



---

# SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY

REGULAR MEETING AGENDA  
JULY 26, 2018 8:30 A.M.

Location: City Council Chamber, 15651 East Stafford Street, City of Industry, California

---

## **Addressing the Agency:**

- **Agenda Items:** *Members of the public may address the Successor Agency on any matter listed on the Agenda. In order to conduct a timely meeting, there will be a three-minute time limit per person for any matter listed on the Agenda. Anyone wishing to speak to the Successor Agency is asked to complete a Speaker's Card which can be found at the back of the room and at each podium. The completed card should be submitted to the Secretary prior to the Agenda item being called and prior to the individual being heard by the Successor Agency.*
  
- **Public Comments (Non-Agenda Items Only):** *Anyone wishing to address the Successor Agency on an item not on the Agenda may do so during the "Public Comments" period. In order to conduct a timely meeting, there will be a three-minute time limit per person for the Public Comments portion of the Agenda. State law prohibits the Successor Agency from taking action on a specific item unless it appears on the posted Agenda. Anyone wishing to speak to the Successor Agency is asked to complete a Speaker's Card which can be found at the back of the room and at each podium. The completed card should be submitted to the Secretary prior to the Agenda item being called by the Secretary and prior to the individual being heard by the Successor Agency.*

## **Americans with Disabilities Act:**

- *In compliance with the ADA, if you need special assistance to participate in any meeting (including assisted listening devices), please contact the Office of the Secretary to the Successor Agency (626) 333-2211. Notification of at least 72 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting.*

## **Agendas and other writings:**

- *In compliance with Government Code Section 54957.5(b), staff reports and other public records permissible for disclosure related to open session agenda items are available at City Hall, 15625 East Stafford Street, Suite 100, City of Industry, California, at the office of the Secretary of the Successor Agency during regular business hours, Monday through Thursday, 8:00 a.m. to 5:00 p.m., and Fridays 8:00 a.m. to 4:00 p.m..*

- 
1. Call to Order
  2. Flag Salute
  3. Roll Call
  4. Public Comments

5. **BOARD MATTERS**

- 5.1 Consideration of the minutes of the September 8, 2016 special meeting, September 22, 2016 regular meeting, October 13, 2016 special meeting, October 27, 2016 regular meeting, and December 22, 2016 regular meeting

*RECOMMENDED ACTION: Approve as submitted.*

- 5.2 Consideration of the Statement of Investment Policy

*RECOMMENDED ACTION: Approve as submitted.*

- 5.3 Consideration of authorization to solicit public bids for Contract No. GGS-0387, for Grand Avenue and Golden Springs Drive Intersection Improvements, for an estimated cost of \$11,781,028.00

*RECOMMENDED ACTION: Approve the plans and specifications and authorize the advertising of receipt of electronic bids.*

- 5.4 Consideration of Amendment No. 4 to the Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc., in the amount of \$80,000.00, for a total Agreement amount not-to-exceed \$952,550.00, through December 31, 2020

*RECOMMENDED ACTION: Approve Amendment No. 4.*

6. Adjournment. Next regular Successor Agency meeting will be on Thursday, August 23, 2018 at 8:30 a.m.

*SUCCESSOR AGENCY*

ITEM NO. 5.1

HANDOUT ITEM

(To be Distributed Prior to Meeting)

*SUCCESSOR AGENCY*

ITEM NO. 5.2



SUCCESSOR AGENCY TO THE  
**INDUSTRY URBAN - DEVELOPMENT  
AGENCY**

**MEMORANDUM**

To: Chairman Radecki and Members of the Successor Agency to the Industry Urban-Development Agency

From: Troy Helling, Acting Executive Director TH

Staff: Elise Calvo, Finance Officer EC

Date: July 26, 2018

**Subject: Statement of Investment Policy**

---

**OVERVIEW**

Section 53646 (a)(2) of the California Government Code, states that the Treasurer or chief fiscal officer of any other local agency may annually render to his/her legislative body and any oversight committee an investment policy, that the legislative body shall consider at a public meeting.

This Agenda Item includes the Statement of Investment Policy for the Successor Agency to the Industry Urban-Development Agency dated July 26, 2018, for all future investments, pursuant to Section 53601 and Section 53635 of the California Government Code.

This investment Policy serves as the foundation of the Successor Agency to the Industry Urban-Development Agency's investment goals and priorities. This policy has will be reviewed regularly or at least annually to assure that it continues to meet the Agency's portfolio goals/priorities, with the intent to protect the assets of the Successor Agency to the Industry Urban-Development. The existence of an approved investment policy demonstrates that the governing body is performing its fiduciary responsibilities, thereby, inspiring trust and confidence among the public that it serves.

**RECOMMENDATION**

It is my recommendation that the Successor Agency to the Industry Urban-Development Agency approve the Investment Policy.

# City of Industry

STATEMENT OF INVESTMENT POLICY

ELISE CALVO, CITY OF TREASURER

**CITY OF INDUSTRY**  
**STATEMENT OF INVESTMENT POLICY**

**Contents**

1.0	Introduction.....	2
2.0	Policy.....	2
3.0	Scope.....	2
3.1	Pooled Investments.....	2
3.2	Investments held separately.....	2
4.0	Objectives.....	3
4.1	Safety.....	3
4.2	Liquidity.....	3
4.3	Return on investment.....	3
5.0	Authorized investments.....	4
6.0	Reporting.....	4
7.0	Selection of financial institutions and brokers/dealers.....	5
7.1	Financial Institutions.....	<b>Error! Bookmark not defined.</b>
7.2	Broker/Dealers.....	5
8.0	Ethics and conflicts of interest.....	6

# CITY OF INDUSTRY

## STATEMENT OF INVESTMENT POLICY

Effective July 26, 2018

(Supersedes All Previous Investment Policies)

**1.0 Introduction.** The purpose of this document is to identify various policies and procedures that enhance opportunities for a prudent and systematic investment policy and to organize and formalize investment-related activities. Related activities which comprise good cash management include accurate cash projections, the expeditious collection of revenue, the control of disbursements, cost-effective banking relations, and arranging for a short-term borrowing program which coordinates working capital requirements and investment opportunities.

**2.0 Policy.** It is the policy of the City of Industry to invest public funds not required for immediate day-to-day operations in safe, liquid and medium term investments. These investments shall yield an acceptable return while conforming to all California statutes and the City's Investment Policy.

**3.0 Scope.** It is intended that this policy cover the investment activities of all contingency reserves and inactive cash under the direct authority of the City.

**3.1 Pooled Investments.** Investments for the City and its component units will be made on a pooled basis including, but not limited to, the City of Industry, the Successor Agency to the Industry Urban-Development Agency, the Civic-Recreational-Industrial Authority, the Industry Public Utilities Commission, the Industry Public Facilities Authority and the Industry Property and Housing Management Authority. The City identifies the fund types involved as follows:

- General Fund
- Special Revenue Funds
- Debt Service Funds
- Capital Project Funds
- Enterprise Funds
- Trust Funds
- Miscellaneous Special Funds
- Any new funds created by the applicable governing board, unless specifically exempted

**3.2 Investments held separately.** Investment of bond proceeds will be held separately when required by the bond indentures. Bond proceeds will be invested in accordance with the requirements stated in the bond indentures. This policy does not apply to deferred compensation plans.



## CITY OF INDUSTRY

### STATEMENT OF INVESTMENT POLICY

**4.0 Objectives.** Section 53600.5 of the California Government Code outlines the primary objectives of a trustee investing public money. The primary objectives, in order of priority, of the City's investment activities shall be:

**4.1. Safety.** Safety of principal is the foremost objective of the investment program. Investments of the City shall be undertaken in a manner that seeks to ensure preservation of capital in the overall portfolio.

**4.2 Liquidity.** The City's investment portfolio will remain sufficiently liquid to enable the City to meet all operating requirements which might be reasonably anticipated.

**4.3 Return on investment.** Investment return becomes a consideration only after the basic requirements of safety and liquidity have been met. The City Treasurer shall attempt to realize a yield on investments consistent with California statutes and the City's Investment Policy.

The City Treasurer should strive to maintain the level of investment of all contingency reserves and inactive funds as close to one hundred percent (100%) as possible. While the objectives of safety and liquidity must first be met, it is recognized that portfolio assets represent a potential source of significant revenues. It is to the benefit of the City that these assets be managed to realize a yield on investments consistent with California statutes and the City's Investment Policy.

A buy and hold strategy will generally be followed; that is, investments once made will usually be held until maturity. A buy and hold strategy will result in unrealized gains or losses as market interest rates fall or rise from the coupon rate of the investment. Unrealized gains or losses, however, will diminish as the maturity dates of the investments are approached or as market interest rates move closer to the coupon rate of the investment. A buy and hold strategy requires that the portfolio be kept sufficiently liquid to preclude the undesired sale of investments prior to maturity. Occasionally, the City Treasurer may find it advantageous to sell an investment prior to maturity, but this should only be on an exception basis and only when it is in the best interest of the City.

**CITY OF INDUSTRY**

**STATEMENT OF INVESTMENT POLICY**

**5.0 Authorized investments.** The City Treasurer may invest City funds in the following investments as specified in the California Government Code Section 53601 and is further limited to only these specified investments.

	<b>Investment Type</b>	<b>Maximum Maturity</b>	<b>Maximum Specified % of Portfolio</b>	<b>Minimum Quality Requirements</b>
a.	Securities of the US Government, or its agencies	5 years	None	None
b.	Negotiable certificates of deposits	5 years	30%	None
c.	Non-negotiable certificates of deposits	5 years	None	None
d.	Bankers Acceptances	180 days	40% and no more than 30% of any one commerical bank	None
e.	Commercial Paper	270 days	25% and no more than 10% of a single issuer	A-1 or higher rating from an NRSRO
f.	Local Agency Investment Fund (State pool) deposits (Govt. Code Section 16429.1)	N/A	None	None
g.	Passbook Savings account demand deposits			
h.	Repurchase Agreements	1 year	None	None
i.	Los Angeles County Investment Pool (California Govt. Code Section 53684)	N/A	None	None
j.	It is the City of Industry's policy not to utilize Reverse Repurchase Agreements or shares of beneficial interest issued by diversified management companies (mutual funds), unless that fund is composed entirely of securities of the U.S. Government, or its agencies, and the use of such funds shall be restricted to sweep accounts. (Reverse Repurchase Agreements shall be permitted if they are assets of the Local Agency Investment Fund).			

## CITY OF INDUSTRY

### STATEMENT OF INVESTMENT POLICY

**6.0 Reporting.** Sections 53607 and 53646 of the California Government Code allows the City Council, at its discretion, to require reports meeting the standards set forth in these sections, as well as any additional information desired. Therefore, it is the policy of the City that the City Treasurer or designee appointed by the City Treasurer file a report on the investments and transactions with the City Council as described in Sections 53607 and 53646 of the California Government Code.

**7.0 Selection of financial institutions and brokers/dealers.** Investments shall be purchased only through well established, financially sound institutions. The City Treasurer or City Manager or their designee may maintain a list of financial institutions and broker/dealers who are approved to provide the City with investment services. This list should be updated annually by the City Treasurer to ensure compliance with this investment policy. All financial institutions and broker/dealers who desire to become qualified bidders for investment transactions will be given a copy of the City's Investment Policy, and a return cover letter which they must sign indicating that the investment policy has been read, understood and that their investment offers will comply with this policy.

All financial institutions and broker/dealers will take direction from the City Treasurer or City Manager or their designee as it relates to the investment strategy and investment policy of the City. Any instructions will be in the form of written instructions via email or other electronic transmissions.

Qualified financial institutions and broker/dealers must supply the City Treasurer or City Manager or their designee with the following:

#### **7.1 Financial Institutions**

- Current audited financial statements
- Depository contracts, as appropriate
- A copy of the latest FDIC call report or the latest FHLBB report, as appropriate
- Proof that commercial banks, savings banks, or savings and loan associations are state or federally chartered

#### **7.2 Broker/Dealers**

- Current audited financial statements
- Proof that brokerage firms are members in good standing of a national securities exchange, or
- A designation as a primary government dealer by the Federal Reserve Bank.

Commercial banks, savings banks, and savings and loan associations must maintain a minimum net worth to asset ratio as provided by law (total regulatory net worth divided by total assets), and must have had a positive net earnings for the last reporting period

## CITY OF INDUSTRY

### STATEMENT OF INVESTMENT POLICY

The City is prohibited from selecting any broker/dealer that has made a campaign contribution within any consecutive 48-month period which exceeds the limitations contained Rule G-37 of the Municipal Securities Rulemaking Board.

**8.0 Ethics and conflicts of interest.** All participants in the City's investment process shall seek to act responsibly as custodians of the public trust. Officers and employees involved in the investment process shall refrain from personal business activity that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment recommendations and decisions. Investment officials and employees shall make all disclosures appropriate under the Fair Political Practices Act and may seek the advice of the City Attorney and the Fair Political Practices Commission whenever there is a question of personal financial or investment positions that could represent potential conflicts of interest.

*SUCCESSOR AGENCY*

ITEM NO. 5.3



SUCCESSOR AGENCY TO THE  
**INDUSTRY URBAN - DEVELOPMENT  
AGENCY**

## MEMORANDUM

**TO:** Honorable Chairman and Members of the Successor Agency to the Industry Urban-Development Agency Board

**FROM:** Troy Helling, Acting Executive Director *TH*

**STAFF:** Joshua Nelson, Contract Agency Engineer, CNC Engineering  
Sean Calvillo, Project Manager, CNC Engineering *SC* *gn*

**DATE:** July 26, 2018

**SUBJECT:** Consideration of authorization to solicit public bids for Contract No. GGS-0387, for Grand Avenue and Golden Springs Drive Intersection Improvements, for an estimated cost of \$11,781,028.00

---

### **Background:**

At the direction of the Successor Agency to the Industry Urban-Development Agency ("Agency") Staff, WKE Inc. has prepared plans and specifications for the above project. This project will be implemented as Contract No. GGS-0387, subject to the approval by the Agency Board.

This project is identified as line item No. 128 as listed on the Recognized Obligation Payment Schedule ("ROPS"). This line is described as Route 57/60 Confluence with a total outstanding obligation of \$9,480,364 in bond proceeds for ROPS 18-19.

The City has been awarded up to \$6,727,566 in local Proposition C grant funds from the Los Angeles County Metropolitan Transportation Authority's ("Metro") 2011 Call for Projects Program, which provides 40% of eligible project costs for right-of-way acquisition, construction, and construction support services. Industry entered into a Memorandum of Understanding on April 23, 2015, with the Agency to provide payment for all project related costs, with full reimbursement provided by the Agency and Metro's grant funding.

### **Discussion:**

The Project provides for certain improvements, including an additional northbound through lane, an additional southbound approach lane, a westbound right-turn lane, increased traffic lane widths along Grand Avenue, sidewalk widening, new decorative traffic signals, new street lights on the north side of Golden Springs Drive and the

replacement of the golf cart tunnel underneath Grand Avenue. In addition, the project includes the installation of landscaping based upon plans prepared by the City of Diamond Bar to match the existing landscaping treatment at nearby intersections. The City of Industry and Diamond Bar are presently working on a betterment agreement in which Diamond Bar will fund this landscape treatment.

**Fiscal Impact:**

The engineer's estimate for this project is \$11,781,028.00. This project is listed on the Recognized Obligation Payment Schedule (ROPS), Line Item No. 128.

**Recommendation:**

It is hereby recommended that the Successor Agency Board approve the plans and specifications and authorize the solicitation of public bids.

**Exhibits:**

- A. Notice Inviting Bids
- B. Engineer's Estimate
- C. Section A – Pages A-1 through A-8
- D. Reduced Set of Project Plans

---

TH/JN/SC:jv

**EXHIBIT A**

Notice Inviting Bids

[Attached]



**NOTICE INVITING BIDS FOR:**

**SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY  
PROJECT NO. 387**

**GRAND AVENUE AND GOLDEN SPRINGS DRIVE INTERSECTION IMPROVEMENTS**

CONTRACT NO. GGS-0387

The **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY**, hereinafter referred to as the **AGENCY**, will receive bids for the construction of the above project until **11:00 A.M. on September 27, 2018**, via the City of Industry's PlanetBids™ vendor portal. Bids are to be submitted through <http://www.cityofindustry.org/?p=proposal-and-bid>.

Postmarks, mailed, emailed, or hard copy bids will not be accepted. Late bids will not be accepted.

It is the responsibility of the bidder to be sure the bid is submitted prior to the date and time indicated above. Digital versions of the plans and specifications are available on the vendor portal. Hard copies will no longer be available for purchase at CNC Engineering.

At the time of submission of the bid and thereafter, each bidder must be licensed as a **Class A - General Engineering** as defined in Sections 7055-7058 of the Business and Professions Code. Each bidder shall set forth on the Bidder's Information Sheet and the Contractor's License Affidavit the classification and number of the requisite license which that bidder holds.

The **AGENCY** reserves the right to award the contract to the contractor with another license class if the **AGENCY** determines that the license class is proper for the proposed work.

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. **Please note:** *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.* Any bids submitted without proof that bidder and any listed subcontractor(s) are currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the Agency.

(Continued)

The Scope of Work is as follows: The Project provides for certain improvements, including an additional northbound through lane, an additional southbound approach lane, a westbound right-turn lane, increased traffic lane widths along Grand Avenue, sidewalk widening, new decorative traffic signals, new street lights on the north side of Golden Springs Drive and the replacement of the golf cart tunnel underneath Grand Avenue. In addition, the project includes the installation of landscaping based upon plans prepared by the City of Diamond Bar to match the existing landscaping treatment at nearby intersections.

Plans and Specifications are available for inspection at the City Administrative Office located at 15625 E. Stafford Street, Suite 100, City of Industry, California 91744.

Two pre-bid meetings will be conducted by the Engineer at the job site on **Monday, September 10, 2018 at 10:00 A.M.**, and **Wednesday, September 12, 2018 at 10:00 A.M.** Attendees will meet at 707 Grand Ave, Diamond Bar, CA 91765 (parking lot). All bidders are required to attend; it is mandatory to attend one of the pre-bid meetings.

Online Questions and Answers will be due via the City of Industry's PlanetBids™ vendor portal on **Thursday, September 20, 2018 at 5:00 P.M.**

**SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY  
PROJECT NO. 387**

**GRAND AVENUE AND GOLDEN SPRINGS DRIVE INTERSECTION IMPROVEMENTS**

CONTRACT NO. GGS-0387

Each bid shall be accompanied by a bid guarantee in the form of a Cashier's Check or Bidder's Bond for not less than ten percent (10%) of the total amount of the bid, made payable to the **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY**.

The contractor may, at his own expense, substitute securities for monies to be withheld to ensure performance under the contract.

By the order of the **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY** dated **July 26, 2018**

---

Mark D. Radecki, Chairman

**EXHIBIT B**

Engineer's Estimate

[Attached]

**ESTIMATE FOR:**

**SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT  
AGENCY**

**PROJECT NO. 387**

**GRAND AVENUE AND GOLDEN SPRINGS DRIVE INTERSECTION  
IMPROVEMENTS**

**CONTRACT NO. GGS-0387**

**ENGINEER'S ESTIMATE  
\$11,781,028.00**

**EXHIBIT C**

Section A – Pages A-1 through A-8

[Attached]

## SECTION A

### SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY PROJECT NO. 387

#### GRAND AVENUE AND GOLDEN SPRINGS DRIVE INTERSECTION IMPROVEMENTS

CONTRACT NO. GGS-0387

The **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY**, hereinafter referred to as the **AGENCY**, will receive bids for the construction of the above project until **11:00 A.M.** on **September 27, 2018**, via the City of Industry's PlanetBids™ vendor portal. Bids are to be submitted through <http://www.cityofindustry.org/?p=proposal-and-bid>.

Postmarks, mailed, emailed, or hard copy bids will not be accepted. Late bids will not be accepted.

It is the responsibility of the bidder to be sure the bid is submitted prior to the date and time indicated above. Digital versions of the plans and specifications are available on the vendor portal. Hard copies will no longer be available for purchase at CNC Engineering.

At the time of submission of the bid and thereafter, each bidder must be licensed as a **Class A - General Engineering** as defined in Sections 7055-7058 of the Business and Professions Code. Each bidder shall set forth on the Bidder's Information Sheet and the Contractor's License Affidavit the classification and number of the requisite license which that bidder holds.

The **AGENCY** reserves the right to award the contract to the contractor with another license class if the **AGENCY** determines that the license class is proper for the proposed work.

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. **Please note:** *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.* Any bids submitted without proof that bidder and any listed subcontractor(s) are currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the Agency.

The Scope of Work is as follows: The Project provides for certain improvements, including an additional northbound through lane, an additional southbound approach lane, a westbound right-turn lane, increased traffic lane widths along Grand Avenue, sidewalk widening, new decorative traffic signals, new street lights on the north side of Golden Springs Drive and the replacement of the golf cart tunnel underneath Grand Avenue. In addition, the project includes the installation of landscaping based upon plans prepared by the City of Diamond Bar to match the existing landscaping treatment at nearby intersections.

Plans and Specifications are available for inspection at the City Administrative Office located at 15625 E. Stafford Street, Suite 100, City of Industry, California 91744.

Two pre-bid meetings will be conducted by the Engineer at the job site on **Monday, September 10, 2018 at 10:00 A.M.**, and **Wednesday, September 12, 2018 at 10:00 A.M.** Attendees will meet at 707 Grand Ave, Diamond Bar, CA 91765 (parking lot). All bidders are required to attend; it is mandatory to attend one of the pre-bid meetings.

Online Questions and Answers will be due via the City of Industry's PlanetBids™ vendor portal on **Thursday, September 20, 2018 at 5:00 P.M.**

The bid shall be accompanied by a bid guarantee in the form of a Cashier's Check or Bidder's Bond for not less than ten percent (10%) of the total amount of the bid, payable to the **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY**. The bid guarantee is to insure that the bidder, if awarded the work, will enter into a contract with the AGENCY. Failure of a contractor to enter into a contract within ten (10) days following award will cause the bid guarantee to be forfeited. If the bid guarantee is a Cashier's Check it must be delivered to City Hall prior to the bid opening date and time. The Cashier's Check shall be sealed in an envelope, endorsed as follows: GGG-0387 - GRAND AVENUE AND GOLDEN SPRINGS DRIVE INTERSECTION IMPROVEMENTS, City Administrative Offices, 15625 E. Stafford Street, Suite 100, City of Industry, California 91744. If a bid bond is chosen, a scanned PDF will be accepted through PlanetBids™, however, the three apparent low bidders will be contacted to submit the original bid bond to the Agency and will be given a deadline to submit.

The AGENCY may, upon refusal or failure of a successful responsible bidder to accept the contract, award it to the next lowest bidder. If the AGENCY awards the contract to the second lowest bidder, the amount of the lowest bidder's bid guarantee shall be applied by the AGENCY to the difference between the low bid and the second lowest bid; the surplus, if any, shall be returned to the lowest bidder if cash is used, or to the surety company if a bond is used.

The successful bidder will be required to furnish a labor and materials bond in an amount equal to one hundred percent (100%) of the contract price and a faithful performance bond in an amount equal to one hundred percent (100%) of the contract price. A maintenance bond equal to ten percent (10%) of the total bid price amount is to remain in force for one (1) year after the date of completion of work, shall be submitted prior to execution of contract. The above bonds shall be secured by a surety company satisfactory to the AGENCY, and licensed as a Surety Insurer in the State of California and rated at least B+:V in the latest "Best's Insurance Guide." The attached bond forms shall be used without exception.

## **CONTRACTOR**

### **INSURANCE**

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.



Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the Agency.

Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of Agency, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the Agency.

**General Liability Insurance.** Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than \$5,000,000 per occurrence, \$10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a \$5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

**Automobile Liability Insurance.** Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than \$1,000,000 combined single limit for each accident.

**Umbrella or Excess Liability Insurance.** Contractor shall obtain and maintain an umbrella or excess liability insurance that will provide bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages set forth above, including commercial general liability and employer's liability. Such policy or policies shall include the following terms and conditions:

- A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;
- Pay on behalf of wording as opposed to reimbursement;
- Concurrency of effective dates with primary policies;
- Policies shall "follow form" to the underlying primary policies; and
- Insureds under primary policies shall also be insureds under the umbrella or excess policies.

**Workers' Compensation Insurance.** Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least \$1,000,000) for Contractor's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code. In addition, Contractor shall require each subcontractor to similarly maintain

Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the Agency, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the Agency, its officers, agents, employees and volunteers.

**Pollution Liability Insurance.** Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the Agency providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than \$1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

**Completed Operations Coverage.** Products/completed operations coverage shall extend a minimum of ten years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The Agency, its officials, officers, agents, and employees, shall be included as insureds under the policy.

**Builder's Risk Insurance.** Upon commencement of construction and with approval of Agency, Contractor shall obtain and maintain builder's risk insurance for the entire duration of the Project until only the Agency has an insurable interest. The Builder's Risk coverage shall include the coverages as specified below.

The named insureds shall be Contractor and Agency, including its officers, officials, employees, and agents. All Subcontractors (excluding those solely responsible for design work) of any tier and suppliers shall be included as additional insureds as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to the Agency. The policy shall contain a provision that all proceeds from the builder's risk policy shall be made payable to the Agency. The Agency will act as a fiduciary for all other interests in the Project.

A Policy shall be provided for replacement value on an "all risk" basis for the completed value of the project. There shall be no coinsurance penalty or provisional limit provision in any such policy. The Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area. Such

insurance shall be on a form acceptable to the Agency to ensure adequacy of terms and sublimits and shall be submitted to the Agency prior to commencement of construction.

Other provisions or requirements:

**Proof of Insurance.** Contractor shall provide certificates of insurance to the Agency as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the Agency's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the Agency at all times during the term of this contract. The Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.

**Duration of Coverage.** Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The Agency and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

**Primary/Noncontributing.** Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the Agency shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the Agency before the Agency's own insurance or self-insurance shall be called upon to protect it as a named insured.

**Agency's Rights of Enforcement.** In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the Agency has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the Agency will be promptly reimbursed by Contractor or the Agency will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the Agency may cancel this Agreement.

**Acceptable Insurers.** All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the Agency's risk manager.

**Waiver of Subrogation.** All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against Agency, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against Agency, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

**Enforcement of Contract Provisions (non estoppel)**. Contractor acknowledges and agrees that any actual or alleged failure on the part of the Agency to inform Contractor of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

**Requirements Not Limiting**. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

**Notice of Cancellation**. Contractor agrees to oblige its insurance agent or broker and insurers to provide to Agency with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

**Additional Insured Status**. General liability policies shall provide or be endorsed to provide that Agency and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

**Prohibition of Undisclosed Coverage Limitations**. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to Agency and approved of in writing.

**Separation of Insureds**. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

**Pass Through Clause**. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to Agency for review.

**Agency's Right to Revise Requirements**. The Agency reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the Agency and Contractor may renegotiate Contractor's compensation.

**Self-insured Retentions**. Any self-insured retentions must be declared to and approved by Agency. Agency reserves the right to require that self-insured retentions be eliminated, lowered,

or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the Agency.

**Timely Notice of Claims.** Contractor shall give Agency prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

**Additional Insurance.** Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

## EXPERIENCE AND SAFETY

The successful bidder may be required to submit a statement attesting to its financial responsibility, technical ability, experience, and safety record.

## PREVAILING WAGES

- A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made By the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for Los Angeles County. Wage rates shall conform to those on file at City Hall and the Project site.
- B. The following Labor Code sections are hereby referenced and made a part of this Agreement:
  - (i) Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.
  - (ii) Section 1777.4, Apprenticeship Requirements.
  - (iii) Section 1777.5, Apprenticeship Requirements.
  - (iv) Section 1813, Penalty for Failure to Pay Overtime.
  - (v) Section 1810 and 1811, Working Hour Restrictions.
  - (vi) Section 1775, Payroll Records.
  - (vii) Section 1773.8, Travel and Subsistence Pay.

## CONTRACTOR REGISTRATION PROGRAM

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. ***Please note: 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.*** Any bids submitted without proof that bidder and any listed subcontractor(s) are

currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the Agency.

#### LABOR COMPLIANCE MONITORING AND ENFORCEMENT

The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations (California Labor Code Section 1771.4).

#### AGREEMENT

When the award of a contract is made to a corporation, the Agreement must be signed by the Secretary/Treasurer of the corporation in addition to the signature of the President/Vice President, or the public agency needs to receive a copy of a resolution adopted by the Board of Directors of the corporation indicating that the party executing the contract has the authority to bind the corporation.

#### SURETY BONDS

All surety bonds issued in connection with projects for public works must be accompanied by a power of attorney from the surety company authorizing the person executing the bond to sign on behalf of the company. The power of attorney and the bonds must be executed by the same person, and such signatures shall be notarized.

By the order of the **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY** dated **July 26, 2018**.

---

Mark D. Radecki, Chairman

**EXHIBIT D**

Reduced Set of Project Plans

[Attached]

**CONSTRUCTION NOTES**

- 1 REMOVE CONCRETE SIDEWALK
- 2 REMOVE CONCRETE CURB
- 3 REMOVE CONCRETE CURB AND GUTTER
- 4 REMOVE CONCRETE MEDIAN ISLAND
- 5 REMOVE CONCRETE CURB RAMP
- 6 REMOVE CONCRETE DRIVEWAY
- 7 REMOVE CONCRETE BLOCK WALL
- 8 REMOVE BITUMINOUS PAVEMENT
- 9 REMOVE CL FENCE
- 10 REMOVE CONCRETE CROSS GUTTER
- 11 CONSTRUCT CONCRETE CURB (TYPE A1-6) PER APWA STANDARD PLAN 120-2
- 12 CONSTRUCT CONCRETE CURB (TYPE A1-8) PER APWA STANDARD PLAN 120-2
- 13 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8) PER APWA STANDARD PLAN 120-2
- 14 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-6) PER APWA STANDARD PLAN 120-2
- 15 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-8, W = 1') PER APWA STANDARD PLAN 120-2
- 16 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8, W = 1') PER APWA STANDARD PLAN 120-2
- 17 CONSTRUCT CONCRETE CURB, MEDIAN NOSE TRANSITION
- 18 CONSTRUCT CURB RAMP PER APWA STANDARD PLAN 111-5. CASE & TYPE PER PLAN
- 19 CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
- 20 CONSTRUCT CONCRETE DRIVEWAY PER CALTRANS STANDARD PLAN AB7A (COMMERCIAL W=32')
- 21 CONSTRUCT PAVEMENT, 0.25' THICK ASPHALT CONCRETE PAVEMENT OVER 0.33' THICK UNTREATED BASE (CAB)
- 22 CONSTRUCT PAVEMENT, 0.5' THICK ASPHALT CONCRETE OVER 0.8' THICK UNTREATED BASE (CAB) OVER 1.1' CLASS 2 AGGREGATE SUBBASE
- 23 CONSTRUCT CONCRETE PAD, SEE TUNNEL PLANS FOR DETAIL
- 24 CONSTRUCT AC OVERLAY, MAX 0.5' COLD MILLING EXISTING PAVEMENT AND MINIMUM 0.3' ASPHALT CONCRETE PAVEMENT
- 25 CONSTRUCT AC OVERLAY, MAX 0.33' COLD MILL EXISTING PAVEMENT AND MINIMUM 0.33' THICK ASPHALT CONCRETE PAVEMENT
- 26 MEDIAN TAPER PER APWA STD PLAN 140-3
- 27 CONSTRUCT RW, SEE "RETAINING WALL PLANS"
- 28 CONSTRUCT GOLF CART TUNNEL, SEE TUNNEL PLANS
- 29 CONSTRUCT MGS (WOOD POST), TYPE 11B LAYOUT PER CALTRANS STANDARD PLANS AT71L AND AT71P
- 30 CONSTRUCT ALTERNATIVE FLARED TERMINAL SYSTEM
- 31 CONSTRUCT END ANCHOR ASSEMBLY (TYPE SFT) PER CALTRANS STANDARD PLAN AT751
- 32 CONSTRUCT CL FENCE (H=6') PER APWA STD PLAN 600-3
- 33 CONSTRUCT CL GATE, 4' WALK GATE PER APWA STD PLAN 600-3
- 34 RELOCATE EXISTING STREETLIGHT 24" BEHIND PROPOSED CURB & GUTTER (BY OTHERS)
- 35 INSTALL STREETLIGHT 24" BEHIND PROPOSED CURB & GUTTER (BY OTHERS)
- 36 PROTECT-IN-PLACE
- 37 REMOVE ABANDONED CABINET
- 38 ADJUST PULL BOX TO GRADE (BY OTHERS)
- 39 ADJUST MANHOLE COVER TO GRADE (BY OTHERS)
- 40 ADJUST WATER VALVE TO GRADE (BY OTHERS)
- 41 RELOCATE TRAFFIC CONTROL AND SIGNAL CABINETS
- 42 ADJUST EXISTING SCE VAULT (BY OTHERS)
- 43 RELOCATE EXISTING POWER METER CABINET (BY OTHERS)
- 44 RELOCATE EXISTING UTILITY VAULT (BY OTHERS)
- 45 RELOCATE EXISTING WATER METER (BY OTHERS)
- 46 RELOCATE EXISTING WATER VALVE (BY OTHERS)
- 47 RELOCATE EXISTING FIRE HYDRANT (BY OTHERS)
- 48 RELOCATE EXISTING RECLAIMED WATER VENT (BY OTHERS)
- 49 RELOCATE EXISTING EDISON VENT (BY OTHERS)
- 50 RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET (BY OTHERS)
- 51 RELOCATE EXISTING FRONTIER PULL BOX (BY OTHERS)
- 52 RELOCATE EXISTING IRRIGATION CABINET
- 53 RELOCATE EXISTING SCE SPICE BOX (BY OTHERS)
- 54 RELOCATE EXISTING ELECTRICAL PULL BOX (BY OTHERS)

# CITY OF DIAMOND BAR

DEPARTMENT OF PUBLIC WORKS  
PLANS FOR THE IMPROVEMENT OF

## GRAND AVENUE/GOLDEN SPRINGS DRIVE

FROM 732 FT NORTH OF GOLDEN SPRINGS DRIVE TO LAVENDER DRIVE ON GRAND AVENUE  
AND  
FROM 673 FT WEST OF GRAND AVE TO 484 FT EAST OF GRAND AVE ON GOLDEN SPRINGS DRIVE  
PROJECT NO. XXXXX

TO BE SUPPLEMENTED BY APWA STANDARD PLANS 2015  
AND CALTRANS STANDARD PLANS 2015

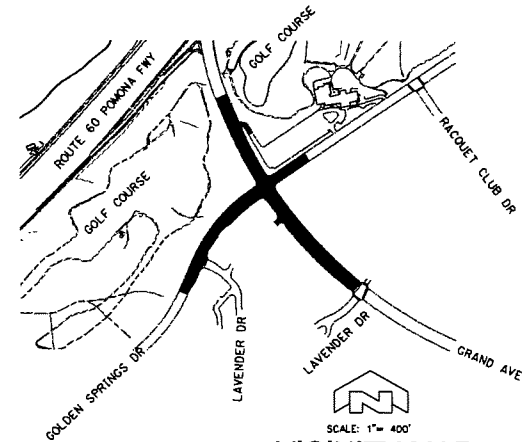


**UTILITY AGENCIES**

- FRONTIER
- USA
- SOUTHERN CALIFORNIA EDISON COMPANY
- WALNUT VALLEY WATER DISTRICT
- SOUTHERN CALIFORNIA GAS COMPANY
- SPECTRUM
- WASTE MANAGEMENT
- VALLEY VISTA SERVICES

**PHONE NO.**

- 909-469-6369
- 800-422-4133
- 909-592-3766
- 909-595-1268
- 714-634-3037
- 626-914-4382
- 626-960-7551
- 626-330-3219



SCALE: 1" = 400'  
**VICINITY MAP**

**NOTICE TO THE CONTRACTOR**

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THIS PLAN BY THE CITY OF DIAMOND BAR DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF LOCATION OR WHERE THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEANS TO PROTECT THE UTILITY LINES NOT RECORDED OR NOT SHOWN ON THESE PLANS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY FOR 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 CITY AND THE ENGINEER HARMLESS FOR ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR THE ENGINEER.

CONTRACTOR IS HEREBY INFORMED ABOUT A CALTRANS PROJECT (SR-60) WHICH MAY INVOLVE ON AND OFF RAMP CLOSURE(S), DETOURS(S) AND POSSIBLE WORK IN THE VICINITY OF THE EAST BOUND SR-60 ON- AND OFF-RAMPS, CONSISTING OF CONSTRUCTION OF CURB & GUTTER, SIDEWALK, CURB RAMP, CURB RETURNS AND SIGNAL POLE RELOCATION.

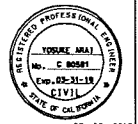
**INDEX OF SHEETS**

- 1-2 TITLE AND GENERAL NOTES
- 3-5 TYPICAL CROSS SECTIONS
- 6-9 PLAN AND PROFILE
- 10-17 CONSTRUCTION DETAILS
- 18-23 GRADING PLANS
- 24-30 DRAINAGE PLANS
- 31-33 UTILITY PLANS
- 34-58 STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS
- 59-62 PAVEMENT DELINEATION PLANS
- 63-65 SIGN PLANS
- 66-73 RETAINING WALL PLANS
- 74-81 LANDSCAPE & IRRIGATION PLAN
- 82 EROSION CONTROL PLAN
- 83-85 LIGHTING PLANS
- 86-88 TEMPORARY STREET LIGHTING PLANS
- 89-90 TRAFFIC SIGNAL PLANS
- 91-101 TEMPORARY TRAFFIC SIGNAL PLANS
- 102-103 TRAFFIC SIGNAL MODIFICATION PLANS
- 104-111 TUNNEL PLANS
- 112-116 LOG OF TEST BORINGS
- 117-139 STREET LANDSCAPING PLANS

**UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA**

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCES OF UNDERGROUND FACILITIES NOT SHOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.

48 HOURS PRIOR TO ANY EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UNDERGROUND UTILITIES SERVICE ALERT AT 1-(800)-422-4133.



**CITY OF DIAMOND BAR**  
**TITLE SHEET FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET T-1 SHEET 1 OF 139

REVISIONS			
CHECKED BY	DATE	CHECKED BY	DATE

<b>BENCHMARK</b> CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.
--

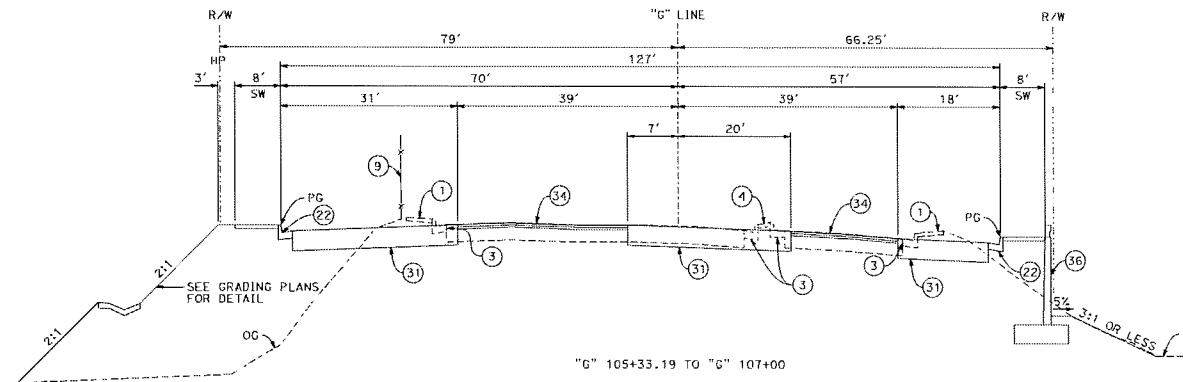
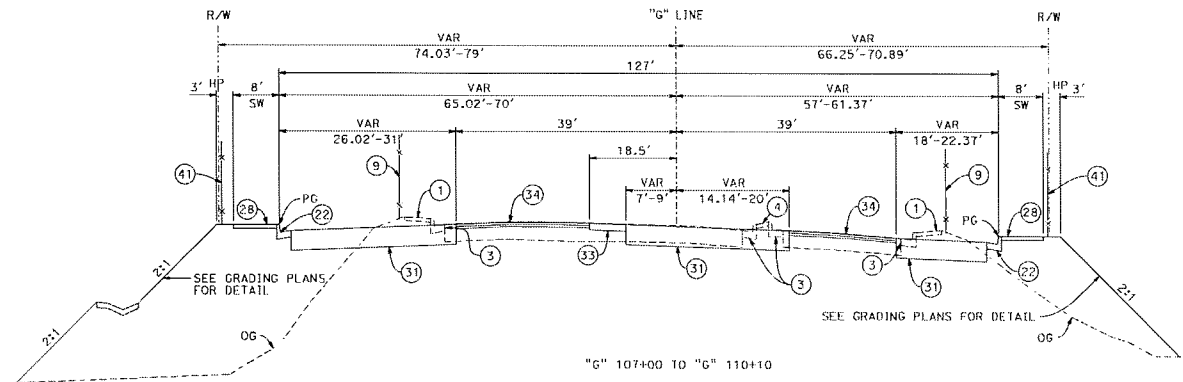
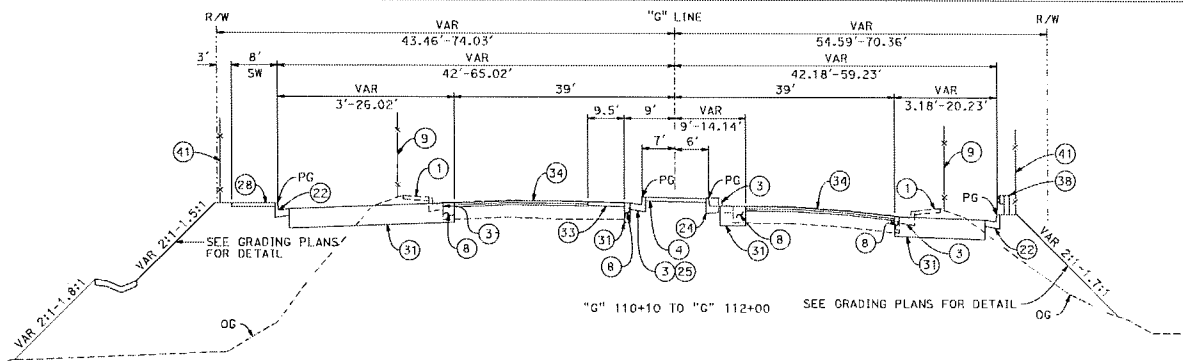
<b>PREPARED BY</b> WKE PREPARED UNDER THE SUPERVISION OF S:	400 N. Tustin Ave, Suite 275 Orange, CA 92666 Phone (714) 963-2888 Fax (714) 963-2888
<b>DATE</b>	<b>EXP.</b>

<b>APPROVED</b>	<b>DATE</b>
<b>DATE</b>	<b>EXP.</b>









**GRAND AVENUE**  
NO SCALE

**CONSTRUCTION NOTES**

- ① REMOVE CONCRETE SIDEWALK
- ③ REMOVE CONCRETE CURB AND GUTTER
- ④ REMOVE CONCRETE MEDIAN ISLAND
- ⑧ REMOVE BITUMINOUS PAVEMENT
- ⑨ REMOVE CL FENCE
- ②② CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B) PER APWA STANDARD PLAN 120-2
- ②④ CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-8, W = 1') PER APWA STANDARD PLAN 120-2
- ②⑤ CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8, W = 1') PER APWA STANDARD PLAN 120-2
- ②⑧ CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
- ③① CONSTRUCT PAVEMENT, 0.5" THICK ASPHALT CONCRETE OVER 0.8" THICK UNTREATED BASE (CAB) OVER 1:1 CLASS 2 AGGREGATE SUBBASE
- ③③ CONSTRUCT AC OVERLAY, MAX 0.5" COLD MILLING EXISTING PAVEMENT AND MINIMUM 0.5" ASPHALT CONCRETE PAVEMENT
- ③④ CONSTRUCT AC OVERLAY, MAX 0.33" COLD MILL EXISTING PAVEMENT AND MINIMUM 0.33" THICK ASPHALT CONCRETE PAVEMENT
- ③⑥ CONSTRUCT RW, SEE "RETAINING WALL PLANS"
- ③⑧ CONSTRUCT MGS (WOOD POST) TYPE 11B LAYOUT PER CALTRANS STANDARD PLANS AT11 AND A77P1
- ④① CONSTRUCT CL FENCE [H=6'] PER APWA STD PLAN 600-3



05-JUL-2018

**CITY OF DIAMOND BAR**  
**TYPICAL CROSS SECTIONS FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **X-2** SHEET 4 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BENCHMARK: **STATIONER'S POINT** (SEE PLAN) IS A BENCHMARK OF THE **1988** NATIONAL ADJUSTMENT OF 1985, 1997, 2001 EPOCH. **STATIONER'S POINT** IS A BENCHMARK OF THE **1988** NATIONAL ADJUSTMENT OF 1985, 1997, 2001 EPOCH. **STATIONER'S POINT** IS A BENCHMARK OF THE **1988** NATIONAL ADJUSTMENT OF 1985, 1997, 2001 EPOCH.

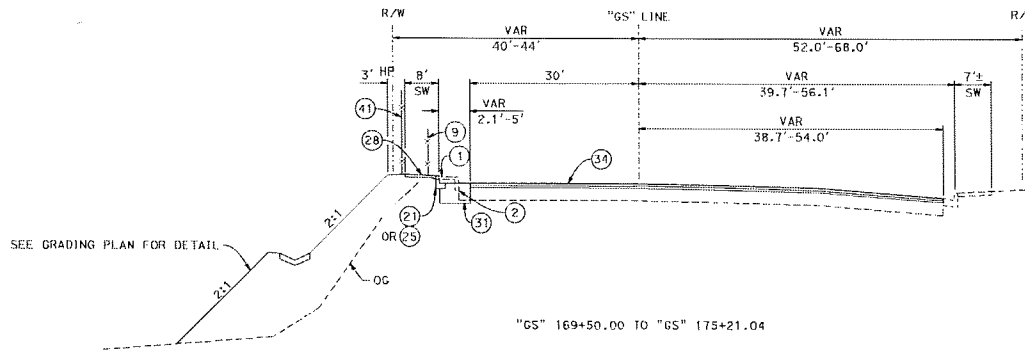
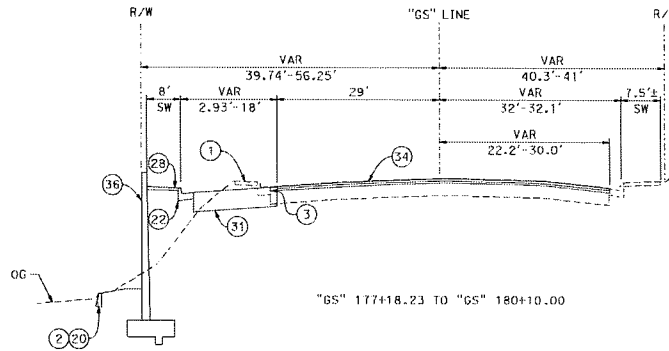
PREPARED BY: **WKE**  
480 N. Tenth Ave, Suite 275  
Diamond Bar, CA 91765  
Phone (714) 963-2888  
Fax (714) 963-2888

PREPARED UNDER THE SUPERVISION OF:  
**DANIEL C. REWELL** PCE 59434 DATE EXP. 12/31/19

DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_

**CONSTRUCTION NOTES**

- ① REMOVE CONCRETE SIDEWALK
- ② REMOVE CONCRETE CURB
- ③ REMOVE CONCRETE CURB AND GUTTER
- ⑨ REMOVE CL FENCE.
- ⑳ CONSTRUCT CONCRETE CURB (TYPE A1-G) PER APWA STANDARD PLAN 120-2
- ㉑ CONSTRUCT CONCRETE CURB (TYPE A1-B) PER APWA STANDARD PLAN 120-2
- ㉒ CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B) PER APWA STANDARD PLAN 120-2
- ㉓ CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B, W = 1') PER APWA STANDARD PLAN 120-2
- ㉔ CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
- ㉕ CONSTRUCT PAVEMENT, 0.5' THICK ASPHALT CONCRETE OVER 0.8' THICK UNTREATED BASE (CAB) OVER 1.1' CLASS 2 AGGREGATE SUBBASE
- ㉖ CONSTRUCT AC OVERLAY, MAX 0.33' COLD MILL EXISTING PAVEMENT AND MINIMUM 0.33' THICK ASPHALT CONCRETE PAVEMENT
- ㉗ CONSTRUCT RW, SEE "RETAINING WALL PLANS"
- ㉘ CONSTRUCT CL FENCE (H=6') PER APWA STD PLAN 600-3



**GOLDEN SPRINGS DRIVE**  
NO SCALE



**CITY OF DIAMOND BAR**  
**TYPICAL CROSS SECTIONS FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **X-3** SHEET 5 OF 139

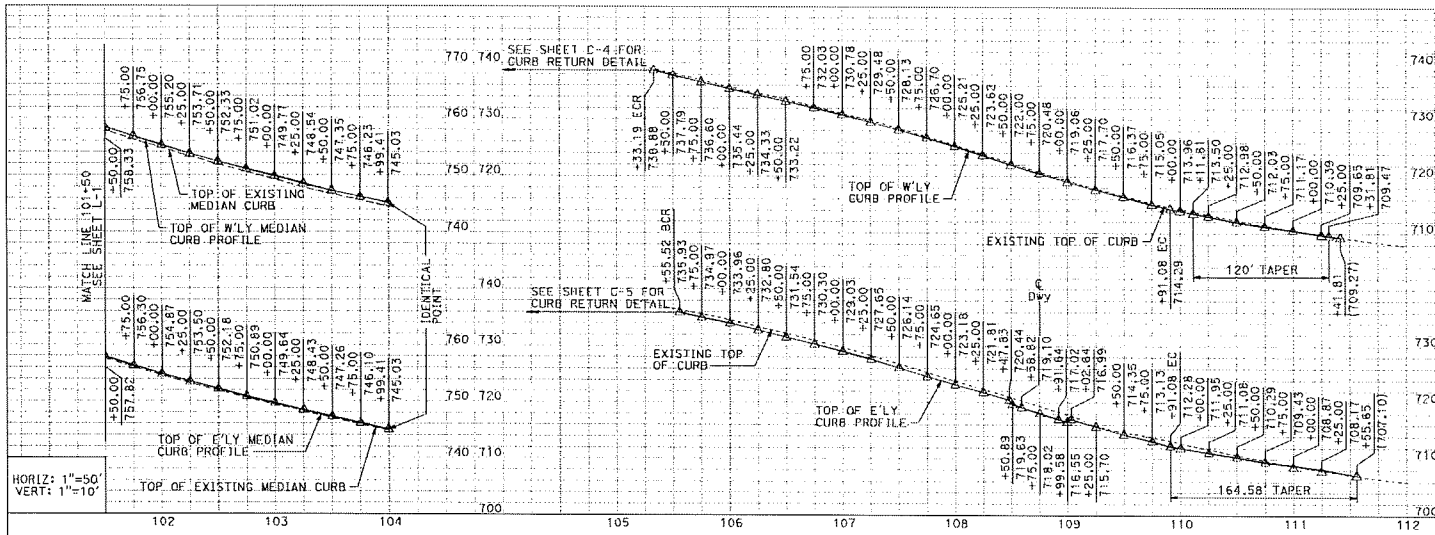
REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NATIONAL DATUM OF 1983, ZONE 5  
 NORTH, 1983 EPOCH OF 1985, 1997.33 EPOCH  
 MEASUREMENTS MADE BY METROL AMERICAN  
 SURVEYING  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK C-420, 1117' ± 0.15, 44' 11.15"

**PREPARED BY:**  
  
 400 N. Twelfth Ave., Suite 275  
 Diamond Bar, CA 91765  
 Phone (714) 963-3885  
 Fax (714) 963-3408  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL Z. RIBBELL REG 54834 DATE OCT. 12/31/19

**SUBMITTER:** \_\_\_\_\_  
**DESIGNER:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CIVIL ENGINEER R.C.P. DATE: \_\_\_\_\_



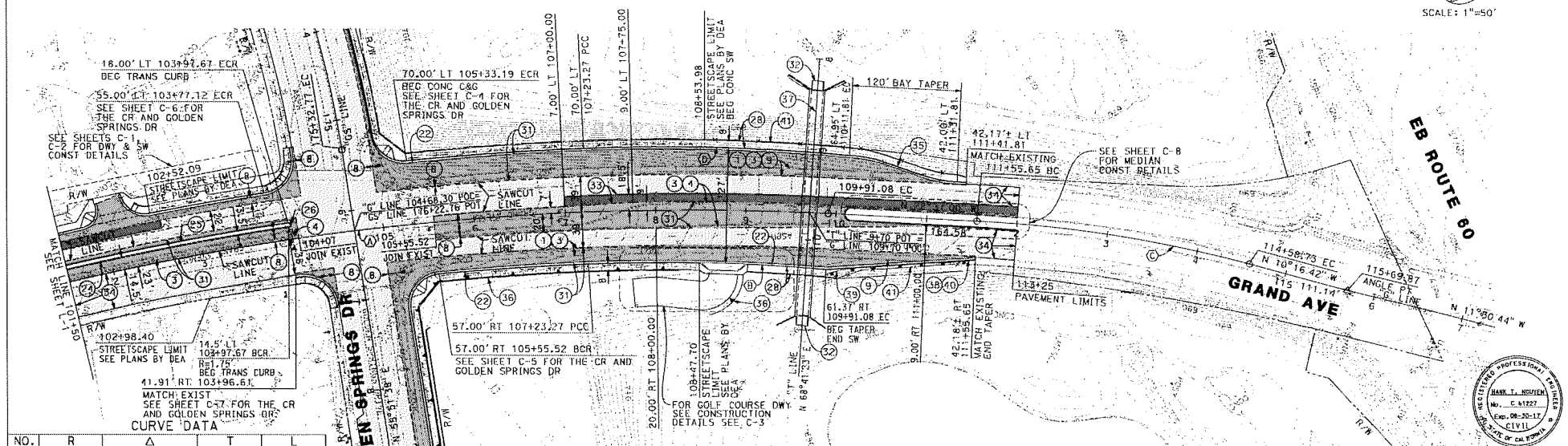


- ### CONSTRUCTION NOTES
- 1 REMOVE CONCRETE SIDEWALK
  - 2 REMOVE CONCRETE CURB AND GUTTER
  - 3 REMOVE CONCRETE MEDIAN ISLAND
  - 4 REMOVE BITUMINOUS PAVEMENT
  - 5 REMOVE CL FENCE
  - 6 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B) PER APWA STANDARD PLAN 120-2
  - 7 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-B, W = 1') PER APWA STANDARD PLAN 120-2
  - 8 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B, W = 1') PER APWA STANDARD PLAN 120-2
  - 9 CONSTRUCT CONCRETE CURB, MEDIAN NOSE
  - 10 CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
  - 11 CONSTRUCT PAVEMENT, 0.5" THICK ASPHALT CONCRETE OVER 0.8" THICK UNTREATED BASE (CAB) OVER 1.1" CLASS 2 AGGREGATE SUBBASE
  - 12 CONSTRUCT CONCRETE PAD; SEE TUNNEL PLANS FOR DETAIL
  - 13 CONSTRUCT AC OVERLAY, MAX 0.5" COLD MILLING EXISTING PAVEMENT AND MINIMUM 0.5" ASPHALT CONCRETE PAVEMENT
  - 14 CONSTRUCT AC OVERLAY, MAX 0.33" COLD MILL EXISTING PAVEMENT AND MINIMUM 0.33" THICK ASPHALT CONCRETE PAVEMENT
  - 15 MEDIAN TAPER PER APWA STD PLAN 140-3
  - 16 CONSTRUCT RW; SEE "RETAINING WALL PLANS"
  - 17 CONSTRUCT GOLF CART TUNNEL, SEE TUNNEL PLANS
  - 18 CONSTRUCT MGS (WOOD POST), TYPE 11B LAYOUT PER CALTRANS STANDARD PLANS ATFL AND ATPT
  - 19 CONSTRUCT ALTERNATIVE FLARED TERMINAL SYSTEM
  - 20 CONSTRUCT END ANCHOR ASSEMBLY (TYPE SET) PER CALTRANS STANDARD PLAN A7751
  - 21 CONSTRUCT CL FENCE (H=6") PER APWA STD PLAN 600-3

### LEGEND

— PROPOSED RETAINING WALL

SCALE: 1"=50'



NO.	R	Δ	T	L
(A)	2999.96'	42°06'26"	1154.80'	2204.70'
(B)	2143.00'	07°01'19"	131.48'	262.64'
(C)	1407.41'	12°20'18"	152.13'	303.08'
(D)	2270.00'	7°26'20"	147.57'	294.72'

REVISIONS

DATE	BY	DATE	BY	DATE	BY

BENCHMARK: COMPANY'S CORNER AND ADJACENT TO THE SOUTH END OF THE 100' X 100' BLOCK CORNER, 1991.35'

VERTICAL DATUM IS MEAN SEA LEVEL

VERTICAL CURVE DATA: 100' PARABOLIC CURVE

DATE: 08/20/17

PREPARED BY: **WKE**

400 N. Twelfth Ave., Suite 475  
Seattle, WA 98105  
Phone: (206) 255-3845  
Fax: (206) 255-3848

PREPARED UNDER THE SUPERVISION OF: MARK T. MOFFER P.E. 10227 DATE: 08/20/17

DATE	BY	DATE	BY

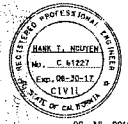
**CITY OF DIAMOND BAR**

**PLAN AND PROFILE FOR GRAND AVE**

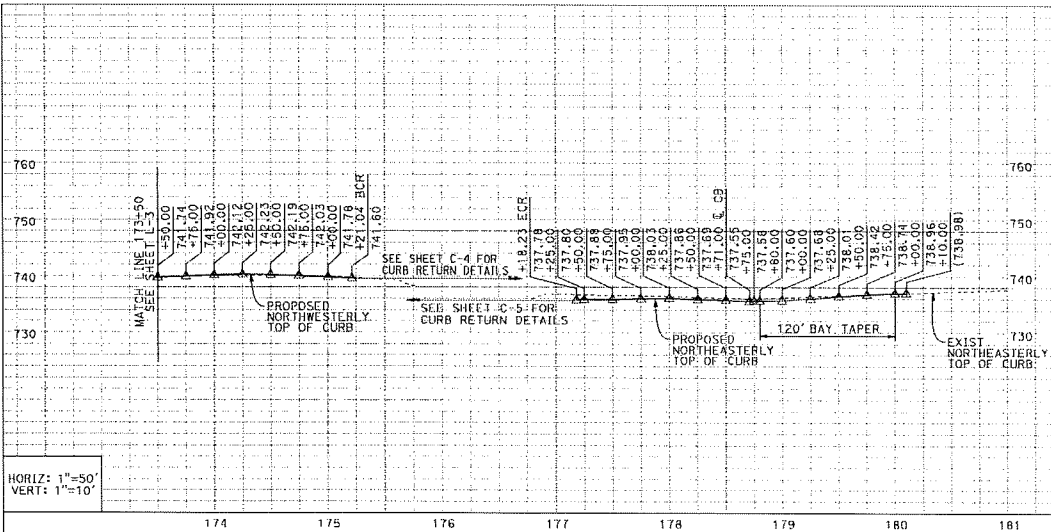
FROM "C" 101+50 TO "C" 117+00

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **SHEET L-2** SHEET 7 OF 139







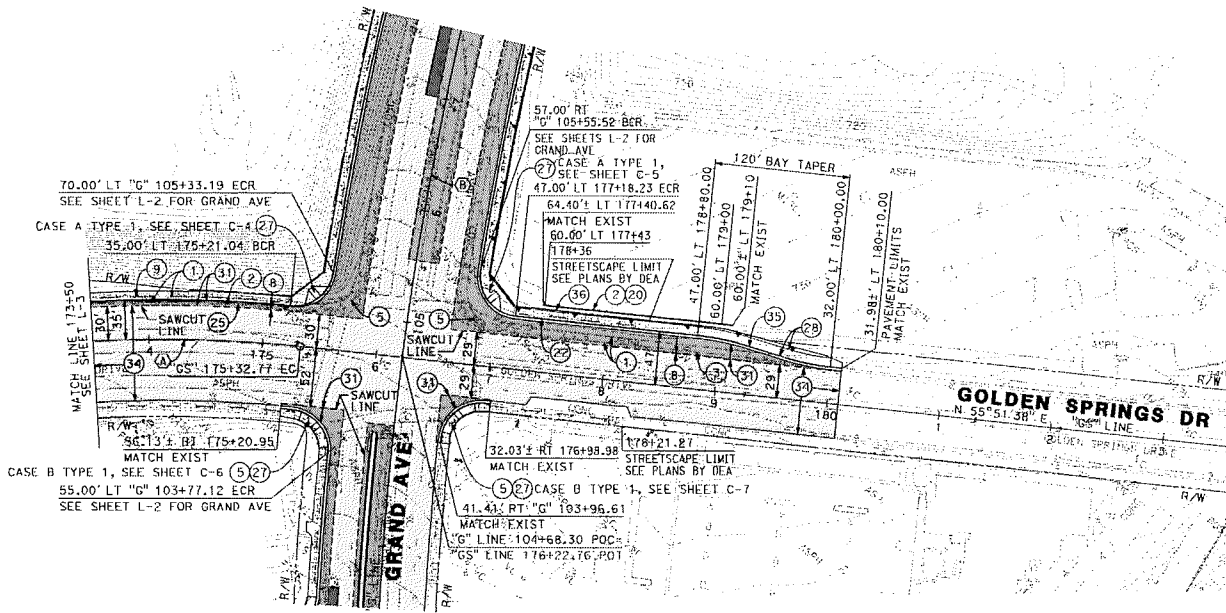
HORIZ: 1"=50'  
VERT: 1"=10'



SCALE: 1"=50'

**CONSTRUCTION NOTES**

- 1 REMOVE CONCRETE SIDEWALK
- 2 REMOVE CONCRETE CURB
- 3 REMOVE CONCRETE CURB AND GUTTER
- 5 REMOVE CONCRETE CURB RAMP
- 8 REMOVE BITUMINOUS PAVEMENT
- 9 REMOVE CL FENCE
- 20 CONSTRUCT CONCRETE CURB (TYPE A1-6) PER APWA STANDARD PLAN 120-2
- 21 CONSTRUCT CONCRETE CURB (TYPE A1-8) PER APWA STANDARD PLAN 120-2
- 22 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8) PER APWA STANDARD PLAN 120-2
- 25 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8, W=17) PER APWA STANDARD PLAN 120-2
- 27 CONSTRUCT CURB RAMP PER APWA STANDARD PLAN 111-5. CASE & TYPE PER PLAN
- 28 CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
- 31 CONSTRUCT PAVEMENT, 0.5" THICK ASPHALT CONCRETE OVER 0.8" THICK UNTREATED BASE (CAB) OVER 1.1" CLASS 2 AGGREGATE SUBBASE
- 34 CONSTRUCT AC OVERLAY, MAX 0.33" COLD MILL EXISTING PAVEMENT AND MINIMUM 0.33" THICK ASPHALT CONCRETE PAVEMENT
- 35 MEDIAN TAPER PER APWA STD PLAN 140-3
- 36 CONSTRUCT RW, SEE "RETAINING WALL PLANS"



**CURVE DATA**

NO.	R	Δ	T	L
(A)	1149.99'	31°49'56"	327.93'	639.91'
(B)	2999.96'	42°06'26"	1154.80'	2204.70'



05-JUL-2018

**CITY OF DIAMOND BAR**

**PLAN AND PROFILE FOR  
GOLDEN SPRINGS DR**  
FROM "GS" 173+50 TO "GS" 183+00  
**DEPARTMENT OF PUBLIC WORKS**

**REVISIONS**

NO.	DATE	BY	DESCRIPTION

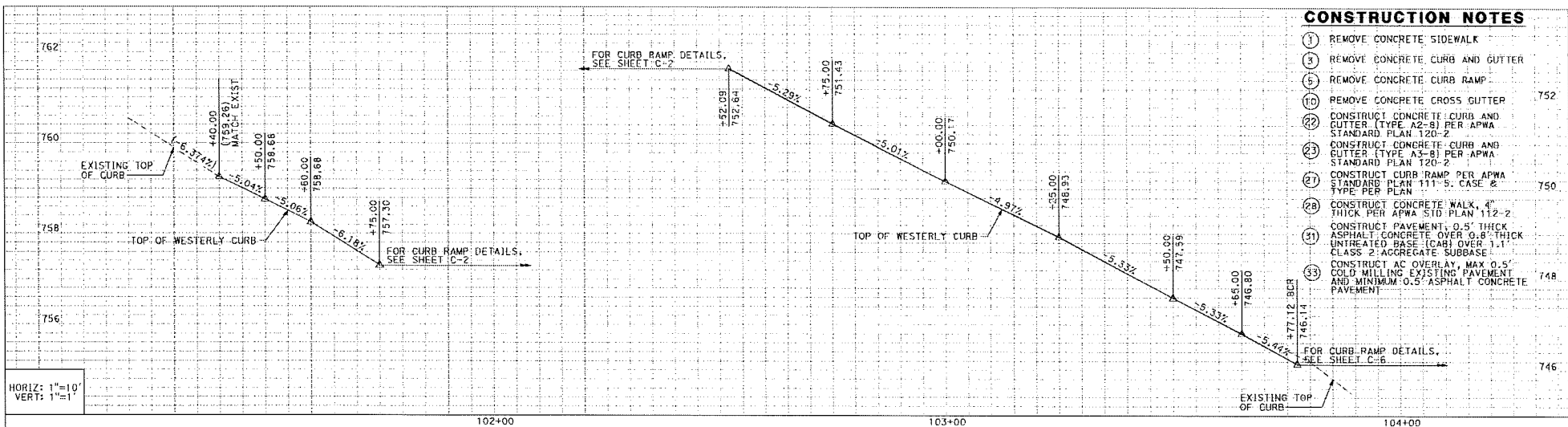
**BENCHMARK:**  
COORDINATES SHOWN ARE BASED ON THE  
NAD 83 DATUM. THE BENCH MARK IS A  
CONCRETE PIPER WITH AN ELEVATION OF  
100.00 FEET.

**PREPARED BY:**  
**WKE**  
499 N. Towler Ave., Suite 200  
Diamond Bar, CA 91765  
Phone: (714) 863-0888  
Fax: (714) 863-0888

**APPROVED:**  
CITY ENGINEER  
DATE: \_\_\_\_\_

PROJECT NO.	SHEET L-4	SHEET 8 OF 139
-------------	-----------	----------------

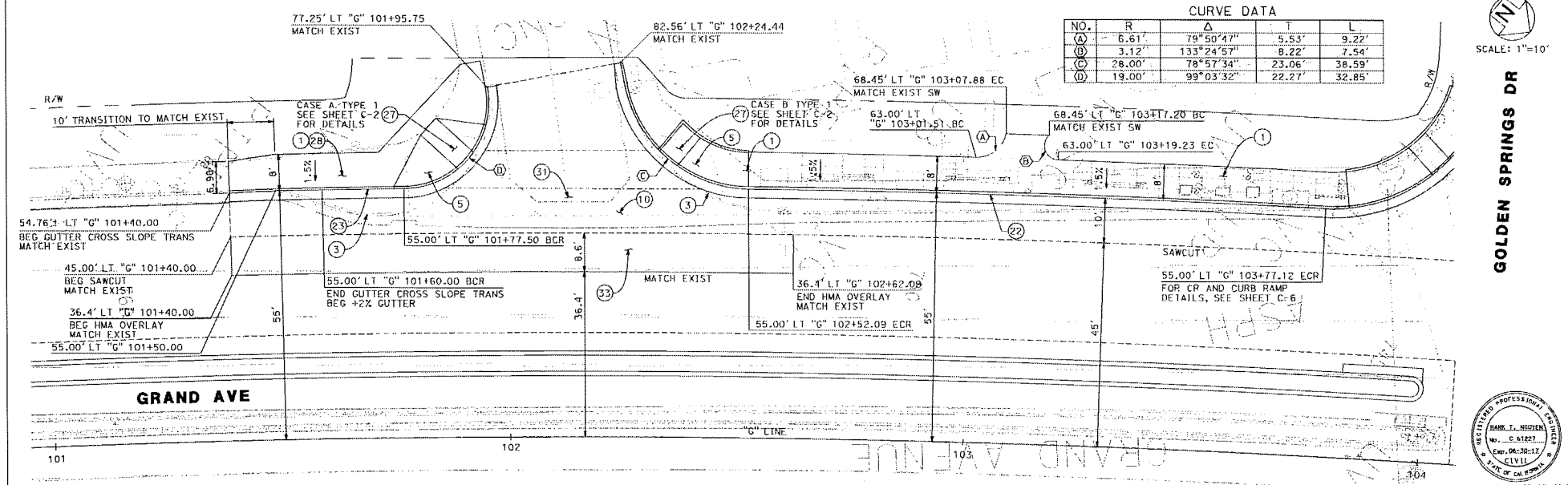




**CONSTRUCTION NOTES**

- 1 REMOVE CONCRETE SIDEWALK
- 3 REMOVE CONCRETE CURB AND GUTTER
- 5 REMOVE CONCRETE CURB RAMP
- 10 REMOVE CONCRETE CROSS GUTTER
- 17 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B) PER APWA STANDARD PLAN 120-2
- 23 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-B) PER APWA STANDARD PLAN 120-2
- 27 CONSTRUCT CURB RAMP PER APWA STANDARD PLAN 111-5, CASE 2 TYPE PER PLAN
- 28 CONSTRUCT CONCRETE WALK, 4" THICK PER APWA STD PLAN 112-2
- 31 CONSTRUCT PAVEMENT, 0.5" THICK ASPHALT CONCRETE OVER 0.8" THICK UNTREATED BASE (CAB) OVER 1.1" CLASS 2 AGGREGATE SUBBASE
- 33 CONSTRUCT AC OVERLAY, MAX 0.5" COLD MILLING EXISTING PAVEMENT AND MINIMUM 0.5" ASPHALT CONCRETE PAVEMENT

HORIZ: 1"=10'  
VERT: 1"=1'



**CURVE DATA**

NO.	R	Δ	T	L
(A)	6.61'	79°50'47"	5.53'	9.22'
(B)	3.12'	133°24'57"	8.22'	7.54'
(C)	28.00'	78°57'34"	23.06'	38.59'
(D)	19.00'	99°03'32"	22.27'	32.85'

SCALE: 1"=10'

GOLDEN SPRINGS DR



**CITY OF DIAMOND BAR**

**CONSTRUCTION DETAILS FOR**  
**GRAND AVE**

FROM "C" 101+00 TO "C" 104+00

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET C-1 SHEET 10 OF 139

**REVISIONS**

CHECKED BY	DATE	REVISION

**BENCHMARK:**  
COORDINATE SHOWN ARE BASED ON THE NATIONAL GRID. THE DATUM IS THE 1983, 1991, 95 EPOCH MEAN SEA LEVEL. THE DATUM OF 1983, 1991, 95 EPOCH MEAN SEA LEVEL IS BASED ON NORTH AMERICAN MEAN SEA LEVEL.

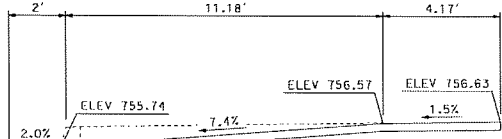
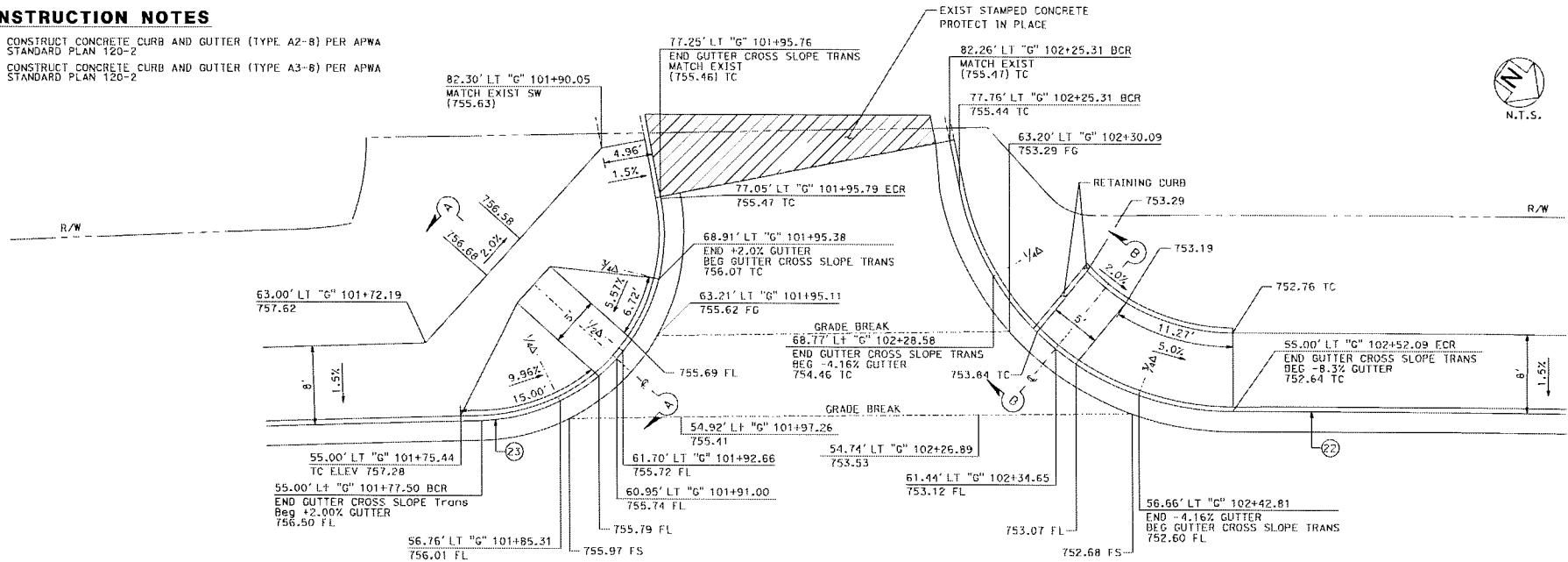
**PREPARED BY:**  
WKE  
400 N. Tustin Ave., Suite 275  
Santa Ana, CA 92705  
Phone (714) 963-2866  
Fax (714) 963-0608

PREPARED UNDER THE SUPERVISION OF:  
HANK T. NIELSEN REG. 81827 DATE 08/28/17

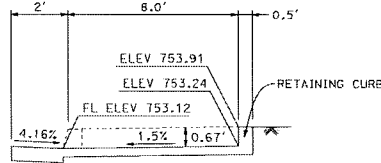
DATE	BY	REVISION

**CONSTRUCTION NOTES**

- 22 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8) PER APWA STANDARD PLAN 120-2
- 23 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-8) PER APWA STANDARD PLAN 120-2



SECTION A-A  
CENTERLINE OF CURB RAMP



SECTION B-B  
CENTERLINE OF CURB RAMP

GRAND AVE 102

"G" LINE



**CITY OF DIAMOND BAR**

**CONSTRUCTION DETAILS FOR  
GRAND AVE**

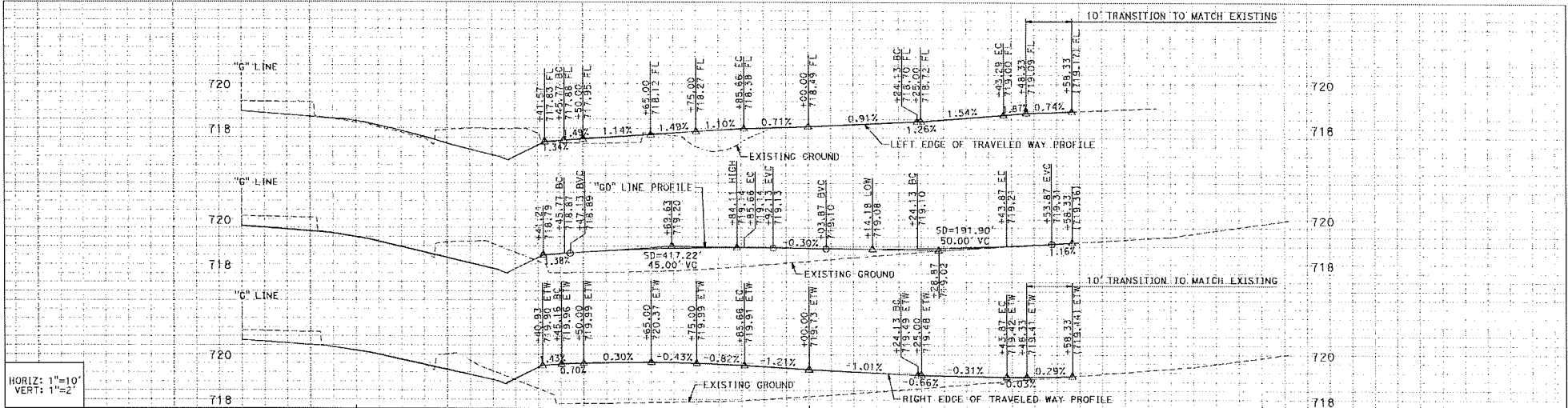
FROM "G" 101+60 TO "G" 102+60

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO.	—	<b>SHEET C-2</b>	SHEET 11 OF 139
-------------	---	------------------	-----------------

REVISIONS						BENCHMARK: COORDINATED SURVEY ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CALTRANS ZONES, 1983) DATUM OF 1985, 1997.35 EPOCH VERTICAL DATUM BASED ON MEAN SEA LEVEL ADJUSTMENT LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK ELEV = 415.94 FEET	PREPARED BY: <b>WKE</b> 400 N. Twain Ave, Suite 215 Diamond Bar, CA 91765 Phone (714) 963-2666 Fax (714) 963-0668	SUBMITTED: REVISION: APPROVED:
DESIGNED BY	REL. NO.	CHECKED BY	REP. NO.	DESIGNED BY	REL. NO.			

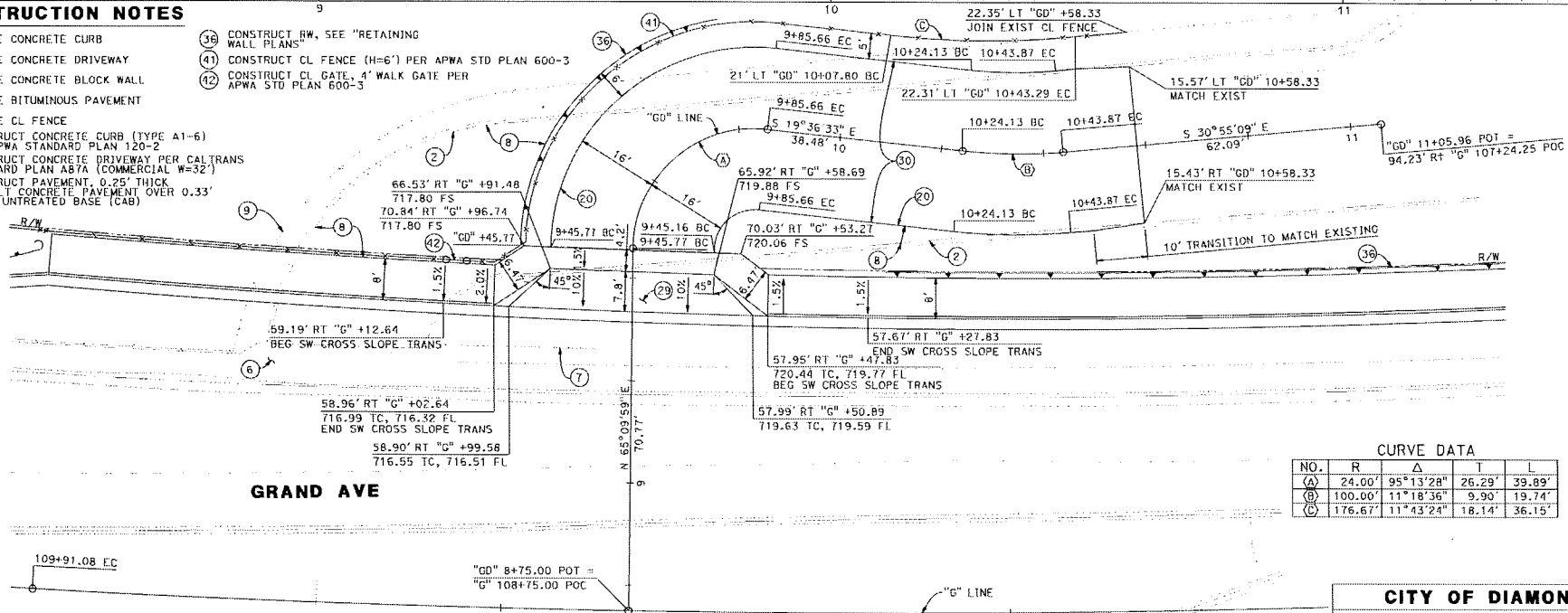
03-JUL-2018



HORIZ: 1"=10'  
VERT: 1"=2'

**CONSTRUCTION NOTES**

- 2 REMOVE CONCRETE CURB
- 6 REMOVE CONCRETE DRIVEWAY
- 7 REMOVE CONCRETE BLOCK WALL
- 8 REMOVE BITUMINOUS PAVEMENT
- 9 REMOVE CL FENCE
- 20 CONSTRUCT CONCRETE CURB (TYPE A1-6) PER APWA STANDARD PLAN 120-2
- 29 CONSTRUCT CONCRETE DRIVEWAY PER CALTRANS STANDARD PLAN A87A (COMMERCIAL W=32')
- 30 CONSTRUCT PAVEMENT, 0.25" THICK ASPHALT CONCRETE PAVEMENT OVER 0.33" THICK UNTREATED BASE (C&B)
- 16 CONSTRUCT HW, SEE "RETAINING WALL PLANS"
- 41 CONSTRUCT CL FENCE (H=6') PER APWA STD PLAN 600-3
- 12 CONSTRUCT CL GATE, 4' WALK GATE PER APWA STD PLAN 600-3



SCALE 1"=10'

**CURVE DATA**

NO.	R	Δ	T	L
(A)	24.00'	95°13'28"	26.29'	39.89'
(B)	100.00'	11°18'36"	9.90'	19.74'
(C)	176.67'	11°43'24"	18.14'	36.15'



**GRAND AVE**

**CITY OF DIAMOND BAR**

**CONSTRUCTION DETAILS FOR GRAND AVE**  
FROM "G" 107+00 TO "G" 110+00  
**DEPARTMENT OF PUBLIC WORKS**

**REVISIONS**

NO.	DATE	BY	DESCRIPTION

**BENCHMARK:**  
COORDINATE SURVEY ARE BASED ON THE 1983 NAD 83 DATUM OF 1983, 1997, 2011 EPOCH  
NORTH AMERICAN DATUM OF 1983, 1997, 2011 EPOCH  
NAD 83 DATUM OF 1983, 1997, 2011 EPOCH  
NAD 83 DATUM OF 1983, 1997, 2011 EPOCH  
NAD 83 DATUM OF 1983, 1997, 2011 EPOCH

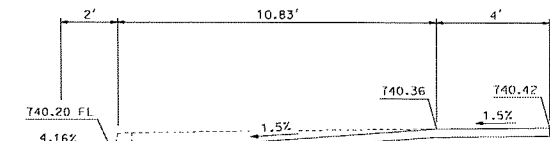
**PREPARED BY:**  
**WKE**  
400 N. Twelfth Ave., Suite 275  
Diamond Bar, CA 91765  
Phone (714) 993-2888  
Fax (714) 993-2888

**APPROVED:**  
DATE: 06/20/17

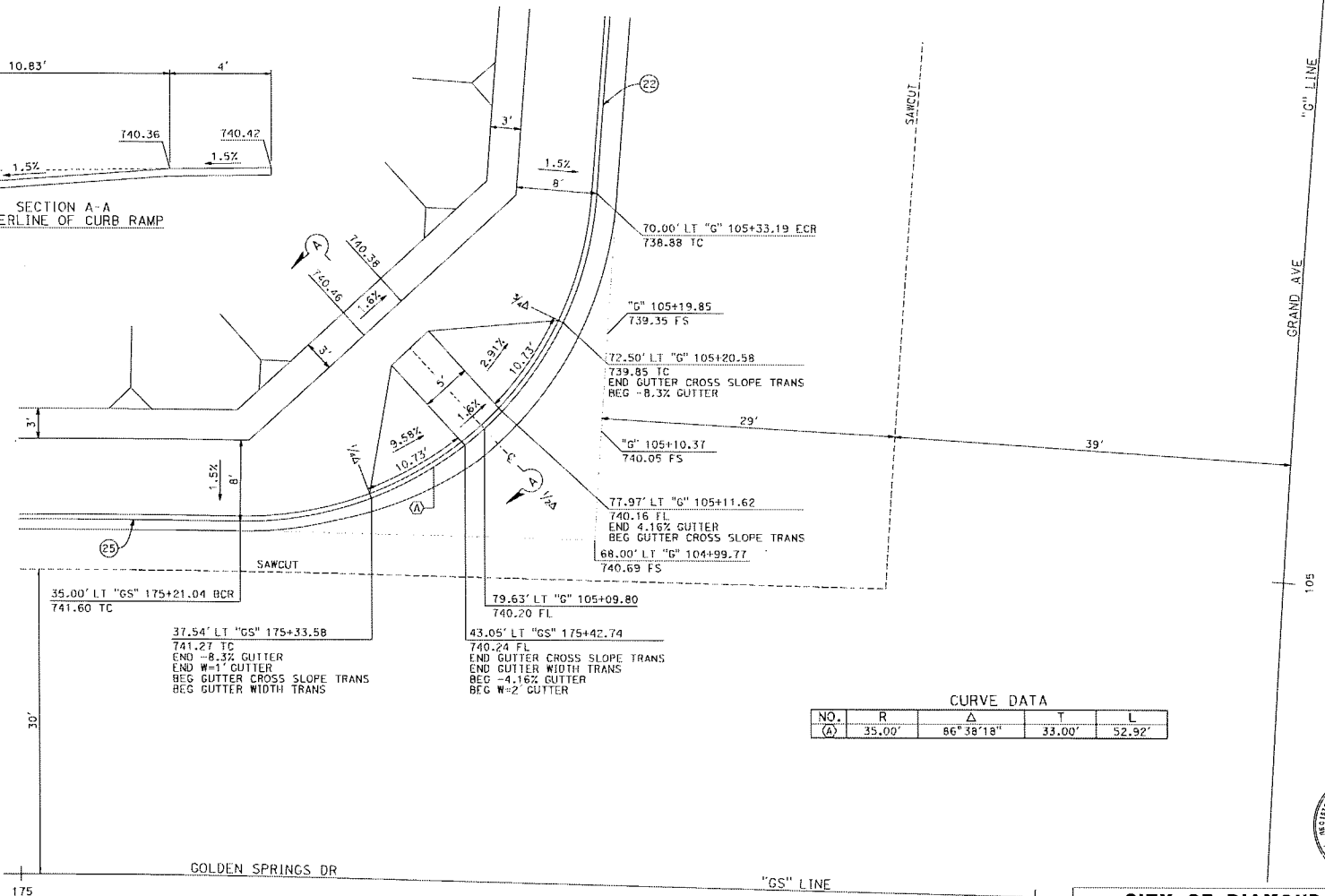
PROJECT NO.	SHEET C-3	SHEET 12 OF 139
-------------	-----------	-----------------

**CONSTRUCTION NOTES**

- (22) CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B) PER APWA STANDARD PLAN 120-2
- (25) CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-B, W = 1') PER APWA STANDARD PLAN 120-2



SECTION A-A  
CENTERLINE OF CURB RAMP



CURVE DATA

NO.	R	Δ	T	L
(A)	35.00'	86° 38' 18"	33.00'	52.92'



**CITY OF DIAMOND BAR**  
**CONSTRUCTION DETAILS FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM 'GS' 175+00 TO 'GS' 176+30  
**DEPARTMENT OF PUBLIC WORKS**

REVISIONS					
NO.	DATE	BY	DESCRIPTION	DATE	BY

**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED TO THE  
 NAD 83 DATUM OF 1983, 1997.50 EPOCH  
 (NAD 83, 1997.50).  
 THESE COORDINATES ARE BASED ON THE  
 NAD 83 DATUM OF 1983, 1997.50 EPOCH.  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK SYSTEM, POINT C 875.00 FEET

**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 210  
 Santa Ana, CA 92705  
 Phone (714) 963-0888  
 Fax (714) 963-0888

**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL S. WINKEL, REG. ENGR. No. 52434 DATE: EXP. 12/31/19

**SUBMITTED:** \_\_\_\_\_  
**REVIEWED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER P.E.C. DATE: \_\_\_\_\_

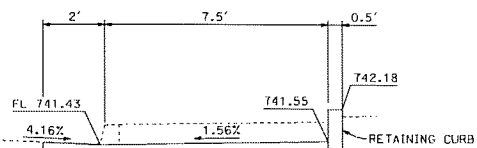
PROJECT NO. \_\_\_\_\_ SHEET C-4 SHEET 13 OF 139





**CONSTRUCTION NOTES**

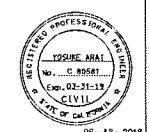
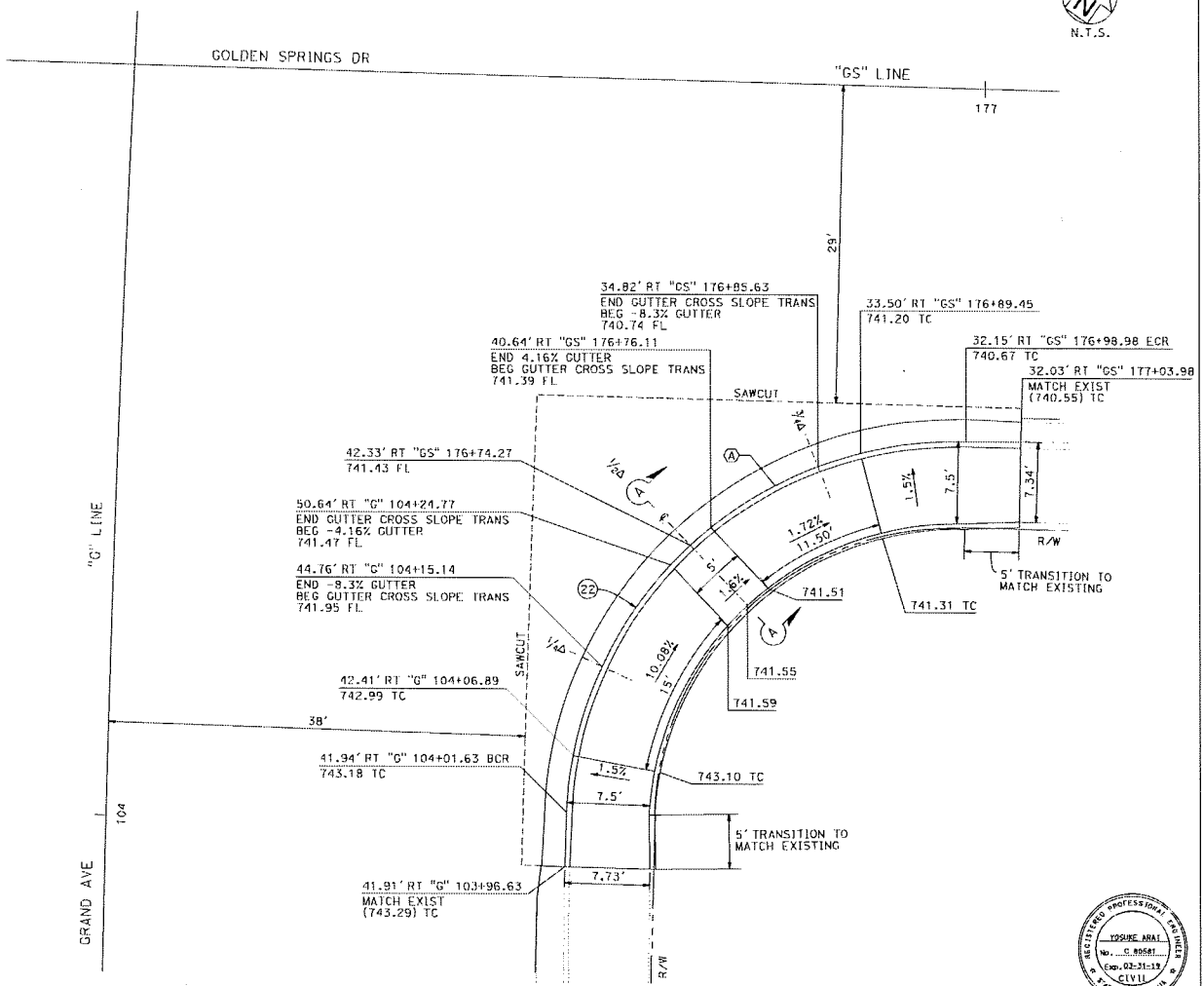
22 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8) PER APWA STANDARD PLAN 120-2



SECTION A-A  
CENTERLINE OF CURB RAMP

**CURVE DATA**

NO.	R	Δ	T	L
(A)	35.50'	88°27'22"	34.56'	54.81'



**CITY OF DIAMOND BAR**

**CONSTRUCTION DETAILS FOR  
GRAND AVE/GOLDEN SPRINGS DR**

FROM 'GS' 176+10 TO 'G' 177+10

**DEPARTMENT OF PUBLIC WORKS**

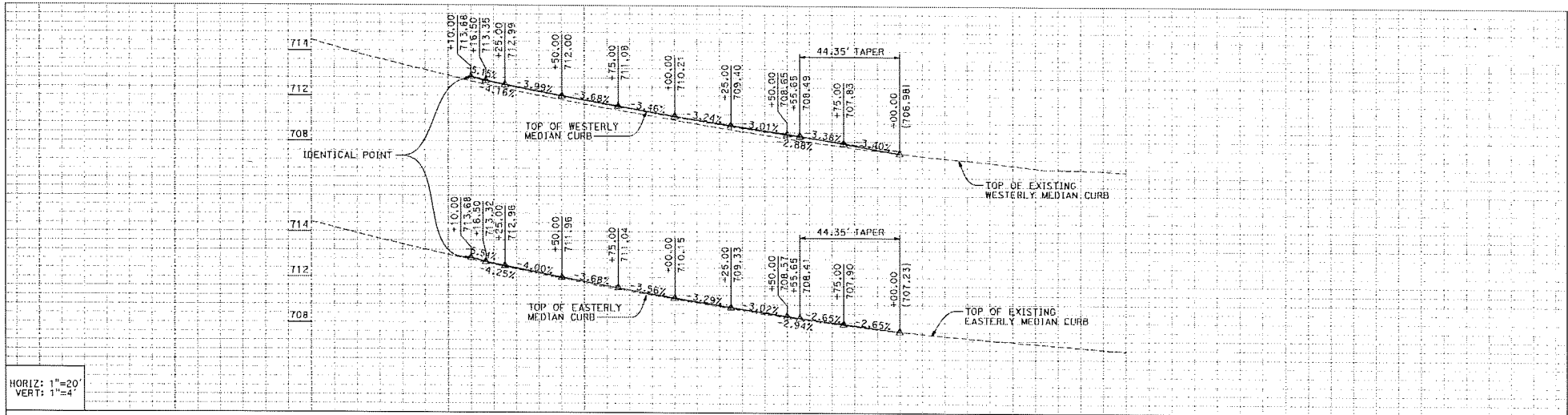
PROJECT NO. — SHEET C-7 SHEET 16 OF 139

REVISIONS					
NO.	DATE	BY	CHKD.	DATE	BY

**BENCHMARK:**  
CONTRIBUTORS SURVEY ARE BASED ON THE  
NATIONAL ADJUSTED DATUM OF 1988. 1983 UTM  
COORDINATES (EASTING 500,000.00; NORTHING  
4570,791.33).  
VERTICAL DATUM IS MEAN SEA LEVEL  
AS DETERMINED BY THE NATIONAL TIDE  
DATUM, 1984.  
LOCAL BENCHMARKS SHALL BE SET AT THE  
DISCRETION OF THE ENGINEER.

**PREPARED BY:**  
**WKE**  
400 N. Twelfth Ave., Suite 200  
San Jose, CA 95128  
Phone (415) 883-2888  
Fax (415) 954-9000  
PREPARED UNDER THE SUPERVISION OF:  
DANIEL S. WENDEL PLS 54934 DATE: 08/12/21/19

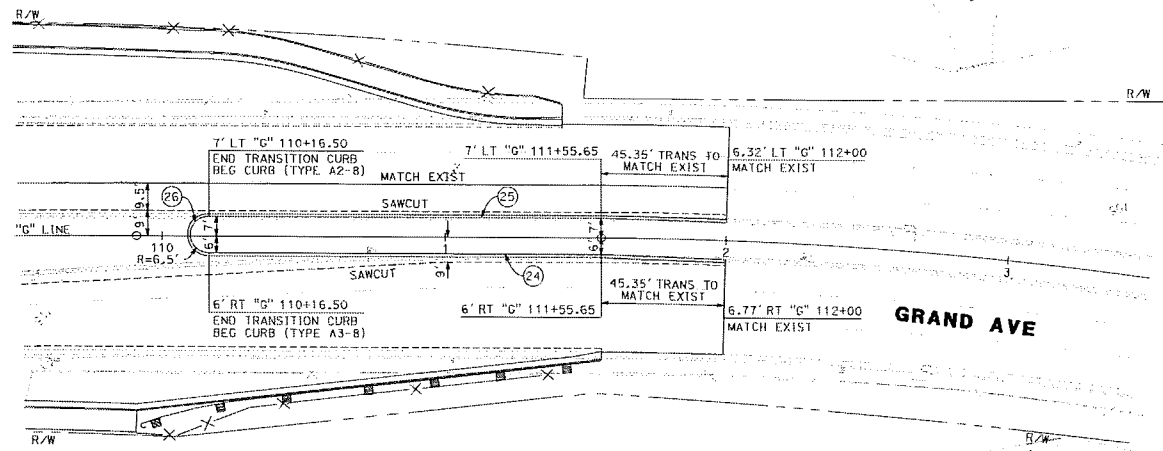
**APPROVED:**  
EITV ENGINEER R.C.S. DATE:



HORIZ: 1"=20'  
VERT: 1"=4'

**CONSTRUCTION NOTES**

- 24 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A3-8, W = 1') PER APWA STANDARD PLAN 120-2
- 25 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A2-8, W = 1') PER APWA STANDARD PLAN 120-2
- 26 CONSTRUCT TRANSITION PCC MEDIAN CURB



REVISIONS					
CHANGED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

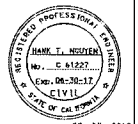
BENCHMARK:  
CONSTRUCTION POINTS ARE BASED TO THE  
NATIONAL ADJUSTED DATUM OF 1985 (NAD 83) EPOCH  
(GAGE: 1981.35).  
DESIGNED AND DRAWN BY: KEVIN WAGNER  
DATE: 08/27/17  
SCALE: 1"=20' (PLAN), 1"=4' (PROFILE)

PREPARED BY:  
**WKE**  
400 N. Tustin Ave., Suite 570  
Santa Ana, CA 92705  
(714) 833-2888  
Fax: (714) 833-5008  
PREPARED UNDER THE SUPERVISION OF:  
NAME: T. HOSNER P.E. 61217 DATE: 08/27/17

APPROVED:  
DATE: 08/27/17  
BY: T. HOSNER  
R.O.C.:  
DATE:

**CITY OF DIAMOND BAR**  
**CONSTRUCTION DETAILS FOR**  
**GRAND AVE**  
FROM "G" 101+00 TO "G" 104+00  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET C-8 SHEET 17 OF 139



08-JA-2018



NOTES:

(GENERAL INFORMATION)

- GRADING PERMIT APPLICATION NO. GR1712190003
- EARTHWORK VOLUMES: CUT 14,481 (CY), FILL 59,197 (CY)
- TOTAL DISTURBED AREA 4.59 ACRES
- TOTAL PROPOSED LANDSCAPE AREA 139,600.32 SQUARE FEET
- TOTAL FILL AREA 0.2% (PERCENT) OF TOTAL PROPOSED LANDSCAPING
- TOTAL DROUGHT TOLERANT LANDSCAPING AREA 80% (PERCENT) OF TOTAL PROPOSED LANDSCAPING
- 100% AFTER ALL PLANT MATERIAL IS ESTABLISHED
- PRE-DEVELOPMENT IMPERVIOUS AREA 1.31 (ACRES)
- POST-DEVELOPMENT IMPERVIOUS AREA 2.29 (ACRES)
- CONSTRUCTION & DEMOLITION DEBRIS RECYCLING AND REUSE PLAN (APP 10) TBD

(PROPERTY INFORMATION)

- PROPERTY ADDRESS: 22751 GOLDEN SPRINGS DRIVE DIAMOND BAR, CA 91765
- PROPERTY OWNER: LA COUNTY
- ASSESSOR'S ID NUMBER(S): 8717-001-906, 8717-002-905

(ZONING, REGIONAL PLANNING, AND OTHER AGENCY INFORMATION)

- PROPERTY ZONING: ZONE C-H
INTENDED LAND USE: COMMERCIAL-RECREATION

GENERAL NOTES:

- 1. ALL GRADING AND CONSTRUCTION SHALL CONFORM TO THE 2017 COUNTY OF LOS ANGELES BUILDING CODES AND THE STATE MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE UNLESS SPECIFICALLY NOTED ON THESE PLANS.
2. ANY MODIFICATIONS OF OR CHANGES TO APPROVED GRADING PLANS MUST BE APPROVED BY THE BUILDING OFFICIAL.
3. NO GRADING SHALL BE STARTED WITHOUT FIRST NOTIFYING THE BUILDING OFFICIAL. A PRE-GRADING MEETING AT THE SITE IS REQUIRED BEFORE THE START OF THE GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, GEOLOGIST, COUNTY GRADING INSPECTOR(S) OR THEIR REPRESENTATIVES, AND WHEN REQUIRED THE ARCHEOLOGIST OR OTHER JURISDICTIONAL AGENCIES. PERMITTEE OR HIS AGENT ARE RESPONSIBLE FOR ARRANGING PRE-GRADING MEETING AND MUST NOTIFY THE BUILDING OFFICIAL AT LEAST 10 BUSINESS DAYS PRIOR TO PROPOSED PRE-GRADING MEETING.
4. APPROVAL OF THESE PLANS REFLECT SOLELY THE REVIEW OF PLANS IN ACCORDANCE WITH THE COUNTY OF LOS ANGELES BUILDING CODES AND DOES NOT REFLECT ANY POSITION BY THE COUNTY OF LOS ANGELES OR THE DEPARTMENT OF PUBLIC WORKS REGARDING THE STATUS OF ANY TITLE ISSUES RELATING TO THE LAND ON WHICH THE IMPROVEMENTS MAY BE CONSTRUCTED. ANY DISPUTES RELATING TO TITLE ARE SOLELY A PRIVATE MATTER NOT INVOLVING THE COUNTY OF LOS ANGELES OR THE DEPARTMENT OF PUBLIC WORKS.
5. ALL GRADING AND CONSTRUCTION ACTIVITIES SHALL COMPLY WITH COUNTY OF LOS ANGELES CODE, TITLE 12, SECTION 12.12.030 THAT CONTROLS AND RESTRICTS NOISE FROM THE USE OF CONSTRUCTION AND GRADING EQUIPMENT FROM THE HOURS OF 8:00 PM TO 6:30 AM AND ON SUNDAYS AND HOLIDAYS. (MORE RESTRICTIVE CONSTRUCTION ACTIVITY TIMES MAY GOVERN, AS REQUIRED BY THE DEPARTMENT OF REGIONAL PLANNING AND SHOULD BE SHOWN ON THE GRADING PLANS WHEN APPLICABLE.)
6. CALIFORNIA PUBLIC RESOURCES CODE (SECTION 5097.98) AND HEALTH AND SAFETY CODE (SECTION 7050.5) ADDRESS THE DISCOVERY AND DISPOSITION OF HUMAN REMAINS. IN THE EVENT OF DISCOVERY OR RECOGNITION OF ANY HUMAN REMAINS IN ANY LOCATION OTHER THAN A DEDICATED CEMETERY, THE LAW REQUIRES THAT GRADING IMMEDIATELY STOP AND NO FURTHER EXCAVATION OR DISTURBANCE OF THE SITE, OR ANY NEARBY AREA WHERE HUMAN REMAINS MAY BE LOCATED, OCCUR UNTIL THE FOLLOWING HAS BEEN MEASURED:
A. THE COUNTY CORONER HAS BEEN INFORMED AND HAS DETERMINED THAT NO INVESTIGATION OF THE CAUSE OF DEATH IS REQUIRED, AND
B. IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN, THE DESCENDANTS FROM THE DECEASED NATIVE AMERICANS HAVE MADE A RECOMMENDATION FOR THE MEANS OF TREATING OR DISPOSING, WITH APPROPRIATE DIGNITY, OF THE HUMAN REMAINS AND ANY ASSOCIATED GRAVE GOODS
7. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
8. ALL EXPORT OF MATERIAL FROM THE SITE MUST DO TO A PERMITTED SITE APPROVED BY THE BUILDING OFFICIAL OR A LEGAL DUMPSITE.
RECEIPTS FOR ACCEPTANCE OF EXCESS MATERIAL BY A DUMP SITE ARE REQUIRED AND MUST BE PROVIDED TO THE BUILDING OFFICIAL UPON REQUEST.
9. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
10. SITE BOUNDARIES, EASEMENTS, DRAINAGE DEVICES, RESTRICTED USE AREAS SHALL BE LOCATED PER CONSTRUCTION STARTING BY FIELD ENGINEER OR LICENSED SURVEYOR. PRIOR TO GRADING, AS REQUESTED BY THE BUILDING OFFICIAL, ALL PROPERTY LINES, EASEMENTS, AND RESTRICTED USE AREAS SHALL BE STAKED.
11. A PREVENTIVE PROGRAM TO PROTECT THE SLOPES FROM POTENTIAL DAMAGE FROM BURROWING RODENTS IS REQUIRED PER SECTION 2.10.1.8 OF THE COUNTY OF LOS ANGELES BUILDING CODE. OWNER IS TO INSPECT SLOPES PERIODICALLY FOR EVIDENCE OF BURROWING RODENTS AND A FIRST EVIDENCE OF THEIR EXISTENCE SHALL EMPLOY AN EXTERMINATOR FOR THEIR REMOVAL.
12. WHEN A GRADING PERMIT IS ISSUED AND THE BUILDING OFFICIAL DETERMINES THAT THE GRADING WILL NOT BE COMPLETED PRIOR TO NOVEMBER 1, THE OWNER OF THE SITE ON WHICH THE GRADING IS BEING PERFORMED SHALL, ON OR BEFORE OCTOBER 1, FILE OR CAUSE TO BE FILED WITH THE BUILDING OFFICIAL AN ESEP PER SECTION 1110.8.3 OF THE COUNTY OF LOS ANGELES BUILDING CODE.
13. TRANSFER OF RESPONSIBILITY: IF THE FIELD ENGINEER, THE SOILS ENGINEER, OR THE ENGINEERING GEOLOGIST OF RECORD IS CHANGED DURING THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THEIR RESPONSIBILITY WITHIN THE AREA OF TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE BUILDING OFFICIAL IN WRITING OF SUCH CHANGE PRIOR TO THE RESUMPTION OF SUCH GRADING.

