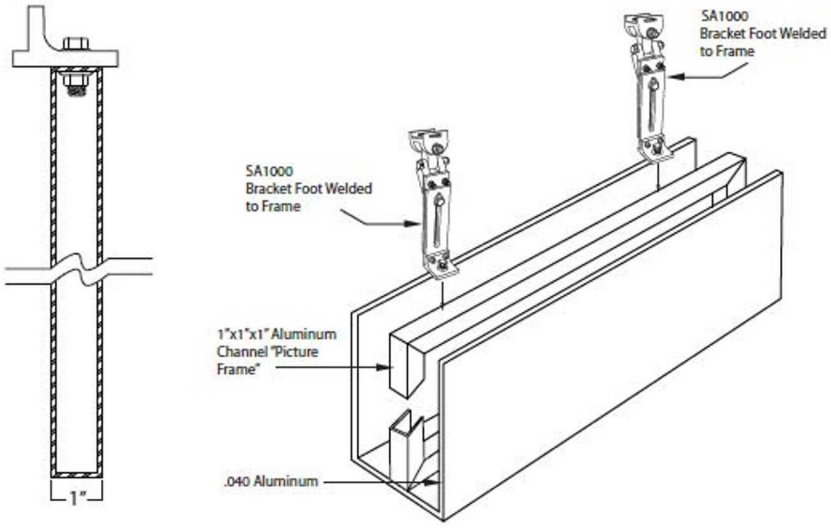
Order Layout Form

Date: 9/4/2018	Customer name: Brea SG07
Salesperson: Erick Gustafson	Work order #: Layout Account #: -

Designed By: JM



Brea SG07 Aluminum Sizes - 24" x72", 30" x 72, 24"x 96", 30" x 96"



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NOV Pole Products | Ameron™ Poles
2333 South Yukon Avenue
Tulsa, Oklahoma 74107
1-800-282-6376
www.ameronpoles.com

Transmittal Letter

November 7, 2022
REVISION A

To:

WALTERS WHOLESALE-BREA
200 N BERRY STREET
BREA, CA 92821

Attention:
Sales Order: 188980
Purchase Order: S121647792
Project: CITY OF BREA SIGNAL POLE ORDER

We are sending you

- [x] Attached
- [ ] Under Separate Cover Via:

- [x] Design Drawings
- [ ] Specification
- [ ] Calculations
- [ ] Samples
- [ ] Total Quantity
- [ ] Other

Page	Drawing No.	Rev	Description
1	J188980-1	A	PROJECT MATERIAL LIST
2	CA15415	D	CALTRANS 2010 RSP, 2015 RSP, 2018 or 2018 RSP CASE 5 (28, 29 & 29A) TRAFFIC POLES W/ SHORT ARMS
3	CA10103	C	STANDARD CALTRANS 2010/2015/2018/2010 RSP/2015 RSP/2018 RSP STRAIGHT N STYLE LMA
4	CA15014	E	CALTRANS 2010 RSP, 2015 RSP, 2018 or 2018 RSP CASE 4 TRAFFIC POLES
5	CA18020	M	CALTRANS 2018 RSP PUSH BUTTON ASSEMBLY POST

SHOP DRAWING REVIEW

The ENGINEER'S review and approval of this submittal are expressly limited as provided in the CONTRACT DOCUMENTS and are only to determine compliance with information given in the CONTRACT DOCUMENTS and conformance with the design concept of the completed project as a functioning whole. CONTRACTOR is, and ENGINEER is NOT responsible for all matters relating to fabrication, shipping, handling, storage, assembly, installation and construction, for all safety aspects of performance the work and for coordinating the work.

☒ APPROVED AS SUBMITTED ☐ APPROVED AS NOTED
☐ REVISE AND RESUBMIT ☐ NOT APPROVED

BY: 11-9-2022 DATE: SPK

These are transmitted as checked below:

- [x] For Approval
- [ ] For Review and Comment
- [ ] Returned Corrected Prints
- [ ] For Information
- [x] Revised
- [x] Comments

Comments:

REV. A:(QTY2) PBA POSTS (4'-5") EA, P1 & P5 SIGNAL SPACING CHANGED.

Copy to:

These documents represent our interpretation of the requirements for your order. **PLEASE EXAMINE THEM CAREFULLY AND MAKE ANY CHANGES NEEDED**. Return one signed and approved copy to us. Your order will be made accordingly. In the event that the approval agency does not take responsibility for the accuracy of the drawing details, then a customer signature will be needed indicating that the drawings meet all the requirements of the project plans, specifications and geometry, see customer signature below. **NOTE THAT THE CHANGES THAT ARE NOT IN CONFORMANCE TO OUR QUOTATION MAY INCUR ADDITIONAL CHARGES**. If this drawing is marked "FOR INFORMATION ONLY", please note that this is the product that Ameron intends to furnish. If this will not meet your requirements, Ameron needs to be informed within 10 days from the above date. Any reply beyond that date may incur a delay in shipment and/or additional charges.

Prepared by:

Zimmer, James L 11/7/2022
Signature Date

Drawings for this project are approved as submitted.

Signature Date

Printed Name

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

LAMBERT & CLIFFWOOD

QTY	POLE NUMBER	POLE TYPE	BASE TYPE (FIXED or SLIP)	POLE HEIGHT (FT)	SMA		LMA		QTY TENONS ON SMA	EOA TENON (YES or NO)	TENON DIST. FROM EOA (FT)			ISNS CPLG (YES or NO)	DET U (YES or NO)	SPECIAL NOTES	CALTRANS STANDARD PLAN		AMERON DRAWING	
					LENGTH (FT)	ORIENT. (DEG)	LENGTH (FT)	ORIENT. (DEG)			F1	F2	F3				SHEET NUMBER	APPROVAL DATE	NUMBER	REV.
1	1	29-5-100	-	30	45	0	15	0	3	YES	17	29	-	NO	YES	SHORT ARM, APPROVAL REQ'D.	RSP ES-7G RSP ES-7F	4-17-20 4-17-20	CA15415	D
1	5	29-5-100	-	30	45	0	*15 STR	0	3	YES	14	26	-	NO	YES	SHORT ARM, APPROVAL REQ'D., * STR LMA @ 3° RISE.	RSP ES-7G RSP ES-7F	4-17-20 4-17-20	CA15415 CA10103	D, C
1	5	24-4-100	-	30	35	0	12	0	2	YES	14	-	-	NO	YES		RSP ES-7F	4-17-20	CA15014	E
2	6, -	PBA POST	-	4'-5"	-	-	-	-	-	-	-	-	-	-	-		RSP ES-7A	10-19-18	CA18020	M

NOTES:

1. AMERON RESERVES THE RIGHT TO INSTALL TOOLING LUGS or HOLES TO FACILITATE IN THE GALVANIZING PROCESS. TOOLING LUGS/HOLES WILL NOT IMPEDE WITH FIT, FORM or FUNCTION OF THE FINISHED PRODUCT AND ARE TO BE USED SOLELY BY THE MANUFACTURER.
2. 10 GAGE (0.1345") TUBE MAY BE SUBSTITUTED FOR 11 GAGE (0.1196") BASED ON MATERIAL AVAILABILITY.
3. ANCHOR BOLTS BY OTHERS.
4. FINISH TO BE HOT DIP GALVANIZED PER ASTM A123.
5. IF LOADS (SIGNALS or SIGNS) WERE ADDED TO MAST ARM BEYOND WHAT IS CALLED FOR ON THE CALTRAN STANDARD PLANS, THEN IT VOIDS THE AMERON WARRANTY AND CUSTOMER WOULD BE RESPONSIBLE FOR THE PRODUCT. (e.g. CASE 2 MAST ARM IS GOOD FOR UP TO 2 LOADS).
6. THE TOP OF ALL BACKUP BARS SHALL BE CAULKED AFTER GALVANIZING PER CALTRANS STANDARD PLAN SHEET ES-7O or REVISED STANDARD PLAN SHEET RSP ES-7O.

SHOP DRAWING REVIEW

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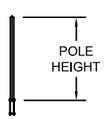
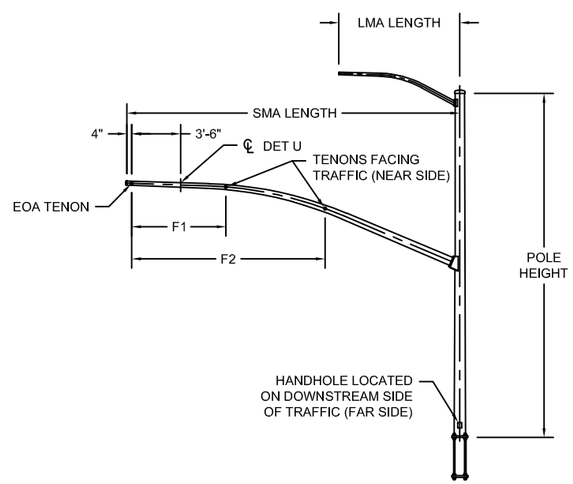
☐ REVISE AND RESUBMIT NOT APPROVED ☐

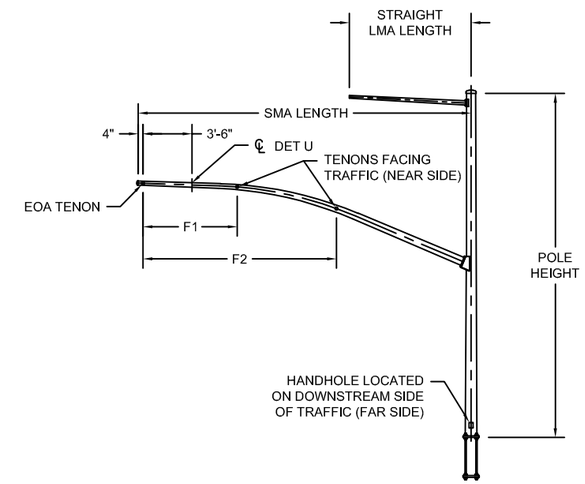
BY: SPK DATE: 11-9-2022



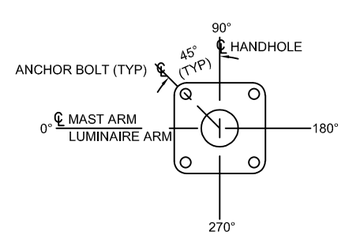
PUSH BUTTON POST
(PBA)



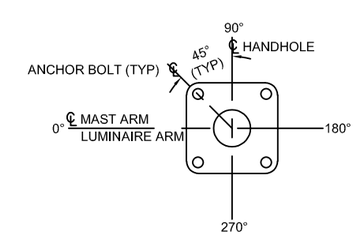
CASE 4 & 5 LOADING
SIGNAL & LIGHTING STANDARD



CASE 5 LOADING
SIGNAL & LIGHTING STANDARD



ORIENTATION (TOP VIEW)
THIS ORIENTATION TO BE USED
UNLESS OTHERWISE SPECIFIED



ORIENTATION (TOP VIEW)
THIS ORIENTATION TO BE USED
UNLESS OTHERWISE SPECIFIED

PROJECT DATA	
AGENCY:	CALTRANS
CALTRANS PLAN YEAR:	2018 RSP
PROJECT NAME/NO.:	CITY OF BREA SIGNAL POLE
LOCATION:	BREA, CA.
CUSTOMER PO:	S121647792
AMERON SO:	188980

Drawings for this project are approved as submitted:

Signature: Date:

REV.	DATE	DESCRIPTION	BY	APPR
A	11/7/22	2 PBA POSTS @ 4'5", P1 & P5 SIGNAL SPACING CHANGED.	JLZ	SAD

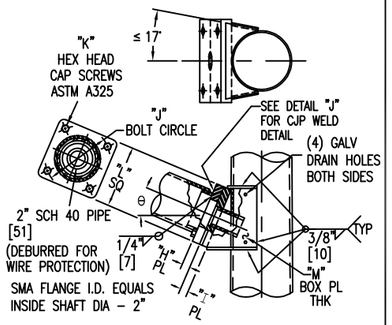
Ameron POLE PRODUCTS NOV
www.ameronpoles.com

CALTRANS
PROJECT MATERIAL LIST FOR
CITY OF BREA SIGNAL POLE

THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO NATIONAL OILWELL VARCO. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF NATIONAL OILWELL VARCO.

DRAWN: JLZ	DATE: 10/19/22	APPR: SAD	DATE: 10/19/22	
DRAWING NUMBER J188980-1		REVISION A	SHEET 1 OF 1	SCALE NTS

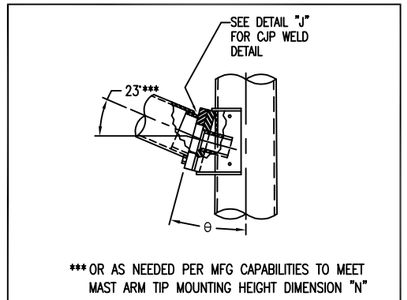
BID DOCUMENT - FOR BIDDING PURPOSES ONLY



DETAIL "D"

MAST ARM CONNECTION

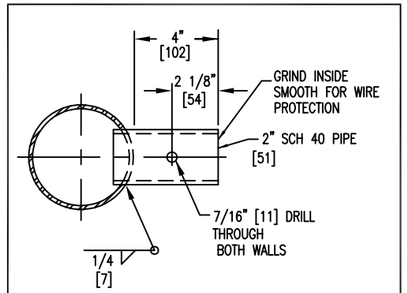
* WELD SEE DETAIL "J"



DETAIL "E"

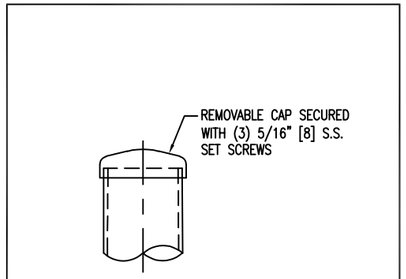
MAST ARM CONNECTION FOR 15FT - 25FT MAST ARMS

* WELD SEE DETAIL "K"



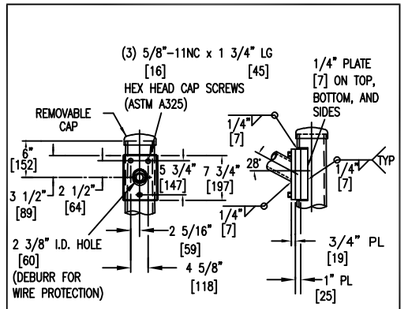
DETAIL "F"

SIDE MOUNTED TENON DETAIL



DETAIL "G"

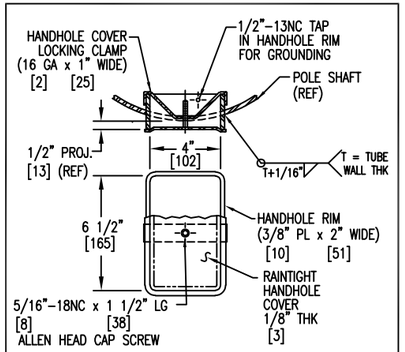
SHAFT TOP DETAIL



DETAIL "H"

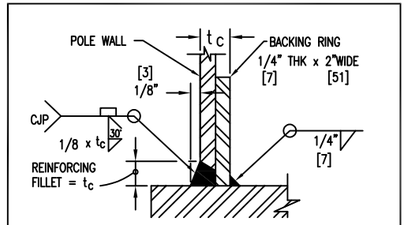
LUMINAIRE ARM CONNECTION

SEE DETAIL "L" FOR DRAIN HOLE DETAIL



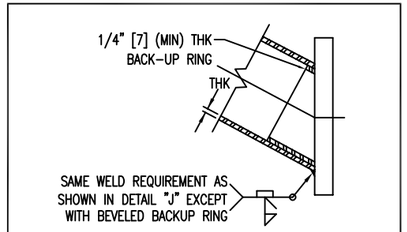
DETAIL "C"

HANDHOLE DETAIL



DETAIL "J"

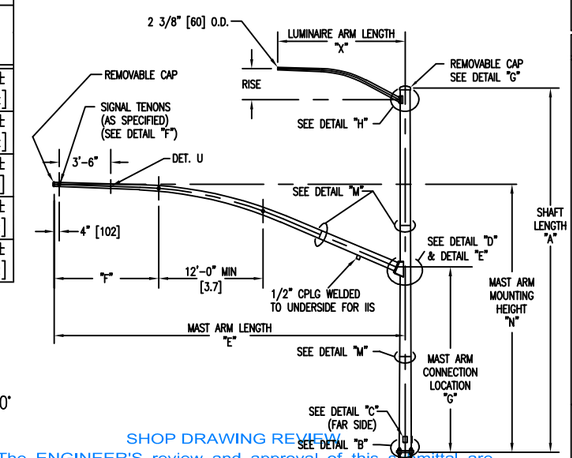
WELD DETAIL

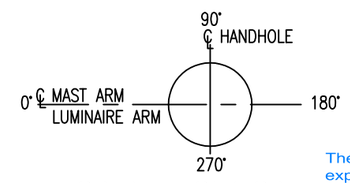


DETAIL "K"

MAST ARM CONNECTION WELD FOR 15FT - 25FT MAST ARMS

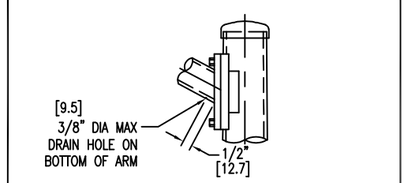
"N" LUMINAIRE ARM		
ARM LENGTH "X"	END O.D. x BASE O.D. x THICKNESS	RISE
6'-0" [1.8]	2 3/8" x 3 5/16" x .120" [60 x 84 x 3.04]	2'-0"± [.61±]
8'-0" [2.4]	2 3/8" x 3 11/16" x .120" [60 x 94 x 3.04]	2'-6"± [.76±]
10'-0" [3.1]	2 3/8" x 3 7/8" x .120" [60 x 98 x 3.04]	3'-3"± [.99±]
12'-0" [3.7]	2 3/8" x 4 5/16" x .120" [60 x 110 x 3.04]	4'-3"± [1.29±]
15'-0" [4.6]	2 3/8" x 4 9/16" x .120" [60 x 110 x 3.04]	4'-9"± [1.45±]





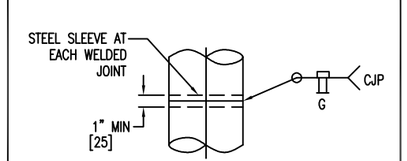
ORIENTATION (TOP VIEW)

THIS ORIENTATION TO BE USED UNLESS OTHERWISE NOTED



DETAIL "L"

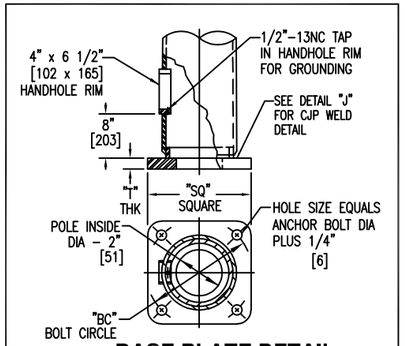
GALV. DRAIN HOLE DETAIL



DETAIL "M"

SPLICE DETAIL

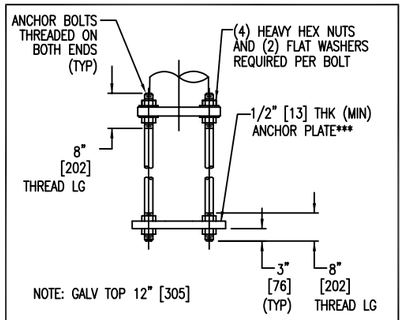
WHEN REQUIRED BASED UPON MATERIAL AVAILABILITY (SEE NOTE 3)



DETAIL "B"

BASE PLATE DETAIL

* WELD SEE DETAIL "J"



DETAIL "A"

ANCHOR BOLT DETAIL

SEE NOTE 4

– – MAST ARM DATA – –																	
MAST ARM LENGTH "E"	MAST ARM DIMENSIONS END O.D. x BASE O.D.	MATERIAL BREAKDOWN .120" [3.04]	.179" [4.55]	.239" [6.07]	.3125" [7.94]	CONN. LOC. "G"	FLANGE THK "H"	FLANGE THK "J"	BOLT CIRCLE "J"	HHCS SIZE DIAMETER x LENGTH "K"	FLANGE SQ "L"	PLATE THK "M"	ARM HEIGHT "N"	ANGLE θ	"F" MIN SPACING	CENTER OF IIS FROM POLE ℄	MAXIMUM LOADS PER MAST ARM
15'-0" [4.6]	5 5/16" x 7 3/8" [135 x 187]	—	15'-0" [4.6]	—	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	21'-8"± [6.6]	15°	8'-0" [2.5]	10'-6" [3.2]	3
20'-0" [6.1]	4 5/8" x 7 3/8" [117 x 187]	—	20'-0" [6.1]	—	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	21'-8"± [6.6]	15°	8'-0" [2.5]	10'-6" [3.2]	3
25'-0" [7.6]	3 15/16" x 7 3/8" [100 x 187]	—	—	25'-0" [7.6]	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	22'-8"± [6.9]	15°	10'-0" [3.1]	10'-6" [3.2]	4
30'-0" [9.1]	3 7/8" x 8" [98 x 203]	—	—	30'-0" [9.1]	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	23'-0"± [7.0]	15°	12'-0" [3.7]	10'-6" [3.2]	4
35'-0" [10.7]	3 7/8" x 8 11/16" [98 x 222]	—	—	35'-0" [10.7]	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	23'-0"± [7.0]	15°	14'-0" [4.3]	10'-6" [3.2]	4
40'-0" [12.2]	3 7/8" x 9 3/8" [98 x 238]	—	—	40'-0" [12.2]	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	23'-0"± [7.0]	15°	15'-0" [4.6]	13'-0" [4.0]	4
45'-0" [13.7]	4 1/16" x 10 1/4" [103 x 260]	—	—	45'-0" [13.7]	—	16'-0" [4.88]	1 3/4" [45]	1 3/4" [45]	16" [406]	1 1/2"-6NC x 3 1/4" [38] [83]	21" [533]	3/8" [10]	23'-8"± [7.2]	15°	15'-0" [4.6]	13'-0" [4.0]	4

– – POLE DATA – –											
POLE DESCRIPTION	MAX SHAFT LENGTH "A"	SHAFT DIMENSIONS TOP OD x BASE OD	MATERIAL BREAKDOWN .179" [4.55]	.239" [6.07]	.312" [7.94]	.375" [7.94]	BASE SQUARE "SQ"	BOLT CIRCLE "BC"	BASE THK "T"	ANCHOR BOLT DIMENSIONS	MAX. MAST ARM LENGTH "E"	LUMIN ARM LENGTH "X"
28-5-100	17'-6" [5.3]	20 1/16" x 22 7/16" [509 x 570]	—	—	—	17'-0" [5.2]	30" [762]	28" [711]	3" [76]	2 1/4" x 42" [57 x 1067]	25'-0" [4.6] -to- 45'-0" [13.7]	—
29-5-100	30'-0" [9.1]	18 5/16" x 22 7/16" [465 x 570]	—	—	—	30'-0" [9.1]	30" [762]	28" [711]	3" [76]	2 1/4" x 42" [57 x 1067]		6'-0" to 15'-0" [1.8 to 4.6]
29A-5-100	35'-0" [10.7]	17 5/8" x 22 7/16" [448 x 570]	—	—	—	30'-0" [9.1]	30" [762]	28" [711]	3" [76]	2 1/4" x 42" [57 x 1067]		

SHOP DRAWING REVIEW

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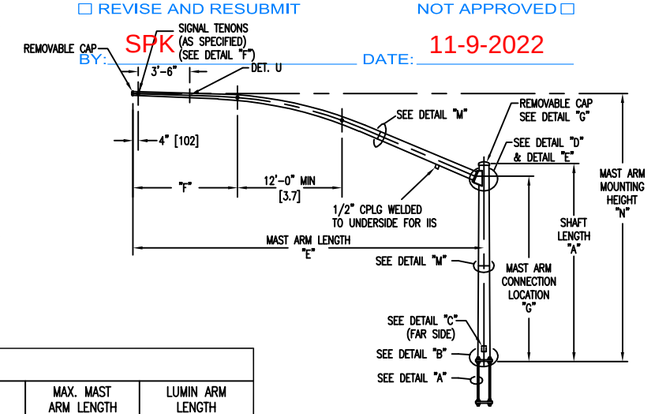
☐ REVISE AND RESUBMIT — NOT APPROVED ☐

BY: SPK DATE: 11-9-2022

29-5-100 29A-5-100



28-5-100

GENERAL NOTES

MATERIAL SPECIFICATIONS	
SHAFT	STEEL OF 55 K.S.I. MINIMUM YIELD AFTER FABRICATION
BASE PLATES, FLANGES AND MISC. PLATE	STEEL OF 50 K.S.I. MIN YIELD
PIPE	ASTM A53 GRADE B or ASTM A500 GRADE B
ANCHOR BOLTS	ASTM F1554 GR 55

MANUFACTURING PROCESSES	
BUTT WELDS	GROUND FLUSH WITH BASE METAL
LONGITUDINAL WELDS	BUTT WELDED BY ELECTRICAL RESISTANCE PROCESS
CIRCUMFERENTIAL	BUTT WELDED WITH PERMANENT BACKUP RING

FINISH COATING	
STRUCTURE	HOT DIP GALVANIZE PER ASTM A123
HARDWARE	HOT DIP GALVANIZE PER ASTM A153

DESIGN CRITERIA	
STRUCTURE AND HARDWARE	REF (MAST ARMS): CALTRANS 2010 REVISED STANDARD PLANS RSP ES-7E & RSP ES-7F DATED 7-15-16 or 2015 REVISED STANDARD PLANS RSP ES-7E & RSP ES-7F DATED 7-21-17 or 2018 STANDARD PLANS ES-7E & ES-7F DATED 5-31-18 or 2018 REVISED STANDARD PLANS RSP ES-7E & RSP ES-7F DATED 4-17-20 REF (POLES): CALTRANS 2010 REVISED STANDARD PLAN RSP ES-7G DATED 7-15-16 or 2015 REVISED STANDARD PLAN RSP ES-7G DATED 7-21-17 or 2018 STANDARD PLAN ES-7G DATED 5-31-18 or 2018 REVISED STANDARD PLAN RSP ES-7G DATED 4-17-20
WELDING	IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 WELDING CODE OR AS SPECIFIED IN PROJECT PLANS

NOTES:

1. DESIGN NUMBER:
   29-5-100-45-15-DWG NO.
   POLE DESCRIPTION; SIGNAL ARM LENGTH; LUMINAIRE ARM LENGTH
2. DIMENSIONS IN [ ] ARE METRIC. FEET ARE CONVERTED TO METERS, INCHES TO MILLIMETERS.
3. IF SPLICE IS REQUIRED, 1/8"x1" (MIN) BACKUP RING TO BE USED FOR UNIFORM TUBE THICKNESS or 1/8"x3" BACKUP RING TO BE USED FOR TUBE THICKNESS CHANGE PER RSP ES-7N DETAIL T.
4. ANCHOR BOLTS WITH HEX NUTS, FLAT WASHERS & ANCHOR PLATE TO BE SUPPLIED BY OTHERS. SEE SUPPLIER FOR DIMENSIONAL DATA OF ANCHOR PLATE.

REV	DATE	DESCRIPTION	BY	APPR
D	8/29/19	ADDED DETAIL "E"	JMW	SAD
C	4/15/19	ADDED 2018 SPEC, DETAIL "L" & NOTES	JMW	SAD
B	8/18	UPDATED POLE TUBE MATERIAL THK.	RD2	SAD
A	6/17	REMOVED "2015" FROM TITLE BLOCK	GL	JJ

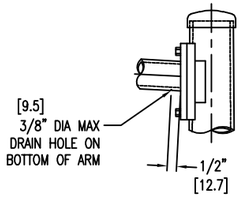
Ameron POLE PRODUCTS DIVISION

2010 RSP or 2015 RSP or 2018 or 2018 RSP STANDARD CALTRANS
15FT–45FT SMA FOR 28, 29 & 29A-5-100

THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AMERON. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF AMERON.

DRAWN: GL	DATE: 12/16	SCALE: NTS	DWG NO. CA15415	REV D
APPR: JJ	DATE: 12/16			

BID DOCUMENT - FOR BIDDING PURPOSES ONLY



GALVANIZING DRAIN HOLE DETAIL

DETAIL "A"

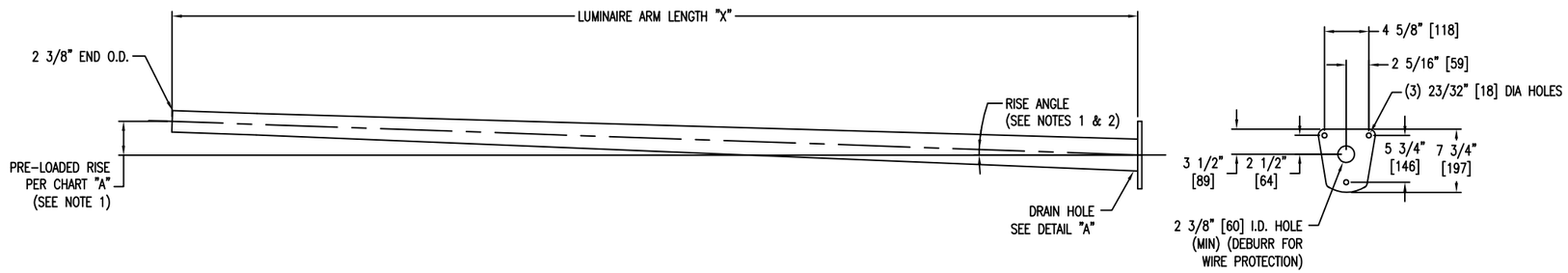
SHOP DRAWING REVIEW

The ENGINEER'S review and approval of this submittal are expressly limited as provided in the CONTRACT DOCUMENTS and are only to determine compliance with information given in the CONTRACT DOCUMENTS and conformance with the design concept of the completed project as a functioning whole. CONTRACTOR is, and ENGINEER is NOT responsible for all matters relating to fabrication, shipping, handling, storage, assembly, installation and construction, for all safety aspects of performance the work and for coordinating the work.

SPK 11-9-2022

☒ APPROVED AS SUBMITTED APPROVED AS NOTED ☐
☐ REVISE AND RESUBMIT NOT APPROVED ☐

BY: _____ DATE: _____



"N" STYLE STRAIGHT LUMINAIRE ARMS

"N" LUMINAIRE ARM						
ARM LENGTH "X"	END O.D. x BASE O.D. x THICKNESS	RISE "A"				
		ANGLE 1°	ANGLE 2°	ANGLE 3°	ANGLE 4°	ANGLE 5°
6'-0" [1.8]	2 3/8" x 3 1/4" x .120" [60 X 83 X 3]	1 1/4" [32]	2 1/2" [64]	3 3/4" [95]	5" [127]	6 5/16" [160]
8'-0" [2.4]	2 3/8" x 3 1/2" x .120" [60 X 89 X 3]	1 11/16" [43]	3 3/8" [86]	5" [127]	6 11/16" [170]	8 7/16" [214]
10'-0" [3.0]	2 3/8" x 3 7/8" x .120" [60 X 98 X 3]	2 1/16" [52]	4 3/16" [106]	6 5/16" [160]	8 3/8" [213]	10 1/2" [267]
12'-0" [3.7]	2 3/8" X 4 3/16" X .120" [60 X 106 X 3]	2 1/2" [64]	5" [127]	7 9/16" [192]	10 1/16" [256]	12 5/8" [321]
15'-0" [4.6]	2 3/8" x 4 7/16" x .120" [60 X 113 X 3]	3 1/8" [79]	6 5/16" [160]	9 7/16" [240]	12 9/16" [319]	15 3/4" [400]

-- GENERAL NOTES --

MATERIAL SPECIFICATIONS	
SHAFT	STEEL OF 55 K.S.I. MINIMUM YIELD AFTER FABRICATION
PLATES AND FLANGES	STEEL OF 50 K.S.I. MINIMUM YIELD
PIPE	ASTM A53 GR B or ASTM A500 GR B

MANUFACTURING PROCESSES	
BUTT WELDS	GROUND FLUSH WITH BASE METAL
LONGITUDINAL WELDS	BUTT WELDED BY THE ELECTRICAL RESISTANCE WELD PROCESS

FINISH COATING	
STRUCTURE	HOT DIP GALVANIZED PER ASTM A123
HARDWARE	HOT DIP GALVANIZED PER ASTM A153

DESIGN CRITERIA	
STRUCTURE AND HARDWARE	IN ACCORDANCE WITH THE "SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" AASHTO 2001 (100 MPH)
WELDING	IN ACCORDANCE WITH THE LATEST EDITION OF A.W.S. D1.1 WELDING CODE or AS SPECIFIED ON THE PROJECT PLANS

NOTES:

1) CUSTOMER TO SPECIFY RISE ANGLE AT TIME OF ORDER. RISE ANGLE CAN BE 1°, 2°, 3°, 4° or 5°
2) IF RISE ANGLE IS NOT SPECIFIED, 3° WILL BE SUPPLIED.

REV	DATE	DESCRIPTION	BY	APPR
C	3/11/19	ADDED DETAIL "A"	JMW	SAD
B	8/16	ADDED 2015 CALTRANS	GL	JJ
A	9/13	ADD RISE TO TABLE	MHM	BB

Ameron POLE PRODUCTS DIVISION

2010/2015/2018 CALTRANS STR. "N" STYLE LUM. ARMS

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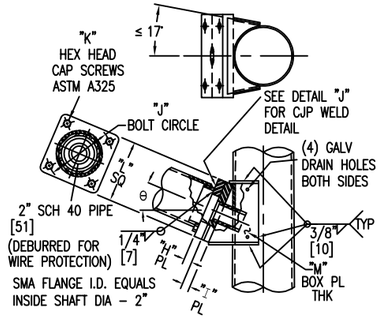
DRAWN: BB	DATE: 8/12	SCALE	CA10103	REV
APPR: JJ	DATE: 8/12	NTS		C

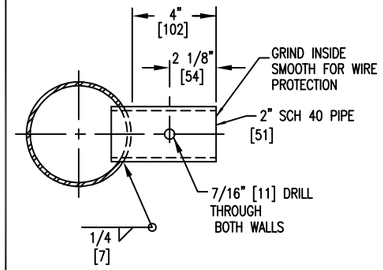
BID DOCUMENT - FOR BIDDING PURPOSES ONLY



DETAIL "E"

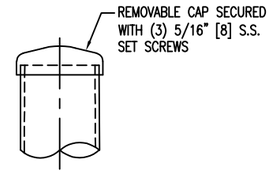
MAST ARM CONNECTION

* WELD SEE DETAIL "J"



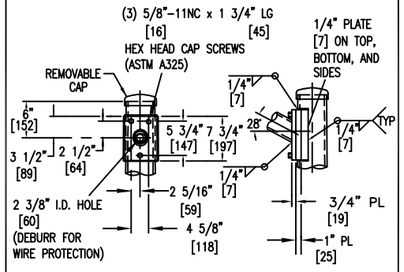
DETAIL "F"

SIDE MOUNTED TENON DETAIL



DETAIL "G"

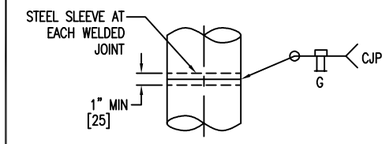
SHAFT TOP DETAIL



DETAIL "H"

LUMINAIRE ARM CONNECTION

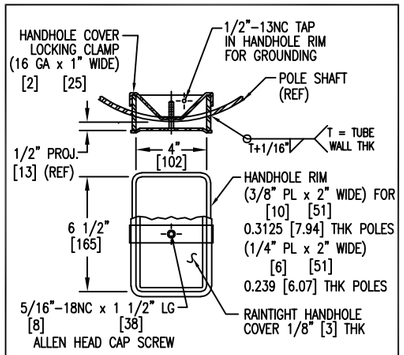
SEE DETAIL "K" FOR DRAIN HOLE DETAIL



DETAIL "L"

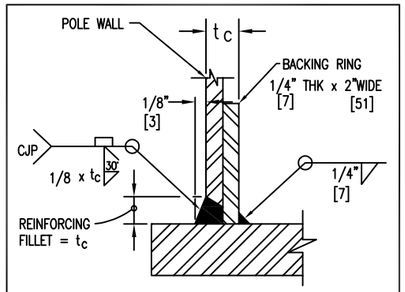
SPLICE DETAIL

WHEN REQUIRED BASED UPON MATERIAL AVAILABILITY (SEE NOTE 4)



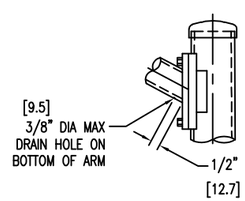
DETAIL "C"

HANDHOLE DETAIL



DETAIL "J"

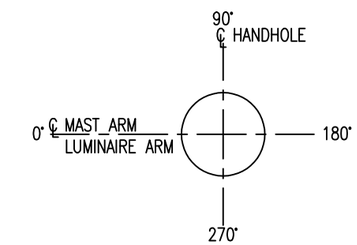
WELD DETAIL



DETAIL "K"

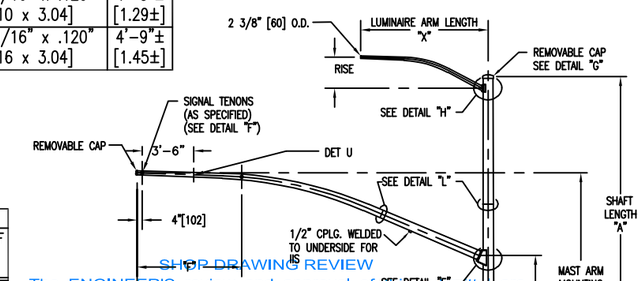
GALV. DRAIN HOLE DETAIL

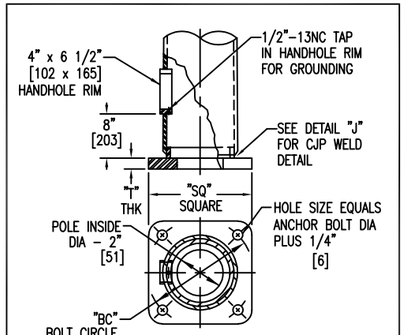
"N" LUMINAIRE ARM		
ARM LENGTH "X"	END O.D. x BASE O.D. x THICKNESS	RISE
6'–0" [1.8]	2 3/8" x 3 5/16" x .120" [60 x 84 x 3.04]	2'–0"± [.61±]
8'–0" [2.4]	2 3/8" x 3 11/16" x .120" [60 x 94 x 3.04]	2'–6"± [.76±]
10'–0" [3.1]	2 3/8" x 3 7/8" x .120" [60 x 98 x 3.04]	3'–3"± [.99±]
12'–0" [3.7]	2 3/8" x 4 5/16" x .120" [60 x 110 x 3.04]	4'–3"± [1.29±]
15'–0" [4.6]	2 3/8" x 4 9/16" x .120" [60 x 116 x 3.04]	4'–9"± [1.45±]



ORIENTATION (TOP VIEW)

THIS ORIENTATION TO BE USED UNLESS OTHERWISE NOTED

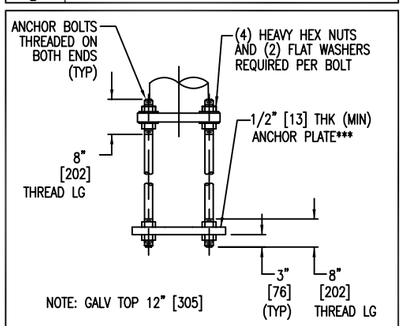




DETAIL "B"

BASE PLATE DETAIL

* WELD SEE DETAIL "J"



DETAIL "A"

ANCHOR BOLT DETAIL

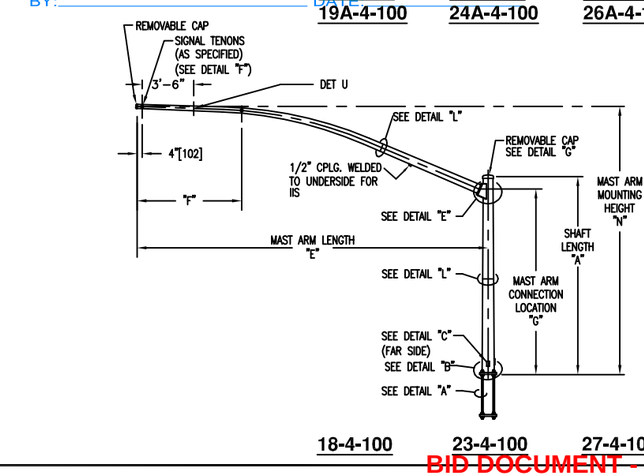
SEE NOTE 5

– – MAST ARM DATA – –

MAST ARM LENGTH "E"	MAST ARM DIMENSIONS END O.D. x BASE O.D.	MATERIAL BREAKDOWN .120" [3.04]	.1793" [4.55]	.2391" [6.07]	.3125" [7.94]	CONN. LOC. "G"	FLANGE THK "H"	FLANGE THK "I"	BOLT CIRCLE "J"	HHCS SIZE DIAMETER x LENGTH "K"	FLANGE SQ "L"	PLATE THK "M"	ARM HEIGHT "N"	ANGLE θ	"F" MIN SPACING	CENTER OF IIS FROM POLE ℄
25'–0" [7.6]	3 15/16" x 7 3/8" [100 x 187]	—	—	25'–0" [7.6]	—	16'–0" [4.88]	1 1/4" [32]	1 1/2" [38]	12" [305]	1 1/4"–7NC x 3" [32] [76]	15" [381]	3/8" [10]	22'–8"± [6.9]	23°	10'–0" [3.1]	10'–6" [3.2]
30'–0" [9.1]	3 7/8" x 8" [98 x 203]	—	—	30'–0" [9.1]	—	16'–0" [4.88]	1 1/4" [32]	1 1/2" [38]	12" [305]	1 1/4"–7NC x 3" [32] [76]	15" [381]	3/8" [10]	23'–0"± [7.0]	23°	12'–0" [3.7]	10'–6" [3.2]
35'–0" [10.7]	3 7/8" x 8 11/16" [98 x 222]	—	—	35'–0" [10.7]	—	16'–0" [4.88]	1 1/2" [38]	1 3/4" [45]	13 1/2" [343]	1 1/4"–7NC x 3" [32] [76]	15" [381]	3/8" [10]	23'–0"± [7.0]	21°	14'–0" [4.3]	10'–6" [3.2]
40'–0" [12.2]	3 7/8" x 9 3/8" [98 x 238]	—	—	40'–0" [12.2]	—	16'–0" [4.88]	1 1/2" [38]	1 3/4" [45]	13 1/2" [343]	1 1/4"–7NC x 3" [32] [76]	15" [381]	3/8" [10]	23'–0"± [7.0]	15°	15'–0" [4.6]	13'–0" [4.0]
45'–0" [13.7]	4 1/16" x 10 1/4" [103 x 260]	—	—	45'–0" [13.7]	—	16'–0" [4.88]	1 1/2" [38]	1 3/4" [45]	13 1/2" [343]	1 1/4"–7NC x 3" [32] [76]	17" [432]	3/8" [10]	23'–8"± [7.2]	15°	15'–0" [4.6]	13'–0" [4.0]

– – POLE DATA – –

POLE DESCRIPTION	SHAFT LENGTH "A"	SHAFT DIMENSIONS TOP O.D. x BASE O.D.	MATERIAL BREAKDOWN .120" [3.04]	.1793" [4.55]	.2391" [6.07]	.3125" [7.94]	BASE SQUARE "SQ"	BOLT CIRCLE "BC"	BASE THK "T"	ANCHOR BOLT –or– ROD DIMENSIONS	MAST ARM LENGTH "E"	LUMINAIRE ARM LENGTH "X"
18–4–100	17'–0" [5.2]	13 15/16" x 16 1/4" [353 x 413]	—	—	17'–0" [5.2]	—	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]	25'–0" [7.6] –or– 30'–0" [9.1]	—
19–4–100	30'–0" [9.1]	12 1/8" x 16 1/4" [308 x 413]	—	10'–0" [3.1]	20'–0" [6.1]	—	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]		6'–0" TO 15'–0" [1.8 TO 4.6]
19A–4–100	35'–0" [10.7]	11 7/16" x 16 1/4" [291 x 413]	—	15'–0" [4.6]	—	20'–0" [6.1]	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]		6'–0" TO 15'–0" [1.8 TO 4.6]
23–4–100	17'–0" [5.2]	13 15/16" x 16 1/4" [353 x 413]	—	—	—	17'–0" [5.2]	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]	35'–0" [10.7]	—
24–4–100	30'–0" [9.1]	12 1/8" x 16 1/4" [308 x 413]	—	10'–0" [3.1]	—	20'–0" [6.1]	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]		6'–0" TO 15'–0" [1.8 TO 4.6]
24A–4–100	35'–0" [10.7]	11 7/16" x 16 1/4" [291 x 413]	—	15'–0" [4.6]	—	20'–0" [6.1]	23" [584]	21" [533]	3" [76]	2 1/4" x 42" [57 x 1067]		6'–0" TO 15'–0" [1.8 TO 4.6]
26–4–100	30'–0" [9.1]	14 3/16" x 18 5/16" [360 x 465]	—	10'–0" [3.1]	—	20'–0" [6.1]	25" [634]	23" [584]	3" [76]	2 1/4" x 42" [57 x 1067]	40'–0" [12.2] –or– 45'–0" [13.7]	6'–0" TO 15'–0" [1.8 TO 4.6]
26A–4–100	35'–0" [10.7]	13 1/2" x 18 5/16" [343 x 465]	—	15'–0" [4.6]	—	20'–0" [6.1]	25" [634]	23" [584]	3" [76]	2 1/4" x 42" [57 x 1067]		6'–0" TO 15'–0" [1.8 TO 4.6]
27–4–100	17'–0" [5.2]	16" x 18 5/16" [406 x 465]	—	—	—	17'–0" [5.2]	25" [634]	23" [584]	3" [76]	2 1/4" x 42" [57 x 1067]		—



18-4-100 23-4-100 27-4-100

SHOP DRAWING REVIEW

The ENGINEER'S review and approval of SHOP DRAWINGS or submittal are expressly limited as provided in the CONTRACT DOCUMENTS and are only to determine compliance with information given in the CONTRACT DOCUMENTS and conformance with the design concept of the completed project as a functioning whole. CONTRACTOR is, and ENGINEER is NOT responsible for all matters relating to fabrication, shipping, handling, storage, assembly, installation and construction, for all aspects of performance the work and for coordinating the WORK.

☒ APPROVED AS SUBMITTED APPROVED AS NOTED ☐
☐ REVISE AND RESUBMIT NOT APPROVED ☐

BY: SPK DATE: 01-9-2022

19-4-100 24-4-100 26-4-100
19A-4-100 24A-4-100 26A-4-100

--GENERAL NOTES--

MATERIAL SPECIFICATIONS	
SHAFT	STEEL OF 55 K.S.I. MINIMUM YIELD AFTER FABRICATION
BASE PLATE, FLANGES AND MISC. PLATE	STEEL OF 50 K.S.I. MINIMUM YIELD
PIPE	ASTM A53 GR B or ASTM A500 GR B
ANCHOR BOLTS	ASTM F1554 GR 55

MANUFACTURING PROCESSES	
BUTT WELDS	GROUND FLUSH WITH BASE METAL
LONGITUDINAL WELDS	BUTT WELDED BY THE ELECTRICAL RESISTANCE PROCESS.
CIRCUMFERENTIAL WELDS	BUTT WELD WITH PERMANENT BACK–UP RING

FINISH COATING	
STRUCTURE	HOT DIP GALVANIZE PER ASTM A123
HARDWARE	HOT DIP GALVANIZE PER ASTM A153

DESIGN CRITERIA	
STRUCTURE AND HARDWARE	REF: CALTRANS 2010 REVISED STANDARD PLAN RSP ES–7F DATED 7–15–16 or 2015 REVISED STANDARD PLAN RSP ES–7F DATED 7–21–17 or 2018 STANDARD PLAN ES–7F DATED 5–31–18 or REVISED STANDARD PLAN RSP ES–7F DATED 4–17–20
WELDING	IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 WELDING CODE or AS SPECIFIED IN PROJECT PLANS

NOTES:

1. DESIGN NUMBER:
   19–4–100–30–15
   POLE DESCRIPTION — LUMINAIRE ARM LENGTH — SIGNAL ARM LENGTH
2. DIMENSIONS IN [ ] ARE METRIC. FEET ARE CONVERTED TO METERS, INCHES TO MILLIMETERS.
3. POLE SHAFT TUBE MAY BE MADE w/ BOTTOM THICKNESS THE FULL TUBE LENGTH, BASED ON MATERIAL AVAILABILITY.
4. IF SPLICE IS REQUIRED, 1/8"x1" (MIN) BACKUP RING TO BE USED FOR UNIFORM TUBE THICKNESS or 1/8"x3" BACKUP RING TO BE USED FOR TUBE THICKNESS CHANGE PER RSP ES–7N DETAIL T.
5. ANCHOR BOLTS WITH HEX NUTS, FLAT WASHERS & ANCHOR PLATE TO BE SUPPLIED BY OTHERS. SEE SUPPLIER FOR DIMENSIONAL DATA OF ANCHOR PLATE.

REV	DATE	DESCRIPTION	BY	APPR
E	3/21/19	REVISED WELD SYMBOL IN SPLICE DETAIL	RD2	SAD
D	1/21/19	ADDED 2018 CALTRANS SPECS & NOTES 4 & 5	JMW	SAD
C	3/18	REV. WELD DETAIL FROM "J" TO "D" ON DTL "E"	GL	GM
B	8/17	REVISED CALTRANS RSP DATES	GL	GM
A	6/17	REMOVED "2015" FROM TITLE BLOCK	GL	MHM

Ameron POLE PRODUCTS DIVISION

2010 RSP or 2015 RSP or 2018 or 2018 RSP STANDARD CALTRANS CASE 4–100 MPH

THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AMERON. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF AMERON.

DRAWN: AG	DATE: 10/16	SCALE	DWG NO.	REV
APPR: JL	DATE: 10/16	NTS	CA15014	E

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SHOP DRAWING REVIEW

The ENGINEER'S review and approval of this submittal are expressly limited as provided in the CONTRACT DOCUMENTS and are only to determine compliance with information given in the CONTRACT DOCUMENTS and conformance with the design concept of the completed project as a functioning whole. CONTRACTOR is, and ENGINEER is NOT responsible for all matters relating to fabrication, shipping, handling, storage, assembly, installation and construction, for all safety aspects of performance the work and for coordinating the work.

☒ APPROVED AS SUBMITTED APPROVED AS NOTED ☐
☐ REVISE AND RESUBMIT NOT APPROVED ☐

BY: SPK DATE: 11-9-2022

-- GENERAL NOTES --

MATERIAL SPECIFICATIONS	
BASE PLATE	STEEL OF 50 KSI MIN YIELD
PIPE	ASTM A53 GR B or A500 GR B
ANCHOR BOLTS	ASTM F1554 GR 55

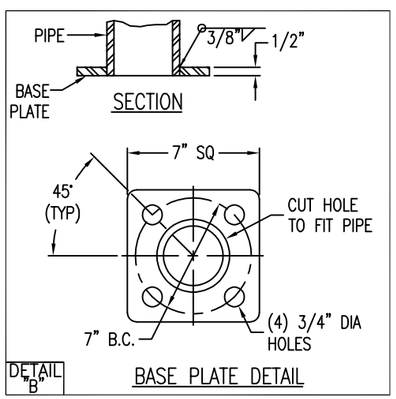
MANUFACTURING PROCESSES	
BUTT WELDS	GROUND FLUSH WITH BASE METAL

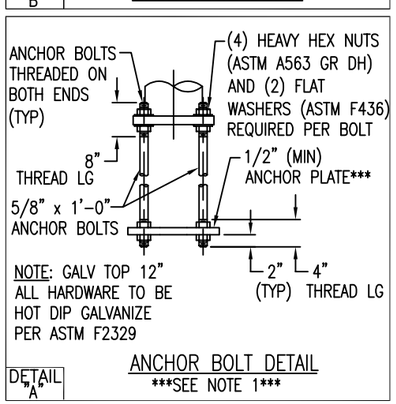
FINISH COATING	
STRUCTURE	HOT DIP GALVANIZE PER ASTM A123
HARDWARE	HOT DIP GALVANIZE PER ASTM A153 or F2329

DESIGN CRITERIA	
STRUCTURE AND HARDWARE	REF: CALTRANS 2018 REVISED STANDARD PLAN RSP ES-7A DATED 10-19-18
WELDING	IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 WELDING CODE OR AS SPECIFIED IN PROJECT PLANS

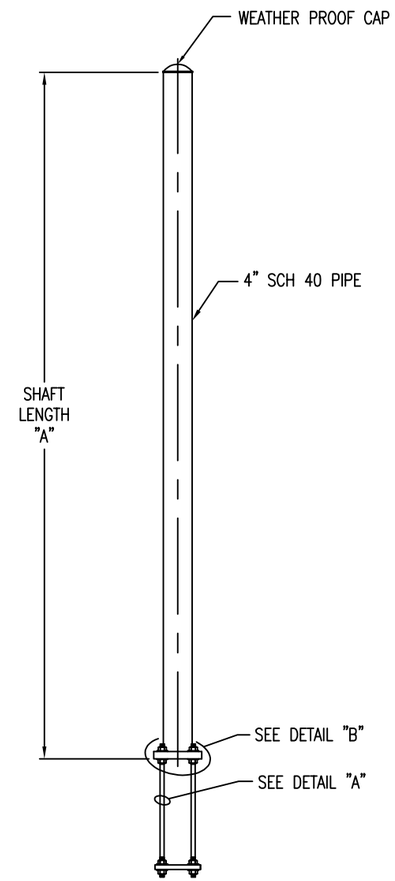
NOTES:

1. ANCHOR BOLTS WITH HEX NUTS, FLAT WASHERS & ANCHOR PLATE TO BE SUPPLIED BY OTHERS. SEE SUPPLIER FOR DIMENSIONAL DATA OF ANCHOR PLATE.





POLE DATA	
POLE TYPE	SHAFT LENGTH "A"
PBA-30	3'-0"
PBA-34	3'-4"
PBA-36	3'-6"
PBA-37	3'-7"
PBA-310	3'-10"
PBA-40	4'-0"
PBA-42	4'-2"
PBA-45	4'-5"
PBA-47	4'-7"
PBA-48	4'-8"
PBA-50	5'-0"
PBA-51	5'-1"
PBA-55	5'-5"
PBA-57	5'-7"
PBA-60	6'-0"
PBA-70	7'-0"
PBA-100	10'-0"



ELEVATION

REV	DATE	DESCRIPTION	BY	APPR
M	4/20/22	ADDED PBA-100	WAS	SAD
L	3/15/22	ADDED PBA-60	JLZ	SAD
K	2/22/22	ADDED PBA-48	WAS	SAD
J	11/10/21	ADDED PBA-55	JLZ	SAD
H	8/9/21	ADDED PBA-70	JLZ	SAD
G	7/15/21	ADDED PBA-51	JLZ	SAD
F	1/13/21	ADDED PBA-34	JLZ	SAD
E	9/1/20	ADDED PBA-45	JLZ	SAD
C	10/16/19	ADDED PBA-50	JLZ	SAD
B	9/5/19	ADDED PBA-42	RD2	SAD
A	7/30/19	ADDED PBA-310	RD2	SAD

Ameron POLE PRODUCTS DIVISION

2018 RSP
STANDARD CALTRANS
PUSH BUTTON ASSEMBLY POST

THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AMERON. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF AMERON.

DRAWN: JMW	DATE: 1/24/19	SCALE	DWG NO.	REV
APPR: SAD	DATE: 1/25/19	NTS	CA18020	M

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

APPENDIX B

CONTRACTORS BUSINESS LICENSE APPLICATION

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

CITY OF BREA

BUSINESS LICENSE TAX APPLICATION
OUT-OF-CITY CONTRACTORS

Please submit completed application with payment (see fee schedule below) and copy of current contractor's license (pocket card) to:

City of Brea, Business License Division,
1 Civic Center Cir., Brea, CA 92821
(714) 990-7686 office Fax (714) 671-4484
BusinessLicenseInfo@CityOfBrea.net

1. BUSINESS NAME (use exact name as contractor's license)	START DATE (Brea)	
2. BUSINESS ADDRESS (physical address)	BUSINESS TELEPHONE NO.	BUSINESS FAX NO.
3. MAILING NAME AND ADDRESS (if different from business address) Include corp. name if applicable	NO. OF EMPLOYEES (Brea)	
	LOCAL CONTACT NAME, TITLE, RESIDENCE PHONE NO.	
4. TYPE OF BUSINESS: State fully the exact nature of business.		
5. FEDERAL EMPLOYER ID NO.	STATE EMPLOYER ID NO. (EDD #)	
6. CALIFORNIA STATE CONTRACTOR'S LICENSE NO. & CLASSIFICATION	CALIFORNIA SELLER'S PERMIT NO./ RESALE NO. (if applicable)	CALIFORNIA STATE PROFESSIONAL LICENSE NO. (if applicable)

OWNER/OFFICER INFORMATION

7. Please check the type of ownership and complete information.

☐ Sole Proprietorship	☐ Partnership	☐ Husband & Wife	☐ Limited Liability	☐ Corporation	☐ Trust

Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Sole or Partnership):	DL # (Only Sole or Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Partnership):	DL # (Only Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:

PAYMENT OF THIS TAX DOES NOT CONSTITUTE ZONING, BUILDING, OR FIRE CODE APPROVAL. CHECK WITH THE DEVELOPMENT SERVICES DEPARTMENT TO DETERMINE IF YOUR BUSINESS CAN BE LEGALLY ESTABLISHED AT YOUR LOCATION.

8. **I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

Signature _____ Print Name _____ Title _____ Date _____

FOR OFFICE USE ONLY

ACCOUNT NO.	ORDINANCE	CLASSIFICATION
EFFECTIVE DATES	ISSUE DATES	FEE

NOTES:

SCHEDULE OF FEES (based on State contractor's classification):

	3-Months	6-Months	1-Year
CLASS A- General Engineering Contractor	$50.00	$90.00	$150.00
CLASS B- General Building Contractor	$40.00	$60.00	$100.00
CLASS C- Specialty Contractor	$20.00	$36.00	$ 60.00

Rev. 01/10

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

APPENDIX C

INSURANCE AND INDEMNITY REQUIREMENTS

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

City of Brea Insurance Requirements

Construction Projects

(Capital improvement projects, other construction and remodeling, etc.)

Asbestos Related Projects

(Abatement, removal, etc.)

The insurance requirements below summarize, but do not supersede, the insurance requirements addressed in the body of the Bid Specifications. You are advised to refer to the bid specifications in addition to the information provided below. (Some projects may have different/additional requirements).

It is highly recommended that you consult your insurance carrier(s) or broker(s) to determine in advance of bid submission the availability and cost of insurance as prescribed and provided herein. Failure to comply with the insurance requirements may result in your bid or proposal not being considered for award of contract. While unlikely to be granted, any proposed deviations from the standards listed below will require City pre-approval.

Type of Insurance Coverage	**General Liability**	**Automobile Liability**	**Workers' Compensation**
Required by Contract?	Yes	Yes	Yes
Minimum Limits of Coverage	$2,000,000 Combined Single Limit Per Occurrence Minimum	$2,000,000 Combined Single Limit Per Occurrence Minimum	Workers' Compensation to Statutory Limits; $1,000,000 Employers' Liability Limit
Minimum A.M. Best's Guide Rating / Other Requirements	A / VII	A / VII	A / VII or State Compensation Insurance Fund
Additional Insured Endorsement Required? Need ISO Form Numbered CG 20 10 11 85 or similar	Yes	Yes	No
Waiver of Subrogation Endorsement Required?	Yes	Yes	Yes
Comments	Contract may require higher limits. Any asbestos clean-up will require "Environmental Impairment Liability Insurance" as per contract specifications.	Unless Contractor establishes that no vehicles will be used.	Not needed for sole proprietors or partnerships with no employees.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

APPENDIX D

UNDERGROUND SERVICE ALERT IDENTIFICATION NUMBER FORM

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

UNDERGROUND SERVICE ALERT
IDENTIFICATION NUMBER

(To be completed only by the awarded Contractor prior to excavation)

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

Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a Permit to Excavate will be valid.

To obtain a Dig Alert Identification Number, call Underground Service Alert at **1-800-422-4133** a minimum of two working days before scheduled excavation.

Dig Alert Identification Number: _____

_____

Contractor

_____

By

_____

Title

Date: _____

Note: ***This form is required for every*** *Dig Alert Identification Number* ***issued by U.S.A. during the course of the Work. Additional forms may be obtained from the AGENCY upon request***

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

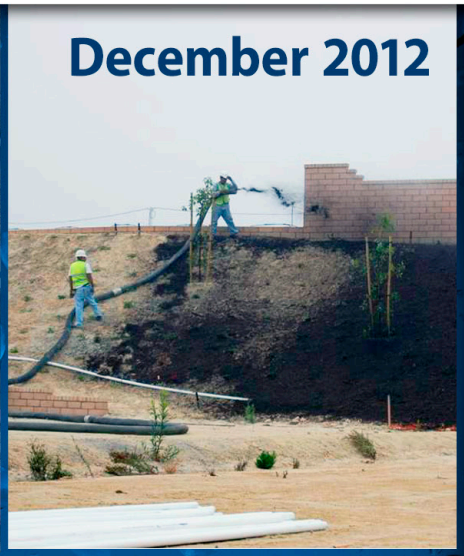
APPENDIX E

NPDES REQUIREMENTS
CONSTRUCTION BEST MANAGEMENT PRACTICES

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Construction Runoff Guidance Manual

for Contractors, Project Owners, and Developers



December 2012

Orange County Stormwater Program:
A Cooperative Project of the County of Orange,
Cities of Orange County and
Orange County Flood Control District

PROJECT Pollution PREVENTION

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Erosion prevention is to be used as the most important measure for keeping sediment on site during construction. Permanent revegetation or landscaping shall be done as early as feasible at a minimum.

Table 3: Physical / Vegetative Stabilization BMPs

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
Scheduling	Sequencing construction activities to reduce the amount of exposed soil during seasons of higher precipitation probability. All projects should consider scheduling activities to minimize the amount of disturbed area during seasons of higher precipitation probability. Phasing can be used to maintain stabilized areas (vegetation or impervious cover) as much as possible during construction. Disturbed areas should be stabilized as soon as practical. Attempt to schedule grading outside of seasons of higher precipitation probability. Reference: CASQA EC-1, EC-2
Seeding	Applying seed to a surface with the intention of achieving vegetation which can effectively protect soils from erosion while reducing runoff by encouraging infiltration / transpiration. Seeding is effective for temporary and permanent stabilization of slopes, stock piles, and other disturbed soils. Seeds can be combined with mulch and water then sprayed onto surfaces (also referred to as hydro seeding) for immediate erosion protection. Without combining or covering seeds with mulch seeds will be susceptible to erosion until vegetation has sufficiently established. Supplemental irrigation may be required to establish vegetation. Scarifying surfaces prior to seed application can increase its effectiveness. Reference: CASQA EC-4
Soil Binders	Spraying a liquid compound to disturbed soils to bind and stabilize the soil surface (forming a crust). This process reduces the potential for wind and water erosion. Examples include: guar, psyllium, starch, gypsum, pitch and rosin emulsion, polymers, and acrylates. Soil binders are effective for temporary stabilization of slopes, stockpiles, and other disturbed areas. Soil binders need time to cure and should not be applied less than 24 hours before predicted precipitation. The specific soil binder selected depends on the type of soil. Soil binders must be non-toxic and environmentally benign. Soil binders will need to be reapplied as needed based on the specific soil binder and visual inspection. Soil binders are much less effective in areas that receive traffic. Reference: CASQA EC-5
Mulching	Covering disturbed soils with a fibrous wood, straw, or similar material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Mulching is effective for temporary stabilization of slopes, stock piles, and other disturbed soils. Mulch materials can be combined with water then sprayed onto surfaces (also referred to as hydraulic mulch) for increased wind erosion protection. Typically, mulch must be reapplied every 6 to 12 months. Soil roughening prior to mulch application can increase its effectiveness. Reference: CASQA EC-3, EC-6, EC-8
Geotextiles and Mats	Covering disturbed soils with a natural or synthetic blanket or mat. This process greatly reduces the potential for wind and water erosion. Some rolls and mats physically hold the soil in place. Example include: geotextiles, plastic covers, rolled erosion control blankets / mats, straw / mulch blanket, coconut fiber blanket, and plastic netting. Geotextiles and mats are effective for temporary stabilization of steep slopes with high erosion potential, stockpiles, and channels that will be vegetated. Geotextiles and mats are more expensive than other erosion control BMPs. Materials may need to be removed prior to final stabilization. Mats / blankets are most effective when in direct contact with the soil; do not roughen soil or leave significant rocks / roots. Mats / blankets typically require an anchoring mechanism to hold them in place. Mats / blankets should be laid parallel to the

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
	direction of flow. Mats / blankets should allow water to flow on top of them and not below which would cause the soil to wash out. Reference: CASQA EC-7
Non-Vegetative Stabilization	Covering disturbed soils with a non-vegetative material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Examples include: decomposed granite, gravel, and rock slope protection. Other non-vegetative stabilization is effective for temporary and permanent stabilization of areas with heavy vehicular or pedestrian traffic or areas where a vegetative cover is infeasible. Other non-vegetative stabilization is intended to be used in combination with additional erosion control and sediment control BMPs. If used for permanent stabilization, periodic inspection and maintenance may be required. Material should be selected based on the slope and use of the area. Reference: CASQA EC-16 and Caltrans Standard Specifications May 2006 Section 72-2.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Table 4: Concentrated Flow Erosion Control BMPs

Concentrated Flow Erosion Control: Reducing concentrated flow velocity or protecting concentrated flow paths to prevent erosion.	
Type	**Description**
Dikes, Swales, and Slope Drains	Grading and compacting soil or installing pipe to control / divert / direct runoff. Dikes, swales, and slope drains can be combined to safely convey runoff down a slope, direct runoff to a stabilized channel, reduce potential for flooding, direct runoff to sediment traps / basins. Dikes, swales, and pipes that are used to direct runoff must be properly sized based on the specific application. Typically, slope drains require energy dissipation. Monitor swales and dikes for erosion or accumulation of sediment or debris. Swale and dike slopes should be 2:1 or less. Use vegetation, geotextiles, or mats to stabilize swales. Temporary devices must be removed. Reference: CASQA EC-9, EC-11
Energy Dissipation	Placing rock, riprap, or similar material to reduce erosion from concentrated, high velocity flows. Energy dissipation is effective at pipe outlets, channel linings, and transitions from stabilized to un-stabilized conveyances. Line the area with filter fabric prior to placing rock or riprap. Accumulated sediment may be difficult to remove from energy dissipation area. For pipe outfalls the size of the energy dissipation area will increase with flow rate and/or pipe size. Temporary devices must be removed. Reference: CASQA EC-10, EC-12
Soil Roughening	Mechanically roughening soil (track walking or imprinting) to prepare soil for additional BMPs or create small terraces to break up sheet flow. Soil roughening can be applied to slopes, stockpiles, basins, and other disturbed soil areas. Soil roughening is intended to be used in combination with additional erosion control and sediment control BMPs. A common implementation method is to drive heavy equipment with its treads parallel to the contours of the slope. For long slopes additional terracing may be required. Reference: CASQA EC-15

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3.4.2 Sediment Control (SE)

Sediment control BMPs focus on preventing eroded soil from being discharged from the construction site. The demand placed on sediment control BMPs is dependent upon the effectiveness of the erosion control BMPs. More robust erosion controls will reduce the need for sediment controls and vice versa. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common sediment control BMPs for construction projects.

At a minimum, sediment controls are to be used as a supplement to erosion prevention for keeping sediment on-site during construction, and slope stabilization must be used on all active slopes during rain events regardless of the season and on all inactive slopes during the rainy season and during rain events in the dry season.

Table 5: Perimeter / Linear Control BMPs

Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**
Linear Sediment Controls	Installing sediment control BMPs along contours to reduce runoff velocity, remove sediment, and discourage rill erosion. Examples include: fiber rolls, sand / gravel bags, and straw bales. Linear sediment controls are effective parallel to contours on the face of slopes and at the top and toe of slopes. Linear sediment controls are typically implemented temporarily until slope is stabilized. Straw bales must be anchored and should not be used on the face of slopes. Fiber rolls must be trenched and staked during installation. For Risk Level / LUP Type 2 and 3 projects, the CGP specifies minimum uninterrupted sheet flow lengths for slopes to be 20 feet for slopes under 25%, 15 feet for slopes 25-50%, and 10 feet for slopes over 50%. Reference: CASQA SE-5, SE-6, SE-8, SE-9, SE-14
Perimeter Controls	Installing a barrier to prevent sediment discharges by controlling run-on and run-off around the perimeter of the construction site or limits of grading. Examples include: silt fence, fiber rolls, sand / gravel bags, and straw bales. Perimeter controls are effective when implemented around the perimeter of the construction site or limits of grading. Perimeter controls are not effective when used in a concentrated flow path. Silt fence and fiber rolls require proper installation which includes trenching and staking. Typically, perimeter controls should be installed prior to grading and remain functional until final stabilization is achieved. Maintenance of perimeter controls must be performed as needed. Perimeter controls are a minimum BMP requirement of the CGP. Reference: CASQA SE-1, SE-5, SE-6, SE-8, SE-14

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Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**

Table 6: Storm Drain Inlet Protection BMPs

Storm Drain Inlet Protection: Ponding and/or filtering stormwater to remove pollutants (primarily sediment) from entering the storm drain system.	
Type	**Description**
Storm Drain Inlet Protection	Filtering or ponding of stormwater before it enters a storm drain inlet to reduce the amount of sediment that discharges. Storm drain inlet protection should be implemented at every storm drain inlet that receives runoff from active construction areas. Ponding of sediment laden stormwater can provide the best results if the ponding capacity is appropriate for the tributary drainage area. Ponding may be limited by street traffic constraints. Other sediment controls such as check dams should be used upstream to reduce the amount of sediment that reaches the storm drain inlet protection. After a storm sediment that has settled must be cleaned up. Reference: CASQA SE-10, SE-14.

