



**CITY OF LEMON GROVE  
PLANNING COMMISSION REGULAR MEETING AGENDA**

Monday, April 24, 2023 at 6:00 p.m.  
**Lemon Grove Community Center**  
3146 School Lane, Lemon Grove, CA

*For everyone's protection, all attendees must maintain a safe social distance. Face coverings are optional but strongly recommended during the meeting.*

**Planning Commission**

Seth Smith, Chairperson  
Miranda Evans, Vice-Chairperson  
John Burns, Commissioner  
Jacquelyn Clark, Commissioner  
Emily Jacobs, Commissioner

A complete agenda packet is available for review on the [City's website](#)

**Call to Order**

**Pledge of Allegiance**

**Changes to the Agenda**

**Consent Calendar**

1. Approval of Planning Commission Meeting Minutes of Regular Meetings held February 27, 2023.

Reference: Interim Planning Commission Clerk Harrington

Recommendation: Approve Planning Commission Minutes of February 27, 2023

**Public Comment**

*Digitally submitted public comments received by the Planning Commission Clerk at [dharrington@lemongrove.ca.gov](mailto:dharrington@lemongrove.ca.gov) will not be read out-loud during the meeting. However, they will be provided to the Planning Commission and remain part of the meeting's records. Per the Lemon Grove Municipal Code Section 2.14.150, live comments are allotted a maximum of three (3) minutes.*

**Public Hearing**

2. Tentative Map No. TM0-000-0064 and PDP-170-003 Time Extensions for a 6-unit condominium project at 8200 Hilltop Drive (APN 499-181-02-00)

Reference: Michael Fellows, Community Development Manager

Recommendation: Adopt a Resolution entitled, "A Resolution of the Planning Commission of the City of Lemon Grove, California, Approving a Time Extension of Approved Tentative Map No. TM0-000-0064 and Planned Development Permit (PDP) No. PDP-170-0003" to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) Zone, extending the expiration date from January 21, 2023 to January 21, 2026.

**Business from the Community Development Manager**

**Business from the Planning Commission Attorney**

**Planning Commission Oral Reports on Meeting Attended at the Expense of the City**

**Adjournment**

AFFIDAVIT OF NOTIFICATION AND POSTING  
STATE OF CALIFORNIA    )  
COUNTY OF SAN DIEGO  ) SS  
CITY OF LEMON GROVE    )

I, Deborah Harrington, Interim Planning Commission Clerk for the City of Lemon Grove, hereby declare under penalty of perjury that a copy of the above Agenda of the Regular Meeting of the Planning Commission of the City of Lemon Grove, California, was delivered and/or notice by email not less than 72 hours before the hour of 6:00 pm on April 21, 2023 to the members of the governing agency, and caused the agenda to be posted on the City's website at [www.lemongrove.ca.gov](http://www.lemongrove.ca.gov) and at Lemon Grove City Hall, 3232 Main Street Lemon Grove, CA 91945.

/s/: Deborah Harrington  
Interim Planning Commission Clerk

In compliance with the Americans with Disabilities Act (ADA), the City of Lemon Grove will provide special accommodations for persons who require assistance to access, attend and/or participate in meetings of the City Council. If you require such assistance, please contact the City Clerk at (619) 825-3800 or email [dharrington@lemongrove.ca.gov](mailto:dharrington@lemongrove.ca.gov). A full agenda is available for public review at City Hall.

**MINUTES OF THE REGULAR MEETING  
OF THE LEMON GROVE PLANNING COMMISSION  
Lemon Grove Community Center  
3146 School Lane, Lemon Grove, CA 91945  
MONDAY, FEBRUARY 27, 2023 at 6:00 P.M.**

**Call To Order:**

The Regular Planning Commission Meeting was called to order at 6:00 p.m.

**Present:**

Commissioner Miranda Evans, Commissioner Seth Smith, Commissioner Elizabeth Jacobs, Commissioner Jacquelyn Clark and Commissioner John Burns.

Absent: None.

**Staff Members Present:**

Lydia Romero, City Manager, Elizabeth Mitchell, City Attorney, Tim Campen, Planning Commission Attorney, Michael Fellows, Community Development Manager and Deborah Harrington, Interim City Clerk.

**Pledge of Allegiance:**

The Pledge of Allegiance was led by Commissioner Smith.

**Changes to the Agenda:** None.

**Reorganization:**

1. Selection of Chairperson and Vice Chairperson

Community Development Manager opened nominations for the position of Chairperson.

Action: Moved by Commissioner Jacobs, seconded by Commission Clark, to nominate Seth Smith for the position of Chairperson. The motion carried by the following roll call vote:

AYES: Commissioners: Burns, Clark, Evans, Jacobs, Smith

NOES: Commissioners: None

At this time the meeting was turned over to Chairperson Smith.

Chairperson Smith opened nominations for the position of Vice-Chairperson.

Action: Moved by Commissioner Clark, seconded by Commissioner Burns, to nominate Miranda Evans as Vice-Chairperson. The motion carried by the following roll call vote:

AYES: Commissioners: Burns, Clark, Evans, Jacobs and Smith

NOES: Commissioners: None

**Consent Calendar:**

2. Approval of Planning Commission Meeting Minutes of Regular Meetings held April 25, 2022, June 27, 2022 and Special Meeting held July 25, 2022.

Action: Moved by Vice-Chairperson Evans, seconded by Commissioner Burns, to approve the Consent Calendar. The motion carried by the following roll call vote:

AYES: Commissioners: Burns, Evans, Jacobs and Smith

NOES: Commissioners: None

Abstain: Commissioners: Clark

**Public Comments:** None.

**Reports:**

3. Legislative Update

City Attorney Steinke presented the Legislative Update.

**Business from the Community Development Manager** – None

**Business from the Planning Commission Attorney** – None

**Planning Commission Oral Report on Meetings attended at the expense of the City** – None.

**Adjournment:**

There being no further business to come before the Planning Commission, the meeting was adjourned at 6:45 p.m.

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Deborah Harrington  
Interim City Clerk



# CITY OF LEMON GROVE

## PLANNING COMMISSION STAFF REPORT

**Item No.**            **2**

**Meeting Date:** April 24, 2023

**Submitted to:** Planning Commissioners

**Department:** Community Development Department

**Staff Contact:** Michael Fellows, AICP, Community Development Manager

[mfellows@lemongrove.ca.gov](mailto:mfellows@lemongrove.ca.gov)

**Item Title:**        **Tentative Map No. TM0-000-0064 & PDP-170-0003 Time Extensions**

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### **Recommended Action:**

Adopt a resolution entitled, “A Resolution of the Planning Commission of the City of Lemon Grove, California, Approving a Time Extension of Approved Tentative Map No. TM0-000-0064 and Planned Development Permit No. PDP-170-0003 to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) zone,” extending the expiration date from January 21, 2023 to January 21, 2026.

### **Summary:**

On November 25, 2019, the Planning Commission approved Resolution No. 2019-06 & Resolution No. 2019-07 and on January 21, 2020, the City Council approved Resolution No. 2020-3702 & Resolution No. 2020-3703 to construct six (6) condominium units on 0.25 acre parcel at 8200 Hilltop Drive. On February 28, 2022 the Planning Commission adopted Resolution No. 2022-002 approving a time extension for one year until January 21, 2023.

**Discussion:** The applicant was not able to satisfy all resolution conditions required to record the final map before the January 21, 2023 expiration date. The applicant is requesting additional time to satisfy the remaining conditions of approval that are necessary to record the final map. The map must be recorded for the applicant to obtain a building permit and other required permits prior to construction.

The applicant has applied for and is in various stages of processing applications and continues to demonstrate progress toward compliance with the TM. The applicant has been working toward completing the final map and is also currently processing Building

Permit No. B20-000-(640-645), Grading Plans (GRD-020-0006), Stormwater/BMPs Design Plans, Landscape Plans (LP2-100-0009) and Fire Department reviews.

Staff foresees no changes to zoning regulations in the vicinity of the proposed use that would result in issues of incompatibility with surrounding uses. As such, staff recommends the Planning Commission grant this extension to January 21, 2026. This three year extension would maximize the Subdivision Map Act allowance for six years total years.

**Findings: for a PDP Time Extension Findings LGMC 17.28.020 (K)**

The Planning Commission must make the following findings for a time extension of a PDP pursuant to LGMC 17.28.020 (K):

1. The form and intensity of the *project* for which the approval or permit was issued have not been significantly altered, and
2. The conditions or circumstances which supported the findings of fact required for the original approval or permit have not changed and appear unlikely to change within the period of the proposed extension of time.

**Environmental Review:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Not subject to review                | <input type="checkbox"/> Negative Declaration           |
| <input checked="" type="checkbox"/> Categorical Exemption, Section 15301 | <input type="checkbox"/> Mitigated Negative Declaration |

**Fiscal Impact: None**

**Public Notification:** The Notice of Public Hearing for this item was published in the April 14, 2023 edition of the East County Californian and mailed to all property owners within 500 feet of the subject property. The City of Lemon Grove received no comments in response to the Notice of Public Hearing and Environmental Analysis at the time this staff report was prepared. At the time of the public hearing, staff will provide the Planning Commission with any comments received after the date this staff report is prepared.

**Staff Recommendation:** Adopt a resolution entitled, “A Resolution of the Planning Commission of the City of Lemon Grove, California, Approving Time Extensions of Approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170-003 to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) zone,” extending the expiration date from January 21, 2023 to January 21, 2026.

**Attachments:**

- Attachment A – Draft Resolution
- Attachment B – Time Extension Application and Letter from Applicant
- Attachment C – Approved Tentative Map No. TMO-000-0064 and Project Plans

# Attachment A

## RESOLUTION NO. 2023- \_\_\_\_\_

### A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF LEMON GROVE, CALIFORNIA, APPROVING A TIME EXTENSIONS OF TENTATIVE MAP NO. TMO-000-0064 AND PLANNED DEVELOPMENT PERMIT NO. PDP-170-0003

**WHEREAS**, on November 25, 2019 the Planning Commission approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170003 located at 8200 Hilltop Drive; and

**WHEREAS**, on January 21, 2020 the City Council approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170003 located at 8200 Hilltop Drive; and

**WHEREAS**, the City found TMO-000-0064 and PDP-170-0003 to be categorically exempt under the California Environmental Quality Act Guidelines (Section 15303 & 15332, New Construction or Conversion of Small Structures & In-fill Development Projects); and

**WHEREAS**, Building Permit B20-000-(640-645) was submitted on November 9, 2020 for construction of the six (6) condominium units and has shown progress toward obtaining the Building Permit; and

**WHEREAS**, the applicant is progressing toward satisfaction of all applicable requirements of Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170-0003 as outlined in City Council approval Resolutions No. 2020-3702 and No. 2020-3703; and

**WHEREAS**, the project has not been modified since the original City Council approval; and

**WHEREAS**, the existing conditions and/or circumstances which informed City Council approval have not changed; and

**WHEREAS**, City Council Resolutions No. 2020-3702 and No. 2020-3703 require the satisfaction of all requirements enumerated therein by January 21, 2022, or such longer period as may be approved; and

**WHEREAS**, On February 28, 2022, the Planning Commission adopted Resolution No. 2022-002 approving a one-year time extension until January 21, 2023 and authorizing the Community Development Manager (CDM) to grant an additional one-year time extension until January 21, 2024.

**WHEREAS**, The Applicant did not formally request an additional time extension prior to January 21, 2023, beyond the time that the CDM was authorized to grant another one-year time extension; and

**WHEREAS**, a time extension request, dated April 6, 2023, was submitted for Planning Commission consideration to allow the Applicant to complete all resolution requirements; and

**WHEREAS**, Resolutions No. 2020-002 requires the satisfaction of all requirements enumerated therein by January 21, 2023, or such longer period as may be approved; and

**WHEREAS**, the Planning Commission finds that there has been no change to zoning regulations in the vicinity of the proposed use, and existing conditions and/or circumstances which informed the City Council approval have not changed and the original conditions still apply; and

**WHEREAS**, the Planning Commission makes the following time extension findings pursuant to Lemon Grove Municipal Code 17.28.020 (K):

1. The form and intensity of the project for which the approval or permit was issued have not been significantly altered, and
2. The conditions or circumstances which supported the findings of fact required for the original approval or permit have not changed and appear unlikely to change within the period of the proposed extension of time.

**NOW, THEREFORE, BE IT RESOLVED** that the Planning Commission of the City of Lemon Grove, California hereby:

1. Approves a three-year extension of the expiration date stated in Resolution No. 2022-002, Condition #1 to January 21, 2026, subject to all other remaining requirements and conditions enumerated in City Council Resolutions No. 2020-3702 and No. 2020-3703.

***PASSED AND ADOPTED*** on April 24, 2023, the Planning Commission of the City of Lemon Grove, California, adopted Resolution No. 2023- \_\_\_\_\_, passed by the following vote:

***AYES:***

***NOES:***

***ABSENT:***

***ABSTAIN:***

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***Seth Smith, Chair***

***Attest:***

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***Deborah Harrington, City Clerk***



# PLANNING PERMIT APPLICATION

Development Services Department / Planning Division  
3232 Main Street, Lemon Grove, CA 91945  
Phone: 619-825-3805 Fax: 619-825-3818  
www.lemongrove.ca.gov

## APPLICATION REQUEST- SELECT ALL THAT APPLY – (SUBJECT TO OTHER PERMIT REQUIREMENTS)

- |                                     |                                     |                                     |   |
|-------------------------------------|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/>            | Zoning Clearance (ZC)               | <input type="checkbox"/>            | Tentative Parcel Map (TPM) - 4 or fewer lots        |
| <input type="checkbox"/>            | Pre-Application (PA)                | <input type="checkbox"/>            | Certificate of Compliance (CC)                      |
| <input type="checkbox"/>            | Minor Use Permit (MUP)              | <input type="checkbox"/>            | Zoning Amendment (ZA)                               |
| <input type="checkbox"/>            | Conditional Use Permit (CUP)        | <input type="checkbox"/>            | Specific Plan Amendment (SPA)                       |
| <input checked="" type="checkbox"/> | Planned Development Permit (PDP)    | <input type="checkbox"/>            | General Plan Amendment (GPA)                        |
| <input type="checkbox"/>            | Minor Modification (MM)             | <input type="checkbox"/>            | Modification of _____                               |
| <input type="checkbox"/>            | Variance (VA)                       | <input checked="" type="checkbox"/> | Time Extension for <u>TM0-000-0064/PDP-170-0003</u> |
| <input type="checkbox"/>            | Boundary Adjustment/Lot Merger (BA) | <input type="checkbox"/>            | Appeal of _____                                     |
| <input checked="" type="checkbox"/> | Tentative Map (TM) - 5 or more lots | <input type="checkbox"/>            | Substantial Conformance Review of _____             |
| <input type="checkbox"/>            | Other                               |                                     |   |

**APPLICANT:** Behzad Hafezi **PHONE:** (619) 861-4954  
**ADDRESS:** 2200 Hilltop Dr. **FAX:**  
 Lemon Grove, CA 91945 **EMAIL:** behhafezi@yahoo.com

**PROPERTY OWNER:** Behzad Hafezi **PHONE:** (619) 861-4954  
**ADDRESS:** 12765 Amaranth St. **FAX:**  
 San Diego, CA 92129 **EMAIL:** behhafezi@yahoo.com

**CONTACT PERSON:** Behzad Hafezi **PHONE:**  
**ADDRESS:** 12765 Amaranth St. **FAX:**  
 S.D CA 92129 **EMAIL:**

\*If applicant or property owner is a trust, partnership, or corporation, please attach record(s) of ownership listing all trustees, partners, or officers, as applicable.

**PROJECT NAME:** Hilltop View Investments.  
**PROJECT ADDRESS:** 8200 Hilltop Dr. L.G.  
**ASSESSOR PARCEL #:** 499-181-02-00 **SITE ACREAGE:**

**DETAILED DESCRIPTION OF PROPOSED PROJECT USE, STRUCTURE, AND IMPROVEMENT:**  
 Building six new townhomes.

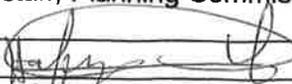
CITY OF LEMON GROVE

APR 08 2023

COMMUNITY DEVELOPMENT

**APPLICANT CERTIFICATION:**

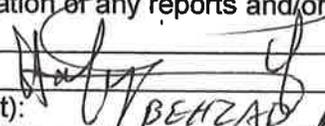
I hereby certify that the statements furnished in this application and in the supplemental materials present the data and information required for this project to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge. In addition, I grant permission to the City of Lemon Grove to reproduce submitted materials, including but not limited to plans, exhibits, photographs, and studies for distribution to staff, Planning Commission, City Council and other agencies in order to process this application.

Signature: 	Date:
Name (please print): BEHZAD HAFEZI	Phone: (619) 861-4954

**CONSENT BY PROPERTY OWNER**

If applicant is other than property owner, owner must sign consent to filing. Attach additional sheets if necessary. If property owner is a corporation or trust, a designee authorization letter is required.

I/We, as the owner(s) of the subject property, consent to the filing of this application. We further consent and hereby authorize City representative(s) to enter upon my property for the purpose of examining and inspecting the property in preparation of any reports and/or required environmental review for the processing of the application.

Signature: 	Date: 4/2/23
Name (please print): BEHZAD HAFEZI	Phone: (619) 861-4954

Signature:	Date:
Name (please print):	Phone:

**Note: This application being signed under penalty of perjury and does not require notarization.**

**TO BE COMPLETED BY PLANNING STAFF**

**APPLICATION PROCESSING:**

FILE #(s): TMO-000-0064/PDP-170-0003 ACTION:

DATE: 4-6-23  APPROVED  DISAPPROVED

FEES: \$350 RECEIPT #: 486663  CONDITIONALLY APPROVED (See Below)

ZONE: RMH LAND USE DESIGNATION: MED. HIGH RESIDENTIAL

**COMMENTS and/or CONDITIONS:**

PLANNING COMMISSION HEARING TO EXTEND TM FOR ANOTHER YEAR EXTENSION

From: Behzad Hafezi and Shapour Malekpour  
To: City of Lemon Grove  
Property Address: 8200 Hilltop Dr.  
Project #: TM0-000-0064/ PDP-170-0003

Date: 4/1/2023

Subject: Time Extension

We started this project five years ago and from day one until now, we have not stopped working on it. Throughout this project we have faced a lot of obstacles such as Coronavirus, and engineers quitting halfway through their work. We have had three civil engineers quit on us for different reasons such as Coronavirus, city employees, and family problems.

Anytime we came to the city of Lemon Grove, we were faced with different people, and each of them had their own rules. For example, one employee accepted our plans and the next one we met would reject them after they've been approved.

In 2021 we were told by our engineers that this would be the last correction and the permit would be issued. With that in mind, we applied for the construction loan and were approved for \$1,600,000.00 (A copy of the loan paper is attached). This loan cost us around \$80,000.00 and a \$751.00 monthly payment.

After our loan was approved we found out that the permit will not be issued. We consulted with another civil engineer, Alberto Sandoval, and we were advised that the plans required a lot of work and it would take time to do all the corrections. We hired him to assist us with the project. Because we knew that we could not get the permit on time, we requested an extension in November of 2021.

On February 28, 2022 I went to a planning commission meeting. The commissioner granted me a one year extension, with another two years should we need it. The commissioner also stated that if we needed another extension, the planning department could give it to us without us needing to meet with the commissioner again.