INSPECTION NOTES

- 14. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE BUILDING OFFICIAL AT LEAST ONE WORKING DAY IN ADVANCE OF REQUIRED INSPECTIONS AT FOLLOWING STAGES OF THE WORK. (SECTION 1105.7 OF THE BUILDING CODE.)
(A) PRE-GRADE - BEFORE THE START OF ANY EARTH DISTURBING ACTIVITY OR CONSTRUCTION.
(B) INITIAL - WHEN THE SITE HAS BEEN CLEARED OF VEGETATION AND UNAPPROVED FILL HAS BEEN SCARIFIED, BENCHED OR OTHERWISE PREPARED FOR FILL. FILL SHALL NOT BE PLACED PRIOR TO THIS INSPECTION. NOTE: PRIOR TO ANY CONSTRUCTION ACTIVITIES, INCLUDING GRADING, ALL STORM WATER POLLUTION PREVENTION MEASURES INCLUDING EROSION CONTROL DEVICES WHICH CONTAIN SEDIMENTS MUST BE INSTALLED.
(C) ROUGH - WHEN APPROXIMATE FINAL ELEVATIONS HAVE BEEN ESTABLISHED; DRAINAGE TERRACES, SWALES AND BENCHES INSTALLED AT THE TOP OF THE SLOPE; AND THE STATEMENTS REQUIRED IN THIS SECTION HAVE BEEN RECEIVED.
(D) FINAL - WHEN GRADING HAS BEEN COMPLETE; ALL DRAINAGE DEVICES INSTALLED; SLOPE PLANTING ESTABLISHED, IRRIGATION SYSTEMS INSTALLED AND THE AS-BUILT PLANS, REQUIRED STATEMENTS, AND REPORTS HAVE BEEN SUBMITTED AND APPROVED.

15. IN ADDITION TO THE INSPECTION REQUIRED BY THE BUILDING OFFICIAL FOR GRADING, REPORTS AND STATEMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL IN ACCORDANCE WITH SECTION 1105 OF THE COUNTY OF LOS ANGELES BUILDING CODE.

16. UNLESS OTHERWISE DIRECTED BY THE BUILDING OFFICIAL, THE FIELD ENGINEER FOR ALL ENGINEERED GRADING PROJECTS SHALL PREPARE ROUTINE INSPECTION REPORTS AS REQUIRED UNDER SECTION 1105.11 OF THE COUNTY OF LOS ANGELES BUILDING CODE. THESE REPORTS, KNOWN AS "REPORT OF GRADING ACTIVITIES", SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AS FOLLOWS:

- 1. BI-WEEKLY DURING ALL TIMES WHEN GRADING OF 400 CUBIC YARDS OR MORE PER WEEK IS OCCURRING ON THE SITE;
2. MONTHLY, AT ALL OTHER TIMES; AND
3. AT ANY TIME WHEN REQUESTED IN WRITING BY THE BUILDING OFFICIAL.

SUCH "REPORT OF GRADING ACTIVITIES" SHALL CERTIFY TO THE BUILDING OFFICIAL THAT THE FIELD ENGINEER HAS INSPECTED THE GRADING SITE AND RELATED ACTIVITIES AND HAS FOUND THEM IN COMPLIANCE WITH THE APPROVED GRADING PLANS AND SPECIFICATIONS, THE BUILDING CODE, ALL GRADING PERMIT CONDITIONS, AND ALL OTHER APPLICABLE ORDINANCES AND REQUIREMENTS. THIS FORM IS AVAILABLE AT THE FOLLOWING WEBSITE: HTTP://OPW.LACOUNTY.GOV/205/200/DEFAULT.ASPX. "REPORT OF GRADING ACTIVITIES" MAY BE SCANNED AND UPLOADED AT THE WEBSITE OR FAXED TO (310) 530-5482. FAILURE TO PROVIDE REQUIRED INSPECTION REPORTS WILL RESULT IN A "STOP WORK ORDER."

17. ALL GRADED SITES MUST HAVE DRAINAGE SWALES, BERMS, AND OTHER DRAINAGE DEVICES INSTALLED PRIOR TO ROUGH GRADING APPROVAL PER SECTION 1105.7 OF THE COUNTY OF LOS ANGELES BUILDING CODE.

18. THE GRADING CONTRACTOR SHALL SUBMIT THE STATEMENTS TO THE GRADING INSPECTOR AS REQUIRED BY SECTION 1105.12 OF THE COUNTY OF LOS ANGELES BUILDING CODE AT THE COMPLETION OF ROUGH GRADING.

19. FINAL GRADING MUST BE APPROVED BEFORE OCCUPANCY OF BUILDINGS WILL BE ALLOWED PER SECTION 1105 OF THE COUNTY OF LOS ANGELES BUILDING CODE.

DRAINAGE NOTES

- 20. PROVISIONS SHALL BE MADE FOR CONTRIBUTORY DRAINAGE AT ALL TIMES.
21. ALL STORM DRAIN WORK IS TO BE DONE UNDER CONTINUOUS INSPECTION BY THE FIELD ENGINEER. STATUS REPORTS REQUIRED UNDER NOTE 18 AND SECTION 1105.11 OF THE COUNTY OF LOS ANGELES BUILDING CODE SHALL INCLUDE INSPECTION INFORMATION AND REPORTS ON THE STORM DRAIN INSTALLATION.

AGENCY NOTES (ADD -- APPLICABLE NOTES)

- 22. AN ENCROACHMENT PERMIT FROM CITY OF DIAMOND BAR IS REQUIRED FOR ALL WORK WITHIN OR AFFECTING ROAD RIGHT OF WAY. ALL WORK WITHIN ROAD RIGHT OF WAY SHALL CONFORM TO CITY OF DIAMOND BAR ENCROACHMENT PERMIT.
23. AN ENCROACHMENT PERMIT/CONNECTION PERMIT IS REQUIRED FROM THE COUNTY OF LOS ANGELES FLOOD CONTROL DISTRICT FOR ALL WORK WITHIN THE COUNTY OF LOS ANGELES FLOOD CONTROL DISTRICT RIGHT OF WAY. ALL WORK SHALL CONFORM TO CONDITIONS SET BY THE PERMIT.
24. ALL WORK WITHIN THE STREAMBED AND AREAS OUTLINED ON GRADING PLANS SHALL CONFORM TO: ARMY CORP 404 PERMIT, CALIFORNIA FISH & WILDLIFE PERMIT NO. 100
25. ALL CONSTRUCTION/DEMOLITION, GRADING, AND STORAGE OF BULK MATERIALS MUST COMPLY WITH THE LOCAL ADOPTED RULE 403 FOR FUGITIVE DUST. INFORMATION ON RULE 403 IS AVAILABLE AT AODM'S WEBSITE: HTTP://WWW.AODM.COM

GENERAL GEOTECHNICAL NOTES

- 26. ALL WORK MUST BE IN COMPLIANCE WITH THE RECOMMENDATIONS INCLUDED IN THE GEOTECHNICAL CONSULTANT'S REPORT(S) AND THE APPROVED GRADING PLANS AND SPECIFICATIONS.
27. GRADING OPERATIONS MUST BE CONDUCTED UNDER PERIODIC INSPECTIONS BY THE GEOTECHNICAL CONSULTANTS WITH MONTHLY INSPECTION REPORTS TO BE SUBMITTED TO THE GEOLOGY AND SOILS SECTION, (300 S. FREMONT, ALHAMBRA, CA 91803 - 3RD FLOOR)
28. THE SOILS ENGINEER SHALL PROVIDE SUFFICIENT INSPECTIONS DURING THE PREPARATION OF THE NATURAL GROUP AND THE PLACEMENT AND COMPACTION OF THE FILL TO BE SATISFIED THAT THE WORK IS BEING PERFORMED IN ACCORDANCE WITH THE PLAN AND APPLICABLE CODE REQUIREMENTS.
29. ROUGH GRADING MUST BE APPROVED BY A FINAL ENGINEERING GEOLOGY AND SOILS ENGINEERING REPORT. AN AS-BUILT GEOTECHNICAL MAP MUST BE INCLUDED IN THE FINAL GEOLOGY REPORT. PROVIDE A FINAL REPORT STATEMENT THAT VERIFIED WORK WAS DONE IN ACCORDANCE WITH REPORT RECOMMENDATIONS AND CODE PROVISIONS (SECTION 1105.12 OF THE COUNTY OF LOS ANGELES BUILDING CODE). THE FINAL REPORT(S) MUST BE SUBMITTED TO THE GEOTECHNICAL AND MATERIALS ENGINEERING DIVISION FOR REVIEW AND APPROVAL.
30. FOUNDATION EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE CONSULTING GEOLOGIST AND SOIL ENGINEER, PRIOR TO THE PLACING OF STEEL OR CONCRETE.

FILL NOTES

- 31. ALL FILL SHALL BE COMPACTED TO THE FOLLOWING MINIMUM RELATIVE COMPACTION CRITERIA:
A. 90 PERCENT OF MAXIMUM DRY DENSITY WITHIN 40 FEET BELOW FINISH GRADE.
B. 93 PERCENT OF MAXIMUM DRY DENSITY DEEPER THAN 40 FEET BELOW FINISH GRADE, UNLESS A LOWER RELATIVE COMPACTION (NOT LESS THAN 90 PERCENT OF MAXIMUM DRY DENSITY) IS JUSTIFIED BY THE GEOTECHNICAL ENGINEER. THE RELATIVE COMPACTION SHALL BE DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557-91 WHERE APPLICABLE; /; WHERE NOT APPLICABLE, A TEST ACCEPTABLE TO THE BUILDING OFFICIAL SHALL BE USED. (SECTION 1107.5 OF THE COUNTY OF LOS ANGELES BUILDING CODE.)
32. FIELD DENSITY SHALL BE DETERMINED BY A METHOD ACCEPTABLE TO THE BUILDING OFFICIAL. (SECTION 1107.5 OF THE COUNTY OF LOS ANGELES BUILDING CODE.) HOWEVER, NOT LESS THAN 10% OF THE REQUIRED DENSITY TEST, UNIFORMLY DISTRIBUTED, AND SHALL BE OBTAINED BY THE SAND CONE METHOD.
33. SUFFICIENT TESTS OF THE FILL SOILS SHALL BE MADE TO DETERMINE THE RELATIVE COMPACTION OF THE FILL IN ACCORDANCE WITH THE FOLLOWING MINIMUM GUIDELINES:
A. ONE TEST FOR EACH TWO-FOOT VERTICAL LIFT.
B. ONE TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED.
C. ONE TEST AT THE LOCATION OF THE FINAL FILL SLOPE FOR EACH BUILDING SITE (101) IN EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
D. ONE TEST IN THE VICINITY OF EACH BUILDING PAD FOR EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
34. SUFFICIENT TESTS OF FILL SOILS SHALL BE MADE TO VERIFY THAT THE SOIL PROPERTIES COMPLY WITH THE DESIGN REQUIREMENTS, AS DETERMINED BY THE SOILS ENGINEER INCLUDING SOIL TYPES, SHEAR STRENGTHS PARAMETERS AND COMPRESSIVE BEHAVIOR WITHIN THE PROPOSED GRADING. THE SOILS ENGINEER, AS A PRIOR AND SUBSEQUENT TO PLACEMENT OF THE FILL, SHEAR TESTS SHALL BE TAKEN ON EACH TYPE OF SOIL OR SOIL MIXTURE TO BE USED FOR ALL FILL SLOPES STEEPER THAN THREE (3) HORIZONTAL TO ONE VERTICAL. SHEAR TEST RESULTS FOR THE PROPOSED FILL MATERIAL MUST MEET OR EXCEED THE DESIGN VALUES USED IN THE GEOTECHNICAL REPORT TO DETERMINE SOIL STABILITY REQUIREMENTS. OTHERWISE, THE SOLOPE MUST BE REEVALUATED USING THE ACTUAL SHEAR TEST VALUE OF THE FILL MATERIAL THAT IS IN PLACE.
C. FILL SOILS SHALL BE FREE OF ULTRAFINE MATERIALS.
35. FILL SHALL NOT BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF EROSION CONTROL MEASURES HAVE BEEN COMPLETED. THE SOILS ENGINEER, THE BUILDING OFFICIAL MAY REQUIRE A STANDARD TEST METHOD FOR MOISTURE, ASH, ORGANIC MATTER, PEAT OR OTHER ORGANIC SOILS ASTM D-2914-B7 ON ANY SUSPECT MATERIAL. SUBSTANTIAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. SOIL CONTAINING SMALL AMOUNTS OF ROOTS MAY BE ALLOWED PROVIDED THAT THE ROOTS ARE IN A QUANTITY AND DISTRIBUTION IN A MANNER THAT WILL NOT BE DETRIMENTAL TO THE FUTURE USE OF THE SITE AND THE USE OF THE SOILS ENGINEER APPROVES THE USE OF SUCH MATERIAL.
36. ROCK OR SIMILAR MATERIAL GREATER THAN 12 INCHES IN DIAMETER SHALL NOT BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER AND APPROVED IN ADVANCE BY THE BUILDING OFFICIAL. LOCATION, EXTENT, AND ELEVATION OF ROCK DISPOSAL AREA(S) MUST BE SHOWN ON THE GRADING PLAN.

37. CONTINUOUS INSPECTION BY THE SOILS ENGINEER, OR A RESPONSIBLE REPRESENTATIVE, SHALL BE PROVIDED DURING ALL SUBSOIL INSTALLATION. (SECTION 1107.2 OF THE COUNTY OF LOS ANGELES BUILDING CODE)

38. ALL SUBSOIL CUTS ARE TO BE SURVEYED FOR LINE AND ELEVATION. SUBSOIL INFORMATION MUST BE SHOWN ON AN AS BUILT GRADING PLAN.

39. FILL SLOPES IN EXCESS OF 2:1 STEEPNESS RATIO ARE TO BE CONSTRUCTED BY THE PLACEMENT OF SOIL AT SUFFICIENT DISTANCE BEYOND THE PROPOSED FINISH RATIO TO ALLOW COMPACTION EQUIPMENT TO BE OPERATED AT THE OUTER LIMITS OF THE FINAL SLOPE SURFACE. THE EXCESS FILL IS TO BE REMOVED PRIOR TO COMPLETION OF ROUGH GRADING. OTHER CONSTRUCTION PROCEDURES MAY BE USED WHEN IT IS DEMONSTRATED TO THE SATISFACTION OF THE BUILDING OFFICIAL THAT THE ANGLE OF SLOPE, CONSTRUCTION METHOD AND OTHER FACTORS WILL HAVE EQUIVALENT EFFECT. (SECTION 1107.5 OF THE COUNTY OF LOS ANGELES BUILDING CODE.)

PLANTING AND IRRIGATION NOTES:

- 40. PLANTING AND IRRIGATION ON GRADED SLOPES MUST COMPLY WITH THE FOLLOWING MINIMUM GUIDELINES:
A. THE SURFACE OF ALL CUT SLOPES MORE THAN 5 FEET IN HEIGHT AND FILL SLOPES MORE THAN 3 FEET IN HEIGHT SHALL BE PROTECTED AGAINST DAMAGE BY EROSION BY PLANTING WITH GRASS OR GROUNDCOVER PLANTS. SLOPES EXCEEDING 15 FEET VERTICAL HEIGHT SHALL ALSO BE PLANTED WITH SHRUBS, SPACED AT NOT TO EXCEED 10 FEET ON CENTERS; OR TREES, SPACED AT NOT TO EXCEED 20 FEET ON CENTERS, OR A COMBINATION OF SHRUBS AND TREES AT EQUIVALENT SPACING, IN ADDITION TO THE GRASS OR GROUNDCOVER PLANTS. THE PLANTS SELECTED AND PLANTING METHODS USED SHALL BE SUITABLE FOR THE SOIL AND CLIMATIC CONDITIONS OF THE SITE. PLANT MATERIAL SHALL BE SELECTED WHICH WILL PRODUCE A COVERAGE OF PERMANENT PLANTING EFFECTIVELY CONTROLLING EROSION. CONSIDERATION SHALL BE GIVEN RATIO, WIND SUSCEPTIBILITY AND FIRE-RETARDANT CHARACTERISTICS. ALL PLANT MATERIALS MUST BE APPROVED BY THE BUILDING OFFICIAL. (SECTION 1110.3 OF THE COUNTY OF LOS ANGELES BUILDING CODE) NOTE: PLANTING MAY BE MODIFIED FOR THE SITE IF SPECIFIC RECOMMENDATIONS ARE PROVIDED BY BOTH THE SOILS ENGINEER AND A LANDSCAPE ARCHITECT. SPECIFIC RECOMMENDATIONS MUST CONSIDER SOILS AND CLIMATIC CONDITIONS, IRRIGATION REQUIREMENTS, PLANTING METHODS, FIRE RETARDANT CHARACTERISTICS, WATER EFFICIENCY, MAINTENANCE NEEDS, AND OTHER REGULATORY REQUIREMENTS. RECOMMENDATIONS MUST INCLUDE A FINDING THAT THE ALTERNATIVE PLANTING WILL PROVIDE A PERMANENT AND EFFECTIVE METHOD OF EROSION CONTROL. MODIFICATIONS TO PLANTING MUST BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
D. SLOPES REQUIRED TO BE PLANTED BY SECTION 1110.3 SHALL BE PROVIDED WITH AN APPROVED SYSTEM OF IRRIGATION THAT IS DESIGNED TO COVER ALL PORTIONS OF THE SLOPE. IRRIGATION SYSTEM PLANS SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. A FUNCTIONAL TEST OF THE SYSTEM MAY BE REQUIRED. FOR SLOPES LESS THAN 20 FEET IN VERTICAL HEIGHT, HOSE BIDS TO PERMIT HAND WATERING WILL BE ACCEPTABLE. IF SUCH HOSE BIDS ARE INSTALLED AT CONVEYOR BELT LOCATIONS WHERE A HOSE NO LONGER THAN 50 FEET IS NECESSARY FOR IRRIGATION, THE REQUIREMENTS FOR PERMANENT IRRIGATION SYSTEMS MAY BE MODIFIED UPON SPECIFIC RECOMMENDATION OF A LANDSCAPE ARCHITECT OR EQUIVALENT AUTHORITY THAT THE LOCATION OF PLANTING METHODS USED AND THE SOIL AND CLIMATIC CONDITIONS AT THE SITE, IRRIGATION WILL NOT BE NECESSARY FOR THE MAINTENANCE OF THE SLOPE PLANTING. (SECTION 1110.4 OF THE COUNTY OF LOS ANGELES BUILDING CODE)
C. OTHER GOVERNMENTAL AGENCIES MAY HAVE ADDITIONAL REQUIREMENTS FOR LANDSCAPING AND IRRIGATION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE WITH OTHER AGENCIES TO MEET THEIR REQUIREMENTS WHILE MAINTAINING COMPLIANCE WITH THE COUNTY OF LOS ANGELES BUILDING CODE.
41. THE PLANTING AND IRRIGATION SYSTEMS SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER ROUGH GRADING. PRIOR TO FINAL GRADING APPROVAL, ALL REQUIRED SLOPE PLANTING MUST BE WELL ESTABLISHED. (SECTION 1110.7 OF THE COUNTY OF LOS ANGELES BUILDING CODE)
42. LANDSCAPE IRRIGATION SYSTEM SHALL BE DESIGNED AND MAINTAINED TO PREVENT SPRAY ON STRUCTURES. (TITLE 31 - SECTION 5.407.2-1)
43. PRIOR TO ROUGH GRADE APPROVAL THIS PROJECT REQUIRES A LANDSCAPE PERMIT. LANDSCAPE PLANS IN COMPLIANCE WITH THE "MODEL WATER EFFICIENT LANDSCAPE ORDINANCE, TITLE 23, CHAPTER 2.7 OF CALIFORNIA CODE OF REGULATIONS (AR 1881) MUST BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS, LAND DEVELOPMENT DIVISION, 300 S. FREMONT AVE., ALHAMBRA, CA 91803 (563) 458-4921.1, TO OBTAIN LANDSCAPE PERMIT APPROVED PLANS AND WATER PURVEYOR ACKNOWLEDGMENT FORM MUST BE SUBMITTED TO THE LOCAL BUILDING AND SAFETY OFFICE.

"AS CIVIL ENGINEER/LAND SURVEYOR OF THIS PROJECT, I HAVE IDENTIFIED THE LOCATION OF ALL EASEMENTS WHICH ARE DEPICTED ON THESE PLANS. I HAVE REVIEWED THE PROPOSED EASEMENT DOCUMENTS AND VERIFIED THE PROPOSED CONSTRUCTION DOES NOT CONFLICT OR INTERFERE WITH THE INTENDED EASEMENT USE."

CIVIL ENGINEER/LAND SURVEYOR (STAMP AND SIGNATURE)

DATE



CITY OF DIAMOND BAR

GRADING PLAN FOR GRAND AVE/GOLDEN SPRINGS DR

DEPARTMENT OF PUBLIC WORKS

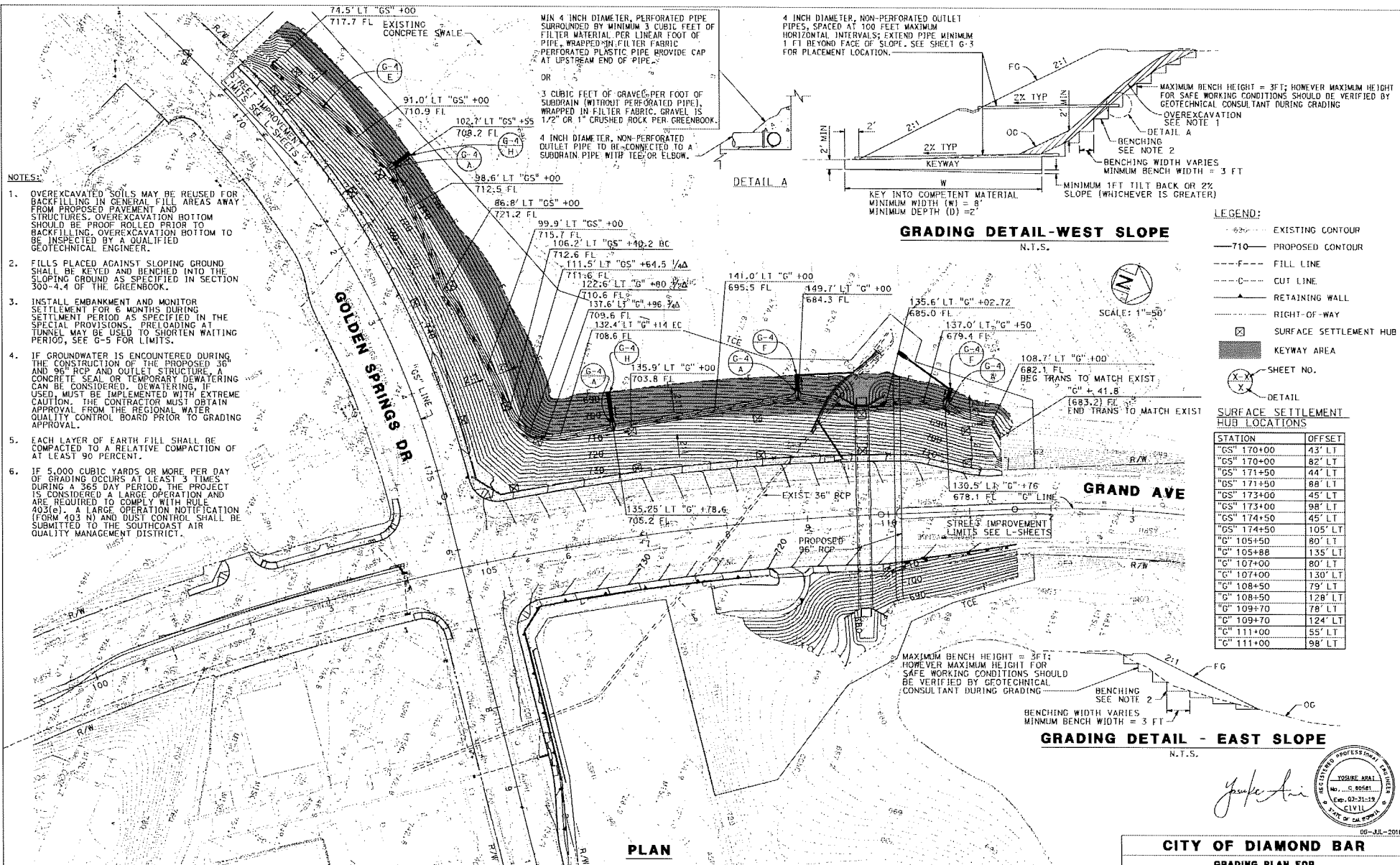
Table with 4 columns: CHANGED BY, DATE, CHECKED BY, DATE. Includes a REVISIONS section.

BENCHMARKS: STATIONARY POINTS ARE BASED ON THE COUNTY OF LOS ANGELES BENCH MARK SYSTEM OF 1985 (1997/99/2008) WHICH IS A HIGHLY ACCURATE, PERMANENT AND STABLE POINT.

PREPARED BY: DWKE 400 N. Tustin Ave., Suite 270, Orange, CA 92668. PREPARED UNDER THE SUPERVISION OF: DANIEL S. NIKELL, REG. 36434, DATE: 08/12/2019.

Table with 2 columns: FIELD NO., REVIEWED. Includes a table for APPROVED with columns: CITY ENGINEER, P.E.C.A., DATE.

PROJECT NO. SHEET 0-1 SHEET 18 OF 139



**PLAN**

**REVISIONS**

DATE	BY	DESCRIPTION

**BENCHMARK:**  
COMPANIES SURVEY AND PLANNING, INC.  
DATE: 01/15/10  
STATION: 170+00  
ELEVATION: 710.9 FT

**PREPARED BY:**  
WKE  
400 N. 21st Ave., Suite 210  
Scottsdale, AZ 85255  
Phone: (480) 363-2465  
Fax: (480) 363-2466

**SUBMITTED:**  
**REVIEWED:**  
**APPROVED:**

**CITY OF DIAMOND BAR**  
**GRADING PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. --- SHEET **G-2** SHEET 19 OF 139

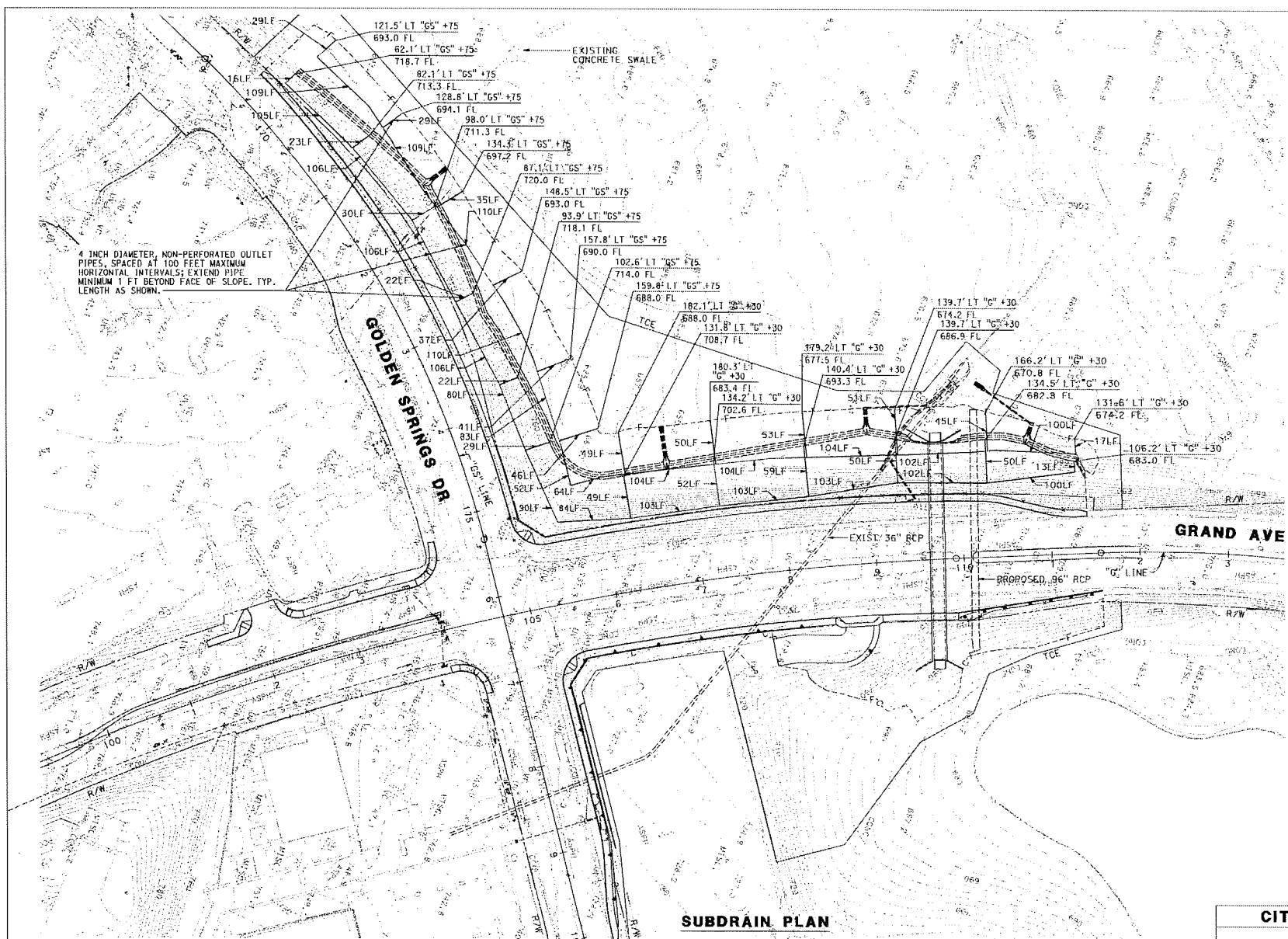
*Yusuf Ali*

REGISTERED PROFESSIONAL ENGINEER  
YUSUF ALI  
No. C. 80581  
Exp. 02-31-19  
CIVIL  
STATE OF CALIFORNIA

06-JUL-2018



SCALE: 1"=50'



**SUBDRAIN PLAN**

*Joseph Arai*  
 REGISTERED PROFESSIONAL ENGINEER  
 TORONTO, ONTARIO  
 No. C. 80581  
 Exp. 03-31-19  
 CIVIL  
 1000 DUNDAS ST. W. TORONTO, ONT. M6J 1B5

**CITY OF DIAMOND BAR**  
 GRADING PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

DEPARTMENT OF PUBLIC WORKS

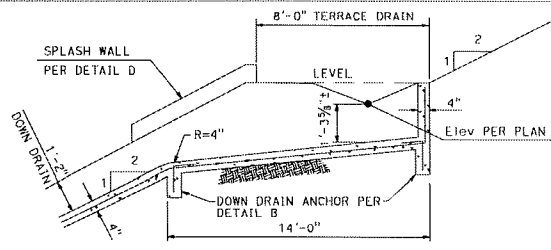
PROJECT NO. — SHEET **Q-3** SHEET 29 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

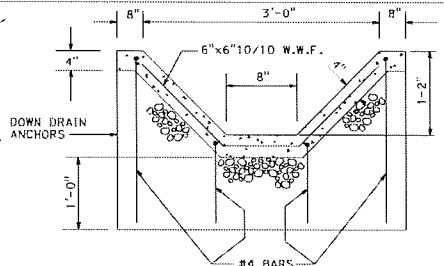
BENCHMARKS:  
 COORDINATE CONTROL POINT 1983 TO 1984  
 100' DIA. CONCRETE PIPES 1983 TO 1984  
 100' DIA. CONCRETE PIPES 1983 TO 1984  
 100' DIA. CONCRETE PIPES 1983 TO 1984  
 100' DIA. CONCRETE PIPES 1983 TO 1984

PREPARED BY:  
  
 400 N. Twelfth Ave., Suite 205  
 Seattle, WA 98107  
 Phone (206) 465-2860  
 Fax (206) 465-2868  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WINKEL REG. 52434 DATE EXP. 12/31/19

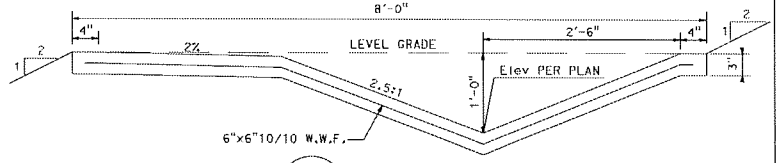
REVISION NO.	DATE	BY	DESCRIPTION



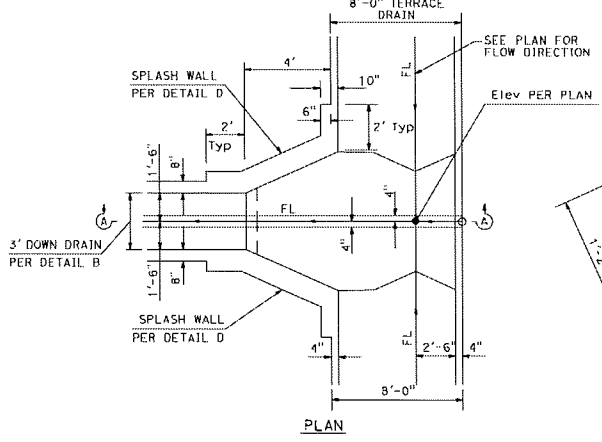
SECTION A-A



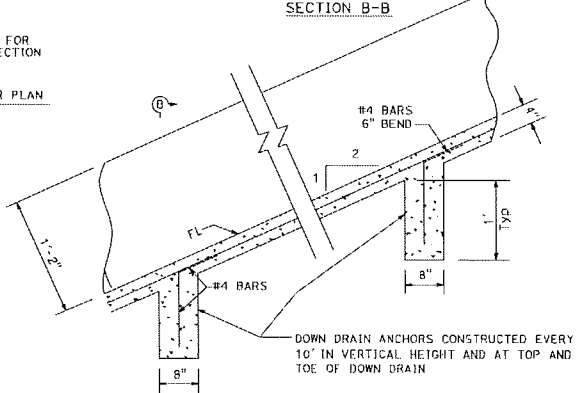
SECTION B-B



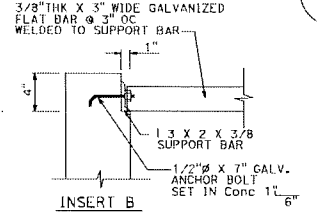
E TERRACE DRAIN DETAIL  
NO SCALE



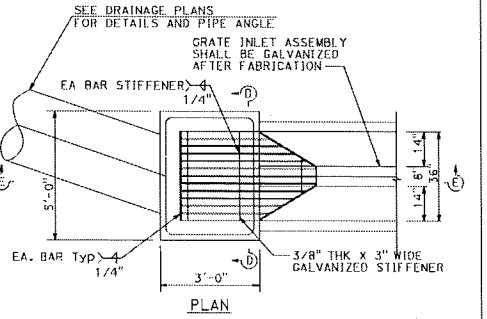
PLAN



SIDEVIEW



INSERT B

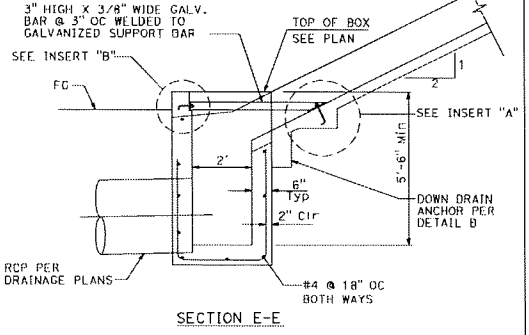


PLAN

A DOWN DRAIN AND TERRACE DRAIN INTERSECTION DETAIL  
NO SCALE

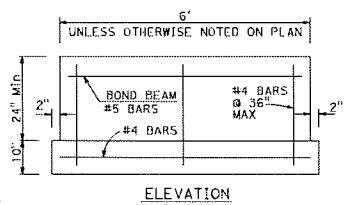
B DOWN DRAIN DETAIL  
NO SCALE

SECTION D-D  
BACK OF CATCH BASIN

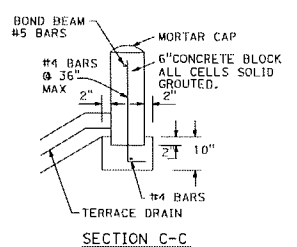


SECTION E-E

F DOWN DRAIN INLET DETAIL  
NO SCALE

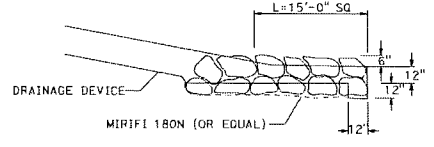


ELEVATION



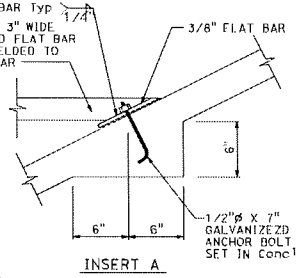
SECTION C-C

D SPLASH WALL DETAIL  
NO SCALE

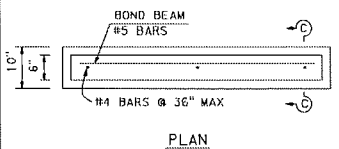


H RIP-RAP PAD DETAIL  
NO SCALE

NOTE: ROCK FOR RIP-RAP SHALL BE GOOD QUALITY. THE SMALLEST DIMENSION SHALL EXCEED 4 INCHES, AND THE LARGEST SHALL NOT EXCEED 18 INCHES. THE LARGEST DIMENSION SHALL NOT EXCEED 4 TIMES THE SMALLEST DIMENSION Typ.



INSERT A



PLAN

REVISIONS

CHECKED BY	DATE	ISSUED BY	DATE	REVISIONS

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE SAN FRANCISCO DATUM OF 1985, 1987, 1993 EPOCH. ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL UNLESS OTHERWISE NOTED. LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS' BENCHMARK C-1414, ELEV = 475.44 FEET

PREPARED BY: WKE  
400 N. Tustin Ave., Suite 275  
Orange, CA 92668  
Phone (714) 962-2888  
Fax (714) 962-2888

APPROVED: CITY ENGINEER  
DATE: 02/21/19

**CITY OF DIAMOND BAR**  
GRADING DETAILS FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET 0-4 SHEET 21 OF 139



05-JR-2018



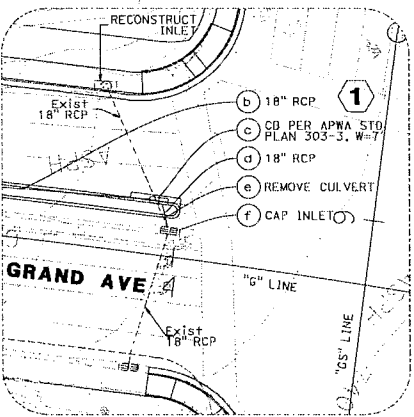
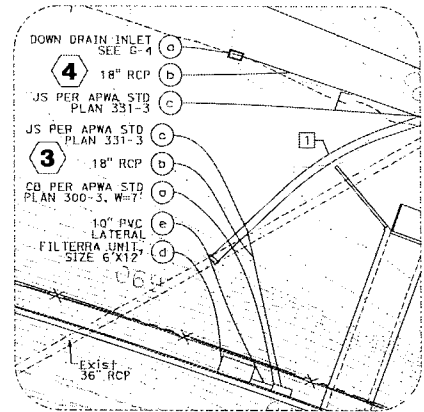
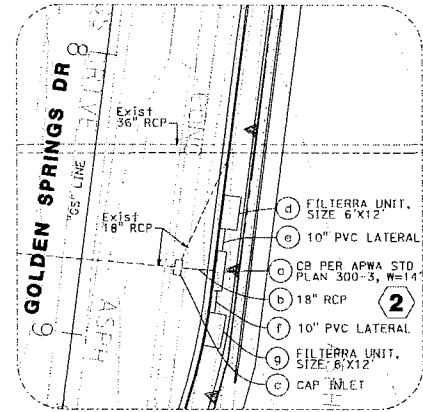
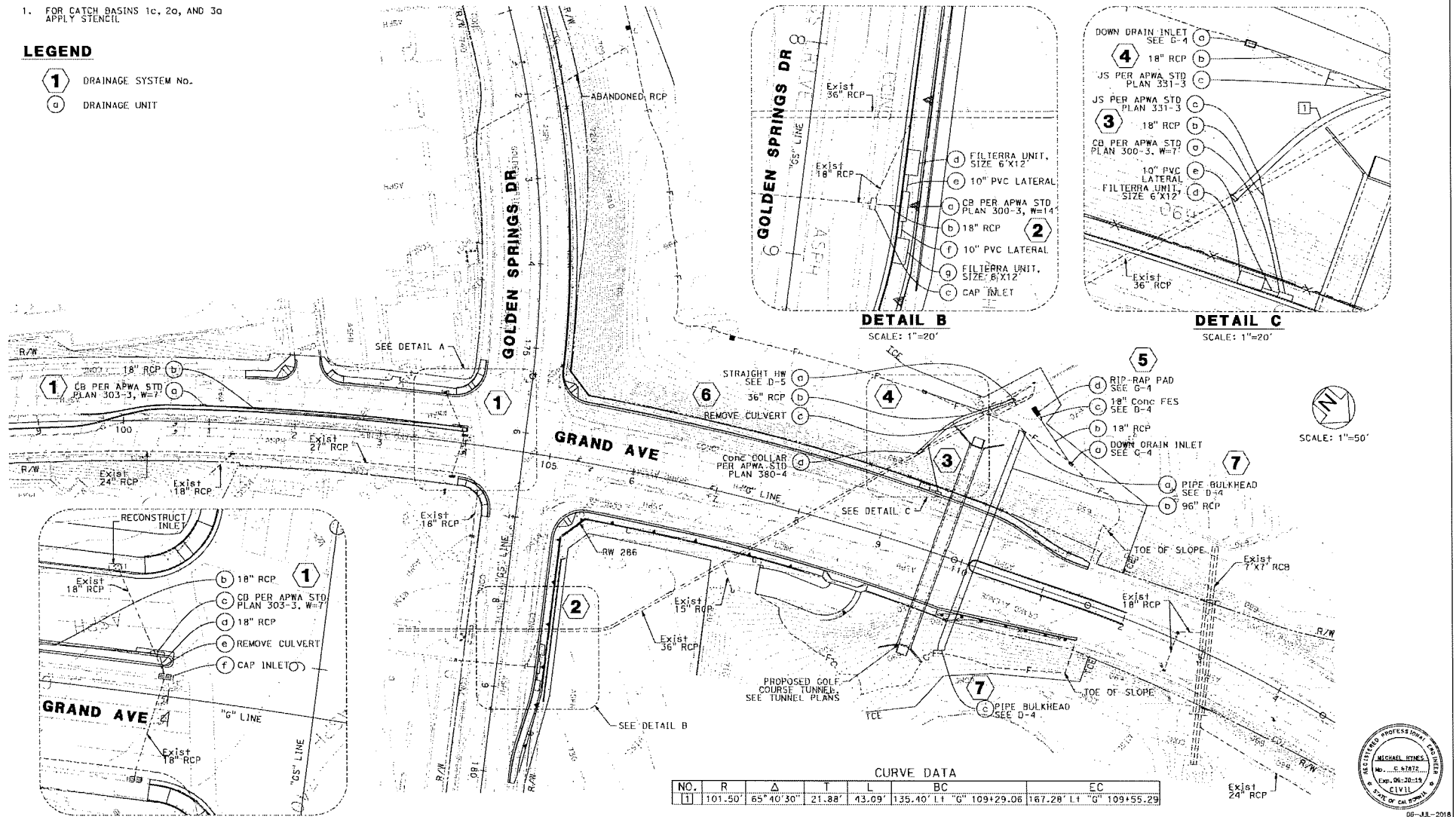


**NOTE:**

1. FOR CATCH BASINS 1c, 2a, AND 3a APPLY STENCIL

**LEGEND**

- ① DRAINAGE SYSTEM No.
- ⓐ DRAINAGE UNIT



**CURVE DATA**

NO.	R	Δ	T	L	BC	EC
1	101.50'	65° 40' 30"	21.88'	43.09'	135.40' Lt	167.28' Lt



**CITY OF DIAMOND BAR**

**DRAINAGE PLAN FOR**

**GRAND AVE/GOLDEN SPRINGS DR**

FROM "G" 99+00 TO "C" 114+00

**DEPARTMENT OF PUBLIC WORKS**

---

PROJECT NO. \_\_\_\_\_ SHEET D-1 SHEET 24 OF 139

REVISIONS

CHECKED BY	REV. NO.	CHANGED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 BENCHMARK POINT OF 1063.194 ± AS SHOWN  
 ON SHEET D-1 OF THIS PLAN. SEE EXISTING  
 UTILITY RECORDS FOR BENCHMARK INFORMATION.  
 U.S. MEASUREMENTS IN FEET AND INCHES.  
 U.S. MEASUREMENTS IN METERS AND MILLIMETERS.  
 U.S. MEASUREMENTS IN FEET AND INCHES.  
 U.S. MEASUREMENTS IN METERS AND MILLIMETERS.

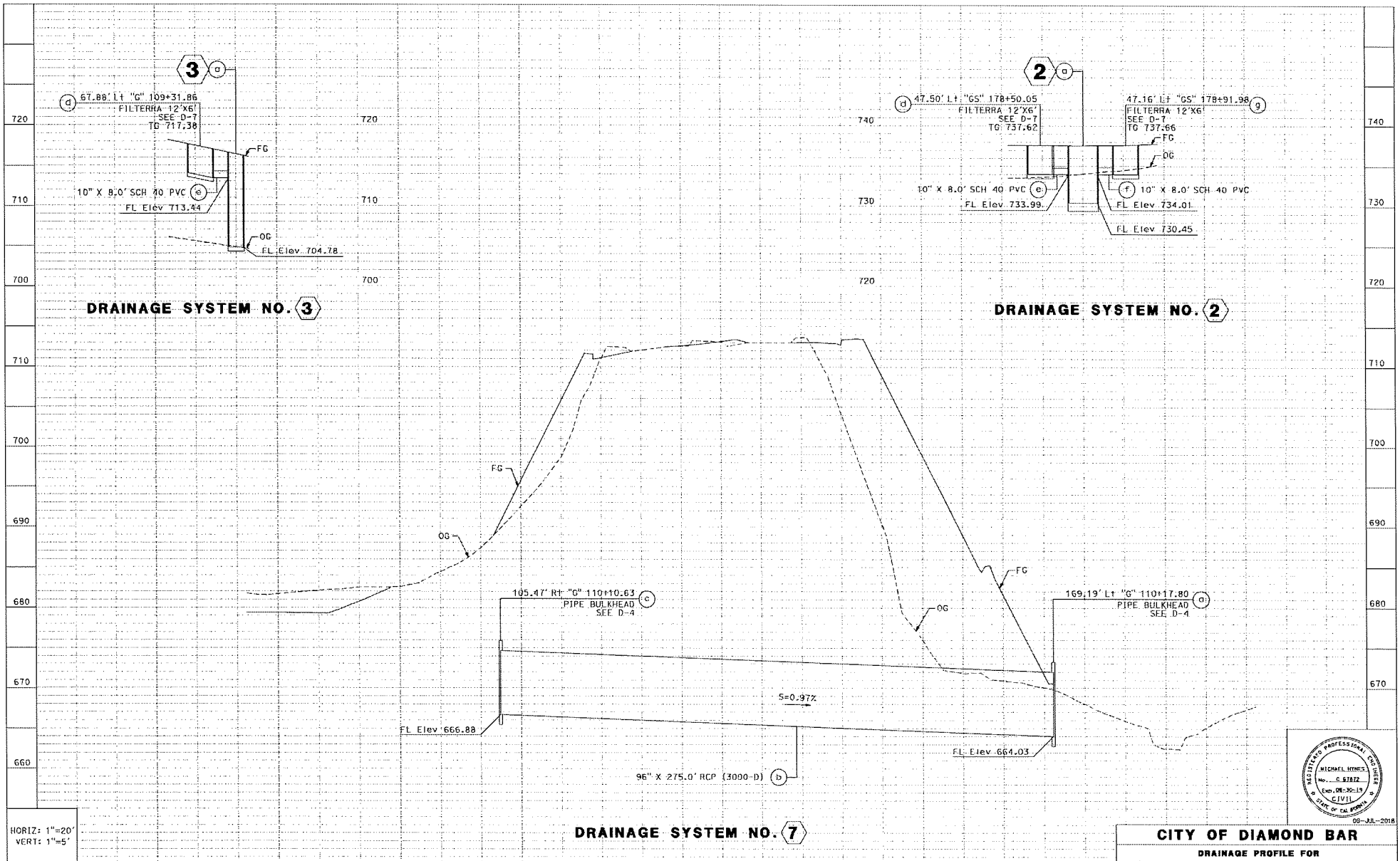
**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 215  
 Santa Ana, CA 92705  
 Phone (714) 993-2888  
 Fax (714) 993-3000

**PREPARED UNDER THE SUPERVISION OF:**  
 APPROVED: \_\_\_\_\_ DATE: 09/12/19

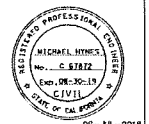
**SUBMITTED:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER P.C.E. DATE: \_\_\_\_\_







HORIZ: 1"=20'  
 VERT: 1"=5'



**CITY OF DIAMOND BAR**  
**DRAINAGE PROFILE FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**DEPARTMENT OF PUBLIC WORKS**

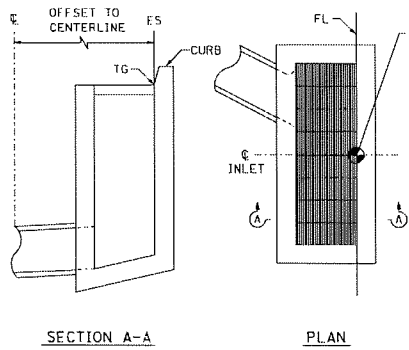
REVISIONS					
CHANGED BY	REV. NO.	CHECKED BY	REV. NO.	CHANGED BY	REV. NO.

**BENCHMARK:**  
 COORDINATE POINTS ARE BASED ON THE  
 SANITARIUM SURVEY DATA OF 1923, 1927, 1931 & 1934  
 (SCALE: 1"=10').  
 CONTROL POINT NO. 1842, MOUNTAIN VIEW  
 ADJUSTMENT  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK DATA, 11/03 - 01/04 TEST

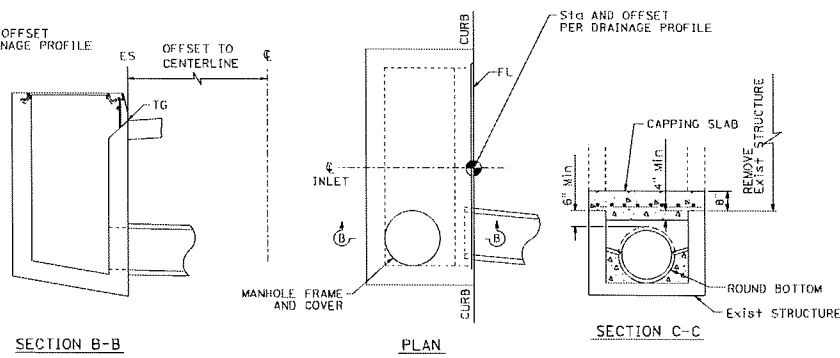
**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 570  
 Santa Ana, CA 92705  
 Phone (714) 963-2868  
 Fax (714) 963-5408  
 PREPARED UNDER THE SUPERVISION OF:  
 MARK T. MOYER P.E. 81227 DATE EXP. 06/30/17

SUBMITTED: RECEIVED: APPROVED:	CITY ENGINEER R.G.J. DATE
--------------------------------------	------------------------------

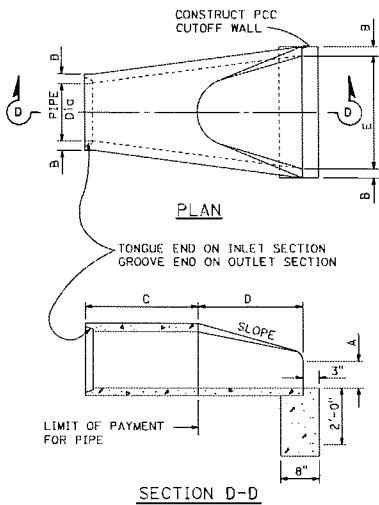
PROJECT NO. —	<b>SHEET D-3</b>	SHEET 26 OF 129
---------------	------------------	-----------------



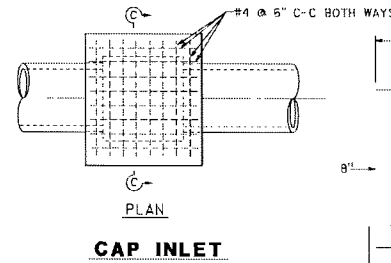
**CURBSIDE GRATING CATCH BASIN CONTROL POINT**



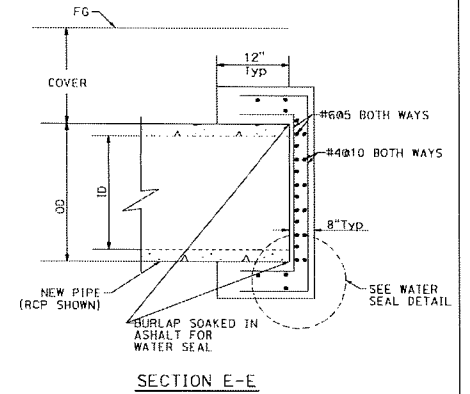
**CURB OPENING INLET LAYOUT CONTROL POINT**



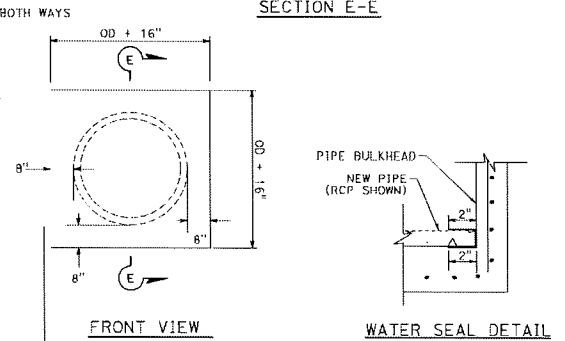
**PRECAST CONCRETE FLARED END SECTION**



**GAP INLET**



**SECTION E-E**



**FRONT VIEW**

**WATER SEAL DETAIL**

**NOTE:**

1. BULKHEAD SHALL BE CONSTRUCTED OF MINOR CONCRETE.

**PIPE BULKHEAD (PERMANENT)**

MINIMUM DIMENSIONS						
PIPE DIA	A	B	C	D	E	SLOPE
18"	9"	2 1/4"	*	2'-3"	3'-0"	2% OR FLATTER

\* "C" DIMENSION VARIES BY MANUFACTURER AND WILL BE PAID FOR AS CONCRETE PIPE.



**CITY OF DIAMOND BAR**  
**DRAINAGE DETAILS FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **SHEET D-4** SHEET 27 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHANGED BY	REV. NO.	DESIGNED BY	REV. NO.

**BENCHMARK:**  
 COORDINATE SYSTEM AND BASED ON THE  
 1983 NORTH AMERICAN DATUM OF 1983, ZONE 5  
 NORTH, 1983.  
 ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED  
 ARE IN METERS.  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK DATA, SHEET # 415.04 VELL

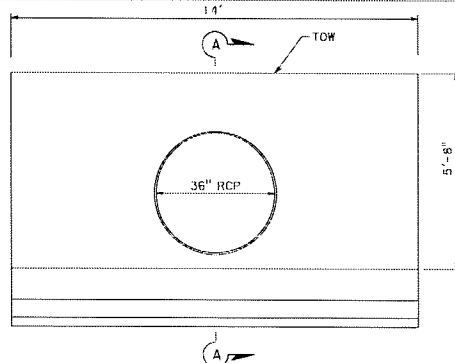
**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 215  
 Santa Ana, CA 92705  
 Phone (714) 963-2668  
 Fax (714) 963-2600  
 PREPARED UNDER THE SUPERVISION OF:

**SUBMITTED:**  
**REVIEWED:**  
**APPROVED:** CITY ENGINEER P.E.C. DATE:

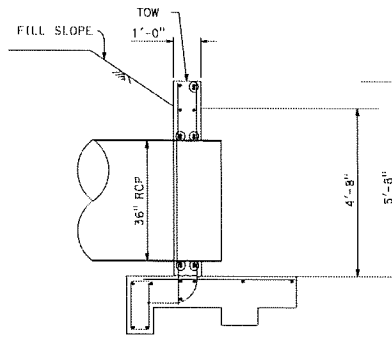
DANIEL S. WINKLER REC 5/24/04 DATE EXP. 12/31/19

**NOTE:**

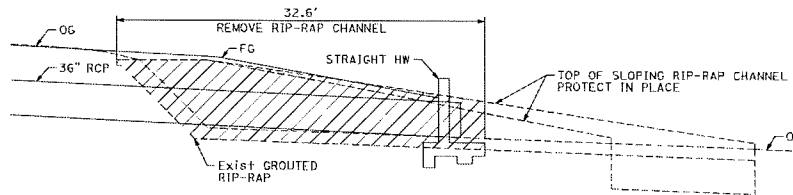
1. FOR DRAINAGE ITEMS NOT IDENTIFIED ON THIS SHEET, SEE SHEET D-2.



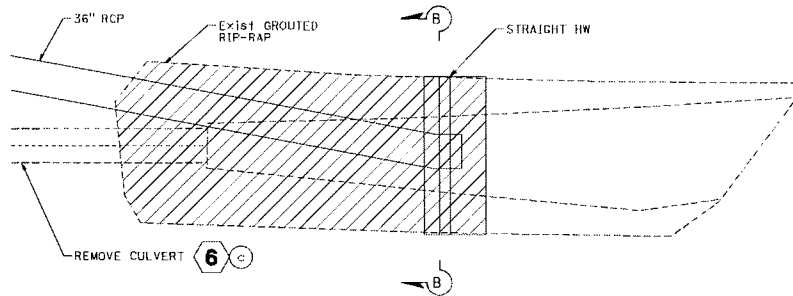
SECTION B-B  
SCALE: 1/2" = 1'-0"



SECTION A-A



ELEVATION  
SCALE: 1" = 5'



PLAN  
SCALE: 1" = 5'

**6** STRAIGHT HW



06-JA-2018

**CITY OF DIAMOND BAR**  
DRAINAGE DETAILS FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

DEPARTMENT OF PUBLIC WORKS

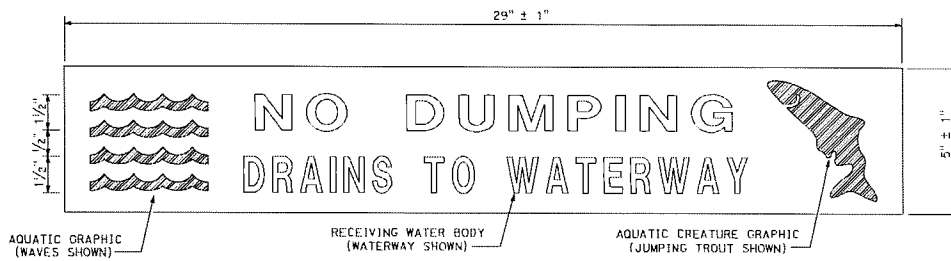
PROJECT NO. — SHEET D-5 SHEET 28 OF 139

REVISIONS					
CHANGED BY	REV. NO.	CHECKED BY	REV. NO.	DESIGNED BY	REV. NO.

**BENCHMARK:**  
COORDINATE SHOWN ARE BASED ON THE  
NATIONAL GRID SYSTEM OF 1983, 1997, 2011 EPOCH  
EPOCH, YEAR 99.  
VERTICAL DATUM BASED ON NORTH AMERICAN  
MEAN SEA LEVEL  
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
WORKS BENCHMARK, ELEVATION 415.44 FEET

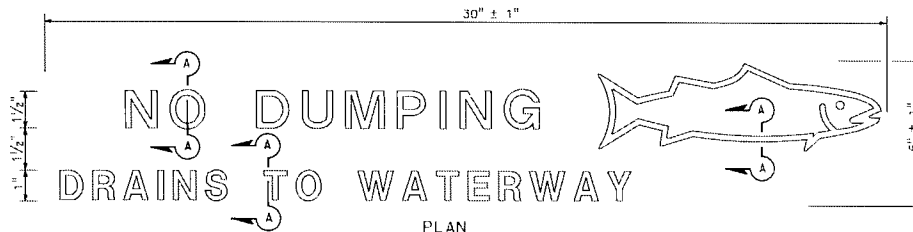
**PREPARED BY:**  
**WKE**  
600 N. Twelfth Ave, Suite 475  
Diamond Bar, CA 91765  
Phone (714) 953-2882  
Fax (714) 953-9000  
PREPARED UNDER THE SUPERVISION OF:  
DANIEL S. MOKELL, REG 54836 DATE: EXP. 12/31/19

**SUBMITTED:**  
**REVISIONS:**  
**APPROVED:** CITY ENGINEER E.C.A. DATE:



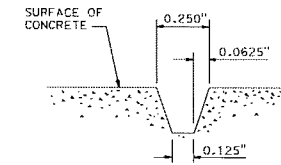
PLAN

**DRAINAGE INLET MARKER  
(PREFABRICATED THERMOPLASTIC)**



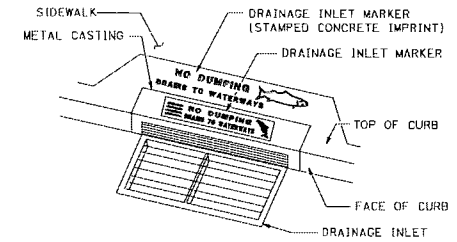
PLAN

**DRAINAGE INLET MARKER  
(STAMPED CONCRETE IMPRINT)**



SECTION A-A

**STAMPED CONCRETE  
IMPRINT DETAIL**



PERSPECTIVE

**DRAINAGE INLET MARKER ON  
DRAINAGE INLET**

STRUCTURE ID	3e		
SYSTEM TREATMENT CAPACITY (CFS/ 1/S)	0.1667		
WATER QUALITY FLOR RATE (CFS/ 1/S)	0.1667		
PEAK FLOW RATE (CFS/1/S)	0.1652		
RETURN PERIOD OF PEAK FLOW (YRS)	50		
REQUIRED MEDIA INFILTRATION RATE	100 (IN/HR)		
PIPE DATA	I.E.	MATERIAL	DIAMETER
OUTLET PIPE	713.44'	SCH 40 PVC	10"
CURB OPENING ORIENTATION	PARALLEL		
TOP OF CURB OPENING ELEVATION	717.38'		
ANTI-FLOATING BALLAST IF REQUIRED	WIDTH	HEIGHT	
	N/A	N/A	
NOTES/SPECIAL REQUIREMENTS	N/A		

STRUCTURE ID	2d		
SYSTEM TREATMENT CAPACITY (CFS/ 1/S)	0.1667		
WATER QUALITY FLOR RATE (CFS/ 1/S)	0.1667		
PEAK FLOW RATE (CFS/1/S)	0.0795		
RETURN PERIOD OF PEAK FLOW (YRS)	50		
REQUIRED MEDIA INFILTRATION RATE	100 (IN/HR)		
PIPE DATA	I.E.	MATERIAL	DIAMETER
OUTLET PIPE	733.99'	SCH 40 PVC	10"
CURB OPENING ORIENTATION	PARALLEL		
TOP OF CURB OPENING ELEVATION	737.62'		
ANTI-FLOATING BALLAST IF REQUIRED	WIDTH	HEIGHT	
	N/A	N/A	
NOTES/SPECIAL REQUIREMENTS	N/A		

STRUCTURE ID	2g		
SYSTEM TREATMENT CAPACITY (CFS/ 1/S)	0.1667		
WATER QUALITY FLOR RATE (CFS/ 1/S)	0.1667		
PEAK FLOW RATE (CFS/1/S)	0.1663		
RETURN PERIOD OF PEAK FLOW (YRS)	50		
REQUIRED MEDIA INFILTRATION RATE	100 (IN/HR)		
PIPE DATA	I.E.	MATERIAL	DIAMETER
OUTLET PIPE	734.01'	SCH 40 PVC	10"
CURB OPENING ORIENTATION	PARALLEL		
TOP OF CURB OPENING ELEVATION	737.66'		
ANTI-FLOATING BALLAST IF REQUIRED	WIDTH	HEIGHT	
	N/A	N/A	
NOTES/SPECIAL REQUIREMENTS	N/A		

**FILTERRA SITE SPECIFIC DATA REQUIREMENTS**

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**BENCHMARKS:**  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, 1983, 1991, 95 EPOCH. VERTICAL DATA IS ON NORTH AMERICAN MEAN SEA LEVEL. UTM COORDINATES ARE 11U, 475, 475.

**PREPARED BY:**  
WKE  
400 N. Twin Ave, Suite 275  
Santa Ana, CA 92705  
Phone (714) 983-2868  
Fax (714) 983-8008  
PREPARED UNDER THE SUPERVISION OF:  
DANIEL S. WINKEL REC 34284 DATE EXP. 12/31/19

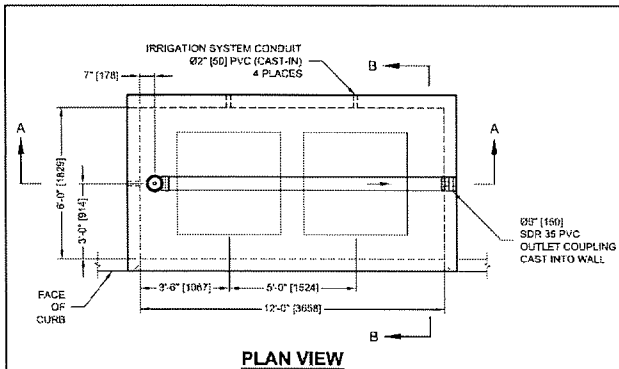
**APPROVED:**  
CITY ENGINEER P.E.C. DATE

06-JA-2018

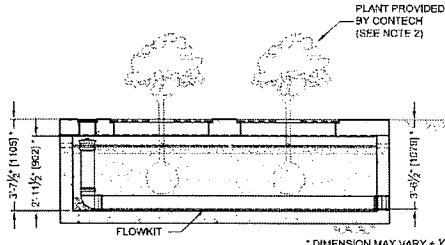
**CITY OF DIAMOND BAR**  
DRAINAGE DETAILS FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
DEPARTMENT OF PUBLIC WORKS

PROJECT NO.	—	SHEET D-8	SHEET 23 OF 139
-------------	---	-----------	-----------------

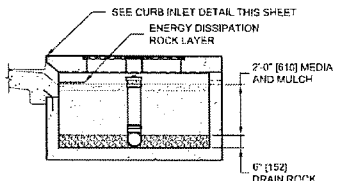




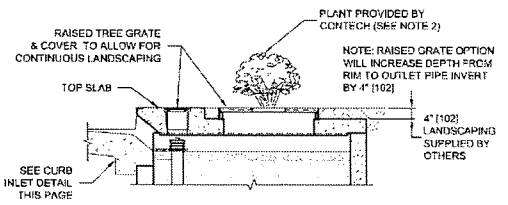
**PLAN VIEW**



**SECTION A-A**



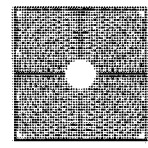
**SECTION B-B**



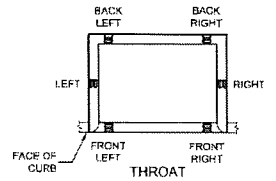
**OPTIONAL RECESSED TOP SLAB DETAIL**  
(TYPICAL TOP SLAB DETAIL SHOWN IN SECTION B-B)

**FILTERRA DESIGN NOTES**

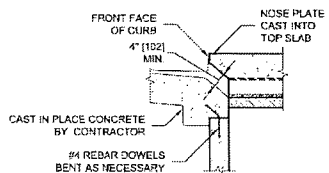
THE FILTERRA TREATMENT CAPACITY IS DETERMINED BY THE TREATMENT RATE OF THE FILTERRA MEDIA. A SEPARATE INLET STRUCTURE MUST BE INSTALLED DOWNSTREAM OF THE OFFLINE FILTERRA TO CARRY FLOWS IN EXCESS OF THE SYSTEM DESIGN CAPACITY. SEE THE FILTERRA DESIGN, OPERATION, AND PERFORMANCE GUIDE FOR MORE INFORMATION.



**48" x 48" [1219 x 1219] TREE GRATE**  
(ACTUAL PRODUCT MAY VARY)  
N.T.S.



**OUTFLOW PIPE ORIENTATION OPTIONS**  
ORIENTATION REFERENCE IS INLET THROAT



**CURB INLET DETAIL**

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID	*		
SYSTEM TREATMENT CAPACITY (CFS / FS)	*		
WATER QUALITY FLOW RATE (CFS / FS)	*		
PEAK FLOW RATE (CFS / FS)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
REQUIRED MEDIA INFILTRATION RATE	*		
PIPE DATA:	I.E.	MATERIAL	DIAMETER
OUTLET PIPE		SCH 40 PVC	4"
CURB OPENING ORIENTATION	*		
TOP OF CURB ELEVATION	*		
ANTI-FLOTATION BALLAST IF REQUIRED	WIDTH	HEIGHT	
NOTES/SPECIAL REQUIREMENTS:	*PER ENGINEER OF RECORD		

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - PLANT, MULCH, AND DISSIPATION ROCK ARE SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
  - DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
  - FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  - STRUCTURE DESIGNED FOR PEDESTRIAN LIVE LOAD WITH HS (4,000 LBS.) WHEEL LOAD MOUNTING THE CURB AND ADJACENT HS-2 LIVE LOAD SURCHARGE ON THE WALLS ON THE STRUCTURE.
  - FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND ACI-318 LOAD FACTOR DESIGN METHOD.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA VAULT (LIFTING CLUTCHES PROVIDED). SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.
  - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
  - CONTRACTOR TO PROVIDE AND INSTALL OUTLET PIPE. PVC COUPLING CAST-IN TO WALL FOR OUTLET PIPE CONNECTION.
  - CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION RELATED EROSION RUNOFF.
  - CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM AND PLANTING OF THE PLANT THAT IS SPECIFIED. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED, FINAL PAVEMENT INSTALLED AND SWEEP CLEAN OF CONSTRUCTION SEDIMENT.
  - ALL FILTERRA UNITS MUST BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. EACH FILTERRA UNIT INCLUDES IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES.



**CONTECH**  
ENGINEERED SOLUTIONS LLC  
[www.contechES.com](http://www.contechES.com)  
5025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
936-336-1122 513-615-7000 513-615-7993 FAX

FILTERRA 12x6 OFFLINE STANDARD  
LONG SIDE INLET  
MODEL: FT1206

00-JUL-2018

CITY OF DIAMOND BAR		
DRAINAGE DETAILS FOR <b>GRAND AVE/GOLDEN SPRINGS DR</b>		
DEPARTMENT OF PUBLIC WORKS		
PROJECT NO.	—	SHEET D-7
		SHEET 30 OF 139

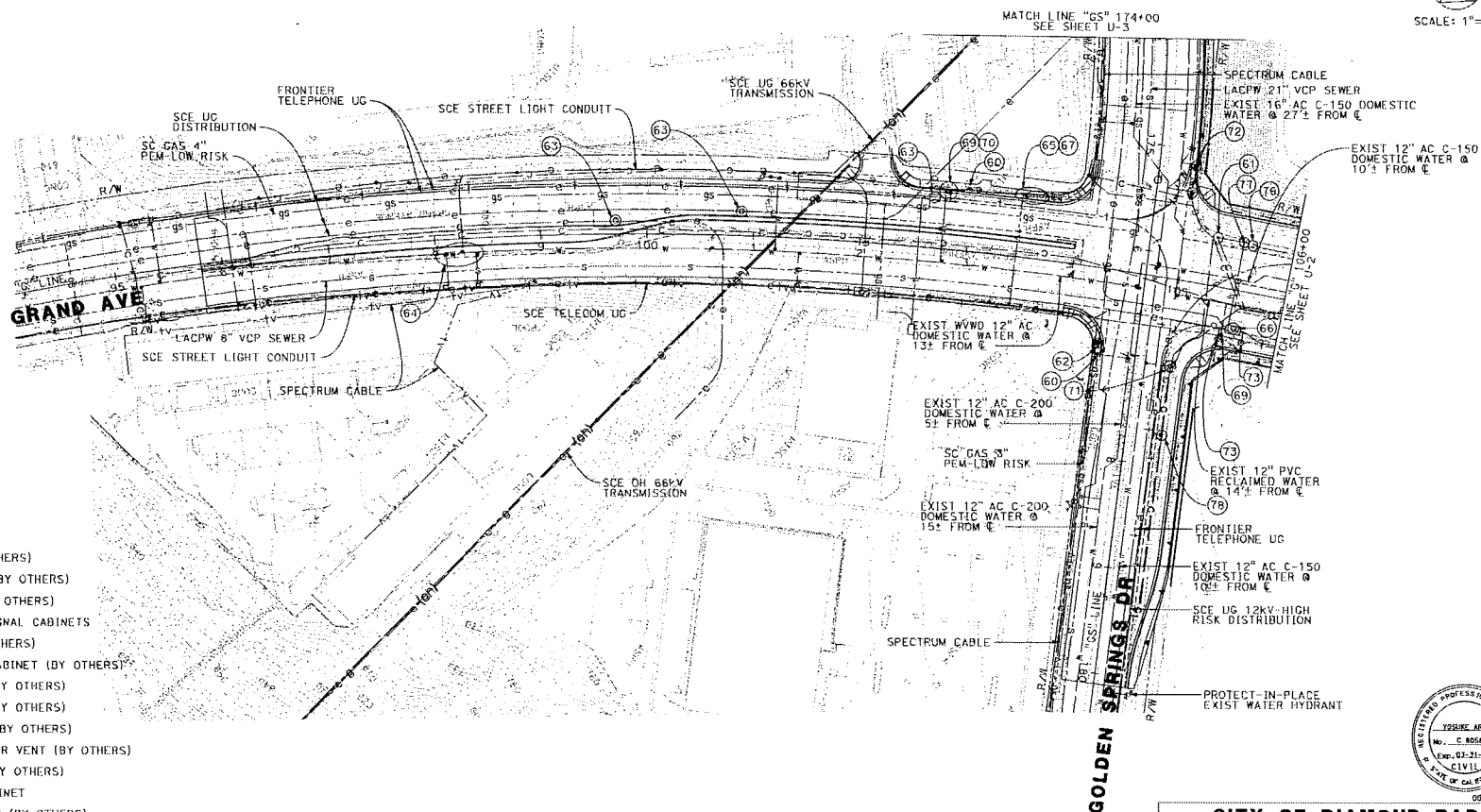
REVISIONS					
NO.	DATE	BY	DESCRIPTION	DATE	BY

<b>BENCHMARK:</b> SPOT ELEVATION OF THE BENCH MARK SHALL BE THE SAME AS THE SPOT ELEVATION OF THE BENCH MARK IN THE ADJACENT SHEET.	<b>PREPARED BY:</b> JWKE PREPARED UNDER THE SUPERVISION OF: DANIEL S. WISWELL PLS 52438 DATE: 07/12/2018
--	---

<b>600 N. Twelfth Ave., Suite 305 Saffo Ave., CA 92705 Phone (714) 853-2865 Fax (714) 953-9608</b>	<b>SUBMITTED:</b> 
	<b>REVISIONS:</b> 
	<b>APPROVED:</b> LITTY ESKINICH E.C.S. DATE:



SCALE: 1"=50'



**CONSTRUCTION NOTES**

- (60) PROTECT-IN-PLACE
- (61) REMOVE ABANDONED CABINETS
- (62) ADJUST PULL BOX TO GRADE (BY OTHERS)
- (63) ADJUST MANHOLE COVER TO GRADE (BY OTHERS)
- (64) ADJUST WATER VALVE TO GRADE (BY OTHERS)
- (65) RELOCATE TRAFFIC CONTROL AND SIGNAL CABINETS
- (66) ADJUST EXISTING SCE VAULT (BY OTHERS)
- (67) RELOCATE EXISTING POWER METER CABINET (BY OTHERS)
- (69) RELOCATE EXISTING WATER METER (BY OTHERS)
- (70) RELOCATE EXISTING WATER VALVE (BY OTHERS)
- (71) RELOCATE EXISTING FIRE HYDRANT (BY OTHERS)
- (72) RELOCATE EXISTING RECLAIMED WATER VENT (BY OTHERS)
- (73) RELOCATE EXISTING EDISON VENT (BY OTHERS)
- (76) RELOCATE EXISTING IRRIGATION CABINET
- (77) RELOCATE EXISTING SCE SPLICE BOX (BY OTHERS)
- (78) RELOCATE EXISTING ELECTRICAL PULL BOX (BY OTHERS)

**REVISIONS**

NO.	DATE	BY	DESCRIPTION

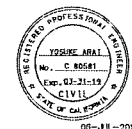
**BENCHMARKS:**  
 COORDINATE POINTS ARE BASED ON THE CALIFORNIA NORTH DATUM OF 1983. POINT 5, POINTS 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

**PREPARED BY:**  
  
 WKE  
 400 N. Tustin Ave., Suite 215  
 Orange, CA 92668  
 Phone (714) 963-2866  
 Fax (714) 963-4008  
 PREPARED UNDER THE SUPERVISION OF:

**DESIGNED BY:**  
 \_\_\_\_\_  
**REVISIONS:**  
 \_\_\_\_\_  
**APPROVED:**  
 \_\_\_\_\_  
 CITY ENGINEER  
 P.L.C. DATE

**CITY OF DIAMOND BAR**  
**UTILITY PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 94+00 TO "G" 106+00  
**DEPARTMENT OF PUBLIC WORKS**

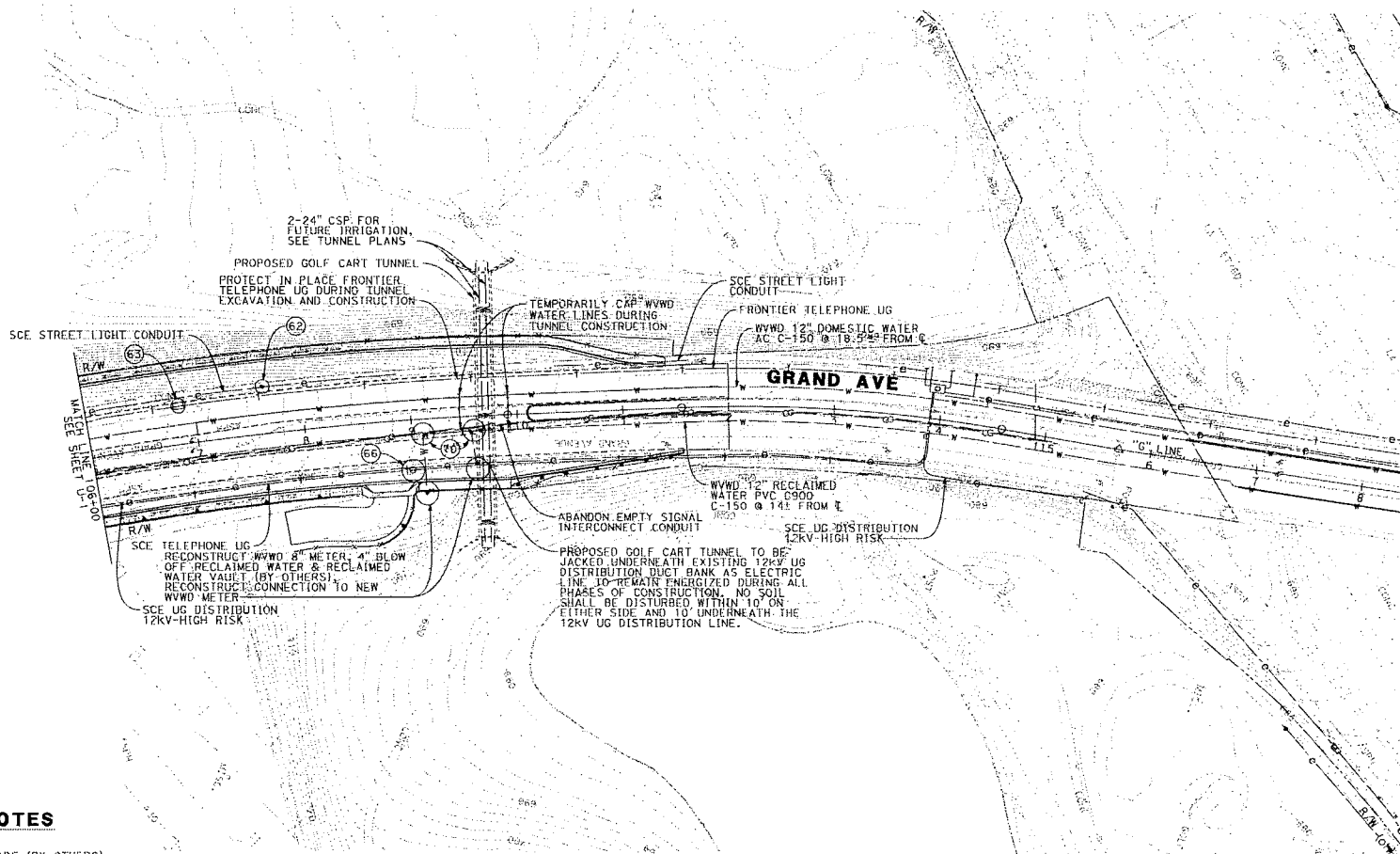
PROJECT NO. \_\_\_\_\_ SHEET U-1 SHEET 31 OF 139



05-JUL-2018



SCALE: 1"=50'



**CONSTRUCTION NOTES**

- 67 ADJUST PULL BOX TO GRADE (BY OTHERS)
- 63 ADJUST MANHOLE COVER TO GRADE (BY OTHERS)
- 66 ADJUST EXISTING SCE VAULT (BY OTHERS)
- 70 RELOCATE EXISTING WATER VALVE (BY OTHERS)



06-JUL-2018

**CITY OF DIAMOND BAR**  
 UTILITY PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 106+00 TO "G" 118+00  
 DEPARTMENT OF PUBLIC WORKS

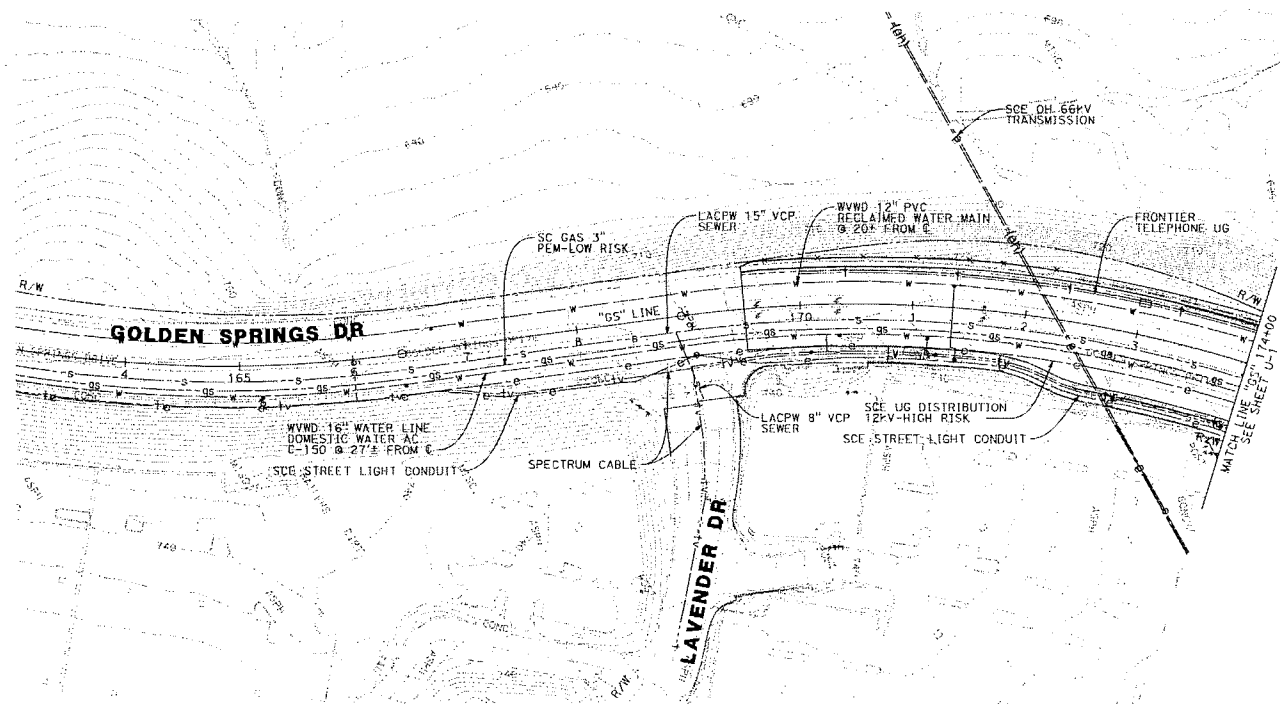
PROJECT NO. \_\_\_\_\_ SHEET U-2 SHEET 32 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NATIONAL SPHERICAL DATUM OF 1983 (NAD 83)  
 DATUM, YEAR 83, WITH AN EPOCH OF 1992.00  
 ORIGIN FROM THE NORTH AMERICAN  
 MEAN SEA LEVEL  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK, ELEVATION 715.47 FEET

**PREPARED BY:**  
  
 DANIEL S. KODWALL  
 PREPARED UNDER THE SUPERVISION OF:

**DATE:** 08/23/19  
**SCALE:** 1"=50'  
**PROJECT NO.:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_



SCALE: 1"=50'



**CITY OF DIAMOND BAR**  
 UTILITY PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "GS" 163+00 TO "GS" 174+00  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET U-3 SHEET 33 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 CALIFORNIA STATE PLANE SYSTEM (CSPS) ZONE 5,  
 DATUM OF 1983, 1997, 33 EPOCH  
 ORIGIN: BARNES BURN, SANTA ANITA MOUNTAIN  
 RESERVOIR  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK, ELEVATION 475.47 FEET

**PREPARED BY:**  
  
 400 N. Twelfth Ave., Suite 275  
 Santa Ana, CA 92705  
 Phone (714) 993-2883  
 Fax (714) 993-9048  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WIDMELL REG. 54834 DATE EXP. 12-31-19

**SUBMITTED:** \_\_\_\_\_  
**RECEIVED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER R.C.Z. DATE \_\_\_\_\_



**LEGEND**

- (No.) STRIPING DETAIL NUMBER PER CALTRANS STANDARD PLANS A20A-A20D
- (XX-XX) ROADSIDE SIGN DESIGNATION
- (A) 4" SOLID WHITE STRIPE - 50' MINIMUM LENGTH
- (B) PAVEMENT MARKING ARROWS PER CALTRANS REVISED STANDARD PLAN RSP 24A, TYPE AS SHOWN
- (C) 12" WHITE LIMIT LINE OR CROSSWALK
- (D) 8" SOLID WHITE STRIPE @ 45°, SPACING AS NOTED
- (F) FINAL STRIPING, SEE PAVEMENT DELINEATION PLANS
- (S) SIGNALIZED INTERSECTION
- TEMPORARY CRASH CUSHION (ARRAY T511)
- TEMPORARY CRASH CUSHION (ABSORB 350)
- 4 CONSTRUCTION AREA SIGN (1 POST)
- ± TYPE III BARRICADE
- TEMPORARY RAILING (TYPE K)
- △ TEMPORARY RAILING (TYPE K) (SECTION VIEW)
- CHANNELIZER (SURFACE MOUNTED)
- DIRECTION OF TRAFFIC
- \* STAGE CONSTRUCTION ITEM TO REMAIN FROM PREVIOUS STAGES
- ▨ CONSTRUCTION AREA
- ▩ CONSTRUCTION AREA (OVERNIGHT CLOSURE)
- ← PEDESTRIAN DETOUR ROUTE

**PEDESTRIAN DETOUR (STAGE 1)**

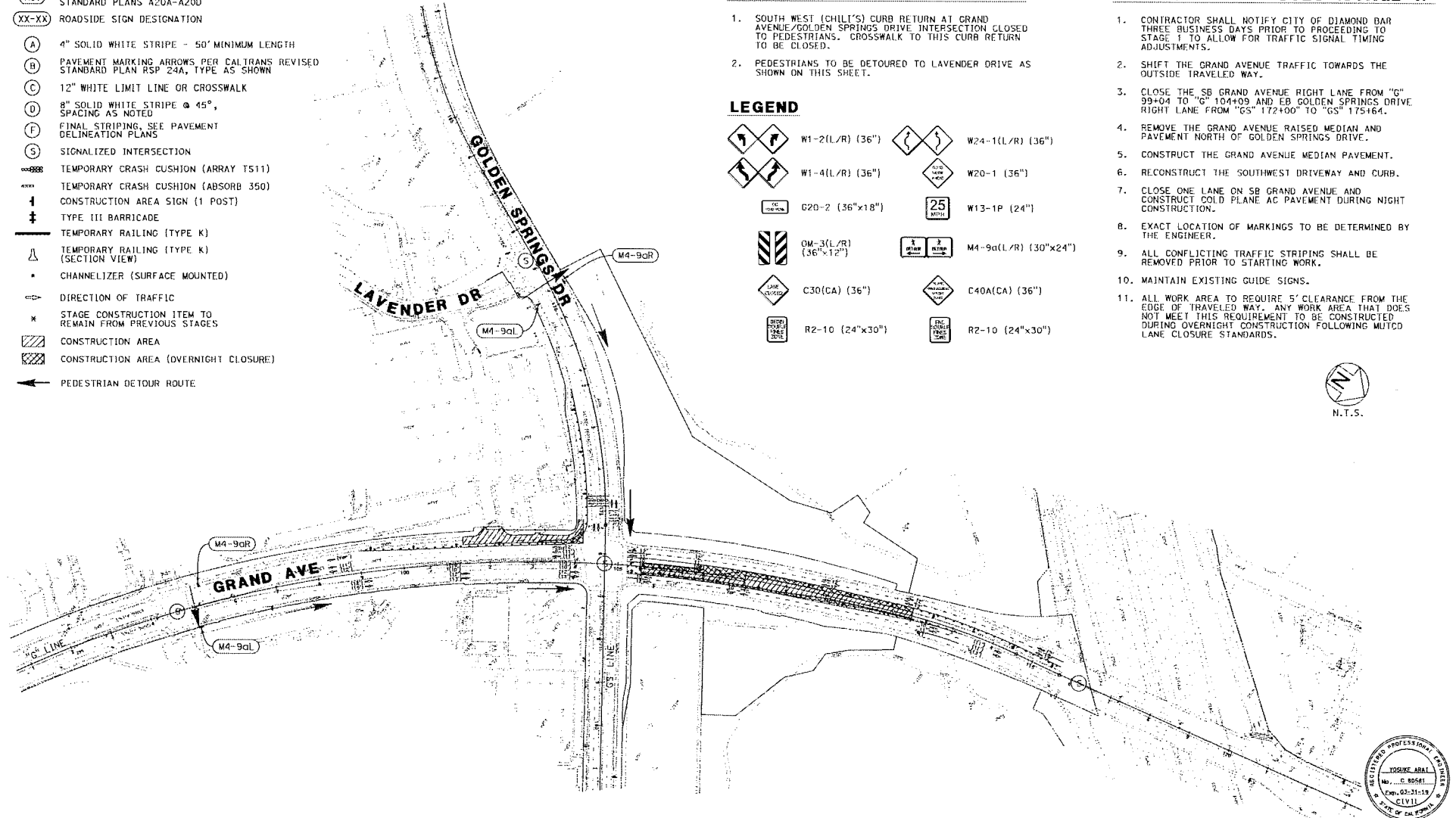
1. SOUTH WEST (CHILI'S) CURB RETURN AT GRAND AVENUE/GOLDEN SPRINGS DRIVE INTERSECTION CLOSED TO PEDESTRIANS. CROSSWALK TO THIS CURB RETURN TO BE CLOSED.
2. PEDESTRIANS TO BE DETOURED TO LAVENDER DRIVE AS SHOWN ON THIS SHEET.

**LEGEND**

- W1-2(L/R) (36")
- W24-1(L/R) (36")
- W1-4(L/R) (36")
- W20-1 (36")
- G20-2 (36"x18")
- W13-1P (24")
- OM-3(L/R) (36"x12")
- M4-9a(L/R) (30"x24")
- C30(CA) (36")
- C40A(CA) (36")
- R2-10 (24"x30")
- R2-10 (24"x30")

**CONSTRUCTION NOTES (STAGE 1)**

1. CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR THREE BUSINESS DAYS PRIOR TO PROCEEDING TO STAGE 1 TO ALLOW FOR TRAFFIC SIGNAL TIMING ADJUSTMENTS.
2. SHIFT THE GRAND AVENUE TRAFFIC TOWARDS THE OUTSIDE TRAVELED WAY.
3. CLOSE THE SB GRAND AVENUE RIGHT LANE FROM "G" 99+04 TO "G" 104+09 AND EB GOLDEN SPRINGS DRIVE RIGHT LANE FROM "GS" 172+00 TO "GS" 175+64.
4. REMOVE THE GRAND AVENUE RAISED MEDIAN AND PAVEMENT NORTH OF GOLDEN SPRINGS DRIVE.
5. CONSTRUCT THE GRAND AVENUE MEDIAN PAVEMENT.
6. RECONSTRUCT THE SOUTHWEST DRIVEWAY AND CURB.
7. CLOSE ONE LANE ON SB GRAND AVENUE AND CONSTRUCT COLD PLANE AC PAVEMENT DURING NIGHT CONSTRUCTION.
8. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
9. ALL CONFLICTING TRAFFIC STRIPING SHALL BE REMOVED PRIOR TO STARTING WORK.
10. MAINTAIN EXISTING GUIDE SIGNS.
11. ALL WORK AREA TO REQUIRE 5' CLEARANCE FROM THE EDGE OF TRAVELED WAY. ANY WORK AREA THAT DOES NOT MEET THIS REQUIREMENT TO BE CONSTRUCTED DURING OVERNIGHT CONSTRUCTION FOLLOWING MUTCD LANE CLOSURE STANDARDS.