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Table 7: Sediment Capture BMPs

Sediment Capture: Capturing sediment in channelized stormwater to reduce sediment discharge.	
Type	**Description**
Sediment Trap / Basin	Constructing a temporary containment area to detain runoff to allow for deposition of sediment prior to stormwater discharge. Sediments traps / basins are effective when implemented within the downstream section of a construction site or at discharge points. Sediment traps can be effectively implemented throughout a large construction site. Sediment basins can efficiently be developed at locations where future post-construction basins will be utilized. Sediment traps should only be used for tributary drainage areas below 5 acres. Sediment basins should be used for tributary drainage areas between 5 and 75 acres. Sediment traps / basins can be large and may not be suitable for small construction projects. Sediment traps / basins should be sized by a Registered Civil Engineer to ensure they have sufficient capacity. Sediment traps / basins should not hold water for longer than 72 hours. Local agencies may have stricter vector control and child safety fence requirements. Typically dikes, swales, or piping are required to direct runoff to traps / basins. Reference: CASQA SE-2, SE-3
Check Dams	Constructing small barriers along a swale or channel to reduce channel erosion and allow for deposition of sediment. Check dams are effective for sediment control within un-stabilized concentrated flow paths on the construction site such as swales, ditches, or channels. Typically, check dams are constructed of rock, sand / gravel bags or fiber rolls. Effective check dams will collect sediment behind each check dam which must be removed regularly to maintain the performance of the check dam. Check dams should not be constructed with straw bales or silt fence. Reference: CASQA SE-4, SE-5, SE-6, SE-8

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Table 8: Street Cleaning BMPs

Street Cleaning: Cleaning streets and other paved areas that have collected sediment and/or debris to prevent it from entering the storm drain system.	
Type	**Description**
Street Sweeping and Vacuuming	Cleaning sediment from streets and roadways to reduce the potential discharge to storm drain inlets or receiving waters. Sweeping and vacuuming should be implemented on all paved areas within and adjacent to construction sites. Inspect and maintain areas subject to sediment tracking on a daily basis. Utilize methods that collect and remove sediment instead of methods that simply spread the sediment around. Reference: CASQA SE-7

3.4.3 Wind Erosion Control (WE)

Wind Erosion Control is any practice that protects the soil surface and prevents the soil particles from being detached by wind. Wind Erosion Control is also referred to as dust control.

Table 9: Wind Erosion Control BMPs

Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**
Wind Erosion Control	Preventing wind from causing erosion or dust. Examples include: wet suppression, chemical dust suppression, covering exposed sediment, and minimizing disturbed area though scheduling. Wind erosion control should be implemented at every construction project throughout all disturbed areas. Wet suppression is sufficient for most projects if implemented regularly. Other requirements (Clean Air Act, Air Quality Management Districts, etc.) typically address wind erosion control. Chemical dust suppression should only be implemented when it will have no negative environmental impacts. Reference: CASQA WE-1

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Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**

3.4.4 Tracking Control (TC)

Tracking Control is any practice that prevents or reduces the amount of sediment that is tracked to paved areas from unpaved areas by vehicles or construction equipment.

Table 10: Tracking Control BMPs

Tracking Control: Reducing the amount of sediment that leaves the site from vehicles and construction equipment.	
Type	**Description**
Stabilized Construction Entrance / Exit	Constructing a stabilized surface where sediment can be dislodged from vehicle and equipment tires before being tracked onto off-site paved roads. Stabilized construction entrance / exits should be implemented at every construction project to prevent sediment tracking from the site. Stabilized construction entrances / exits should be 50 feet or more in length. The most common method is to place 3-6 inch rock at least 1 foot high over filter fabric. Additional rock may need to be added as sediment accumulates. Rumble plates can be added for additional sediment removal. Tracking controls are a minimum BMP requirement of the CGP. Reference: CASQA TC-1

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3.4.5 Non-Stormwater Management (NS)

Non-stormwater management is any practice that limits or reduces potential pollutants at their source before they are exposed to stormwater. Non-stormwater management typically involves day-to-day operations of the construction site and is usually under the control of the contractor. Non-stormwater management is often referred to as good housekeeping practices.

Table 11: Non-Stormwater Management BMPs

Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
Vehicle and Equipment Pollution Prevention	Preventing, containing, and disposing of pollutants from cleaning, fueling, and maintaining vehicles and equipment. Vehicle and equipment pollution prevention should occur at every construction project that cleans, fuels, or maintains vehicles or equipment. All cleaning, fueling, and maintenance performed on the site should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Avoid "topping-off" of fuel tanks. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Use drip pans or a secondary containment area for fueling and maintenance. Inspect for equipment leaks daily. Prevent wash water from entering storm drain system. Reference: CASQA NS-8, NS-9, NS-10
Dewatering Operations	Managing and/or treating the discharge of accumulated stormwater or non-stormwater (groundwater or water used during construction activities) to prevent unauthorized discharge. Dewatering operations should be implemented for any discharge of accumulated stormwater or non-stormwater. Primary concern with accumulated stormwater is sediment. Common methods for reducing sediment from a discharge are sediment traps / basins, weir tanks, dewatering tanks, filter bags / socks, media / cartridge filters. Risk Level and LUP Type 2 and 3 projects must sample accumulated stormwater discharge. As an alternative, accumulated stormwater can be pumped to another area on the site for infiltration to eliminate the need to discharge. Non-stormwater discharges typically require a separate discharge permit. An example of a dewatering filter bag for stormwater dewatering discharges is provided below. Reference:

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Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
	CASQA NS-2
Paving and Grinding Operations	Managing paving and grinding operations to reduce the potential for pollutant discharge. Paving and grinding operations should be implemented at every construction project that involves paving, resurfacing, of saw cutting. Avoid paving operations when rain is forecasted. Grindings, saw-cutting slurry, and waste / debris must be collected and recycled or properly disposed of; none of this should be allowed to enter the storm drain system. Do not apply seal coat, tack coat, slurry seal, or fog seal if rain is forecasted within the curing period. Reference: CASQA NS-3

3.4.6 Waste Management and Materials Pollution Control (WM)

Waste management and materials pollution control are practices that limit or reduce or prevent the contamination of stormwater by construction wastes and materials. Potential wastes include solid, sanitary, concrete, hazardous, and equipment-related. Waste management and materials pollution control is also often referred to as good housekeeping practices.

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Table 12: Materials Pollution Management BMPs

Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Stockpile Management	Covering or stabilizing stockpiles and providing sediment controls around the perimeter of stockpiles. Stockpile management should occur at every required stockpile within a construction project. Require stockpiles include those of soil, sand, PCC or AC rubble, cold mix asphalt, aggregate base or sub base, and treated wood. Stockpile management is effective against stormwater and wind erosion. All stockpiles can be covered with plastic or similar material. Alternatively, soil stockpiles may be protected with an erosion control (stabilization) practice. Raw materials such as cold mix treated wood should also be placed on top of plastic. Typical sediment controls placed around the perimeter of stockpiles are fiber rolls, silt fence, and sand / gravel bags. All stockpiles should be placed at least 50 feet away from downstream storm drain facilities. Reference: CASQA WM-3, SE-1, SE-5, SE-6, SE-8

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Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Material Delivery, Storage, and Use	Preventing and containing pollutant discharges from materials that are delivered, stored, and used on-site. Materials of concern include: petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, and other hazardous chemicals. Material delivery, storage, and use management should occur at every location of a construction project where materials of concern are delivered, stored, or used. All material delivery and storage should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Minimize the quantities of materials of concern. Store materials in an enclosed area with secondary containment. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors on proper spill prevention, control, and cleanup procedures. Avoid over-application of soil binders, pesticides, herbicides, and fertilizers. Reference: CASQA WM-1, WM-2, WM-4

Table 13: Waste Management BMPs

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Spill Prevention and Control	Preventing, controlling, and cleaning up spills to reduce pollutant discharges from construction activities. Spill prevention and control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, or other hazardous chemicals. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Do not bury or wash spills away with water. Keep absorbent spill cleanup materials available; dispose of used materials properly. Report significant spills (those that cannot be contained by personnel in the immediate vicinity) to a local agency, such as the Fire Department, for cleanup assistance. Additional agencies may need to be contacted in the event of a significant spill. Reference: CASQA WM-4
Solid Waste Management	Containing and disposing of debris and non-hazardous waste to prevent it from being discharged to the storm drain system. Solid waste management and materials pollution control should occur throughout every construction project for non-hazardous

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
	construction waste and scraps, trash from employees or subcontractors, and waste generated from demolition. Waste should be collected and contained in designated areas. Avoid using waste containers that do not have lids or are not watertight. Collect and dispose of loose trash and waste weekly. Reference: CASQA WM-5
Hazardous Waste Management	Containing and disposing of hazardous waste to prevent it from being discharged to the storm drain system. Hazardous waste management and materials pollution control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, pesticides, herbicides, fertilizers, wood preservatives, or other hazardous chemicals. Train employees and subcontractors proper hazardous waste management and materials pollution control procedures. Store hazardous wastes in an enclosed area with secondary containment. Do not allow hazardous wastes to infiltrate at the site. Avoid overfilling hazardous waste containers. Hazardous wastes should be handled as required by Title 22. For projects that require demolition, lead-, cadmium-, or chromium-based paints, asbestos, and PCBs may exist and will require special treatment. All hazardous waste storage should occur in a designated area at least 50 feet away from downstream storm drain facilities. Hazardous wastes should be disposed of by a licensed hazardous waste transporter. Reference: CASQA WM-6
Concrete Waste Management	Containing and disposing of concrete waste to prevent it from being discharged to the storm drain system. Concrete Waste Management should occur at every construction project where concrete is poured, saw cut, grinded, or demolished. Inform all employees and subcontractors that washout from concrete trucks and concrete waste should be collected in concrete washout. Concrete washouts should be watertight and prevent any concrete waste from being able to discharge to the storm drain system. Avoid allowing concrete washout to become greater than 75% full. Concrete demolition debris may be stored by following the stockpile management BMP. Reference: CASQA WM-8, WM-3

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Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Sanitary Waste Management	Containing and disposing of sanitary waste to prevent it from being discharged to the storm drain system. Sanitary Waste Management should occur at every construction project that contains portable or permanent sanitary facilities. Avoid placing portable sanitary facilities in a concentrated flow path, such as a gutter. Use secondary containment under portable sanitary facilities. Contract a licensed sanitary and septic waste hauler to maintain portable sanitary facilities. All portable sanitary facilities should be located at least 50 feet away from downstream storm drain facilities. If a spill occurs, follow federal, state, and local regulations for containment and cleanup. Reference: CASQA WM-9

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3.4.7 Inspection and Maintenance Frequency Summary

	Santa Ana Region Criteria (only one need apply)			Inspection Frequency	
				Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
High	All sites 20 acres and larger	Sites over 1 acre tributary to Clean Water Act Section 303(d) waters listed for sediment or turbidity impairment.	Sites tributary to and within 500 feet of an Area of Special Biological Significance (ASBS).	Monthly	Conduct at a frequency to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-stormwater discharges are prevented.
Medium	All sites between 5 to 20 acres where none of the other above criteria apply.			Twice during wet season	
Low	All sites less than 5 acres where none of the other above criteria applies.			Once during wet season	

When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance (regardless of site prioritization).

San Diego Region Criteria (only one need apply)			Inspection Frequency	
			Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
All sites 30 acres or more in size with rough grading or active slopes occurring during wet season.	All sites one acre or more, and tributary to a CWA section 303(d) water body segment impaired for sediment or within or directly adjacent to, or discharging directly to, the ocean or a receiving water within an ESA.	Other sites determined by the Copermittees or the Regional Board as a significant threat to water quality.	Biweekly (Once every two weeks)	As needed during the dry season. Sites that meet any of the criteria for biweekly inspections during the wet season must be inspected at least once in August or September each year.
All sites one acre or larger where none of the above criteria apply.			Monthly	
All sites less than one acre where none of the above criteria apply.			As needed to ensure compliance with ordinances and MS4 Permit.	

Reinspection frequencies must be determined by each Copermittee based upon the severity of deficiencies, the nature of the construction activity, and the characteristics of soils and receiving water quality.

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4 References

Web links to permits listed in Table 1.

- National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Order number 2009-0009-DWQ. NPDES number CAS000002.

  www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

- Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated cities of Orange County within the Santa Ana Region. Order number R8-2009-0030. NPDES number CAS618030.

  www.waterboards.ca.gov/rwqcb8/water_issues/programs/stormwater/oc_permit.shtml

- Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated cities of Orange County, and The Orange County Flood Control District Within the San Diego Region. Order number R9-2009-0002 NPDES number CAS0108740.

  www.waterboards.ca.gov/rwqcb9/water_issues/programs/stormwater/oc_stormwater.shtml

- Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality. Order number 2003-0003-DWQ.

  www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

- General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts. Order number R8-2007-0041. NPDES number CAG918002.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2007/07_041_gen_wdr_sandiego_crk_11302007.pdf

- Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay. Order number R9-2008-0002. NPDES number CAG919002.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2008/r9-2008-0002.pdf

- General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality. Order number R8-2009-0003. NPDES number CAG998001.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

- General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region. Order number R9-2010-0003. NPDES number CAG679011.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2010/r9-2010-0003.pdf

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5 Glossary

ASBS – Area of Special Biological Significance. The Water Quality Control Plan for Ocean Waters of California (California Ocean Plan) designates 35 Areas of Special Biological Significance, two of which lie within the Santa Ana Regional Board jurisdiction:

- Newport Beach Marine Life Refuge (HU801.110)
- Irvine Coast Marine Life Refuge (HU801.110)

BMP – Best Management Practices (BMPs) are activities, practices, procedures, or facilities implemented to avoid, prevent, or reduce pollution of the stormwater system and receiving waters.

Common Plan of Development – Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Any of these documents could delineate the boundaries of a common plan area. However, broad planning documents, such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.

Construction General Permit (CGP) – A National Pollution Discharge Elimination System (NPDES) permit (No. CAS000002) issued by the State Water Resources Control Board for the discharge of stormwater associated with construction and land disturbance activities of one acre or more (Order No. 2009-0009-DWQ).

Construction Project – any site for which building or grading permits are issued and where an activity results in the disturbance of soil such as soil movement, grading, excavation, clearing, road construction, structure construction, or structure demolition; and sites where uncovered storage of materials and wastes such as dirt, sand, or fertilizer occurs; or exterior mixing of cementaceous products such as concrete, mortar, or stucco will occur.

Demolition – an activity involving the demolishing or the destruction of a structure, facilities, or associated appurtenances.

Discharge – the release spill, leak, pump, flow, escape, leaching, dumping or disposal of any liquid, semi-solid, or solid substance.

Environmentally Sensitive Area (ESA) – includes but is not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated in the Ocean Plan as Areas of Special Biological Significance (ASBS) or by the State Water Resources Control Board (Water Quality Control Plan and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan and amendments); areas designated as preserves or equivalent under the Natural Community Conservation Planning Program; and any areas designated as Critical Aquatic Resources (CARS) or other equivalent environmentally sensitive areas which have been identified by the County or city.

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Erosion – the wearing away of the ground surface as a result of the movement of wind, water, and/or ice

Erosion Control – the activity of reducing or eliminating erosion by using a combination of Best Management Practices to protect adjacent private property, watercourses, public facilities, and receiving waters from an abnormal deposition of sediment or dust.

Erosion Control Plan – A plan (including drawings, specifications, or other requirements) detailing the methods of implementing an erosion control system.

Municipal Separate Storm Sewer System (MS4) – the street gutter, channel, storm drain, catch basin, constructed drain, lined diversion structure, wash area, inlet, outlet, or other facility, which is part of or tributary to the County-wide stormwater runoff system and owned, operated, maintained, or controlled by the County / city, and used for the purpose of collecting, storing, transporting, or disposing of stormwater.

NPDES Permit – NPDES is an acronym for National Pollution Discharge Elimination System. NPDES is the national program for administering and regulating Sections 307, 318, 402 and 405 of the Clean Water Act (CWA).

Non-stormwater – any runoff or discharge not entirely composed of stormwater.

Notice of Intent (NOI) – an application submitted by the owner / operator of a project that constitutes his intent to be authorized by an NPDES permit issued for stormwater discharges associated with the construction activity indicated.

Notice of Termination – a form to discontinue coverage under an NPDES general permit for stormwater discharges associated with industrial activity and stormwater discharges associated with construction activity.

Pollutant – any liquid, solid or semi-solid substances that will interfere with or adversely affect the beneficial uses of the receiving waters, flora, or fauna of the state. A more detailed definition is included in the Water Quality Ordinance. Generally, pollutants can include such items as:

- Artificial materials
- Household wastes
- Metals and Non-metals
- Petroleum and related hydrocarbons
- Animal wastes
- Substances having a pH less than 6.5 or greater than 8.6, or unusual coloration, turbidity or odor
- Waste materials, sediment, and wastewater generated by construction sites and construction activities
- Pollutants defined by the Federal Clean Water Act
- Other constituents or materials, including but not limited to pesticides, herbicides, fertilizers, fecal coliform, fecal streptococcus or enterococcus, or eroded soils, sediment and particulate materials.

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Post-Construction BMPs – Structural and non-structural controls which detain, retain, or filter the release of pollutants to receiving waters after construction is complete and final stabilization is attained.

Qualified SWPPP Developer (QSD) – Individual who is authorized per the requirements of Order No. 2009-0009-DWQ to develop and revise SWPPP's.

Qualified SWPPP Practitioner (QSP) – Individual assigned responsibility by the owner for non-stormwater and stormwater visual observations, sampling and analysis, and responsibility to ensure full compliance with the Construction General Permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

RARE – Rare, Threatened, or Endangered Species (RARE) Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Receiving Water – A river, lake, ocean, stream, or other watercourse identified in the Basin Plan into which waters may be discharged.

Regional Board – Regional Water Quality Control Boards administer water quality requirements within a watershed region. There are nine Regional Boards under the SWRCB. The SWRCB is one of five branches of the California Environmental Protection Agency The San Diego Regional Board and the Santa Ana Regional Board have jurisdiction in Orange County.

Runoff – Water originating from rainfall, melted snow, and other sources (e.g., sprinkler irrigation) that flows over the land surface to receiving waters.

Run-on – Off site stormwater surface flow which enters your site.

Scour – The erosive and digging action in a watercourse caused by flowing water.

Secondary Containment – Structures, usually dikes, berms, or large containers, surrounding tanks or other storage containers, designed to catch spilled material to prevent it from being discharged.

Sediment – Solid particulate matter, both mineral and organic that comes from the weathering of rock.

Sedimentation – The process of depositing soil particles, clays, sands, or other sediments that were picked up by runoff.

Sheet Flow – Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

Storm Drains – Above- and below-ground structures for transporting stormwater to streams or outfall for flood control purposes.

Stormwater – Urban runoff and snowmelt runoff consisting only of those discharges, which originate from precipitation events.

Stormwater Pollution Prevention Plan (SWPPP) – Document required by the General Construction Permit to be developed and implemented by construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development. The SWPPP emphasizes the use of appropriately selected, correctly installed, and maintained

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pollution reduction BMPs. This approach provides the flexibility necessary to establish BMPs that can effectively address source control of pollutants during changing construction activities.

State Water Resources Control Board (SWRCB) – California agency that implements and enforces water quality and NPDES permit requirements and oversees the Regional Boards.

Waste Discharge Identification (WDID) Number – an identification number assigned by the State Water Resources Control Board upon receipt of a complete NOI.

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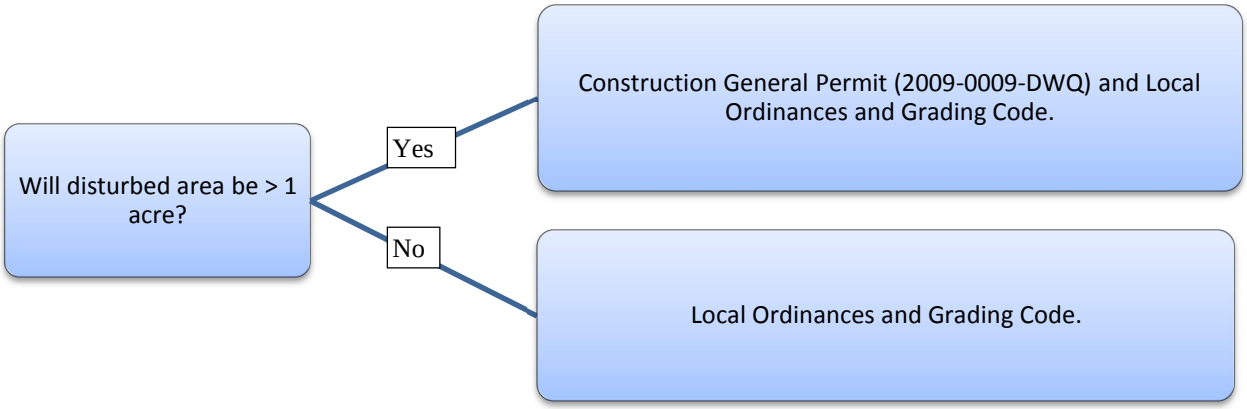
Appendix A: Permit Determination Flowcharts

This appendix includes flowcharts for project owners or developers to quickly determine which permits are required for a particular project and a short description of each permit. For each project, follow the questions in each of the three flow charts to determine construction permitting and site management requirements. For example if a project is less than an acre, but requires dewatering, the reader should quickly understand that the CGP does not apply to them, but that they need to read more about dewatering permits.

To use this appendix, follow Steps 1-3 for each project. After following the steps, refer to Sections 2.1 and 2.2 for details on the specific permits and ordinances that may affect your project.

Step 1: Project Size



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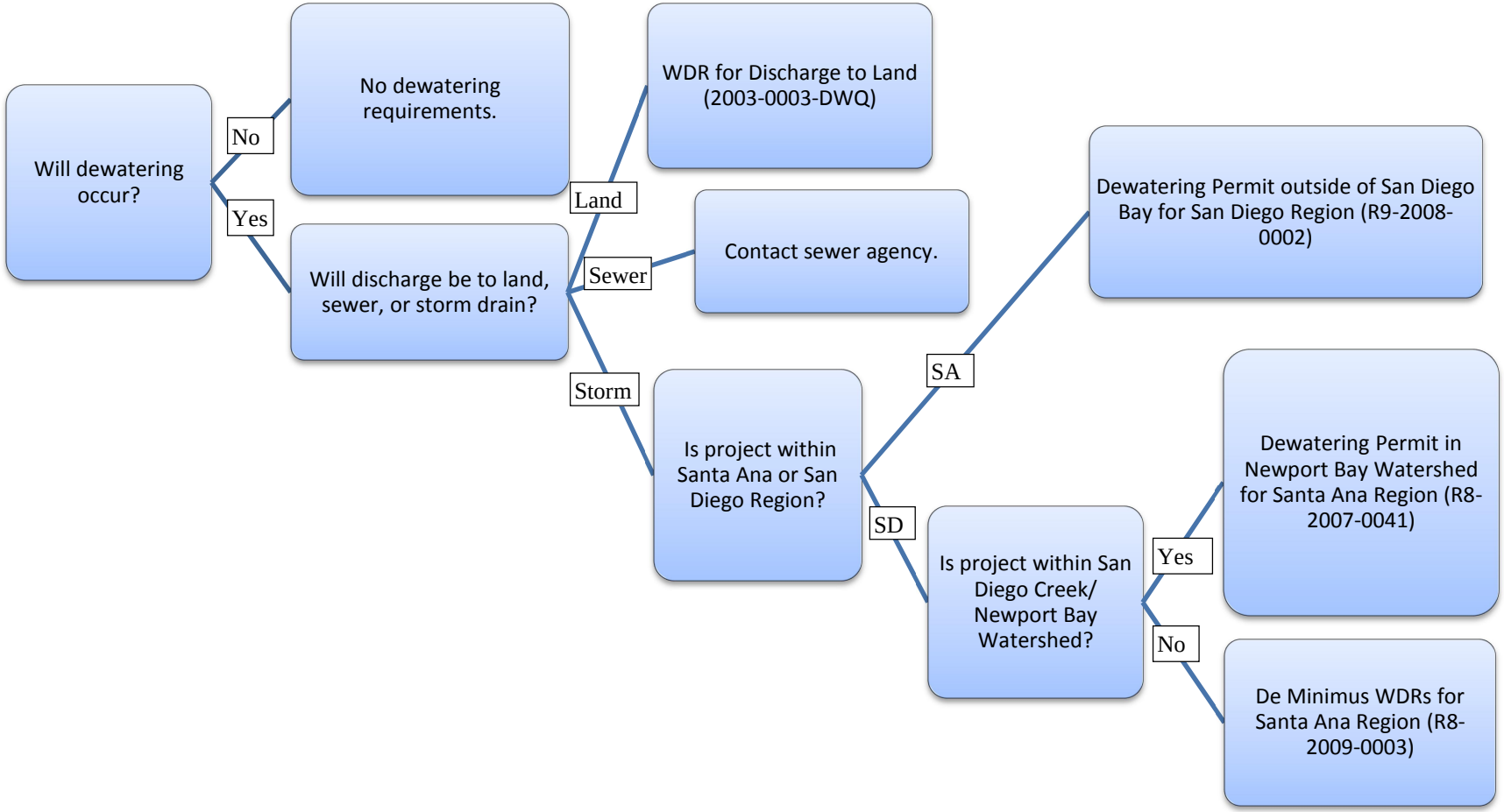
Step 2: Dewatering



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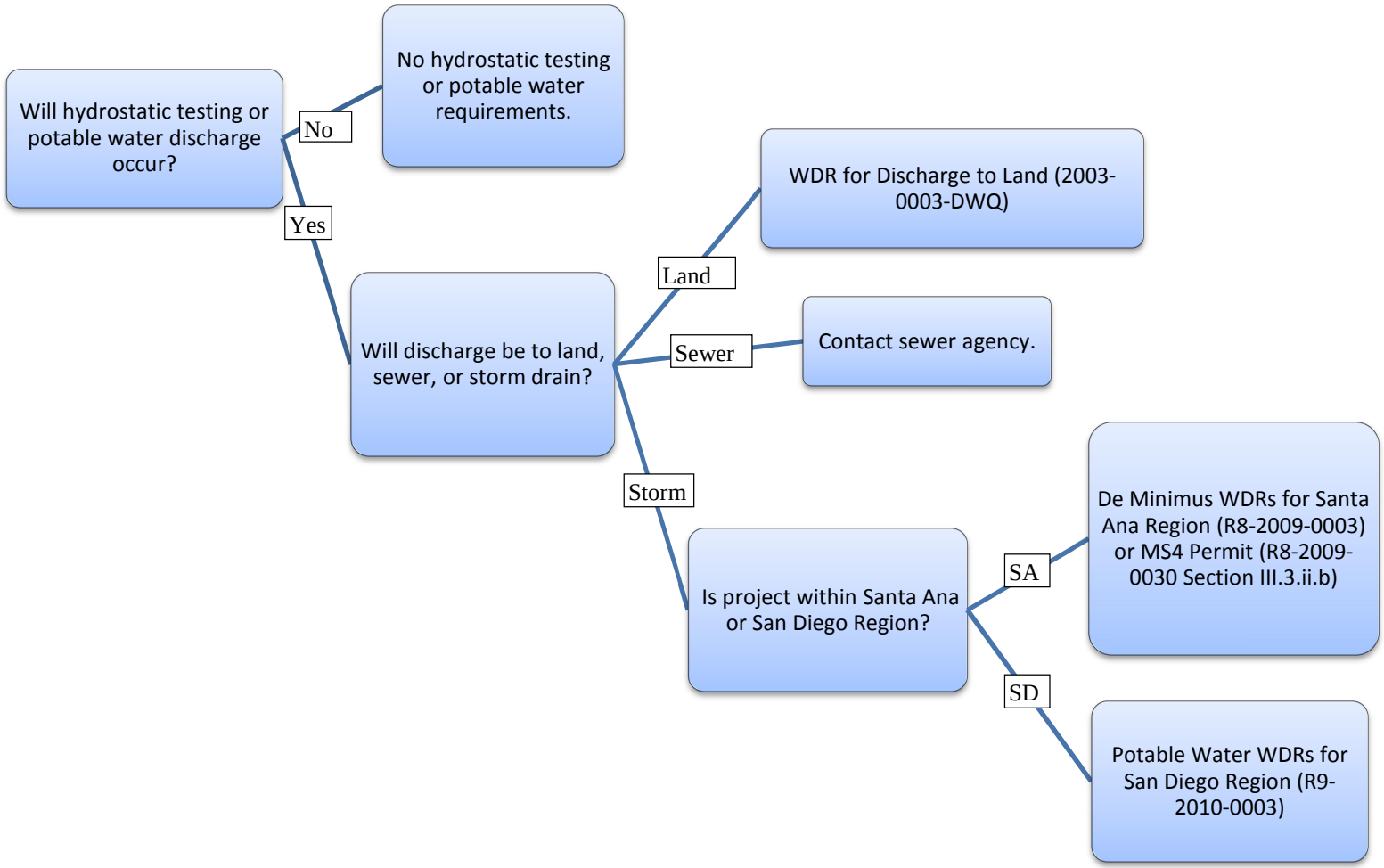
Step 3: Hydrostatic Testing or Potable Discharge



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Appendix B: Permit Descriptions

1. Construction General Permit (2009-0009-DWQ / CAS000002)

Note: This Section applies only to projects with greater than or equal to one acre of disturbed area.

In 2009, the State Water Resources Control Board (SWRCB) adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP).

The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

The following briefly summarizes the process for a construction project that is subject to the CGP:

- The project owner, Legally Responsible Person (LRP), is responsible for obtaining CGP coverage. Permit coverage is obtained by preparing and certifying the Permit Registration Documents (PRDs). PRDs must be uploaded and certified by the LRP in the SWRCB Storm Water Multi Application Report Tracking System (SMARTS, https: / / smarts.waterboards.ca.gov /).
- Each project subject to the CGP requires the services of a Qualified SWPPP Developer (QSD) and a Qualified SWPPP Practitioner (QSP). These titles are defined in the CGP, Section VII.
- Each year an Annual Report must be submitted and certified in SMARTS. The reporting period is from August 1 to June 30 and Annual Reports are due on September 1.
- After construction is completed and the site fully complies with the final stabilization requirements of the CGP, the owner must terminate permit coverage through SMARTS.

2. MS4 Permit for Santa Ana Region (R8-2009-0030 / CAS618030)

In 2009, the Santa Ana Regional Board issued its fourth term MS4 permit, Order No. R8-2009-0030. This permit regulates stormwater discharge from municipal storm drain systems. The permit is issued to the County of Orange and the cities within the Santa Ana Region boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best

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Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

3. MS4 Permit for San Diego Region (R9-2009-0002 / CAS0108740)

In 2009, the San Diego Regional Board issued its fourth term NPDES permit, Order No. R9-2009-0002. This permit regulates stormwater discharge from municipal storm drain systems. The permits issued to the County of Orange and the cities within the San Diego Region Boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

4. WDRs for Discharge to Land (2003-0003-DWQ)

This permit, Order No. 2003-0003-DWQ, applies to projects that discharge to land where the discharge has a low threat to water quality. These are typically low volume discharges with minimal pollutant concentrations. The primary difference between this permit and the permits described in herein is the destination of the water. This permit regulates discharges to land, while the following two sections discuss discharges to storm drains or receiving waters. For instance, if a dewatering discharge will be piped to an infiltration basin during construction, this permit should be used.

5. De Minimus WDRs for Santa Ana Region (R8-2007-0041 / CAG918002 and R8-2009-0003 / CAG998001)

There are two permits within the Santa Ana Region that regulate dewatering discharges to a storm drain or receiving water. Order No. R8-2007-0041, NPDES No. CAG918002, regulates dewatering discharges in the San Diego Creek / Newport Bay watershed. And, Order No. R8-2009-0003, NPDES No. CAG998001, amended by R8-2012-0062, regulates dewatering discharges for the Santa Ana Region. Refer to the permit text for specific circumstances allowing projects to be covered under the region-wide permit even though it is located within the San Diego Creek / Newport Bay watershed.

Dischargers subject to the San Diego Creek / Newport Bay Permit (Order No. R8-2007-0041) formed a Working Group and funded the development of a Work Plan to develop a management plan for nitrate and selenium discharges to surface waters that result from groundwater-related inflows. If those entities that participate in the Working Group (refer to Order for enrollees list), can demonstrate that compliance with the numeric selenium effluent limitations identified in the Order is infeasible, the groundwater-related discharge is allowed provided that the Working Group implements the Work Plan in a timely manner and that the discharger fulfills its financial and participatory requirements established by the Group. For dischargers who are not participating in the Working Group and cannot comply with the numeric effluent limitations, the discharger must either not proceed with the planned discharge or must identify and participate in a program that assures that selenium discharges in excess of those allowed by the Order are offset on at least a one-to-one basis.

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To obtain coverage under either of these permits, the general guidelines below should be followed:

Existing Dischargers

1. Submit an updated Notice of Intent (NOI) to continue discharging; and
2. A copy of the current Monitoring and Reporting Program along with any proposed treatment modifications.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the Nitrogen and Selenium Management Program (NSMP).

New Dischargers

At least 45 days (180 days if applying under Order No. R8-2007-0041) before the start of a new discharge, the Discharger needs to submit an application for coverage and obtain a letter of authorization from the Executive Officer for the dewatering discharge. The application needs to include:

1. A Notice of Intent (NOI) to be covered under the Order.
2. A site characterization study that identifies the presence of contaminated groundwater onsite (constituents of concern listed with the Orders), its properties, and a three-dimensional assessment of the extent of concentration of contaminants in the subsurface; which includes a description of the geologic and hydrologic factors that control the migration of the contaminants; and, if adjacent to a contaminated site, the Discharger has to evaluate the depth and flow rate of the extraction as well as the possibility of extracting the contaminated groundwater from the adjacent site.
3. A report including the following:
    a. A list of constituents and the discharge concentration of each constituent from each source (See the Order for constituent of concern); and for coverage under Order No. R8-2007-0041 only, a chemical analysis of the untreated groundwater for organic pollutants using EPA method 8260B (See the Order for specific constituent testing and reporting requirements);
    b. Estimated average and maximum daily flow rates in million gallons per day (mgd), the frequency and the expected start date and duration of the discharges;
    c. Proposed discharge location(s) and the latitude and longitude of each discharge point;
    d. A description of the proposed treatment system (if applicable);
    e. The affected receiving water and a map showing the path from the point of initial discharge to the ultimate receiving water; and
4. Any other information deemed necessary by the Regional Board Executive Officer.

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It should be noted that coverage under Order No. R8-2007-0041 requires several extra steps and it is highly recommended to review those requirements within the Order. Some of those additional items are:

1. An evaluation of selenium and nitrogen concentrations and the feasibility of meeting the numeric effluent limitations specified in the Order. The conclusion of which has varying impacts on coverage as specified in the Order;
2. A fixed hardness value for sites polluted with metals needs to be submitted for approval by the Regional Executive Officer as outlined in the Order; and
3. A description of run-on, interception and diversion of runoff.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the NSMP.

6. Dewatering Permit Outside of San Diego Bay for San Diego Region (R9-2008-0002 / CAG919002)

This permit, Order No. R9-2008-0002, applies to discharges of extracted groundwater to receiving waters or storm drains within the San Diego Regional Board jurisdiction (South of El Toro Road). To qualify for this permit, a laboratory analysis of the groundwater must show that the water quality is within the limits set by the permit. The permit requires sampling and analysis of dewatering discharges, and reporting to the Regional Board on a periodic basis.

7. Potable Water Discharges in Santa Ana Region (R8-2009-0003 / CAG998001)

The permit identified in Section 2. 1 for de minimus discharges, Order No. 2009-0003, is also the permit that applies to discharges of potable water during construction. This may include discharges of hydrostatic test water for pipes or tanks.

8. Potable Water Discharges in San Diego Region (R9-2010-0003 / CAG679011)

This permit, Order No. R9-2010-0003, regulates discharges of hydrostatic test water and/or potable water to storm drains or receiving waters in the San Diego Region, to all receiving waters except for San Diego Bay and its tributaries. Activities covered may include discharge from testing, repair and maintenance of pipelines, tanks and vessels dedicated to drinking water purveyance.

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Appendix C: Erosion Control Best Management Practices Field Evaluation – Summary

Background

The County of Orange conducted a field evaluation of five erosion control BMPs to evaluate their effectiveness in the field. A full copy of the Erosion Control Best Management Practices Field Evaluation (Study) may be found on the OC Watersheds website (http: / / www.ocwatersheds.com / documents / OCErosionControl_FINALReportJan07II.pdf), and a brief summary of the Study is provided here. The Study included development of a study plan, selection of an appropriate test site with soils and slopes commonly found in Orange County, selection of erosion controls for evaluation, study implementation, monitoring and maintenance of the test plots.

BMPs Selected

Four erosion control BMPs were selected for the Study:

- UltraTack- UltraTack is a low molecular weight polyacrylamide product. UltraTack is a spray on binder or tackifier, and is nontoxic to plant and animal life. UltraTack must be applied 24 hours prior to a storm event, and must be reapplied as needed, but generally every three months at a minimum.
- EarthGuard – EarthGuard is a high molecular weight polyacrylamide product. Earth Guard is a spray on binder and is nontoxic to plant and animal life. It is effective immediately, even when applied during a rain event, and may provide erosion control for up to three months.
- EarthGuard Fiber Matrix (recycled paper mulch and wood fiber mulch) – This BMP combines Earth Guard and fiber to form a matrix that provides erosion control for a full rainy season. The binder plus fiber harden after application to form a crust that protects soil from raindrop impact. Two types of EarthGuard fiber mulch were used; one consisting of 100% recycled paper mulch, and the other wood fiber mulch.
- Landscaping Mulch – The wood mulch tested for this study was a typical landscaping mulch made of shredded wood mulch and bark. Wood mulch helps reduce soil erosion by protecting bare soil from rainfall impact, increasing infiltration and reducing runoff.

Test Plots

A total of fifteen test plots were used in the Study, three for each of the BMPs selected. Each BMP was tested on a slope of 2% (flat slope), 5% (mild slope) and 50%. Each test plot was approximately 25 feet by 100 feet, with flow in the long direction.

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Test Period

Each of the test plots was observed over the course of the 2004-2005 wet season. Observations of the performance of each type of control were made before and after forecast events, as well as once per month. The condition of each test plot and the location and mechanism of any failures were documented, along with evidence of erosion and unraveling of erosion control materials.

Findings

The 2004-2005 water year was one of the wettest on record, with the Study site receiving over twice the normal amount of precipitation for the area. The relative performance of the selected erosion controls was evaluated qualitatively using the results of the visual monitoring. BMPs were considered to have "failed" when rilling or similar evidence of erosion became visually apparent. In general, the hydro mulches outperformed the binders; whereas landscape mulch performed best on all slopes. The binders and hydro mulches did not hinder growth of volunteer vegetation. Although seed mix was not added to the controls, new vegetation was observed on all test plots except for the landscape mulch.

Recommendations

The Study provides erosion control recommendations based on the findings of the Study (see **Table C-1**). These recommendations are based on appropriate slope, application rate, duration of effectiveness, application methods, inspection requirements and costs

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Table C-1: Recommendations from the Erosion Control Best Management Practices Field Evaluation

EC Control	Amount Rain / Duration[1]		Appropriate Site Applications	Application Methods	Inspection Requirements	Costs
	Flat Area (< 5%)	Slope Area (> 5%)				
PAM (low weight)	1"; 1 storm	Not recommended	Temporary, single storm event; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
PAM (high weight)	< 2"; 2+storm	1"; 2+ storm	Temporary, two storm events; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
Wood Hydro-mulch[2]	<12"; 1 season	<12"; 1 season	Steep slopes, steeper than 3:1; high erosion potential slopes; slopes where anchored mulch is needed; disturbed areas where plants slow to develop; stockpiles; slopes adjacent to ESAs	3,000 lb / acre to 4,000 lb / acre based on the manufacturer's recommendation, 12-24 hours to dry and become effective	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season (nrs)	$6,000 per acre
Landscape Mulch[3]	< 12"; 1 season	< 12"; 1 season	Flat areas, steep slopes, cohesive soils	Distribute by hand or use pneumatic methods, 2-3- inch depth (thickness) per CASQA guidance	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the nrs	$4,000 per acre

[1] When used per manufacturer recommendations.

[2] When used with a high-weight binder. Hydro mulch consisting only of paper fiber is not recommended. Wood hydro mulch may not contain more than 25% paper fiber.

[3] Tested at about 5-inch depth (thickness).

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1 Introduction and Overview

1.1 Introduction

This Construction Runoff Guidance Manual (Manual) is intended to enable applicants for building or grading permits to understand and comply with the regulatory requirements for creek, river, stream and coastal water protection during the construction phase of new development and significant redevelopment projects. Project owners and developers should be able to use this Manual as a guide to understand which permits and ordinances apply to their construction project. Contractors should be able to use this Manual as a guide to the Best Management Practices (BMPs) typically needed to be implemented at a construction site to ensure compliance with the Construction General Permit (CGP) and local ordinances.

1.2 Overview

The goal of this Manual is to provide useful, succinct information to enable contractors to control pollutant discharges from construction sites. Activities and materials used on a construction site may be a source of pollutants, including but not limited to sediment, concrete and grout; paints, lacquers, and primers; herbicides and pesticides; soaps and detergents; wood preservatives; equipment fuels, lubricants, coolants, and hydraulic fluids; and cleaning solvents. Water from construction sites can be a major transporter of these pollutants, which can leak from heavy equipment, be spilled, or can be eroded by rain from exposed soil or stockpiles. Once released, they can be transported into the receiving waters of the County of Orange (Orange County or "the County"), where they may enter aquatic food chains and cause fish toxicity problems, contribute to algal blooms, impair recreational uses, and degrade drinking water sources.

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2 Regulatory Requirements

2.1 State and Regional Permit Requirements

Construction activity in Orange County is subject to regulation by both the Santa Ana and the San Diego Regional Water Quality Control Boards (Regional Boards or RWQCBs). The Regional Boards are responsible for implementing the Clean Water Act and the California Porter-Cologne Act. The boundary between the two Regional Board jurisdictions approximately follows El Toro Road in Lake Forest, separating the Santa Ana Region (Regional Board 8 or RB8) (north of El Toro Road) from the San Diego Region (Regional Board 9 or RB9) (south of El Toro Road). While some of the permits listed in Table 1 are issued statewide by the State Water Resources Control Board (State Board or SWRCB) and implemented throughout the state by the Regional Boards, other permits, like dewatering or de minimus permits, are issued and implemented on a Region-by-Region basis. Additionally, the Regional Boards issue Municipal Separate Storm Sewer System (MS4) Permits to the County and cities, which include additional requirements for managing construction sites.

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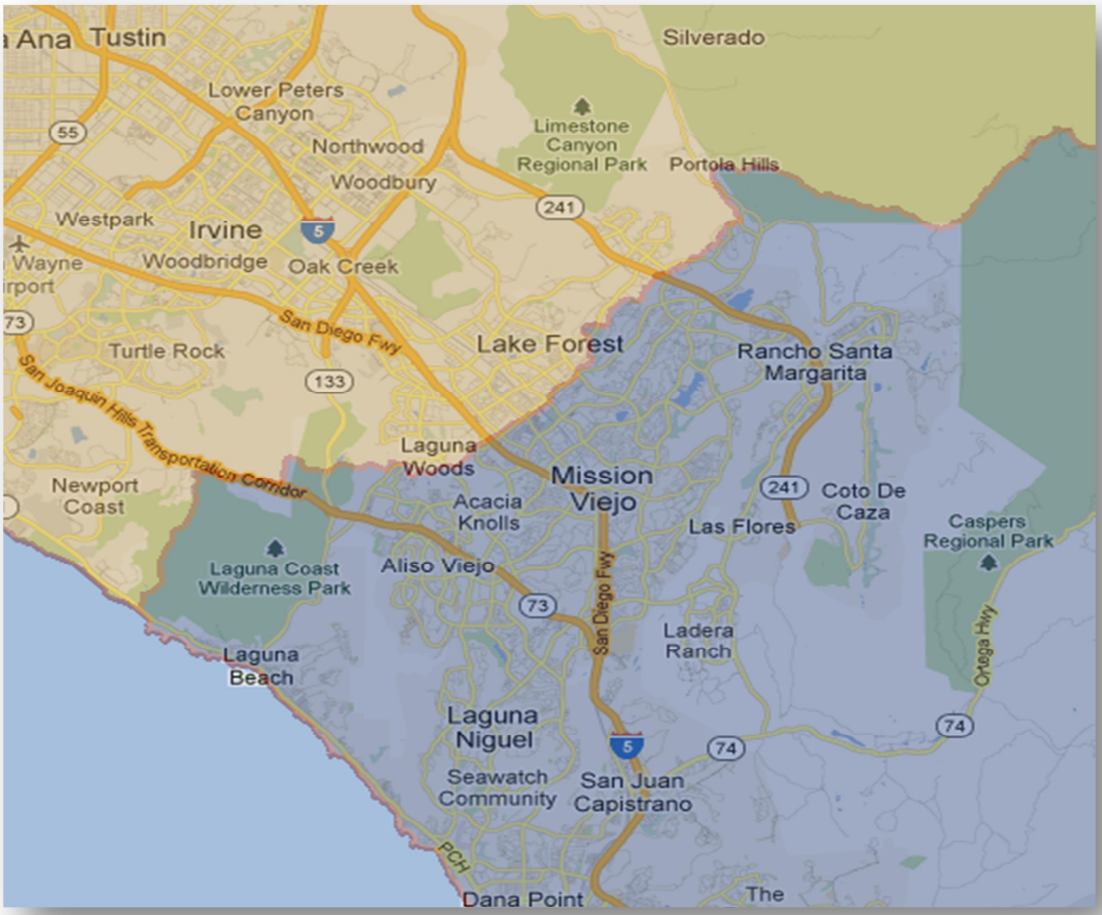

Figure 1: Map of Boundary between Santa Ana Regional Board (Yellow) and San Diego Regional Board (Blue)

Table 1 includes a list of all State or Regional permits related to runoff water quality that may apply to construction projects in Orange County. To determine which, if any, of these permits affect your construction project, go to Appendix A and follow the three flow charts. Appendix B includes a brief summary of each permit shown in Table 1. A list of web links for each permit is included in the Reference section at the end of this Manual.

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Table 1: Summary of State and Regional Permits that May Affect Construction Projects in Orange County

	Order Number / NPDES Number	Permit Name	Affected Area
CGP	2009-0009-DWQ/ CAS000002	National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
MS4	R8-2009-0030/ CAS618030	Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated Cities of Orange County within the Santa Ana Region (MS4 Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2009-0002/ CAS0108740	Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated Cities of Orange County, and The Orange County Flood Control District Within the San Diego Region (MS4 Permit for San Diego Region)	San Diego Region within Orange County
Discharge To Land	2003-0003-DWQ	Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality (WDR for Discharge to Land)	Statewide
Groundwater Dewatering	R8-2007-0041/ CAG918002	General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts (Dewatering Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2008-0002/ CAG919002	Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay (Dewatering Permit outside of San Diego Bay for San Diego Region)	San Diego Region within Orange County
Potable Water	R8-2009-0003/ CAG998001	General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality (De Minimus WDRs for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2010-0003/ CAG679011	General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region (Potable Water WDRs for San Diego Region)	San Diego Region within Orange County

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In 2009, the SWRCB adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP). The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by the County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

More details regarding the CGP and other State and Regional permits can be found in Appendix A.

2.2 Local Agency Requirements

Each city, as well as the County of Orange, has a Municipal Code that establishes requirements for erosion and sediment control on grading projects. All project owners must meet the requirements of the applicable code prior to, during, and after construction. Additionally, through the MS4 Permits listed in Table 1 and described in Appendix B, each city or the County is responsible for periodic inspections of construction sites within its boundaries. (All project owners must allow city or County inspectors onto the project site for these inspections.)

2.2.1 Local Grading Code

The Grading Code sets the rules and regulations for grading operations including operations preparatory to grading on private property. In addition to other requirements, the Grading Code requires that a project owner, developer or contractor prepare erosion control plans (ECPs), obtain a grading permit, and implement and maintain erosion and sediment control BMPs. Refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal grading code.

2.2.2 Local Water Quality Ordinance

The County and cities in Orange County have adopted Water Quality Ordinances for the purpose of improving water quality and compliance with NPDES permit requirements and for the control of urban pollutants. The Water Quality Ordinances are part of their municipal codes and are, in effect, laws that contractors are required to comply with. Non stormwater discharges to the municipal storm drain system are prohibited unless covered by a discharge exception. Prohibited non-stormwater discharges include wastewater from concrete truck washing, paint equipment cleaning, spill cleanup, etc. (See Table 3). Please refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal water quality ordinance.

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Table 2: Allowed and Prohibited Discharges

Allowed	Prohibited (not allowed)
▪ Discharges composed entirely of stormwater ▪ Projects permitted under the CGP may be authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: A. fire hydrant flushing, B. irrigation of vegetative erosion control measures (only in Region 8), C. pipe flushing and testing, D. water to control dust, and E. uncontaminated ground water from dewatering. Consult a construction stormwater professional to review the specific conditions. ▪ Discharges that are authorized by a De Minimus or Dewatering permit.	▪ Trash / debris / litter ▪ Concrete waste ▪ Sanitary waste ▪ Fuel or oil (Dumping, Spills, or Leaks) ▪ Non-stormwater discharges to the municipal storm drain system or receiving water (unless covered by an NPDES Permit, such as CGP or De Minimus) ▪ Projects in Region 9 permitted under the CGP are not authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: F. irrigation of vegetative erosion control measures

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3 Best Management Practices (BMPs)

Best Management Practices (BMPs) collectively refer to a variety of pollution prevention controls implemented throughout the project site at various times of the project. BMPs discussed herein are specifically aimed to control pollution in stormwater runoff during the construction phase of the project. The major construction BMP categories can be broken down into

- Erosion Control (EC)
- Sediment Control (SE)
- Wind Erosion Control (WE)
- Tracking Control (TC)
- Non-Stormwater Management (NS)
- Waste Management and Materials Pollution Control (WM)

These BMPs will be discussed in detail throughout the remainder of this section. Permanent post-construction BMPs are not addressed in this document. Post construction BMP requirements are detailed in the Model Water Quality Management Plan (WQMP) as required by the MS4 Permits of either the Santa Ana Region or San Diego Region.

3.1 BMP Overview Diagram

The BMPs that are commonly used on construction sites are shown in Figure 2.

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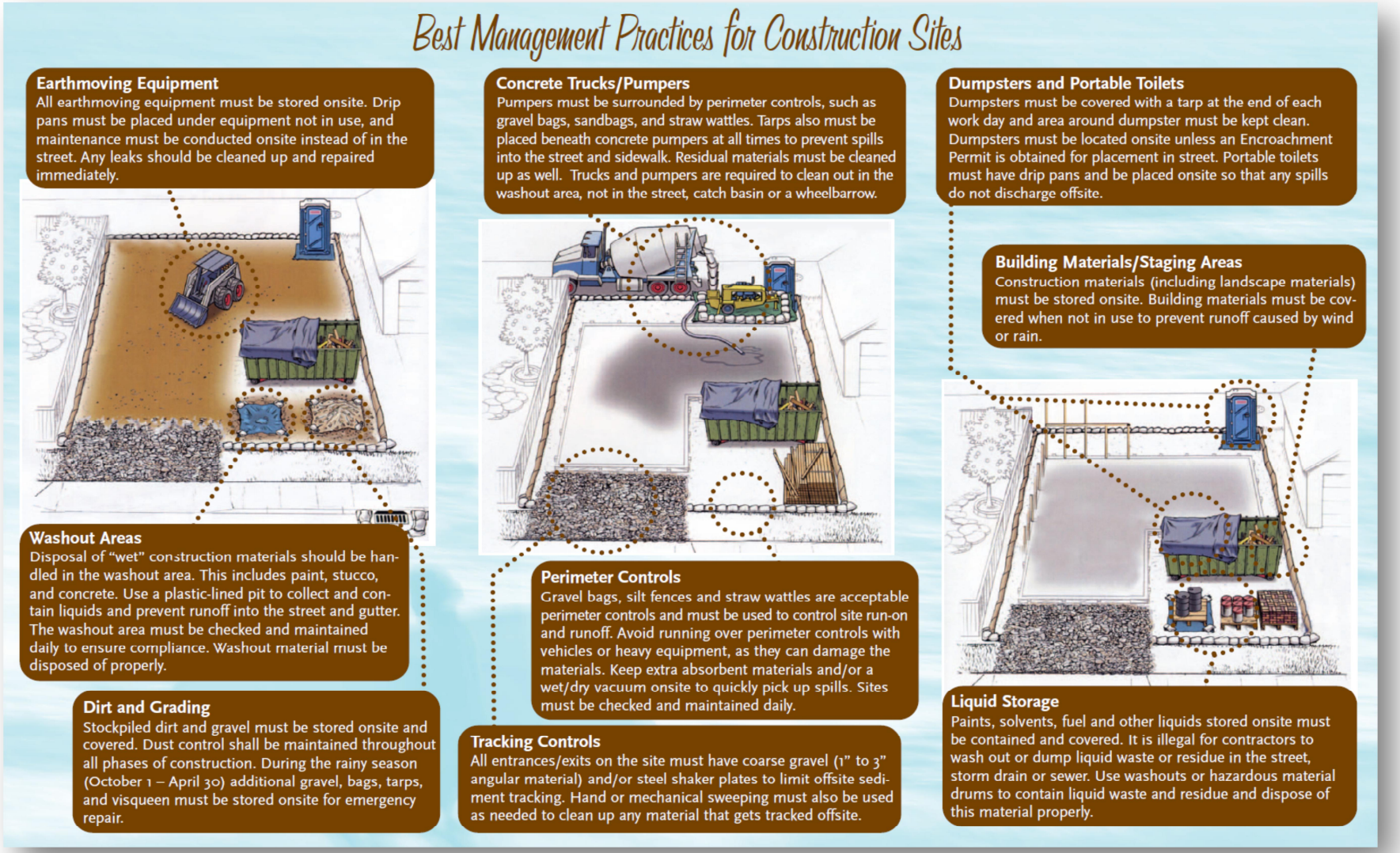

Figure 2: Typical Construction Site BMPs (Graphic provided by the City of San Clemente)

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3.2 Minimum Site BMP Requirements

The following requirements are for deployment of selected construction BMPs and apply year-round (not just during the rainy season) to all projects.

A. Pollution prevention where appropriate.

B. Development and implementation of a site specific run-off management plan.

C. Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction.

D. Minimization of exposure time of disturbed soil areas.

E. Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible.

F. Limitation of grading to a maximum disturbed area as determined by the County / city before either temporary or permanent erosion controls are implemented to prevent stormwater pollution. The County / city has the option of temporarily increasing the size of disturbed soil areas by a set amount beyond the maximum, if the individual site is in compliance with applicable stormwater regulations and the site has adequate control practices implemented to prevent stormwater pollution.

G. Temporary stabilization and reseeding of disturbed soil areas as rapidly as feasible.

H. Non-stormwater management measures to prevent illicit discharges and control stormwater pollution sources.

I. Erosion Control BMPs shall be implemented.

J. Wind erosion control BMPs (dust control) shall be implemented.

K. Sediment control BMPs shall be implemented at all appropriate locations along the site perimeter, at all operational storm drain inlets and at all non-active slopes.

L. Tracking control BMPs to control off-site sediment tracking shall be implemented and maintained.

M. Waste management and materials pollution control BMPs shall be implemented to prevent the contamination of stormwater by construction wastes and materials.

N. Non-stormwater BMPs shall be implemented to reduce or prevent the contamination of stormwater from construction activities.

O. Weather tracking: projects shall monitor the National Weather Service (www.weather.gov) probability of precipitation. When a rain event is predicted (forecast predicts a greater than 50% probability of precipitation), the project must be inspected and BMPs must be maintained or deployed as needed to protect the project from discharging pollutants. (CGP projects only)

P. BMP failures must be repaired or replaced with an acceptable alternate as soon as it is safe to do so. Repairs or replacements must result in an adequate BMP, or additional BMPs should be installed to provide adequate protection.

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Q. Active exposed areas: Sufficient materials needed to install standby erosion and sediment control BMPs necessary to protect all active exposed areas from erosion and to reduce or prevent sediment discharges shall be stored on site. The total active exposed area shall not exceed that which can be adequately protected by deploying standby erosion control and sediment control BMPs prior to a predicted rain event.

R. Inactive exposed areas: All exposed areas not being actively worked in shall be protected from erosion with temporary or permanent BMPs (erosion and sediment control). The ability to deploy standby BMP materials is not sufficient for these areas; erosion and sediment control BMPs must actually be deployed.

S. Completed areas: Areas that have already been protected from erosion using permanent erosion control BMPs (physical or vegetation) are not considered "exposed". Deployment of permanent erosion control BMPs should commence as soon as practical on completed areas.

T. Preservation of natural hydrologic features where feasible.

U. Preservation of riparian buffers and corridors where feasible.

V. Evaluation and maintenance of all BMPs, until removed.

W. Retention, reduction, and proper management of all stormwater pollutant discharges on site to the Maximum Extent Practicable (MEP) standard.

3.3 CASQA BMP Handbook

The California Stormwater Quality Association (CASQA) has prepared a handbook providing details about all of the recommended BMPs. The current version of this handbook is the CASQA Best Management Practice Handbook, Construction, 2009 Edition. A membership to CASQA can be obtained at www.casqa.org. Access to the BMP Fact Sheets referenced in this section is included with the CASQA membership. The Handbook contains six major categories of BMP fact sheets with guidelines on how to select each BMP. The six categories include: Erosion Control (EC), Sediment Control (SE), Wind Erosion Control (WE), Tracking Control (TC), Non-Stormwater Management (NS), and Waste Management and Materials Pollution Control (WM).

These categories of BMPs and their applicability are discussed in the following sections.

3.4 BMP Directory

In order to meet the requirements of the Permits and Ordinances mentioned in Section 2, BMPs must be selected, installed, and maintained properly throughout the duration of construction projects. BMPs must be discussed with all project contractors, subcontractors, and any party involved, because education is the most important BMP.

3.4.1 Erosion Control (EC)

Erosion control BMPs focus on preventing soil from being eroded by stormwater and potentially discharged from the construction site. Erosion control is more effective than sediment control for reducing sediment discharge. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common erosion control BMPs for construction projects.

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APPENDIX F

WARRANTY BOND

SAMPLE

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Bond No. _____

WARRANTY BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Brea ("Owner") has awarded to

_____

("Principal"), a contract ("Contract") for the work described as follows:
_____

WHEREAS, Principal is required under the terms of the Contract to furnish a **one (1) year warranty** to make repairs or replacements made necessary by defects in materials, equipment or workmanship related to the Principal's construction of the Improvements.

NOW, THEREFORE, we, the undersigned Principal, and _____
_____
(Insert name, address , and telephone number of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto Owner in the penal sum of _____ _____**Dollars ($XXX.XX)**, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his, her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements concerning the one (1) year warranty as set forth in the Contract and any alteration thereof made as therein provided, on the Principal's part to be kept and performed, all within the time and in the manner therein specified, and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees to pay all court costs and reasonable attorneys' fees in an amount fixed by the court.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City of Brea is the principal beneficiary of this bond and has all rights of a party thereto.

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IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

"Principal"	"Surety"
_____	_____
_____	_____
By: _____	By: _____
Its	Its
By: _____	By: _____
Its	Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

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APPENDIX G

AS-BUILT/RECORD DRAWINGS

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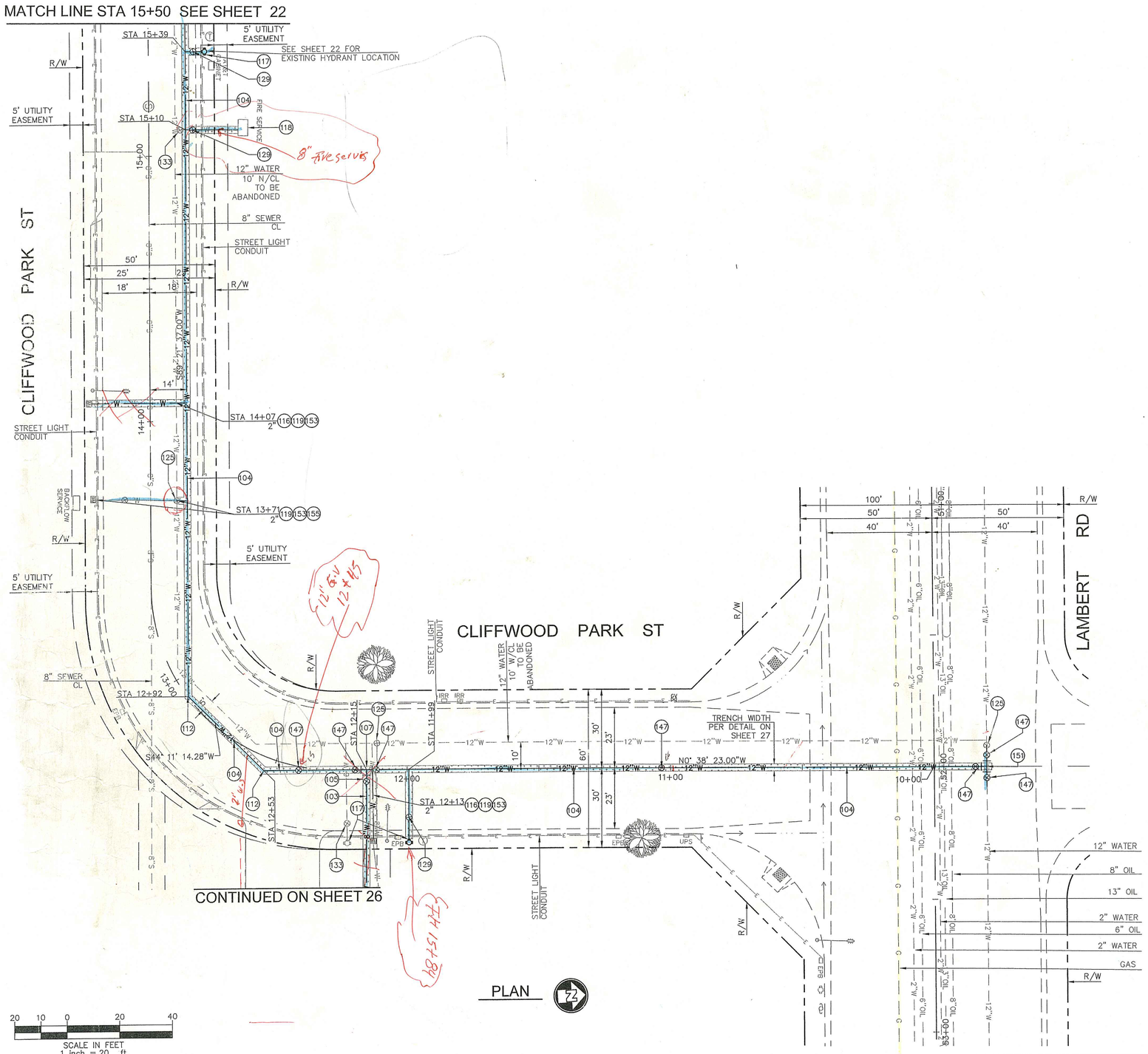

WATER IMPROVEMENTS GENERAL CONSTRUCTION NOTES:

1. PROTECT-IN-PLACE ALL EXISTING UNDERGROUND FACILITIES, UNLESS OTHERWISE INDICATED.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO REMOVAL OF ANY AC OR CONCRETE PAVEMENT.
3. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SAWCUTTING TO REMOVE AND REPLACE AC OR CONCRETE PAVEMENT WITH THE ENGINEER.
4. EXISTING WATER MAIN ARE LOCATED IN CITY OF BREA'S RIGHT-OF-WAY OR PUBLIC UTILITY EASEMENT. CONTRACTOR SHALL NOTE EXISTING EASEMENT AREAS INCLUDE PRIVATE IMPROVEMENTS AND APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AC/PCC PAVEMENT, PAVERS, BRICKS, STONE TILE, WOOD, STONES/ROCKS, FENCING, FINISHED WALLS & FOOTINGS (RETAINING OR OTHERWISE), STAIRS, VARIOUS LANDSCAPING AND IRRIGATION, ETC. ALL EXISTING PRIVATE IMPROVEMENT SHALL BE RESTORED TO THE EXISTING CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER AND ENGINEER.
5. SUPPORT AND PROTECT IN PLACE EXISTING IMPROVEMENTS. WHERE THE CONTRACTOR'S ACTIVITIES DAMAGE OR ADVERSELY AFFECT ANY PRIVATE IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
6. WHERE OTHER FACILITIES/PIPES ETC ARE FOUND NEW WATER MAINS SHALL BE INSTALLED TO PROVIDE 24" CLEARANCE BETWEEN WATER MAIN TO BE ABANDONED AND 24" CLEARANCE FOR STORM DRAIN OR PUBLIC UTILITY CROSSING.
7. CONTRACTOR SHALL PROVIDE ADEQUATE TRENCH SHORING (CONVENTIONAL AND/OR CUSTOM) FOR ALL WORK AREAS AS REQUIRED.
8. CONTRACTOR TO REFERENCE APPENDIX "G" IN SPECIFICATIONS FOR WATER VALVE DEPTHS MEASUREMENTS SHOWN IN APPENDIX "G" ARE TAKEN FROM TOP OF NUT. DEPTH OF LINE IS TO BE CALCULATED BY ADDED 16" OR 18", PER MUELLER MANUFACTURER SPECIFICATIONS.
9. EXPOSE EXISTING SUBSTRUCTURES AND INSTALL FITTINGS ON NEW PIPE AS NEEDED TO CLEAR ALL EXISTING PIPES BY 24" MINIMUM.

WATER IMPROVEMENTS CONSTRUCTION NOTES:

WATER SYSTEM WORK

(103) INSTALL CLASS 52, 8" DI WATER MAIN AND FITTINGS PER CITY OF BREA STD. PLANS 301-0 AND 313-0 TYPE I.

(104) INSTALL CLASS 52, 12" DI WATER MAIN AND FITTINGS PER CITY OF BREA STD. PLANS 301-0 AND 313-0 TYPE I.

(105) INSTALL 8" RESILIENT WEDGE GATE VALVE WITH VALVE BOX ASSEMBLY PER CITY OF BREA STD. PLANS 302-0 AND 309-0.

(107) INSTALL 12"X12"X8" DI TEE AND THRUST BLOCK PER CITY OF BREA STD. PLAN 312-0.

(112) INSTALL 12" DI 45° BEND AND THRUST BLOCK PER CITY OF BREA STD. PLAN 312-0.

(116) INSTALL NEW COPPER WATER SERVICE TO NEW WATER MAIN PER DETAIL(S) ON SHEET 27. SIZE OF NEW COPPER WATER SERVICE PER PLAN.

(117) REMOVE AND SALVAGE EXISTING CITY HYDRANT. INSTALL COMPLETE NEW FIRE HYDRANT ASSEMBLY AND CONNECT TO NEW MAIN PER CITY OF BREA STD. PLAN 306-0 AND PER DETAIL 5 ON SHEET 27.

(118) INSTALL NEW FIRE SERVICE LATERAL PER DETAIL 6 ON SHEET 27.

(119) INSTALL NEW WATER METER AND WATER METER BOX (SIZE PER PLAN), PER CITY OF BREA STD. PLAN 305-0.

(125) ABANDON EXISTING WATER MAIN IN PLACE, CONNECTION AND ANY VALVES BY REMOVAL OF ALL PARTS WITHIN 24"OF STREET SURFACE AND PLUG ALL OPEN ENDS OF EXISTING MAIN WITH CONCRETE.

(126) INSTALL 6" RESILIENT WEDGE GATE VALVE WITH VALVE BOX ASSEMBLY PER CITY OF BREA STD. PLANS 303-0 AND 309-0.

(133) ABANDON FIRE SERVICE AND/OR HYDRANT CONNECTION AND ANY VALVES.

(141) INSTALL 8" GUARD POST, PER CITY OF BREA STD. PLAN 314-0 PER PLANS.

(147) INSTALL 12" RESILIENT WEDGE GATE VALVE PER CITY OF BREA STD. PLANS 302-0, 309-0 AND 312-0.

(151) INSTALL 12"X12"X12" DI TEE AND THRUST BLOCK PER CITY OF BREA STD. PLAN 312-0.

(155) CONNECT EXISTING COPPER WATER SERVICE TO NEW WATER MAIN PER DETAIL(S) ON SHEET 27. SIZE OF NEW COPPER WATER SERVICE PER PLAN.

SEE ADDITIONAL WATER IMPROVEMENTS GENERAL CONSTRUCTION NOTES ON SHEET 3

LEGEND:

- PROPOSED WATER MAIN, SIZE SHOWN
- NEW FIRE HYDRANT
- NEW WATER VALVE
- 45° BEND
- WATER MAIN TEE
- NEW SERVICE AND WATER METER IN NEW BOX
- WATER MAIN CAPPED OR PLUGGED
- HUB REDUCER

AS-BUILT
JAN 17 2020
SULLY-MILLER CONTRACTING CO.

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

INFRASTRUCTURE ENGINEERS
3060 Saturn Street, Ste. 250
Brea, CA 92821
Tel: (714) 940-0100
Fax: (714) 940-0700
www.infrastructure-engineers.com

	INITIALS	DATE
DRAWN BY:	S. B./K.R.	
DESIGNED BY:	K. P.	
CHECKED BY:	K. P.	