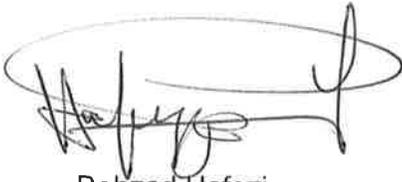
In February of 2022 we resubmitted the corrected plans to the city. After we got the plans back there were a few minor corrections to be made. They also requested a consent letter from the neighbors to allow us to build retaining walls on property borderline. One of the neighbors signed the letter, but the other one said no and the third one was on the fence for months. He finally came out and said that we should compensate him for it. My architect offered him \$5000 to just allow us to his property for a short amount of time while we build the retaining wall on our own property. He wanted a lot more than that. For this reason we decided to move the retaining walls one foot into our property in order to avoid dealing with this neighbor. We needed more time to do that. We knew that we could not get the permit before the extended time that ended on January 21, 2023.

On November 15, 2022, my partner Shapour went to the City of Lemon Grove and requested an extension. He spoke with Mr. Merk Hickman. He told Mr. Hickman that our permit was expiring on January 21, 2023 and that we needed another one year extension. Mr. Hickman after looked at our project, he told him that our plans are in process and that we don't need an extension. That is the reason why we did not get an extension.

As I have mentioned above we got a construction loan and matured in September 2022. Since then we have been getting an extension every three months and each time they charge us an extra \$565.31 on top of the \$751.00 month payment.

As you can see, we have tried very hard to get this project going. I am asking for you to please grant us another one year extension so we could get our permit and start construction. If we don't start soon we will lose the loan and everything we have invested.

Your help in this matter is greatly appreciated,

A handwritten signature in black ink, appearing to read 'Behzad Hafezi', enclosed within a hand-drawn oval. The signature is stylized and somewhat cursive.

Behzad Hafezi

# B & S TOWNHOUSES

## 8200 HILLTOP DRIVE, LEMON GROVE CALIFORNIA 91945

THIS PROJECT SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE, WHICH ADOPTS THE 2015 INTERNATIONAL BUILDING CODE, 2015 UMC, 2015 UPS, AND THE 2014 NEC. THE 2013 CALIFORNIA GREEN BUILDING CODE AND THE 2013 CALIFORNIA FIRE CODE.

### ABBREVIATIONS

&	And	H.B.	Hose Bibb
@	Angle	H.C.	Hollow Core
<	Centerline	HDWD.	Hardwood
~	Channel	HDWR.	Hardware
~	Diameter or Round	H.M.	Hollow Metal
r	Perpendicular	HORIZ.	Horizontal
>	Plate	HR.	Hour
#	Pound or Number	HGT.	Height
(E)	Existing	I.D.	inside Diameter(Dim.)
ACC.	Accessible	INSUL.	Insulation
ACOUST.	Acoustical	INT.	Interior
AC.T.	Acous. Tile	JT.	Joint
A.D.	Area Drain	LAM.	Laminate
ADJ.	Adjustable	LAV.	Lavatory
A.F.F.	Above Fin. Flr.	LT.	Light
AL.	Aluminum	NAX.	Maximum
ANOD.	Anodized	MECH.	Mechanical
APPROX.	Approximate	MEMB.	Membrane
ASPH.	Asphalt	MET.	Metal
BD.	Board	MFR.	Manufacturer
BITUM.	Bituminous	MIN.	Minimum
BLDG.	Building	MIR.	Mirror
BLK.	Block	MISC.	Miscellaneous
BLKG.	Blocking	M.O.	Masonry Opening
BM.	Beam	MTD.	Mounted
BOT.	Bottom	MUL.	Mullion
CAB.	Cabinet	N.	North
CPT.	Carpet	N.I.C.	Not in Contract
C.B.	Catch Basin	No. or #	Number
CEM.	Cement	NOM.	Nominal
CER.	Ceramic	N.T.S.	Not To Scale
C.I.	Cast Iron	O.A.	Overall
CLG.	Ceiling	O.A.S.	Or Acceptable Substitute
CLKG.	Caulking	O.C.	On Center
CLD.	Closet	O.D.	Outside Diameter(Dim.)
CLR.	Clear	O.H.	Over Head
CNTR.	Counter	OPNG.	Opening
COL.	Column	OPP.	Opposite
CONC.	Concrete	P.C.	Pre-Cast
C.M.U.	Conc. Masonry Unit	P.L.	Property Line
C.R.	Cold Rolled	P.LAM.	Plastic Laminate
CONN.	Connection	PLAS.	Plaster
CONSTR.	Construction	PLYWD.	Plywood
CONT.	Continuous	PLUMB.	Plumbing
C.O.	Conduit Only	PR.	Pair
C.J.	Control Joint	PT.	Point
CORR.	Corridor	PTN.	Partition
CTR.	Center	Q.T.	Quarry Tile
CTSK.	Countersink	R.	Riser
DBL.	Double	RAD.	Radius
DET.	Detail	R.D.	Roof Drain
D.F.	Douglas Fir	REF.	Reference
DIA.	Diameter	REFL.	Reflected
DIM.	Dimension	REFR.	Refrigerator
DN.	Down	REINF.	Reinforced
D.O.	Door Opening	REQ.	Required
DR.	Door	RESIL.	Resilient
DWR.	Drawer	RM.	Room
DS.	Downspout	R.O.	Rough Opening
DWG.	Drawing	RWD.	Redwood
E.	East	S.	South
E.J.	Expansion Joint	S.C.	Solid Core
EL.	Elevation	S.D.	Storm Drain
ELEC.	Electrical	SECT.	Section
E.M.T.	Electrical Metal Tubing	S.E.L.	Select
EMER.	Emergency	SHR.	Shower
ENCL.	Enclosure	SH.	Sheet
E.P.	Electrical Panelboard	S2S	Surface Two Sides
EQ.	Equal	S3S	Surface Three Sides
EQT.	Equipment	S4S	Surface Four Sides
EXIST.	Existing	S.M.	Similar
E.W.W.M.	Electrically Welded	S.J.	Score Joint
EXPO.	Exposed	SPEC.	Specification
EXP.	Expansion	SQ.	Square
EXT.	Exterior	SST.	Stainless Steel
		STD.	Standard
		STL.	Steel
		STOR.	Storage
F.A.	Fire Alarm	STR.	Structural
F.B.	Flat Bar	SUSP.	Suspended
F.D.	Floor Drain	SYM.	Symmetrical
FDN.	Foundation	T.C.	Top of
F.E.	Fire Extinguisher	T.C.	Top of Curb
F.E.C.	Fire Extinguisher Cab.	T.C.C.	Top of Concrete
F.H.C.	Fire Hose Cabinet	T.O.P.	Top of Porcet
F.H.	Flat Head	T.O.S.	Top of Sheathing
F.F.E.	Finish Floor El.	T.C.W.	Top of Wall
F.L.	Flow Line	T.B.	Towel Bar
FIN.	Finish	TEL.	Telephone
FLR.	Floor	TER.	Terrazzo
FLASH.	Flashing	TEMP.	Tempered
FLUOR.	Fluorescent	T&G.	Tongue and Groove
F.O.C.	Face of Concrete	THK.	Thick
F.O.F.	Face of Finish	T.S.	Tubular Steel
F.O.M.	Face of Masonry	T.V.	Television
F.O.S.	Face of Studs	TYP.	Typical
F.O.	Face of	UNF.	Unfinished
F.S.	Full Size	U.O.N.	Unless Otherwise Noted
FT.	Foot or Feet	V.C.T.	Vinyl Composition Tile
FTG.	Footing	VERT.	Vertical
FUR.	Furring	VEST.	Vestibule
FUT.	Future		
GALV.	Gauge	W.	West
GALV.	Galvanized	W/	With
G.L.B.	Glued Laminated Beam	W.C.	Water Closet
G.B.	Grab Bar	WD.	Wood
G.I.	Galvanized Iron	W/O.	Without
GL.	Glass	W.R.	Water Resistant
GND.	Ground	WP.	Waterproof
GR.	Grade	WSCT.	Wainscot
GYP.	Gypsum	WT.	Weight

### ELECTRICAL

- ELECTRICAL CONTRACTOR SHALL SUPPLY NEW SERVICE PANEL IF REQUIRED. LOCATION AS INDICATED ON PLANS.
- USE ROMEX WIRING UNLESS CONDUIT IS REQUESTED BY OWNER.
- ALL SWITCHES, OUTLETS AND TRIM SHALL BE "DECORA". COLOR AS SELECTED BY OWNER.
- PREWIRE CABLE TV, SPEAKERS, ALARM SYSTEM AND TELEPHONE WHERE APPLICABLE.
- ELECTRICAL PERMIT SHALL BE OBTAINED BY THE ELECTRICAL CONTRACTOR. SINGLE LINE DRAWINGS, LOAD SCHEDULES AND PANEL DRAWINGS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR AS REQUIRED TO OBTAIN SAID PERMIT.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF HIS DEBRIS.

### HVAC

- HEATING CONTRACTOR SHALL PROVIDE A FORCED-AIR FURNACE ADEQUATE FOR THE RESIDENCE. FURNACE MUST BE ADAPTABLE FOR FUTURE A.C.
- HVAC CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCTS, REGISTERS, VENTS AND THERMOSTATS.
- HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF HIS DEBRIS.
- SEE ENERGY CALCULATIONS FOR MECHANICAL EQUIPMENT

### LATH AND PLASTER

- PROVIDE 1/2" PLASTER WITH THREE COAT APPLICATION (EXTERIOR).
- THE STUCCO CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF HIS DEBRIS.
- PROVIDE A CORROSION RESISTANT WEEP SCREED WHICH WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING BELOW THE STUCCO AT FOUNDATION PLATE LINE.

### SHEET METAL

- THE SHEET METAL CONTRACTOR SHALL BE RESPONSIBLE FOR, BUT SHALL NOT BE LIMITED TO, THE FABRICATION AND INSTALLATION OF THE FOLLOWING:
  - ALL FLASHING WHERE REQUIRED FOR A WATERTIGHT JOBS.
  - ALL NECESSARY KITCHEN DUCTS.
  - ALL DUCTS FROM INTERIOR BATHROOM FANS.
  - ALL SCUPPERS FROM BALCONIES.
  - ALL CUTTERS AND DOWNSPOUTS.
  - ALL COPING AND GRAVEL GUARDS.
- FLASHING AT BALCONY TO WALL INTERSECTIONS SHALL BE 4" MIN. UP ON WALL AND 4" MINIMUM ON FLOOR UNLESS OTHERWISE NOTED.
- BALCONY SCUPPERS SHALL BE 2" x 3" UNLESS OTHERWISE NOTED.
- DOWNSPOUTS SHALL BE 3" x 4" UNLESS OTHERWISE NOTED.
- THE KITCHEN VENT SHALL BE A MINIMUM OF 48 SQUARE INCHES MINIMUM TO ROOF OR OUTSIDE WALL OR AS REQUIRED BY SPECIAL EQUIPMENT.
- FLASH ALL VERTICAL ROOF TO WALL INTERSECTIONS.
- OTHERWISE NOTED, SISALKRAFT FLASHING IS ACCEPTABLE AT ALL EXTERIOR OPENINGS.
- ALL FLASHING AT SLATE ROOFING SHALL BE 16 OZ. COPPER.

### ENERGY CONSERVATION

- COMPLIANCE WITH THE DOCUMENTATION REQUIREMENTS OF THE 2013 ENERGY EFFICIENCY STANDARDS IS NECESSARY FOR THIS PROJECT. REGISTERED, SIGNED, AND DATED COPIES OF THE APPROPRIATE CFIR, CF2R, AND CF3R FORMS SHALL BE MADE AVAILABLE AT NECESSARY INTERVALS FOR BUILDING INSPECTOR REVIEW. FINAL COMPLETED FORMS WILL BE AVAILABLE FOR THE BUILDING OWNER.

### SYMBOLS

	EARTH		FINISHED WOOD
	ROCK FILL		WOOD FRAMING (Continuous Member)
	SAND, MORTAR OR PLASTER		WOOD FRAMING (Interrupted Member)
	CONCRETE		PLYWOOD
	CONCRETE BLOCK		GLASS
	BRICK MASONRY		GYPSUM BOARD
			INSULATION

	DETAIL		SECTION
	DETAIL NUMBER		SECTION NUMBER
	SHEET WHERE FOUND		SHEET WHERE FOUND
	ELEVATION(S)		ELEVATION No. - UNFOLD CLOCKWISE
	SHEET WHERE FOUND		SHEET WHERE FOUND
	NO ARROW - NO ELEVATION		

### GENERAL NOTES (CONT.)

- ALL SUB-CONTRACTORS SHALL HAVE WORKMAN'S COMPENSATION INSURANCE WHICH IS CURRENT AND IN FORCE FOR THE LENGTH OF THIS PROJECT. SUBMIT CERTIFICATE OF INSURANCE TO OWNER.
- CONTRACTOR SHALL ARRANGE WITH REPRESENTATIVES OF WATER, POWER, GAS AND TELEPHONE COMPANIES FOR TEMPORARY FACILITIES.
- TEMPORARY TOILET FACILITIES SHALL BE INSTALLED ON JOB AS REQUIRED.
- ALL WORKMANSHIP AND MATERIELS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE APPLICABLE CODES.
- DRYWALL IN BATHS AND OTHER WET ROOMS SHALL BE MOISTURE RESISTANT. (GREEN BOARD OR EQUAL)
- INSPECTION IS REQUIRED FOR ALL INTERIOR AND EXTERIOR IN-PLACE LATH AND/OR WALLBOARD BEFORE ANY PLASTERING IS APPLIED OR ANY JOINTS OR FASTENERS HAVE BEEN TAPED AND FINISHED.
- WATER HEATERS OVER 4'-0" IN HEIGHT SHALL BE ANCHORED TO PREVENT DISPLACEMENT IN EARTHQUAKE OR USE RIGID PIPING.
- THE CONTRACTOR SHALL VERIFY THAT ALL MECHANICAL ROOMS, SPACES FOR HOT WATER HEATERS ETC. ARE ADEQUATE IN SIZE PRIOR TO FRAMING FOR THE EQUIPMENT TO BE SELECTED.
- ALL WEATHER-EXPOSED JOINTS SHALL BE SET IN MASTIC.
- ALL INTERIOR GYPSUM BOARD FINISHES SHALL BE TAPED, BEDDED AND READY TO PAINT OVER FIRST CLASS SMOOTH FINISH. USE 5/8" TYPE "X" GYP. BOARD THROUGH OUT UNLESS OTHERWISE NOTED.
- CAULK CONTINUOUS BETWEEN ALL PLASTER STOPS.
- INSTALL ALL CLOSING TO PROVIDE WATERTIGHT PROTECTION. FLASH DECK/ROOF INTERSECTION WITH ALL VERTICAL SURFACES.
- WALL FINISH AT SHOWERS OR TUBS WITH SHOWERS, SHALL BE CEMENT PLASTER, TILE OR APPROVED EQUAL TO 70" ABOVE FLOORS. MATERIALS OTHER THAN STRUCTURAL ELEMENTS SHALL BE MOISTURE RESISTANT.
- OPENINGS INTO ATTICS, UNDER FLOOR AREAS AND OTHER ENCLOSED AREAS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH EXCEPT FOR OPENINGS WITH SASH AND DOORS.
- PIPES, DUCTS AND OTHER NON-STRUCTURAL CONSTRUCTION SHALL NOT INTERFERE WITH ACCESSIBILITY TO OR WITHIN UNDER FLOOR AREAS.
- CHIMNEYS SHALL HAVE APPROVED SPARK ARRESTORS.
- APPROVAL OF GOVERNMENTAL AGENCY INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE PLANS. VERIFY ALL PROPOSED CHANGES WITH ARCHITECT PRIOR TO PROCEEDING
- ACCESS PANELS FOR BATH TUBS SHALL BE 12" x 12" MINIMUM.
- THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY POSSIBLE AREAS FOR POTENTIAL WATER LEAKS DURING THE COURSE OF CONSTRUCTION.
- DRAFT STOPPING SHALL BE PROVIDED WITHIN ALL CONCEALED FLOOR - CEILING ASSEMBLIES FORMED OF COMBUSTIBLE CONSTRUCTION.
- DRAFT STOPPING SHALL BE PROVIDED WITHIN ATTICS, MANSARDS, OVERHANGS AND SIMILAR CONCEALED SPACE FORMED OF COMBUSTIBLE CONSTRUCTION.
- PROVIDE ATTIC VENTILATION OF 1/150TH OF THE AREA OF VENTILATED SPACE. (APPROXIMATELY 10 SQUARE INCHES FOR EACH 10 SQUARE FEET IS REQUIRED)

### FIRE DEPARTMENT NOTES

- A RESIDENTIAL FIRE SPRINKLER SYSTEM WILL BE REQUIRED WHICH WILL NECESSITATE A WATER METER AND LATERAL PLANS SHALL BE SUBMITTED TO THE FIRE PREVENTION BUREAU FOR APPROVAL PRIOR TO INSTALLATION.
- ADDRESS NUMBERS ARE TO BE LOCATED AT THE BEGINNING OF THE DRIVEWAY AS WELL AS ON THE RESIDENCE. THE NUMBER SHALL BE AT LEAST 4" IN HEIGHT AND EASILY SEEN
- ALL CHIMNEYS SHALL BE EQUIPPED WITH SPARK ARRESTORS.
- ALL EXTERIOR ATTACHED OVERHEAD COVERS FOUR- FEET OR GREATER IN DEPTH, SHALL BE EQUIPPED WITH AN APPROVED EXTERIOR FIRE SPRINKLER HEAD ( TEFLOON OR WAX COATED)
- DOORS LEADING FROM ATTACHED GARAGES INTO THE STRUCTURE SHALL MEET THE REQUIREMENTS FOR A 20-MINUTE FIRE DOOR ASSEMBLY AND SELF-LATCHING.
- SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE-AND-TWO-FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MADE ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.
- CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN HALLWAYS ADJOINING BEDROOMS. THE CARBON MONOXIDE DETECTORS SHALL BE HARD-WIRED, WITH A BATTERY BACKUP, AND SHALL BE WIRED IN SUCH A MANNER THAT IF ONE DETECTOR ACTIVATES, ALL DETECTORS ACTIVATE. ( COMBINATION SMOKE/CO ALARMS MAY BE USED )

### PLUMBING

- ALL SUPPLY SHALL BE COPPER.
- ALL WASTE UNDER FLOOR AND VENTS SHALL BE PVC.
- ALL WASTE FROM SECOND FLOOR SHALL BE CAST IRON.
- PROVIDE ANGLE STOPS OR CUT-OFFS FOR ALL FIXTURES.
- ALL FIXTURES AND FITTINGS SHALL BE SELECTED BY OWNER.
- THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING HIS OWN DEBRIS.
- THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED PERMITS FOR HIS WORK.

### GYPSUM WALL BOARD

- PROVIDE 5/8" TYPE "X" GYPSUM BOARD UNLESS OTHERWISE NOTED.
- ALL INTERIOR DOORS, WINDOWS, JAMBS AND EXTERIOR CORNERS SHALL HAVE METAL EDGE TRIM.
- GYPSUM WALL INSTALLATION SHALL CONFORM TO THE "AMERICAN STANDARD SPECIFICATION FOR THE APPLICATION OF GYPSUM WALL BOARD."