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**  
**STAGE 1**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **SC-1** SHEET 34 OF 139

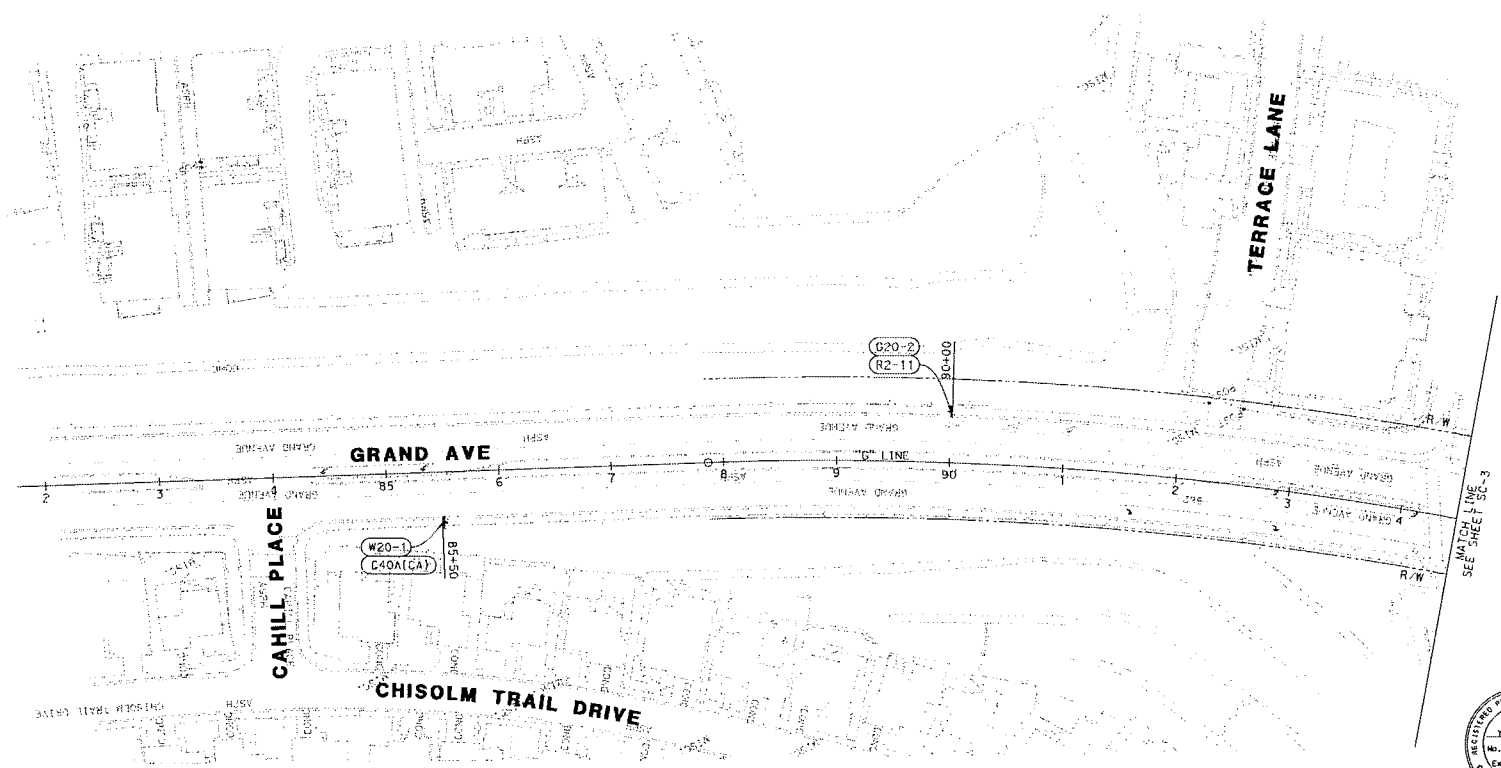
DESIGNED BY		CHECKED BY		APPROVED BY		DATE	DATE

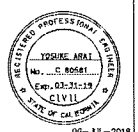
<p><b>BENCHMARK:</b>                  COORDINATES SHOWN ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, DATUM OF 1983, 1997 33 EPOCH. VERTICAL DATUM IS NORTH AMERICAN MEAN SEA LEVEL.</p> <p>LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION - 475.00 FEET</p>	<p><b>PREPARED BY:</b>   WKE                  400 N. Tustin Ave., Suite 275                  Orange, CA 92668                  Phone (714) 953-2868                  Fax (714) 953-0004</p> <p>PREPARED UNDER THE SUPERVISION OF:                  GABRIEL S. WICKELL P.E. 14938 DATE: 07/12/21/19</p>
---	--



SCALE: 1"=50'



SEE SHEET SC-3



00-JUL-2018

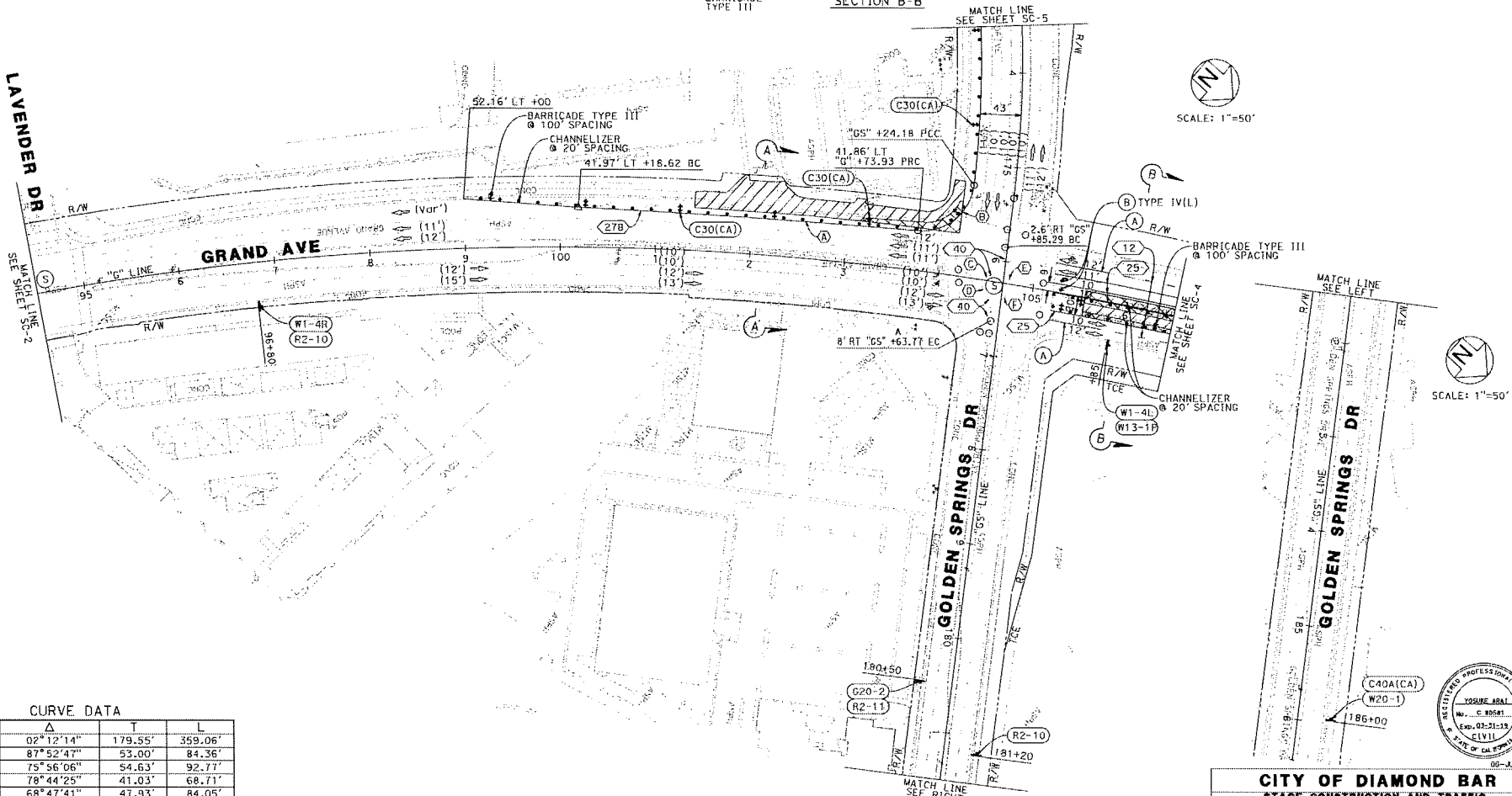
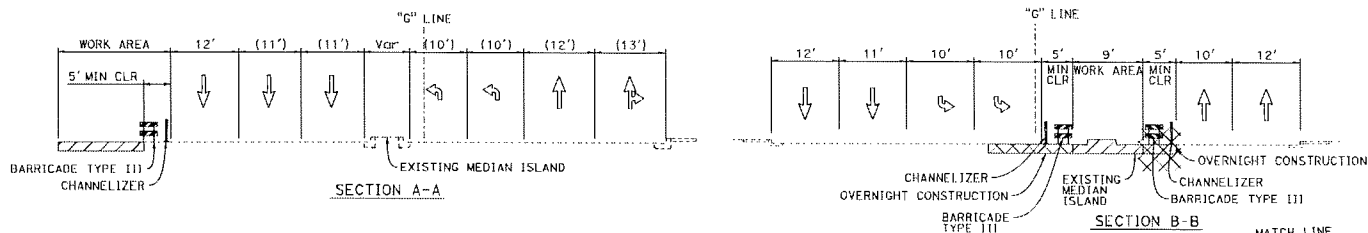
<b>CITY OF DIAMOND BAR</b>		
<b>STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 1) FOR GRAND AVE</b>		
FROM "G" 82+00 TO "G" 94+50		
<b>DEPARTMENT OF PUBLIC WORKS</b>		
PROJECT NO.	—	SHEET <b>SC-2</b>
		SHEET 35 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 COORDINATE POINTS ARE BASED TO THE  
 NATIONAL GRID SYSTEM OF 1983, 1983 EPOCH  
 DATUM, 1983 ZONE 10N  
 CONTROL POINT IS NEVA ARROWAY  
 4425100.00 N, 6784100.00 E, 100.00  
 MSL. BENCH MARK IS AT THE END OF THE  
 ROAD.

**PREPARED BY:**  
  
 400 N. Tenth Ave, Suite 210  
 San Joaquin, CA 95705  
 Phone (916) 963-2868  
 Fax (916) 963-5008  
**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL S. WOODRILL, P.E. STATE DATE EXP. 12/31/19

**SCALE:** \_\_\_\_\_  
**REVISION:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER R.E.G. DATE \_\_\_\_\_



**CURVE DATA**

No.	R	Δ	T	L
(A)	9334.25'	02°12'14"	179.55'	359.06'
(B)	55.00'	87°52'47"	53.00'	84.36'
(C)	70.00'	75°56'06"	54.63'	92.77'
(D)	50.00'	78°44'25"	41.03'	68.71'
(E)	70.00'	68°47'41"	47.93'	84.05'
(F)	75.00'	68°14'28"	50.82'	89.33'

**REVISIONS**

CHECKED BY	REV. NO.	CHANGED BY	REV. NO.	CHECKED BY	REV. NO.

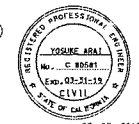
**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE  
 CALIFORNIA SPHERICAL EARTH MODEL, ZONE 5,  
 NAD83, DATUM OF 1983, 1987, 34 EPOCH  
 REFERENCE EPOCH: 1982.0  
 NAD83 TO NAD27 CORRECTION: 111.7' N, 415.49' E  
 U.S. GEOLOGICAL SURVEY DEPARTMENT OF COMMERCE  
 WASHINGTON, D.C. 20548

**PREPARED BY:**  
  
 WKE  
 PREPARED UNDER THE SUPERVISION OF:  
 SHARIL S. WENDEL REG 12424 DATE EXP. 12/31/19

**APPROVED:**  
 400 N. Hill In Ave, Suite 270  
 Gardena, CA 90248  
 Phone (714) 953-2866  
 Fax (714) 953-2408

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 1) FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 94+50 TO "G" 106+50  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **SC-3** SHEET 36 OF 139



06-JUL-2018



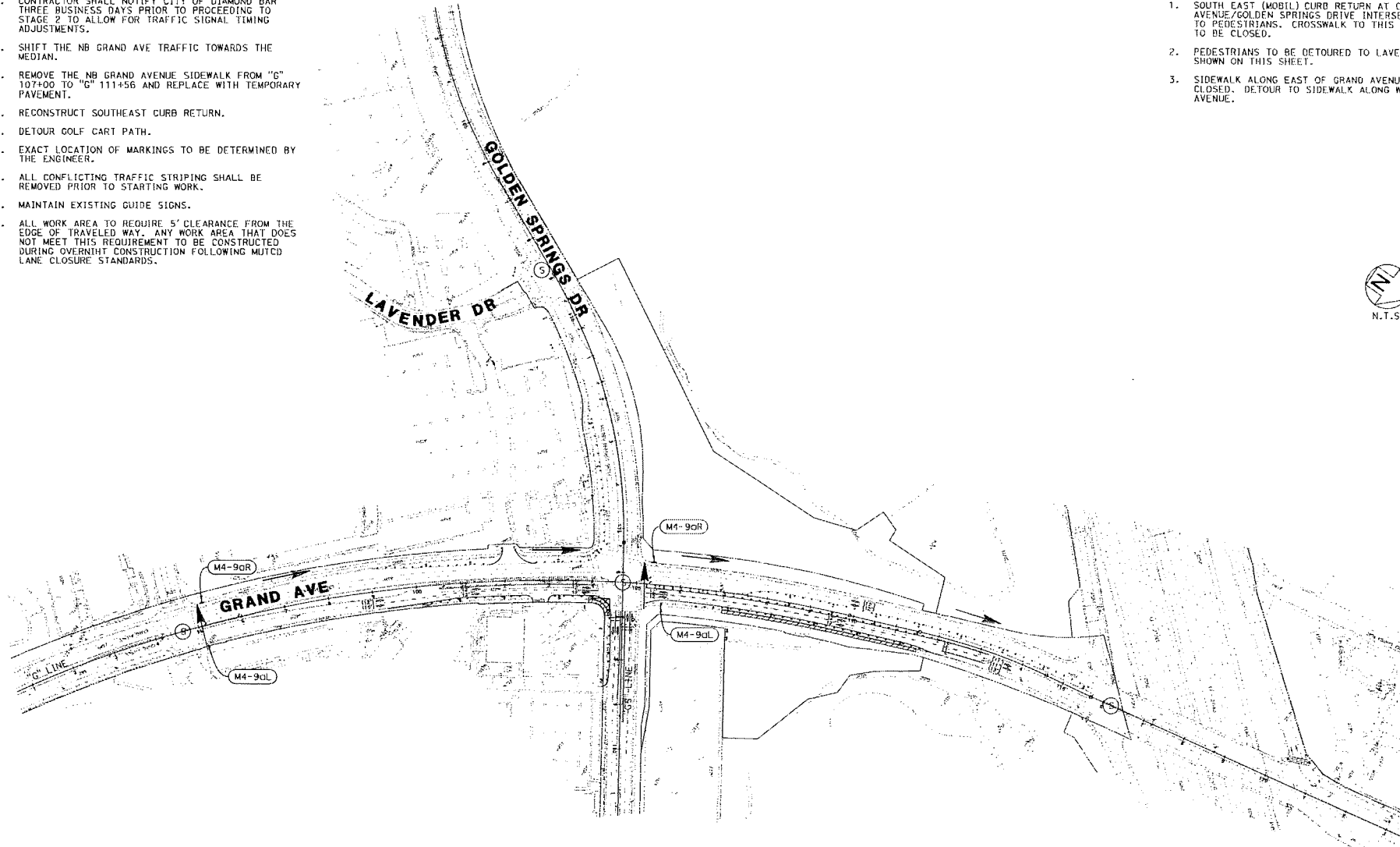


**CONSTRUCTION NOTES (STAGE 2)**

1. CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR THREE BUSINESS DAYS PRIOR TO PROCEEDING TO STAGE 2 TO ALLOW FOR TRAFFIC SIGNAL TIMING ADJUSTMENTS.
2. SHIFT THE NB GRAND AVE TRAFFIC TOWARDS THE MEDIAN.
3. REMOVE THE NB GRAND AVENUE SIDEWALK FROM "G" 107+00 TO "G" 111+56 AND REPLACE WITH TEMPORARY PAVEMENT.
4. RECONSTRUCT SOUTHEAST CURB RETURN.
5. DETOUR GOLF CART PATH.
6. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
7. ALL CONFLICTING TRAFFIC STRIPING SHALL BE REMOVED PRIOR TO STARTING WORK.
8. MAINTAIN EXISTING GUIDE SIGNS.
9. ALL WORK AREA TO REQUIRE 5' CLEARANCE FROM THE EDGE OF TRAVELED WAY. ANY WORK AREA THAT DOES NOT MEET THIS REQUIREMENT TO BE CONSTRUCTED DURING OVERNIGHT CONSTRUCTION FOLLOWING MUTED LANE CLOSURE STANDARDS.

**PEDESTRIAN DETOUR (STAGE 2)**

1. SOUTH EAST (MOBIL) CURB RETURN AT GRAND AVENUE/GOLDEN SPRINGS DRIVE INTERSECTION CLOSED TO PEDESTRIANS - CROSSWALK TO THIS CURB RETURN TO BE CLOSED.
2. PEDESTRIANS TO BE DETOURED TO LAVENDER DRIVE AS SHOWN ON THIS SHEET.
3. SIDEWALK ALONG EAST OF GRAND AVENUE TO BE CLOSED. DETOUR TO SIDEWALK ALONG WEST OF GRAND AVENUE.



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND**  
**TRAFFIC HANDLING PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**STAGE 2**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO.	—	<b>SHEET 8C-B</b>	SHEET 39 OF 139
-------------	---	-------------------	-----------------

REVISIONS			
CHECKED BY	REV. NO.	CHANGED BY	DATE

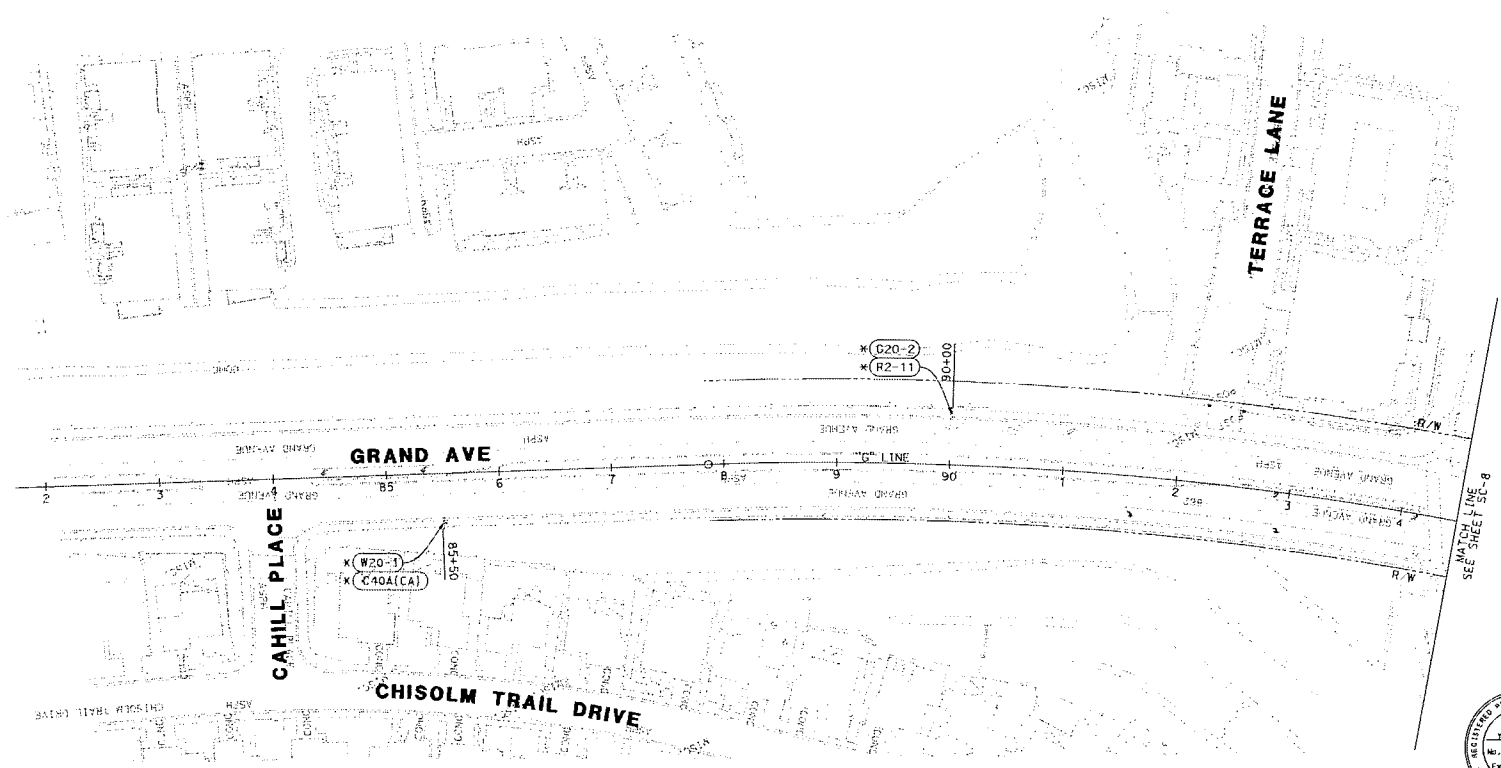
**BENCHMARK:**  
 COORDINATE SURVEY AND BASED TO THE  
 NAD 83 DATUM OF 1983, 1997 TO 1998  
 (GARS, 1997-98).  
 HEIGHTS ARE BASED ON NORTH AMERICAN  
 DATUM OF 1983.  
 ALL ELEVATIONS ARE IN FEET ABOVE SEA LEVEL.

**PREPARED BY:**  
**WKE**  
 400 N. Tuella Ave, Suite 205  
 Santa Ana, CA 92705  
 Phone (714) 993-2800  
 Fax (714) 993-5400  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WOODRILL, P.E. DATE: 12/31/18

**SUBMITTER:** \_\_\_\_\_  
**REVISION:** \_\_\_\_\_  
**APPROVED:** CITY ENGINEER, P.E., DATE: \_\_\_\_\_



SCALE: 1"=50'



MATCH LINE SEE SHEET SC-8



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 2) FOR GRAND AVE**  
 FROM "G" 82+00 TO "G" 94+50  
**DEPARTMENT OF PUBLIC WORKS**

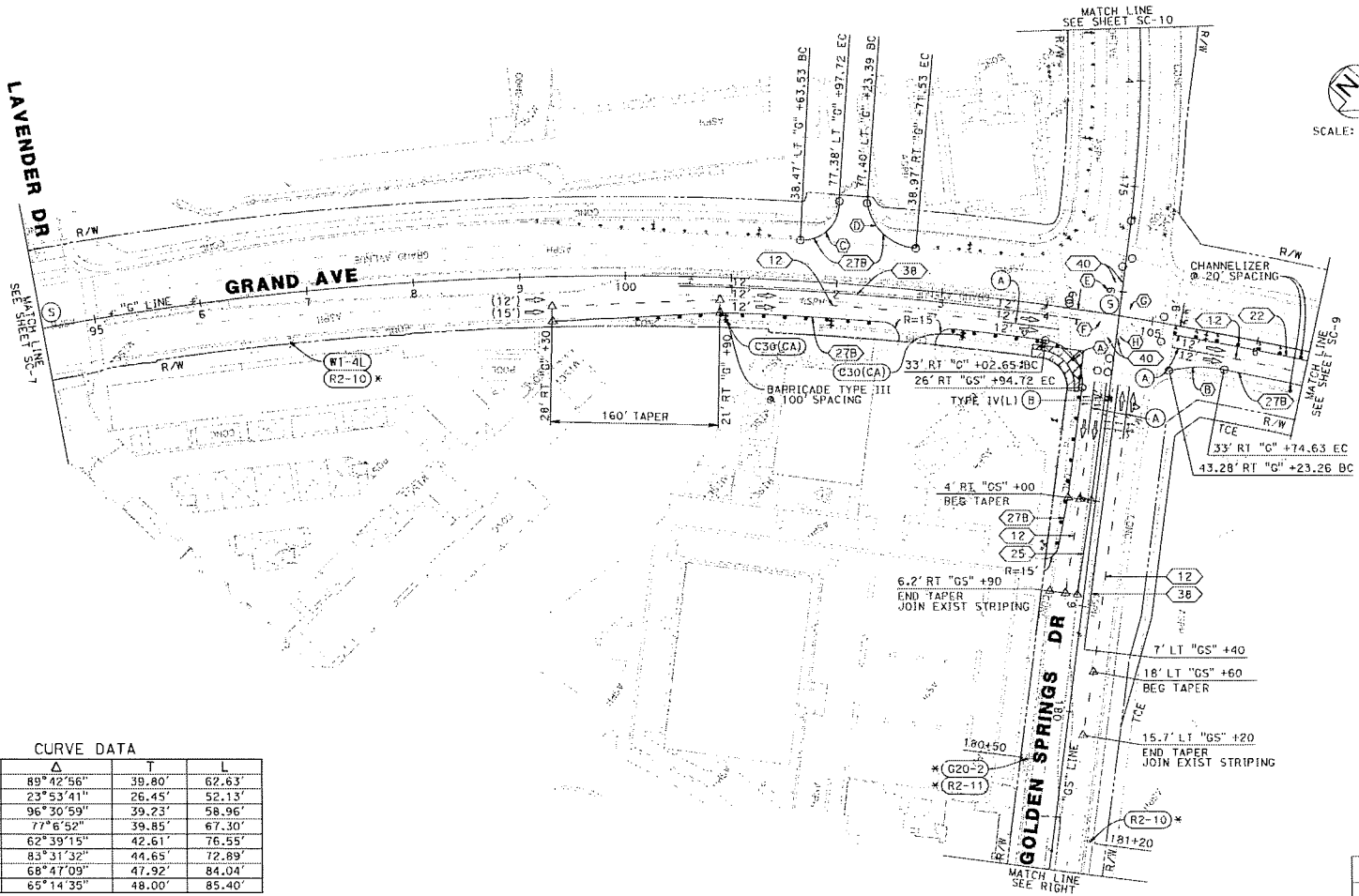
PROJECT NO. \_\_\_\_\_ SHEET **SC-7** SHEET 40 OF 139

REVISIONS					
CHANGED BY	ACL NO.	CREATED BY	REV. NO.	CHANGED BY	ACL NO.

**BENCHMARK:**  
 ELEVATION DATA BASED ON THE  
 NATIONAL DATUM OF 1983, 1997.35 EPOCH  
 DATUM, 1997.35  
 VERTICAL DATUM BEING NATIONAL 1983  
 MEAN SEA LEVEL  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK ELEVATION: 715.47 FEET

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WENDEL REG 14934 DATE EXP. 12-31-19

**APPROVED:**  
 CITY ENGINEER P.E.J. DATE



SCALE: 1"=50'

SCALE: 1"=50'

CURVE DATA

No.	R	Δ	T	L
(A)	40.00'	89°42'56"	39.80'	62.63'
(B)	125.00'	23°53'41"	26.45'	52.13'
(C)	35.00'	96°30'59"	39.23'	58.96'
(D)	50.00'	77°6'52"	39.85'	67.30'
(E)	70.00'	62°39'15"	42.61'	76.55'
(F)	50.00'	83°31'32"	44.65'	72.89'
(G)	70.00'	68°47'09"	47.92'	84.04'
(H)	75.00'	65°14'35"	48.00'	85.40'

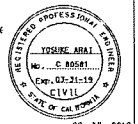
REVISIONS

DATE	BY	DATE	BY	DATE	BY

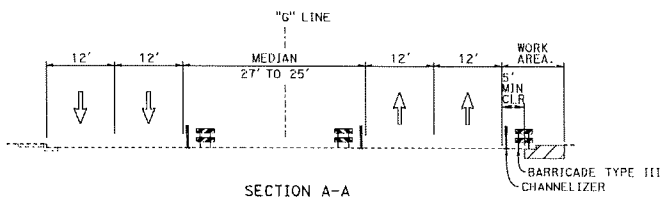
BENCHMARKS:  
 COORDINATE SURVEY ARE BASED ON THE  
 CALIFORNIA STATE PLANE COORDINATE ZONE 5,  
 NAD 83, DATUM OF 1983, 1983-35 EPOCH  
 POINT, TBM 31.

PREPARED BY: **WKE**  
 400 N. Twin In Ave, Suite 215  
 Santa Ana, CA 92705  
 Phone (714) 963-2868  
 Fax (714) 963-2868

**CITY OF DIAMOND BAR**  
 STAGE CONSTRUCTION AND TRAFFIC  
 HANDLING PLAN (STAGE 2) FOR  
 GRAND AVE/GOLDEN SPRINGS DR  
 FROM "C" 94+50 TO "C" 106+50  
 DEPARTMENT OF PUBLIC WORKS



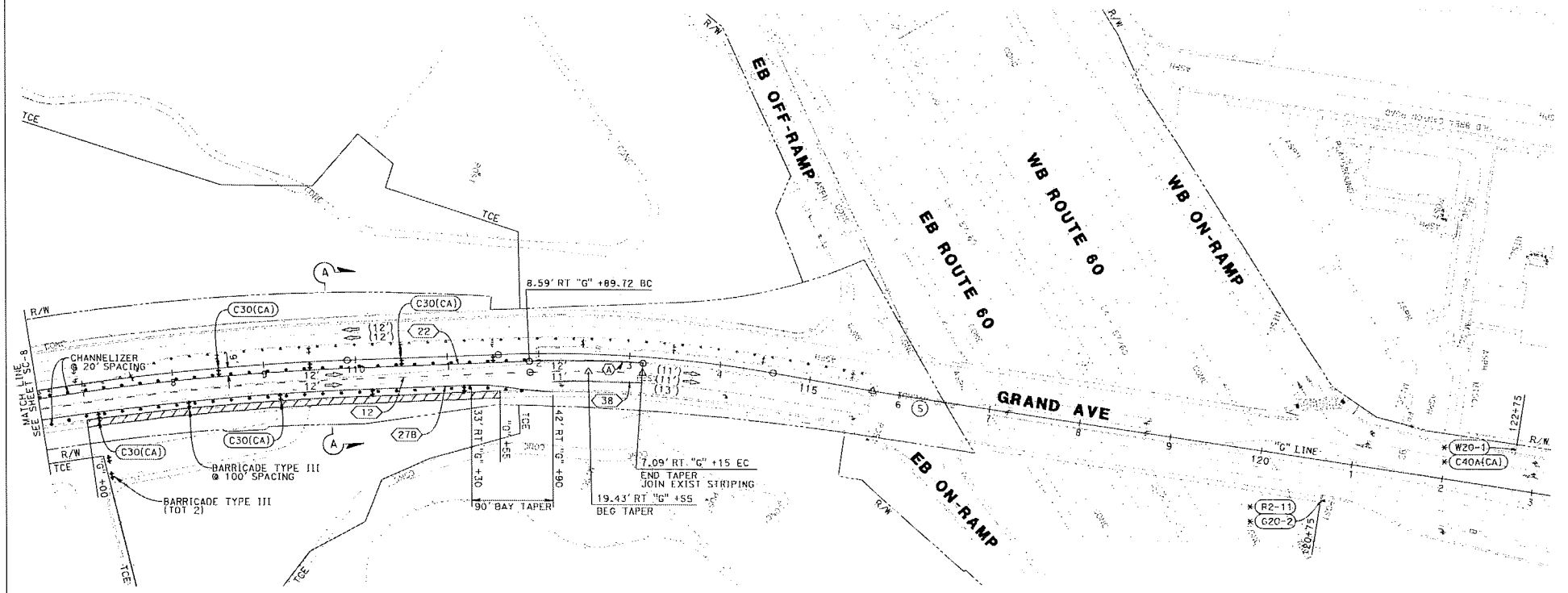




SECTION A-A



SCALE: 1"=50'



CURVE DATA

No.	R	Δ	T	L
(A)	1100.00	6°29'38"	62.40	124.67

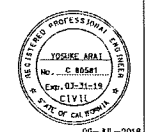
REVISIONS

CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

BENCHMARK:  
 COOPERVILLE SOUTH AND NORTH TO 151' FROM  
 PUBLIC WORKS DEPT. OF 1988, 1991, 1992, 1993  
 SEE PLAN FOR BENCH MARK INFORMATION  
 WORKS DEPT. OF 1988, 1991, 1992, 1993

PREPARED BY:  
 WKE  
 400 N. Swifth Ave, Suite 320  
 San Jose, CA 95128  
 Phone (415) 253-2000  
 Fax (415) 951-5004  
 PREPARED UNDER THE SUPERVISION OF:  
 DWIGHT S. WEGGILL PLS 57434 DATE: 07/12/21/24

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER A.C.E. DATE: \_\_\_\_\_



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 2) FOR GRAND AVE**  
 FROM "G" 106+50 TO "G" 123+00  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET **8C-8** SHEET 42 OF 139

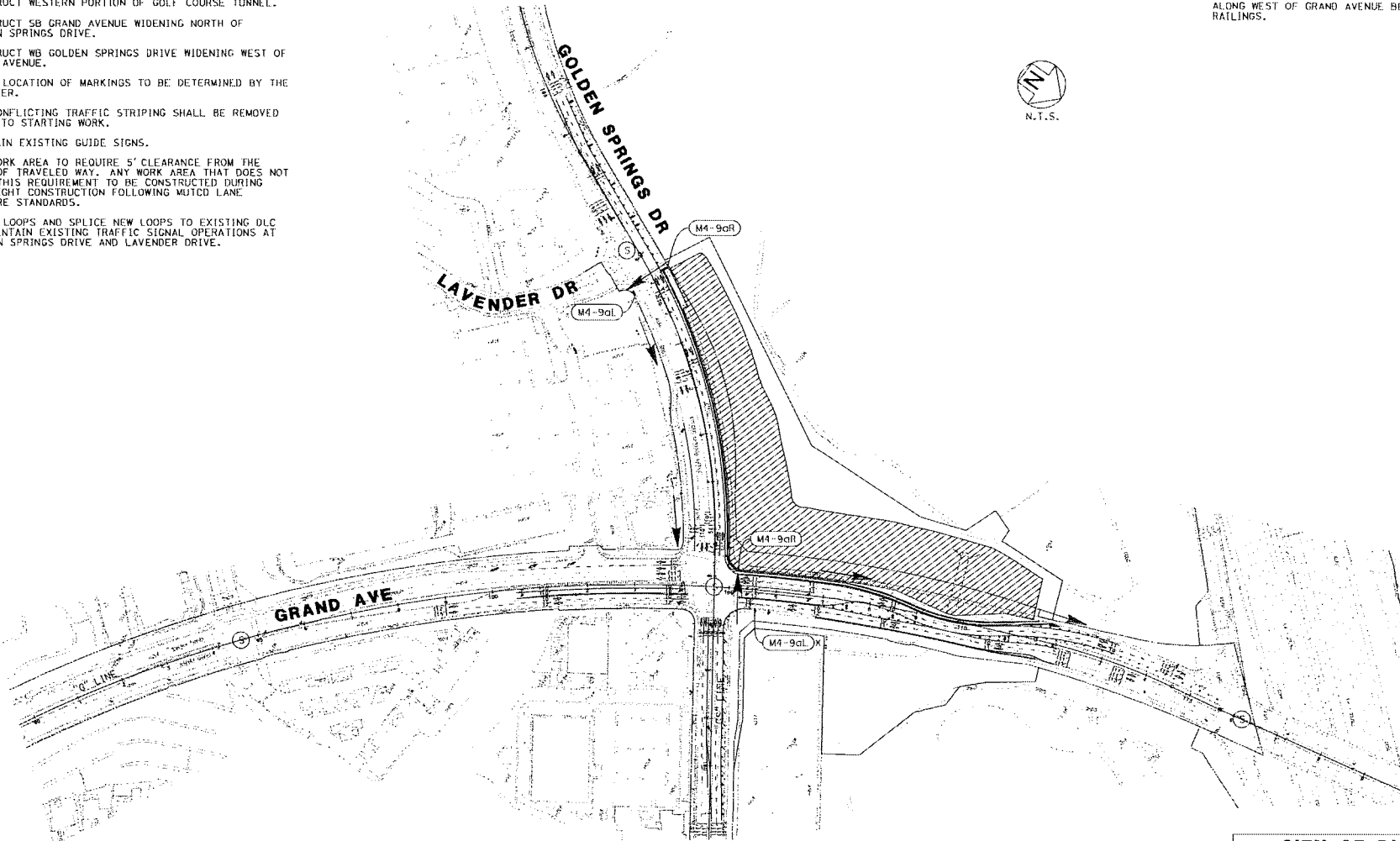


**CONSTRUCTION NOTES (STAGE 3)**

1. CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR THREE BUSINESS DAYS PRIOR TO PROCEEDING TO STAGE 3 TO ALLOW FOR TRAFFIC SIGNAL TIMING ADJUSTMENTS.
2. SHIFT THE SB GRAND AVENUE TRAFFIC EASTERLY FROM "C" 105+00 AND "C" 113+125 AND SHIFT NB GOLDEN SPRINGS DRIVE SOUTHERLY FROM "GS" 165+22 TO "GS" 175+83.
3. CONSTRUCT WESTERN PORTION OF GOLF COURSE TUNNEL.
4. CONSTRUCT SB GRAND AVENUE WIDENING NORTH OF GOLDEN SPRINGS DRIVE.
5. CONSTRUCT WB GOLDEN SPRINGS DRIVE WIDENING WEST OF GRAND AVENUE.
6. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
7. ALL CONFLICTING TRAFFIC STRIPING SHALL BE REMOVED PRIOR TO STARTING WORK.
8. MAINTAIN EXISTING GUIDE SIGNS.
9. ALL WORK AREA TO REQUIRE 5' CLEARANCE FROM THE EDGE OF TRAVELED WAY. ANY WORK AREA THAT DOES NOT MEET THIS REQUIREMENT TO BE CONSTRUCTED DURING OVERNIGHT CONSTRUCTION FOLLOWING MUTCD LANE CLOSURE STANDARDS.
10. RECUT LOOPS AND SPLICE NEW LOOPS TO EXISTING DLC TO MAINTAIN EXISTING TRAFFIC SIGNAL OPERATIONS AT GOLDEN SPRINGS DRIVE AND LAVENDER DRIVE.

**PEDESTRIAN DETOUR (STAGE 3)**

1. NORTH WEST SIDEWALK AT GRAND AVENUE/GOLDEN SPRINGS DRIVE INTERSECTION CLOSED TO PEDESTRIANS.
2. PEDESTRIANS TO BE DETOURED TO LAVENDER DRIVE AS SHOWN ON THIS SHEET.
3. SIDEWALK ALONG EAST OF GRAND AVENUE TO REMAIN CLOSED FROM PREVIOUS STAGE. DETOUR PEDESTRIANS ALONG WEST OF GRAND AVENUE BETWEEN TEMPORARY RAILINGS.



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**  
**STAGE 2**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET **SC-11** SHEET 44 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**BENCHMARK:**  
 COORDINATE SURVEY ARE BASED ON THE  
 NATIONAL SPHEROIDAL DATUM (NAD 83) EPOCH  
 1982.0, EPOCH 1997.0  
 THE LOCAL DATUM IS NORTH AMERICAN  
 DATUM 1983  
 U.S. BENCHMARKS FROM THE DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK DATA, ELEVATION 475.44 FEET

**PREPARED BY:**  
  
 400 N. Twelfth Ave., Suite 270  
 Grand Ave., CA 94705  
 Phone (714) 963-2864  
 Fax (714) 963-6408

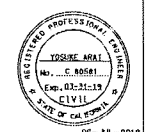
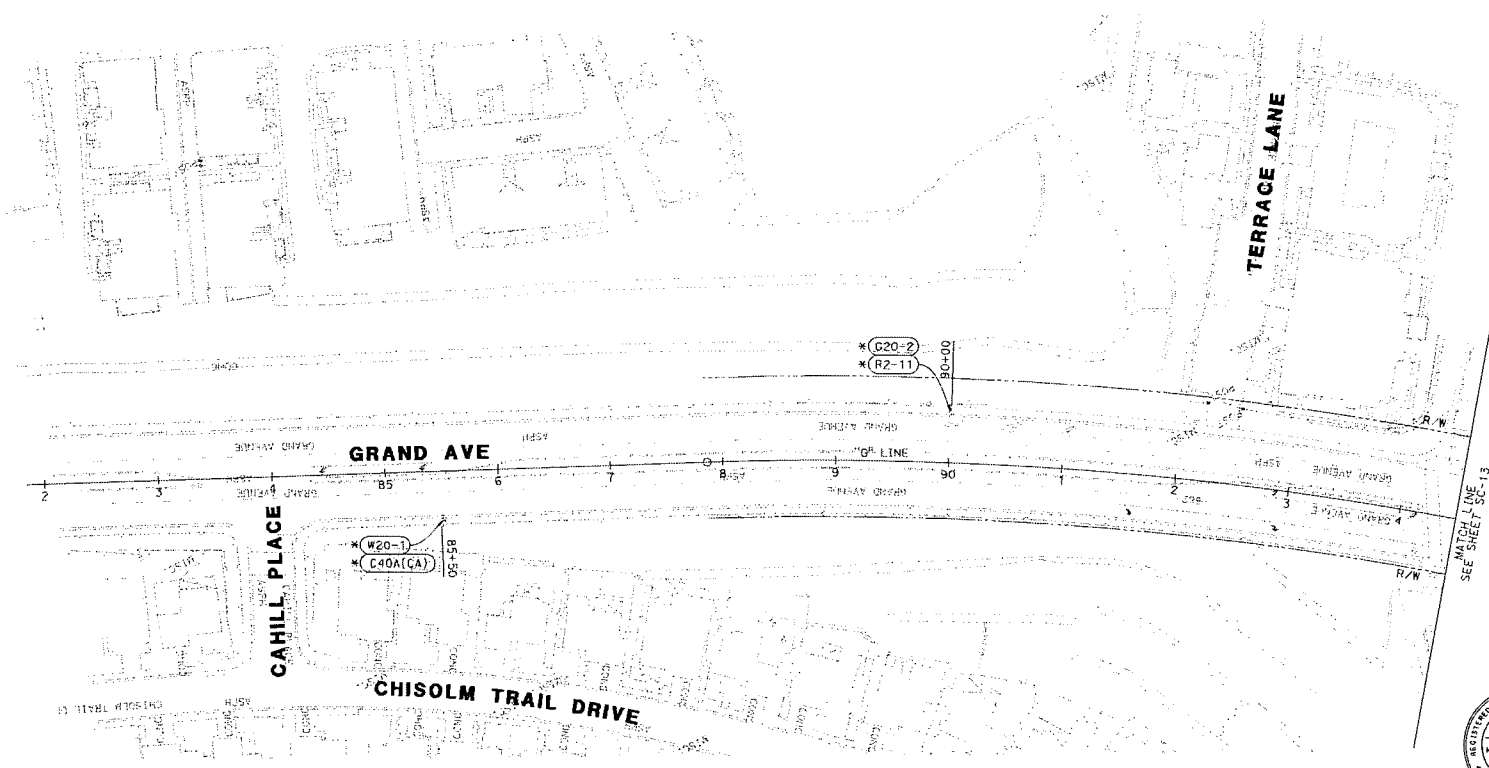
PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WISELL, REG. 54934, DATE: SEP. 12, 2019

**DESIGNED BY:** \_\_\_\_\_  
**CHECKED BY:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER P.E. DATE: \_\_\_\_\_



SCALE: 1"=50'



06-JA-5018

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 3) FOR**  
**GRAND AVE**  
 FROM "G" 82+00 TO "G" 84+50  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO.	—	SHEET SC-12	SHEET 45 OF 139
-------------	---	-------------	-----------------

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 PROPOSED TO BE SURVEYED AND ADJUSTED ON THE  
 BASIS OF THE BENCHMARK OF THE STATE OF CALIFORNIA  
 (CORS, 1985-93).  
 DESIGN TEAM BASED ON AERIAL PHOTOGRAPHY, 1997.  
 ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.

**PREPARED BY:**  
**WKE**  
 PREPARED UNDER THE SUPERVISION OF:  
 DWYER S. WOODILL, P.E. 12/31/19

SUBMITTED		
REVIEWED		
APPROVED		
CITY ENGINEER	P.E.C.	DATE

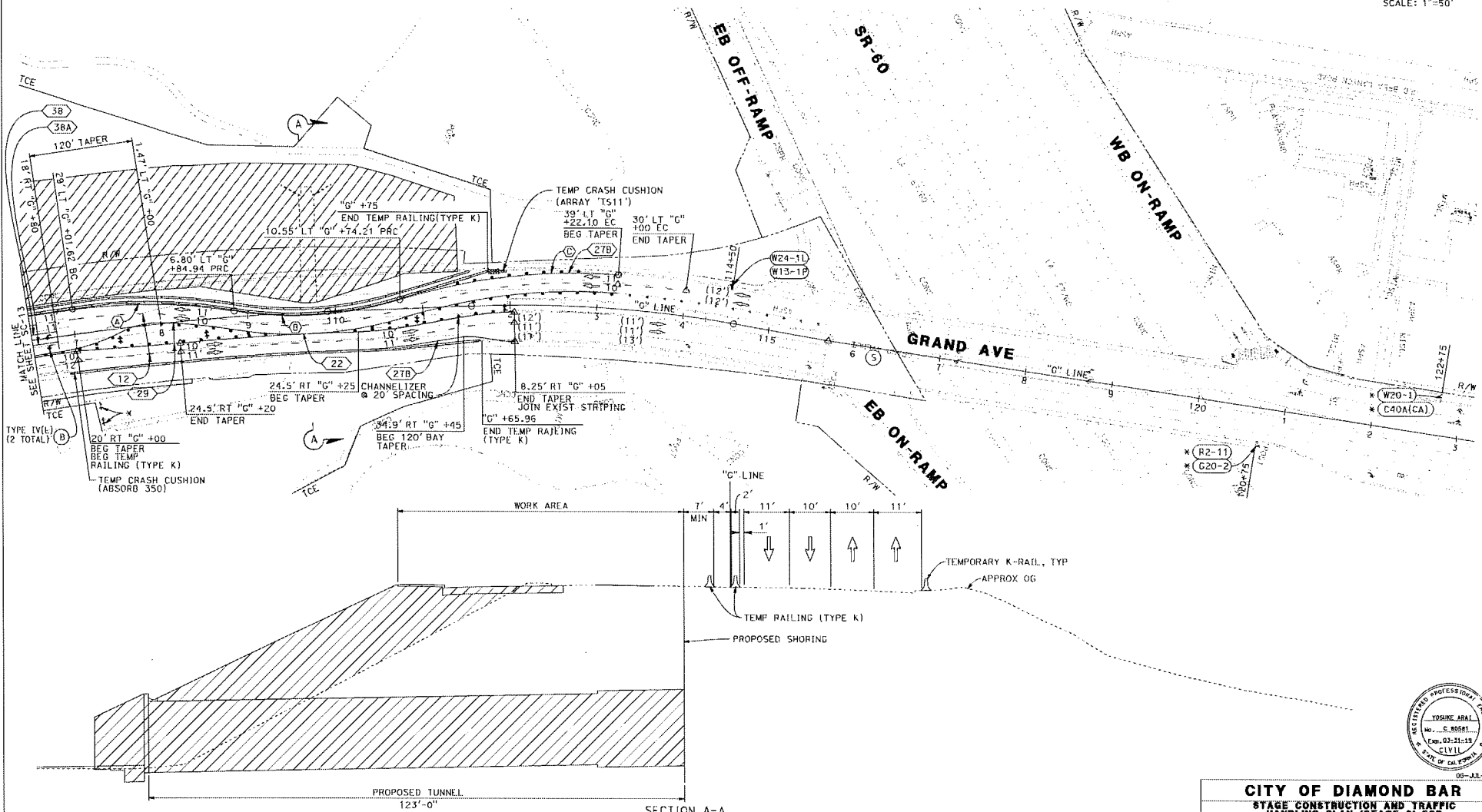


CURVE DATA

No.	R	Δ	T	L
(A)	620.00'	17°13'38"	93.92'	186.42'
(B)	409.00'	26°48'5"	97.44'	191.32'
(C)	666.00'	21°52'43"	128.73'	254.32'



SCALE: 1"=50'



SECTION A-A



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 3) FOR GRAND AVE**  
 FROM "G" 96+50 TO "C" 123+00  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **SC-14** SHEET 41 OF 139

REVISIONS					
CHECKED BY	CHK. NO.	CHANGED BY	REF. NO.	DATE	REASON

BENCHMARKS:  
 COORDINATES SHOWN ARE BASED ON THE CALIFORNIA STATE PLANE OF 1983 (NAD 83) EPOCH (NAD 83, EPOCH 83).  
 THESE COORDINATES ARE BASED ON THE NAD 83 DATUM.  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION

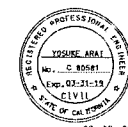
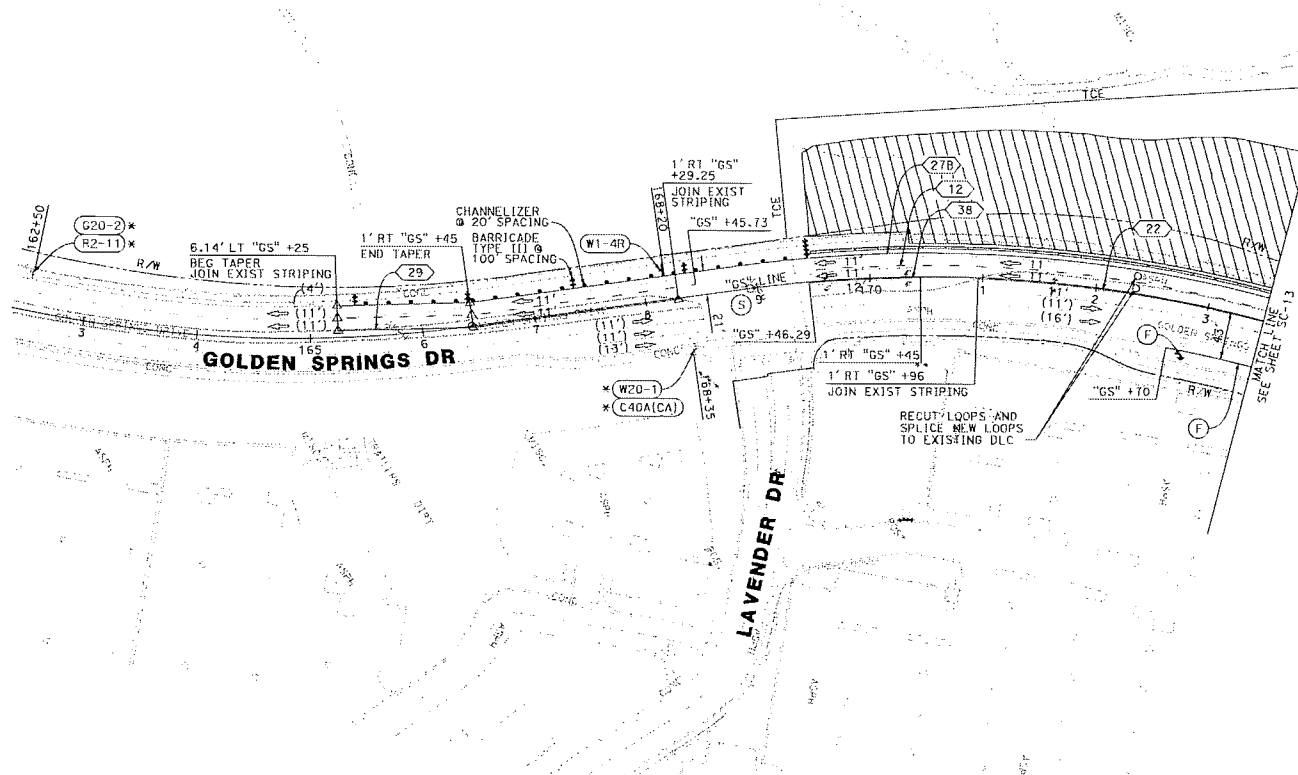
PREPARED BY:  
  
 400 N. Tenth Ave., Suite 210  
 Santa Ana, CA 92705  
 Phone (714) 553-2888  
 Fax (714) 553-2888  
 PREPARED UNDER THE SUPERVISION OF:

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER

DATE: 12/31/19



SCALE: 1"=50'



00-JUL-2018

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 3) FOR**  
**GOLDEN SPRINGS DR**  
 FROM "GS" 163+00 TO "GS" 173+50  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **SC-15** SHEET 48 OF 150

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**BENCHMARK:**  
 COORDINATE POINTS ARE BASED ON THE  
 NAD 83 DATUM OF 1983. 1983 IS THE  
 OFFICIAL DATE OF THE NAD 83 DATUM.  
 ALL DIMENSIONS ARE IN FEET AND INCHES.  
 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS  
 ARE TO FACE.

**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 210  
 Santa Ana, CA 92705  
 Phone (714) 963-2885  
 Fax (714) 963-2800  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WEDDELL PLS 52834 DATE EXP. 12/31/19

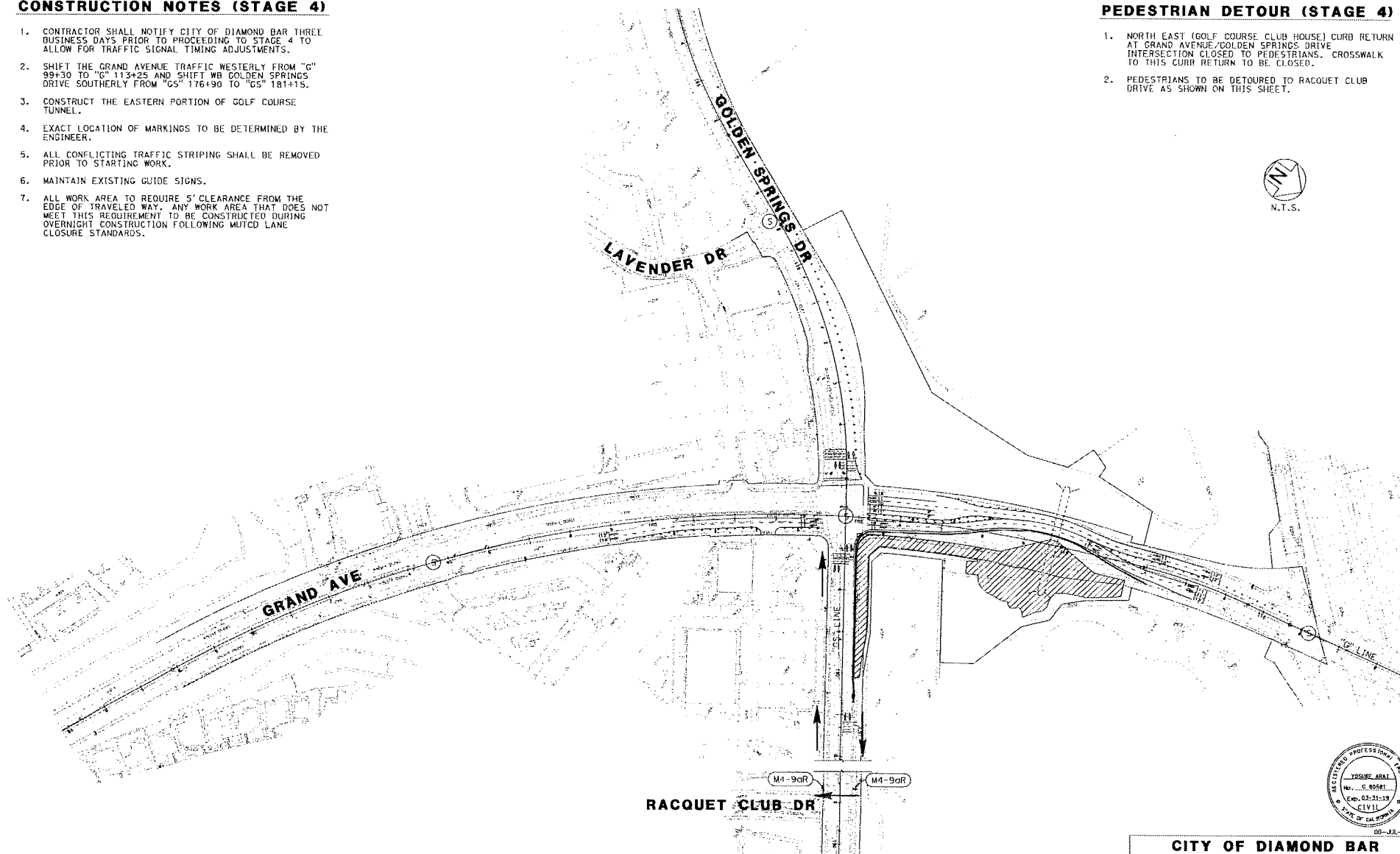
**DATE:** \_\_\_\_\_  
**SCALE:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER R.C.H. DATE \_\_\_\_\_

**CONSTRUCTION NOTES (STAGE 4)**

1. CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR THREE BUSINESS DAYS PRIOR TO PROCEEDING TO STAGE 4 TO ALLOW FOR TRAFFIC SIGNAL TIMING ADJUSTMENTS.
2. SHIFT THE GRAND AVENUE TRAFFIC WESTERLY FROM "G" 99+30 TO "G" 113+25 AND SHIFT WB GOLDEN SPRINGS DRIVE SOUTHERLY FROM "G5" 176+90 TO "G5" 181+15.
3. CONSTRUCT THE EASTERN PORTION OF GOLF COURSE TUNNEL.
4. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
5. ALL CONFLICTING TRAFFIC STRIPING SHALL BE REMOVED PRIOR TO STARTING WORK.
6. MAINTAIN EXISTING GUIDE SIGNS.
7. ALL WORK AREA TO REQUIRE 5' CLEARANCE FROM THE EDGE OF TRAVELED WAY. ANY WORK AREA THAT DOES NOT MEET THIS REQUIREMENT TO BE CONSTRUCTED DURING OVERNIGHT CONSTRUCTION FOLLOWING MUTED LANE CLOSURE STANDARDS.

**PEDESTRIAN DETOUR (STAGE 4)**

1. NORTH EAST (GOLF COURSE CLUB HOUSE) CURB RETURN AT GRAND AVENUE/GOLDEN SPRINGS DRIVE INTERSECTION CLOSED TO PEDESTRIANS. CROSSWALK TO THIS CURB RETURN TO BE CLOSED.
2. PEDESTRIANS TO BE DETOURED TO RACQUET CLUB DRIVE AS SHOWN ON THIS SHEET.



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**  
**STAGE 4**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **SC-18** SHEET 48 OF 139

REVISIONS					
CHECKED BY	REL. NO.	CHECKED BY	REL. NO.	CHECKED BY	REL. NO.

**BENCHMARK:**  
 CONTAINMENT SURVEY BASED TO THE  
 BENCH MARK DATA OF 1985, 1997 &  
 2005, 1991-93, 1997-99 EPOCH  
 SURVEYING SYSTEM ON NORTH AMERICAN  
 DATUM 1983  
 UNLESS OTHERWISE SPECIFIED ALL  
 WORK SHALL BE IN ACCORDANCE WITH THE  
 STANDARD SPECIFICATIONS FOR HIGHWAY  
 CONSTRUCTION

**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 270  
 Orange, CA 92667  
 Phone (714) 963-2888  
 Fax (714) 963-8600

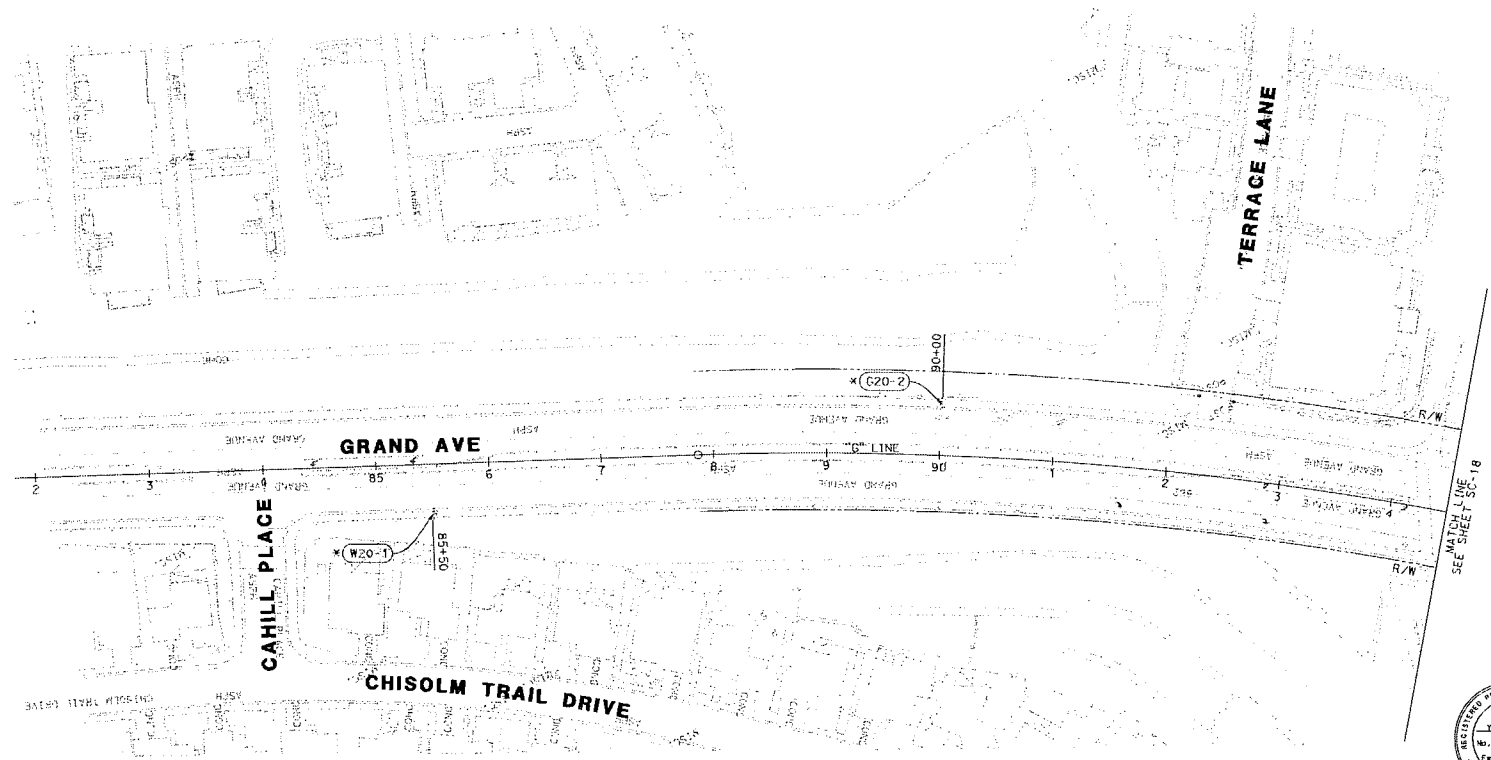
**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL S. WENDEL P.E. 52834 DATE EXP. 12/31/20

**SUBMITTED:** \_\_\_\_\_  
**RECEIVED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER P.E. DATE





SCALE: 1"=50'



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 4) FOR**  
**GRAND AVE**  
 FROM "G" 82+00 TO "G" 94+50  
**DEPARTMENT OF PUBLIC WORKS**

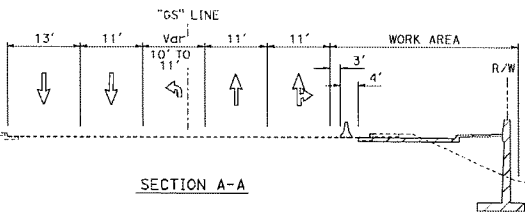
PROJECT NO. \_\_\_\_\_ SHEET **SC-17** SHEET 59 OF 139

REVISIONS					
CHECKED BY	REL. NO.	CHECKED BY	REL. NO.	CHECKED BY	REL. NO.

**BENCHMARK:**  
 COORDINATE SURVEY AND ADJUSTED TO THE  
 NATIONAL DATUM OF 1983, 1993, 1994 (NAD83)  
 (NAD83) 1993-94  
 CHECKED BY: [Signature]  
 DATE: [Date]

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 SHIRAZ S. KODKEL FILE 19434 DATE DEP. 12/31/19

**SUMMITER:**  
**RELEASED:**  
**APPROVED:**  
 CITY ENGINEER REG. DATE



LAVENDER DR

GRAND AVE

MATCH LINE SEE SHEET SC-20



MATCH LINE SEE LEFT



CURVE DATA

No.	R	Δ	T	L
(A)	45.00'	90°27'02"	45.36'	71.04'
(B)	100.00'	31°50'02"	28.52'	55.56'
(C)	60.00'	69°46'47"	41.84'	73.07'
(D)	50.00'	82°02'53"	43.50'	71.60'
(E)	70.00'	83°26'01"	62.40'	101.93'

REVISIONS

CHANGED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

BENCHMARK:  
 ELEVATIONS SHOWN ARE BASED ON THE  
 NATIONAL DATUM OF 1983, 1983 TYPICAL  
 ROAD, 1983 31"  
 THESE ELEVATIONS BY SURVEY METHOD  
 WERE OBTAINED BY THE SURVEYOR  
 AND ARE SUBJECT TO THE USUAL  
 VARIATIONS IN THE FIELD TEST

PREPARED BY:  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DONALD S. WINKEL REG 5424 BASE EXP. 12/31/19

SCHEDULED:  
 REVIEWED:  
 APPROVED: ELY ENGINEER P.E. DATE:

**CITY OF DIAMOND BAR**  
 STAGE CONSTRUCTION AND TRAFFIC  
 HANDLING PLAN (STAGE 4) FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 94+50 TO "G" 106+50  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO. \_\_\_\_\_ SHEET **SC-18** SHEET 51 OF 159

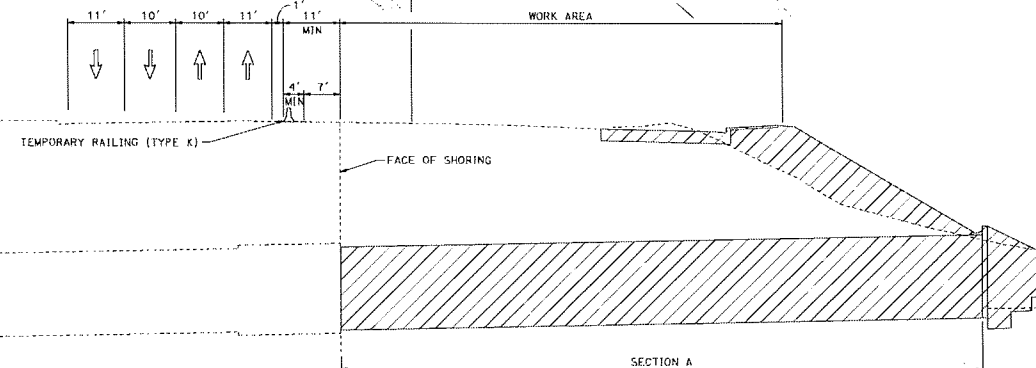
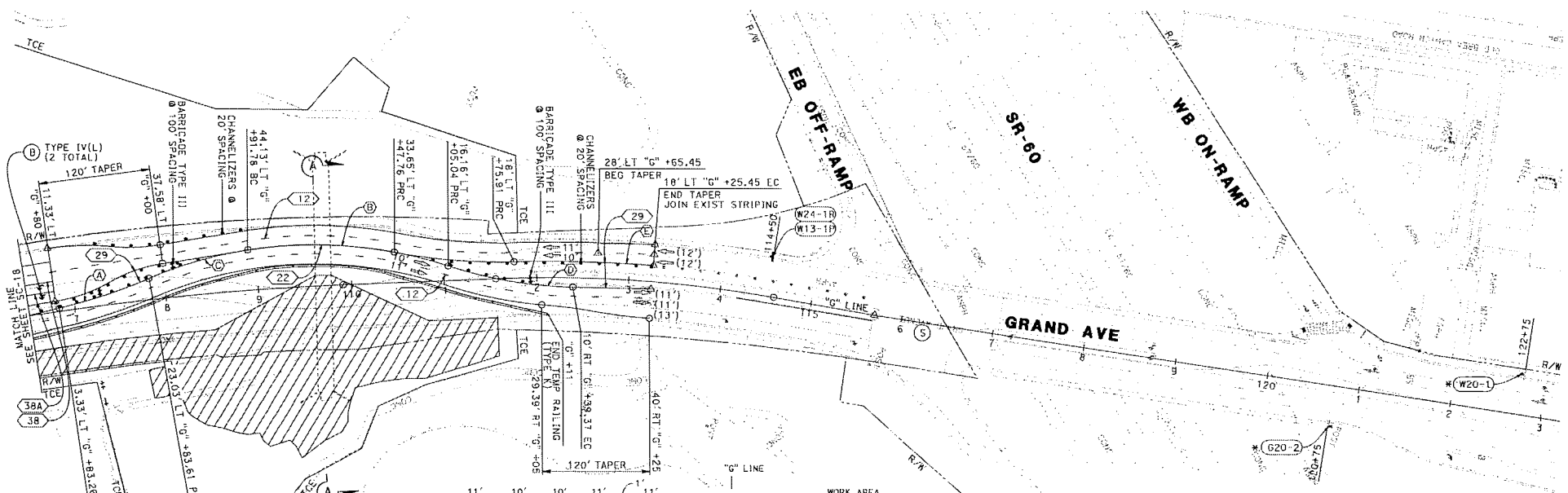


CURVE DATA

NO.	R	Δ	T	L
(A)	600.00'	9°49'5"	51.53'	102.81'
(B)	454.00'	19°59'59"	80.05'	158.47'
(C)	454.00'	41°39'23"	172.71'	330.08'
(D)	453.00'	17°21'29"	69.15'	137.24'
(E)	1425.41'	6°5'16"	75.80'	151.45'



SCALE: 1"=50'



REVISIONS					
NO.	DATE	BY	DESCRIPTION	NO.	DATE

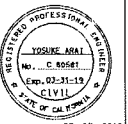
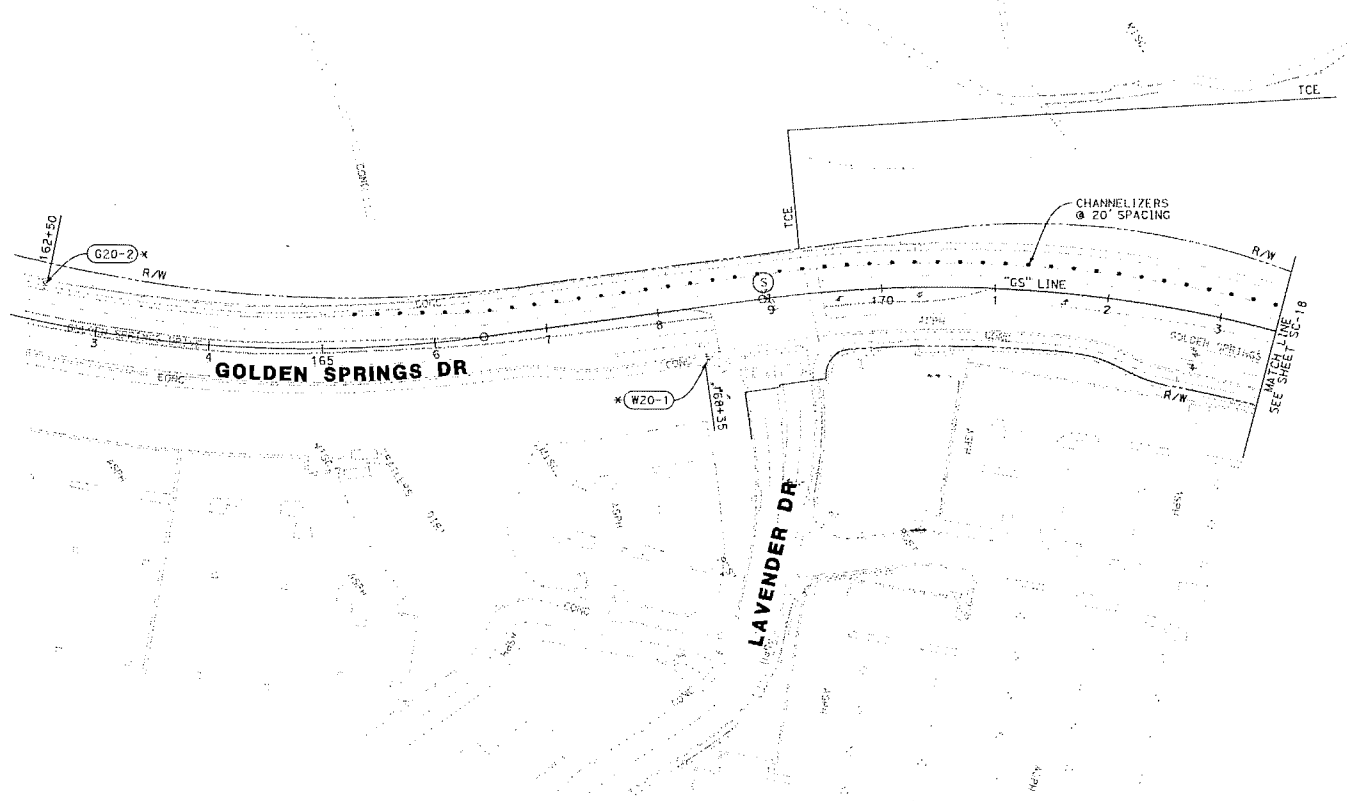
BENCHMARKS:  
 ELEVATIONS SHOWN ARE BASED ON THE  
 NATIONAL MEAN SEA LEVEL DATUM OF 1988.  
 VERTICAL CURVE DATA IS BASED ON NATIONAL MEAN SEA LEVEL DATUM OF 1988.  
 ALL DIMENSIONS ARE IN FEET AND INCHES.  
 UNLESS OTHERWISE SPECIFIED.

PREPARED BY:  
  
 495 N. Tustin Ave., Suite 270  
 Santa Ana, CA 92705  
 Phone (714) 963-5466  
 Fax (714) 963-5408  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WOODRILL, REG. ENGINEER, DATE: EXP. 12/31/19

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER P.E.P. DATE: \_\_\_\_\_



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 4) FOR GRAND AVE**  
 FROM "G" 106+50 TO "G" 123+00  
**DEPARTMENT OF PUBLIC WORKS**  
 PROJECT NO. \_\_\_\_\_ **SHEET 3C-10** SHEET 52 OF 139



00-JUL-2018

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 4) FOR**  
**GOLDEN SPRINGS DR**  
 FROM "GS" 163+00 TO "GS" 173+50  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **8C-20** SHEET 53 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

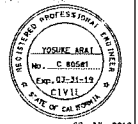
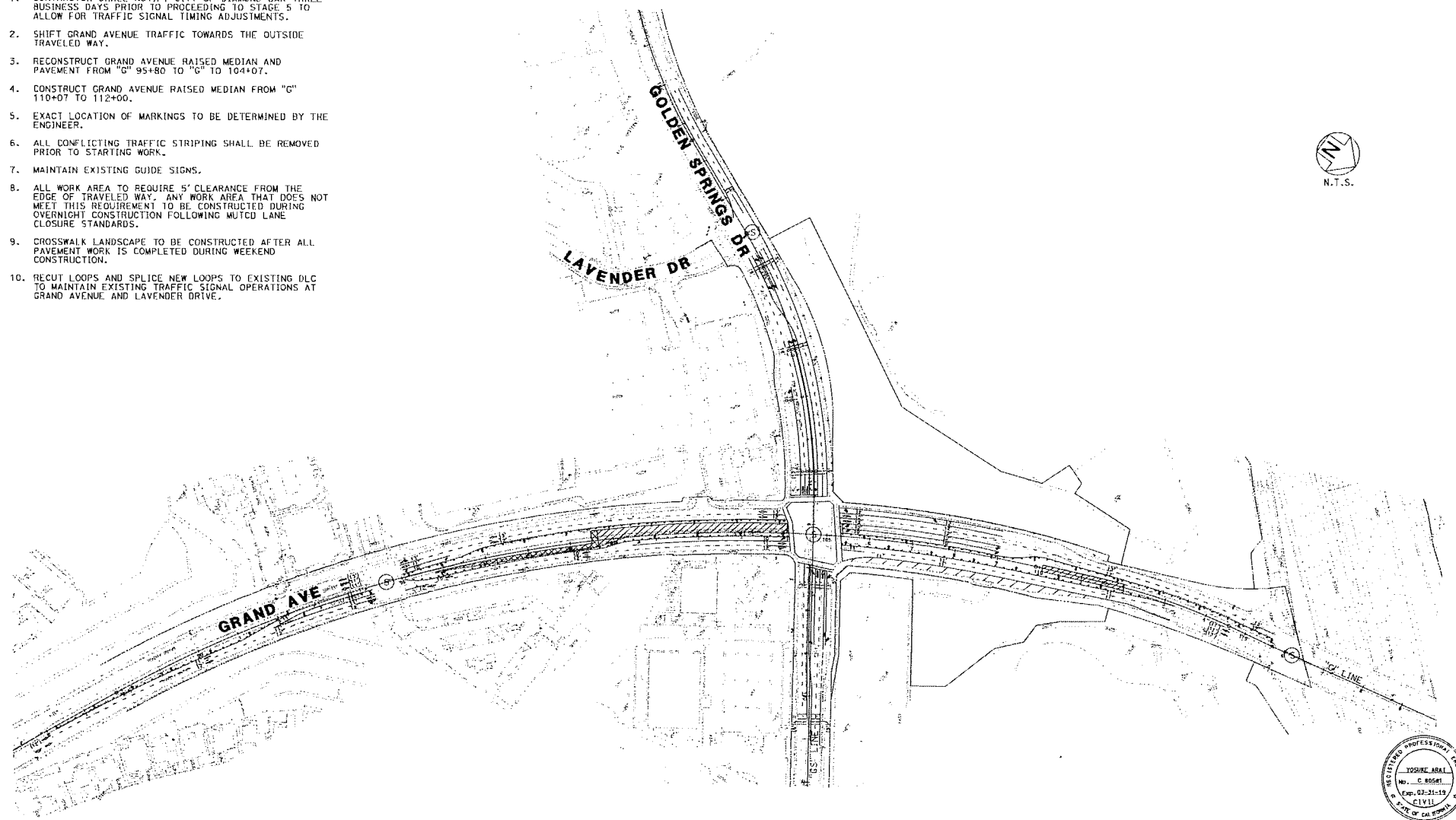
**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NATIONAL GRID SYSTEM OF 1983, 1997, 2011, 2015  
 AND 2018. THE BENCHMARK IS A CONCRETE  
 SET IN THE GROUND AT THE INTERSECTION OF  
 LAVENDER DR AND GOLDEN SPRINGS DR.  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK DATA SHEET - 01/14/18 FILED

**PREPARED BY:**  
  
 400 N. Twelfth Ave., Suite 210  
 South Ana, CA 92705  
 Phone (714) 983-2885  
 Fax (714) 983-2008  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. RINDELL, RILEY SHANK, DATE EXP. 12/31/19

**SCHEDULED:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** CITY ENGINEER, P.E. DATE: \_\_\_\_\_

**CONSTRUCTION NOTES (STAGE 5)**

1. CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR THREE BUSINESS DAYS PRIOR TO PROCEEDING TO STAGE 5 TO ALLOW FOR TRAFFIC SIGNAL TIMING ADJUSTMENTS.
2. SHIFT GRAND AVENUE TRAFFIC TOWARDS THE OUTSIDE TRAVELED WAY.
3. RECONSTRUCT GRAND AVENUE RAISED MEDIAN AND PAVEMENT FROM "G" 95+80 TO "G" 104+07.
4. CONSTRUCT GRAND AVENUE RAISED MEDIAN FROM "G" 110+07 TO 112+00.
5. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
6. ALL CONFLICTING TRAFFIC STRIPING SHALL BE REMOVED PRIOR TO STARTING WORK.
7. MAINTAIN EXISTING GUIDE SIGNS.
8. ALL WORK AREA TO REQUIRE 5' CLEARANCE FROM THE EDGE OF TRAVELED WAY. ANY WORK AREA THAT DOES NOT MEET THIS REQUIREMENT TO BE CONSTRUCTED DURING OVERNIGHT CONSTRUCTION FOLLOWING MUTCD LANE CLOSURE STANDARDS.
9. CROSSWALK LANDSCAPE TO BE CONSTRUCTED AFTER ALL PAVEMENT WORK IS COMPLETED DURING WEEKEND CONSTRUCTION.
10. RECUT LOOPS AND SPLICE NEW LOOPS TO EXISTING OLC TO MAINTAIN EXISTING TRAFFIC SIGNAL OPERATIONS AT GRAND AVENUE AND LAVENDER DRIVE.



**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**  
**STAGE 5**  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **SHEET 54 OF 139**

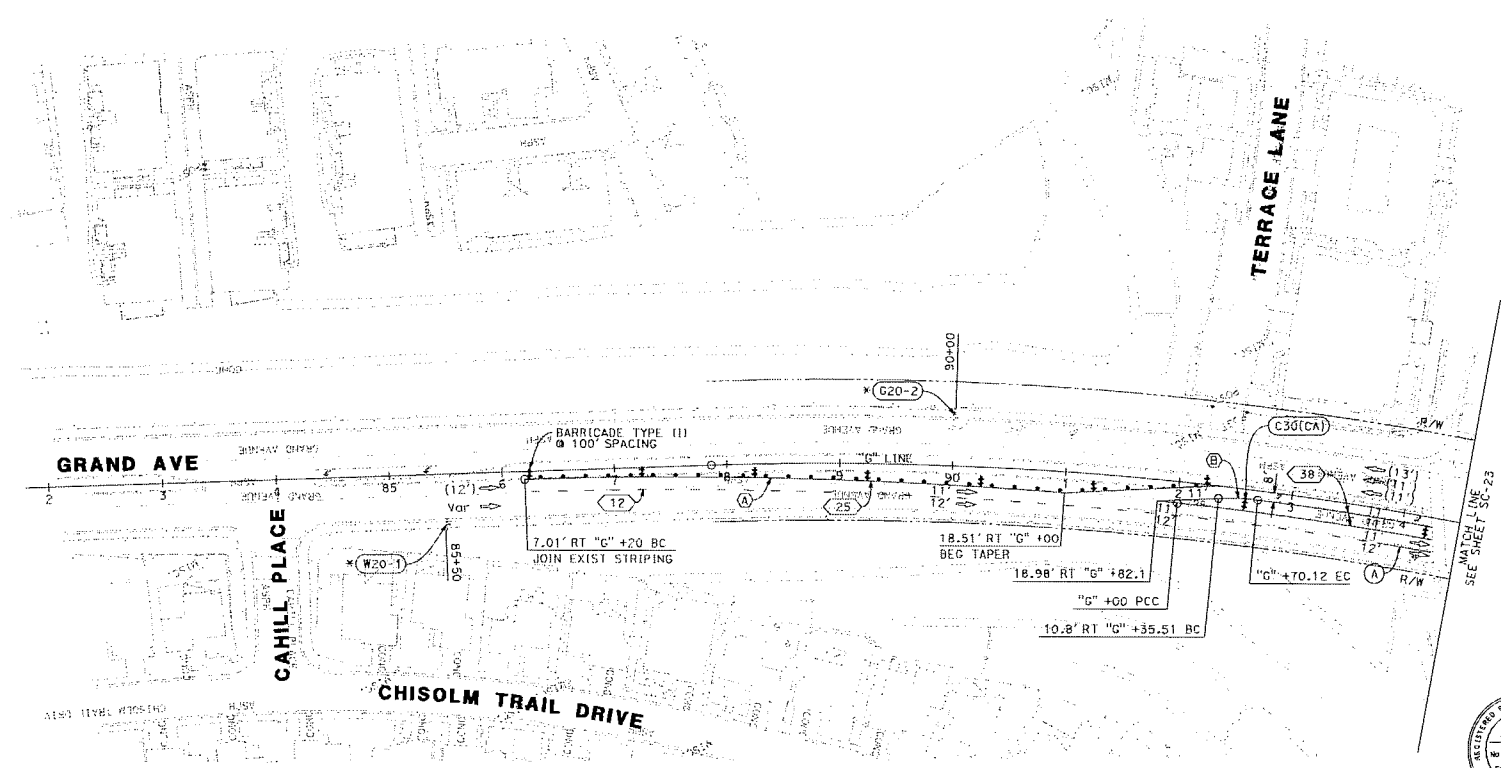
REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NORTH AMERICAN DATUM OF 1983. POINTS ARE  
 DESIGNATED BY THE LETTERS A THROUGH  
 Z. ALL POINTS ARE TO BE RECHECKED  
 AND RECORDED BY THE CONTRACTOR.  
 LOCAL MERIDIAN CORRECTIONS TO BE MADE BY THE CONTRACTOR.

**PREPARED BY:**  
  
 400 N. Twin In. Ave., Suite 210  
 South Ave., CA 92705  
 Phone (714) 383-2468  
 Fax (714) 383-2468

PREPARED UNDER THE SUPERVISION OF:  
 DWIGHT S. WOSSELL    PEE SWAN    DATE: 08/12/21/19

**SUBMITTED:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER    P.E.C.    DATE: \_\_\_\_\_



**CURVE DATA**

No.	R	Δ	T	L
(A)	4245.49'	6°27'31"	239.53'	478.56'
(B)	200.00'	9°55'44"	17.37'	34.66'

**REVISIONS**

CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

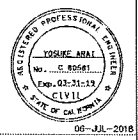
**BENCHMARKS:**  
 EXISTING SURVEY MARKS TO THE EAST AND WEST OF THE 'G' LINE. THE 'G' LINE IS THE CENTERLINE OF THE 'G' LINE. THE 'G' LINE IS THE CENTERLINE OF THE 'G' LINE. THE 'G' LINE IS THE CENTERLINE OF THE 'G' LINE.

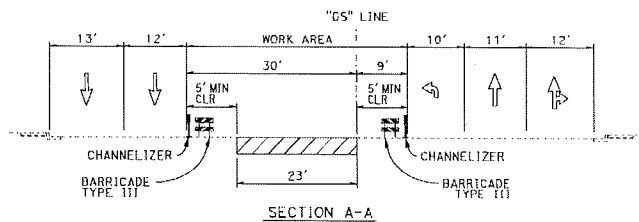
**PREPARED BY:**  
 400 N. Tustin Ave., Suite 210  
 Orange, CA 92666  
 Phone (714) 963-2648  
 Fax (714) 963-2648  
**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL P. WISSELL PLS 54834 DATE EXP. 12/31/19

**DATE:** 06/12/19  
**SCALE:** 1"=50'  
**REVISIONS:**  
 1. 06/12/19  
 2. 06/12/19  
**APPROVED:** CITY ENGINEER P.C.E. DATE

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 6) FOR GRAND AVE**  
 FROM "G" 82+00 TO "G" 94+50  
**DEPARTMENT OF PUBLIC WORKS**

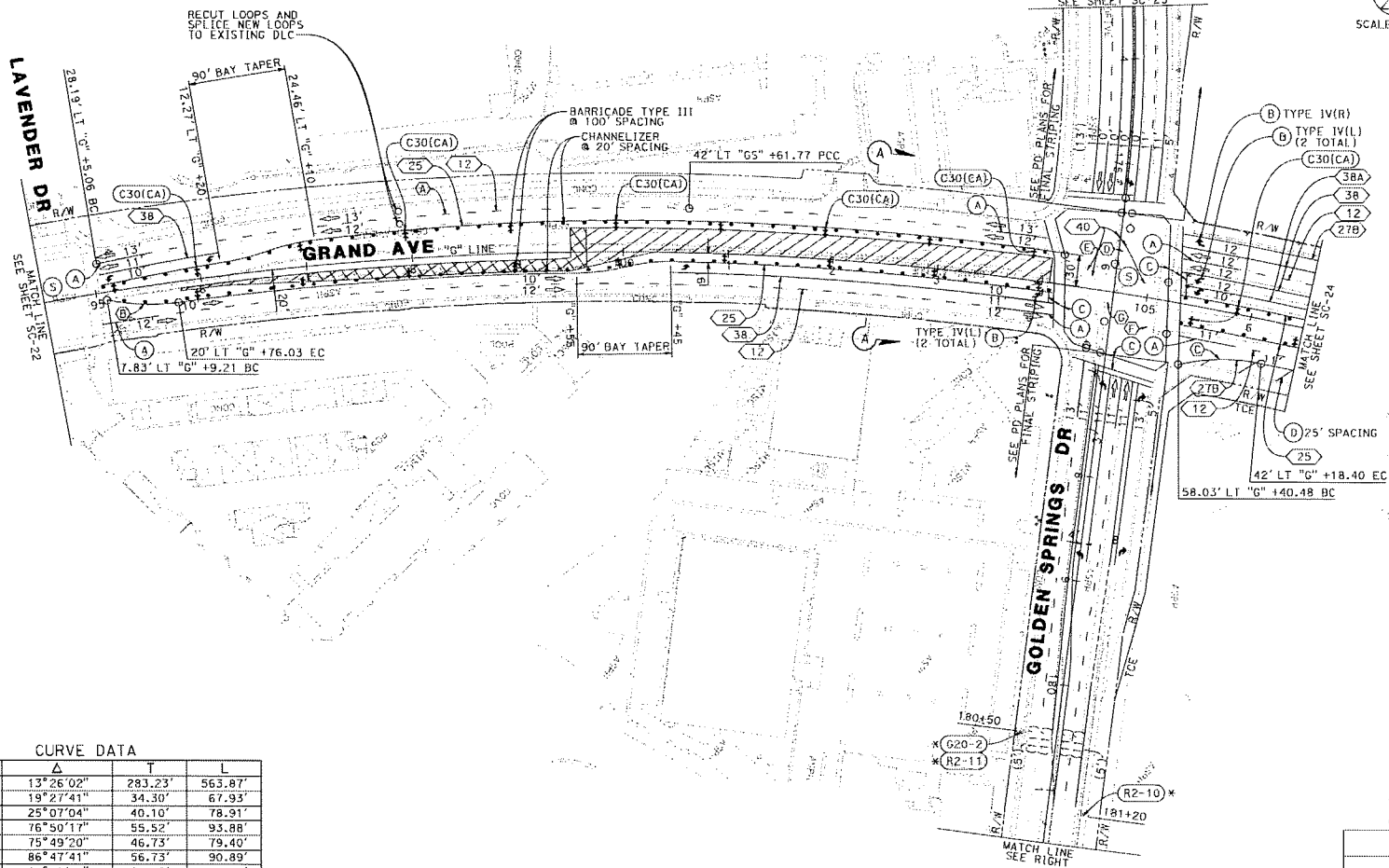
PROJECT NO. — **SHEET SC-22** SHEET 55 OF 139





SCALE: 1"=50'

SCALE: 1"=50'



**CURVE DATA**

No.	R	Δ	T	L
(A)	2404.92'	13°26'02"	283.23'	563.87'
(B)	200.00'	19°27'41"	34.30'	67.93'
(C)	180.00'	25°07'04"	40.10'	78.91'
(D)	70.00'	76°50'17"	55.52'	93.88'
(E)	60.00'	75°49'20"	46.73'	79.40'
(F)	60.00'	86°47'41"	56.73'	90.89'
(G)	70.00'	89°23'31"	69.26'	109.21'

**REVISIONS**

DATE	BY	DESCRIPTION

**BENCHMARKS:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 CALIFORNIA BENCHMARK SYSTEM (C.B.S.)  
 WHICH IS A SUBSET OF THE U.S. COAST AND  
 GEODETIC SURVEY (C.G.S.) WHICH IS A  
 SUBSET OF THE INTERNATIONAL GEOPHYSICAL  
 AND METEOROLOGICAL ORGANIZATION  
 (I.G.M.O.) SYSTEM.

**PREPARED BY:**  
 WKE

400 N. Tustin Ave., Suite 275  
 Santa Ana, CA 92705  
 Phone (714) 963-2885  
 Fax (714) 963-0008

**APPROVED:**  
 CITY ENGINEER

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 5) FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 344+50 TO "G" 106+50  
**DEPARTMENT OF PUBLIC WORKS**

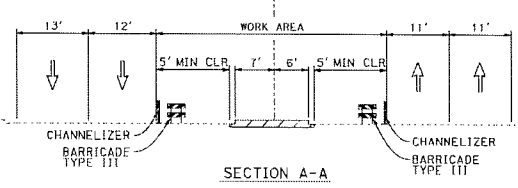
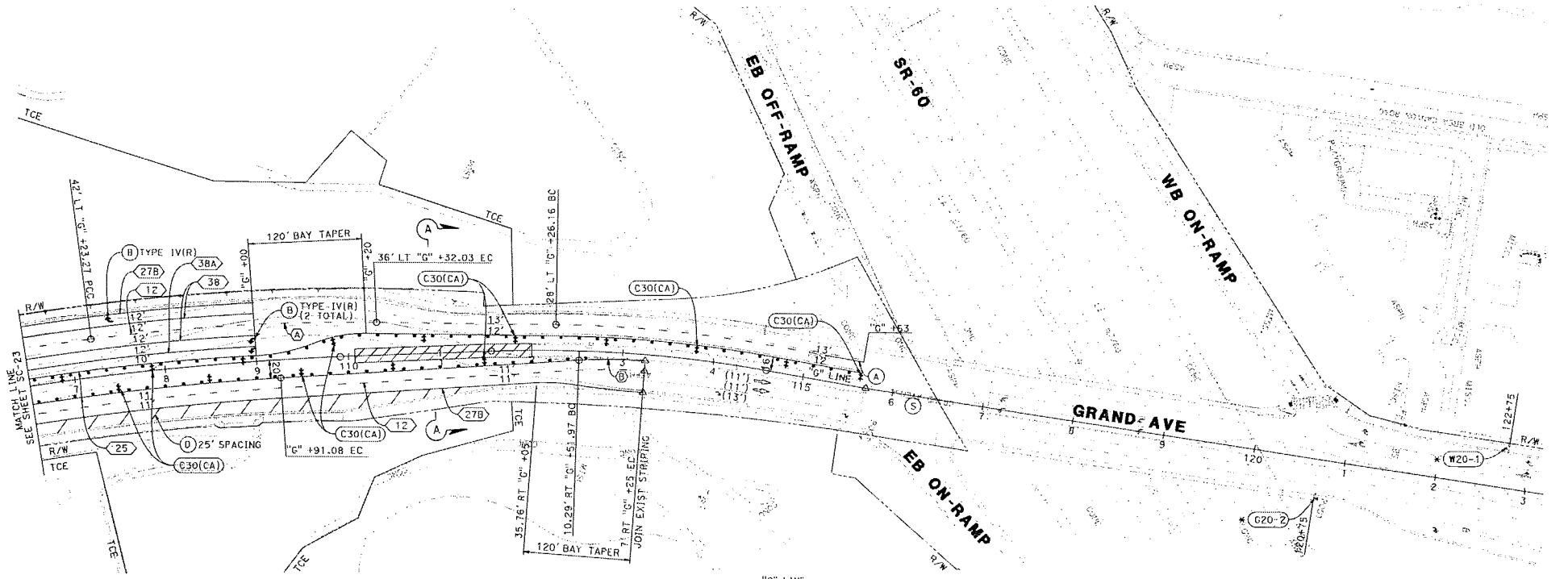
PROJECT NO. — SHEET **SC-23** SHEET 58 OF 139



05-JAN-2018



SCALE: 1"=50'



**CURVE DATA**

No.	R	Δ	T	L
(A)	2242.00'	7°59'7"	156.49'	312.47'
(B)	511.00'	8°9'20"	36.43'	72.74'

**REVISIONS**

DESIGNED BY	CHECKED BY	DATE	DESIGNED BY	CHECKED BY	DATE

**BENCHMARKS:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NAD 83 DATUM. DATUM OF 1983, 1943, 1955 EPOCH  
 LOCAL HARD BENCH OR METAL ANGLE  
 IS NOT TO BE USED.  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK DATA, 11/16/05 @ 615.00 FEET

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. RENDALL  
 DATE: 05/12/2016

**DESIGNED BY:**  
 CHECKED BY:  
 APPROVED BY:  
 DATE: 05/12/2016



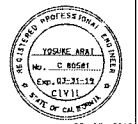
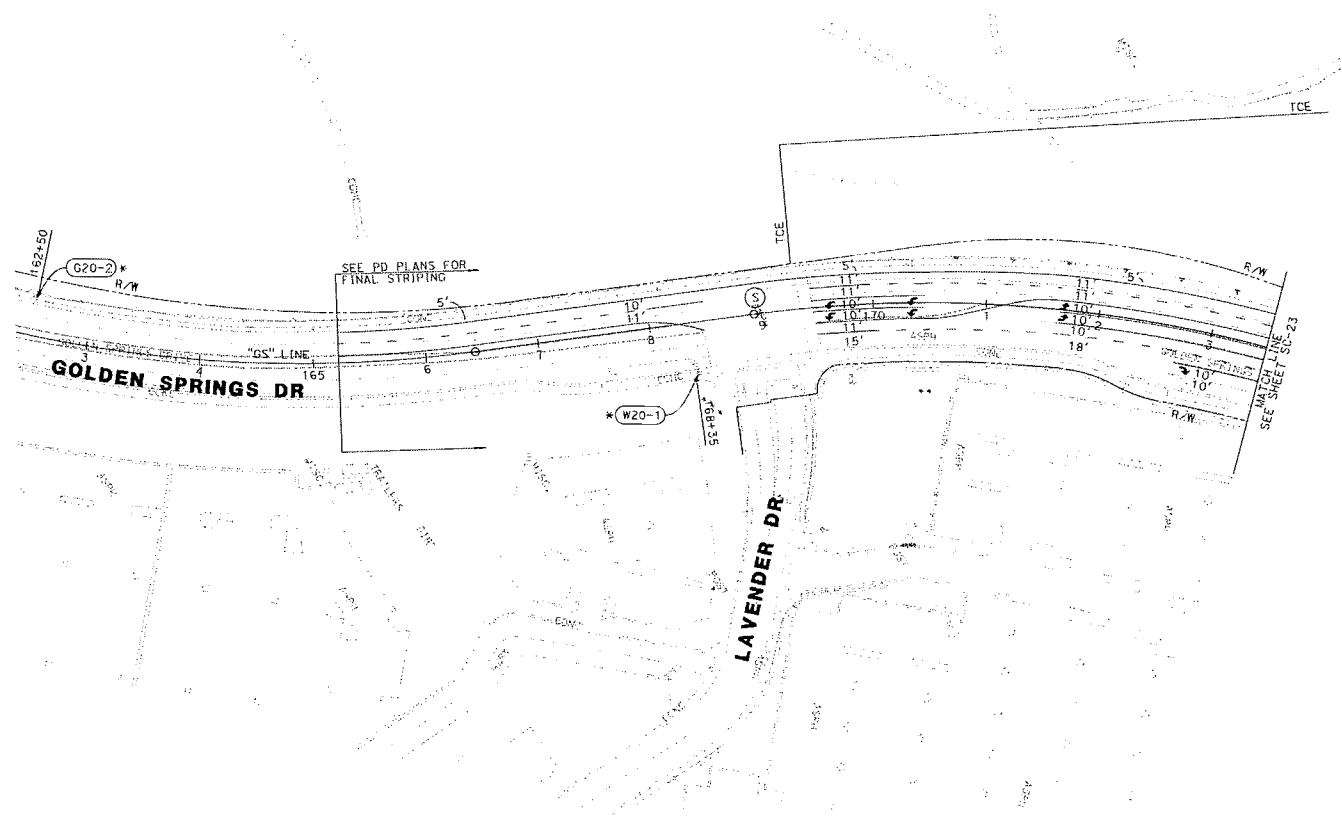
**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC**  
**HANDLING PLAN (STAGE 6) FOR**  
**GRAND AVE**  
 FROM "G" 106+50 TO "C" 123+00  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **SHEET 8C-24** SHEET 57 OF 139





SCALE: 1"=50'



00-JR-2018

**CITY OF DIAMOND BAR**  
**STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 5) FOR GOLDEN SPRINGS DR**  
 FROM "GS" 1634+00 TO "GS" 1734+50  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **SHEET 8C-25** SHEET 58 OF 139

REVISIONS					
CHANGED BY	REV. NO.	CHECKED BY	REV. NO.	CHANGED BY	REV. NO.

**BENCHMARK:**  
 COORDINATES SHOWN ARE BASED ON THE CALIFORNIA STATE PLANE OF 1983 (NAD 83) DATUM, 1983. THE BENCH MARK IS A 1.5" DIA. IRON PIPE SET IN CONCRETE, 16" BELOW GROUND SURFACE, WITH AN ELEVATION OF 117.15'.

**PREPARED BY:**  
  
 400 N. Ford In Ave, Suite 210  
 Orange, CA 92668  
 Phone (714) 963-0868  
 Fax (714) 963-0408

PREPARED UNDER THE SUPERVISION OF:  
 DIRECTOR, ROADWAY DIVISION DATE: 08/12/19

**SUBMITTED:** \_\_\_\_\_  
**REVIEWED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER P.E.C. DATE: \_\_\_\_\_

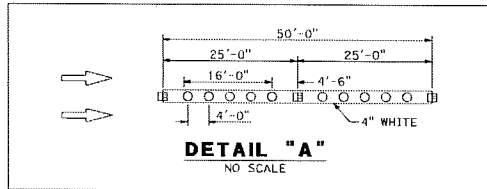
**NOTES**

1. ALL PAVEMENT ARROWS, PAVEMENT MARKINGS, AND STRIPING TO BE THERMOPLASTIC.
2. EXACT LOCATION OF MARKINGS TO BE DETERMINED BY THE ENGINEER.
3. ALL CONFLICTING TRAFFIC STRIPING TO BE REMOVED.

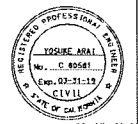
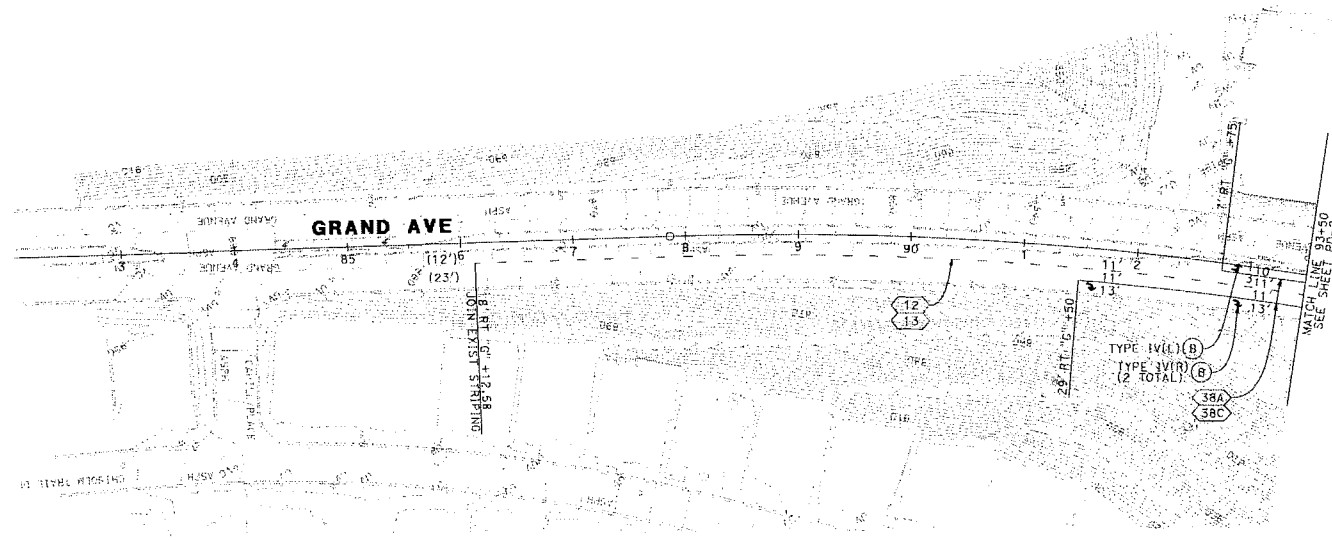
**LEGEND**

(No.) STRIPING DETAIL NUMBER PER CALTRANS STANDARD PLANS A20A THRU A20D, 4" WIDTH UNLESS NOTED OTHERWISE.