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER RAYMOND REZA ABASSI No. 48091 Exp. 06/30/20 CIVIL STATE OF CALIFORNIA

RAYMOND R. ABASSI RCE 48091 DATE 1/24/19

CITY OF BREA
BREA CALIFORNIA
PUBLIC WORKS DEPARTMENT

WATER IMPROVEMENTS PLAN FOR CLIFFWOOD PARK STREET

MISC. ALLEYS AND CLIFFWOOD INDUSTRIAL PARK PROJECT

SHEET 23 OF 27

J. N. 6080.10

INFRASTRUCTURE ENGINEERS
Q:\Brea\6080_10-Alley and Industrial St Rehabilitation\CAD\Sheets_V17\C19-WAT-0A01-608010 1/24/2019 4:01:12 PM Peter Jacoy

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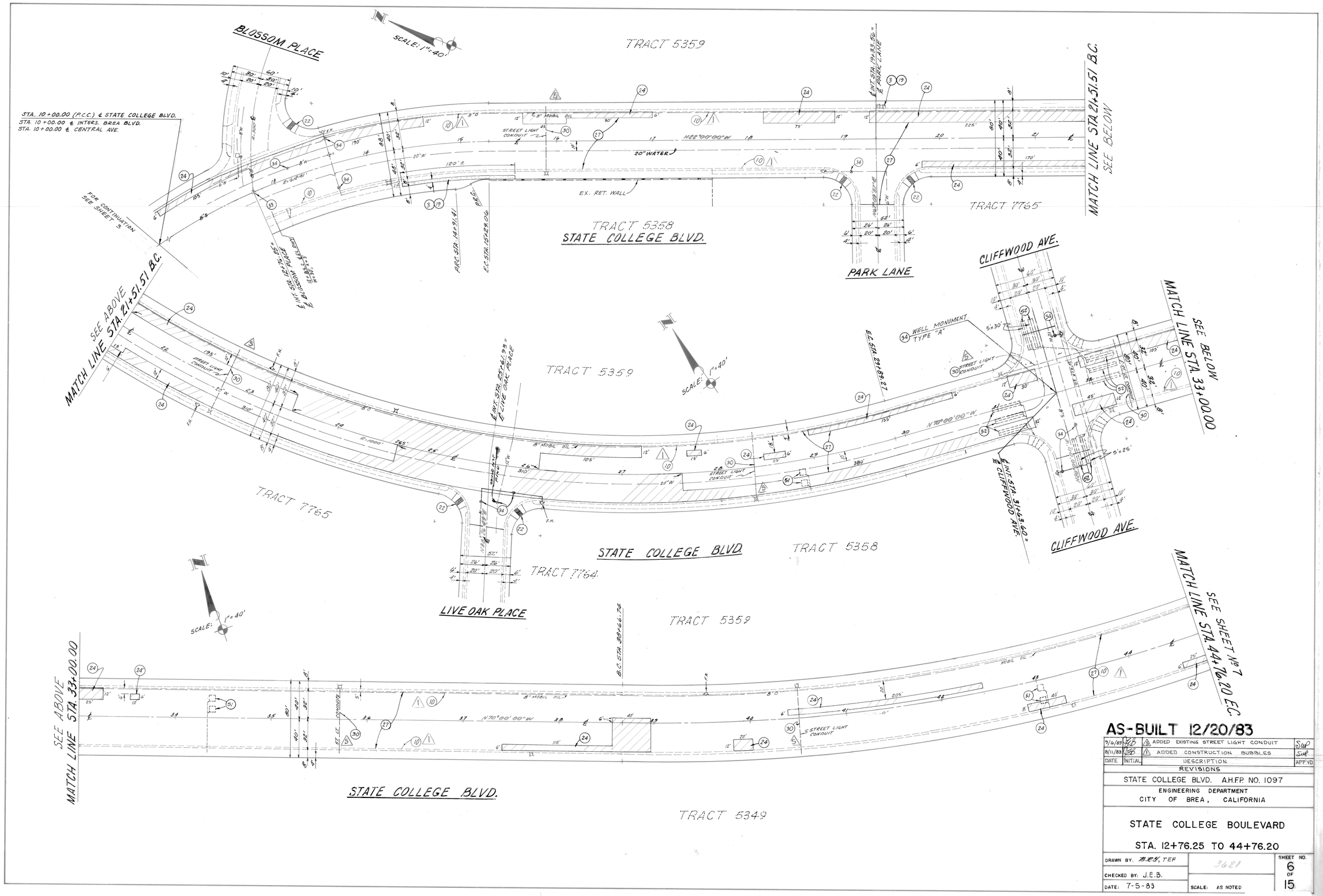


AS-BUILT 12/20/83

DATE	INITIAL	DESCRIPTION	APP'VD
9/6/83		ADDED EXISTING STREET LIGHT CONDUIT	
8/11/83		ADDED CONSTRUCTION BUBBLES	

REVISIONS

STATE COLLEGE BLVD. A.H.F.P. NO. 1097

ENGINEERING DEPARTMENT
CITY OF BREA, CALIFORNIA

STATE COLLEGE BOULEVARD

STA. 12+76.25 TO 44+76.20

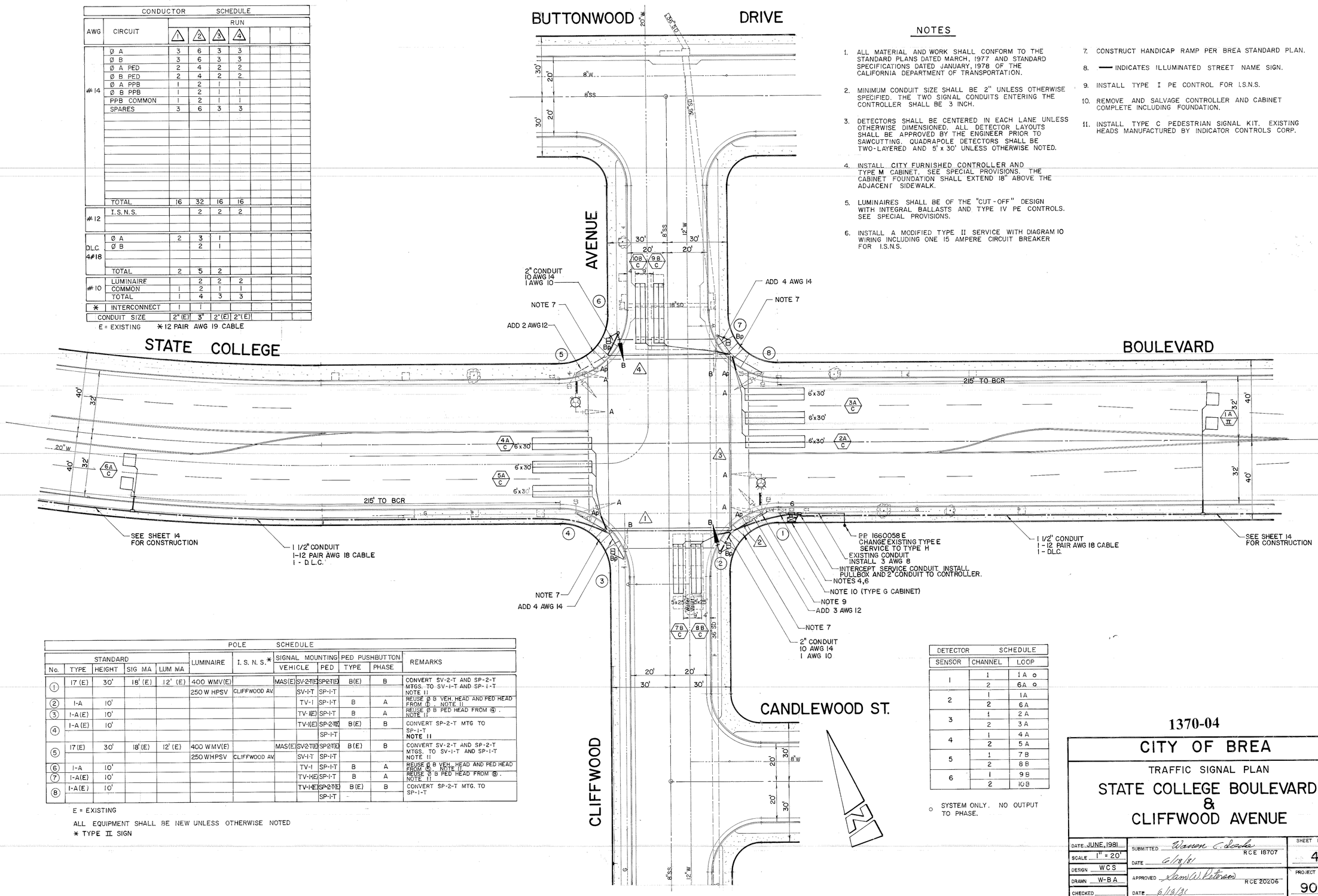
DRAWN BY: B.R.S., TEF
CHECKED BY: J.E.B.
DATE: 7-5-83
3621
SCALE: AS NOTED
SHEET NO. 6 OF 15

88-CW

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

CONDUCTOR SCHEDULE								
AWG	CIRCUIT	RUN 1	2	3	4			
#14	Ø A	3	6	3	3			
	Ø B	3	6	3	3			
	Ø A PED	2	4	2	2			
	Ø B PED	2	4	2	2			
	Ø A PPB	1	2	1	1			
	Ø B PPB	1	2	1	1			
	PPB COMMON	1	2	1	1			
	SPARES	3	6	3	3			
	TOTAL	16	32	16	16			
#12	I.S.N.S.		2	2	2			
DLC. 4#18	Ø A	2	3	1				
	Ø B		2	1				
	TOTAL	2	5	2				
#10	LUMINAIRE		2	2	2			
	COMMON	1	2	1	1			
	TOTAL	1	4	3	3			
*	INTERCONNECT	1	1					
CONDUIT SIZE		2"(E)	3"	2"(E)	2"(E)			

E = EXISTING * 12 PAIR AWG 19 CABLE



NOTES

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE STANDARD PLANS DATED MARCH, 1977 AND STANDARD SPECIFICATIONS DATED JANUARY, 1978 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION.
2. MINIMUM CONDUIT SIZE SHALL BE 2" UNLESS OTHERWISE SPECIFIED. THE TWO SIGNAL CONDUITS ENTERING THE CONTROLLER SHALL BE 3 INCH.
3. DETECTORS SHALL BE CENTERED IN EACH LANE UNLESS OTHERWISE DIMENSIONED. ALL DETECTOR LAYOUTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO SAWCUTTING. QUADRAPOLE DETECTORS SHALL BE TWO-LAYERED AND 5' x 30' UNLESS OTHERWISE NOTED.
4. INSTALL CITY FURNISHED CONTROLLER AND TYPE M CABINET. SEE SPECIAL PROVISIONS. THE CABINET FOUNDATION SHALL EXTEND 18" ABOVE THE ADJACENT SIDEWALK.
5. LUMINAIRES SHALL BE OF THE "CUT-OFF" DESIGN WITH INTEGRAL BALLASTS AND TYPE IV PE CONTROLS. SEE SPECIAL PROVISIONS.
6. INSTALL A MODIFIED TYPE II SERVICE WITH DIAGRAM 10 WIRING INCLUDING ONE 15 AMPERE CIRCUIT BREAKER FOR I.S.N.S.
7. CONSTRUCT HANDICAP RAMP PER BREA STANDARD PLAN.
8. ▬ INDICATES ILLUMINATED STREET NAME SIGN.
9. INSTALL TYPE I PE CONTROL FOR I.S.N.S.
10. REMOVE AND SALVAGE CONTROLLER AND CABINET COMPLETE INCLUDING FOUNDATION.
11. INSTALL TYPE C PEDESTRIAN SIGNAL KIT. EXISTING HEADS MANUFACTURED BY INDICATOR CONTROLS CORP.

POLE SCHEDULE											
STANDARD					LUMINAIRE	I.S.N.S.*	SIGNAL MOUNTING		PED PUSHBUTTON		REMARKS
No.	TYPE	HEIGHT	SIG MA	LUM MA			VEHICLE	PED	TYPE	PHASE	
1	17 (E)	30'	18' (E)	12' (E)	400 WMV(E)		MAS(E)	SV-2-T(E)	SP-2-T(E)	B(E)	B	CONVERT SV-2-T AND SP-2-T MTGS. TO SV-1-T AND SP-1-T NOTE 11
					250 W HPSV	CLIFFWOOD AV		SV-1-T	SP-1-T		
2	1-A	10'						TV-1	SP-1-T	B	A	REUSE Ø B VEH. HEAD AND PED HEAD FROM 1. NOTE 11
3	1-A(E)	10'						TV-1(E)	SP-1-T	B	A	REUSE Ø B PED HEAD FROM 4. NOTE 11
4	1-A(E)	10'						TV-1(E)	SP-2-T(E)	B(E)	B	CONVERT SP-2-T MTG TO SP-1-T NOTE 11
									SP-1-T		
5	17(E)	30'	18'(E)	12' (E)	400 WMV(E)		MAS(E)	SV-2-T(E)	SP-2-T(E)	B(E)	B	CONVERT SV-2-T AND SP-2-T MTGS. TO SV-1-T AND SP-1-T NOTE 11
					250 WHPSV	CLIFFWOOD AV		SV-1-T	SP-1-T		
6	1-A	10'						TV-1	SP-1-T	B	A	REUSE Ø B VEH. HEAD AND PED HEAD FROM 4. NOTE 11
7	1-A(E)	10'						TV-1(E)	SP-1-T	B	A	REUSE Ø B PED HEAD FROM 8. NOTE 11
8	1-A(E)	10'						TV-1(E)	SP-2-T(E)	B(E)	B	CONVERT SP-2-T MTG. TO SP-1-T
									SP-1-T		

E = EXISTING

ALL EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED

* TYPE II SIGN

DETECTOR SCHEDULE		
SENSOR	CHANNEL	LOOP
1	1	1A o
	2	6A o
2	1	1A
	2	6A
3	1	2A
	2	3A
4	1	4A
	2	5A
5	1	7B
	2	8B
6	1	9B
	2	10B

o SYSTEM ONLY. NO OUTPUT TO PHASE.

1370-04

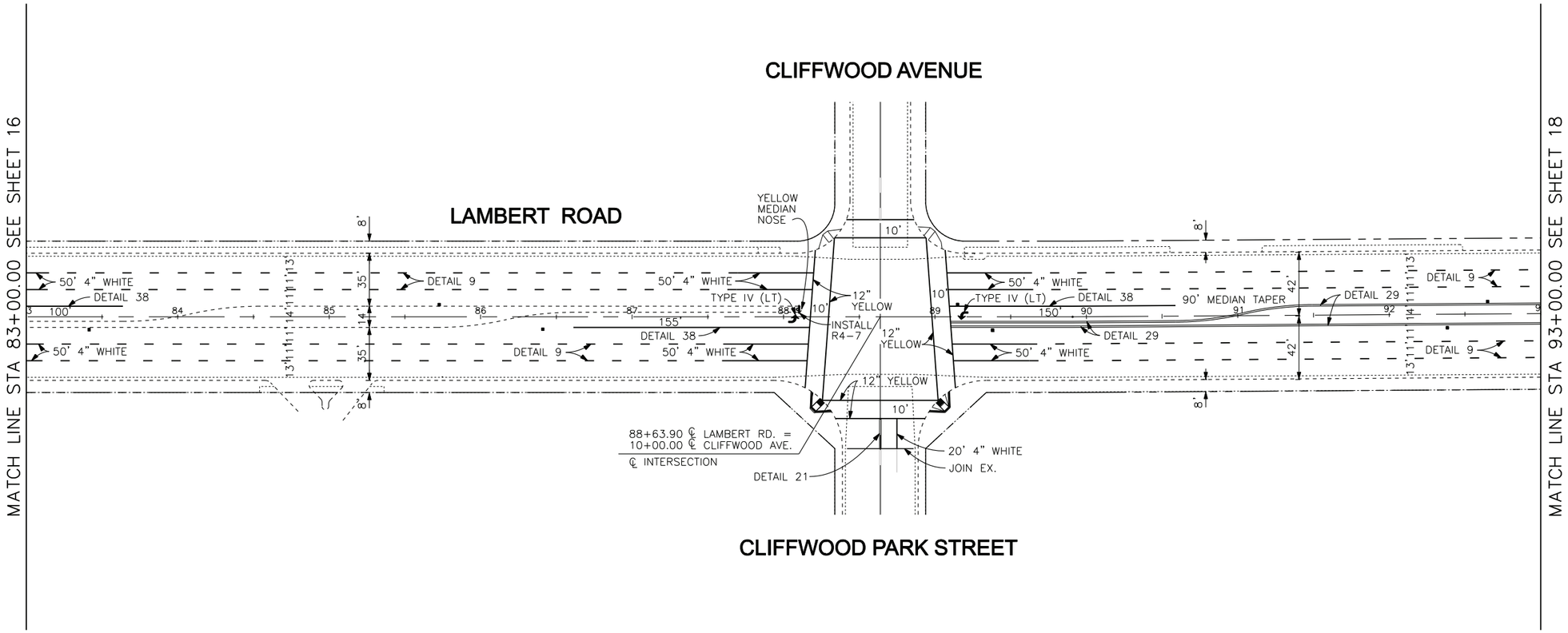
CITY OF BREA

TRAFFIC SIGNAL PLAN

STATE COLLEGE BOULEVARD & CLIFFWOOD AVENUE

DATE JUNE, 1981	SUBMITTED Warren C. Drake RCE 18707	SHEET NUMBER 4
SCALE 1" = 20'	DATE 6/18/81	
DESIGN WCS		
DRAWN W-B A	APPROVED Wm. A. Peterson RCE 20206	PROJECT NUMBER 9020
CHECKED	DATE 6/18/81	

T30



STRIPING NOTES

1. ALL WORK TO CONFORM TO CALTRANS STANDARD PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS.
2. REFLECTORIZE ALL STRIPES AND LEGENDS. PAVEMENT LEGENDS AND MARKINGS SHALL MATCH CITY STENCILS.
3. ALL CONFLICTING LINES, EXISTING CURB PAINT AND MARKINGS SHALL BE REMOVED BY WET SANDBLASTING OR OTHER APPROVED METHOD PRIOR TO INSTALLATION OF NEW STRIPING. ALL CONFLICTING RAISED PAVEMENT MARKERS SHALL BE REMOVED. PAVEMENT THAT IS DAMAGED DUE TO REMOVAL OF MARKERS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.
4. FIRST STRIPING COAT SHALL BE APPLIED WITHIN 24 HOURS OF SURFACE COURSE PLACEMENT ON STREETS OPEN TO PUBLIC. IN NO CASE SHALL A NEWLY PAVED STREET OPEN TO THE PUBLIC BE LEFT UNSTRIPED OVER A WEEKEND OR HOLIDAY.
5. STRIPING SHALL BE CAT-TRACKED AND APPROVED BY THE CITY ENGINEER PRIOR TO FINAL INSTALLATION.
6. ALL DETAILS AND MARKINGS NOTED HEREON SHALL CONFORM WITH CALTRANS STANDARD PLANS NOS. A20A THROUGH A20D AND A24A THROUGH A24E.

RECORD DRAWING

811 Know what's below. Call 811 before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

	INITIALS	DATE
DRAWN BY:	JO	6/13
DESIGNED BY:	BD	6/13
CHECKED BY:	RK	6/13

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
BREA CALIFORNIA
PUBLIC WORKS DEPARTMENT

STRIPING PLANS

LAMBERT ROAD

STA 83+00 TO STA 93+00

SHEET 17 OF 19

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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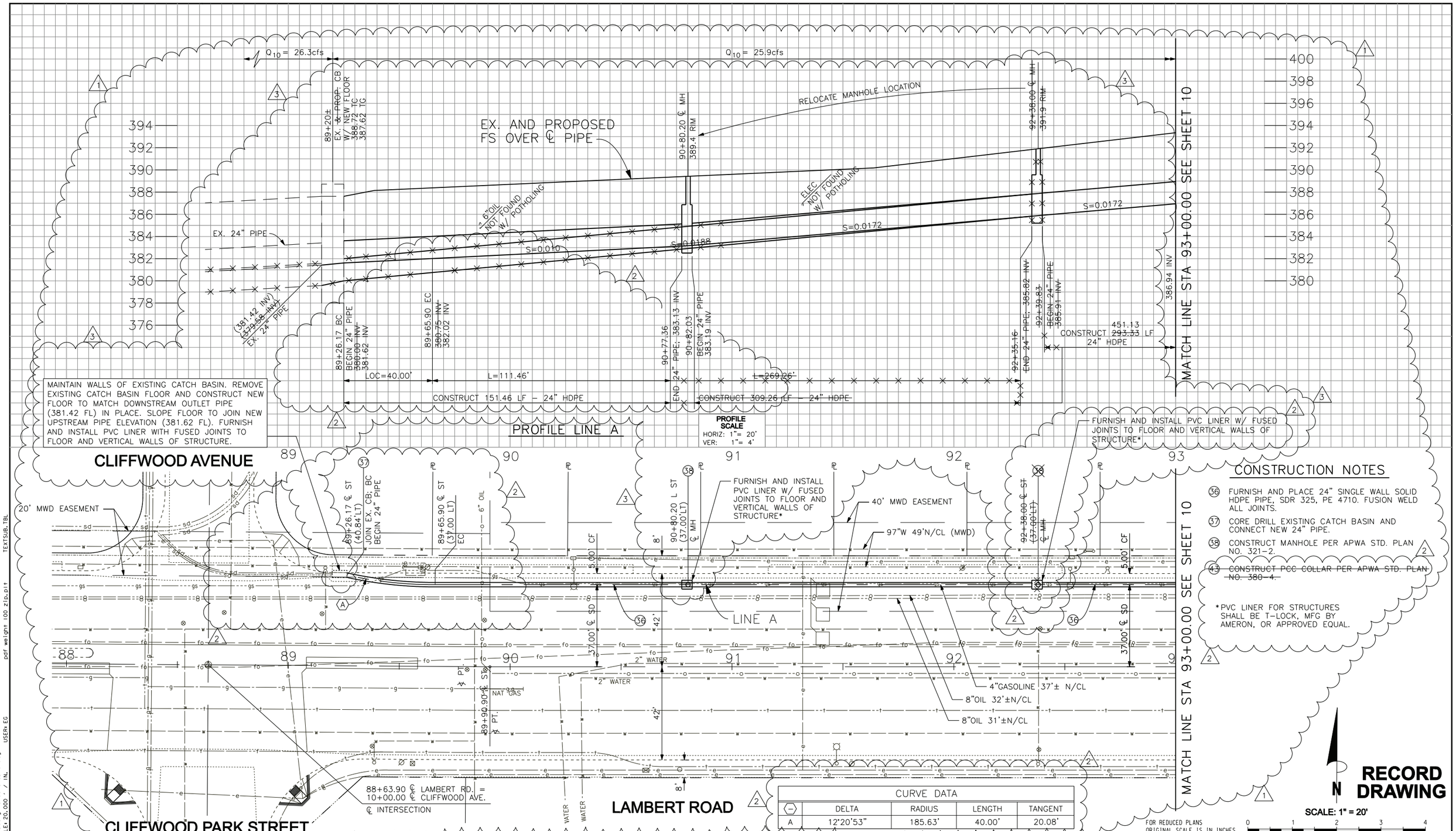

CURVE DATA				
	DELTA	RADIUS	LENGTH	TANGENT
A	12°20'53"	185.63'	40.00'	20.08'

Know what's below. Call 811 before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D
1	07/18/13	RK	ADDENDUM #1	
2	10/07/13	RK	REVISE PIPE CURVES; ADD PVC LINER TO STRUCTURES; REMOVE COLLAR; AND REVISE PROFILES	RK
3	12/30/13	RK	REVISE PROFILE AND CB @ 89+20	RK

REV.	DATE	BY	DESCRIPTION	APP'V'D

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

	INITIALS	DATE
DRAWN BY:	JO	6/13
DESIGNED BY:	BD	6/13
CHECKED BY:	RK	6/13

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
BREA CALIFORNIA
PUBLIC WORKS DEPARTMENT

STORM DRAIN IMPROVEMENT PLANS

LAMBERT ROAD

STA 88+00 TO STA 93+00

SHEET 9 OF 19

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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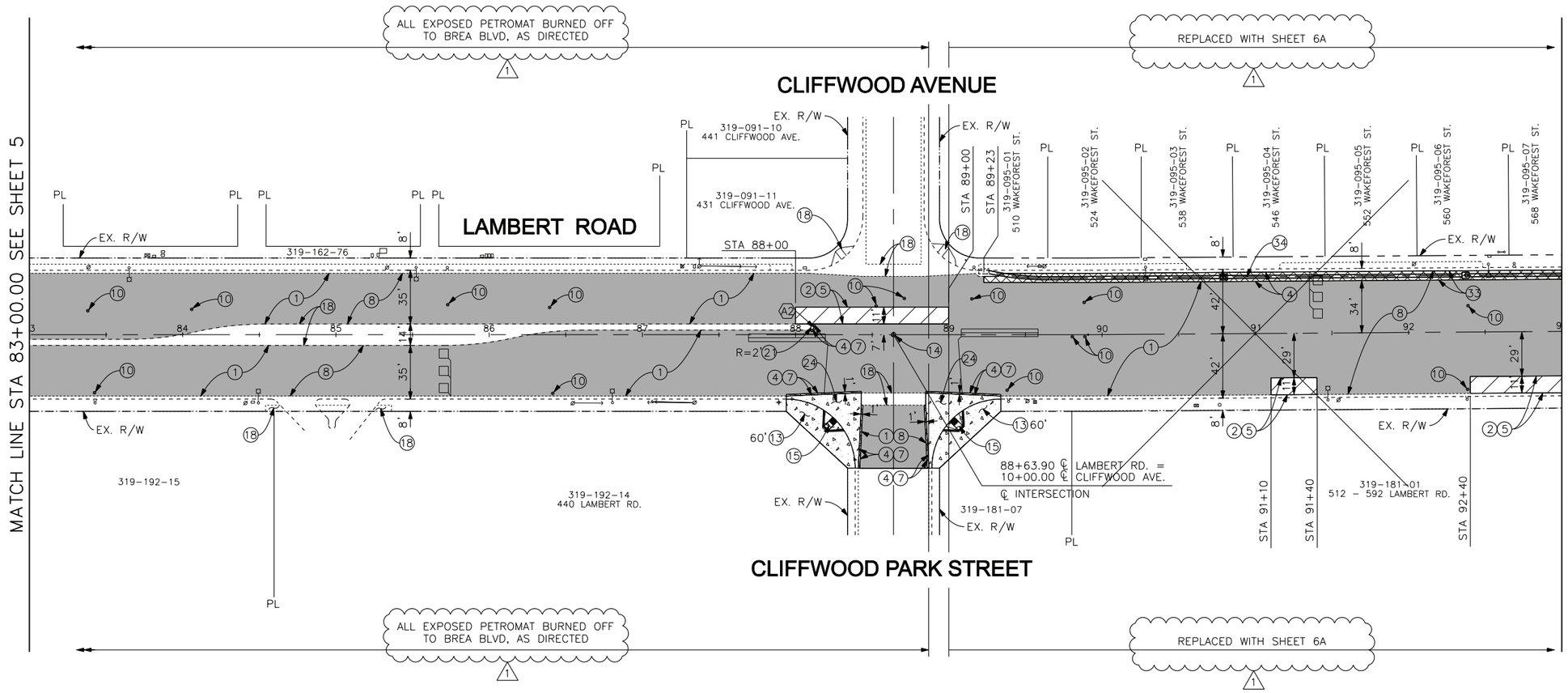

CONSTRUCTION NOTES

1. COLD PLANE EXISTING PAVEMENT TO A DEPTH OF 0.20'.
2. COLD PLANE EXISTING PAVEMENT TO A DEPTH OF 0.35'.
4. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION TO A DEPTH OF 1.45'.
5. FURNISH AND PLACE 0.15' AC BASE COURSE. LEAVE 0.20' BELOW PROPOSED FINISH SURFACE.
7. FURNISH AND PLACE 1.25' AC BASE COURSE. LEAVE 0.20' BELOW PROPOSED FINISH SURFACE. SCARIFY AND RECOMPACT AREAS OF EXISTING EXPOSED SUBGRADE.
8. FURNISH AND PLACE 0.20' ARHM AC CAP.
10. ADJUST WATER VALVE TO GRADE PER C.O.B. ST.D 309.
13. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT SIDEWALK PER APWA STD. PLAN NO. 112-2 WITH 4" OF SE 30 SAND UNDER SIDEWALK.
14. ADJUST SURVEY MONUMENT TO GRADE PER C.O.B. STD. 701 & 702.
15. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP WITH BLACK TRUNCATED DOME, CASE A, PER CALTRANS STD. PLAN NO. A88A, WITH 4" OF SE 30 SAND UNDER RAMP.
18. PROTECT IN PLACE
21. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT MEDIAN NOSE IMPROVEMENTS WITH TYPE A1 MEDIAN CURB PER APWA STD. PLAN NO. 120-2, AND 6" CMB UNDER CURB (RADIUS PER PLAN). CURB HEIGHT TO MATCH EXISTING MEDIAN CURB. CONSTRUCT MEDIAN CONCRETE TO MATCH EXISTING.
24. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT 8" PCC CROSS GUTTER SPANDREL OVER 6" CMB PER APWA STD. PLAN NO. 122-2.
33. FURNISH AND PLACE 1.25' AC BASE COURSE IN TRENCH SECTION OVER PROPOSED STORM DRAIN. LEAVE 0.20' BELOW PROPOSED FINISH SURFACE.
34. CONSTRUCT DRAINAGE IMPROVEMENTS PER SHEETS 9 THROUGH 13.

LEGEND

- COLD PLANE 0.20' DEPTH
- COLD PLANE 0.35' DEPTH
- COLD PLANE 0.55' DEPTH
- ROADWAY REMOVAL AND RECONSTRUCTION LIMITS
- PROPOSED PCC IMPROVEMENTS

CURVE DATA				
⟨–⟩	DELTA	RADIUS	LENGTH	TANGENT
A1	90°00'00"	2.00'	6.28'	–

N

SCALE: 1" = 40'

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3 4

RECORD DRAWING

Know what's below. Call 811 before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D
1	6/30/14	RK	AS-BUILT						

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

	INITIALS	DATE
DRAWN BY:	JO	6/13
DESIGNED BY:	BD	6/13
CHECKED BY:	RK	6/13

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER RICK KREUZER No. 42407 Exp. 3-31-14 CIVIL STATE OF CALIFORNIA

CITY OF BREA
BREA CALIFORNIA
PUBLIC WORKS DEPARTMENT

STREET IMPROVEMENT PLANS

LAMBERT ROAD

STA 83+00 TO STA 93+00

SHEET 6 OF 19

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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6/30/2014 10:48:15 AM SCALE: 40.000 : 1 IN.

POLE SCHEDULE

STANDARD NO.	STANDARD TYPE	STANDARD HEIGHT	STANDARD SIG. M.A.	STANDARD LUM.M.A.	LUMINAIRE	I.S.N.S. LEGEND	SIGNAL MOUNTING VEHICLE	SIGNAL MOUNTING PED.	PED. PUSH BUT. TYPE	PED. PUSH BUT. PHASE	REMARKS
1	15* (E)	30'	–	8'(E)	400W.M.V.(E)	–	–	–	–	–	SALVAGE EXIST. ELECTROLIER
2	19-2-70	30'	30'	15'	250W.H.P.S.V.	Cliffwood	MAS	SV-1-T	SP-1-T	B	B
3	1-A	10'	–	–	–	–	–	TV-1	SP-1-T	B	A
4	17-3-70	30'	15'	10'	250W.H.P.S.V.	Lambert	MAS	SV-1-T	SP-1-T	B	A
5	1-A	10'	–	–	–	–	–	TV-1	SP-1-T	B	B
6	15* (E)	30'	–	8'(E)	250W.M.V.(E)	–	–	–	–	–	SALVAGE EXIST. ELECTROLIER & ADAPTER. MOUNT NEW POLE ON EXISTING TYPE 26 BASE.
	19-2-70	30'	30'	15'	250W.H.P.S.V.	Cliffwood	MAS	SV-1-T	SP-1-T	–	–
7	PPB	4'-6"	–	–	–	–	–	–	–	B	B
8	1-A	10'	–	–	–	–	–	TV-1	SP-1-T	B	A
9	17-3-70	30'	20'	10'	250W.H.P.S.V.	Lambert	MAS	SV-1-T	SP-1-T	B	A
10	1-A	10'	–	–	–	–	–	TV-1	SP-1-T	B	B

* ORNAMENTAL CONCRETE (E)= EXISTING

SIGN SCHEDULE

POLE NO.	MOUNT ON POLE	MOUNT ON MAST ARM	FACING
4	–	R34	S
9	–	R34	N
A	R-18*		S
3	R-18		N

* UNISTRUT POST

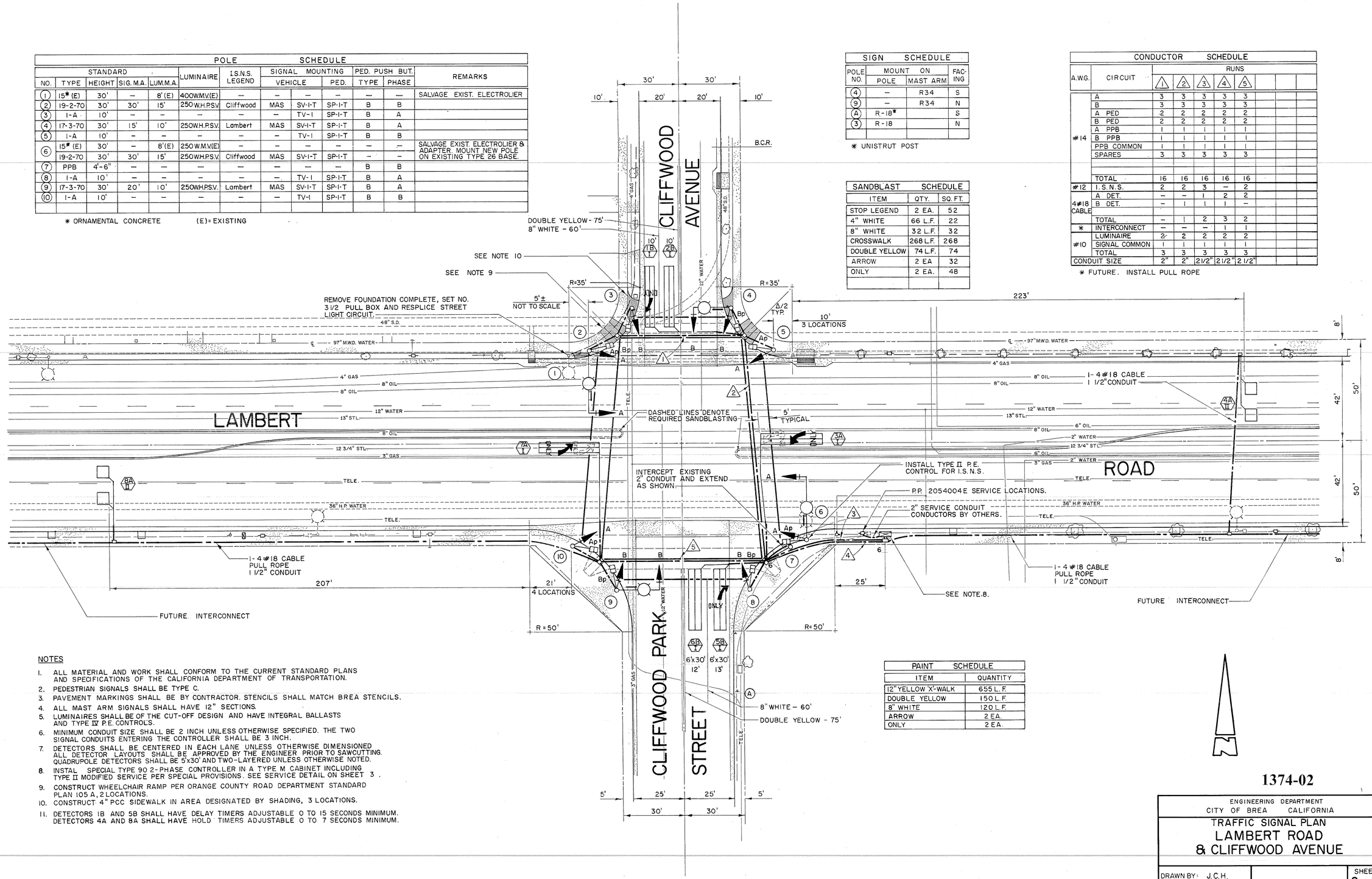
SANDBLAST SCHEDULE

ITEM	QTY.	SQ. FT.
STOP LEGEND	2 EA.	52
4" WHITE	66 L.F.	22
8" WHITE	32 L.F.	32
CROSSWALK	268 L.F.	268
DOUBLE YELLOW	74 L.F.	74
ARROW	2 EA	32
ONLY	2 EA.	48

CONDUCTOR SCHEDULE

A.W.G.	CIRCUIT	RUNS 1	2	3	4	5			
#14	A	3	3	3	3	3			
	B	3	3	3	3	3			
	A PED	2	2	2	2	2			
	B PED	2	2	2	2	2			
	A PPB	1	1	1	1	1			
	B PPB	1	1	1	1	1			
	PPB COMMON	1	1	1	1	1			
	SPARES	3	3	3	3	3			
	TOTAL	16	16	16	16	16			
#12	I.S.N.S.	2	2	3	–	2			
4#18 CABLE	A DET.	–	–	1	2	2			
	B DET.	–	1	1	1	–			
	TOTAL	–	1	2	3	2			
*	INTERCONNECT	–	–	–	1	1			
#10	LUMINAIRE	2	2	2	2	2			
	SIGNAL COMMON	1	1	1	1	1			
	TOTAL	3	3	3	3	3			
CONDUIT SIZE		2"	2"	2 1/2"	2 1/2"	2 1/2"			

* FUTURE. INSTALL PULL ROPE



NOTES

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE CURRENT STANDARD PLANS AND SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION.
2. PEDESTRIAN SIGNALS SHALL BE TYPE C.
3. PAVEMENT MARKINGS SHALL BE BY CONTRACTOR. STENCILS SHALL MATCH BREA STENCILS.
4. ALL MAST ARM SIGNALS SHALL HAVE 12" SECTIONS.
5. LUMINAIRES SHALL BE OF THE CUT-OFF DESIGN AND HAVE INTEGRAL BALLASTS AND TYPE IV P.E. CONTROLS.
6. MINIMUM CONDUIT SIZE SHALL BE 2 INCH UNLESS OTHERWISE SPECIFIED. THE TWO SIGNAL CONDUITS ENTERING THE CONTROLLER SHALL BE 3 INCH.
7. DETECTORS SHALL BE CENTERED IN EACH LANE UNLESS OTHERWISE DIMENSIONED ALL DETECTOR LAYOUTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO SAWCUTTING. QUADRUPOLE DETECTORS SHALL BE 5'x30' AND TWO-LAYERED UNLESS OTHERWISE NOTED.
8. INSTAL SPECIAL TYPE 90 2-PHASE CONTROLLER IN A TYPE M CABINET INCLUDING TYPE II MODIFIED SERVICE PER SPECIAL PROVISIONS. SEE SERVICE DETAIL ON SHEET 3 .
9. CONSTRUCT WHEELCHAIR RAMP PER ORANGE COUNTY ROAD DEPARTMENT STANDARD PLAN 105 A, 2 LOCATIONS.
10. CONSTRUCT 4" PCC SIDEWALK IN AREA DESIGNATED BY SHADING, 3 LOCATIONS.
11. DETECTORS 1B AND 5B SHALL HAVE DELAY TIMERS ADJUSTABLE 0 TO 15 SECONDS MINIMUM. DETECTORS 4A AND 8A SHALL HAVE HOLD TIMERS ADJUSTABLE 0 TO 7 SECONDS MINIMUM.

PAINT SCHEDULE

ITEM	QUANTITY
12" YELLOW 'X'-WALK	655 L.F.
DOUBLE YELLOW	150 L.F.
8" WHITE	120 L.F.
ARROW	2 EA.
ONLY	2 EA.

1374-02

ENGINEERING DEPARTMENT
CITY OF BREA CALIFORNIA

TRAFFIC SIGNAL PLAN
LAMBERT ROAD
& CLIFFWOOD AVENUE

PREPARED BY Warren C. Siecke 2/20/78
WARREN C. SIECKE R.C.E. 18707

DRAWN BY: J.C.H.
CHECKED BY: W.C.S.
DATE: FEB., 1978
SCALE: 1" = 20'

SHEET 2 OF 4

T34

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

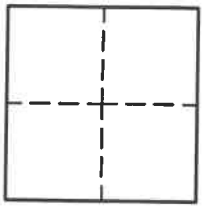
CORNER RECORD

Agency Index _____

Document Number _____

City of BREA **County of** ORANGE **, California**

Brief Legal Description LAMBERT ROAD & CLIFFWOOD AVENUE/CLIFFWOOD PARK STREET



CORNER TYPE

- ☐ Government Corner
- ☐ Meander
- ☐ Rancho
- ■ Control
- ☐ Property
- ☐ Other

Date of Survey 2/7/2020

COORDINATES (Optional)

N. _____ E. _____

Elevation _____

Units Metric ☐ U.S. Survey Foot ■

Horizontal Datum _____

Zone _____ Epoch Date _____

Vertical Datum _____

☐ Complies with Public Resources Code §§8801-8819

☐ Complies with Public Resources Code §§8890-8902

PLS Act Ref:	☐ 8765(d)	■ 8771	☐ 8773	☐ Other:
Corner/ Monument:	■ Left as found ☐ Found and tagged	☐ Established ☐ Reestablished	☐ Rebuilt ☐ Referenced	☐ Pre-Construction ■ Post-Construction

Narrative of corner identified and monument as found, set, reset, replaced, or removed:

■ See sheet #2 for description (s):

SURVEYOR'S STATEMENT

This Corner Record was prepared by me or under my direction in conformance with the Professional Land Surveyors' Act on 2/10/2020

Signed _____ P.L.S. ~~or R.C.E.~~ No. 5411

LICENSED LAND SURVEYOR LARRY V. CASE No. 5411 STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT

This Corner Record was received _____

and examined and filed _____

Signed _____ P.L.S. or R.C.E. No. _____

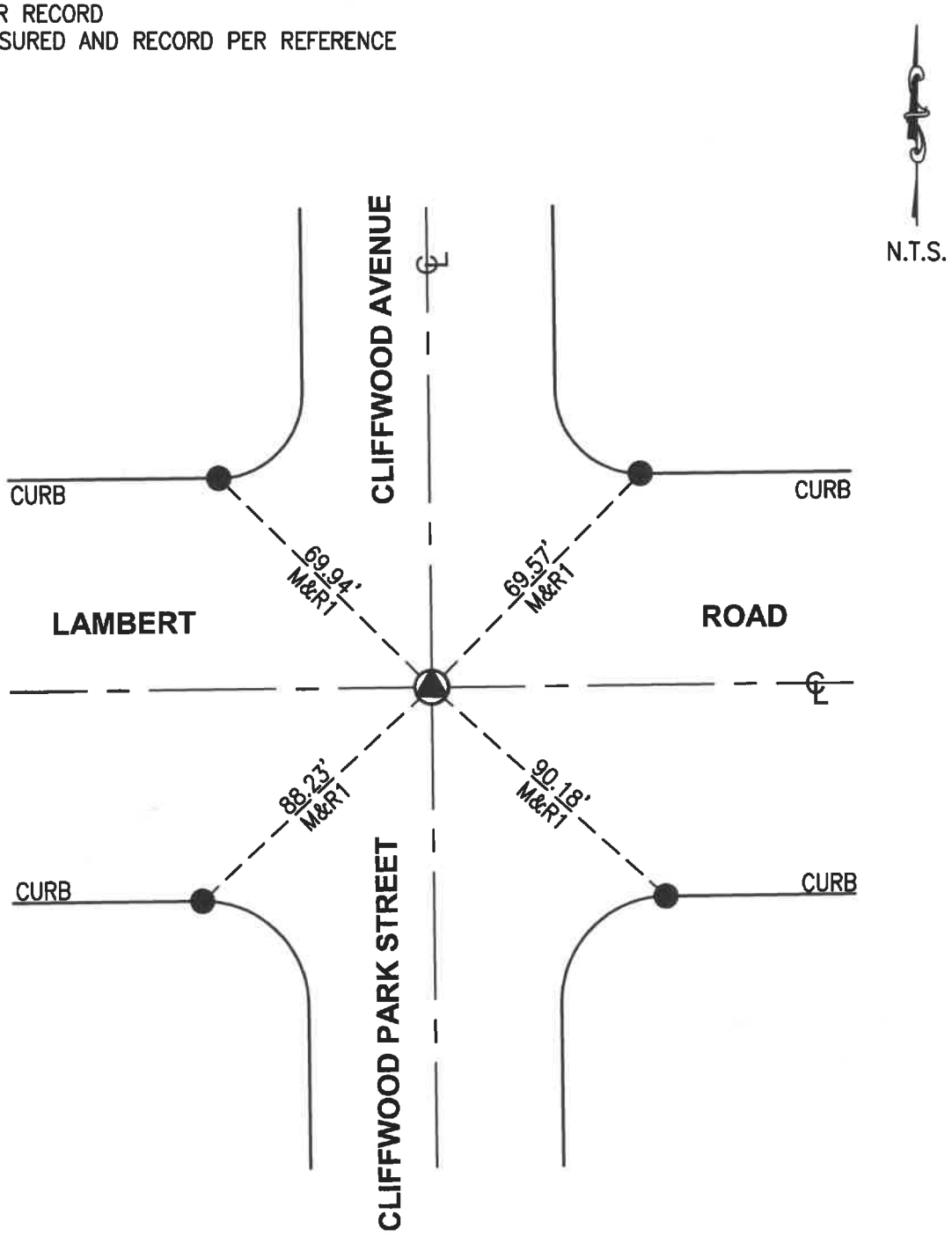
Title _____

County Surveyor's Comment _____

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Document Number _____ Agency Index _____

LEGEND
R1 = CORNER RECORD
M&RX = MEASURED AND RECORD PER REFERENCE



MONUMENT NOTES

▲ FD PUNCHED 2" BRASS DISK DOWN 1.3' IN O.C.S. WELL MON. PER R1, AFTER CONSTRUCTION.

● FD LEAD, TACK & TAG "LS 5411" IN TOP OF CURB PER R1.

THE PURPOSE OF THIS RECORD IS TO DOCUMENT THE PERPETUATION OF FOUND MONUMENT(S) PURSUANT TO THE PLS ACT SECTION 8771. NO CLAIM IS MADE REGARDING THE CORRECTNESS OF THE POSITION(S) OF SAID MONUMENT(S), NOR THE DIMENSIONAL RELATIONSHIP TO STREET CENTERLINES OR PROPERTY BOUNDARIES. 19-SUL-807

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION C

PROPOSAL

For

TRAFFIC SIGNAL MODIFICATION PROJECT
LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A),
STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE

CIP NO. 7717

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within a total of **50 Working Days (Schedule A) and 30 Working Days (Schedule B)**, starting from the date of the first Notice to Proceed until project completion.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enterinto a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Accompanying this proposal of bid, find_in the amount of $Bidder's Bond - Ten Percent which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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

Addenda No.	*Date Received*	*Bidder's Signature*
N/A		

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

SECTION C

TRAFFIC SIGNAL MODIFICATIO PROJECT
LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE
CIP NO. 7717

PROJECT BID SCHEDULE

BASE BID (SCHEDULE A)

ITEM #	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE (in figures) DOLLARS	ITEMS TOTAL (in figures) DOLLARS
1	Mobilization and Demobilization (5% Maximum)	1	LS	$ 6,853-	$ 6,853-
2	Traffic & Pedestrian Control and Construction Phasing	1	LS	$ 17,189-	$ 17,189-
3	Traffic Signal Modification	1	LS	$96,784-	$ 96,784-
4	Traffic Signing, Striping, Markings & Raised Pavement Markers	1	LS	$16,241-	$ 16,241-

TOTAL BASE BID (SCH. A) AMOUNT (in Figures) $ 137,067-

TOTAL BASE BID (SCH. A) AMOUNT (in Words): One Hundred Thirty Seven Thousand, Sixty Seven Dollars

ADDITIVE BID (SCHEDULE B)

ITEM #	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE (in figures) DOLLARS	ITEMS TOTAL (in figures) DOLLARS
1	Mobilization and Demobilization (5% Maximum)	1	LS	$ 9,470-	$ 9,470-
2	Traffic & Pedestrian Control and Construction Phasing	1	LS	$ 22,523	$ 22,523-
3	Traffic Signal Modification	1	LS	$159,009-	$159,009-
4	Traffic Signing, Striping, Markings & Raised Pavement Markers	1	LS	$ 7,871-	$ 7,871-

TOTAL ADDITIVE BID (SCH. B) AMOUNT (in Figures) $ 198,873-

TOTAL ADDITIVE BID (SCH. B) BID AMOUNT (in Words): One Hundred Ninety Eight Thousand, Eight Hundred Seventy Three Dollars

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TOTAL BASE BID (SCH. A) + ADDITIVE BID (SCH. B) AMOUNT (in Figures) $335,940-

TOTAL BASE BID (SCH. A) + ADDITIVE BID (SCH. B) AMOUNT (in Words): Three Hundred Thirty Five Thousand, Nine Hundred Forty Dollars

1. **The basis of the bid award will be on the lowest responsive and responsible bidders Base Bid Amount. However, the City Council at its discretion may elect to award the Base Bid Schedule A only, Base Bid Schedule A + Additive Bid Schedule B; only Additive Schedule B; or reject all bids.**

2. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders** MR **(Bidders Initials)**

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	*% Portion of Work*	*Name, Address and E-mail of Subcontractor*	*State License Number*	*Class*	*DIR Registration Number*
4	6	CHRISP CO. 43650 OSGOOD RD FREMONT, CA 94539	374600	C	1000000306
		Coester blad@ChrispCo.com			

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I, Matthew Edwards, am the
(Print Name)

Vice President of International Line Builders, Inc. dba ILB Electric,
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this 16 day of May, 2023

International Line Builders, Inc.
dba ILB Electric
Name of Bidder

Signature of Bidder Matthew Edwards - Vice President

3955 Temescal Canyon Road
Corona, CA 92883
Address of Bidder

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed _____

Title Matthew Edwards - Vice President

Firm International Line Builders, Inc. dba ILB Electric

Date 05/16/2023

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

UTILITY AGREEMENT

HONORABLE MAYOR AND CITY COUNCIL
CITY OF BREA, CALIFORNIA

Gentlemen:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B) , CIP No.7717**, (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"Qualified Person: *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

International Line Builders, Inc.
dba ILB Electric
Contractor

By

Matthew Edwards - Vice President
Title

Date: 05/16/2023

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

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 space provided.

N/A

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

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

International Line Builders, Inc.
dba ILB Electric
Contractor

By

Matthew Edwards - Vice President
Title

Date: 05/16/2023

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

International Line Builders, Inc. dba ILB Electric
Bidder Name

3955 Temescal Canyon Road
Business Address

Corona, CA 92883
City, State Zip

(951) 682-2982
Telephone Number

Nick.Harman@ilbinc.com
Email Address

782515 A-C10
State Contractor's License No. and Class

1000007032
DIR Registration Number

08/07/2000
Original Date Issued (State Contractor's License)

08/31/2024
Expiration Date

The work site was inspected by Nick Harman of our office on May 9, 2023

The following are persons, firms, and corporations having a principal interest in this proposal:

Matthew Edwards - Vice President

Daniel Haggard - President

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

International Line Builders, Inc. dba ILB Electric
Company Name

Signature of Bidder

Matthew Edwards - Vice President
Printed or Typed Signature

Subscribed and sworn to before me this____day of_____, 20__.

Please See Attached.

NOTARY PUBLIC _____

NOTARY SEAL

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Riverside

Subscribed and sworn to (or affirmed) before me on this 16 day of May, 2023, by Matthew Edwards, Vice President,
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

TIFFANY REINSIMAR
Notary Public - California
Riverside County
Commission # 2358591
My Comm. Expires May 23, 2025

(Seal)

Signature

The Bidder shall list the names, address, telephone numbers, and contract work for a minimum of **three** California public agencies for which the bidder has performed **traffic signal work** within the past **five** years:

1. Name and Address of Public Agency: City of Los Angeles / 1149 S. Broadway Ste 300 Los Angeles, CA 90015

   Name and Telephone No. of Public Agency Project Manager: Robert Tom / (213) 473-7426

$1,328,295.87	Lighting Improvement	08/21/2021
Contract Amount	Type of Work	Date Completed

   Description of Work:
   LA Main Street Lighting Improvement Unit 1

2. Name and Address of Public Agency: City of Norwalk / 12700 Norwalk Blvd, Norwalk CA 90651

   Name and Telephone No. of Public Agency Project Manager: Randy Hillman / (562) 929-5719

$664,484.00	Traffic Signal Improvements	10/01/2021
Contract Amount	Type of Work	Date Completed

   Description of Work:
   Traffic Signal Improvments Studebaker Road Rosecrans Ave to Alondra Blvd

3. Name and Address of Public Agency: City of Downey / 11111 Brookshire Ave, Downey, CA 90241

   Name and Telephone No. of Public Agency Project Manager: Chris Marquardt / (760) 201-3497

$1,306,629.00	Traffic Signal Upgrades	12/01/2021
Contract Amount	Type of Work	Date Completed

   Description of Work:
   Paramount Blvd Traffic Signal Upgrades and Safety Enhancements

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

Responsible Bidder – Supplemental Questionnaire

1.How many years has your organization been in business in California as a contractor under your present business name and license number?

39 Years

2.Is your firm currently the debtor in a bankruptcy case?

☐Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

N/A		
Case Number	Bankruptcy Court	Date Filed

3.Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

☐Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

N/A		
Case Number	Bankruptcy Court	Date Filed

4.Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

☐Yes ☒ No

5.At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

☐Yes ☒ No

6.Has your firm ever defaulted on a construction contract?

☐Yes ☒ No

If "yes," explain on a separate page.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

☐ Yes ☒ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

☐ Yes ☒ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

☐ Yes ☒ No

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

☐Yes ☒ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

☐Yes ☒ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

☐Yes ☒ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

☐Yes ☒ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

_%

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when one was required?

☐Yes ☒ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

☒Yes ☐ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

☐Yes ☒ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

☐Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid and the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

☐Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid and the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non- responsive.

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

International Line Builders, Inc.

Citation Summary — Past 5 years

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr State Inpsection:
11/13/17	**Accident**	**1**	**Serious**	**(see below)**	**under appeal**	**$18,000**	**1278237.015**

State: CA

Cal/OSHA, Title 8, Section 3330(a)

(a) Special handtools for placing and removing material shall be such as to permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall not be in lieu of other guarding required by these orders, but can only be used to supplement protection provided.

Two trench boxes, one on top of the other, secured by a bolt and nut through a sleeve. Top box being supported, ready to lift off lower box. As the employee reached to loosen the nut on the bottom of the sleeve, the lower box shifted downward as slurry settled. This action crushed the employee's finger between the nut and sleeve. The employer created a specialized tool post-incident. No tool existed from manufacturer or trench box provider prior to the incident. The incident took place on 8/30/17. The Cal/OSHA investigation began 11/13/17. This incident is still under appeal.

This citation was vacated in its entirety. We won the case against OSHA. No citations received.
Case status: Closed

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr Inpsection:
10/11/18	**Planned**	**2**	**Other**	**(see below)**	**Abated**	**$0.00**	**1353266.015**

State: WA

WAC 296-155-53306 Rigging Qualifications. (1)

(1) The rigger must meet the qualification requirements prior to performing hoisting for assembly and disassembly work.

Employee failed to produce a valid, up to date rigging and signaling training certification. Abated: Employees received rigging and signaling training.

Case status: Closed

WAC 296-155-53401 Duties of assigned personnel. (5)

(5) The site supervisor's duties.

The crew failed to identify the lift director on the electronic Daily Tailboard. Abated: lift director is identified on Daily Tail Board, and Employees received rigging and signaling training.

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr Inpsection:
12/18/19	**Accident**	**2**	**Serious**	**296-45-52525(1) 296-45-345(3)**	**Under appeal**	**$8,400**	**1454202.015**

State: WA

At 2:30 p.m. on December 17, 2019, Employee #1, employed by a power transmission line construction company, was working on power lines that spanned a river. A conductor failed, causing the employee and the equipment he was working from to fall into the river. The employee was rescued and transported to the hospital, where he died.

Case status: Open, Contested.

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr Inpsection:
07/20/20	**Other**	**3**	**Other Serious**	**342(A) 3203(A)(4) 2941(D)**	**Under appeal**	**$24,000**	**1484149.015**

State: CA

Pole structure collapse.
Case status: Open, Contested.

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr Inpsection:
04/28/21	**Referral**	**none**	**none**	**none**	**Notice in lieu of citation**	**$0.00**	**1528184.015**

State: CA

Heat Illness.
This was settled as a notice in lieu of a citation.
Case status: Closed

Inspection Date:	Type:	Number of Violations:	Type of Citations:	Description of Violations:	Result of Inspection:	Fine Amount:	Nr Inpsection:
11/22/21	**Planned**	**2**	**Serious**	296-45-345(3) 296-45-325(4)	Formal Settlement	**$14,000**	**1578413.015**

State: WA

Case status: Closed

Certified by

Date 03/28/2023

Justin Greene

Justin Greene
Regional Safety Director
International Line Builders, Inc.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE

International Line Builders, Inc. DBA ILB Electric as PRINCIPAL, and *
*Liberty Mutual Insurance Company
as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $ Ten Percent of Amount Bid (10%). THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled " Traffic Signal Modification Lambert Rd at Cliffwood Ave

"For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on May 16, 2023.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 16 day of May, 2023.

Liberty Mutual Insurance Company
Surety Heather R. Goedtel
Attorney-in-Fact

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS

International Line Builders, Inc. DBA ILB Electric
Principal

By: Matthew Edwards - Vice President

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of ~~California~~ Minnesota)
County of Hennepin)
)

On May 11, 2023 before me, Nicole Catherine Langer, Notary Public
(insert name and title of the officer)

personally appeared Heather R. Goedtel, Attorney-in-Fact

who provided to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ Minnesota that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)
(Signature of Notary Public)

NICOLE CATHERINE LANGER
Notary Public
State of Minnesota
My Commission Expires
January 31, 2028

BID DOCUMENT - FOR BIDDING PURPOSES ONLY

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Riverside)

On May 16, 2023 before me, Tiffany Reinsimar, Notary Public
(insert name and title of the officer)

personally appeared Matthew Edwards, Vice President,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

TIFFANY REINSIMAR
Notary Public - California
Riverside County
Commission # 2358591
My Comm. Expires May 23, 2025

Signature _____ **(Seal)**

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8209635-190003**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Blake S. Bohlig; Brian D. Carpenter; Craig Olmstead; Erik T. Gunkel; Haley Pflug; Heather R. Goedtel; Jessica Hecker; Kelly Nicole Enghauser; Laurie Pflug; Michelle Halter; Michelle Ward; Nicole Langer

all of the city of Bloomington state of MN each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 20th day of March, 2023.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 20th day of March, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 11th day of May, 2023.

By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

SECTION D

CONSTRUCTION AGREEMENT

TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO.7717

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and International Line Builders, Inc. dba ILB Electric a CA Corporation ("Contractor"). Contractor's CSLB license number is 782515 A-C10. Contractor's DIR registration number is 1000007032.

R E C I T A L S

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE & BALSA AVENUE (SCHEDULE B), CIP NO. 7717** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. <u>GENERAL SCOPE OF WORK</u>: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **TRAFFIC SIGNAL MODIFICATION PROJECT, LAMBERT ROAD AT CLIFFWOOD AVENUE-CLIFFWOOD PARK STREET (SCHEDULE A), STATE COLLEGE BOULEVARD AT CLIFFWOOD AVENUE AND BALSA AVENUE (SCHEDULE B), CIP NO. 7717** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. <u>CONTRACT PRICE AND PAYMENT</u>:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of **$ <u>335,940.00 (Total Base Bid (Schedule A) + Additive Bid (Schedule B))</u>.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with

City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. <u>CUSTOMER CARE</u>: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. <u>INCORPORATED DOCUMENTS</u>: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2015 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. COMPLETION DATE / LIQUIDATED DAMAGES:

A. Contractor shall complete the Project within **50** working days from the date of the Notice to Proceed for Schedule A work and **30** working days from the date of the Notice to Proceed for Schedule B work ("Completion Date").

B. Liquidated damages will be assessed in the amount of **$1,700.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

7. INSURANCE:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

"It is hereby understood and agreed that this policy may not be canceled nor the

amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project. Contractor agrees to not be debarred

at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. UNRESOLVED DISPUTES:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. ANTI-TRUST CLAIMS: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. THIRD PARTY CLAIMS: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. RIGHT TO AUDIT: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

13. TRENCHING AND EXCAVATIONS:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. UTILITIES: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. LOCATION OF EXISTING ELEMENTS: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating

firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. <u>CONTRACTOR'S LIABILITY</u>:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. ASSIGNMENT: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. CONTRACTOR'S REPRESENTATIONS: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. NOTICES: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

To City:
Director of Public Works
City of Brea
1 Civic Center Circle
Brea, California 92821

To Contractor:
Mathew Edwards – Vice President
International Line Builders, Inc. dba ILB Electric
3955 Temescal Canyon Road
Corona, CA 92883

20. NON-DISCRIMINATION: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. APPLICABLE LAW: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. INCORPORATION OF MANDATORY LANGUAGE: Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

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

24. NON-WAIVER OF TERMS: Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. AUTHORITY: Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. COUNTERPARTS: This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

INTERNATIONAL LINE BUILDERS, INC. DBA ILB ELECTRIC

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Award Contract to R.J. Noble Company for the Brea Boulevard Street Improvements W. Juniper St. to Imperial Highway (SR90), CIP Project No. 7299

RECOMMENDATION

1. Approve the Plans and Specifications;
2. Receive bids;
3. Award Contract to the lowest responsive and responsible bidder, R.J. Noble Company in the amount of $758,639.45; and,
4. Authorize the City Engineer to issue Change Orders up to a "not-to-exceed" amount of 10% of the Contract Price.

BACKGROUND/DISCUSSION

Brea Blvd. Street Improvements W. Juniper to Imperial Hwy (SR90), CIP 7299 (“Project”) was programmed within the FY 2021-22 Capital Improvement Program (“CIP”). The Project is located along Brea Blvd. from W. Juniper to the south and Imperial Hwy (SR90) to the north (Attachment A). The project generally consists of. but is not limited to, mobilization, reconstruction of twelve (12) existing curb access ramps and reconstruction of adjacent curb, gutter, sidewalk, cross gutter, and roadway structural section improvements, roadway preparation, and application of a Type 2 slurry seal to the roadway surface and replacement of all pavement striping.

On April 21, 2023, the Final Plans and Specifications (“Bid Documents”) were accepted by staff, and the Project was advertised for bids on the CIPlist.com website and subsequently published in the Star Progress paper before bid opening. A hard copy of the Bid Documents is available at the City Clerk’s office for review (Attachment B). One addendum was issued during the bid period, which updated the Caltrans permit requirements and one bid item description. Therefore, staff recommends City Council approve the Plans and Specifications with Addendum #1 as bid.

On May 23, 2023, staff received five (5) bid proposals (See Bid Result Table). Soon after that, staff tabulated the bid proposals and determined that the apparent low bid amount was $758,639.45 from R.J. Noble Company (“R.J. Noble”) from Orange, CA (Attachment C). The Engineer’s Estimate was $620,000. Staff evaluated the bid proposal and determined that the bid unit prices from R.J. Noble were considered reasonable compared to the Engineer’s Estimate and current bid unit prices at the time of the bid.

BIDDER NAME	BID AMOUNT

R.J. Noble Company	$758,639.45
Sequel Contractors Inc.	$778,463.00
All American Asphalt	$908,176.69
Onyx Paving	$999,000.00
Palp, Inc. Dba Excel Paving	$1,058,287.00

R.J. Noble has been in the construction business for 73 years and has completed the construction of similar pavement rehabilitation improvement projects for the City of Placentia, City of Irvine, and City of Huntington Beach. Their California Contractor's license is 782908 – A (General Engineering) and C12 (Earthwork and Pavement), and Department of Industrial Relations registration number is 1000004235; both have been verified by staff, and their bid package meets the City's proposal requirements. In addition, staff contacted the City of Huntington Beach, City of Irvine, and City of Placentia, where the contractor received favorable reviews. Furthermore, based on the bid above review, staff has determined R.J. Noble's bid to be responsive and that they are a responsible bidder. Therefore, staff recommends that the City Council consider awarding a Construction Contract to R.J. Noble as the apparent lowest responsive and responsible bidder, amounting to $758,639.45 (Attachment D).

SUMMARY/FISCAL IMPACT

The approved FY 2023-24 CIP Project budget for Construction and Construction Engineering is $1,270,534.00. The total cost for Construction and Construction Engineering is $914,503.40, which includes the apparent low bid amount ($758,639.45), a 10% contingency ($75,863.95), and Construction Engineering costs ($80,000.00). The sources of funds within the approved budget are from RMRA (Fund 221). Therefore, there are sufficient funds to complete the Project construction. Upon completion of the Project, the remaining fund balance will be de-obligated and transferred back into RMRA (Fund 221) for use on other pavement rehabilitation projects in the City. There is no fiscal impact on the General Fund from this Project. See the budget table below:

DESCRIPTION	AMOUNT
Construction (R.J. Noble Contract)	$758,639.45
Construction Contingency (10%)	$75,863.95
Construction Engineering	$80,000.00
Total Construction Cost	**$914,503.40**
Approved FY 2023-24 Budget	**$1,270,534.00**

The Project will reconstruct twelve (12) existing curb access ramps, reconstruct adjacent curb, gutter, sidewalk, and cross gutter, complete roadway structural section improvements, roadway preparation and application of a Type 2 slurry seal to the roadway surface, and replacement of all pavement striping along Brea Blvd. from W. Juniper to Imperial Hwy (SR90). If City Council approves staff recommendations, the Project is anticipated to start construction in August 2023 and be completed by October 2023.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Ryan Chapman, P.E., Assistant City Engineer
Concurrence: Michael Ho, P.E., Public Works Director/City Engineer

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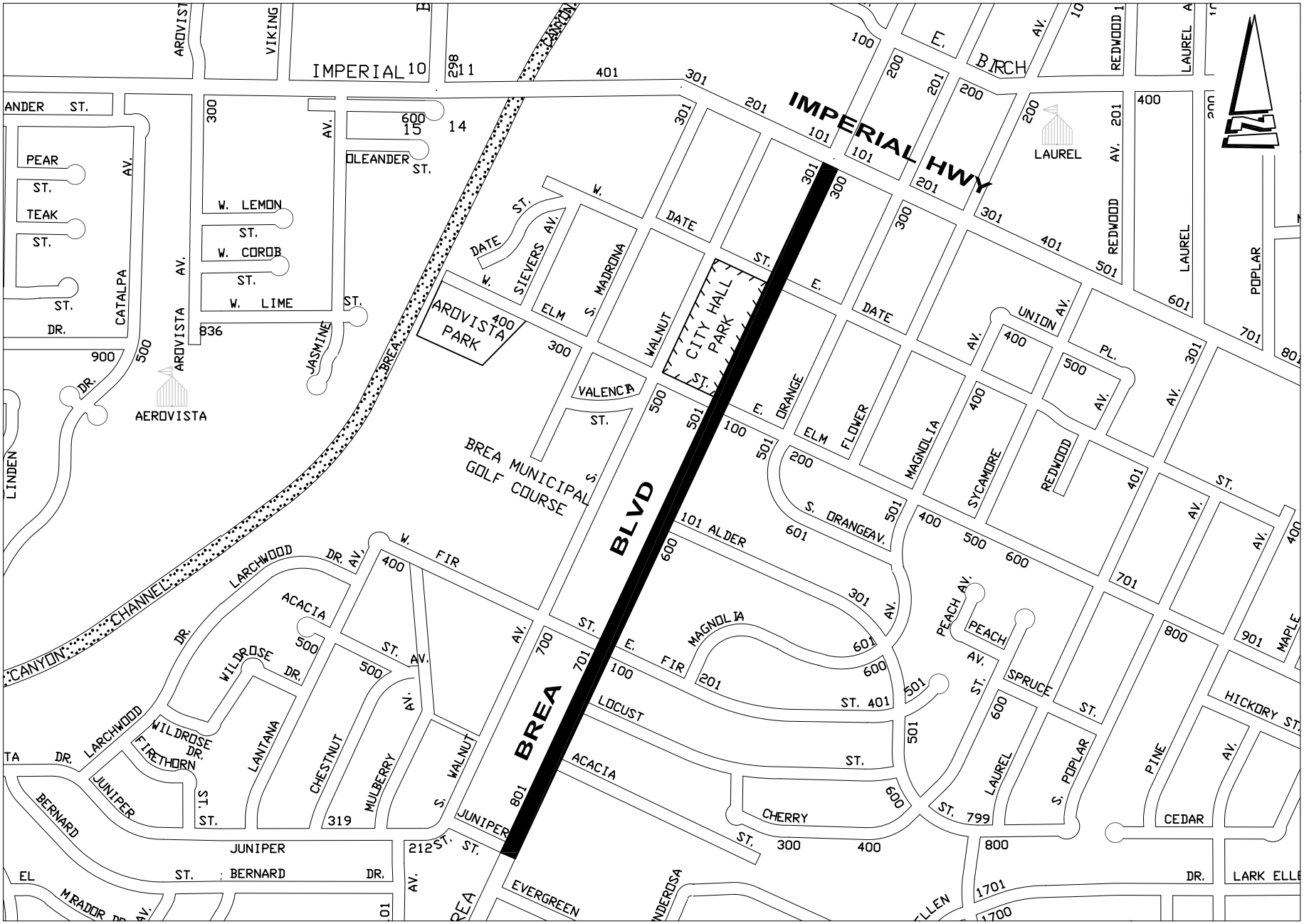
Attachments

Attachment A - Location Map
Attachment B - Bid Documents
Attachment C - R.J. Noble Bid Proposal
Attachment D - Construction Contract Agreement

PROJECT 7299

STREET IMPROVEMENTS - BREA BLVD STREET IMPROVEMENTS



VICINITY MAP

NOT TO SCALE

CONSTRUCTION PLANS

FOR

BREA BOULEVARD

STREET IMPROVEMENTS

CIP NO. 7299

IN THE

CITY OF BREA, CALIFORNIA

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

THE CONTRACTOR AND ALL SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTOR'S AND ALL SUBCONTRACTOR'S COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

CONTRACTOR FURTHER AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CIVIL ENGINEER.