### GENERAL NOTES

- ALL DRAWINGS IN THIS SET ARE COMPLEMENTARY AND WHAT IS REQUIRED OR SPECIFIED BY ONE SHALL BE BINDING AS IF REQUIRED OR SPECIFIED BY ALL.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR ERRORS BEFORE PROCEEDING W/ THE WORK.
- COORDINATE STRUCTURAL DETAILS AND DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.
- DETAILS NOTED AS "TYPICAL" OR "TYP" APPLY IN ALL CASES TO SIMILAR OR IDENTICAL CONDITIONS WHETHER OR NOT SPECIFICALLY REFERENCED.
- THESE DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS OF CONSTRUCTION SAFETY. AT ALL TIME, MAINTAIN THE STABILITY AND INTEGRITY OF THE EXISTING CONSTRUCTION. PROVIDE SHORING AS REQUIRED TO ACCOMPLISH THIS.
  - SHORING, IF REQUIRED, SHALL BE DESIGNED AND DETAILED BY A CURRENTLY REGISTERED CALIFORNIA CIVIL ENGINEER.
  - SUBMIT TWO COPIES OF STAMPED AND SIGNED DRAWINGS AND SUBSTANTIATING CALCULATIONS TO THE OWNER'S REPRESENTATIVE AS A MATTER OF RECORD ONLY.
- THE OWNER SHALL SELECT AND PAY FOR THE SERVICES OF A TESTING AGENCY AND REGISTERED DEPUTY INSPECTOR TO PERFORM THE TEST AND INSPECTIONS. COSTS ASSOCIATED WITH NON-CONFORMING TESTS OR INSPECTIONS OR PERFORMED FOR THE CONTRACTOR'S CONVENIENCE, SHALL BE PAID BY THE OWNER AND BACKCHARGED TO THE CONTRACTOR.
- EARTHWORK
  - FOOTINGS SHALL BE FOUNDED ON AT LEAST 18 INCHES OF NEW OR EXISTING, PROPERLY COMPACTED DOCUMENTED FILL MATERIAL. REMOVE UNDOCUMENTED FILL MATERIAL AND DOCUMENTED FILL MATERIAL OF INSUFFICIENT DEPTH AND REPLACE WITH PROPERLY COMPACTED FILL MATERIAL FOR THE EXTENT OF THE BUILDING PAD.
  - THE PREPARED BUILDING PAD SHALL EXTEND BEYOND THE OUTER EDGE OF THE PERIMETER FOOTINGS A DISTANCE EQUAL TO THE DEPTH OF THE FILL.
  - FOOTINGS SHALL BE ESTABLISHED AT LEAST 24 INCHES BELOW LOWEST ADJACENT GRADE OR FINISH FLOOR.
  - DESIGN SOIL BEARING = 1500 + 350 PSF (AT 24 INCHES BELOW GRADE).
  - FILL MATERIAL SHALL BE FREE-DRAINING GRANULAR, NON-EXPANSIVE SOIL. COMPACT TO AT LEAST 90% RELATIVE COMPACTION. PLACE IN LIFTS NOT EXCEEDING 8".
  - THE CONTRACTOR SHALL KEEP THE JOB SITE FREE FROM ACCUMULATION OF WASTE MATERIALS AND DEBRIS CAUSED BY HIS OPERATION AT ALL TIMES. UPON COMPLETION OF THE WORK, HE SHALL CLEAN ALL GLASS SURFACES AND LEAVE THE SITE BROOM-CLEAN.
  - ADJACENT SURFACES OR FEATURES DISPLACED OR DISTURBED IN PERFORMING THE ALTERATIONS SHALL BE NEATLY REPLACED, PATCHED AND FINISHED IN KIND. JOININGS OF NEW AND OLD WORK SHALL EITHER BE MADE AS INCONSPICUOUS AS POSSIBLE OR THE NEW WORK SHALL BE EXTENDED TO A NATURAL BREAK OF THE PLANE SURFACE. UPON COMPLETION, THERE SHALL BE NO DISCREPANCY BETWEEN THE OLD AND NEW WORK.
  - THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ALL DAMAGE TO PERSONS, STRUCTURE OR PROPERTY AND SHALL REPAIR ANY DAMAGE CAUSED BY OR DUE TO HIS OPERATIONS.
  - ALL MATERIALS AND WORK SHALL CONFORM TO ALL GOVERNING AGENCIES AND TO THE REQUIREMENTS OF THE FOLLOWING: 2013 CALIFORNIA RESIDENTIAL CODE, 2013 CALIF. BUILDING CODE, 2013 CALIFORNIA PLUMBING CODE, 2013 CALIF. ELECTRICAL CODE 2013 CALIFORNIA MECHANICAL CODE, 2013 CALIFORNIA GREEN CODE AND 2013 CALIFORNIA FIRE CODE AND CALIFORNIA CODE OF REGULATIONS TITLE 24 FOR ACCESSIBILITY, ENERGY CONSERVATION AND APPLICABLE STATE FIRE MARSHAL SECTIONS.
  - PROVIDE PEDESTRIAN PROTECTION AS REQUIRED BY CHAPTER 33, U.B.C. 1997 EDITION. CONSTRUCTION WORK SHALL PROCEED IN SUCH A MANNER AS TO MINIMIZE THE SPREAD OF DUST AND FLYING PARTICLES AND TO PROVIDE SAFE WORKING CONDITIONS FOR PERSONNEL.
  - SPECIFIC DETAILS & NOTES SHALL TAKE PRECEDENCE OVER GENERAL NOTES & DETAILS.
  - CONTRACTOR SHALL PROVIDE RECORD DRAWINGS TO THE OWNER FOR HIS USE.
  - PROVIDE ALL ACCESS PANELS AS REQUIRED. LOCATION AND TYPE SHALL BE APPROVED BY OWNER PRIOR TO OBTAINING AND INSTALLING.
  - SEPARATE ALL ALUMINUM FROM DIS-SIMILAR METALS W/ BITUMINOUS TAPE OR PAINT.
  - IF CONFLICT IS FOUND BETWEEN DRAWINGS AND SPECIFICATIONS, CONSULT OWNER FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.
  - DIMENSIONS:
    - EXTERIOR DIMENSIONS ARE GIVEN TO THE FACE OF STUDS, MASONRY OR THE C.L. OF COLUMN, UNLESS SPECIFICALLY NOTED OTHERWISE.
    - FIGURE DIMENSIONS ON DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
    - INTERIOR DIMENSIONS ARE GIVEN TO THE FACE OF WD. STUDS, OR CENTER OF COLUMN, UNLESS NOTED OTHERWISE.
  - PROVIDE COAXIAL CABLE TO ALL TELEVISION LOCATIONS.
  - ALL FERROUS METALS EXPOSED TO THE WEATHER SHALL BE GALVANIZED.
  - ALL CONTRACTORS SHALL HAVE A VALID, CURRENT STATE OF CALIFORNIA CONTRACTOR'S LICENSE.

### FIRE NOTE:

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA SECTION 9032.8

### SHEET INDEX

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A-3	FLOOR PLANS, UNITS A, B, & C
A-4	FLOOR PLANS, UNITS D, E, & F
A-5	BUILDING ELEVATIONS
A-6	BUILDING SECTIONS & ROOF PLAN
<b>GRADING</b>	
G-1	TENTATIVE PARCEL MAP
G-2	CONCEPTUAL GRADING PLAN
G-3	HILLTOP SECTIONS
G-4	BMP SHEET
<b>LANDSCAPING</b>	
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L-6	DETAILS
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L-11	SPECIFICATIONS

### SCOPE OF WORK

Proposed design & construction of 6 new Town Houses, approximately 1200 S.F. per unit, (total 7438 S.F.) on 10890 S.F. Lot, including Retaining Walls, Excavation of a Basement Garage for units A, B, & C.

### PROJECT TEAM

Architect: Arthman & Associates  
 1155 Camino Del Mar, Suite 443  
 Del Mar, California 92014  
 (858) 518-9995  
 www.arthmanassociates.com/nickarthman@aol.com

Structural Engineer: Juan Gabriel Nee  
 875 Bowerspit Way  
 Chula Vista, California 91914  
 (619) 201-4652

Civil Engineer:  
 Antiqua Design Studio  
 5348 Belair Drive  
 San Diego, California 92124  
 (658)541-1076

ARC Engineering  
 10948 Elderwood Lane,  
 San Diego California 92131  
 (658) 722-7785

### LEGAL DESCRIPTION

Parcel: Rancho Mission of San Diego 000686 Lot 27 (EX ST) PAR PER ROS 11880 IN. City/Muni/Twp: LEMON GROVE  
 APN: 499-181-02-00

### OWNERS

Mr. Behzad Hafezi  
 12765 Amarath St. San Diego, California 92129

### GENERAL REQUIREMENTS

Lot Size:  
 Gross: 13,085 s.f.  
 Net: 10,375 s.f.  
 RMH: 29 Dwellings/Acre  
 43,360 / 29 = 1,502 Per Unit  
 Allowable: 10,375 / 1,502 = 6.90 units  
 Provided: 6 units  
 Off Street Parking:  
 Required: 12 + 2 (1 guest parking per 4 units) = 14  
 Provided: 12 + 6 = 18

Living area square footage:  
 Unit A = 1350 square foot  
 Unit B = 1205 square foot  
 Unit C = 1255 square foot  
 Unit D = 1510 square foot  
 Unit E = 1300 square foot  
 Unit F = 1405 square foot  
 Total square foot: 8025 square foot

### BUILDING DATA

Base Zone: RMH  
 Construction Type: Y-N  
 APN: 499-181-02-00

8200 HILLTOP DRIVE  
 LEMON GROVE, CA 91945



BUILDING PROJECT SHEET TITLE

**ARTHMAN**  
 ARCHITECTURE, ENGINEERING, CONSTRUCTION  
 (858) 518-9995  
 1155 CAMINO DEL MAR, SUITE 443  
 DEL MAR, CALIFORNIA 92014  
 WWW.ARTHMANASSOCIATES.COM

DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED  
 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED  
 PERMANENTLY MARKED DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED  
 DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED  
 DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED

ISSUED FOR REVIEW  
 ISSUED FOR PLAN CHECK  
 ISSUED FOR PLANNING DEPT. APPROVAL

CONSULTING ENGINEER

**LEMONGROVE HILLTOP T.H.**  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 91945

DATE: 21 JAN. 2019  
 CAD DESIGNER: N. ARTHMAN  
 PROJECT FILE: 2017-BEHZAD  
 CAD WDG FILE:  
 SCALE:  
 LATEST REVISION:  
 A-1  
 1 OF 21

**EQUIVALENT BENEFITS**  
MUNICIPAL CODE SECTION 17.28.03(D)  
PLANNED DEVELOPMENT PERMITS

(THE TOWNHOUSE CONCEPT)  
THE SAFETY AND SECURITY OF THE TENANTS WAS THE UTMOST CONCERN IN THE DEVELOPMENT OF THIS PROJECT. IN ORDER TO ACHIEVE THIS OBJECTIVE, THE DEVELOPMENT PROVIDED EACH UNIT WITH PRIVATE PARKING GARAGES, FOR TWO CARS PER UNIT. CONSEQUENTLY, THE AREA TAKEN BY THE EXTRA DRIVEWAYS FOR THE PRIVATE GARAGES HAS DEPLETED THE OPEN SPACE AREA REQUIREMENTS (3,000 S.F.).

**PROPOSED DEVIATIONS PER SECTION 17.28.030**

**1. THE OPEN SPACE REQUIREMENT:**

THE DEVELOPMENT EXCEEDS THE USEABLE OPEN SPACE AREA

REQUIRED USEABLE OPEN SPACE:

- A. REQUIRED PRIVATE AREA: 500 S.F. PER UNITS = 3000 S.F.
- B. REQUIRED COMMON AREA: 50 PERCENT OF TOTAL REQUIRED SPACE = 7127 S.F.

PROVIDED OVERALL COMMON & PRIVATE DAYLIGHTING:

- A. BALCONIES = 375 S.F.
- B. ROOFTOP GARDEN = 3630 S.F. TOTAL: 4005 S.F.

**2. PROPOSED SETBACKS REQUIREMENTS:**

- A. ENCROACHMENT OF THE BALCONIES FOR UNITS A, B, & C. (5'-0")
- B. ENCROACHMENT OF THE SECOND FLOORS INTO THE SOUTH & EAST SETBACKS, (2'-0")

**3. PARKING (SECTION 17.24.010):**

REQUIRED: 2 SPACES / UNIT (ONE OF WHICH SHALL BE COVERED)  
GUESTS: 1 SPACE / 4 UNITS  
TOTAL: 14 SPACES (12 SPACES PER UNITS & 2 SPACES FOR THE GUESTS)

PROVIDED: 18 SPACES (12 SPACES PER UNITS & 6 SPACES FOR THE GUESTS)

**PROVIDED EQUIVALENT PER SECTION 17.28.030**

1. & 2. THE DEVELOPMENT PROVIDES 375 S.F. PRIVET BALCONIES AND 3,630 S.F. ROOFTOP MULTIPURPOSE SPACE WHICH OFFSETS AND EXCEEDS THE COMMON OPEN SPACE REQUIREMENT AND CAN BE UTILIZED FOR ENTERTAINMENT AREA & TENANTS GATHERING PLACE, ORGANIC VEGETABLE GARDEN, PORTABLE POOL AREA FOR CHILDREN, PLAYGROUND AREA.....

**ADDITIONAL BENEFITS SUSTAINABLE DESIGN**

**1. DAYLIGHTING:**

THE DEVELOPMENT PROPOSES LIGHT SHELVES ON SOUTH FACING DOORS & WINDOWS OF THE UNITS A, B, & C TO ALLOW DAYLIGHT TO PENETRATE DEEPER TO THE UNITS TO MINIMIZE THE USAGE OF THE ELECTRICITY. THE DEVELOPMENT ALSO PROPOSES SKYLIGHT & CLEARSTORIES FOR THE UNITS C & E TO MAXIMIZE THEIR AMOUNT OF DAYLIGHTING.

**2. ENERGY:**

BY MEANS OF THERMOSIPHONING, THE DEVELOPMENT PROPOSES THE STAIRCASE TOWER FOR EACH UNIT IN ORDER TO REGULATE INTERIOR TEMPERATURE BY 10 TO 15 DEGREES.

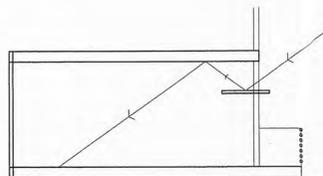
**3. WATER PRESERVATION:**

THE DEVELOPMENT PROPOSES A GUTTERING SYSTEM TO HARVEST RAINWATER AND REUSE IT FOR IRRIGATION PURPOSES.

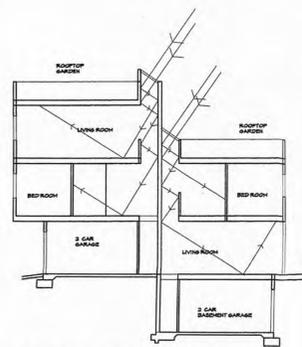
**4. ADA:**

THE DEVELOPMENT PROPOSES ACCESSIBILITY FOR THE ELDERLY TENANTS FROM EACH PRIVET GARAGE TO THE SECOND FLOOR BY MEANS OF STAIR LIFTS.

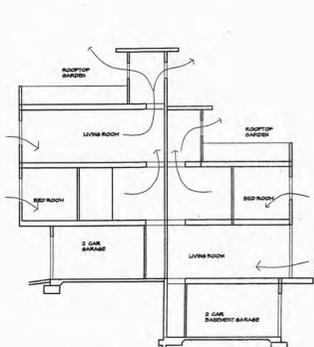
NOTE:  
ALL OVERHEAD UTILITY LINES WILL BE PLACED UNDERGROUND



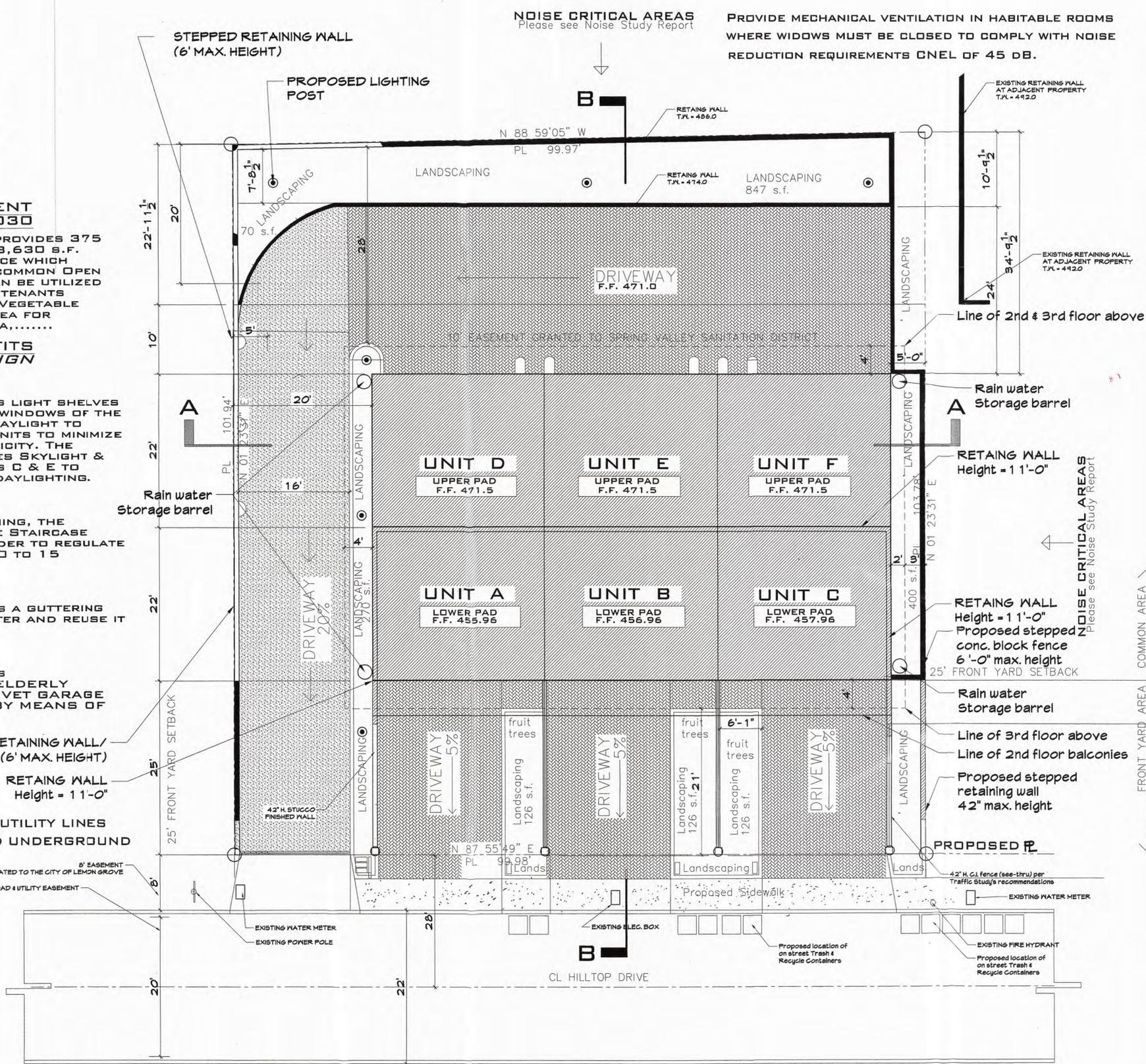
LIGHT SHELVES



SKYLIGHTS/CLEARSTORY



THERMOSIPHONING



PROPOSED IMPERVIOUS SURFACES 3,300 S.F.	PROPOSED PEDESTRIAN LIGHTING LAMP
PROPOSED PERVIOUS SURFACE (PAVING DRIVEWAY) 3,418 S.F.	PROPOSED LIGHTING POST FOR DRIVEWAY
PROPOSED IMPERVIOUS SURFACE (CONC. DRIVEWAY) 1,617 S.F.	PROPOSED MAILBOXES
PROPOSED PERVIOUS SURFACE (LANDSCAPING) 1,948 S.F.	