- (A) 4" SOLID WHITE STRIPE PER DETAIL "A" - 50' MINIMUM LENGTH
- (B) PAVEMENT MARKING ARROWS PER CALTRANS STANDARD PLAN A24, TYPE AS SHOWN
- (C) 12" WHITE LIMIT LINE OR CROSSWALK
- (D) 9" SOLID WHITE STRIPE @ 45°, SPACING AS NOTED
- (E) TAPER PER APWA STD PLAN 140-3



SCALE: 1"=50'



06-JUL-2016

**CITY OF DIAMOND BAR**

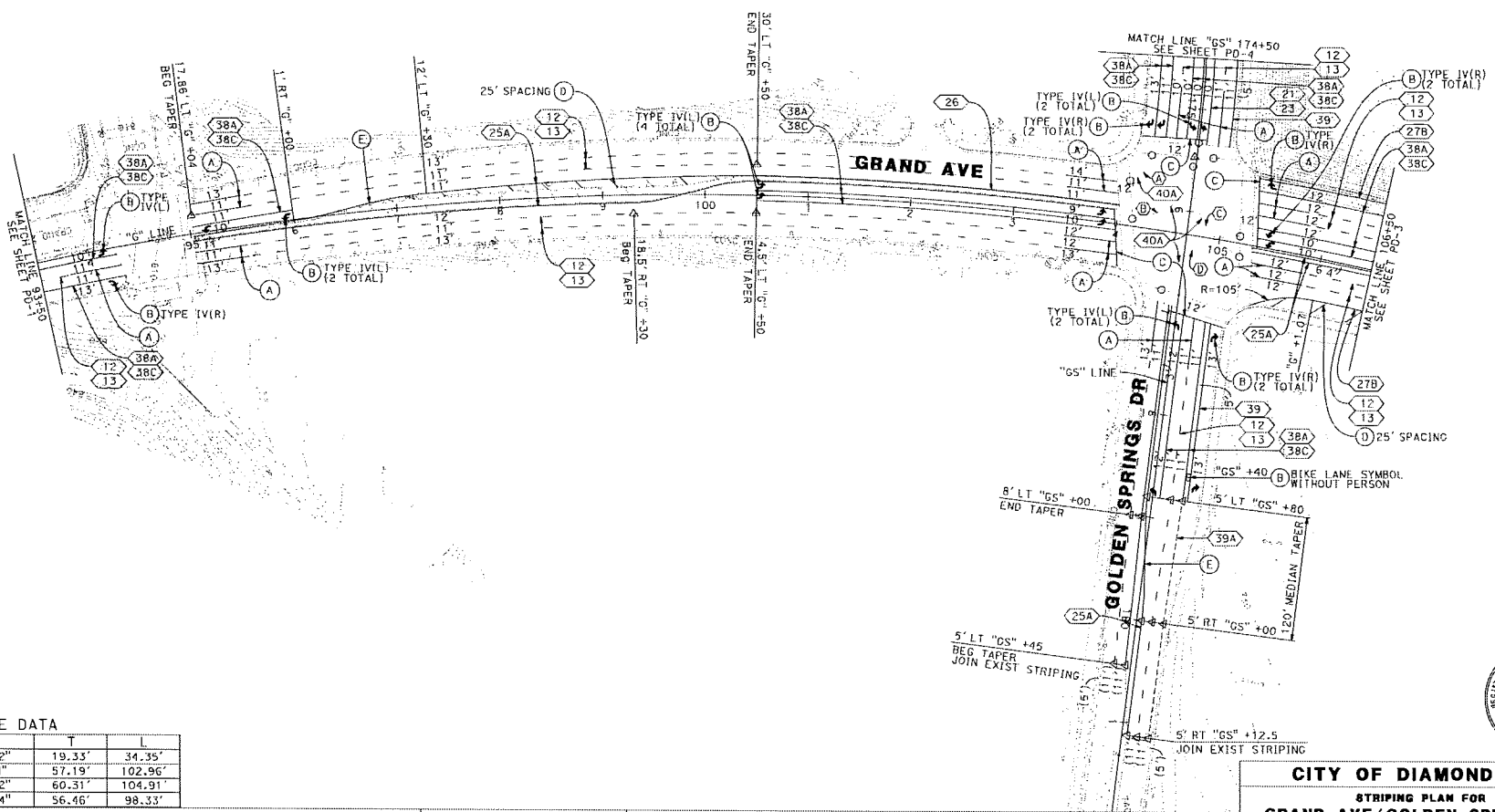
**STRIPING PLAN FOR**  
**GRAND AVE**  
FROM "C" 83+00 TO "C" 93+50

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET PD-1 SHEET 50 OF 139

REVISIONS			
CHECKED BY	DATE	CHECKED BY	DATE

**BENCHMARKS:**  
ELEVATIONS SHOWN ARE BASED ON THE CALTRANS DATUM OF 1985. 1985 TYPICAL FORMS, TABLE 33, PART 1 OF 1985, 1987.33 TYPICAL STRIPING PLAN, DETAIL "A", SECTION 1.00, 1.01, 1.02, 1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.23, 1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, 1.31, 1.32, 1.33, 1.34, 1.35, 1.36, 1.37, 1.38, 1.39, 1.40, 1.41, 1.42, 1.43, 1.44, 1.45, 1.46, 1.47, 1.48, 1.49, 1.50, 1.51, 1.52, 1.53, 1.54, 1.55, 1.56, 1.57, 1.58, 1.59, 1.60, 1.61, 1.62, 1.63, 1.64, 1.65, 1.66, 1.67, 1.68, 1.69, 1.70, 1.71, 1.72, 1.73, 1.74, 1.75, 1.76, 1.77, 1.78, 1.79, 1.80, 1.81, 1.82, 1.83, 1.84, 1.85, 1.86, 1.87, 1.88, 1.89, 1.90, 1.91, 1.92, 1.93, 1.94, 1.95, 1.96, 1.97, 1.98, 1.99, 2.00, 2.01, 2.02, 2.03, 2.04, 2.05, 2.06, 2.07, 2.08, 2.09, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19, 2.20, 2.21, 2.22, 2.23, 2.24, 2.25, 2.26, 2.27, 2.28, 2.29, 2.30, 2.31, 2.32, 2.33, 2.34, 2.35, 2.36, 2.37, 2.38, 2.39, 2.40, 2.41, 2.42, 2.43, 2.44, 2.45, 2.46, 2.47, 2.48, 2.49, 2.50, 2.51, 2.52, 2.53, 2.54, 2.55, 2.56, 2.57, 2.58, 2.59, 2.60, 2.61, 2.62, 2.63, 2.64, 2.65, 2.66, 2.67, 2.68, 2.69, 2.70, 2.71, 2.72, 2.73, 2.74, 2.75, 2.76, 2.77, 2.78, 2.79, 2.80, 2.81, 2.82, 2.83, 2.84, 2.85, 2.86, 2.87, 2.88, 2.89, 2.90, 2.91, 2.92, 2.93, 2.94, 2.95, 2.96, 2.97, 2.98, 2.99, 3.00, 3.01, 3.02, 3.03, 3.04, 3.05, 3.06, 3.07, 3.08, 3.09, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, 3.27, 3.28, 3.29, 3.30, 3.31, 3.32, 3.33, 3.34, 3.35, 3.36, 3.37, 3.38, 3.39, 3.40, 3.41, 3.42, 3.43, 3.44, 3.45, 3.46, 3.47, 3.48, 3.49, 3.50, 3.51, 3.52, 3.53, 3.54, 3.55, 3.56, 3.57, 3.58, 3.59, 3.60, 3.61, 3.62, 3.63, 3.64, 3.65, 3.66, 3.67, 3.68, 3.69, 3.70, 3.71, 3.72, 3.73, 3.74, 3.75, 3.76, 3.77, 3.78, 3.79, 3.80, 3.81, 3.82, 3.83, 3.84, 3.85, 3.86, 3.87, 3.88, 3.89, 3.90, 3.91, 3.92, 3.93, 3.94, 3.95, 3.96, 3.97, 3.98, 3.99, 4.00, 4.01, 4.02, 4.03, 4.04, 4.05, 4.06, 4.07, 4.08, 4.09, 4.10, 4.11, 4.12, 4.13, 4.14, 4.15, 4.16, 4.17, 4.18, 4.19, 4.20, 4.21, 4.22, 4.23, 4.24, 4.25, 4.26, 4.27, 4.28, 4.29, 4.30, 4.31, 4.32, 4.33, 4.34, 4.35, 4.36, 4.37, 4.38, 4.39, 4.40, 4.41, 4.42, 4.43, 4.44, 4.45, 4.46, 4.47, 4.48, 4.49, 4.50, 4.51, 4.52, 4.53, 4.54, 4.55, 4.56, 4.57, 4.58, 4.59, 4.60, 4.61, 4.62, 4.63, 4.64, 4.65, 4.66, 4.67, 4.68, 4.69, 4.70, 4.71, 4.72, 4.73, 4.74, 4.75, 4.76, 4.77, 4.78, 4.79, 4.80, 4.81, 4.82, 4.83, 4.84, 4.85, 4.86, 4.87, 4.88, 4.89, 4.90, 4.91, 4.92, 4.93, 4.94, 4.95, 4.96, 4.97, 4.98, 4.99, 5.00, 5.01, 5.02, 5.03, 5.04, 5.05, 5.06, 5.07, 5.08, 5.09, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15, 5.16, 5.17, 5.18, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27, 5.28, 5.29, 5.30, 5.31, 5.32, 5.33, 5.34, 5.35, 5.36, 5.37, 5.38, 5.39, 5.40, 5.41, 5.42, 5.43, 5.44, 5.45, 5.46, 5.47, 5.48, 5.49, 5.50, 5.51, 5.52, 5.53, 5.54, 5.55, 5.56, 5.57, 5.58, 5.59, 5.60, 5.61, 5.62, 5.63, 5.64, 5.65, 5.66, 5.67, 5.68, 5.69, 5.70, 5.71, 5.72, 5.73, 5.74, 5.75, 5.76, 5.77, 5.78, 5.79, 5.80, 5.81, 5.82, 5.83, 5.84, 5.85, 5.86, 5.87, 5.88, 5.89, 5.90, 5.91, 5.92, 5.93, 5.94, 5.95, 5.96, 5.97, 5.98, 5.99, 6.00, 6.01, 6.02, 6.03, 6.04, 6.05, 6.06, 6.07, 6.08, 6.09, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.23, 6.24, 6.25, 6.26, 6.27, 6.28, 6.29, 6.30, 6.31, 6.32, 6.33, 6.34, 6.35, 6.36, 6.37, 6.38, 6.39, 6.40, 6.41, 6.42, 6.43, 6.44, 6.45, 6.46, 6.47, 6.48, 6.49, 6.50, 6.51, 6.52, 6.53, 6.54, 6.55, 6.56, 6.57, 6.58, 6.59, 6.60, 6.61, 6.62, 6.63, 6.64, 6.65, 6.66, 6.67, 6.68, 6.69, 6.70, 6.71, 6.72, 6.73, 6.74, 6.75, 6.76, 6.77, 6.78, 6.79, 6.80, 6.81, 6.82, 6.83, 6.84, 6.85, 6.86, 6.87, 6.88, 6.89, 6.90, 6.91, 6.92, 6.93, 6.94, 6.95, 6.96, 6.97, 6.98, 6.99, 7.00, 7.01, 7.02, 7.03, 7.04, 7.05, 7.06, 7.07, 7.08, 7.09, 7.10, 7.11, 7.12, 7.13, 7.14, 7.15, 7.16, 7.17, 7.18, 7.19, 7.20, 7.21, 7.22, 7.23, 7.24, 7.25, 7.26, 7.27, 7.28, 7.29, 7.30, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.38, 7.39, 7.40, 7.41, 7.42, 7.43, 7.44, 7.45, 7.46, 7.47, 7.48, 7.49, 7.50, 7.51, 7.52, 7.53, 7.54, 7.55, 7.56, 7.57, 7.58, 7.59, 7.60, 7.61, 7.62, 7.63, 7.64, 7.65, 7.66, 7.67, 7.68, 7.69, 7.70, 7.71, 7.72, 7.73, 7.74, 7.75, 7.76, 7.77, 7.78, 7.79, 7.80, 7.81, 7.82, 7.83, 7.84, 7.85, 7.86, 7.87, 7.88, 7.89, 7.90, 7.91, 7.92, 7.93, 7.94, 7.95, 7.96, 7.97, 7.98, 7.99, 8.00, 8.01, 8.02, 8.03, 8.04, 8.05, 8.06, 8.07, 8.08, 8.09, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, 8.19, 8.20, 8.21, 8.22, 8.23, 8.24, 8.25, 8.26, 8.27, 8.28, 8.29, 8.30, 8.31, 8.32, 8.33, 8.34, 8.35, 8.36, 8.37, 8.38, 8.39, 8.40, 8.41, 8.42, 8.43, 8.44, 8.45, 8.46, 8.47, 8.48, 8.49, 8.50, 8.51, 8.52, 8.53, 8.54, 8.55, 8.56, 8.57, 8.58, 8.59, 8.60, 8.61, 8.62, 8.63, 8.64, 8.65, 8.66, 8.67, 8.68, 8.69, 8.70, 8.71, 8.72, 8.73, 8.74, 8.75, 8.76, 8.77, 8.78, 8.79, 8.80, 8.81, 8.82, 8.83, 8.84, 8.85, 8.86, 8.87, 8.88, 8.89, 8.90, 8.91, 8.92, 8.93, 8.94, 8.95, 8.96, 8.97, 8.98, 8.99, 9.00, 9.01, 9.02, 9.03, 9.04, 9.05, 9.06, 9.07, 9.08, 9.09, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18, 9.19, 9.20, 9.21, 9.22, 9.23, 9.24, 9.25, 9.26, 9.27, 9.28, 9.29, 9.30, 9.31, 9.32, 9.33, 9.34, 9.35, 9.36, 9.37, 9.38, 9.39, 9.40, 9.41, 9.42, 9.43, 9.44, 9.45, 9.46, 9.47, 9.48, 9.49, 9.50, 9.51, 9.52, 9.53, 9.54, 9.55, 9.56, 9.57, 9.58, 9.59, 9.60, 9.61, 9.62, 9.63, 9.64, 9.65, 9.66, 9.67, 9.68, 9.69, 9.70, 9.71, 9.72, 9.73, 9.74, 9.75, 9.76, 9.77, 9.78, 9.79, 9.80, 9.81, 9.82, 9.83, 9.84, 9.85, 9.86, 9.87, 9.88, 9.89, 9.90, 9.91, 9.92, 9.93, 9.94, 9.95, 9.96, 9.97, 9.98, 9.99, 10.00, 10.01, 10.02, 10.03, 10.04, 10.05, 10.06, 10.07, 10.08, 10.09, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 10.17, 10.18, 10.19, 10.20, 10.21, 10.22, 10.23, 10.24, 10.25, 10.26, 10.27, 10.28, 10.29, 10.30, 10.31, 10.32, 10.33, 10.34, 10.35, 10.36, 10.37, 10.38, 10.39, 10.40, 10.41, 10.42, 10.43, 10.44, 10.45, 10.46, 10.47, 10.48, 10.49, 10.50, 10.51, 10.52, 10.53, 10.54, 10.55, 10.56, 10.57, 10.58, 10.59, 10.60, 10.61, 10.62, 10.63, 10.64, 10.65, 10.66, 10.67, 10.68, 10.69, 10.70, 10.71, 10.72, 10.73, 10.74, 10.75, 10.76, 10.77, 10.78, 10.79, 10.80, 10.81, 10.82, 10.83, 10.84, 10.85, 10.86, 10.87, 10.88, 10.89, 10.90, 10.91, 10.92, 10.93, 10.94, 10.95, 10.96, 10.97, 10.98, 10.99, 11.00, 11.01, 11.02, 11.03, 11.04, 11.05, 11.06, 11.07, 11.08, 11.09, 11.10, 11.11, 11.12, 11.13, 11.14, 11.15, 11.16, 11.17, 11.18, 11.19, 11.20, 11.21, 11.22, 11.23, 11.24, 11.25, 11.26, 11.27, 11.28, 11.29, 11.30, 11.31, 11.32, 11.33, 11.34, 11.35, 11.36, 11.37, 11.38, 11.39, 11.40, 11.41, 11.42, 11.43, 11.44, 11.45, 11.46, 11.47, 11.48, 11.49, 11.50, 11.51, 11.52, 11.53, 11.54, 11.55, 11.56, 11.57, 11.58, 11.59, 11.60, 11.61, 11.62, 11.63, 11.64, 11.65, 11.66, 11.67, 11.68, 11.69, 11.70, 11.71, 11.72, 11.73, 11.74, 11.75, 11.76, 11.77, 11.78, 11.79, 11.80, 11.81, 11.82, 11.83, 11.84, 11.85, 11.86, 11.87, 11.88, 11.89, 11.90, 11.91, 11.92, 11.93, 11.94, 11.95, 11.96, 11.97, 11.98, 11.99, 12.00, 12.01, 12.02, 12.03, 12.04, 12.05, 12.06, 12.07, 12.08, 12.09, 12.10, 12.11, 12.12, 12.13, 12.14, 12.15, 12.16, 12.17, 12.18, 12.19, 12.20, 12.21, 12.22, 12.23, 12.24, 12.25, 12.26, 12.27, 12.28, 12.29, 12.30, 12.31, 12.32, 12.33, 12.34, 12.35, 12.36, 12.37, 12.38, 12.39, 12.40, 12.41, 12.42, 12.43, 12.44, 12.45, 12.46, 12.47, 12.48, 12.49, 12.50, 12.51, 12.52, 12.53, 12.54, 12.55, 12.56, 12.57, 12.58, 12.59, 12.60, 12.61, 12.62, 12.63, 12.64, 12.65, 12.66, 12.67, 12.68, 12.69, 12.70, 12.71, 12.72, 12.73, 12.74, 12.75, 12.76, 12.77, 12.78, 12.79, 12.80, 12.81, 12.82, 12.83, 12.84, 12.85, 12.86, 12.87, 12.88, 12.89, 12.90, 12.91, 12.92, 12.93, 12.94, 12.95, 12.96, 12.97, 12.98, 12.99, 13.00, 13.01, 13.02, 13.03, 13.04, 13.05, 13.06, 13.07, 13.08, 13.09, 13.10, 13.11, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.19, 13.20, 13.21, 13.22, 13.23, 13.24, 13.25, 13.26, 13.27, 13.28, 13.29, 13.30, 13.31, 13.32, 13.33, 13.34, 13.35, 13.36, 13.37, 13.38, 13.39, 13.40, 13.41, 13.42, 13.43, 13.44, 13.45, 13.46, 13.47, 13.48, 13.49, 13.50, 13.51, 13.52, 13.53, 13.54, 13.55, 13.56, 13.57, 13.58, 13.59, 13.60, 13.61, 13.62, 13.63, 13.64, 13.65, 13.66, 13.67, 13.68, 13.69, 13.70, 13.71, 13.72, 13.73, 13.74, 13.75, 13.76, 13.77, 13.78, 13.79, 13.80, 13.81, 13.82, 13.83, 13.84, 13.85, 13.86, 13.87, 13.88, 13.89, 13.90, 13.91, 13.92, 13.93, 13.94, 13.95, 13.96, 13.97, 13.98, 13.99, 14.00, 14.01, 14.02, 14.03, 14.04, 14.05, 14.06, 14.07, 14.08, 14.09, 14.10, 14.11, 14.12, 14.13, 14.14, 14.15, 14.16, 14.17, 14.18, 14.19, 14.20, 14.21, 14.22, 14.23, 14.24, 14.25, 14.26, 14.27, 14.28, 14.29, 14.30, 14.31, 14.32, 14.33, 14.34, 14.35, 14.36, 14.37, 14.38, 14.39, 14.40, 14.41, 14.42, 14.43, 14.44, 14.45, 14.46, 14.47, 14.48, 14.49, 14.50, 14.51, 14.52, 14.53, 14.54, 14.55, 14.56, 14.57, 14.58, 14.59, 14.60, 14.61, 14.62, 14.63, 14.64, 14.65, 14.66, 14.67, 14.68, 14.69, 14.70, 14.71, 14.72, 14.73, 14.74, 14.75, 14.76, 14.77, 14.78, 14.79, 14.80, 14.81, 14.82, 14.83, 14.84, 14.85, 14.86, 14.87, 14.88, 14.89, 14.90, 14.91, 14.92, 14.93, 14.94, 14.95, 14.96, 14.97, 14.98, 14.99, 15.00, 15.01, 15.02, 15.03, 15.04, 15.05, 15.06, 15.07, 15.08, 15.09, 15.10, 15.11, 15.12, 15.13, 15.14, 15.15, 15.16, 15.17, 15.18, 15.19, 15.20, 15.21, 15.22, 15.23, 15.24, 15.25, 15.26, 15.27, 15.28, 15.29, 15.30, 15.31, 15.32, 15.33, 15.34, 15.35, 15.36, 15.37, 15.38, 15.39, 15.40, 15.41, 15.42, 15.43, 15.44, 15.45, 15.46, 15.47, 15.48, 15.49, 15.50, 15.51, 15.52, 15.53, 15.54, 15.55, 15.56, 15.57, 15.58, 15.59, 15.60, 15.61, 15.62, 15.63, 15.64, 15.65, 15.66, 15.67, 15.68, 15.69, 15.70, 15.71, 15.72, 15.73, 15.74, 15.75, 15.76, 15.77, 15.78, 15.79, 15.80, 15.81, 15.82, 15.83, 15.84, 15.85, 15.86, 15.87, 15.88, 15.89, 15.90, 15.91, 15.92, 15.93, 15.94, 15.95, 15.96, 15.97, 15.98, 15.99, 16.00, 16.01, 16.02, 16.03, 16.04, 16.05, 16.06, 16.07, 16.08, 16.09, 16.10, 16.11, 16.12, 16.13, 16.14, 16.15, 16.16, 16.17, 16.18, 16.19, 16.20, 16.21, 16.22, 16.23, 16.24, 16.25, 16.26, 16.27, 16.28, 16.29, 16.30, 16.31, 16.32, 16.33, 16.34, 16.35, 16.36, 16.37, 16.38, 16.39, 16.40, 16.41, 16.42, 16.43, 16.44, 16.45, 16.46, 16.47, 16.48, 16.49, 16.50, 16.51, 16.52, 16.53, 16.54, 16.55, 16.56, 16.57, 16.58, 16.59, 16.60, 16.61, 16.62, 16.63, 16.64, 16.65, 16.66, 16.67, 16.68, 16.69, 16.70, 16.71, 16.72, 16.73, 16.74, 16.75, 16.76, 16.77, 16.78, 16.79, 16.80, 16.81, 16.82, 16.83, 16.84, 16.85, 16.86, 16.87, 16.88, 16.89, 16.90, 16.91, 16.92, 16.93, 16.94, 16.95, 16.96, 16.97, 16.98, 16.99, 17.00, 17.01, 17.02, 17.03, 17.04, 17.05, 17.06, 17.07, 17.08, 17.09, 17.10, 17.11, 17.12, 17.13, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19, 17.20, 17.21, 17.22, 17.23, 17.24, 17.25, 17.26, 17.27, 17.28, 17.29, 17.30, 17.31, 17.32, 17.33, 17



**CURVE DATA**

No.	R	Δ	T	L
(A)	30.00'	65° 36' 12"	19.33'	34.35'
(B)	95.00'	62° 5' 54"	57.19'	102.96'
(C)	85.00'	70° 42' 52"	60.31'	104.91'
(D)	80.00'	70° 25' 14"	56.46'	98.33'

**REVISIONS**

DATE	BY	DESCRIPTION

**BENCHMARKS:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 NATIONAL DATUM OF 1983, 1991.35 EPOCH  
 POINTS, THAT IS, DATUM OF 1983, 1991.35 EPOCH  
 (NAD 83).  
 THE BENCHMARK IS A CONCRETE  
 MONUMENT WITH AN ELEVATION OF 415.00 FEET.

**PREPARED BY:**  
  
 WKE ENGINEERING & SURVEYING, INC.  
 400 N. Tustin Ave, Suite 215  
 Orange, CA 92668  
 Phone (714) 963-2888  
 Fax (714) 963-2888  
**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL G. WENDEL, P.E. 19484 DATE EXP. 12/31/19

**APPROVED:**  
 CITY ENGINEER P.C.C.F. DATE



**CITY OF DIAMOND BAR**

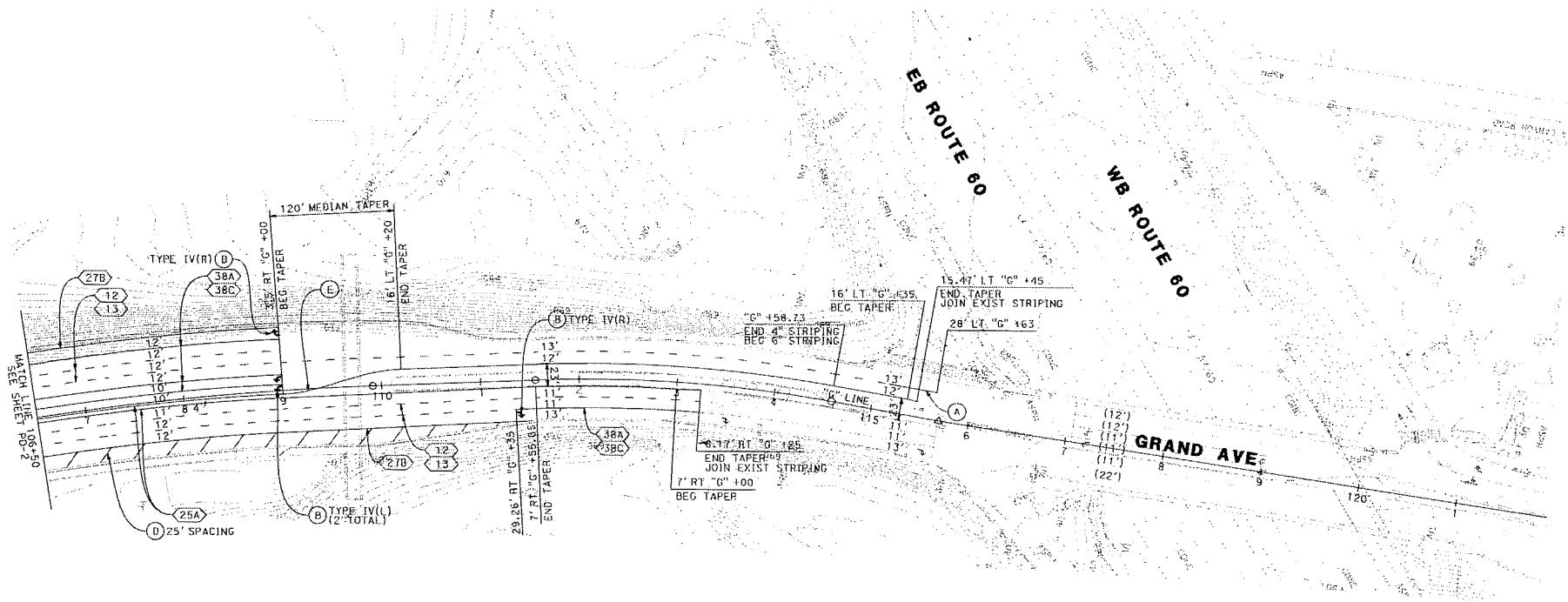
**STRIPING PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 93+50 TO "C" 106+50

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **SHEET PD-2** SHEET 60 OF 139



SCALE: 1"=50'



06-JUL-2018

<b>CITY OF DIAMOND BAR</b>	
<b>STRIPING PLAN FOR GRAND AVE</b>	
FROM "G" 106+50 TO "G" 121+00	
<b>DEPARTMENT OF PUBLIC WORKS</b>	
PROJECT NO.	SHEET PD-3
	SHEET 61 OF 139

REVISIONS					
CHANGED BY	DATE	CHECKED BY	DATE	CHKD BY	DATE

**BENCHMARK:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 BENCH MARK OF THE CITY OF DIAMOND BAR,  
 1985. THE BENCH MARK IS A CONCRETE  
 PIPER WITH A DIAMETER OF 12 INCHES.  
 THE BENCH MARK IS LOCATED AT THE  
 INTERSECTION OF GRAND AVE AND  
 106TH STREET.

**PREPARED BY:**  
  
 400 N. Tenth Ave, Suite 210  
 Davis, CA 95618  
 Phone (714) 963-2888  
 Fax (714) 963-2888  
 PREPARED UNDER THE SUPERVISION OF:

**SUBMITTED:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER      P.C.E.      DATE

DATE: 08-12-2018

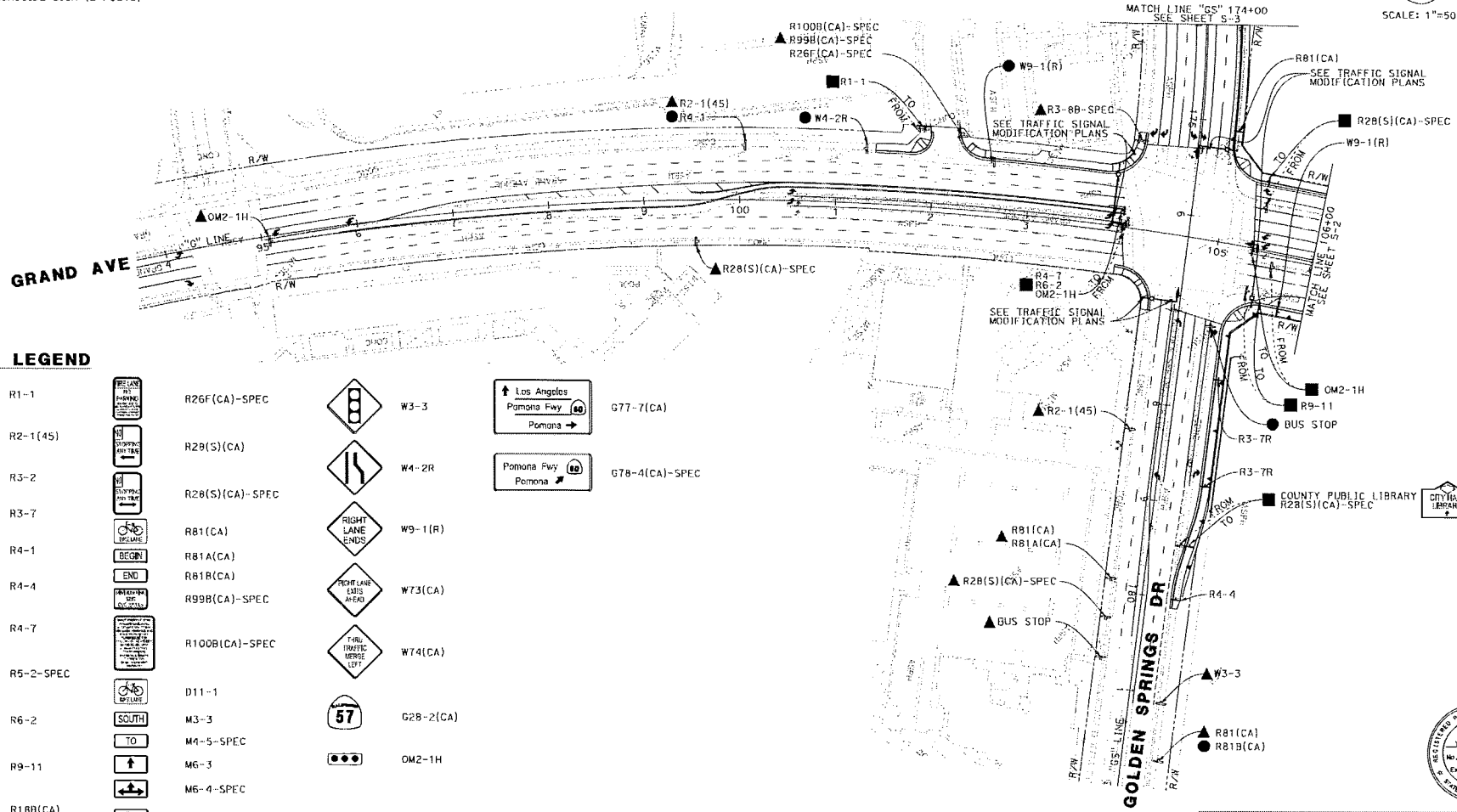


**LEGEND**

- ▲ EXISTING ROADSIDE SIGN TO REMAIN
- RELOCATE ROADSIDE SIGN AND POST
- REMOVE ROADSIDE SIGN AND POST
- ⌈ EXISTING ROADSIDE SIGN (1 POST)
- ⌈ EXISTING ROADSIDE SIGN (2 POSTS)
- ⌈ PROPOSED ROADSIDE SIGN (1 POST)
- ⌈ PROPOSED ROADSIDE SIGN (2 POSTS)

**NOTES**

1. ALL SIGNS ARE SINGLE FACED.
2. ALL SIGNS MUST HAVE GRAFFITI FILM.
3. ALL SIGNS, WITH THE EXCEPTION OF WHITE BACKGROUND SIGNS, MUST INCLUDE RETROREFLECTIVE SHEETING ASTM D4956-13 TYPE XI.
4. ALL NEW WARNING SIGN PANELS SHALL BE FLUORESCENT YELLOW, OR FLUORESCENT ORANGE.
5. ALL SIGNS WITH WHITE BACKGROUNDS MUST INCLUDE RETROREFLECTIVE SHEETING ASTM D4956-13 TYPE IX.



**SIGN LEGEND**

	R1-1		R26F(CA)-SPEC		W3-3		G77-7(CA)
	R2-1(45)		R28(S)(CA)		W4-2R		G78-4(CA)-SPEC
	R3-2		R28(S)(CA)-SPEC		W9-1(R)		
	R3-7		R81(CA)		W73(CA)		
	R4-1		R81A(CA)		W74(CA)		
	R4-4		R81B(CA)		G28-2(CA)		
	R4-4		R99B(CA)-SPEC		OM2-1H		
	R4-7		R100B(CA)-SPEC				
	R5-2-SPEC		D11-1				
	R6-2		M3-3				
	R9-11		M4-5-SPEC				
	R18B(CA)		M6-3				
			M6-4-SPEC				
			M4-14				

**REVISIONS**

DATE	BY	DESCRIPTION

**BENCHMARKS:**  
 COORDINATES SHOWN ARE BASED ON THE  
 NAD 83 DATUM OF 1983. THE 1983 DATUM  
 IS USED FOR ALL DISTANCES AND ANGLES.  
 ALL DISTANCES ARE IN FEET AND DECIMAL  
 FRACTIONS. ALL ANGLES ARE IN DEGREES  
 AND DECIMAL FRACTIONS.

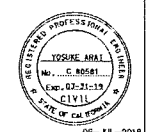
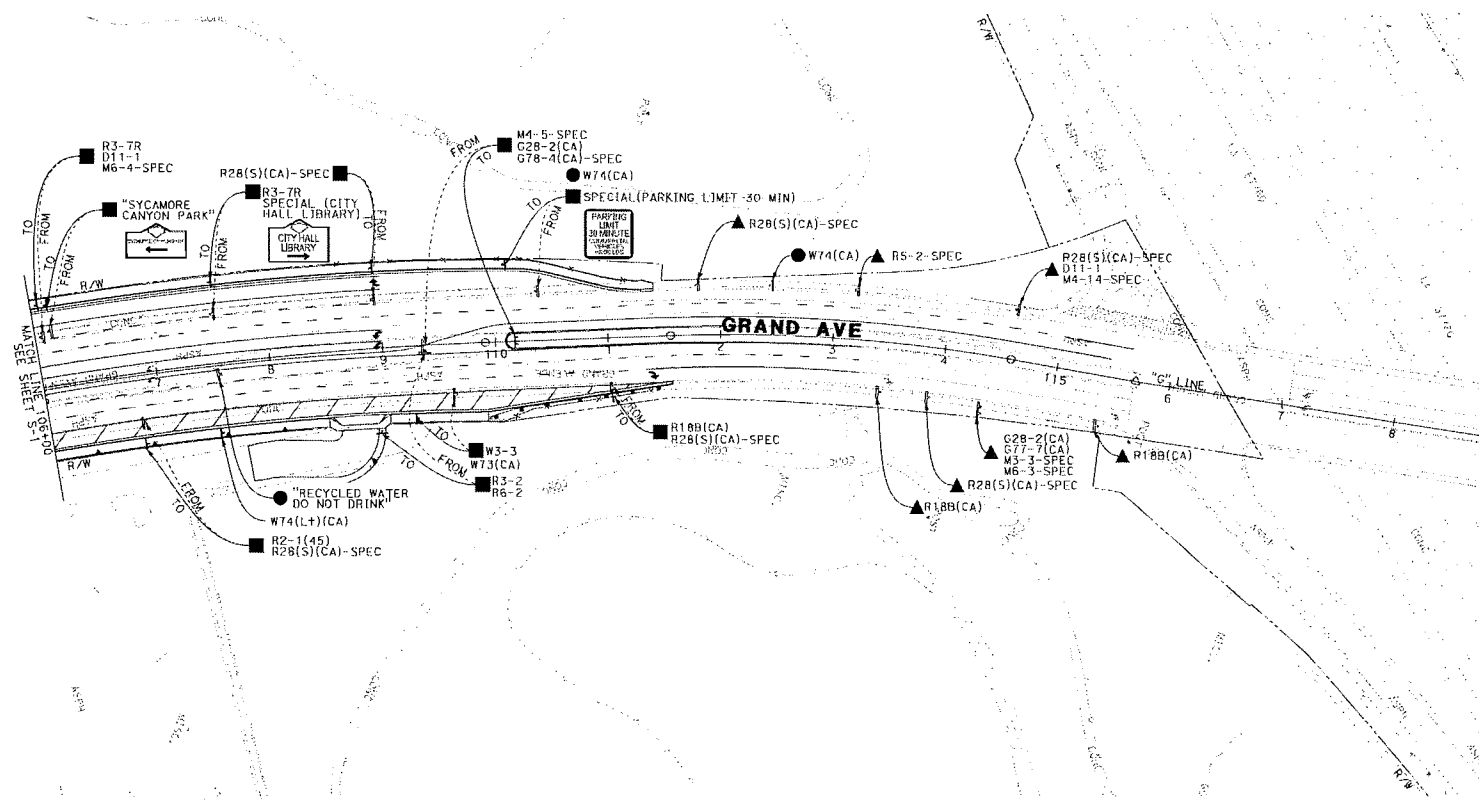
**PREPARED BY:**  
  
 400 N. Tustin Ave., Suite 210  
 Santa Ana, CA 92705  
 Phone (714) 893-2869  
 Fax (714) 963-9048  
 PREPARED UNDER THE SUPERVISION OF:

**DATE:** 12/21/18  
**SCALE:** 1"=50'  
**PROJECT NO.:** \_\_\_\_\_  
**SHEET NO.:** 8-1  
**TOTAL SHEETS:** 63 OF 139

**CITY OF DIAMOND BAR**  
**SIGN PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 34+00 TO "G" 106+00  
**DEPARTMENT OF PUBLIC WORKS**

**PROJECT NO.:** \_\_\_\_\_  
**SHEET 8-1**  
**SHEET 63 OF 139**





**CITY OF DIAMOND BAR**

**SIGN PLAN FOR  
GRAND AVE**

FROM "C" 106+00 TO "C" 118+00

**DEPARTMENT OF PUBLIC WORKS**

---

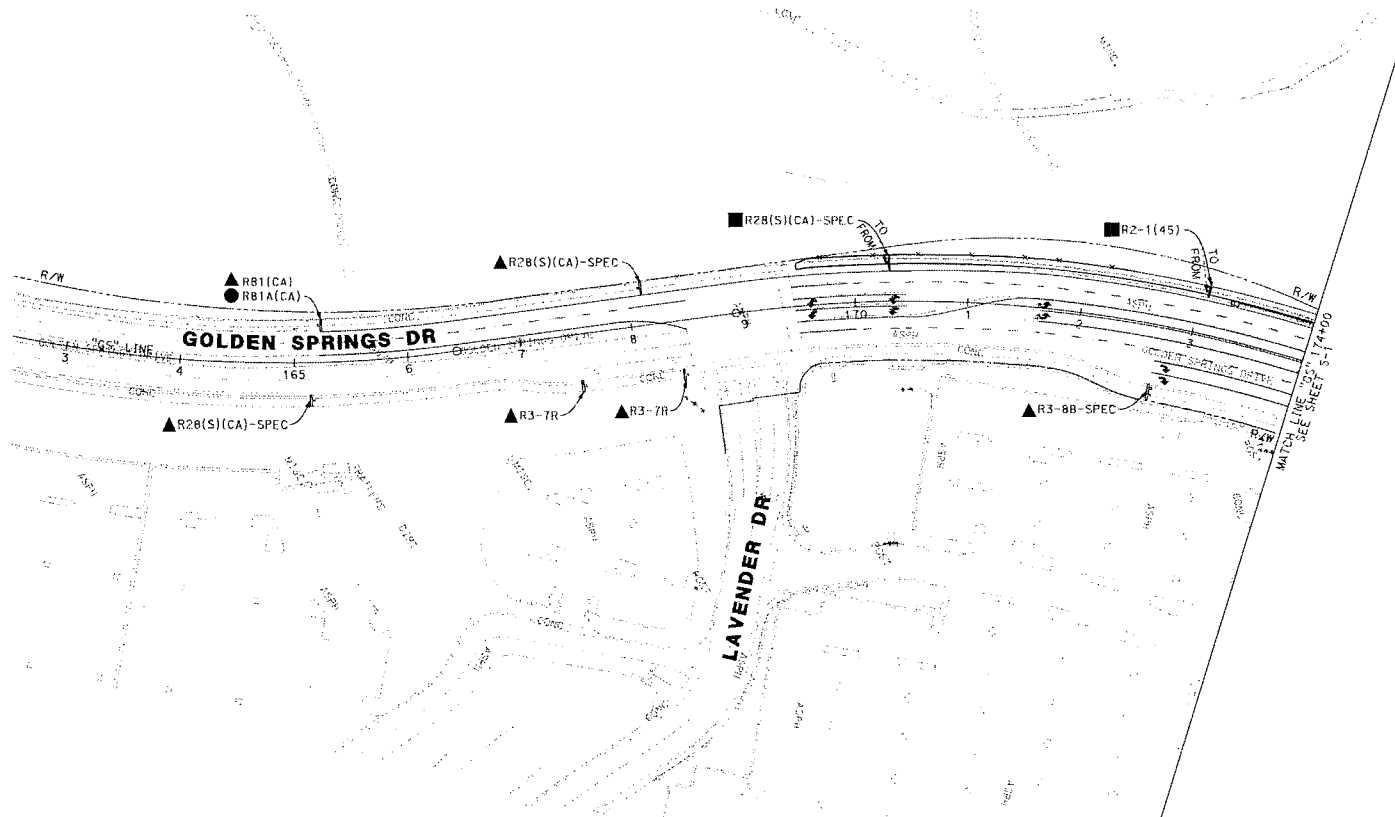
PROJECT NO. — **SHEET 8-2** SHEET 64 OF 170

REVISIONS				
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY

**BENCHMARK:**  
 CIRCUMFERENTIAL CORNER MARK SET ON THE  
 PUBLIC WORKS DIVISION OF 1982, 1987, 1992, 1997  
 (DIMS. 1041.35')  
 VERTICAL POINT BASED ON NORTH AMERICAN  
 MEAN SEA LEVEL  
 LOCAL BENCHMARK IS NOT A PART OF THIS PROJECT

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DWIGHT S. WOODRILL, P.E. DATE: EXP. 12/31/19

**SUBMITTED:** \_\_\_\_\_  
**RECEIVED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER E.C.S. DATE: \_\_\_\_\_



02-JUL-2018

**CITY OF DIAMOND BAR**

**SIGN PLAN FOR  
GOLDEN SPRINGS DR  
FROM "GS" 165+00 TO "GS" 174+00**


**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO.	—	<b>SHEET 8-3</b>	SHEET 85 OF 139
-------------	---	------------------	-----------------

**REVISIONS**

DATE	BY	DATE	BY	DATE	BY





**BENCHMARK:**  
 ELEVATIONS SHOWN ARE BASED ON THE  
 BENCH MARK OF POINT OF INTERSECTION  
 OF GOLDEN SPRINGS DR AND LAVENDER DR  
 AT STATION 165+00.00  
 ALL ELEVATIONS ARE IN FEET AND INCHES  
 UNLESS OTHERWISE NOTED

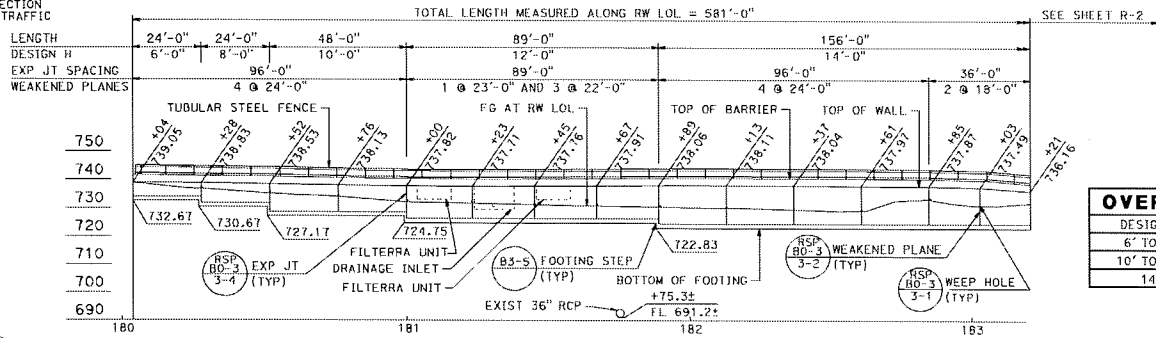
**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WOODALL P.E. 15438 DATE: 08/12/2018

**SUBMITTED:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** CITY ENGINEER E.S.A. DATE: \_\_\_\_\_



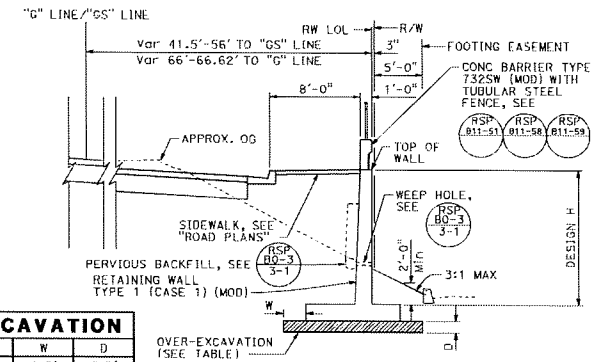
**LEGEND:**

-  LIMITS OF OVER-EXCAVATION
-  CALTRANS STANDARD PLAN SHEET NO.
-  DETAIL NO.
-  DIRECTION OF TRAFFIC



**DEVELOPED ELEVATION**

SCALE: 1" = 20'



**TYPICAL SECTION**

SCALE: 1/4" = 1'-0"

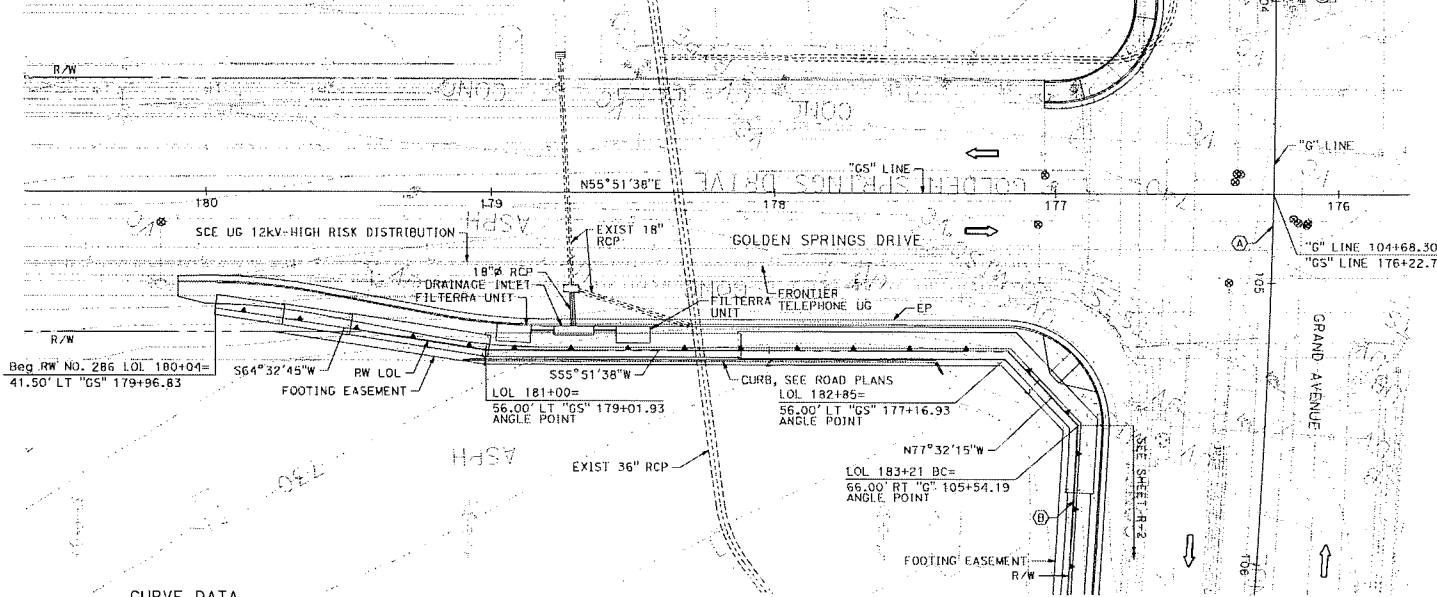
OVER-EXCAVATION		
DESIGN H	W	D
6" TO 8"	1.5'	0.5'
10" TO 12"	2'	1'
14"	3'	2'

**NOTES**

- FOR RETAINING WALL TYPE 1 (CASE 1) (MOD), SEE R-3 RETAINING WALL NO. 286 DETAILS NO. 1 SHEET.
- FOR CONCRETE BARRIER, SEE "TYPE 732SW (MOD) BARRIER DETAIL" ON R-4 RETAINING WALL NO. 286 DETAILS NO. 2 SHEET.
- FOR TUBULAR STEEL FENCE DETAILS, SEE R-5 RETAINING WALL NO. 286 DETAILS NO. 2 AND R-6 RETAINING WALL NO. 286 DETAILS NO. 4 SHEETS.
- EXTEND EXPANSION JOINT WATERSTOP 6" ABOVE TOP OF WALL INTO BARRIER.
- FOOTING ELEVATIONS SHOWN ARE AT BOTTOM OF FOOTING.
- FOR UTILITY INFORMATION, SEE "UTILITY PLANS".
- FOR FILTERRA UNITS AND DRAINAGE SYSTEMS, SEE "DRAINAGE PLANS".
- FOR PROPOSED CURB, SEE "CONSTRUCTION DETAILS".

**CALTRANS STANDARD PLANS 2015**

- A3A ABBREVIATIONS (SHEET 1 OF 3)
- A3B ABBREVIATIONS (SHEET 2 OF 3)
- A3C ABBREVIATIONS (SHEET 3 OF 3)
- A10A LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
- RSP A10B LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
- A10C LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
- A10D LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
- A10E LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
- A10F LEGEND - SOIL (SHEET 1 OF 2)
- A10G LEGEND - SOIL (SHEET 2 OF 2)
- A10H LEGEND - ROCK
- RSP B0-3 BRIDGE DETAILS
- B3-5 RETAINING WALL DETAILS NO. 1
- RSP B11-51 TUBULAR HANDRAILING
- RSP B11-58 CONCRETE BARRIER TYPE 732SW (SHEET 1 OF 2)
- RSP B11-59 CONCRETE BARRIER TYPE 732SW (SHEET 2 OF 2)



**PLAN**

SCALE: 1" = 20'

**CURVE DATA**

NO.	R	Δ	T	L
(A)	2999.96	42°06'26"	1154.80'	2204.70'
(B)	2933.96	03°13'45"	82.70'	165.36'

**REVISIONS**

NO.	DATE	BY	DESCRIPTION

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE CALTRANS DATUM OF 1985, 1991, 1993 (EPOCH 1985, 1991, 1993). THESE COORDINATES ARE ON NORTH AMERICAN DATUM 83. ALL BENCHMARKS WILL BE TO THE LEFT OF THE SHEET.

PREPARED BY: WKE  
400 N. Tweed Ave., Suite 270  
Scottsdale, AZ 85258  
Phone (480) 583-2665  
Fax (480) 583-2669

PREPARED UNDER THE SUPERVISION OF: DANIEL D. MCKEEL, P.E. 5/24/19 DATE EXP. 12/31/19

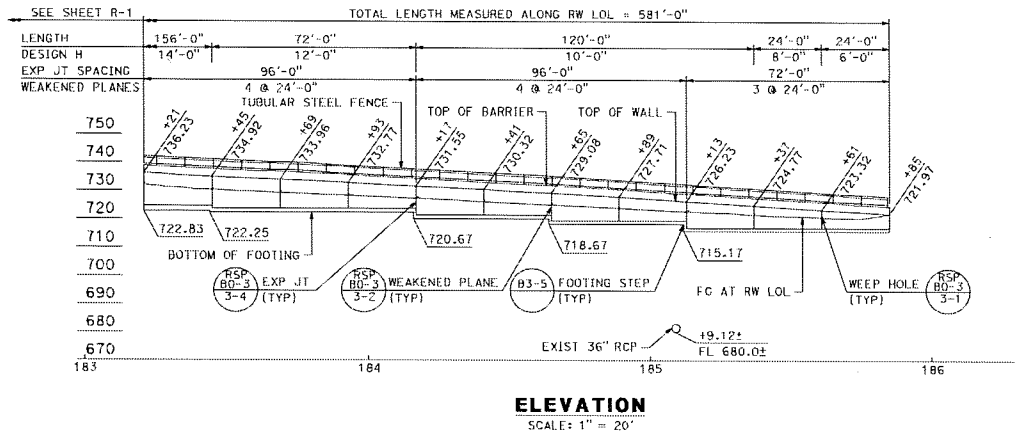
SUBMITTED: \_\_\_\_\_  
REVIEWED: \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
CITY ENGINEER P.C.C. DATE: \_\_\_\_\_

**CITY OF DIAMOND BAR**

RETAINING WALL NO. 286 PLAN NO. 1 FOR GRAND AVE/GOLDEN SPRINGS DR FROM "GS" 175+50 TO "GS" 180+50 DEPARTMENT OF PUBLIC WORKS

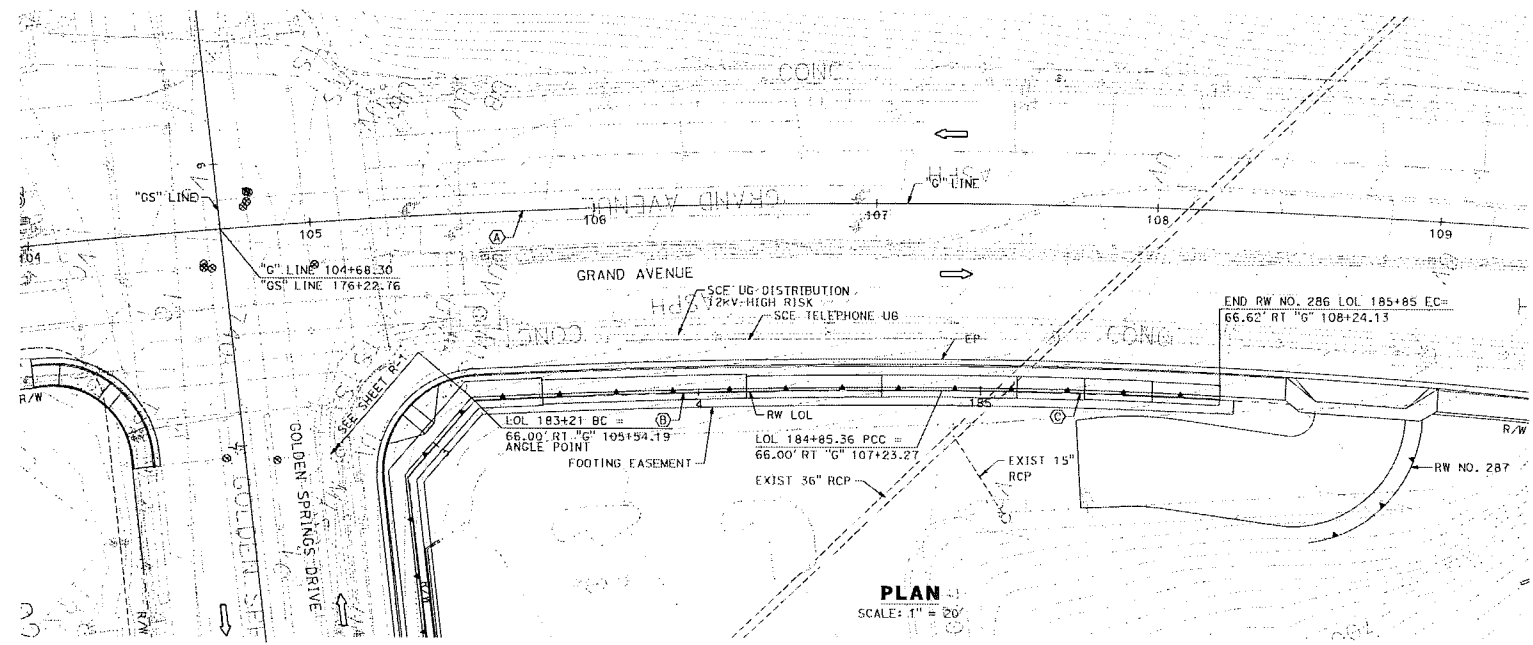
PROJECT NO.	SHEET R-1	SHEET 66 OF 139
-------------	-----------	-----------------





CURVE DATA

NO.	R	Δ	T	L
(A)	2999.96	42° 06' 26"	1154.80'	2204.70'
(B)	2933.96	03° 13' 45"	82.70'	165.36'
(C)	2134.00	02° 38' 54"	49.33'	98.64'



**NOTES**

- FOR NOTES, SEE "RETAINING WALL NO. 286 PLAN NO. 1" R-1 SHEET.

*Monte Martin*  
 PROFESSIONAL ENGINEER  
 MONTSE MARTIN  
 No. C 84771  
 Exp. 06-30-18  
 CIVIL  
 STATE OF CALIFORNIA  
 06-JUL-2018

**CITY OF DIAMOND BAR**  
**RETAINING WALL NO. 286 PLAN NO. 2 FOR GRAND AVE/GOLDEN SPRINGS DR**  
 FROM "G" 104+00 TO "G" 109+00  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET R-2 SHEET 67 OF 159

REVISIONS

DATE	BY	DESCRIPTION

BENCHMARK:  
 ELEVATION SURVEY BASED ON THE  
 BENCH MARK OF 1985 (1985) (1985)  
 1985 (1985) (1985) (1985)  
 1985 (1985) (1985) (1985)  
 1985 (1985) (1985) (1985)

PREPARED BY:  
**WKE**  
 405 N. Twelfth Ave., Suite 270  
 Santa Ana, CA 92705  
 Phone (714) 803-2888  
 Fax (714) 952-5008

APPROVED:  
 ETTI ENGINERIN K.C.S. DATE

**DESIGN CONDITIONS:**

Design H may be exceeded by 6" before going to the next size. Special footing design is required where foundation material is incapable of supporting bearing stress listed in the table.

**DESIGN NOTES:**

- DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition with California Amendments
- LS: Varied surcharge on level ground surface
- CT: 54 kip transverse force applied at  $H_e = 32"$ , distributed over 10 feet of the top of wall and 1 : 1 distribution down and outward. Distribution below footing taken no less than 40'.
- SEISMIC:  $k_h = 0.219, k_v = 0.0$
- SOIL:  $\phi = 32^\circ, \gamma = 120 \text{ pcf}$
- REINFORCED CONCRETE:  $f'_c = 3,600 \text{ psi}$   
 $f_y = 60,000 \text{ psi}$
- LOAD COMBINATIONS AND LIMIT STATES:  
Service I  $0 = 1.00DC+1.00EV+1.00EH+1.00LS$   
Strength I  $0 = \alpha DC + \beta EV + \gamma EH + 1.75LS$   
Extreme I  $0 = 1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE$   
Extreme II  $0 = 1.00DC+1.00EV+1.00EH+1.00CT$
- Where:  
0: Force Effects  
a: 1.25 or 0.90, whichever Controls Design  
b: 1.35 or 1.00, whichever Controls Design  
c: 1.50 or 0.90, whichever Controls Design  
DC: Dead Load of Structure Components  
EH: Horizontal Earth Fill Pressure  
EV: Vertical Earth Pressure from Earth Fill Weight  
LS: Live Load Surcharge  
EQE: Seismic Earth Pressure  
EQD: Soil and Structural and Nonstructural Components Inertia  
CT: Vehicular Collision Force

RETAINING WALL MUST CONFORM TO THE STATE OF CALIFORNIA STANDARD PLANS AND STANDARD SPECIFICATIONS 2015 EDITION.

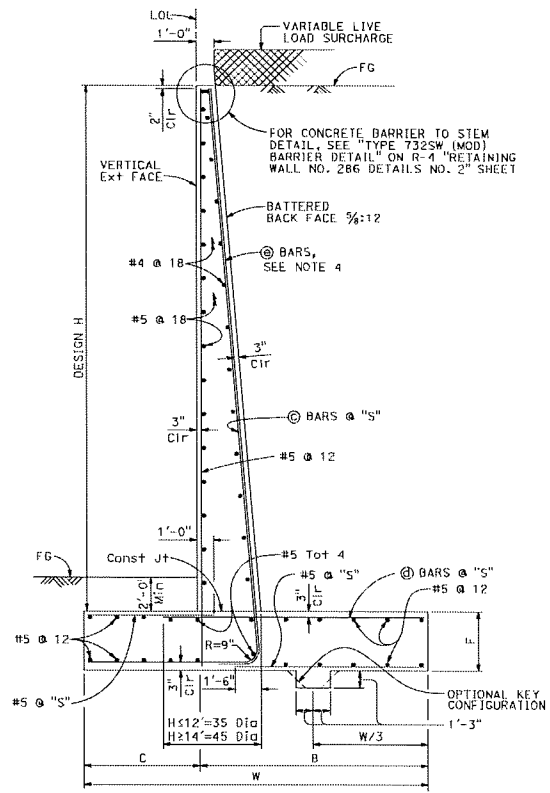
**NOTES:**

- For details not shown and drainage notes see B3-5.
- For wall stem joint details see B3-3 and B3-4.
- At  $\odot$  bars:  
 $H < 6'$ , no splices are allowed within 1'-8" above the top of footing.  
 $H > 6'$ , no splices are allowed within  $H/4$  above the top of footing.
- Provide #6 @ 10" x 15'-0" @ bars over a distance of 8'-0" measured from all expansion joints, begin wall and end wall locations. Hook  $\odot$  bar into footing and reduce bar length as needed to maintain Min Clr cover.
- For concrete, the cementitious material must be composed of one of the following, by weight:
  - 20 percent natural pozzolan or fly ash with CaO content of up to 10 percent, 5 percent silica fume, and 75 percent portland cement.
  - 12 percent silica fume, metakaolin, or UFFA, and 88 percent portland cement.
  - 50 percent GGBFS and 50 percent portland cement.
- For concrete, the ratio of the quantity of free water to the quantity of cementitious material must not exceed 0.40.

**SYMBOLS:**

- Ser - service limit state I  
Str - strength limit state I  
Ext I - extreme event limit state I  
Ext II - extreme event limit state II  
B' - effective footing width (ft)  
q<sub>0</sub> - net bearing stress (ksf), OG assumed to be FG at toe  
q<sub>g</sub> - gross uniform bearing stress (ksf)

DESIGN H	6'	8'	10'	12'	14'
W	7'-0"	7'-3"	7'-7"	8'-4"	9'-2"
C	2'-2"	2'-2"	2'-3"	2'-5"	2'-11"
B	4'-10"	5'-1"	5'-4"	5'-11"	6'-8"
F	1'-4"	1'-4"	1'-4"	1'-6"	1'-8"
SPACING "S"	9"	9"	9"	8"	7"
$\odot$ BARS	#6	#6	#6	#6	#6
$\odot$ BARS	#5	#6	#6	#6	#6
Ser: B', q <sub>0</sub>	6.4, 1.5	6.3, 1.8	6.0, 2.3	6.6, 2.5	7.7, 2.8
Str: B', q <sub>0</sub>	6.3, 2.2	6.0, 2.7	5.6, 3.9	6.1, 4.3	7.1, 4.4
Ext I: B', q <sub>0</sub>	5.0, 1.5	4.7, 2.0	4.1, 3.1	4.3, 3.5	5.0, 4.1
Ext II: B', q <sub>0</sub>	2.6, 3.3	2.9, 3.5	3.2, 4.1	4.1, 3.8	5.3, 3.9



TYPICAL SECTION - TYPE 1 (CASE 1) (Mod)  
NO SCALE

NO.	DATE	BY	DESCRIPTION

**BENCHMARK:**  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA STATE PLATE COORDINATE ZONE 5 (NAD83), DATUM OF 1983, 1997, 35 EPOCH RESURVEY.  
VERTICAL DATUM IS NORTH AMERICAN MEAN SEA LEVEL.  
US ANGLES COMPLY WITH THE STATE OF CALIFORNIA BENCH MARK DATA, EDITION OF 01.01.07

**PREPARED BY:** WKE  
400 N. Tustin Ave., Suite 275  
Orange, CA 92666  
Phone (714) 962-2864  
Fax (714) 962-2868

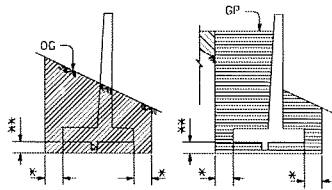
**PREPARED UNDER THE SUPERVISION OF:**  
DANIEL S. KENNEL, P.E. 3/24/04 DATE: 08/12/21/09

**CITY OF DIAMOND BAR**  
RETAINING WALL NO. 286 DETAILS NO. 1 FOR GRAND AVE/GOLDEN SPRINGS DR

**DEPARTMENT OF PUBLIC WORKS**

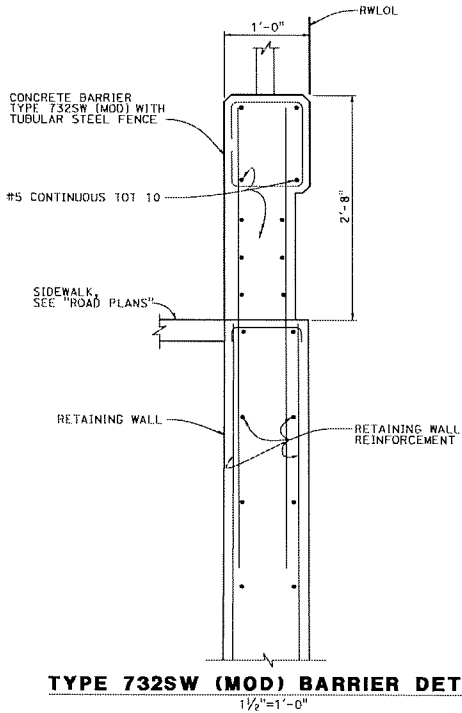
PROJECT NO. — SHEET R-3 SHEET 68 OF 139





**LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL**

NO SCALE



**TYPE 732SW (MOD) BARRIER DETAIL**

1 1/2"=1'-0"

**NOTES:**

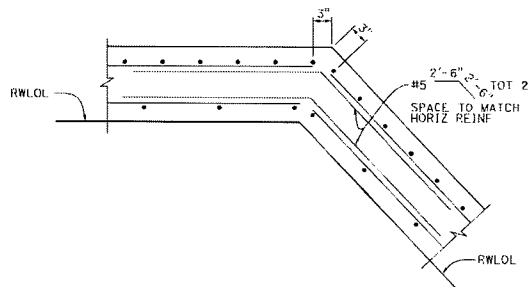
1. FOR RETAINING WALL REINFORCEMENT AND DETAIL, SEE "RETAINING WALL NO. 286 DETAILS NO. 1" R-3 SHEET.
2. FOR BARRIER DIMENSIONS AND REINFORCEMENT, SEE CALTRANS STANDARD PLAN RSP 811-58 AND RSP 811-59 EXCEPT AS NOTED. FOR TUBULAR HANDRAILING, SEE CALTRANS STANDARD PLAN RSP 811-51.

**NOTES:**

- \* VARIES, SEE TYPICAL SECTION FOR OVER-EXCAVATION WIDTH
- \*\* VARIES, SEE TYPICAL SECTION FOR OVER-EXCAVATION DEPTH

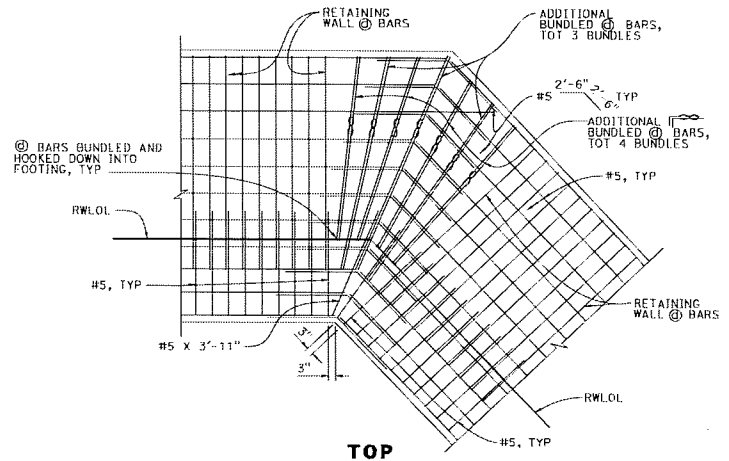
**LEGEND:**

- BUNDLED BARS - 2 BARS PER BUNDLE
- STRUCTURE EXCAVATION
- STRUCTURE BACKFILL
- ROADWAY EMBANKMENT

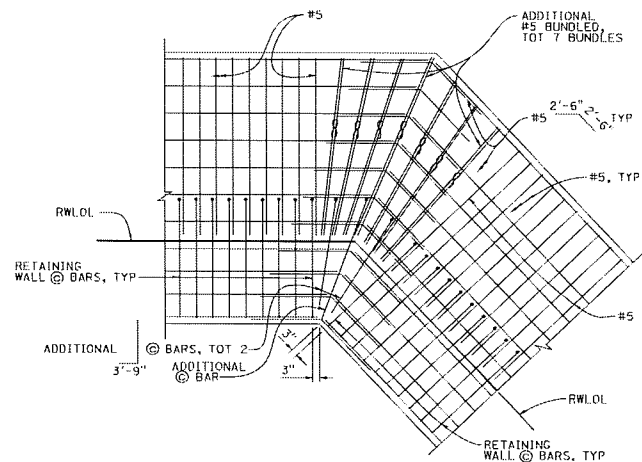


**STEM ANGLE REINFORCEMENT DETAIL**

3/4"=1'-0"



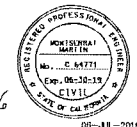
**TOP**



**BOTTOM**

**FOOTING ANGLE REINFORCEMENT DETAILS**

1/2"=1'-0"



**CITY OF DIAMOND BAR**

RETAINING WALL NO. 286 DETAILS NO. 2 FOR GRAND AVE/GOLDEN SPRINGS DR

DEPARTMENT OF PUBLIC WORKS

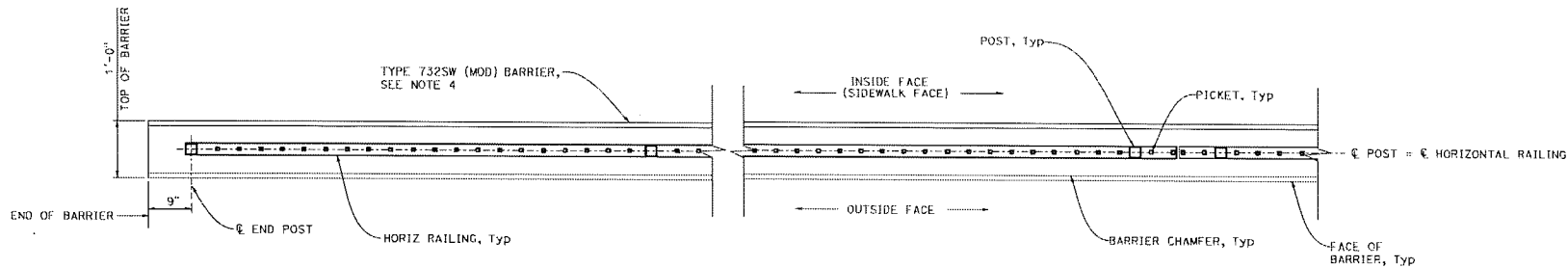
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE CALTRANS CONTROL POINT FOR THE LOCAL ROAD, 1983, DATUM OF 1983, TYP. 35 EPOCH. THESE COORDINATES ARE NOT TO BE USED FOR ANY OTHER PURPOSES.

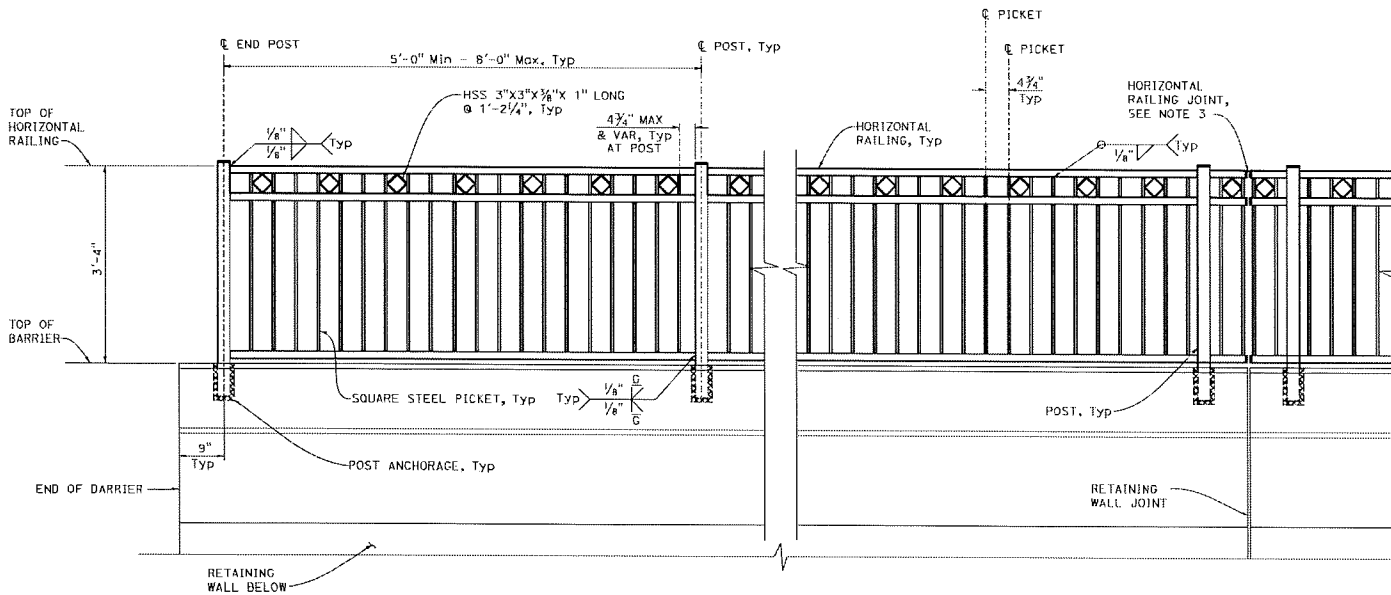
PREPARED BY: **WKE**  
 400 N. Fullin Ave, Suite 275  
 Santa Ana, CA 92705  
 Phone (714) 943-2868  
 Fax (714) 943-2868  
 PREPARED UNDER THE SUPERVISION OF:  
 DAVID Z. KENNEL REG 59438 DATE EXP. 12/31/19

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CIVIL ENGINEER P.E. DATE: \_\_\_\_\_

PROJECT NO. _____	SHEET R-4	SHEET 63 OF 139
-------------------	-----------	-----------------





**TUBULAR STEEL FENCE (BARRIER) - PARTIAL PLAN**  
1"=1'-0"



**TUBULAR STEEL FENCE (BARRIER) - PARTIAL ELEVATION**  
1"=1'-0"

**NOTES:**

1. FABRICATE FENCE TO MATCH CONCRETE BARRIER ALIGNMENT.
2. GRIND FINISH ALL WELDED JOINTS.
3. LOCATE HORIZONTAL RAILING JOINTS AT WALL JOINTS. SEE "EXPANSION JOINT DETAIL" AND "END DETAIL" ON R-6 "RETAINING WALL NO. 286 DETAILS NO. 4" SHEET.
4. FOR CONCRETE BARRIER DETAILS AND REINFORCEMENT, SEE  AND .
5. TREAT ALL EXPOSED SURFACES WITH TWO COATS OF MOISTURE PROOF PRIMER AND TWO COATS OF BLACK FINISH COLOR.
7. POST AND PICKET MUST BE SET VERTICAL.
8. STEEL TUBULAR HAND RAILING MINIMUM Fy = 36 Ksi. STEEL PICKET MINIMUM Fy = 50 Ksi.



*[Handwritten Signature]*

05-JUL-2018

**CITY OF DIAMOND BAR**

**RETAINING WALL NO. 286 DETAILS NO. 3 FOR GRAND AVE/GOLDEN SPRINGS DR**


FROM "G" 104+00 TO "G" 108+00

**DEPARTMENT OF PUBLIC WORKS**

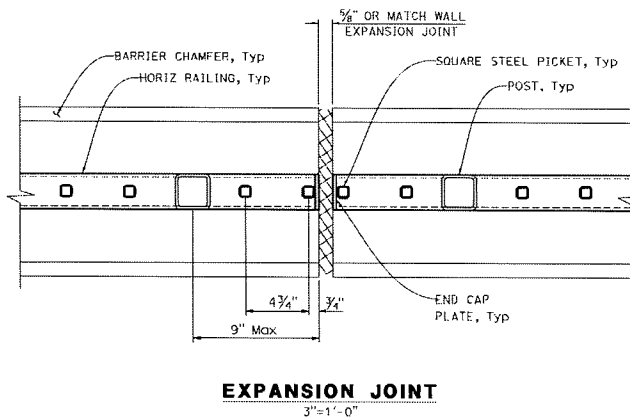
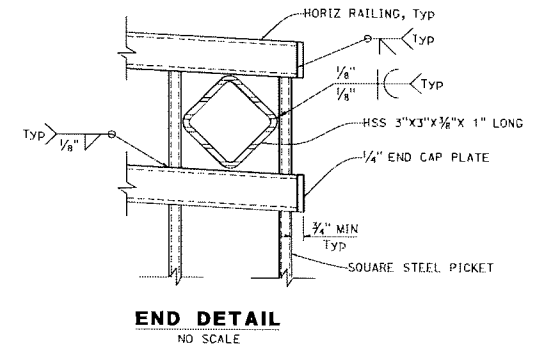
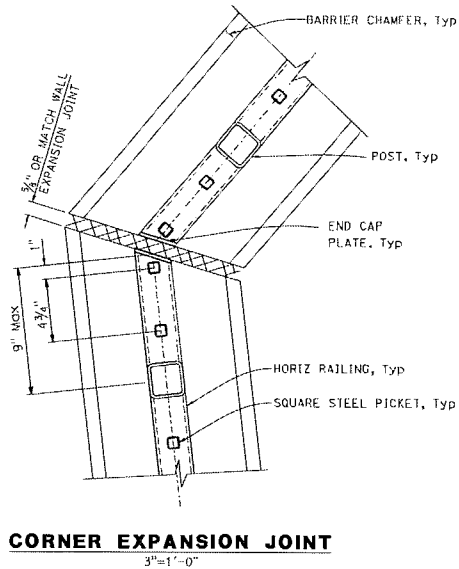
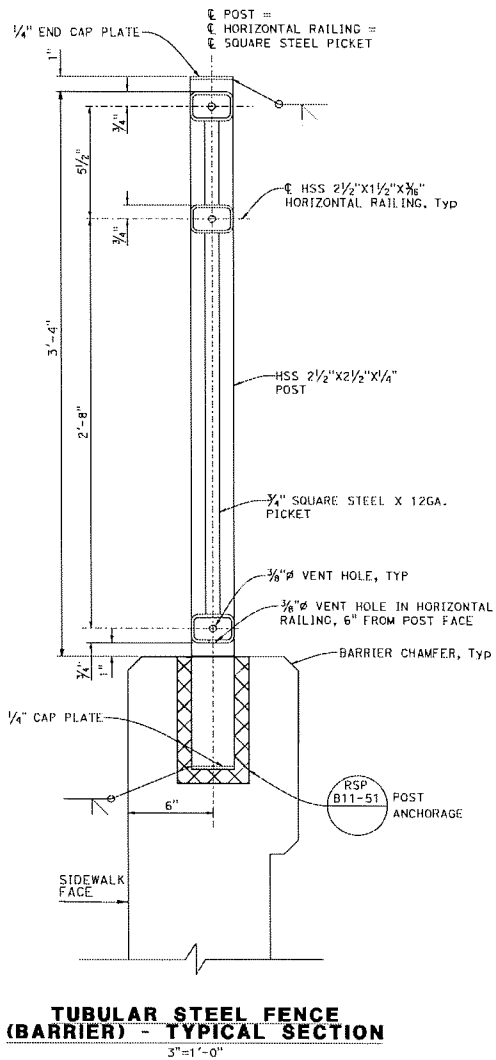
PROJECT NO.	—	<b>SHEET R-5</b>	SHEET 70 OF 139
-------------	---	------------------	-----------------

REVISIONS					
DESIGNED BY	REL. NO.	CHECKED BY	REV. NO.	DESIGNED BY	REL. NO.
DATE		DATE		DATE	

**BENCHMARK:**  
CONCRETE SURFACE AS SHOWN ON THE BENCH MARK SHEET OF THIS PROJECT (DATE: 11/11/15).  
VERTICAL DATUM BASED ON MEAN SEA LEVEL AS SHOWN ON THE BENCH MARK SHEET OF THIS PROJECT (DATE: 11/11/15).

**PREPARED BY:**  
  
PREPARED UNDER THE SUPERVISION OF:  
DARREL S. WINKEL    PEE 54048    DATE    07/12/21/18

**SCALE:** \_\_\_\_\_  
**REVISIONS:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
CITY ENGINEER    R.E.C.    DATE



*John R. ...*

06-JUL-2018

**CITY OF DIAMOND BAR**

**RETAINING WALL NO. 209 DETAILS NO. 4 FOR GRAND AVE/GOLDEN SPRINGS DR**

FROM "G" 104+00 TO "G" 109+00

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. —	<b>SHEET R-8</b>	SHEET 71 OF 139
---------------	------------------	-----------------

REVISIONS					
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

**BENCHMARK:**  
 COORDINATE SURVEY AND ADJUSTED TO THE 1983 NAD 83 DATUM. THE SURVEY WAS CONDUCTED BY THE CITY OF DIAMOND BAR IN 1983. THE SURVEY WAS CONDUCTED BY THE CITY OF DIAMOND BAR IN 1983. THE SURVEY WAS CONDUCTED BY THE CITY OF DIAMOND BAR IN 1983.

**PREPARED BY:**  
 J. W. K. E.  
 600 N. Twelfth Ave., Suite 210  
 Santa Ana, CA 92705  
 Phone (714) 853-2868  
 Fax (714) 853-2868

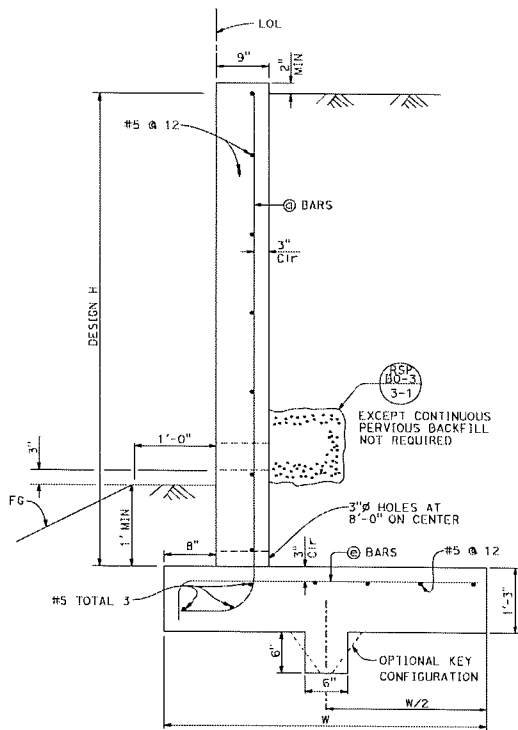
**PREPARED UNDER THE SUPERVISION OF:**  
 DANIEL S. WINKEL, REG. ENGINEER, DATE: 07/12/19

**SCALE:** \_\_\_\_\_

**REVIEWED:** \_\_\_\_\_

**APPROVED:** \_\_\_\_\_





TYPICAL SECTION - TYPE 6B (MOD)  
NO SCALE

**SYMBOLS:**

- Ser - service limit state I
- Str - strength limit state I
- Ext - extreme event limit state I
- B' - effective footing width (ft)
- q<sub>b</sub> - net bearing stress (ksf), 0.0 assumed to be FC at toe
- q<sub>o</sub> - gross uniform bearing stress (ksf)

**NOTES:**

1. For reinforced concrete wall stem joint details, See (ESP 00-3 3-3) and (ESP 00-3 3-4)
2. No splices are allowed on @ bars.
3. See "Retaining Wall Type 6 Details" (BL-10) sheet for Footing Step Details.
4. For concrete, the cementitious material must be composed of one of the following, by weight:
  1. 20 percent natural pozzolan or fly ash with CaO content of up to 10 percent, 5 percent silica fume, and 75 percent portland cement.
  2. 12 percent silica fume, metakaolin, or UFFA, and 88 percent portland cement.
  3. 50 percent GGBFS and 50 percent portland cement.
5. For concrete, the ratio of the quantity of free water to the quantity of cementitious material must not exceed 0.40.

**DESIGN NOTES:**

- DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition with California Amendments
- LS: 240 psf surcharge on level surface as limited by curb location (minimum 6'-0" from LOL).
- SEISMIC:  $K_h = 0.219$   
 $K_v = 0.0$
- SOIL:  $\phi = 32^\circ$   
 $\gamma = 120 \text{ pcf}$
- REINFORCED CONCRETE:  $f'_c = 3,600 \text{ psi}$   
 $f_y = 60,000 \text{ psi}$
- LOAD COMBINATIONS AND LIMIT STATES:  
Service I  $0 = 1.00DC+1.00EV+1.00EH+1.00LS$   
Strength I  $0 = 0.9DC+PEV+PEH+1.75LS$   
Extreme I  $0 = 1.00DC+1.00EV+1.00EH+1.00E0D+1.00E0E$

- Where:
- 0: Force Effects
  - q: 1.25 or 0.90, Whichever Controls Design
  - P: 1.35 or 1.00, Whichever Controls Design
  - R: 1.50 or 0.90, Whichever Controls Design
  - DC: Dead Load of Structure Components
  - EH: Horizontal Earth Fill Pressure
  - EV: Vertical Earth Pressure from Earth Fill Weight
  - LS: Live Load Surcharge
  - E0E: Seismic Earth Pressure
  - E0D: Soil and Structural and Nonstructural Components Inertia

RETAINING WALL MUST CONFORM TO THE STATE OF CALIFORNIA STANDARD PLANS AND STANDARD SPECIFICATIONS 2015 EDITION.

TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA				
DESIGN H	3'-4"	4'-0"	5'-4"	6'-0"
W	3'-6"	4'-0"	5'-0"	5'-3"
@ BARS	#5 @ 12	#5 @ 12	#5 @ 12	#5 @ 8
@ BARS	#5 @ 12	#5 @ 12	#5 @ 12	#5 @ 8
Ser: B', q <sub>o</sub>	3.1, 0.9	3.5, 1.0	4.4, 1.2	4.6, 1.3
Str: B', q <sub>o</sub>	3.0, 1.3	3.4, 1.5	4.2, 1.8	4.4, 1.9
Ext: B', q <sub>o</sub>	2.4, 1.0	2.6, 1.1	3.3, 1.4	3.3, 1.6



*Handwritten signature*

05-JUL-2018

BL1712210030

**CITY OF DIAMOND BAR**  
RETAINING WALL NO. 287 DETAILS FOR  
GRAND AVE

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET R-8 SHEET 13 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	NOV. NO.	CHECKED BY	REV. NO.

BENCHMARK:  
CONSTRUCTION SHALL BE BASED ON THE  
EXISTING CONCRETE FOUNDATION  
DURING THE CONSTRUCTION OF THE  
WALLS. THE SURFACE OF THE EXISTING  
FOUNDATION SHALL BE USED AS THE  
VERTICAL DATUM POINT FOR ALL  
ADJUSTMENTS.  
NO. 287-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2



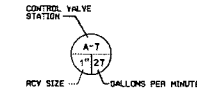
**GENERAL IRRIGATION NOTES**

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THE WORK ARE HEREBY INCORPORATED INTO AND MAKE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE OBSERVED BY THE CONTRACTOR. IRRIGATION INSTALLATION SHALL BE PER CITY OF DIAMOND BAR AND COUNTY CODES, NORMAL APPROVED STANDARDS OF PROCEDURE AND MANUFACTURER'S SPECIFICATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THE WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL INCLUDE FURNISHING ALL LABOR MATERIALS, TOOLS, MACHINERY, AND EQUIPMENT NECESSARY TO COMPLETE SPRINKLER SYSTEM AND ADJUSTMENT, INCLUDING TRENCHING, BACKFILLING, ETC.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES, AND POINT OF CONNECTION, BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE.
- COORDINATE THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, WITH ANY EXISTING LANDSCAPING TO AVOID INTERFERING WITH THE TREES, SHRUBS, OR OTHER PLANTING.
- THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS SHALL BE FOR DESIGN CLARITY ONLY AND SHALL BE INSTALLED WITHIN PLANTING AREAS. THE CONTRACTOR SHALL LOCATE ALL VALVES IN SHRUB AREAS.
- ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR IN THE SPECIFICATIONS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- REFER TO SPECIFICATIONS FOR STANDARDS OF MATERIALS AND WORKMANSHIP.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SITE CONDITIONS AND ALL IRRIGATION MATERIALS THAT ARE TO BE INSTALLED. THE CONTRACTOR SHALL REPAIR DAMAGE TO THE ORIGINAL CONDITION OR FURNISH AND REPLACE EQUAL REPLACEMENTS.
- THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES IN AREA DIMENSIONS EXIST THAT HAVE NOT BEEN ACCOUNTED FOR ON THE PLANS OR SPECIFICATIONS. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AND SHALL PERFORM SUCH REVISIONS AT HIS OWN EXPENSE.
- ALL EXISTING IRRIGATION SYSTEMS SHALL BE KEPT IN OPERATION AT ALL TIMES. IF THE EXISTING SYSTEM IS DAMAGED BY CONTRACTOR, CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE REPAIR OF SUCH DAMAGE. AFTER EACH REPAIR, ALL HEADS OF THE REPAIRED SYSTEM SHALL BE REMOVED SO THAT THE LINES CAN BE CLEANED OF ALL DIRT AND FOREIGN MATERIALS. INTERIM IRRIGATION BY OTHER MEANS WILL ONLY BE ALLOWED IF ACCEPTABLE TO THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE AND APPROVED IN WRITING. WRITTEN APPROVAL MUST INCLUDE DURATION AND METHOD OF INTERIM IRRIGATION.
- REFER TO THE DIAMOND BAR GOLF COURSE AS-BUILTS FOR ADDITIONAL INFORMATION.
- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIALS, EQUIPMENT AND WASTE.
- CONTRACTOR SHALL CHECK THE WATER PRESSURE OF THE EXISTING IRRIGATION WATER SUPPLY TO ENSURE THERE IS SUFFICIENT WATER PRESSURE FOR THE PROPOSED IRRIGATION DESIGN. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE IF SUFFICIENT WATER PRESSURE IS NOT AVAILABLE.
- ALL IRRIGATION HEADS ADJACENT TO WALKWAYS SHALL BE POP-UPS.
- ALL PIPE UNDER PAVED AREAS SHALL BE INSTALLED IN A SCH. 40 SLEEVE TWICE THE DIAMETER OF THE PIPE CARRIED. UNDER PAVED AREAS SHALL BE INSTALLED IN A SCH. 40 SLEEVE AT THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES SHALL BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN IN THE SLEEVE TRENCHING DETAIL. SLEEVES SHALL EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING. ALL SLEEVES SHALL BE AS SHOWN ON THE PLANS. SLEEVING INSTALLATION SHALL BE PRIOR TO PAVING INSTALLATION.
- ALL PIPE OVER CONCRETE DRAINAGE SHALL BE INSTALLED IN A GALVANIZED SLEEVE 1.5 (X) THE DIAMETER OF THE PIPE CARRIED. ALL SLEEVES SHALL BE AS SHOWN ON THE PLANS.
- PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE BY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE TIME OF SAID REJECTION.
- PROVIDE PVC SCHEDULE 40 CONDUIT FOR CONTROLLER WIRES WHEREVER CONNECTIONS BETWEEN ELECTRIC VALVES AND CONTROLLER PASS THROUGH OR UNDER MASONRY, PAVING, ETC.
- ALL HEADS SHALL BE INSTALLED WITH NOZZLE, SCREEN, AND ARCS SHOWN ON THE PLANS. ALL HEADS SHALL BE ADJUSTED TO PREVENT OVERSPRAY ONTO WALLS, FENCES, AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATION SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
- CONTRACTOR SHALL ADJUST ALL EXISTING IRRIGATION NOZZLES PER NEW PATHWAY LAYOUT.
- GENERAL CONTRACTOR SHALL COORDINATE WITH IRRIGATION CONTRACTOR AS TO THE LOCATION AND IDENTIFICATION OF ALL CAPPED IRRIGATION MAINLINE AND REMOTE CONTROL ELECTRICAL WIRES. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS SHOWING THE LOCATIONS OF ALL CUT CAPPED AND DAMAGED IRRIGATION COMPONENTS.
- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL EXISTING IRRIGATION MAINLINE IN THE FIELD PRIOR TO NEW IRRIGATION INSTALLATION.
- FOR AREAS TO RECEIVE NEW IRRIGATION, THE CONTRACTOR SHALL INSTALL IRRIGATION EQUIPMENT PER PLAN. PROVIDE NEW REMOTE CONTROL VALVES AND CONNECT TO EXISTING MAINLINE.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE CONTROLLER SHALL BE VERIFIED IN THE FIELD AND IN COORDINATION WITH GOLF COURSE MAINTENANCE PERSONNEL AND THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE.
- THE SPRINKLER INSTALLATION ADJUSTMENTS SHALL BE DEEMED INCOMPLETE UNTIL ALL SPRINKLER HEADS, VALVES, AND ALL RELATED IRRIGATION EQUIPMENT HAVE BEEN CHECKED AND ADJUSTED TO BEST CONFORM TO THE CONDITIONS AND REQUIREMENTS THAT WILL PREVAIL AT THE FINISHED SITE.
- THE INSTALLATION AND OPERATION OF THE SYSTEM MUST BE COMPLETE AND FULLY OPERATIONAL PRIOR TO TURNING OVER TO GOLF COURSE MAINTENANCE PERSONNEL.
- THE IRRIGATION CONTRACTOR SHALL GUARANTEE THE ENTIRE SPRINKLER SYSTEM AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A MAINTENANCE PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE. SHOULD ANY REPAIRS BE NECESSARY DURING THE MAINTENANCE PERIOD DUE TO DEFECTIVE MATERIALS OR WORKMANSHIP, CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE.
- PROVIDE SPRING CHECK VALVES IN LATERAL LINES IF EROSION IS OCCURRING AROUND SPRINKLER HEADS.
- BRENT HARVEY CONSULTING 23741 MOUNDGOLF CT. RAMONA, CA 92065 TEL: 760-787-0842

**IRRIGATION LEGEND**

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NUMBER	G.F.M.	RADIUS	PSI	NOTES
①	GEAR ROTOR ON RISER	RAIN BIRD	500D+S-PC-SAM-PL-PRS-NP	2.07	37'	45	
②	POP-UP GEAR ROTOR	RAIN BIRD	5012+PC-SAM-PL-PRS-NP	2.07	37'	45	
③	GEAR ROTOR ON RISER	RAIN BIRD	500D+S-FC-SAM-PL-PRS-NP	2.07	37'	45	
⊕	REMOTE CONTROL VALVE	RAIN BIRD	PESB-R SERIES FOR RECYCLED WATER.				SIZE AS NOTED ON PLANS SEE DETAIL #1 ON SHEET L-4
⊗	BALL VALVE	NIBCO	5-590-70				SIZE AS NOTED ON PLANS SEE DETAIL #2 ON SHEET L-4
⊙	QUICK COUPLER	RAIN BIRD	44-NP				SIZE AS NOTED ON PLANS SEE DETAIL #8 ON SHEET L-4
—	MAIN LINE	-	PURPLE PVC CLASS 315				SIZE AS NOTED ON PLANS SEE DETAIL #7 ON SHEET L-4
—	LV LATERAL LINE	-	SCH. 40 PVC				ABOVE GRADE INSTALLATION. SIZE AS NOTED ON PLANS. STAKE 10' O.C. TAP PIPE WITH RECYCLED WATER MARKING TAPE AT EVERY 10' TAPE BY CHRISTY'S OR APPROVED EQUAL. SEE DETAIL #5 ON SHEET L-4.
—	PVC LATERAL LINE	-	PURPLE SCR. 40 PVC				UNDER GRADE INSTALLATION. SIZE AS NOTED ON PLANS. SEE DETAIL #7 ON SHEET L-4.
—	GALVANIZED STEEL SLEEVE	-	-				INSTALL OVER CONCRETE DRAINAGE. 1.5X SIZE OF LATERAL LINE. SEE DETAIL ON SHEET L-2.
⊠	EXISTING CONTROLLER	-	-				SEE IRRIGATION PLAN FROM BRENT HARVEY CONSULTING FOR RAINBIRD SATELLITE CONTROLLER MODEL AND LOCATION.
⊕	CONNECT TO EXISTING IRRIGATION MAINLINE.	-	-				SEE SHEET L-2 FOR CONNECTION LOCATIONS.
■	LANDSCAPE POINT OF CONNECTION FOR IRRIGATION PLANS FROM BRENT HARVEY CONSULTING.	-	-				
⊕	VALVE PER IRRIGATION PLANS FROM BRENT HARVEY CONSULTING.	-	-				

**VALVE CALCULI**



**GRAND AVE/GOLDEN SPRINGS PRESSURE CALCULATIONS**  
POC#1 FARTHEST POINT IN THE SYSTEM (Valve A-3) - 22 GPM

IRRIGATION COMPONENTS	SIZE	UNIT	QTY	PSI LOSS
EXISTING WATER METER (Ø 22 GPM)	2"	EACH	1	0
EXISTING BACKFLOW PREVENTER	2"	EACH	1	12.0
GATE VALVE	2"	EACH	4	.4
MASTER CONTROL VALVE	2"	EACH	1	.2
REMOTE CONTROL VALVE	1"	EACH	1	2.9
MAINLINE (CLASS 315)	2 1/2"	FEET	130'	2.0
EXISTING MAINLINE	3"	FEET	950'	.57
LATERAL (SCH.40)	3/4"	FEET	74'	1.34
LATERAL (SCH.40)	1"	FEET	94'	1.9
LATERAL (SCH.40)	1 1/4"	FEET	105'	2.85
ELEVATION: @POC-880' @HEAD-918'	-	FEET	38'	17.0
TOTAL DESIGN PRESSURE LOSS				36.46
FITTINGS (15% OF DESIGN PRESSURE)				5.50
SPRINKLER HEAD OPERATING PRESSURE				30
TOTAL PRESSURE LOSS				71.96
STARTING PRESSURE @ POC				127
PRESSURE LEFT AT FARTHEST POINT				55.04

NOTE: PRESSURE INFORMATION WAS RECEIVED FROM DIAMOND BAR GOLF COURSE AS-BUILTS DATED 12/21/1994.

**GRAND AVE/GOLDEN SPRINGS PRESSURE CALCULATIONS**  
POC#2 HIGHEST POINT IN THE SYSTEM (Valve B-1) - 19 GPM

IRRIGATION COMPONENTS	SIZE	UNIT	QTY	PSI LOSS
EXISTING WATER METER (Ø 19 GPM)	2"	EACH	1	0
EXISTING BACKFLOW PREVENTER	2"	EACH	1	12.0
GATE VALVE	2"	EACH	4	.4
MASTER CONTROL VALVE	2"	EACH	1	.2
REMOTE CONTROL VALVE	1"	EACH	1	2.9
MAINLINE (CLASS 315)	2 1/2"	FEET	800'	1.12
EXISTING MAINLINE	3"	FEET	1,250'	.63
LATERAL (SCH.40)	3/4"	FEET	107'	1.74
LATERAL (SCH.40)	1"	FEET	55'	1.02
LATERAL (SCH.40)	1 1/4"	FEET	130'	3.00
ELEVATION: @POC-880' @HEAD-724'	-	FEET	44'	19.0
TOTAL DESIGN PRESSURE LOSS				42.01
FITTINGS (15% OF DESIGN PRESSURE)				6.30
SPRINKLER HEAD OPERATING PRESSURE				30
TOTAL PRESSURE LOSS				78.31
STARTING PRESSURE @ POC				127
PRESSURE LEFT AT FARTHEST POINT				48.69

NOTE: PRESSURE INFORMATION WAS RECEIVED FROM DIAMOND BAR GOLF COURSE AS-BUILTS DATED 12/21/1994.

**GRAND AVE/GOLDEN SPRINGS PRESSURE CALCULATIONS**  
POC#3 HIGHEST POINT IN THE SYSTEM (Valve B-7) - 17 GPM

IRRIGATION COMPONENTS	SIZE	UNIT	QTY	PSI LOSS
EXISTING WATER METER (Ø 17 GPM)	2"	EACH	1	0
EXISTING BACKFLOW PREVENTER	2"	EACH	1	12.0
GATE VALVE	2"	EACH	4	.4
MASTER CONTROL VALVE	2"	EACH	1	.2
REMOTE CONTROL VALVE	1"	EACH	1	2.9
MAINLINE (CLASS 315)	2 1/2"	FEET	440'	0.33
EXISTING MAINLINE	3"	FEET	1,250'	0.50
LATERAL (SCH.40)	3/4"	FEET	104'	1.66
LATERAL (SCH.40)	1"	FEET	35'	.55
LATERAL (SCH.40)	1 1/4"	FEET	190'	3.56
ELEVATION: @POC-880' @HEAD-742'	-	FEET	27'	7.7
TOTAL DESIGN PRESSURE LOSS				49.3
FITTINGS (15% OF DESIGN PRESSURE)				7.4
SPRINKLER HEAD OPERATING PRESSURE				30
TOTAL PRESSURE LOSS				86.7
STARTING PRESSURE @ POC				127
PRESSURE LEFT AT FARTHEST POINT				40.3

NOTE: PRESSURE INFORMATION WAS RECEIVED FROM DIAMOND BAR GOLF COURSE AS-BUILTS DATED 12/21/1994.