PROJECT CONTACTS

SERVICES / COMPANY	CONTRACT PERSON	EMERGENCY TELEPHONE NO.
TIME WARNER COMMUNICATION	DAVE GATE	(714) 903-8380 OR 903-8260
AT&T-TCA	MARIA GUZMAN	(714) 666-5467
SOUTHER CALIFORNIA GAS CO.	STEVE ALCALA	(714) 634-3185
SOUTHERN CALIFORNIA EDISON	VICTOR PEDROZA	(714) 870-3228
VERIZON TELEPHONE	TOM MONAHAN	(562) 903-7939
CALIF. DOMESTIC MUN. WATER CO.	CHE VENEGA	(562) 947-3811
GOLDEN STATE WATER CO.	STAN YARBROUGH	(714) 535-8010 EXT. 320
OC METROPOLITAN WATER DIST.	KIERAN CALLANAN	(213) 217-7474
CHEVRON OIL	MIKE ROBERTS	(714) 228-1530
SHELL PIPELINE., LP	DAVID FELGER	(310) 816-2063
EXXON-MOBIL PIPELINE CO.	TERI SHINDE	(310) 212-1794
CONOCO PHILLIPS	LEO MARTINEZ	(805) 226-2656
CENTURYLINK - LEVEL 3	CALEB KING	(918) 547-0007
CRIMSON PIPELINE, LP	APRIL C. HARVEY	(562) 285-4112
PLAINS ALL AMERICAN PIPELINE	MICHAEL EIDMAN	(562) 728-2394
CITY ENGINEER	MICHAEL HO	(714) 990-7666
BREA WATER DEPARTMENT		(714) 990-7697
BREA MAINTENANCE DEPT.		(714) 990-7691
BREA POLICE DEPT.		(714) 990-7626
BREA FIRE DEPT. - ADMINISTRATION		(714) 990-7644
BREA-OLINDA UNIFIED SCHOOL DIST.		(714) 990-7800
BREA DISPOSAL		(714) 238-3300
BREA POST OFFICE		(714) 529-2163

SURVEY NOTES

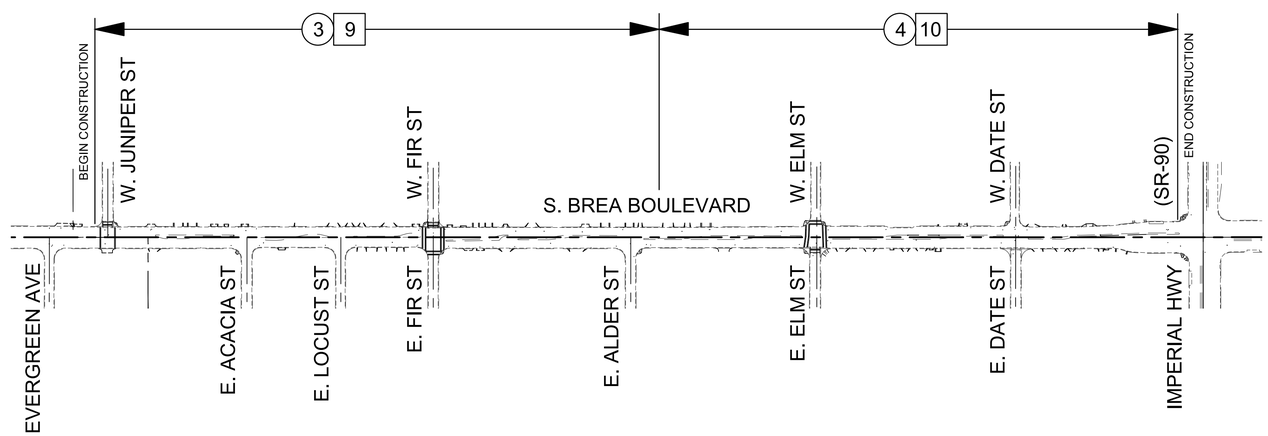
BASIS OF BEARING

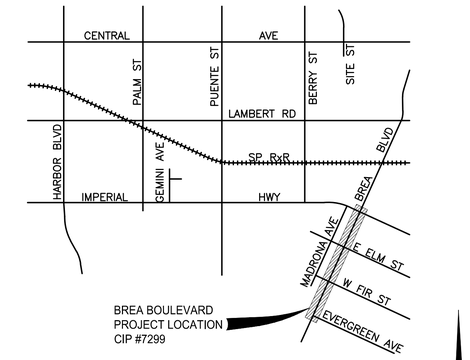
THE BASIS OF BEARING FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 6, NAD 83 EPOCH 2017.50 AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER.

BENCHMARK

FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "2F-23-90", SET IN THE EAST CORNER OF A 5.5 FT. BY 5.5 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED ALONG THE WESTERLY SIDE OF BREA BOULEVARD, 43 FT. NORTHWESTERLY OF THE CENTERLINE OF BREA BOULEVARD AND 180 FT. NORTHEASTERLY OF THE CENTERLINE OF ALDER STREET. MONUMENT IS SET LEVEL WITH SIDEWALK.

ELEV = 352.774 NAVD 1988





VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES TO CONTRACTOR

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BREA STANDARD PLANS, CALTRANS STANDARD PLANS (2018), SPPWC STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2015).
2. THE CONTRACTOR SHALL MAKE A PHYSICAL INSPECTION OF THE PROJECT SITE AND REPORT ALL VARIATIONS, INCONSISTENCIES, OR CHANGED CONDITIONS TO THE ENGINEER PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSUMPTIONS, REMEDIAL ACTIONS, OR ADAPTATIONS MADE IN THE FIELD WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGES OR ALTERATIONS TO EXISTING PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER AT NO COST TO THE CITY.
4. ALL DIMENSIONS SHALL BE VERIFIED BY PLANS OR FIELD INSPECTION. AT NO TIME SHALL ANY DIMENSIONS BE SCALED FROM PLANS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL VARIATIONS IN DIMENSIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. ALL JOINTS AND JOIN LOCATIONS AND UNDERGROUND UTILITY LOCATIONS SHALL BE FIELD VERIFIED.
6. AT ALL TIMES, GUTTER AND SWALE GRADES SHALL BE MAINTAINED, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AND EFFECTED AGENCIES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. ALL ASPHALT PAVEMENT IMPROVEMENTS INDICATED TO BE REMOVED SHALL BE SAWCUT WITH STRAIGHT LINES AT THE LINE OF REMOVAL.
9. ALL WORK IN THE PUBLIC RIGHT-OF-WAY, ONCE BEGUN, MUST BE DILIGENTLY PURSUED UNTIL COMPLETION AS SOON AS POSSIBLE.

UNAUTHORIZED CHANGES AND USES:

THE CIVIL ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE CITY OF BREA.

SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES AND DETAILS
3-4	STREET IMPROVEMENT PLANS
5-8	ACCESS RAMP DETAILS
9-10	STRIPING PLANS

INDEX LEGEND

(#) STREET PLANS

[#] STRIPING PLANS

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED UNDER THE SUPERVISION OF:

RICK KREUZER, PE — DATE 4/3/23
R.C.E. NO. 42407

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

CITY REVIEW BLOCK

	REVIEWED BY	DATE
ENGINEERING		
TRAFFIC ENGINEERING		
MAINTENANCE - STREET		
MAINTENANCE - WATER		
MAINTENANCE - PARKS		

APPROVED BY:

CITY ENGINEER

R.C.E. NO.: EXP. DATE:

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BREA BOULEVARD STREET IMPROVEMENTS

TITLE SHEET

SHEET 1 OF 10

BREA BOULEVARD STREET IMPROVEMENT PLANS

CIP 7299

4/3/2023 10:35:21 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\01 BREA TITLE.DWG – CLAIRE BARR

BID SET FOR BIDDING PURPOSES ONLY

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE CITY OF BREA, STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, (GREENBOOK) 2015 EDITION AND CALTRANS STANDARDS (2018) AS APPLICABLE. ALL WORK SHALL BE SUBJECT TO THE CITY ENGINEER'S ACCEPTANCE AS A CONDITION OF COMPLETION OF WORK BY THE CONTRACTOR.
2. WORK NOT DONE IN THE PRESENCE OF THE CITY INSPECTOR IS SUBJECT TO REJECTION.
3. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE COMPLETED WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO TRAVELLING PUBLIC.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH PROJECT CONSTRUCTION.
5. ANY WALLS, FENCE, STRUCTURE AND/OR APPURTENANCE ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF THE CONTRACTORS ACTIVITIES DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY.
6. ALL DAMAGED AND/OR REMOVED DRIVEWAY APPROACH, P.C.C SIDEWALK OR CURB AND GUTTER SHALL BE RECONSTRUCTED ACCORDING TO THE CITY OF BREA STANDARD DRAWINGS (UNLESS NOTED OTHERWISE).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING OF THE PROPOSED WORK AREA.
8. THE CONTRACTOR IS RESPONSIBLE FOR OVERALL JOBSITE MAINTENANCE; INCLUDING BUT NOT LIMITED TO STREET/SITE SWEEPING, TRASH AND/OR CONSTRUCTION-RELATED DEBRIS/WASTE, STORMWATER POLLUTION PREVENTION BMP'S, ETC.
9. NO TRENCHES MAY BE LEFT OPEN OVERNIGHT UNLESS APPROVED IN WRITING BY THE CITY ENGINEER. SHOULD THE CONTRACTOR REQUEST TO LEAVE THE TRENCHES OPEN A PLAN FOR PROTECTING THE TRENCH AND THE PUBLIC SHALL BE SUBMITTED TO THE CITY ENGINEER IN WRITING FOR APPROVAL BEFORE BEING IMPLEMENTED.
10. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A) AS REQUIRED PRIOR TO THE START OF THE WORK. UPON EXPOSING ANY UTILITY'S UNDERGROUND FACILITY, THE CONTRACTOR SHALL NOTIFY THAT UTILITY IMMEDIATELY. IF ANY UTILITIES OR FACILITIES CONFLICT WITH PROPOSED IMPROVEMENTS, THE CITY ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
11. ALL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE IN PLACE PRIOR TO BEGINNING OF EXCAVATION, TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY ENGINEER.
12. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY/ SUBSTRUCTURE CROSSINGS WITHIN THE ALIGNMENT OF THE PROPOSED IMPROVEMENTS BEFORE CONSTRUCTING ANY WATER ON SEWER LINES. THE CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING UTILITIES/ SUBSTRUCTURES ON THESE PLANS AND THOSE FOUND DURING CONSTRUCTION.
13. THE CONTRACTOR IS ADVISED THAT ALL EXCAVATED MATERIALS SHALL BECOME HIS PROPERTY FOR BACKFILL SUBJECT TO APPROVAL OF SOILS ENGINEER AND ANY UNUSED MATERIAL SHALL BE REMOVED FROM THE JOB UNLESS INSTRUCTED BY THE CITY ENGINEER TO DO OTHERWISE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE DURING ALL PHASES OF THE WORK TO PROVIDE FOR PUBLIC SAFETY AND CONVENIENCE. THE CONTRACTOR SHALL ESTABLISH ADEQUATE ACCESS TO ALL ENTRIES/ DRIVEWAYS/ GARAGES AND PARKING LOTS DURING THE WORKING DAY TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL GIVE COURTEOUS NOTICE (KNOCK ON DOOR) TO AN ADJACENT PROPERTY IMMEDIATELY PRIOR TO BLOCKING ENTRY/ DRIVEWAY/ GARAGE ACCESS. PEDESTRIAN ACCESS IS TO BE PROVIDED AND MAINTAINED BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL ADJUST MANHOLES AND VALVE COVERS TO FINISHED GRADE. THE CONTRACTOR SHALL ADJUST, TIGHTEN AND/OR REPAIR MANHOLES, LIDS AND COVERS BY THE END OF EACH WORKING DAY TO ENSURE MINIMAL IMPACT (NOISE AND OTHERWISE) TO ADJACENT PROPERTY OWNERS.
16. THE CONTRACTOR SHALL FURNISH AND OPERATE A SELF-LOADING STREET SWEEPER WITH SPRAY NOZZLES AT LEAST TWICE EACH WORKING DAY TO KEEP PAVED AREAS ACCEPTABLY CLEAN WHEREVER CONSTRUCTION, INCLUDING RESTORATION, IS INCOMPLETE.
17. ALL PORTLAND CEMENT CONCRETE (P.C.C.) AND ASPHALT CONCRETE (A.C.) SHALL BE REMOVED TO A SAWCUT, COLD JOINT, SCORE MARK OR EDGE OF PAVEMENT. NO "FLOATER" SLABS WILL BE PERMITTED. SAWCUT SLURRY SHALL BE REMOVED WITH A VACUUM MACHINE AND DISPOSED OR PROPERLY. NO SLURRY SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM.
18. ALL PORTIONS OF STREET AFFECTED BY CONSTRUCTION OUTSIDE OF TRENCH, INCLUDING T-CUT, SHALL BE RESTORED PER CITY OF BREA STD DWG 102-0. SHOULD ANY LINEAR OR AREA TRENCH JOINT BE LOCATED WITHIN 36" OF AN EXISTING PAVEMENT PATCH AND/OR CURB AND GUTTER ALIGNMENT, THE ADJACENT PAVEMENT SECTION/ PATCH MUST BE REMOVED AND REPAVED ALONG WITH THE TRENCH PAVEMENT RESTORATION. ALL STRIPING & PAVEMENT MARKING SHALL BE REPLACED IN EXISTING & IN NEW PAVEMENT. GRINDING TO BE PERFORMED PER CITY ENGINEER INSTRUCTION. ALL TRAFFIC SIGNAL LOOPS DAMAGED BY PROJECT WORK SHALL BE REPLACED IN THEIR ENTIRETY BACK TO CONTROL PANEL. CONTRACTOR SHALL TUNNEL UNDER AND PROTECT IN PLACED STAMPED CONCRETE OR PAVERS, CROSSWALKS, CURB & GUTTERS.
19. CONTRACTOR AND ALL SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS". PRIOR TO COMMENCING THE EXCAVATION OF A TRENCH 5 FEET IN DEPTH OR GREATER AND INTO WHICH A PERSON WILL BE REQUIRED TO DESCEND. THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT TO DO SO FROM THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA (CAL OSHA) PURSUANT TO 7-10 4.1. CONTRACTOR SHALL SUBMIT A COPY OF THE SHORING PLAN AND PERMIT TO THE ENGINEER PRIOR TO EXCAVATION.
20. THE CITY SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS' COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR OR WITH THE STARE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDER".
21. THE LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS & PROFESSIONAL CODE, AND SECTION 732.05, 1492-5, 1810-5 OF THE STREETS AND HIGHWAY CODE REQUIRE THAT EXISTING SURVEY MONUMENTS SHALL BE PROTECTED AND PERPETUATED. IF DAMAGED THEY ARE TO BE REPLACED AND A RECORD OF SURVEY IS TO BE PREPARED BY THE PROJECT SURVEYOR AND FILED WITH THE CITY ENGINEER AND THE COUNTY SURVEYOR.
22. BIDDERS MUST HOLD A VALID CALIFORNIA CLASS A CONTRACTOR'S LICENSE.
23. THERE SHALL BE A MINIMUM OF 1 CERTIFIED EMPLOYEE ON SITE AT ALL TIMES ON CONSTRUCTION WITH RED CROSS FIRST AID TRAINING INCLUDING CPR TRAINING FOR THIS PROJECT. ALL EMPLOYEES ON THE PROJECT ARE TO HAVE CERTIFIED TRAINING FOR CONFINED SPACE WORK IN VICINITY OF SEWER. COPIES OF THE EMPLOYEE CERTIFICATES SHALL BE PROVIDED TO THE CITY ENGINEER. ALL EQUIPMENT NEEDED TO ENTER CONFINED SPACE/SEWER MANHOLES SHALL BE STORED ON THE PROJECT SITE AND USED FOR ANY AND ALL SUCH INSTANCES.
24. TREES, FOLIAGE, SIGNS, PARKING METERS AND OTHER IMPROVEMENTS SHALL BE PROTECTED IN PLACE AND ANY DAMAGE TO EXISTING IMPROVEMENTS, PUBLIC OR PRIVATE, SHALL BE REPLACED IN KIND.
25. ABANDONMENT AND/OR REMOVAL OF CONDUITS AND STRUCTURES SHALL BE PER SECTION 306-5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

NPDES NOTES:

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS OR NATURAL DRAINAGE COURSES.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION BY RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY THE RAIN.
7. THE CONSTRUCTION WORK WITHIN CALTRANS RIGHT-OF-WAY MUST COMPLY WITH CONSTRUCTION SITE BEST MANAGEMENT PRACTICE (BMP'S) AS PER CALTRANS PROJECT PLANNING AND DESIGN GUIDE (PPDG), LATEST EDITION INCLUDING ADDENDUMS.
8. WORKS RELATED TO DRAINAGE SYSTEM, WATER POLLUTION CONTROL AND EROSION CONTROL WITHIN THE STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST CALTRANS STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. THE TEMPORARY DRAINAGE INLET PROTECTION SHALL COMPLY WITH THE CALTRANS STANDARD SPECIAL PROVISIONS, SSP 130620.
9. THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTOR).
10. CONSTRUCTION SITE SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302. POTENTIAL POLLUTIONS INCLUDE BUT ARE NOT LIMITED TO; SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINATS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/ EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/ EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, DISPOSAL, OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
11. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

NS-2 DEWATERING OPERATIONS
NS-3 PAVING & GRINDING OPERATIONS
WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE
WM-4 SPILL PREVENTION AND CONTROL
WM-5 SOLID WASTE MANAGEMENT
WM-8 CONCRETE WASTE MANAGEMENT
SC-21 VEHICLE AND EQUIPMENT CLEANING
SC-20 VEHICLE AND EQUIPMENT FUELING
SC-22 VEHICLE AND EQUIPMENT REPAIRS
EC-2 PRESERVATION OF EXISTING VEGETATION
WE-1 WIND EROSION CONTROL
SE-8 SAND BAG BARRIER
SE-10 STORM DRAIN INLET PROTECTION
WM-9 SANITARY / SEPTIC WASTE MANAGEMENT

STANDARD PLANS:

CITY OF BREA:

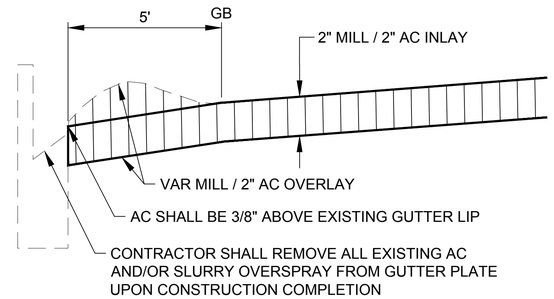
101-0 GENERAL NOTES
103-0 SIDEWALK
106-0 CONCRETE CURB AND GUTTER
107-0 CURB RAMP

CALTRANS:

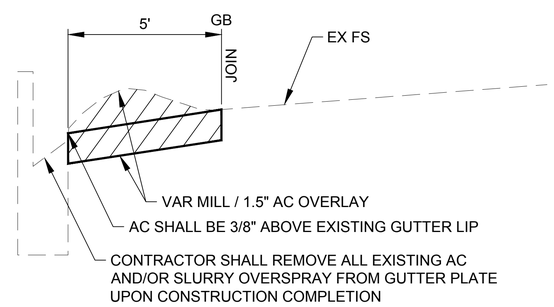
A20A PAVEMENT MARKINGS AND TRAFFIC LINES
A24A PAVEMENT MARKINGS ARROWS
A24D PAVEMENT MARKINGS WORDS
A88A CURB RAMP DETAILS

LEGEND

J / 8 — DETAIL / SHEET NO.
— ADDRESS
PROPOSED ACCESS RAMP
EXISTING ACCESS RAMP



DETAIL 1
NTS



DETAIL 2
NTS

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

4/3/23
RICK KREUZER, P.E. DATE
R.C.E. NO. 42407

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

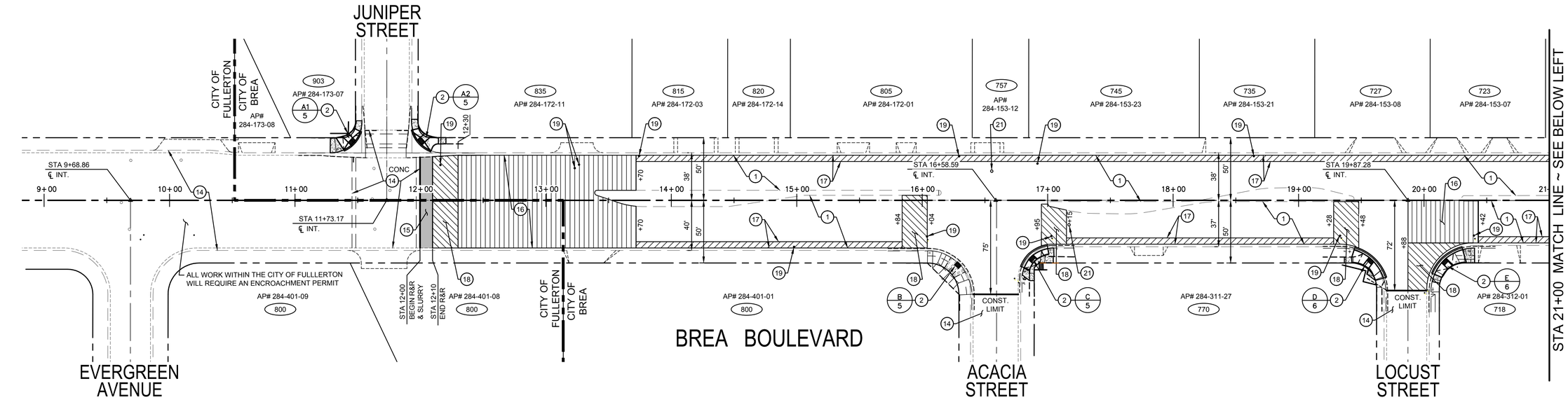
BREA BOULEVARD STREET IMPROVEMENTS

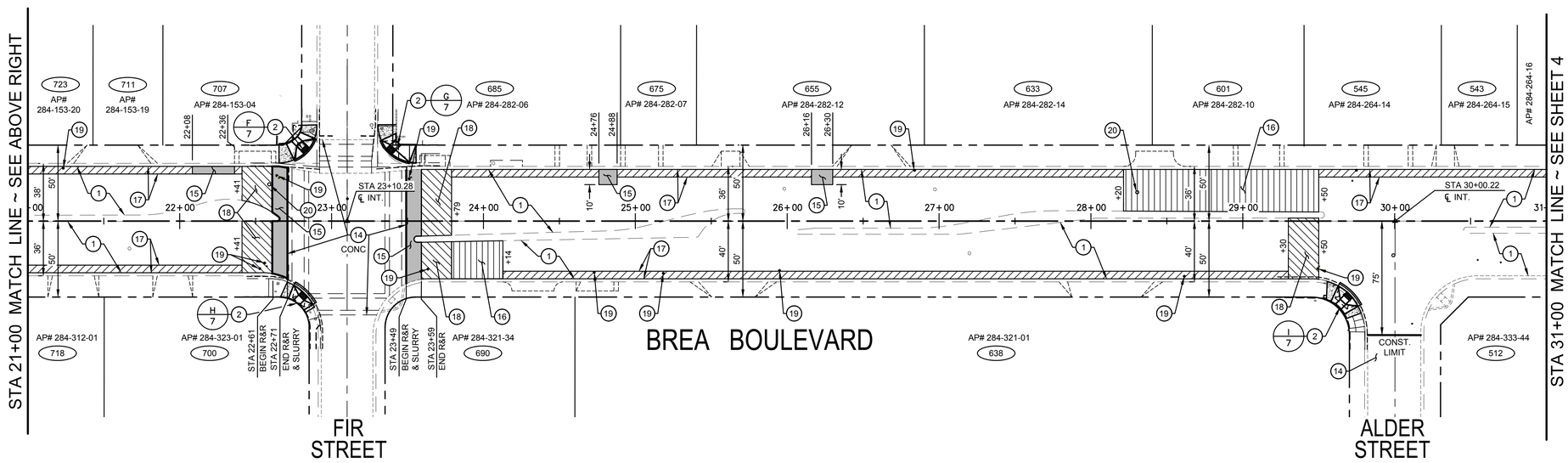
GENERAL NOTES AND DETAILS

SHEET 2 OF 10

BID SET FOR BIDDING PURPOSES ONLY

4/3/2023 10:34:19 AM – L:\112-BREA\017-BREA BLVD\DESIGN SHEETS\02 BREA BLVD GEN NOTES.DWG – CLAIRE BARR





CONSTRUCTION NOTES

1. FURNISH AND PLACE TYPE 2 SLURRY SEAL PER CITY OF BREA STD. 101-0, NOTE 6.
2. RECONSTRUCT EXISTING CURB ACCESS RAMP AND ADJACENT IMPROVEMENTS PER DETAIL NOTED HEREON.
14. PROTECT IN PLACE.
15. REMOVE EXISTING ROADWAY STRUCTURAL SECTION AND PLACE 12" AC DEEPLIFT OVER EXISTING SUBGRADE @ 95% COMPACTION.
16. MILL EXISTING PAVEMENT AND PLACE 2" AC OVERLAY PER DETAIL 1 ON SHEET 2.
17. EDGE MILL EXISTING PAVEMENT AND PLACE 1.5" AC OVERLAY PER DETAIL 2 ON SHEET 2.
18. HEADER CUT EXISTING PAVEMENT AND PLACE VARIABLE DEPTH AC OVERLAY (1.5" MIN, 2.5" MAX).
19. ADJUST EXISTING VALVE TO GRADE.
20. ADJUST EXISTING MANHOLE TO GRADE.
21. ADJUST MANHOLE TO GRADE WITH NEW RING AND COVER.

NOTE:
CONTRACTOR SHALL REMOVE ALL EXISTING AC AND/OR SLURRY OVERSPRAY FROM EXISTING GUTTER PLATE FOR ENTIRE PROJECT REACH

LEGEND

- EXISTING CURB AND GUTTER
- EXISTING CURB
- EXISTING CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- CONSTRUCTION LIMITS
- ROADWAY R&R
- MILL / 2" AC OVERLAY
- EDGE MILL / 1.5" AC OVERLAY
- HEADER CUT / VAR. AC OVERLAY
- DETAIL
- SHEET NO.
- ### ADDRESS
- PROPOSED ACCESS RAMP
- EXISTING ACCESS RAMP

SCALE: 1"= 40'
0 40 80 120
FOR REDUCED PLANS

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
RICK KREUZER, P.E.
R.C.E. NO. 42407
4/3/23
DATE

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

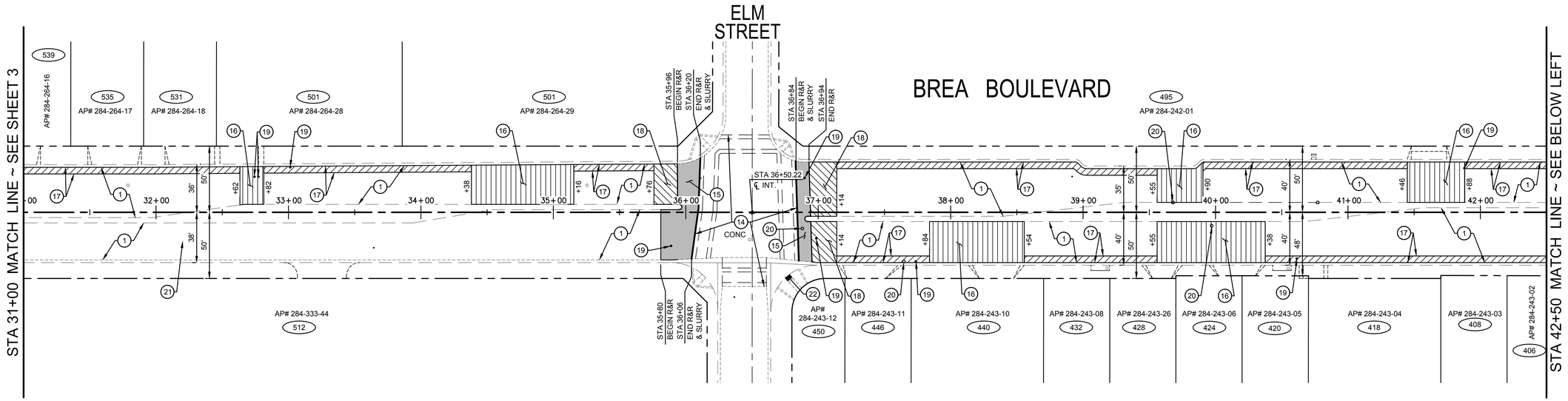
BREA BOULEVARD STREET IMPROVEMENTS

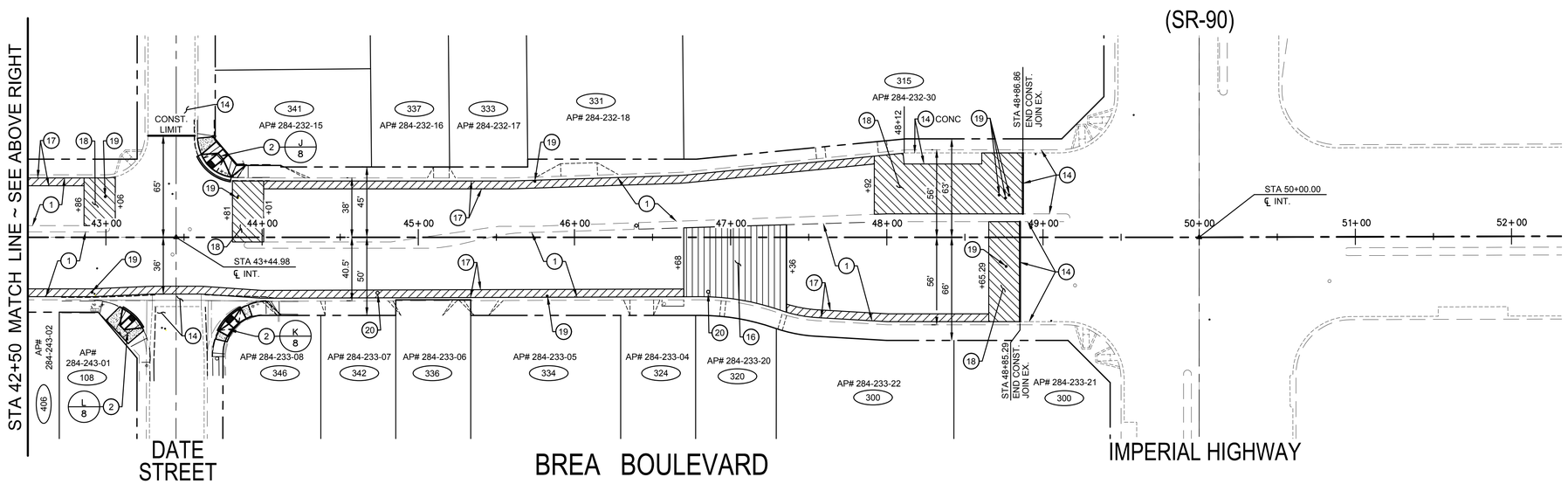
STREET IMPROVEMENT PLANS
JUNIPER STREET TO STA 31+00

SHEET 3 OF 10

BID SET FOR BIDDING PURPOSES ONLY

4/3/2023 10:53:54 AM – L:\112-BREA BLVD\DESIGN\SHEETS\03-04 BREA LAYOUT PL.DWG – CLAIRE BARR





CONSTRUCTION NOTES

1. FURNISH AND PLACE TYPE 2 SLURRY SEAL PER CITY OF BREA STD. 101-0, NOTE 6.
2. RECONSTRUCT EXISTING CURB ACCESS RAMP AND ADJACENT IMPROVEMENTS PER DETAIL NOTED HEREON.
14. PROTECT IN PLACE.
15. REMOVE EXISTING ROADWAY STRUCTURAL SECTION AND PLACE 12" AC DEEPLIFT OVER EXISTING SUBGRADE @ 95% COMPACTION.
16. MILL EXISTING PAVEMENT AND PLACE 2" AC OVERLAY PER DETAIL 1 ON SHEET 2.
17. EDGE MILL EXISTING PAVEMENT AND PLACE 1.5" AC OVERLAY PER DETAIL 2 ON SHEET 2.
18. HEADER CUT EXISTING PAVEMENT AND PLACE VARIABLE DEPTH AC OVERLAY (1.5" MIN, 2.5" MAX).
19. ADJUST EXISTING VALVE TO GRADE.
20. ADJUST EXISTING MANHOLE TO GRADE.
21. ADJUST MANHOLE TO GRADE WITH NEW RING AND COVER.
22. REMOVE AND REPLACE TRUNCATED DOMES.

LEGEND

- EXISTING CURB AND GUTTER
- EXISTING CURB
- EXISTING CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- CONSTRUCTION LIMITS
- ROADWAY R&R
- MILL / 2" AC OVERLAY
- EDGE MILL / 1.5" AC OVERLAY
- HEADER CUT / VAR. AC OVERLAY
- DETAIL
- SHEET NO.
- ADDRESS
- PROPOSED ACCESS RAMP
- EXISTING ACCESS RAMP

NOTE:
CONTRACTOR SHALL REMOVE ALL EXISTING AC AND/OR SLURRY OVERSPRAY FROM EXISTING GUTTER PLATE FOR ENTIRE PROJECT REACH

SCALE: 1"= 40'
0 40 80 120
FOR REDUCED PLANS

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
RICK KREUZER, P.E.
R.C.E. NO. 42407
4/3/23
DATE

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

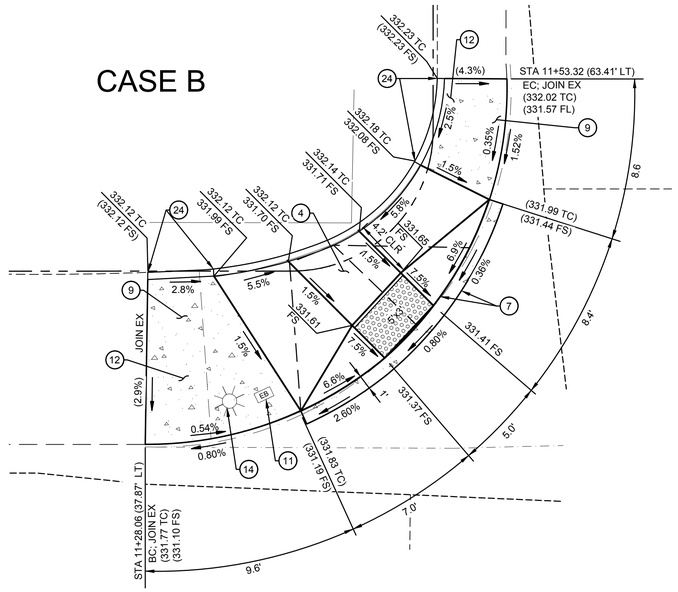
BREA BOULEVARD STREET IMPROVEMENTS

STREET IMPROVEMENT PLANS
(STA 31+00 TO IMPERIAL HIGHWAY)

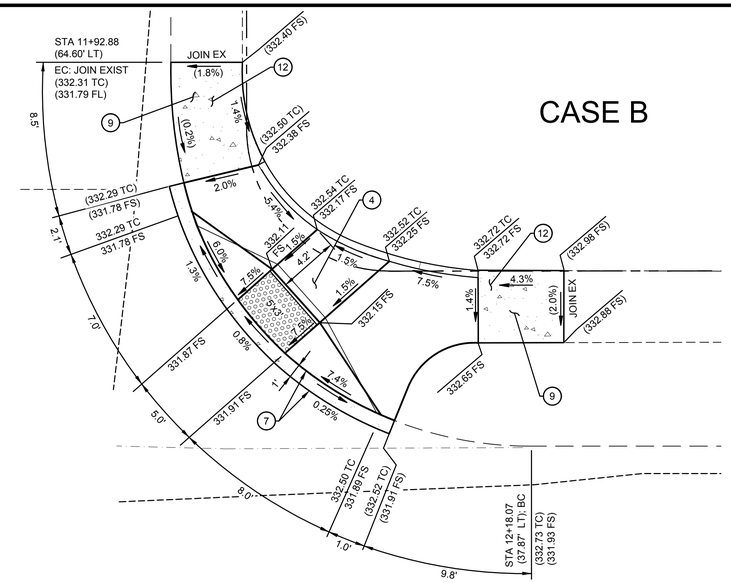
SHEET 4 OF 10

BID SET FOR BIDDING PURPOSES ONLY

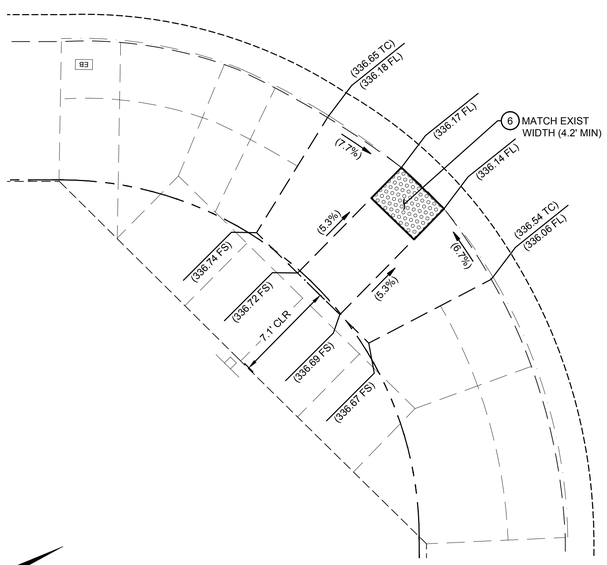
4/3/2023 10:53:57 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\03-04 BREA LAYOUT PL.DWG – CLAIRE BARR



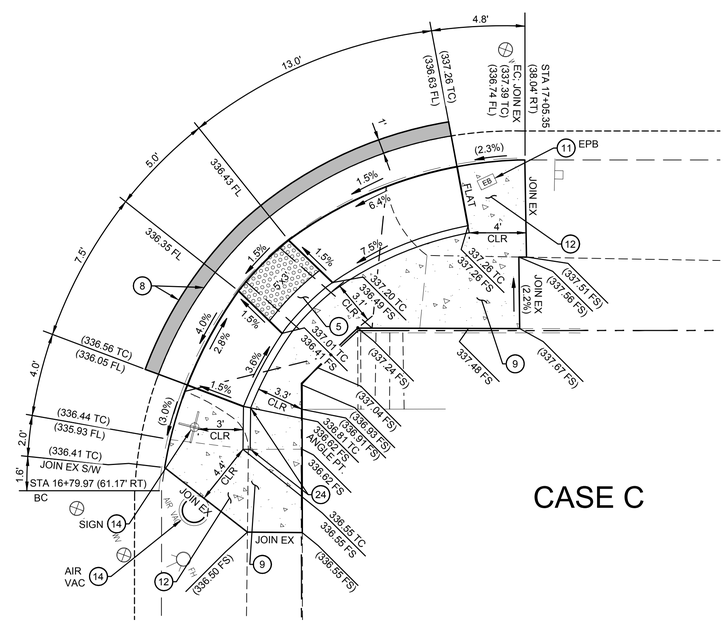
JUNIPER SW CORNER — A1 / 5



JUNIPER NW CORNER — A2 / 5



ACACIA SE CORNER — B / 5



ACACIA NE CORNER — C / 5

SCALE: 1"= 5'
0 5 10 15
FOR REDUCED PLANS

STREET CONSTRUCTION NOTES

4. REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE B PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.
5. REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE C PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.
6. FURNISH AND INSTALL SURFACE APPLIED BLACK DETECTABLE WARNING DEVICE PER CITY OF BREA STD. 107-0 AND CALTRANS STD. PLAN A88A, AS MFG. BY ARMORTILE OR APPROVED EQUAL, SIZE PER PLAN.
7. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT 8" PCC OVER 6" CMB CROSS GUTTER REPLACEMENT SECTION PER DETAIL M ON SHEET 8.
8. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION. FURNISH AND PLACE 12" AC DEEPLIFT SLOT PAVE.
9. REMOVE EXISTING SIDEWALK. CONSTRUCT SIDEWALK PER CITY OF BREA STD. 103-0.
11. ADJUST PULL BOX TO GRADE.
12. CONSTRUCT NEW SIDEWALK PER CITY OF BREA STD. 103-0.
14. PROTECT IN PLACE.
24. CONSTRUCT TYPE A1 CURB (VARIABLE HEIGHT CF) PER BREA STD. 106-0.

Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
RICK KREUZER, P.E.
R.C.E. NO. 42407
4/3/23
DATE

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

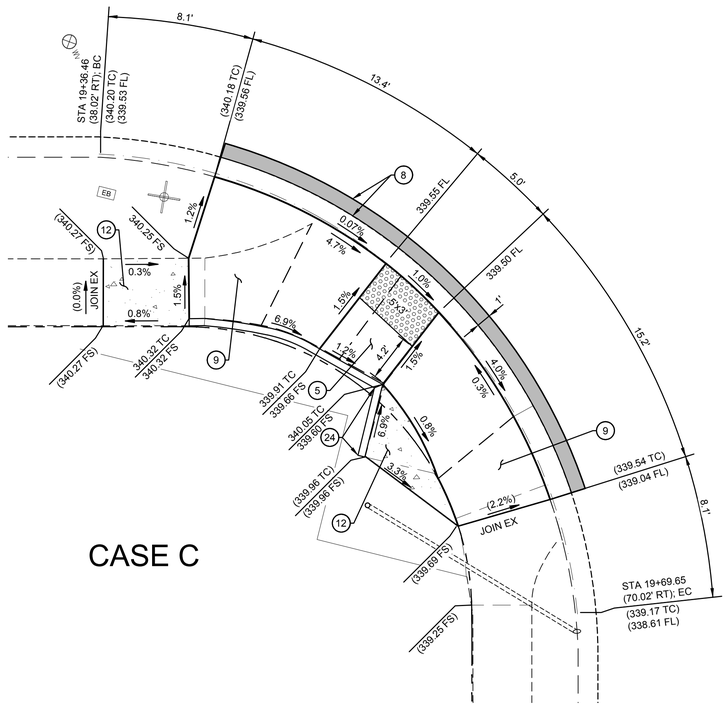
BREA BOULEVARD STREET IMPROVEMENTS

CONSTRUCTION DETAILS

SHEET 5 OF 10

BID SET FOR BIDDING PURPOSES ONLY

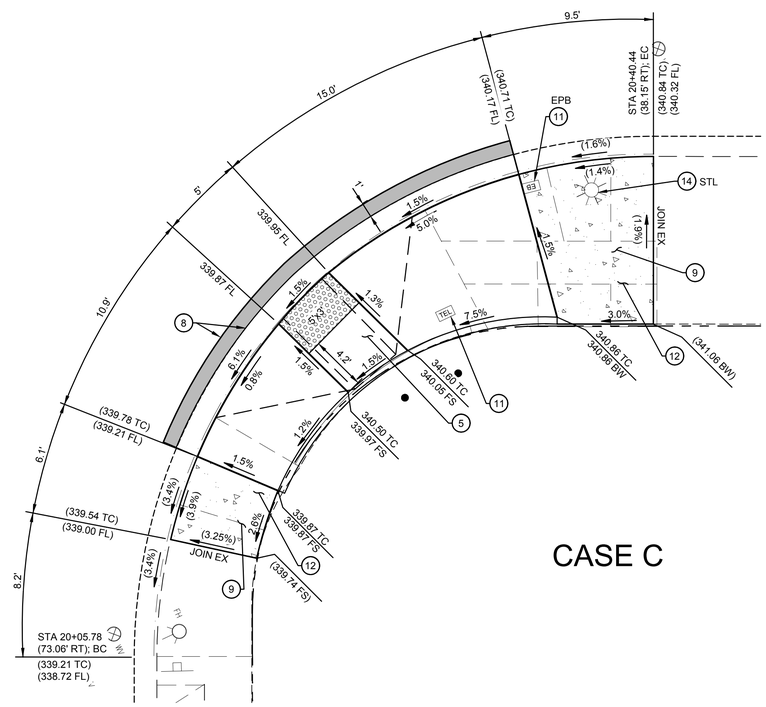
4/3/2023 11:01:42 AM – L:\112-BREA BLVD\DESIGN\SHEETS\05-08 BREA RAMPS.DWG – CLAIRE BARR



CASE C

LOCUST SE CORNER

D
6



CASE C

LOCUST NE CORNER

E
6

STREET CONSTRUCTION NOTES

(5) REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE CASE C PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.

(8) SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION. FURNISH AND PLACE 12" AC DEEPLIFT SLOT PAVE.

(9) REMOVE EXISTING SIDEWALK. CONSTRUCT SIDEWALK PER CITY OF BREA STD. 103-0.

(11) ADJUST PULL BOX TO GRADE.

(12) CONSTRUCT NEW SIDEWALK PER CITY OF BREA STD. 103-0.

(14) PROTECT IN PLACE.

(24) CONSTRUCT TYPE A1 CURB (VARIABLE HEIGHT CF) PER BREA STD. 106-0.

SCALE: 1"= 5'
0 5 10 15
FOR REDUCED PLANS

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

R.A. Kreuzer 4/3/23
RICK KREUZER, P.E. DATE
R.C.E. NO. 42407

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

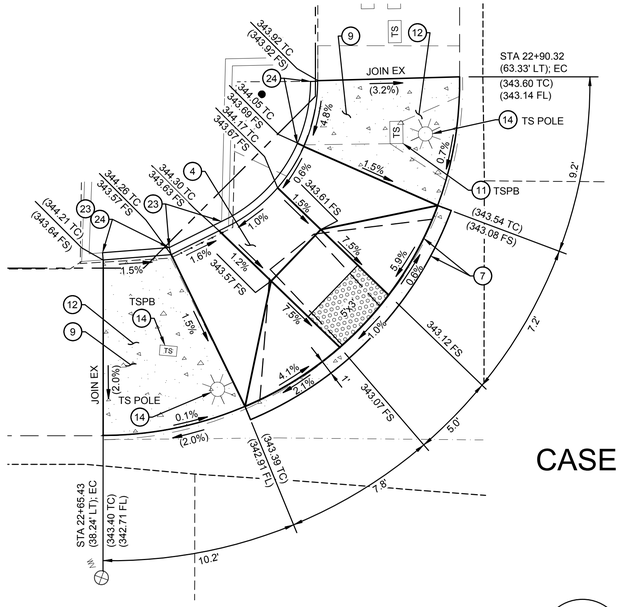
BREA BOULEVARD STREET IMPROVEMENTS

CONSTRUCTION DETAILS

SHEET 6 OF 10

4/3/2023 11:01:43 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\05-08 BREA RAMPS.DWG – CLAIRE BARR

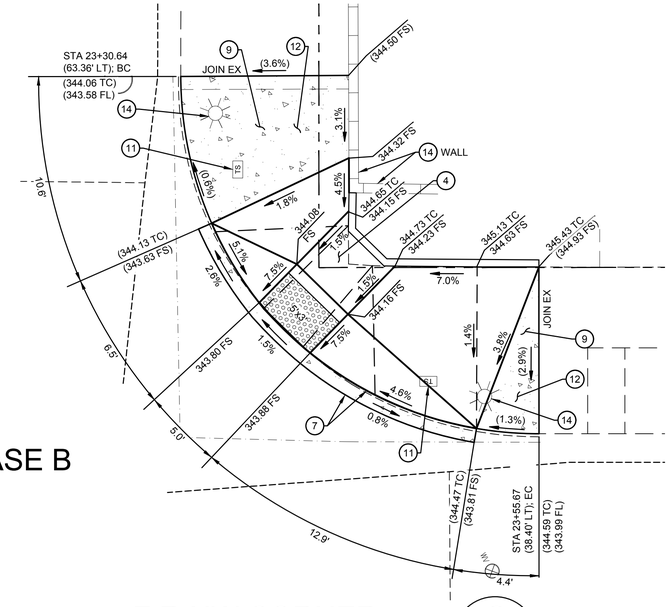
BID SET FOR BIDDING PURPOSES ONLY



CASE B

FIR SW CORNER

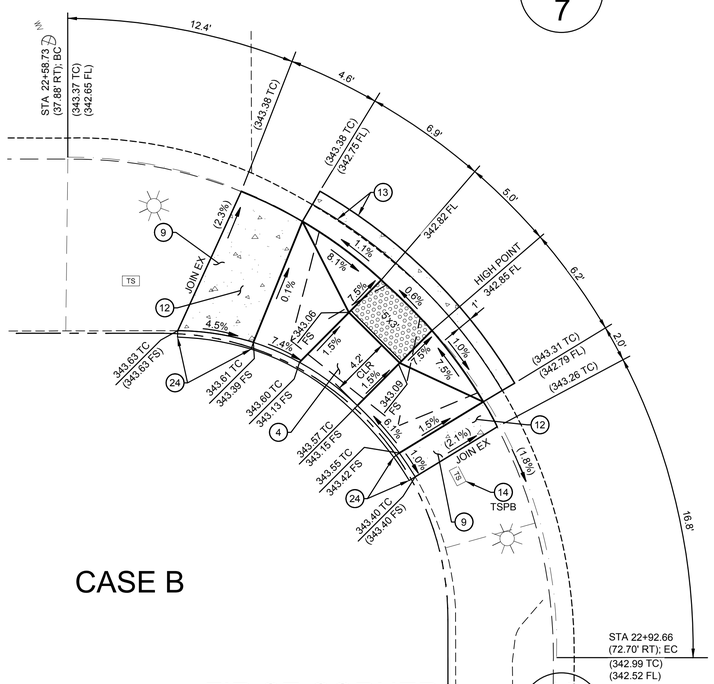
F / 7



CASE B

FIR NW CORNER

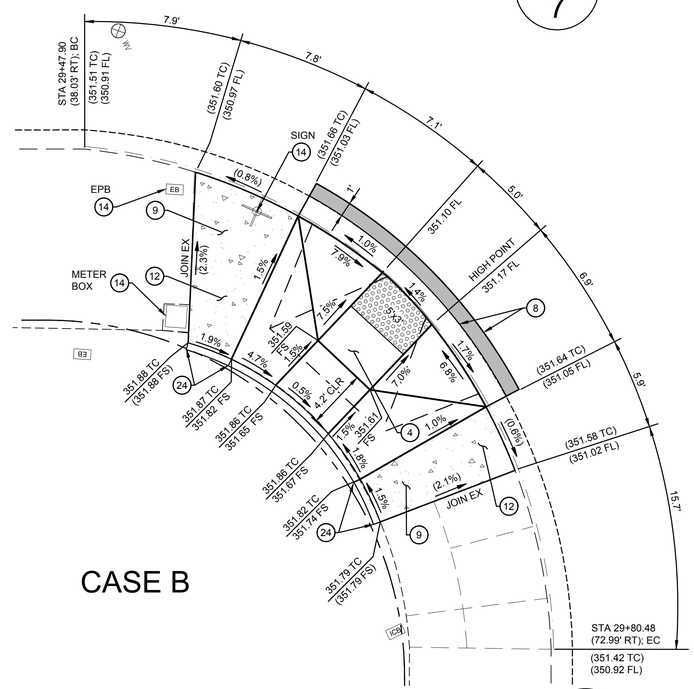
G / 7



CASE B

FIR SE CORNER

H / 7



CASE B

ALDER SE CORNER

I / 7

SCALE: 1"= 5'

0 5 10 15

FOR REDUCED PLANS

STREET CONSTRUCTION NOTES

4. REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE B PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.
7. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT 8" PCC OVER 6" CMB CROSS GUTTER REPLACEMENT SECTION PER DETAIL M ON SHEET 8.
8. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION. FURNISH AND PLACE 12" AC DEEPLIFT SLOT PAVE.
9. REMOVE EXISTING SIDEWALK. CONSTRUCT SIDEWALK PER CITY OF BREA STD. 103-0.
11. ADJUST PULL BOX TO GRADE.
12. CONSTRUCT NEW SIDEWALK PER CITY OF BREA STD. 103-0.
13. SAWCUT AND REMOVE EXISTING PCC ROADWAY. FURNISH AND PLACE 8" PCC SLOT PAVE. MATCH EXISTING PCC FINISH AND COLOR
14. PROTECT IN PLACE.
23. REMOVE EXISTING CURB.
24. CONSTRUCT TYPE A1 CURB (VARIABLE HEIGHT CF) PER BREA STD. 106-0.

Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

RICK KREUZER, P.E. 4/3/23
R.C.E. NO. 42407 DATE

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
RICK KREUZER
No. 42407
EXP. 3-31-24
CIVIL
STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

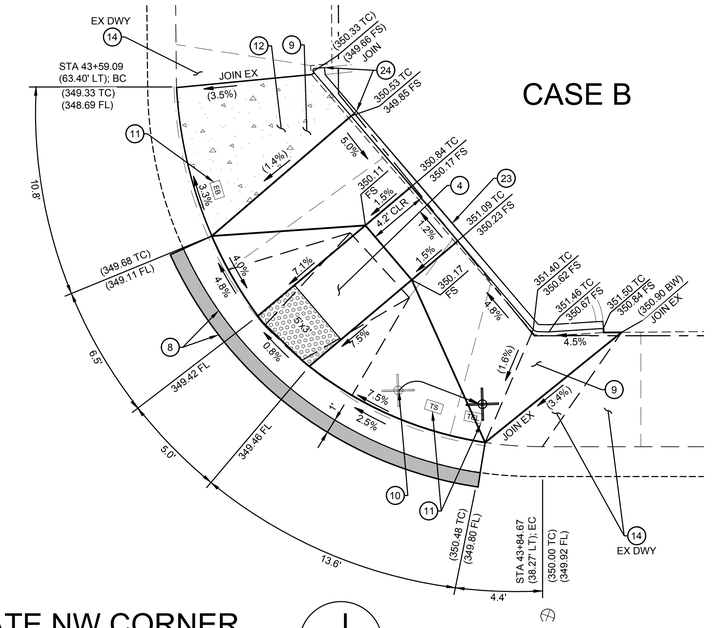
BREA BOULEVARD STREET IMPROVEMENTS

CONSTRUCTION DETAILS

SHEET 7 OF 10

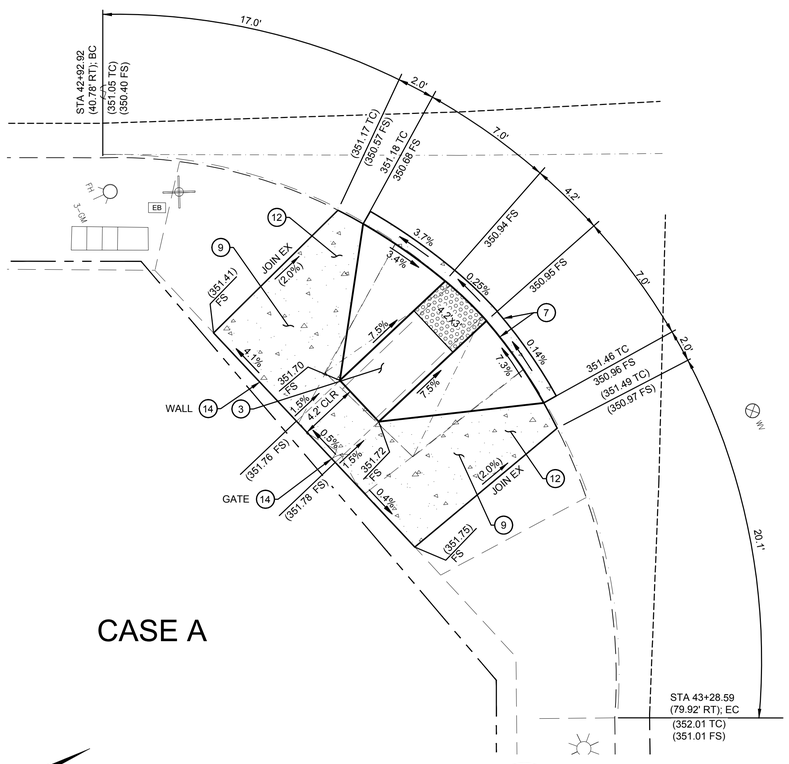
BID SET FOR BIDDING PURPOSES ONLY

4/3/2023 11:01:44 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\05-08 BREA RAMPS.DWG – CLAIRE BARR



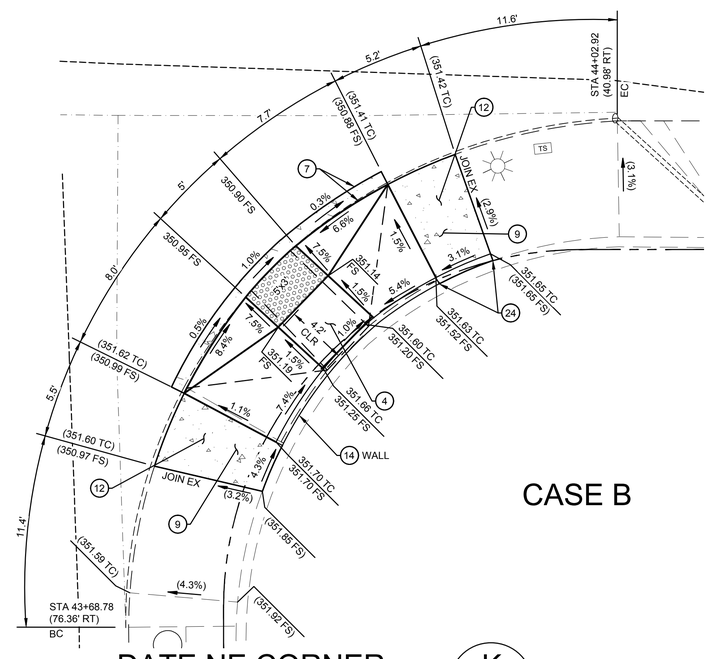
CASE B

DATE NW CORNER J/8



CASE A

DATE SE CORNER L/8

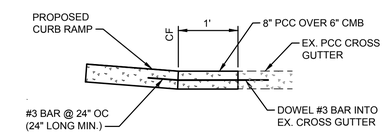


CASE B

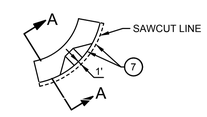
DATE NE CORNER K/8

STREET CONSTRUCTION NOTES

3. REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE A PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.
4. REMOVE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT CURB RAMP CASE B PER CALTRANS STD. PLAN NO. A88A AND ELEVATIONS HEREON.
7. REMOVE AND DISPOSE INTERFERING PORTIONS OF EXISTING IMPROVEMENTS AND CONSTRUCT 8" PCC OVER 6" CMB CROSS GUTTER REPLACEMENT SECTION PER DETAIL M ON SHEET 8.
8. SAWCUT AND REMOVE EXISTING ROADWAY STRUCTURAL SECTION. FURNISH AND PLACE 12" AC DEEPLIFT SLOT PAVE.
9. REMOVE EXISTING SIDEWALK. CONSTRUCT SIDEWALK PER CITY OF BREA STD. 103-0.
10. RELOCATE EXISTING STREET NAME SIGN.
11. ADJUST PULL BOX TO GRADE.
12. CONSTRUCT NEW SIDEWALK PER CITY OF BREA STD. 103-0.
14. PROTECT IN PLACE.
23. REMOVE EXISTING CURB.
24. CONSTRUCT TYPE A1 CURB (VARIABLE HEIGHT CF) PER BREA STD. 106-0.



SECTION A-A



PLAN

CROSS GUTTER REMOVAL AND REPLACEMENT DETAIL M/8

SCALE: 1"= 5'
0 5 10 15
FOR REDUCED PLANS

Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

RICK KREUZER, P.E. — 4/3/23 DATE
R.C.E. NO. 42407

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER — RICK KREUZER — No. 42407 — Exp. 3-31-24 — CIVIL — STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

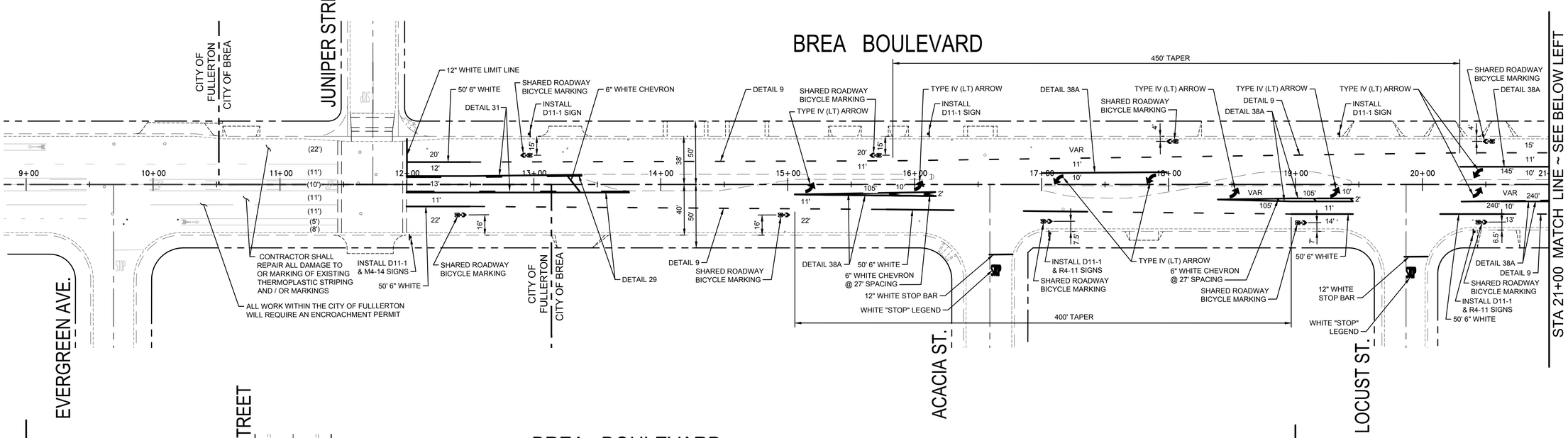
BREA BOULEVARD STREET IMPROVEMENTS

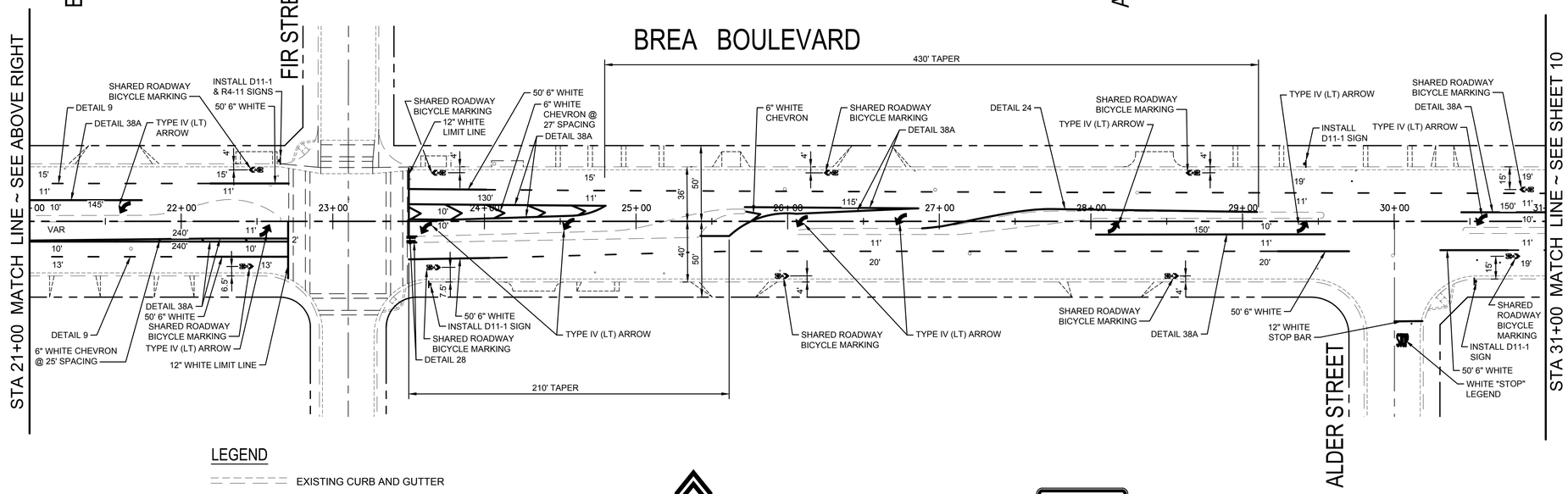
CONSTRUCTION DETAILS

SHEET 8 OF 10

4/3/2023 11:01:46 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\05-08 BREA RAMPS.DWG – CLAIRE BARR

BID SET FOR BIDDING PURPOSES ONLY





LEGEND

- EXISTING CURB AND GUTTER
- EXISTING CURB
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY

SCALE: 1"= 40'

0 40 80 120

FOR REDUCED PLANS

SHARED ROADWAY BICYCLE MARKING

BIKE ROUTE — D11-1

BEGIN — M4-14

MAY USE FULL LANE — R4-11

STRIPING GENERAL NOTES

1. ALL WORK TO CONFORM TO CALTRANS STANDARD PLANS (2018 EDITION).
2. REFLECTORIZE ALL STRIPES AND LEGEND. PAVEMENT LEGEND AND MARKINGS SHALL MATCH CITY STENCILS.
3. ALL CONFLICTING LINES, EXISTING CURB PAINT AND MARKINGS SHALL BE REMOVED BY WET SANDBLASTING OR OTHER APPROVED METHOD PRIOR TO INSTALLATION OF NEW STRIPING. ALL CONFLICTING RAISED PAVEMENT MARKERS SHALL BE REMOVED. PAVEMENT THAT IS DAMAGED DUE TO REMOVAL OF MARKERS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.
4. STRIPING MARKOUT SHALL BE COMPLETED WITHIN 24 HOURS OF TOP SURFACE COURSE COMPLETION FOR STREETS OPEN TO PUBLIC. IN NO CASE SHALL A NEWLY PAVED STREET OPEN TO THE PUBLIC BE LEFT UNMARKED OVER WEEKEND OR HOLIDAY.
5. STRIPING SHALL BE MARKED OUT AND APPROVED BY THE CITY ENGINEER PRIOR TO FINAL INSTALLATION.
6. ALL DETAILS AND MARKINGS NOTED HEREON SHALL CONFORM WITH CALTRANS STANDARD PLANS NOS. A20A THROUGH A20C AND A24A THROUGH A24E.
7. ALL STRIPING LINES AND LEGENDS SHALL BE THERMOPLASTIC.
8. ALL SHARROW MARKING DISTANCE ARE MEASURED FROM THE CENTER OF THE PAVEMENT MARKING.

811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:

Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160

RICK KREUZER, P.E.
R.C.E. NO. 42407
4/3/23
DATE

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER — RICK KREUZER — No. 42407 — Exp. 3-31-24 — CIVIL — STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BREA BOULEVARD STREET IMPROVEMENTS

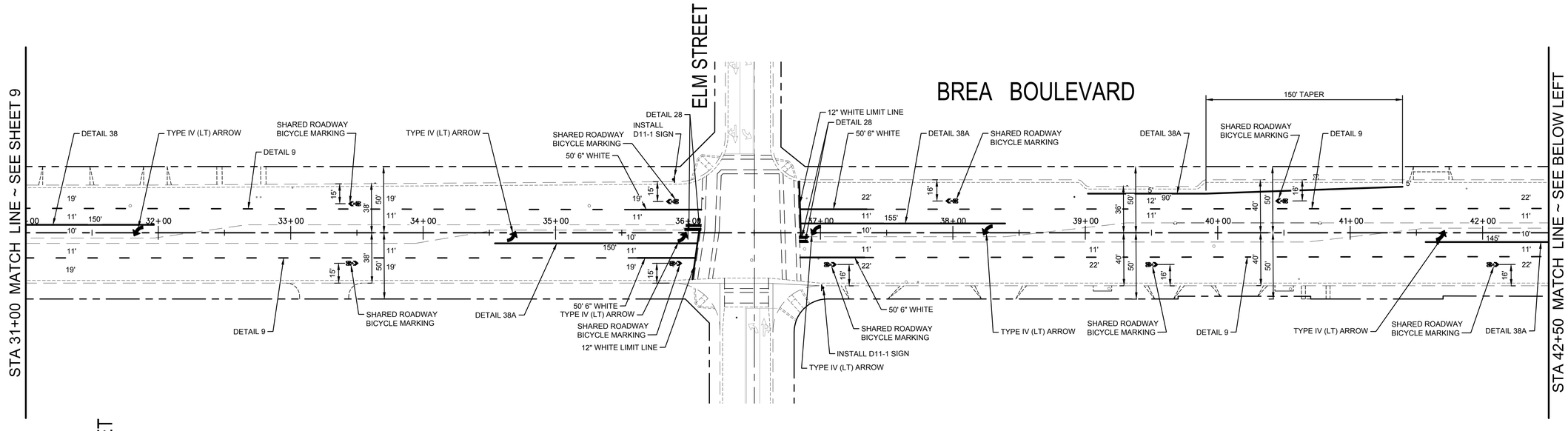
STRIPING PLANS

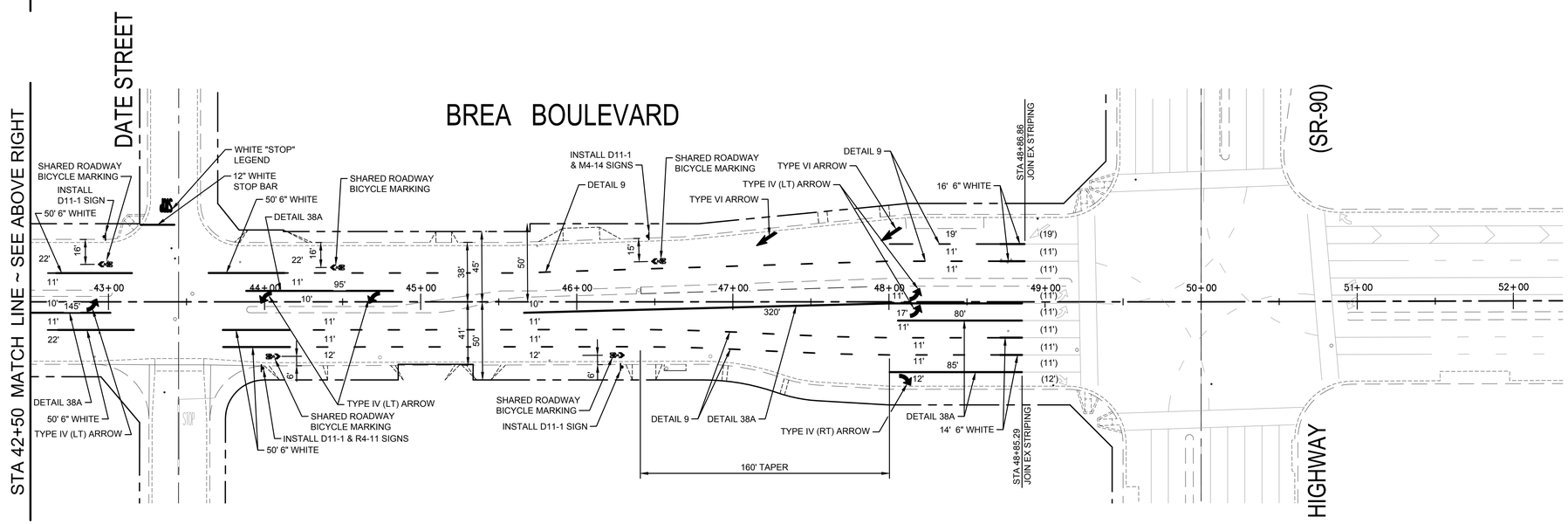
JUNIPER STREET TO STA 31+00

SHEET 9 OF 10

4/3/2023 11:03:34 AM – L:\112-BREA\017-BREA BLVD\DESIGN\SHEETS\09-10 BREA STP.DWG – CLAIRE BARR

BID SET FOR BIDDING PURPOSES ONLY





LEGEND

- EXISTING CURB AND GUTTER
- EXISTING CURB
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY

SCALE: 1"= 40'

0 40 80 120

FOR REDUCED PLANS

STRIPING GENERAL NOTES

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811 Know what's below. Call before you dig.