**SITE PLAN**  
SCALE: 1"=3/8"



**NOISE CRITICAL AREAS**  
Please see Noise Study Report

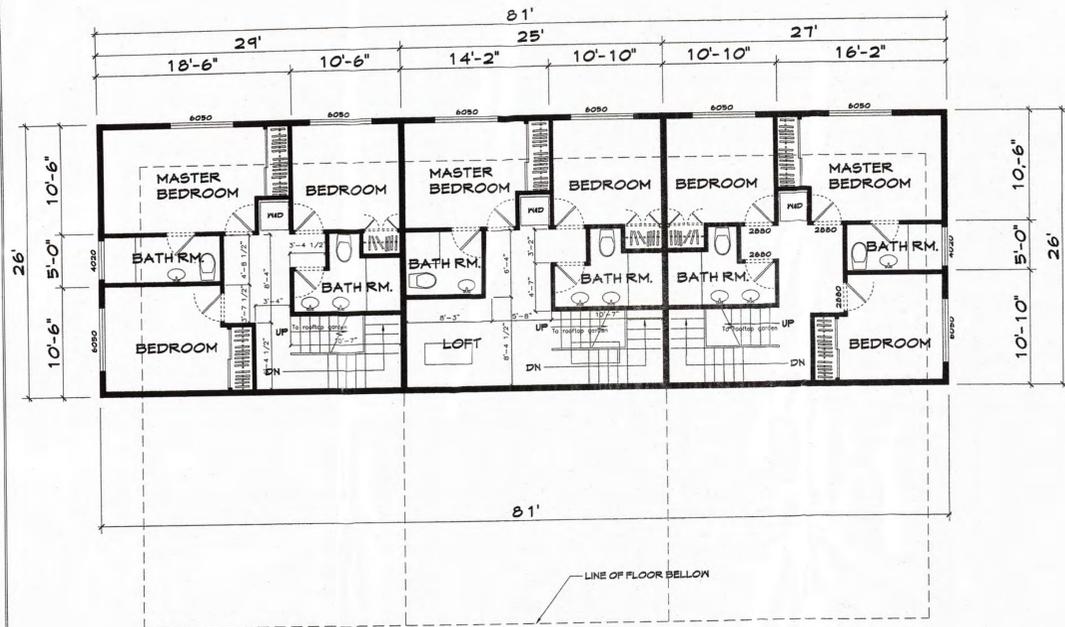
PROVIDE MECHANICAL VENTILATION IN HABITABLE ROOMS WHERE WINDOWS MUST BE CLOSED TO COMPLY WITH NOISE REDUCTION REQUIREMENTS CNEL OF 45 DB.

**ARTHMAN**  
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(858) 518-9995  
1155 CAMINO DEL MAR, SUITE 433  
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WWW.ARTHMANASSOCIATES.COM

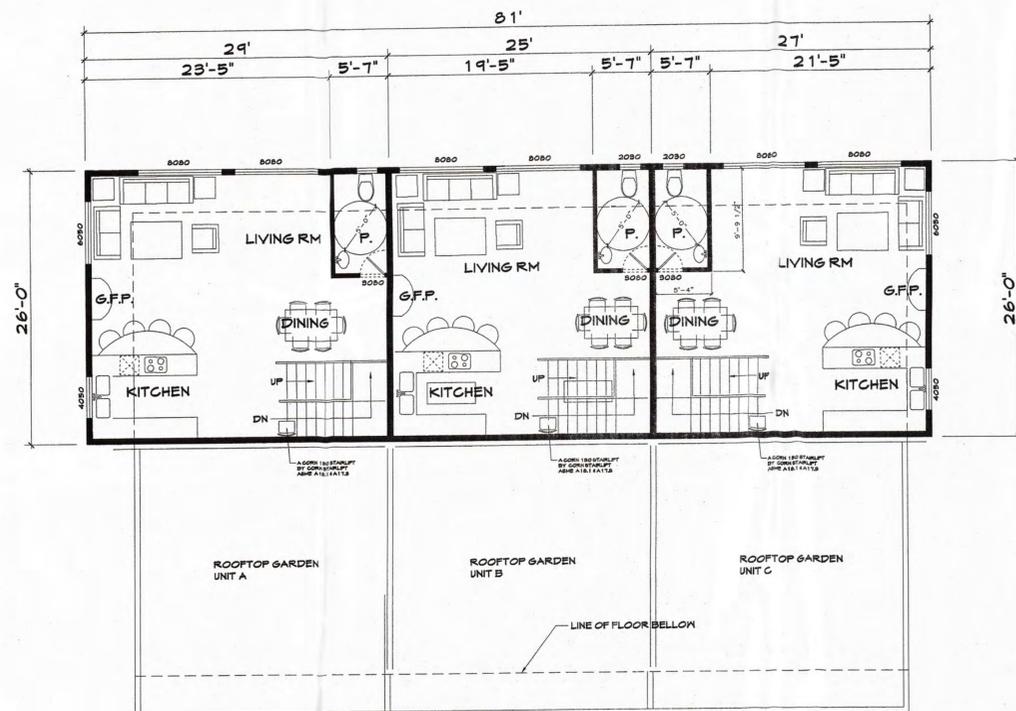
**RESIDENTIAL TOWNHOUSES PROJECT**  
**B & S TOWNHOUSES**  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

SITE PLAN  
 DATE: 21 JAN. 2019  
 CAD OPERATOR: N. ARTHMAN  
 PROJECT NO: 2016-8200  
 CAD DATE: 1/21/19  
 SCALE:  
 LATEST REVISION:  
 schematic  
 A-2  
 2 OF 21



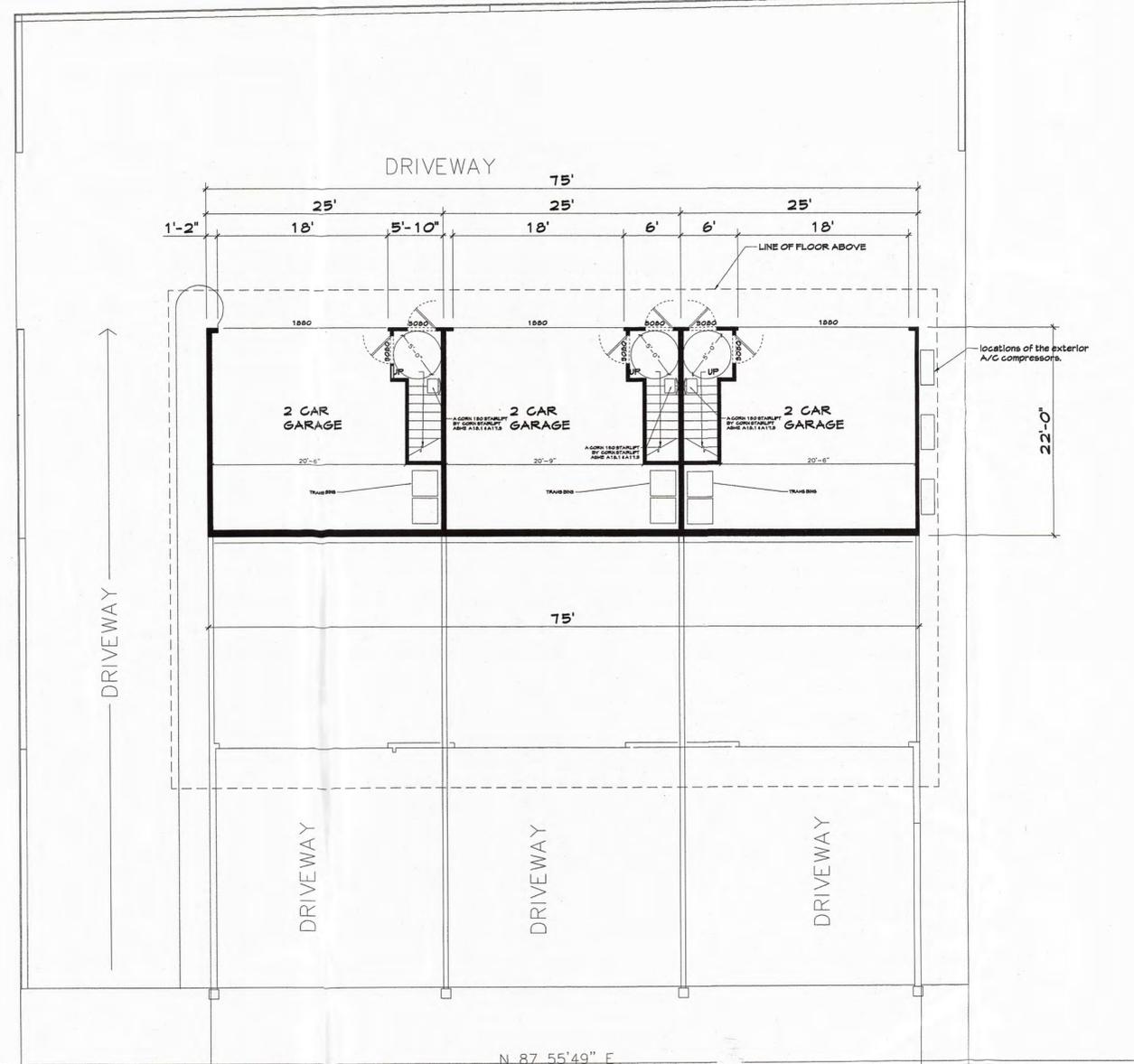


**UNITS D, E, & F**  
**THIRD LEVEL FLOOR PLAN**  
 SCALE: 1"=3/8"



**UNITS D, E, & F**  
**SECOND LEVEL FLOOR PLAN**  
 SCALE: 1"=3/8"

- |                                |                                      |                                |
|--------------------------------|--------------------------------------|--------------------------------|
| <b>3 Bedrooms</b><br>1510 s.f. | <b>2 Bedrooms +loft</b><br>1300 s.f. | <b>3 Bedrooms</b><br>1405 s.f. |
| <b>2.5 Baths</b>               | <b>2.5 Baths</b>                     | <b>2.5 Baths</b>               |



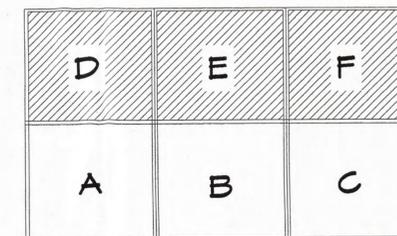
**UNITS D, E, & F**  
**GROUND LEVEL FLOOR PLAN**  
 SCALE: 1"=3/8"

**WALLS & FLOORS FIRE SEPARATION NOTE:**

Walls and Floors separating dwelling units in the same building in Group R-1 hotels, shall be fire partitions or horizontal assemblies as required by Section 708 and 711. Sections 420.2 and 420.3.

- a) Such fire partitions and floors shall have a fire-resistance rating of not less than 1-hour (except in buildings of Type IIB, IIIB, and VB construction with automatic sprinkler systems (complying with Section 903.3.1.1), where the fire-resistance rating may be reduced to 1/2-hour). Section 708.3.
- b) Such fire partitions shall extend to the underside of the floor/roof sheathing above.

i) In lieu of extending the wall to the floor/roof sheathing above, they may terminate at the fire-resistance-rated roof/ceiling assembly above. In this case, the space between the ceiling and the deck above shall be fire-blocked or draftstopped in accordance with Sections 718.2 and 718.3 at the partition line. Section 708.4.



**ARTHMAN**  
 ARCHITECTURE, ENGINEERING, CONSTRUCTION  
 (858) 518-9995  
 1155 CAMINO DEL MAR, SUITE 433  
 DEL MAR, CALIFORNIA 92014  
 WWW.ARTHMANASSOCIATES.COM

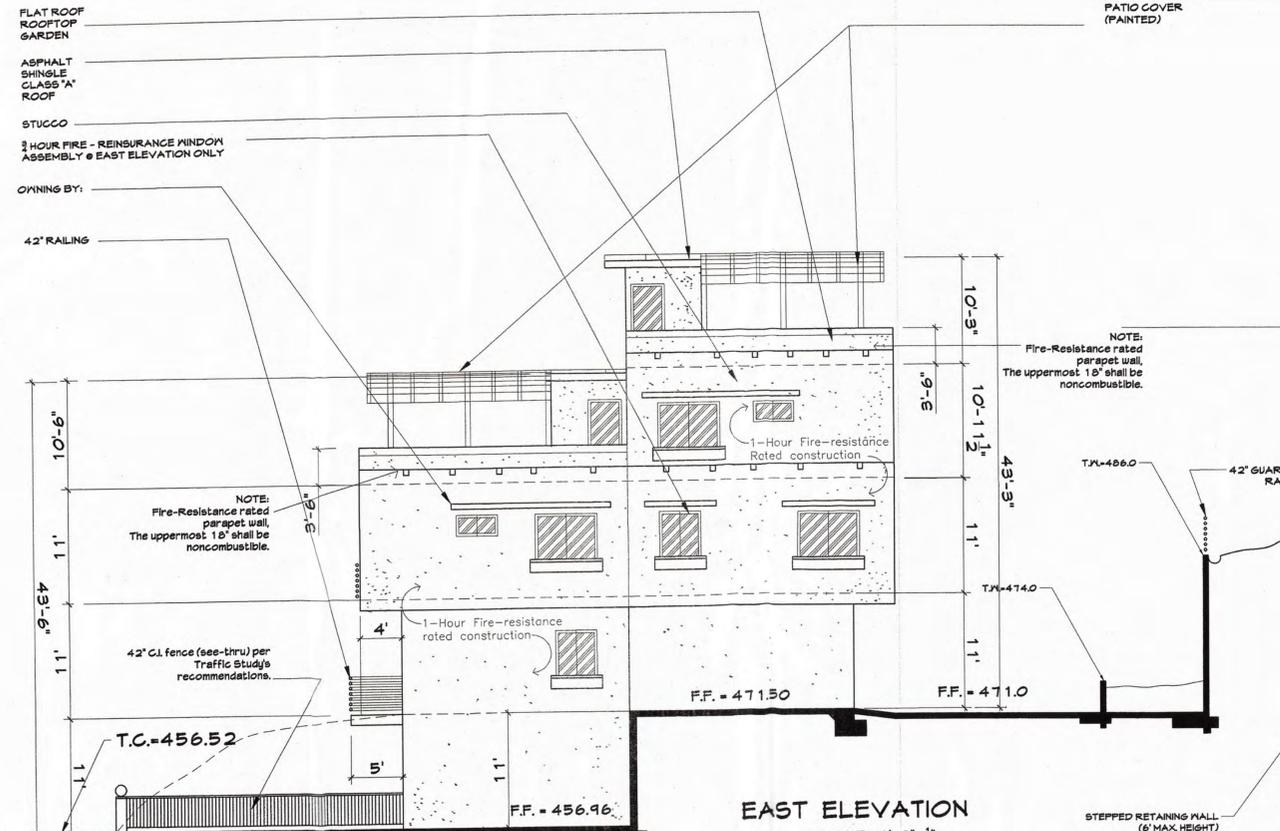
**CONSULTING ENGINEER**

**RESIDENTIAL TOWNHOUSES PROJECT**

**B & S TOWNHOUSES**  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

DATE: 21 JAN. 2019  
 CAD OPERATOR: N. ARTHMAN  
 PROJECT NO.: 2016-8200  
 CAD DWG FILE:  
 SCALE:  
 LATEST REVISION:

schematic  
 A-4  
 4 OF 21

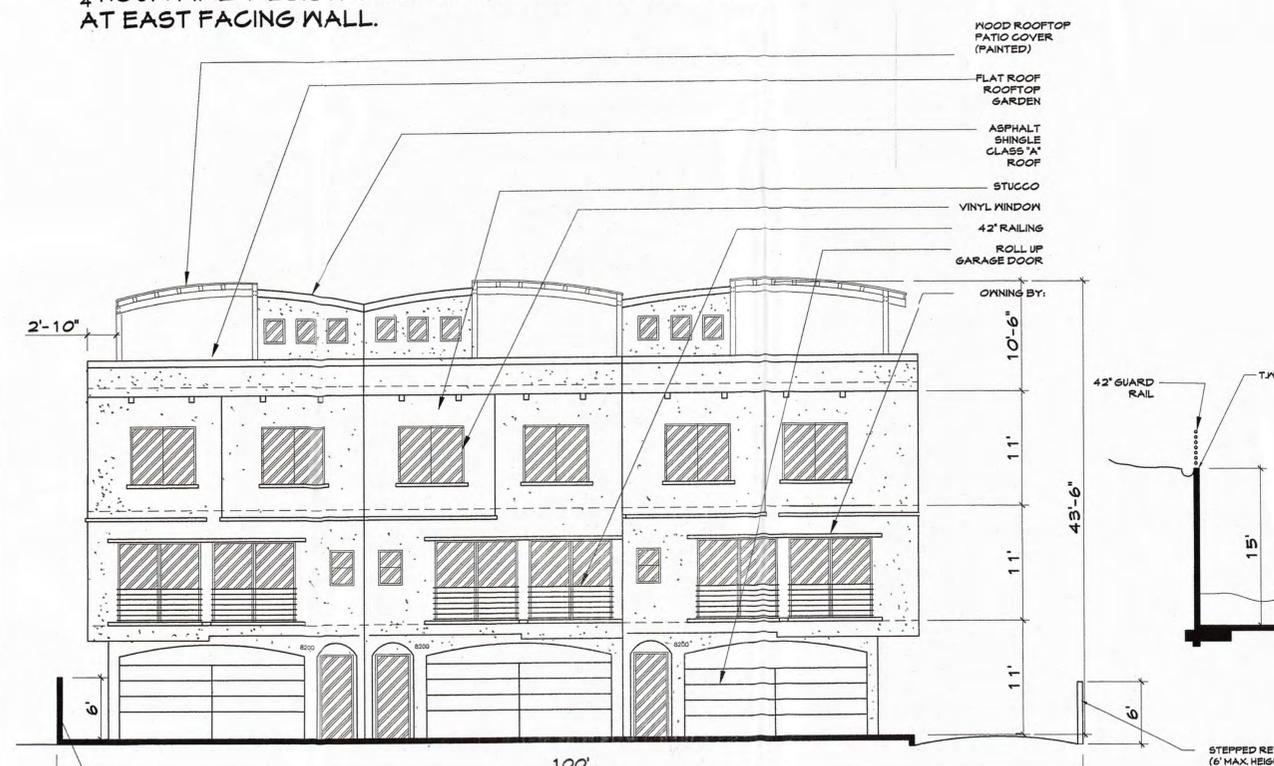


**EAST ELEVATION**  
SCALE: 1'-0" = 1/8"

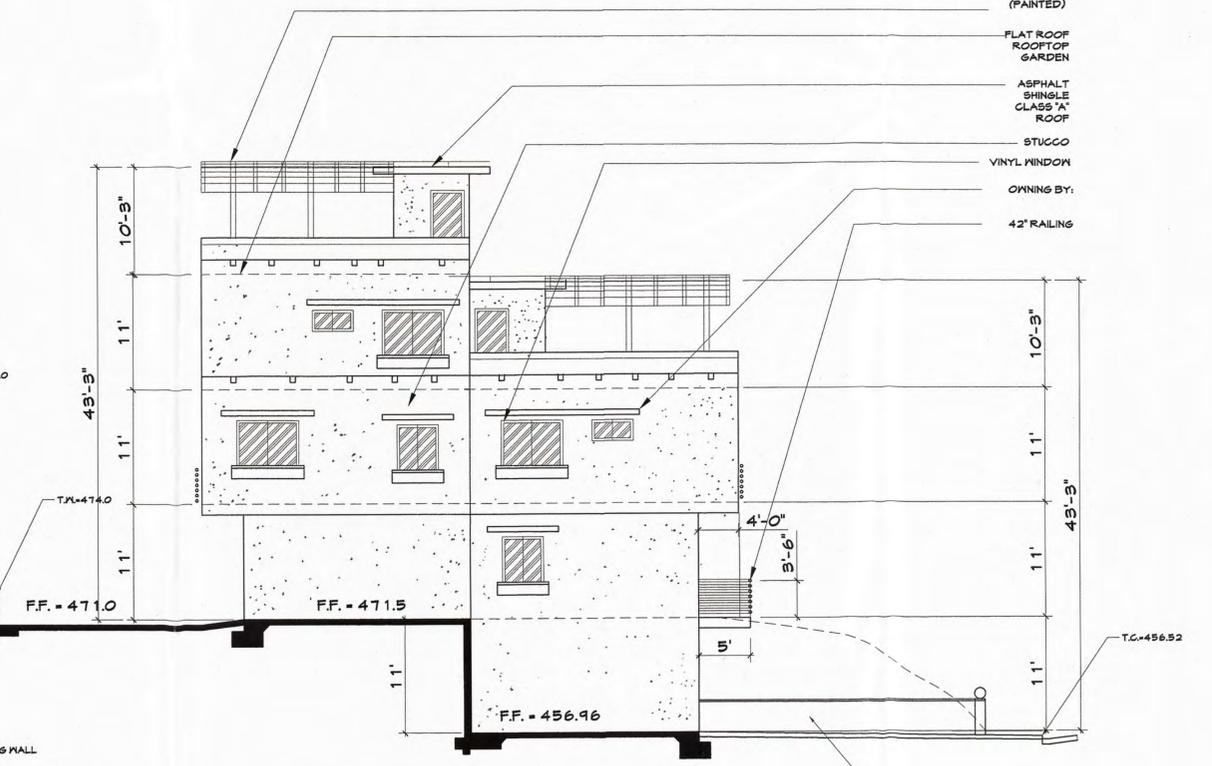


**SOUTH ELEVATION**  
SCALE: 1'-0" = 1/8"

**EAST WALL:**  
 EXPOSED FIRE RATED SURFACE = 1616 S.F.  
 ALLOWABLE OPENING PER TABLE 705.8, 15% = 242.40 S.F.  
 PROVIDED OPENINGS = 142 S.F.  
 $142 < 242.40$   
 3/4 HOUR FIRE-RESISTANCE-RATED FOR ALL OPENINGS  
 AT EAST FACING WALL.



**NORTH ELEVATION**  
SCALE: 1'-0" = 1/8"



**WEST ELEVATION**  
SCALE: 1'-0" = 1/8"

BUILDING  
 SITE PLAN  
 RESIDENTIAL TOWNHOUSES  
 PROJECT  
**B & S TOWN HOUSES**  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

CONSULTING ENGINEER

**ARTHMAN**  
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 (858) 519-9995  
 1155 CAMINO DEL MAR, SUITE 433  
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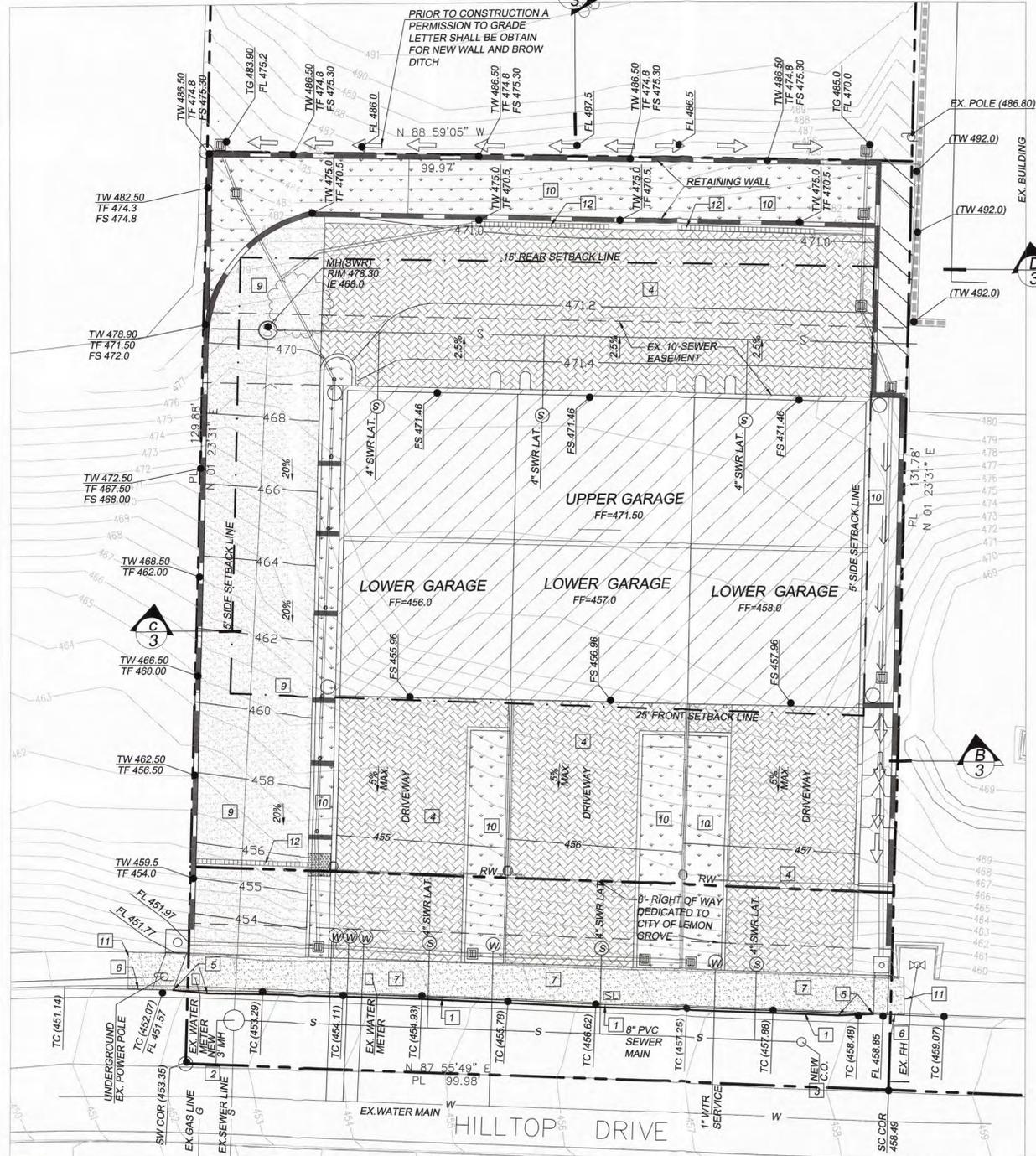
DATE: 21 JAN. 2019  
 C/O OPERATOR: N. ARTHMAN  
 PROJECT FILE: 2016-8200  
 C/O DWG FILE:  
 SCALE:  
 LATEST REVISION:

schematic  
 A-5  
 5 of 21



# CITY OF LEMON GROVE TENTATIVE MAP NO. TMO-0064

## B&S TOWNHOUSES 6 UNITS



### DENSITY:

TOTAL SITE ACREAGE = 0.27 ACRES GROSS  
 MAXIMUM NUMBER OF DWELLING UNITS ALLOWED PER ZONE: 6 UNITS  
 MAXIMUM NUMBER OF DWELLING UNITS ON SITE: 6 UNITS  
 GENERAL PLAN DESIGNATION OF LOW/MEDIUM (NUMBER OF UNIT ALLOWED = NET AREA X 29 / ACRES)

LOT SIZE:  
 GROSS: 13,085 S.F.  
 NET: 10,283 S.F.  
 RMH: 29 DWELLINGS/ACRE  
 43,560 / 29 = 1,502 PER UNIT  
 ALLOWABLE: 10,283 / 1,502 = 6.90 UNITS PROVIDED: 6 UNITS

OFF STREET PARKING:  
 REQUIRED: 12 + 2 (1 GUEST PARTING PER 4 UNITS) = 14  
 PROVIDED: 12 + 6 = 18

### EQUIVALENT BENEFITS

#### Municipal Code Section 17.28.03(0) Planned Development Permits

(THE TOWNHOUSE CONCEPT)  
 THE SAFETY AND SECURITY OF THE TENANTS WAS THE UTMOST CONCERN IN THE DEVELOPMENT OF THIS PROJECT. IN ORDER TO ACHIEVE THIS OBJECTIVE, THE DEVELOPMENT PROVIDED EACH UNIT WITH PRIVATE PARKING GARAGES, FOR TWO CARS PER UNIT. CONSEQUENTLY, THE AREA TAKEN BY THE EXTRA DRIVEWAYS FOR THE PRIVATE GARAGES HAS DEPLETED THE OPEN SPACE AREA REQUIREMENTS (3,000 S.F.).

#### PROVIDED EQUIVALENT PER SECTION 17.23.030

1. & 2. THE DEVELOPMENT PROVIDES 375 S.F. PRIVET BALCONIES AND 3,630 S.F. ROOFTOP MULTIPURPOSE SPACE WHICH OFFSETS AND EXCEEDS THE COMMON OPEN SPACE REQUIREMENT AND CAN BE UTILIZED FOR ENTERTAINMENT AREA & TENANTS GATHERING PLACE, ORGANIC VEGETABLE GARDEN, PORTABLE POOL AREA FOR CHILDREN, PLAYGROUND AREA.....

### ADDITIONAL BENEFITS SUSTAINABLE DESIGN

- DAYLIGHTING:** THE DEVELOPMENT PROPOSES LIGHT SHELVES ON SOUTH FACING DOORS & WINDOWS OF THE UNITS A, B, & C TO ALLOW DAYLIGHT TO PENETRATE DEEPER TO THE UNITS TO MINIMIZE THE USAGE OF THE ELECTRICITY. THE DEVELOPMENT ALSO PROPOSES SKYLIGHT & CLEARSTORIES FOR THE UNITS C & E TO MAXIMIZE THEIR AMOUNT OF DAYLIGHTING.
- ENERGY:** BY MEANS OF THERMOSIPHONING, THE DEVELOPMENT PROPOSES THE STAIRCASE TOWER FOR EACH UNIT IN ORDER TO REGULATE INTERIOR TEMPERATURE BY 10 TO 15 DEGREES.
- WATER PRESERVATION:** THE DEVELOPMENT PROPOSES A GUTTERING SYSTEM TO HARVEST RAINWATER AND REUSE IT FOR IRRIGATION PURPOSES.
- ADA:** THE DEVELOPMENT PROPOSES ACCESSIBILITY FOR THE ELDERLY TENANTS FROM EACH PRIVET GARAGE TO THE SECOND FLOOR BY MEANS OF STAIR LIFTS.

### CA COORDINATE SYSTEM:

**BENCHMARK**  
 THIS TOPOGRAPHIC SURVEY WAS PERFORMED BY SPIRO LAND SURVEYING, INC. ON JULY 9, 2019. HORIZONTAL CONTROL WAS PER RECORD MONUMENTS ON ROS 11880. VERTICAL DATUM WAS ESTABLISHED PER SAN DIEGO COUNTY BENCHMARK SD 0001 ELEVATION 417.077 NGVD 28 DATUM

**SHEET SUMMARY**  
 SHEET 1 TENTATIVE MAP AND GRADING PLAN  
 SHEET 2 GRADING PLAN  
 SHEET 3 CROSS SECTIONS  
 SHEET 4 BMP SHEET

**SOLAR ACCESS NOTE**  
 THIS IS TO AFFIRM THAT THE DESIGN OF THIS SUBDIVISION PROVIDES, TO THE EXTENT FEASIBLE, FOR FUTURE PASSIVE OR NATURAL HEATING AND COOLING OPPORTUNITIES IN ACCORDANCE WITH THE PROVISION OF SECTION 66473.1 OF THE STATE SUBDIVISION MAP ACT.

### PROPOSED DEVIATIONS BENEFIT PER SECTION 17.23.030

- THE OPEN SPACE REQUIREMENT:  
 THE DEVELOPMENT EXCEEDS THE USEABLE OPEN SPACE AREA REQUIREMENTS.  
 A. REQUIRED PRIVET AREA: 500 S.F. PER UNITS = 2000 S.F.  
 B. REQUIRED COMMON AREA: 50 PERCENT OF TOTAL REQUIRED SPACE =  
 PROVIDED:  
 A. BALCONIES = 375 S.F.  
 B. ROOFTOP GARDEN = 3630 S.F.  
 TOTAL: 4005 S.F.
- THE SETBACKS REQUIREMENTS:  
 A. ENCROACHMENT OF THE BALCONIES FOR UNITS A, B, & C (5'-0")  
 B. ENCROACHMENT OF THE SECOND FLOORS INTO THE SOUTH & EAST SETBACKS, (2'-0")
- PARKING (SECTION 17.24.010):  
 REQUIRED: 2 SPACES / UNIT (ONE OF WHICH SHALL BE COVERED) GUESTS: 1 SPACE / 4 UNITS  
 TOTAL: 14 SPACES  
 (12 SPACES PER UNITS & 2 SPACES FOR THE GUESTS)  
 PROVIDED: 18 SPACES  
 (12 SPACES PER UNITS & 6 SPACES FOR THE GUESTS)  
 OPEN SPACE AREA  
 1. ACTIVE USE: 4108 S.F.  
 2. PASSIVE USE: 2519 S.F.  
 3. PRIVET SPACE: 500 S.F.  
 NOTE: COMMON USEABLE OPEN SPACE SHALL ACCOUNT FOR AT LEAST 50% OF THE TOTAL REQUIRED OPEN SPACE.

**LEGAL DESCRIPTION:**  
 PARCEL: RANCHO MISSION OF SAN DIEGO TRACT 000686 LOT 27 (EX ST) PAR PER ROS 11880 IN: CITY/MUNI/TWP: LEMON GROVE APN: 499-181-02-00  
**ASSESSOR'S PARCEL NO.**  
 APN 499-181-02  
**GENERAL NOTES**

- TOTAL NUMBER OF UNITS IS = 6
- TOTAL AREA WITHIN TENTATIVE PARCEL MAP IS 0.27 ACRES GROSS.
- EXISTING ZONING IS (BASE ZONE RMH)
- ALL NEW UTILITIES WILL BE LOCATED UNDERGROUND
- CONTOUR INTERVAL: 1 FEET
- ALL PROPOSED SLOPES ARE 2:1 UNLESS NOTED OTHERWISE.
- GRADING SHOWN HEREON IS PRELIMINARY AND IS SUBJECT TO MODIFICATION IN FINAL DESIGN.
- LOT DIMENSIONS AND SETBACK DIMENSIONS SHOWN HEREON ARE PRELIMINARY AND ARE SUBJECT TO MODIFICATION IN FINAL DESIGN.
- STATUS OF LEGAL ACCESS: HILLTOP DRIVE
- SOURCE OF TOPOGRAPHY:  
 THIS TOPOGRAPHIC SURVEY WAS PERFORMED BY SPIRO LAND SURVEYING, INC. ON JULY 9, 2019. HORIZONTAL CONTROL WAS PER RECORD MONUMENTS ON ROS 11880. VERTICAL DATUM WAS ESTABLISHED PER SAN DIEGO COUNTY BENCHMARK SD 0001 ELEVATION 417.077 NGVD 28 DATUM
- ALL PLANT MATERIALS SHALL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM AND SHALL BE DROUGHT TOLERANT.
- INTERM GROUND COVER OR THE APPROPRIATE BMP'S SHALL BE USED AND SHOWN ON THE FINAL GRADING PLAN.
- SUBDIVIDER INTENDS ON PARKING LAND IMPACT FEES IN ORDER TO COMPLY WITH PARK LAND DEDICATION ORDINANCE.

### PUBLIC UTILITIES DISTRICTS

- GAS AND ELECTRIC: SAN DIEGO GAS & ELECTRIC
- TELEPHONE: PACIFIC TELEPHONE COMPANY
- CABLE TELEVISION: COX CABLE TELEVISION.
- SEWER: CITY OF LEMON GROVE
- DRAINAGE SYSTEM: AS REQUIRED BY CITY ENGINEER
- FIRE: CITY OF LEMON GROVE
- SCHOOL DISTRICT: GROSSMONT UNION HIGH SCHOOL DISTRICT
- SOURCE OF DOMESTIC POTABLE WATER SUPPLY: HELIX WATER DISTRICT.
- WASTE DISPOSAL (SOLID): EDCO DISPOSAL CORPORATION.
- LIGHTING DISTRICT: CITY OF LEMON GROVE.