**CITY OF DIAMOND BAR**  
LANDSCAPE & IRRIGATION PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**  
IRRIGATION LEGEND & NOTES  
DEPARTMENT OF PUBLIC WORKS

PROJECT NO. \_\_\_\_\_ SHEET L-1 SHEET 74 OF 139

**REVISIONS**

CHECKED BY	DATE	CHANGED BY	DATE	CHECKED BY	DATE

**BENCHMARK**  
ELEVATIONAL CONTROL IS BASED ON CALTRANS GPS POINTS 1061 AND 1007 FROM TLI CONTROL PROJECT (JOB 2000).  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (NAD83) DATE 5, 1983 AND UTM (ZONE 18E).  
VERTICAL CONTROL IS BASED ON CALTRANS BENCHMARK STATION 1007 WITH CORN 1.2' ± LEFT OF CENTERLINE BASELINE RELOCATED STATION 1007 WITH CORN 1.2' ± LEFT OF CENTERLINE, DATED DEC. 1990.

PREPARED BY: *[Signature]*  
48 Diamond, Suite 100  
P.O. Box 6  
Ramona, CA 92065  
Phone (949) 443-9507  
Fax (949) 443-9508

PREPARED UNDER THE SUPERVISION OF:  
BRYAN R. TAYLOR, P.E. DATE: 02/21/18

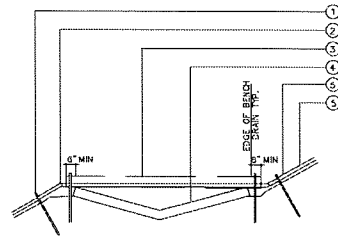
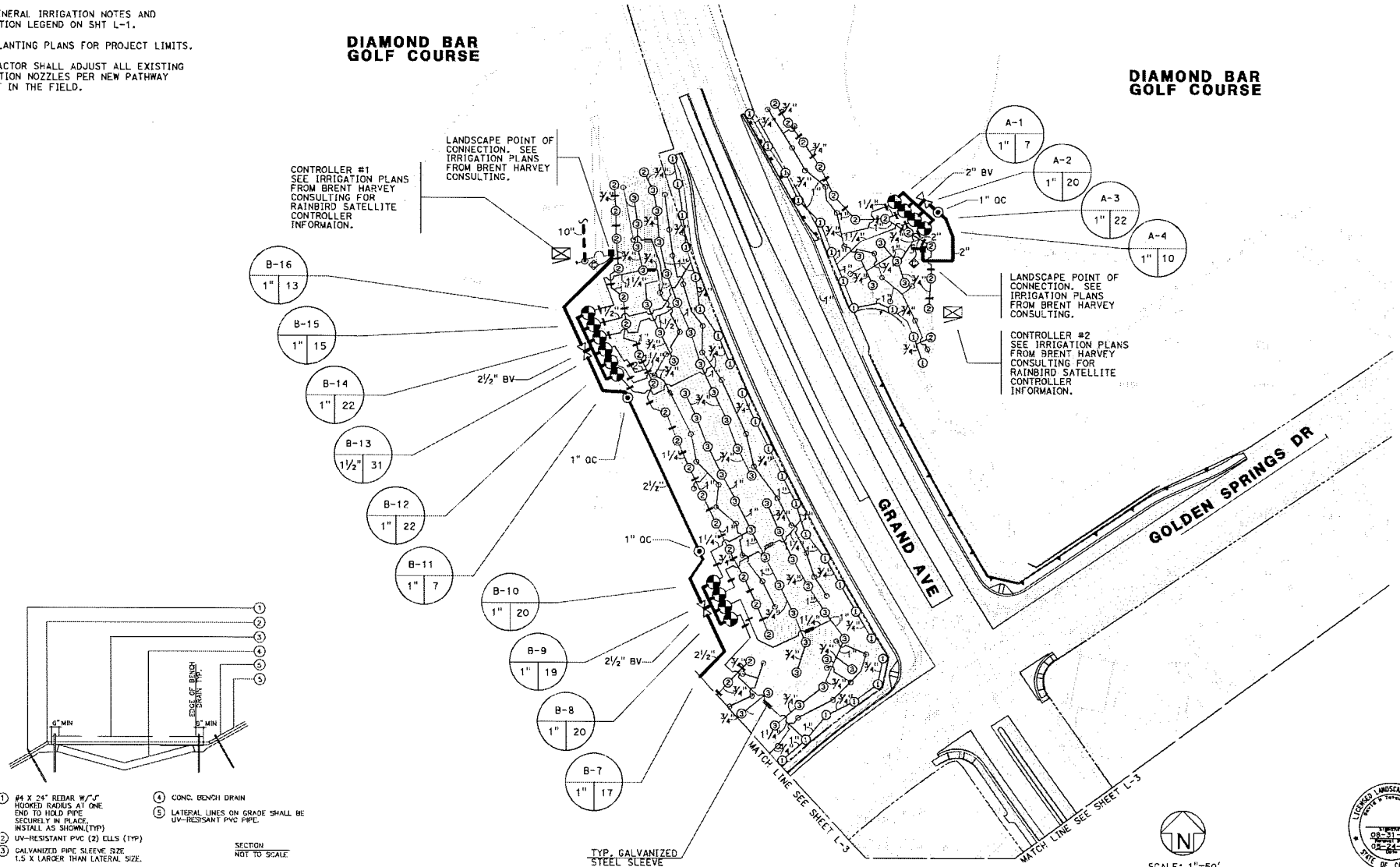
APPROVED	CITY ENGINEER	P.E.C.	DATE

**NOTES:**

1. SEE GENERAL IRRIGATION NOTES AND IRRIGATION LEGEND ON SHT L-1.
2. SEE PLANTING PLANS FOR PROJECT LIMITS.
3. CONTRACTOR SHALL ADJUST ALL EXISTING IRRIGATION NOZZLES PER NEW PATHWAY LAYOUT IN THE FIELD.

**DIAMOND BAR GOLF COURSE**

**DIAMOND BAR GOLF COURSE**



- ① #4 X 24" REBAR W/C HOOKED RADIIUS AT ONE END TO HOLD PIPE SECURELY IN PLACE. INSTALL AS SHOWN.(TYP)
  - ② UV-RESISTANT PVC (2) ELLS (TYP)
  - ③ GALVANIZED PIPE SLEEVE SIZE 1.5 X LARGER THAN LATERAL SIZE.
  - ④ CONC. BENCH DRAIN
  - ⑤ LATERAL LINES ON GRADE SHALL BE UV-RESISTANT PVC PIPE.
- SECTION NOT TO SCALE

(A) IRRIGATION SLEEVES AT BENCH DRAIN

REVISIONS			BENCHMARK HORIZONTAL CONTROL IS BASED ON CALTRANS GPS POINTS 1001 AND 1002 FROM TLI CONTROL PROJECT (DATE JAN 2000). COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CGCS) ZONE 10N AND 11992.00 (EPOCH). VERTICAL CONTROL IS BASED ON CALTRANS HORIZONTAL CONTROL. A STANDARD DIAL DOWN 1.2' 63" LEFT OF CENTERLINE BENCH DRAIN IS LOCATED AT THE END OF THE BENCH DRAIN. SEE SHEET 1925 WORDS, 1914 ADJUSTMENT, DATED DEC. 1990.	PREPARED BY: <i>[Signature]</i> DAVID R. TATUM PLS 0533 DATE EXP. 06/31/18	SUBMITTED: DATE	REVIEWED: DATE	APPROVED: CITY ENGINEER H.C.K. DATE
CHECKED BY	DATE	DATE					



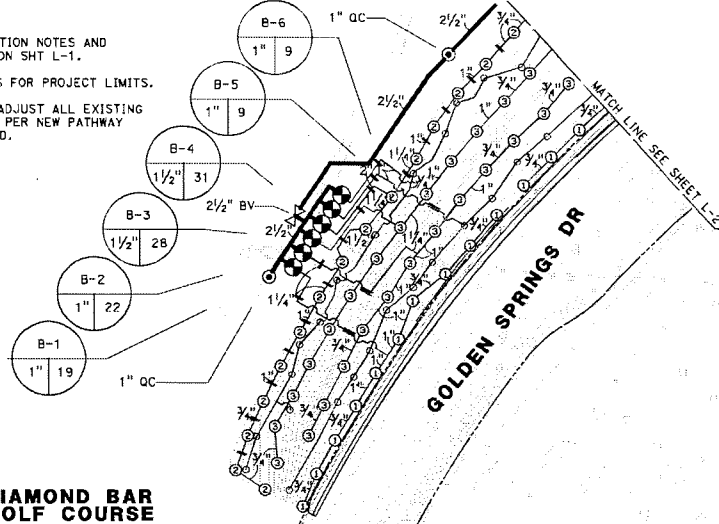
**CITY OF DIAMOND BAR**  
**LANDSCAPE & IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 IRRIGATION PLAN  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO. \_\_\_\_\_ SHEET L-2 SHEET 75 OF 139



**NOTES:**

1. SEE GENERAL IRRIGATION NOTES AND IRRIGATION LEGEND ON SHT L-1.
2. SEE PLANTING PLANS FOR PROJECT LIMITS.
3. CONTRACTOR SHALL ADJUST ALL EXISTING IRRIGATION NOZZLES PER NEW PATHWAY LAYOUT IN THE FIELD.



**DIAMOND BAR GOLF COURSE**

**GOLDEN SPRINGS DR**

**LAVENDER DR**

**GRAND AVE**

**LAVENDER DR**

**BENCHMARK:**  
 HORIZONTAL CONTROL IS BASED ON CALTRANS GPS POINTS 1001 AND 1002 FROM TLI CONTROL PROJECT DONE JAN 2000.  
 COORDINATE SYSTEM (CGCS) ZONE 9, NAD 83 (1983.00 EPOCH).  
 VERTICAL CONTROL IS BASED ON CALTRANS BENCHMARK 36-C-74 & STANFORD DISK DOWN 1.2' 83' LEFT OF UTILITY LINE, BENCHMARK RELOCATED 12/19/00. DISK 1' 28.77' FEET 1989 PHOTO, 1978 ADJUSTMENT, DATED DEC. 1990.

**PREPARED BY:** [Signature]  
 49 Broadway, Suite 100  
 Irvine, CA 92618  
 Phone (949) 452-9901  
 Fax (949) 452-9902

**PREPARED UNDER THE SUPERVISION OF:**  
 DAVID R. TATNALL PLS 2023 DATE EXP. 06/31/18

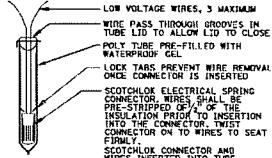
**APPROVED:**  
 [Signature] CITY ENGINEER R.E.C. DATE



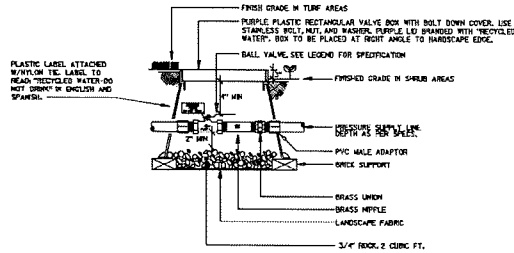
**CITY OF DIAMOND BAR**  
**LANDSCAPE & IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 IRRIGATION PLAN  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **SHEET L-3** SHEET 16 OF 139

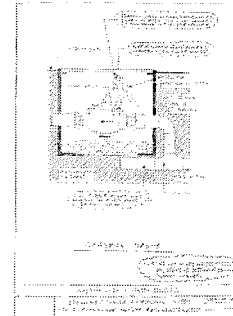
REVISIONS					
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE



- NOTES:**
1. WIRE CONNECTOR SHALL BE A 3M DRY DIRECT BURY SPLICE KIT.
  2. KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PREFILLED WITH GEL.
  3. SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2-3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.



- NOTES:**
- BOX TO BE INSTALLED AS TO ALLOW FOR PROPER OPERATION OF BALL VALVE. INSTALL AT RIGHT ANGLE TO HARDSCAPE EDGE. INSTALL VALVE OFF-CENTER IN BOX. INSTALL VALVE BOX EXTENSIONS AS REQUIRED TO ACHIEVE PROPER VALVE INSTALLATION AT MAIN LINE DEPTH.



3 WIRE CONNECTOR

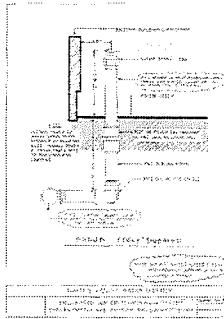
NTS

2 BALL VALVE

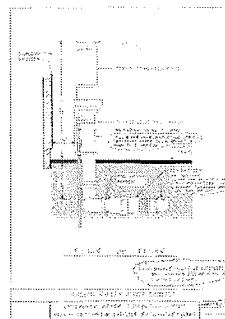
NTS

1 REMOTE CONTROL VALVE

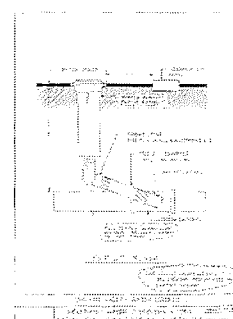
NTS



- ABOVE GRADE PIPING-INSTALL UV-PVC SCH. 40 PIPE. PROVIDE RECYCLED WATER MARKING TAPE BY CHRISTY'S OR APPROVED EQUAL. TAG AT EVERY 10'-0".



- ABOVE GRADE PIPING-INSTALL UV-PVC SCH. 40 PIPE. PROVIDE RECYCLED WATER MARKING TAPE BY CHRISTY'S OR APPROVED EQUAL. TAG AT EVERY 10'-0".



6 BUBBLER ON RISER

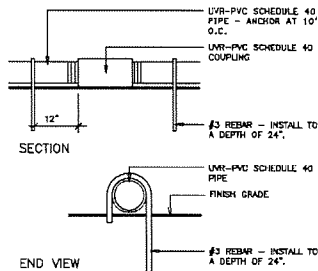
NTS

5 ROTOR ON RISER

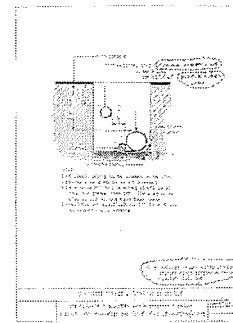
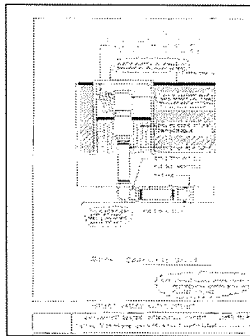
NTS

4 POP-UP ROTOR

NTS



- PROVIDE RECYCLED WATER MARKING TAPE BY CHRISTY'S OR APPROVED EQUAL. TAG AT EVERY 10'-0".



9 PIPE ON GRADE

NTS

8 QUICK COUPLER

NTS

7 TRENCHING

NTS

REVISIONS

CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

**BENCHMARK:**  
 BENCHMARK CONTROL IS BASED ON CALTRANS GPS POINTS 1001 AND 1002 FROM TLI CONTROL PROJECT DATE JAN 2000.  
 COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 10, 1983 NAD (1983) 88 EPOCH.  
 VERTICAL CONTROL IS BASED ON TLI CONTROL POINT 1.5' LEFT OF CENTERLINE BASELINE TO CORNER OF TIE 1.5' FROM TIE TO CORNER OF TIE 1929 8470, 1918 ADJUSTMENT, DATED DEC. 1980.

PREPARED BY: *[Signature]*  
 49 Diamondway, Suite 100  
 Irvine, CA 92618  
 PHONE (949) 450-9301  
 FAX (949) 450-9302  
 PREPARED UNDER THE SUPERVISION OF:  
 DAVID R. TATUM PLS 2533 DATE SEP. 02/17/18

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER    I.C.C.    DATE

**CITY OF DIAMOND BAR**  
**LANDSCAPE & IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 IRRIGATION DETAILS  
 DEPARTMENT OF PUBLIC WORKS

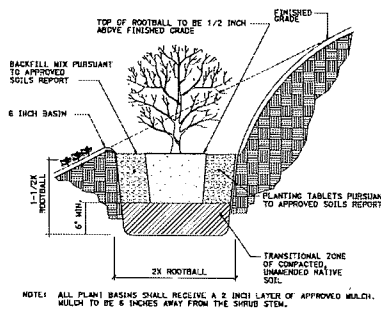
PROJECT NO. \_\_\_\_\_ SHEET L-4 SHEET 17 OF 139



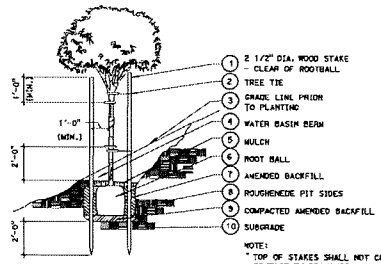


**GENERAL PLANTING NOTES**

- CONTRACTOR SHALL VERIFY SITE CONDITIONS, REVIEW PLANS, AND PLANT QUANTITIES PRIOR TO INSTALLATION. CONFLICTS BETWEEN THE SITE AND THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE PRIOR TO LANDSCAPE INSTALLATION.
- ANY DEVIATION(S) FROM THE PLANS OR SPECIFICATIONS IS TO HAVE WRITTEN APPROVAL BY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE PRIOR TO BEGINNING WORK. DEVIATIONS CONDUCTED WITHOUT WRITTEN APPROVAL SHALL BE AT THE CONTRACTOR'S OWN RISK.
- PLANTS MAY BE APPROVED OR REJECTED BY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE AT THE PLACE OF GROWTH AND/OR ON THE PROJECT SITE AT ANY TIME DURING THE PROGRESS OF WORK.
- THE CONTRACTOR SHALL NOTIFY CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE IF SPECIFIED PLANT MATERIAL IS NOT AVAILABLE BEFORE SUBSTITUTIONS ARE MADE. ALL PLANT SUBSTITUTIONS SHALL BE APPROVED IN WRITING BY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE.
- ALL PLANT MATERIALS SHALL BE EQUAL TO OR SURPASS THE HIGHEST STANDARDS FOR QUALITY IN ACCORDANCE WITH THE LATEST EDITION OF "HORTICULTURE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERMEN, INC."
- TOP DRESS ALL PLANTING AREAS WITH 3" THICKNESS OF WOOD MULCH AFTER INSTALLATION OF PLANT MATERIALS.
- THE LANDSCAPE ARCHITECT ASSUMES NO GUARANTEE OR RESPONSIBILITY FOR THE HEALTH OR VIABILITY OF THE SPECIFIED PLANT MATERIAL DUE TO UNKNOWN SOIL AND GEOLOGICAL CONDITIONS.
- APPROVED ON-SITE TOPSOIL SHALL BE FERTILE, FRAGILE SOIL OF LOAMY CHARACTER HAVING A NORMAL AMOUNT OF NATURAL HUMUS. IT SHALL BE REASONABLY FREE FROM SUBSOIL, REFUSE, ROOTS, ROCKS, WEEDS, NOXIOUS SEEDS, BRUSH, NEMATODES, OR OTHER DELETERIOUS MATTER. IT SHALL BE FREE FROM TOXIC AMOUNTS OF EITHER ACID OR ALKALINE ELEMENTS AND SHALL BE CAPABLE OF SUSTAINING HEALTHY PLANT LIFE.
- PLANT QUANTITIES SPECIFIED TAKE PRECEDENCE OVER PLANT SYMBOLS WHEN.
- PLANT BOXED TREES PRIOR TO INSTALLATION OF IRRIGATION LATERAL LINES - SPRINKLER PLACEMENT SHALL BE COORDINATED WITH THE LOCATIONS OF THE TREES AND SHRUBS.
- ALL TREES AND SPECIMEN MATERIAL SHALL BE OF ADEQUATE TRUNK CALIPER TO STAND WITHOUT SUPPORT.
- ALL PAVING TO BE SWEEPED AT THE END OF EACH WORK DAY OF ALL SOIL AMENDMENTS AND PLANTING MIXES PRIOR TO ANY WATERING APPLICATIONS TO PREVENT ANY POSSIBLE STAINING OF PAVEMENT.
- CONTRACTOR SHALL KEEP ALL AREAS OF WORK CLEAN, NEAT AND ORDERLY AT ALL TIMES. CLEAN ALL CONSTRUCTION AREAS AT THE END OF EACH WORK DAY AND DISPOSE OF ALL DEBRIS OFF SITE IN A LEGAL MANNER.
- THE CONTRACTOR SHALL MAINTAIN ALL PLANTED AREAS BY MEANS OF CONTINUOUS WATERING, PRUNING, RAISING ROOT BALLS WHICH SETTLE BELOW GRADE, FERTILIZING, APPLICATION OF SPRAYS WHICH ARE NECESSARY TO KEEP THE PLANTINGS FREE OF INSECTS AND DISEASES, WEEDING, ROLLING, MOWING, RE-SEEDING, EROSION AND/OR OTHER OPERATIONS NECESSARY FOR PROPER CARE AND UPKEEP. THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AS SPECIFIED ABOVE FOR A PERIOD OF NINETY (90) WORKING DAYS.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING TREES, SHRUBS, AND GROUND COVERS THAT ARE TO REMAIN. SHOULD DAMAGE BE INCURRED, CONTRACTOR SHALL REPAIR DAMAGE TO THE ORIGINAL CONDITIONS AND FURNISH AND PLANT PLANTS OF MATCHING SIZE AND SPECIES.
- THE CONTRACTOR SHALL CONDUCT FOUR AGRONOMIC SOILS TESTS AT LOCATIONS APPROVED BY THE CITY OF DIAMOND BAR'S AUTHORIZED REPRESENTATIVE AS PART OF THIS CONTRACT. THE CONTRACTOR SHALL INCORPORATE THE RECOMMENDATIONS OF THE SOILS REPORT WHEN INSTALLING THE PLANT MATERIALS.



**2 SHRUB PLANTING ON SLOPE**



**1 TREE PLANTING AND STAKING ON SLOPE**

**PLANTING LEGEND**

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY	NOTES
	EUCALYPTUS CAMALDULENSIS	RED GUM	24" BOX	19	-
	EUCALYPTUS CITRIODORA	LEMON-SCENTED GUM	24" BOX	27	-
	PISTACIA CHINENSIS	CHINESE PISTACHE	24" BOX	19	-
	GREVILLEA ROSTRATA	SILKY OAK	24" BOX	15	-
	PRUNUS ILICIFOLIA	HOLLYLEAF CHERRY	5 GAL	109	-
	LONICERA HALLIANA	JAPANESE HONEYSUCKLE	FLATS	894	84 PLANTS/PLATS ALL LANDSCAPE AREAS ON SLOPE.
		PROJECT LIMIT			

NOTE: PLACE SHREDDED BARK MULCH IN ALL LANDSCAPE AREAS. 3" DEPTH. TOTALS 1,206 CY



**CITY OF DIAMOND BAR**  
**LANDSCAPE & IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 PLANTING LEGEND, DETAILS, & NOTES  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET L-6 SHEET 79 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK: HORIZONTAL CONTROL IS BASED ON CALTRANS CIP POINTS 1021 AND 1002 FROM TLI CONTROL PROJECT (DATE JAN 2000). COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CONRAD) ZONE 10, UNITS AND UNITS ARE FEET.

VERTICAL CONTROL IS BASED ON CALTRANS NATIONAL CONTROL STATION 1001.14' 45" LEFT OF CENTERLINE BASELINE RELOCATED STATIONING (ELEV = 729.97 FEET 1923 NOV 0, 1974 ADJUSTMENT, DATED DEC. 1990).

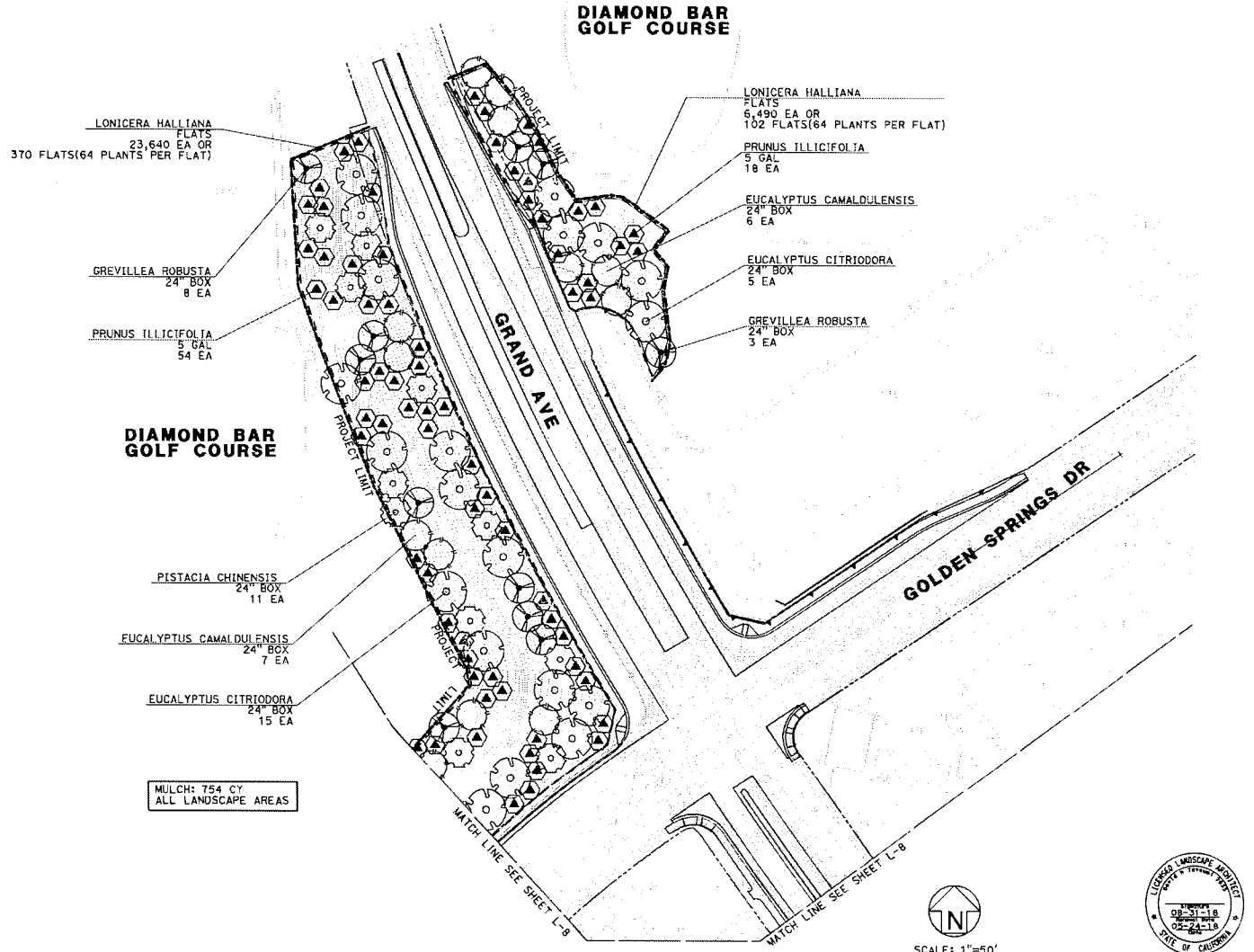
PREPARED BY: *[Signature]* 48 Diamond Springs Rd, Diamond Springs, CA 95618 Phone (916) 953-9901 Fax (916) 953-9908

PREPARED UNDER THE SUPERVISION OF: DAYVI R. YATMAN, PLS, DATE EXP. 09/21/18

APPROVED: CITY ENGINEER, P.E., DATE

**NOTES:**

1. SEE GENERAL PLANTING NOTES ON SHT L-6.



MULCH: 754 CY  
ALL LANDSCAPE AREAS



SCALE: 1"=50'



<b>CITY OF DIAMOND BAR</b>	
LANDSCAPE & IRRIGATION PLAN FOR <b>GRAND AVE/GOLDEN SPRINGS DR</b>	
PLANTING PLAN	
<b>DEPARTMENT OF PUBLIC WORKS</b>	
PROJECT NO.	<b>SHEET L-7</b>
SHEET 80 OF 139	

REVISIONS					
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK:  
HORIZONTAL CONTROL IS BASED ON CALTRANS GPS POINTS 1001 AND 1002 FROM TLE CONTROL PROJECT DATE JAN 2006.  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (COORDS) ZONE 10, NAD 83 (1982.08 EPOCH).  
VERTICAL CONTROL IS BASED ON CALTRANS BENCHMARK STATION 11, STATIONED FROM 1.2' 83' LEFT OF CENTERLINE BASELINE RELAYED TO STATION 121.0' FROM TLE 1825 ROAD, 1978 ADJUSTMENT, DATED DEC. 1990.

PREPARED BY: *J. Tate*  
49 Oldover, Suite 100  
Irvine, CA 92618  
Phone (949) 453-9301  
Fax (949) 453-9909  
PREPARED UNDER THE SUPERVISION OF:  
DAVID H. TATUM P.L.A. 1033 DATE EXP. 08/21/18

SUBMITTED	
REVIEWED	
APPROVED	

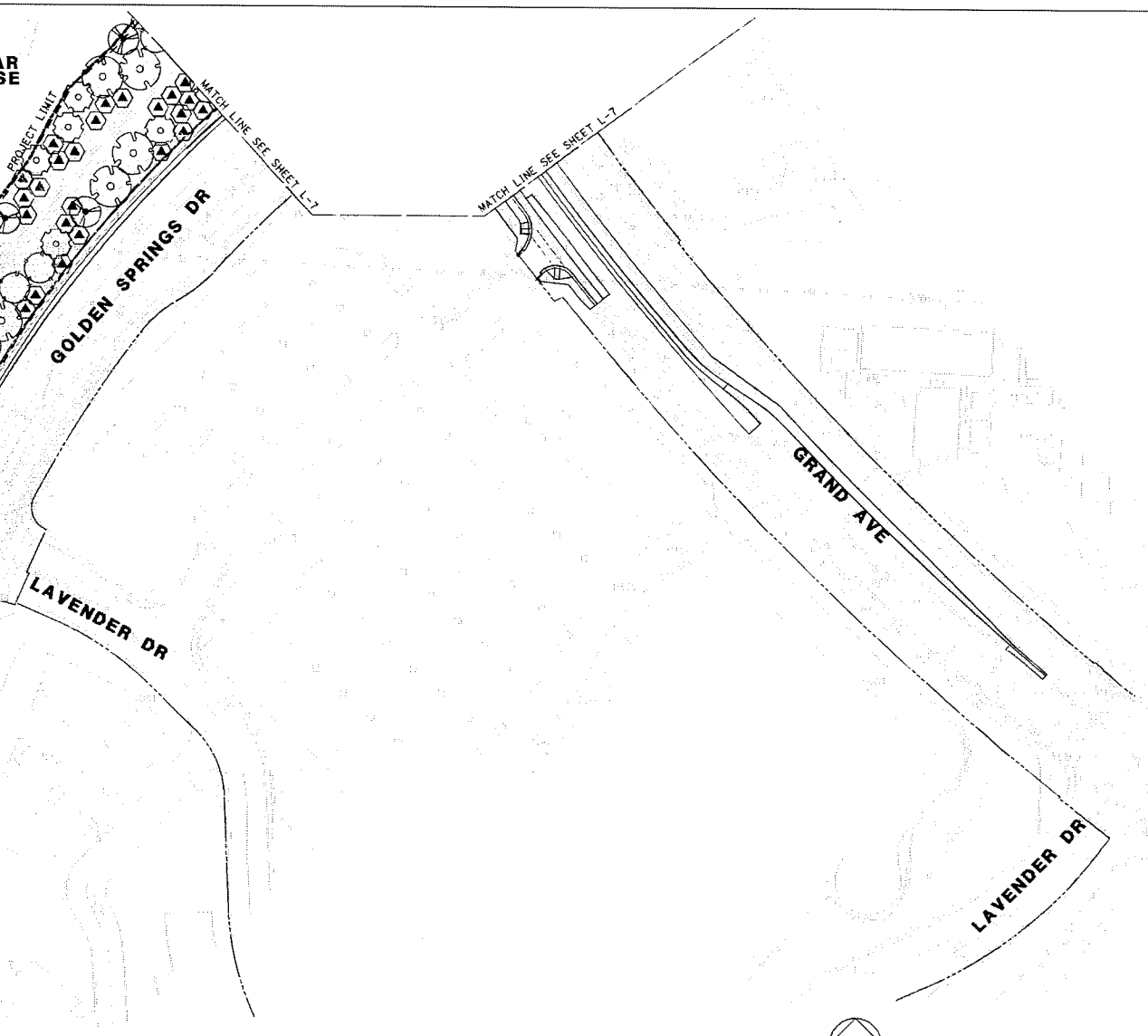
**NOTES:**

1. SEE GENERAL PLANTING NOTES ON SHT L-6.

**DIAMOND BAR GOLF COURSE**

- GREVILLEA ROBUSTA  
24" BOX  
4 EA
- EUCALYPTUS CITRIODORA  
24" BOX  
7 EA
- EUCALYPTUS CAMALDULENSIS  
24" BOX  
6 EA
- PRUNUS ILLICIFOLIA  
5 GAL  
37 EA
- PISTACIA CHINENSIS  
24" BOX  
8 EA
- LONICERA HALLTANA  
FLATS  
14,200 EA OR  
222 FLATS(64 PLANTS PER FLAT)

MULCH: 452 CY  
ALL LANDSCAPE AREAS



**CITY OF DIAMOND BAR**  
**LANDSCAPE & IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 PLANTING PLAN  
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET L-8 SHEET 81 OF 139

REVISIONS					
CHECKED BY	DATE	CHKD BY	DATE	CHKD BY	DATE

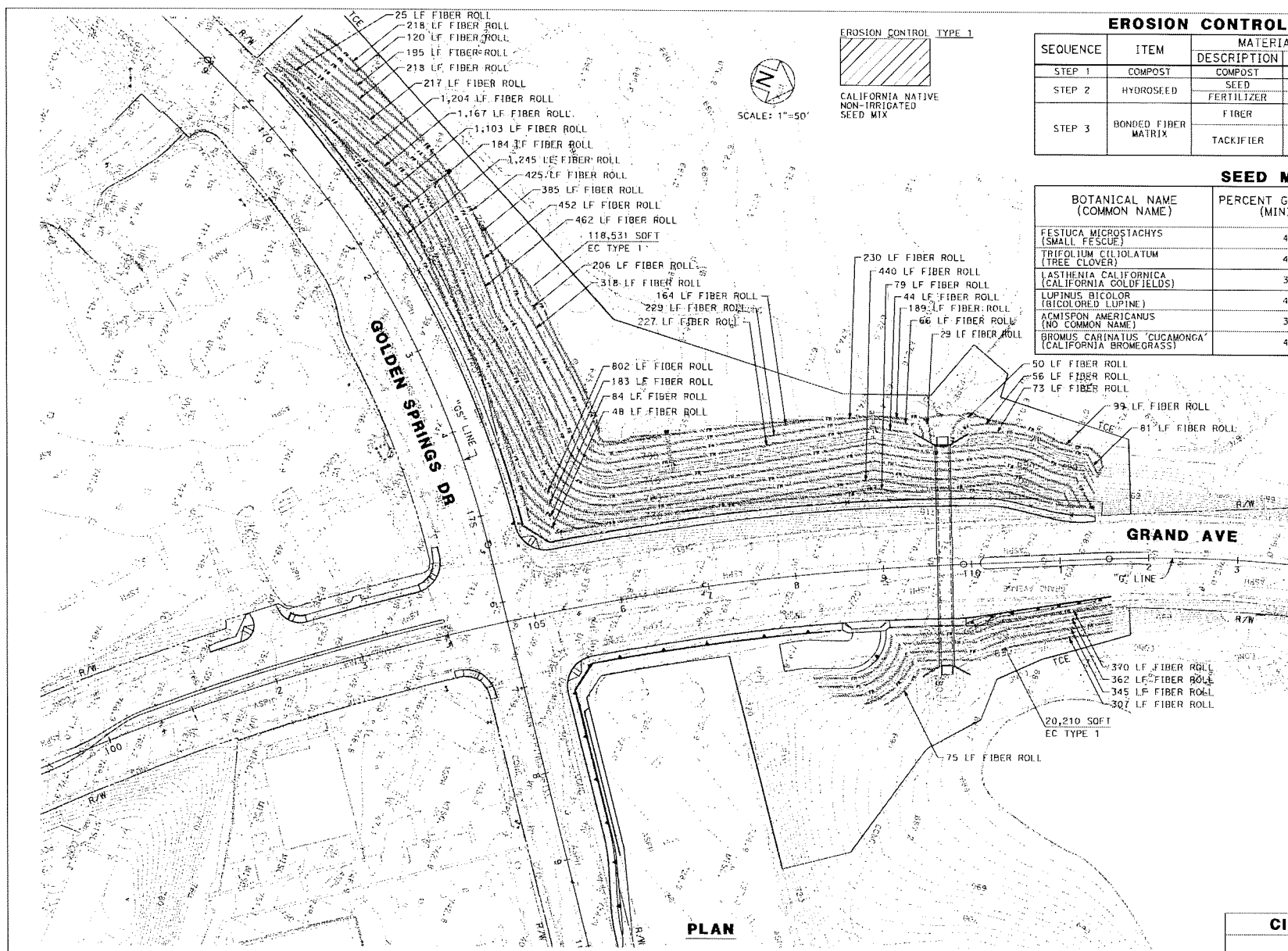
**BENCHMARK:**  
 ELEVATIONAL CONTROL IS BASED ON CALTRANS GPS POINTS 1001 AND 1002 FROM TLY CONTROL PROJECT ONE JAN 2000.  
 COORDINATES SYSTEM ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCSR) DATE 4, 1983 NAD (1983-88 EPOCH).  
 VERTICAL CONTROL IS BASED ON CALTRANS BENCHMARK 36-C-74, A STANCHION DISK, DOWN 1.2' 63" LEFT OF CENTERLINE, BENCHMARK PLACED BY TYPING AND BLENDED WITH REFLECT 1989 WOOD, 1978 ADJUSTMENT, DATED DEC. 1990.

PREPARED BY: *[Signature]*  
 49 DIAMOND BAR, SUITE 100  
 IRVINE, CA 92618  
 PHONE (949) 452-9401  
 FAX (949) 452-9402

PREPARED UNDER THE SUPERVISION OF:  
 DAVID R. TAYLOR, PLS 2023 DATE EXP. 06/31/18

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER E.C.C. DATE \_\_\_\_\_





**EROSION CONTROL TYPE 1**  
 CALIFORNIA NATIVE  
 NON-IRRIGATED  
 SEED MIX

**EROSION CONTROL TYPE 1**

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	COMPOST	COMPOST	FINE	1,000 LB/ACRE
		SEED	MIX 1	23.5 LB/ACRE
STEP 2	HYDROSEED	FERTILIZER	ORGANIC	800 LB/ACRE
		FIBER	WOOD	2,000-3,500 LB/ACRE
STEP 3	BONDED FIBER MATRIX	TACKIFIER	POLYMERIC EMULSION BLEND	150 LB/ACRE

**SEED MIX 1**

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
FESTUCA MICROSTACHYS (SMALL FESCUE)	40	8
TRIFOLIUM CILIOSATUM (TREE CLOVER)	45	2
LATHENIA CALIFORNICA (CALIFORNIA GOLDFIELDS)	35	0.5
LUPINUS BICOLOR (BICOLOR LUPINE)	42	2
ACMISPON AMERICANUS (NO COMMON NAME)	37	1
BROMUS CARINATUS 'CUCAMONGA' (CALIFORNIA BROMEGRASS)	45	10

**LEGEND:**  
 --- FIBER ROLLS (TYPE 1)

**NOTES:**  
 1. INSTALL FIBER ROLL AND COMPOST SOCK PER CALTRANS STANDARD PLAN RSP H51.

**PLAN**



**CITY OF DIAMOND BAR**  
**EROSION CONTROL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET EC-1 SHEET 82 OF 139

REVISIONS					
CHKD BY	DATE	CHKD BY	DATE	CHKD BY	DATE

**BENCHMARKS:**  
 COORDINATES SHOWN ARE BASED ON THE  
 CALIFORNIA CONTINENTAL SHEET COORDINATE ZONE 5  
 DATUM, YEAR 2011. (NAD 83) 1983, 1997, 2011 EPOCH  
 DATUM, YEAR 2011.  
 CHECKED: JAMES BECKEN, COUNTY OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
 LICENSE NO. 50514  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
 WORKS BENCHMARK C&M, ELEVATION 475.47 FEET

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DWIGHT S. WINKEL PLS 59924 BASE EXP. 12/31/19

**APPROVED:**  
 CITY ENGINEER P.C.C. DATE: \_\_\_\_\_



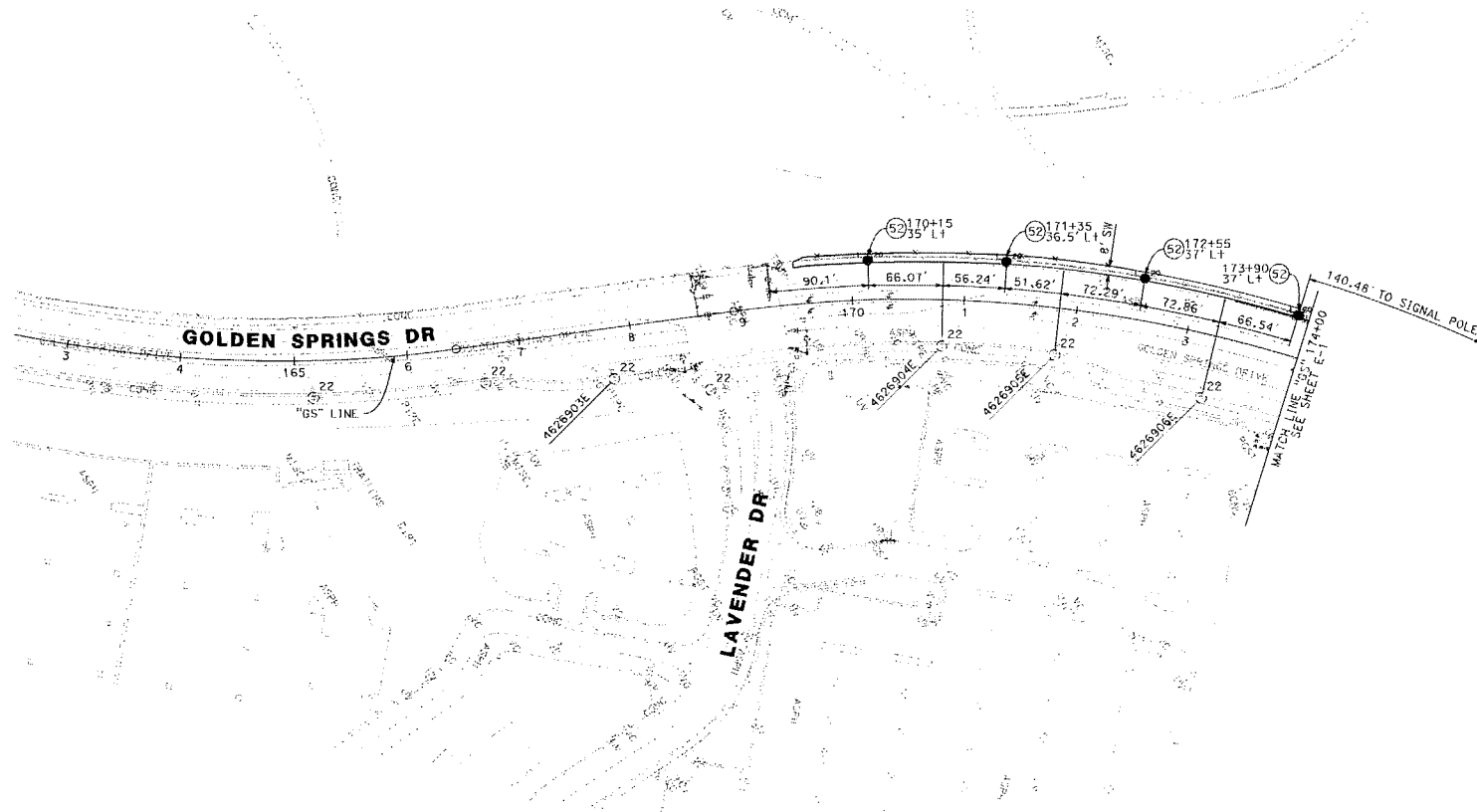


**CONSTRUCTION NOTES**

52 INSTALL STREETLIGHT 24" BEHIND PROPOSED CURB & GUTTER (BY OTHERS)



SCALE: 1"=50'



NOT FOR CONSTRUCTION



L090-2017

CITY OF DIAMOND BAR

STREET LIGHTING PLAN  
GOLDEN SPRINGS DR

FROM "CS" 162+50 TO "CS" 174+00

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET E-3 SHEET 85 OF 139

REVISIONS

CHANGED BY	REV. NO.	CHANGED BY	REV. NO.	CHANGED BY	REV. NO.

BENCHMARK:  
ELEVATIONS SHOWN ARE BASED ON THE  
NATIONAL DATUM OF 1983. THE  
ELEVATION OF THE BENCHMARK IS 115.00 FEET.  
THE BENCHMARK IS A 1.5" DIA. IRON ROD  
SET IN CONCRETE AT THE CORNER OF THE  
LOT. THE BENCHMARK IS 1.5" DIA. IRON ROD  
SET IN CONCRETE AT THE CORNER OF THE  
LOT.




PREPARED BY:  
**WKE**  
480 N. Tustin Ave. Suite 215  
SANTA ANA, CA 92705  
Phone (714) 953-2463  
Fax (714) 953-1408  
PREPARED UNDER THE SUPERVISION OF:  
DARRYL S. WINKEL R.E. 34241 DATE EXP. 12/31/19

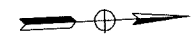
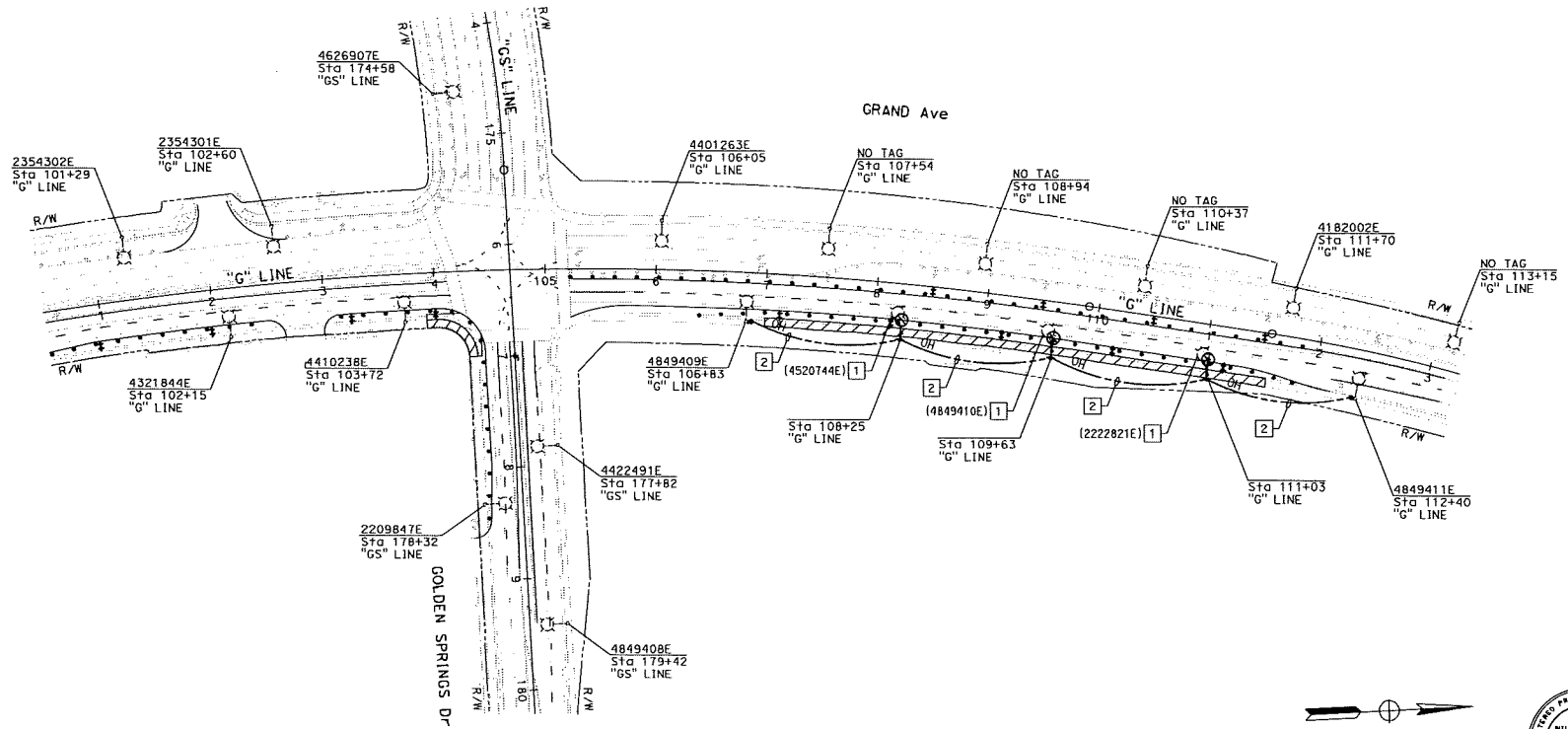
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
APPROVAL FOR INSTALLATION BY SUPERVISOR (SIGNATURE)  
BY \_\_\_\_\_ DATE \_\_\_\_\_  
R.C.E. NO. \_\_\_\_\_

**GENERAL NOTES:**

1. EXISTING STREET LIGHTING SYSTEMS SHALL REMAIN IN OPERATION DURING ANY MODIFICATION.
2. FIVE-FOOT CLEARANCE TO BE MAINTAINED FROM THE FIRE HYDRANT.
3. FOUR-FOOT CLEARANCE TO BE MAINTAINED FROM TOP OF SLOPE AT COMMERCIAL DRIVEWAY, AND TWO-FOOT CLEARANCE FROM RESIDENTIAL DRIVEWAY.

**LEGEND:**

-  EXISTING STREET LIGHT POLE TO REMAIN UNLESS OTHERWISE NOTED
-  TEMPORARY WOOD POLE WITH 157W LED LUMINAIRE
-  OVERHEAD WIRE
- 1 SCE TO REMOVE AND STORE EXISTING LIGHT POLE FOR FUTURE USE.
- 2 INSTALL 2#6 OVERHEAD (Ltg).



SCALE 1"=50'



STAGE 2 SL-01

**CITY OF DIAMOND BAR**  
**TEMPORARY STREET LIGHTING PLAN**

**DEPARTMENT OF PUBLIC WORKS**

REVISIONS				BENCHMARK:		PREPARED BY:		SUBMITTED	
CHECKED BY	DATE	CHECKED BY	DATE	NO.	ELEV. 0000.000	LIN Consulting, Inc.		DATE	DATE
						<small>3145 GOLDEN SPRINGS DRIVE, SUITE 210 DIAMOND BAR, CA 91765 TEL: (909) 840-1111</small>			

PROJECT NO.	SCALE: 1" = 50'	SHEET 86 OF 139
-------------	-----------------	-----------------



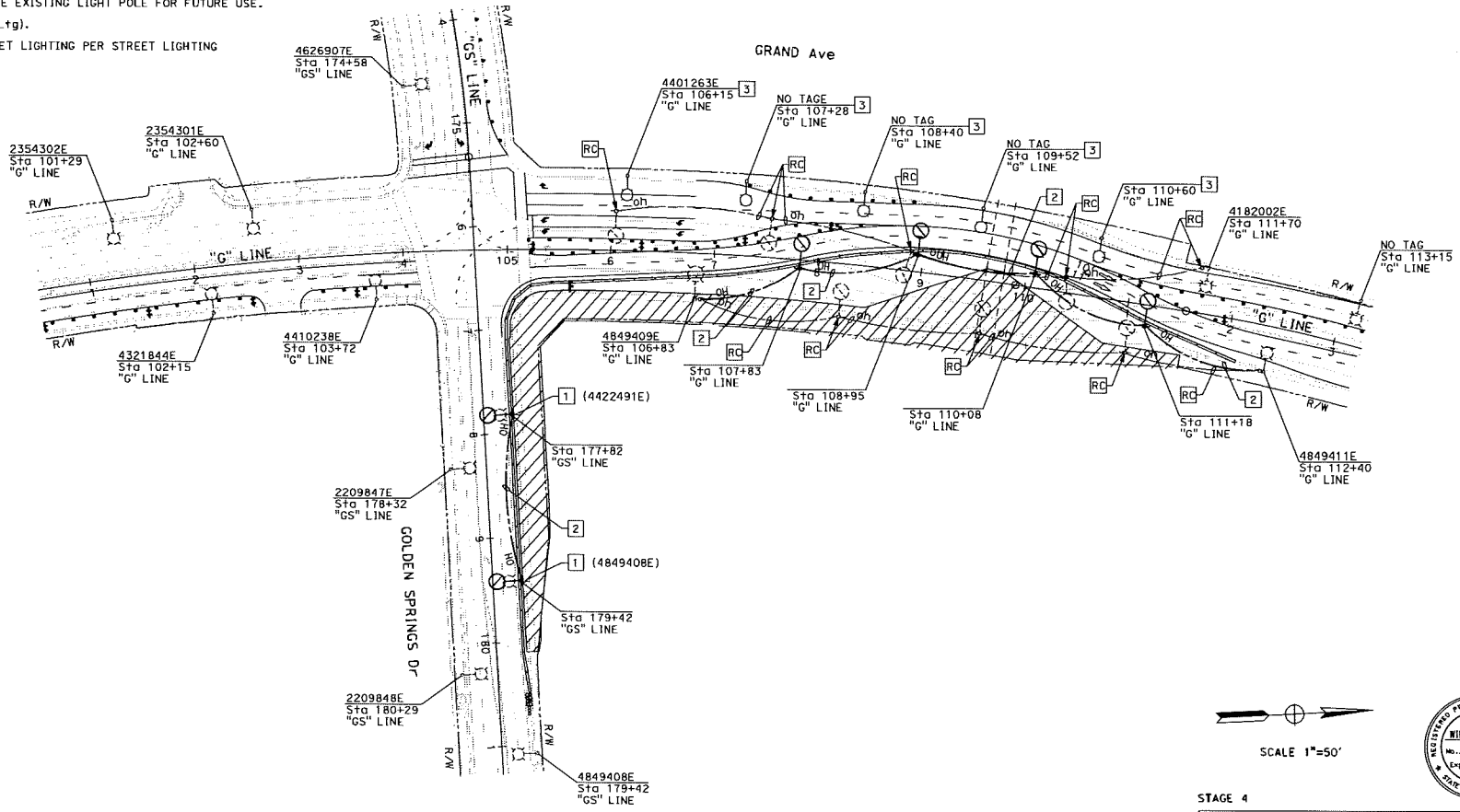
**GENERAL NOTES:**

1. EXISTING STREET LIGHTING SYSTEMS SHALL REMAIN IN OPERATION DURING ANY MODIFICATION.
2. FIVE-FOOT CLEARANCE TO BE MAINTAINED FROM THE FIRE HYDRANT.
3. FOUR-FOOT CLEARANCE TO BE MAINTAINED FROM TOP OF SLOPE AT COMMERCIAL DRIVEWAY, AND TWO-FOOT CLEARANCE FROM RESIDENTIAL DRIVEWAY.

**LEGEND:**

- EXISTING STREET LIGHT POLE TO REMAIN UNLESS OTHERWISE NOTED
- STREET LIGHT POLE INSTALLED BY SCE (SEE SHEET E-2 FOR DETAILS)
- TEMPORARY WOOD POLE WITH 157W LED LUMINAIRE
- OVERHEAD WIRE

- 1 SCE TO REMOVE AND STORE EXISTING LIGHT POLE FOR FUTURE USE.
- 2 INSTALL 2#6 OVERHEAD (L+g).
- 3 INSTALL PERMANENT STREET LIGHTING PER STREET LIGHTING PLAN SHEET E-2.



SCALE 1"=50'

REGISTERED PROFESSIONAL ENGINEER

WILLIAM SUN

No. 57664

Exp. 12/31/19

CIVIL

STATE OF CALIFORNIA


STAGE 4 SL-03

CITY OF DIAMOND BAR  
 TEMPORARY STREET LIGHTING PLAN  
 GRAND AVE/GOLDEN SPRINGS DR  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO.	SCALE: 1" = 50'	SHEET 08 OF 139
-------------	-----------------	-----------------

REVISIONS			BENCHMARK:	PREPARED BY:	SUBMITTED:
CHECKED BY	REV. NO.	CHECKED BY	NO.	LIN Consulting, Inc.	
			ELEV. 0000.000	<small>INCORPORATING THE BEST OF THE INDUSTRY'S SOFTWARE DEVELOPERS</small>	
				<small>2010-2011 CALIFORNIA REGISTERED PROFESSIONAL ENGINEER</small>	
				<small>REGISTERED PROFESSIONAL ENGINEER</small>	

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LED TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE No. 5 UNLESS SHOWN OTHERWISE.
- AT THE TIME OF THE SIGNAL TURN-ON, ALL SIGNAL EQUIPMENT SHALL OPERATE ACCORDING TO THE DESIGN SPECIFIED IN THE PLAN AND SPECIFICATIONS AND TO THE SATISFACTION OF THE ENGINEER IN THE FIELD.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- ALL PEDESTRIANS HEADS SHALL BE TYPE "A" WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART NO. 430-6479-001X OR "GE G11" PART NO. P57-CFFJ-26A. ALL PEDESTRIAN SIGNAL MOUNTINGS SHALL BE TYPE "A" UNLESS OTHERWISE NOTED ON THE PLAN, AND SHALL BE PROVIDED BY THE CONTRACTOR. PEDESTRIAN PUSH BUTTON SHALL BE TYPE "B" POLARA BULLDOG 311 WITH POLARA OPTION C. COUNTDOWN SIGNS AND SHALL MEET ADA REQUIREMENTS.
- ALL VEHICLE SIGNAL HEADS, INCLUDING PROGRAMMED VISIBILITY HEADS SHALL HAVE 12" LENSES, TUNNEL VISORS, AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1-A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LDDP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED.
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINT, THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND REMOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMP.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 36" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY, CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ONSITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SONO TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND SERVICE ENCLOSURE TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRON GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

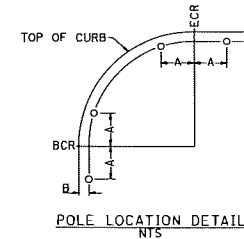
No.	TYPE	STANDARD		VEH SIG MTG		EQUINOXIAL PED SIGNAL	APS		LED LUM	IISNS	LOCATION		REMARKS
		HEIGHT	SMA	LMA	MAST ARM		POLE	β			ARROW	A	
(A)	*	30'	40'	15'	2-MAS	SV-1-T SV-1-T	SP-1-T	6	←	165W	Grand Ave	7' 2.5'	(A) (B) POLE INSTALLED IN STAGE 4
(B)	**	30'	-	15'	-	SV-2-TA	SP-1-T	8	→	165W	-	8.7' 5.0'	(A) POLE INSTALLED IN STAGE 4
(C)	***	30'	65'	15'	3-MAS	SV-1-T	SP-1-T	8	→	165W	Golden Springs Dr (R)	10.5' 2.5'	(A) (B) POLE INSTALLED IN STAGE 5
(D)	**	30'	-	15'	-	SV-2-TA	SP-1-T	2	→	165W	-	10' 2.5'	(A) POLE INSTALLED IN STAGE 5
(E)	****	30'	35'	15'	2-MAS	SV-1-T	SP-1-T	2	←	165W	Grand Ave	7' 5.5'	(A) (B) POLE INSTALLED IN STAGE 3
(F)	**	30'	-	15'	-	SV-1-T	SP-1-T	4	→	165W	-	2.5' 2.5'	(A) POLE INSTALLED IN STAGE 3
(G)	****	30'	55'	15'	3-MAS	SV-1-T	SP-1-T	4	←	165W	Golden Springs Dr (R)	8' 6'	(A) (B) POLE INSTALLED IN STAGE 1
(H)	**	30'	-	15'	-	SV-2-TA	SP-1-T	6	→	165W	-	14' 6'	(A) POLE INSTALLED IN STAGE 2

- ALL EQUIPMENT IS NEW EXCEPT WHERE NOTED : (R) = RELOCATE
  - ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015.
  - ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.
    - (A) EXACT POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
    - (B) IISNS SHALL BE REUSED WITH NEW PAINT. SAME AS DECORATIVE POLE.
- \* - CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BCNH02640-F14S-26-4-100-40SMA-15LMA-K828-250HPS-FPGV  
 \*\* BCNH01735-F14S-15S-15LMA-K828-250HPS-FPGV  
 \*\*\* BCNH02640-F14S-61-5-100-65SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\* BCNH02640-F14S-24-4-100-35SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\*\* BCNH02640-F14S-29-5-100-55SMA-15LMA-K828-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE												
CABLE TYPE	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	
VEH-PEO 12CSC	(A) 3,4,8	-	-	-	-	-	-	-	-	-	-	-	-	
	(A) 8P,0LC	-	-	-	-	-	-	-	-	-	-	-	-	
	(B) 5,6,6P,0LB	-	-	-	-	-	-	-	-	-	-	-	-	
	(D) 2,3,2P	-	-	-	-	-	-	-	-	-	-	-	-	
	(D) 7,8,8P,0LC	-	-	-	-	-	-	-	-	-	-	-	-	
	(E) 4,7,4P,0LA	-	-	-	-	-	-	-	-	-	-	-	-	
PPB 3CSC	(F) 1,2P	-	-	-	-	-	-	-	-	-	-	-	-	
	(G) 1,6,6P,0LB	-	-	-	-	-	-	-	-	-	-	-	-	
	(H) 3,4,4P,0LA	-	-	-	-	-	-	-	-	-	-	-		
	TOTAL	1	2	3	5	4	5	1	2	9	8	8	-	
ANG	CIRCUIT													
#14	APS	-	2	2	2	2	2	2	2	-	-	-	-	
#12	IISNS	-	2	2	2	2	2	2	2	-	-	-	-	
#10	LIGHTING	2	2	2	2	2	2	2	2	-	-	-	-	
#8	SERVICE	-	-	-	-	-	-	-	-	2	-	-	-	
#6	SERVICE	-	-	-	-	-	-	-	-	2	-	-	-	
	LOOP DLC													
PHASE 2		-	-	-	-	-	-	1	1	1	-	-	-	
PHASE 4		-	-	-	-	-	-	1	-	1	-	-	1	
PHASE 6		-	-	1	1	1	-	-	1	1	-	-	-	
PHASE 8		1	1	1	1	1	-	-	1	1	-	-	-	
	TOTAL	1	1	2	2	3	-	1	4	4	-	-	1	
	VIDEO CAMERA CABLE	-	1	1	2	2	1	1	4	4	-	-	-	
	VIDEO CAMERA POWER	-	1	1	2	2	1	1	4	4	-	-	-	
	24 SMFO	-	-	-	-	-	-	-	-	-	1	1	1	
	48 SMFO	-	-	-	-	-	-	-	-	-	-	-	-	
	CCTV CABLE	-	-	-	1	1	-	-	1	1	-	-	-	
	CONDUIT SIZE	2"	3"	3"	4"	4"	2"	3"	2-4"	2-4"	2"	3"	3"	2"
	CONDUIT FILL (%)	15	15	20	19	22	19	15	16	17	9	3	3	3

ALL CONDUIT AND CONDUCTORS ARE NEW.



TS-01

**CITY OF DIAMOND BAR**  
**TRAFFIC SIGNAL MODIFICATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**  
 PROJECT NO. \_\_\_\_\_ SCALE: NO SCALE SHEET 89 OF 139

REVISIONS			
ISSUED BY	DATE	CHECKED BY	DATE

BENCHMARK:  
 NO. \_\_\_\_\_ ELEV. 0000.000

PREPARED BY:  
**LN Consulting, Inc.**  
10000 W. 10th Street, Suite 275  
 Diamond Bar, CA 91765  
 (949) 851-1100

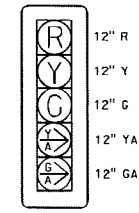
SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ CITY ENGINEER R.E.C. DATE \_\_\_\_\_



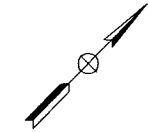
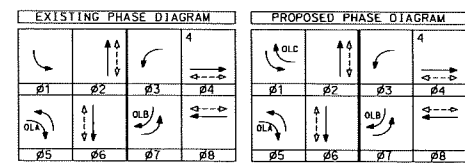
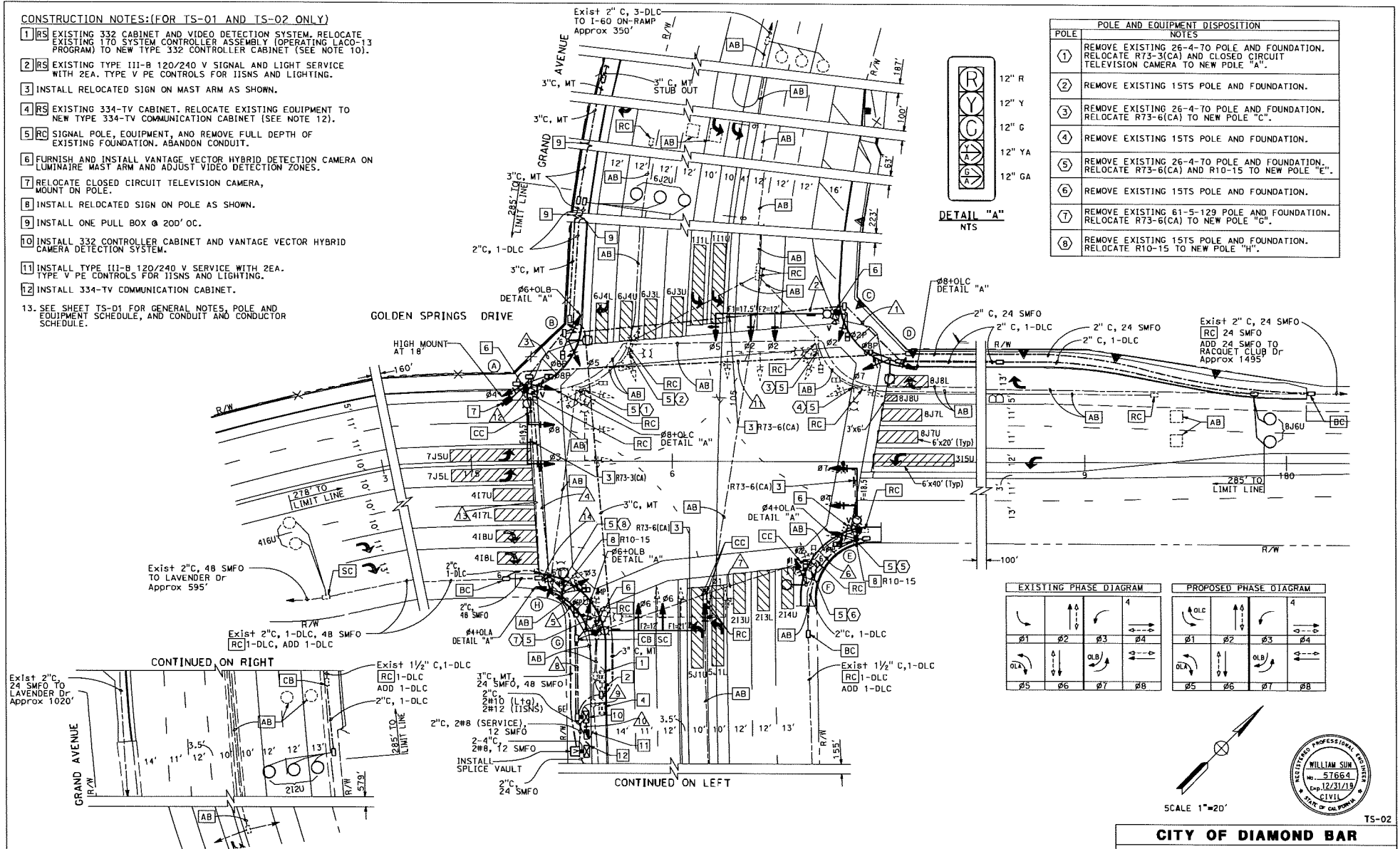
**CONSTRUCTION NOTES:(FOR TS-01 AND TS-02 ONLY)**

- 1 [RS] EXISTING 332 CABINET AND VIDEO DETECTION SYSTEM. RELOCATE EXISTING 170 SYSTEM CONTROLLER ASSEMBLY (OPERATING LAGO-13 PROGRAM) TO NEW TYPE 332 CONTROLLER CABINET (SEE NOTE 10).
- 2 [RS] EXISTING TYPE III-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING.
- 3 [RS] INSTALL RELOCATED SIGN ON MAST ARM AS SHOWN.
- 4 [RS] EXISTING 334-TV CABINET. RELOCATE EXISTING EQUIPMENT TO NEW TYPE 334-TV COMMUNICATION CABINET (SEE NOTE 12).
- 5 [RC] SIGNAL POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT.
- 6 [RS] FURNISH AND INSTALL VANTAGE VECTOR HYBRID DETECTION CAMERA ON LUMINAIRE MAST ARM AND ADJUST VIDEO DETECTION ZONES.
- 7 [RC] RELOCATE CLOSED CIRCUIT TELEVISION CAMERA, MOUNT ON POLE.
- 8 [RS] INSTALL RELOCATED SIGN ON POLE AS SHOWN.
- 9 [RS] INSTALL ONE PULL BOX @ 200' OC.
- 10 [RS] INSTALL 332 CONTROLLER CABINET AND VANTAGE VECTOR HYBRID CAMERA DETECTION SYSTEM.
- 11 [RS] INSTALL TYPE III-B 120/240 V SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING.
- 12 [RS] INSTALL 334-TV COMMUNICATION CABINET.
13. SEE SHEET TS-01 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.

POLE	POLE AND EQUIPMENT DISPOSITION	NOTES
①	REMOVE EXISTING 26-4-70 POLE AND FOUNDATION. RELOCATE RT3-3(CA) AND CLOSED CIRCUIT TELEVISION CAMERA TO NEW POLE "A".	
②	REMOVE EXISTING 15TS POLE AND FOUNDATION.	
③	REMOVE EXISTING 26-4-70 POLE AND FOUNDATION. RELOCATE RT3-6(CA) TO NEW POLE "C".	
④	REMOVE EXISTING 15TS POLE AND FOUNDATION.	
⑤	REMOVE EXISTING 26-4-70 POLE AND FOUNDATION. RELOCATE RT3-6(CA) AND R10-15 TO NEW POLE "E".	
⑥	REMOVE EXISTING 15TS POLE AND FOUNDATION.	
⑦	REMOVE EXISTING 61-5-129 POLE AND FOUNDATION. RELOCATE RT3-6(CA) TO NEW POLE "G".	
⑧	REMOVE EXISTING 15TS POLE AND FOUNDATION. RELOCATE R10-15 TO NEW POLE "H".	



DETAIL "A"  
NTS



SCALE 1"=20'



TS-02

**CITY OF DIAMOND BAR**  
**TRAFFIC SIGNAL MODIFICATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

REVISIONS					
CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.


BENCHMARK:	ELEV. 0000.000
NO.	

PREPARED BY:  
**LIN Consulting, Inc.**  
1200 S. 10TH AVENUE, SUITE 270  
 DENVER, CO 80202

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER      R.C.L.      DATE

PROJECT NO. \_\_\_\_\_      SCALE: 1" = 20'      SHEET 90 OF 139

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LEO TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE No. 5 UNLESS SHOWN OTHERWISE.
- ALL NEW PEDESTRIAN SIGNAL SYSTEMS SHALL BE ACCESSIBLE PEDESTRIAN SYSTEMS (APS) WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART No. 450-6479-001X OR GE G111 PART No. PS7-CF1-26A.
- ALL VEHICLE SIGNALS SHALL HAVE 12" LENSES, TUNNEL VISORS, AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1-A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED. (SEE SPECIAL PROVISIONS)
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINTING THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND REMOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMPS.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 36" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION. SEE STAGE TRAFFIC SIGNAL PLANS.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ON-SITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SONO TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND CONTROLLER TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRON GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

NO.	TYPE	STANDARD			VEH SIG MTG	POLE	COUNTDOWN PED SIGNAL	APS	HPS LUM	IISNS	LOCATION		REMARKS
		HEIGHT	SMA	LMA							A	B	
A	26-4-70	30'	35'	6'	2-MAS	SV-1-T SV-1-T	SP-1-T	6 NON-ADA PRA	200W	Grand Ave	7'	2.5'	A
B	15TS	30'	-	12'	-	SV-2-TA	SP-1-T	8 ←	250W	-	8'	2.5'	A
C	26-4-70	30'	45'	12'	2-MAS	SV-1-T	SP-1-T	8 ←	250W	Golden Springs Dr	14'	2.5'	A
D	15TS	30'	-	12'	-	SV-2-TA	SP-1-T	2 ←	200W	-	11'	2.5'	A
E	26-4-70	30'	35'	12'	2-MAS	SV-1-T	SP-1-T	2 NON-ADA PRA	2DOW	Grand Ave	8'	5.5'	A
F	15TS	30'	-	12'	-	SV-1-T	SP-1-T	4 NON-ADA PRA	200W	-	12'	2.5'	A
G	XXXX (N)	30'	55'	15'	3-MAS(N)	SV-1-T(N)	SP-1-T(N)	4 ← (N)	(L)1165(N)	Golden Springs Dr	8'	6'	A B
H	15TS (T)	30'	-	4'	-	SV-2-TA(T)	-	6 ←	(L)1165(T)	-	-	-	A

- ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED : (N) = NEW, (R) = RELOCATE, (L) = NEW LEO LUMINAIRE, (T) = TEMPORARY
- ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015 EXCEPT AS NOTED.
- ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.

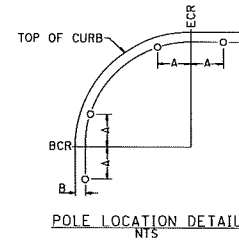
- A EXACT POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- B EXISTING IISNS SHALL BE REUSED WITH NEW PAINT. SAME AS DECORATIVE POLE.

CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BCNH02640-FL45-26-4-10D-40SMA-15LMA-K82B-250HPS-FPGV  
 \*\* BCNH01735-FL45-15TS-15LMA-K82B-250HPS-FPGV  
 \*\*\* BCNH02640-FL45-61-5-1DD-55SMA-15LMA-K82B-250HPS-FPGV  
 \*\*\*\* BCNH02640-FL45-24-4-10D-35SMA-15LMA-K82B-250HPS-FPGV  
 \*\*\*\*\* BCNH02640-FL45-29-5-10D-55SMA-15LMA-K82B-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE TYPE	S	D	PHASE	CONDUIT RUN NUMBER AND SIZE															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VEH-PED/2CSC	A	3,4,8,8P	-	2	2	-	2	2	2	-	-	-	-	-	-	-	-		
	B	5,6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	C	2,5,2P	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D	7,8,8P	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	E	4,7,0LA	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	F	1,2P	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PPB/3CSC	G	1,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	H	3,4,0LA	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
TOTAL			1	3	3	1	4	8	9	4	4	3	2	1	2	2	2		
AWG	CIRCUIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
SCSC	APS		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
#12	IISNS		-	2	2	-	2	2	2	-	2	2	2	-	2	2			
#10	LIGHTING		2	2	2	2	2	2	2	-	2	2	2	2	2	2			
#8	SERVICE		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
#6	SERVICE		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
LOOP DLC			-	-	-	-	-	-	-	-	-	-	-	-	-	-			
PHASE 2			-	-	-	-	2	2	2	2	-	-	-	-	-	-			
PHASE 4			-	-	-	-	2	2	2	2	-	-	-	-	-	-			
PHASE 6			2	2	2	-	2	2	2	-	-	-	-	-	-	-			
PHASE 8			-	-	-	-	2	2	2	2	-	-	-	-	-	-			
TOTAL			2	2	2	-	4	8	8	4	2	-	-	2	2	-			
VIDEO CAMERA CABLE			-	1	1	-	1	3	4	4	2	2	1	-	1	1			
VIDEO CAMERA POWER			-	1	1	-	1	3	4	4	2	2	1	-	1	1			
24 SMFO			-	-	-	-	-	-	-	-	1	1	-	-	-	-			
48 SMFO			-	-	-	-	-	-	-	-	-	-	-	-	-	-			
CCTV CABLE			-	1	1	-	1	1	1	1	-	-	-	-	-	-			
CONDUIT SIZE			(3")	3"	OH	OH	OH	2-3"	2-4"	2-4"	OH	OH	3"	(3")	OH	OH			
CONDUIT FILL (%)			8	19	-	-	-	13	17	16	-	-	12	5	-	16			

ALL CONDUIT AND CONDUCTORS ARE NEW, UNLESS INDICATED OTHERWISE.  
 (#) = EXISTING



STAGE 1 TS-03

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**DEPARTMENT OF PUBLIC WORKS**

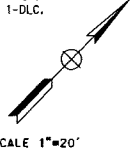
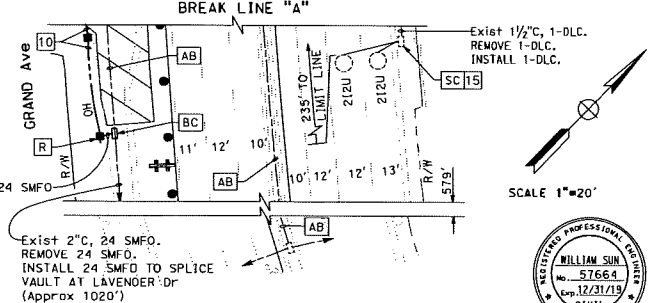
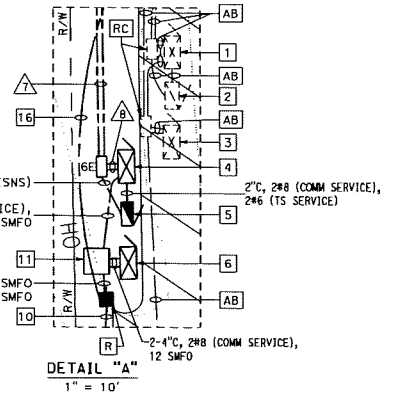
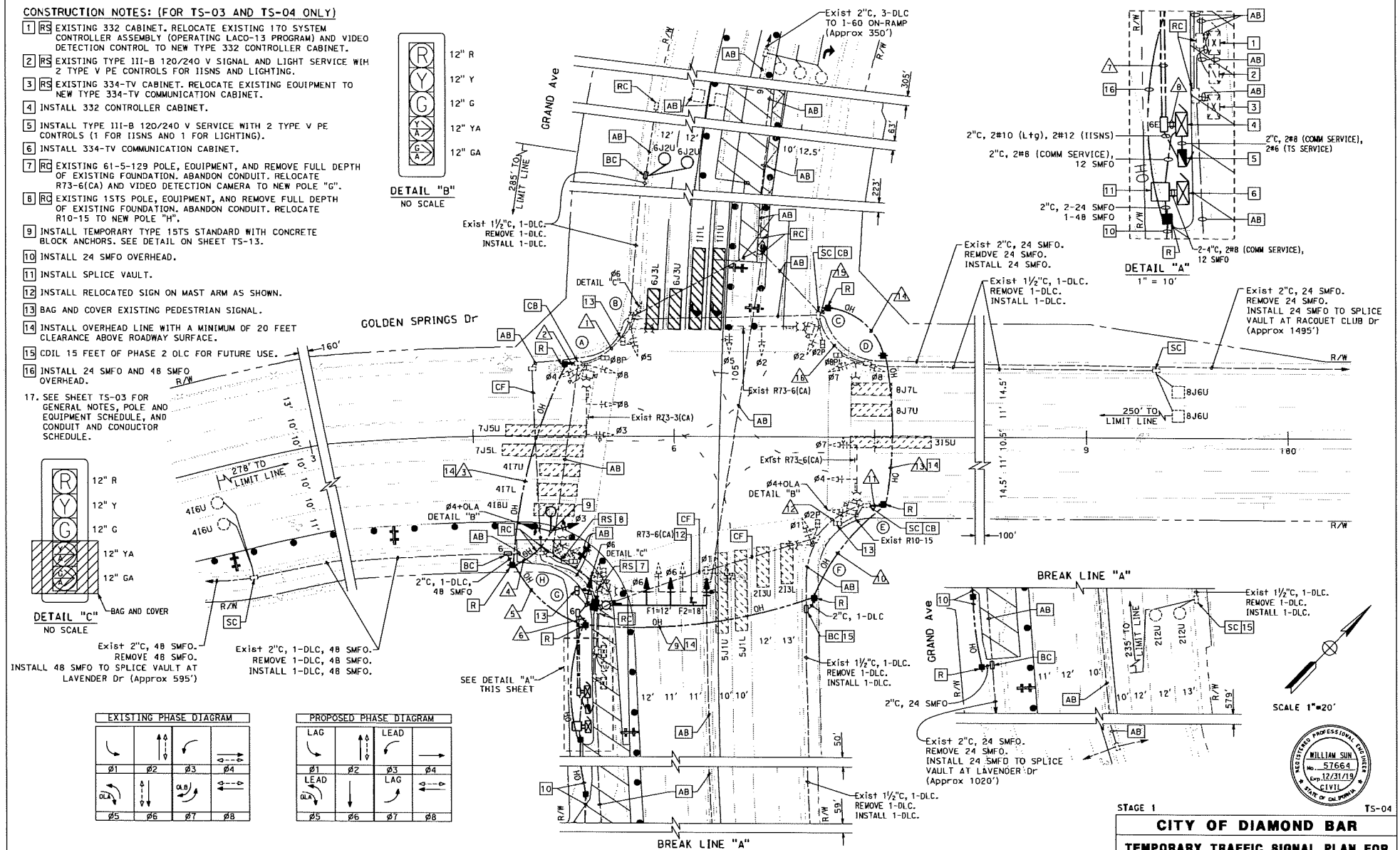
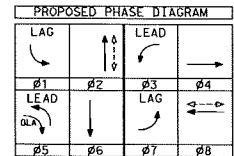
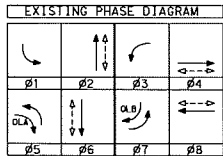
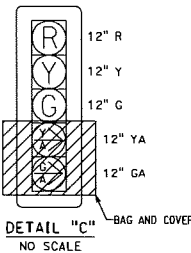
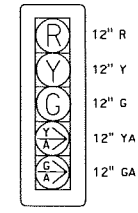
PROJECT NO. \_\_\_\_\_ SCALE: NO SCALE SHEET 91 OF 139

REVISIONS					
NO.	DATE	BY	CHKD	APPD	DESC

BENCHMARK:	NO.	ELEV. 0000.000	PREPARED BY: <b>LIN Consulting, Inc.</b> 1100 W. 14th Street, Suite 210 Diamond Bar, CA 91765 (909) 851-1111	DESIGNED BY:	

**CONSTRUCTION NOTES: (FOR TS-03 AND TS-04 ONLY)**

- 1 [RS] EXISTING 332 CABINET. RELOCATE EXISTING 170 SYSTEM CONTROLLER ASSEMBLY (OPERATING LACO-13 PROGRAM) AND VIDEO DETECTION CONTROL TO NEW TYPE 332 CONTROLLER CABINET.
- 2 [RS] EXISTING TYPE III-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2 TYPE V PE CONTROLS FOR 11SNS AND LIGHTING.
- 3 [RS] EXISTING 334-TV CABINET. RELOCATE EXISTING EQUIPMENT TO NEW TYPE 334-TV COMMUNICATION CABINET.
- 4 INSTALL 332 CONTROLLER CABINET.
- 5 INSTALL TYPE III-B 120/240 V SERVICE WITH 2 TYPE V PE CONTROLS (1 FOR 11SNS AND 1 FOR LIGHTING).
- 6 INSTALL 334-TV COMMUNICATION CABINET.
- 7 [RQ] EXISTING 61-5-129 POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE R73-6(CA) AND VIDEO DETECTION CAMERA TO NEW POLE "G".
- 8 [RQ] EXISTING 15TS POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE R10-15 TO NEW POLE "H".
- 9 INSTALL TEMPORARY TYPE 15TS STANDARD WITH CONCRETE BLOCK ANCHORS. SEE DETAIL ON SHEET TS-13.
- 10 INSTALL 24 SMFO OVERHEAD.
- 11 INSTALL SPLICE VAULT.
- 12 INSTALL RELOCATED SIGN ON MAST ARM AS SHOWN.
- 13 BAG AND COVER EXISTING PEDESTRIAN SIGNAL.
- 14 INSTALL OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 15 CDIL 15 FEET OF PHASE 2 OLC FOR FUTURE USE.
- 16 INSTALL 24 SMFO AND 48 SMFO OVERHEAD.
- 17 SEE SHEET TS-03 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.



STAGE 1 TS-04

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**DEPARTMENT OF PUBLIC WORKS**


CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK:	NO.	ELEV. 0008.000
PREPARED BY:	LIN Consulting, Inc.	
CHECKED BY:		

SUBMITTED:	
REVIEWED:	
APPROVED:	

PROJECT NO.	SCALE: 1" = 20'	SHEET 92 OF 139
-------------	-----------------	-----------------

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LED TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE No. 5 UNLESS SHOWN OTHERWISE.
- ALL NEW PEDESTRIAN SIGNAL SYSTEMS SHALL BE ACCESSIBLE PEDESTRIAN SYSTEMS (APS) WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART No. 450-0018-001X OR G11 PART No. PS7-CF11-26A.
- ALL VEHICLE SIGNALS SHALL HAVE 12" LENSES, TUNNEL VISORS AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1-A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED. (SEE SPECIAL PROVISIONS)
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINTING THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND RE-MOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMPS.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 36" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION. SEE STAGE TRAFFIC SIGNAL PLANS.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY, CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ON-SITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SOND TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND CONTROLLER TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRDN GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

No.	STANDARD				VEH SIG MTG		COUNTDOWN PED SIGNAL	APS		HPS LUM	IISNS	LOCATION		REMARKS
	TYPE	HEIGHT	SMA	LMA	MAST ARM	POLE		#	ARROW			A	B	
(A)	26-4-70	30'	35'	6'	2-MAS	SV-1-T SV-1-T	SP-1-T	6	NON-ARM PRA	200W	Grand Ave	7'	2.5'	[A]
(B)	15TS	30'	-	12'	-	SV-2-TA	SP-1-T	8	→	250W	-	8'	2.5'	[A]
(C)	26-4-70	30'	45'	12'	2-MAS	SV-1-T	SP-1-T	8	←	250W	Golden Springs Dr	14'	2.5'	[A]
(D)	15TS	30'	-	12'	-	SV-2-TA	SP-1-T	2	→	200W	-	11'	2.5'	[A]
(E)	TEMP. WOOD POLE (N)	30'	-	-	2-MAS(N)	SV-1-T(N)	-	-	-	(L)165W(T)	-	5.5'	2'	[A] MAS MTG DN WIRE SPAN
(F)	15TS (T)	30'	-	4'	-	SV-1-T(T)	-	4	→	(L)165W(T)	-	-	-	[A]
(G)	*****	30'	55'	15'	3-MAS	SV-1-T	SP-1-T	4	←	(L)165W	Golden Springs Dr (R)	8'	6'	[A][B]
(H)	** (N)	30'	-	15'	-	SV-2-TA(N)	SP-1-T(N)	6	→(N)	(L)165W(R)	-	14'	6'	[A]

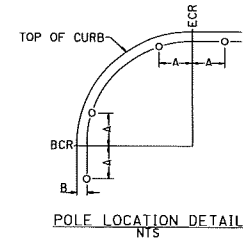
- ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED : (N) = NEW, (R) = RELOCATE, (L) = NEW LED LUMINAIRE, (T) = TEMPORARY
- ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015 EXCEPT AS NOTED.
- ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.

- (A) EXIST POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
 (B) EXISTING IISNS SHALL BE REUSED WITH NEW PAINT. SAME AS DECORATIVE POLE.

CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BCNH02640-FL4S-26-4-100-40SMA-15LMA-K828-250HPS-FPGV  
 \*\* BCNH01735S-FL4S-15TS-15LMA-K828-250HPS-FPGV  
 \*\*\* BCNH02640-FL4S-6T-5-100-65SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\* BCNH02640-FL4S-24-4-100-35SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\*\* BCNH02640-FL4S-29-5-100-55SMA-15LMA-K828-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE											
CABLE TYPE	PHASE	1	2	3	4	5	6	7	8	9	10	11	12
VEH-PED 12CSC	(A) 3,4,8,8P	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	(B) 5,6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(C) 2,5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(D) 7,8,8P	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(E) 4,7,0LA	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(F) 1,6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
PPB 3CSC	(G) 3,4,0LA	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	TOTAL	1	3	3	3	1	7	9	9	4	3	2	2
AWG	CIRCUIT												
5CSC	APS	-	-	-	-	-	-	-	-	-	-	-	-
#12	IISNS	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
#10	LIGHTING	(2)	(2)	(2)	(2)	2	(2)	(2)	(2)	(2)	(2)	(2)	(2)
#8	SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
#6	SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
	LOOP DLC												
PHASE 2		-	-	-	-	(2)	(2)	(2)	(2)	-	-	-	-
PHASE 4		-	-	-	(2)	(2)	(2)	(2)	-	-	-	-	-
PHASE 6		(2)	(2)	(2)	(2)	(2)	(2)	(2)	-	-	-	-	-
PHASE 8		-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	TOTAL	2	2	2	4	-	8	8	8	4	2	2	2
	VIDEO CAMERA CABLE	(1)	(1)	(1)	(3)	(4)	(4)	(2)	(2)	(1)	(1)	(1)	-
	VIDEO CAMERA POWER	(1)	(1)	(1)	(3)	(4)	(4)	(2)	(1)	(1)	(1)	-	-
	24 SMFO	-	-	-	-	-	-	1	1	1	1	-	-
	48 SMFO	-	-	-	1	-	-	-	-	-	-	-	-
	CCTV CABLE	(1)	(1)	(1)	(1)	(1)	(1)	(1)	-	-	-	-	-
	CONDUIT SIZE	(3")	(3")	(OH)	(OH)	4"	(2-3")	(2-4")	(OH)	(OH)	(OH)	(3")	(3")
	CONDUIT FILL (%)	8	19	-	-	3	12	16	25	-	-	-	15



ALL CONDUIT AND CONDUCTORS ARE NEW, UNLESS INDICATED OTHERWISE.  
 (\*) = EXISTING



STAGE 2 TS-05

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**  
 DEPARTMENT OF PUBLIC WORKS

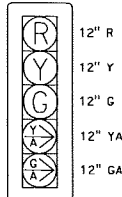
PROJECT NO. \_\_\_\_\_ SCALE: NO SCALE SHEET 93 OF 139

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

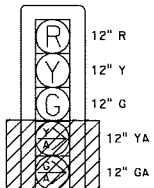
BENCHMARK:	NO.	ELEV. 0000.000	PREPARED BY: <b>LIN Consulting, Inc.</b> <small>15000 COMPLEX DRIVE, SUITE 270 DIAMOND BAR, CA 91765 1546 WILSON AVENUE, SUITE 100, WEST GARDEN, CA 91763</small>
SUBMITTED:	REVIEWED:	APPROVED:	CITY ENGINEER R.E.Z. DATE

**CONSTRUCTION NOTES: (FOR TS-05 AND TS-06 ONLY)**

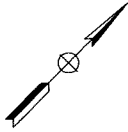
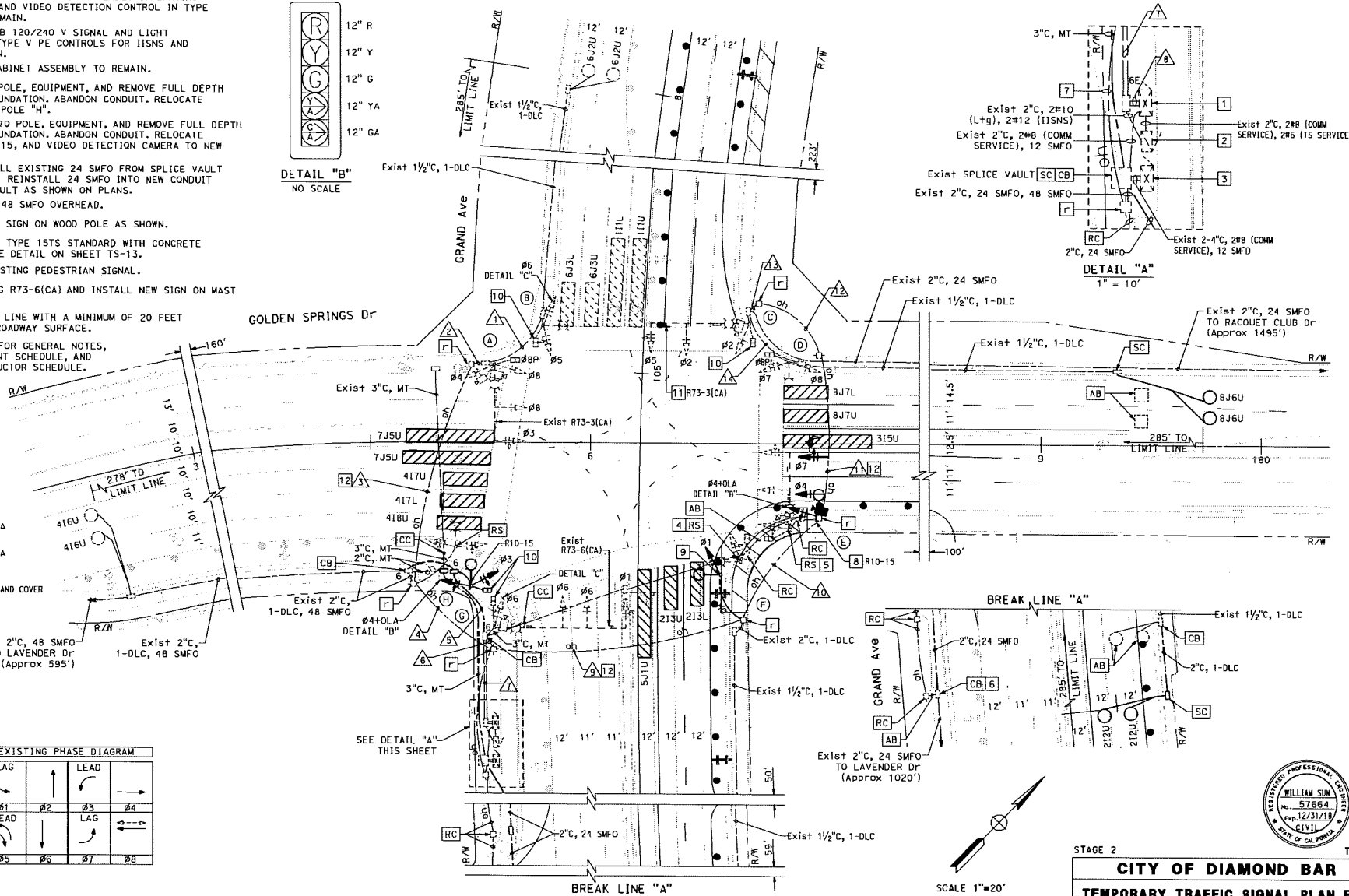
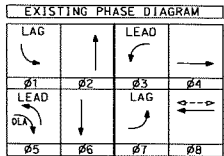
- 1 EXISTING 17D SYSTEM CONTROLLER ASSEMBLY (OPERATING LACO-13 PROGRAM) AND VIDEO DETECTION CONTROL IN TYPE 332 CABINET TO REMAIN.
- 2 EXISTING TYPE III-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING TO REMAIN.
- 3 EXISTING 334-TV CABINET ASSEMBLY TO REMAIN.
- 4 RC EXISTING 15TS POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE R10-15 TO NEW POLE "H".
- 5 RC EXISTING 26-4-70 POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE R73-6(CA), R10-15, AND VIDEO DETECTION CAMERA TO NEW POLE "E".
- 6 DISCONNECT AND PULL EXISTING 24 SMFO FROM SPLICE VAULT TO THIS PULL BOX. REINSTALL 24 SMFO INTO NEW CONDUIT BACK TO SPLICE VAULT AS SHOWN ON PLANS.
- 7 EXISTING 24 SMFO, 48 SMFO OVERHEAD.
- 8 INSTALL RELOCATED SIGN ON WOOD POLE AS SHOWN.
- 9 INSTALL TEMPORARY TYPE 15TS STANDARD WITH CONCRETE BLOCK ANCHORS. SEE DETAIL ON SHEET TS-13.
- 10 BAG AND COVER EXISTING PEDESTRIAN SIGNAL.
- 11 RC REMOVE EXISTING R73-6(CA) AND INSTALL NEW SIGN ON MAST ARM AS SHOWN.
- 12 EXISTING OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
13. SEE SHEET TS-05 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.



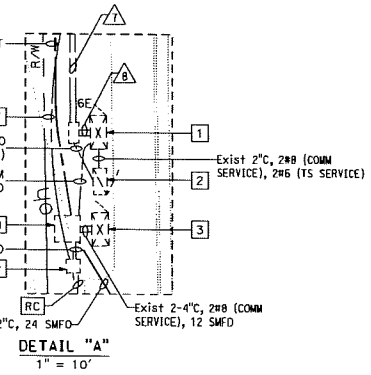
DETAIL "B"  
NO SCALE



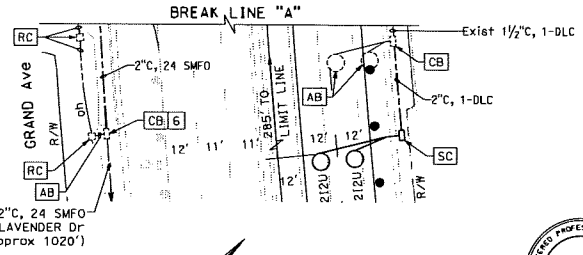
DETAIL "C"  
NO SCALE



SCALE 1"=20'



DETAIL "A"  
1" = 10'



BREAK LINE "A"



STAGE 2 TS-06


**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/ GOLDEN SPRINGS DR**

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. SCALE: 1" = 20' SHEET 94 OF 139

REVISIONS				BENCHMARK:		PREPARED BY:		SUBMITTED:	
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	NO.	ELEV. 0000.000	LIN Consulting, Inc.		DATE	TIME
CHECKED BY	DATE	CHECKED BY	DATE			3400 COMPLEX DRIVE, SUITE 270			
						DIAMOND BAR, CA 91765			
						CIVIL ENGINEER			

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LED TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE NO. 5 UNLESS SHOWN OTHERWISE.
- ALL NEW PEDESTRIAN SIGNAL SYSTEMS SHALL BE ACCESSIBLE PEDESTRIAN SYSTEMS (APS) WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART NO. 450-6475-001R OR (C/O ITI) PART NO. PS1-CF1-26A.
- ALL VEHICLE SIGNALS SHALL HAVE 12" LENSES, TUNNEL VISORS AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1-A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED. (SEE SPECIAL PROVISIONS)
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINTING THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND REMOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMPS.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 36" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION. SEE STAGE TRAFFIC SIGNAL PLANS.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ON-SITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SONE TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND CONTROLLER TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRON GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

NO.	TYPE	HEIGHT	STANDARD		MAST ARM	VEH SIG MTG	COUNTDOWN PED SIGNAL	APS	HPS LUM	IISNS	LOCATION		REMARKS
			SMA	LMA							A	B	
(A)	TEMP. WOOD POLE (N)	30'	-	-	2-MAS	SV-1-T SV-1-T	-	-	(L)165W(T)	-	13'	2'	A MAS MTG ON WIRE SPAN
(B)	TEMP. WOOD POLE (N)	30'	-	-	-	SV-2-TA	-	-	(L)165W(T)	-	2'	3.5'	A
(C)	26-4-70	30'	45'	12'	2-MAS	SV-1-T	SP-1-T	8	250W	Golden Springs Dr	14'	2.5'	A
(D)	15TS	30'	-	12'	-	SV-2-TA	SP-1-T	2	200W	-	11'	2.5'	A
(E)	**** (N)	30'	35'	15'	2-MAS(N)	SV-1-T(N)	SP-1-T(N)	2	(L)165W(N)	Grand Ave (R)	7'	5.5'	A B
(F)	** (N)	30'	-	15'	-	SV-1-T(N)	SP-1-T(N)	4	(L)165W(N)	-	5.5'	2.5'	A
(G)	****	30'	55'	15'	3-MAS	SV-1-T	SP-1-T	4	(L)165W	Golden Springs Dr (B)	8'	6'	A B
(H)	**	30'	-	15'	-	SV-2-TA	SP-1-T	6	(L)165W	-	14'	6'	A

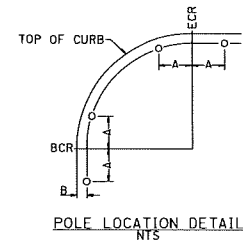
- ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED : (N) = NEW, (R) = RELOCATE, (L) = NEW LED LUMINAIRE, (T) = TEMPORARY
- ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015 EXCEPT AS NOTED.
- ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.

- (A) EXACT POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
 (B) EXISTING IISNS SHALL BE REUSED WITH NEW PAINT. SAME AS DECORATIVE POLE.

CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BCNH02640-FL4S-26-4-100-40SMA-15LMA-K828-250HPS-FPGV  
 \*\* BCNH01735-FL4S-15TS-15LMA-K828-250HPS-FPGV  
 \*\*\* BCNH02640-FL4S-61-5-100-65SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\* BCNH02640-FL4S-24-4-100-35SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\*\* BCNH02640-FL4S-29-5-100-55SMA-15LMA-K828-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE SCHEDULE	CABLE TYPE	PHASE	CONDUIT RUN NUMBER AND SIZE															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VEH-PED 12CSC	(A)	3,4,8	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
	(B)	5,6	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
	(C)	2,5,2P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(D)	7,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(E)	1,7,AP,OLA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(F)	1,2P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(G)	1,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(H)	3,4,AP,OLA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	(I)	3CSC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL	1	3	3	1	1	3	3	4	4	2	2	2	1	2	1	
AWG	X	CIRCUIT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCSC		APS	-	-	-	2	-	-	-	-	-	-	2	-	-	-	-	
#12		IISNS	-	-	-	(2)	(2)	-	(2)	2	2	2	(2)	(2)	(2)	(2)	-	
#10		LIGHTING	2	2	-	(2)	(2)	(2)	-	(2)	2	2	2	(2)	(2)	(2)	(2)	
#8		SERVICE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
#6		SERVICE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		LOOP DLC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PHASE 2			-	-	-	(2)	(2)	(2)	(2)	2	-	-	-	-	-	-	-	
PHASE 4			-	-	-	(2)	(2)	(2)	(2)	-	-	-	-	-	-	-	-	
PHASE 6			2	2	(2)	-	(2)	(2)	(2)	-	-	-	-	-	-	-	-	
PHASE 8			-	-	-	(2)	(2)	(2)	(2)	-	-	-	(2)	(2)	(2)	(2)	(2)	
		TOTAL	2	2	4	-	8	8	8	4	2	-	2	2	2	2	2	
VIDEO CAMERA CABLE			-	1	(1)	-	(3)	(4)	(4)	(2)	1	1	1	(1)	(1)	(1)	(1)	
VIDEO CAMERA POWER			-	1	(1)	-	(3)	(4)	(4)	(2)	1	1	1	(1)	(1)	(1)	(1)	
24 SMFO			-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
48 SMFO			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCTV CABLE			-	1	1	-	1	1	1	-	-	-	-	-	-	-	-	
		CONDUIT SIZE	OH	OH	(OH)	(4")	(2-3")	(2-4")	(2-4")	OH	3"	3"	2"	(OH)	(OH)	(OH)	(3")	
		CONDUIT FILL (%)	-	-	-	5	12	17	16	-	15	13	26	-	-	-	17	



ALL CONDUIT AND CONDUCTORS ARE NEW, UNLESS INDICATED OTHERWISE.  
 (\*) = EXISTING

REVISIONS					
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK:	NO.	ELEV. 0000.000
------------	-----	----------------

PREPARED BY:	<i>LIN Consulting, Inc.</i>
DATE:	12/31/19

SUBMITTED:	
REVIEWED:	
APPROVED:	CITY ENGINEER R.C.L. DATE

PROJECT NO.	
SCALE:	NO SCALE
SHEET	95 OF 139

STAGE 3

**CITY OF DIAMOND BAR**

**TEMPORARY TRAFFIC SIGNAL PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**

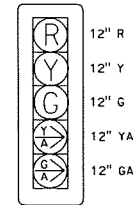
DEPARTMENT OF PUBLIC WORKS

WILLIAM SUN  
 No. 57664  
 Exp. 12/31/19  
 CIVIL  
 STATE OF CALIFORNIA

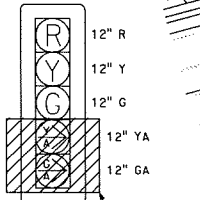
TS-07

**CONSTRUCTION NOTES: (FOR TS-07 AND TS-08 ONLY)**

- 1 EXISTING 170 SYSTEM CONTROLLER ASSEMBLY (OPERATING LACO-13 PROGRAM) AND VIDEO DETECTION CONTROL IN TYPE 332 CABINET TO REMAIN.
- 2 EXISTING TYPE III-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING TO REMAIN.
- 3 EXISTING 334-TV CABINET ASSEMBLY TO REMAIN.
- 4 RC EXISTING 26-4-70 POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE R73-3(CA), CCTV, AND VIDEO DETECTION CAMERA TO TEMPORARY WOOD POLE "A".
- 5 RC EXISTING 15TS POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT.
- 6 RELOCATE R10-15 AND VIDEO DETECTION CAMERA TO NEW POLE "E"
- 7 INSTALL 1-DLC OVERHEAD.
- 8 EXISTING 24 SMFO, 48 SMFO OVERHEAD TO REMAIN.
- 9 BAG AND COVER EXISTING PEDESTRIAN SIGNAL.
- 10 RC REMOVE STAGE 2 R73-3(CA) AND INSTALL NEW SIGN ON MAST ARM AS SHOWN.
- 11 INSTALL OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 12 EXISTING OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 13 ROTATE VEHICLE SIGNAL TO ALIGN WITH ONCOMING TRAFFIC.
14. SEE SHEET TS-07 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.

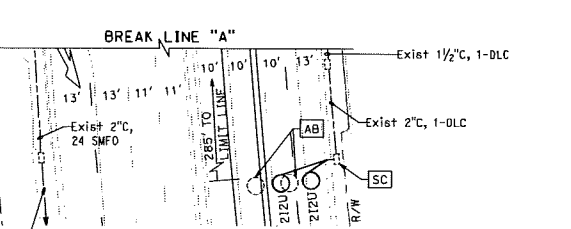
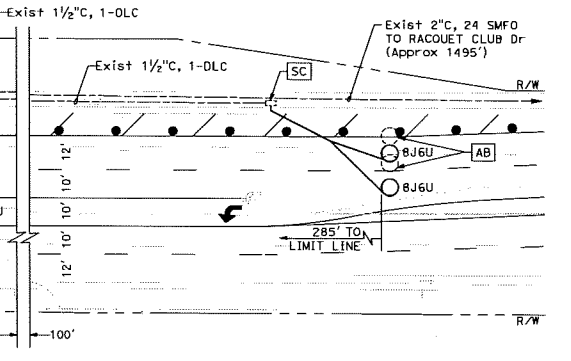
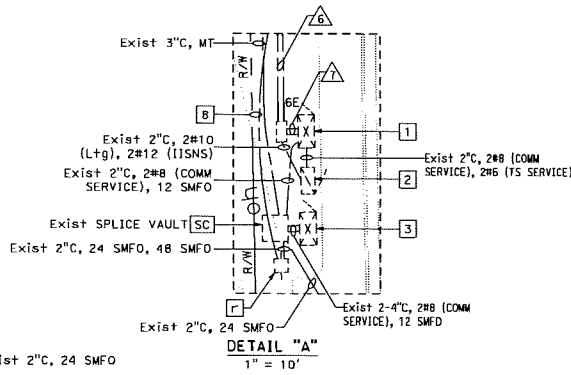
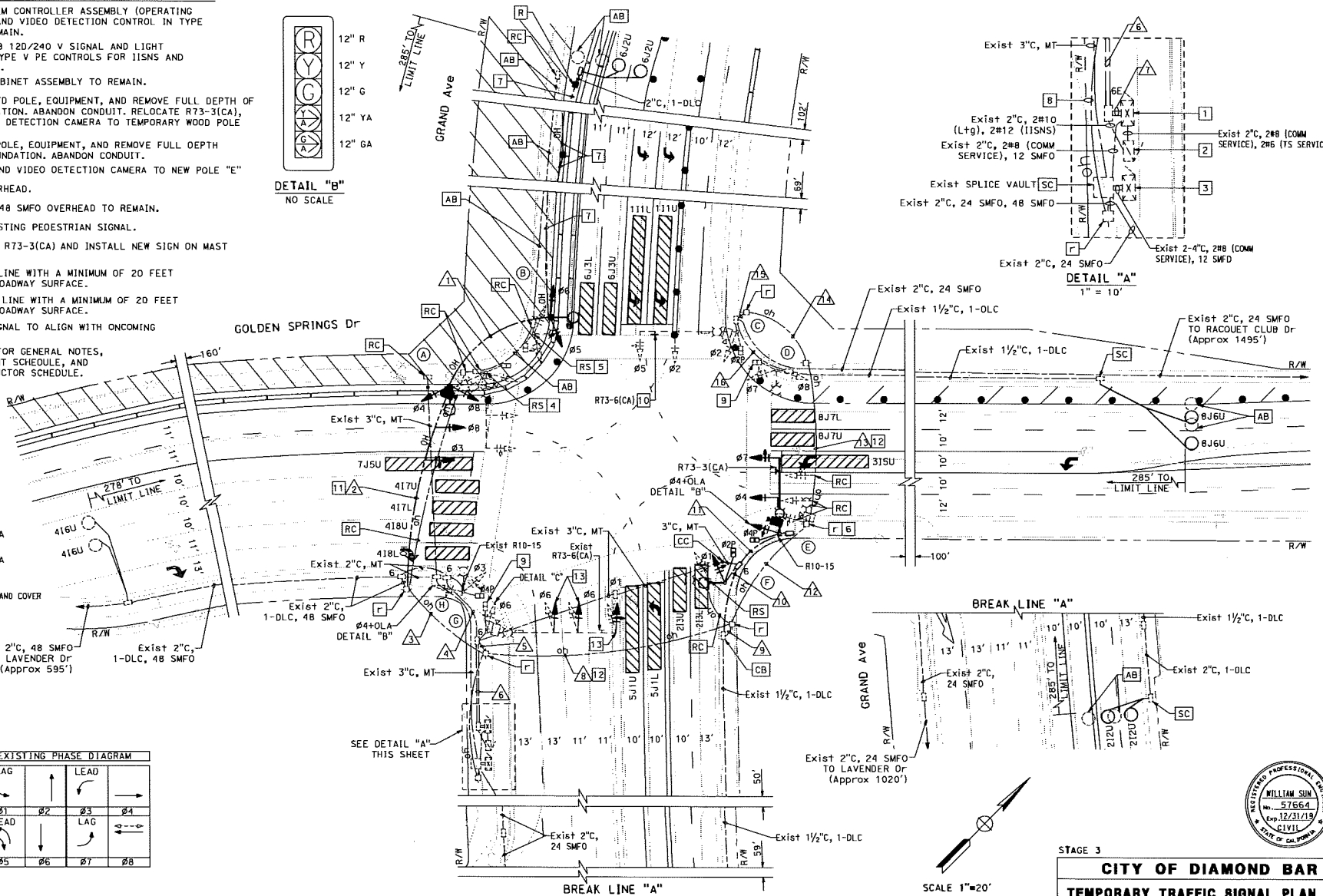


DETAIL "B"  
NO SCALE



DETAIL "C"  
NO SCALE

EXISTING PHASE DIAGRAM			
LAG	LEAD	LAG	LEAD
Ø1	Ø2	Ø3	Ø4
LEAD	LAG	LAG	LEAD
Ø5	Ø6	Ø7	Ø8



STAGE 3 TS-08

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

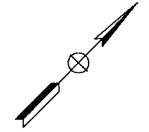
PROJECT NO. SCALE: 1" = 20' SHEET 96 OF 134

REVISIONS			
CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK:	ELEV. 0000.000
NO.	


PREPARED BY:  
**LN Consulting, Inc.**  
11000 THE CITY CENTER CENTER  
21000 COMPLEY DRIVE, SUITE 210  
DIAMOND BAR, CA 91765  
CONTACT: (909) 251-1111

SUBMITTED	
RECEIVED	
APPROVED	CITY ENGINEER R.E.Z. DATE



SCALE 1"=20'

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS SHOWING UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LED TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE No. 5 UNLESS SHOWN OTHERWISE.
- ALL NEW PEDESTRIAN SIGNAL SYSTEMS SHALL BE ACCESSIBLE PEDESTRIAN SYSTEMS (APS) WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART No. 430-6479-001X OR "GE GT1" PART No. PS7-CFF1-26A.
- ALL VEHICLE SIGNALS SHALL HAVE 12" LENSES, TUNNEL VISORS, AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1-A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED. (SEE SPECIAL PROVISIONS)
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINT, THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND REMOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMPS.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 30" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION. SEE STAGE TRAFFIC SIGNAL PLANS.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ONSITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SONO TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND CONTROLLER TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRON GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

No.	TYPE	STANDARD			VEH SIG MTG		COUNTDOWN PED SIGNAL	APS		HPS LUM	IISNS	LOCATION		REMARKS
		HEIGHT	SMA	LMA	MAST ARM	POLE		β	ARROW			A	B	
A	* (N)	30'	40'	15'	2-MAS(N)	SV-1-T(N) SV-1-T(N)	SP-1-T(N)	6	←	(L)165(W)	Grand Ave (R)	7'	2.5'	A B
B	** (N)	30'	-	15'	-	SV-2-TA(N)	SP-1-T(N)	8	→	(L)165(W)	-	8.7'	5.0'	A
C	TEMP. WOOD POLE (N)	30'	-	-	2-MAS	SV-1-T	-	-	-	(L)165(W)	-	2'	7'	A MAS MTG DN WIRE SPAN
D	TEMP. WOOD POLE (N)	30'	-	-	-	SV-2-TA	-	-	-	(L)165(W)	-	2'	3'	A
E	****	30'	35'	15'	2-MAS	SV-1-T	SP-1-T	2	←	(L)165W	Grand Ave	7'	5.5'	A B
F	**	30'	-	15'	-	SV-1-T	SP-1-T	4	→	(L)165W	-	5.5'	2.5'	A
G	*****	30'	55'	15'	3-MAS	SV-1-T	SP-1-T	4	←	(L)165W	Golden Springs Dr	8'	6'	A B
H	**	30'	-	15'	-	SV-2-TA	SP-1-T	6	→	(L)165W	-	14'	6'	A

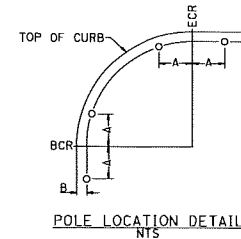
- ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED : (N) = NEW, (R) = RELOCATE, (L) = NEW LED LUMINAIRE, (T) = TEMPORARY
- ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015 EXCEPT AS NOTED.
- ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.

- A EXACT POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
 B EXISTING IISNS SHALL BE REUSEO WITH NEW PAINT. SAME AS DECORATIVE POLE.

CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BCNH02640-FL4S-26-4-100-40SMA-15LMA-K82B-250HPS-FPGV  
 \*\* BCNH01735-FL4S-15T5-15LMA-K82B-250HPS-FPGV  
 \*\*\* BCNH02640-FL4S-61-5-100-65SMA-15LMA-K82B-250HPS-FPGV  
 \*\*\*\* BCNH02640-FL4S-24-4-100-35SMA-15LMA-K82B-250HPS-FPGV  
 \*\*\*\*\* BCNH02640-FL4S-29-5-100-55SMA-15LMA-K82B-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE SCHEDULE			CONDUIT RUN NUMBER AND SIZE														
CABLE TYPE	S/D	PHASE	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
VEH-PED 12CSC	A	3,4,8	6	2	-	2	-	2	-	2	-	2	-	2	-	2	-
	B	5,6,6P,DLB	1	1	-	1	-	1	-	1	-	1	-	1	-	1	-
	C	2,5	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-
	D	7,8	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-
	E	4,7,4P,DLA	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-
	F	1	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-
	G	1,6,6P,DLB	4	-	-	1	-	1	-	1	-	1	-	1	-	1	-
	H	3,4,4P,DLA	6	-	-	1	-	1	-	1	-	1	-	1	-	1	-
PPB 3CSC																	
		TOTAL	3	-	-	4	-	4	-	4	-	4	-	4	-	4	-
AWG	×	CIRCUIT															
5CSC		APS	2	-	-	(2)	-	-	-	-	-	-	(2)	-	-	-	-
#12		IISNS	-	2	-	2	(2)	(2)	(2)	(2)	(2)	(2)	(2)	2	2	2	-
#10		LIGHTING	2	2	-	(2)	(2)	(2)	-	(2)	(2)	(2)	(2)	2	2	-	-
#8		SERVICE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
#6		SERVICE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		LOOP DLC															
PHASE 2			-	-	-	(2)	(2)	(2)	(2)	(2)	-	-	-	-	-	-	-
PHASE 4			-	-	-	(2)	(2)	(2)	(2)	-	-	-	-	-	-	-	-
PHASE 6			2	2	-	2	-	2	-	2	-	2	-	2	-	2	-
PHASE 8			-	-	-	(2)	(2)	(2)	(2)	-	-	-	-	2	2	-	-
		TOTAL	2	2	2	2	6	8	8	4	2	-	-	2	2	-	-
		VIDEO CAMERA CABLE	-	1	-	1	(2)	(4)	(4)	(2)	(1)	(1)	(1)	1	1	1	-
		VIDEO CAMERA POWER	-	1	-	1	(2)	(4)	(4)	(2)	(1)	(1)	(1)	1	1	1	-
		24 SMFO	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-
		48 SMFO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		CCTV CABLE	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-
		CONDUIT SIZE	3"	4"	(OH)	(4")	(2-3")	(2-4")	(OH)	(3")	(3")	(2")	(OH)	OH	OH	OH	OH
		CONDUIT F ILL (Z)	10	11	-	16	14	17	16	-	14	12	23	-	-	-	-



ALL CONDUIT AND CONDUCTORS ARE NEW, UNLESS INDICATED OTHERWISE.  
 (#) = EXISTING

REVISIONS					
CHECKED BY	FIG. NO.	CHECKED BY	FIG. NO.	CHECKED BY	FIG. NO.
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

BENCHMARK:  
 NO. ELEV. 0000.000

PREPARED BY:  
**LN Consulting, Inc.**  
 1000 W. 1st Street, Suite 270  
 Diamond Bar, CA 91765  
 (949) 842-3800, Fax: (949) 842-3801

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: CITY ENGINEER R.E.L. DATE: \_\_\_\_\_



STAGE 4 TS-09

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/ GOLDEN SPRINGS DR**

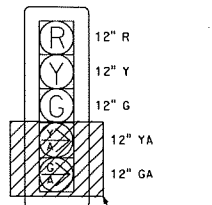
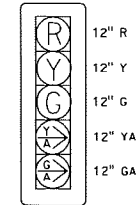
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SCALE: NO SCALE SHEET 9T OF 130

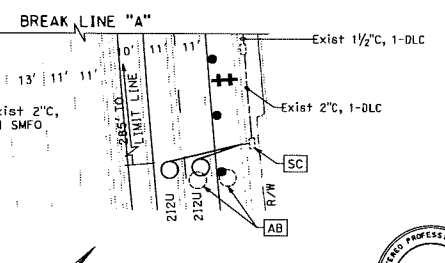
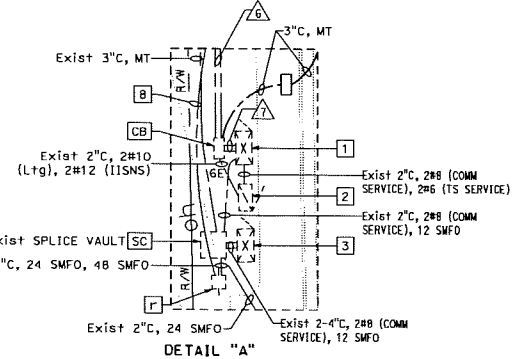
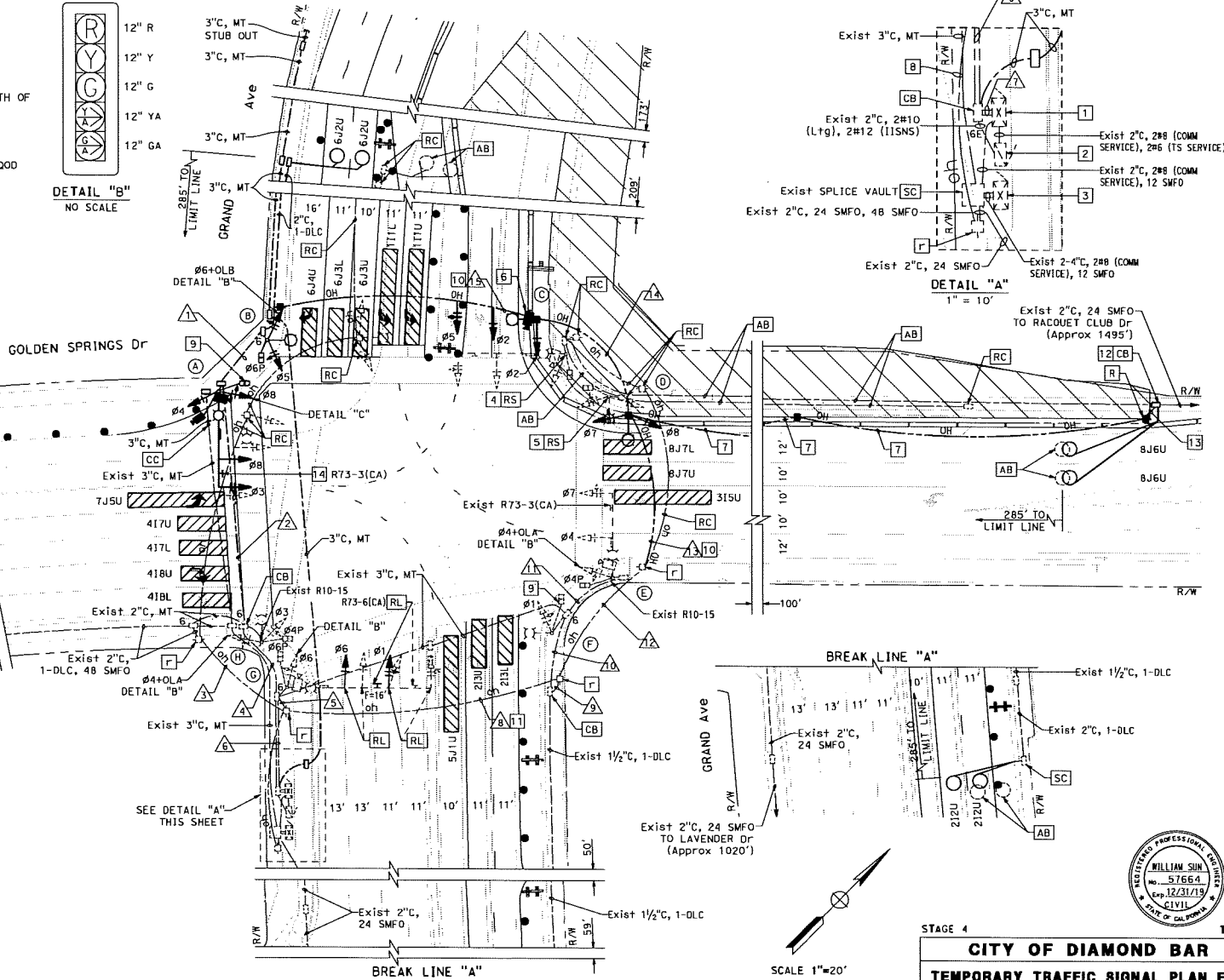


**CONSTRUCTION NOTES: (FOR TS-09 AND TS-10 ONLY)**

- 1 EXISTING 170 SYSTEM CONTROLLER ASSEMBLY (OPERATING LACO-13 PROGRAM) AND VIDEO DETECTION CONTROL IN TYPE 332 CABINET TO REMAIN.
- 2 EXISTING TYPE 111-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING TO REMAIN.
- 3 EXISTING 334-TV CABINET ASSEMBLY TO REMAIN.
- 4 RC EXISTING 26-4-70 POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT. RELOCATE VIDEO DETECTION CAMERA TO TEMPORARY WOOD POLE "C".
- 5 RC EXISTING 15TS POLE, EQUIPMENT, AND REMOVE FULL DEPTH OF EXISTING FOUNDATION. ABANDON CONDUIT.
- 6 INSTALL RELOCATED VIDEO DETECTION CAMERA ON TEMPORARY WOOD POLE AS SHOWN.
- 7 INSTALL 1-DLC, 24 SMFO OVERHEAD.
- 8 EXISTING 24 SMFO, 48 SMFO OVERHEAD TO REMAIN.
- 9 BAG AND COVER EXISTING PEDESTRIAN SIGNAL.
- 10 INSTALL OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 11 EXISTING OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 12 DISCONNECT AND PULL EXISTING 24 SMFO FROM SPLICE VAULT TO THIS PULL BOX. REINSTALL 24 SMFO BACK TO SPLICE VAULT AS SHOWN ON PLANS.
- 13 INSTALL 2"C, 1-DLC, 24 SMFO.
- 14 INSTALL RELOCATED SIGN ON MAST ARM AS SHOWN.
15. SEE SHEET TS-09 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.



EXISTING PHASE DIAGRAM			
LAG	LEAD	LAG	LEAD
Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8



STAGE 4 TS-10

**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

REVISIONS			
CHECKED BY	FILE NO.	CHECKED BY	FILE NO.
CHECKED BY	DATE	CHECKED BY	DATE


BENCHMARK:	
NO.	ELEV. 0000.000

PREPARED BY:	LIN Consulting, Inc.
DATE:	01/20/20
PROJECT NO.:	19-001

SUBMITTED:	
REVIEWED:	
APPROVED:	CITY ENGINEER R.C.E. DATE

PROJECT NO.	SCALE: 1" = 20'	SHEET 98 OF 139
-------------	-----------------	-----------------

**GENERAL NOTES:**

- ALL MATERIAL AND WORK SHALL CONFORM TO THE 2015 STANDARD PLANS AND SPECIFICATIONS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. SOUND UNDERGROUND SERVICE ALERT AT (800) 227-2600, 48 HOURS IN ADVANCE OF WORK.
- OBTAIN APPROVAL FROM ENGINEER IN THE FIELD FOR EXACT EQUIPMENT LOCATION PRIOR TO FINAL PLACEMENT.
- ALL PEDESTRIAN AND VEHICULAR DISPLAYS SHALL BE LED TYPE PER THE SPECIAL PROVISIONS.
- VIDEO DETECTION ZONES SHOWN  ON PLAN DENOTE DETECTION ZONES WITH CHANNEL DESIGNATIONS FOR ASSIGNING DETECTOR OUTPUTS TO THE CONTROLLER.
- VIDEO DETECTION ZONES SHALL BE AS SHOWN ON PLAN. CENTER VIDEO DETECTION ZONES IN THE TRAVELED PORTION OF THE LANE UNLESS SHOWN OTHERWISE. LIMIT LINE DETECTION ZONES SHALL BE PLACED 0' BEHIND THE CROSSWALK OR LIMIT LINE UNLESS OTHERWISE INDICATED.
- NEW CONDUIT SHALL BE TYPE 1. SEE PLAN FOR SIZES.
- ALL NEW PULL BOXES SHALL BE No. 5 UNLESS SHOWN OTHERWISE.
- ALL NEW PEDESTRIAN SIGNAL SYSTEMS SHALL BE ACCESSIBLE PEDESTRIAN SYSTEMS (APS) WITH INTERNATIONAL SYMBOL OF MAN AND HAND WITH PEDESTRIAN COUNTDOWN FEATURE MANUFACTURED BY "DIALIGHT" PART No. 430-8479-001X OR GE 611 PART No. P97-CF1-26A.
- ALL VEHICLE SIGNALS SHALL HAVE 12" LENSES, TUNNEL VISORS AND BACKPLATES. ALL SIGNAL INDICATIONS SHALL BE PROVIDED WITH LED UNITS. ALL MAST ARM MOUNTED VEHICLE HEADS OR FIVE-SECTION VEHICLE HEADS MOUNTED ON TYPE 1A POLES SHALL HAVE BACKPLATES. ALL REQUIRED MOUNTINGS FOR NEW HEADS SHALL BE PROVIDED BY THE CONTRACTOR.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER. ALL MATERIALS AND EQUIPMENT SHALL BE NEW FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE ALL EXISTING PULL BOXES IF DAMAGED. (SEE SPECIAL PROVISIONS)
- ALL TRAFFIC SIGNAL STANDARDS, VEHICLE AND LUMINAIRE MAST ARMS SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR EQUIVALENT. ALL VEHICLE AND LUMINAIRE MAST ARMS ARE STRAIGHT.
- ALL PAINT SHALL BE FURNISHED BY THE CONTRACTOR. PAINT SHALL BE GLOSS FINISH. THE CONTRACTOR SHALL FURNISH A COLOR CHIP TO THE ENGINEER FOR APPROVAL. NEW TRAFFIC SIGNAL EQUIPMENT TO BE PAINTED SHALL INCLUDE VEHICLE HEAD HOUSINGS, PEDESTRIAN SIGNAL HEAD HOUSINGS, BACK FACES OF BACKPLATES, INTERNALLY ILLUMINATED STREET NAME SIGN FRAMES, LUMINAIRES, PEDESTRIAN PUSH BUTTON UNITS, VIDEO DETECTION CAMERA HOUSINGS, CCTV CAMERA HOUSINGS, CONTROLLER CABINETS, COMMUNICATION CABINETS AND SERVICE CABINETS. PRIOR TO PAINT THE SIGNAL POLES AND APPARATUS SHALL BE APPLIED A RUST INHIBITOR PRIMER TO COVER ALL EXTERIOR SURFACES PRIOR TO PAINTING. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE RE-USED AND REMOUNTED TO THE NEW SIGNAL MAST ARM.
- SEE CIVIL PLANS FOR PEDESTRIAN RAMPS.
- TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY THE METHOD OF JACKING, BORING, DIRECTIONAL BORING OR TRENCHING WITH MINIMUM 36" OF COVER IN THE PAVEMENT AND MINIMUM 24" OF COVER IN THE SIDEWALK UNLESS OTHERWISE NOTED (SEE STANDARD PROVISIONS).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OPERATION OF THE TRAFFIC SIGNAL DURING CONSTRUCTION BY PROVIDING TEMPORARY SIGNAL STANDARDS AND TEMPORARY OVERHEAD WIRING AS NECESSARY WITH NO ADDITIONAL COMPENSATION. SEE STAGE TRAFFIC SIGNAL PLANS.
- ALL CAST-IN DRILLED HOLE FOUNDATIONS SHALL BE PRE-DRILLED AND BACKFILLED WITH ONE SACK SLURRY, CURED FOR A MINIMUM OF ONE DAY. CAST-IN-DRILLED HOLE FOUNDATIONS LOCATED WITHIN 2' OF AN EXISTING GAS LINE. CONTRACTOR SHALL NOTIFY FILED ENGINEER IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING OR TO HAVE AN INSPECTOR ON-SITE DURING INSTALLATION OF FOUNDATION. CONTRACTOR SHALL HAND DIG FOUNDATION AND MAINTAIN 6-INCHES OF SAND AROUND THE GAS LINE AND INSTALL SONO TUBE FOR THE ENTIRE DEPTH OF HOLE PRIOR TO INSTALLATION OF REINFORCED CONCRETE. ALL VOID AREAS AROUND THE FOUNDATION SHALL BE BACKFILLED WITH SAND.
- ALL NEW SIGNS SHALL HAVE THE RETROREFLECTIVE SHEETING AND PROTECTIVE FILM.
- PROTECT IN PLACE ALL EXISTING ABOVE GROUND SIGNAL AND COMMUNICATION CABINETS AND SERVICE ENCLOSURE AND INTERCONNECT CONDUITS. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED ITEMS WITH NO ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL PAINT ALL SIGNAL EQUIPMENT, COMMUNICATION CABINET, SERVICE CABINET AND CONTROLLER TO MATCH POLE COLORS RAL# 7011 EISENGRAU IRON GREY.
- CONTRACTOR SHALL ADJUST ALL PULL BOXES TO GRADE.

**POLE AND EQUIPMENT SCHEDULE**

No.	TYPE	STANDARD				VEH SIG MTG	COUNTDOWN PED SIGNAL	APS	HPS LUM	IISNS	LOCATION		REMARKS
		HEIGHT	SMA	LMA	MST ARM						A	B	
(A)	*	30'	40'	15'	2-MAS	SV-1-T SV-1-T	SP-1-T	6	(L)165W	Grand Ave	7'	2.5'	[A] [B]
(B)	**	30'	-	15'	-	SV-2-TA	SP-1-T	8	(L)165W	-	8.7'	5.0'	[A]
(C)	*** (N)	30'	65'	15'	3-MAS(N)	SV-1-T(N)	SP-1-T(N)	8	(L)165W(N)	Golden Springs Dr	10.5'	2.5'	[A] [B] [C]
(D)	** (N)	30'	-	15'	-	SV-2-TA(N)	SP-1-T(N)	2	(L)165W(N)	-	10'	2.5'	[A]
(E)	****	30'	35'	15'	2-MAS	SV-1-T	SP-1-T	2	(L)165W	Grand Ave	7'	5.5'	[A] [B]
(F)	**	30'	-	15'	-	SV-1-T	SP-1-T	4	(L)165W	-	5.5'	2.5'	[A]
(G)	****	30'	55'	15'	3-MAS	SV-1-T	SP-1-T	4	(L)165W	Golden Springs Dr	8'	6'	[A] [B]
(H)	**	30'	-	15'	-	SV-2-TA	SP-1-T	6	(L)165W	-	14'	6'	[A]

- ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED : (N) = NEW, (R) = RELOCATE, (L) = NEW LED LUMINAIRE, (T) = TEMPORARY
- ALL POLES ARE DECORATIVE TYPE AND SHALL MEET CALTRANS STANDARD PLANS 2015 EXCEPT AS NOTED.
- ALL POLES AND EQUIPMENT (VEHICLE SIGNAL HEADS AND BACKPLATE, PEDESTRIAN HOUSING AND MOUNTING, PUSH BUTTON HOUSINGS) SHALL BE COLORED RAL# 7011 EISENGRAU IRON GREY.

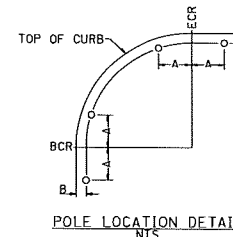
- (A) EXIST POLE LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
 (B) EXISTING IISNS SHALL BE REUSED WITH NEW PAINT. SAME AS DECORATIVE POLE.  
 (C) #5 SIGNAL HEAD RELOCATED TO END OF MAST ARM IN THE FUTURE.

CATALOG # FOR THE DECORATIVE POLE. SEE STANDARD TECHNICAL PROVISIONS.  
 \* BDNHQ2640-FL4S-26-4-100-4DSMA-15LMA-K828-250HPS-FPGV  
 \*\* BDNH01735-FL4S-15TS-15LMA-K828-250HPS-FPGV  
 \*\*\* BDNH02640-FL4S-61-5-100-65SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\* BDNH02640-FL4S-24-4-100-35SMA-15LMA-K828-250HPS-FPGV  
 \*\*\*\*\* BDNH02640-FL4S-29-5-100-55SMA-15LMA-K828-250HPS-FPGV

**CONDUIT AND CONDUCTOR SCHEDULE**

CABLE SCHEDULE	CONDUIT RUN NUMBER AND SIZE												
	S	T	D	1	2	3	4	5	6	7	8	9	10
VEH-PED 12CSC	(A) 3,4,8,8P,OLC	6	-	-	(2)	(2)	-	-	-	-	-	(2)	(2)
	(B) 5,6,6P,OLB	8	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	(C) 2,5,2P	8	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	(D) 7,8,8P,OLC	2	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	(E) 4,7,8P,OLA	2	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	(F) 1,2P	4	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	(G) 1,6,6P,OLB	4	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
PPB 3CSC	(H) 3,4,4P,OLA	6	-	-	(1)	(1)	-	-	-	-	-	(1)	(1)
	TOTAL	1	2	2	3	4	6	1	2	2	2	9	8
ANG	CIRCUIT												
SCSC	APS	2	-	(2)	-	(2)	(2)	-	-	-	-	-	-
#12	IISNS	-	2	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-
#10	LIGHTING	2	2	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-
#8	SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
#6	SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
	LOOP DLC												
PHASE 2		-	-	-	-	-	-	(2)	(2)	(2)	(2)	(2)	-
PHASE 4		-	-	-	-	2	-	-	-	-	(2)	(2)	-
PHASE 6		-	-	(2)	(2)	(2)	-	-	-	-	-	(2)	(2)
PHASE B		2	2	2	2	2	-	-	-	-	-	(2)	(2)
	TOTAL	2	2	4	4	6	-	2	2	2	8	8	-
VIDEO CAMERA CABLE		-	1	2	2	1	1	1	1	1	1	4	4
VIDEO CAMERA POWER		-	1	1	2	2	1	1	1	1	1	4	4
24 SMFO		-	-	-	-	-	-	-	-	-	-	-	-
48 SMFO		-	-	-	-	-	-	-	-	-	-	-	-
CCTV CABLE		-	-	(1)	(1)	-	-	-	-	(1)	(1)	(1)	-
CONDUIT SIZE		2"	3"	(3")	(4")	(4")	(2")	(3")	(3")	(OH)	(2-3")	(2-4")	(2-4")
CONDUIT FILL (%)		24	15	25	20	25	26	13	15	-	8	18	17

ALL CONDUIT AND CONDUCTORS ARE NEW, UNLESS INDICATED OTHERWISE.  
 (#) = EXISTING



STAGE 5 TS-11

**CITY OF DIAMOND BAR**

**TEMPORARY TRAFFIC SIGNAL PLAN FOR GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

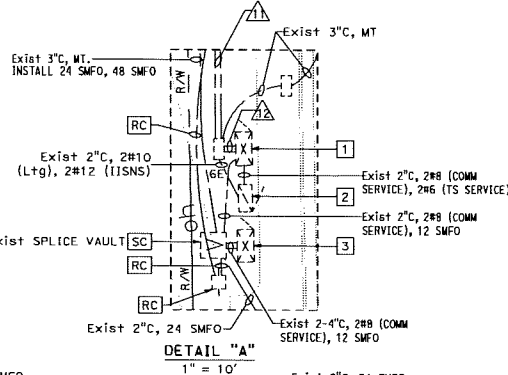
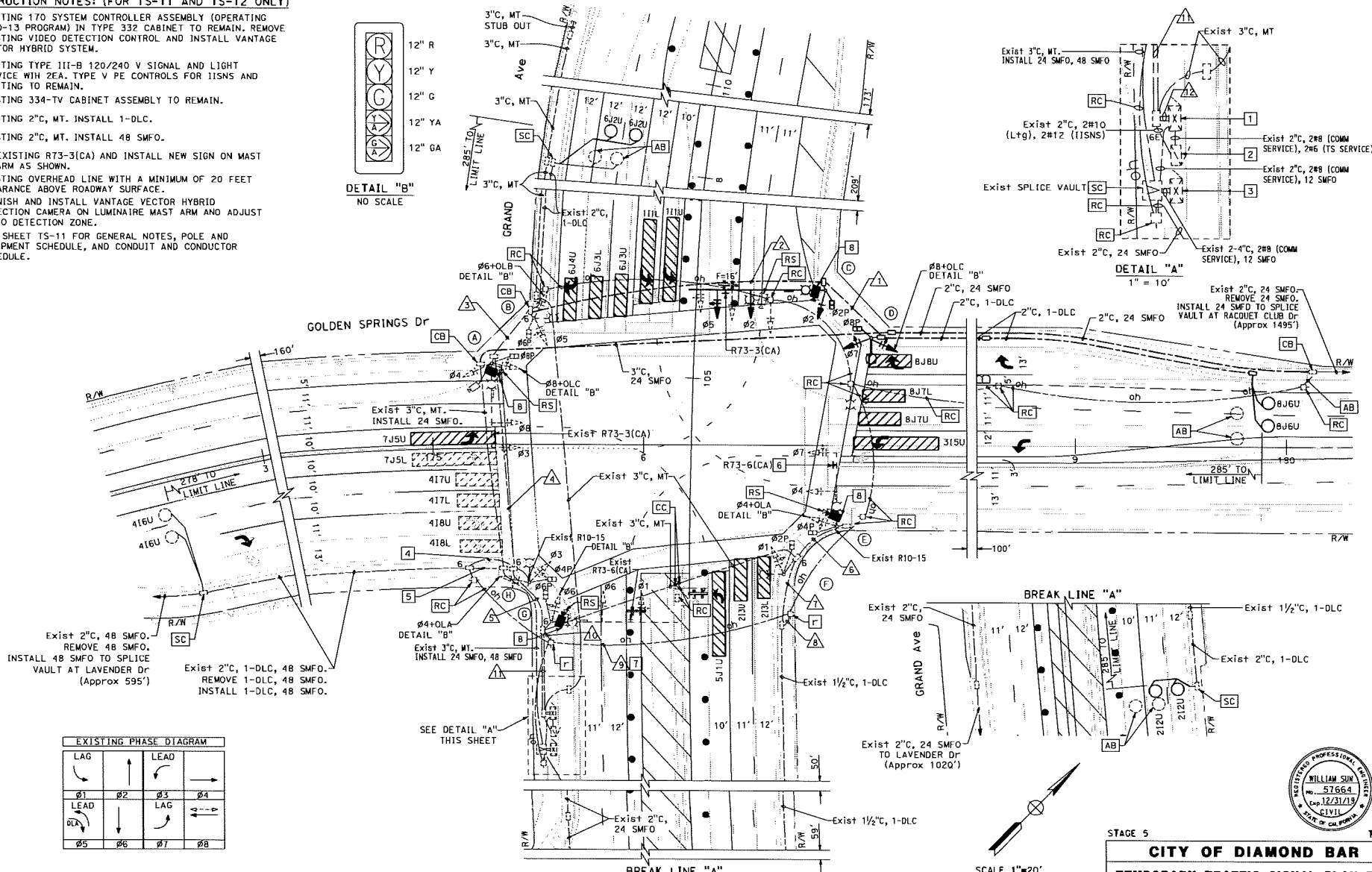
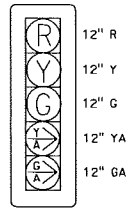
PROJECT NO. SCALE: NO SCALE SHEET 99 OF 139

REVISIONS					
CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.

BENCHMARK:	NO.	ELEV.	0000.000	PREPARED BY:	LIN Consulting, Inc.	SUBMITTED:	
					NO. OF SHEETS: 139	REVIEWED:	
					DATE: 08/13/11	APPROVED:	
					PROJECT NO.:	CITY ENGINEER:	
					SCALE:	P.E.:	
					DATE:	DATE:	

**CONSTRUCTION NOTES: (FOR TS-11 AND TS-12 ONLY)**

- 1 EXISTING 170 SYSTEM CONTROLLER ASSEMBLY (OPERATING LACO-13 PROGRAM) IN TYPE 332 CABINET TO REMAIN. REMOVE EXISTING VIDEO DETECTION CONTROL AND INSTALL VANTAGE VECTOR HYBRID SYSTEM.
- 2 EXISTING TYPE III-B 120/240 V SIGNAL AND LIGHT SERVICE WITH 2EA. TYPE V PE CONTROLS FOR IISNS AND LIGHTING TO REMAIN.
- 3 EXISTING 334-TV CABINET ASSEMBLY TO REMAIN.
- 4 EXISTING 2" C, MT. INSTALL 1-DLC.
- 5 EXISTING 2" C, MT. INSTALL 48 SMFO.
- 6 RC EXISTING R73-3(CA) AND INSTALL NEW SIGN ON MAST ARM AS SHOWN.
- 7 EXISTING OVERHEAD LINE WITH A MINIMUM OF 20 FEET CLEARANCE ABOVE ROADWAY SURFACE.
- 8 FURNISH AND INSTALL VANTAGE VECTOR HYBRID DETECTION CAMERA ON LUMINAIRE MAST ARM AND ADJUST VIDEO DETECTION ZONE.
9. SEE SHEET TS-11 FOR GENERAL NOTES, POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE.



EXISTING PHASE DIAGRAM			
LAG	LEAD	LAG	LEAD
Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8



STAGE 5 TS-12

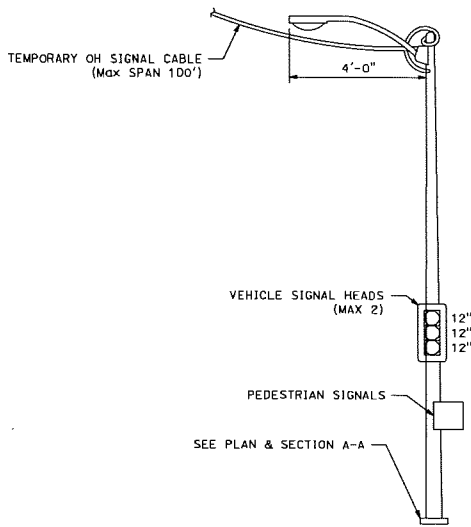
**CITY OF DIAMOND BAR**  
**TEMPORARY TRAFFIC SIGNAL PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
**DEPARTMENT OF PUBLIC WORKS**

REVISIONS					
CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.
CHECKED BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE

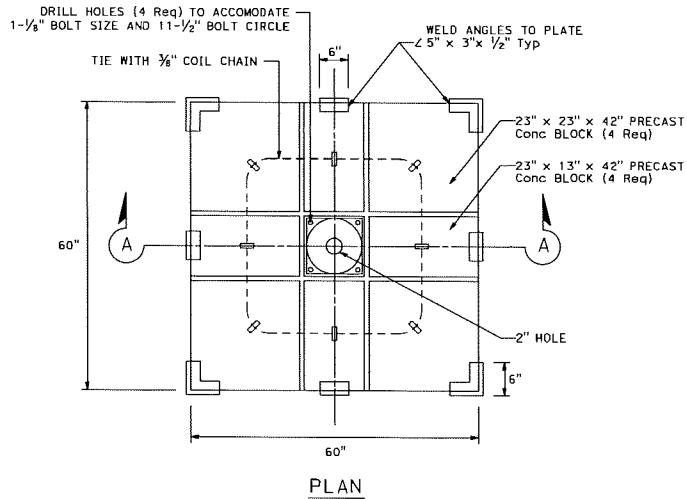
BENCHMARK:	NO.	ELEV. 0000.000	PREPARED BY: <b>LIN Consulting, Inc.</b> <small>1000 W. 10th Street, Suite 274 Diamond Bar, CA 91765</small>	SUBMITTED:	
				REVIEWED:	
				APPROVED:	CITY ENGINEER R.E.Z. DATE

SCALE 1"=20'

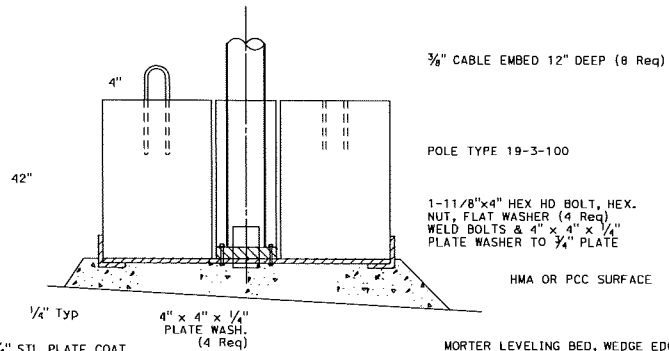
PROJECT NO. SCALE: 1" = 20' SHEET 100 OF 139



POLE TYPE 15TS



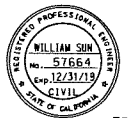
PLAN



SECTION A-A

60" x 60" x 3/4" STL PLATE COAT PLATE ASSEMBLY WITH PRIMER AND TRAFFIC SIGNAL YELLOW PAINT

MORTER LEVELING BED, WEDGE EDGES UNTIL MORTER SETS. (MORTAR IS NOT REQUIRED ON C.A.B., DIRT OR WHEN SLOPE IS LESS THEN 1/4" PER FT.)



TS-13

<b>CITY OF DIAMOND BAR</b>		
<b>TEMPORARY TRAFFIC SIGNAL PLAN FOR GRAND AVE/GOLDEN SPRINGS DR</b>		
<b>DEPARTMENT OF PUBLIC WORKS</b>		
PROJECT NO.	SCALE: 1" = 20'	SHEET 101 OF 139

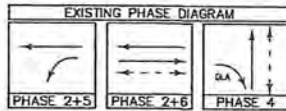
REVISIONS		
CHECKED BY	R/SF. NO.	DATE

BENCHMARK:  
NO. ELEV. 0000.000

PREPARED BY:  
**LIN Consulting, Inc.**  
10000 S. 100th Street, Suite 270  
Diamond Bar, CA 91765

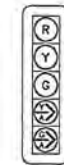
SUBMITTED  
REVIEWED  
APPROVED CITY ENGINEER R.C.L. DATE

NEW CONDUCTOR SCHEDULE						
CABLE /A.W.G.	POLE AND/ OR CIRCUIT	RUNS				
		1	2	3	4	5
12 CSC	① #2, #4, #5	2	2	2	-	-
	② #2, #4, #5, #P	-	2	2	-	-
	③ #5, #P	-	-	1	-	-
	④ #4, #P	-	-	1	1	-
	⑤ #5, #P	-	-	1	1	1
	⑥ #5, #P	-	-	1	1	1
	TOTAL	2	4	5	2	2
3 CSC	①	-	-	-	-	-
	② #4 P/B	-	1	1	-	-
	③ #4 P/B	-	-	1	-	-
	④ #5 P/B	-	-	1	1	-
	⑤ #5 P/B	-	-	1	1	1
	⑥	-	-	-	-	-
	TOTAL	-	1	2	2	2
DLC	#2 DET	-	1	-	-	-
	#5 DET	-	-	1	1	1
	TOTAL	-	1	1	1	1
#12	LS.N.S.	2	2	2	-	-
#	CAMERA CABLE	1	2	3	-	-
#	CAMERA POWER	1	2	3	-	-
1-12P/B	INTERCONNECT	-	-	-	-	-
#10	LUMINAIRE SERVICE	2	2	2	2	2
	CONDUIT SIZE (INCH)	3"	3"	3"	3"	3"



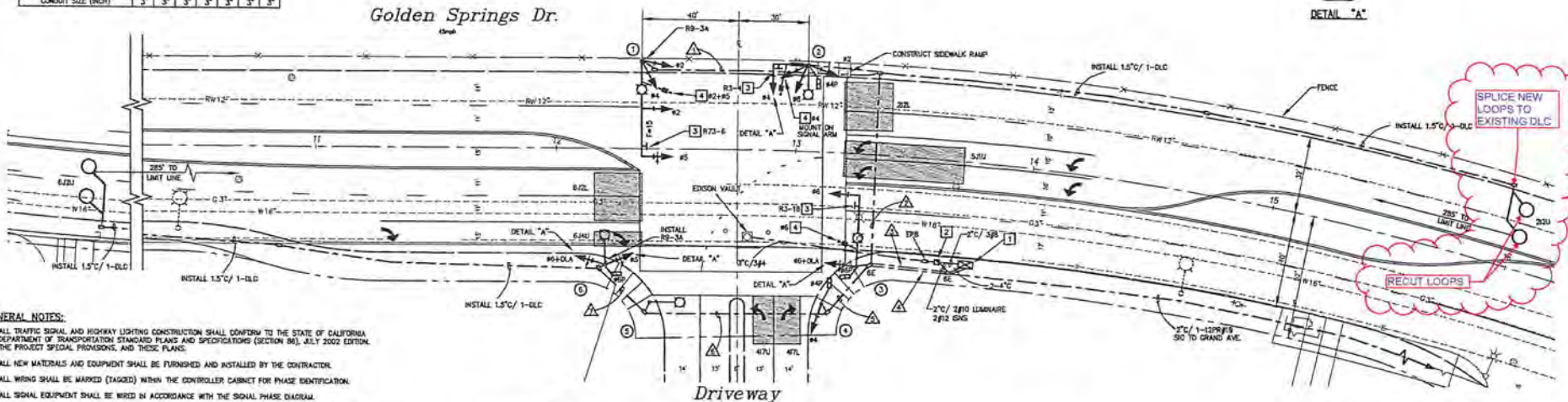
POLE SCHEDULE														
No.	TYPE	STANDARD	HEIGHT	SIG.M.A.	LUM.M.A.	LUMINAIRE HPSV	L.S.N.S. LEGEND	SIGNAL MOUNTING VEHICLE	PED PHASE	PED PUSH BTN PHASE	LOCATION	REMARKS		
1	25-4-50	30'	40'	12'	-	200W	-	MAS MAS	SV-2-TA	-	-	AS SHOWN	PLACE AT BACK OF WALK	
2	17-3-80	30'	15'	12'	#	200W	Golden Springs	MAS	SV-2-TA	SP-1-1	4	←	AS SHOWN	PLACE AT BACK OF WALK
3	19-3-80	30'	30'	12'	-	200W	-	MAS	SV-1-T	SP-1-1	4	←	3'	15'
4	1-6	10'	-	-	-	-	-	-	TV-1-T	SP-1-1	8	←	15'	3'
5	15	30'	-	12'	-	200W	-	-	-	-	6	←	3'	15'
6	15	30'	-	12'	-	200W	-	-	SV-2-TA	SP-1-1	-	←	3'	11'

- ALL EQUIPMENT IS NEW.
- # OFFSET LUMINAIRE ARM 90°.
- ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE LED TYPE.
- ALL VEHICLE INDICATIONS SHALL BE 12".



DETAIL "A"

Golden Springs Dr.



SPlice NEW LOOPS TO EXISTING DLC

RECUT LOOPS

GENERAL NOTES:

- ALL TRAFFIC SIGNAL AND HIGHWAY LIGHTING CONSTRUCTION SHALL CONFORM TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS (SECTION 86), JULY 2002 EDITION, THE PROJECT SPECIAL PROVISIONS, AND THESE PLANS.
- ALL NEW MATERIALS AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- ALL WIRING SHALL BE MARKED (TAGGED) WITH THE CONTROLLER CABINET FOR PHASE IDENTIFICATION.
- ALL SIGNAL EQUIPMENT SHALL BE WIRED IN ACCORDANCE WITH THE SIGNAL PHASE DIAGRAM.
- (XXXX) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH LOOP ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER.
- CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDELINE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
- UNLESS SHOWN OTHERWISE NEW INDUCTIVE LOOPS SHALL BE 6" DIAMETER (CALTRANS STANDARD PLAN ES-38), CENTERED IN THE LANE, WITH 10' SPACING (CLEAR IN DIRECTION OF TRAVEL). NECESSARY STOPPING SHALL BE LOCATED PRIOR TO POSITIONING DETECTORS.
- ALL NEW CONDUIT SHALL BE 2" TYPE 1 (ROD GALVANIZED STEEL) UNLESS SHOWN OTHERWISE.
- ALL NEW PULLBOXES SHALL BE #5 UNLESS SHOWN OTHERWISE.
- PEDESTRIAN INDICATIONS SHALL BE TYPE "C" WITH LED DISPLAYS.
- CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGING EXISTING UTILITIES.
- ALL NEW VEHICLE HEADS SHALL BE 12", METAL TYPE, WITH BACKPLATES AND VISORS. ALL NEW INDICATIONS SHALL BE LED.

CONSTRUCTION NOTES:

- INSTALL TYPE 170 SYSTEM CONTROLLER WITH LACO-3 PROGRAM AND VIDEO DETECTION UNIT IN TYPE 332 CABINET.
- INSTALL TYPE II-38 120/240V SIGNAL AND LIGHTING SERVICE WITH 2 EA. TYPE Y REC.
- INSTALL MAST-NRM MOUNTED SIGN AS SHOWN IN CALTRANS STANDARD PLAN ES-76 DETAIL II.
- INSTALL VIDEO DETECTION CAMERA MOUNT ON LUMINAIRE ARM UNLESS SHOWN OTHERWISE ON PLAN RUN CABLE THROUGH LUMINAIRE.
- DETECTION AREA SHOWN [ ] ON PLAN.



NO.	DATE	DESCRIPTION	BY

CITY OF DIAMOND BAR  
TRAFFIC SIGNAL PLAN  
GOLDEN SPRINGS DRIVE  
&  
DRIVEWAY W/O GRAND AVENUE

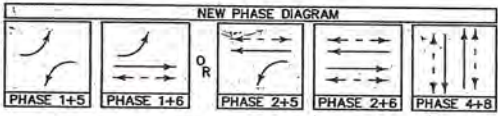
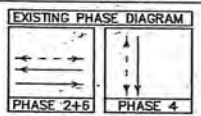
APPROVED BY: [Signature]  
DATE: 3/2/15  
PREPARED BY: [Signature]  
DATE: [ ]  
SCALE: 1" = 20'  
SHEET 12 OF 20

PLANS DESIGNED BY: [Signature]  
DATE: [ ]  
Katz, Oldtrow & Associates  
7470 Engineers and Planners Division  
11802 L. SHERWOOD DRIVE SUITE #102  
TUSTIN, CA 92780  
(714) 833-9007 FAX: (714) 833-8854

COPY  
THIS IS A PRELIMINARY DRAWING. IT IS NOT TO BE USED FOR CONSTRUCTION. ANY CHANGES TO THIS DRAWING SHALL BE MADE BY THE ENGINEER.

CABLE / A.W.G.	POLE AND/OR CIRCUIT	NEW CONDUCTOR SCHEDULE								
		1	2	3	4	4	4	3	2	1
12 CSC	① #14L, #2P	1	1	1	1	1	1	1	1	1
	② #14L, #2P	1	1	1	1	1	1	1	1	1
	③ #14L, #2P	1	1	1	1	1	1	1	1	1
	④ #14L, #2P	1	1	1	1	1	1	1	1	1
	⑤ #14L, #2P	1	1	1	1	1	1	1	1	1
	⑥ #14L, #2P	1	1	1	1	1	1	1	1	1
	⑦ #14L, #2P	1	1	1	1	1	1	1	1	1
	⑧ #14L, #2P	1	1	1	1	1	1	1	1	1
	⑨ #14L, #2P	1	1	1	1	1	1	1	1	1
	TOTAL	1	2	3	4	4	4	3	2	1
3 CSC	① #4 PFB	1	1	1	1	1	1	1	1	1
	② #6 PFB	1	1	1	1	1	1	1	1	1
	③ #6 PFB	1	1	1	1	1	1	1	1	1
	④ #6 PFB	1	1	1	1	1	1	1	1	1
	⑤ #6 PFB	1	1	1	1	1	1	1	1	1
	⑥ #2 PFB	1	1	1	1	1	1	1	1	1
	⑦ #2 PFB	1	1	1	1	1	1	1	1	1
	⑧ #4 PFB	1	1	1	1	1	1	1	1	1
	TOTAL	1	2	3	4	4	4	3	2	1
DLC	#2 DET	1	1	1	1	1	1	1	1	1
	#6 DET	1	1	1	1	1	1	1	1	1
	TOTAL	1	1	1	1	1	1	1	1	1
#12	L.S.N.S.	2	2	2	2	2	2	2	2	2
#	CAMERA CABLE	1	1	2	2	2	2	2	1	1
#	CAMERA POWER	1	1	2	2	2	2	2	1	1
12PFB/12	INTERCONNECT	1	1	1	1	1	1	1	1	1
#10	LUMINAIRE	2	2	2	2	2	2	2	2	2
#	SERVICE	1	1	1	1	1	1	1	1	1
#	CONDUIT SIZE (INCH)	1"	1"	1"	1"	1"	1"	1"	1"	1"

- REMOVE INTERSECTION
- \* PER MANUFACTURER SPECIFICATIONS



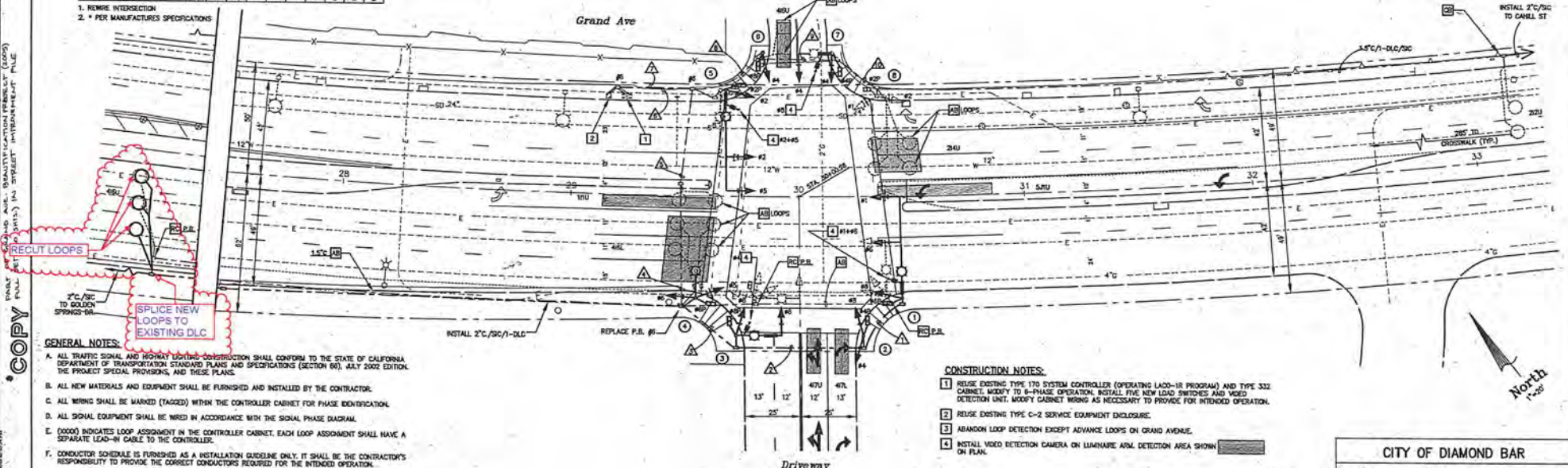
POLE TYPE	REMARKS
⑤ 36-42-70	REMOVE FOUNDATION COMPLETELY. PROTECT SOIL. CONFIRMATION. REUSE LUMINAIRE, MAS, SV-1-T AND SP-1-T.
⑥ 1-A	INSTALL 1-A 10' POLE ON EXISTING FOUNDATION. REUSE PED HEAD ON NEW MOUNTING.
①	REMOVE FOUNDATION COMPLETELY. REUSE LUMINAIRE, MAS, SP-1-T AND ONE SIGNAL HEAD ON NEW MOUNTING.
③ 70-2-70	RELOCATE POLE, LUMINAIRE, MAS, SP-1-T AND ONE SIGNAL HEAD ON NEW MOUNTING. REMOVE FOUNDATION COMPLETELY.

SALVAGED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

No.	TYPE	STANDARD POLE				SCHEDULE				REMARKS						
		HEIGHT	LEG	M.A.	LUM.M.A.	LUMINAIRE HPSV	L.S.N.S. LEGEND	SIGNAL MOUNTING VEHICLE	PED PHASE		BTM LOCATION					
①	36-42-70	30'	45'	15'	00	250	00	MAS 00	MAS 00	SV-1-T 00	SP-1-T 00	4	00			
②	1-A 00	10'								TV-2-1 00	SP-1-T 00	6	00			NEW HEADS
③	70-2-70	30'	20'	00	00	200	00	Grand Ave	MAS 00	SV-1-T 00	SP-1-T 00	6	00			
④	15 00	30'		12'	00	250	00			SV-2-10 00	SP-1-T 00	4	00			NEW HEADS
⑤	36-42-70	30'	45'	15'	00	250	00		MAS 00	MAS 00	SV-1-T 00	SP-1-T 00	8	00		RELOCATE PED AND WWV ANTENNA
⑥	1-A 00	10'								TV-1-T 00	SP-1-T 00	2	00			EXIST MOUNT ON EXIST. BASE. REUSE PED HEAD ON (N) MTL.
⑦	70-2-70	30'	15'	00	00	200	00	Grand Ave	MAS 00	SV-1-T 00	SP-1-T 00	2	00			EXIST
⑧	1-A	10'								TV-2-T	SP-1-T	4	00			EXIST

- ALL EQUIPMENT EXISTS EXCEPT WHERE NOTED "N" (NEW), "R" (RELOCATED) OR "M" (MODIFIED)
- ALL NEW SIGNALS SHALL HAVE 12" RED, YELLOW AND GREEN INDICATORS.
- REPLACE EXISTING YELLOW INCANDESCENT INDICATORS TO LED TYPE.
- NEW PEDSTRIM INDICATORS SHALL BE TYPE "A" LED ONLY.
- REPLACE PEDSTRIM PUSH BUTTON ASSEMBLY. ALL NEW PFB'S SHALL BE TYPE "B" WITH 2" ACTUATOR BUTTONS.
- EXISTING BLANK FACE ONE. INSTALL DRIVEWAY NAMES AS DIRECTED BY CITY.

COPY



- GENERAL NOTES:**
- ALL TRAFFIC SIGNAL AND HIGHWAY LIGHTING CONSTRUCTION SHALL CONFORM TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS (SECTION 60), JULY 2002 EDITION, THE PROJECT SPECIAL PROVISIONS, AND THESE PLANS.
  - ALL NEW MATERIALS AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
  - ALL WIRING SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER CABINET FOR PHASE IDENTIFICATION.
  - ALL SIGNAL EQUIPMENT SHALL BE WIRED IN ACCORDANCE WITH THE SIGNAL PHASE DIAGRAM.
  - (0000) INDICATES LOOP ASSIGNMENT IN THE CONTROLLER CABINET. EACH LOOP ASSIGNMENT SHALL HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROLLER.
  - CONDUCTOR SCHEDULE IS FURNISHED AS A INSTALLATION GUIDELINE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
  - UNLESS SHOWN OTHERWISE NEW INDUCTIVE LOOPS SHALL BE 4" DIAMETER (CALTRANS STANDARD PLAN ES-28), CENTERED IN THE LANE, WITH 12" SPACING (CLEAR IN DIRECTION OF TRAVEL). NECESSARY STRIPING SHALL BE LOCATED PRIOR TO POSITIONING DETECTORS.
  - ALL NEW CONDUIT SHALL BE 2" TYPE 1 (ROD GALVANIZED STEEL) UNLESS SHOWN OTHERWISE.
  - ALL NEW PULLBOXES SHALL BE #5 UNLESS SHOWN OTHERWISE.
  - CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGING EXISTING UTILITIES.
  - TEMPORARY OVERHEAD WIRING WILL BE REQUIRED DURING MODIFICATION OF THE EXISTING TRAFFIC SIGNAL SYSTEM.

- CONSTRUCTION NOTES:**
- REUSE EXISTING TYPE 170 SYSTEM CONTROLLER (OPERATING LAO-1R PROGRAM) AND TYPE 332 CABINET. MODIFY TO 8-PHASE OPERATION. INSTALL FIVE NEW LEAD SWITCHES AND VIDEO DETECTION UNIT. WOODY CABINET WIRING AS NECESSARY TO PROVIDE FOR INTERLOCK OPERATION.
  - REUSE EXISTING TYPE C-2 SERVICE EQUIPMENT ENCLOSURE.
  - ABANDON LOOP DETECTION EXCEPT ADVANCE LOOPS ON GRAND AVENUE.
  - INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE ARM. DETECTION AREA SHOWN ON PLAN.



PLANS DESIGNED BY: **Eric S. Miller**  
 DATE: \_\_\_\_\_  
**Eatz, Okitsu & Associates**  
 Traffic Engineers and Transportation Planners  
 17022 E. SENECAVILLE STREET #102  
 BAYTON, CA 94720  
 (714) 570-0877 FAX: (714) 973-8534

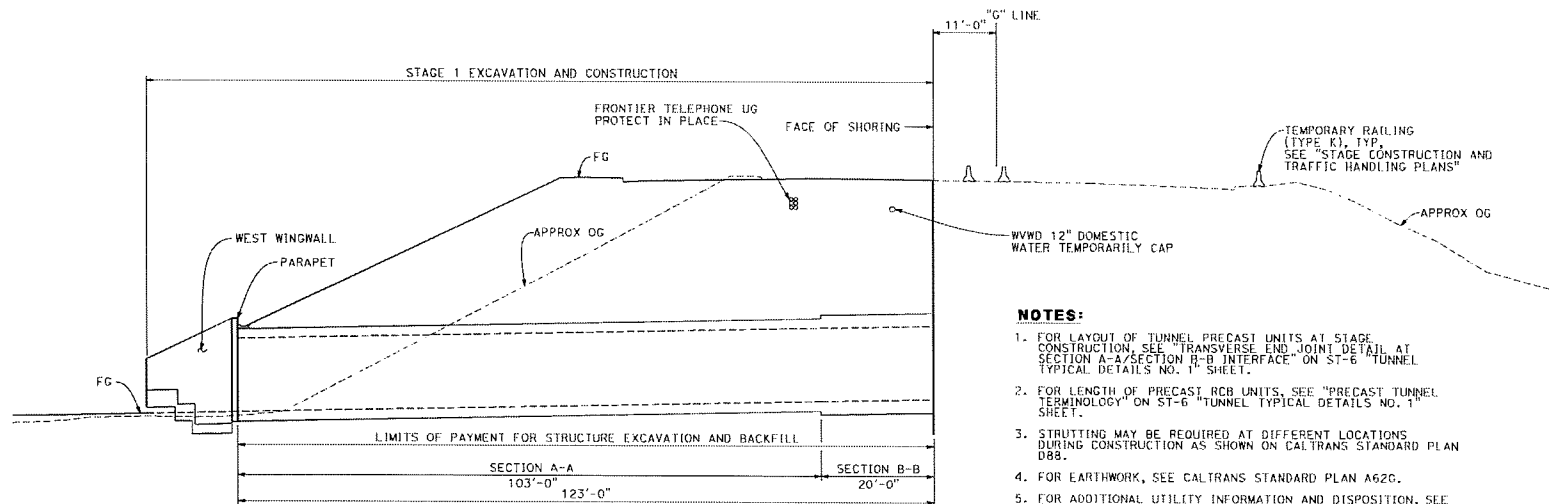
REVISIONS			
NO.	DATE	DESCRIPTION	BY

**CITY OF DIAMOND BAR**  
**TRAFFIC SIGNAL MODIFICATION**  
 GRAND AVENUE AT CONDOMINIUMS DRIVEWAY

APPROVED BY: \_\_\_\_\_  
 DIRECTOR OF PUBLIC WORKS R.C.E. DATE: \_\_\_\_\_

PREPARED BY: \_\_\_\_\_  
 SCALE: 1" = 20' SHEET 11 OF 20





**NOTES:**

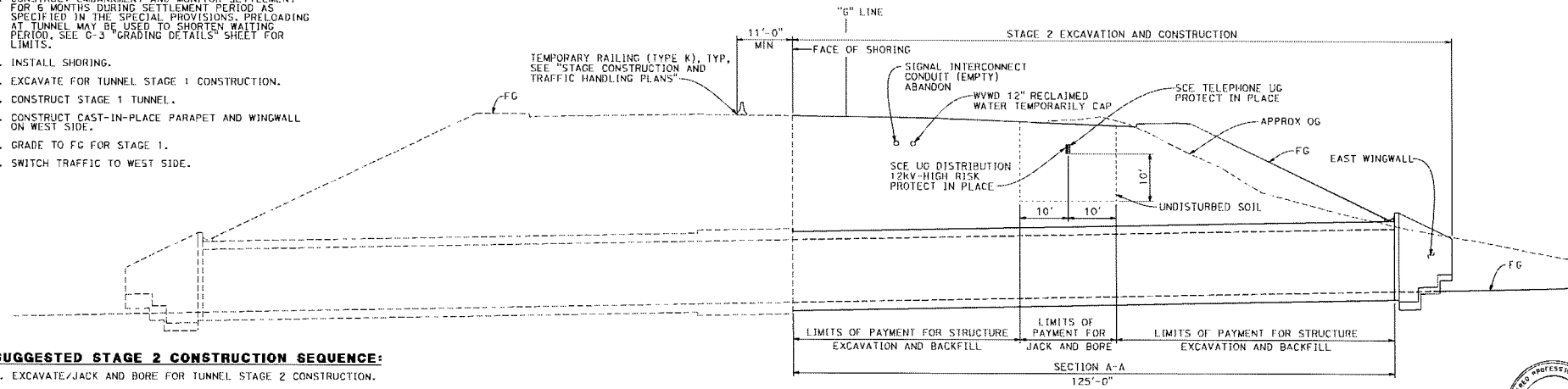
1. FOR LAYOUT OF TUNNEL PRECAST UNITS AT STAGE CONSTRUCTION, SEE "TRANSVERSE END JOINT DETAIL AT SECTION A-A/SECTION B-B INTERFACE" ON ST-6 "TUNNEL TYPICAL DETAILS NO. 1" SHEET.
2. FOR LENGTH OF PRECAST RCB UNITS, SEE "PRECAST TUNNEL TERMINOLOGY" ON ST-6 "TUNNEL TYPICAL DETAILS NO. 1" SHEET.
3. STRUTTING MAY BE REQUIRED AT DIFFERENT LOCATIONS DURING CONSTRUCTION AS SHOWN ON CALTRANS STANDARD PLAN DB8.
4. FOR EARTHWORK, SEE CALTRANS STANDARD PLAN A62C.
5. FOR ADDITIONAL UTILITY INFORMATION AND DISPOSITION, SEE "UTILITY PLANS".

**SUGGESTED STAGE 1 CONSTRUCTION SEQUENCE:**

1. CONSTRUCT EMBANKMENT AND MONITOR SETTLEMENT FOR 6 MONTHS DURING SETTLEMENT PERIOD AS SPECIFIED IN THE SPECIAL PROVISIONS. PRELOADING AT TUNNEL MAY BE USED TO SHORTEN WAITING PERIOD. SEE G-3 "GRADING DETAILS" SHEET FOR LIMITS.
2. INSTALL SHORING.
3. EXCAVATE FOR TUNNEL STAGE 1 CONSTRUCTION.
4. CONSTRUCT STAGE 1 TUNNEL.
5. CONSTRUCT CAST-IN-PLACE PARAPET AND WINGWALL ON WEST SIDE.
6. GRADE TO FG FOR STAGE 1.
7. SWITCH TRAFFIC TO WEST SIDE.

**STAGE 1**

1"=10'



**SUGGESTED STAGE 2 CONSTRUCTION SEQUENCE:**

1. EXCAVATE/JACK AND BORE FOR TUNNEL STAGE 2 CONSTRUCTION.
2. REMOVE SHORING.
3. CONSTRUCT STAGE 2 TUNNEL.
4. BACKFILL STAGE 2.
5. CONSTRUCT CAST-IN-PLACE PARAPET AND WINGWALLS ON EAST END.

**STAGE 2**

1"=10'



BL1712210027

**CITY OF DIAMOND BAR**

**TUNNEL STAGING PLAN**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET **ST-2** SHEET 105 OF 139

REVISIONS			
DATE	BY	DESCRIPTION	DATE

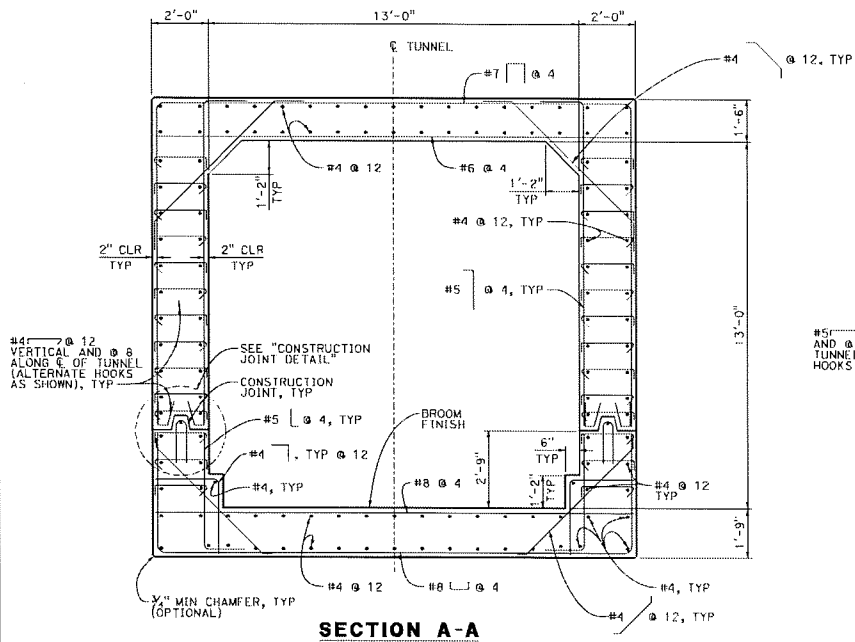
**BENCHMARK:**  
 ELEVATIONS SHOWN ARE BASED ON THE CALIFORNIA STATE PLATE SYSTEM (CGD83) ZONE 5 (NAD 83) DATUM OF 1983, 1997.55 EPOCH  
 OFFICIAL RECORD MAP, MOUNTAIN VIEW SECTION  
 NEARBY  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK, ELEV = 915.07 FEET

**PREPARED BY:**  
  
 PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WENDALL REG 50834 DATE EXP. 12/31/19

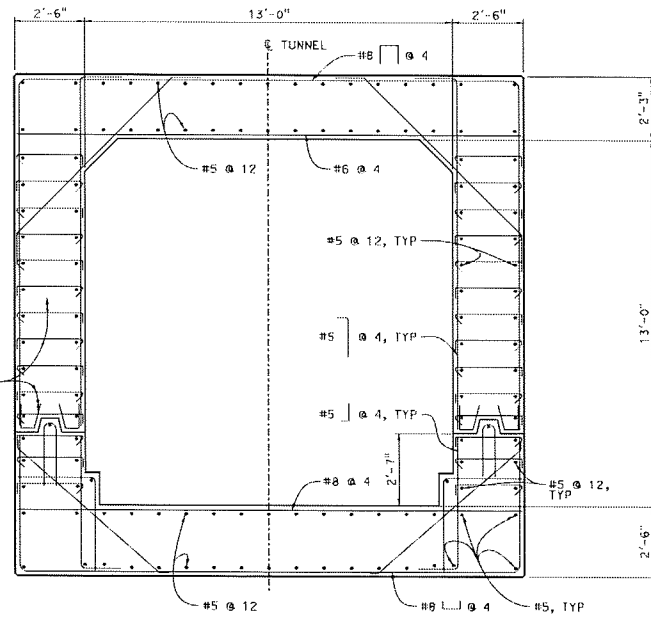
**QUALIFIED:**  
 RESIGNED:  
 APPROVED: CITY ENGINEER R.C.S. DATE:







**SECTION A-A**



**SECTION B-B**

NOTE:  
FOR INFORMATION NOT SHOWN,  
SEE "SECTION A-A".

**DESIGN NOTES:**

SPECIFICATIONS:  
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 6TH EDITION WITH CALIFORNIA AMENDMENTS DATED JANUARY 2014.

EARTH LOAD:  
EARTH PRESSURES FOR TWO CONDITIONS:  
140 pcf Vert, 42 pcf Horiz  
140 pcf Vert, 140 pcf Horiz

UNIT STRESSES:  
f'c = 5.0 ksi  
fy = 60.0 ksi  
n = 7

SOIL PRESSURES:  
SECTION A-A = 5.6 Ksf  
SECTION B-B = 8.1 Ksf

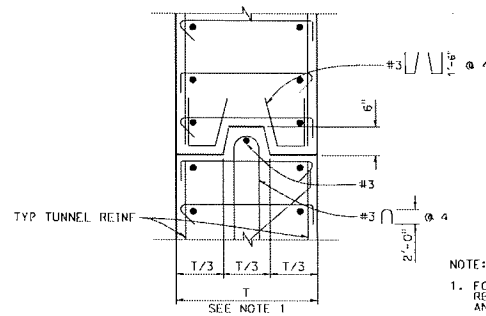
TUNNEL MUST CONFORM TO THE STATE OF CALIFORNIA STANDARD PLANS AND STANDARD SPECIFICATIONS 2015 EDITION.

**NOTES:**

- FOR CONCRETE, THE CEMENTITIOUS MATERIAL MUST BE COMPOSED OF ONE OF THE FOLLOWING, BY WEIGHT:
  - 20 PERCENT NATURAL POZZOLAN OR FLY ASH WITH C<sub>80</sub> CONTENT OF UP TO 10 PERCENT, 5 PERCENT SILICA FUME, AND 75 PERCENT PORTLAND CEMENT.
  - 12 PERCENT SILICA FUME, METAKAOLIN, OR UFFA, AND 88 PERCENT PORTLAND CEMENT.
  - 50 PERCENT GGBFS AND 50 PERCENT PORTLAND CEMENT.
- FOR CONCRETE, THE RATIO OF THE QUANTITY OF FREE WATER TO THE QUANTITY OF CEMENTITIOUS MATERIAL MUST NOT EXCEED 0.40.
- STRUCTURAL OBSERVATION BY THE STRUCTURAL ENGINEER OF RECORD IS REQUIRED TO ENSURE NO STRUCTURAL DAMAGE HAS OCCURRED DURING LIFTING AND PLACING THE PRECAST UNITS.

**TYPICAL SECTIONS**

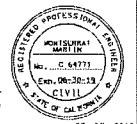
1/2"=1'-0"



**CONSTRUCTION JOINT DETAIL**

NO SCALE

NOTE:  
1. FOR WALL THICKNESS AND REINFORCEMENT, SEE "SECTION A-A" AND "SECTION B-B".



**CITY OF DIAMOND BAR**

**TUNNEL TYPICAL SECTIONS**

**DEPARTMENT OF PUBLIC WORKS**

**BL1712210027**

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

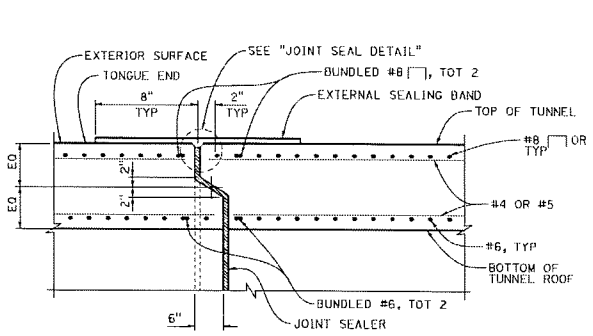
BENCHMARK:  
COORDINATE POINTS ARE AS SHOWN ON THE SURVEY PLANS AND FIELD NOTES FROM 1988 TO 1991. THE POINTS WERE SET BY THE SURVEYOR OF RECORD, M. S. WENDEL, IN 1988.

PREPARED BY:  
**WKE**  
400 N. Tustin Ave., Suite 201  
Santa Ana, CA 92705  
Phone (714) 963-2880  
Fax (714) 963-9008  
PREPARED UNDER THE SUPERVISION OF:  
DANIEL S. WENDEL REG. SURV. DATE EXP. 12/31/19

DATE: 12/31/19  
APPROVED: ETTV LMK/WH  
R.C.S. DATE

PROJECT NO. — SHEET 3T-4 SHEET 107 OF 139

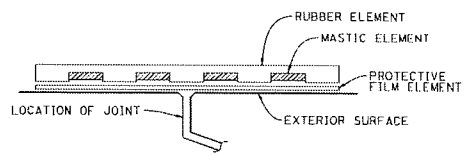




**TYPICAL TRANSVERSE JOINT DETAIL**

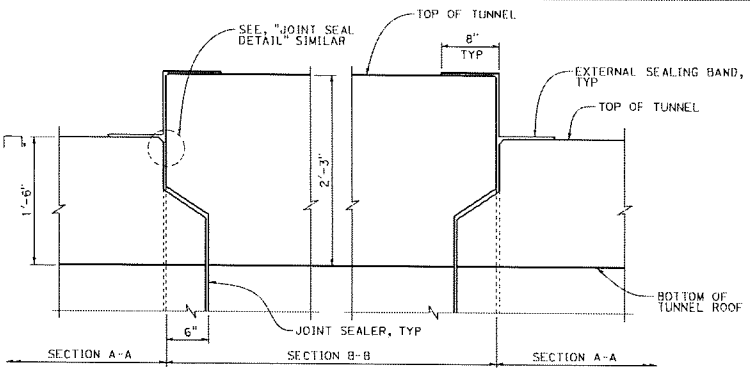
NO SCALE

NOTE: TUNNEL ROOF SHOWN, WALLS AND INVERT SIMILAR. FOR LOCATION OF EXTERNAL SEALING BAND, SEE "LOCATION OF EXTERNAL SEALING BAND AND JOINT SEAL" DETAIL.



**EXTERNAL SEALING BAND SCHEMATIC DETAIL**

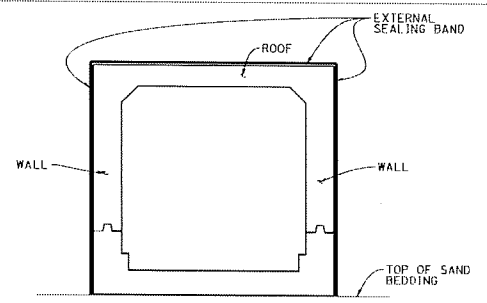
NO SCALE



**TRANSVERSE END JOINT DETAIL AT SECTION A-A/SECTION B-B INTERFACE**

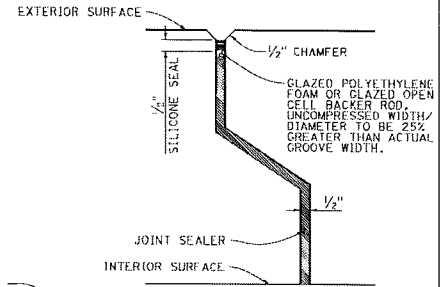
1 1/2"=1'-0"

- NOTES:
1. REINFORCEMENT NOT SHOWN FOR CLARITY.
  2. FOR INFORMATION NOT SHOWN, SEE "TYPICAL TRANSVERSE JOINT DETAIL"
  3. TUNNEL ROOF SHOWN, WALLS AND INVERT SIMILAR EXCEPT NO SEALING BAND AT INVERT.



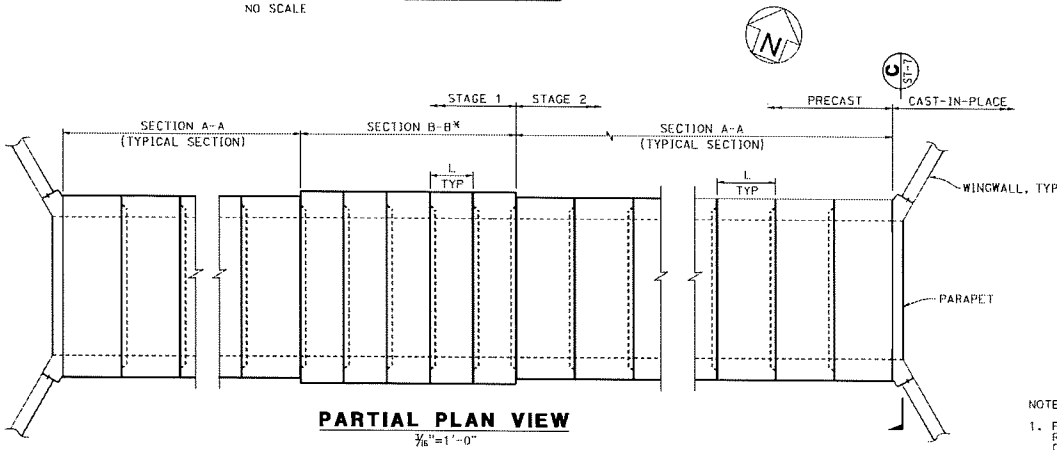
**LOCATION OF EXTERNAL SEALING BAND AND JOINT SEAL**

1/4"=1'-0"



**JOINT SEAL DETAIL**

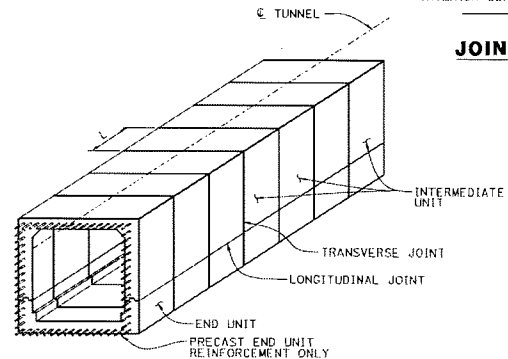
NO SCALE



**PARTIAL PLAN VIEW**

1/6"=1'-0"

- NOTES:
1. FOR SECTION C-C, SEE ST-7 "TUNNEL TYPICAL DETAILS NO. 2", SHEET
  2. \* 5 PRECAST UNIT SHOWN FOR ILLUSTRATION PURPOSE. THE CONTRACTOR TO DETERMINE THE NUMBER OF UNITS FOR SECTION B-B.



**PRECAST TUNNEL TERMINOLOGY**

1/6"=1'-0"

- NOTES:
1. FOR THE END UNITS, EXTEND ALL INNER AND OUTER REINFORCEMENT TO TIE TO CAST-IN-PLACE WINGWALL CONSTRUCTION.
  2. L=LENGTH OF PRECAST UNIT. FOR SECTION A-A, L=6'-0" MIN AND 16'-0" MAX. FOR SECTION B-B, L=9'-0" MIN AND 16'-0" MAX.

**BL1712210027**

REVISIONS					
REVISED BY	REV. NO.	CHECKED BY	REV. DATE	DESIGNED BY	REV. DATE

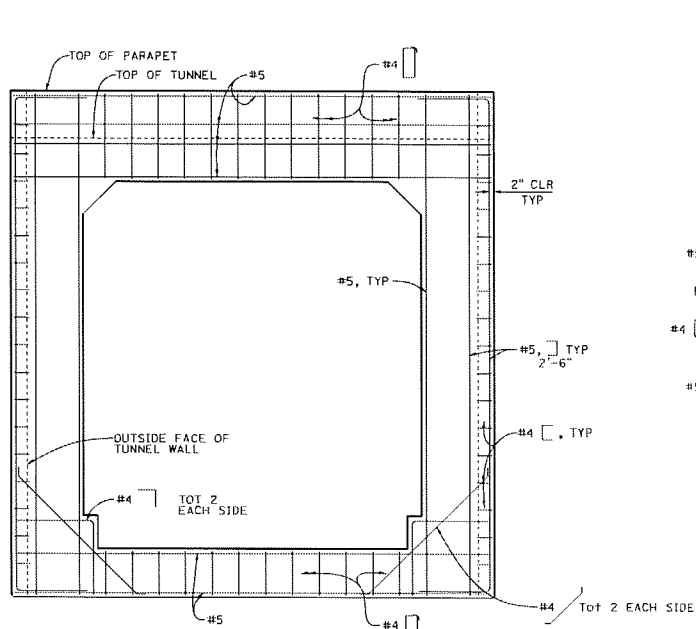
<b>BENCHMARK:</b> ELEVATIONS SHOWN ARE BASED ON THE 1985 NORTH AMERICAN DATUM. THE 1985 DATUM IS THE MEAN SEA LEVEL DATUM OF 1985. THE 1985 DATUM IS THE MEAN SEA LEVEL DATUM OF 1985. THE 1985 DATUM IS THE MEAN SEA LEVEL DATUM OF 1985.	<b>PREPARED BY:</b> JWKE 400 N. Tustin Ave. Suite 270 Santa Ana, CA 92705 Phone (714) 993-2865 Fax (714) 993-4100
---	--

<b>APPROVED:</b> SHIRLEY S. WILKINS DATE: 08/12/2018	<b>SUBMITTED:</b>
<b>APPROVED:</b>	<b>RECEIVED:</b>
<b>APPROVED:</b>	<b>DATE:</b>

**CITY OF DIAMOND BAR**  
TUNNEL TYPICAL DETAILS NO. 1  
DEPARTMENT OF PUBLIC WORKS

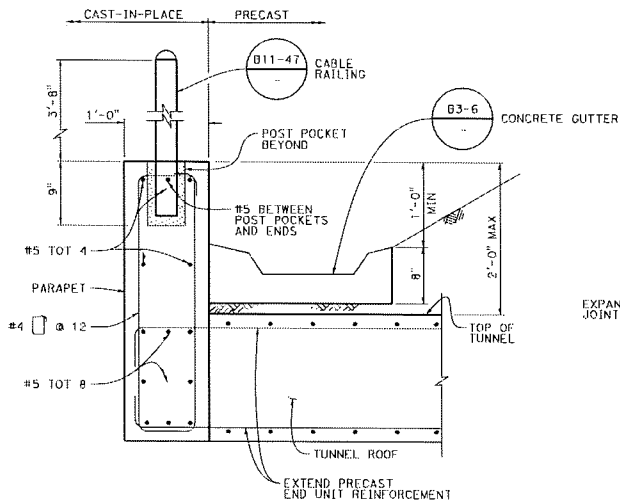
PROJECT NO. — SHEET ST-8 SHEET 105 OF 139

06-JUL-2018

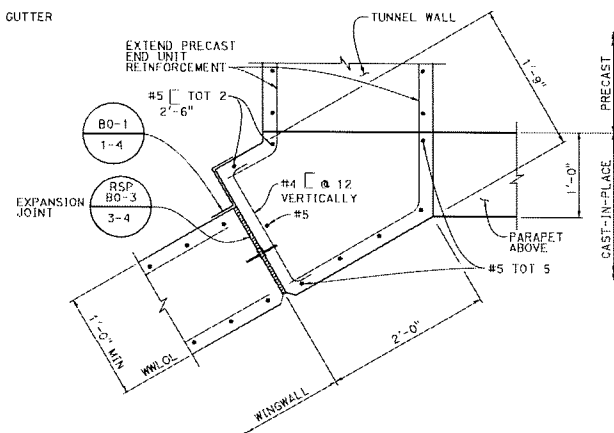


**SECTION C-C**  
1/2"=1'-0"

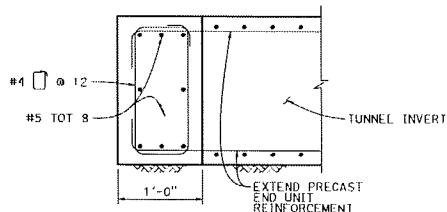
NOTE:  
PRECAST END UNIT  
EXTENDED REINFORCEMENT  
NOT SHOWN FOR CLARITY.



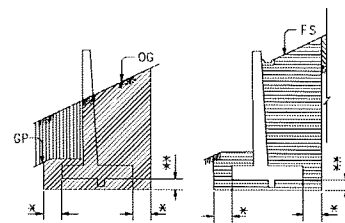
**SECTION D-D**  
1 1/2"=1'-0"



**SECTION E-E**  
1 1/2"=1'-0"



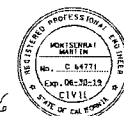
**SECTION F-F**  
1 1/2"=1'-0"



**LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL FOR WINGWALL**  
NO SCALE

- LEGEND:**
- STRUCTURE EXCAVATION
  - STRUCTURE BACKFILL
  - ROADWAY EXCAVATION
  - ROADWAY EMBANKMENT

- NOTES:**
- \* VARIES, SEE TYPICAL SECTION FOR OVER-EXCAVATION WIDTH
  - \*\* VARIES, SEE TYPICAL SECTION FOR OVER-EXCAVATION DEPTH



**CITY OF DIAMOND BAR**  
TUNNEL TYPICAL DETAILS NO. 2

BL1712210023

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

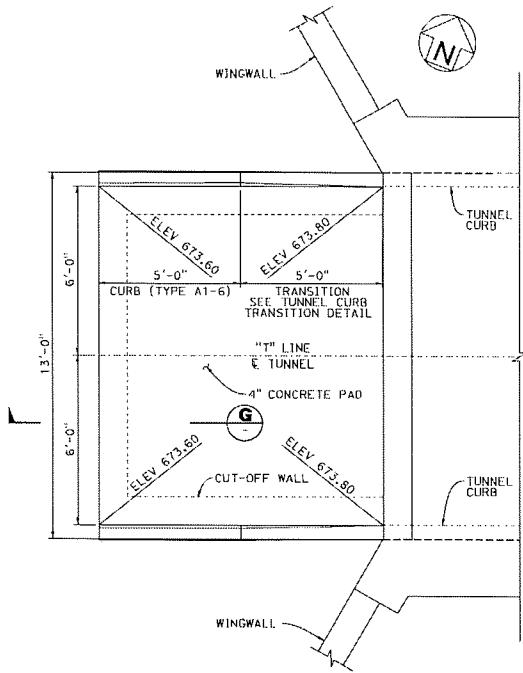
**BENCHMARK:**  
DIMENSIONS SHOWN ARE BASED ON THE  
LOCAL TUNNEL CONTROL POINT (TUNNEL ZONE 5,  
UNITS, 1983.50).  
VERTICAL CURVE DATA: 1983.50, 1983.50, 1983.50  
VERTICAL CURVE DATA: 1983.50, 1983.50, 1983.50  
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC  
WORKS BENCHMARK DATA, ELEVATION = 875.44 FEET

**PREPARED BY:**  
**WKE**  
480 N. Twelfth Ave., Suite 275  
Santa Ana, CA 92705  
Phone (714) 983-2888  
Fax (714) 983-2888

**APPROVED:**  
DANIEL S. KIMMEL REC 58938 DATE 08/12/2018

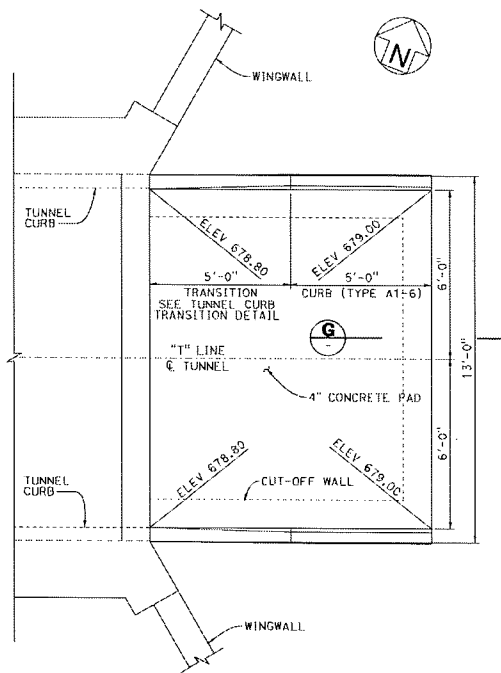
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — SHEET 91-7 SHEET 110 OF 139



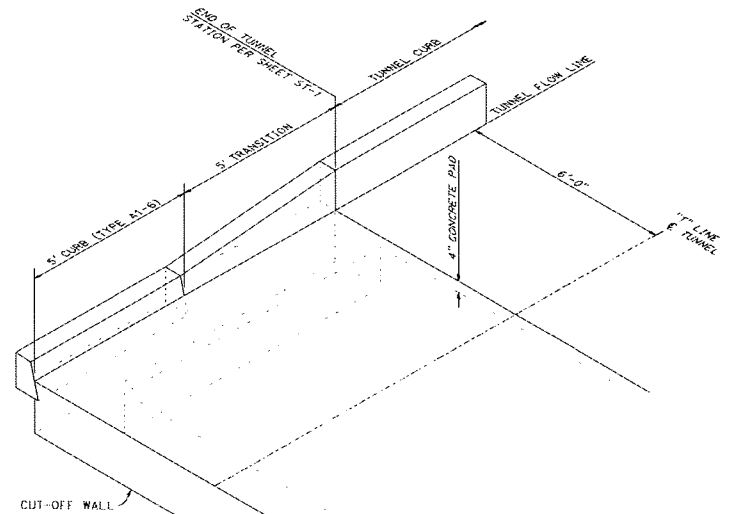
**WEST END CONCRETE PAD DETAIL**

1/2"=1'-0"



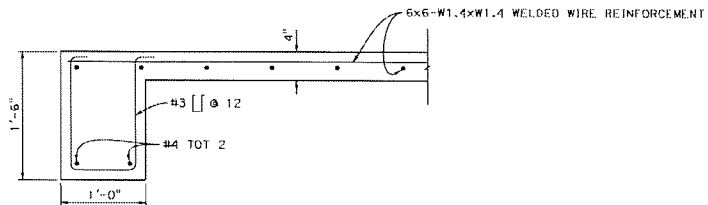
**EAST END CONCRETE PAD DETAIL**

1/2"=1'-0"



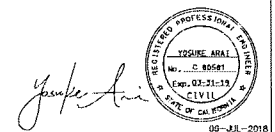
**TUNNEL CURB TRANSITION**

NO SCALE



**SECTION G-G**

1 1/2"=1'-0"



**CITY OF DIAMOND BAR**  
**TUNNEL TYPICAL DETAILS NO. 3**  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — SHEET **ST-1** SHEET 111 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**BENCHMARK:**  
 COORDINATE'S SHOWN ARE BASED ON THE CALIFORNIA STATE PLAT SYSTEM (NAD 83) ZONE 5 NORTH, DATUM OF 1983, 1991.55 EPOCH. VERTICAL DATUM IS MEAN SEA LEVEL. ALL ANGLES FORMED BY DEPARTMENT OF PUBLIC WORKS BENCHMARK DATA, UTM = 475,477 FEET.

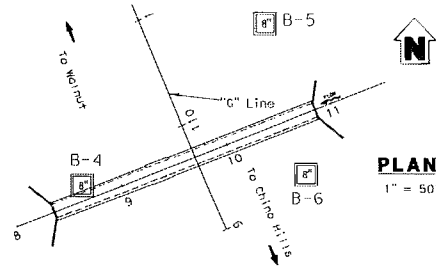
**PREPARED BY:**  
**WKE**  
 400 N. Swellin Ave., Suite 275  
 2010 Ave. CA 92705  
 Phone (714) 993-2880  
 Fax (714) 993-9000

PREPARED UNDER THE SUPERVISION OF:  
 DANIEL S. WOODILL REC 54634 DATE EXP. 12-31-19

**SUBMITTED:** \_\_\_\_\_  
**RECEIVED:** \_\_\_\_\_  
**APPROVED:** \_\_\_\_\_  
 CITY ENGINEER E.C.F. DATE \_\_\_\_\_

**NOTES:**

- (1) This LOTB sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification and Presentation Manual (June 2010).
- (2) 2.4" samples were taken using a California Modified Sampler.
- (3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.
- (4) Conversion factor from 2.4" Modified California Ring Sampler blowcounts to Standard Penetration Test (SPT) blowcounts is 0.5.
- (5) Groundwater level can fluctuate due to seasonal rainfall amount, local irrigation and groundwater recharge program, and other man-made conditions. Therefore, groundwater during construction could be higher than those noted.

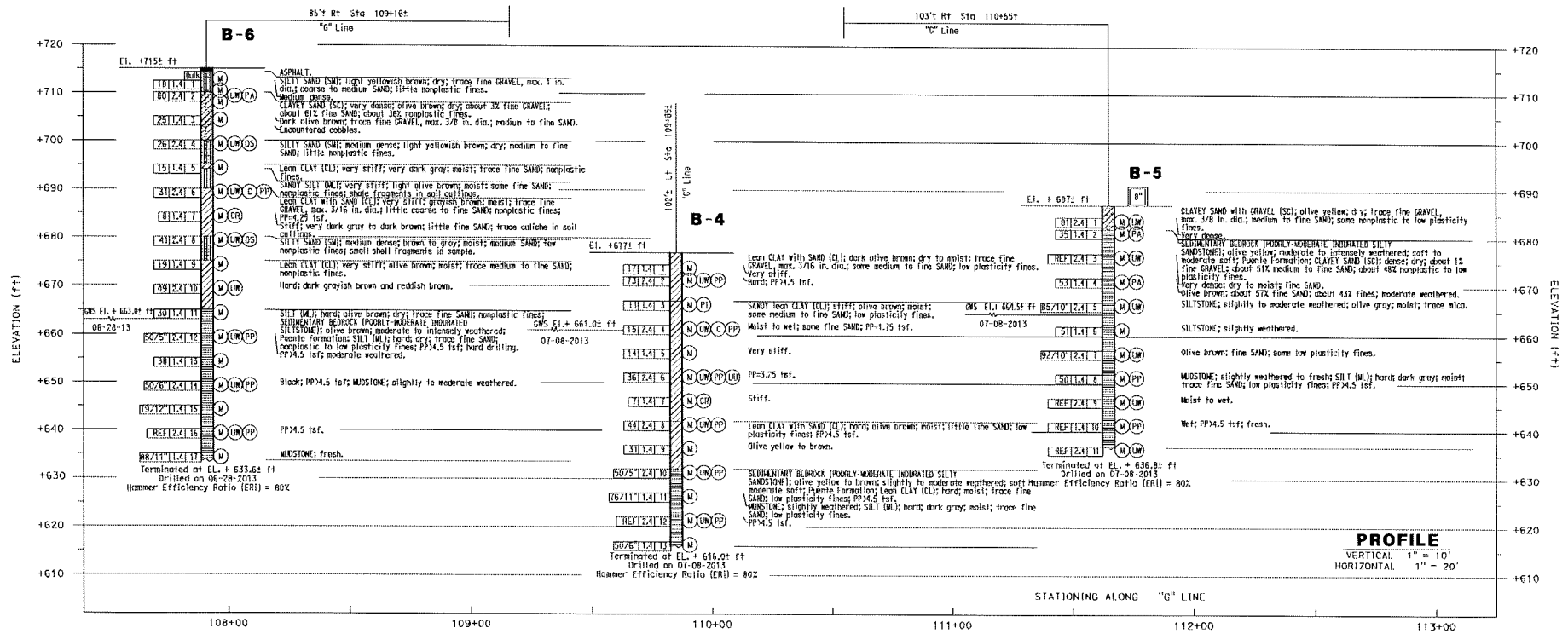


**Bench Mark:**

Horizontal control is based on Caltrans GPS points 1001 and 1002 from T11 Central Project done Jan 2000. Coordinates shown are based on the California Coordinate System (CCS83) Zone 5, 1983 NAD [1992.68 EPOCH]. Vertical control is based on Caltrans Benchmark 38-C-74, a standard disk, down 1.27<sub>2</sub>, 63<sub>2</sub>g left of Centerline. Baseline relocated 374+85.00. Elev = 1298.37 feet 1929 NCGVD, 1978 Adjustment, dated Dec. 1990.