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'V'D	REV.	DATE	BY	DESCRIPTION	APP'V'D

PREPARED BY:
Kreuzer Consulting Group
320 MAIN STREET
UNIT D
SEAL BEACH, CA 90740
714-656-0160
RICK KREUZER, P.E.
R.C.E. NO. 42407
DATE 4/3/23

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER RICK KREUZER No. 42407 Exp. 3-31-24 CIVIL STATE OF CALIFORNIA

CITY OF BREA
PUBLIC WORKS DEPARTMENT

BREA BOULEVARD STREET IMPROVEMENTS

STRIPING PLANS

STA 31+00 TO IMPERIAL HIGHWAY

SHEET 10 OF 10

BID SET FOR BIDDING PURPOSES ONLY

4/3/2023 11:03:34 AM – L:\12-BREA\017-BREA BLVD\DESIGN\SHEETS\09-10 BREA STP.DWG – CLAIRE BARR

CONTRACT DOCUMENTS
SPECIFICATIONS AND STANDARD DRAWINGS

for the

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

in the

C I T Y O F B R E A

One Civic Center Circle
BREA, CALIFORNIA 92821
(714) 990-7667

<u>BIDS DUE:</u>
May 23, 2023
2:00 PM, 3rd FLOOR
City Clerk's Office

MICHAEL HO, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER

CITY of BREA

CITY OF BREA

PLANS
SPECIFICATIONS AND CONTRACT DOCUMENTS

for the

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

PREPARED BY;
Kreuzer Consulting Group
320 Main Street, Unit D
Seal Beach, CA 90740

Prepared Under the Supervision of:

REGISTERED PROFESSIONAL ENGINEER
RICHARD A KREUZER
C 42407
EXP. 3/31/24
CIVIL
STATE OF CALIFORNIA

4/3/23

Richard Kreuzer, R.C.E. No. 42407 Exp. 03-31-2024 **Date**

Approved by:

Michael S. Ho, Director of Public Works/City Engineer **Date**
R.C.E. No. 70299 Exp. 12/31/24

NOTE: *If there are any questions relative to this project, please call Michael Ho, P.E. at:*

CITY OF BREA
PUBLIC WORKS DEPARTMENT
One Civic Center Circle
BREA, CALIFORNIA 92821
(714) 990-7667

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SECTION A

NOTICE INVITING SEALED BIDS

NOTICE IS HEREBY GIVEN that the City of Brea, as AGENCY invites sealed bids for the below stated project and will receive sealed bids for the materials, supplies, equipment and/or services set forth herein, subject to all conditions outlined in the Bid Package **until 2:00 p.m. on May 23, 2023.**

1. Project Name: Brea Boulevard Street Improvements from W. Juniper Street to Imperial Highway (SR90), CIP Project No. 7299

The work to be constructed hereunder is located along Brea Boulevard from W. Juniper Street to Imperial Highway (SR90) in the City of Brea, California. The project generally consists of, but is not limited to, mobilization, reconstructing twelve (12) existing curb access ramps and reconstruction of adjacent curb, gutter, sidewalk, cross gutter, and roadway structural section improvements, roadway preparation and application of a Type 2 slurry seal to the roadway surface and replacement of all pavement striping in kind in accordance with the Plans and Specifications.

2. Obtaining Bid Documents: A copy of the Bid Package (including the plans, specifications, and contract documents) may be downloaded at no cost from the CIPList.com. All bidders shall register with CIPList.com in order to retrieve plans, specifications, addenda, bidders' list, etc.

3. Bid Opening: Bids will be publicly opened and read at reasonable time following the time stated above in the City Conference Center, located at 1 Civic Center Circle, Brea, California 92821 on **May 23, 2023.** Sealed bids will be received at all times during normal business hours prior to the date and time stated above, at the Office of the City Clerk, One Civic Center Circle, Brea, California 92821. The **outside** of the sealed envelope of each bid submitted shall be clearly marked: **"SEALED BID Brea Boulevard Street Improvements from W. Juniper Street to Imperial Highway (SR90), CIP Project No. 7299 DO NOT OPEN WITH REGULAR MAIL".**

4. Pre-Bid Meeting: There will be no Pre-Bid meeting for this Project.

5. Contractor's License: In accordance with provisions of Section 3300 of the California Public Contract Code, the AGENCY has determined that the Contractor shall possess a valid **California Contractor's License Class "A" (General Engineering) and Class C-"12" (Earthwork and Pavement Contractor)**. Failure to possess such license may render the bid non-responsive and bar the award of the contract to that non-responsive Bidder. The successful Contractor and his subcontractors will be required to possess business licenses from the AGENCY.

6. Registration with the Department of Industrial Relations: The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

7. Prevailing Wages: In accordance with the provisions of Section 1770, et seq., of the Labor Code, the Director of the Industrial Relations of the State of California has determined the general prevailing rate of wages applicable to the work to be done. The Contractor will be required to pay to all persons employed on the project by the Contractor sums not less than the sums set forth in the documents entitled "General Prevailing Wage Determination made by the Director of Industrial Relations pursuant to California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773, 1773.1." These documents can be obtained from the State at the following website: http://www.dir.ca.gov/OPRL/pwd/.

8. Bid Security: Each bid shall be accompanied by bid security in the form of a cashier's check, certified check or bid bond in the amount of 10% of the total bid amount. All cashier's checks or certified checks must be drawn on a responsible bank doing business in the United States and shall be made payable to THE CITY OF BREA. A bonding company admitted and licensed to do business in the State of California must issue bid bonds. Bids not accompanied by the required bid security shall be rejected. Cash and personal or company checks are **NOT** acceptable.

9. Payment Bond and Performance Bond: A Payment Bond and a Performance Bond, each in the amount of 100% of the contract amount, will be required of the Contractor.

10. Retention: In accordance with the Contract, five percent (5%) of any progress payment will be withheld as a retention. Pursuant to Section 22300 of the Public Contract Code, at the request and expense of the Contractor, approved securities equivalent to the amount withheld may be deposited with the AGENCY or with a state or federally chartered bank as the escrow agent, and AGENCY shall then pay such moneys to the Contractor. Refer to the Contract for further clarification.

11. Contact Person: Questions regarding this Notice Inviting Bids shall be directed to: **Ryan Chapman, PE, Assistant City Engineer at (714) 990-7763 or email: ryanch@ci.brea.ca.us.**

ALL BONDS ISSUED SHALL BE FROM A BONDING COMPANY ADMITTED AND LICENSED TO DO BUSINESS IN THE STATE OF CALIFORNIA.

THE AGENCY RESERVES THE RIGHT TO REJECT ANY BID OR ALL BIDS AND TO WAIVE ANY INFORMALITY OR IRREGULARITY IN ANY BID AND TO TAKE ALL BIDS UNDER ADVISEMENT FOR A MAXIMUM PERIOD OF 60 DAYS. ANY CONTRACT AWARDED WILL BE LET TO THE LOWEST RESPONSIVE AND RESPONSIBLE BIDDER. NO BID SHALL BE CONSIDERED UNLESS IT IS PREPARED ON THE APPROVED PROPOSAL FORMS IN CONFORMANCE WITH THE INSTRUCTIONS TO BIDDERS.

SECTION B

INSTRUCTIONS TO BIDDERS

1. Proposal Forms

Bids shall be submitted in writing on the Proposal forms provided by the AGENCY. All information requested therein must be clearly and legibly set forth in the manner and form indicated. The AGENCY will reject any proposal not meeting these requirements. The bid shall be filed with the City Clerk, Third Floor City Hall, One Civic Center Circle, Brea, California, which shall be endorsed with the Project Title and Project Number as it appears on the Notice Inviting Sealed Bids. The sealed envelopes will be publicly opened and read at the time and place stated in the Notice Inviting Bids. Bidders or their authorized agents are invited to be present at the opening. Unauthorized conditions, limitations, or provisions attached to a proposal will render it informal and may cause its rejection. The complete proposal forms shall be without interlineations, alterations or erasures. Alternative proposals will not be considered unless requested. No oral, telegraphic, or telephonic proposals or modifications will be considered. The proposal may be withdrawn upon request by the bidder without prejudice to himself prior to, but not after the time fixed for opening of bids, provided that the request is in writing, that it has been executed by the bidder or his duly authorized representative, and that it is filed with the AGENCY.

2. Proposal Guarantee

Proposals must be accompanied by a proposal guarantee consisting of a certified or cashier's check or bid bond payable to the AGENCY in the amount not less than 10% of the total amount named in the proposal. Any proposal not accompanied by such a guarantee will not be considered. Said check or bond shall be made payable to the AGENCY and shall be given as a guarantee that the bidder, if awarded the Work, will enter into a contract within 10 working days after the award and will furnish the necessary bonds as hereinafter provided. In the case of refusal or failure to enter into said contract, the check or bond, as the case may be, shall be forfeited to the AGENCY.

3. Proposal Signature

If the proposal is made by an individual, it shall be signed and his full name with his address shall be given; if it is made by a firm, it shall be signed with the co-partnership name by a member of the firm who shall sign his own name and the name and address of each member shall be given; and if it is made by a corporation, the name of the corporation shall be signed by its duly authorized officer or officers attested by the corporate seal, and the names and titles of all officers of the corporation shall be given.

4. Delivery Of Proposal

Proposals shall be enclosed in a sealed envelope plainly marked on the outside:

"SEALED BID"

for

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299
in the

CITY OF BREA - DO NOT OPEN WITH REGULAR MAIL

Proposals may be mailed or delivered by messenger. However, it is the bidder's responsibility alone to ensure delivery of the proposal to the hands of the AGENCY's designated official prior to the bid opening hour stipulated in the Notice Inviting Sealed Bids. Late proposals will not be considered.

5. Return Of Proposal Guarantees

The proposal guarantees of the second and third lowest bidders will be held until the awarded bidder has properly executed all contract documents. Within 10 working days after the award of contract, the remaining proposal guarantees accompanying all other proposals will become null and void and returned to the unsuccessful bidders.

6. Taxes

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

7. Disqualification Of Bidders

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

8. Contractor's License Requirement

This project requires the Contractor to possess a valid State of California contractor's license as stated in Section A "Notice Inviting Sealed Bids".

9. Registration with the Department of Industrial Relations

The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 et seq., unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.

10. References

All reference information called for in the bid proposal must be submitted with the bid proposal.

11. Listing Of Subcontractors

Bidders shall list in the bid proposal the name and place of business of each subcontractor who will perform work or labor or render services for the Contractor in an amount in excess of one-half of one percent of the Contractor's total bid.

12. Discrepancies And Misunderstandings

Bidders must satisfy themselves by personal examination of the work site, plans, specifications and other contract documents, and by any other means as they may believe necessary, as to the actual physical conditions, requirements and difficulties under which the Work must be performed. No bidder shall at any time after submission of a proposal make any claim or assertion that there was any misunderstanding or lack of information regarding the nature or amount of work necessary for the satisfactory completion of the job. Should a bidder find any errors, omissions, or discrepancies in the plans, specifications, and other contract documents or should he be in doubt as to their meaning, he shall notify the AGENCY. Should it be found necessary, a written addendum will be sent to all bidders. Any addenda issued during the bidding period shall form a part of the contract an shall be included with the proposal.

13. Equivalent Materials

Requests for the use of equivalents to those specified, must be submitted to the AGENCY. Only substitutions approved prior to bid due date via addenda Product Substitutions, will be considered. No substitutions will be considered after bid due date and contract award. It is the sole responsibility of the successful bidder to prove to the AGENCY that such a material is truly an equivalent.

14. Legal Responsibilities

All proposals must be submitted, filed, made and executed in accordance with State and Federal laws relating to bids for contracts of this nature whether the same or expressly referred to herein or not. Any bidder submitting a proposal shall by such action thereby agree to each and all of the terms, conditions, provisions and requirements set forth, contemplated and referred to in the Plans, Specifications and other contract documents, and to full compliance therewith. Additionally, any bidder submitting a proposal shall, by such action thereby, agree to pay at least the minimum prevailing per diem wages as provided in Section 1773, et. seq. of the labor code for each craft, classification or type of workman required as set forth by the Director of Industrial Relations of the State of California.

15. Award Of Contract

The award of contract, if made, will be to the lowest responsible bidder as determined solely by the AGENCY. The AGENCY reserves the right to reject any or all proposals, to waive any irregularity, and to take the bids under advisement for a maximum period of 60 days. In no event will an award be made until all necessary investigations are made to the responsibility and qualifications of the bidder to whom the award is contemplated.

16. Material Guarantee

The successful bidder may be required to furnish a written guarantee covering certain items of work for varying periods of time from the date of acceptance of the work by the AGENCY. The work to be guaranteed, the form, and the time limit of the guarantee will be specified in the special provisions. Said guarantee shall be signed and delivered to the AGENCY before acceptance of the contract by the AGENCY. Upon completion of the contract, the amounts of the two contract bonds required in Section 2-4, "CONTRACT BONDS," of the Standard Specifications for Public Works Construction, may be reduced to conform to the total amount of the contract bid prices for the items of work to guaranteed, and this amount shall continue in full force and effect for the duration of the guarantee period. However, the Labor and Material Bond cannot be reduced until the expiration of 35 days after the date of recordation of the Notice of Completion.

17. Execution Of Contract

The successful bidder shall execute a written contract with the AGENCY on the form of agreement provided and shall secure all insurance and bonds required by the Specifications within 10 working days from the date of the Notice of Pre-Award. Failure to enter into a contract shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee. If the successful bidder fails to execute the contract, the AGENCY may award the contract to the second lowest responsible bidder. If the second lowest responsible bidder fails to execute the contract, the AGENCY may award the contract to the third lowest bidder. On the failure of such second or third lowest responsible bidder to execute the contract, such bidder's guarantees shall be likewise forfeited to the AGENCY. The work may then be re-advertised.

18. Submission of Bonds And Insurance

The successful bidder will be required to furnish the necessary bonds and insurance to the AGENCY within **10 working days** from the date of the Notice of Pre-Award for the Contract. Prior to issuance of Notice to Proceed, the AGENCY must be furnished with a Policy endorsement as required in the sample agreement depicted in Section D.

19. Addenda

The effect of all addenda to the contract documents shall be considered in the bid package and said addenda shall be made part of the contract documents and shall be returned with the bid package. Failure to submit any such addenda with the bid package may render the bid irregular and result in its rejection by the AGENCY.

20. Blank

21. Questions to the Engineer

Questions regarding the bid documents (i.e. plans, specifications, contract documents, bid forms, etc.) will be received by the Engineer up to **ten (10) working days** prior to the bid opening as specified in SECTION A. Questions asked of the Engineer after this time will not be addressed.

22. See Next Page

For Requests for Interpretation (RFI), the Bidder shall use the form on the following page for submittal in writing.

CITY OF BREA

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

REQUEST FOR INTERPRETATION OF CONTRACT DOCUMENTS

Date:

Time:

Company:

Contact Person:

Address:

Telephone:	**FAX:**

Plan Sheet:

Specification Section:

INTERPRETATION REQUESTED:

REPLY:

T0 A/E:

BIDDER: _____

SECTION C

PROPOSAL

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within **40 Working Days**, starting from the date of the Notice to Proceed.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Accompanying this proposal of bid, find ____ in the amount of $_____ which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

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

Addenda No.	*Date Received*	*Bidder's Signature*

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

PROJECT BID SCHEDULE

NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Mobilization and Demobilization (Max 5%)	LS	1		$
2	Remove Existing Curb	LF	39	$	$
3	Remove Existing Access Ramp	SF	1,555	$	$
4	Remove Existing Sidewalk	SF	3,552	$	$
5	Remove Existing Concrete Pavement	SF	108	$	$
6	Remove Existing Roadway Structural Section (12” Deep)	SF	4,995	$	$
7	Remove Detectable Warning Device	EA	1	$	$
8	Mill Existing Pavement (2” Depth)	SF	29,460	$	$
9	Edge Mill Existing Pavement (Variable Depth)	SF	23,732	$	$
10	Header Cut Existing AC Pavement (Variable Depth)	SF	15,801	$	$
11	Furnish and Place Type 2 Slurry Seal	SF	248,816	$	$
12	Construct Variable Height Curb	LF	51	$	$
13	Construct 4” PCC Sidewalk	SF	3,143	$	$
14	Construct Access Ramp including Slot Paving and Detectable Warning Device	EA	12	$	$
15	Furnish and Install Surface Applied Black Detectable Warning Device	EA	2	$	$
16	Furnish and Place AC Pavement	TON	1,142	$	$
17	Furnish and Place 8” PCC over CMB Cross Gutter Replacement Section	SF	108	$	$
18	Adjust Pull Box to Grade	EA	10	$	$
19	Adjust Valve to grade	EA	42	$	$
20	Adjust Manhole to Grade	EA	8	$	$
21	Adjust Manhole to Grade with New Ring & Cover	EA	3	$	$
22	Relocate Street Name Sign	EA	1	$	$
23	Pavement Striping	LS	1		$

NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
24	Traffic Control and Construction Phasing	LS	1		$
25	NPDES/BMP's	LS	1		$
26	Construction Surveying & Monument Preservation	LS	1		$
Total: Bid in Figures:				**$**	
Total: Bid in Words: _____					

1. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders_____ (Bidders Initials)**

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	***% Portion of Work***	***Name, Address and E-mail of Subcontractor***	***State License Number***	***Class***	***DIR Registration Number***

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I, _____, am the
(Print Name)
_____ of _____,
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this _____day of _____, 20_____.

_____
Name of Bidder

_____
Signature of Bidder

_____
Address of Bidder

BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed _____

Title _____

Firm _____

Date _____

U T I L I T Y A G R E E M E N T

HONORABLE MAYOR AND CITY COUNCIL
CITY OF BREA, CALIFORNIA

Gentlemen:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90) CIP PROJECT NO. 7299**, (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"**Qualified Person:** *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

_____
Contractor

_____
By

_____
Title

Date: _____

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 space provided.

_____
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_____

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

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

_____
Contractor

_____
By

_____
Title

Date: _____

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

_____
Bidder Name

_____
Business Address

_____
City, State Zip

( ) _____
Telephone Number

_____
Email Address

_____
State Contractor's License No. and Class

_____
DIR Registration Number

_____
Original Date Issued (State Contractor's License)

_____
Expiration Date

The work site was inspected by _____of our office on _____, 20_.

The following are persons, firms, and corporations having a principal interest in this proposal:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

_____
Company Name

_____
Signature of Bidder

_____
Printed or Typed Signature

Subscribed and sworn to before me this _ day of ____, 20_ .

NOTARY PUBLIC _____

NOTARY SEAL

Listed below are the names, address and telephone numbers for **three** public agencies for which the bidder has performed similar work within the past **three** years:

1. _____
Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: _____

_____
Contract Amount Type of Work Date Completed

2. _____
Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: _____

_____
Contract Amount Type of Work Date Completed

3. _____
Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: _____

_____
Contract Amount Type of Work Date Completed

Responsible Bidder – Supplemental Questionnaire

1. How many years has your organization been in business in California as a contractor under your present business name and license number?

   _____Years

2. Is your firm currently the debtor in a bankruptcy case?

   ❑ Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

_____	_____	_____
Case Number	Bankruptcy Court	Date Filed

3. Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

   ❑ Yes ❑ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

_____	_____	_____
Case Number	Bankruptcy Court	Date Filed

4. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

   ❑ Yes ❑ No

5. At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

   ❑ Yes ❑ No

6. Has your firm ever defaulted on a construction contract?

   ❑ Yes ❑ No

If "yes," explain on a separate page.

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

   ❑ Yes ❑ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

   ❑ Yes ❑ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

   ❑ Yes ❑ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

    ❑ Yes ❑ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

    ❑ Yes ❑ No

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

    ❑ Yes ❑ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

    ❑ Yes ❑ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

    ❑ Yes ❑ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

    ❑ Yes ❑ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

    %

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when on was required?

    ❑ Yes ❑ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

❑ Yes ❑ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

❑ Yes ❑ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

❑ Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

❑ Yes ❑ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non-responsive.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE _____ _____as PRINCIPAL, and _____ as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $_____. THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled "_____ _____ _____ "For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on _____.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

_____ Principal

_____ Surety

By: _____

BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of California)
County of _____)
)

On _____ before me, ____
_____
(insert name and title of the officer)

personally appeared _____
_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____(Seal)
Signature of Notary Public

SECTION D

SAMPLE CONSTRUCTIONAGREEMENT
BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and [contractor name], a [state] [type of entity] ("Contractor"). Contractor's CSLB license number is _____. Contractor's DIR registration number is _____.

RECITALS

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90), CIP PROJECT NO. 7299** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. GENERAL SCOPE OF WORK: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90), CIP PROJECT NO. 7299** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. CONTRACT PRICE AND PAYMENT:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of $ _____**.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned

directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. <u>CUSTOMER CARE</u>: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. <u>INCORPORATED DOCUMENTS</u>: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2018 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. <u>COMPLETION DATE / LIQUIDATED DAMAGES</u>:

A. Contractor shall complete the Project within **<u>40</u>** working days from the date of the Notice to Proceed.

B. Liquidated damages will be assessed in the amount of **$1,500.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

7. INSURANCE:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

> "It is hereby understood and agreed that this policy may not be canceled nor the amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the

insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar

day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project. Contractor agrees to not be debarred at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. <u>UNRESOLVED DISPUTES</u>:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. <u>ANTI-TRUST CLAIMS</u>: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. <u>THIRD PARTY CLAIMS</u>: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. <u>RIGHT TO AUDIT</u>: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

13. <u>TRENCHING AND EXCAVATIONS</u>:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed

plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. **UTILITIES**: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. **LOCATION OF EXISTING ELEMENTS**: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. **CONTRACTOR'S LIABILITY**:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities

arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. ASSIGNMENT: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. CONTRACTOR'S REPRESENTATIONS: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. NOTICES: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

To City:	To Contractor:
Director of Public Works	_____
City of Brea	_____
1 Civic Center Circle	_____
Brea, California 92821	_____

20. **NON-DISCRIMINATION**: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. **APPLICABLE LAW**: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. **INCORPORATION OF MANDATORY LANGUAGE:** Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

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

24. **NON-WAIVER OF TERMS:** Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. **AUTHORITY:** Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. **COUNTERPARTS:** This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

[CONTRACTOR NAME]

[use this signature block if Contractor is a corporation]

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

[use this signature block if Contractor is a limited liability company]

_____	_____
Manager	Manager

[Pursuant to California Corporations Code Section 17703.01(d), both signature lines must be executed unless the articles of incorporation state that the firm is managed by only one manager.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

SECTION E

SPECIAL PROVISIONS

All the Work to be done under this contract shall be in accordance with these Special Provisions, the Caltrans Standard Specifications, **2018 Edition**, and the **"GREENBOOK" Standard Specifications for Public Works Construction**, **2015 edition**, as written and promulgated by the Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association and the Southern California District of Associated General Contractors of California. Copies of the Standard Specifications are available from the publisher:

BNi Building News
1612 S. Clementine Street
Anaheim, California 92802
(714) 517-0971

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

The section numbers of these Special Provisions coincide with those of the said Standard Specifications. Only those sections requiring amendment, elaboration, or specifying options, are called out.

PART 1
GENERAL PROVISIONS

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

1-2 TERMS AND DEFINITIONS

[Add or redefine the following:].

AGENCY - The City of Brea.
Board - The City Council of the City of Brea.
Caltrans - The State of California Department of Transportation.
County - The County of Orange.
Engineer - The City Engineer of the City of Brea or his authorized representative.

SECTION 2
SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT

[Replace with the following:].

Within **10 working days** after the date the AGENCY'S award of contract, the Contractor shall execute and return all contract documents required by the AGENCY. The AGENCY reserves the right to terminate the award if the above requirement is not met. Such termination will result in the forfeiture of the Proposal Guarantee.

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

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

2-4 CONTRACT BONDS

[add the following:].

The Faithful Performance Bond shall remain in force until the date of recordation of the Notice of Completion. The Material and Labor Bond shall remain in force until 6 months after the date of recordation of the Notice of Completion.

In conformance with the State of California Government Code, Chapter 13, Section 4590, the Contractor may substitute securities for any monies withheld by the City to endurance under the contract.

At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the AGENCY, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the Contractor upon notification by AGENCY of Contractor's satisfactory completion of the contract.

The type of securities deposited and the method of release shall be approved by the AGENCY.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General

[Add the following:].

Only written authorization from the AGENCY shall be binding over any deviation or change in the Plans and Specifications. Please refer to SECTION 3 - CHANGES IN WORK for further explanation. The Contractor shall maintain a control set of Plans and Specifications on the project site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show the as-built conditions. Upon completion of all Work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met. Reference in the Special Provisions to

"State Standard Specifications" shall mean the Standard Specifications, 2018 edition, of the State of California, Department of Transportation. Copies of these specifications may be obtained from:

State of California – Department of General Services
Publications Distribution Unit
P.O. Box 1015
North Highlands, California 95660

Reference in the Special Provisions to Standard Plans shall mean the Standard Plans of the City of Brea, and where applicable, the following:

Standard Plans for Public Works Construction (SPPWC), published by the Public Works Standards, Inc., 2015 edition.

Standard Plans, published by the State Department of Transportation, 2018 edition.

Standard Plans, published by the City of Brea.

Applicable Standard Plans for this project are contained in Appendix A of these Special Provisions.

2-5.3 Submittals

2-5.3.1 General

[Add the following].

Within 10 working days after the date the AGENCY'S award of contract, the Contractor shall identify submittals which will be required by each section of the specifications and determine the date on which each submittal will be made. Submittal schedule shall be in matrix form. Submittals shall be consecutively numbered and shall include the specification section number to which they pertain. Contractor shall be responsible for on time delivery and processing of submittals so as not to impede progress of work. The Contractor shall submit all Submittals to the Engineer via the Internet utilizing a web site address VPM @ www.virtual-pm.com **managed by the Agency.**

2-6 WORK TO BE DONE

[Add the following].

The work to be constructed hereunder is located along Brea Boulevard from W. Juniper Street to Imperial Highway (SR90) in the City of Brea, California. The project generally consists of, but is not limited to, mobilization, reconstructing twelve (12) existing curb access ramps and reconstruction of adjacent curb, gutter, sidewalk, cross gutter, and roadway structural section improvements, roadway preparation and application of a Type 2 slurry seal to the roadway surface and replacement of all pavement striping in kind in accordance with the Plans and Specifications.

2-9 SURVEYING

[Replace with the following].

The Contractor shall be responsible for the accuracy of surveying adequate for construction; however the task of surveying itself shall be performed under the direction of a Licensed Land

Surveyor or Professional Engineer, whom is authorized to practice land surveying in the State of California, retained or provided for by the Contractor.

All construction surveying necessary to complete the work as shown on the plans and provided for in these contract documents and specifications shall be accomplished by or under the direction of a Licensed Land Surveyor or Professional Engineer, with the authority to practice land surveying in the State of California, retained or provided by the Contractor. The AGENCY reserves the right to direct additional construction surveys to be performed by the Contractor when it feels it is required to adequately construct the work.

The Contractor shall be required to provide an as-built field survey to establish adequate survey control for the reconstruction of all curb returns where new curb ramp construction is required and any street requiring total removal of the existing pavement section, in order to re-establish the horizontal locations and final elevations of new ramp and curb returns, centerline and/or crown line and existing vertical curves, as directed by the Engineer, prior to the start of any construction. The as-built field survey shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

In accordance with Senate Bill 1563, the Contractor shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer. The Contractor shall bear the expense of replacing any that may be disturbed. Replacement shall be done only under the direction of a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying in the State of California.

The centerline monuments for all intersections within the project limits shall be permanently tied out prior to cold milling and overlay and re-established after the final asphalt concrete paving. Upon submittal of all corner records and centerline tie notes and monuments to the Office of Orange County Surveyor, the Contractor shall submit copies of the same records to the City of Brea. Contractor shall also submit accepted and filed corner records upon acceptance by the Office of the County Surveyor prior to completion of the project.

Upon completion of the project, a Notice of Completion shall not be filed until the monuments have been restored and corner records filed to the satisfaction of the County Surveyor.

2-10 AUTHORITY OF BOARD AND ENGINEER

[Add the following].

The Contractor shall give at least 48 hours (2 working days) advance notice when he or his subcontractor will start or resume the work.

The above notice is to be given during working hours, exclusive of Saturday, Sunday or AGENCY holidays for the purpose of permitting the Engineer to make necessary assignments of his representatives.

2-11 INSPECTION

[Add the following].

If the Contractor elects to work under this contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays, he shall arrange with the Engineer for the required inspection service and pay the **Special Inspection Fees** which will be charged at the following rates:

4 hrs. or less/day - $500.00
4 hrs. to 8 hrs./day - $1,000.00

When Special Inspection is required, the Contractor shall notify the AGENCY and pay inspection fees 24 hours in advance. If the Contractor is directed by the AGENCY to work under this contract more than 8 hrs./day or more than 40 hrs./week, the Special Inspection fee requirements will be waived.

If the Contractor elects to work under this Contract more than 8 hrs/day or more than 40 hrs/week, Saturday, Sunday, or AGENCY holidays without prior authorization, he/she/it shall pay double the rates mentioned herein to the AGENCY.

SECTION 3
CHANGES IN WORK

3-3 EXTRA WORK

3-3.2 Payment

3-3.2.1 General.
[Add the following:].

Extra work compensation will be made for labor, equipment, and materials used in the specific work zone where the extra work is being performed and not for all crew and materials on-site. When extra work or utility interference is encountered, the Contractor shall contact the City and jointly evaluate if the workforce and/or trucking should be reduced or remain as compensable.

All extra work truck material weight tickets must be completely filled out with times, location, and material dumped to be eligible for extra work payment. All extra work must be approved by the authorized City representative prior to commencing work. Without said approval, the Contractor will be working at risk, hence compensation is not guaranteed.

3-3.2.3 Markup.
[Delete Subsection in total and replace with the following:]

(a) Work by Contractor. The following percentages shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits:

1) Labor.....15
2) Materials 10
3) Equipment Rental 10*
4) Other Items and Expenditures 10

* Equipment Rental rates shall be based on the latest applicable Caltrans Equipment Rental Rates

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

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

(c) Unknown Facilities. In the event the Contractor suspects or begins to locate a utility pipe, conduit, structure or other unknown underground mass not depicted on the Plans or identified within these Specifications, he/she shall continue to uncover and investigate the limits of the item and contact USA as part of the bid item scope of work. Once the unknown underground facility is sufficiently viewed and identified, any stand-by-time, during which no constructive work is being accomplished with respect to the bid item scope of work, will be paid at the base rate for Labor + 10% and for Equipment not working will be paid applying the Delay Factor to the hourly rental rate per the Caltrans Rental Guide with no further mark-up.

SECTION 4
CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General

[Add the following:].

The Contractor and all subcontractors, suppliers, and vendors shall guarantee that the entire Work will meet all requirements of this contract as to the quality of materials, equipment, and workmanship. The Contractor, at no cost to the AGENCY, shall make any repairs or replacements made necessary by defects in materials, equipment, or workmanship that become evident within one year after the date of recordation of the Notice of Completion. Within this one year period, the Contractor shall also restore to full compliance with requirements of this contract any portion of the Work which is found to not meet those requirements. The Contractor shall hold the AGENCY harmless from claims of any kind arising from damages due to said defects or noncompliance.

Security of this guarantee shall be in the form of a Warrantee Bond furnished to the AGENCY by the Contractor. There shall be specific wording in the Warrantee Bond that includes the guarantee or warranty of the labor and materials for a one year period, commencing from the recording date of the Notice of Completion by the County Recorder. The guaranteed amount shall be for 100 percent of the total amount earned to date as indicated on the final progress payment. The AGENCY reserves the right to withhold the retention until the Warrantee Bond has been accepted by the AGENCY.

The Contractor shall make all repairs, replacements, and restorations covered by the Warrantee Bond within ten (10) working days after the date of the Engineer's written notice. Failure to comply with such notice, will cause the AGENCY to file claim against the bond.

Excepted from the Warrantee Bond will be defects caused by acts of God, acts of the AGENCY, acts of vandals, or by acts of others outside or beyond the control of the Contractor.

4-1.4 Test of Materials

[Replace the third sentence of the first paragraph with the following:].

All onsite and offsite tests which require the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory in the vicinity of Southern California, pre-approved by the Engineer. The laboratory shall be staffed with experienced technicians, properly equipped, and fully qualified to perform the tests in accordance with the specified standards.

The City reserves the right to visit approved testing laboratories anytime during the duration of the testing for the specified project. This random inspection will not require any prior confirmation for the visit date and time of the visit.

Field sampling and testing shall be performed under the direction of the Engineer. The Engineer will determine the exact time and location of all field sampling and testing. Written reports of tests and engineering data furnished by the Contractor for the Engineer's review shall be submitted in the same manner as specified for Shop Drawings.

The testing laboratory shall furnish three copies of a written report of each test performed by laboratory personnel. Two copies of each test report will be transmitted to the Engineer and one copy to the Contractor within three (3) calendar days after each test is completed.

The Contractor shall not retain any testing laboratory firm against which the City has reasonable objection. If at any time during the construction process, the services become unacceptable to the City and the Engineer determines that sufficient cause exists, the Contractor shall terminate the services and engage a different testing laboratory firm, approved by the Engineer.

Unless otherwise provided, all testing shall be performed under the direction of the Engineer and the AGENCY will bear the cost of the initial testing of material and workmanship which are required by the Standard Specifications and the Special Provisions. The cost of all other tests, including the retesting of material or workmanship that fails to pass the first test, shall be borne by the Contractor.

4-1.6 Trade Names or Equals

[Replace the last two sentences of the first paragraph with the following:].

Approval of equipment and materials offered as equivalents to those specified must be obtained as set forth in the Instructions to Bidders.

SECTION 5
UTILITIES

5-1 LOCATION

[Replace the first sentence of the last paragraph with the following:].

The location and existence of any underground utility or substructure was obtained from a search of available records. No guarantee is made or implied that the information is complete or accurate.

It shall be the Contractor's responsibility alone to determine the location of underground utilities or substructures of every nature and to protect them from damage.

The Contractor shall pothole all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by the Work.

The Contractor shall perform the utility location pothole exploration efforts along the proposed improvement locations, if required, 48 hours prior to beginning the excavation work and shall submit a pothole schedule and plan identifying the locations of the potholes to the Engineer in advance of initiating said work for review and approval. All vertical and horizontal locations of the exposed existing utility shall be documented by the Contractor and provided to the Engineer. All potential conflicts with respect to the proposed work and existing utilities shall be brought to the attention of the Engineer prior to trenching at the potential conflict location.

Any pothole work with a diameter less than or equal to 6-inches in asphalt to be backfilled with black colored concrete to the finish surface.

The Contractor shall sawcut straight clean lines at each pothole location.

Payment for the pothole of existing utilities is considered in the contract bid items of work related to pothole and exploration and no additional compensation will be allowed, therefore.

5-4 RELOCATION

[Replace the second sentence of the last paragraph with the following:].

When not otherwise required by the plans and specifications and when directed by the Engineer, the Contractor shall arrange for the relocation of service connections, as necessary, between the meter and property line, or between the meter and limits of construction. Additionally, the Contractor shall arrange and coordinate all utility pull box and junction box relocations/adjustments associated with the curb ramp reconstruction in advance of the work.

5-5 DELAYS

[Add the following paragraph:].

All notification to utility companies insofar as the relocation or removal of a utility shall be made by the Engineer based on Contractor's request as submitted to the Engineer at least 48-hours in advance of the needed work. Any costs for delay of the Contractor of utility companies in this regard shall be assigned to the Contractor, if these costs are a result of the Contractor's request being untimely in any respect excepting thereof any delay cost incurred as a result of the utility company not responding at their agreed time.

5-7 UTILITY MARKINGS

[Is hereby added to Section 5:].

Upon completion of the Project, the Contractor shall be required to remove, to the satisfaction of the Engineer, all utility locator markings and utility tie-out paint markings that either the Contractor, Subcontractor, the City, or utility companies make during the course of he work from the surfaces of sidewalks, driveway approaches, curb and gutters, using the removal method acceptable to the Engineer. Any damage to the existing improvements due to the Contractor's removal operation shall be repaired at the Contractor's expense.

Payment for the removing of the utility markings shall be included in the various applicable items of work, and no additional compensation will be allowed, therefore.

SECTION 6
PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

[Replace the first sentence of the first paragraph with the following:].

The Contractor's proposed Baseline Construction Schedule shall be submitted to the Engineer within ten (10) working days after the date of the AGENCY'S execution of the Agreement. The proposed Baseline Construction Schedule shall depict the main milestones, sub-activities, durations, start and finish dates, and predecessors/successors, and submitted in MS Project File and pdf formats. Additionally, the schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged and setting forth the dates that each item will be delivered. Prior to issuing the Notice to Proceed, the Engineer will schedule a preconstruction meeting with the Contractor to review the proposed Baseline Construction Schedule and delivery dates, arrange utility coordination, discuss construction methods, and clarify inspection procedures. The Contractor shall submit progress reports to the Engineer by the tenth day of each month. The report shall include an updated Construction Schedule. Any deviations from the original approved Baseline Construction Schedule shall be explained. Progress payments will be withheld pending receipt of any outstanding reports.

The Contractor shall furnish the Agency with a 3 week look ahead-schedule in a tabular format at every weekly construction meeting. The 3 week look ahead-schedule shall be linked to the Approved Baseline Construction Schedule milestones with any subsequent deviations within this 3 week window, and shall include the sub-activities that rolls-up into the associated milestone.

Payment for the preparation, update, and submittal of the Baseline Construction Schedule shall be considered as included in the various item of work and no additional compensation will be allowed thereof.

6-2 PROSECUTION OF WORK

[add the following:].

The order of work for this project shall be as follows:

1. Tie out existing centerline ties and/or front property corners monuments
2. Traffic control and construction phasing plan
3. Haul route plan
4. Pothole existing utilities
5. Sawcut existing pavement
6. Street, curb and gutter, ramp and sidewalk removal
7. Construct curb, gutter, sidewalk and access ramps
8. Asphalt concrete deeplift paving

9. Pavement preparation, including cleaning, sweeping and crack sealing
10. Slurry Seal Pavement
11. Replace traffic striping and pavement markings
12. Re-establish centerline ties and other monuments and file related documents
13. Final Inspection and punch-list

[Add the following:]

Record Keeping: The Contractor shall submit daily progress reports to the Engineer via the Internet utilizing a web site address Virtual Project Manager (VPM) at www.virtual-pm.com managed by the Agency. This web site, "Virtual Project Manager" will be used exclusively by the site foreman to record daily progress, problems, addition/deletions and or request change orders for review by the engineer/inspector and the Project Manager. The Job site supervisor (Contractor) is required to have access and knowledge to utilize a digital camera and internet. Daily use of computer is required to input aforementioned documents.

If the Engineer determines that the Contractor is failing to prosecute the work to the proper extent, the Contractor shall, upon order from the Engineer, immediately take steps to remedy the situation. All costs of prosecuting the work as described herein shall be included in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes after orders of the Engineer; the work may be suspended in whole or part, or payment withheld, until the Contractor takes said steps.

If work is suspended through no fault of the City, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the work during periods of suspension, the City may elect to do so, and deduct the cost thereof from monies due the Contractor. Such actions will not relieve the Contractor from liability.

6-7 TIME OF COMPLETION

6-7.1 General

[Add the following:].

The total time within which the Work must be completed by the Contractor is fixed at **FOURTY (40) working days**, including material delivery, starting from and after the date in the **Notice to Proceed** with the Work.

6-7.2 Working Day

[Add the following:].

The Contractor's activities shall be confined to the hours between **7:00 A.M.** to **4:00 P.M**., Monday through Friday, excluding holidays for work that does not require lane closures (For lane closure restrictions see 7-10.1 "Traffic Access."). Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property. In the event of either a requested or emergency deviation, inspection service fees will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead, and travel time. The service fees will be deducted from any amounts due the Contractor.

[Delete subsection in total and replace with the following:].

A working day is any day within the period between the date of the start of the Contract time as specified in 6-1 and the date of field acceptance of the Work by the Engineer, other than:

1. Saturday and Sunday.
2. Any day designated as a holiday by the Agency.
3. Any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a contractor association.
4. Any day the Contractor is prevented from working at the beginning of the workday for cause specified in 6-6.1.
5. Any day the Contractor is prevented from working during the first 5 hours with at least 60 percent of the normal work force for cause specified in 6-6.1.

6-9 LIQUIDATED DAMAGES

[Amend the liquidated damage amount to read:].

Liquidated damages will be assessed in the amount of **$1,500.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date.

SECTION 7
RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

7-1.1 General

[Add the following:].

A noise level limit of 95 dbl. at a distance of 50' shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

The Contractor shall provide the equipment list and rates being used for this project as part of the submittals for acceptance by the Engineer, prior to mobilizing to the site.

7-2 LABOR

7-2.1 General

[Add the following:].

The Contractor will be required to submit weekly certified payrolls for the project. The Contractor shall also submit payrolls for all subcontractors who perform work in excess of $1,000.

The payrolls reflect payment of the prevailing wage to all employees plus required fringe benefits. Failure to comply with this requirement may be cause for the City to stop construction or to withhold contract payments until the Contractor shows compliance.

The Contractor to provide a labor work force summary for all employees assigned to the Project with name, classifications, and rates as part of the submittals and prior to initiating the work.

7-2.2 Laws

[Add the following:].

The Contractor, and all subcontractors, suppliers and vendors, shall comply with all AGENCY, State and Federal orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments.

The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

7-3 LIABILITY INSURANCE

[Delete the entire subsection:].

7-3.1 Insurance

[Add the following:].

Contractor shall, prior to execution of an Agreement with the AGENCY, comply with the provisions of AGENCY's insurance requirements as follows:

Except as provided in the Contract Agreement, Contractor hereby agrees to protect, defend indemnify and hold harmless AGENCY, its officers, elected or appointed officials, employees, agents, and volunteers from and against any and all, claims, damages, losses, expenses, judgments, demands defense costs, and consequential damage or liability of any kind or nature, however caused, including those resulting from death or injury to Contractor's employees and damage to Contractor's property, arising directly or indirectly out of the obligations or operations herein undertaken by Contractor, caused in whole or in part by any negligent act or omission of the Contractor, any subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, including but not limited to concurrent active or passive negligence, except where caused by the active negligence, sole negligence, or willful misconduct of the AGENCY. Contractor will conduct all defense at its sole cost and expense and AGENCY shall approve selection of Contractor's counsel. City shall be reimbursed for all costs and attorney's fees incurred by the AGENCY in enforcing this obligation. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by Contractor. The AGENCY will not be liable for any accident, loss or damage to the Work prior to its completion and acceptance, except as provided in the Contract Agreement.

The cost of this insurance shall be included in the Contractor's Bid.

7-5 PERMITS

[Delete Subsection in total and substitute with the following:].

Prior to the start of any work, the Contractor shall take out the applicable AGENCY permits and make arrangements for AGENCY inspections. The AGENCY will issue the permits at no charge to the Contractor. The Contractor and all subcontractors shall each obtain an AGENCY business license, and shall be licensed in accordance with State Business and Professions Code. The Contractor, at no additional cost to the AGENCY, shall also obtain any and all other permits, licenses, inspections, certificates, or authorizations required by any governing body or entity.

The contractor will be required to obtain an Encroachment Permit from the City of Fullerton, if required for all work and/or traffic control required in the Fullerton public right-or-way.

Pursuant to State Bill 854, the following new requirements apply to all public works projects:

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded. The website for contractor registration with the Department of Industrial Relations (DIR) is https://efiling.dir.ca.gov/PWCR; the annual non-refundable fee, valid July 1 through June 30 (state fiscal year), is $300.

Contractors who are awarded a public works project must submit electronic payroll records to the DIR's Compliance Monitoring Unit (CMU) in addition to providing wet-ink original copies to the City or its designated labor compliance enforcement officer.

7-8 WORK SITE MAINTENANCE

7-8.1 General

[Add the following:].

Throughout all phases of construction, including suspension of work, and until the final acceptance, the Contractor shall keep the site clean and free from rubbish and or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

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

Before the final inspection, the site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. This is to include the removal of <u>all</u> utility markings (Underground Service Areas – USA) made as a part of the project.

7-8.2 Air Pollution Control

[Add the following:].

Unless directed otherwise by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean wherever construction, including restoration, is incomplete. If the Contractor fails to perform the required sweeping, the AGENCY will complete the work and deduct the costs from the Contractor's progress payment for all costs associated with the air pollution control efforts.

7-8.4.2 Storage of Equipment and Material in Public Streets

[Add the following:].

Construction materials shall not be stored at the City facility for more than 2 days prior to usage on the project. All materials or equipment not installed or used in construction within 2 days after unloading shall be stored elsewhere by the Contractor – at Contractor's expense, unless authorized additional storage time. All material used for the construction of the improvements, shall be placed so as to provide clear access within the work zone with one lane open at all times, unless otherwise approved by the Engineer.

Construction equipment shall not be stored at the work site before its actual use on the work, nor for more than 2 days after it is no longer needed.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

In no event is Contractor to stockpile material, tools or equipment in the parkways.

Payment for "Final Cleaning-up" is considered included in the various contract bid items of work and no additional compensation will be allowed therefore.

7-8.4.3 Temporary Light, Power & Water

[Delete the final paragraph and replace it with the following to the end of the section:]

Water shall be obtained through the AGENCY's Finance Department. In order to obtain construction water from an AGENCY fire hydrant, the Contractor will be required to obtain an AGENCY supplied hydrant meter. A $2,650 refundable deposit is required on the meter. An "Eddy" valve must be attached to the temporary meter for the purpose of operating the hydrant.

The cost for the meter and water used shall be charged in accordance with City Council Resolution No. 95-95 and 2018-048. These charges are as follows:

Meter Service Charge Per Month	Rate Per 100 Cubic Feet
$130.00	$7.17

Any unauthorized use of AGENCY water from a fire hydrant or other AGENCY facility will be estimated by the AGENCY as to usage and invoiced to the Contractor at three times the rate schedule above and a fine of $300 per citation and deducted from progress payments. The Contractor shall not use water or power from private residences.

The cost of water and power used by the Contractor is considered included in the various contract bid items of work and NO additional compensation will be allowed, therefore.

7-8.6.1 General

[Add the following to the end of the section:].

Waste Discharge Requirements for Discharge of Storm Water Associated with Construction Activities:

a) The CONTRACTOR shall be responsible for identifying and obtaining all permits and licenses required for this project. Cost and fees associated with said permits regardless of whether obtained by the COUNTY, CITY or by CONTRACTOR, shall be borne solely by the CONTRACTOR.

The CONTRACTOR shall comply with all rules and regulations included in said permits and licenses. Should the CONTRACTOR fail to conform to said rules and regulations, the CITY reserves the right to perform the work necessary to conform to the rules and regulations. The cost of such work will be deducted from any funds to become due to the CONTRACTOR.

It is noted that multiple permits are required from the various regulatory agencies. CONTRACTOR is to abide by and follow the requirements of all such permits.

b) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES WATER QUALITY ORDER NO. 2009-0009-DWQ (GENERAL PERMIT)

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 permit and related documents/attachments may be found on the internet at:

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 as described above. Section XV, "Municipal Construction Projects/Activities," of the Municipal Permit describes specific compliance with the latest version of the State's CGP within the Santa Ana Region.

7-8.6.4 Dewatering

[Add the following to the end of the section].

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 III.3.ii. of this permit authorizes de minimus types of discharges listed in the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters, Order No. R8-2009-0003, from CITY owned and/or operated facilities and activities (including construction).

A copy of the CITY's Municipal NPDES Permit (Order No. R8-2009-0030) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_oc_stormwater_ms4_permit.pdf

A copy of the Santa Ana Regional Board's General De Minimus Permit for Discharges to Surface Waters (Order No. R8-2009-0003) may be found on the internet at:

http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

[Delete the second paragraph and substitute with the following:].

The Contractor shall relocate, repair, replace or reestablish all existing improvements within the project limits which are not designated for removal (e.g., curbs, gutters, sidewalks, driveways, fences, walls, sprinkler systems, signs, utility installations, pavements, and structures.) which are damaged or removed as a result of his operations.

Where existing traffic striping, pavement markings and curb markings are damaged or their reflectivity reduced by the Contractor's operations, such striping or markings shall also be considered as existing improvements and the Contractor shall repaint or replace such improvements.

Relocations, repairs, replacements or reestablishments shall be equal to the existing improvements and shall match such improvements in finish and dimensions unless otherwise specified.

[Delete the last paragraph and substitute the following:].

All cost to the Contractor for protecting, removing, restoring, repairing, replacing, or reestablishing existing improvements shall be included in the bid in other items of work unless otherwise specified.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Traffic and Access

[Add the following:].

One lane of traffic shall be maintained at all times. Restriction of traffic lanes will only be allowed between **9:00 am** and **3:00 pm** Monday through Friday. Contractor may begin set-up for Traffic Control at **8:30 am.**

All traffic control shall be in accordance with the plans and the approved Traffic Control Plan as submitted to the AGENCY pursuant to the following specifications:

1. Caltrans - Manual of Traffic Control Devices for Construction and Maintenance Work Zones, Traffic Manual, Sign Specifications, Standard Plans, Standard Specifications
2. State of California, Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD)
3. Work Area Traffic Control Handbook (WATCH Manual)

Prior to the beginning of work, the Contractor shall prepare and process a Traffic Control and Construction Phasing plan for AGENCY'S approval, in conformance with current MUTCD and AGENCY'S guidelines for the project. Contractor shall implement the approved Traffic Control and Construction Phasing plan to safely prosecute the construction work involved with a minimum of inconvenience to the existing residents and the motoring public.

Construction Traffic Control Plans shall be prepared in accordance with the AGENCY's latest Traffic Control Plan Preparation Guidelines and shall be reviewed and approved by the Engineer. The plans shall be signed and stamped by a Traffic or Civil Engineer. The Contractor shall submit the plans to the Engineer for approval or correction at least 10 working days before approved plans will be required for commencing the work.

Approval of the Traffic Control Plans by the Engineer shall not relieve the Contractor from the responsibility for errors or omissions in the plans or from deviations from the Contract Documents. The Contractor shall be responsible for the correctness of the plans and for the results obtained by the use of such plans.

The Contractor shall provide, to the Engineer, a telephone number at which the Contractor's representatives can be reached, at any hour, should an emergency occur requiring replacement or relocation of the required traffic control devices.

Prior to the start of construction, the Contractor shall inform the AGENCY's trash haulers, Police and Fire departments and US Postal Service, of the project location, approximate starting date, completion date, and the name and telephone number of contractor representatives who may be contacted at any hour in the event of an emergency.

POLICE DEPARTMENT: *Watch Commander @ (714) 990-7626*
FIRE DEPARTMENT: *Battalion Chief @ (714) 990-7658*

The Contractor shall adhere to applicable sections of California Administrative Code, Title 8, concerning electrical and construction safety standards and practices.

Contractor shall require that an approved safety vest be worn by all personnel who are working at this project site. Any worker without a vest may be ordered off the job by the Inspector until such apparel is acquired. Questions as to approved vests shall be directed to the Engineer.

Any relocation of travel lanes longer than three calendar days shall be delineated by removing the existing striping and legends by wet sandblasting and placing new striping and legends as required. Upon completion of the work and the restoration of the road surface to its final condition, the Contractor shall remove temporary striping by wet sandblasting.

If the traffic cones or portable delineators are damaged, displaced or are not in an upright position, for any reason, the contractor shall immediately replace or restore to their original location, in an upright position, the cones or portable delineators.

The Contractor shall provide and maintain all signs, barricades, flashers, delineators and other necessary facilities for the protection of the motoring public within the limits of the construction area. He shall also post proper signs to notify the public regarding detours and conditions of the roadway, all in accordance with the provisions of the Vehicle Code, the current State of California Department of Transportation "Manual of Traffic Controls for Construction and Maintenance Work Zones", and the State of California Department of Transportation Standard Plans.

The Contractor shall furnish such flagmen and equipment as are necessary to give adequate warning to traffic or to the public of any dangerous conditions in accordance with the current Department of Transportation "Instructions to Flagmen".

All existing traffic signs and street signs shall be maintained in visible locations during construction. Signs designated for removal shall be salvaged and delivered to the AGENCY Yard or disposed of as directed by the AGENCY.

Plans indicating the travel (haul) route for the Contractor's equipment movement in and out of the site must be submitted to the Engineer for approval at least seven (7) working days prior to commencement of any work. The travel route plans, which meet the City's requirements, will be approved and returned to the Contractor; otherwise, further revisions are required until they are acceptable to the AGENCY. The Contractor shall submit one travel plan for each phase to the Engineer for approval, and the approved travel plans shall be strictly adhered to by the Contractor during all phases of the construction.

The Contractor shall limit excavation for curb and/or gutter, driveways, sidewalk, cross gutter and spandrels that will leave an open excavation for only one weekend in a continuous two-week period. Open excavation is only allowed to open for only one weekend with proper traffic control as specified elsewhere and as directed by the Engineer.

The Contractor is not allowed to drive his/her/its fully loaded trucks on the new material.

Any deviation from these requirements is not permitted. All the Contractor's operations will be ceased at once if the Contractor violates any of these requirements. No further payments will be made to the Contractor until problems are resolved according to the AGENCY'S requirements.

Full compensation for Construction Traffic Control Plans is considered included in the Traffic Control and Construction Phasing bid item of work and no additional compensation will be allowed therefore.

Project Information Signs

Two (2) Project Information signs shall be fabricated, furnished, and installed (1) week prior to beginning of roadway construction project. The submittal of the Project Information sign shall be provided to the City as part of the required submittals and accepted prior to fabrication and installation (see Appendix A for sign specification). The location of the Project Information Signs shall be determined in the field by the Engineer.

Warning Signs

Adequate warning signs for motorists shall be placed and maintained throughout all applicable phases of the work including speed limit reduction, loose gravel, fresh oil, and open trench. Signs shall be 36-inch x 36-inch size; shall be on site ready for placement prior to start of the applicable phase of work and shall be placed in advance on all streets approaching the work zone.

The Contractor shall not park any equipment or store any materials on the street during non-working hours.

The Contractor shall reopen all streets at the end of each working day.

The Contractor shall maintain access for emergency vehicles, local residents, businesses, and commercial vehicles at all times on all streets.

Pedestrian traffic shall be detoured to the opposite side of the street, away from the construction area, whenever possible.

The Contractor shall be required to coordinate his operations with the delivery of mail, the school bus and trash pick-up schedules in the project area, and the Contractor shall make provisions for passage of trash collection trucks to alleys and to trash receptacles in streets where work is being performed.

The Contractor shall install skid resistant steel plates over any open trenches which are not back-filled by the end of each day. Steel plates need to be recessed while covering open trenches in the street.

The order of work, except where otherwise specifically required by the Plans and Specifications, such as the phasing requirements, shall be determined by the Contractor who shall be solely responsible for coordinating all subcontract and direct contract work to minimize delays during construction.

The Contractor shall maintain pedestrian and vehicle access to driveways for ingress and egress by the end of each workday. If necessary, the Contractor shall install skid resistant steel plates over disturbed pavement in front of driveways in order to provide for smooth access to and from the driveways.

Advisory Signs

The Contractor shall provide 2 electric power changeable message advisory signs as required for each stage of work within the beginning and end of the construction limits with the following language:

MAJOR ROAD CONSTRUCTION ON
XXXXXXX AVENUE
FROM <MONTH-YR> TO <MONTH YR>
EXPECT DELAYS
PLEASE USE ALTERNATIVE ROUTES

These signs shall be placed at a minimum of one week prior to commencement of the construction starting. Failure to coordinate with the City may result in delay of start of construction and no extension of contract days or compensation will be given. The Engineer shall approve the verbiage of signage prior to fabrication and Engineer or their designee shall determine the location in the field with the Contractor prior to placement.

Full compensation for warning, advisory, and Project Information signs is considered included in the Traffic Control and Construction Phasing bid item of work and no additional compensation will be allowed, therefore.

7-10.3 Street Closures, Detours, Barricades

[Add the following:].

Street closures will not be allowed except as specifically permitted by the Engineer.

7-10.5 Protection of the Public

[Add the following section:].

It is part of the service required of the Contractor to make whatever provisions are necessary to protect the public. The Contractor shall use foresight and shall take such steps and precautions as his operations warrant to protect the public from danger, loss of life or loss of property, which would result from interruption or contamination of public water supply, interruption of other public service, or from the failure of partly completed work or partially removed facilities. Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss, or damage to life and property, due directly or indirectly to prosecution of work under this contract.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the public safety, protection of utilities and protection of adjacent structures or property, which may be damaged by the Contractor's operations and when, in the opinion of the Engineer, immediate action shall be considered necessary in order to protect the public or property due to the Contractor's operations under this contract, the Engineer will order the Contractor to provide a remedy for the unsafe condition. If the Contractor fails to act on the situation, the Engineer may provide suitable protection to said interests by causing such work to be done and material to be furnished as may be necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as are deemed necessary, shall be borne by the Contractor. All expenses incurred by the AGENCY for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the AGENCY does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety. No additional compensation will be allowed, therefore.

SECTION 8
FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL

[Add the following:].

No field offices for AGENCY personnel will be required, however, the AGENCY personnel shall have the right to enter upon the project at all times and shall be admitted to the offices of the Contractor, at any time during the operation of the Work.

SECTION 9
MEASUREMENT AND PAYMENT

9-3 PAYMENT

9-3.1 General

[Delete the last paragraph and substitute with the following:].

At the expiration of 35 days from the filing and recording of the Notice of Completion of the Work, the amount deducted from the final estimate and retained by the AGENCY will be paid to the Contractor except such amounts as required to be withheld by properly executed and filed to stop payment, or as may be authorized by the contract.

When no bid item is provided for work/improvement shown or indicated on the plans and specifications, payment for such work/improvement will be considered to be included in various applicable items of work.

9-3.2 Partial and Final Payment

[Amend the first sentence of the first paragraph to read:].

The closure date for the purpose of making partial progress payments will be the last day of each month. The Contractor may request, in writing, that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the AGENCY'S payment procedure.

Each month, the Contractor shall meet with the Engineer, a minimum of three (3) working days prior to the submittal of the progress payment to the AGENCY, to finalize and receive approval regarding the measurement of the Work performed through the closure date and the estimated value of the progress payment based on the contract Unit Prices or as provided for in Section 9-2. Any progress payment submitted without such approval will be considered incomplete and returned to the Contractor and no payment shall be considered until such approval is obtained.

[Add the following to the end of the section:].

Payments will be withheld pending receipt of any outstanding reports required by the contract documents. In addition, the final progress payment will not be released until the Contractor returns the control set of specifications and plans indicating the as-built conditions.

At the request and expense of the Contractor, who shall retain beneficial ownership and receive interest, if any thereon, the AGENCY shall permit the substitution and deposit therewith of securities equivalent to the amount of any monies withheld by the AGENCY.

9-3.5 Description of Bid Items

[Add the following section:].

The unit prices and lump sum amounts to be paid for under the bid items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the completion of the work and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Specifications. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing,

obtaining required permits and permit fees, mobilization, traffic control, public convenience and safety, protective barricading/fencing, sanitary facilities, storage of equipment and materials, security against theft and vandalism, project site maintenance, dust and runoff control, clean-up and all other items related to the work.

Payment for unit price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be specified in SSPWC, Section 9-1, and "Measurement of Quantities for Unit Price Work." Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with SSPWC, Section 9-2, "Lump Sum Work,"

Payment for all work shall be included in the various bid items. No additional compensation shall be made therefore. Work associated with each bid item shall include, but not be limited to the following description of bid items:

Bid Item No. 1 – Mobilization and Demobilization (5% Max)

Mobilization and demobilization shall conform to the provisions of Sections 9-3.4 of the Standard Specifications.

Mobilization and demobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials, 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, and financing prior to beginning work on the various contract items on the project site. Mobilization shall also include the time, materials, and labor to move the necessary construction equipment to and from the site, supervisory time on the job by the Contractor's personnel to keep the construction site in a safe condition, construction staking and all other related work as required at all times and for all non-working days during the construction period. The Contractor is responsible for securing an adequate storage site for equipment and materials. Demobilization shall also include re-establishment of centerline survey monuments with new curb ties (including 4 ties (minimum) per monument), swing ties complete in place, preparation of pre-construction and post construction corner records, including filing fees with Orange County and as-built survey for curb returns.

Payment for **Mobilization and Demobilization (5% Max)** shall be included in the contract **Lump Sum (LS) Price** bid and shall be considered full compensation for obtaining all business licenses and permits, as required for the entire project, from all related agencies, including, but not limited to, utility companies, private and public agencies and the City of Brea; and complying with the requirements specified in those licenses and permits; coordination, field office facility, and incidentals necessary to perform all related items of work. The maximum lump sum price for this bid item shall not exceed 5 percent of the total contract price at the time of award. Progress payments for mobilization and demobilization bid item shall be paid for in accordance with the completion percentage of the project to the Contractor and shall include the cost of such mobilization and administration during the entire Contract period.

Bid Item No. 2 – Remove Existing Curb

Payment for **Remove Existing Curb s**hall be made at the Contract unit price bid per **Linear Foot (LF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required

for saw cut, removal and disposal of existing miscellaneous improvements, excavation and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 3 – Remove Existing Access Ramp

Payment for **Remove Existing Access Ramp** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for saw cut, removal and disposal of existing miscellaneous improvements, excavation and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 4 – Remove Existing Sidewalk

Payment for **Remove Existing Sidewalk** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for saw cut, removal and disposal of existing miscellaneous improvements, excavation and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 5 – Remove Existing Concrete Pavement

Payment for **Remove Existing Concrete Pavement** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for saw cut, removal and disposal of existing miscellaneous improvements, excavation and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 6 – Remove Existing Roadway Structural Section (12" Deep)

Payment for **Remove Existing Roadway Structural Section (12" Deep)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for saw cut, removal and disposal of asphalt concrete base material and any underlying base materials, excavation and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 7 – Remove Detectable Warning Device

Payment for **Remove Detectable Warning Device** shall be made at the Contract unit price bid per **Each (EA)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for saw cut, removal and disposal. No additional compensation will be allowed.

Bid Item No. 8 – Mill Existing AC Pavement (2" Depth)

Payment for **Mill Existing Pavement (2" Deep)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for milling, removal and disposal of asphalt concrete material and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 9 – Edge Mill Existing AC Pavement (Variable Depth)

Payment for **Edge Mill Existing Pavement (Variable" Depth)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for milling, removal and disposal of asphalt concrete material, including removal of existing asphalt and/or slurry overspray on the existing gutter plate as depicted on details 1 and 2 on sheet 2 of the plans. No additional compensation will be allowed.

Bid Item No. 10 – Header Cut Existing AC Pavement (Variable Depth)

Payment for **Header Cut Existing Pavement (Variable Depth)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for milling, removal and disposal of asphalt concrete material and all other work necessary to complete the work. No additional compensation will be allowed.

Bid Item No. 11 – Furnish and Place Type 2 Slurry Seal

Payment for **Furnish and Place Type 2 Slurry Seal** shall be made at the Contract unit price bid per **Square Foot (SF)** of the entire pavement area designated for slurry seal, as shown in the Bid Schedule, and designated on the project plans. This work shall include all labor, tools, materials, transportation, equipment and incidentals required to complete the work.

Bid Item No. 12 – Construct Variable Height Curb

Payment for **Construct Variable Height Curb** shall be made at the Contract unit price bid per **Linear Foot (LF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for excavation, subgrade preparation, compaction, forms, restoring form areas, replacing curb drains, proper tie-in to existing adjacent PCC curb and gutter and all other work necessary to complete the work per the project plans. No additional compensation will be allowed.

Bid Item No. 13 – Construct 4" PCC Sidewalk

Payment for **Construct 4" PCC Sidewalk** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for excavation, subgrade preparation, compaction, forms, 4" thick P.C.C., restoring form areas, replacing curb drains, adjustment of pull boxes, proper tie-in to existing adjacent PCC sidewalk and curb and gutter, and all other work as required to complete the work per the project plans. No additional compensation will be allowed.

Bid Item No. 14 – Construct Access Ramp including Slot Paving and Black Detectable Warning Device

Payment for **Construct Access Ramp including Slot Paving and Black Detectable Warning Device** shall be made at the Contract unit price bid per **EACH (EA)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for, excavation, sand bedding material, subgrade preparation, compaction, forms, P.C.C., ramp to limits shown on the plans, detectable warning surface (Black), retaining curbs, AC Slot paving, PCC Slot Paving, finishing, restoring form areas, replacing damaged or disturbed adjacent improvements, proper tie-in to adjacent PCC

sidewalk and curb and gutter, adjustments to utility boxes, and all other work as required to complete the work per the project plans.

Bid Item Nos. 15 – Furnish and Install Surface Applied Black Detectable Warning Device

Payment for **Furnish and Install Surface Applied Black Detectable Warning Device** shall be made at the Contract unit price bid per **EACH (EA)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for furnishing and placing the device on the existing curb access ramps designated on the project plans. No further compensation will be allowed.

Bid Item No. 16 – Furnish and Place AC Pavement

Payment for **Furnish and Place AC Pavement** shall be made at the Contract unit price bid per **Ton (TON),** as shown in the Bid Schedule, and shall be based on the street plans. This bid item shall include all surface and subgrade preparation, furnishing, and hauling the material, base course and level course placement, AC overlays and inlays, tack coat, crack seal, 95% compaction, rock dust blotter, materials, labor, tools, equipment and incidentals required to complete the work.

Bid Item No. 17 – Furnish and Place 8" PCC over 6" CMB Cross Gutter Replacement Section

Payment for **Furnish and Place 8" PCC over 6" CMB Cross Gutter Replacement Section** shall be made at the Contract unit price bid per **Square Foot (SF),** as shown in the Bid Schedule, and shall be based on the street plans and Detail M on Sheet 8 of the project plans. This bid item shall include all surface and subgrade preparation, furnishing, and hauling the material, base course PCC placement, tack coat, crack seal, 95% compaction, materials, labor, tools, equipment and incidentals required to complete the work.

Bid Item No. 18 – Adjust Pull Box to Grade

Payment for **Adjust Pull Box to Grade** shall be made at the Contract unit price bid per **Each (EA),** as shown in the Bid Schedule, at the locations designated on the project plans. This item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 19 – Adjust Valve to Grade

Payment for **Adjust Valve to Grade** shall be made at the Contract unit price bid per **Each (EA),** as shown in the Bid Schedule, at the locations designated on the project plans. This item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 20 – Adjust Manhole to Grade

Payment for **Adjust Manhole to Grade** shall be made at the Contract unit price bid per **Each (EA),** as shown in the Bid Schedule, at the locations designated on the project plans. This item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 21 – Adjust Manhole to Grade with New Ring and Cover

Payment for **Adjust Manhole to Grade with New Ring and Cover** shall be made at the Contract unit price bid per **Each (EA),** as shown in the Bid Schedule, at the locations designated on the project plans. This item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 22 – Relocate Street Name Sign

Payment for **Relocate Street Name Sign** shall be made at the Contract unit price bid per **Each (EA),** as shown in the Bid Schedule, at the locations designated on the project plans. This item shall include all materials, labor, tools, equipment and incidentals required to complete the work. No further compensation will be allowed.

Bid Item No. 23 – Pavement Striping

Payment for **Pavement Striping** shall be made at the Contract unit bid price per **Lump Sum (LS),** as shown in the Bid Schedule, as shown on the Plans, pursuant to these Specifications, as directed by the Engineer, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and doing all the work involved in furnishing and installing all signs, pavement striping, markings and raised pavement markers, legends, arrows, and raised pavement and hydrant/fire service markers. No further compensation will be allowed.

Bid Item No. 24 – Traffic Control and Construction Phasing

Payment for **Traffic Control and Construction Phasing** shall be made at the Contract unit bid price per **Lump Sum (LS) Price** bid, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor tools, equipment and materials required for preparation and implementation of a traffic and pedestrian control and construction phasing plan, and travel (haul) route plans, flashing arrow signs; flagging and/or flagger costs; project notifications, Project Information Signs, advisory signs, warning signs, temporary asphalt work and non-skid steel plates as required by the Engineer to maintain driveway access, temporary striping and temporary asphalt work as required by the Engineer to maintain driveway access, and all labor, tools, equipment, materials and incidentals required to complete the work. The cost and expense of said labor and material, together with the cost and expense of such repairs as are deemed necessary, shall be borne by the Contractor. All expenses incurred by the City for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the City does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety. No further compensation will be allowed.

Bid Item No. 25 –NPDES/BMP's

Payment for the requirements of **NPDES/BMP's** shall be at the contract **LUMP SUM (LS)** price bid, as shown in the Bid Schedule, and shall include Best Management Practices (BMP's), monitoring, maintaining, reporting (if required). This item shall be considered full compensation for doing all work as specified herein. Progress payments for this item shall be paid for in accordance with the completion percentage of the project. No further compensation will be allowed.