### SITE DESIGN DATA

EXISTING NUMBER OF UNITS = 0  
 PROPOSED NUMBER OF UNITS = 6  
 TOTAL NUMBER OF UNITS = 6

UNIT SQ FOOT (GROSS)	
UNIT A	1,250 SQFT
UNIT B	1,205 SQFT
UNIT C	1,250 SQFT
UNIT D	1,250 SQFT
UNIT E	1,205 SQFT
UNIT F	1,250 SQFT
TOTAL	7,438 SQFT

AREAS	
LOT AREA =	0.27 ACRES GROSS
EASEMENT AREA =	3,800 SQFT

### PROPOSED STREET DEDICATION:

8" WIDE STREET IMPROVEMENT DEDICATION PER DOC:

Prepared By: ARC CONSTRUCTION & ENGINEERING INC.  
 Name: 10948 ELDERWOOD LANE  
 Address: SAN DIEGO, CA 92131  
 Phone #: (858) 722-7785  
 E-MAIL: SERG.SALINAS@ATT.NET

Project Address: 8200 HILLTOP DRIVE  
 LEMON GROVE, CA 92104

Project Name: HILLTOP PARCEL TENTATIVE MAP

Sheet Title: HILLTOP PARCEL TENTATIVE MAP

**LEGEND:**  
 SUBDIVISION BOUNDARY  
 RIGHT-OF-WAY  
 LOT LINE  
 EXISTING CONTOUR  
 PROPOSED CONTOUR  
 FINISH GRADE ELEVATION  
 PROPOSED PAD ELEVATION  
 EXISTING WATERLINE  
 PROPOSED WATERLINE  
 EXISTING FIRE HYDRANT  
 PROPOSED FIRE HYDRANT  
 EXISTING SEWER MAIN  
 EXISTING SEWER MANHOLE  
 PROPOSED STORM DRAIN PIPE (P.V.T.)  
 PROPOSED CATCH BASIN (P.V.T.)  
 EXISTING TREE  
 PROPOSED SLOPE  
 CUT/FILL LINE  
 BROW DITCH (TYPE "B")  
 EARTH SWALE  
 SPLASH PAD RIP RAP  
 6" TRENCH DRAIN  
 PROPOSED SEWER MANHOLE  
 PROPOSED SEWER CLEAN OUT

### APPLICANT

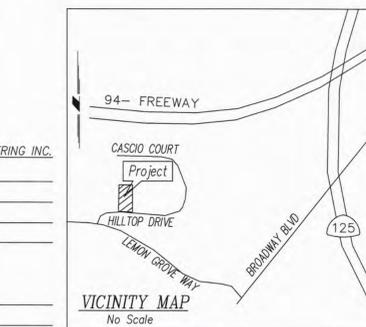
APPLICANT: BEHZAD HAFEI  
 12765 AMARANTH STREET  
 SAN DIEGO, CA 92129  
 (619)861-4954

GEOTECHNICAL ENGINEER ALLIED EARTH TECHNOLOGY BOB CHAN  
 7915 SILVERTON AVE, SUITE 317  
 SAN DIEGO, CA 92126  
 (858)586-1665 (858) 586-1660

ARCHITECT ARTHMAN & ASSOCIATES NICK ARTHMAN  
 1155 CAMINO DEL MAR, SUITE 433  
 DEL MAR, CA 92014  
 (858)518-9995

LANDSCAPE ARCHITECT ANTIGUA DESIGN STUDIO CATHERINE COLE GAMBACORTA  
 5346 BELARDO DRIVE  
 SAN DIEGO CA 92111

CIVIL ENGINEER ARC CONSTRUCTION & ENGINEERING INC. SERGIO SALINAS  
 10948 ELDERWOOD LANE  
 SAN DIEGO CA 92131



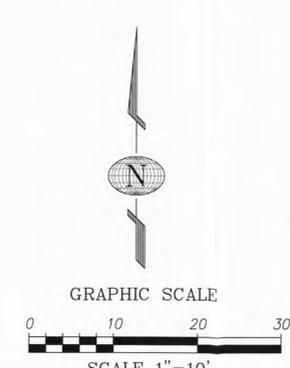
**FIRE DEPT. NOTES**  
 1. PROVIDE BUILDING ADDRESS NUMBERS, VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (UFC 901.4.4)

**DRAINAGE NOTES**  
 1. ALL DRAINAGE FACILITIES WITHIN THIS DEVELOPMENT AND OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE PRIVATE.

**MAPPING AND MONUMENTATION NOTE:**  
 ALL PROPERTY CORNERS WILL BE SET BASE ON THE FINAL PARCEL MAP THAT WILL BE FILED UPON APPROVAL OF THE TENTATIVE PARCEL MAP. A DETAILED PROCEDURE OF SURVEY WILL BE SHOWN ON ALL FINAL MAPS.

**DEVELOPMENT SUMMARY**  
 1. SUMMARY OF REQUEST:  
 A TENTATIVE PARCEL MAP, FOR 6 SINGLE-FAMILY DWELLING UNITS.  
 2. STREET ADDRESS:  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CA 91945  
 3. SITE AREA:  
 TOTAL SITE AREA (GROSS): 0.27 ACRES  
 4. ZONING: BASE ZONE RMH  
 RMH: 29 DWELLINGS/ACARE  
 5. COVERAGE DATA:  
 GROSS FLOOR AREA (GFA): 10,283  
 6. DENSITY:  
 MAXIMUM DWELLING UNITS ALLOWED PER ZONE: 6  
 NUMBER OF PROPOSED DWELLING UNITS ON SITE: 6  
 7. YARD/SETBACK:  
 FRONT YARD: 25'  
 SIDE YARD: 5'  
 REAR YARD: 15'

**CONSTRUCTION NOTES:**  
 1 6" ROLLED CURB PER SDRSD G-4A  
 2 4 FEET MANHOLE PER SDRSD SM-01  
 3 SEWER CLEAN OUT PER SDRSD SC-01  
 4 PERVIOUS PAVERS SEE LANDSCAPE PLANS SHEET L-6 DETAIL 4  
 5 5 FEET MIN. CURB AND GUTTER TO ROLLED CURB TRANSITION PER SDRSD G-04B  
 6 CURB AND GUTTER PER SDRSD G-2  
 7 SIDEWALK PER SDRSD G-7  
 8 CURB OUTLET PER SDRSD D-25  
 9 5.5 INCH CONCRETE DRIVEWAY  
 10 LANDSCAPE AREA  
 11 SAW CUT TO THE NEAREST JOINT  
 12 6" TRENCH DRAIN



**LAND DIVISION STATEMENT OWNER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02 BLOCK/LOT 27, TRACT NO. 000686 000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
 12765 AMARANTH STREET  
 SAN DIEGO, CA 92129  
 (619)861-4954

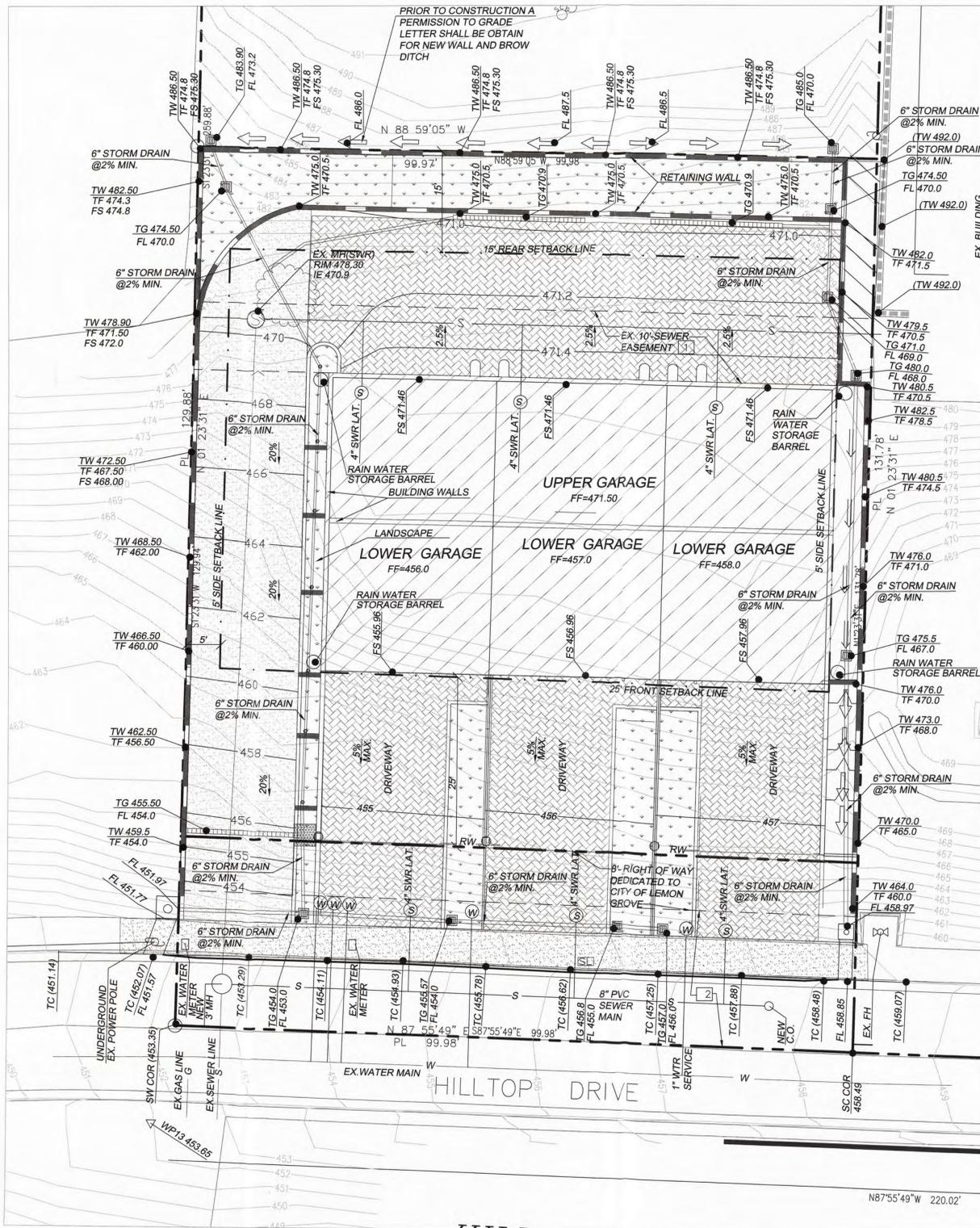
BEHZAD HAFEI

**ARC CONSTRUCTION ENGINEERING INC.**  
 CIVIL ENGINEERING • LAND PLANNING • SURVEYING  
 10948 ELDERWOOD LANE, San Diego, California, 92131 • 858-722-7785

SERGIO SALINAS RCE NO. 81026

Revision 3: \_\_\_\_\_  
 Revision 2: \_\_\_\_\_  
 Revision 1: 4/26/18  
 Original Date: 6/3/16  
 Sheet 1 of 4  
 P.T.S. NO. \_\_\_\_\_

# CONCEPTUAL GRADING PLAN FOR: 8200 HILLTOP DRIVE LEMON GROVE, CALIFORNIA



## ABBREVIATIONS:

APN	ASSESSOR'S PARCEL NUMBER
AC	ASPHALT CONCRETE
AP	ANGLE POINT
B-	BEGINNING OF .....
BLD	BUILDING
BOT	BOTTOM OF .....
CL	CENTERLINE
CLF	CHAINLINK FENCE
CON	CONCRETE (PCC)
E-	END OF .....
EFW	FACE OF WALL LOCATED ON THE EAST SIDE
FF	FINISHED FLOOR
FH	FIRE HYDRANT
GM	GAS METER
NFW	FACE OF WALL LOCATED ON THE NORTH SIDE
NEFW	FACE OF WALL LOCATED ON THE NORTH & EAST SIDES
OH	OVERHANG (ROOF)
POL	POINT ON THE LINE
PP	POWER POLE
RCP	REINFORCED CONCRETE PIPE
ROS	RECORD OF SURVEY
ROW	RIGHT-OF-WAY
S	SEWER LINE
SEFW	FACE OF WALL LOCATED ON THE SOUTH & EAST SIDES
SMH	SEWER MANHOLE
T	TOP OF...
WD	WOOD
WDFNC	WOOD FENCE
WMB	FACE OF WALL LOCATED ON THE WEST SIDE
MW	WATER METER BOX
W	WATER LINE
TW	TOP OF WALL
TC	TOP OF CURB

## EASEMENTS

1. AN EASEMENT FOR THE PURPOSE SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT FROM NOT SET OUT, AS GRANTOR, TO SPRING VALLEY SANITATION DISTRICT AS GRANTEE, FOR THE PURPOSE OF PIPE OR PIPELINES, MANHOLES AND ALL STRUCTURES INCIDENTAL THERETO, RECORDED SEPTEMBER 23, 1957 IN BOOK 6758, PAGE 569 OF OFFICIAL RECORDS, AFFECTS A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
2. THE SOUTH ONE-HALF OF THAT PORTION OF LOT 27 OF SUBDIVISION NO. 2, OF LOT 12 OF RANCHO EX-MISSION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 686, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, OCTOBER 5, 1891, DESCRIBED AS GRANT DEED.

## LEGAL DESCRIPTION:

APN 499-181-02  
BLOCK/LOT 27, TRACT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

## ASSESSOR'S PARCEL NO.

APN 499-181-02

## UTILITY NOTES

ALL OVERHEAD UTILITIES SHALL BE PLACED UNDERGROUND

## LEGEND:

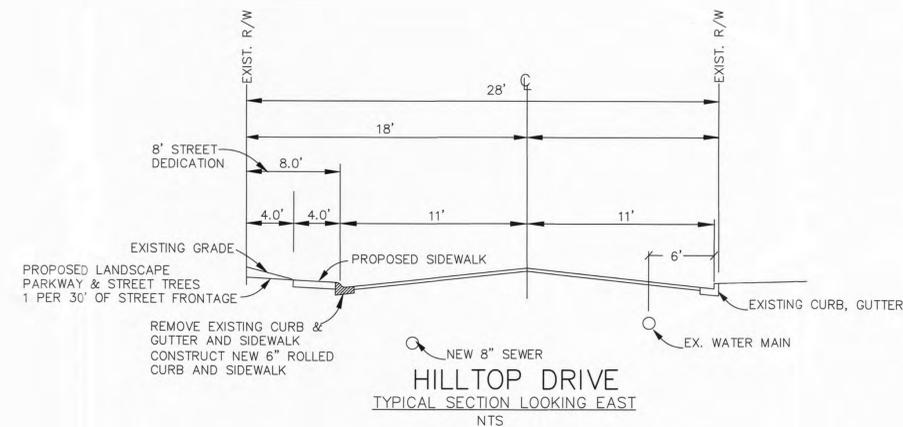
SUBDIVISION BOUNDARY	-----
RIGHT-OF-WAY	-----
LOT LINE	-----
EXISTING CONTOUR	.....
PROPOSED CONTOUR	.....
FINISH GRADE ELEVATION	FG 141.2
PROPOSED PAD ELEVATION	110
EXISTING WATERLINE	W
PROPOSED WATERLINE	W
EXISTING FIRE HYDRANT	⊙
PROPOSED FIRE HYDRANT	⊙
EXISTING SEWER MAIN	S
EXISTING SEWER MANHOLE	⊙
PROPOSED STORM DRAIN PIPE (PVT.)	---
PROPOSED CATCH BASIN (PVT.)	⊙
EXISTING TREE	⊙
PROPOSED SLOPE	▽
CUT/FILL LINE	---
BROW DITCH (TYPE "B")	D-75
EARTH SWALE	---
SPLASH PAD RIP RAP	⊙
6" STORM DRAIN	---
PROPOSED SEWER MANHOLE	⊙
PROPOSED SEWER CLEAN OUT	---

## GRADING

- TOTAL AMOUNT OF SITE TO BE GRADED: 0.27AC.
- PERCENT OF TOTAL SITE GRADED: 99%
- AMOUNT OF SITE WITH 25 PERCENT SLOPES OR GREATER: 0.11 AC. OR 4,874 SQFT
- PERCENT OF THE EXIST. SLOPES STEEPER THAN 5% PROPOSED TO BE GRADED: 99%
- PERCENT OF TOTAL SITE WITH 25 PERCENT SLOPES OR GREATER: 42%
- AMOUNT OF CUT: 2,500 CUBIC YARDS.
- AMOUNT OF FILL: 160 CUBIC YARDS.
- MAXIMUM HEIGHT OF FILL SLOPE(S): 5 FEET 2:1 SLOPE RATIO.
- MAXIMUM HEIGHT OF CUT SLOPE(S): 15 FEET 2:1 SLOPE RATIO.
- AMOUNT OF EXPORT SOIL: 2,300 CUBIC YARDS.
- RETAINING/CRIB WALLS: HOW MANY: 4  
MAXIMUM LENGTH: 362  
MAXIMUM HEIGHT: 12 FEET

## APPLICANT

APPLICANT:  
BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954



## LAND DIVISION STATEMENT OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02  
BLOCK/LOT 27, TRACT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI

Prepared By:  
Name: ARC CONSTRUCTION & ENGINEERING INC.

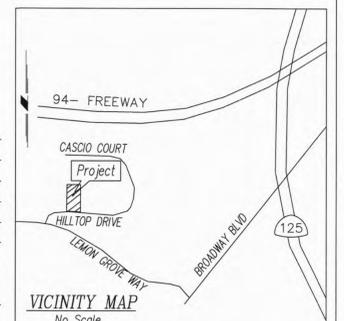
Address: 10948 ELDERWOOD LANE  
SAN DIEGO, CA 92131

Phone #: (858) 722-7785  
E-MAIL: SERGIO.SALINAS@ATT.NET

Project Address:  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

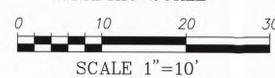
Project Name:  
HILLTOP PARCEL TENTATIVE  
MAP

Sheet Title:  
CONCEPTUAL GRADING PLANS



Revision 3:	_____
Revision 2:	_____
Revision 1:	4/26/18
Original Date:	6/3/16
Sheet	2 of 4
PTS NO.	_____

## GRAPHIC SCALE

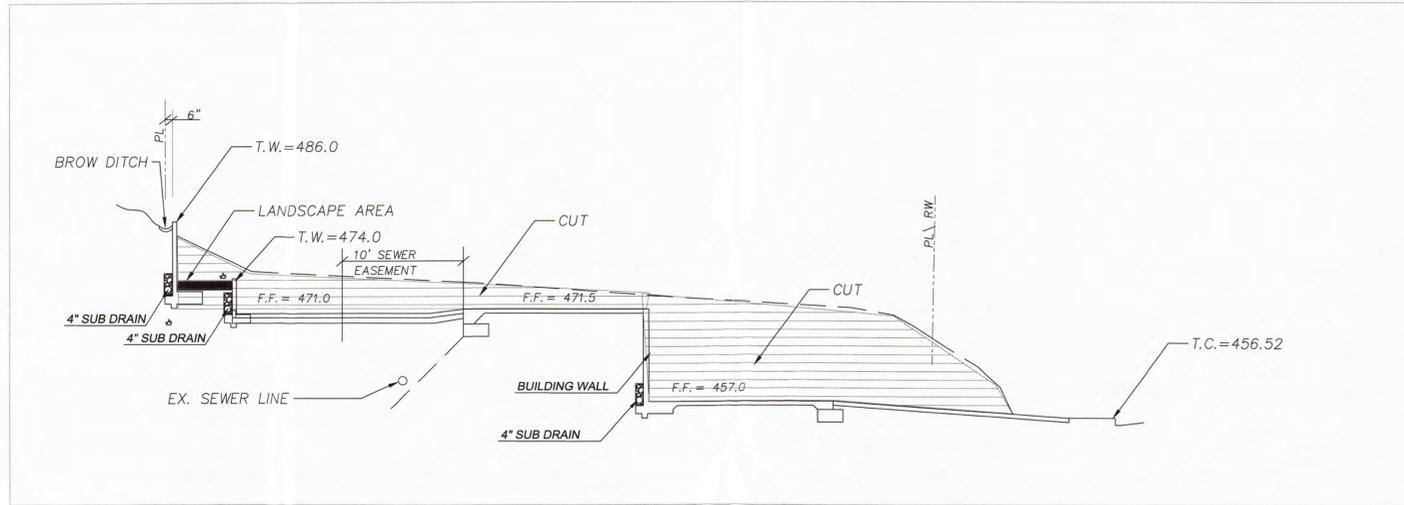


## ARC CONSTRUCTION ENGINEERING INC.

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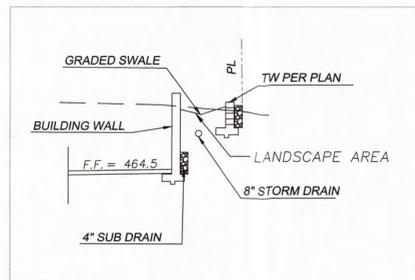
SERGIO SALINAS RCE NO. 81026