*Lina Cheng*



**PROFILE**  
VERTICAL 1" = 10'  
HORIZONTAL 1" = 20'

ELEVATION (±ft)

STATIONING ALONG "G" LINE

06-JUL-2018

**CITY OF DIAMOND BAR**  
**LOG OF TEST BORINGS 1 FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **ST-1** SHEET 112 OF 139

REVISIONS					
NO.	DATE	BY	CHKD BY	REV. NO.	DESCRIPTION

BENCHMARK:	
NO.	ELEV. (0000.000)

PREPARED BY:  
**Earth Mechanics, Inc.**  
1100 W. CENTER STREET, SUITE 8  
TREATMONT, CALIF. 94760  
PREPARED UNDER THE SUPERVISION OF:  
LINA CHENG, C.E. 2345, DATE: EXP. 09/30/19

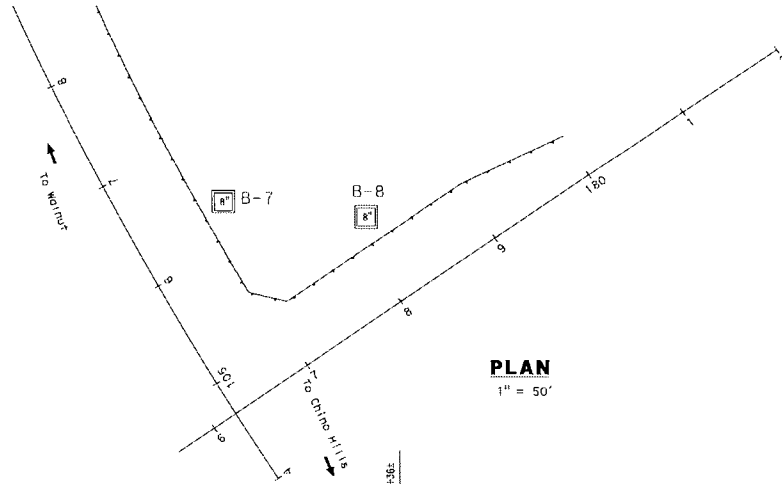
NO.	DATE	BY	CHKD BY	REV. NO.	DESCRIPTION

**Bench Marks:**

Horizontal control is based on Caltrans GPS points 1001 and 1002 from TLI Control Project done Jan 2000. Coordinates shown are based on the California Coordinate System (CCS83) Zone 5, 1983 NAD (1992.88 EPOCH). Vertical control is based on Caltrans Benchmark 38-C-74, a standard disk, down 1.27<sup>ft</sup>, 63<sup>in</sup> left of Centerline Baseline relocated 374+85.00. Elev = 1298.37 feet 1929 NGVD, 1978 Adjustment, dated Dec. 1990.

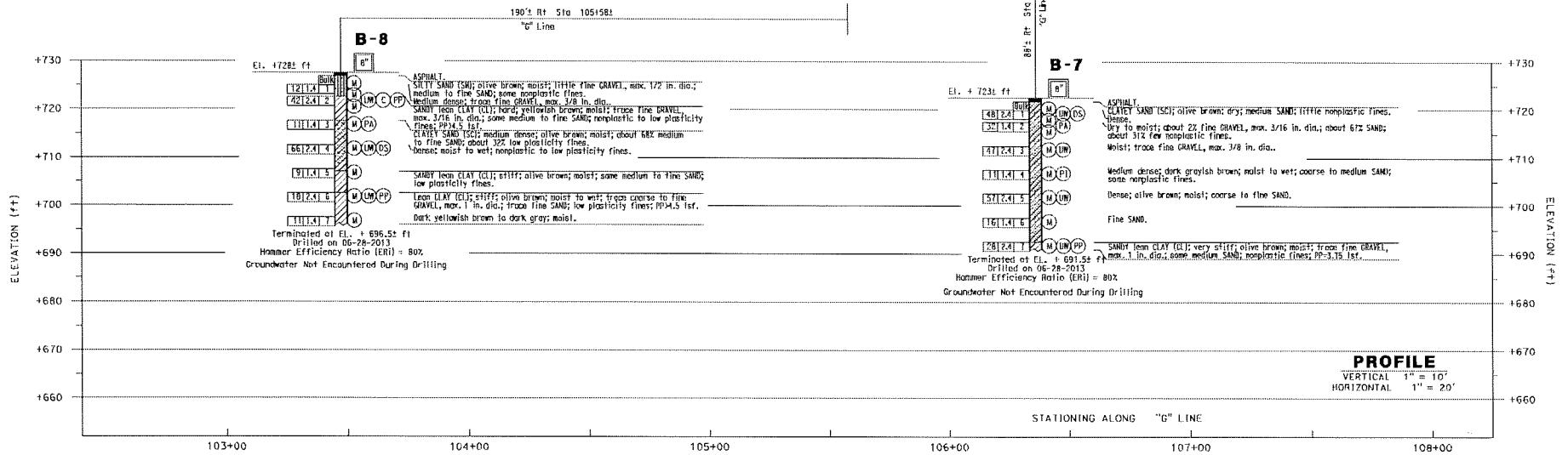
**NOTES:**

- (1) This LOG sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification and Presentation Manual (June 2010).
- (2) 2.4" samples were taken using a California Modified Sampler.
- (3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.
- (4) Conversion factor from 2.4" Modified California Ring Sampler blowcounts to Standard Penetration Test (SPT) blowcounts is 0.5.



*Lina Cheng*

**PLAN**  
1" = 50'



**PROFILE**  
VERTICAL 1" = 10'  
HORIZONTAL 1" = 20'

05-JUL-2018

**CITY OF DIAMOND BAR**  
LOG OF TEST BORINGS 2 FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **9T-10** SHEET 113 OF 139

REVISIONS					
NO.	DATE	BY	CHKD BY	DESCRIPTION	DATE

BENCHMARKS		PREPARED BY: <b>Earth Mechanics, Inc.</b> Geotechnical & Hydraulic Engineering 17000 WILSON AVENUE, SUITE 200 FREMONT, CALIF. 94538 PH: 415.871.1100 FAX: 415.871.1101	CHECKED BY: 
NO.	ELEV. 0000.000		
PREPARED UNDER THE SUPERVISION OF:		APPROVED BY: 	DATE: 
LINA CHENG, DE 2245, DATE 07/07/18			



REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)



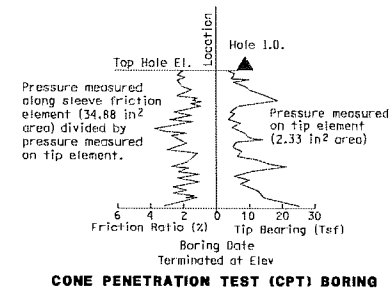
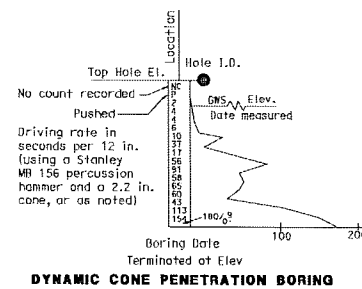
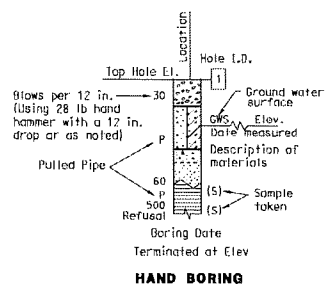
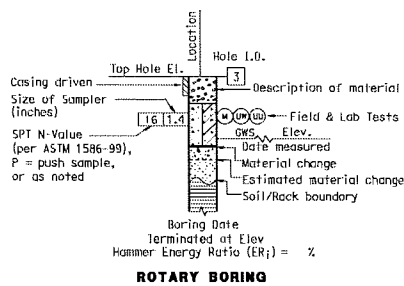
*Lina Cheng*

CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven 1-inch soil tube
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOG)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



08-JUL-2016

**CITY OF DIAMOND BAR**  
**LOG OF TEST BORINGS 3 FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**  
 DEPARTMENT OF PUBLIC WORKS

PROJECT NO. \_\_\_\_\_ SHEET **8T-11** SHEET 114 OF 139

REVISIONS					
NO.	DATE	BY	DESCRIPTION	NO.	DATE

BENCHMARK:	NO.	ELEV. 0000.000
------------	-----	----------------

PREPARED BY: **Earth Mechanics, Inc.**  
 Geotechnical & Foundation Engineering  
 17500 WILSON AVENUE, SUITE 200  
 FORTIN, CALIFORNIA 95740

PREPARED UNDER THE SUPERVISION OF: \_\_\_\_\_

LINA CHENG, CE 2355, DATE: 07/29/16

APPROVED: \_\_\_\_\_ CITY ENGINEER P.E. DATE: \_\_\_\_\_

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	GW Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	GP Poorly-graded GRAVEL		SANDY lean CLAY
	Poorly-graded GRAVEL with SAND		GRAVELLY lean CLAY
	GW-GM Well-graded GRAVEL with SILT		SILTY CLAY
	Well-graded GRAVEL with SILT and SAND		SILTY CLAY with SAND
	DW-GC Well-graded GRAVEL with CLAY		SANDY SILTY CLAY
	(or SILTY CLAY)		SANDY SILTY CLAY with GRAVEL
	DW-GC Well-graded GRAVEL with CLAY and SAND		GRAVELLY SILTY CLAY
	(or SILTY CLAY and SAND)		GRAVELLY SILTY CLAY with SAND
	GP-GM Poorly-graded GRAVEL with SILT		SILT
	Poorly-graded GRAVEL with SILT and SAND		SILT with SAND
	GP-GC Poorly-graded GRAVEL with CLAY		SANDY SILT
	(or SILTY CLAY)		SANDY SILT with GRAVEL
	GP-GC Poorly-graded GRAVEL with CLAY and SAND		GRAVELLY SILT
	(or SILTY CLAY and SAND)		GRAVELLY SILT with SAND
	GM SILTY GRAVEL		ORGANIC lean CLAY
	SILTY GRAVEL with SAND		ORGANIC lean CLAY with SAND
	CC CLAYEY GRAVEL		ORGANIC lean CLAY with GRAVEL
	CLAYEY GRAVEL with SAND		SANDY ORGANIC lean CLAY
	GC-GM SILTY, CLAYEY GRAVEL		SANDY ORGANIC lean CLAY with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		GRAVELLY ORGANIC lean CLAY
	SW Well-graded SAND		GRAVELLY ORGANIC lean CLAY with SAND
	Well-graded SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SP Poorly-graded SAND		Fat CLAY
	Poorly-graded SAND with GRAVEL		Fat CLAY with SAND
	SW-SM Well-graded SAND with SILT		Fat CLAY with GRAVEL
	Well-graded SAND with SILT and GRAVEL		SANDY fat CLAY
	SW-SC Well-graded SAND with CLAY		SANDY fat CLAY with GRAVEL
	(or SILTY CLAY)		GRAVELLY fat CLAY
	SW-SC Well-graded SAND with CLAY and GRAVEL		GRAVELLY fat CLAY with SAND
	(or SILTY CLAY and GRAVEL)		Elastic SILT
	SP-SM Poorly-graded SAND with SILT		Elastic SILT with SAND
	Poorly-graded SAND with SILT and GRAVEL		Elastic SILT with GRAVEL
	SP-SC Poorly-graded SAND with CLAY		SANDY elastic SILT
	(or SILTY CLAY)		SANDY elastic SILT with GRAVEL
	SP-SC Poorly-graded SAND with CLAY and GRAVEL		GRAVELLY elastic SILT
	(or SILTY CLAY and GRAVEL)		GRAVELLY elastic SILT with SAND
	SM SILTY SAND		ORGANIC fat CLAY
	SILTY SAND with GRAVEL		ORGANIC fat CLAY with SAND
	SC CLAYEY SAND		ORGANIC fat CLAY with GRAVEL
	CLAYEY SAND with GRAVEL		SANDY ORGANIC fat CLAY
	SC-SM SILTY, CLAYEY SAND		SANDY ORGANIC fat CLAY with GRAVEL
	SILTY, CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC fat CLAY
	PT PEAT		GRAVELLY ORGANIC fat CLAY with SAND
			ORGANIC elastic SILT
			ORGANIC elastic SILT with SAND
			ORGANIC elastic SILT with GRAVEL
			SANDY ORGANIC elastic SILT
			SANDY ORGANIC elastic SILT with GRAVEL
			GRAVELLY ORGANIC elastic SILT
			GRAVELLY ORGANIC elastic SILT with SAND
			ORGANIC SOIL
			ORGANIC SOIL with SAND
			ORGANIC SOIL with GRAVEL
			SANDY ORGANIC SOIL
			SANDY ORGANIC SOIL with GRAVEL
			GRAVELLY ORGANIC SOIL
			GRAVELLY ORGANIC SOIL with SAND
			GRAVELLY ORGANIC SOIL with SAND

**FIELD AND LABORATORY TESTING**

- (C) Cone Indentation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4629)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2914)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO I 90) Liquid Limit (AASHTO I 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (UC) Unconfined Compression-Soil (ASTM D 2166)
- (UR) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)



*L. Cheung*

**APPARENT DENSITY OF COHESIONLESS SOILS**

Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

**MOISTURE**

Description	Criteria
Dry	No discernible moisture
Moist	Moisture present, but no free water
Wet	Visible free water

**PERCENT OR PROPORTION OF SOILS**

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

**PARTICLE SIZE**

Description		Size (in.)
Boulder		Greater than 12
Cobble		3 - 12
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay		Less than 1/300

06-JUL-2018

**CITY OF DIAMOND BAR**  
LOG OF TEST BORINGS 4 FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BENCHMARK: NO. ELEV. 0000.000

PREPARED BY: Earth Mechanics, Inc.  
Geotechnical & Foundation Engineering  
1700 W. GARDEN STREET, SUITE 8  
TUSTIN, CALIFORNIA 92680  
PREPARED UNDER THE SUPERVISION OF:  
L. CHEUNG, P.E. 8235 DATE: 06/29/2018

DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
APPROVED: CITY ENGINEER REG. DATE: \_\_\_\_\_

PROJECT NO. \_\_\_\_\_ SHEET 9T-12 SHEET 115 OF 139

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

**PERCENT CORE RECOVERY (REC) & ROCK QUALITY DESIGNATION (RQD)**

$$REC = \frac{\sum \text{Length of the recovered core pieces (in.)}}{\text{Total length of core run (in.)}} \times 100\%$$

$$RQD = \frac{\sum \text{Length of intact core pieces} \geq 4 \text{ in.}}{\text{Total length of core run (in.)}} \times 100\%$$

RQD\* Indicates soundness criteria not met.

BEDDING SPACING	
Description	Thickness / Spacing
Massive	Greater than 10 ft
Very Thickly Bedded	3 ft - 10 ft
Thickly Bedded	1 ft - 3 ft
Moderately Bedded	4 in. - 1 ft
Thinly Bedded	1 in. - 4 in.
Very Thinly bedded	1/4 in. - 1 in.
Laminated	Less than 1/4 in.

LEGEND OF ROCK MATERIALS	
	IGNEOUS ROCK
	SEDIMENTARY ROCK
	METAMORPHIC ROCK



*Lino Cheung*

ROCK HARDNESS	
Description	Criteria
Extremely Hard	Cannot be scratched with a pocketknife or sharp pick. Can only be chipped with repeated heavy hammer blows.
Vary Hard	Cannot be scratched with a pocketknife or sharp pick. Breaks with repeated heavy hammer blows.
Hard	Can be scratched with a pocketknife or sharp pick with difficulty (heavy pressure). Breaks with heavy hammer blows.
Moderately Hard	Can be scratched with pocketknife or sharp pick with light or moderate pressure. Breaks with moderate hammer blows.
Moderately Soft	Can be grooved 1/16 in. deep with a pocketknife or sharp pick with moderate or heavy pressure. Breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily by a pocketknife or sharp pick with light pressure, can be scratched with fingernail. Breaks with light to moderate manual pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a pocketknife. Breaks with light manual pressure.

FRACTURE DENSITY	
Description	Observed Fracture Density
Unfractured	No fractures.
Very Slightly fractured	Core lengths greater than 3 ft.
Slightly Fractured	Core lengths mostly from 1 to 3 ft.
Moderately Fractured	Core lengths mostly from 4 in. to 1 ft.
Intensely Fractured	Core lengths mostly from 1 to 4 in.
Very Intensely Fractured	Mainly chips and fragments.

Description	WEATHERING DESCRIPTORS FOR INTACT ROCK				General Characteristics	
	Diagnostic Features					
	Chemical Weathering-Discoloration and/or Oxidation		Mechanical Weathering-Grain Boundary Conditions (Disaggregation) Primarily for Granitics and Some Coarse-Grained Sediments	Texture and Leaching		
	Body of Rock	Fracture Surfaces		Texture	Leaching	
Fresh	No discoloration, not oxidized.	No discoloration or oxidation.	No separation, intact (light).	No change	No leaching	Hammer rings when crystalline rocks are struck.
Slightly Weathered	Discoloration or oxidation is limited to surface of, or short distance from, fractures; some feldspar crystals are dull.	Minor to complete discoloration or oxidation of most surfaces.	No visible separation, intact (light).	Preserved	Minor leaching of some soluble minerals.	Hammer rings when crystalline rocks are struck. Body of rock not weakened.
Moderately Weathered	Discoloration or oxidation extends from fractures usually throughout; Fe-Mg minerals are "rusty," feldspar crystals are "cloudy."	All fracture surfaces are discolored or oxidized.	Partial separation of boundaries visible.	Generally preserved	Soluble minerals may be mostly leached.	Hammer does not ring when rock is struck. Body of rock is slightly weakened.
Intensely Weathered	Discoloration or oxidation throughout; all feldspars and Fe-Mg minerals are altered to clay to some extent; or chemical alteration produces in-situ disaggregation, see grain boundary conditions.	All fracture surfaces are discolored or oxidized, surfaces friable.	Partial separation, rock is friable; in semiarid conditions granitics are disaggregated.	Texture altered by chemical disintegration (hydration, argillation).	Leaching of soluble minerals may be complete.	Dull sound when struck with hammer, usually can be broken with moderate to heavy manual pressure or by light hammer blow without reference to plane of weakness such as incipient or hairline fractures, or veinlets. Rock is significantly weakened.
Decomposed	Discolored or oxidized throughout, but resistant minerals such as quartz may be unaltered; all feldspars and Fe-Mg minerals are completely altered to clay.		Complete separation of grain boundaries (disaggregated).	Resembles a soil, partial or complete remnant rock structure may be preserved; leaching of soluble minerals usually complete.		Can be granulated by hand. Resistant minerals such as quartz may be present as "stringers" or "dikes."

REVISIONS					
CHECKED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

BENCHMARK:  
NO. ELEV. 6000.000

PREPARED BY:  
Earth Mechanics, Inc.  
Professional & Technical Staffing  
17000 WILSON STREET, SUITE 200  
PHOENIX, AZ 85024  
PREPARED UNDER THE SUPERVISION OF:  
LINO CHEUNG, CE 2245, DATE: EXP. 09/29/19

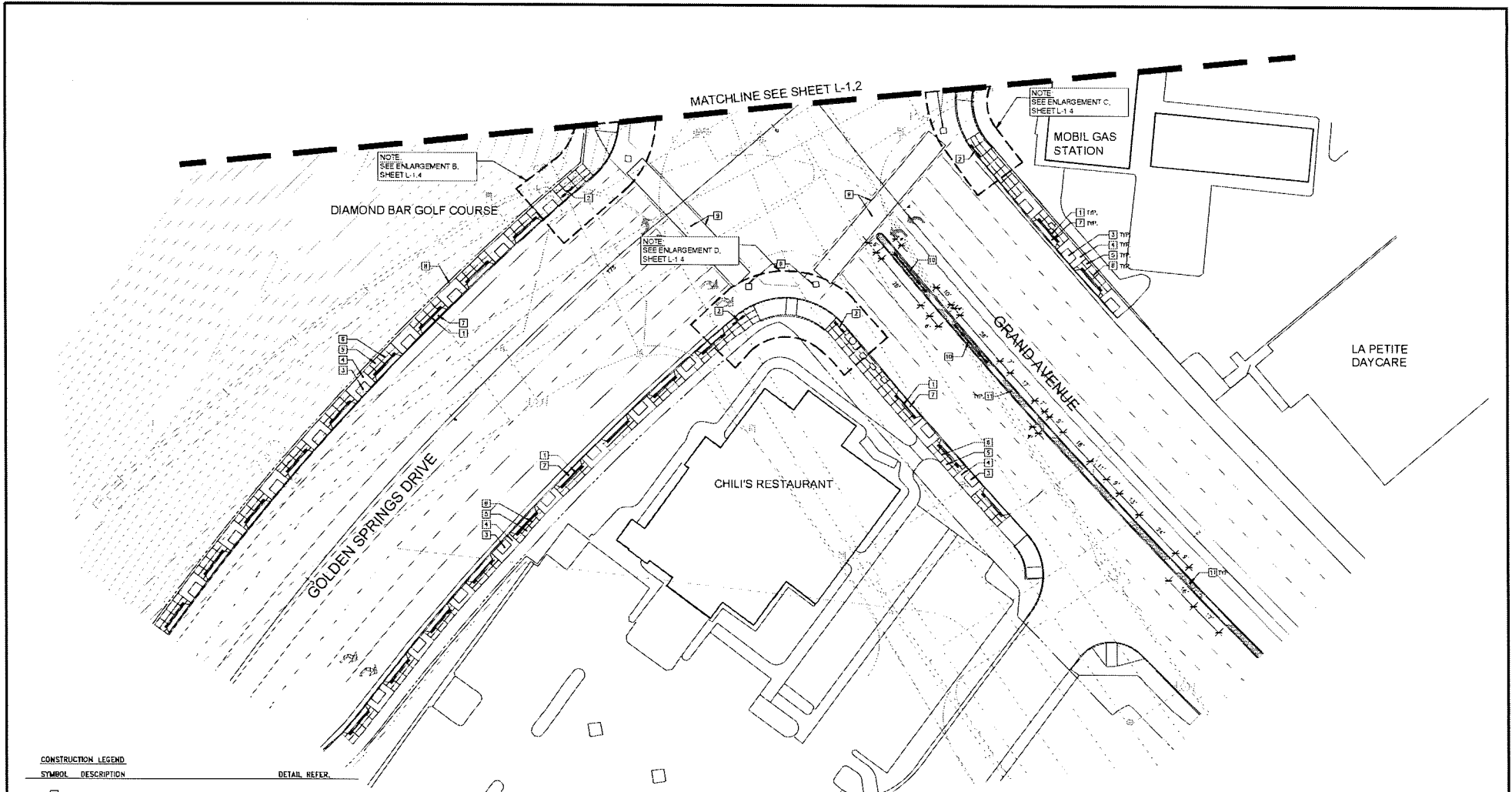
SUBMITTED: \_\_\_\_\_  
RECEIVED: \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
ELEV. CHECKER: \_\_\_\_\_  
P.L.C.: \_\_\_\_\_  
DATE: \_\_\_\_\_

**CITY OF DIAMOND BAR**  
LOG OF TEST BORINGS 6 FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ SHEET **ST-13** SHEET 116 OF 139

05-JUL-2018



**CONSTRUCTION LEGEND**

SYMBOL	DESCRIPTION	DETAIL REFER.
1	PRECAST POST AND WOOD RAIL	DETAIL 4/D, SHEET L-1.7
2	PRECAST POST WITH STEEL PANEL	DETAIL 7, SHEET L-1.7
3	CUSTOM CAST IRON TREE GRATE	DETAIL 2 & 3, SHEET L-1.8
4	DECORATIVE FINING	DETAIL 3, SHEET L-1.7
5	NATURAL GRAY CONCRETE	DETAIL 1, SHEET L-1.7
6	SEORS JOINT LAYOUT	DETAIL 1, SHEET L-1.9
7	PLANTER	SHEET L-3.0
8	TUBULAR STEEL FENCE	DETAIL 2, SHEET L-1.8
9	CURB/WALK WITH DECORATIVE FINING	DETAIL 1, SHEET L-1.8
10	PRECAST POST, WOODEN RAIL, AND STEEL PANELS	DETAIL 3, SHEET L-1.8
11	WALK CURBLINE	DETAIL 4, SHEET L-1.8

SCALE: 1"=20'

May 29, 2018

**CITY OF DIAMOND BAR**  
 CONSTRUCTION PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-11** SHEET 111 OF 139

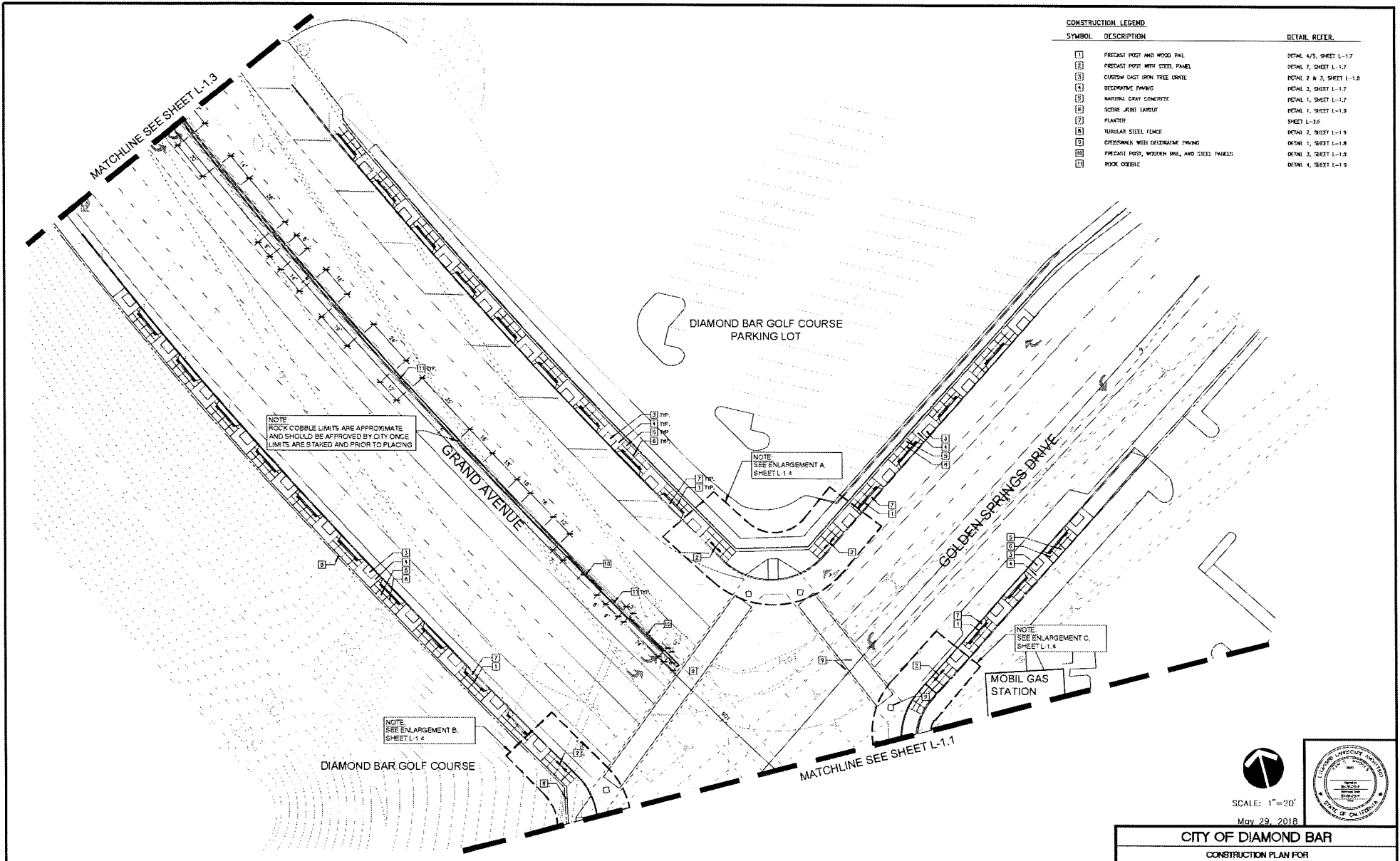
REVISIONS					
CREATED BY	CHK. NO.	CHANGED BY	CHK. NO.	CHECKED BY	CHK. NO.

PREPARED BY:

**DAVID EVANS AND ASSOCIATES INC.**  
 4141 E. Harvard Street, Suite 225  
 Orange, CA 92668  
 Phone: 929 481 5250

BENCHMARK:  
 CORNER OF GRAND AVE AND GOLDEN SPRINGS DR, CALIFORNIA HIGHWAY DESIGN BY 1983, 1981.35 EPOCH (NAD83, DATUM)  
 UTILITY MARKING (BASED ON NORTH ARROW) REVISIONS  
 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
 REVISIONS: 04/24/18 - 04/24/18

SUBMITTED: _____
REMOVED: _____
APPROVED: _____
DATE: _____



CONSTRUCTION LEGEND		DETAIL REFER.
SYMBOL	DESCRIPTION	
[1]	PRECAST POST AND WOOD RAIL	DETAIL 4/5, SHEET L-1.7
[2]	PRECAST POST WITH STEEL PANEL	DETAIL 7, SHEET L-1.7
[3]	CUSTOM CAST IRON TREE CRATE	DETAIL 2 & 3, SHEET L-1.8
[4]	DECORATIVE FLOWING	DETAIL 3, SHEET L-1.7
[5]	NATURAL GRAY CONCRETE	DETAIL 1, SHEET L-1.7
[6]	SCORE JOINT LAYOUT	DETAIL 1, SHEET L-1.9
[7]	PLANTER	SHEET L-3.6
[8]	TUBULAR STEEL FENCE	DETAIL 2, SHEET L-1.9
[9]	CROSSWALK WITH DECORATIVE FLOWING	DETAIL 1, SHEET L-1.8
[10]	PRECAST POST, WOODEN RAIL, AND STEEL PANELS	DETAIL 3, SHEET L-1.5
[11]	ROCK COBBLE	DETAIL 4, SHEET L-1.5

SCALE: 1"=20'

May 29, 2018

**CITY OF DIAMOND BAR**  
 CONSTRUCTION PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

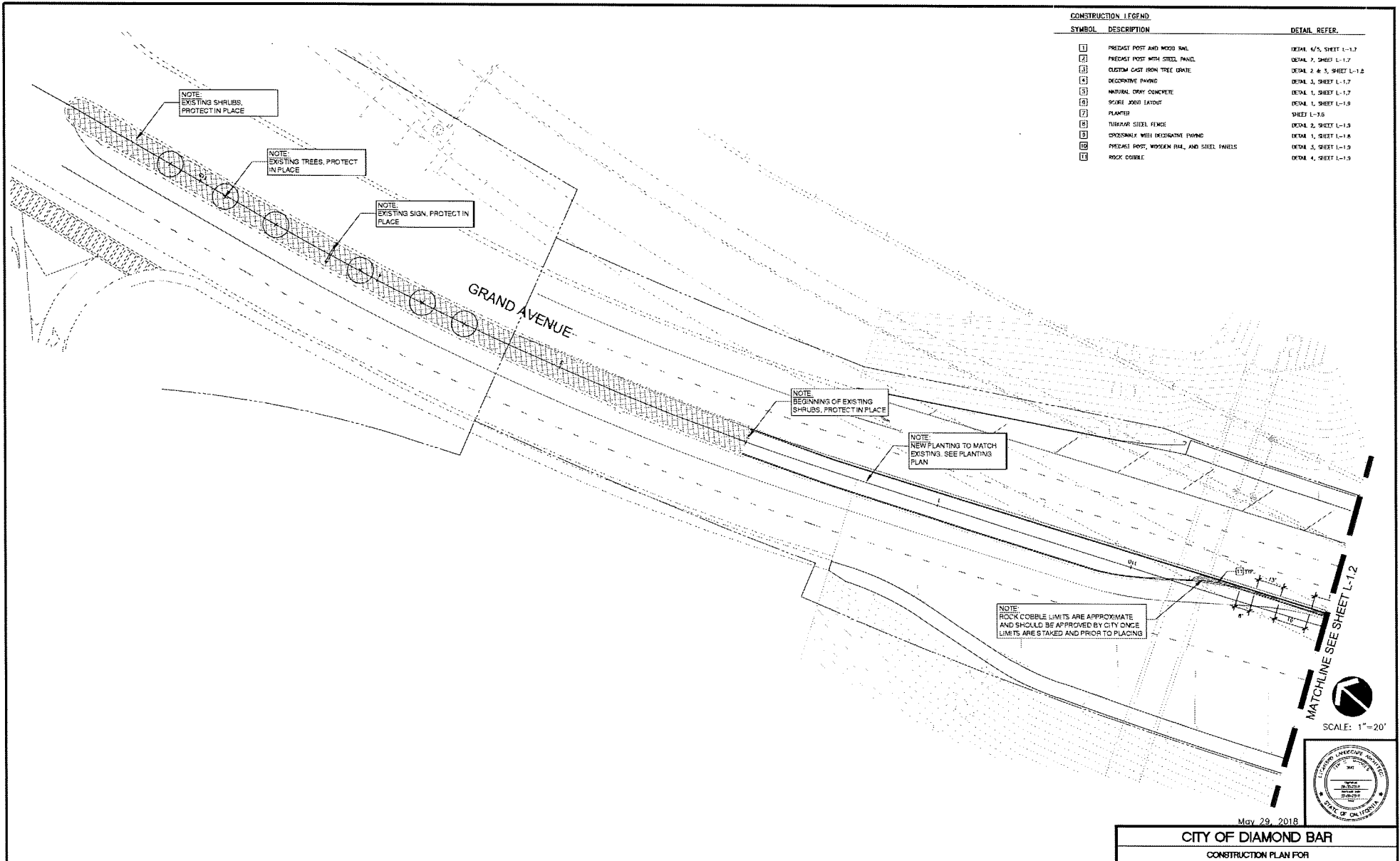
PROJECT NO. — **L-12** SHEET 119 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PREPARED BY:  
**DAVID EVANS AND ASSOCIATES, INC.**  
 4141 E GRAND AVENUE, SUITE 200  
 DIAMOND BAR, CA 91765  
 PHONE 929 481 5350

BENCHMARK:  
 COORDINATE SYSTEM: NAD 83  
 DATUM: MEAN SEA LEVEL  
 HORIZONTAL DATUM: NAD 83  
 VERTICAL DATUM: MEAN SEA LEVEL  
 UNIT: FEET

SUBMITTED:	
REVISIONS:	
APPROVED:	



CONSTRUCTION LEGEND		
SYMBOL	DESCRIPTION	DETAIL REFER.
1	PRECAST POST AND WOOD RAIL	DETAIL 6/5, SHEET L-1.7
2	PRECAST POST WITH STEEL PANEL	DETAIL 7, SHEET L-1.7
3	CUSTOM CAST IRON TREE GRATE	DETAIL 2 & 3, SHEET L-1.2
4	DECORATIVE PAVING	DETAIL 3, SHEET L-1.7
5	NATURAL CRAY CONCRETE	DETAIL 1, SHEET L-1.7
6	SOFT SET LAYOUT	DETAIL 1, SHEET L-1.9
7	PLASTER	SHEET L-9.6
8	TUBULAR STEEL FENCE	DETAIL 2, SHEET L-1.9
9	CROSSBARK WITH DECORATIVE FINISH	DETAIL 1, SHEET L-1.8
10	PRECAST POST, WOODEN RAIL, AND STEEL PANELS	DETAIL 3, SHEET L-1.9
11	ROCK COBBLE	DETAIL 4, SHEET L-1.9

NOTE: EXISTING SHRUBS, PROTECT IN PLACE

NOTE: EXISTING TREES, PROTECT IN PLACE

NOTE: EXISTING SIGN, PROTECT IN PLACE

GRAND AVENUE

NOTE: BEGINNING OF EXISTING SHRUBS, PROTECT IN PLACE

NOTE: NEW PLANTING TO MATCH EXISTING. SEE PLANTING PLAN

NOTE: ROCK COBBLE LIMITS ARE APPROXIMATE AND SHOULD BE APPROVED BY CITY ONCE LIMITS ARE STAKED AND PRIOR TO PLACING

MATCHLINE SEE SHEET L-12



SCALE: 1"=20'



May 29, 2018

**CITY OF DIAMOND BAR**  
 CONSTRUCTION PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

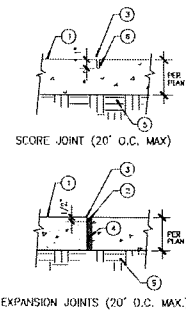
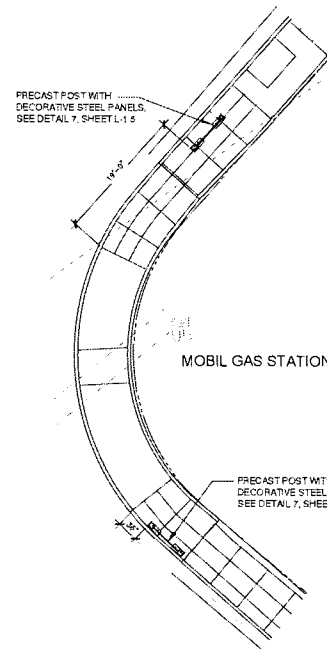
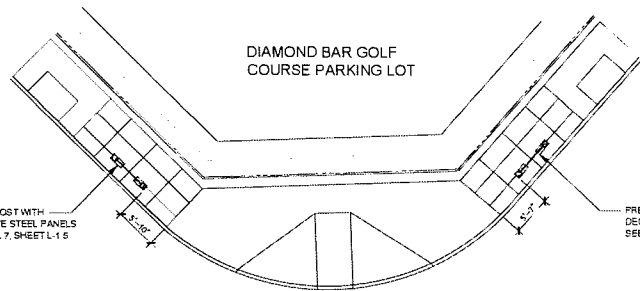
PROJECT NO. — **L-13** SHEET 119 OF 139

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PREPARED BY: **DAVID EVANS**  
 LANDSCAPE ARCHITECT  
 4141 E GRAND AVENUE, SUITE 201  
 GARDEN GROVE, CA 92646  
 PHONE 949 481 5350

BENCHMARK: COORDINATE SHOWN ARE BASED ON THE CALIFORNIA NATIONAL DATUM OF 1983 (NAD 83) WHICH BEGINS AT THE POINT OF BEGINNING OF THE SURVEY. THE BENCHMARK IS A METRIC BENCHMARK BASED ON NORTH AMERICAN MEASUREMENT. LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS HEADQUARTERS, 1200 N. GARDEN STREET, GARDEN GROVE, CA 92646

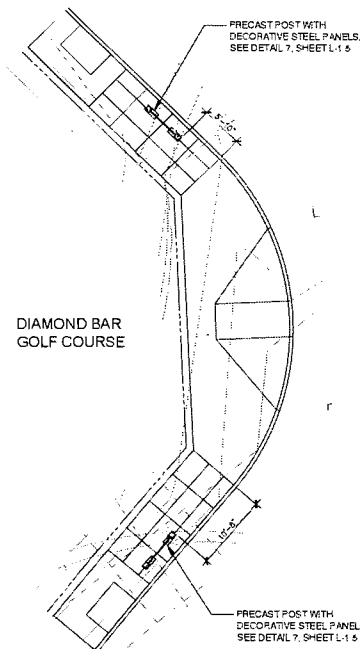
SUBMITTED	DATE
REMOVED	DATE
APPROVED	DATE



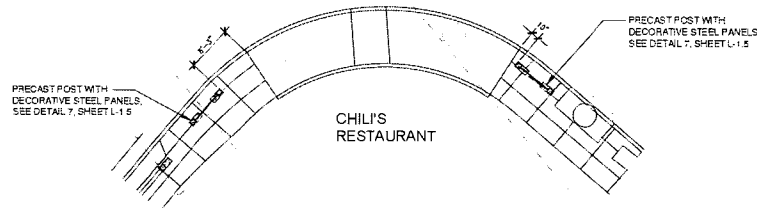
- LEGEND:**
1. CONCRETE FINISH: POLYMER COLOR PER PLAN
  2. POLYURETHANE CHALKING TO MATCH CONCRETE COLOR
  3. 1/4" IRONING TRAWLED EDGE
  4. 1/2" PRECASTED FIBER EXPANSION JOINT PER PLAN
  5. 1/2" PRECASTED FIBER SCORE JOINT PER PLAN
  6. AFTER FINAL PAINT TRIMMING THE CONCRETE SHALL BE FINISHED BY A STRAIGHT EDGE TO A DEPTH OF 1".

CONCRETE JOINTS

**A** NORTHEAST CORNER OF GRAND AVE AND GOLDEN SPRINGS DR



**C** SOUTHEAST CORNER OF GRAND AVE AND GOLDEN SPRINGS DR



NOTE: SURFACE MOUNTED POSTS MAY BE REQUIRED WHERE IN CONFLICT WITH NEW AND/OR EXISTING UTILITIES. CONTRACTOR TO COORDINATE FIELD CONDITIONS AND APPROPRIATE FOOTING TYPE FOR ALL CORNER LOCATIONS

**B** NORTHWEST CORNER OF GRAND AVE AND GOLDEN SPRINGS DR

**D** SOUTHWEST CORNER OF GRAND AVE AND GOLDEN SPRINGS DR



SCALE: 1/8"=1'-0"  
May 29, 2018



**CITY OF DIAMOND BAR**  
CONSTRUCTION ENLARGEMENTS FOR  
GRAND AVE/GOLDEN SPRINGS DR

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-14** SHEET 129 OF 139

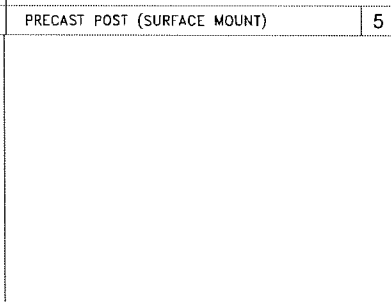
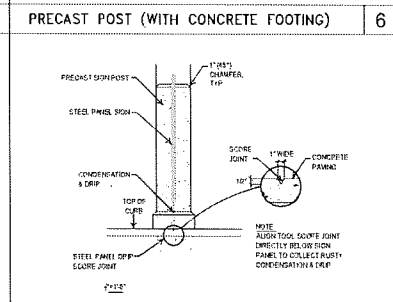
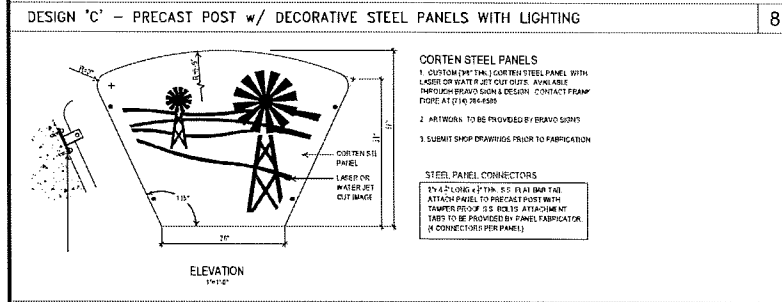
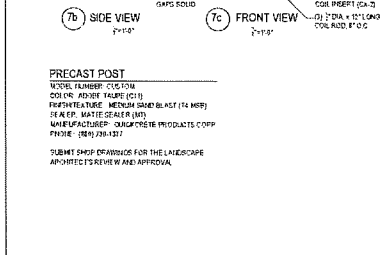
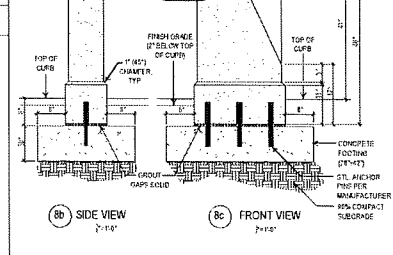
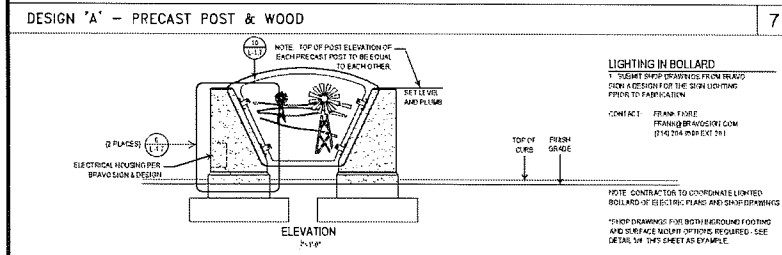
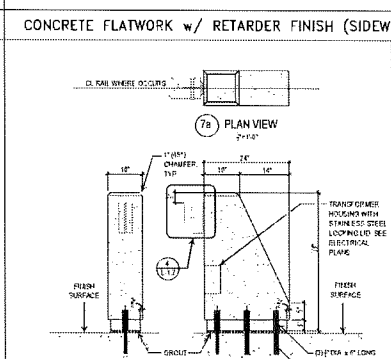
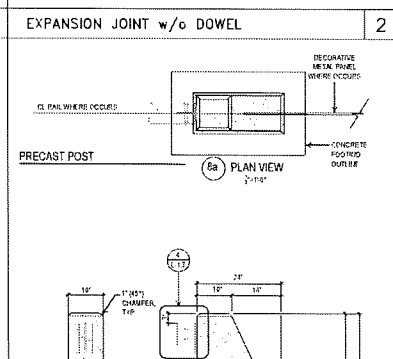
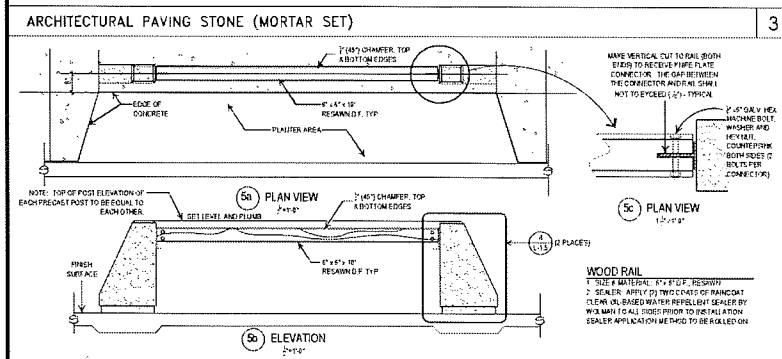
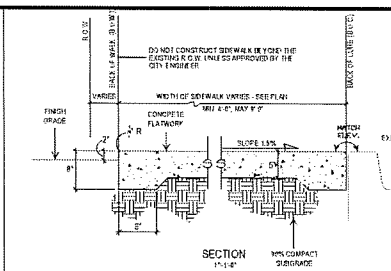
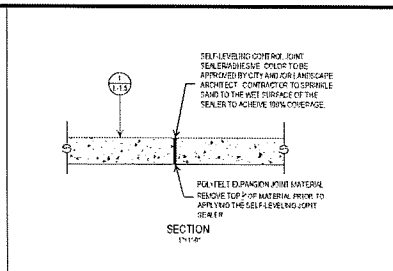
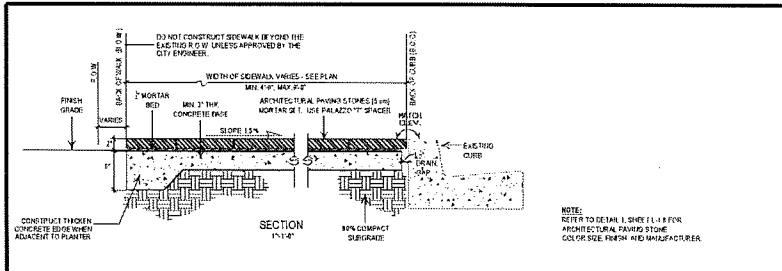
REVISIONS					
DESIGNED BY	CHK. NO.	CHECKED BY	DATE	DESIGNED BY	CHK. NO.

PREPARED BY:  
**DAVID EVANS AND ASSOCIATES, INC.**  
4141 E Grand Ave., Suite 225  
Orange, CA 92668  
Phone: 949 481 5750

BENCHMARK:  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA  
NORTHWEST ANGLE 91 1982 ADJUSTED DATUM (NAD 83)  
VERTICAL DATUM BASED ON MEAN ANGLE  
ADJUSTED  
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
RECORDING DIVISION FILE # 18128 (SEE)

SUBMITTED: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
CITY ENGINEER NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

LANDSCAPE ARCHITECT NO. 3067 DATE EXP. 09/26/2018



DECORATIVE STEEL PANELS 10

REVISIONS

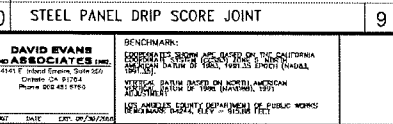
REVISIONS	DATE	BY	CHKD BY

PREPARED BY: DAVID EVANS AND ASSOCIATES INC. 4141 F. Hubert Evans, Suite 300, Dallas, TX 75244, Phone: 972.481.9700

BENCHMARK: CONCRETE SYSTEMS OF THE CALIFORNIA REGION (DATE OF FABRICATION: 10/15/18) (MATERIALS: 10/15/18)

INTERIOR: BROWN (BASED ON NORTH AMERICAN REGIONALITY)

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (REVISIONS: 04/18, 05/18, 05/18)



STEEL PANEL DRIP SCORE JOINT 9

REVISIONS

REVISIONS	DATE	BY	CHKD BY

PREPARED BY: DAVID EVANS AND ASSOCIATES INC. 4141 F. Hubert Evans, Suite 300, Dallas, TX 75244, Phone: 972.481.9700

BENCHMARK: CONCRETE SYSTEMS OF THE CALIFORNIA REGION (DATE OF FABRICATION: 10/15/18) (MATERIALS: 10/15/18)

INTERIOR: BROWN (BASED ON NORTH AMERICAN REGIONALITY)

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (REVISIONS: 04/18, 05/18, 05/18)

CITY OF DIAMOND BAR  
CONSTRUCTION DETAILS FOR  
GRAND AVE/GOLDEN SPRINGS DR

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. — L-15 SHEET 121 OF 139

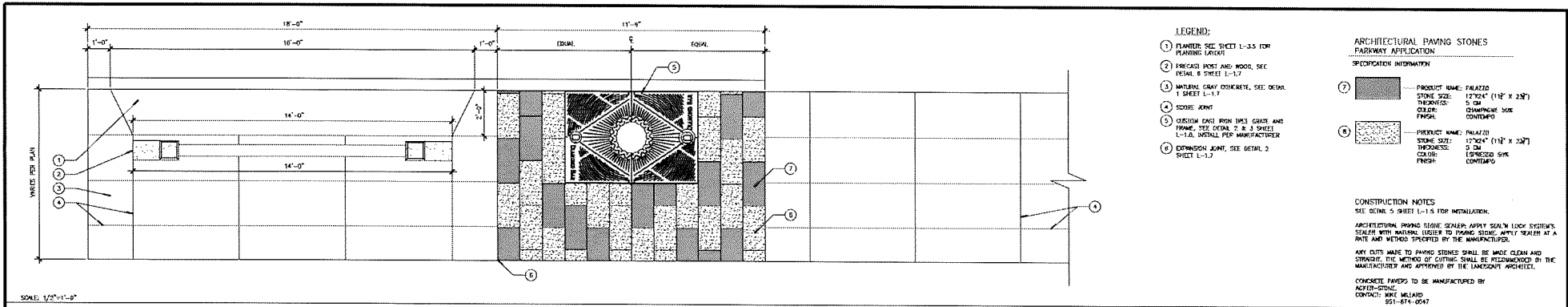
June 1, 2018

SEALING: \_\_\_\_\_  
REVISIONS: \_\_\_\_\_  
APPROVED: \_\_\_\_\_

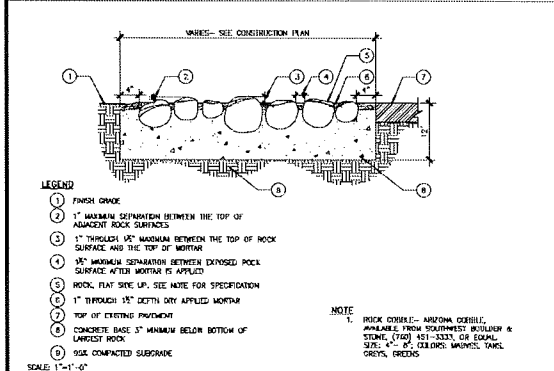
STAMP: LICENSED PROFESSIONAL ARCHITECT, STATE OF CALIFORNIA



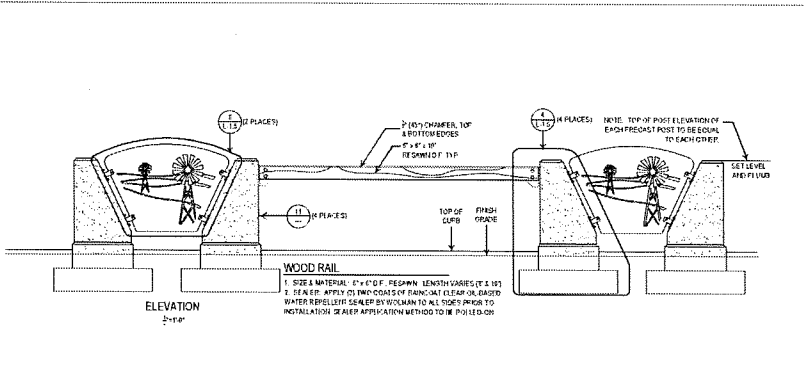




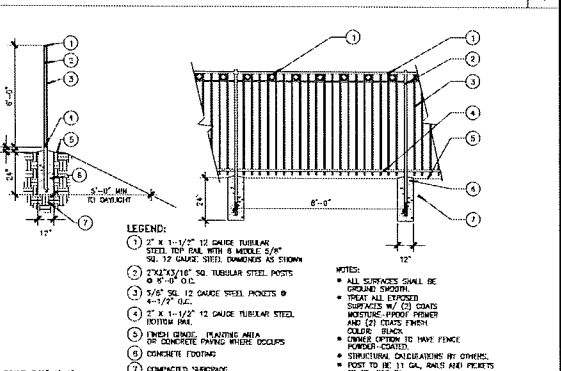
ENLARGEMENT E - TREE GRATE AND ARCHITECTURAL PAVING STONE LAYOUT (PLAN)



ROCK COBBLE



DESIGN 'B' - PRECAST POST AND WOODEN RAIL WITH DECORATIVE STEEL PANELS FOR MEDIAN



TUBULAR STEEL FENCE

REVISIONS					
NO.	DATE	BY	CHKD.	APP'D.	DESCRIPTION

PREPARED BY: **DAVID EVANS ASSOCIATES INC.**  
 4141 E. Imperial, Suite 350  
 Chino, CA 91710  
 Phone: 951-481-9780

BENCHMARK: **COORDINATE: 3800 450 000 000**  
 (NAD 83) DATUM: 1983, 1993.55 EPOCH (NAD83), 1993.55 EPOCH (NAD83)  
 VERTICAL DATUM: 1988, 1993.55 EPOCH (NAD83)  
 U.S. ANGLE: 90.00000000 DEGREE  
 RECONSTRUCTION: 1988, 1993.55 EPOCH (NAD83)

DATE: _____	BY: _____
DATE: _____	BY: _____
DATE: _____	BY: _____

June 1, 2018

**CITY OF DIAMOND BAR**

**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_

**L-17**

SHEET 123 OF 139



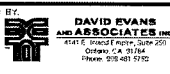
GENERAL IRRIGATION NOTES:

- 1. IT IS THE INTENT OF THESE DRAWINGS TO PROVIDE A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM...
2. CONTRACTOR(S) WILL NOT UNLAWFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD...
3. INSTALL IRRIGATION SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES...
4. THE IRRIGATION OF THIS STREET/DRIVE IS SUPPLIED WITH RECYCLED WATER...
5. ALL IRRIGATION AND SPRINKLER SYSTEMS SHALL BE COMPATIBLE WITH PLANTS WHEN THEY ARE FULLY GROWN...
6. IRRIGATION PLANS SHALL CONFORM TO ALL REQUIREMENTS ESTABLISHED BY THE LOCAL WATER PURVEYOR...
7. ALL IRRIGATION WORK SHALL BE GUARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP...
8. THIS DESIGN IS DIAGNOSTIC. ALL PIPING, VALVES, EQUIPMENT, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY...
9. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO SPRINKLER AND PIPE LOCATIONS SO AS TO AVOID...
10. THE FINAL AND EXACT POSITIONING OF THE POINT OF CONNECTION, AUTOMATIC CONTROLLER, STRAINER...
11. MAINLINE FEEDER BETWEEN POINT OF CONNECTION, WATER AND BACKFLOW PREVENTER TO BE OF MATERIAL...
12. 120-VOLT ELECTRICAL POWER OUTLET SHALL BE PROVIDED BY AN ELECTRICIAN...
13. ALL WIRE FROM CONTROLLER TO ELECTRIC CONTROL VALVES SHALL BE COPPER UL #14 OR ECT BURAL...
14. THE CONTRACTOR SHALL STAKE OUT A MINIMUM OF 4 (FOUR) EXTRA SPARE VALVE LOCATIONS...
15. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE...
16. THE IRRIGATION CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING ALL REQUIRED DATA...
17. THE IRRIGATION CONTRACTOR SHALL COORDINATE IRRIGATION WORK WITH THE GENERAL CONTRACTOR...
18. PROVIDE MINIMUM 18" COVER OVER ALL PRESSURE MAIN LINE PIPING...
19. IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE...
20. CONTRACTOR SHALL NOTIFY THE CITY/COUNTY OR LANDSCAPE ARCHITECT A MEMBER OF 72 HOURS PRIOR...
21. THE CONTRACTOR SHALL INSTALL ANTI-DRAIN VALVES (SEEN VALVES) AS REQUIRED TO PREVENT...
22. THE IRRIGATION SYSTEM IS DESIGNED BASED ON THE OPERATING PRESSURE AND THE MAXIMUM FLOW...
23. IRRIGATION CONTRACTOR SHALL CONSULT, REVIEW, AND PREPARE EXISTING PLANS AND ANY CONNECTED...
24. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY AND VERIFYING ACTUAL LOCATION AND...
25. ALL PVC PIPE AND FITTINGS SHALL BE 1120/1220 MINIMUM IMPACT, SOLVENT-WELD SCHEDULE 40 ON THE...
26. CONTRACTOR MUST PROVIDE CONTROLLER CHARTS WITH EACH VALVE SECTION DRAWING...

REVISIONS

Table with columns: DESIGNED BY, DATE, CHECKED BY, DATE, APPROVED BY, DATE. Includes fields for RISC NO., RISC NO., and RISC NO.

PREPARED BY



BENCHMARK: SLOAN COUNTY WATER PROJECT, THE CALIFORNIA...
DATE: 03/15/2018
JOB NO.: 100-20099

LANDSCAPE ARCHITECT NO. 300 DAY EXP. 09/26/2018

IRRIGATION FIELD ADJUSTMENT NOTE:

THE CONTRACTOR SHALL FIELD ADJUST IRRIGATION SYSTEM WHEN VISUAL OBSERVATIONS (E.G. WASTING, STREET LIGHTS, TREES, SEWER, ETC.) INTERFERE WITH THE IRRIGATION PATTERN...

IRRIGATION EQUIPMENT NOTE:

THE CONTRACTOR SHALL LOCATE MAINLINE AND IRRIGATION EQUIPMENT IN PLANNING AREA, TYPICAL.

SLEEVING NOTE:

THE CONTRACTOR SHALL SLEEVE ALL LATERAL LINE / MAINLINE AND VALVE WRITS THAT CROSS UNDER MAINLINE, EXISTING, ETC. ALL SLEEVING SHALL BE 2 TIMES THE DIAMETER OF THE PIPE USED...

LATERAL LINE PIPE SIZES:

ALL IRRIGATION LATERAL LINES SHALL BE 3/4" MINIMUM UNLESS OTHERWISE NOTED ON THE PLAN.

WATER CONSERVATION STATEMENTS:

THE IRRIGATION PLAN IS DESIGNED USING LOW VOLUME IRRIGATION TO AVOID OVERWATERING AND TO INCREASE EFFICIENCY...

RECYCLED WATER SIGNAGE:

INSTALL PER M.W.D. STANDARDS. LOCATION MUST BE APPROVED BY WATER DISTRICT AND CITY REPRESENTATIVE.

EQUIPMENT LEGEND

Table with columns: SYMBOL, MANUFACTURER/MODEL #, SIZE, DETAIL. Lists various irrigation components like water meter, solenoid, backflow preventer, etc.

M.W.D. GENERAL IRRIGATION NOTES:

- 1. ALL VALVE BOXES SHALL BE PURPLE PLASTIC WITH THE WORDS 'RECYCLED WATER' CAST INTO THE PLASTIC...
2. ALL CONTROL VALVES MUST HAVE A PLASTIC LABEL ATTACHED WITH A YELLOW TAPE...
3. ALL PRESSURE-SENSITIVE DEVICES MUST BE LABELED WITH A SELF-ADHESIVE LABEL...
4. ALL FUSED TOP-UP SPRINKLER HEADS MUST BE MADE OF PURPLE PLASTIC...
5. ALL BELOW GRADE PIPING MUST BE PURPLE PIPE WITH THE WORDS 'RECYCLED WATER'...
6. NO HOSE REELS ARE ALLOWED ON RECYCLED WATER SYSTEMS...
7. GUYWIRE COUPLERS ARE ALLOWED BUT MUST BE MADE FOR RECYCLED WATER SYSTEMS...
8. GUYWIRE COUPLERS MUST ALSO BE PLACED IN PURPLE PLASTIC...
9. NO ON-SITE BACKFLOW PREVENTION ASSEMBLY SHALL BE ALLOWED ON ANY RECYCLED WATER SYSTEM...
10. FROM TO PRESSURE TIGHT, PORTABLE WALKER WITH AN APPROVED REDUCED PRESSURE PRISONABLE DEVICE...
11. PORTABLE WALKER IS REQUIRED DURING MAIN LINE PRESSURE TESTING...
12. ALL REQUIRED PERMITS TO BE COMPLETED AND SIGNED BEFORE ACTIVATION OF RECYCLED WATER...
13. IRRIGATION MAY ONLY TAKE PLACE WHEN THE GENERAL PUBLIC IS NOT PRESENT...
14. THERE MUST NEVER BE A DIRECT CONNECTION BETWEEN THE RECYCLED WATER MAIN AND THE POTABLE WATER SYSTEM...
15. INSTALLATION OF RECYCLED WATER IRRIGATION SHALL COMPLY WITH THE REQUIREMENTS OF ARTICLE 9 OF THE DISTRICT'S RULES AND REGULATIONS...
16. REQUIRED CLEARANCE BETWEEN POTABLE AND RECYCLED WATER LINES IS 10 FEET...
17. RECYCLED WATER SHALL BE USED FOR IRRIGATION PURPOSES ONLY...
18. RECYCLED WATER SHALL BE USED FOR IRRIGATION PURPOSES ONLY...
19. RECYCLED WATER SHALL BE USED FOR IRRIGATION PURPOSES ONLY...
20. RECYCLED WATER SHALL BE USED FOR IRRIGATION PURPOSES ONLY...

SLEEVING CHART

Table showing PVC SDR 40 and SDR 200 pipe sizes and corresponding sleeve sizes for various pipe diameters.

VALVE BOX NOTE:

ALL RECYCLED WATER EQUIPMENT MUST BE INSTALLED IN PURPLE VALVE BOXES WITH PURPLE UPS.

VALVE TAG NOTE:

ALL RECYCLED WATER IRRIGATION EQUIPMENT SHALL HAVE PURPLE COLOR TAGS.

MWELO WATER CONSERVATION STATEMENT:

I HAVE CONSULTED WITH THE OFFICERS OF THE DISTRICT AND APPROVED THIS PLAN FOR THE IRRIGATION OF THE WATER IN THE IRRIGATION DESIGN PLAN...
DATE: 03/15/2018

DRIP ZONE LEGEND

Table with columns: SYMBOL, MANUFACTURER/MODEL #, DETAIL. Lists various drip zone components like emitter, flush valve assembly, etc.

POC# 1 - CONTROLLER#A CITY MAINTAINED RECYCLED WATER SERVICE

WATER METER SIZE: 1.5" TO BE VERIFIED IN THE FIELD
PEAK DEMAND: 35 GPM
STATIC PRESSURE: 60 PSI
WATER SERVICE: 1" PVC
ESTIMATED ANNUAL WATER USE: 0.24 MCF/YR

IRRIGATION AUDIT SCHEDULE:

- 1. IRRIGATION AUDIT SHALL BE CONDUCTED BY A CERTIFIED IRRIGATION AUDITOR AND PROVIDED TO THE CITY OF DIAMOND SPRINGS...
2. IRRIGATION AUDIT SHALL BE PERFORMED ONCE EVERY 5 YEARS PER THE CITY OF DIAMOND SPRINGS...

IRRIGATION MAINTENANCE SCHEDULE:

- 1. CHECK FOR IRRIGATION EQUIPMENT MALFUNCTION (CONTROLLER, VALVES, MAINLINE, LATERAL LINE, ETC.) - WEEKLY
2. CHECK AND ADJUST DRIP SYSTEM FOR MALFUNCTION - WEEKLY
3. CHECK FOR CORROSION TO DISBURSE PLANT LIFE - WEEKLY
4. FLUSH IRRIGATION SYSTEM (MANUAL FLUSH) TO REMOVE DIRT AND DEBRIS - BIWEEKLY
5. CLEAN DRIP SYSTEM SCREEN FILTER - BIWEEKLY
6. CHECK AND CLEAN IRRIGATION CONTROLLER CARTRIDGE - BIWEEKLY
7. CHECK IRRIGATION TIME/DAY SETTING ON CONTROLLER - BIWEEKLY
8. CHECK CONNECTION TO WEATHER STATION, ET OUTSIDE FOR PROPER OPERATION QUARTERLY...

RECYCLED WATER NOTE:

A MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION MUST BE MAINTAINED AT ALL TIMES BETWEEN THE CONSTANT PRESSURE POTABLE AND RECYCLED WATER LINES...

STREET CROSSING SLEEVES:

ALL STREET CROSSING SLEEVES INSTALLED PER CIVIL ENGINEERING PLANS CONTRACTOR TO VERIFY EXACT LOCATION IN THE FIELD.



May 29, 2018

CITY OF DIAMOND SPRINGS IRRIGATION LEGEND FOR GRAND AVE/GOLDEN SPRINGS DR

DEPARTMENT OF PUBLIC WORKS

PROJECT NO. L-20 SHEET 124 OF 139

**GUIDELINES FOR PIPELINE CONSTRUCTION AND INSTALLATION - FOR THE SAFE USE OF RECYCLED / RECLAIMED WASTEWATER**

**PURPOSE:** As a result of increasing availability of recycled / reclaimed wastewater and an increased need for its transmission and use thereof, the Department of Public Health - Environmental Health (the Department) has found it necessary to establish the following regulations for pipeline construction and installation as well as for the safe use of recycled / reclaimed wastewater. These regulations are intended to protect public health by ensuring the safety of our domestic potable water supplies.

**BACKGROUND:** A recent increase in the number of inquiries and interest displayed regarding the use of recycled / reclaimed water, in the ongoing efforts to conserve water, have necessitated the need to establish definitions, standards and regulation for the uniform review and approval of recycled / reclaimed wastewater. Recycled / reclaimed water may be used for surface irrigation of the following: food crops; parks and playgrounds; school yards; residential landscaping; and unrestricted access golf courses.

**DEFINITIONS:**

**Grey Water** means untreated wastewater that has not come into contact with toilet waste, kitchen sink waste, dishwasher waste or similarly contaminated sources. Grey water includes water from bathtubs, showers, bathroom wash basins, clothes-washers and laundry tubs.

**Non-Potable Water** means water which is unfit for human or animal consumption due to contaminants that exceed the current permissible Maximum Contaminant Level (MCL) in drinking water.

**Potable Water** means water which is fit for consumption by humans and other animals. The U.S. Environmental Protection Agency (EPA) identifies contaminants that may adversely affect public health and occur in drinking water with a frequency and at levels that pose a threat to public health. The EPA establishes MCLs for both biological and chemical contaminants permissible in drinking water. These MCLs become enforceable standards that determine the possibility of water.

**Recycled / Reclaimed Water** means non-potable water that meets or as a result of treatment, meets federal requirements for its intended uses. The level of treatment and quality of the recycled / reclaimed water shall be approved by the Authority Having Jurisdiction. Reclaimed / Recycled water systems shall have no connection to any potable water system, with or without mechanical backflow prevention devices.

Rev-Led 09/22/99

The use of recycled / reclaimed wastewater for irrigation purposes shall minimize exposure of the wastewater spray to drinking fountains and picnic tables through selective location of equipment and by appropriate irrigation system design. Additionally, the following measures should be taken: recycled wastewater spraying shall be done during hours of least public exposure; any area where recycled wastewater is released, used or impounded should be posted, informing the public that recycled water is being used; and irrigation practices utilizing recycled water shall be controlled to prevent surface runoff.

**BACKFLOW PREVENTION**

- There shall be no interconnection between a potable water system and a recycled / reclaimed water system within the user's premises.
- A dye or pressure test shall be utilized to confirm the physical separation of a recycled wastewater system and a potable water system. Testing shall be performed in conjunction with the Water Purveyor and this Department and conducted before the introduction of recycled wastewater.
- An approved backflow prevention device shall be installed at the potable water service connection.
- In a recycled / reclaimed wastewater distribution system, a backflow prevention device may be required at the recycled wastewater meter or at specific on-site locations where said use could degrade the quality of the recycled wastewater supply.



**RECYCLED / RECLAIMED WASTEWATER SYSTEMS SHALL BE CONSTRUCTED IN COMPLIANCE WITH APPLICABLE POTABLE WATER SYSTEM CONSTRUCTION STANDARDS AS WELL AS THOSE SPECIFIED IN "THE PURPLE BOOK," CALIFORNIA HEALTH LAWS RELATED TO RECYCLED WATER, CALIFORNIA HEALTH LAWS AND SAFETY CODE, WATER CODE, TITLES 22 AND 17 OF THE CALIFORNIA CODE OF REGULATIONS AND THE LOS ANGELES COUNTY CODE (LACC), TITLE 28 - PLUMBING, APPENDIX J.**

**PRELIMINARY REQUIREMENTS**

- Plans and specifications for recycled / reclaimed wastewater distribution systems, as well as the use and operation of such systems shall be submitted to the Department for review and approval prior to construction or implementation.
- Prior to commencing construction, the Contractor shall contact the Department to schedule an inspection of the proposed on-site recycled / reclaimed and potable water work.
- No piping for potable or recycled / reclaimed water in conjunction with a wastewater project shall be installed prior to plan check approval and preliminary inspection.
- Upon completion of construction, no excavation or open trench may be backfilled without first securing the Department approval. Any areas back-filled without prior approval will be required to be exposed and corrected as necessary.
- Only a Department approved temporary water connection, to a potable water supply, not a dedicated, approved, reduced-pressure-principle backflow prevention device shall be permitted to be utilized for the purpose of flushing, pressure testing, construction, landscape use or the final cross-connection testing.

**SEPARATION REQUIREMENTS**

- The maximum allowable separation of recycled / reclaimed wastewater lines and potable water lines shall be enforced in order to minimize potential risks associated with pipeline breaks resulting in infiltration of wastewater from leaking wastewater lines into domestic water lines, or accidental cross-connections between recycled wastewater and potable water systems.
- Parallel Connections:** A horizontal separation of at least ten feet (10') shall be required between pressurized, buried, recycled / reclaimed and potable water piping (at distance to be measured from pipeline outside diameter).

- Cross-Over Construction:** Buried potable water pipes crossing over pressurized recycled / reclaimed water pipes shall be laid not less than twelve inches (12") above the reclaimed water pipes. Reclaimed water pipes laid in the same trench or trench-over-trenching sewer or drainage piping shall be installed in conformance with the LACC - Title 28, Plumbing, Sections 609.0 and 720.0.
- Unseal or Abandoned Potable Water Lines:** These lines are to be severed as close to water mains as practical, capped, and a ten foot (10') section of abandoned line removed and compacted under direct supervision by the Department.
- Excavate On-site Piping:** Minimum separation of recycled / reclaimed wastewater lines and potable water lines shall be maintained upon system additions or modifications.

**PIPELINE MATERIALS AND IDENTIFICATION**

- Recycled / reclaimed water pipe materials, valves and fittings shall conform to the requirements of the LACC - Title 28, Plumbing, Sections 604.0, 605.0 and 606.0.
- All recycled / reclaimed wastewater lines (pressure / non-pressure), valve boxes, hydrants and appurtenances shall be identified to clearly distinguish between recycled / reclaimed wastewater, non-potable and potable water systems (as specified in LACC - Title 28, Plumbing, Appendix J).
- Recycled / Reclaimed Wastewater:** All buried, recycled, wastewater systems (pressure / non-pressure) shall utilize purple pipe with black uppercase lettering "CAUTION, RECYCLED WATER - DO NOT DRINK" printed on opposite sides of the pipe. For limited application, the use of continuous lettering on three inch (3") minimum width purple tape with one inch black or white contrasting uppercase lettering "CAUTION RECYCLED WATER - DO NOT DRINK" permanently affixed at intervals not to exceed five feet, along all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. All valves, except brass supply control valves shall be equipped with a locking feature. All mechanical equipment that is appurtenant to the recycled / reclaimed water system shall be painted purple.
- Potable Water:** All potable water lines shall be installed in accordance with the Uniform Plumbing Code and all other applicable potable water system construction standards. All buried potable water lines shall be clearly identified by continuous lettering on three inch (3") minimum width blue tape with one inch (1") white lettering bearing the repeated wording "POTABLE WATER" permanently affixed at ten foot intervals along all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping and hydrants. Identification tape or not necessary for unshaded colored PVC with continuous wording "POTABLE WATER" printed in contrasting lettering on opposite sides of the pipe.

- Non-Potable Water:** All non-potable irrigation / industrial water lines (pressure / non-pressure) shall be identified by continuous lettering on three inch (3") minimum width tape with one inch (1") contrasting lettering bearing the continuous uppercase lettering "NON-POTABLE WATER - DO NOT DRINK" permanently affixed at ten foot (10') intervals along all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. Exposed piping, valve boxes, vaults, control valves, quick coupling valves, outlets and related appurtenances shall be color-coded and labeled / tagged to differentiate between recycled / reclaimed wastewater, potable water and non-potable water systems. Tags identifying recycled / reclaimed water shall have the appropriate identification on both sides (writing on the side and symbol on the opposite side).



**THE SAFE USE OF RECYCLED / RECLAIMED WATER PRODUCTS POTABLE WATER**

- Deteriorated or inadequately-protected well water readings shall be replaced or replaced to protect aquifers against contamination from recycled / reclaimed wastewater systems.
- An On-Site Water Supervisor shall be appointed, having the responsibility of oversight for the protection of the potable water system (provided for under Title 17, Section 7386, and California Code of Regulations). The name and position of the On-Site Water Supervisor shall be reported to the water purveyor and in the Department. This position will be responsible for the installation, operation and maintenance of the recycled / reclaimed wastewater and potable water systems; authorization of any piping changes or additions to either the potable or recycled systems; prevention of potential hazards; implementation of the regulations; and coordination with the Cross-Connection Program of the water purveyor and of this Department.
- House bibbs shall not be permitted in any areas of public access to recycled / reclaimed wastewater systems, to prevent unauthorized use of recycled wastewater. Quick-couplers are permitted in lieu of hose-bibb outlets but shall only be connected to recycled / reclaimed wastewater lines. House bibbs may be permitted in areas that are not accessible to the public, provided they are properly identified with permanently affixed tags, labels, or plates with uppercase lettering "RECYCLED WATER - DO NOT DRINK" in English.

May 29, 2018

**CITY OF DIAMOND BAR**  
 IRRIGATION LEGEND FOR  
 GRAND AVE/GOLDEN SPRINGS DR

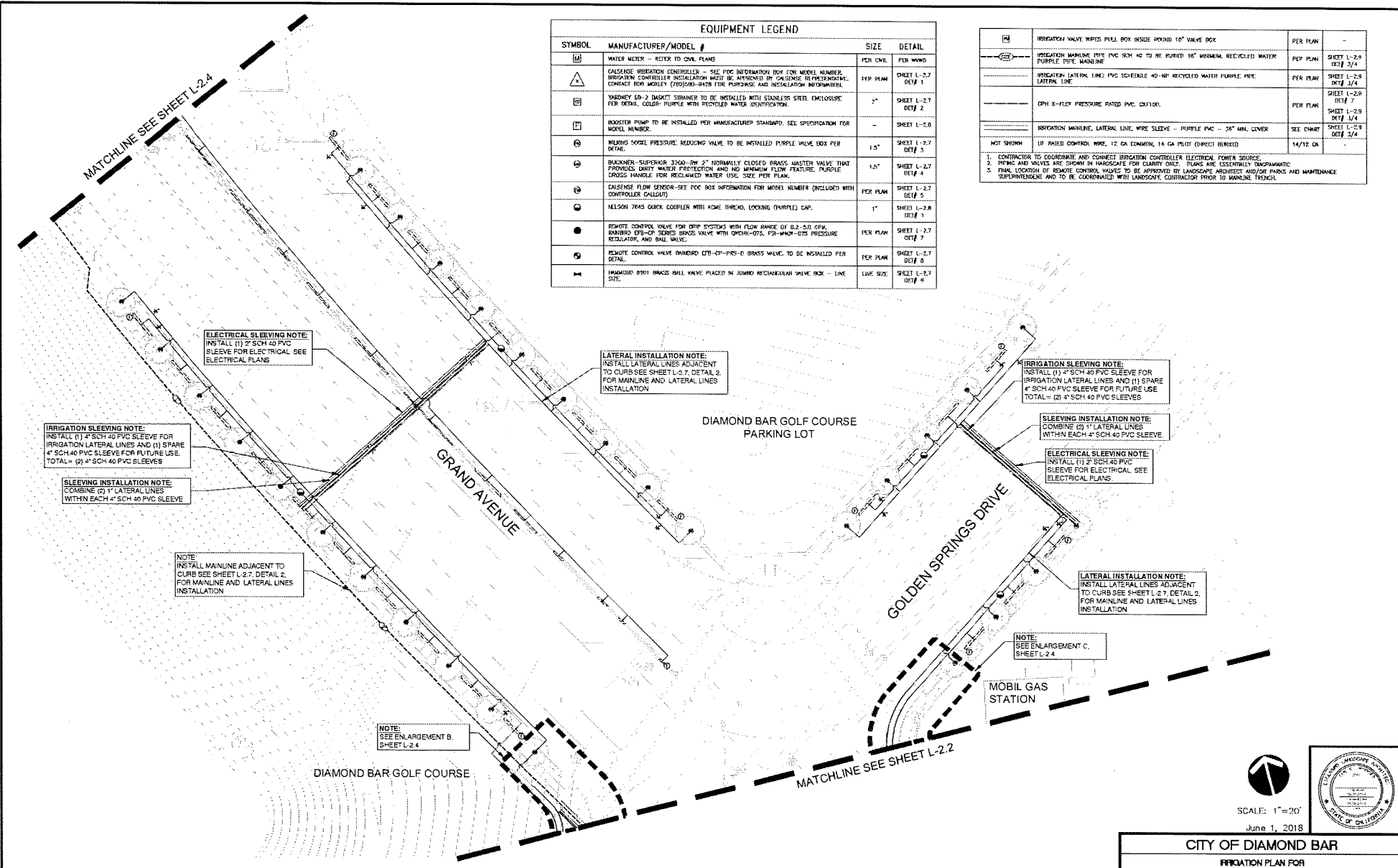
**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. **L-21** SHEET 125 OF 139



REVISIONS			PREPARED BY:	BENCHMARK:	DATE:
DESIGNED BY: _____	DATE: _____	REV. NO. _____	<b>DAVID EVANS AND ASSOCIATES INC.</b> 4141 E. ROAD DRIVE, SUITE 250 BURBANK, CA 91504 PHONE: 818 481 5700	REGULATORY REVIEW AND APPROVAL BY THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, DIVISION OF ENVIRONMENTAL HEALTH, SECTION: PLUMBING, WASTEWATER SYSTEMS, PERMITS AND COMPLIANCE, 1500 S. GATE AVENUE, BURBANK, CA 91504 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK DIVISION, DIVISION OF PUBLIC WORKS	_____
DESIGNED BY: _____	DATE: _____	REV. NO. _____			_____
DESIGNED BY: _____	DATE: _____	REV. NO. _____			_____





EQUIPMENT LEGEND			
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL
	WATER METER - REFER TO CIVIL PLANS	PER CIVIL	PER WWD
	CAISENSE IRRIGATION CONTROLLER - SEE PDC INFORMATION BOX FOR MODEL NUMBER. BIDDING CONTRACTOR TO PROVIDE INSTALLATION WITH RECYCLED WATER IDENTIFICATION. CONTACT BOB MOSELEY (714)581-8428 FOR PURCHASE AND INSTALLATION INFORMATION.	PER PLAN	SHEET L-2.7 DET 1
	RAINEY 50-2 BASKET SPINNER TO BE INSTALLED WITH STAINLESS STEEL ENCLOSURE. PER DETAIL. COLOR: PURPLE WITH RECYCLED WATER IDENTIFICATION.	1"	SHEET L-2.7 DET 2
	BOOSTER PUMP TO BE INSTALLED PER MANUFACTURER STANDARD. SEE SPECIFICATION FOR MODEL NUMBER.	-	SHEET L-2.8
	RELIEF VALVE PRESSURE REDUCING VALVE TO BE INSTALLED PURPLE VALVE BOX PER DETAIL.	1.5"	SHEET L-2.7 DET 3
	BACKFLOW PREVENTER 3/4" - 2" NORMALLY CLOSED BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION AND NO MINIMUM FLOW FEATURE. PURPLE CROSS HANDLE FOR RECLAIMED WATER USE. SIZE PER PLAN.	1.5"	SHEET L-2.7 DET 4
	CAISENSE FLOW SENSOR-SEE PDC BOX INFORMATION FOR MODEL NUMBER (INCLUDED WITH CONTROLLER CALIBRATION)	PER PLAN	SHEET L-2.7 DET 5
	NELSON 7845 QUICK COUPLER WITH ACME THREAD, LOCKING (PURPLE) CAP.	1"	SHEET L-2.8 DET 1
	REMOTE CONTROL VALVE FOR DRIP SYSTEMS WITH FLOW RANGE OF 0.2-3.0 GPM. RAINEY 075-CP SERIES BRASS VALVE WITH 075K-075, P3-WA3-075 PRESSURE REGULATORS AND BALL VALVE.	PER PLAN	SHEET L-2.7 DET 7
	REMOTE CONTROL VALVE (RAINEY 075-CP-P3-WA3-075) BRASS VALVE TO BE INSTALLED PER DETAIL.	PER PLAN	SHEET L-2.7 DET 8
	HANDED 0751 BRASS BALL VALVE PLACED IN JOINED RECTANGULAR VALVE BOX - LINE SIZE.	LINE SIZE	SHEET L-2.7 DET 4

	IRRIGATION VALVE WIPES PULL BOX INSIDE POUND 10" VALVE BOX	PER PLAN	-
	IRRIGATION MAINLINE PIPE (PVC SCH 40 TO BE PURPLE 10" MINIMUM RECYCLED WATER PURPLE PIPE MAINLINE)	PER PLAN	SHEET L-2.4 DET 3/4
	IRRIGATION LATERAL LINES (PVC SCHEDULE 40-HP RECYCLED WATER PURPLE PIPE)	PER PLAN	SHEET L-2.9 DET 1/4
	OPEN X-FLEX PRESSURE RATED PVC DUCTION.	PER PLAN	SHEET L-2.9 DET 1/4
	IRRIGATION MAINLINE, LATERAL LINE, WIRE SLEEVE - PURPLE PVC - 35" MIN. COVER	SEE CHART	SHEET L-2.9 DET 3/4
NOT SHOWN	UP RATED CONTROL WIRE, 17 GA COMMON, 14 GA PILOT (DIRECT BURIED)	14/12 GA	-

- CONTRACTOR TO COORDINATE AND CONNECT IRRIGATION CONTROLLER ELECTRICAL POWER SOURCE.
- PIPING AND VALVES ARE SHOWN IN HARDSCAPE FOR CLARITY ONLY. PLANS ARE ESSENTIALLY DIAGNOSTIC.
- FINAL LOCATION OF SCHEME CONTROL VALVES TO BE APPROVED BY LANDSCAPE ARCHITECT AND/OR PARKS AND MAINTENANCE SUPERINTENDENT AND TO BE COORDINATED WITH LANDSCAPE CONTRACTOR PRIOR TO MAINLINE TRENCH.

**IRRIGATION SLEEVING NOTE:**  
INSTALL (1) 4" SCH 40 PVC SLEEVE FOR IRRIGATION LATERAL LINES AND (1) SPARE 4" SCH 40 PVC SLEEVE FOR FUTURE USE. TOTAL = (2) 4" SCH 40 PVC SLEEVES

**SLEEVING INSTALLATION NOTE:**  
COMBINE (2) 1" LATERAL LINES WITHIN EACH 4" SCH 40 PVC SLEEVE

**NOTE:**  
INSTALL MAINLINE ADJACENT TO CURB SEE SHEET L-2.7, DETAIL 2, FOR MAINLINE AND LATERAL LINES INSTALLATION

**NOTE:**  
SEE ENLARGEMENT B, SHEET L-2.4

**LATERAL INSTALLATION NOTE:**  
INSTALL LATERAL LINES ADJACENT TO CURB SEE SHEET L-2.7, DETAIL 2, FOR MAINLINE AND LATERAL LINES INSTALLATION

**IRRIGATION SLEEVING NOTE:**  
INSTALL (1) 4" SCH 40 PVC SLEEVE FOR IRRIGATION LATERAL LINES AND (1) SPARE 4" SCH 40 PVC SLEEVE FOR FUTURE USE. TOTAL = (2) 4" SCH 40 PVC SLEEVES

**SLEEVING INSTALLATION NOTE:**  
COMBINE (2) 1" LATERAL LINES WITHIN EACH 4" SCH 40 PVC SLEEVE

**ELECTRICAL SLEEVING NOTE:**  
INSTALL (1) 2" SCH 40 PVC SLEEVE FOR ELECTRICAL SEE ELECTRICAL PLANS.

**LATERAL INSTALLATION NOTE:**  
INSTALL LATERAL LINES ADJACENT TO CURB SEE SHEET L-2.7, DETAIL 2, FOR MAINLINE AND LATERAL LINES INSTALLATION

**NOTE:**  
SEE ENLARGEMENT C, SHEET L-2.4



SCALE: 1"=20'  
June 1, 2018



**CITY OF DIAMOND BAR**  
IRRIGATION PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. **L-23** SHEET 127 OF 139

REVISIONS			
CHANGED BY	REV. NO.	REASON BY	REV. NO.

PREPARED BY: **DAVID EVANS**  
AND ASSOCIATES INC.  
4141 E. 14th Street, Suite 205  
Diamond Bar, CA 91764  
Phone: 951 481-9780

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE CALIFORNIA NATIONAL DATUM OF 1983. POINT IS POINT (RANDBO, 1987 30)

VERTICAL DATUM: NATIONAL AMERICAN MEANS BY 1.48 FEET (UNADJUSTED)

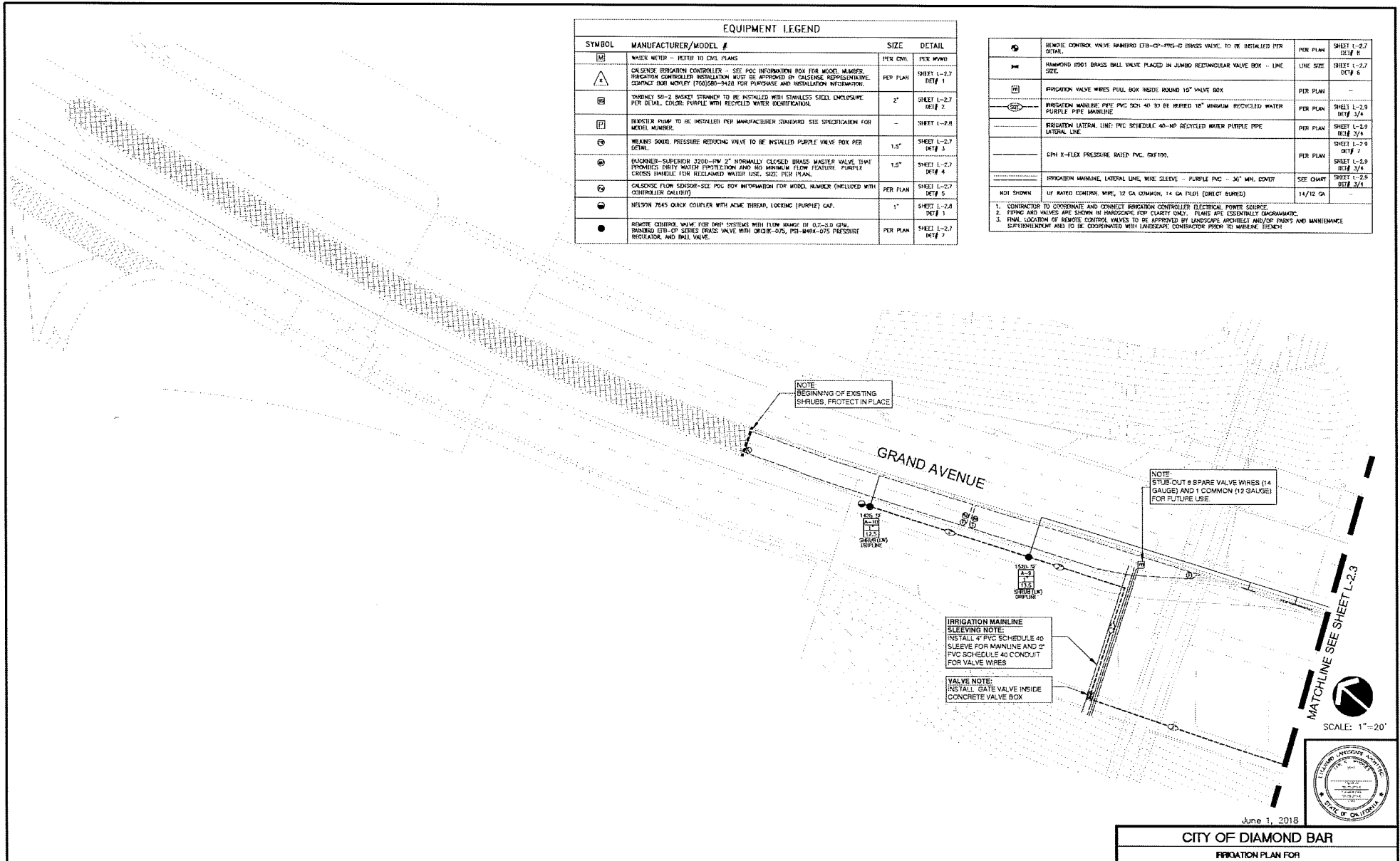
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
REVISIONS: NONE, DATE: 06/01/18

DESIGNED BY	CHECKED BY	DATE

EQUIPMENT LEGEND			
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL
	WATER METER - REFER TO CIVIL PLANS	PER CIVIL	PER MWD
	CALORISE IRRIGATION CONTROLLER - SEE PDC INFORMATION BOX FOR MODEL NUMBER. IRRIGATION CONTROLLER INSTALLATION MUST BE APPROVED BY CALORISE REPRESENTATIVE. CONTACT BOB MOLEY (706)580-9428 FOR PURCHASE AND INSTALLATION INFORMATION.	PER PLAN	SHEET L-2.7 DET# 1
	VARNEY 50-2 BASKET STRANCH TO BE INSTALLED WITH STAINLESS STEEL ENCLOSURE PER DETAIL. COLORE PURPLE WITH RECYCLED WATER IDENTIFICATION.	2"	SHEET L-2.7 DET# 2
	BOOSTER PUMP TO BE INSTALLED PER MANUFACTURER STANDARD SEE SPECIFICATIONS FOR MODEL NUMBER.	-	SHEET L-2.8
	WELANS 5000 PRESSURE REDUCING VALVE TO BE INSTALLED PURPLE VALVE BOX PER DETAIL.	1.5"	SHEET L-2.7 DET# 3
	BAKORNER-SUPERIOR 3200-10W 2" NORMALLY CLOSED BRASS MASTER VALVE THAT PROMOTES DIRTY WATER IRRIGATION AND NO MINIMUM FLOW FEATURE. PURPLE CROSS HANDLE FOR RECLAIMED WATER USE. SIZE PER PLAN.	1.5"	SHEET L-2.7 DET# 4
	CALORISE FLOW SENSOR-SEE PDC BOX INFORMATION FOR MODEL NUMBER (INCLUDED WITH SUBMITTER CALIBRATED)	PER PLAN	SHEET L-2.7 DET# 5
	RESYN 7845 GUNNY CONTROLLER WITH ACME THREAD, LOCKING (PURPLE) CAP.	1"	SHEET L-2.8 DET# 6
	REMOTE CONTROL VALVE FOR DRIP SYSTEMS WITH FLOW RANGE OF 0.2-2.0 GPM. RAINBOW EFB-OF SERIES BRASS VALVE WITH OXIK-075, PSI-840X-075 PRESSURE REGULATOR AND BALL VALVE.	PER PLAN	SHEET L-2.7 DET# 7

	REMOTE CONTROL VALVE NUMBER EFB-OF-PIS-0 BRASS VALVE TO BE INSTALLED PER DETAIL.	PER PLAN	SHEET L-2.7 DET# 8
	HAMMOND 8501 BRASS BALL VALVE PLACED IN JUNBO RECTANGULAR VALVE BOX - LINE SIZE.	LINE SIZE	SHEET L-2.7 DET# 9
	IRRIGATION VALVE WIRES FULL BOX INSIDE ROUND 10" VALVE BOX	PER PLAN	-
	IRRIGATION MAINLINE PIPE PVC SCH 40 TO BE BURIED 18" MINIMUM RECYCLED WATER PURPLE PIPE MAINLINE	PER PLAN	SHEET L-2.9 DET# 3/4
	IRRIGATION LATERAL LINE PVC SCHEDULE 40-HP RECYCLED WATER PURPLE PIPE LATERAL LINE	PER PLAN	SHEET L-2.9 DET# 3/4
	CPH X-FLEX PRESSURE RATED PVC CONDUIT	PER PLAN	SHEET L-2.9 DET# 7
	IRRIGATION MAINLINE, LATERAL LINE, WIRE SLEEVE - PURPLE PVC - 36" MIN. COVER	SEE CHART	SHEET L-2.9 DET# 3/4
NOT SHOWN	1/2" RATED CONTROL WIRE, 1/2" GA COMMON, 1/4" GA FLEX (DIRECT BURIED)	1/2" GA	-

- CONTRACTOR TO COORDINATE AND CONNECT IRRIGATION CONTROLLER ELECTRICAL POWER SOURCE.
- SPRING AND VALVES ARE SHOWN IN PARAGRAPHS FOR CLARITY ONLY. PLANS ARE ESSENTIALLY ISOMETRIC.
- FINAL LOCATION OF REMOTE CONTROL VALVES TO BE APPROVED BY LANDSCAPE ARCHITECT AND/OR PARKS AND MAINTENANCE SUPERINTENDENT AND TO BE COORDINATED WITH LANDSCAPE CONTRACTOR PRIOR TO MAJOR TREEMING.



SCALE: 1"=20'

June 1, 2018

**CITY OF DIAMOND BAR**  
**IRRIGATION PLAN FOR**  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. - **L-24** SHEET 1 OF 159

REVISIONS					
DESIGNED BY	CHK. NO.	CHECKED BY	DATE	DESIGNED BY	CHK. NO.

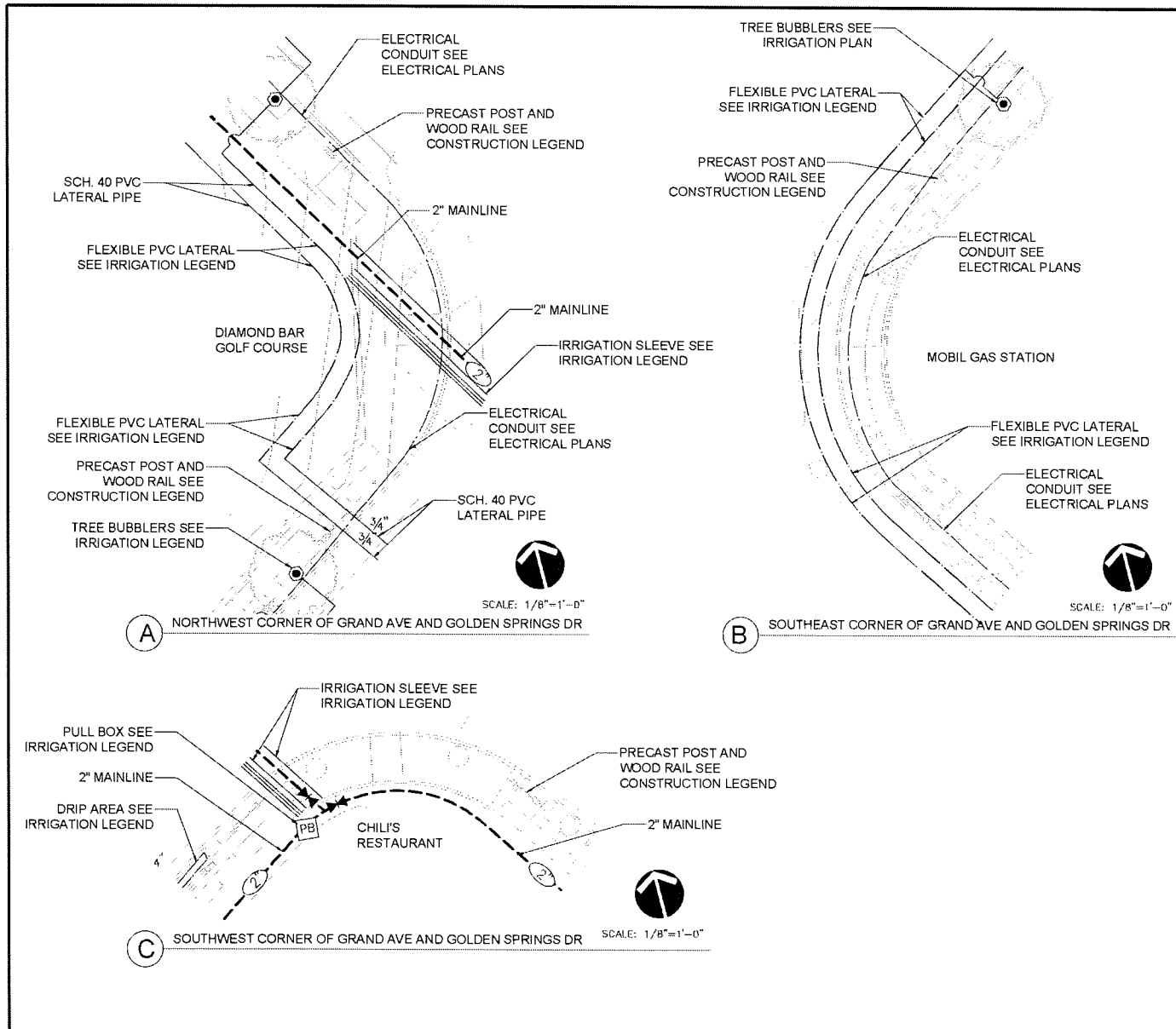
PREPARED BY: **DAVID EVANS**  
**AND ASSOCIATES INC.**  
 4141 E. Inland Empire, Suite 208  
 Chino, CA 91714  
 Phone 951 481-8793

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE CALIFORNIA NATIONAL DATUM OF 1983, NAD 83 (FIPS 8200.1, 8200.2)

VERTICAL DATUM: BASED ON MEAN SEA LEVEL  
 REDUCTION: 1.571

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
 REVISIONS: NONE, 0/17 - 1/15/18

DESIGNED BY	
CHECKED BY	
APPROVED BY	



EQUIPMENT LEGEND				
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	
WM	WATER METER - REFER TO CIVIL PLANS		PER CIVIL	PER WWD
CA	CALSENSE IRRIGATION CONTROLLER - SEE POC INFORMATION BOX FOR MODEL NUMBER. IRRIGATION CONTROLLER REGULATION MUST BE APPROVED BY CALSENSE REPRESENTATIVE. CONTACT IREI MOBILE (909)590-5439 FOR PURCHASE AND INSTALLATION INFORMATION.		PER PLAN	SHEET L-2.7 DET# 1
ST	STAINLESS 316 BASKET STRAINER TO BE INSTALLED WITH STAINLESS STEEL ENCLOSURE PER DETAIL. COLOR: PURPLE WITH RECYCLED WATER IDENTIFICATION.	2"		SHEET L-2.7 DET# 2
FP	DIAPHRAGM PUMP TO BE INSTALLED PER MANUFACTURER'S DRAWING. SEE SPECIFICATION FOR MODEL NUMBER.			SHEET L-2.9
RV	WILKINS 500# PRESSURE REDUCING VALVE TO BE INSTALLED PURPLE VALVE BOX PER DETAIL.	1.5"		SHEET L-2.7 DET# 3
CV	BUCKNER SUPERIOR 3700-10V 2" NORMALLY CLOSED BRASS MASTER VALVE THAT PROVIDES DIRT WATER PROTECTION AND 100 WATTS MINIMUM FLOW FEATURE. PURPLE CROSS HANDLE FOR RECLAIMED WATER USE. SIZE PER PLAN.	1.5"		SHEET L-2.7 DET# 4
CF	CALSENSE FLOW SENSOR-SEE POC FOR INFORMATION FOR MODEL NUMBER (INCLUDED WITH CONTROLLER CALLOUT)		PER PLAN	SHEET L-2.7 DET# 5
CC	NELSON 7645 QUICK COUPLER WITH ACME THREAD, LOCKING (PURPLE) CAP.	1"		SHEET L-2.8 DET# 1
RCV	REMOTE CONTROL VALVE FOR DRP SYSTEMS WITH FLOW RANGE OF 0.2-3.0 GPM. RAINBOW EPB-CP SERIES BRASS VALVE WITH CRK2P-07S, PSI-40X4-07S PRESSURE REGULATOR, AND BALL VALVE.		PER PLAN	SHEET L-2.7 DET# 7
RCV	REMOTE CONTROL VALVE RAINBOW EPB-CP-PS-0 BRASS VALVE TO BE INSTALLED PER DETAIL.		PER PLAN	
RV	HANDWOUND #801 BRASS BALL VALVE FIRED IN JUMBO RECTANGULAR VALVE BOX - LINE SIZE.	LINE SIZE		SHEET L-2.7 DET# 6
IV	IRRIGATION VALVE W/MS PULL BEK DETAIL ROUNDED 10" VALVE BOX.		PER PLAN	
WM	IRRIGATION MAINLINE PIPE PVC SCH 40 TO BE BURIED 18" MINIMUM. RECYCLED WATER PURPLE. PPHC MAINLINE.		PER PLAN	SHEET L-2.9 DET# 3/4
WM	IRRIGATION LATERAL LINE PVC SCH 40-40-NP RECYCLED WATER PURPLE PIPE.		PER PLAN	SHEET L-2.9 DET# 3/4
WM	CPN X-FLEX PRESSURE RATED PVC DET100.		PER PLAN	SHEET L-2.9 DET# 7
WM	IRRIGATION MAINLINE, LATERAL LINE, WIRE SLEEVE - PURPLE PVC - 36" MIN COVER.		SEE CHART	SHEET L-2.9 DET# 3/4
NET SHOWN	1/2" RAISED CONTROL WIRE, 1/2" GA COMMON, 1/4" GA PULLEY (DIRECT BURIED)	1/4/1/2" GA		--

1. CONSULTOR TO COORDINATE AND CONNECT IRRIGATION CONTROLLER ELECTRICAL POWER SERVICE.
2. PIPING AND VALVES ARE SHOWN IN LANDSCAPE FOR CLARITY ONLY. PLANS ARE DISCREETLY UNDEFPANING.
3. FINAL LOCATION OF REMOTE CONTROL VALVES TO BE APPROVED BY LANDSCAPE ARCHITECT AND/OR PARKS AND MAINTENANCE SUPERINTENDENT AND TO BE COORDINATED WITH LANDSCAPE CONTRACTOR PRIOR TO MAINLINE TRENCH.