Bid Item No. 26 – Construction Survey & Monument Preservation

Payment for the requirements of **Construction Survey & Monument Preservation** shall be at the **contract LUMP SUM (LS)** price bid and shall include all labor, tools, equipment, materials and incidentals required to complete required to research, identify, tie-out and re-establish centerline monuments and swing ties complete in place, and prepare pre-construction and post construction corner records, including filing fees with Orange County, as-built survey of existing curb ramp locations, complete construction staking including horizontal and vertical control, and curb & gutter staking at curb returns in areas of new ramp construction, cut sheets for curb returns, and all documentation required to complete the work. No additional compensation will be allowed therefore.

PART 2 CONSTRUCTION MATERIALS

SECTION 200 ROCK MATERIALS

200-1 ROCK PRODUCTS

200-1.2 CRUSHED ROCK AND ROCK DUST

200-1.2.1 General
[Add the following to the end of the section:]

Rock dust blotter material shall be required immediately after the completions of the "finish rolling" and prior to opening to traffic to prevent bleeding and tracking of the asphalt rubber material.

Rock dust blotter shall conform to Rock Dust quality requirements in Table 200-1.2.1(A).

200-1.5 SAND

200-1.5.1 General
[Add the following to the end of the section:].

Sand bedding under miscellaneous PCC improvements shall conform to the requirements in this section, and shall consist of washed granular material with a sand equivalent greater than or equal to 30.

Sand bedding used as bedding in the trench pipe zone, shall conform to the requirements in this section, shall consist of washed granular material, shall not contain any contamination or reclaimed/recycled materials, and shall meet the following specifications:

Sieve Size	Percent Passing
4.75 mm (#4)	98-100
2.36 mm (#8)	93-98
1.18 mm (#16)	92-95
600 um (#30)	85-91
300 um (#50)	75-85
150 um (#100)	40-50
75 um (#200)	15-20

SG, Bulk S.S.D.	2.74
SE, CT 217	>= 30
ASTM -1557-91	112.0 lbs. @ 14% moisture
Plastic Limit ASTM D 4318	0
Plastic Index ASTM D 4318	0 (non-plastic)
Expansive Classification	Non-expansive
pH, CT – 422	8.36
Chloride, CT 417	42 ppm
Sulfate, CT – 417	40 ppm
Resistivity, CT – 417	5,300 (ohm-cm)

200-2 UNTREATED BASE MATERIALS

200-2.1 General

[Add the following to the end of the section:].

Untreated base to be used for the base course under asphalt concrete pavement and P.C.C. shall be Crushed Miscellaneous Base (CMB).

Untreated base to be used for the base course as trench backfill shall be Crushed Aggregate Base (CAB), as shown on the plans.

200-2.2 Crushed Aggregate Base

Crushed Aggregate Base material shall conform to Subsections 200-2.2 and 301-2 of the Standard Specifications, as directed by the Engineer.

200-2.4 Crushed Miscellaneous Base

Crushed Miscellaneous Base material for replacement of over-excavated unsuitable materials, and construction shall conform to Subsections 200-2.4 and 301-2 of the Standard Specifications, as directed by the Engineer.

200-2.4.2 Grading

[Add the following to the end of the section:].

The sieve size shall be 3/4” (fine).

SECTION 201
CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements

201-1.1.2 Concrete Specific by Class and Alternate Class
[Revise portion of Table 201-1.12 with the following:].

Concrete class and alternate class for Street Surface Improvements shall be 560-C-3250.

201-1.2.4 Admixtures
[Delete Subsection in total and replace with the following:].

Admixtures will not be permitted.

201-1.2.5 Fly Ash
[Delete Subsection in total and replace with the following:].

Fly Ash will not be permitted.

201-1.4 Mixing

201-1.4.1 General
[Add the following to the end of the section:].

Mixed concrete delivered to the site shall be by Transit Mixer as called for in Section 201-1.4.3 "Transit Mixer" of the Standard Specifications.

201-4 CONCRETE CURING COMPOUND

201-4.1.1 General:

Concrete curing compound shall be Type II for Class 560-C-3250.

SECTION 203
BITUMINOUS MATERIALS

203-6 ASPHALT CONCRETE

203-6.1 General

[Delete the second paragraph and replace with the following:].

Asphalt concrete for slot paving, base course pavement as required for trench resurfacing per Details on Plans, and localized reconstruction of the roadway (digouts), as directed by the Engineer, shall be Dense Graded Asphalt Concrete (DGAC) Pavement Type B PG-70-10. A maximum of 10% RAP shall be allowed. Sieve Size shall be ¾-inch.

Asphalt Concrete for leveling course pavement and final course, as required for roadway resurfacing per Typical Sections and Details on Plans, shall be Type B PG-64-10. A maximum of 10% RAP shall be allowed. Sieve size shall be 1/2 –inch.

203-11 ASPHALT RUBBER HOT MIX (ARHM)

203-11.1 General

[Delete and replace with the following:].

Asphalt Rubber Hot Mix (ARHM) shall be Asphalt Rubber Hot Mix, ARHM-GG-C, wet process, as specified in Section 203-11 and 302-9 of the Standard Specifications per Typical Sections as shown on the plans, and shall conform to the following:

Paving asphalt used for asphalt-rubber shall be performance grade PG 64-16. Composition and Grading shall be per Section 203-11.3 of the Standard Specifications. The Contractor shall submit a copy of the asphalt concrete mix design to the Engineer a minimum of two weeks prior to the start of the construction. Subsequent to grinding, any cracks ¼" or wider shall be filled per Section 302-5.10 and surface applied with a tack coat per Section 302-9.2. Overlay shall be compacted to 95 percent relative compaction.

SECTION 210
PAINT AND PROTECTIVE COATINGS

210-1 PAINT

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

[add the following section:].

Paint for traffic lane lines, turn pocket lines, edge lines, channelizing lines, bike lane lines, chevrons, pavement legends, pavement symbols, pavement arrows, cross walks, parking stall markings, stop bars and curbs shall be rapid dry water borne conforming to CALTRANS Specification No. PTWB-01. Glass beads shall be applied to the surface of the rapid dry water borne paint and shall conform to the requirements of CALTRANS Specification No. 8010-004 (Type II). CALTRANS Specifications for water borne paint and glass beads may be obtained from the CALTRANS Transportation Laboratory, P.O. Box 19128, Sacramento, CA 95819, telephone number (916) 227-7000. No thermoplastic paint will be allowed.

SECTION 215
DETECTABLE WARNING SURFACES

215-1 DETECTABLE WARNING-TRUNCATED DOME MATS FOR CURB ACCESS RAMPS

[add the following:].

The detectible warning surface required for new curb ramps shall be Vitrified Polymer Composite (VPC) Cast-In-Place Tactile Armor-Tile manufactured by Engineered Plastics Inc. (800-682- 2525), or approved equal. The tile shall be Black Color homogeneous throughout the tile. Detectable warning surface required for existing curb ramp to remain shall be Vitrified Polymer Composite (VPC) Armor-Tile Surface Applied Advance Warning Strip Surface Tile manufactured by Engineered Plastics Inc., or approved equal. The tile shall be Black Color homogeneous throughout the tile.

PART 3
CONSTRUCTION METHODS

SECTION 300
EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.3 Removal and Disposal of Materials

300-1.3.1 General
[Delete Subsection in total and substitute with the following:].

No burning will be permitted.

No accumulation of flammable material shall remain on or adjacent to the right-of-way. The roadway and adjacent areas shall be left with a neat and finished appearance.

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

300-1.4 Payment
[Delete Subsection in total and substitute with the following:].

Full compensation for clearing and grubbing shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed therefore.

300-1 UNCLASSIFIED EXCAVATION

300-2.1 General
[Add the following:].

Unclassified excavation shall include saw cutting, excavating, removing, hauling and disposal of all material including asphalt concrete (A.C.) pavement, P.C.C. pavement, macadam, petromat/pavement reinforcing fabric, slurry backfill, aggregate base materials, interfering structures and objects to the sub-grade elevations indicated on the plans as required to construct the new improvements.

All roots and stumps shall be removed and/or ground to eight (8) inches below subgrade within the roadway section. The locations and dimensions of excavation areas are as shown on the plans and/or directed in the field by the Engineer.

All existing asphalt concrete pavement joining new construction shall be saw cut in a straight line. Contractor shall exercise due caution to avoid any damage to the existing improvements to be protected in place. Any damage caused by Contractor and/or his equipment shall be repaired or replaced as called out in Section 7-9 of the Standard Specifications at Contractor's expense.

Unclassified excavation shall include the removal of unclassified fill material encountered within the proposed roadway section. Unclassified fill may consist of broken concrete, broken asphalt pavement, brick, rubble, and debris.

All unclassified fill material found within the new roadway section shall be removed and paid in accordance with the bid item for unclassified excavation

All removed material becomes the property of the Contractor and shall be hauled away and properly disposed.

The Contractor's attention is directed to the fact the thickness of the existing asphalt concrete pavement is approximate and may vary from this thickness. In addition, substantially thicker sections of pavement may be occasionally encountered, especially where utility trench and pothole patches are encountered.

If a significant deviation in pavement thickness is encountered by the Contractor during the removal process, that may significantly impact the Contractor's cost of removal, the Contractor shall immediately notify the Engineer. The Engineer will review the field condition(s) encountered and determine the appropriate remediation. The Engineer shall have sole authority to decide the method and amount of additional compensation due the Contractor, if any.

Unless directed by the Engineer, backfilling and compacting is considered included in each respective bid item and no additional compensation will be allowed therefore.

The areas and quantities shown on the Plans are given only for the Contractor's aid in planning the work and preparing bids. It is the Contractor's responsibility to determine actual area and quantities based on the Plans and field conditions. If there is a significant deviation in area and quantities, the Contractor shall immediately notify the Engineer.

300-2.2 Unsuitable Material

300-2.2.2 Wet Material

[Remove the first sentence and replace it with the following:].

If, in the opinion of the Engineer, the existing materials of areas more than 6" below the existing grade are wet, unsuitable, and/or contaminated, the Contractor may be ordered to over-excavate those areas to a depth to be determined by the Engineer, and either process the material to reduce the moisture content to an optimum condition or to remove and dispose of the material and replace it with suitable material. All Work will be done in accordance with Section 301-1 "Subgrade Preparation" and Section 301-2 "Untreated Base" of the Standard Specifications.

Crushed Aggregate Base (CAB) compacted to 95% Relative Compaction and conforming to Section 200 "Rock Materials" of the Standard Specifications shall be used to replace materials over-excavated. The removal and replacement of unsuitable material, as determined and authorized by the Engineer, shall be paid via negotiated Change Order at time of discovery.

300-2.9 Payment

[Add the following:].

Full compensation for the requirements of unclassified excavation shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed therefore.

301-1 UNTREATED BASE

301-2.1 General

[Revise the first sentence to read as follows:].

Untreated base for pavement, curb, curb and gutter, cross gutters and similar types of improvements shall be constructed of material as specified in Section 200-2 of the Standard Specifications and as called for on the plans, Standard Specifications and in these Special Provisions.

SECTION 302
ROADWAY SURFACING

302-1 COLD MILLING OF EXISTING PAVEMENT

[replace entire section with the following;].

302-1.1 General

The work to be done here under consists of cold milling and removal of the designated thickness of existing pavement surface, including asphalt concrete, macadam, PCC, pavement reinforcement fabric (Petromat), or other miscellaneous improvements, at those locations and per Typical Sections and Details as shown on the Plans.

The existing A.C. pavements shall be cold milled to the depths required per grades as shown on the Plans and in accordance with the Standard Specifications. The pavement shall be removed by the use of a cold milling machine designed for this purpose and capable of performing a satisfactory job. Burning or heat planing will not be permitted. The planed pavement shall provide a maximum bond surface suitable for resurfacing.

Except as otherwise called for on the plans, all A.C. pavement cold milling cuts shall be cut to neat, clean, and straight lines to the satisfaction of, and as directed by, the Engineer.

The final depth, width, length and shape of the cold milling cut shall be as indicated on the Typical Sections and Details shown on the Plans. The final cold milling cut shall result in a uniform surface conforming to the typical section(s) except as otherwise directed by the Engineer.

Surveyor's street and property line monuments, not scheduled for removal shall be protected. The City has made every reasonable effort to locate and mark on the plans all known metal roadway improvements such as sewer manhole covers, water valve covers, catch basin covers, which, if struck, could damage the cold milling cutting drum and/or carbide tipped cutting teeth and makes no guarantee that it has successfully done so or shall, therefore, contractor must thoroughly inspect the work site in advance of the cold milling operation to minimize the risk of striking any unseen under surface object(s) and shall include in the price bid for cold milling the removal work, additional amount sufficient to cover the cost of damage related down time and the cost of repair of damage to said cold milling cutting drum and/or carbide tipped cutting teeth.

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 residues shall be completely removed by sweeping and properly disposed. No washing of residues into drainage structures will be allowed.

Temporary ramping, where required by the Engineer for traffic control or other purposes, shall be considered included in the contract lump sum price bid for Traffic Control & Construction Phasing, and no additional compensation will be allowed.

302-1.2 Milling Machine

The Contractor shall furnish a self-propelled machine especially designed and built for grinding flexible and rigid pavements to the depth shown on the plans in one pass. The machine shall be equipped with standard automatic depth controls and must maintain a constant cutting depth and width without tearing or gouging the underlying surface and blade material into a windrow. The machine shall consist of a 60" minimum width cutting drum with carbide tip teeth. Drum lacing patterns shall permit a grooved or smooth surface finish as selected by the Engineer and the drum shall be totally enclosed in a shroud to prevent discharge of any loosened material into adjacent work areas. The machine shall be capable of operating at speeds from 5 to 50 feet per minute and designed such that the operator can observe the work without leaving his control area. It shall be adjustable as to crown and depth by tilting the drum axis and shall have a guidance system furnished to assist the operator in control grade and in matching adjacent pavements or cuts. The equipment shall be demonstrated to have been operated on similar work completed prior to the award of this contract.

302-1.3 Cold Milling to Specified Elevations

The operator shall furnish the milling machine, operated by experienced workmen. The surface tolerance produced shall be such that a 10-foot straight edge laid laterally will indicate variances of less than 3/8" (except in the crown area) and the same straight edge laid longitudinally will indicate variances of less than 3/16".

Removal shall consist of milling the pavement where indicated and removing the planed material. No aggregate shall remain on the project at the end of each work day. Aggregate material loosened and directly removed shall become the property of the Contractor. The Contractor shall dispose of all planed surplus materials at a legal dump site, in accordance with Subsection 300-2.6 of the Standard Specifications.

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

[Add the following:].

Tarpaulins shall be used to cover all loads from plant to project.

Each layer of asphalt concrete shall not exceed 4 inches in compacted thickness. Each layer shall be completely placed and compacted prior to commencement of successive layers. Tracks or wheels of spreading equipment shall not be operated on the top layer of asphalt concrete in any area until final compaction has been completed.

Three-wheeled rollers shall not be permitted, and pneumatic rollers shall be used only on lower layers.

Initial breakdown compaction shall consist of a minimum of three coverages of layer of asphalt mixture. A pass shall be movement of a roller in both directions over the same path. A coverage shall consist of as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage, made to insure compaction without displacement of material

in accordance with good rolling practices, shall be considered to be part of the coverage being made and not part of a subsequent coverage. Each overage shall be completed before subsequent coverage is started.

Prior to placement of asphalt concrete, a tack coat of SS 1H emulsified asphalt shall be applied to all contact surfaces. Tack coat shall be Grade SS-lH per subsection 302-5.4 of the Standard Specifications. Tack coat shall be applied at a rate not to exceed one-tenth (1/10) gallon per square yard uniformly in one coat on all vertical joints of A.C. patching and P.C.C. surfaces, and edges against which AC is to be placed.

An asphalt leveling course shall be applied in depressed areas, as directed by the Engineer. An automatic leveling device shall be used on the paver unless omitted by the Engineer.

Longitudinal joints between successive paving runs shall coincide with the traffic lanes lines. Contractor will be provided with striping plans for those roads where the striping will change prior to the start of work. Local streets will not be striped except for special cases for which striping plans will be provided. All other roads will be striped to match the existing pattern.

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

Prior to placing asphalt pavement overlay, all vegetation shall be removed from the cracks in the pavement and all joints between the pavement and concrete gutters by the Contractor. The surface to be overlaid shall be cleaned by the Contractor to remove moisture, dirt, grease, or other foreign matter which would reduce the bond between the overlay and the pavement.

302-5.8 Manholes (and other Structures)
[Delete Subsection in total and substitute with the following:].

The manhole and valve box locations and distance from curb to center shall be marked on the curb face by the Contractor.

The method of adjusting manholes in areas for resurfacing shall be as follows:

The asphalt pavement immediately adjacent to the manhole shall be removed, the manhole shaft extended with adjustment ring(s) to proper grade, the manhole frames and covers replaced, the manhole frames set in concrete, and the pavement replaced with a minimum of 2 inches of asphalt concrete. The finished grade of the cover shall be ¼ inches below the finish grade of the asphalt pavement.

The Contractor shall notify affected utility owners at least 5 working days in advance of the need to commence work required prior to paving operations and again for work required after paving operations. The Contractor shall mark locations of utility vaults where utility companies specifically state adjustments shall be made after paving. If it is found to impractical for the utility owner to complete remodeling or adjustment to structures, as evaluated by the Engineer, then the Contractor shall be absolved of further responsibility in connection therewith, and the structure shall be adjusted

to grade by the utility owner under permit or ordinance procedure established by the AGENCY for utility cuts in pavement.

Water valve frame and covers shall be adjusted to grade per City of Brea Std. Plan No. 309-0.

For water valves and sewer cleanouts, Contractor shall furnish new cans and lids as directed by the Engineer, and the old lids shall be delivered to City yard by the Contractor.

The Contractor shall adjust existing miscellaneous pull boxes to grade as shown on the plans, in conformance with Caltrans Standards and Specifications (latest edition).

302-5.10 Crack Repair
[Is hereby added to Section 302-5:].

Cracks ¼ inch and greater shall be cleaned for the entire crack depth using sandblasting, brushing, and air blowing techniques as required to provide a crack free from all debris, dust, loose material and moisture. Gouging or plowing may be required to remove incompressible debris deep in the crack. The cleaned crack shall be filled with granulated tire rubber, plasticizer and filler, as manufactured by Crafco as Road Saver 203, or approved equal. All crack filler material shall be in conformance with the following specifications and detail A on sheet 5. The crack sealant placed shall be slightly below the pavement surface to avoid over-application and minimize bumps and wicking through the AC surface during compaction. Deep cracks should be filled with sand and covered with a thin layer of sealant.

ASTM D6690, D3405, AASHTO M173 and Federal SS-S-164 and SS-S 1041C.

All holes shall be cleaned of loose materials and filled with Asphalt Concrete Type C2 PG 70- 10 and compacted to a smooth even surface with the adjacent existing pavement.

SECTION 303
CONCRETE AND MASONRY CONSTRUCTION

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

303-5.1 Requirements

303-5.1.1 General

[Add the following:].

New improvements shall be constructed to grades indicated on the plans and in such a manner as to match existing improvements and field conditions with proper grade to form a safe and smooth riding surface.

The Contractor shall be responsible to oversee the curing of all concrete improvements to prevent graffiti damage or other unauthorized markings in new concrete surfaces. Any concrete surface deemed unacceptable to the Engineer, shall be replaced by the Contractor at no cost to the City.

Damage to any existing improvements shall be remedied by saw cutting, removal and reconstruction at the Contractor's expense and to the satisfaction of the Engineer. Removals, relocations, and/or adjustments not covered by a separate bid item but necessary for the proposed concrete construction shall be included in the unit price bid for the various items of work involved.

The Contractor shall maintain safe access to all residents/business establishments at all times throughout the duration of the contract. The only permitted interruption to access will be during the placement of concrete.

No establishment shall be denied access more than one day at a time. Contractor shall install steel plates after finishing the concrete, to provide access during the cure period. The contractor shall pour new P.C.C. improvements in such a fashion as to not interrupt access to residents near the job site.

Should a driveway be excavated at the end of a workday, the Contractor shall provide a temporary access ramp to residences. The temporary access ramp shall be removed by the Contractor on the following day so that driveway construction can be completed. Access to building over newly placed ramp shall be provided the day following the placement of ramp. New ramp shall be protected by the contractor with the use of materials such as roofing paper, plywood, or other means approved by the Engineer. The cost for the placement of the temporary ramp/plate and its removal shall be included in the unit cost bid for the various items of work involved, and no additional compensation will be allowed therefore.

If the Contractor is unable to pour the ADA Access Ramp or Sidewalk back within 2 calendar days after removal, the Contractor shall provide a minimum of 4 foot wide, 3” thick asphalt concrete sidewalk/curb ramps at a maximum cross fall of 2% to provide for safe passage of pedestrians and ADA access through construction areas, except when approved by the Engineer. Payment for this work, including maintenance for the temporary asphalt shall be included in various applicable items of work, and no additional compensation will be allowed therefore.

Concrete sidewalk and curb ramps shall be placed on 4” sand bedding and #4 rebar dowels into existing P.C.C. Sand bedding shall consist of washed granular material with a sand equivalent greater than or equal to 30, conforming to Section 200-1.5.3 of the standard specifications. Payment for sand bedding

shall be included in the contract unit price bid for the various items of work involved. No additional compensation will be allowed therefore.

303-5.4 Joints

303-5.4.2 Expansion Joints
[Add the following:].

Expansion joints shall be constructed only where specifically designated per details on the plans, and as directed by the Engineer.

303-5.5 Finishing

303-5.5.4 Gutter
[Add the following:].

When gutter and/or cross gutter is constructed at a rate of grade less than 0.30% it shall be water tested. If any portion of the newly constructed gutter is shown to pond water, that portion, including curb if applicable, shall be removed, reconstructed, and retested by the Contractor at no additional cost to the AGENCY.

303-5.5.5 Alley Intersection, Access Ramps, and Driveways
[Add the following:].

All limits of removal for the replacement of existing concrete work item shall be per plan unless otherwise directed by the Engineer in the field. It will be the sole responsibility of the Contractor to remove and reconstruct any curb and gutter damaged by the Contractor during the construction. No additional compensation will be allowed.

SECTION 310
PAINTING

[Delete Section in total and substitute with the following:]

310-1 TRAFFIC SIGNING, STRIPING AND MARKINGS

Pavement traffic signing, striping and markings including raised lane line and fire hydrant reflective markers (RPM's) shall be provided and installed at the locations and per the Standard Drawings indicated on the plans, as directed by the Engineer and in accordance with the following Special Provisions.

Contractor shall restore pavement traffic striping and marking damaged during construction to original condition.

Pavement marking and striping shall conform to the provisions of Section 84, "Traffic Stripes and Pavement Markings," of the Caltrans Specifications and these Special Provisions.

Paint and glass beads shall be furnished and applied by the Contractor.

Two (2) coats of paint shall be applied to painted striping lane and control lines with a minimum seven (7) days between coats. Reflective material consisting of glass beads shall be applied to the surface of each coat of paint prior to setting so that the beads shall have proper adhesion.

Glass beads shall conform to State Specifications 8010-IIE-22 Type II and shall be mechanically applied at a rate of six (6) to eight (8) pounds of beads per gallon of paint. Glass beads shall be applied to pavement striping by a dispensing device developed for this purpose or other methods approved by the Engineer.

Where sandblasting is used for the removal of traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within ten feet of the traveled way, 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 operations.

Contractor will not be required to use a vacuum attachment under the following conditions:

1. When approved by Agency
2. When the blasting sand will be confined by mechanical means to a small area.
3. When a sweeper (preferably a vacuum type) will immediately follow the blasting operation or when traffic can be safely routed around the sand until swept up.

Spotting shall be completed prior to the removal of any temporary striping of traffic control devices. Existing temporary stripes and markings shall be removed prior to painting new ones, but in no case shall any section of street be left without proper striping for more than 24 hours or over weekends or holidays.

All legends, including limit lines, **shall be striped within 72 hours** after the street (if applicable) has received the final surface course.

Contractor shall be responsible to place and maintain temporary traffic control(s) during the period that the lane lines are obliterated.

Striping shall be supplemented with raised pavement markers as required by the Standard Drawings, referenced on the plans. In addition, blue raised pavement markings shall be installed adjacent to fire hydrants and fire department connection in conformance with City of Brea Standard Drawing 306-0.

- One marker for every fire hydrant
- Two markers for hydrants located at corners

Raised pavement markers shall conform to provisions in Section 85, "Pavement Markers" of Caltrans Specifications, State of California Traffic Manual and these Special Provisions.

Hot melt bitumen adhesive shall be used to cement the markers to the pavement.

Grinding shall not be permitted.

All existing raised pavement markers shall be removed by the Contractor prior to cold milling of the existing pavement or construction of the slurry seal.

All pavement striping and markings shall conform to the standards of applicable portions of the current State of California, Department of Transportation **Manual on Uniform Traffic Control Devices (MUTCD)**, and **Standard Plans** A20A-C and A24A-D.

Temporary Striping, Signing, Raised Pavement Markers:

The Contractor shall be responsible for the placement of all required temporary signing, striping, and markings and the removal of existing stripes and markings in the installation of required temporary striping.

Traffic striping and markings shall be removed before any change is made in the traffic pattern. Removal shall be coordinated with the installation of new pavement markings to provide continuous, non-conflicting guidance to public traffic.

Should temporary striping be required on the finished asphalt surface, the method and configuration must be approved by the Engineer for approval prior to placement.

At no time shall the street be open to traffic without delineation to separate opposing traffic. Temporary delineation type shall be at the inspector's discretion.

In general, temporary reflectorized markers are the preferred type of temporary delineation.

SECTION 313
DETECTABLE WARNING SURFACES
[is hereby added to Part 3:].

Detectable Warning Surfaces Construction (Cast-In-Place)

A. During all concrete pouring and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.

B. The physical characteristics of the concrete shall be consistent with the contract specifications while maintaining a slump range of 4 – 7 to permit solid placement of the Cast-In-Place Tile System. An overly wet mix will cause the Cast-In-Place System to float, therefore under these conditions suitable weights such as 2 concrete blocks or sandbags (25 lb) shall be placed on each tile.

C. Prior to placement of the Cast-In-Place System, the contract drawings shall be reviewed with the engineer.

D. The concrete pouring and finishing operations require typical mason's tools, however, a 4' long level with electronic slope readout, 25 lbs weights, vibrator and small sledge hammer with 2" X 6" x 20" wood tamping plate are specific to the installation of the Cast-In-Place System.

E. The concrete shall be poured and finished, true and smooth to the required dimensions and slope prior to tile placement. Immediately after finishing the concrete, the electronic level should be used to check that the required slope is achieved. The tile shall be placed true and square to the curb edge in accordance with the contract drawings. The Cast-In-Place Tiles shall be tamped or vibrated into the fresh concrete to ensure that the field level of tile is flush to the adjacent concrete surface.

F. While concrete is workable a steel trowel shall be used to trowel the concrete around the tile perimeter to the field level of the tile.

G. During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external force placed on the tile to rock the tile, causing a void between the underside of the tile and concrete.

H. Following tile placement, review installation tolerances to contract drawings and adjust tile before the concrete sets, 2 suitable weights of 25 lb each shall be placed on each tile as necessary to ensure solid contact of tile underside of concrete.

I. Following the curing of the concrete, the protective plastic wrap is to be removed from the tile face by cutting the plastic with a sharp knife tight to the concrete/tile interface. If concrete bleeding occurs, a wire brush will clean the residue without damage to the tile surface.

Installation Manual Armor-Tile Surface Applied Advanced Warning Strip Surface Tile (Applied on Existing Curb Ramp)

A. During all surface preparation and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.

B. The application of all tile, adhesives, mechanical fasteners, and caulking shall be in strict accordance with the guidelines set by their respective manufacturers.

C. Work with the Contractor or Engineer to ensure that the surfaces being prepared and fabricated to receive the tiles are constructed correctly and adequately for tile installation. Review design drawings with the Contractor prior to the construction and refer any and all discrepancies to the Engineer.

D. Set the tile true and square to the curb ramp area as detailed in the design drawings, so that its location can be marked on the concrete surface. A thin permanent marker works well. Remove tile when done marking its location.

E. The surface to receive the detectable warning surface tile is to be mechanically cleaned with a diamond cup grinder or shot blaster to remove any dirt or foreign material. This cleaning and roughening of the concrete surface should include at least 4 inches around the perimeter of the area to receive the tile, and also along the cross pattern established by the corresponding areas on the backside of the tile.

F. Immediately prior to installing the detectable warning surface tile, the concrete surfaces must be inspected to ensure that they are clean, dry, free of voids, curing compounds, projections, loose material, dust, oil, grease, sealers and determined to be structurally sound and cured for a minimum of 30 days.

G. Using Acetone, wipe the backside of the tile around the perimeter and along the internal cross pattern, to remove any dirt or dust particles from the area to receive the adhesive.

H. Apply the adhesive on the backside of the tile, following the perimeter and internal cross pattern established by the tile manufacturer. Sufficient adhesive must be placed on the prescribed areas to have full coverage across the 2" width of the adhesive locator. A 3 x 4 foot tile will typically require an entire tube of adhesive.

I. Set the tile true and square to the curb ramp area as detailed in the design drawings.

J. Standing with both feet applying pressure around the molded recess provided in the tile, drill a hole true and straight to a depth of 3½" using the recommended ¼" diameter bit. Drill through the tile without hammer option until the tile has been successfully penetrated, and then with hammer option to drill into the concrete.

K. Immediately after drilling each hole, and while still applying foot pressure, vacuum, brush or blow away dust and set the mechanical fastener as described below, before moving on to the next hole.

L. Mechanically fasten tiles to the concrete substrate using a hammer to set the fasteners. Ensure the fastener has been placed to full depth in the dome, straight, and flush to the top of dome. Drive the pin of the fastener with the hammer, taking care to avoid any inadvertent blows to the truncated dome or tile surface. A plastic deadblow or leather hammer is recommended.

M. Working in a sequence which will prevent buckles in the tile, proceed to drill and install all fasteners in the tile's molded recesses.

N. Following the installation of the tiles, the perimeter caulking sealant should be applied. Follow the perimeter caulking sealant manufacturer's recommendations when applying. Tape all perimeter edges of the tile and also tape the adjacent concrete back 1/2" from the tile's perimeter edge. Tool the perimeter caulking with a plastic applicator or spatula to create a straight edge in a cove profile between the tile and adjacent concrete. Remove tape immediately after tooling perimeter caulking sealant.

O. Do not allow foot traffic on installed tiles until the perimeter caulking sealant has cured sufficiently to avoid tracking.

If installing adjacent tiles, note the orientation of each tile. Careful attention will reveal that one of the long edges of the tile is different than the other, in regard to the tiny

dotted texture. You may also note a larger perimeter margin before the tiny dotted texture pattern begins. Consistent orientation of each Armor-Tile is required in order that the truncated domes on adjacent tiles line up with each other.

In order to maintain proper spacing between truncated domes on adjacent tiles, the tapered edge should be trimmed off using a continuous rim diamond blade in a circular saw or mini-grinder. The use of a straightedge to guide the cut is advisable. All cuts should be made prior to installation of the tiles.

If installing adjacent tiles, care should be taken to leave a 1/8 inch gap between each.

If tiles are custom cut to size, and if pre-molded recesses (to receive fasteners) are removed by the cut, then any truncated dome can be center-drilled with a ¼ inch through hole, and countersunk with a suitable bit, to receive mechanical fasteners. New holes should be created no closer to the edge of the tile than any of the other perimeter fastener pre-molded recesses. Care should be taken to not countersink too deeply. Fasteners should be flush with the top of the truncated dome when countersunk properly.

Adhesive or caulking on the surface of the Armor-Tile can be removed with Acetone.

APPENDICES

APPENDIX A
STANDARD PLANS

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

1. ALL APPLICABLE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS", LATEST REVISIONS, ARE HEREBY MADE A PART OF THIS PLAN AND ALL STREET IMPROVEMENTS SHALL BE IN ACCORDANCE WITH SAME.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. PAVEMENT SHALL CONSIST OF A MINIMUM OF 4" (INCHES) ASPHALT CONCRETE ON 6" (INCHES) AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE. 4" ASPHALT CONCRETE PAVING SHALL CONSIST OF 2" WEARING COURSE III-C3-PG-64-10 OVER 2" BASE COURSE III-B2-PG-64-10.
4. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MONUMENTS OF EVERY NATURE, WHETHER SHOWN ON PLANS AND/ OR HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES AND MONUMENTS DAMAGED OR DESTROYED.
5. ALL CONCRETE SHALL BE CLASS 560-C-3250 (6 SACK MIX) AND SHALL BE CURED WITH TYPE-1 (CLEAR) CURING COMPOUND IMMEDIATELY AFTER FINISHING.
6. ALL ASPHALT CONCRETE STREET SURFACES SHOWN HEREON SHALL BE SEAL-COATED, WHEN DIRECTED BY THE CITY ENGINEER, FULL-WIDTH USING AN APPROVED TYPE SS-1H EMULSION WITH NO MORE THAN 50% WATER ADDED. A TRUCK MOUNTED SPRAY BAR SHALL BE UTILIZED FOR SPREADING.
7. THE CONTRACTOR SHALL COORDINATE ALL SIGN INSTALLATIONS WITH THE CITY ENGINEER PRIOR TO SIDEWALK INSTALLATION.
8. AN APPROVED SOIL STERILANT SHALL BE UNIFORMLY APPLIED IN ALL AREAS TO BE PAVED UNDER THE DIRECTION OF THE CITY ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MAILBOX BLOCK-OUT LOCATIONS WITH THE U.S. POSTAL SERVICE PRIOR TO SIDEWALK INSTALLATION.
10. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE CITY AND SHALL BE RESPONSIBLE FOR REPAIR AND OR REPLACEMENT OF ALL FAILURES DETERMINED BY THE CITY ENGINEER CAUSED BY WORKMANSHIP OR SUBSTANDARD MATERIALS.
11. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN PROPER BARRICADING, DUST CONTROL, TRAFFIC CONTROL, SHORING AND SAFETY MEASURES OF EVERY NATURE.
12. THE CONTRACTOR SHALL MAKE APPLICATION TO THE CITY OF BREA, AND OBTAIN A CONSTRUCTION WATER METER (IF APPLICABLE) PRIOR TO COMMENCEMENT OF CONSTRUCTION.
13. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM THE CITY OF BREA PUBLIC WORKS DEPARTMENT AND AFFECTED AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. EXCAVATION IN STREETS WHICH HAVE BEEN CONSTRUCTED OR RECONSTRUCTED WITHIN THE PAST FIVE (5) YEARS AND SEAL COATED WITHIN THE PAST TWO (2) YEARS SHALL BE SUBJECT TO RESTRICTIONS.

BREA CALIFORNIA CITY OF BREA	GENERAL NOTES - STREET IMPROVEMENTS		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 101-0 SHEET 1 OF 2

GENERAL NOTES FOR STREET IMPROVEMENTS

GENERAL:

15. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A "C-8" OR "A" LICENSED CONTRACTOR.

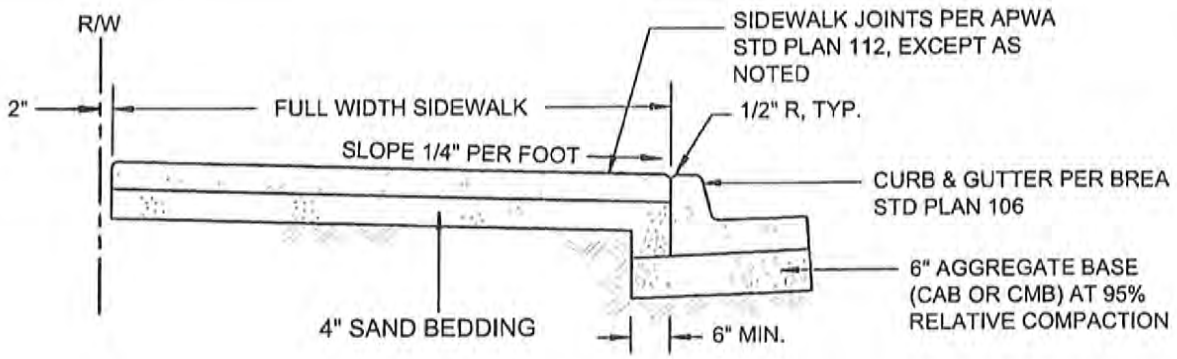
16. 24-HOUR NOTIFICATION IS REQUIRED FOR ALL PUBLIC WORKS INSPECTIONS. CONTACT THE CITY OF BREA PUBLIC WORKS DEPARTMENT, MONDAY TO THURSDAY (EXCLUDING HOLIDAYS), 8 a.m. to 5 p.m., AT (714) 990-7650.

17. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN CONFORMING TO THE CITY OF BREA TRAFFIC CONTROL REQUIREMENTS.

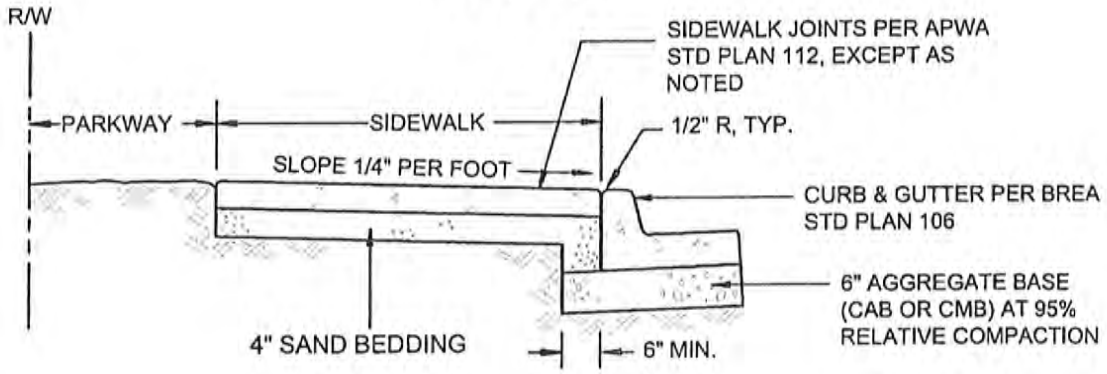
18. ANY CHANGES FROM THE PLAN, STANDARDS NOTES, STANDARD DESIGNS OR SPECIFICATIONS SHALL BE CONSIDERED NON-CONFORMING UNLESS APPROVED IN WRITING BY THE CITY ENGINEER PRIOR TO INSTALLATION.

19. INSTALLATIONS NOT CONFORMING TO THE "CITY OF BREA PUBLIC WORKS STANDARD PLANS & SPECIFICATIONS" SHALL BE REMOVED, REPLACED AND OR CORRECTED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED BY THE CITY ENGINEER.

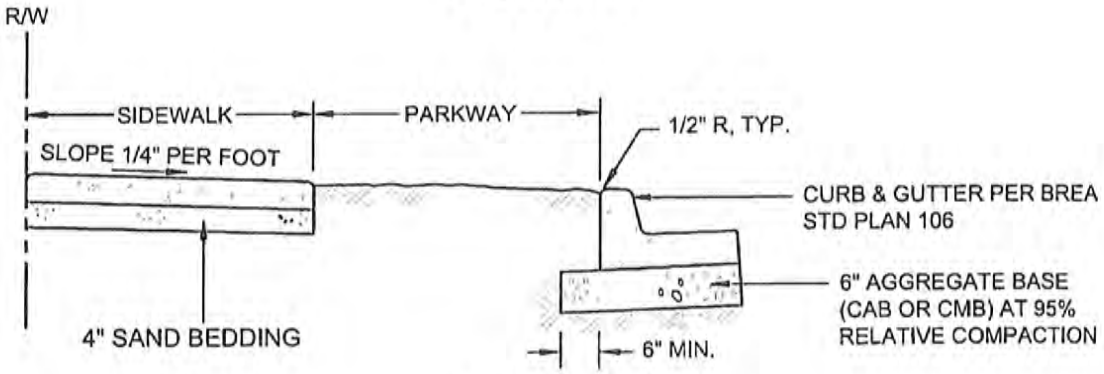
20. BASIC TRENCH REPAIR PROCEDURES SHALL BE PRE BREA STD PLAN 102.



SECTION-1



SECTION-2



SECTION-3

TYPICAL SECTIONS

NOTES: SEE SHEET-2

CITY OF BREA

SIDEWALK

APPROVED: CITY ENGINEER

DATE: 10-15-2013

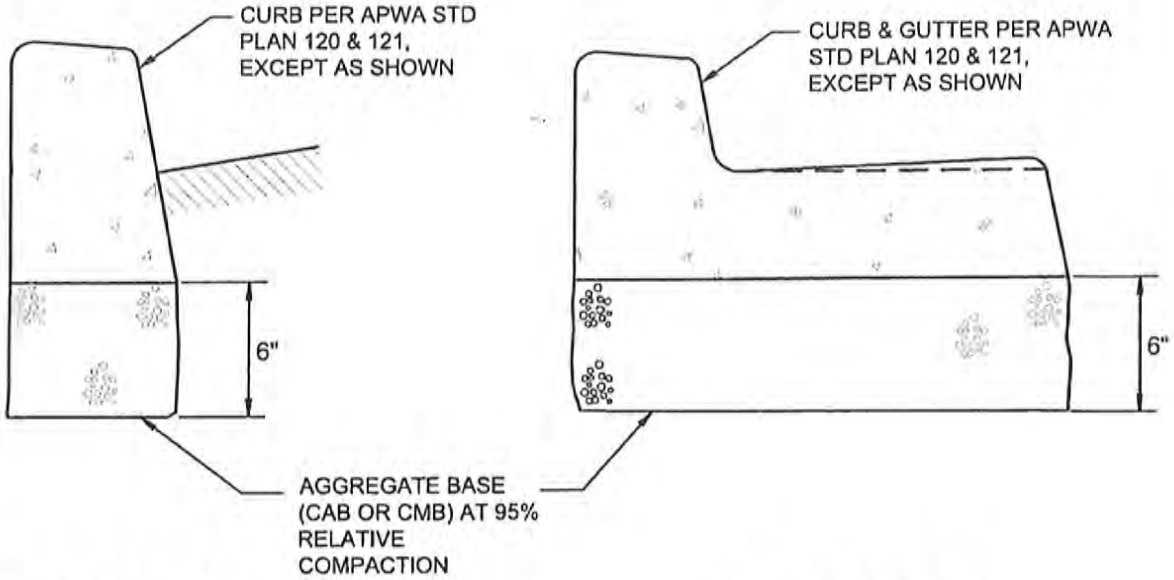
STD. PLAN NUMBER 103-0

SHEET 1 OF 2

NOTES:

1. WIDTH OF SIDEWALK SHALL BE AS SHOWN ON PLANS OR DIRECTED BY CITY ENGINEER. CONSTRUCT FULL WIDTH SIDEWALK IN COMMERCIAL ZONES, OR WHERE LOTS BACK TO THE STREET.
2. SIDEWALK THICKNESS = 4"
3. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 60' INTERVALS AND AT ENDS OF ALL CURB RETURNS, WEAKENED PLANE JOINTS SHALL BE PLACED AT 20' INTERVALS, OR AS DIRECTED BY CITY ENGINEER.
4. EXPANSION JOINTS, WEAKENED PLANE JOINTS AND SCORING LINES FOR SIDEWALKS SHALL BE PLACED TO COINCIDE WITH JOINTS AND MARKINGS OF THE CURB.
5. CONCRETE SHALL BE PER CITY OF BREA STD PLAN 101.
6. MAKE TRANSVERSE JOINTS AND SCORING RADIAL ON CURVED STREETS.
7. TRANSVERSE "LIGHT BROOM" FINISH FOR LONGITUDINAL GRADES UNDER 10%. TRANSVERSE "HEAVY BROOM" FINISH FOR LONGITUDINAL GRADES OVER 10%.
8. SEE BREA STD PLAN 101 GENERAL NOTES, NOTE NO.4, FOR MONUMENTATION.

BREA CALIFORNIA CITY OF BREA	SIDEWALK		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 103-0 SHEET 2 OF 2



TYPE A1 OR B1

TYPE A2 OR B2

NOTES:

1. UNLESS OTHERWISE SPECIFIED ON PLANS AND SPECIFICATIONS, CONCRETE SHALL BE PER BREA STD PLAN 101.
2. MEDIAN CURBS SHALL NOT BE SLOPED AWAY FROM MEDIAN WITHOUT PRIOR APPROVAL BY THE CITY ENGINEER.
3. ADDITIONAL NOTES SHALL BE PER APWA STD PLAN 120 & 121.

CITY OF BREA

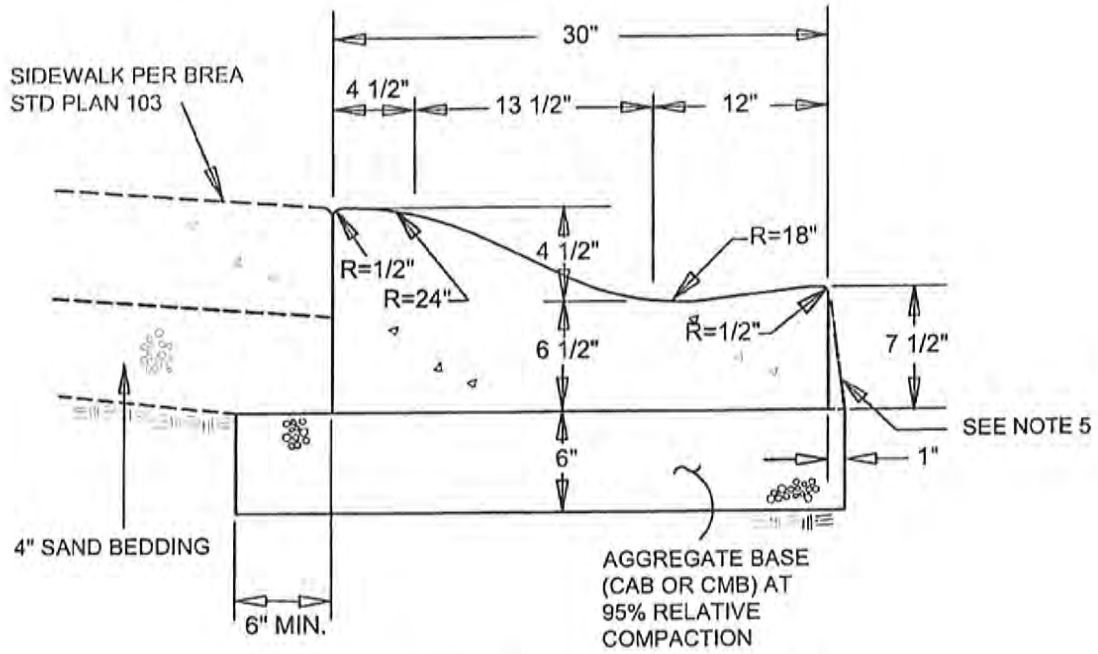
CONCRETE CURB AND GUTTER

APPROVED: CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER 106-0

SHEET 1 OF 2

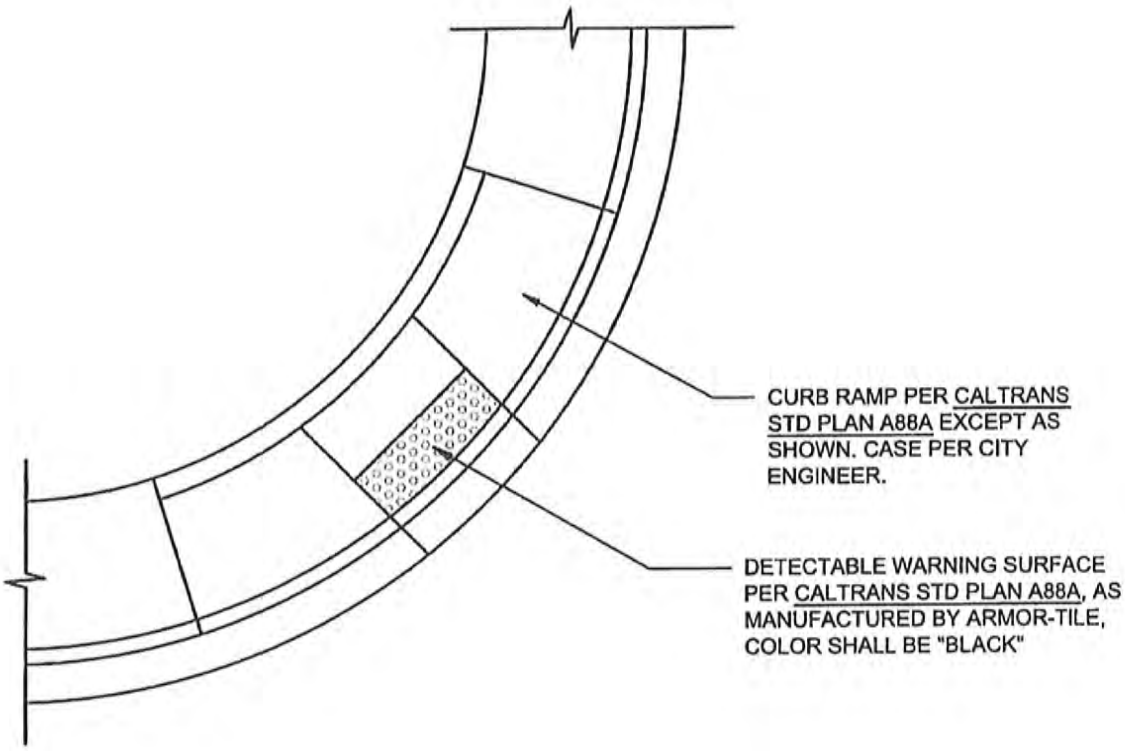


ROLLED CURB AND GUTTER

NOTES:

1. USE OF ROLLED CURB MAY BE RESTRICTED BY SURFACE DRAINAGE CONSIDERATIONS.
2. SIDEWALK CONSTRUCTED CONTIGUOUS TO ROLLED CURB SHALL BE 6 INCHES THICK MINIMUM.
3. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.40 % THE FLOW LINE SHALL BE WATER TESTED.
4. CONSTRUCT 1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF CURB RETURNS, AND AT 300 FT. MAX. INTERVALS FOR EXTRUDED CURB AND 30 FT. MAX. INTERVALS FOR FORMED CURB. WEAKENED PLANE JOINTS SHALL BE FORMED AT THE REMAINING 20-FOOT INTERVALS.
5. ONE INCH BATTER AT CURB FACE IS OPTIONAL.
6. ROLLED CURBS ARE PROHIBITED IN AREAS WHERE FLOW LINE GRADIENT IS LESS THAN 0.80 % UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
7. ALL UTILITY BOXES AND COVERS ADJACENT TO ROLLED CURB SHALL BE HS-20 RATED "TRAFFIC BEARING" TYPE.

BREA CALIFORNIA CITY OF BREA	CONCRETE CURB AND GUTTER		
	APPROVED: CITY ENGINEER	DATE: 10-15-2013	STD. PLAN NUMBER 106-0 SHEET 2 OF 2



PLAN VIEW

CITY OF BREA

CURB RAMP

APPROVED: CITY ENGINEER

DATE: 10-15-2013

STD. PLAN NUMBER
107-0
SHEET 1 OF 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

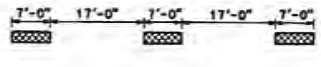
May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

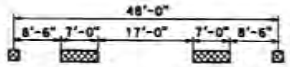
REGISTERED PROFESSIONAL ENGINEER
Sofia Feroz
C88402
3-31-19
CIVIL
STATE OF CALIFORNIA

CENTERLINES
(2 LANE HIGHWAYS)

DETAIL 1



DETAIL 2



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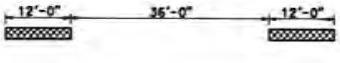
~~DETAIL 4~~ DETAIL 4 DELETED

DETAIL 5



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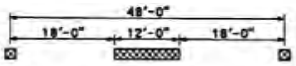

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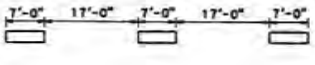
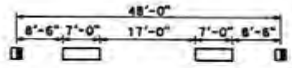
LANELINES
(MULTILANE HIGHWAYS)

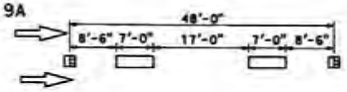
DETAIL 8



DETAIL 9



DETAIL 9A
SEE NOTE



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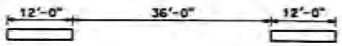
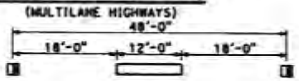
DETAIL 11

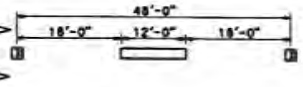


LANELINES (Cont)
(MULTILANE HIGHWAYS)

DETAIL 12



DETAIL 12A
SEE NOTE



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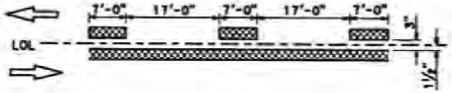
~~DETAIL 14~~ DETAIL 14 DELETED

~~DETAIL 14A~~ DETAIL 14A DELETED

NO PASSING ZONES-ONE DIRECTION

DETAIL 15



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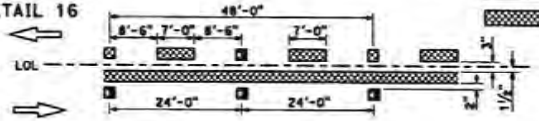

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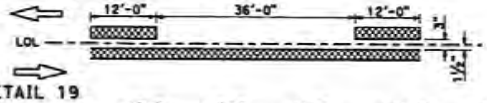
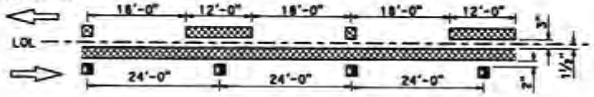
DETAIL 18



DETAIL 19



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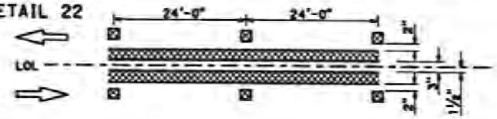
NOTE:
FOR FREEWAY APPLICATION ONLY

NO PASSING ZONES-TWO DIRECTION

DETAIL 21

DETAIL 22



~~DETAIL 23~~ DETAIL 23 DELETED

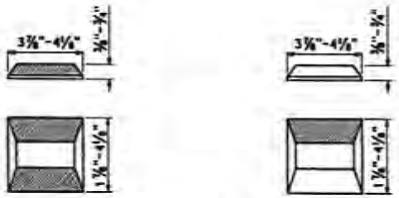
LEGEND

MARKERS

- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES

- 6" WHITE
- 6" YELLOW



TYPE C AND TYPE D TYPE G AND TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20A

2018 STANDARD PLAN A20A

1-26-18

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — Anita Fernandez — C061402 — 3-31-19 — CIVIL — STATE OF CALIFORNIA

LEGEND

MARKERS

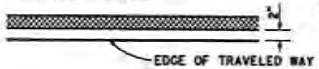
- TYPE D — TWO-WAY YELLOW RETROREFLECTIVE
- TYPE H — ONE-WAY YELLOW RETROREFLECTIVE
- TYPE RY — RED-YELLOW RETROREFLECTIVE

LINES

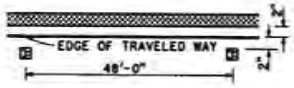
- 6" WHITE
- 6" YELLOW

LEFT EDGELINES
(DIVIDED HIGHWAYS)

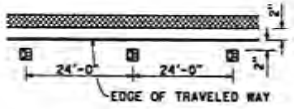
DETAIL 24



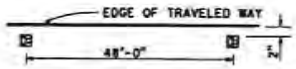
DETAIL 25



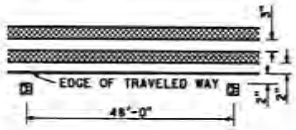
DETAIL 25A



DETAIL 26

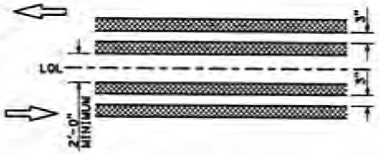


DETAIL 27

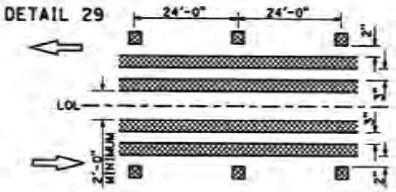


MEDIAN ISLANDS

DETAIL 28



DETAIL 29



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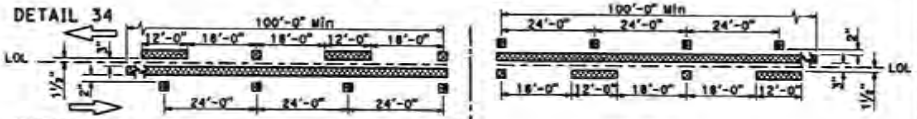
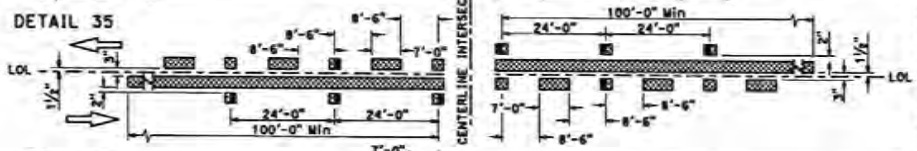
INTERSECTION TREATMENTS

DETAIL 34

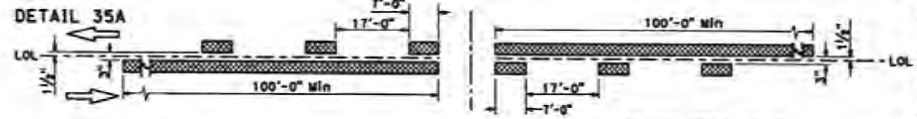


DETAIL 34A

DETAIL 35



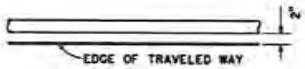
DETAIL 35A



RIGHT EDGELINES

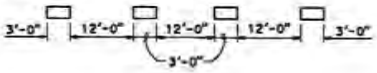
~~DETAIL 27A~~ DETAIL 27A DELETED

DETAIL 27B



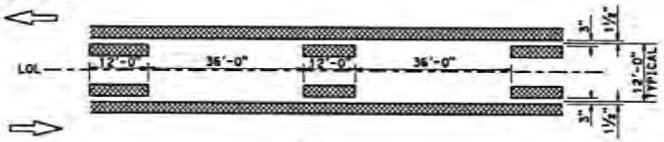
RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS

DETAIL 27C

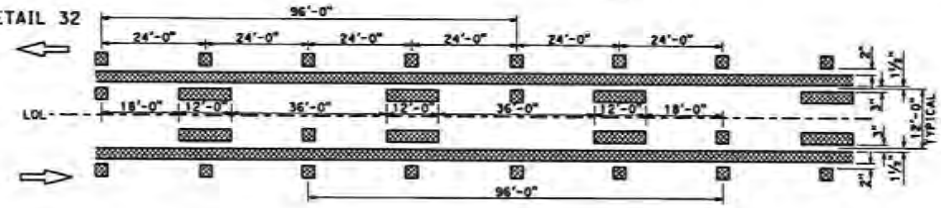


TWO-WAY LEFT TURN LANES

DETAIL 31



DETAIL 32



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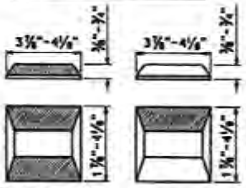
MARKER DETAILS



TYPE RY AND TYPE D

TYPE H

RETROREFLECTIVE FACE

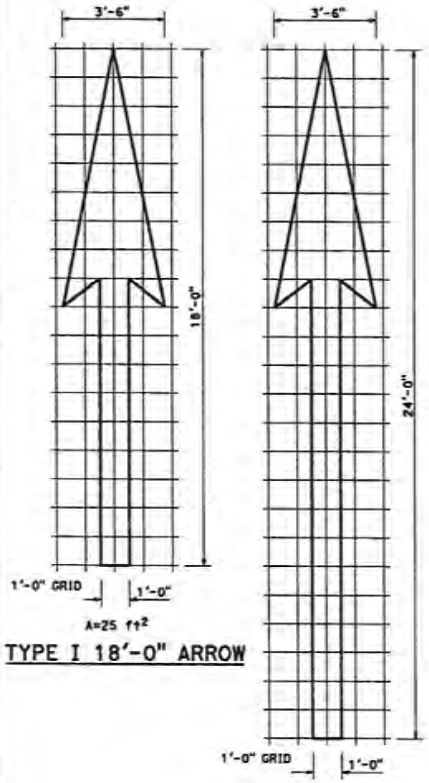
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

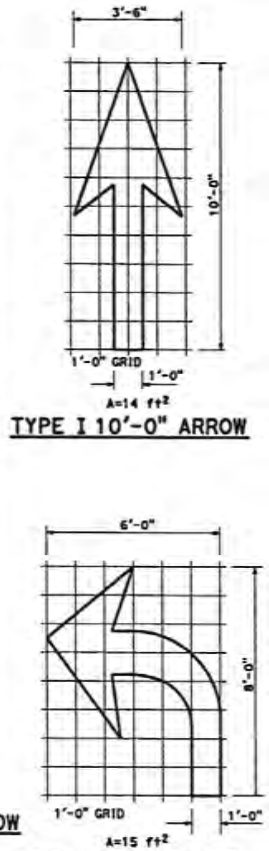
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

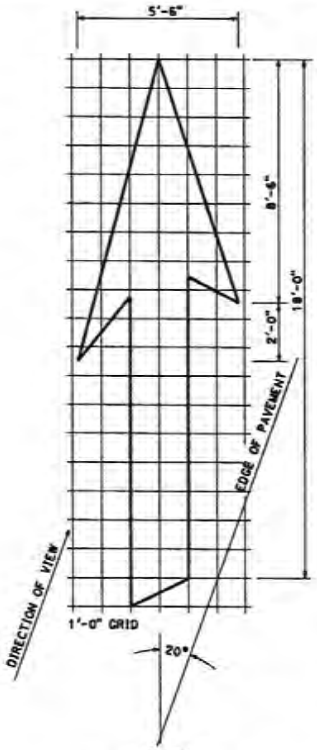
NO SCALE

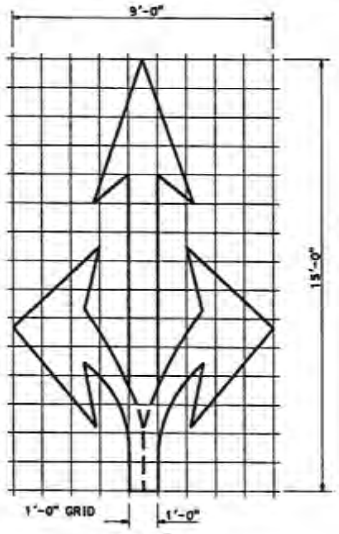
A20B

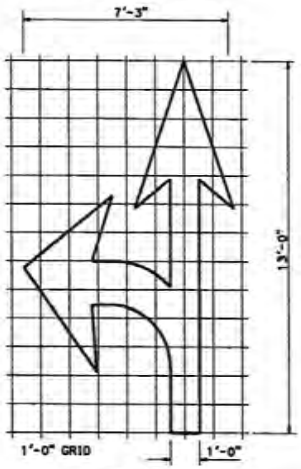
2018 STANDARD PLAN A20B

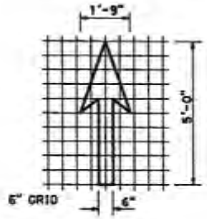


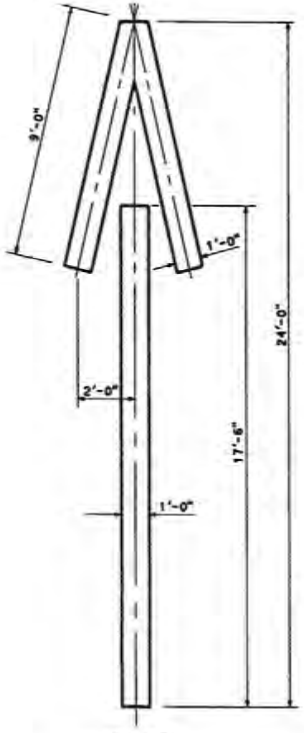












NOTE:
Minor variations in dimensions may be accepted by the Engineer.

District	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Attila Feraud
C90402
3-31-19
CIVIL
STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

A24A

2018 STANDARD PLAN A24A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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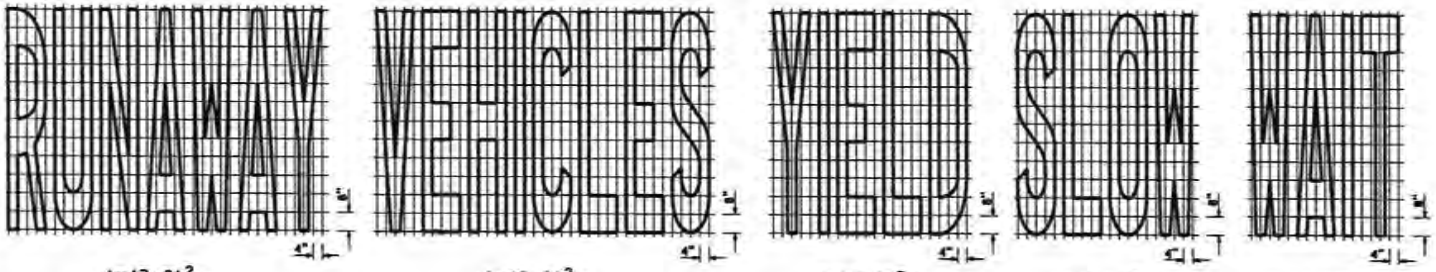
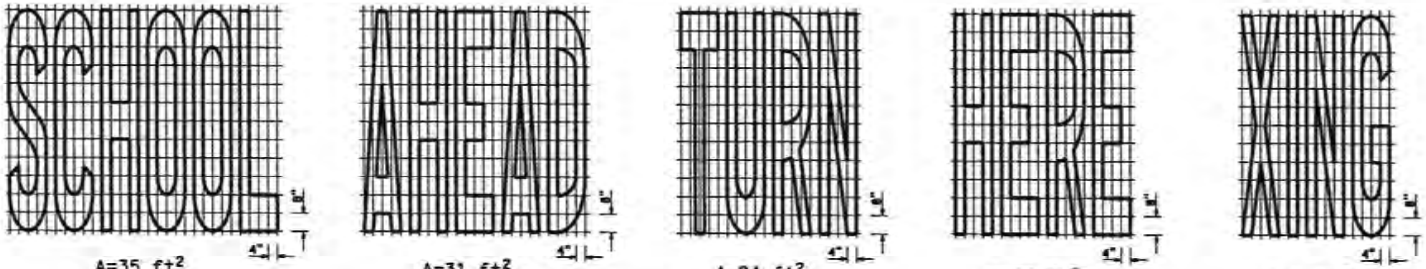
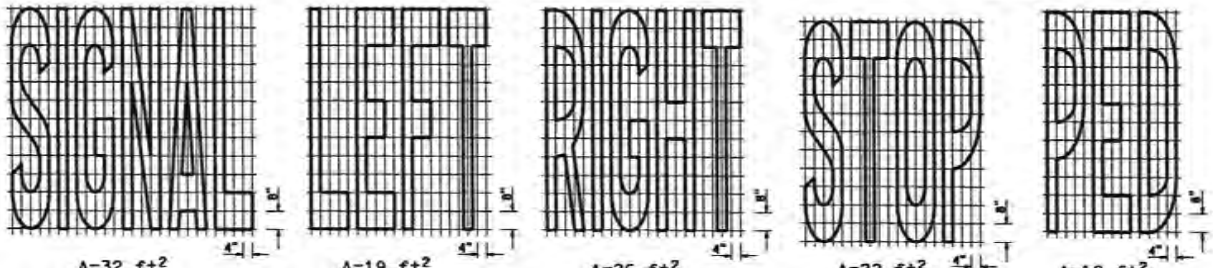
REGISTERED PROFESSIONAL ENGINEER
Alfio Ferraz
C80402
3-31-19
CIVIL
STATE OF CALIFORNIA



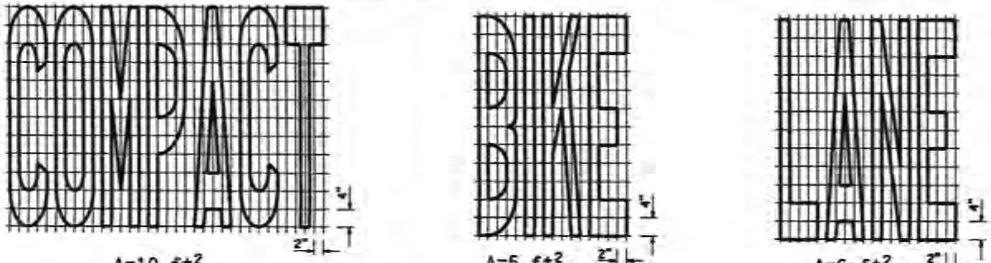
A=43 ft² A=42 ft² A=24 ft² A=23 ft² A=19 ft²



A=35 ft² A=31 ft² A=24 ft² A=26 ft² A=21 ft²



A=32 ft² A=19 ft² A=26 ft² A=22 ft² A=18 ft²



A=10 ft² A=5 ft² A=6 ft²

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

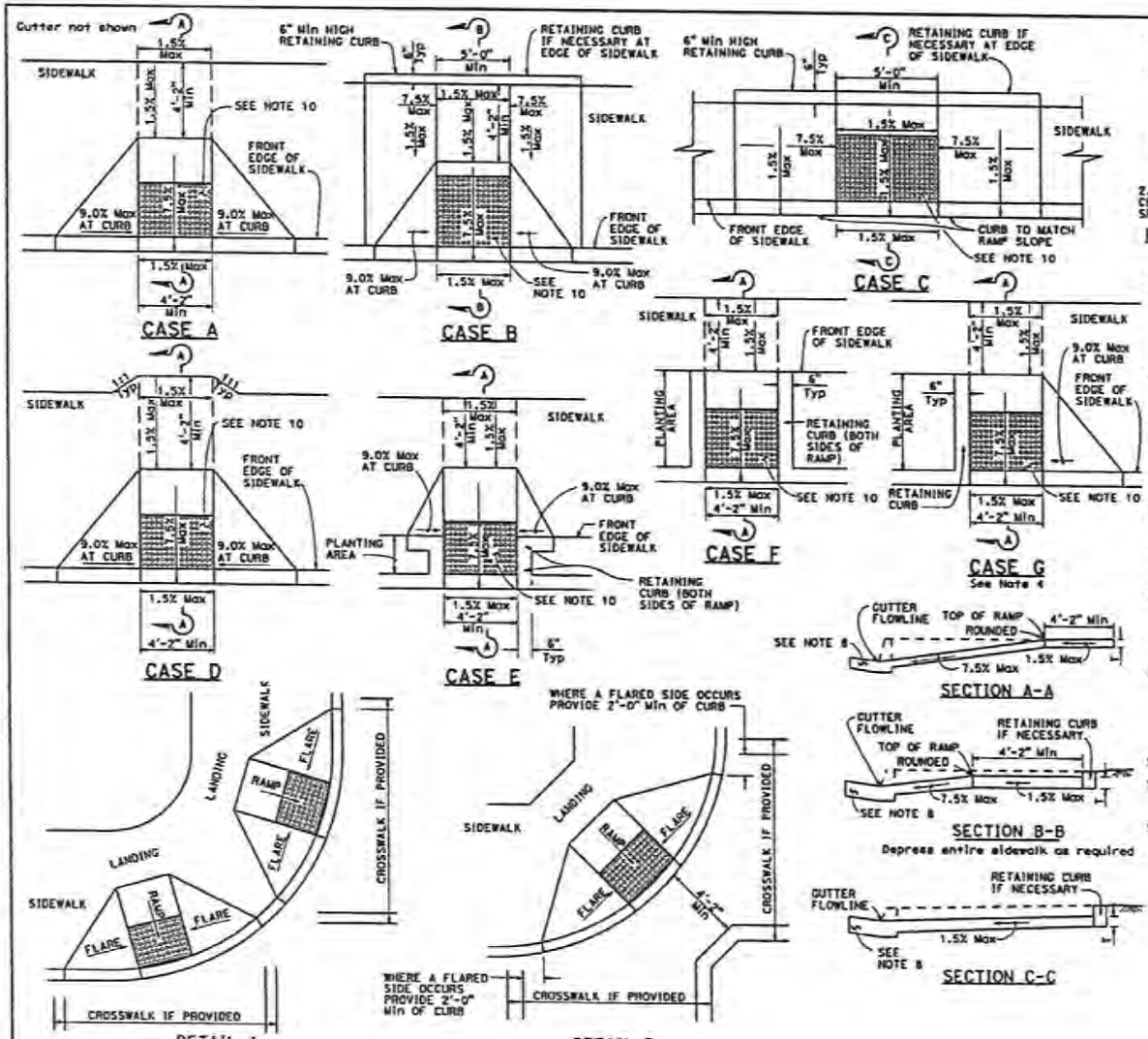
ITEM	ft²	ITEM	ft²	ITEM	ft²	ITEM	ft²
XING	21	YIELD	24	BIKE	5	PED	18
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10
WAIT	19	SIGNAL	32	STOP	22	RUNAWAY	43
LANE	6	TURN	24	LEFT	19	VEHICLES	42
RIGHT	26	HERE	26				

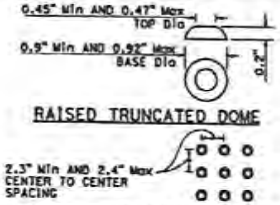
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS

NO SCALE

A24D

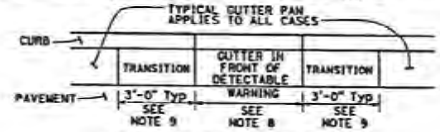




DETECTABLE WARNING SURFACE

NOTES: See Note 10

1. 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. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
2. 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 sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
6. 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.
7. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
8. 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.
9. Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
10. The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
11. Sidewalk and ramp thickness, "T", shall be 3½" minimum.
12. 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.
13. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.