# CITY OF LEMON GROVE HILLTOP SECTION



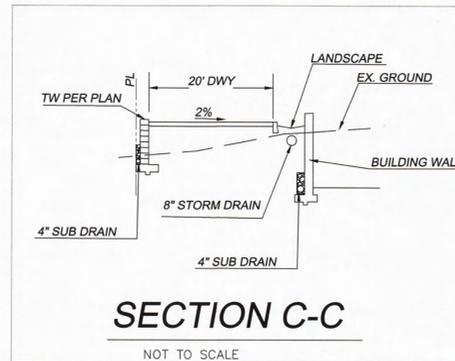
**SECTION A-A**

NOT TO SCALE



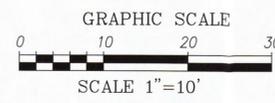
**SECTION B-B**

NOT TO SCALE



**SECTION C-C**

NOT TO SCALE



**LAND DIVISION STATEMENT  
OWNER'S CERTIFICATE**

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02  
BLOCK/LOT 27, TRACT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI



**ARC CONSTRUCTION ENGINEERING INC.**

CIVIL ENGINEERING • LAND PLANNING • SURVEYING  
10948 ELDERWOOD LANE, San Diego, California, 92131 • 858-722-7785

SERGIO SALINAS

RCE NO. 81026

Prepared By: \_\_\_\_\_  
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Address: 10948 ELDERWOOD LANE  
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E-MAIL: SERG.SALINAS@ATT.NET

Project Address: \_\_\_\_\_  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

Project Name: \_\_\_\_\_  
HILLTOP PARCEL TENTATIVE  
MAP

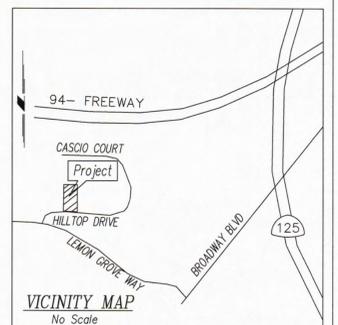
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SECTION SHEET

**BENCHMARK**

BENCHMARK ALTRANS MONUMENT SD94  
KP11.85R. BRASS PLUG ELEVATION 491.92'

**APPLICANT**

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BEHZAD HAFEI  
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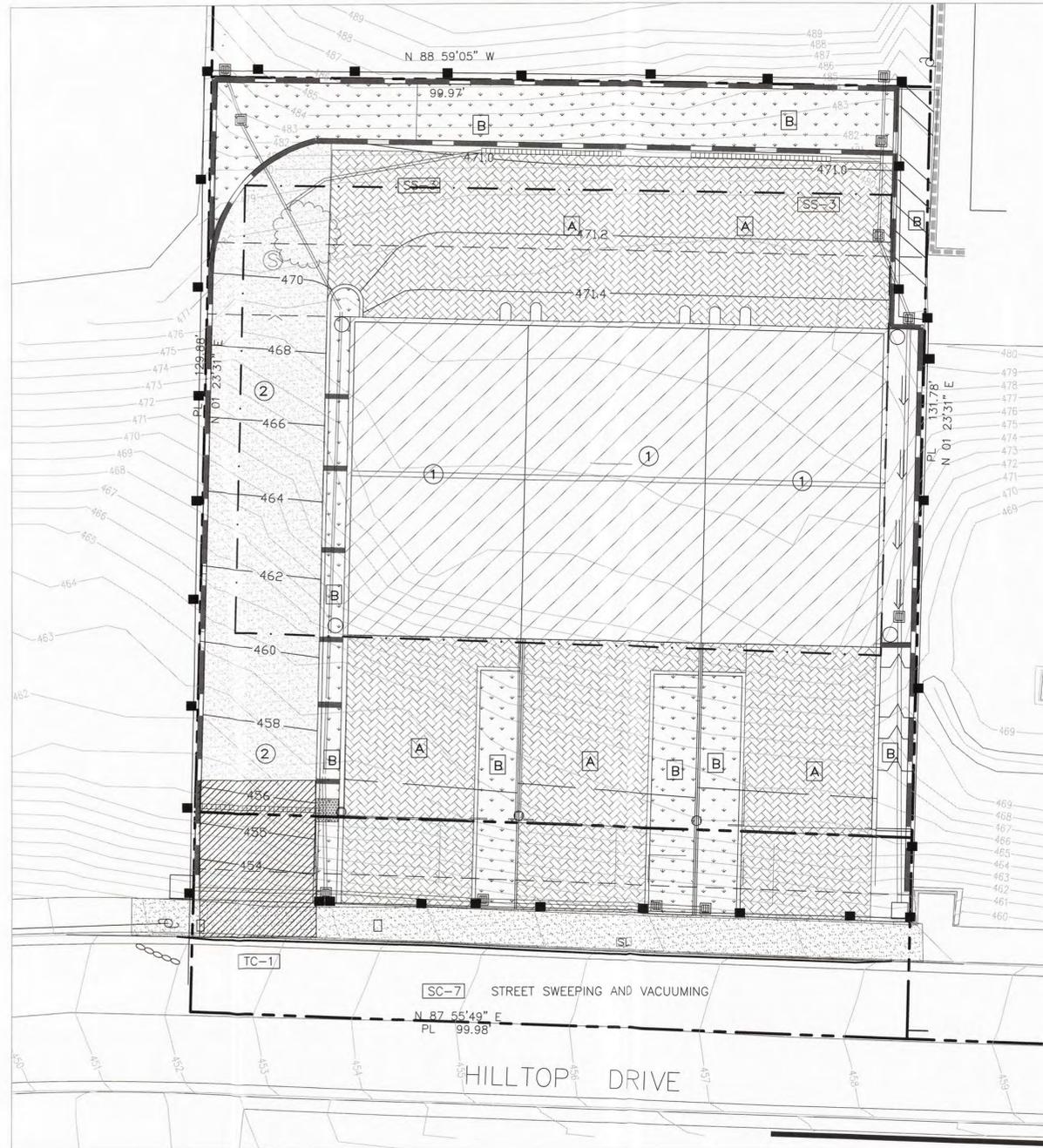
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Revision 1: \_\_\_\_\_

Original Date: 6/3/16

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PTS NO. \_\_\_\_\_

# CITY OF LEMON GROVE HILLTOP



**CONSTRUCTION STORMWATER BMP NOTES AND STANDARD PROJECT STORMWATER BMP NOTES**

THE FOLLOWING CONSTRUCTION BMP NOTES SHALL BE ADDED TO THE SITE PLAN:

**CONSTRUCTION STORMWATER BMP NOTES**

- ALL APPLICABLE CONSTRUCTION BMPs AND NON-STORMWATER DISCHARGE BMPs SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY OF LEMON GROVE MINIMUM BMP REQUIREMENTS INCLUDED IN THE CITY OF LEMON GROVE MUNICIPAL CODE AND THE CITY OF LEMON GROVE JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP). ALL STORMWATER BMPs SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- EROSION CONTROL BMPs SHALL BE IMPLEMENTED FOR ALL PORTIONS OF THE PROJECT AREA IN WHICH NO WORK HAS BEEN DONE OR IS PLANNED TO BE DONE OVER A PERIOD OF 14 OR MORE DAYS. ALL ON-SITE DRAINAGE PATHWAYS THAT CONVEY CONCENTRATED FLOWS SHALL BE PAVED, PROTECTED BY LAYING AGGREGATE OVER EXPOSED SOIL, FULLY COVERED BY ESTABLISHED VEGETATION, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- RUN-ON FROM AREAS OUTSIDE THE PROJECT AREA SHALL BE DIVERTED AROUND WORK AREAS TO THE EXTENT FEASIBLE. RUN-ON THAT CANNOT BE DIVERTED SHALL BE MANAGED USING APPROPRIATE EROSION AND SEDIMENT CONTROL BMPs IN ACCORDANCE WITH APPLICABLE CASQA FACT SHEETS.
- SEDIMENT CONTROL BMPs SHALL BE IMPLEMENTED, INCLUDING PROVIDING FIBER ROLLS, GRAVEL BAGS, OR OTHER EQUALLY EFFECTIVE BMPs AROUND THE PERIMETER OF THE PROJECT TO PREVENT TRANSPORT OF SOIL AND SEDIMENT OFF-SITE. ANY SEDIMENT TRACKED ONTO OFFSITE PAVED AREAS SHALL BE REMOVED VIA SWEEPING AT LEAST DAILY. ALL BMPs SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE CASQA FACT SHEETS.
- TRASH AND OTHER CONSTRUCTION WASTES SHALL BE PLACED IN A DESIGNATED AREA AT LEAST DAILY AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
- MATERIALS SHALL BE STORED TO AVOID BEING TRANSPORTED IN STORM WATER RUNOFF AND NON-STORM WATER DISCHARGES. CONCRETE WASHOUT SHALL BE DIRECTED TO A WASHOUT AREA DESIGNED IN ACCORDANCE WITH CASQA STANDARDS. CONCRETE SHALL NOT BE WASHED OUT TO THE GROUND.
- STOCKPILES AND OTHER SOURCES OF POLLUTANTS SHALL BE COVERED WHEN THE CHANCE OF RAIN WITHIN THE NEXT 48 HOURS IS AT LEAST 50%.

**PERMANENT (POST-CONSTRUCTION) STORMWATER BMP NOTES**

- LANDSCAPED AREAS SHALL BE DESIGNED IN ACCORDANCE WITH LEMON GROVE MUNICIPAL CODE CHAPTER 18.44 (WATER EFFICIENT LANDSCAPE REGULATIONS).
- ROOF DRAINAGE SHALL BE DIRECTED TO LANDSCAPED AREAS OR RAIN BARRELS (APPLIES TO NEW ROOFS ONLY).
- DRIVEWAY AND WALKWAYS SHALL BE DESIGNED TO DRAIN TO ADJACENT LANDSCAPED OR NATURAL AREAS OR CONSTRUCTED USING PERMEABLE MATERIALS (APPLIES ONLY TO DRIVEWAYS AND WALKWAYS CREATED OR REPLACED AS PART OF THE PROPOSED PROJECT).
- STREETS, SIDEWALKS, AND PARKING LOT AISLES SHALL BE CONSTRUCTED TO THE MINIMUM WIDTH NECESSARY, PROVIDED PUBLIC SAFETY IS NOT COMPROMISED.
- EXISTING TREES AND NATURAL AREAS, INCLUDING BUT NOT LIMITED TO NATURAL WATER BODIES AND NATURAL STORAGE RESERVOIRS OR DRAINAGE CORRIDORS (E.G., TOPOGRAPHIC DEPRESSIONS, NATURAL SWALES, AND AREAS OF NATURALLY PERMEABLE SOILS), SHALL BE CONSERVED AND PROTECTED TO THE EXTENT FEASIBLE.
- THE IMPERVIOUS FOOTPRINT, INCLUDING ROOFED AREAS AND PAVED AREAS, OF THE PROJECT SHALL BE MINIMIZED TO THE EXTENT APPLICABLE AND FEASIBLE.
- DUMPSTERS, OTHER TRASH RECEPTACLES, AND WASTE COOKING OIL CONTAINERS SHALL BE STORED INSIDE BUILDINGS OR IN FOUR-SIDED ENCLOSURES WITH A STRUCTURAL OVERHEAD CANOPY DESIGNED TO PREVENT PRECIPITATION FROM CONTACTING MATERIALS STORED IN THE ENCLOSURE.
- ONSITE STORM DRAINS SHALL BE STENCILED OR OTHERWISE PERMANENTLY LABELED WITH "NO DUMPING, DRAINS TO OCEAN" OR OTHER EQUIVALENT LANGUAGE APPROVED BY THE CITY.
- OUTDOOR MATERIAL STORAGE AREAS AND OUTDOOR WORK AREAS SHALL BE PROTECTED FROM RAINFALL, RUNON, AND WIND DISPERSAL.
- PLANNING INSPECTION REQUIRED PRIOR TO FINAL.

## STORMWATER MANAGEMENT NOTES

THE FOLLOWING STORMWATER QUALITY PROTECTION MEASURES ARE REQUIRED BY LEMON GROVE MUNICIPAL CODE CHAPTER 8.48 AND THE CITY'S JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM.

- ALL APPLICABLE CONSTRUCTION BMPs AND NON-STORMWATER DISCHARGE BMPs SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY OF LEMON GROVE MINIMUM BMP REQUIREMENTS INCLUDED IN THE CITY OF LEMON GROVE MUNICIPAL CODE AND THE CITY OF LEMON GROVE JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP). ALL STORMWATER BMPs SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- EROSION CONTROL BMPs SHALL BE IMPLEMENTED FOR ALL PORTIONS OF THE PROJECT AREA IN WHICH NO WORK HAS BEEN DONE OR IS PLANNED TO BE DONE OVER A PERIOD OF 14 OR MORE DAYS. ALL ON-SITE DRAINAGE PATHWAYS THAT CONVEY CONCENTRATED FLOWS SHALL BE STABILIZED TO PREVENT EROSION.
- RUN-ON FROM AREAS OUTSIDE THE PROJECT AREA SHALL BE DIVERTED AROUND WORK AREAS TO THE EXTENT FEASIBLE. RUN-ON THAT CANNOT BE DIVERTED SHALL BE MANAGED USING APPROPRIATE EROSION AND SEDIMENT CONTROL BMPs.
- SEDIMENT CONTROL BMPs SHALL BE IMPLEMENTED, INCLUDING PROVIDING FIBER ROLLS, GRAVEL BAGS, OR OTHER EQUALLY EFFECTIVE BMPs AROUND THE PERIMETER OF THE PROJECT TO PREVENT TRANSPORT OF SOIL AND SEDIMENT OFF-SITE. ANY SEDIMENT TRACKED ONTO OFFSITE PAVED AREAS SHALL BE REMOVED VIA SWEEPING AT LEAST DAILY. ALL BMPs SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE CASQA FACT SHEETS.
- TRASH AND OTHER CONSTRUCTION WASTES SHALL BE PLACED IN A DESIGNATED AREA AT LEAST DAILY AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
- MATERIALS SHALL BE STORED TO AVOID BEING TRANSPORTED IN STORM WATER RUNOFF AND NON-STORM WATER DISCHARGES. CONCRETE WASHOUT SHALL BE DIRECTED TO A WASHOUT AREA DESIGNED IN ACCORDANCE WITH CASQA STANDARDS. CONCRETE SHALL NOT BE WASHED OUT TO THE GROUND.
- STOCKPILES AND OTHER SOURCES OF POLLUTANTS SHALL BE COVERED WHEN THE CHANCE OF RAIN WITHIN THE NEXT 48 HOURS IS AT LEAST 50%.

## BMP LEGEND

- DIRECTION OF LOT DRAINAGE** → →
- MATERIALS & WASTE MANAGEMENT CONTROL BMPs**
- WM-1 MATERIAL DELIVERY & STORAGE
  - WM-4 SPILL PREVENTION AND CONTROL
  - WM-8 CONCRETE WASTE MANAGEMENT
  - WM-9 SOLID WASTE MANAGEMENT
  - WM-5 SANITARY WASTE MANAGEMENT
  - WM-6 HAZARDOUS WASTE MANAGEMENT
- TEMPORARY RUNOFF CONTROL BMPs**
- SS-3 BONDED OR STABILIZED FIBER MATRIX (WINTER)
  - SS-4 HYDROSEEDING (SUMMER)
  - SS-6/SS-8 STRAW OR WOOD MULCH
  - SS-10 ENERGY DISSIPATOR
  - SC-1 SILT FENCE
  - SC-5 FIBER ROLLS
  - SC-6/SC-8 GRAVEL OR SAND BAGS
  - SC-7 STREET SWEEPING AND VACUUMING
  - TC-1 STABILIZED CONSTRUCTION ENTRANCE
- PERMANENT BMPs**
- PROTECTION OF CHANNEL BANKS / MANUFACTURED SLOPES AND FLAT PAD AREA COVERAGE
  - IMPLEMENTATION OF EFFICIENT IRRIGATION SYSTEMS
  - STORM DRAIN STENCILING AND POSTING OF SIGNAGE
  - PROPER DESIGN OF TRASH STORAGE AREAS
  - PROPER DESIGN OF OUTDOOR MATERIAL STORAGE AREAS
  - OUTLET PROTECTION

CONSTRUCTED IMPERVIOUS SURFACE AREA TABLE

SITE ID	IMPERVIOUS ITEM	NEW OR REPLACED AREAS
①	BUILDING	3,300
②	DRIVEWAY/RW	1617
	<b>TOTAL</b>	<b>4,917 SQFT</b>

CONSTRUCTED PERVIOUS SURFACE AREA TABLE

SITE ID	PERVIOUS ITEM	NEW OR REPLACED AREAS
A	PAVERS	3,418
B	LANDSCAPE	1,948
	<b>TOTAL</b>	<b>5,366</b>

PROPOSED LAND DISTURBANCE :10,283

### LAND DIVISION STATEMENT OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02  
BLOCK/LOT 27, TRCAT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI

Prepared By:  
Name: ARC CONSTRUCTION & ENGINEERING INC.  
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SAN DIEGO, CA 92131  
Phone #: (858) 722-7785  
E-MAIL: SERG.SALINAS@ATT.NET

Project Address:  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

Project Name:  
HILLTOP PARCEL TENTATIVE  
MAP

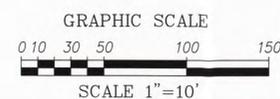
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### APPLICANT

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SERGIO SALINAS RCE NO. 81026

**GENERAL NOTES**

PEDESTRIAN LIGHTING IS ADDRESSED IN THE ARCHITECTURAL PLANS RATHER THAN BEING INCLUDED IN THESE PLANS. LIKEWISE GRADING AND DRAINAGE HAVE BEEN ADDRESSED IN THE ENGINEERING GRADING AND DRAINAGE PLANS.

INSTALLATIONS SHALL BE PER SAN DIEGO REGIONAL STANDARD DRAWINGS.

A PRE-INSPECTION PRIOR TO INSTALLATION IS REQUIRED TO INSPECT: 1) THE IRRIGATION, ROOT BARRIER, GROUND COVER, AND PLANTING EXCAVATIONS, 2) THE COMPOST AND SOIL MATERIALS PRIOR TO BLENDING AND 3) THE IRRIGATION, ROOT BARRIER, GROUND COVER, AND PLANTING MATERIALS. CONTACT THE PROJECT PLANNER FOR AN INSPECTION.

A FINAL INSPECTION IS REQUIRED AFTER INSTALLATION TO INSPECT: 1) IRRIGATION LOCATIONS, TYPES, AND FLOWS, 2) PLANTING LOCATIONS, TYPES AND SIZES, 3) GROUND COVER DEPTH, AND 4) ROOT BARRIER AND TREE STAKING, INSTALLATIONS. CONTACT THE PROJECT PLANNER FOR AN INSPECTION.

NEW IMPERVIOUS SURFACES, ROOFS AND DOWN SPOUTS SHALL DIRECT STORM WATER DRAINAGE TO LANDSCAPE AREAS AND BIOSWALES.

ALL WIRING AND PIPING UNDER A PAVED AREA THAT A VEHICLE MAY USE, SUCH AS A PARKING AREA, DRIVEWAY OR ROADWAY, SHALL BE INSTALLED IN A PVC CONDUIT.