May 29, 2018

**CITY OF DIAMOND BAR**  
IRRIGATION ENLARGEMENTS FOR  
GRAND AVE/GOLDEN SPRINGS DR

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_ **L-25** SHEET 129 OF 139

REVISIONS				PREPARED BY: <b>DAVID EVANS AND ASSOCIATES, INC.</b> 4141 E. FRANKS AVENUE, SUITE 201 DANA POINT, CA 92654 PHONE: 949.491.5750	BENCHMARK: CONTRACT SHALL BE BASED ON THE CALIFORNIA MICHIGAN DATUM OF 1885, 1985 US BENCH (DANBAR, 1985) 117.57	SUBMITTED: REVISIONS: APPROVED: _____ CITY ENGINEER _____ W.D.C. DATE: _____
CHECKED BY:	DATE:	DESIGNED BY:	DATE:			





Project Name: Grand ave/Golden Springs  
 Client Name: City of Diamond Bar  
 Tract/APN No.: N/A  
 Date: 07-Dec-17  
 Soil Type: sandy loam  
 Infiltration Rate: 0.75  
 Available Water: 0.15  
 Depletion Factor: 30%

RECOMMENDED IRRIGATION SCHEDULING

Water (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)
8.07 in	13.57 in	18.80 in	10.55 in

CMS Station No.: 78  
 Location: Pomona

Station No.	Plant Type	WUCOLS Crop Coef.	Root Depth (in)	Root Zone Avail. Water (in)	Irrigation Head type (in)	PR (%)	DU (%)	Winter (Dec-Feb)			Spring (Mar-May)			Summer (Jun-Aug)			Fall (Sep-Nov)			Maximum Run Time (min.)
								Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	
A-1	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	1	18	1	2	20	1	2	18	1	1	75
A-2	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	1	18	1	3	20	1	3	18	1	75	
A-3	SHRUB	0.5	18 in	0.81	DRIPLINE	0.8	80%	13	1	1	15	1	2	20	1	3	18	1	75	
A-4	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	1	18	1	2	26	1	2	16	1	75	
A-5	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	1	18	1	3	26	1	3	16	1	75	
A-6	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	1	15	1	3	20	1	3	18	1	75	
A-7	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	1	18	1	2	26	1	2	18	1	75	
A-8	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	1	15	1	3	20	1	3	18	1	75	
A-9	SHRUB	0.2	18 in	0.81	DRIPLINE	0.8	80%	5	1	1	8	1	1	8	1	2	8	1	75	
A-10	SHRUB	0.2	18 in	0.81	DRIPLINE	0.6	80%	5	1	1	8	1	1	8	1	2	8	1	75	

THIS RECOMMENDED IRRIGATION SCHEDULE IS MEANT TO BE USED AS A GUIDELINE ONLY, AND DOES NOT TAKE THE PLACE OF PROPER IRRIGATION SYSTEM MANAGEMENT. DIFFERING SITE AND CLIMATIC CONDITIONS MAY REQUIRE ADJUSTMENTS NOT REFLECTED IN THIS SCHEDULE.

WATERING SCHEDULE - ESTABLISHED



Project Name: Grand ave/Golden Springs  
 Client Name: City of Diamond Bar  
 Tract/APN No.: N/A  
 Date: 07-Dec-17  
 Soil Type: sandy loam  
 Infiltration Rate: 0.75  
 Available Water: 0.15  
 Depletion Factor: 30%

RECOMMENDED IRRIGATION SCHEDULING

Water (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)
8.07 in	13.57 in	18.80 in	10.55 in

CMS Station No.: 78  
 Location: Pomona

Station No.	Plant Type	WUCOLS Crop Coef.	Root Depth (in)	Root Zone Avail. Water (in)	Irrigation Head type (in)	PR (%)	DU (%)	Winter (Dec-Feb)			Spring (Mar-May)			Summer (Jun-Aug)			Fall (Sep-Nov)			Maximum Run Time (min.)
								Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	Run Time (min)	# of Cycles	Days per Week	
A-1	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	2	10	1	5	20	1	5	10	1	4	75
A-2	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	4	10	1	5	20	1	12	18	1	7	75
A-3	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	4	10	1	5	20	1	12	18	1	7	75
A-4	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	2	16	1	5	20	1	5	15	1	4	75
A-5	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	2	16	1	5	20	1	5	15	1	4	75
A-6	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	4	10	1	5	20	1	12	18	1	7	75
A-7	TREE	0.5	36 in	1.62	BUBBLER	0.6	80%	13	1	2	16	1	5	20	1	5	15	1	4	75
A-8	SHRUB	0.5	18 in	0.81	DRIPLINE	0.6	80%	13	1	4	10	1	5	20	1	12	18	1	7	75
A-9	SHRUB	0.2	18 in	0.81	DRIPLINE	0.6	80%	5	1	2	8	1	4	8	1	5	8	1	7	75
A-10	SHRUB	0.2	18 in	0.81	DRIPLINE	0.6	80%	5	1	2	8	1	4	8	1	5	8	1	7	75

THIS RECOMMENDED IRRIGATION SCHEDULE IS MEANT TO BE USED AS A GUIDELINE ONLY, AND DOES NOT TAKE THE PLACE OF PROPER IRRIGATION SYSTEM MANAGEMENT. DIFFERING SITE AND CLIMATIC CONDITIONS MAY REQUIRE ADJUSTMENTS NOT REFLECTED IN THIS SCHEDULE.

WATERING SCHEDULE - PRE-ESTABLISHMENT

California Water Efficient Landscape Worksheet

Reference Landscape Code (RLC)	Area (sq ft)	Plant Type	Water Use (gal/yr)	Non-Residential	Residential	
Regular Landscape Areas						
Low Use Shrub	6.2	0.81	0.25	2,945	727	21,411
Med Use Shrub	0.5	0.81	0.62	1,820	1,123	33,086
Med Use Tree	0.5	0.81	0.62	1,320	739	22,540
<b>Totals</b>				<b>5,985</b>	<b>2,600</b>	<b>76,037</b>

Special Landscape Areas: 1, 0, 0, 0, 0, 0  
 Totals: 0, 0, 0, 0, 0, 0  
 Maximum Allowed Water Allowance (MAWA): 79,649

MWEO - WATER BUDGET

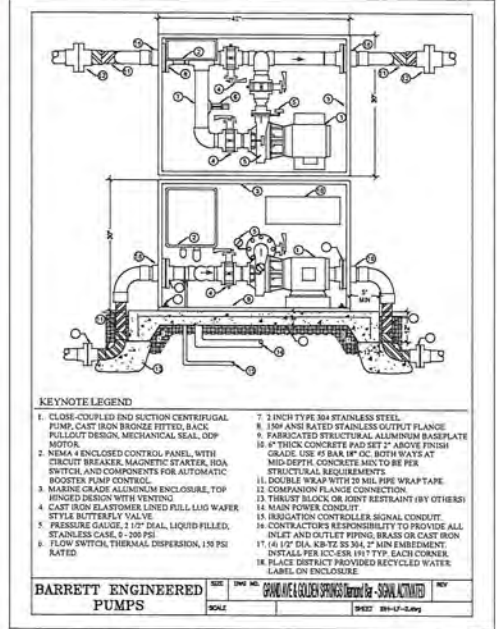
Dynamic Pressure Loss Calculation

Client Name: City of Diamond Bar  
 Project Name: Grand Ave/Diamond Springs Dr  
 Water Meter POC No.: 1  
 Domestic / Recycle: Recycled  
 POC Elevation: 740 ft  
 HDL:  
 Static Pressure: 80 psi  
 Water Source & Phase #: Ventura Valley Water District (908) 585-1050  
 Date: May 24, 2018  
 Valve Station No.: A-10  
 Valve Pipe Size: 1.5" IPS  
 Highest Elevation Served: 750 ft

Equipment	Size	Flow	Length / Qty.	PSI Loss
Water Meter	1.5" ID	35 gpm	N/A	2.4 psi
Backflow Preventer				N/A
Basket Strainer	2 in	35 gpm	N/A	1.0 psi
Mainline (PVC)	2 in	35 gpm	865 ft	8.7 psi
Water Valve	1.5" ID	35 gpm	N/A	1.0 psi
Flow Meter	1.5" ID	35 gpm	N/A	0.8 psi
Gate Valve	2 in	35 gpm	3	1.0 psi
Remote Control Valve	1 in	35 gpm	N/A	5.6 psi
Lateral Line	VARIABLES	VARIABLES	VARIABLES	4.0 psi
Fittings (Estimate 10%)	N/A	N/A	N/A	2.4 psi

Elevation Change: 4.3 psi  
 Pressure Rise to Operate Head: 30.0 psi  
 Total Pressure Required: 65.0 psi  
 Available Residual Pressure: 19.6 psi  
 Booster Pump: N/A

PRESSURE LOSS



BOOSTER PUMP

REVISIONS

NO.	DATE	BY	DESCRIPTION
1			

PREPARED BY: DAVID EVANS AND ASSOCIATES INC.  
 4141 E. Island Empire, Suite 250  
 Orange, CA 92668  
 Phone: 951.481.5750

BENCHMARK: CALIFORNIA WATER EFFICIENT LANDSCAPE (CWL) 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100.

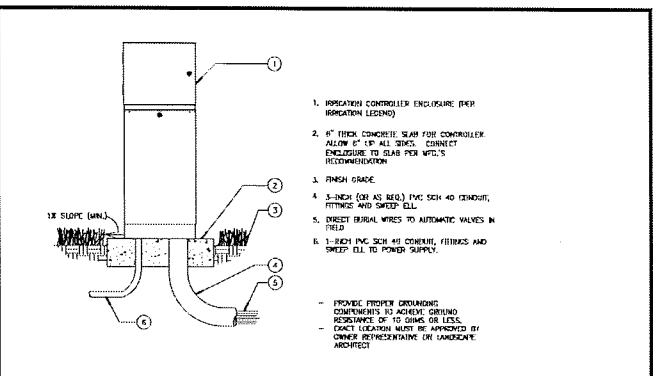
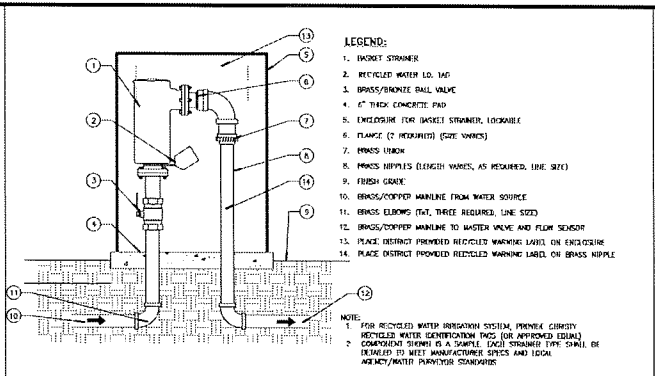
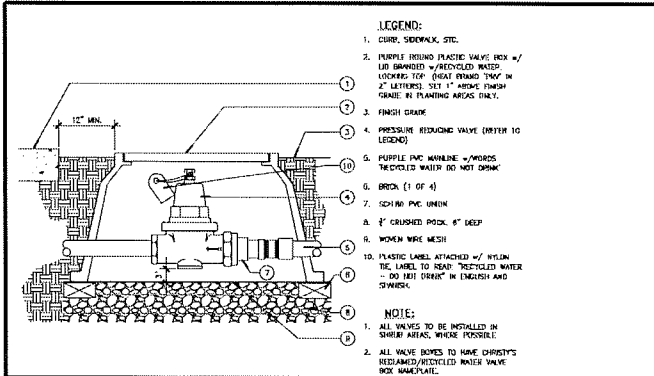
NO.	DATE	BY	DESCRIPTION

May 29, 2018

CITY OF DIAMOND BAR  
 IRRIGATION CALCULATIONS FOR  
 GRAND AVE/GOLDEN SPRINGS DR

DEPARTMENT OF PUBLIC WORKS

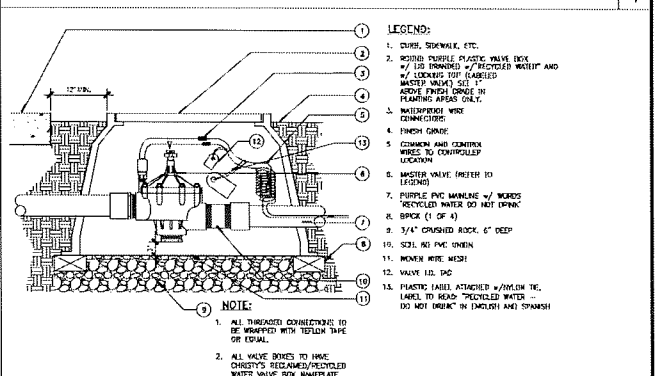
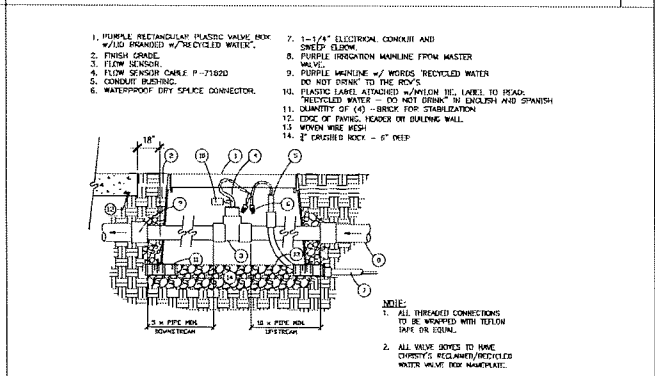
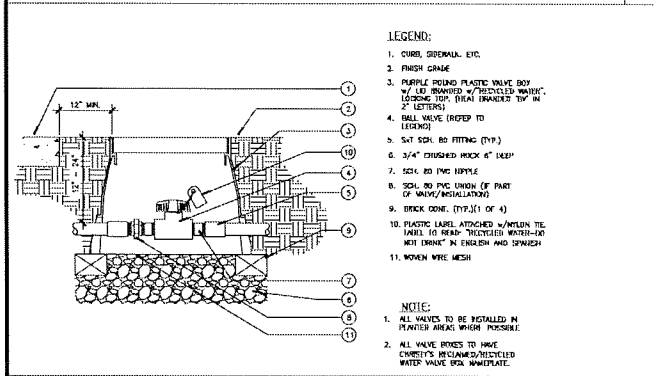
PROJECT NO. L-26 SHEET 130 OF 139



PRESSURE REDUCING VALVE 3

BASKET STRAINER (TYPICAL) 2

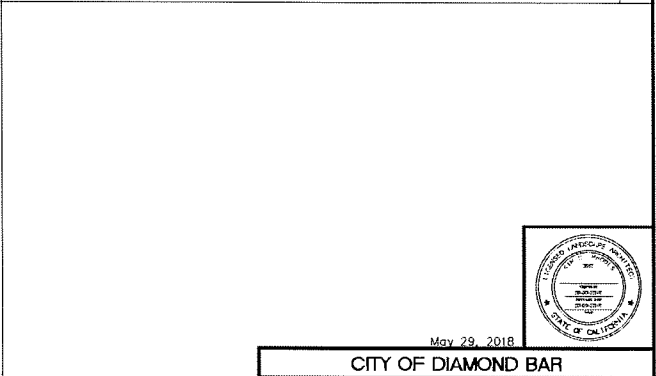
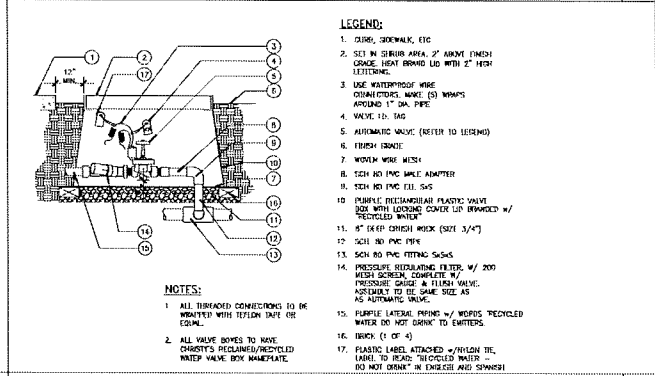
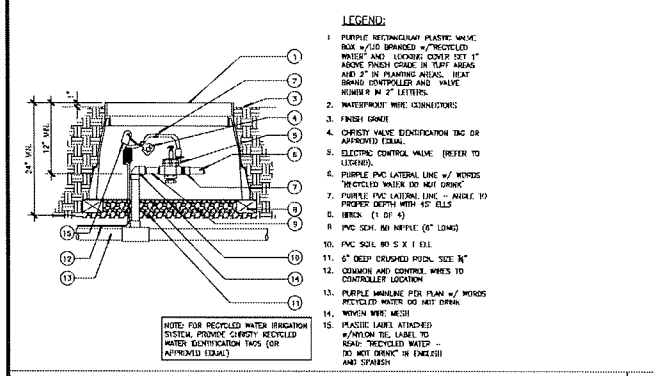
TYPICAL CONTROLLER ENCLOSURE PEDESTAL 1



BALL VALVE 6

FLOW SENSOR 5

MASTER VALVE 4



AUTOMATIC VALVE 8

AUTOMATIC VALVE WITH FILTER (FOR DRIP EMITTERS) 7

REVISIONS					
PREPARED BY	REV. NO.	CHECKED BY	REV. NO.	CHECKED BY	REV. NO.

PREPARED BY: **DAVID EVANS AND ASSOCIATES INC.**  
 4141 E. Grand Express, Suite 251  
 Orange, CA 92668  
 Phone: 951-481-9700

BENCHMARK: **CONTRACT'S SUPPLY AND DELIVERY ON THE CALIFORNIA CONTRACT FORM (C-400) - 1997 EDITION, (1997) 30**

VELOCITY DESIGN BASED ON NORTH AMERICAN STANDARD OF 1992 (NATIONAL 1997)

THIS PROJECT IS THE PROPERTY OF DAVID EVANS AND ASSOCIATES INC. ANY REUSE OR REPRODUCTION OF THIS PROJECT IS STRICTLY PROHIBITED.

SUBMITTED	
REVISIONS	
APPROVED	

May 29, 2018

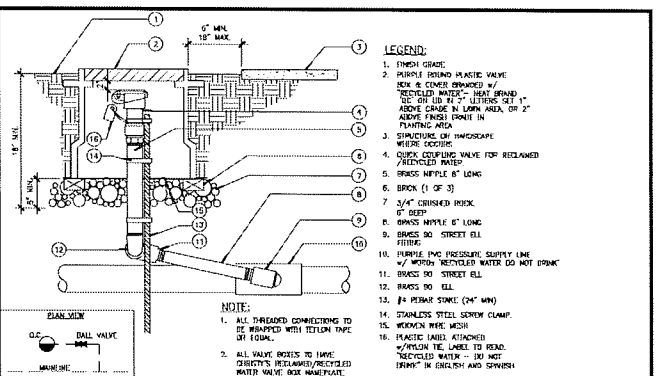
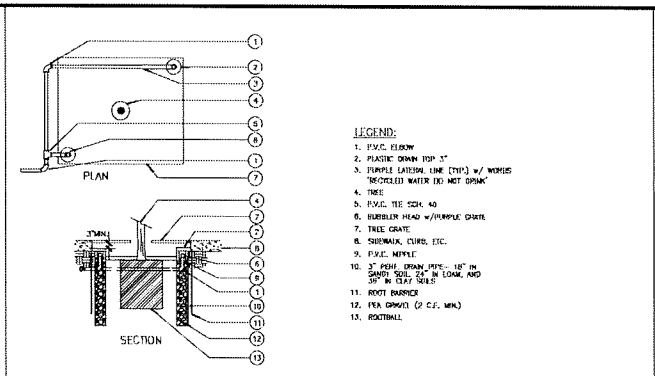
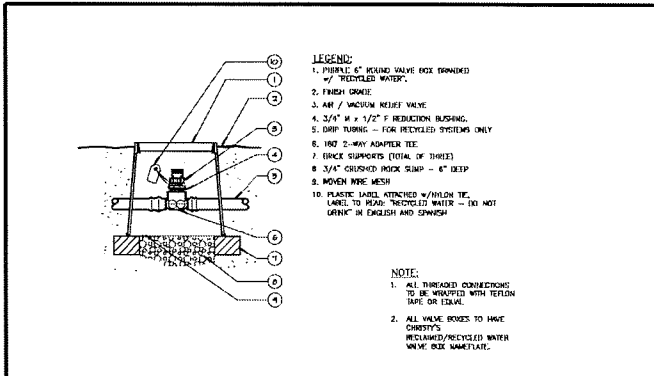
**CITY OF DIAMOND BAR**

IRRIGATION DETAILS FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-27** SHEET 131 OF 138

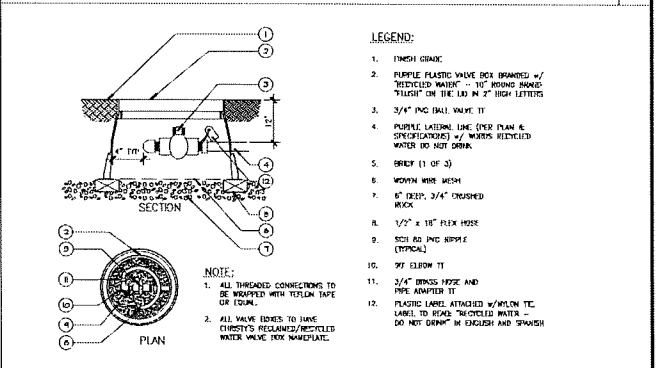
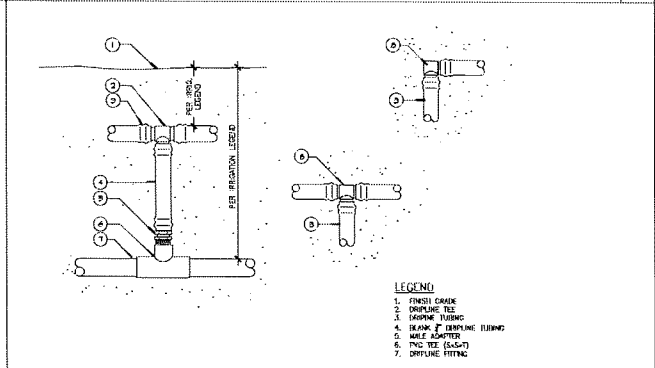
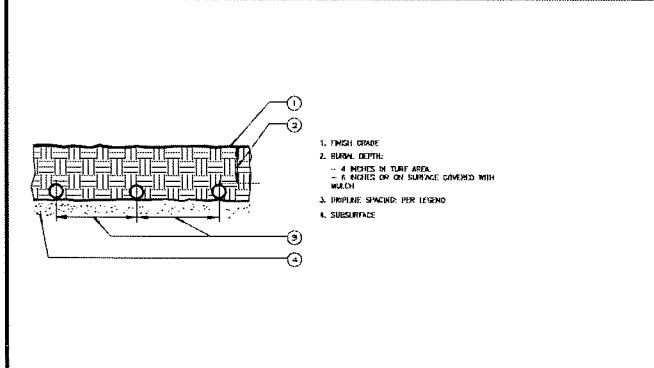




VACUUM AIR RELIEF VALVE 3

BUBBLER IN TREE WELL 2

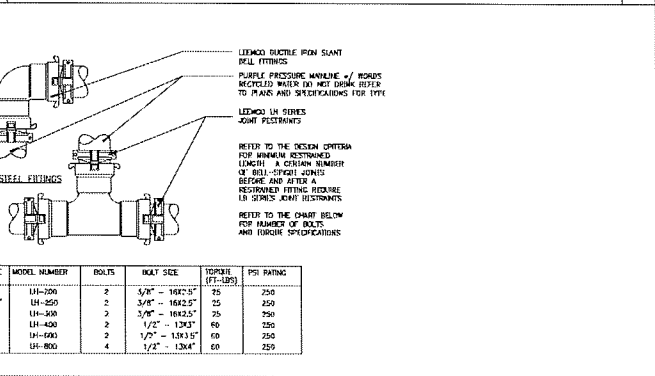
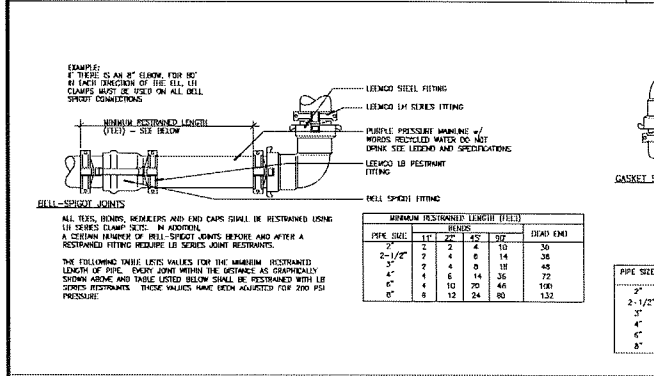
QUICK COUPLING VALVE 1



DRIPLINE SUBGRADE INSTALLATION 6

DRIPLINE START CONNECTION 5

MANUAL FLUSH VALVE 4



JOINT RESTRAINTS 7

**REVISIONS**

CHECKED BY	DATE	DESIGNED BY	DATE

**PREPARED BY:** DAVID EVANS AND ASSOCIATES INC. 4141 E. FRANKS AVENUE, SUITE 201 CHIRICAHUA, AZ 85626 PHONE: 928-481-9726

**BENCHMARK:** CONDITIONS SHOWN ARE BASED ON THE CALIFORNIA GEOTECHNICAL DATA OF 1982, 1983, 1985 (REVISED 1991) AND THE NATIONAL BUILDING CODES IN NORTH AMERICAN JURISDICTION.

**DATE:** 05/29/2018

**PROJECT:** GRAND AVE/GOLDEN SPRINGS DR

**DESIGNED BY:** \_\_\_\_\_

**CHECKED BY:** \_\_\_\_\_

**APPROVED:** CITY ENGINEER \_\_\_\_\_ DATE: \_\_\_\_\_

**CITY OF DIAMOND BAR**

**IRRIGATION DETAILS FOR GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

**PROJECT NO.:** \_\_\_\_\_ **L-28** **SHEET 132 OF 139**



May 29, 2018



**PLANTING NOTES**

1. CONTRACTOR SHALL VERIFY THE LANDSCAPE ARCHITECT OF SITE CONSIDERING WHICH PRECINCT INSTALLATION FOR PLANS AND SPECIFICATIONS.
2. CONTRACTOR SHALL BE LIABLE FOR REMOVING AND REINSTALLING IRRIGATION EQUIPMENT AND REPAIRING AREAS WHICH ARE NOT INSTALLED PER PLAN AND SPECIFICATIONS.
3. IRRIGATION SYSTEM SHALL BE INSTALLED, OPERATING AND APPROVED PRIOR TO INSTALLATION OF PLANT MATRIKES.
4. TREES AND SHRUBS SHALL BE PLANTED AFTER CONCRETE PLACEMENT, BUT NOT BEFORE IRRIGATION COVERAGE TEST NO. 1 HAS BEEN APPROVED. (SEE SPECIFICATIONS).
5. PLACE TREES BETWEEN IRRIGATION HEADS WHEREVER POSSIBLE.
6. SHREDED MULCH INSTALLATION: INSTALL 3" DEEP SHREDED MULCH IN ALL OPEN AND UNOCCUPIED AREAS PER SPECIFICATIONS. TRIMMED FLOOR MULCH BY AQUINAGA GREEN (714) 283-2072, OTHERWISE INDICATED ON PLANS.
7. CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF ANY DAMAGED LANDSCAPE AREAS WITHIN THE LIMIT OF WORK. THAT IS A DIRECT RESULT OF THE LANDSCAPE CONSTRUCTION AND/OR HIS SUB-CONTRACTOR. REPLACEMENT ITEMS SHALL BE EXACT DUPLICATE OF ORIGINAL WORK ON PLANS, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
8. CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.

**PLANT LEGEND**

SYMBOL	BOTANICAL NAME	COMMON NAME	QNTY	SIZE	WUCOLS	REMARKS
<b>TREES</b>						
	MAURANDIA + TURKESIDE PINK	TURKESIDE PINK CRATE JEWEL	51	24"DBH	MID	STANDARD TRUNK
<b>SHRUBS / PERENNIALS</b>						
	ANEMOPLANTIS 'VIVIDLY YELLOW'	YELLOW KANGAROO PINK	08	5 GAL	LOW	
	COLEUSIA X 'INTERLUDE'	AFTERGLOW ELEGANT	80	1 GAL	LOW	
	ANEMON DOMEICA 'MORFAR'	SERIAL STAIRS HEAVENLY EMERALD	58	3 GAL	MID	
	STIPA TENUESIMA	FINSTEIN MEADOWS	275	1 GAL	LOW	
<b>GROUND COVERS</b>						
	ARCTICUS ACALIS 'THE MANDARIN'	AFRICAN DASH	204	1 GAL	LOW	18" O.C.
	LANTANA X 'NEW DELHI'	NEW GOLD LANTANA	305	1 GAL	LOW	36" O.C.
	PLANT IDENTIFY - S-SHRUB - G-GROUNDCOVER					
	QNT - PLANT QUANTITY					

NOTE:  
QUANTITY SHOWN IS A TOTAL FOR THE ENTIRE PROJECT

May 29, 2018



**CITY OF DIAMOND BAR**  
PLANTING LEGEND FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-30** SHEET 134 OF 139

REVISIONS					
CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.	CHECKED BY	CHK. NO.

PREPARED BY:

**DAVID EVANS**  
AND **A. BEOCHLAT** P.E. INC.  
4141 E. HANCOCK AVE., Suite 201  
Covina, CA 91724  
Phone: 951-881-5250

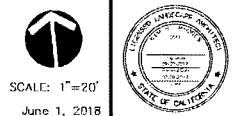
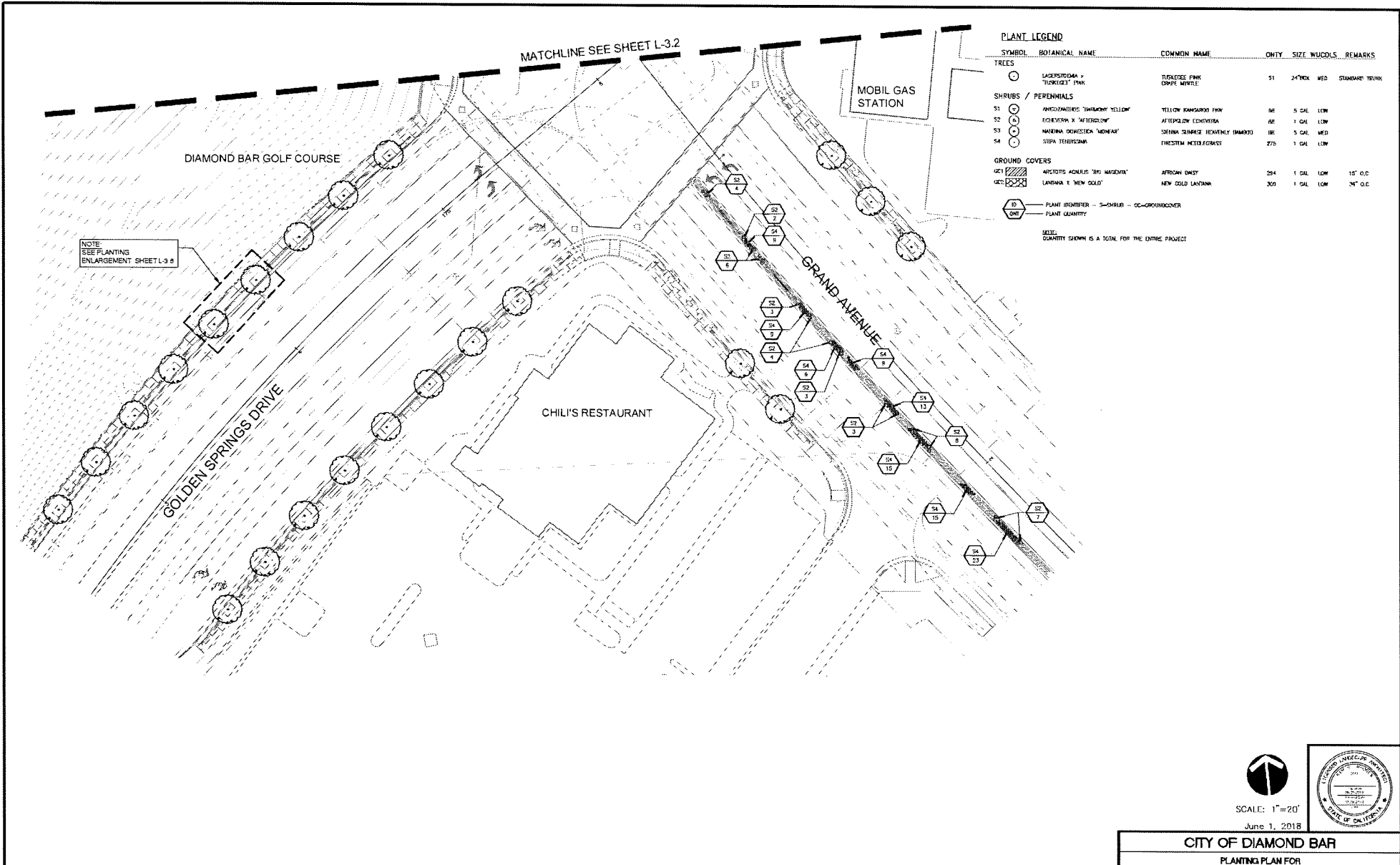
BENCHMARK:  
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA  
NATIONAL DATUM OF 1983. THE 1983 NAD 83 POINT (RANGLA,  
1981 30)

VERTICAL DATUM BASED ON NORTH AMERICAN  
MEAN SEA LEVEL OF 1988 DATUMS, 1971

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
REGISTRATION: 06424 (P) - 31524 (E)

LANDSCAPE ARCHITECT NO. 907 DATE: 05/29/2018

DESIGNED BY	
CHECKED BY	
APPROVED	
CITY ENGINEER	W.C.E. BARE



**CITY OF DIAMOND BAR**  
 PLANTING PLAN FOR  
 GRAND AVE/GOLDEN SPRINGS DR

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-31** SHEET 135 OF 139

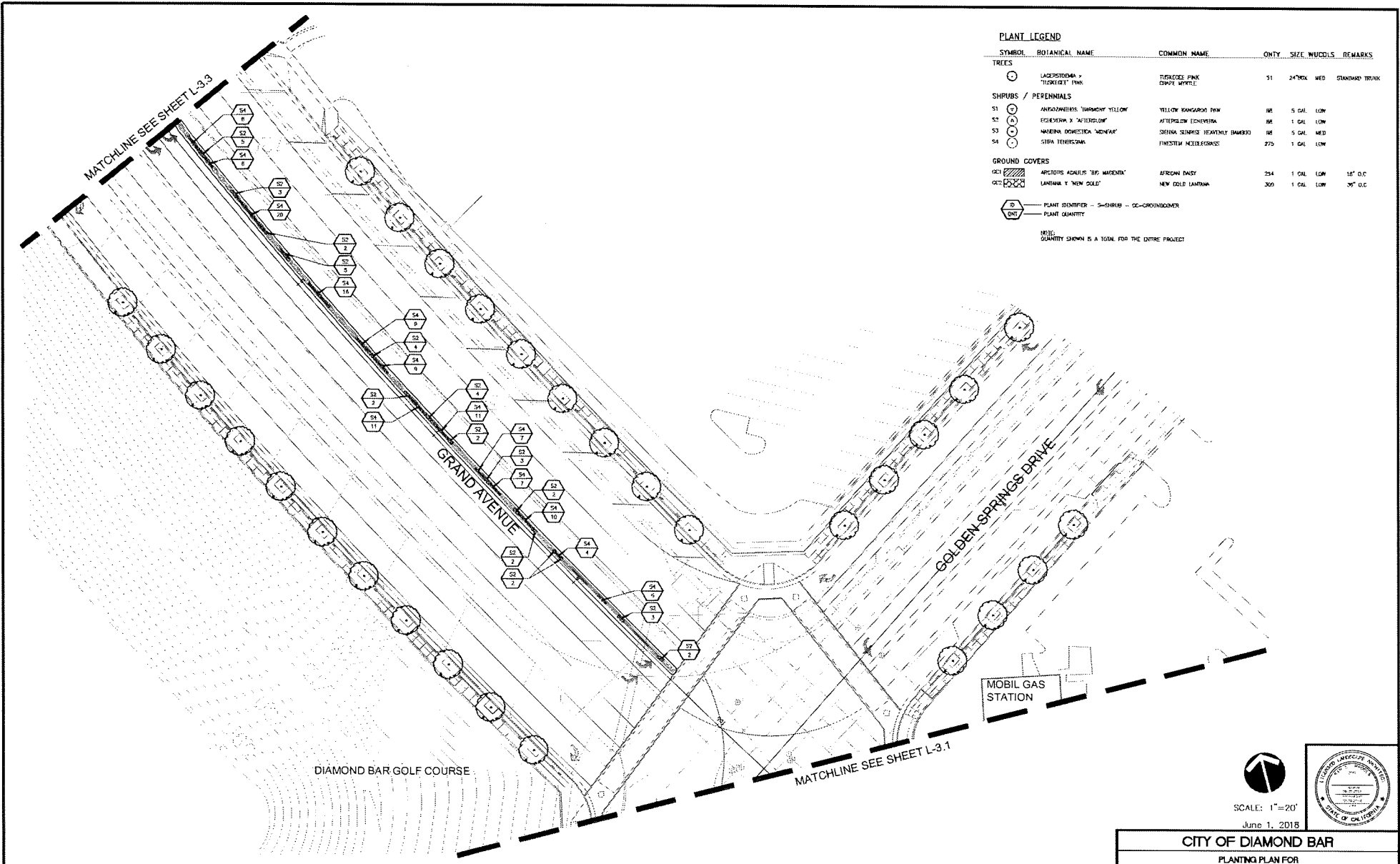
REVISIONS			
NO.	DATE	BY	DESCRIPTION

PREPARED BY:  
**DAVID EVANS AND ASSOCIATES INC.**  
 4141 E. Inland Empire, Suite 225  
 Orange, CA 92668  
 Phone 949 481-2150

LANDSCAPE ARCHITECT NO. 3067 DATE FEB. 09/20/2018

BENCHMARK:  
 COORDINATE SYSTEM: NAD 83 (BASED ON THE CALIFORNIA NATIONAL 83 ADJUSTED HORIZONTAL DATUM) WITH 11 SURFACE CORRECTIONS  
 VERTICAL DATUM: BASED ON MEAN SEA LEVEL  
 HORIZONTAL DATUM: 1983 ADJUSTED HORIZONTAL DATUM  
 U.S. ANGLE'S COUNTY DEPARTMENT OF PUBLIC WORKS  
 NEWSBORO, CALIF. (ELEV. = 1150.00 FEET)

SUBMITTED: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 CITY ENGINEER    TITLE:    DATE: \_\_\_\_\_



**PLANT LEGEND**

SYMBOL	BOTANICAL NAME	COMMON NAME	QNTY	SIZE	WUODLS	REMARKS
<b>TREES</b>						
⊙	LACINIDONDA × "TUSKRIGHT" PINK	TUSKRIGHT PINK COWPE WOPPLE	51	24"DBH	WED	STANDARD TRUNK
<b>SHRUBS / PERENNIALS</b>						
S1	ANKYZANILIS "LIMBRIGHT" YELLOW	YELLOW KANGAROO PINK	86	5 GAL	LOW	
S2	EGYPTIUM × "AFTERGLOW"	AFTERGLOW ECHINEVERA	86	1 GAL	LOW	
S3	HALEMA DOMESTICA "MIDNIGHT"	SEVENA SEVENIS BEAUTIFUL BARKER	86	5 GAL	MED	
S4	SIDA TENUESCIMA	FIRESTEM NEEDLEGRASS	270	1 GAL	LOW	
<b>GROUND COVERS</b>						
⊙	ARCIOSIS ACALUIS "BIG MAMMOTH"	AFRICAN DASY	254	1 GAL	LOW	18" O.C.
⊙	LANTANA × "NEW GOLD"	NEW GOLD LANTANA	300	1 GAL	LOW	36" O.C.
⊙	PLANT IDENTIFIER -- S=SHRUB -- GC=GROUNDCOVER					
⊙	PLANT QUANTITY					

NOTE:  
QUANTITY SHOWN IS A TOTAL FOR THE ENTIRE PROJECT

SCALE: 1"=20'  
June 1, 2018

**CITY OF DIAMOND BAR**  
PLANTING PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-3.2** SHEET 136 OF 139

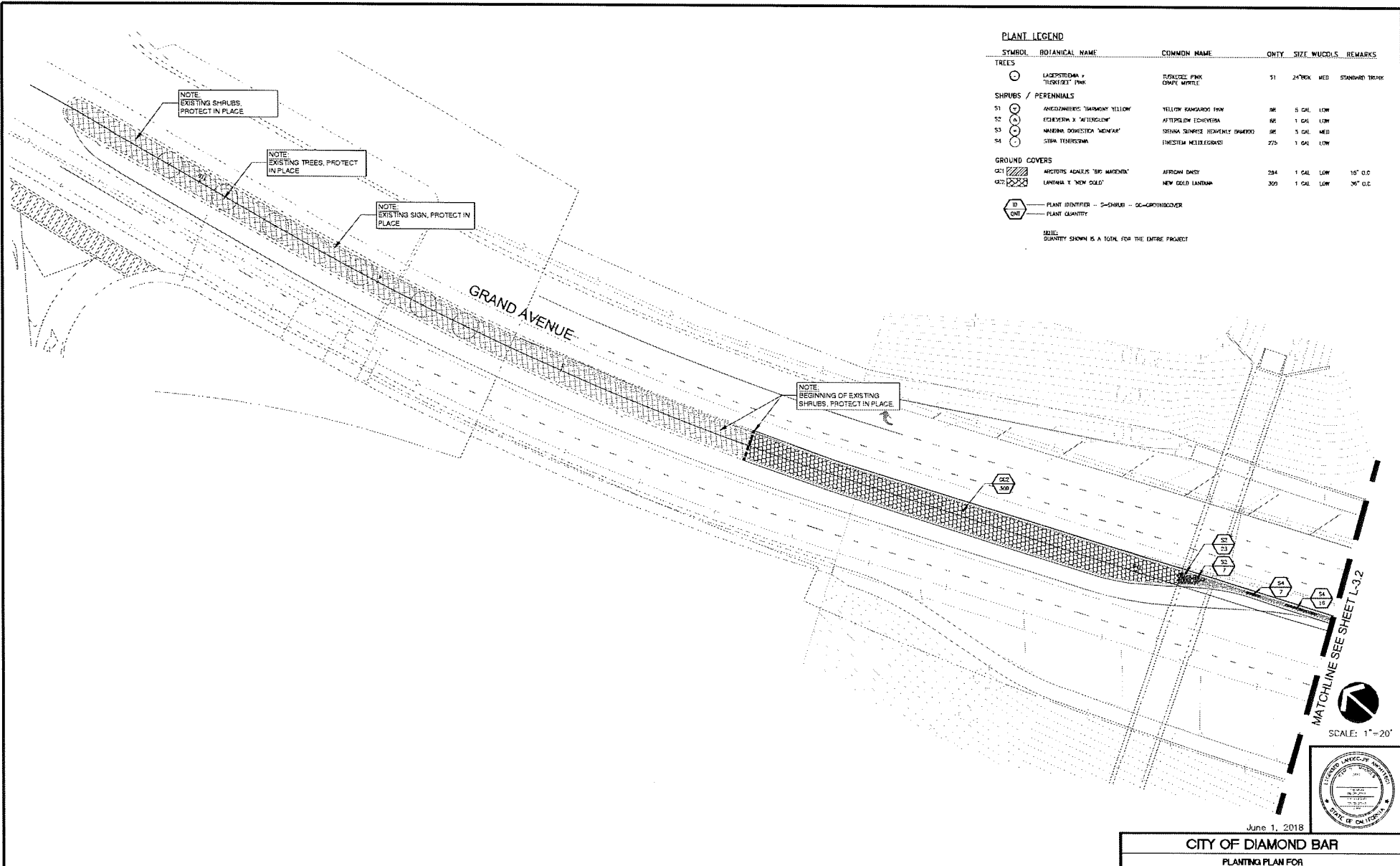
**REVISIONS**

DATE	BY	DESCRIPTION

PREPARED BY:  
**DAVID EVANS AND ASSOCIATES, INC.**  
4141 E. Alhambra, Suite 325  
Sierra Vista, CA 91784  
Phone 951 431 5755

BENCHMARK:  
CORNER OF GRAND AVE AND DR. THE CALIFORNIA  
SOUTH PLATON OF 1962, 1961-35 BENCH (DENTAL  
OFFICE)  
VERTICAL DATUM BASED ON NORTH AMERICAN  
MEAN SEA LEVEL (1988 DATUM), 1971  
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
REVISIONS: 06/01/18 (1) 115.04 FEET

DESIGNED BY	CHKD BY
DRAWN BY	APP'D BY
DATE	DATE



**PLANT LEGEND**

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	WOODS	REMARKS
<b>TREES</b>						
⊙	LASIOSTEDIA s "TICKLEBEE" PINK	FLORAL PINK ORANGE MYRTLE	51	24"X6"	MEB	STANDARD TRUNK
<b>SHRUBS / PERENNIALS</b>						
S1	ANAGALLIS s "THIMBLETOP" YELLOW	YELLOW RANGAROO FRW	86	3 GAL	LOW	
S2	ESCHERICHIA s "MIDNIGHT"	AFRICAN DUSK	86	1 GAL	LOW	
S3	MADEIRA DOMESTICA "MONTANA"	SEMIANA SUNRISE	86	3 GAL	MEB	
S4	SIBBA THURBERGII	EMERALD MEXICANGRASS	275	1 GAL	LOW	
<b>GROUND COVERS</b>						
G1	HYCOTIS ADALPHI "BIG MARCHANT"	AFRICAN DUSK	284	1 GAL	LOW	15" O.C.
G2	LANTANA s "NEW GOLD"	NEW GOLD LANTANA	359	1 GAL	LOW	36" O.C.
⊙	PLANT IDENTIFIER -- S--SHRUB -- G--GROUND COVER					
⊞	PLANT QUANTITY					
QTY QUANTITY SHOWN IS A TOTAL FOR THE ENTIRE PROJECT						

June 1, 2018

**CITY OF DIAMOND BAR**

PLANTING PLAN FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — **L-3.3** SHEET 1.37 OF 1.39

REVISIONS					
CHANGED BY	CHK. NO.	CHANGED BY	CHK. NO.	CHANGED BY	CHK. NO.

PREPARED BY:

**DAVID EVANS AND ASSOCIATES INC.**  
4141 E. Inland Empire, Suite 225  
Orange, CA 92668  
Phone 949 431 5763

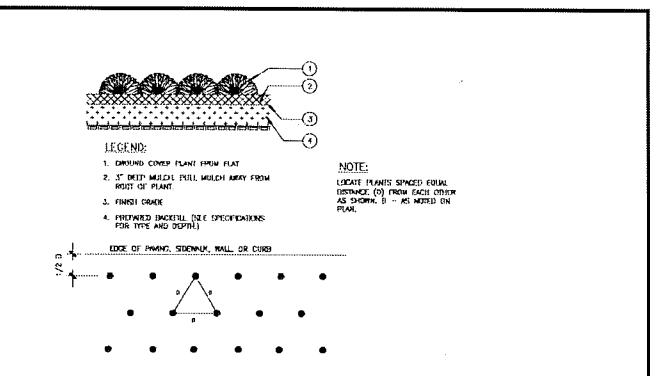
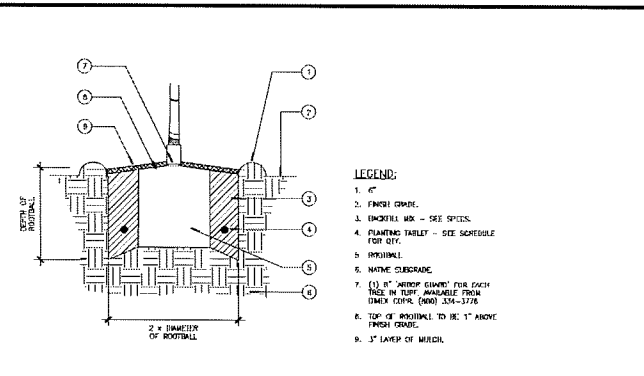
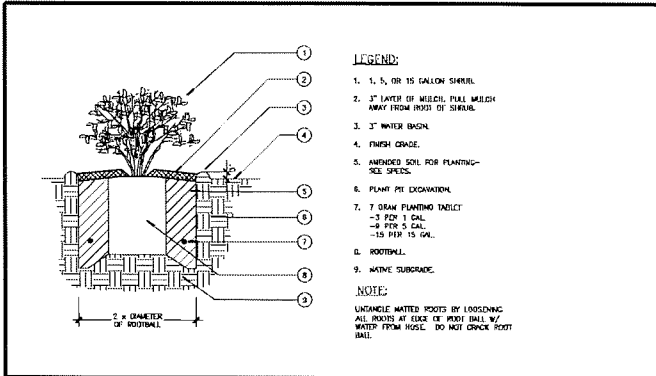
BENCHMARK:  
CORNER OF GRAND AVE AND GOLDEN SPRINGS DR, CALIFORNIA  
NATIONAL DATUM OF 1983, 1993.5 ELEVATION (NAD83)  
VERTICAL DATUM OF 1983 (NAD83)  
HORIZONTAL DATUM OF 1983 (NAD83)

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
RECORDING: 10/14/18 ELEV = 115.00 (FEET)

DESIGNED BY	
REVISIONS	
APPROVED BY	
DATE	



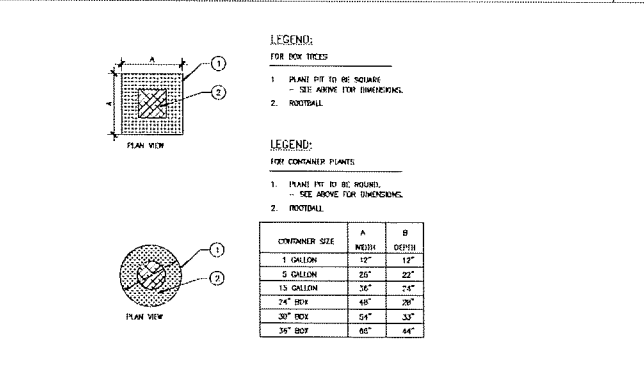




CONTAINER PLANTING IN PLANTER AREA

3 TREE PLANTING IN PLANTER AREA

2 GROUNDCOVER PLANTING



6 PLANT PIT TABLE

5 TREE PLANTING IN TREE GRATE

4

8

7

REVISIONS

NO.	DATE	BY	DESCRIPTION

PREPARED BY: **DAVID EVANS AND ASSOCIATES INC.**  
4141 E. BRAND AVENUE, SUITE 250  
COSTA MESA, CA 92626  
Phone: 949 481 9700

BENCHMARK: COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (NAD 83) WITH THE DATUM OF 1983. ALL VERTICAL DATA IS BASED ON NORMAL AMERICAN MEASUREMENTS.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
REVISIONS: 02/14/17

May 29, 2018

**CITY OF DIAMOND BAR**  
PLANTING DETAILS FOR  
**GRAND AVE/GOLDEN SPRINGS DR**

**DEPARTMENT OF PUBLIC WORKS**

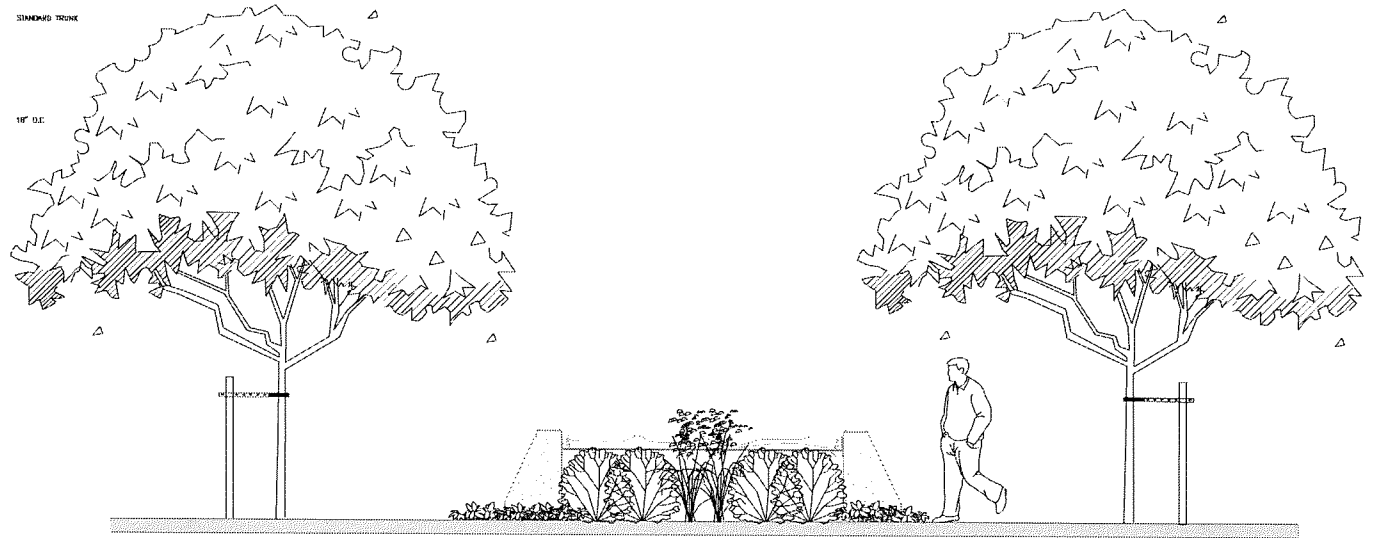
PROJECT NO. — L-54 SHEET 138 OF 139



**PLANT LEGEND**

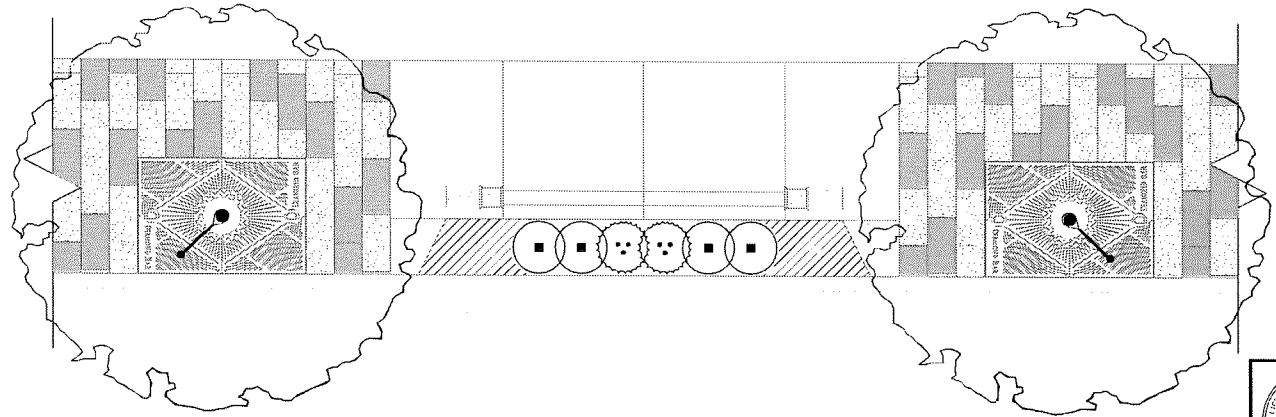
SYMBOL	BOTANICAL NAME	COMMON NAME	QNTY	SIZE	WUCOLS	REMARKS
<b>TREES</b>						
○	LARIX STROMB. & "TUSSELEDEE" FORM	TUSSELEDEE FORM DRAPE MIRELE	51	24"DBH	MED	STANDARD TRUNK
<b>SHRUBS / PERENNIALS</b>						
⊙	ARGOLANTHOS "SUNSHINY YELLOW"	YELLOW KANGAROO PAW	98	5 GAL.	LOW	
⊙	MANDARIN DOMESTICA "MOMFAP"	STRAWBERRY BANANA HEAVENLY DAMEO	196	5 GAL.	MED	
<b>GROUND COVERS</b>						
▨	ARCTIUM ADAMIS "BIG MARIKIA"	AIRSCAN DIRT	294	1 GAL.	LOW	18" D.E.

NOTE:  
QUANTITY SHOWN IS A TOTAL OF THE ENTIRE PROJECT



**SECTION**

SCALE: 1/2"=1'-0"



**PLAN VIEW**

SCALE: 1/2"=1'-0"

May 29, 2018

**CITY OF DIAMOND BAR**  
PLANTING DETAILS FOR PARKWAYS  
GRAND AVE/GOLDEN SPRINGS DR

**DEPARTMENT OF PUBLIC WORKS**

PROJECT NO. — L-35 SHEET 139 OF 139

**REVISIONS**

DESIGNED BY	DATE	CHECKED BY	DATE	DESIGNED BY	DATE	CHECKED BY	DATE

PREPARED BY:  
**DAVID EVANS AND ASSOCIATES INC.**  
4141 E. Grand Avenue, Suite 250  
Orange, CA 92664  
Phone: 951-481-8750

BENCHMARK:  
CORNER TO STORM AVE. (CROSS) ON THE CALIFORNIA  
COASTAL NATIONAL OPEN SPACE MONUMENT TRAIL  
(PLOT 10)  
VERTICAL DATUM BASED ON NORTH AMERICAN  
MEAN SEA LEVEL  
THE ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
RECOMMENDS THE USE OF 303.88 (ELEV.)

DATE: \_\_\_\_\_  
SCALE: \_\_\_\_\_  
BY: \_\_\_\_\_



*SUCCESSOR AGENCY*

ITEM NO. 5.4



SUCCESSOR AGENCY TO THE  
**INDUSTRY URBAN - DEVELOPMENT  
AGENCY**

## MEMORANDUM

**TO:** Honorable Chairman and Members of the Successor Agency to the Industry Urban-Development Agency Board

**FROM:** Troy Helling, Acting Executive Director *TH*

**STAFF:** Joshua Nelson, Contract Agency Engineer, CNC Engineering *JN*  
Sean Calvillo, Project Manager, CNC Engineering *SC*

**DATE:** July 26, 2018

**SUBJECT:** Consideration of Amendment No. 4 to the Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc., in the amount of \$80,000.00 for a total Agreement amount not to exceed \$952,550.00 through December 31, 2020

---

### **Background:**

On December 19, 2013, the Successor Agency to the Industry Urban-Development Agency ("Agency") approved an Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc., ("SCS") to provide landfill engineering services during the mass grading construction phase of the Agency's Industry Business Center East Development. SCS is listed in the Recognized Obligation Payment Schedule ("ROPS") under Line Item No. 221.

On February 24, 2015, the Agency approved Amendment No. 1 a budget increase for continued landfill engineering services during the mass grading construction phase of the Agency's Industry Business Center East development. On January 25, 2016, the Agency approved Amendment No. 2 to amend the Agreement to include installation of the landfill gas ("LFG") control system mechanical and electrical components and to provide continued assistance with engineering, maintenance and monitoring and regulatory compliance issues related to the presence of the landfill during the post-construction phase.

On December 22, 2016, the Agency approved Amendment No. 3 which included performance source tests on the carbon treatment system, including preparation of a test plan to be submitted to the South Coast Air Quality Management District ("SCAQMD"), as well as oversight during system testing and review of the final report. SCS continues to provide landfill engineering services during the post-construction phase and startup of the gas control system for the Industry Business Center East Development. In addition, they also oversee and document the installation of five (5) landfill gas monitoring wells to document any landfill gas mitigation.

**Discussion:**

Presently, Amendment No. 4 includes a budget increase of \$80,000.00 in order to complete the work through the current ROPS period of 18-19A. This covers the continued work of as-requested engineering, permitting and environmental operation, monitoring and maintenance services through December 31, 2018. In addition, SCS is working with the SCAQMD on permit requirements for monitoring and reporting emissions at the Valley Land Development Landfill. SCS has filed for an exemption with SCAQMD to allow a reduction in site monitoring requirements and compliance costs, without compromising public safety and environmental protection.

As SCAQMD continues to process this permit, SCS continues to perform work complying with all the regulations required. SCS has submitted a proposal for the additional budget and CNC Engineering (“CNC”) has reviewed it and finds it to be in order.

Table 1 – Project Summary

Agreement for Consulting Services	\$243,018.00
Amendment No. 1	\$305,830.00
Amendment No. 2	\$292,052.00
Amendment No. 3	\$31,650.00
Amendment No. 4	\$80,000.00
<b>Total</b>	<b>\$952,550.00</b>

**Fiscal Impact:**

SCS has submitted a request for a total budget increase of \$80,000.00 for the ROPS 18-19A period. CNC has reviewed the proposal and found it to be in order. This amount reflects the approved budget for Line Item 221 in ROPS 18-19.

**Recommendation:**

It is recommended that the Successor Agency Board approve Amendment No. 4 to the Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc.

**Exhibits:**

- A. Amendment No. 4 to Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc., dated July 26, 2018
- B. Budget Increase Request from Stearns, Conrad and Schmidt, Consulting Engineers, Inc., dated July 10, 2018

**EXHIBIT A**

Amendment No. 4 to Agreement for Consulting Services with Stearns, Conrad  
and Schmidt, Consulting Engineers, Inc., dated July 26, 2018

[Attached]

**AMENDMENT NO. 4  
TO AGREEMENT FOR CONSULTING SERVICES WITH STEARNS, CONRAD AND  
SCHMIDT, CONSULTING ENGINEERS, INC.**

This Amendment No. 4 to the Agreement for Consulting Services (“Agreement”), is made and entered into this 26<sup>th</sup> day of July, 2018, (“Effective Date”) by and between the Successor Agency to the Industry Urban-Development Agency, a California municipal corporation (“Agency”) and Stearns, Conrad and Schmidt, Consulting Engineers, Inc., dba SCS Engineers, a Virginia corporation (“Consultant”). The City and Consultant are hereinafter collectively referred to as the “Parties.”

**RECITALS**

**WHEREAS**, on or about December 19, 2013, the Agency, approved an Agreement for Consulting Services with Stearns, Conrad and Schmidt, Consulting Engineers, Inc., to provide landfill engineering and consulting services; and

**WHEREAS**, on or about February 24, 2015, the Agency approved a budget increase, increasing the Agreement compensation by \$305,830.00 for continued landfill engineering services during the mass grading construction phase of the Agency’s Industry Business Center East development; and

**WHEREAS**, on or about January 25, 2016, the Agency approved Amendment No. 2 to amend the Agreement to include installation of the LFG control system mechanical and electrical components and to provide continued assistance with engineering, maintenance and monitoring and regulatory compliance issues related to the presence of the landfill during the post-construction phase; and

**WHEREAS**, on or about December 22, 2016, Amendment No. 3 to the Agreement was entered into and executed between the Agency and Consultant to amend the Scope of Services to include preparation of a test plan to be submitted to SCAQMD and consulting services for the Agency; and

**WHEREAS**, the Parties desire to amend the Agreement to increase the compensation to allow for continued services through the next ROPS period of 18-19A; and

**WHEREAS**, for the reasons set forth herein, the City and Consultant desire to enter into this Amendment No. 4, as set forth below.

## AMENDMENT

**NOW, THEREFORE**, in consideration of the mutual covenants, promises and agreements set forth herein, it is agreed the aforesaid Agreement, a copy of which is attached hereto as Exhibit A, and incorporated herein by reference, shall remain in full force and effect except as otherwise hereinafter provided:

**Section 1. Term**

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event alter than December 31, 2020, unless sooner terminated pursuant to the provisions of this Agreement.

**Section 4. Compensation**

The dollar figure of \$872,550.00 shall be amended, in all instances, to read \$952,550.00.



IN WITNESS WHEREOF, the Parties have executed this Amendment No. 4 to the Agreement as of the Effective Date.

**“AGENCY”**  
**SUCCESSOR AGENCY TO THE INDUSTRY**  
**URBAN-DEVELOPMENT AGENCY**

**“CONSULTANT”**  
**STEARNS, CONRAD AND SCHMIDT**  
**CONSULTING ENGINEERS, INC.**

By: \_\_\_\_\_  
Mark D. Radecki, Chairman

By: \_\_\_\_\_  
Joseph J. Miller, P.E., Vice President

**Attest:**

By: \_\_\_\_\_  
Diane M. Schlichting, Agency Secretary

**APPROVED AS TO FORM**

By: \_\_\_\_\_  
James M. Casso, Agency General Counsel

**EXHIBIT A TO AMENDMENT NO. 4:**

**AGREEMENT FOR CONSULTING SERVICES WITH STEARNS, CONRAD AND  
SCHMIDT, CONSULTING ENGINEERS, INC. (DATED DECEMBER 19, 2013)**

## AGREEMENT FOR CONSULTING SERVICES

**THIS AGREEMENT FOR CONSULTING SERVICES** is entered into this 19<sup>th</sup> day of December, 2013 (the "Effective Date") by and between the **SUCCESSOR AGENCY TO THE INDUSTRY URBAN-DEVELOPMENT AGENCY**, (the "Agency") and **STEARNS, CONRAD AND SCHMIDT, CONSULTING ENGINEERS, INC. DBA AS SCS ENGINEERS**, a Virginia Corporation ("Consultant").

### RECITALS

A. Agency has determined that it requires landfill consultation services from a consultant for the Industry Business Center.

B. Consultant represents that it is fully qualified to perform such professional services by virtue of its experience and the training, education and expertise of its principals and employees. Consultant further represents that it is willing to accept responsibility for performing such services in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, Agency and Consultant agree, as follows:

1. Consultant's Services.

a. Scope of Services. Subject to the terms and conditions set forth in this Agreement, Consultant shall perform the services set forth in the Scope of Work attached hereto and incorporated herein as Exhibit "A" ("Scope of Work").

b. Project Manager. Consultant's Project Manager on this project will be Joseph Miller, who will have the overall responsibility and will supervise the work performed by Consultant on this project.

c. Personnel. Consultant represents that it has, or will secure at its own expense, all personnel required to perform the services under this Agreement. All of the services required under this Agreement will be performed by Consultant or under its supervision, and all personnel engaged in the work shall be qualified to perform such services. Consultant reserves the right to determine the assignment of its own employees to the performance of Consultant's services under this Agreement, but Agency reserves the right, for good cause, to require Consultant to exclude any employee from performing services on Agency's premises.

d. Licenses. Consultant will obtain all necessary licenses, permits and other approvals to perform the work specified in this Agreement and will pay all fees or taxes required for the issuance of the same.

e. Changes to Scope and Cost of Work. Agency or Consultant may, from time to time, request changes in the scope of services and costs in this Agreement to be performed hereunder. Before any work is performed beyond the scope of services in this

f. Time for Performance. Consultant shall commence the services on the Effective Date and perform all services in conformance with the project timeline established by the Executive Director, set forth as Exhibit "B."

2. City Representative.

The Executive Director or his designee shall represent the Agency in the implementation of this Agreement.

3. Term of Agreement.

This Agreement shall commence on the Effective Date and shall remain in full force and effect until December 31, 2020, unless sooner terminated as provided in Section 4 herein.

4. Termination.

The Agency may terminate this Agreement for any reason on ten (10) calendar days written notice to Consultant. Consultant shall have the right to terminate this Agreement for any reason on sixty (60) calendar days written notice to Agency. The effective date of termination shall be upon the date specified in the notice of termination, or, in the event no date is specified, upon the thirtieth (30th) day following delivery of the notice. Consultant agrees to cease all work under this Agreement on or before the effective date of such notice. In the event of termination by Agency, due to no fault or failure of performance by Consultant, Consultant shall be paid based on the percentage of work satisfactorily performed at the time of termination. In no event shall Consultant be entitled to receive more than the amount that would be paid to Consultant for the full performance of the services required by this Agreement. Consultant shall have no other claim against Agency by reason of such termination.

5. Compensation.

a. Compensation [check applicable provision]

Agency will compensate Consultant for the services provided to the reasonable satisfaction of the Agency pursuant to this Agreement. The project will have multiple phases and the exact details of those phases are yet to be determined. At this time and based on the estimated total cost, the total budget for the Consultant has been set at \$243,018.00. However pursuant to California Assembly Bill No. 1484, the Agency is required to prepare Recognized Obligation Payment Schedules or "ROPS" on a 6 month basis. The ROPS are reviewed for approval by the Oversight Board of the Agency and the State of California Department of Finance. This Agreement and Consultant will be listed in each ROPS for the estimated amount of the services to be provided by Consultant and the compensation projected to be required under this Agreement for each appropriate ROPS period. If the applicable line item in the ROPS is approved by the Agency, Oversight Board and Department of Finance, the Consultant will be notified of the approved amount. The Consultant shall not, during the 6 month period which is the subject of the approved ROPS, provide any services that requires compensation under this Agreement in an amount which exceeds the amount approved under the applicable line item,

based on the hourly rates set forth in Exhibit C attached hereto and incorporated herein by this reference. The initial amount for the ROPs 13-14B period (January 1, 2014 through June 30, 2014) has been approved for \$50,000.00. At the end of each 6 month period, the amount that was approved for that period will be reduced to zero and the amount approved in the next ROPs will become the new amount which shall not be exceeded during the next applicable 6 month period. Actual payments made to the Consultant will be continuously deducted from the total budgeted amount of \$243,018.00 until that amount has been fully exhausted or the project which is the subject to this Agreement has been completed. No amounts described above shall be exceeded except upon and pursuant to the prior written authorization by the Agency.

Agency will compensate Consultant for the services provided to the reasonable satisfaction of the Agency pursuant to this Agreement in an aggregate amount not to exceed \$ \_\_\_\_\_. Such amount may only be exceeded upon and pursuant to the prior written authorization by the Agency.

b. Expenses [check applicable provision]

The amount set forth in paragraph a shall include Consultant's fees for the services as well as the actual cost of any equipment, materials, and supplies incurred by consultant in performing the work contemplated by this Agreement (including, but not limited to, all labor, materials, delivery, tax, assembly, and installation, as applicable).

Consultant shall be entitled to reimbursement only for those expenses expressly set forth in Exhibit C. Any expenses incurred by Consultant which are not expressly authorized by this Agreement will not be reimbursed by City. In no event shall expenses exceed the sum of \_\_\_\_\_.

c. Additional Services. Agency shall make payments for any services requested by Agency not included in the Scope of Services to Consultant on a time and materials basis using Consultant's standard fee schedule.

6. Method of Payment

Consultant shall submit to Agency an invoice, on a monthly basis or less frequently, for the services performed pursuant to this Agreement. Each invoice shall describe in detail the services rendered during the period and shall show the days worked, number of hours worked and reimbursable expenses, if any, for each day in the period. Each invoice submitted shall include the appropriate documentation for any reimbursable expenses claim by Consultant. Within ten business days of receipt each invoice, Agency shall notify Consultant in writing of any disputed amounts included on the invoice. Within thirty calendar days of receipt of each invoice, Agency shall pay all undisputed amounts included on the invoice. Agency shall not withhold applicable taxes or other authorized deductions from payments made to Consultant. At any time during regular working hours, all records, invoices, time cards, cost control sheets and other records maintained by Consultant shall be available for review and audit by Agency.

7. Ownership of Work Product.

All reports, documents or other written material developed by Consultant in the performance of this Agreement shall be and remain the property of the Agency without restriction or limitation upon its use or dissemination by Agency. Such material shall not be the subject of a copyright application by Consultant. Any re-use by Agency of any such materials on any project other than the project for which they were prepared shall be at the sole risk of the Agency unless Agency compensates Consultant for such use.

8. Records Retention and Access to Records.

a. Consultant shall maintain full and accurate records with respect to all matters covered under this Agreement for a period of 2 years. Agency shall have access, without charge, during normal business hours to such records, and the right to examine and audit the same and to make transcripts therefrom, and to inspect all program data, documents, proceedings and activities. If applicable under this Agreement, all files, documents, samples, test results, chain of custody logs, and other records and other relevant data developed by Consultant in the course of performing this Agreement shall be maintained for a period of two (2) years after completion of all work and after final payments have been made and shall be made available to Agency upon request.

9. Confidential Status; Disclosure of Information.

All data, reports, documents, materials or other information developed or received by Consultant or provided for performance of this Agreement are deemed confidential and shall not be disclosed by Consultant without prior written consent by Agency. Agency shall grant such consent if disclosure is legally required. All Agency data shall be returned to Agency upon the termination of this Agreement. Consultant's covenant under this section shall survive the termination of this Agreement.

10. Qualifications; Standard of Performance.

a. Consultant's Qualifications. Consultant has represented to the Agency that the Consultant, its employees and its subcontractors are knowledgeable, skilled and experienced and fully qualified to provide the services described in this Agreement and to perform such assessment, investigation, and analysis contemplated by the Agreement in accordance with good industry practices of Consultant's profession performing similar services under similar circumstances at the time the services are performed.

b. Standard of Performance. Consultant, its employees and its subcontractors shall perform all work to the highest professional standards and in a manner reasonably satisfactory to Agency, and as described in the Scope of Work. All work performed by Consultant and its employees pursuant to this Agreement will be performed diligently and in a manner consistent with the standards of care, diligence and skill exercised by recognized consulting firms for similar services, and in accordance with all regulatory and good management standards, and in a good, safe and workmanlike manner. Consultant will be responsible to ensure that all work performed by its employees or any contractors is performed to

the standards set forth in this Agreement and that such work complies with requirements of any governmental agency or entity and applicable law.

11. Independent Contractor.

a. Consultant is an independent contractor and shall have no power to incur any debt, obligation or liability on behalf of Agency. Consultant shall not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of Agency.

b. Consultant shall pay all required taxes on amounts paid to Consultant under this Agreement, and to indemnify and hold the Agency harmless from any and all taxes, assessments, penalties, and interest asserted against the Agency by reason of the independent contractor relationship created by this Agreement. In the event that Agency is audited by any Federal or State agency regarding the independent contractor status of Consultant and the audit in any way fails to sustain the validity of a wholly independent contractor relationship between Agency and Consultant, then Consultant agrees to reimburse Agency for all costs, including accounting and attorney's fees, arising out of such audit and any appeals relating thereto.

c. Consultant shall fully comply with the workers' compensation laws regarding Consultant and Consultant's employees. Consultant further agrees to indemnify and hold the Agency harmless from any failure of Consultant to comply with applicable worker's compensation laws.

d. The Agency shall have the right to offset against the amount of any fees due to Consultant under this Agreement any amount due to the Agency from Consultant as a result of Consultant's failure to promptly pay to the Agency any reimbursement or indemnification arising under this Section.

12. Indemnification.

a. To the fullest extent permitted by law, Consultant hereby shall, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the Agency, its respective officers, attorneys, agents, employees, designated volunteers, successors, and assigns (collectively, "Indemnitees") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, expert witnesses, consultants, or other professionals and all costs associated therewith (collectively, "Claims"), resulting from any negligent act, error, omission or failure to act of Consultant or any of its subcontractors and their respective officers, agents, servants, employees, subcontractors, material men, suppliers or their respective officers, agents, servants or employees in connection with, resulting from, or related to this Agreement or for failure to perform or negligent performance of any term, provision, covenant, or condition of the Agreement, including this indemnity provision. This indemnity provision is effective regardless of any prior, concurrent, or subsequent passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence. This indemnity provision shall survive the termination of the Agreement and is in addition to any other rights or remedies which Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity

provision, and an entry of judgment against the Consultant shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision. Consultant shall pay Indemnitees for any attorneys fees and costs incurred in enforcing this indemnification provision. Notwithstanding the foregoing, nothing in this instrument shall be construed to encompass (a) Indemnitees' active negligence or willful misconduct to the limited extent that this Agreement is subject to Civil Code § 2782(a), or (b) the contracting public agency's active negligence to the limited extent that this Agreement is subject to Civil Code § 2782(b). This indemnity is effective without reference to the existence or applicability of any insurance coverages which may have been required under this Agreement or any additional insured endorsements which may extend to Indemnitees. This indemnity provision shall survive the termination of this Agreement and is in addition to any other rights or remedies which Indemnitees may have under the law.

b. Consultant, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against any Indemnitee with respect to those Claims.

c. Consultant agrees to obtain executed indemnity agreements with provisions identical to those in this Section from each and every subcontractor or any other person or entity involved by, for, with or on behalf of Consultant in the performance of this Agreement. In the event Consultant fails to obtain such indemnity obligations, Consultant agrees to be fully responsible and shall indemnify, hold harmless and defend the Indemnitees from and against any and all Claims resulting from any alleged intentional, reckless, negligent, or otherwise wrongful acts, errors or omissions of Consultant's subcontractors or any other person or entity involved by, for, with or on behalf of Consultant in the performance of this Agreement as set forth in this Section.

### 13. Insurance.

a. Consultant shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, insurance as follows:

(1) A policy or policies of commercial general liability insurance written on an occurrence basis with limits no less than \$2,000,000 per occurrence and for all covered losses and \$2,000,000 general aggregate against any injury, death, loss or damage as a result of wrongful or negligent acts by Consultant, its officers, employees, agents, and independent contractors in performance of services under this Agreement;

(2) Automotive liability insurance, with minimum combined single limits coverage of \$1,000,000 covering any vehicle utilized in the performance of services under this Agreement;

(3) Professional liability or Errors and Omissions Insurance as appropriate written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant and "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy limit shall be no less than \$1,000,000 per claim and in the aggregate. The policy must "pay on behalf of" the



insured and must include a provision establishing the insurer's duty to defend. The policy retroactive date shall be on or before the effective date of this Agreement.

(4) Worker's compensation and employer's liability insurance on a state-approved policy form providing benefits as required by law with employer's liability limits no less than \$1,000,000 per accident or disease.

(5) Pollution Liability Insurance. [check if applicable]

Pollution Liability Insurance written on a Contractor's Pollution Liability form or other form acceptable to Agency providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be not less than \$1,000,000 per claim and \$3,000,000 aggregate.

b. The policies required by this Agreement shall be issued by an insurer admitted in the State of California and with a rating of at least A:VII in the latest edition of Best's Insurance Guide.

c. Consultant agrees that if it does not keep the insurance in full force and effect, the Agency may either immediately terminate this Agreement or, if insurance is available at a reasonable cost, the Agency may take out the necessary insurance and pay the premium thereon, and the repayment thereof shall be deemed an obligation of Consultant and the cost of such insurance may be deducted, at the option of Agency, from payments due Consultant, along with a reasonable administrative handling charge.

d.  Consultant shall submit to the Agency proof of compliance with these insurance requirements, consisting of a certificate or certificates of insurance and/or endorsements, not less than one (1) day prior to beginning of performance under this Agreement.

e. Consultant shall provide proof that policies of insurance expiring during the term of this Agreement have been renewed or replaced with other policies providing at least the same coverage. Such proof will be furnished at least two weeks prior to the expiration of the coverages.

f. The general liability, property damage and automobile policies of insurance shall contain an endorsement naming the Agency, its officers, employees, attorneys, agents and volunteers as additional insureds. All of the policies shall contain an endorsement providing that the policies cannot be modified, canceled or reduced except on thirty (30) days' prior written notice to the Agency. Consultant agrees to require its insurer to modify the certificates of insurance to delete any exculpatory wording stating that failure of the insurer to mail written notice of cancellation imposes no obligation, and to delete the word "endeavor" with regard to any notice provisions.

g. The insurance provided by Consultant shall be primary to any other coverage available to the Agency. Any insurance or self-insurance maintained by the Agency, its officers, employees, agents or volunteers, shall be in excess of Consultant's insurance and shall not contribute with it.

h. All insurance coverage provided pursuant to this Agreement should not prohibit Consultant, and Consultant's officers, employees, agents or subcontractors, from waiving the right of subrogation prior to a loss. Consultant hereby waives all rights of subrogation against the Agency, its officers, employees, agents and representatives.

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

j. If Consultant is a Limited Liability Company, the general liability coverage must be amended so that the Limited Liability Company and its managers, affiliates, employees, agents, and other persons necessary or incidental to its operation are insureds.

k. The provisions of any workers' compensation or similar act will not limit the obligations of Consultant under this Agreement. Consultant expressly agrees not to use any statutory immunity defenses under such laws with respect to the Agency, its employees, officials and agents.

l. For purposes of applying insurance coverage only, this Agreement will be deemed to have been executed immediately upon any party hereto taking any steps that can be deemed to be in furtherance of or towards performance of this Agreement.

m. Consultant agrees to be responsible for ensuring that no contact used by any party involved in any way with the project reserves the right to charge Agency or Consultant for the cost of additional insurance coverage required by this Agreement. Any such provisions are to be deleted with reference to the Agency. It is not the intent of Agency to reimburse any third party for the cost of complying with these requirements. There shall be no recourse against Agency for payment of premiums or other amounts with respect thereto.

n. Consultant agrees to provide immediate notice to Agency of any claim or loss against Consultant arising out of the work performed under this Agreement. Agency assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve the Agency.

o. Procurement of insurance by Consultant shall not be construed as a limitation of Consultant's liability or as full performance of Consultant's duties to indemnify, hold harmless and defend under Section 12 of this Agreement.

p. Consultant shall require each of its subcontractors to maintain insurance coverage that meets all of the requirements of this Agreement.

#### 14. Mutual Cooperation.

a. The Agency shall provide Consultant with all pertinent data, documents and other requested information as is reasonably available for the proper performance of Consultant's services.

b. In the event any claim or action is brought against the Agency relating to Consultant's performance in connection with this Agreement, Consultant shall render any reasonable assistance that Agency may require.

15. Notices.

Any notices, bills, invoices, or reports required by this Agreement shall be deemed received on: (a) the day of delivery if delivered by hand or overnight courier service during Agency's and Consultant's regular business hours; or (b) on the third business day following deposit in the United States mail, postage prepaid, to the addresses heretofore below, or to such other addresses as the parties may, from time to time, designate in writing.

If to Agency:

Successor Agency to the Industry Urban-Development Agency  
15625 East Stafford Street  
City of Industry, California 91744  
Attn: Executive Director

With a copy to:

Richards, Watson & Gershon  
355 South Grand Avenue - 40<sup>th</sup> Floor  
Los Angeles, CA 90071  
Attn: William L. Strausz, Esq.  
(213) 626-8484  
Fax: (213) 626-0078

If to Consultant:

SCS Engineers  
6601 Koll Center Parkway, Suite 140  
Pleasanton, CA 94566  
Attn: Joseph J. Miller, P.E.

16. Representations and Warranties.

Consultant represents, warrants and covenants to the Agency:

a. Organization. Consultant is duly organized, validly existing and in good standing under the laws of the State of California and in each other state in which it conducts business.

b. Agency. Consultant has all requisite licenses, permits, certifications, power and authority to carry on its business as presently conducted, to enter into this Agreement, and to perform its obligations under this Agreement.

c. Approval. The execution, delivery and performance of this Agreement by Consultant and the consummation of the transactions contemplated by this Agreement have been duly and validly authorized by the Board of Directors and are not subject to ratification by the Shareholders of Consultant at a special meeting therefore.

d. Binding Obligation. This Agreement has been duly executed and delivered on behalf of Consultant, and all documents and instruments required hereunder to be executed and delivered by Consultant have likewise been duly executed and delivered. This Agreement does, and such documents and instruments will, constitute legal, valid and binding obligations of Consultant in accordance with their terms. The consummation of the transactions contemplated by this Agreement will not violate, nor be in conflict with, any provision of the partnership agreement, charter, bylaws or governing documents of Consultant (or any of corporations comprising Consultant), or any agreement or instrument to which Consultant is a party or by which Consultant is bound, or any judgment, decree, order statute, rule or regulation applicable to Consultant.

17. Conflicts of Interest

Consultant and its officers, employees, associates and subcontractors, if any, will comply with all conflict of interest statutes of the State of California applicable to Consultant's services under this Agreement, including, but not limited to, the Political Reform Act (Government Code Section 81000, et. seq.) and Government Code Section 1090. During the term of this Agreement, Consultant and its officers, employees, associates and subcontractors shall not, without the prior written approval of the Executive Director, perform work for another person or entity for whom Consultant is not currently performing work that would require Consultant or one of its officers, employees, associates or subcontractors to abstain from a decision under this Agreement pursuant to a conflict of interest statute. Consultant agrees that a clause substantially similar to this section shall be incorporated into any sub-agreement, which Consultant executes in connection with the performance of this Agreement.

18. Accounting Requirements.

Consultant shall maintain an accounting system and records that properly accumulate and segregate incurred costs by line item for the project under the Scope of Work. The accounting system shall conform to the Generally Accepted Accounting Principles, enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices.

19. Governing Law.

This Agreement shall be interpreted, construed and enforced in accordance with the laws of the State of California.

20. Compliance with Laws.

a. Consultant shall comply with all applicable federal, state and local laws, ordinances, codes and regulations.

b. Compliance with Environmental Laws. [check if applicable]

Consultant shall comply with § 306 of the Federal Clean Air Act (42 U.S.C. §1857(h)), § 508 of the Federal Water Pollution Prevention Act (33 U.S.C. § 368), and the laws implementing those acts, including Executive Order 11,738 and 40 C.F.R. pt. 15.

Consultant shall comply with the provisions of the "Barry Keane Underground Storage Tank Cleanup Trust Fund Act of 1989 (Health & safety Code §§ 25299.10 et. seq. and the applicable regulations promulgated thereunder (California Code of Regulations, Title 23, § 2810 et. seq. Consultant shall also comply with mandatory standards and policies relating to energy efficiency, according the state energy conservation plan issued in compliance with the Federal Energy Policy and Conservation Act.

21. Reliance on Reports [check if applicable]

Consultant understands that Agency will rely upon its reports, analysis and related data. Consultant understands and agrees that the reports prepared by Consultant, and the information, data, test results and the conclusions and analyses contained therein regarding the geologic and environmental condition of a site, and/or the soils and groundwater beneath a site, may be relied upon by the Agency, its program managers, consultants, attorneys and appraisers of a site, any purchaser and developer of a site, (provided that the limitations and restrictions set forth herein shall apply to such purchaser and developer) and may be submitted and relied upon by any local, state or federal agencies and entities, as a part of the evaluation of the risk associated with the development or use of the site and the soils and groundwater beneath a site, and for the purpose of assessing the geotechnical, hydro- geological and/or environmental condition of a site and the ground and surface water on, under and in the area of a site, issuing closure letters, permits, licenses or authorizations to develop a site, and to determine whether further environmental investigation, assessment, review or study is necessary, and so that the Agency and any designated purchaser and developer of any site can conduct construction activities on and develop the site.

22. Discrimination and Equal Employment Opportunity.

In the performance of this Agreement, Consultant shall not discriminate against any employee, subcontractor or applicant for employment because of race, color, creed, religion, sex, marital status, national origin, ancestry, age, physical or mental handicap, medical condition or sexual orientation. Consultant will take affirmative action to ensure that subcontractors and applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, religion, sex, marital status, national origin, ancestry, age, physical or mental handicap, medical condition or sexual orientation.

23. No Assignment.

Consultant shall not assign or transfer any interest in this Agreement nor the performance of any of Consultant's obligations hereunder, nor shall it subcontract any of the work described in this Agreement or the Scope of Work without the prior written consent of Agency, and any attempt by Consultant to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

24. Non-Waiver of Terms, Rights and Remedies.

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 Agency of any payment to Consultant constitute or be construed as a waiver by Agency of any breach of covenant, or any default which may then

exist on the part of Consultant, and the making of any such payment by Agency shall in no way impair or prejudice any right or remedy available to Agency with regard to such breach or default.

25. Attorneys' Fees.

If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of the services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs in addition to any other relief to which it may be entitled.

26. Time Is Of The Essence.

Time is hereby expressly declared to be of the essence of this Agreement and of each and every provision hereof; and each and every provision hereof is hereby declared to be and made a material, essential and necessary part of this Agreement.

27. Exhibits; Precedence.

All documents referenced as exhibits in this Agreement are hereby incorporated in this Agreement. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of any document incorporated herein by reference, the provisions of this Agreement shall prevail.

28. Entire Agreement and Amendments.

This Agreement, and any other documents incorporated herein by specific reference, represent the entire and integrated agreement between Consultant and the Agency. This Agreement supercedes all prior oral or written negotiations, representations or agreements. This Agreement may not be amended, nor any provision or breach hereof waived, except in a writing signed by the parties which expressly refers to this Agreement.

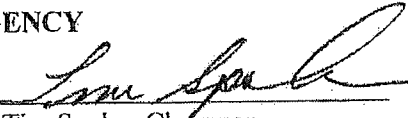
29. Severability.

Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be valid under applicable law. If any provision of this Agreement, is determined by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall nevertheless continue in full force and effect.

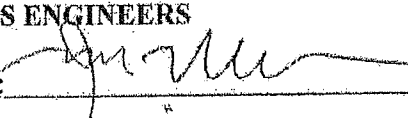
30. Execution. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument.

WHEREFORE, the parties hereto have executed this Agreement as of the date first above written.

SUCCESSOR AGENCY TO THE  
INDUSTRY URBAN-DEVELOPMENT  
AGENCY

By:   
\_\_\_\_\_  
Tim Spohn, Chairman

STEARNS, CONRAD AND SCHMIDT,  
CONSULTING ENGINEERS, INC. DBA AS  
SCS ENGINEERS

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


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

EXHIBIT A

Scope of Services



## Exhibit "A"

Environmental Consultants  
and Contractors

6601 Koll Center Parkway  
Suite 140  
Pleasanton, CA 94566

925 426-0080  
FAX 925 426-0707  
www.scsengineers.com

### SCS ENGINEERS

December 12, 2013  
File No. 011153213

Mr. Kevin Radecki, Executive Director  
Successor Agency to the Industry-Urban Development Agency  
15625 East Stafford Street #100  
City of Industry, California 91744

**Subject: Proposal for Landfill Engineering Services  
Proposed Industry Business Center Development (IBC East)  
State Route 60/57 Freeway at Grand Avenue  
City of Industry, California**

Dear Mr. Radecki:

This letter provides a proposal and budget for SCS Engineers (SCS) to provide landfill engineering services in support of your agency's proposed Industry Business Center (IBC) development project.

The IBC site consists of two large parcels, one on the east side of Grand Avenue that is roughly 245 acres, and one on the west side of Grand Avenue that is roughly 347 acres. SCS's proposal is specific to the first phase of development east of Grand Avenue (IBC East), which will entail rough grading and site preparation for up to 10 new commercial buildings with cumulative footprint area of 2.2 million square feet. The grading operation for IBC East will require earth cut and fill totaling approximately 8.5 million cubic yards.

Approximately 11 acres of land within the IBC East parcel, known as the former Valley Land Development Landfill (Landfill) was used as a municipal waste disposal site in the 1950's and 1960's. Current IBC East development plans call for excavation and relocation of approximately 40,000 cubic yards of debris (under a proposed building area), and reconsolidation of those materials onto the remaining Landfill footprint. Up to 45 feet of engineered clean fill soils will be placed atop the reconfigured Landfill to meet development grading requirements.

SCS proposes to assist your development team with engineering and permitting issues related to the presence of the Landfill.

#### SCOPE OF SERVICES

Work to be performed by SCS will be at the direction of your agency and its consultants, and will include but not be limited to the following:

- Provide technical input and general specifications for waste excavation, relocation, environmental controls, and engineered fill placement in support of preparation of bid



## Exhibit "A"

Mr. Kevin Rodecki  
December 12, 2013  
Page 2

documents for site grading (plans to be prepared by others). We understand the grading plans will be distributed to bidders in January 2014 and this is a fast-track item.

- Regulatory agency liaison and permit assistance with those agencies involved with redevelopment at old landfill sites - Regional Water Quality Control Board (RWQCB), South Coast Air Quality Management District (AQMD), Los Angeles County Department of Public Health and Department of Public Works, and CalRecycle.
- Preparation of landfill closure/post-closure maintenance and end use plan and cost estimates.
- Preparation of a waste excavation management plan for AQMD submittal.
- Abandonment and/or re-location of groundwater and landfill gas monitoring wells.
- Demonstration of financial assurance for post-closure maintenance and reasonably foreseeable releases.
- Preparation of conceptual plans for methane gas control and monitoring (LA County Building Code Section 110.3, California Title 27, AQMD Rule 1150.1).
- Water quality monitoring in support of agency inquiries, requirements, or permit conditions.
- Engineering design for site improvements – landfill final grading, cover and drainage; environmental control systems; and methane gas control and monitoring.

### COMPENSATION

We understand your agency has established a budget set aside of **\$243,018** for landfill engineering services. SCS will bill against this amount on a time-and-materials or fixed fee basis, with a specific scope and budget agreed upon in advance for each task assignment and in accordance with your project priorities. Attached for reference is our Standard Fee Schedule.

### TERMS AND CONDITIONS

Our services will be performed in accordance with a professional services agreement between SCS and your agency, with mutually acceptable terms and conditions.

Exhibit "A"

Mr. Kevin Radecki  
December 12, 2013  
Page 3

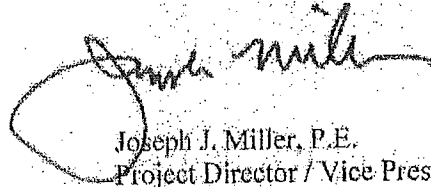
CLOSING

SCS looks forward to working with you on this project. If you have any questions regarding this submittal or desire any additional information, please contact the undersigned.

Sincerely,



Tina Quo Schmiesing  
Project Manager  
**SCS ENGINEERS**



Joseph J. Miller, P.E.  
Project Director / Vice President  
**SCS ENGINEERS**

cc: Joshua Nelson, CNC Engineering

## EXHIBIT B

### Project Timeline

Start date: December 19, 2013

Estimated end of construction: December 31, 2020

Upon the start of construction a more detailed project schedule will be established.

**EXHIBIT C**

**Professional Fee Schedule  
Hourly Rates**

## Exhibit "C"

SCS Fee Schedule  
April 1, 2013 - March 31, 2014  
Page 2

6. Invoices will be prepared monthly or more frequently for work in progress, unless otherwise agreed. Invoices are due and payable upon receipt. Invoices not paid within 30 days are subject to a service charge of 1.5 percent per month on the unpaid balance.
7. Payment of SCS Engineers invoices for services performed will not be contingent upon the client's receipt of payment from other parties, unless otherwise agreed in writing. Client agrees to pay legal costs, including attorney's fees, incurred by SCS Engineers in collecting any amounts past due and owing on client's accounts.
8. For special situations such as expert court testimony and limited consultation, hourly rates will be on an individually negotiated basis.

**EXHIBIT B**

Budget Increase Request from Stearns, Conrad and Schmidt, Consulting Engineers,  
Inc., dated July 10, 2018

[Attached]

## SCS ENGINEERS

July 10, 2018  
File No. 01213392.00

Mr. Troy Helling, Acting Executive Director  
Successor Agency to the Industry-Urban Development Agency (Agency)  
15625 East Stafford Street #100  
City of Industry, California 91744

**Subject: Proposal for a Budget Supplement  
Industry Business Center East Development (IBC East)  
State Route 60/57 Freeway at Grand Avenue, City of Industry,  
California(Agreement for Consulting Services dated December 19, 2013;  
Consultant Contract No. 14-SCS 13-01A MP 99-31 16)**

Dear Mr. Helling:

This letter provides a proposed budget supplement for SCS Engineers (SCS) landfill engineering services contract for the Agency's Industry Business Center East (IBC East) development.

Per the terms of the above-referenced Agreement, SCS has provided as-requested engineering, permitting and environmental operation, monitoring and maintenance (OM&M) services specifically addressing the presence of the closed Valley Land Development Landfill (VLDL) as it affects the completed IBC-East mass grading project through the period ending June 30, 2018. However, sufficient budget remained to cover costs through July 31, 2018. This budget supplement request addresses costs for work items not envisioned at the time that Amendments No. 2 and No. 3 to the Agreement were issued in January, 2016 and January 2017 respectively (see scope of work below) and continuing the ongoing as-requested engineering, permitting and OM&M services through December 31, 2018.

### SCOPE OF SERVICES

As part of IBC-East development, a landfill gas (LFG) collection and control system (GCCS) was installed and is now operated by SCS under the Agreement. In April 2017 the South Coast Air Quality Management District (SCAQMD) issued a Permit to Operate for VLDL that required compliance with SCAQMD Rule 1150.1 requirements. (All landfills in the South Coast Air District are subject to Rule 1150.1. The Rule has requirements for landfill surface emissions monitoring, LFG sampling, and LFG control system component leak monitoring and reporting, among other things. However, this Rule was not previously applied or enforced at the VLDL, nor was Rule applicability a condition of the AQMD Authority to Construct Permit for LFG control system.)

Due to this development, on behalf of the Agency, SCS prepared and submitted an application for an exemption from SCAQMD Rule 1150.1 requirements for LFG emissions control and





monitoring, and/or a Rule 1150.1 Alternate Compliance Plan (ACP). The ACP and exemption would allow a reduction in site monitoring requirements and compliance costs, without compromising public safety and environmental protection.

To date SCAQMD has not completed processing of the application for an exemption and have not provided any indication when the exemption process will be completed. So beginning in 2017 SCS performed and continues to perform work to comply with SCAQMD Rule 1150.1 requirements and proposes to continue this work through December 31, 2018 as part of this Budget Supplement request. If the ACP and exemption is granted before December 31, 2018, we would re-assess the expected OM&M, monitoring requirements and compliance cost reduction to our overall provided services going forward to a term agreeable to the Agency.

## COMPENSATION

To cover the period of August 1, 2018 through December 31, 2018 we are requesting additional budget of \$80,000.00 via Amendment to the December 13, 2013 subject Agreement for Consulting Services and subsequent addenda issued by the Agency. As we continue to pursue an ACP from SCAQMD to potentially reduce site monitoring requirements and compliance costs, the amounts below estimates monthly costs for the work described above followed by a contingency for unexpected regulatory compliance, permitting, GCCS repairs and 3<sup>rd</sup> party support services cost fluctuations.

Aug. 2017	\$14,000
Sept. 2017	\$14,000
Oct. 2017	\$14,000
Nov. 2017	\$14,000
Dec. 2017	\$14,000
Contingency	\$10,000
<b>Total 2017</b>	<b>\$80,000</b>

SCS will continue to bill against the established budget amount on a time-and-materials basis, in accordance with the terms and conditions in the December 13, 2013 Agreement for Consulting Services and subsequent addenda issued by the Agency.

Mr. Troy Helling  
July 10, 2018  
Page 3

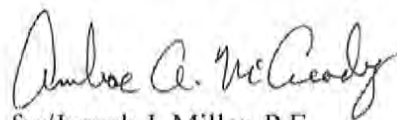
## CLOSING

SCS looks forward to continue working with you on the IBC-East project. If you have any questions regarding this submittal or desire any additional information, please contact the undersigned.

Sincerely,



Dan Vidal  
Project Director  
**SCS ENGINEERS**



for/Joseph J. Miller, P.E.  
Project Director / Vice President  
**SCS ENGINEERS**

cc: Joshua Nelson, CNC Engineering