GUTTER PAN TRANSITION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS

NO SCALE

A88A

Return to Table of Contents

YOUR TAX DOLLARS AT WORK

REBUILDING CALIFORNIA

PROJECT TITLE

PROJECT START DATE: MONTH/YEAR

PROJECT COMPLETION DATE: MONTH/YEAR

THIS PROJECT IS FUNDED BY:

- SB1
- GAS TAX

CONTRACTOR CONTACT INFORMATION

CONTRACTOR LOGO

BE WORK ZONE ALERT

Project Sign Notes

1. Dimensions for the 120x90 sign are provided on the figure.
2. SB1 Logo
3. BE WORK ZONE ALERT Logo
4. BE WORK ZONE ALERT RIBBON: Pantone #137 Orange
5. City Logo: Colors of Logo as Provided by City
6. YOUR TAX DOLLARS AT WORK: Pantone #P179-15C Black,
   Font: Arial Bold Italic
7. Dashed Line: Pantone #P179-15C Black
8. REBUILDING CALIFORNA: Pantone #P179-15C Black,
   Font: Arial Bold Italic
9. Background: Pantone #137 Fluorescent Orange
10. Project Name: Pantone #P179-15C Black
    Font: Arial Black
11. THESE PROJECT ARE FUNDED BY: Pantone P#179-15C Black
    Font: Arial Black
    Same Font and color for funding sources
12. Background – White
13. Contactor Contact Information: Pantone #P179-15C Black
    Font: Arial Black
14. Contractor Logo” Color per Contractor

APPENDIX B
CONTRACTORS BUSINESS LICENSE APPLICATION

CITY OF BREA

BUSINESS LICENSE TAX APPLICATION
OUT-OF-CITY CONTRACTORS

Please submit completed application with payment (see fee schedule below) and copy of current contractor's license (pocket card) to:

City of Brea, Business License Division,
1 Civic Center Cir., Brea, CA 92821
(714) 990-7686 office Fax (714) 671-4484
BusinessLicenseInfo@CityOfBrea.net

1. BUSINESS NAME (use exact name as contractor's license)	START DATE (Brea)	
2. BUSINESS ADDRESS (physical address)	BUSINESS TELEPHONE NO.	BUSINESS FAX NO.
3. MAILING NAME AND ADDRESS (if different from business address) Include corp. name if applicable	NO. OF EMPLOYEES (Brea)	
	LOCAL CONTACT NAME, TITLE, RESIDENCE PHONE NO.	
4. TYPE OF BUSINESS: State fully the exact nature of business.		
5. FEDERAL EMPLOYER ID NO.	STATE EMPLOYER ID NO. (EDD #)	
6. CALIFORNIA STATE CONTRACTOR'S LICENSE NO. & CLASSIFICATION	CALIFORNIA SELLER'S PERMIT NO./ RESALE NO. (if applicable)	CALIFORNIA STATE PROFESSIONAL LICENSE NO. (if applicable)

OWNER/OFFICER INFORMATION

7. Please check the type of ownership and complete information.

☐ Sole Proprietorship	☐ Partnership	☐ Husband & Wife	☐ Limited Liability	☐ Corporation	☐ Trust

Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Sole or Partnership):	DL # (Only Sole or Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:
SSN (Only Partnership):	DL # (Only Partnership):	
Name:	Title:	Home Phone No:
Home Address:	City & State:	Zip:

PAYMENT OF THIS TAX DOES NOT CONSTITUTE ZONING, BUILDING, OR FIRE CODE APPROVAL. CHECK WITH THE DEVELOPMENT SERVICES DEPARTMENT TO DETERMINE IF YOUR BUSINESS CAN BE LEGALLY ESTABLISHED AT YOUR LOCATION.

8. **I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

Signature _____ Print Name _____ Title _____ Date _____

FOR OFFICE USE ONLY

ACCOUNT NO.	ORDINANCE	CLASSIFICATION
EFFECTIVE DATES	ISSUE DATES	FEE

NOTES:

SCHEDULE OF FEES (based on State contractor's classification):

	3-Months	6-Months	1-Year
CLASS A- General Engineering Contractor	$50.00	$90.00	$150.00
CLASS B- General Building Contractor	$40.00	$60.00	$100.00
CLASS C- Specialty Contractor	$20.00	$36.00	$ 60.00

Rev. 01/10

APPENDIX C
INSURANCE AND INDEMNITY REQUIREMENTS

INSURANCE REQUIREMENTS FOR CONTRACTORS / CONSULTANTS

CONSTRUCTION PROJECT
(e.g., capital improvement projects, other construction and remodeling)

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW. THEY SUMMARIZE, BUT DO NOT SUPERSEDE, THE INSURANCE REQUIREMENTS ADDRESSED WITHIN THE BODY OF THE BID SPECIFICATIONS. YOU ARE ADVISED TO REFER TO THE BID SPECIFICATIONS IN ADDITION TO THE INFORMATION PROVIDED BELOW. PARTICULAR ATTENTION SHOULD BE GIVEN TO BEST'S GUIDE RATING REQUIREMENT LISTED BELOW.

IT IS HIGHLY RECOMMENDED THAT YOU CONSULT YOUR INSURANCE CARRIER(S) OR BROKER(S) TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE AS PRESCRIBED AND PROVIDED HEREIN. FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS MAY RESULT IN YOUR BID OR PROPOSAL NOT BEING CONSIDERED FOR AWARD OF CONTRACT.

TYPE OF INSURANCE COVERAGE	GENERAL LIABILITY	AUTO LIABILITY	WORKERS' COMPENSATION
REQUIRED BY CONTRACT?	YES	YES	YES
MINIMUM LIMITS OF COVERAGE	$2,000,000 Combined Single Limit Per Occurrence See also Comments	$2,000,000 Combined Single Limit Per Accident See also Comments	Workers' Compensation to Statutory Limits; $1,000,000 Employers' Liability limit
MINIMUM BEST'S GUIDE RATING/OTHER REQUIREMENTS	B+ / VII; must be Admitted Insurer	B+ / VII; must be Admitted Insurer	B+ / VII, admitted if commercial policy; OR State Compensation Insurance Fund
ADDITIONAL INSURED?	YES	YES	YES
WAIVER OF SUBROGATION?	YES	YES	YES
COMMENTS	Minimum Limits are subject to change based upon scope of project	Minimum Limits are subject to change based upon scope of project	

APPENDIX D
USA IDENTIFICATION NUMBER FORM

UNDERGROUND SERVICE ALERT
IDENTIFICATION NUMBER

(To be completed only by the awarded Contractor prior to excavation)

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

Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a Permit to Excavate will be valid.

To obtain a Dig Alert Identification Number, call Underground Service Alert at **1-800-422-4133** a minimum of two working days before scheduled excavation.

Dig Alert Identification Number: _____

_____
Contractor

_____
By

_____
Title

Date: _____

Note: ***This form is required for every*** *Dig Alert Identification Number* ***issued by U.S.A. during the course of the Work. Additional forms may be obtained from the AGENCY upon request***

APPENDIX E
WARRANTY BOND SAMPLE

WARRANTY BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Brea ("Owner") has awarded to

_____

("Principal"), a contract ("Contract") for the work described as follows:
_____

WHEREAS, Principal is required under the terms of the Contract to furnish a **one (1) year warranty** to make repairs or replacements made necessary by defects in materials, equipment or workmanship related to the Principal's construction of the Improvements.

NOW, THEREFORE, we, the undersigned Principal, and _____
_____
(Insert name, address , and telephone number of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto Owner in the penal sum of _____**Dollars ($XXX.XX)**, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his, her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements concerning the one (1) year warranty as set forth in the Contract and any alteration thereof made as therein provided, on the Principal's part to be kept and performed, all within the time and in the manner therein specified, and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this bond, Surety further agrees to pay all court costs and reasonable attorneys' fees in an amount fixed by the court.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City of Brea is the principal beneficiary of this bond and has all rights of a party thereto.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

"Principal"	"Surety"
_____	_____
_____	_____
By: _____ Its	By: _____ Its
By: _____ Its	By: _____ Its
(Seal)	(Seal)

Note: This bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

APPENDIX F
NPDES REQUIREMENTS

Construction Runoff Guidance Manual

for Contractors, Project Owners, and Developers

December 2012

Orange County Stormwater Program:
A Cooperative Project of the County of Orange,
Cities of Orange County and
Orange County Flood Control District

PROJECT Pollution PREVENTION

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1 Introduction and Overview

1.1 Introduction

This Construction Runoff Guidance Manual (Manual) is intended to enable applicants for building or grading permits to understand and comply with the regulatory requirements for creek, river, stream and coastal water protection during the construction phase of new development and significant redevelopment projects. Project owners and developers should be able to use this Manual as a guide to understand which permits and ordinances apply to their construction project. Contractors should be able to use this Manual as a guide to the Best Management Practices (BMPs) typically needed to be implemented at a construction site to ensure compliance with the Construction General Permit (CGP) and local ordinances.

1.2 Overview

The goal of this Manual is to provide useful, succinct information to enable contractors to control pollutant discharges from construction sites. Activities and materials used on a construction site may be a source of pollutants, including but not limited to sediment, concrete and grout; paints, lacquers, and primers; herbicides and pesticides; soaps and detergents; wood preservatives; equipment fuels, lubricants, coolants, and hydraulic fluids; and cleaning solvents. Water from construction sites can be a major transporter of these pollutants, which can leak from heavy equipment, be spilled, or can be eroded by rain from exposed soil or stockpiles. Once released, they can be transported into the receiving waters of the County of Orange (Orange County or "the County"), where they may enter aquatic food chains and cause fish toxicity problems, contribute to algal blooms, impair recreational uses, and degrade drinking water sources.

2 Regulatory Requirements

2.1 State and Regional Permit Requirements

Construction activity in Orange County is subject to regulation by both the Santa Ana and the San Diego Regional Water Quality Control Boards (Regional Boards or RWQCBs). The Regional Boards are responsible for implementing the Clean Water Act and the California Porter-Cologne Act. The boundary between the two Regional Board jurisdictions approximately follows El Toro Road in Lake Forest, separating the Santa Ana Region (Regional Board 8 or RB8) (north of El Toro Road) from the San Diego Region (Regional Board 9 or RB9) (south of El Toro Road). While some of the permits listed in Table 1 are issued statewide by the State Water Resources Control Board (State Board or SWRCB) and implemented throughout the state by the Regional Boards, other permits, like dewatering or de minimus permits, are issued and implemented on a Region-by-Region basis. Additionally, the Regional Boards issue Municipal Separate Storm Sewer System (MS4) Permits to the County and cities, which include additional requirements for managing construction sites.

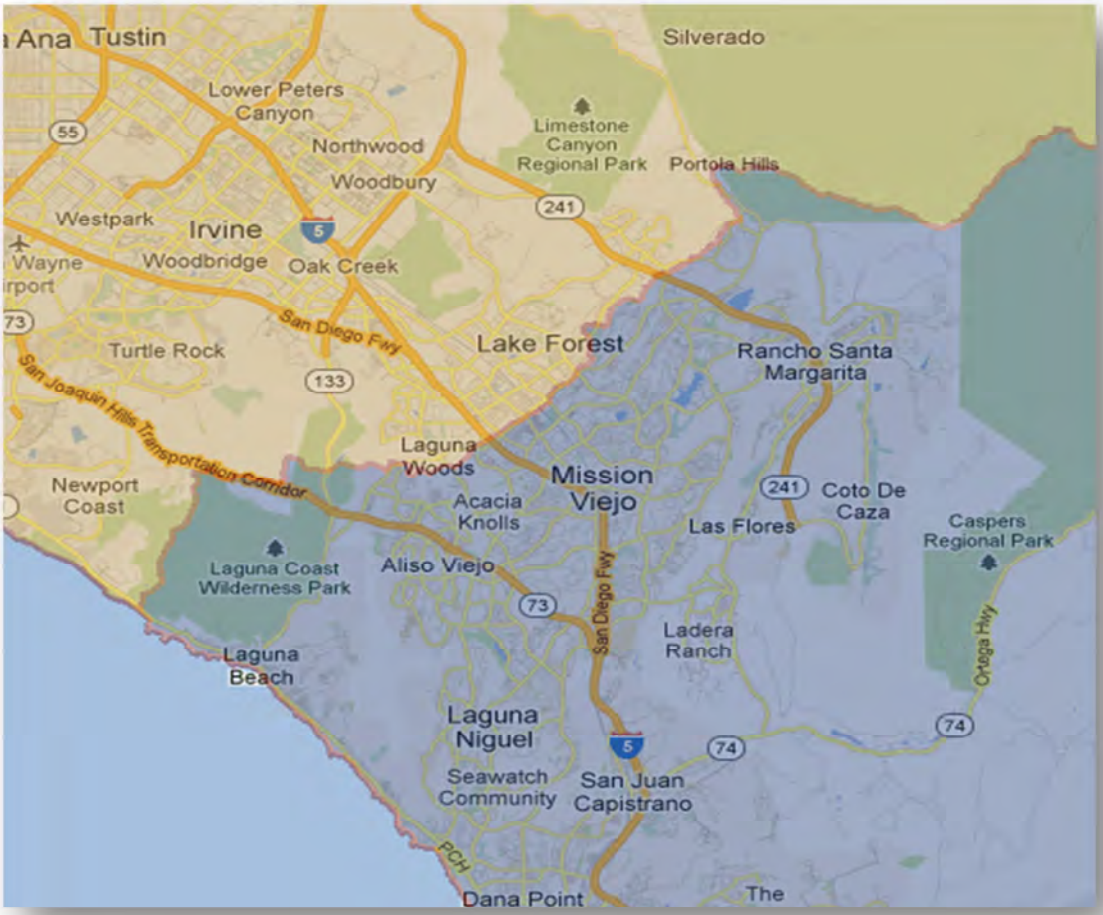


Figure 1: Map of Boundary between Santa Ana Regional Board (Yellow) and San Diego Regional Board (Blue)

Table 1 includes a list of all State or Regional permits related to runoff water quality that may apply to construction projects in Orange County. To determine which, if any, of these permits affect your construction project, go to Appendix A and follow the three flow charts. Appendix B includes a brief summary of each permit shown in Table 1. A list of web links for each permit is included in the Reference section at the end of this Manual.

Table 1: Summary of State and Regional Permits that May Affect Construction Projects in Orange County

	Order Number / NPDES Number	Permit Name	Affected Area
CGP	2009-0009-DWQ/ CAS000002	National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
MS4	R8-2009-0030/ CAS618030	Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated Cities of Orange County within the Santa Ana Region (MS4 Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2009-0002/ CAS0108740	Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated Cities of Orange County, and The Orange County Flood Control District Within the San Diego Region (MS4 Permit for San Diego Region)	San Diego Region within Orange County
Discharge To Land	2003-0003-DWQ	Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality (WDR for Discharge to Land)	Statewide
Groundwater Dewatering	R8-2007-0041/ CAG918002	General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts (Dewatering Permit for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2008-0002/ CAG919002	Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay (Dewatering Permit outside of San Diego Bay for San Diego Region)	San Diego Region within Orange County
Potable Water	R8-2009-0003/ CAG998001	General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality (De Minimus WDRs for Santa Ana Region)	Santa Ana Region within Orange County
	R9-2010-0003/ CAG679011	General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region (Potable Water WDRs for San Diego Region)	San Diego Region within Orange County

In 2009, the SWRCB adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP). The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by the County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

More details regarding the CGP and other State and Regional permits can be found in Appendix A.

2.2 Local Agency Requirements

Each city, as well as the County of Orange, has a Municipal Code that establishes requirements for erosion and sediment control on grading projects. All project owners must meet the requirements of the applicable code prior to, during, and after construction. Additionally, through the MS4 Permits listed in Table 1 and described in Appendix B, each city or the County is responsible for periodic inspections of construction sites within its boundaries. (All project owners must allow city or County inspectors onto the project site for these inspections.)

2.2.1 Local Grading Code

The Grading Code sets the rules and regulations for grading operations including operations preparatory to grading on private property. In addition to other requirements, the Grading Code requires that a project owner, developer or contractor prepare erosion control plans (ECPs), obtain a grading permit, and implement and maintain erosion and sediment control BMPs. Refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal grading code.

2.2.2 Local Water Quality Ordinance

The County and cities in Orange County have adopted Water Quality Ordinances for the purpose of improving water quality and compliance with NPDES permit requirements and for the control of urban pollutants. The Water Quality Ordinances are part of their municipal codes and are, in effect, laws that contractors are required to comply with. Non stormwater discharges to the municipal storm drain system are prohibited unless covered by a discharge exception. Prohibited non-stormwater discharges include wastewater from concrete truck washing, paint equipment cleaning, spill cleanup, etc. (See Table 3). Please refer to the appropriate city or County website and/or Public Works Department for the full text of the municipal water quality ordinance.

Table 2: Allowed and Prohibited Discharges

Allowed	Prohibited (not allowed)
▪ Discharges composed entirely of stormwater ▪ Projects permitted under the CGP may be authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: A. fire hydrant flushing, B. irrigation of vegetative erosion control measures (only in Region 8), C. pipe flushing and testing, D. water to control dust, and E. uncontaminated ground water from dewatering. Consult a construction stormwater professional to review the specific conditions. ▪ Discharges that are authorized by a De Minimus or Dewatering permit.	▪ Trash / debris / litter ▪ Concrete waste ▪ Sanitary waste ▪ Fuel or oil (Dumping, Spills, or Leaks) ▪ Non-stormwater discharges to the municipal storm drain system or receiving water (unless covered by an NPDES Permit, such as CGP or De Minimus) ▪ Projects in Region 9 permitted under the CGP are not authorized to discharge non-stormwater discharges including dechlorinated potable water sources such as: F. irrigation of vegetative erosion control measures

3 Best Management Practices (BMPs)

Best Management Practices (BMPs) collectively refer to a variety of pollution prevention controls implemented throughout the project site at various times of the project. BMPs discussed herein are specifically aimed to control pollution in stormwater runoff during the construction phase of the project. The major construction BMP categories can be broken down into

- Erosion Control (EC)
- Sediment Control (SE)
- Wind Erosion Control (WE)
- Tracking Control (TC)
- Non-Stormwater Management (NS)
- Waste Management and Materials Pollution Control (WM)

These BMPs will be discussed in detail throughout the remainder of this section. Permanent post-construction BMPs are not addressed in this document. Post construction BMP requirements are detailed in the Model Water Quality Management Plan (WQMP) as required by the MS4 Permits of either the Santa Ana Region or San Diego Region.

3.1 BMP Overview Diagram

The BMPs that are commonly used on construction sites are shown in Figure 2.

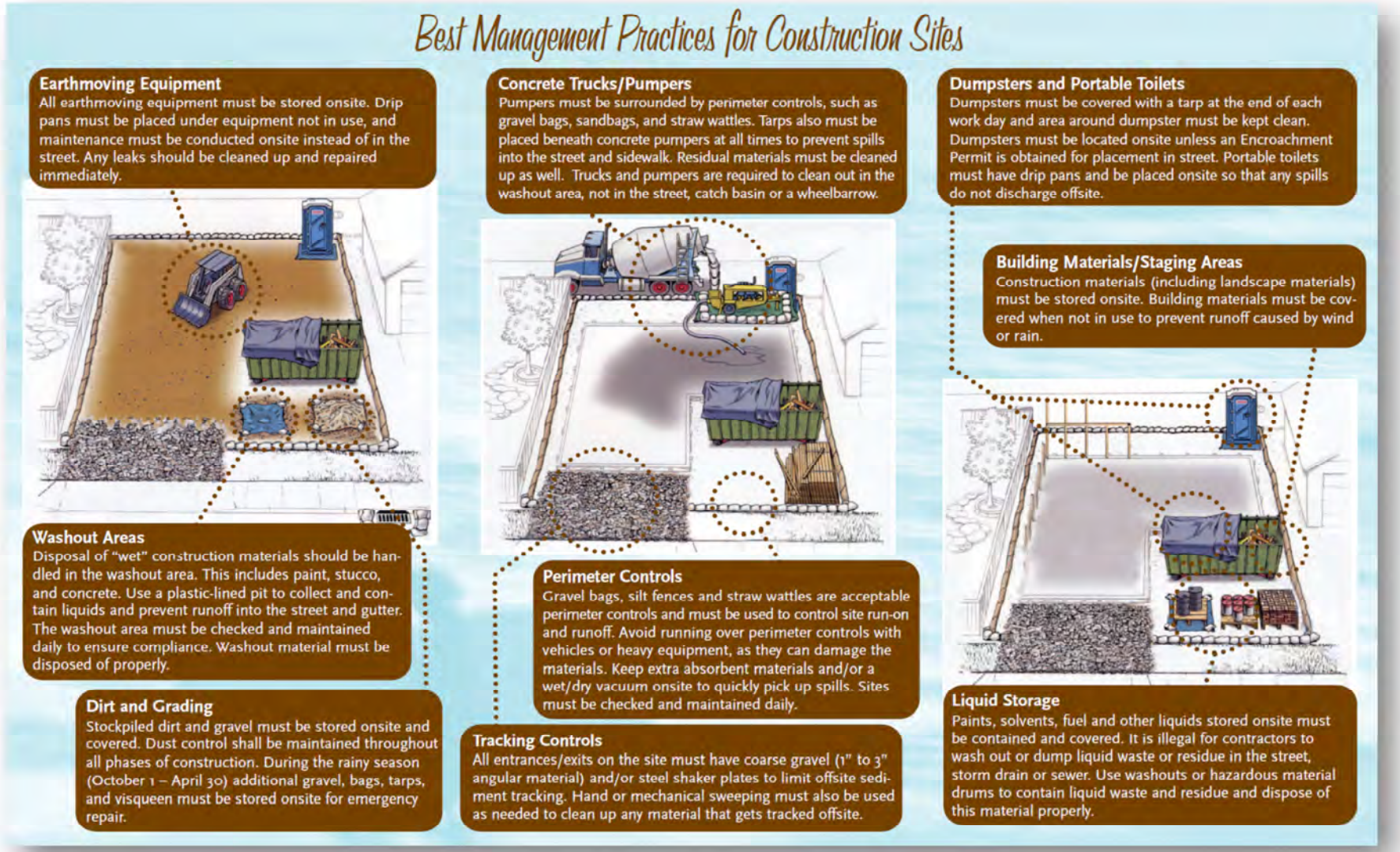


Figure 2: Typical Construction Site BMPs (Graphic provided by the City of San Clemente)

3.2 Minimum Site BMP Requirements

The following requirements are for deployment of selected construction BMPs and apply year-round (not just during the rainy season) to all projects.

A. Pollution prevention where appropriate.

B. Development and implementation of a site specific run-off management plan.

C. Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction.

D. Minimization of exposure time of disturbed soil areas.

E. Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible.

F. Limitation of grading to a maximum disturbed area as determined by the County / city before either temporary or permanent erosion controls are implemented to prevent stormwater pollution. The County / city has the option of temporarily increasing the size of disturbed soil areas by a set amount beyond the maximum, if the individual site is in compliance with applicable stormwater regulations and the site has adequate control practices implemented to prevent stormwater pollution.

G. Temporary stabilization and reseeding of disturbed soil areas as rapidly as feasible.

H. Non-stormwater management measures to prevent illicit discharges and control stormwater pollution sources.

I. Erosion Control BMPs shall be implemented.

J. Wind erosion control BMPs (dust control) shall be implemented.

K. Sediment control BMPs shall be implemented at all appropriate locations along the site perimeter, at all operational storm drain inlets and at all non-active slopes.

L. Tracking control BMPs to control off-site sediment tracking shall be implemented and maintained.

M. Waste management and materials pollution control BMPs shall be implemented to prevent the contamination of stormwater by construction wastes and materials.

N. Non-stormwater BMPs shall be implemented to reduce or prevent the contamination of stormwater from construction activities.

O. Weather tracking: projects shall monitor the National Weather Service (www.weather.gov) probability of precipitation. When a rain event is predicted (forecast predicts a greater than 50% probability of precipitation), the project must be inspected and BMPs must be maintained or deployed as needed to protect the project from discharging pollutants. (CGP projects only)

P. BMP failures must be repaired or replaced with an acceptable alternate as soon as it is safe to do so. Repairs or replacements must result in an adequate BMP, or additional BMPs should be installed to provide adequate protection.

Q. Active exposed areas: Sufficient materials needed to install standby erosion and sediment control BMPs necessary to protect all active exposed areas from erosion and to reduce or prevent sediment discharges shall be stored on site. The total active exposed area shall not exceed that which can be adequately protected by deploying standby erosion control and sediment control BMPs prior to a predicted rain event.

R. Inactive exposed areas: All exposed areas not being actively worked in shall be protected from erosion with temporary or permanent BMPs (erosion and sediment control). The ability to deploy standby BMP materials is not sufficient for these areas; erosion and sediment control BMPs must actually be deployed.

S. Completed areas: Areas that have already been protected from erosion using permanent erosion control BMPs (physical or vegetation) are not considered "exposed". Deployment of permanent erosion control BMPs should commence as soon as practical on completed areas.

T. Preservation of natural hydrologic features where feasible.

U. Preservation of riparian buffers and corridors where feasible.

V. Evaluation and maintenance of all BMPs, until removed.

W. Retention, reduction, and proper management of all stormwater pollutant discharges on site to the Maximum Extent Practicable (MEP) standard.

3.3 CASQA BMP Handbook

The California Stormwater Quality Association (CASQA) has prepared a handbook providing details about all of the recommended BMPs. The current version of this handbook is the CASQA Best Management Practice Handbook, Construction, 2009 Edition. A membership to CASQA can be obtained at www.casqa.org. Access to the BMP Fact Sheets referenced in this section is included with the CASQA membership. The Handbook contains six major categories of BMP fact sheets with guidelines on how to select each BMP. The six categories include: Erosion Control (EC), Sediment Control (SE), Wind Erosion Control (WE), Tracking Control (TC), Non-Stormwater Management (NS), and Waste Management and Materials Pollution Control (WM).

These categories of BMPs and their applicability are discussed in the following sections.

3.4 BMP Directory

In order to meet the requirements of the Permits and Ordinances mentioned in Section 2, BMPs must be selected, installed, and maintained properly throughout the duration of construction projects. BMPs must be discussed with all project contractors, subcontractors, and any party involved, because education is the most important BMP.

3.4.1 Erosion Control (EC)

Erosion control BMPs focus on preventing soil from being eroded by stormwater and potentially discharged from the construction site. Erosion control is more effective than sediment control for reducing sediment discharge. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common erosion control BMPs for construction projects.

Erosion prevention is to be used as the most important measure for keeping sediment on site during construction. Permanent revegetation or landscaping shall be done as early as feasible at a minimum.

Table 3: Physical / Vegetative Stabilization BMPs

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
Scheduling	Sequencing construction activities to reduce the amount of exposed soil during seasons of higher precipitation probability. All projects should consider scheduling activities to minimize the amount of disturbed area during seasons of higher precipitation probability. Phasing can be used to maintain stabilized areas (vegetation or impervious cover) as much as possible during construction. Disturbed areas should be stabilized as soon as practical. Attempt to schedule grading outside of seasons of higher precipitation probability. Reference: CASQA EC-1, EC-2
Seeding	Applying seed to a surface with the intention of achieving vegetation which can effectively protect soils from erosion while reducing runoff by encouraging infiltration / transpiration. Seeding is effective for temporary and permanent stabilization of slopes, stock piles, and other disturbed soils. Seeds can be combined with mulch and water then sprayed onto surfaces (also referred to as hydro seeding) for immediate erosion protection. Without combining or covering seeds with mulch seeds will be susceptible to erosion until vegetation has sufficiently established. Supplemental irrigation may be required to establish vegetation. Scarifying surfaces prior to seed application can increase its effectiveness. Reference: CASQA EC-4
Soil Binders	Spraying a liquid compound to disturbed soils to bind and stabilize the soil surface (forming a crust). This process reduces the potential for wind and water erosion. Examples include: guar, psyllium, starch, gypsum, pitch and rosin emulsion, polymers, and acrylates. Soil binders are effective for temporary stabilization of slopes, stockpiles, and other disturbed areas. Soil binders need time to cure and should not be applied less than 24 hours before predicted precipitation. The specific soil binder selected depends on the type of soil. Soil binders must be non-toxic and environmentally benign. Soil binders will need to be reapplied as needed based on the specific soil binder and visual inspection. Soil binders are much less effective in areas that receive traffic. Reference: CASQA EC-5
Mulching	Covering disturbed soils with a fibrous wood, straw, or similar material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Mulching is effective for temporary stabilization of slopes, stock piles, and other disturbed soils. Mulch materials can be combined with water then sprayed onto surfaces (also referred to as hydraulic mulch) for increased wind erosion protection. Typically, mulch must be reapplied every 6 to 12 months. Soil roughening prior to mulch application can increase its effectiveness. Reference: CASQA EC-3, EC-6, EC-8
Geotextiles and Mats	Covering disturbed soils with a natural or synthetic blanket or mat. This process greatly reduces the potential for wind and water erosion. Some rolls and mats physically hold the soil in place. Example include: geotextiles, plastic covers, rolled erosion control blankets / mats, straw / mulch blanket, coconut fiber blanket, and plastic netting. Geotextiles and mats are effective for temporary stabilization of steep slopes with high erosion potential, stockpiles, and channels that will be vegetated. Geotextiles and mats are more expensive than other erosion control BMPs. Materials may need to be removed prior to final stabilization. Mats / blankets are most effective when in direct contact with the soil; do not roughen soil or leave significant rocks / roots. Mats / blankets typically require an anchoring mechanism to hold them in place. Mats / blankets should be laid parallel to the

Physical / Vegetative Stabilization: Covering the soil with a protective layer that can help to hold soil in place and/or reduce the erosive impact of rain drops or runoff.	
Type	**Description**
	direction of flow. Mats / blankets should allow water to flow on top of them and not below which would cause the soil to wash out. Reference: CASQA EC-7
Non-Vegetative Stabilization	Covering disturbed soils with a non-vegetative material to protect the bare soil from rainfall impact erosion while reducing runoff by encouraging infiltration / evaporation. Examples include: decomposed granite, gravel, and rock slope protection. Other non-vegetative stabilization is effective for temporary and permanent stabilization of areas with heavy vehicular or pedestrian traffic or areas where a vegetative cover is infeasible. Other non-vegetative stabilization is intended to be used in combination with additional erosion control and sediment control BMPs. If used for permanent stabilization, periodic inspection and maintenance may be required. Material should be selected based on the slope and use of the area. Reference: CASQA EC-16 and Caltrans Standard Specifications May 2006 Section 72-2.

Table 4: Concentrated Flow Erosion Control BMPs

Concentrated Flow Erosion Control: Reducing concentrated flow velocity or protecting concentrated flow paths to prevent erosion.	
Type	**Description**
Dikes, Swales, and Slope Drains	Grading and compacting soil or installing pipe to control / divert / direct runoff. Dikes, swales, and slope drains can be combined to safely convey runoff down a slope, direct runoff to a stabilized channel, reduce potential for flooding, direct runoff to sediment traps / basins. Dikes, swales, and pipes that are used to direct runoff must be properly sized based on the specific application. Typically, slope drains require energy dissipation. Monitor swales and dikes for erosion or accumulation of sediment or debris. Swale and dike slopes should be 2:1 or less. Use vegetation, geotextiles, or mats to stabilize swales. Temporary devices must be removed. Reference: CASQA EC-9, EC-11
Energy Dissipation	Placing rock, riprap, or similar material to reduce erosion from concentrated, high velocity flows. Energy dissipation is effective at pipe outlets, channel linings, and transitions from stabilized to un-stabilized conveyances. Line the area with filter fabric prior to placing rock or riprap. Accumulated sediment may be difficult to remove from energy dissipation area. For pipe outfalls the size of the energy dissipation area will increase with flow rate and/or pipe size. Temporary devices must be removed. Reference: CASQA EC-10, EC-12
Soil Roughening	Mechanically roughening soil (track walking or imprinting) to prepare soil for additional BMPs or create small terraces to break up sheet flow. Soil roughening can be applied to slopes, stockpiles, basins, and other disturbed soil areas. Soil roughening is intended to be used in combination with additional erosion control and sediment control BMPs. A common implementation method is to drive heavy equipment with its treads parallel to the contours of the slope. For long slopes additional terracing may be required. Reference: CASQA EC-15

3.4.2 Sediment Control (SE)

Sediment control BMPs focus on preventing eroded soil from being discharged from the construction site. The demand placed on sediment control BMPs is dependent upon the effectiveness of the erosion control BMPs. More robust erosion controls will reduce the need for sediment controls and vice versa. However, a combination of both erosion control and sediment control is required to effectively reduce sediment discharge. This section highlights the most common sediment control BMPs for construction projects.

At a minimum, sediment controls are to be used as a supplement to erosion prevention for keeping sediment on-site during construction, and slope stabilization must be used on all active slopes during rain events regardless of the season and on all inactive slopes during the rainy season and during rain events in the dry season.

Table 5: Perimeter / Linear Control BMPs

Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**
Linear Sediment Controls	Installing sediment control BMPs along contours to reduce runoff velocity, remove sediment, and discourage rill erosion. Examples include: fiber rolls, sand / gravel bags, and straw bales. Linear sediment controls are effective parallel to contours on the face of slopes and at the top and toe of slopes. Linear sediment controls are typically implemented temporarily until slope is stabilized. Straw bales must be anchored and should not be used on the face of slopes. Fiber rolls must be trenched and staked during installation. For Risk Level / LUP Type 2 and 3 projects, the CGP specifies minimum uninterrupted sheet flow lengths for slopes to be 20 feet for slopes under 25%, 15 feet for slopes 25-50%, and 10 feet for slopes over 50%. Reference: CASQA SE-5, SE-6, SE-8, SE-9, SE-14
Perimeter Controls	Installing a barrier to prevent sediment discharges by controlling run-on and run-off around the perimeter of the construction site or limits of grading. Examples include: silt fence, fiber rolls, sand / gravel bags, and straw bales. Perimeter controls are effective when implemented around the perimeter of the construction site or limits of grading. Perimeter controls are not effective when used in a concentrated flow path. Silt fence and fiber rolls require proper installation which includes trenching and staking. Typically, perimeter controls should be installed prior to grading and remain functional until final stabilization is achieved. Maintenance of perimeter controls must be performed as needed. Perimeter controls are a minimum BMP requirement of the CGP. Reference: CASQA SE-1, SE-5, SE-6, SE-8, SE-14

Perimeter / Linear Controls: Establishing linear BMPs to reduce the potential for sediment discharge across a slope, at the project's perimeter, or to Environmentally Sensitive Areas (ESAs)	
Type	**Description**

Table 6: Storm Drain Inlet Protection BMPs

Storm Drain Inlet Protection: Ponding and/or filtering stormwater to remove pollutants (primarily sediment) from entering the storm drain system.	
Type	**Description**
Storm Drain Inlet Protection	Filtering or ponding of stormwater before it enters a storm drain inlet to reduce the amount of sediment that discharges. Storm drain inlet protection should be implemented at every storm drain inlet that receives runoff from active construction areas. Ponding of sediment laden stormwater can provide the best results if the ponding capacity is appropriate for the tributary drainage area. Ponding may be limited by street traffic constraints. Other sediment controls such as check dams should be used upstream to reduce the amount of sediment that reaches the storm drain inlet protection. After a storm sediment that has settled must be cleaned up. Reference: CASQA SE-10, SE-14.

Table 7: Sediment Capture BMPs

Sediment Capture: Capturing sediment in channelized stormwater to reduce sediment discharge.	
Type	**Description**
Sediment Trap / Basin	Constructing a temporary containment area to detain runoff to allow for deposition of sediment prior to stormwater discharge. Sediments traps / basins are effective when implemented within the downstream section of a construction site or at discharge points. Sediment traps can be effectively implemented throughout a large construction site. Sediment basins can efficiently be developed at locations where future post-construction basins will be utilized. Sediment traps should only be used for tributary drainage areas below 5 acres. Sediment basins should be used for tributary drainage areas between 5 and 75 acres. Sediment traps / basins can be large and may not be suitable for small construction projects. Sediment traps / basins should be sized by a Registered Civil Engineer to ensure they have sufficient capacity. Sediment traps / basins should not hold water for longer than 72 hours. Local agencies may have stricter vector control and child safety fence requirements. Typically dikes, swales, or piping are required to direct runoff to traps / basins. Reference: CASQA SE-2, SE-3
Check Dams	Constructing small barriers along a swale or channel to reduce channel erosion and allow for deposition of sediment. Check dams are effective for sediment control within un-stabilized concentrated flow paths on the construction site such as swales, ditches, or channels. Typically, check dams are constructed of rock, sand / gravel bags or fiber rolls. Effective check dams will collect sediment behind each check dam which must be removed regularly to maintain the performance of the check dam. Check dams should not be constructed with straw bales or silt fence. Reference: CASQA SE-4, SE-5, SE-6, SE-8

Table 8: Street Cleaning BMPs

Street Cleaning: Cleaning streets and other paved areas that have collected sediment and/or debris to prevent it from entering the storm drain system.	
Type	**Description**
Street Sweeping and Vacuuming	Cleaning sediment from streets and roadways to reduce the potential discharge to storm drain inlets or receiving waters. Sweeping and vacuuming should be implemented on all paved areas within and adjacent to construction sites. Inspect and maintain areas subject to sediment tracking on a daily basis. Utilize methods that collect and remove sediment instead of methods that simply spread the sediment around. Reference: CASQA SE-7

3.4.3 Wind Erosion Control (WE)

Wind Erosion Control is any practice that protects the soil surface and prevents the soil particles from being detached by wind. Wind Erosion Control is also referred to as dust control.

Table 9: Wind Erosion Control BMPs

Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**
Wind Erosion Control	Preventing wind from causing erosion or dust. Examples include: wet suppression, chemical dust suppression, covering exposed sediment, and minimizing disturbed area though scheduling. Wind erosion control should be implemented at every construction project throughout all disturbed areas. Wet suppression is sufficient for most projects if implemented regularly. Other requirements (Clean Air Act, Air Quality Management Districts, etc.) typically address wind erosion control. Chemical dust suppression should only be implemented when it will have no negative environmental impacts. Reference: CASQA WE-1

Wind Erosion Control: Covering or wetting exposed soil to prevent erosion by-way-of wind.	
Type	**Description**

3.4.4 Tracking Control (TC)

Tracking Control is any practice that prevents or reduces the amount of sediment that is tracked to paved areas from unpaved areas by vehicles or construction equipment.

Table 10: Tracking Control BMPs

Tracking Control: Reducing the amount of sediment that leaves the site from vehicles and construction equipment.	
Type	**Description**
Stabilized Construction Entrance / Exit	Constructing a stabilized surface where sediment can be dislodged from vehicle and equipment tires before being tracked onto off-site paved roads. Stabilized construction entrance / exits should be implemented at every construction project to prevent sediment tracking from the site. Stabilized construction entrances / exits should be 50 feet or more in length. The most common method is to place 3-6 inch rock at least 1 foot high over filter fabric. Additional rock may need to be added as sediment accumulates. Rumble plates can be added for additional sediment removal. Tracking controls are a minimum BMP requirement of the CGP. Reference: CASQA TC-1

3.4.5 Non-Stormwater Management (NS)

Non-stormwater management is any practice that limits or reduces potential pollutants at their source before they are exposed to stormwater. Non-stormwater management typically involves day-to-day operations of the construction site and is usually under the control of the contractor. Non-stormwater management is often referred to as good housekeeping practices.

Table 11: Non-Stormwater Management BMPs

Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
Vehicle and Equipment Pollution Prevention	Preventing, containing, and disposing of pollutants from cleaning, fueling, and maintaining vehicles and equipment. Vehicle and equipment pollution prevention should occur at every construction project that cleans, fuels, or maintains vehicles or equipment. All cleaning, fueling, and maintenance performed on the site should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Avoid "topping-off" of fuel tanks. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Use drip pans or a secondary containment area for fueling and maintenance. Inspect for equipment leaks daily. Prevent wash water from entering storm drain system. Reference: CASQA NS-8, NS-9, NS-10
Dewatering Operations	Managing and/or treating the discharge of accumulated stormwater or non-stormwater (groundwater or water used during construction activities) to prevent unauthorized discharge. Dewatering operations should be implemented for any discharge of accumulated stormwater or non-stormwater. Primary concern with accumulated stormwater is sediment. Common methods for reducing sediment from a discharge are sediment traps / basins, weir tanks, dewatering tanks, filter bags / socks, media / cartridge filters. Risk Level and LUP Type 2 and 3 projects must sample accumulated stormwater discharge. As an alternative, accumulated stormwater can be pumped to another area on the site for infiltration to eliminate the need to discharge. Non-stormwater discharges typically require a separate discharge permit. An example of a dewatering filter bag for stormwater dewatering discharges is provided below. Reference:

Non-Stormwater Management: Preventing construction related pollutants from contacting stormwater.	
Type	**Description**
	CASQA NS-2
Paving and Grinding Operations	Managing paving and grinding operations to reduce the potential for pollutant discharge. Paving and grinding operations should be implemented at every construction project that involves paving, resurfacing, of saw cutting. Avoid paving operations when rain is forecasted. Grindings, saw-cutting slurry, and waste / debris must be collected and recycled or properly disposed of; none of this should be allowed to enter the storm drain system. Do not apply seal coat, tack coat, slurry seal, or fog seal if rain is forecasted within the curing period. Reference: CASQA NS-3

3.4.6 Waste Management and Materials Pollution Control (WM)

Waste management and materials pollution control are practices that limit or reduce or prevent the contamination of stormwater by construction wastes and materials. Potential wastes include solid, sanitary, concrete, hazardous, and equipment-related. Waste management and materials pollution control is also often referred to as good housekeeping practices.

Table 12: Materials Pollution Management BMPs

Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Stockpile Management	Covering or stabilizing stockpiles and providing sediment controls around the perimeter of stockpiles. Stockpile management should occur at every required stockpile within a construction project. Require stockpiles include those of soil, sand, PCC or AC rubble, cold mix asphalt, aggregate base or sub base, and treated wood. Stockpile management is effective against stormwater and wind erosion. All stockpiles can be covered with plastic or similar material. Alternatively, soil stockpiles may be protected with an erosion control (stabilization) practice. Raw materials such as cold mix treated wood should also be placed on top of plastic. Typical sediment controls placed around the perimeter of stockpiles are fiber rolls, silt fence, and sand / gravel bags. All stockpiles should be placed at least 50 feet away from downstream storm drain facilities. Reference: CASQA WM-3, SE-1, SE-5, SE-6, SE-8

Materials Pollution Management: Handling, storing, and using construction materials with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Material Delivery, Storage, and Use	Preventing and containing pollutant discharges from materials that are delivered, stored, and used on-site. Materials of concern include: petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, and other hazardous chemicals. Material delivery, storage, and use management should occur at every location of a construction project where materials of concern are delivered, stored, or used. All material delivery and storage should occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. Minimize the quantities of materials of concern. Store materials in an enclosed area with secondary containment. Keep absorbent spill cleanup materials available; dispose of used materials properly. Train employees and subcontractors on proper spill prevention, control, and cleanup procedures. Avoid over-application of soil binders, pesticides, herbicides, and fertilizers. Reference: CASQA WM-1, WM-2, WM-4

Table 13: Waste Management BMPs

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Spill Prevention and Control	Preventing, controlling, and cleaning up spills to reduce pollutant discharges from construction activities. Spill prevention and control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, or other hazardous chemicals. Train employees and subcontractors proper spill prevention, control, and cleanup procedures. Do not bury or wash spills away with water. Keep absorbent spill cleanup materials available; dispose of used materials properly. Report significant spills (those that cannot be contained by personnel in the immediate vicinity) to a local agency, such as the Fire Department, for cleanup assistance. Additional agencies may need to be contacted in the event of a significant spill. Reference: CASQA WM-4
Solid Waste Management	Containing and disposing of debris and non-hazardous waste to prevent it from being discharged to the storm drain system. Solid waste management and materials pollution control should occur throughout every construction project for non-hazardous

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
	construction waste and scraps, trash from employees or subcontractors, and waste generated from demolition. Waste should be collected and contained in designated areas. Avoid using waste containers that do not have lids or are not watertight. Collect and dispose of loose trash and waste weekly. Reference: CASQA WM-5
Hazardous Waste Management	Containing and disposing of hazardous waste to prevent it from being discharged to the storm drain system. Hazardous waste management and materials pollution control should occur at every construction project that uses petroleum products, asphalt, concrete, paints, solvents, pesticides, herbicides, fertilizers, wood preservatives, or other hazardous chemicals. Train employees and subcontractors proper hazardous waste management and materials pollution control procedures. Store hazardous wastes in an enclosed area with secondary containment. Do not allow hazardous wastes to infiltrate at the site. Avoid overfilling hazardous waste containers. Hazardous wastes should be handled as required by Title 22. For projects that require demolition, lead-, cadmium-, or chromium-based paints, asbestos, and PCBs may exist and will require special treatment. All hazardous waste storage should occur in a designated area at least 50 feet away from downstream storm drain facilities. Hazardous wastes should be disposed of by a licensed hazardous waste transporter. Reference: CASQA WM-6
Concrete Waste Management	Containing and disposing of concrete waste to prevent it from being discharged to the storm drain system. Concrete Waste Management should occur at every construction project where concrete is poured, saw cut, grinded, or demolished. Inform all employees and subcontractors that washout from concrete trucks and concrete waste should be collected in concrete washout. Concrete washouts should be watertight and prevent any concrete waste from being able to discharge to the storm drain system. Avoid allowing concrete washout to become greater than 75% full. Concrete demolition debris may be stored by following the stockpile management BMP. Reference: CASQA WM-8, WM-3

Waste Management: Handling, storing, and disposing of construction wastes with adequate precautions and control measures to reduce or prevent the contamination of stormwater.	
Type	**Description**
Sanitary Waste Management	Containing and disposing of sanitary waste to prevent it from being discharged to the storm drain system. Sanitary Waste Management should occur at every construction project that contains portable or permanent sanitary facilities. Avoid placing portable sanitary facilities in a concentrated flow path, such as a gutter. Use secondary containment under portable sanitary facilities. Contract a licensed sanitary and septic waste hauler to maintain portable sanitary facilities. All portable sanitary facilities should be located at least 50 feet away from downstream storm drain facilities. If a spill occurs, follow federal, state, and local regulations for containment and cleanup. Reference: CASQA WM-9

3.4.7 Inspection and Maintenance Frequency Summary

	Santa Ana Region Criteria (only one need apply)			Inspection Frequency	
				Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
High	All sites 20 acres and larger	Sites over 1 acre tributary to Clean Water Act Section 303(d) waters listed for sediment or turbidity impairment.	Sites tributary to and within 500 feet of an Area of Special Biological Significance (ASBS).	Monthly	Conduct at a frequency to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-stormwater discharges are prevented.
Medium	All sites between 5 to 20 acres where none of the other above criteria apply.			Twice during wet season	
Low	All sites less than 5 acres where none of the other above criteria applies.			Once during wet season	

When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance (regardless of site prioritization).

San Diego Region Criteria (only one need apply)			Inspection Frequency	
			Wet Season (Oct. – Apr.)	**Dry Season (May – Sep.)**
All sites 30 acres or more in size with rough grading or active slopes occurring during wet season.	All sites one acre or more, and tributary to a CWA section 303(d) water body segment impaired for sediment or within or directly adjacent to, or discharging directly to, the ocean or a receiving water within an ESA.	Other sites determined by the Copermittees or the Regional Board as a significant threat to water quality.	Biweekly (Once every two weeks)	As needed during the dry season. Sites that meet any of the criteria for biweekly inspections during the wet season must be inspected at least once in August or September each year.
All sites one acre or larger where none of the above criteria apply.			Monthly	
All sites less than one acre where none of the above criteria apply.			As needed to ensure compliance with ordinances and MS4 Permit.	

Reinspection frequencies must be determined by each Copermittee based upon the severity of deficiencies, the nature of the construction activity, and the characteristics of soils and receiving water quality.

4 References

Web links to permits listed in Table 1.

- National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Order number 2009-0009-DWQ. NPDES number CAS000002.

  www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

- Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated cities of Orange County within the Santa Ana Region. Order number R8-2009-0030. NPDES number CAS618030.

  www.waterboards.ca.gov/rwqcb8/water_issues/programs/stormwater/oc_permit.shtml

- Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, The Incorporated cities of Orange County, and The Orange County Flood Control District Within the San Diego Region. Order number R9-2009-0002 NPDES number CAS0108740.

  www.waterboards.ca.gov/rwqcb9/water_issues/programs/stormwater/oc_stormwater.shtml

- Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality. Order number 2003-0003-DWQ.

  www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

- General Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites within the San Diego Creek / Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals and/or Salts. Order number R8-2007-0041. NPDES number CAG918002.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2007/07_041_gen_wdr_sandiego_crk_11302007.pdf

- Discharges of Extracted Groundwater to Surface Waters Except for San Diego Bay. Order number R9-2008-0002. NPDES number CAG919002.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2008/r9-2008-0002.pdf

- General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality. Order number R8-2009-0003. NPDES number CAG998001.

  www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_003_deminimus_permit_wdr.pdf

- General NPDES Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region. Order number R9-2010-0003. NPDES number CAG679011.

  www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2010/r9-2010-0003.pdf

5 Glossary

ASBS – Area of Special Biological Significance. The Water Quality Control Plan for Ocean Waters of California (California Ocean Plan) designates 35 Areas of Special Biological Significance, two of which lie within the Santa Ana Regional Board jurisdiction:

- Newport Beach Marine Life Refuge (HU801.110)
- Irvine Coast Marine Life Refuge (HU801.110)

BMP – Best Management Practices (BMPs) are activities, practices, procedures, or facilities implemented to avoid, prevent, or reduce pollution of the stormwater system and receiving waters.

Common Plan of Development – Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Any of these documents could delineate the boundaries of a common plan area. However, broad planning documents, such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.

Construction General Permit (CGP) – A National Pollution Discharge Elimination System (NPDES) permit (No. CAS000002) issued by the State Water Resources Control Board for the discharge of stormwater associated with construction and land disturbance activities of one acre or more (Order No. 2009-0009-DWQ).

Construction Project – any site for which building or grading permits are issued and where an activity results in the disturbance of soil such as soil movement, grading, excavation, clearing, road construction, structure construction, or structure demolition; and sites where uncovered storage of materials and wastes such as dirt, sand, or fertilizer occurs; or exterior mixing of cementaceous products such as concrete, mortar, or stucco will occur.

Demolition – an activity involving the demolishing or the destruction of a structure, facilities, or associated appurtenances.

Discharge – the release spill, leak, pump, flow, escape, leaching, dumping or disposal of any liquid, semi-solid, or solid substance.

Environmentally Sensitive Area (ESA) – includes but is not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated in the Ocean Plan as Areas of Special Biological Significance (ASBS) or by the State Water Resources Control Board (Water Quality Control Plan and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan and amendments); areas designated as preserves or equivalent under the Natural Community Conservation Planning Program; and any areas designated as Critical Aquatic Resources (CARS) or other equivalent environmentally sensitive areas which have been identified by the County or city.

Erosion – the wearing away of the ground surface as a result of the movement of wind, water, and/or ice

Erosion Control – the activity of reducing or eliminating erosion by using a combination of Best Management Practices to protect adjacent private property, watercourses, public facilities, and receiving waters from an abnormal deposition of sediment or dust.

Erosion Control Plan – A plan (including drawings, specifications, or other requirements) detailing the methods of implementing an erosion control system.

Municipal Separate Storm Sewer System (MS4) – the street gutter, channel, storm drain, catch basin, constructed drain, lined diversion structure, wash area, inlet, outlet, or other facility, which is part of or tributary to the County-wide stormwater runoff system and owned, operated, maintained, or controlled by the County / city, and used for the purpose of collecting, storing, transporting, or disposing of stormwater.

NPDES Permit – NPDES is an acronym for National Pollution Discharge Elimination System. NPDES is the national program for administering and regulating Sections 307, 318, 402 and 405 of the Clean Water Act (CWA).

Non-stormwater – any runoff or discharge not entirely composed of stormwater.

Notice of Intent (NOI) – an application submitted by the owner / operator of a project that constitutes his intent to be authorized by an NPDES permit issued for stormwater discharges associated with the construction activity indicated.

Notice of Termination – a form to discontinue coverage under an NPDES general permit for stormwater discharges associated with industrial activity and stormwater discharges associated with construction activity.

Pollutant – any liquid, solid or semi-solid substances that will interfere with or adversely affect the beneficial uses of the receiving waters, flora, or fauna of the state. A more detailed definition is included in the Water Quality Ordinance. Generally, pollutants can include such items as:

- Artificial materials
- Household wastes
- Metals and Non-metals
- Petroleum and related hydrocarbons
- Animal wastes
- Substances having a pH less than 6.5 or greater than 8.6, or unusual coloration, turbidity or odor
- Waste materials, sediment, and wastewater generated by construction sites and construction activities
- Pollutants defined by the Federal Clean Water Act
- Other constituents or materials, including but not limited to pesticides, herbicides, fertilizers, fecal coliform, fecal streptococcus or enterococcus, or eroded soils, sediment and particulate materials.

Post-Construction BMPs – Structural and non-structural controls which detain, retain, or filter the release of pollutants to receiving waters after construction is complete and final stabilization is attained.

Qualified SWPPP Developer (QSD) – Individual who is authorized per the requirements of Order No. 2009-0009-DWQ to develop and revise SWPPP's.

Qualified SWPPP Practitioner (QSP) – Individual assigned responsibility by the owner for non-stormwater and stormwater visual observations, sampling and analysis, and responsibility to ensure full compliance with the Construction General Permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

RARE – Rare, Threatened, or Endangered Species (RARE) Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Receiving Water – A river, lake, ocean, stream, or other watercourse identified in the Basin Plan into which waters may be discharged.

Regional Board – Regional Water Quality Control Boards administer water quality requirements within a watershed region. There are nine Regional Boards under the SWRCB. The SWRCB is one of five branches of the California Environmental Protection Agency The San Diego Regional Board and the Santa Ana Regional Board have jurisdiction in Orange County.

Runoff – Water originating from rainfall, melted snow, and other sources (e.g., sprinkler irrigation) that flows over the land surface to receiving waters.

Run-on – Off site stormwater surface flow which enters your site.

Scour – The erosive and digging action in a watercourse caused by flowing water.

Secondary Containment – Structures, usually dikes, berms, or large containers, surrounding tanks or other storage containers, designed to catch spilled material to prevent it from being discharged.

Sediment – Solid particulate matter, both mineral and organic that comes from the weathering of rock.

Sedimentation – The process of depositing soil particles, clays, sands, or other sediments that were picked up by runoff.

Sheet Flow – Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

Storm Drains – Above- and below-ground structures for transporting stormwater to streams or outfall for flood control purposes.

Stormwater – Urban runoff and snowmelt runoff consisting only of those discharges, which originate from precipitation events.

Stormwater Pollution Prevention Plan (SWPPP) – Document required by the General Construction Permit to be developed and implemented by construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development. The SWPPP emphasizes the use of appropriately selected, correctly installed, and maintained

pollution reduction BMPs. This approach provides the flexibility necessary to establish BMPs that can effectively address source control of pollutants during changing construction activities.

State Water Resources Control Board (SWRCB) – California agency that implements and enforces water quality and NPDES permit requirements and oversees the Regional Boards.

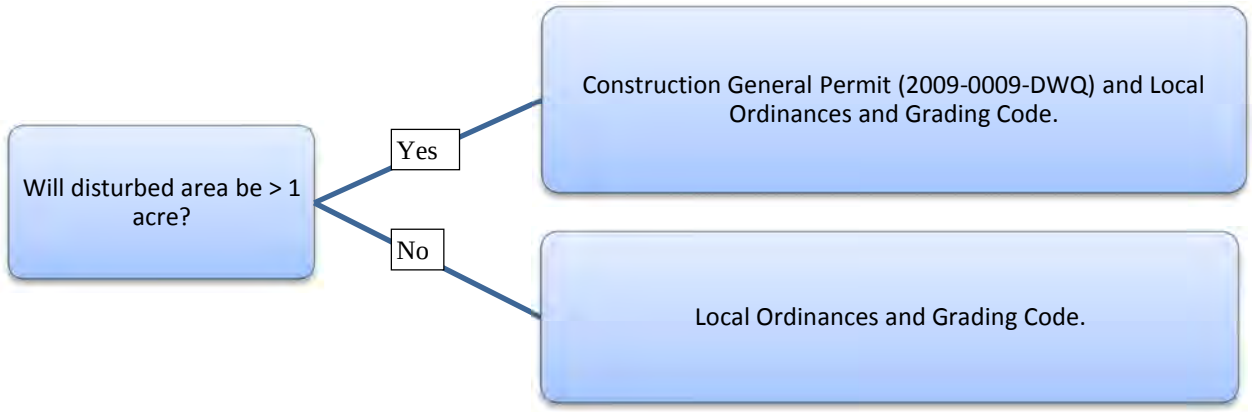
Waste Discharge Identification (WDID) Number – an identification number assigned by the State Water Resources Control Board upon receipt of a complete NOI.

Appendix A: Permit Determination Flowcharts

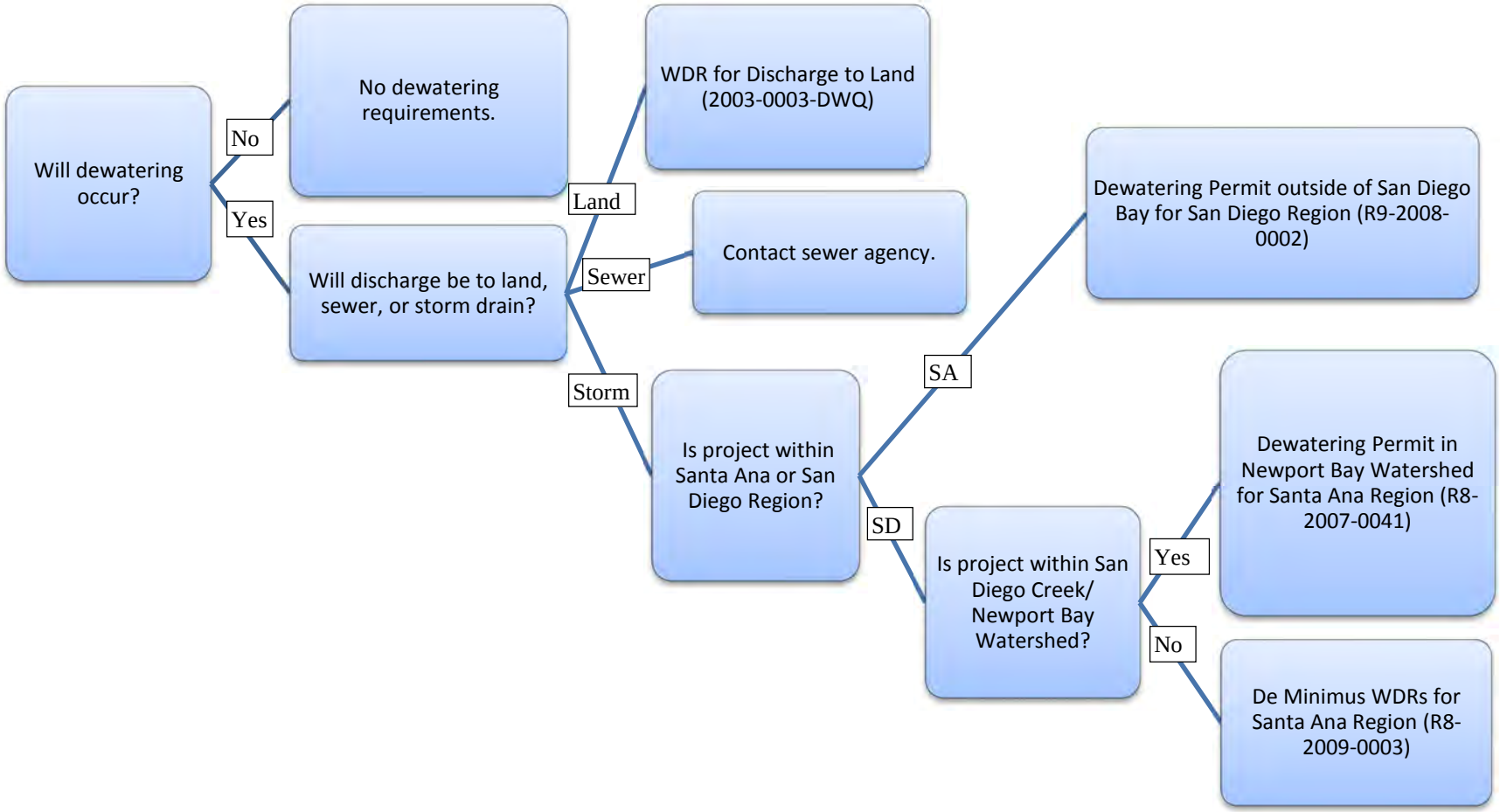
This appendix includes flowcharts for project owners or developers to quickly determine which permits are required for a particular project and a short description of each permit. For each project, follow the questions in each of the three flow charts to determine construction permitting and site management requirements. For example if a project is less than an acre, but requires dewatering, the reader should quickly understand that the CGP does not apply to them, but that they need to read more about dewatering permits.

To use this appendix, follow Steps 1-3 for each project. After following the steps, refer to Sections 2.1 and 2.2 for details on the specific permits and ordinances that may affect your project.

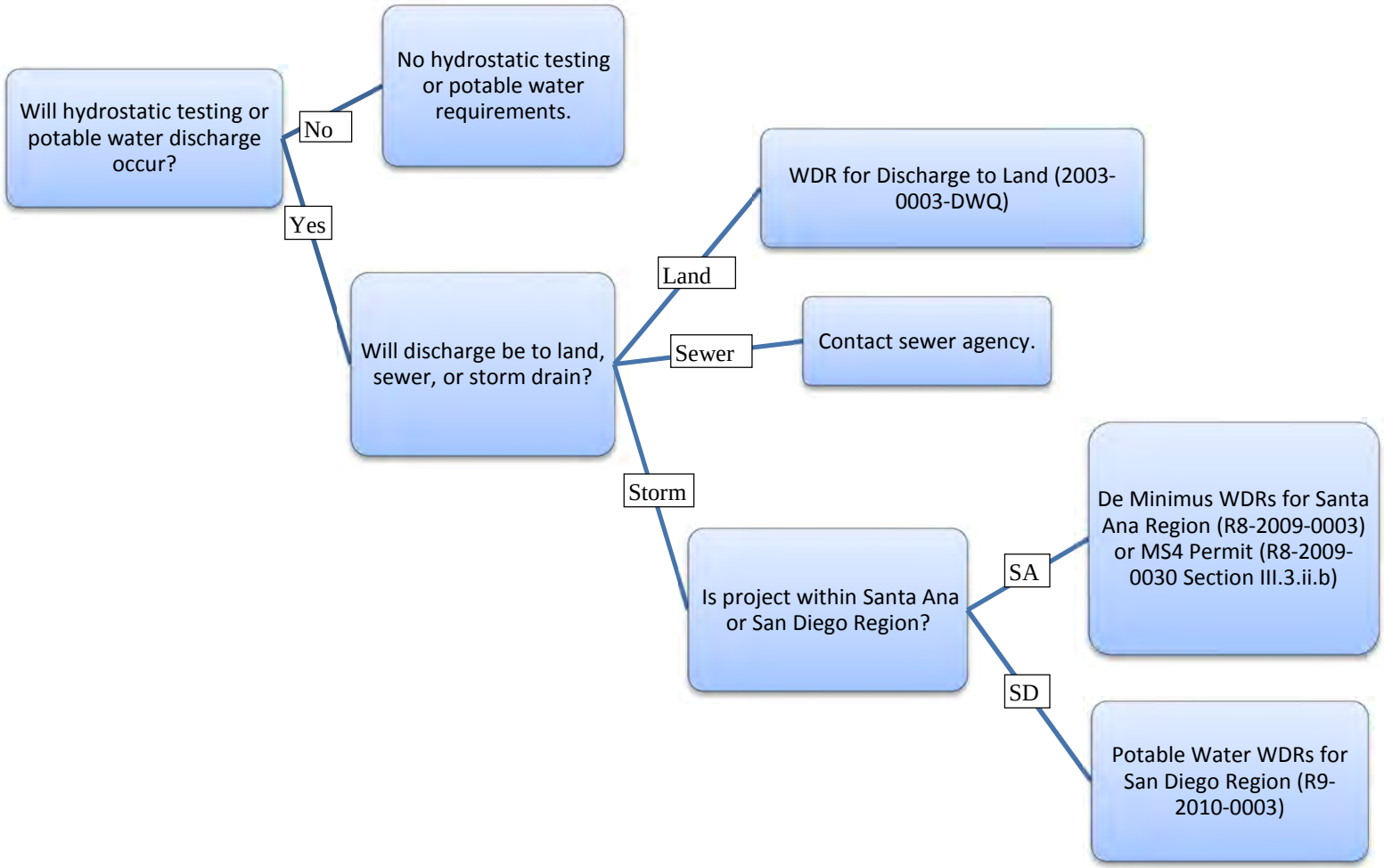
Step 1: Project Size



Step 2: Dewatering



Step 3: Hydrostatic Testing or Potable Discharge



Appendix B: Permit Descriptions

1. Construction General Permit (2009-0009-DWQ / CAS000002)

Note: This Section applies only to projects with greater than or equal to one acre of disturbed area.

In 2009, the State Water Resources Control Board (SWRCB) adopted Order No., 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002 (Construction General Permit or CGP).

The CGP requires that construction sites with one acre or greater of soil disturbance or less than one acre but part of a greater common plan of development apply for coverage for discharges under the CGP by submitting Permit Registration Documents (PRD) for coverage, developing a stormwater pollution prevention plan (SWPPP), implementing BMPs to address construction site pollutants and complying with the monitoring requirements of the CGP.

The County's and cities' construction site requirements are coordinated with, but separate from the CGP. The CGP applies regardless of whether a construction site discharges directly to receiving waters or to a municipal storm drain system. Inspections of construction sites by County / cities (for MS4 permit compliance) or by Regional Board staff (for CGP compliance) are separate and carry different enforcement actions / mechanisms.

The following briefly summarizes the process for a construction project that is subject to the CGP:

- The project owner, Legally Responsible Person (LRP), is responsible for obtaining CGP coverage. Permit coverage is obtained by preparing and certifying the Permit Registration Documents (PRDs). PRDs must be uploaded and certified by the LRP in the SWRCB Storm Water Multi Application Report Tracking System (SMARTS, https: / / smarts.waterboards.ca.gov /).
- Each project subject to the CGP requires the services of a Qualified SWPPP Developer (QSD) and a Qualified SWPPP Practitioner (QSP). These titles are defined in the CGP, Section VII.
- Each year an Annual Report must be submitted and certified in SMARTS. The reporting period is from August 1 to June 30 and Annual Reports are due on September 1.
- After construction is completed and the site fully complies with the final stabilization requirements of the CGP, the owner must terminate permit coverage through SMARTS.

2. MS4 Permit for Santa Ana Region (R8-2009-0030 / CAS618030)

In 2009, the Santa Ana Regional Board issued its fourth term MS4 permit, Order No. R8-2009-0030. This permit regulates stormwater discharge from municipal storm drain systems. The permit is issued to the County of Orange and the cities within the Santa Ana Region boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best

Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

3. MS4 Permit for San Diego Region (R9-2009-0002 / CAS0108740)

In 2009, the San Diego Regional Board issued its fourth term NPDES permit, Order No. R9-2009-0002. This permit regulates stormwater discharge from municipal storm drain systems. The permits issued to the County of Orange and the cities within the San Diego Region Boundary. The goal of the MS4 permit is to protect water quality by requiring the County and cities (collectively, the Co-Permittees) to implement a program to eliminate significant pollutant discharges from construction activities by requiring the implementation of appropriate Best Management Practices (BMPs) on all construction sites. BMPs are activities, practices, procedures, or devices implemented to avoid, prevent or reduce pollution of the municipal storm drain system and receiving waters.

4. WDRs for Discharge to Land (2003-0003-DWQ)

This permit, Order No. 2003-0003-DWQ, applies to projects that discharge to land where the discharge has a low threat to water quality. These are typically low volume discharges with minimal pollutant concentrations. The primary difference between this permit and the permits described in herein is the destination of the water. This permit regulates discharges to land, while the following two sections discuss discharges to storm drains or receiving waters. For instance, if a dewatering discharge will be piped to an infiltration basin during construction, this permit should be used.

5. De Minimus WDRs for Santa Ana Region (R8-2007-0041 / CAG918002 and R8-2009-0003 / CAG998001)

There are two permits within the Santa Ana Region that regulate dewatering discharges to a storm drain or receiving water. Order No. R8-2007-0041, NPDES No. CAG918002, regulates dewatering discharges in the San Diego Creek / Newport Bay watershed. And, Order No. R8-2009-0003, NPDES No. CAG998001, amended by R8-2012-0062, regulates dewatering discharges for the Santa Ana Region. Refer to the permit text for specific circumstances allowing projects to be covered under the region-wide permit even though it is located within the San Diego Creek / Newport Bay watershed.

Dischargers subject to the San Diego Creek / Newport Bay Permit (Order No. R8-2007-0041) formed a Working Group and funded the development of a Work Plan to develop a management plan for nitrate and selenium discharges to surface waters that result from groundwater-related inflows. If those entities that participate in the Working Group (refer to Order for enrollees list), can demonstrate that compliance with the numeric selenium effluent limitations identified in the Order is infeasible, the groundwater-related discharge is allowed provided that the Working Group implements the Work Plan in a timely manner and that the discharger fulfills its financial and participatory requirements established by the Group. For dischargers who are not participating in the Working Group and cannot comply with the numeric effluent limitations, the discharger must either not proceed with the planned discharge or must identify and participate in a program that assures that selenium discharges in excess of those allowed by the Order are offset on at least a one-to-one basis.

To obtain coverage under either of these permits, the general guidelines below should be followed:

Existing Dischargers

1. Submit an updated Notice of Intent (NOI) to continue discharging; and
2. A copy of the current Monitoring and Reporting Program along with any proposed treatment modifications.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the Nitrogen and Selenium Management Program (NSMP).

New Dischargers

At least 45 days (180 days if applying under Order No. R8-2007-0041) before the start of a new discharge, the Discharger needs to submit an application for coverage and obtain a letter of authorization from the Executive Officer for the dewatering discharge. The application needs to include:

1. A Notice of Intent (NOI) to be covered under the Order.
2. A site characterization study that identifies the presence of contaminated groundwater onsite (constituents of concern listed with the Orders), its properties, and a three-dimensional assessment of the extent of concentration of contaminants in the subsurface; which includes a description of the geologic and hydrologic factors that control the migration of the contaminants; and, if adjacent to a contaminated site, the Discharger has to evaluate the depth and flow rate of the extraction as well as the possibility of extracting the contaminated groundwater from the adjacent site.
3. A report including the following:
    a. A list of constituents and the discharge concentration of each constituent from each source (See the Order for constituent of concern); and for coverage under Order No. R8-2007-0041 only, a chemical analysis of the untreated groundwater for organic pollutants using EPA method 8260B (See the Order for specific constituent testing and reporting requirements);
    b. Estimated average and maximum daily flow rates in million gallons per day (mgd), the frequency and the expected start date and duration of the discharges;
    c. Proposed discharge location(s) and the latitude and longitude of each discharge point;
    d. A description of the proposed treatment system (if applicable);
    e. The affected receiving water and a map showing the path from the point of initial discharge to the ultimate receiving water; and
4. Any other information deemed necessary by the Regional Board Executive Officer.

It should be noted that coverage under Order No. R8-2007-0041 requires several extra steps and it is highly recommended to review those requirements within the Order. Some of those additional items are:

1. An evaluation of selenium and nitrogen concentrations and the feasibility of meeting the numeric effluent limitations specified in the Order. The conclusion of which has varying impacts on coverage as specified in the Order;
2. A fixed hardness value for sites polluted with metals needs to be submitted for approval by the Regional Executive Officer as outlined in the Order; and
3. A description of run-on, interception and diversion of runoff.

Additionally, Order No. R8-2007-0041 should be reviewed by all parties as there are different and/or additional stipulations that need to be met based on enrollment status in the NSMP.

6. Dewatering Permit Outside of San Diego Bay for San Diego Region (R9-2008-0002 / CAG919002)

This permit, Order No. R9-2008-0002, applies to discharges of extracted groundwater to receiving waters or storm drains within the San Diego Regional Board jurisdiction (South of El Toro Road). To qualify for this permit, a laboratory analysis of the groundwater must show that the water quality is within the limits set by the permit. The permit requires sampling and analysis of dewatering discharges, and reporting to the Regional Board on a periodic basis.

7. Potable Water Discharges in Santa Ana Region (R8-2009-0003 / CAG998001)

The permit identified in Section 2. 1 for de minimus discharges, Order No. 2009-0003, is also the permit that applies to discharges of potable water during construction. This may include discharges of hydrostatic test water for pipes or tanks.

8. Potable Water Discharges in San Diego Region (R9-2010-0003 / CAG679011)

This permit, Order No. R9-2010-0003, regulates discharges of hydrostatic test water and/or potable water to storm drains or receiving waters in the San Diego Region, to all receiving waters except for San Diego Bay and its tributaries. Activities covered may include discharge from testing, repair and maintenance of pipelines, tanks and vessels dedicated to drinking water purveyance.

Appendix C: Erosion Control Best Management Practices Field Evaluation – Summary

Background

The County of Orange conducted a field evaluation of five erosion control BMPs to evaluate their effectiveness in the field. A full copy of the Erosion Control Best Management Practices Field Evaluation (Study) may be found on the OC Watersheds website (http: / / www.ocwatersheds.com / documents / OCErosionControl_FINALReportJan07II.pdf), and a brief summary of the Study is provided here. The Study included development of a study plan, selection of an appropriate test site with soils and slopes commonly found in Orange County, selection of erosion controls for evaluation, study implementation, monitoring and maintenance of the test plots.

BMPs Selected

Four erosion control BMPs were selected for the Study:

- UltraTack- UltraTack is a low molecular weight polyacrylamide product. UltraTack is a spray on binder or tackifier, and is nontoxic to plant and animal life. UltraTack must be applied 24 hours prior to a storm event, and must be reapplied as needed, but generally every three months at a minimum.
- EarthGuard – EarthGuard is a high molecular weight polyacrylamide product. Earth Guard is a spray on binder and is nontoxic to plant and animal life. It is effective immediately, even when applied during a rain event, and may provide erosion control for up to three months.
- EarthGuard Fiber Matrix (recycled paper mulch and wood fiber mulch) – This BMP combines Earth Guard and fiber to form a matrix that provides erosion control for a full rainy season. The binder plus fiber harden after application to form a crust that protects soil from raindrop impact. Two types of EarthGuard fiber mulch were used; one consisting of 100% recycled paper mulch, and the other wood fiber mulch.
- Landscaping Mulch – The wood mulch tested for this study was a typical landscaping mulch made of shredded wood mulch and bark. Wood mulch helps reduce soil erosion by protecting bare soil from rainfall impact, increasing infiltration and reducing runoff.

Test Plots

A total of fifteen test plots were used in the Study, three for each of the BMPs selected. Each BMP was tested on a slope of 2% (flat slope), 5% (mild slope) and 50%. Each test plot was approximately 25 feet by 100 feet, with flow in the long direction.

Test Period

Each of the test plots was observed over the course of the 2004-2005 wet season. Observations of the performance of each type of control were made before and after forecast events, as well as once per month. The condition of each test plot and the location and mechanism of any failures were documented, along with evidence of erosion and unraveling of erosion control materials.

Findings

The 2004-2005 water year was one of the wettest on record, with the Study site receiving over twice the normal amount of precipitation for the area. The relative performance of the selected erosion controls was evaluated qualitatively using the results of the visual monitoring. BMPs were considered to have "failed" when rilling or similar evidence of erosion became visually apparent. In general, the hydro mulches outperformed the binders; whereas landscape mulch performed best on all slopes. The binders and hydro mulches did not hinder growth of volunteer vegetation. Although seed mix was not added to the controls, new vegetation was observed on all test plots except for the landscape mulch.

Recommendations

The Study provides erosion control recommendations based on the findings of the Study (see **Table C-1**). These recommendations are based on appropriate slope, application rate, duration of effectiveness, application methods, inspection requirements and costs

Table C-1: Recommendations from the Erosion Control Best Management Practices Field Evaluation

EC Control	Amount Rain / Duration[1]		Appropriate Site Applications	Application Methods	Inspection Requirements	Costs
	Flat Area (< 5%)	Slope Area (> 5%)				
PAM (low weight)	1"; 1 storm	Not recommended	Temporary, single storm event; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
PAM (high weight)	< 2"; 2+storm	1"; 2+ storm	Temporary, two storm events; cohesive soils; slope length<500 feet	Dissolve in water, 20 lbs. per 2000 gallons, per acre	After each rain event	$1.30 – $5.50 / lb (material cost only)
Wood Hydro-mulch[2]	<12"; 1 season	<12"; 1 season	Steep slopes, steeper than 3:1; high erosion potential slopes; slopes where anchored mulch is needed; disturbed areas where plants slow to develop; stockpiles; slopes adjacent to ESAs	3,000 lb / acre to 4,000 lb / acre based on the manufacturer's recommendation, 12-24 hours to dry and become effective	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season (nrs)	$6,000 per acre
Landscape Mulch[3]	< 12"; 1 season	< 12"; 1 season	Flat areas, steep slopes, cohesive soils	Distribute by hand or use pneumatic methods, 2-3- inch depth (thickness) per CASQA guidance	Prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the nrs	$4,000 per acre

[1] When used per manufacturer recommendations.

[2] When used with a high-weight binder. Hydro mulch consisting only of paper fiber is not recommended. Wood hydro mulch may not contain more than 25% paper fiber.

[3] Tested at about 5-inch depth (thickness).

APPENDIX G
AS-BUILTS/RECORD DRAWINGS

BREA BLVD. STREET IMPROVEMENTS
CIP PROJECT NO. 7299

CITY OF BREA, CALIFORNIA

ADDENDUM NUMBER 01
May 18, 2023

Notice to All Bidders:

RFI QUESTIONS

1. *Please clarify if the bids includes any new traffic loops requirements*
   Response: See item 2. Under Project Specifications

Please note the following changes/revisions have been made to the subject Bid Documents:

PROJECT SPECIFICATIONS:

1. **LOCATION:** Special Provisions Section 7 – Responsibility of the Contractor, 7-5 Permits
   REPLACE: 2nd Paragraph
   WITH:
   The Contractor will be required to obtain an Encroachment Permit from the City of Fullerton and Caltrans, District 12, if required for all work and/or traffic control required in the Fullerton or SR 90 Caltrans public right-or-way. All costs associated with obtaining the required Encroachment Permits from each entity shall be considered included in the various contract bid items of work and no additional compensation will be allowed, therefore.

2. **LOCATION:** Special Provisions Section 9 – Measurement and Payment
   REPLACE: BID ITEM No. 8 – Mill Existing AC Pavement (2" Depth)
   WITH:

   Bid Item No. 8 – Mill Existing AC Pavement (2" Depth)
   Payment for **Mill Existing Pavement (2" Deep)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for milling, removal and disposal of asphalt concrete material and all other work necessary to complete the work. Additionally, if the milling operations require removal and replacement of signal loops, the signal loops shall be removed, replaced, and reconnected pursuant to the State Standard Specification requirements and included in the per SF cost for milling existing pavement. No additional compensation will be allowed.

PROJECT PLANS:

None

CITY OF BREA
PUBLIC WORKS DEPARTMENT

for Ryan Chapman, PE

Ryan Chapman, PE, Assistant City Engineer

Cc: Lillian Harris-Neal, City Clerk
Michael S. Ho, P.E., Public Works Director/City Engineer

Attachments: None

This is to acknowledge receipt and review of Addendum No. 1, dated May 18, 2023. It is understood that this document shall be incorporated in the Contractor's bid. Please note: The bidding Contractor shall signify receipt of this Addendum No. 1 in the Contractor's Proposal, Page C-2.

BREA BLVD. STREET IMPROVEMENTS
CIP PROJECT NO. 7299

CITY OF BREA, CALIFORNIA

ADDENDUM NUMBER 01
May 18, 2023

Notice to All Bidders:

RFI QUESTIONS

1. *Please clarify if the bids includes any new traffic loops requirements*
   Response: See item 2. Under Project Specifications

Please note the following changes/revisions have been made to the subject Bid Documents:

PROJECT SPECIFICATIONS:

1. **LOCATION:** Special Provisions Section 7 – Responsibility of the Contractor, 7-5 Permits
   REPLACE: 2nd Paragraph
   WITH:
   The Contractor will be required to obtain an Encroachment Permit from the City of Fullerton and Caltrans, District 12, if required for all work and/or traffic control required in the Fullerton or SR 90 Caltrans public right-or-way. All costs associated with obtaining the required Encroachment Permits from each entity shall be considered included in the various contract bid items of work and no additional compensation will be allowed, therefore.

2. **LOCATION:** Special Provisions Section 9 – Measurement and Payment
   REPLACE: BID ITEM No. 8 – Mill Existing AC Pavement (2" Depth)
   WITH:

   Bid Item No. 8 – Mill Existing AC Pavement (2" Depth)
   Payment for **Mill Existing Pavement (2" Deep)** shall be made at the Contract unit price bid per **Square Foot (SF)**, as shown in the Bid Schedule, as shown on the Plans and in accordance with these Specifications, and shall include all labor, tools, equipment, materials and incidentals required for milling, removal and disposal of asphalt concrete material and all other work necessary to complete the work. Additionally, if the milling operations require removal and replacement of signal loops, the signal loops shall be removed, replaced, and reconnected pursuant to the State Standard Specification requirements and included in the per SF cost for milling existing pavement. No additional compensation will be allowed.

PROJECT PLANS:

None

CITY OF BREA
PUBLIC WORKS DEPARTMENT

Steve Kooyman, CM Digitally signed by Steve Kooyman, CM
DN: C=US, E=skooyman@interwestgrp.com, O=Interwest Group, OU=PW, CN="Steve Kooyman, CM"
Reason: I have reviewed this document
Date: 2023.05.18 17:16:18-07'00'

for Ryan Chapman, PE

Ryan Chapman, PE, Assistant City Engineer

Cc: Lillian Harris-Neal, City Clerk
Michael S. Ho, P.E., Public Works Director/City Engineer

Attachments: None

This is to acknowledge receipt and review of Addendum No. 1, dated May 18, 2023. It is understood that this document shall be incorporated in the Contractor's bid. Please note: The bidding Contractor shall signify receipt of this Addendum No. 1 in the Contractor's Proposal, Page C-2.

BIDDER: R.J. NOBLE COMPANY

SECTION C

PROPOSAL

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

in the

CITY OF BREA

TO THE HONORABLE MAYOR AND MEMBERS OF THE COUNCIL OF BREA:

In compliance with the Notice Inviting Sealed Bids, the undersigned hereby proposes and agrees to perform all the work therein described, and to furnish all labor, material, equipment and incident insurance necessary therefor, in accordance with the plans and specifications on file in the office of the City Engineer of the City of Brea. The undersigned agrees to perform the work therein to the satisfaction of and under the supervision of the City Engineer of the City of Brea, and to enter into a contract at the following prices. The undersigned agrees to complete the work within **40 Working Days**, starting from the date of the Notice to Proceed.

BIDDER declares that this proposal is based upon careful examination of the work site, plans, specifications, Instructions to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guaranty accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, fees, etc., and will be guaranteed for a period of sixty days from the bid opening date. If at such time the contract is not awarded, the AGENCY will reject all bids and will re-advertise the project. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10 working days after the date of the AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

10% BID BOND

Accompanying this proposal of bid, find ____ in the amount of $_____which said amount is not less than 10% of the aggregate of the total bid price, as required by the Notice Inviting Sealed Bids, payable to the AGENCY. (Please insert the words "Cash", "Certified Check", or "Bidder's Bond", as the case may be).

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

Addenda No.	*Date Received*	*Bidder's Signature*
#1	05/18/2023	x
		JACOB BREEDLOVE, SECRETARY

BREA BOULEVARD STREET IMPROVEMENTS
FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90)
CIP PROJECT NO. 7299

PROJECT BID SCHEDULE

NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Mobilization and Demobilization (Max 5%)	LS	1		$ 35,000.00
2	Remove Existing Curb	LF	39	$ 22.00	$ 858.00
3	Remove Existing Access Ramp	SF	1,555	$ 7.50	$ 11,662.50
4	Remove Existing Sidewalk	SF	3,552	$ 4.50	$ 15,984.00
5	Remove Existing Concrete Pavement	SF	108	$ 10.00	$1,080.00
6	Remove Existing Roadway Structural Section (12" Deep)	SF	4,995	$ 8.25	$ 41,208.75
7	Remove Detectable Warning Device	EA	1	$ 300.00	$ 300.00
8	Mill Existing Pavement (2" Depth)	SF	29,460	$0.60	$17,676.00
9	Edge Mill Existing Pavement (Variable Depth)	SF	23,732	$0.60	$14,239.20
10	Header Cut Existing AC Pavement (Variable Depth)	SF	15,801	$0.60	$9,480.60
11	Furnish and Place Type 2 Slurry Seal	SF	248,816	$ 0.40	$ 99,526.40
12	Construct Variable Height Curb	LF	51	$ 75.00	$ 3,825.00
13	Construct 4" PCC Sidewalk	SF	3,143	$ 11.00	$ 34,573.00
14	Construct Access Ramp including Slot Paving and Detectable Warning Device	EA	12	$ 6,000.00	$ 72,000.00
15	Furnish and Install Surface Applied Black Detectable Warning Device	EA	2	$ 1,600.00	$ 3,200.00
16	Furnish and Place AC Pavement	TON	1,142	$155.00	$177,010.00
17	Furnish and Place 8" PCC over CMB Cross Gutter Replacement Section	SF	108	$ 27.00	$ 2,916.00
18	Adjust Pull Box to Grade	EA	10	$ 800.00	$ 8,000.00
19	Adjust Valve to grade	EA	42	$ 1,200.00	$ 50,400.00
20	Adjust Manhole to Grade	EA	8	$ 1,200.00	$9,600.00
21	Adjust Manhole to Grade with New Ring & Cover	EA	3	$ 1,700.00	$ 5,100.00
22	Relocate Street Name Sign	EA	1	$ 500.00	$ 500.00
23	Pavement Striping	LS	1		$ 22,000.00

NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
24	Traffic Control and Construction Phasing	LS	1		$100,000.00
25	NPDES/BMP's	LS	1		$ 5,000.00
26	Construction Surveying & Monument Preservation	LS	1		$ 17,500.00
Total: Bid in Figures:				$ 758,639.45	

Total: Bid in Words:

Seven hundred fifty eight thousand six hundred thirty nine dollars and forty five cents

1. **Bidder declares that (I)(we)(it) has read and understand the Scope of Work as defined in Item 1 of Section A - Notice Inviting Sealed Bids and Item 1 and Item 12 of Section B -Instructions to Bidders_____ (Bidders Initials)**

LIST OF SUBCONTRACTORS

In accordance with Government Code Section 4104, the Bidder shall set forth the name, business address, license number, class and Department of Industrial Relations (DIR) registration number of each subcontractor who will perform work or render service to the bidder on said contract in an amount in excess of one-half of one percent of the total bid and the portion of the work to be done by such subcontractor.

Bid Item (s) Number	***% Portion of Work***	***Name, Address and E-mail of Subcontractor***	***State License Number***	***Class***	***DIR Registration Number***
26	100%	CASE LAND SURVEYING, 614 N. ECKHOFF STREET, ORANGE, CA 92868 clsi@caselandsurveying.com	LS 5411	LS	1000001533
2-5, 7, 12-15, 17	100%	NOBEST INC. mikey@nobest.net 7600 ACACIA AVE., GARDEN GROVE, CA 92841	3596622	A	1000011529
11	100%	MISSION PAVING mike@missionpaving.com 12747 SCHABARUM AVE., IRWINDALE, CA 91706	624257	C8,C12 C27, A	1000002697
23 22	100%	BC Traffic, 13261 garden grove blvd, garden grove 92843, alexm@bctraffic.com	877686	A	1000407561

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.

2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

NON-COLLUSION DECLARATION
TO BE SUBMITTED WITH PROPOSAL

I, JACOB BREEDLOVE, am the
(Print Name)
SECRETARY of R.J. NOBLE COMPANY,
(Position/Title) (Name of Company)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; 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; that the BIDDER has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding; 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; that all statements contained in the bid are true; and, the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the Laws of the State of California that the foregoing is true and correct and that this declaration is executed on this 23RD day of MAY, 20 23.

R.J. NOBLE COMPANY
Name of Bidder

X
Signature of Bidder JACOB BREEDLOVE, SECRETARY

15505 E. LINCOLN AVENUE
ORANGE, CA 92865
Address of Bidder

CALIFORNIA ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of ORANGE

On 05/23/2023 (Date) before me, J. DEIONGH, NOTARY PUBLIC (Here Insert Name and Title of the Officer),
personally appeared JACOB BREEDLOVE (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

J. DEIONGH
Notary Public - California
Orange County
Commission # 2307441
My Comm. Expires Oct 28, 2023

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal and/or Stamp Above

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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BIDDER'S STATEMENT REGARDING "ANTI-KICKBACK" REQUIREMENTS

The undersigned is submitting this proposal for performing by contract the work required by these bid documents, agrees to comply with the Copeland "Anti-Kickback" Act (18 USC 74) as supplemented in the Department of Labor regulations (29 CFR, Part 3). This act provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction or repair of public work, to give up any part of the compensation to which he/she is otherwise entitled.

Signed X _____

Title JACOB BREEDLOVE, SECRETARY

Firm R.J. NOBLE COMPANY

Date 05/23/2023

UTILITY AGREEMENT

HONORABLE MAYOR AND CITY COUNCIL
CITY OF BREA, CALIFORNIA

Gentlemen:

The undersigned hereby promises and agrees that in the performance of the work specified in the contract, known as the **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90) CIP PROJECT NO. 7299**, (I)(we)(it) will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to any electrical secondary or transmission facilities. The term "Qualified Person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

"**Qualified Person:** *A person who, by reason of experience or instruction, is familiar with the operation to be performed and the hazards involved."*

The undersigned also promised and agrees that all such work shall be performed in accordance with all applicable electrical utility company's requirements, Public Utility Commission orders, and State of California Cal-OSHA requirements.

The undersigned further promises and agrees that the provisions herein shall be and are binding upon any subcontractor or subcontractors that may be retained or employed by the undersigned, and that the undersigned shall take steps as are necessary to assure compliance by any said subcontractor or subcontractors with the requirements contained herein.

R.J. NOBLE COMPANY
Contractor

X
By

JACOB BREEDLOVE, SECRETARY
Title

Date: 05/23/2023

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 space provided.

N/A

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

COMPENSATION INSURANCE CERTIFICATE

Pursuant to Section 1861 of the State Labor Code, each contractor to whom a public works contract has been awarded shall sign the following certificate.

> I am aware of 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, and I will comply with such provisions before commencing the performance of the work of this contract.

R.J. NOBLE COMPANY

Contractor

X

By

JACOB BREEDLOVE, SECRETARY

Title

Date: 05/23/2023

BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct:

R.J. NOBLE COMPANY
Bidder Name

15505 E. LINCOLN AVE
Business Address

ORANGE, CA 92865
City, State Zip

(714) 637-1550
Telephone Number

jacobbreedlove@rjnoblecompany.com
Email Address

782908 CLASS A & C12
State Contractor's License No. and Class

1000004235
DIR Registration Number

08/2000
Original Date Issued (State Contractor's License)

08/31/2024
Expiration Date

The work site was inspected by BRADEN PORTER of our office on 05/16, 2023.

The following are persons, firms, and corporations having a principal interest in this proposal:

R.J. NOBLE COMPANY A CALIFORNIA CORPORATION

AUSTIN M. CARVER, PRESIDENT

STEVEN L. MENDOZA, VICE PRESIDENT

JAMES N. DUCOTE, C.F.O.

KASONDRA C. GONZALEZ, VICE PRESIDENT

JACOB BREEDLOVE, SECRETARY

The undersigned is prepared to satisfy the Council of the City of Brea of its ability, financially or otherwise, to perform the contract for the proposed work and improvements in accordance with the plans and specifications set forth.

R.J. NOBLE COMPANY

Company Name

x

Signature of Bidder

JACOB BREEDLOVE, SECRETARY

Printed or Typed Signature

Subscribed and sworn to before me this 23RD day of MAY, 2023.

J. DEIONGH
Notary Public - California
Orange County
Commission # 2307441
My Comm. Expires Oct 28, 2023

NOTARY PUBLIC x

J. DEIONGH

NOTARY SEAL

Listed below are the names, address and telephone numbers for **three** public agencies for which the bidder has performed similar work within the past **three** years:

1. CITY OF PLACENTIA, 401 E. CHAPMAN AVE., PLACENTIA, CA 92870

Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: MASOUD SEPAHI, 714-993-8245

$3,112,796.95	ROADWAY REHABILITATION	FEB 2022
Contract Amount	Type of Work	Date Completed

2. CITY OF IRVINE, 1 CIVIC CENTER PLAZA, IRVINE, CA 92623

Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: BRAIN D. BROWN 949-724-6474

$6,021,022.00	STREET REHABILITATION & SLURRY SEAL	JAN 2022
Contract Amount	Type of Work	Date Completed

3. CITY OF HUNTINGTON BEACH, 2000 MAIN STREET, HUNTINGTON BEACH, CA 92648

Name and Address of Public Agency

Name and Telephone No. of Public Agency Project Manager: JOSEPH FUENTES 714-536-5431

$2,658,630.00	RESIDENTIAL OVERLAY	SEPT 2022
Contract Amount	Type of Work	Date Completed

Responsible Bidder – Supplemental Questionnaire

1. How many years has your organization been in business in California as a contractor under your present business name and license number?

   73 YEARS Years

2. Is your firm currently the debtor in a bankruptcy case?

   ☐ Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

N/A		
Case Number	Bankruptcy Court	Date Filed

3. Was your firm in bankruptcy any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 2, above.)

   ☐ Yes ☒ No

If " yes," indicate the case number, bankruptcy court, and the date on which the petition was filed.

N/A		
Case Number	Bankruptcy Court	Date Filed

4. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

   ☐ Yes ☒ No

5. At any time in the last five years, has your firm been assessed and paid liquidated damages after completion of a project, under a construction contract with either a public or private owner?

   ☐ Yes ☒ No

6. Has your firm ever defaulted on a construction contract?

   ☐ Yes ☒ No

If "yes," explain on a separate page.

N/A

7. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

☐ Yes ☒ No

If "yes," explain on a separate page. State the name of the organization debarred, the year of the event, the owner of the project, and the basis for the action.

8. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

☐ Yes ☒ No

If "yes," on a separate page identify the year of the event, the entity denied the award, the owner, the project, and the basis for the finding by the public agency.

9. In the past five years, has any claim against your firm concerning your firm's work on a construction project, been filed in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim(s) by providing the project name, date of the claim, name of the claimant, the name of the entity the claim was filed against, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

10. In the past five years, has your firm made any claim against a project owner concerning work on a project or payment for a contract, and filed that claim in court or arbitration?

☐ Yes ☒ No

If "yes," on a separate page identify the claim be providing the name of claimant, the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court and case number, and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution.

11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?

☐ Yes ☒ No

12. In the last five years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

☐ Yes ☒ No

13. Has your firm, or any of its owners, officers, or partners ever been liable in a civil suit, or found guilty in a criminal action, for making any false claim or material misrepresentation to any public agency or entity?

☐ Yes ☒ No

14. Has your firm, or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

☐ Yes ☒ No

If "yes," explain on a separate page, including identifying who was convicted, the name of the victim, the date of the conviction, the court and case number, the crimes, and the grounds for the conviction.

15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

☐ Yes ☒ No

If "yes," identify on a separate page, the person or persons convicted, the court and case number, the crimes, and the year convicted.

16. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.

LESS THAN 1 %

17. During the last five years, has your firm ever been denied bond credit by a surety company, or has there ever been a period of time when your firm has no surety bond in place during a public construction project when on was required?

☐ Yes ☒ No

18. Has CAL OSHA cited and assessed penalties against the General Contractor or its associates for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

(Note: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.)

☐ Yes ☒ No

If "yes," on separate page describe the citations, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any OSHAB decision.

19. Has the Federal Occupational Safety and Health Administration cited and assessed penalties against the General Contractor or its associates in the past five years?

(Note: If an appeal of the citation has been filed and the Appeals Board has not yet ruled, or there is a court appeal pending, you need not include information about the citation.)

☐ Yes ☒ No

If "yes," on separate page describe the citation, the party against whom the citation was made, date of citation, nature of the violation, project on which the citation was issued, owner of project, and the amount of penalty paid, if any. State the case number and date of any decision.

20. Has there been more than one occasion during the last five years in which the General Contractor or its associates was required to pay either back wages or penalties for failure to comply with the **state's** prevailing wage laws?

☐ Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

21. During the last five years, has there been more than one occasion in which the General Contractor or its associates have been penalized or required to pay back wages for failure to comply with the Federal Davis-Bacon prevailing wage requirements?

☐ Yes ☒ No

If "yes," on separate page, describe the violator, nature of each violation, name of the project, date of its completion, the public agency for which it was constructed, the number of employees who were initially underpaid an the amount of back wages and penalties that were assessed.

Inaccurate response to this questionnaire could result in bidder's proposal being non-responsive.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE

R.J. NOBLE COMPANY as PRINCIPAL, and

Western Surety Company

as SURETY, are held and firmly bound unto the CITY OF BREA, CALIFORNIA, hereinafter referred to as the "City", in the penal sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to said City, for the work described below, for payment of which sum in lawful money of the United States of America, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety hereunder exceed the sum of $ ten percent of the amount bid . THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas, said Principal has submitted the same mentioned bid to said City, for construction of the work under the City's specification entitled " Project #7299 Brea Blvd. Street Improvements from W. Juniper Street to Imperial Highway

"For which bids are to be opened in the Council Chambers of the City Hall of said City at 2:00 PM on May 23, 2023.

NOW, THEREFORE, if said Principal is awarded the contract, and within the time and manner required under the heading "Instructions to Bidders", after the prescribed forms are presented to him for signature, enters into a written contract, in the form of agreement bound herein, in accordance with the bid, and files the two bonds with said City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect until released by the City.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, said Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 3rd day of May, 2023.

R.J. NOBLE COMPANY
Principal

By: X
JACOB BREEDLOVE, SECRETARY

Western Surety Company
Surety

James Scott Salandi, Attorney-in-fact

CALIFORNIA ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of ORANGE

On 05/04/2023 (Date) before me, J. DEIONGH, NOTARY PUBLIC (Here Insert Name and Title of the Officer),
personally appeared JACOB BREEDLOVE (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

J. DEIONGH
Notary Public - California
Orange County
Commission # 2307441
My Comm. Expires Oct 28, 2023

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal and/or Stamp Above

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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BID BOND
ACKNOWLEDGMENT OF SURETY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT

State of California)
County of _____)
)

On _____ before me, ____
_____
(insert name and title of the officer)

personally appeared _____
_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____(Seal)
Signature of Notary Public

ALL- PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of San Bernardino }

On May 3, 2023 before me, Tina Downey, Notary Public,
(Here insert name and title of the officer)

personally appeared James Scott Salandi,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public Signature (Notary Public Seal)

TINA DOWNEY
Notary Public - California
San Bernardino County
Commission # 2383319
My Comm. Expires Nov 21, 2025

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date_____

CAPACITY CLAIMED BY THE SIGNER

- ☐ Individual (s)
- ☐ Corporate Officer
  (Title)
- ☐ Partner(s)
- ☑ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknolwedgents from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they,~~ is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

James Scott Salandi, Leonard Ziminsky, David Jacobson, Individually

of Irvine, CA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 24th day of June, 2021.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota
County of Minnehaha } ss

On this 24th day of June, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026

M. BENT
NOTARY PUBLIC
SOUTH DAKOTA

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 3rd day of May, 2023

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

SECTION D

CONSTRUCTION AGREEMENT

BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90), CIP PROJECT NO. 7299

This Construction Agreement ("Agreement") is dated _____, 20__ for reference purposes and is executed by the City of Brea, a California municipal corporation, and R.J. Noble Company a CA Corporation ("Contractor"). Contractor's CSLB license number is 782908 A &C12. Contractor's DIR registration number is 1000004235.

R E C I T A L S

A. City duly solicited, received, publicly opened, and declared bids for the following public works project: **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90), CIP PROJECT NO. 7299** ("Project").

B. City selected Contractor as the lowest responsive and responsible bidder for the Project.

C. The parties are executing this Agreement to provide for Contractor's furnishing of labor, equipment, and material for the construction of the Project.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Contractor hereby agree as follows:

1. <u>GENERAL SCOPE OF WORK</u>: Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment and shall do the work for the construction of the **BREA BOULEVARD STREET IMPROVEMENTS FROM W. JUNIPER STREET TO IMPERIAL HIGHWAY (SR90), CIP PROJECT NO. 7299** ("Project"). Such work shall be performed in accordance with contract documents for this Project on file in the office of the City Engineer and in accordance with bid prices, plans, and specifications more fully described in Section 4, below, and in accordance with the instructions of the Public Works Director (collectively, "Work"). Contractor shall at all times comply with applicable laws and City policies.

2. <u>CONTRACT PRICE AND PAYMENT</u>:

A. As total and complete compensation for satisfactorily completing the Work, City shall pay to Contractor the prices set forth in Contractor's bid amount of **$ <u>758,639.45</u>.** Progress payments shall be made for each portion of the Work satisfactorily completed. Notwithstanding the foregoing, City shall be authorized to withhold a retention from payments in the maximum amount permitted by law.

B. At the written request and expense of Contractor, securities equivalent to any moneys withheld by City to ensure performance of this Agreement shall be deposited with City, or with a state or federally chartered bank in the State of California as the escrow agent, that shall then pay those moneys to Contractor. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor. Alternatively, Contractor may request that City make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the

expense of Contractor, Contractor may direct the investment of the payments into securities, and Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor.

C. Upon satisfactory completion of this Agreement, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from City pursuant to the terms of this Section. Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security to which the parties agree in writing. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

D. If Contractor elects to receive interest on moneys withheld in retention by City, then Contractor shall, at the request of any subcontractor performing more than five percent of Contractor's total bid amount, make that option available to the subcontractor regarding any moneys withheld in retention by Contractor from the subcontractor. Further mandatory details are provided in Public Contract Code Section 22300(d).

E. The escrow agreement for security deposits in lieu of retention shall be substantially similar to the form provided in Public Contract Code Section 22300(f).

3. <u>CUSTOMER CARE</u>: Contractor, while fulfilling the terms of this Agreement, shall provide exceptional customer care. Any negative contact with City staff, residents, businesses, visitors, or other contractors shall be reported by Contractor immediately to City. Contractor's management and supervisory personnel shall intercede to resolve or mitigate the negative contact in conjunction with City staff. The parties may agree in advance to a single person contact, a representative of either City or Contractor, for the investigation and response to complaints.

4. <u>INCORPORATED DOCUMENTS</u>: The plans and specifications referenced in Section 1, above, the Notice Inviting Sealed Bids attached hereto, the Instructions to Bidders (including attachments), and, unless omitted from such Notice, the 2015 edition of "Standard Specifications for Public Works Construction" ("Standard Specifications"), as amended by the Contract Documents, all of which are incorporated by reference herein, and this written agreement (collectively, "Contract Documents"), shall constitute the entire agreement between the parties. This Agreement is intended to require a complete and finished piece of work, and Contractor shall perform all work necessary to properly complete the Work and the Project in accordance with applicable laws, whether set out specifically in the Contract Documents or not. Should it be ascertained that any inconsistency exists between any of the Contract Documents, the provisions of this Agreement shall control.

5. COMPLETION DATE / LIQUIDATED DAMAGES:

A. Contractor shall complete the Project within **40** working days from the date of the Notice to Proceed ("Completion Date").

B. Liquidated damages will be assessed in the amount of **$1,500.00 for each calendar day** in excess of the contract time for the Project beyond the Project Completion Date. City may deduct liquidated damages from any monies due or that may become due Contractor. Progress payments made after the completion date shall not constitute a waiver of liquidated damages.

6. TERMINATION:

A. City may terminate this Agreement for convenience without penalty at any time upon 30 days' written notice to Contractor. In such event, City shall pay Contractor for all services satisfactorily rendered prior to date of termination, which in any case shall not exceed the total contract price, and such payment shall be in full satisfaction of all services rendered.

B. If Contractor breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause.

7. INSURANCE:

A. Contractor shall not commence work until it has obtained all insurance required hereunder from a company or companies acceptable to City, nor shall Contractor allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Contractor shall take maintain the following policies of insurance:

i. Compensation insurance: Before beginning work, Contractor shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Contractor may employ directly or through subcontractors in carrying out the Work, in accordance with the laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this Agreement. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents. In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Contractor, prior to commencing work, shall sign and file with City a certification as follows:

> "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract."

ii. For all operations of Contractor or any subcontractor in performing the Work, insurance with the following minimum limits and coverage:

a. Commercial General Liability (occurrence) - for bodily injury, death, and property damage products/completed operations and all other activities undertaken by Contractor in the performance of this Agreement.

b. Comprehensive Automobile Liability (occurrence) - for bodily injury, death, and property damage, insuring against all liability arising out of the use of any vehicle.

c. Owner's and Contractor's Protective (occurrence) - for bodily injury, death, and property damage arising out of any activities undertaken by Contractor in the performance of this Agreement.

d. Other required insurance, endorsement, or exclusions, as required by the Contract Documents.

B. The policies of insurance required in paragraph (A)(ii) above shall have no less than the following limits of coverage:

i. $2,000,000 for bodily injury or death;

ii. $2,000,000 for property damage; and

iii. The total of the limits specified in subsections (i) and (ii) above, where a combined single limit is provided.

C. Each such policy of insurance required in paragraph (A)(ii) above shall:

i. Be subject to no deductible amount unless otherwise provided, or approved in writing by City.

ii. Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A/VII or better according to the most recent A.M. Best Co. Rating Guide.

iii. Name as additional insureds City, its elected officials, officers, employees, attorneys, and agents, and any other parties including subcontractors, specified by City to be included.

iv. Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under such policy.

v. Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

vi. Contain a clause substantially in the following words:

"It is hereby understood and agreed that this policy may not be canceled nor the

amount of coverage thereof reduced until 30 days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of such notice by registered letter."

vii. Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided.

viii. Specify that the insurer waives all rights of subrogation against the named additional insureds.

ix. Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

x. Otherwise be in form satisfactory to City.

D. Prior to commencing performance under this Agreement, Contractor shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Contractor commences performance. If performance of this Agreement shall extend beyond one year, Contractor shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to their expiration of any required policies of insurance.

E. The insurance obligations under this Agreement shall be: (i) all the insurance coverage and/or limits carried by or available to Contractor; or (ii) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

8. <u>LABOR CODE COMPLIANCE</u>:

A. Contractor acknowledges that the Work required is a "public work" as defined in Labor Code Section 1720 et seq. Contractor is required to pay not less than the general prevailing rate of per diem wages for work of a similar character in locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, the Director of the Department of Industrial Relations of the State of California is required to and has determined such general prevailing rates of per diem wages. The applicable prevailing rates can be found on the following website: http://www.dir.ca.gov/OPRL/pwd/. For federally funded projects, Davis-Bacon requirements apply, and the appropriate wage determinations can be found in the project specifications. Contractor shall ascertain all prevailing wages applicable to the Project and shall cause a copy of such wage determinations to be posted at the job site.

B. Pursuant to Labor Code Section 1775, Contractor and all subcontractors shall, as a penalty to City, forfeit not more than $200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for work done under this Agreement by Contractor or, except as provided in Section 1775(b), by any subcontractor.

C. Contractor shall comply with and be bound by the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with Section 1777.5 for all apprenticeable occupations. Prior to commencing the Work, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work pursuant to this Agreement, Contractor and each of its subcontractors shall submit to City a verified statement of the journeyman and apprentice hours performed under this Agreement.

D. Eight hours of labor shall constitute a legal day's work for all workmen employed in the execution of this Agreement, and Contractor and all subcontractors shall comply with and be governed by the laws of the State of California having to do with working hours.

E. Contractor and all subcontractors shall, as a penalty to City, forfeit $25 for each worker employed in the execution of this Agreement by Contractor or a subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the Labor Code.

F. Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor and each subcontractor to: (i) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776; (ii) certify and make such payroll records available for inspection as provided by Section 1776; and (iii) inform City of the location of the records. Contractor and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

G. For every subcontractor who will perform work on the Project, Contractor shall be responsible for such subcontractor's compliance with Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, and Contractor shall include in the written contract between it and each subcontractor copies of Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 and a requirement that each subcontractor shall comply with these statutes. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure each subcontractor's compliance, including conducting a periodic review of the certified payroll records of the subcontractor. Upon becoming aware of a failure of the subcontractor to pay its workers the specified prevailing rate of wages, Contractor shall diligently take corrective action to halt or rectify the failure.

H. Contractor truthfully represents that at the time Contractor submitted its bid for this Project, and thereafter, Contractor possessed, and now possesses the required license(s) from the State Contractors State Licensing Board, and as required in the Contract Documents, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of Contractor to practice its trade(s) and complete the Project. Contractor agrees to not be debarred

at any time through the duration of this Agreement. Contractor has investigated and represents and will ensure that all subcontractors possessed and now possess a valid specialty trade license in its trade, as well as all permits, qualifications, insurance and approvals of any nature that are legally required of the subcontractor to practice its trade during the term of this Agreement and at the time Contractor's bid was submitted. All general building contractor licensees must comply with Business and Professions Code Section 7057. Contractor and all subcontractors must comply with business license requirements of City. Contractor shall not perform work with any debarred subcontractor pursuant to Labor Code Section 1777.1 or 1777.7.

9. UNRESOLVED DISPUTES:

A. In the event that a dispute arises between the parties regarding whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in Contractor's cost of or time required for performance of any part of the Work, Contractor shall not be excused from the Completion Date, but shall proceed with all work to be performed under the Agreement. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. In the event of any dispute or controversy with City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. This includes disputed time extension requests and prices for changes. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by agreement or a court of law. Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

B. All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104 et seq., to the extent each is applicable. This Agreement hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any subcontractor must file a claim in accordance with the Government Claims Act as prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104 et seq. and Section 9204, as applicable, with respect to any asserted "claim," as individually defined in those Sections.

10. ANTI-TRUST CLAIMS: In entering into this Agreement, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further action or acknowledgment by the parties.

11. THIRD PARTY CLAIMS: Pursuant to Public Contract Code Section 9201, City has full authority to compromise or otherwise settle any claim relating to this Agreement at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to this Agreement. City shall be entitled to recover its reasonable costs incurred in providing the notification required by Public Contract Code Section 9201(b).

12. RIGHT TO AUDIT: City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to City as a condition precedent to any payment to Contractor. Contractor will promptly furnish documents requested by City. Additionally, pursuant to Government Code Section 8546.7, if this Agreement involves the expenditure of public funds in excess of $10,000, Contractor shall be subject to State Auditor examination and audit at the request of City or as part of any audit of City, for a period of three years after final payment under this Agreement.

13. TRENCHING AND EXCAVATIONS:

A. If the Project involves trenching more than four feet deep, Contractor shall promptly and before the following conditions are disturbed notify City in writing of any: (i) material that Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. City shall investigate the conditions, and if City finds that the conditions do materially differ or do involve hazardous waste and cause a decrease or increase in Contractor's cost of or the time required for performance of any part of the Work, City shall issue a change order.

B. In addition, whenever work under this Agreement involves an estimated expenditure in excess of $25,000 for the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall submit for acceptance by City or by a registered civil or structural engineer employed by City to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by Contractor, and all costs therefor shall be included in the contract price herein for completion of the Work as set forth in this Agreement. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this provision shall be construed to impose tort liability on City or on any City officer, agent, or employee. All plans, plan review, processing, and shoring costs are Contractor's financial and legal responsibility.

14. UTILITIES: City acknowledges its responsibilities under Government Code Section 4215 concerning existing utilities.

15. LOCATION OF EXISTING ELEMENTS: The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by City. Contractor must strictly comply with all applicable requirements of Government Code Section 4216 et seq. Prior to commencement of the Work, Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating

firm(s), utilizing specialized locating equipment, hand trenching, or both. Contractor must provide City with every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project. Contractor shall be responsible for preserving the integrity of the existing underground utilities and elements at the site.

16. <u>CONTRACTOR'S LIABILITY</u>:

A. City and its officers, agents, and employees shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work; or for injury or damage to any person or persons, either workers, employees of Contractor or its subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for all damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work or at any time before its completion and final acceptance.

B. To the maximum extent permitted by law, Contractor will defend, indemnify, and hold City, its elected officials, officers, employees, agents, and volunteers (collectively, "Indemnitees") free and harmless with respect to any and all actions, claims, liens, stop notices, damages to persons or property, penalties, obligations, and liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other entity in any way arising out of or in connection with the acts, omissions, willful misconduct, work, operations, breach of this Agreement, violation of the Labor Code or any other code or regulation, and/or activities of Contractor, its agents, employees, subcontractors, or invitees in or related to the performance of this Agreement (collectively, "Claims"), whether or not there is concurrent passive or active negligence on the part of any of the Indemnitees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of any of the Indemnitees, as determined by a final court decision or agreement of the parties.

C. Contractor will defend any action or actions filed in connection with any Claims and will pay all costs and expenses, including actual attorneys' fees incurred in connection therewith.

D. Contractor will promptly pay any judgment rendered against Contractor or any of the Indemnitees as a result of any Claims, and Contractor agrees to indemnify and save and hold the Indemnitees harmless therefrom.

E. In the event any Indemnitee is made a party to any action or proceeding filed or prosecuted against Contractor in connection with any Claims, Contractor shall pay to the Indemnitees any and all costs and expenses incurred by the Indemnitees in such action or proceeding together with actual attorneys' fees.

F. So much of the money due to Contractor under and by virtue of this Agreement, as shall be considered necessary by City, may be retained by City until Contractor has satisfied its indemnity obligations under this Section.

17. ASSIGNMENT: Contractor shall not assign or transfer any interest in this Agreement or any part thereof, whether by assignment or novation, without City's prior written consent. Any purported assignment without written consent shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify City and its officers, officials, employees, agents, and representatives with respect to any claim, demand, or action arising from or relating to any unauthorized assignment.

18. CONTRACTOR'S REPRESENTATIONS: Contractor represents, covenants and agrees that: (i) Contractor is qualified and capable of furnishing the labor, materials, and expertise necessary to perform the Work in accordance with the terms and conditions set forth in this Agreement; (ii) there are no obligations, commitments, or impediments of any kind that will limit or prevent Contractor's full performance under this Agreement; (iii) there is no litigation pending against Contractor or any owner or officer thereof, involving alleged theft, dishonesty, or fraud involving a public works project, and neither Contractor nor any owner or officer thereof is the subject of any criminal investigation or proceeding involving a public works project; and (iv) to Contractor's actual knowledge, neither Contractor nor any owner or officer thereof has been convicted of a felony involving theft, dishonesty, or fraud in connection with a public works project, within the last 10 years.

19. NOTICES: Except as otherwise required by law, any notice, payment, or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (i) the day of delivery if delivered by hand or overnight courier service during City's regular business hours or (ii) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

To City:
Director of Public Works
City of Brea
1 Civic Center Circle
Brea, California 92821

To Contractor:
Steven L. Mendoza – Vice President
R.J. Noble Company
15505 E. Lincoln Ave.
Orange, CA 92865

20. NON-DISCRIMINATION: No discrimination shall be made in the employment of persons upon public works because of the race, color, or religion of such persons, or on any other basis specified in Government Code Section 12940. Every contractor for public works violating this section is subject to all the penalties imposed for a violation of Labor Code Section 1720 et seq. in accordance with the provisions of Section 1735 of such Code.

21. APPLICABLE LAW: The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding the choice of law rules. Venue for any such action relating to this Agreement shall be in the Orange County Superior Court.

22. INCORPORATION OF MANDATORY LANGUAGE: Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

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

24. NON-WAIVER OF TERMS: Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by City of any payment to Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by City shall in no way impair or prejudice any right or remedy available to City with regard to such breach or default.

25. AUTHORITY: Any person executing this Agreement on behalf of Contractor warrants and represents that he or she has the authority to execute this Agreement on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

26. COUNTERPARTS: This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

R.J. NOBLE COMPANY

_____	_____
□ Chairperson □ President □ Vice President	□ Secretary □ Asst. Secretary □ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

CITY OF BREA

By: _____
Mayor

Attest: _____
City Clerk

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Approval of Fiscal Year 2023-24 Property Tax Rate to Fund the City's Paramedic Program

RECOMMENDATION

Approve resolution.

BACKGROUND/DISCUSSION

At the March 7, 1978, general municipal election, the qualified electors of the City, by and through the City Council, approved the levy of an annual property tax rate to fund the City's Paramedic Program. This annual property tax was not to exceed $0.20 per $100 of Assessed Value (25% of market value) per year. Beginning in 1981, the County of Orange implemented a policy change concerning Assessed Value. The tax roll is now reported at "Full Taxable Value" rather than Assessed Value.

For Fiscal Year 1981-82, the property valuation was increased to Full Taxable Value for property tax purposes. Therefore, the tax rate needed to be decreased in order for the actual amount of taxes paid by the property owner to remain unchanged. According to Resolution 1981-72, a tax rate of $0.045 per $100 of Full Taxable Value is equivalent to a tax rate of $0.18 per $100.00 of Assessed Value based on the previous method.

State law prohibits the City Council from increasing the paramedic levy above the voter-authorized level. The tax rate of $0.045 per $100 of Full Taxable Value is less than the voter-authorized maximum tax rate. Additionally, it is noted that the passage of Proposition 218 by the voters in November 1996 had no impact on the City's ability to levy the annual Paramedic Tax, as the tax was voter-approved in 1978.

Each fiscal year, the City Council adopts a resolution approving the rate of tax upon taxable property within the City of Brea. This tax rate is required to be approved by the City Council and submitted to the Orange County Auditor-Controller's Office no later than August 10, 2023 allowing the County to apply the rate of taxation to the City's property tax roll to maintain the Paramedic Program.

Since its inception in 1979, the Brea Fire Services Department Paramedic Program has grown considerably from the days when the paramedics responded to calls in an old red van. Currently, the paramedics utilize a modern paramedic engine company configuration. The original program that began in Fiscal Year 1978-79 had a budget of $200,000 and was fully funded by revenues generated from the paramedic tax. While the actual tax rate has

remained constant over the past 44 years, additional revenue has been generated from increases in the property values. Meanwhile, direct expenditures have increased as the program has been greatly enhanced, as outlined below, and as the City's population and service demands have increased.

About the Paramedic Program

A "Paramedic Engine Company" providing Emergency Medical Service (EMS) delivery is currently the most common staffing configuration in operation locally and regionally. This configuration provides for Advanced Life Support capability within its firefighting and emergency response resources without compromising either service. The City's paramedic units, Brea Engine Company #1, Truck Company #2 and Engine Company #3, are complete units that respond to both fires and medical emergencies. In addition, resources necessary to provide functional support, such as extrication of patients and fire protection during traffic emergencies, are available at the scene with the paramedic unit. Engine Company #4 is a Paramedic Assessment Unit (PAU) that has the ability to respond to both fires and provide initial medical aid since there is one paramedic on the engine. However, the PAU is unable to administer narcotics without the assistance of a paramedic from another engine/truck company.

The program started in Fiscal Year 1978-79 with seven certified paramedics. The Brea Fire Services Department currently carries a complement of 24 certified paramedics and one Emergency Medical Services Manager. This allocation level meets the staffing requirement of the Orange County EMS Agency while providing for uninterrupted deployment of paramedics during leave, training and emergency conditions. Just as the nature of emergencies has changed, so has the required paramedic skill level. Paramedics are being delegated greater responsibility in the field as emergency room medicine is continually being evaluated and streamlined. Paramedic staff receive continuous in-service training on a myriad of topics, including: trauma medicine; air and blood-borne pathogens; environmental emergencies; pediatric medicine, including sudden death syndrome; swift water rescue and mass casualty management.

Field techniques have improved greatly since the program began with treatment advances in the areas of Adult and Pediatric Intubation (airway management requiring insertion of appliances into the trachea), cervical-spine treatments and neurological protection, improved treatment for burn victims and the AED program (cardiac defibrillation), which is in service on all responding Brea units.

Paramedic Response History

Calendar Year	**2018**	**2019**	**2020**	**2021**	**2022**
Total Emergency Medical Calls (1)	3,948	3,832	3,660	4,079	4,341
Total Calls for Service from Fire Dept. (Including false alarm responses) (1)	4,917	4,893	4,823	5,145	5,396
Percent of Total	80.29%	78.3%	75.9%	79.3%	80.4%
(1) Data updated to include all call data reported from the Metro Cities Fire Authority Metro Net Communications Report					

SUMMARY/FISCAL IMPACT

Paramedic tax revenue is accounted for in the Paramedic Services Fund (Fund 174) separate from the City's General Fund. This fund was established to account for revenues generated from the paramedic tax and other revenues, as well as costs associated with the Brea Paramedic Program. This includes personnel costs for 24 full-time paramedic positions, one EMS Manager position and related costs to operate the program.

The proposed paramedic tax rate is $0.045 per $100 of Full Taxable Valuation. Based on an estimated Full Taxable Valuation (secured and unsecured value) of $11.868 billion, the estimated tax levy is $5.340 million.

The former Brea Redevelopment Agency (RDA), which was established in 1971, impacts the flow of paramedic tax revenues to the City. Property owners within the RDA project area pay the same property rate as if they were outside the RDA project area (non-RDA area properties). Paramedic tax for properties outside the RDA project area are remitted to the County and flow directly back to the City. However, under state law, property tax revenue (including the Paramedic Tax) remitted by property owners within the Redevelopment Project Areas go to the County and are first allocated to the Redevelopment Agency.

In 2012, Redevelopment Agencies were dissolved and Successor Agencies were established to pay off the remaining obligations for the former redevelopment agencies. As in all California cities, Brea's property taxes (including Paramedic Tax) remitted from properties in the project areas, are now allocated to Redevelopment Property Tax Trust Fund (RPTTF) and the portion needed to pay off the obligations for that fiscal year is forwarded to the Successor Agency. The remaining portion of the Paramedic Tax revenues allocated to the RPTTF are passed back to the City.

As the Successor Agency pays down the obligations of the former Redevelopment Agency, the Paramedic Tax revenues that were previously directed to the RDA and now the Successor Agency are slowly, but surely, coming back to the City for paramedic service sooner than they otherwise would have been.

The estimated paramedic tax levy, net of the amount retained by the Successor Agency, is projected to generate $5,340,765 to the City of Brea in Fiscal Year 2023-24. The revenue collected will cover approximately 78.3% of the $6,817,196 of estimated program costs. The difference is to be funded from the City's General Fund in the amount of $1,105,699 and other revenue sources (including available beginning fund balance) in the amount of $370,732.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Alicia Brenner, Budget Manager
Concurrence: Kristin Griffith, Director of Administrative Services

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Attachments

Resolution

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BREA FIXING THE RATE OF TAX UPON THE TAXABLE PROPERTY WITHIN THE CITY OF BREA FOR THE FISCAL YEAR 2023-24 NECESSARY TO MAINTAIN A MOBILE INTENSIVE CARE PROGRAM KNOWN AS PARAMEDICS WITHIN THE AREA OF THE CITY OF BREA AND CERTIFYING SAID RATE OF TAXATION TO THE ORANGE COUNTY AUDITOR-CONTROLLER

A. <u>RECITALS:</u>

(i) During the General Municipal Election held March 7, 1978, the qualified electors of the City of Brea authorized the City, by and through the Council, to levy a property tax rate not exceed $0.20 per $100 of Assessed Valuation in addition to its maximum property tax rate established pursuant to Division 1, Part 4, Chapter 2 of the California Revenue and Taxation Code for the specific purpose of establishing and maintaining a mobile intensive care program known as Paramedics within the area of the City of Brea (said "Paramedic Program" hereafter).

(ii) In Fiscal Year 1981-82, the County of Orange implemented a policy concerning Assessed Value. The tax roll is now reported at "Full Taxable Value" rather than Assessed Value. This change resulted in $0.045 per $100 Full Taxable Value as the tax levy for the Paramedic Program in years 1981-82 through 2021-22.

(iii) Information and evidence presented to this Council indicated that it would be necessary to expend a sum of approximately $6,817,196 during the Fiscal Year 2023-24 in order to maintain the Paramedic Program within the area of the City of Brea.

(iv) The revenue to be generated for Fiscal Year 2023-24 based on the tax levy of $0.045 per $100 of Full Taxable Value of the property within the City of Brea, exclusive of the revenue generated from the valuation within the Brea Community Redevelopment Project areas and required to be allocated to the Successor Agency has been estimated to

be $5,340,765.

(v) All legal prerequisites of the adoption of this resolution have occurred.

B. <u>RESOLUTION:</u>

NOW, THEREFORE, be it is found, determined and resolved by the City Council of the City of Brea as follows:

1. In all respects as set forth in the Recitals, Part A of this Resolution.

2. There is hereby fixed and levied that the total rate of taxation of $0.045 per $100 of Full Taxable Value of all taxable property within the City of Brea, said taxation to be utilized to maintain a mobile intensive program known as the Paramedic Program within the area of Brea for the Fiscal Year 2023-24 and this Council hereby certifies said rate of taxation for that specified purpose to the Auditor-Controller of the County of Orange.

3. The City Clerk shall certify to the adoption of this Resolution and file with the Orange County Auditor-Controller, a certified copy hereof, on or before August 10, 2023.

APPROVED AND ADOPTED on this 18th day of July , 2023.

_____
Mayor

ATTEST: _____
City Clerk

I, Lillian Harris-Neal, City Clerk of the City of Brea, do hereby certify that the foregoing Resolution was adopted at a regular meeting of the City Council of the City of Brea, held on the 18th day of July, 2023, by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

DATED: _____

_____
City Clerk

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: Purchase Replacement Network Hardware, Network (Host) Servers and Storage Area Network (SAN) for the City's Virtual Network

RECOMMENDATION

Authorize the City's Purchasing Agent or Designee to procure the replacement of Network Servers and Storage Area Network (SAN) in the amount of $135,812.36.

BACKGROUND/DISCUSSION

The servers and SAN make up the City's virtual environment, which houses the servers and data storage that runs the City's on-site applications. The SAN was last upgraded in 2012 and Host Servers in 2017. All are at end of support and should be replaced.

The proposed replacement option for the current virtual environment uses a consolidation of servers with the SAN approach. This advancement in technology solution provides faster processing of data, which provides added networking capabilities. The City will be reducing its carbon footprint, reducing the amount of licensing required for backup, while taking advantage of better technology. The useful replacement life for this system is approximately eight years.

The City utilized the National Cooperative Purchasing Alliance (NCPA) Contract #01-97 to select Intelli-Tech to provide services. This is a Sole Source due to the City's familiarity with the vendor, who has also been recommended by NCPA due to its value and lower cost. NCPA is a national government purchasing cooperative that is able to provide one of the largest pools of purchasing potential. The organization competitively bids and awards contracts to national vendors in accordance with purchasing procedures mandated by state procurement laws and regulations. Intelli-Tech has been a valuable resource to the City and has been more responsive than other vendors that were used in the past. In addition, Intelli-Tech has quick and direct access to the City's Hewlett Packard Enterprise Southern California representative.

SUMMARY/FISCAL IMPACT

Approval of this one-time cost to replace the Network Servers with the integrated SAN is $135,812.36. Funding for this upgrade was reviewed as part of the decision packages and appropriated in the Fixed Asset Replacement Fund (182) for the Fiscal Year 2023-24.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Randy Hornsby, IT Manager and Monica Lo, Deputy Director of Administrative Services
Concurrence: Kristin Griffith, Director of Administrative Services

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Attachments

Attachment A

Attachment B

QUOTATION

INTELLI-TECH

1652 Yeager Avenue - La Verne, CA 91750
phone (909) 394-5188 / fax (909) 394-5190
www.intelli-tech.com

DATE	QUOTATION NO.
06/28/23	CF062823A-PR

CONTACT	BILLING	ACCOUNT TEAM
Cliff Flaugher	**City of Brea** 1 Civic Center Circle Brea, CA 92821 **Attn: Accounts Payable**	**Account Manager - Pam Rumph** **909-394-5188 x1207** TeamPam@intelli-tech.com **Inside Sales - Sandy Nguyen**

RFQ #	SHIP	PURCHASE ORDER NO	TERMS
	City of Brea 1 Civic Center Circle Brea, CA 92821 **Attn: Level P2 Receiving**		NET 30
		DEPARTMENT	**FOB**
			Freight

#	Qty	Part No.	Description	List Price	Price	Extended
1	1	R9Q10A	HPE Nimble Storage dHCI with Alletra 5000 Base Configuration Tracking	$1.00	$0.25	$ 0.25
2	3	P28948-B21	HPE ProLiant DL360 Gen10 Plus 8SFF NC Configure-to-order Server	$3,255.00	$1,172.00	$ 3,516.00
	3	P28948-B21 ABA	DL360 Gen10 Plus 8SFF CTO Server	$0.00	$0.00	$ -
3	6	P36932-B21	Intel Xeon-Gold 6326 2.9GHz 16-core 185W Processor for HPE	$3,542.00	$1,775.00	$ 10,650.00
	6	P36932-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
4	48	P06033-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	$1,656.00	$256.00	$ 12,288.00
	48	P06033-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
5	3	P26427-B21	HPE ProLiant DL360 Gen10 Plus 8SFF SAS/SATA 12G BC Backplane Kit	$185.00	$62.00	$ 186.00
	3	P26427-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
6	3	P12965-B21	HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device	$1,845.00	$345.00	$ 1,035.00
	3	P12965-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
7	3	P26262-B21	Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	$1,184.00	$181.00	$ 543.00
	3	P26262-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
8	3	P10115-B21	Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	$1,231.00	$171.00	$ 513.00
	3	P10115-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
9	3	P26477-B21	HPE ProLiant DL36X Gen10 Plus High Performance Fan Kit	$547.00	$159.00	$ 477.00
	3	P26477-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
10	6	P38995-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	$524.00	$95.00	$ 570.00
	6	P38995-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
11	3	BD505A	HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	$469.00	$222.00	$ 666.00
	3	BD505A 0D1	Factory Integrated	$0.00	$0.00	$ -
12	3	867998-B21	HPE 1U Gen10 Bezel Kit	$76.00	$20.00	$ 60.00
	3	867998-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
13	3	875519-B21	HPE Bezel Lock Kit	$89.00	$29.00	$ 87.00
	3	875519-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
14	3	P13771-B21	HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit	$96.00	$15.00	$ 45.00
	3	P13771-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
15	3	P14604-B21	HPE Gen10 Plus Chassis Intrusion Detection Kit	$66.00	$20.00	$ 60.00
	3	P14604-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
16	6	P26479-B21	HPE ProLiant DL360 Gen10 Plus High Performance Heat Sink Kit	$118.00	$55.00	$ 330.00
	6	P26479-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
17	3	P26485-B21	HPE ProLiant DL300 Gen10 Plus 1U SFF Easy Install Rail Kit	$214.00	$178.00	$ 534.00
	3	P26485-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
18	3	P26489-B21	HPE ProLiant DL300 Gen10 Plus 1U CMA for Rail Kit	$117.00	$26.00	$ 78.00
	3	P26489-B21 0D1	Factory Integrated	$0.00	$0.00	$ -
19	3	R8E93A	HPE Nimble Storage dHCI with Additional Custom ESXi 7.0 FIO Software	$1.00	$0.90	$ 2.70
20	2	Q9E63A	HPE SN2010M 25GbE 18SFP28 4QSFP28 Power to Connector Airflow Half Width Switch	$12,980.00	$5,614.00	$ 11,228.00
21	4	Q6M30A	HPE 10GbE SFP+ SR Multi-mode 300m Transceiver	$545.00	$40.00	$ 160.00
22	4	845970-B21	HPE QSFP28 to SFP28 Adapter	$227.00	$91.00	$ 364.00
23	4	QK735A	HPE Premier Flex LC/LC Multi-mode OM4 2 Fiber 15m Cable	$162.00	$29.00	$ 116.00
24	16	844477-B21	HPE 25Gb SFP28 to SFP28 3m Direct Attach Copper Cable	$392.00	$55.00	$ 880.00
	1	HU4A6A5	**HPE 5Y Tech Care Essential Service**	$0.00	$0.00	$ -

25	3	HU4A6A5 ZSA	HPE Proliant DL360 Gen10+ Support	$6,495.00	$3,281.00	$ 9,843.00
26	3	HU4A6A5 R2M	HPE iLO Advanced Non Blade Support	$67.00	$35.00	$ 105.00
27	2	HU4A6A5 W0P	HPE SN2010M 25GbE Switch Support	$3,584.00	$1,875.00	$ 3,750.00
	1	HA124A1	**HPE Technical Installation Startup SVC**	$0.00	$0.00	$ -
28	1	HA124A1 5WX	HPE Nimble Storage dHCI Base Deploy SVC	$16,612.00	$11,235.00	$ 11,235.00
29	1	HB983A1	HPE Installation Comm Svrs Hourly SVC	$180.00	$150.00	$ 150.00
30	1	R7L32A	HPE Nimble Storage dHCI with Alletra 5030 Configure-to-order Base Array	$52,213.90	$15,015.00	$ 15,015.00
31	1	R3Q00A	HPE Nimble Storage 2x25GbE 2-port SFP28 FIO Adapter Kit	$8,800.00	$1,626.00	$ 1,626.00
32	1	R4U47A	HPE Alletra 5000 Adaptive Flash Array 2.88TB (3x960GB) SATA 6G FIO Cache Bundle	$33,251.00	$5,693.00	$ 5,693.00
33	1	R8F35A	HPE Alletra 5000 Adaptive Flash Array 1.44TB (3x480GB) SATA 6G FIO Cache Bundle	$17,501.00	$2,997.00	$ 2,997.00
34	2	Q8J18A	HPE Nimble Storage NEMA 5-15P to C13 125V 10Amp 1.8m US FIO Power Cord	$1.00	$0.90	$ 1.80
35	2	Q8J27A	HPE Nimble Storage C13 to C14 250V 10Amp 1.8m Universal FIO Power Cord	$1.00	$0.90	$ 1.80
36	1	R4U42A	HPE Alletra 5000 42TB (21x2TB) SAS 12G FIO HDD Bundle	$40,891.00	$7,001.00	$ 7,001.00
37	1	R9X15A	HPE Alletra Tier 1 Storage Array Standard Tracking	$1.00	$0.25	$ 0.25
38	1	R8E98A	HPE Nimble Storage dHCI NOS PG for VMware ESXi 7.0 FIO Software	$1.00	$0.25	$ 0.25
39	1	S0L81AAE	**HPE Alletra 5030 Software and Support 5-year SaaS**	$47,538.00	$21,639.00	$ 21,639.00
	1	HU4A6A5	**HPE 5Y Tech Care Essential Service**	$0.00	$0.00	$ -
40	1	HU4A6A5 ZDW	HPE NS 2x25GbE 2p SFP28 FIO Adp Kit Supp	$1,960.00	$1,258.00	$ 1,258.00
41	1	HU4A6A5007E	HPE Alletra 5030 CTO Base Array Supp	$6,630.00	$1,892.00	$ 1,892.00
42	1	HU4A6A5007M	HPE Alletra 5000 42TB SAS HDD Bdl Supp	$5,193.00	$1,482.00	$ 1,482.00
43	1	HU4A6A5007S	HPE Alletra 5000 1.44TB FIO CachBdl Supp	$2,222.00	$634.00	$ 634.00
44	1	HU4A6A5007T	HPE Alletra 5000 2.88TB FIO CachBdl Supp	$4,221.00	$1,205.00	$ 1,205.00
			NCPA CONTRACT #01-97			
					Sub-total	**$ 129,918.05**
					7.75% Sales Tax	**$ 5,894.31**
					Grand Total	**$ 135,812.36**

Vendor Selection Justification Request

(for Purchases more than $5000) Attach to your purchase requisition.

Date 06/28/2023 **Form#** **VSJ187**

Requestor

Requestor Name	Cliff Flaugher
Requestor Email	CLIFFF@CI.BREA.CA.US
Requestor Phone	(714) 671-4490
Requestor Department	AS-IT

Vendor

Vendor Company Name	CITY OF BREA
Vendor Contact Name	Pam Rumph
Vendor Contact Email	Pam@intelli-tech.com
Vendor Contact Phone	(909) 394-5188

Items/Services

Description	HPE Nimble Storage dHCI with Alletra
Amount	$ 135,812.36

Justification

Categories	Public Interest Exemption
Explanation	NCPA Contract #01-97
Validity Period	One-Time (for this purchase only)

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 07/11/2023

SUBJECT: CIP Project Update by Ryan Chapman - Informational

RESPECTFULLY SUBMITTED