EXCEPT FOR PLANTING STRIPS IN LOWER (FRONTAGE) DRIVEWAYS, ALL PLANTING AREA SHALL BE BOUNDED BY A CURB HAVING A MINIMUM HEIGHT OF SIX INCHES. CURB CUTS SHALL BE INSTALLED PER PLAN TO DIRECT RUNOFF TO PLANTING AREAS AND BIOSWALES.

**GENERAL CONDITIONS**

**DEFINITIONS**

**OWNER**

OWNER OR LESSEE OF PROJECT SITE WHO IS CONTRACTING FOR SERVICES. THE OWNER MAY APPOINT A REPRESENTATIVE TO ADVISE THE OWNER. WHEREVER IN THESE SPECIFICATIONS THE OWNER IS REFERRED TO, IT SHALL BE DEEMED TO BE FOLLOWED BY THE WORDS "OR OWNER'S REPRESENTATIVE". THE OWNER SHALL FORWARD OR REFER ALL INFORMATION REGARDING PLANS AND SPECIFICATIONS TO LANDSCAPE ARCHITECT.

**LANDSCAPE ARCHITECT**

PREPARER OF LANDSCAPE ARCHITECTURAL PLANS AND SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY BE THE OWNER'S REPRESENTATIVE IF THE OWNER CONTRACTS WITH LANDSCAPE ARCHITECT FOR SUCH SERVICES.

**CONTRACTOR**

THE LEGAL ENTITY HAVING A CONTRACT WITH THE OWNER TO PERFORM THE WORK. IN THESE PLANS, CONTRACTOR MEANS LANDSCAPE CONTRACTOR. IF THERE IS A GENERAL CONTRACTOR, IT WILL BE SPECIFICALLY REFERRED TO AS "GENERAL CONTRACTOR". THIS ONLY OCCURS WHEN THERE IS A GENERAL CONTRACTOR, AND THE LANDSCAPE CONTRACTOR IS NOT THE PRIMARY CONTRACTOR.

**SCOPE OF WORK**

THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO INSTALL ALL WORK AS INDICATED IN THESE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL VERIFY ANY ADDITIONS OR DELETIONS IN OWNER'S INVITATION TO BID.

**GOVERNING AGENCY REQUIREMENTS**

WHEN THESE SPECIFICATIONS AND PLANS CALL FOR MATERIALS OF A HIGHER STANDARD THAN THOSE REQUIRED TO CONFORM WITH MINIMUM LOCAL AND STATE CODES, THE SPECIFICATIONS AND DRAWINGS SHALL PREVAIL.

INSTALLATIONS SHALL BE PER SAN DIEGO REGIONAL STANDARD DRAWINGS.

BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES.

EACH PERSON ISSUED A LANDSCAPE APPROVAL SHALL SUBMIT A SIGNED CERTIFICATE OF COMPLETION, UNDER PENALTY OF PERJURY, ON A FORM PROVIDED BY THE CITY.

**PLANS**

THESE PLANS ARE BASED ON IMPROVEMENT, GRADING, AND/OR ARCHITECTURAL PLANS PREPARED BY: ARC CONSTRUCTION ENGINEERING, INC.

OWNER APPROVED IMPROVEMENT, GRADING AND/OR ARCHITECTURAL PLANS AND SURVEYS TAKE PRECEDENCE OVER THESE PLANS.

CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF PLANS (JOB SET) ON SITE UNTIL CONTRACT INSTALLATION IS COMPLETE.

**SCOPE OF LANDSCAPE ARCHITECT'S PLANS**

ANTIGUA DESIGN STUDIO, AS PROJECT LANDSCAPE ARCHITECT, HAS PREPARED THESE PLAN AND SPECIFICATIONS. PROJECT SERVICES NOT PROVIDED, BUT WHICH MAY APPEAR AS REFERENCES ON THESE PLANS, MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- SURVEYS
- EASEMENTS OF ANY KIND
- SUBJACENT AND LATERAL SUPPORT
- SITE PLANNING
- ENVIRONMENTAL FEATURES
- SITE DRAINAGE
- SUBTERRANEAN WATER
- FLOODPLAINS
- HISTORICAL FEATURES
- SOIL ENGINEERING OR GEOLOGY
- SEISMIC RELATED ENGINEERING OR DESIGN
- PREPARATION OF THE SITE FOR CONSTRUCTION
- WATER UTILITIES
- ELECTRICAL UTILITIES
- MECHANICAL UTILITIES
- BUILDINGS
- STRUCTURAL AND FOUNDATION SYSTEMS
- ROOFING
- WATERPROOFING SYSTEMS
- NOISE ABATEMENT SYSTEMS
- FIRE PREVENTION SYSTEMS
- ALARM SYSTEMS
- SECURITY SYSTEMS
- COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S)
- ASSOCIATION RULES OR REGULATIONS
- THE WORK OF OTHER LANDSCAPE ARCHITECTS, ARCHITECTS OR ENGINEERS BEFORE OR AFTER THE WORK OF THIS LANDSCAPE ARCHITECT

THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR ANY WORK WHICH IS NOT EXPLICITLY DETAILED IN THIS AGREEMENT, AND IS NOT RESPONSIBLE FOR ANY WORK OF ANY OTHER COMPANY, PARTNERSHIP OR INDIVIDUAL WHO PROVIDES SERVICES ON THIS PROJECT.

**CHANGES**

IDEAS, CONCEPTS AND SPECIFIC TECHNIQUES USED IN THESE PLANS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT. CHANGES WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT RELIEVE THE LANDSCAPE ARCHITECT OF ALL RESPONSIBILITY FOR THE INTENDED AESTHETIC QUALITY AND LIABILITY FOR THE STRUCTURAL INTEGRITY AND FUNCTION OF THE LANDSCAPE.

THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD OR DELETE ANY MATERIAL OR LABOR AS THE WORK PROGRESSES. ADJUSTMENTS SHALL BE MADE TO THE CONTRACT PRICE AT UNIT PRICES ESTABLISHED WITH THE OWNER PRIOR TO BEGINNING WORK.

**EXISTING SITE CONDITIONS**

CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES WITHIN THE PLANS PRIOR TO BEGINNING WORK.

CONTRACTOR SHALL SUPPLEMENT THESE PLANS WITH APPLICABLE ENGINEERING AND/OR ARCHITECTURAL PLANS PRIOR TO COMMENCEMENT OF WORK.

AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION OF ANY KIND (DITCHES FOR UTILITY OR DRAINAGE, PLANTING HOLES, POOL EXCAVATION, ETC.), THE CONTRACTOR SHALL CALL DIG ALERT (1-800-442-4133) FOR UTILITY MARKING.

PRIOR TO COMMENCEMENT OF WORK, ALL SERVICES AND UTILITIES SHALL BE LOCATED BY CONTRACTOR. THE EXISTING UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS, AND THOSE SHOWN ON THESE PLANS, ARE INDICATED IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL EXISTING UTILITIES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF THE UTILITIES AND VERIFY THE DEPTH AND LOCATION PRIOR TO EXCAVATION OR PRIOR TO STARTING WORK. IF IT IS DETERMINED THAT A POSSIBLE CONFLICT EXISTS, THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING WITH THE OWNER, THE RELOCATION OF ANY UTILITIES AND/OR ANY MODIFICATION OF THE PLANS.

THE CONTRACTOR IS TO PROTECT AT ALL TIMES ALL EXISTING UTILITIES, STRUCTURES, PLANT MATERIAL AND OTHER FEATURES INTENDED TO REMAIN ON AND ADJACENT TO THE JOB SITE. SHOULD DAMAGE BE INCURRED WITH IS CAUSED BY CONTRACTOR'S OPERATIONS OR NEGLIGENCE, THE CONTRACTOR SHALL REPAIR THE DAMAGE TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.

**EQUIPMENT & MATERIALS**

EXCEPT AS NOTED ABOVE, ALL MATERIALS AND EQUIPMENT SPECIFIED SHALL BE NEW, WITHOUT DEFECTS, AND SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS SHOWN IN THESE PLANS.

SUBSTITUTED EQUIPMENT INSTALLED WITHOUT THE PRIOR APPROVAL OF THE OWNER MAY BE REJECTED, AND THE CONTRACTOR REQUIRED TO REMOVE SUCH MATERIALS FROM THE SITE AT HIS OWN EXPENSE. THE OWNER SHALL DETERMINE THE EQUALITY OF PROPOSED SUBSTITUTE MATERIALS.

**SITE CONDITIONS**

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE SITE IN AN ORDERLY AND SAFE CONDITION.

CONTRACTOR SHALL NOT PREPARE OR MIX CEMENT, MORTAR, GROUT, STUCCO OR OTHER CAUSTIC MATERIALS WHERE SPILLS, SPLASHES OR DRIPS CAN CONTAMINATE SOIL OF PLANTING AREAS. LIKEWISE, TOOLS AND EQUIPMENT SHALL NOT BE RINSED OR WASHED WHERE RUNOFF WILL CONTAMINATE SOIL OF PLANTING AREA. ANY HARDENED DEBRIS OF CEMENT, MORTAR, GROUT, STUCCO OR OTHER CAUSTIC MATERIALS SHALL BE REMOVED FROM THE SOIL PRIOR TO AMENDING SOIL FOR PLANTING.

ALL AREAS SHALL BE LEFT CLEAN FREE OF DEBRIS, AND WASHED DOWN UPON COMPLETION OF WORK.

CITY SIDEWALKS SHALL BE CLEAN AND FREE OF DEBRIS AT THE END OF EACH WORK DAY.

**NOTIFICATION**

THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO BEGINNING WORK, AND SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE OWNER, LANDSCAPE ARCHITECT, OTHER CONSTRUCTION TRADES, AND GOVERNING AGENCIES.

THE CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATIONS BY THE OWNER NO LESS THAN FORTY-EIGHT HOURS IN ADVANCE.

CONTRACTOR SHALL BE CHARGED BY THE OWNER FOR THE OWNER'S REPRESENTATIVE'S TIME AT OWNER'S REPRESENTATIVE'S CONTRACT RATE WHEN CONSTRUCTION OBSERVATIONS ARE CALLED FOR AND WORK IS NOT READY FOR OBSERVATION, OR THE APPOINTMENT IS NOT KEPT.

**CONSTRUCTION OBSERVATION AND MEETINGS**

CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATION BY OWNER AT THE FOLLOWING CHECK POINTS:

- COMPLETION OF CONCRETE FORMS, PRIOR TO POURING CONCRETE DURING STAMPED CONCRETE INSTALLATION FIRST POUR
- POSITIVE DRAINAGE WATER TEST
- DURING PLACEMENT OF BOULDERS
- IRRIGATION LINE PRESSURE TESTING
- IRRIGATION COVERAGE TEST
- DELIVERY OF PLANTS, PRIOR TO PLANTING
- PLACEMENT OF TREE'S PRIOR TO EXCAVATING PLANTING HOLES
- COMPLETION OF WORK (PRE-MAINTENANCE)
- COMPLETION OF PRE-MAINTENANCE PUNCHLIST OF ITEMS
- THREE DAYS PRIOR TO COMPLETION OF MAINTENANCE PERIOD (POST-MAINTENANCE)
- COMPLETION OF POST-MAINTENANCE PUNCHLIST OF ITEMS (COMPLETION)

THE LANDSCAPE ARCHITECT OR OWNER MAY OBSERVE ANY WORK AT ANY TIME DURING THE CONTRACT INSTALLATION TIME WITHOUT NOTICE TO CONTRACTOR.

CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATION BY OWNER AT ANY TIME AN INCONSISTENCY DEVELOPS BETWEEN THE PLANS AND SITE CONDITIONS, PROJECTED SCHEDULES MUST BE CHANGED, AN UNSAFE CONDITION DEVELOPS, A FIELD CHANGE FROM THE PLANS APPEARS NECESSARY, A CONFLICT WITH ADJACENT OWNERS OR OPERATORS DEVELOPS, OR ANY CONDITIONS WHICH MAY RESULT IN A CHANGE OF PROJECT SCOPE OR PROJECTED COMPLETION DATES.

**SUBMITTALS**

THE FOLLOWING SUBMITTALS TO THE OWNER ARE REQUIRED TO BE MADE BY THE CONTRACTOR, UNLESS SPECIFICALLY STATED OTHERWISE, SUBMITTALS SHALL BE MADE IN COPIES OF THREE (3), AND ONE (1) COPY SHALL BE RETURNED TO THE CONTRACTOR. MATERIALS SHALL NOT BE FURNISHED OR FABRICATED, NOR ANY WORK DONE FOR WHICH SUBMITTALS ARE REQUIRED, BEFORE APPROVAL OF THE OWNER IS SECURED IN WRITING.

**UNIT PRICES**

CONTRACTOR (SUCCESSFUL BIDDER) SHALL SUBMIT TO THE OWNER FOR APPROVAL, PRIOR TO AWARDED OF THE CONTRACT, AN ITEMIZED UNIT PRICE LIST ENCOMPASSING ALL WORK WITHIN THE CONTRACT. THESE UNIT PRICES SHALL BE USED TO CALCULATE CHANGES TO THE LUMP SUM CONTRACT PRICE CAUSED ONLY BY OWNER-APPROVED CHANGES IN THE PLANS.

**PERMITS**

THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND ORDER NECESSARY WORK DONE, AND SUBMIT INVOICES FOR DIRECT REIMBURSEMENT OF RELATED FEES AND TAXES REQUIRED BY GOVERNING AGENCIES, UNLESS OTHERWISE INSTRUCTED BY THE OWNER.

**SOILS TEST**

CONTRACTOR SHALL SUBMIT A SOILS ANALYSIS REPORT INCLUDING FOR EACH PLANTING LOCATION WITH RECOMMENDATIONS FROM A LICENSED LABORATORY TO THE OWNER PRIOR TO BEGINNING WORK. SAMPLE: MINIMUM (3) LOCATIONS WITH AT LEAST (1) IN A REAR YARD CUT AREA.

**MATERIALS & EQUIPMENT**

THE CONTRACTOR SHALL SUBMIT TO THE OWNER A LIST OF ANY ITEMS HE WISHES TO SUBSTITUTE AS "EQUAL" WITH ACCOMPANYING CATALOG DATA. ALL SUBSTITUTIONS MUST BE SUBMITTED WITHIN 20 DAYS AFTER CONTRACTOR IS AWARDED THE CONTRACT.

CONTRACTOR MUST SUBMIT IN WRITING WITHIN 10 DAYS AFTER CONTRACT AWARD, EVIDENCE OF PURCHASE (OR DEPOSIT), OR PROOF OF AVAILABILITY OF ALL MATERIALS NECESSARY TO INSTALL ALL WORK INDICATED ON THESE DOCUMENTS.

CONTRACTOR SHALL SUBMIT SAMPLES IN THE FORM OF ACTUAL MATERIALS, OR PHOTOGRAPHS AND ADDRESS OF SAME MATERIAL INSTALLATION, FOR THE FOLLOWING CONTRACT ITEMS:

- PERMEABLE PAVING STONES, INCLUDING FULL RANGE OF COLORS TO BE SELECTED FROM MANUFACTURER'S AVAILABLE PAVING STONES
- DECORATIVE ALUMINUM PRIMER AND ENAMEL COATINGS
- METAL PRIMER AND ENAMEL COATINGS
- PVC PIPE TAPPING SADDLES, INCLUDING TAPPING METHODS & PROCEDURES
- CONTRACTOR SHALL SUBMIT REPRESENTATIVE PHOTOS OF ALL 24 INCH BOX AND LARGER PLANTS TO OWNER FOR APPROVAL PRIOR TO PLANTING. SUBMIT ONE PHOTO PER SPECIES PER SIZE.
- SAMPLE OF ORGANIC MULCH

**RECORD PLANS**

CONTRACTOR SHALL PROVIDE THE OWNER WITH RECORD PLANS, IN THE FORM OF REDLINE CORRECTED BLUEPRINTS. SUBMIT ONE COPY PER PLAN PER SHEET. THE FOLLOWING SHALL BE DIMENSIONED FROM TWO PERMANENT POINTS OF REFERENCE, I.E. BUILDING CORNERS, SIDEWALKS, ETC.

- DRAINAGE SYSTEM
  - DRAIN INLETS
  - CATCH BASINS
  - SUBSURFACE DRAIN LINES
  - OUTLETS
- IRRIGATION SYSTEM
  - POINTS OF CONNECTION
  - BALL VALVES AND CONTROL VALVES
  - PRESSURE LINE LOCATION
  - CONTROLLERS, INCLUDING LOCATION OF POWER SOURCE
  - ROUTING OF ALL DIRECT BURIAL CONTROL WIRES, INCLUDING PULL BOX LOCATION
  - QUICK COUPLERS

**ACCESSORIES**

THE CONTRACTOR SHALL FURNISH THE OWNER WITH THE FOLLOWING UPON COMPLETION OF THE WORK:

- ALL EQUIPMENT GUARANTEED AND OPERATION MANUALS
- IRRIGATION EQUIPMENT
- TWO KEYS FOR EACH CONTROLLER ENCLOSURE
- TWO QUICK COUPLER VALVE KEYS WITH HOSE SWIVEL END

**CERTIFICATE OF COMPLETION**

EACH PERSON ISSUED A LANDSCAPE APPROVAL SHALL SUBMIT A SIGNED CERTIFICATE OF COMPLETION ON A FORM PROVIDED BY THE CITY.

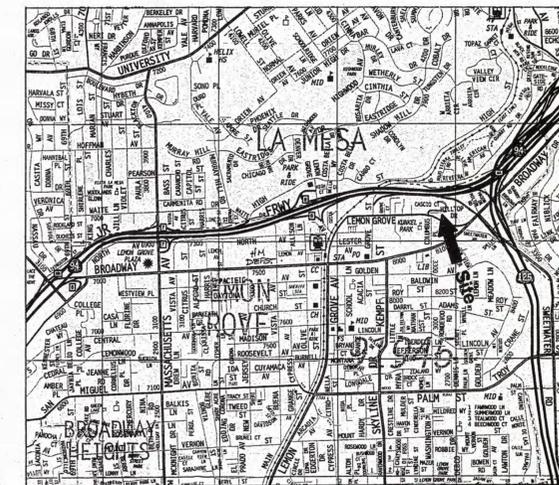
**MAINTENANCE**

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF PROJECT.

MAINTENANCE PERIOD SHALL BE FOR 60 CALENDAR DAYS, COMMENCING FROM THE TIME THE ENTIRE INSTALLATION IS COMPLETE, AS DETERMINED BY THE OWNER.

PLANT MAINTENANCE SHALL CONSIST OF APPLYING WATER, WEEDING, CARING FOR PLANTS, PLANT REPLACEMENT, FERTILIZING, EDGING AND MOWING OF LAWNS, SWEEPING, AND ALL OTHER OPERATIONS NECESSARY TO MAINTAIN ALL PLANTINGS IN A HEALTHY GROWING CONDITION.

IRRIGATION MAINTENANCE SHALL CONSIST OF REPLACING ANY MALFUNCTIONING IRRIGATION EQUIPMENT IN A TIMELY WAY SO AS TO PREVENT SITE DAMAGE OR FAILURE OF PLANTINGS.



**LOCATION MAP**  
THOMAS BROS. COORDINATES 1270 H-5



REVISIONS  
12/13/2011  
EBC/PT

TITLE SHEET

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
546 Felafafaf drive  
san diego, california 92124  
antigua design studio

PROJECT INFORMATION		
ADDRESS:	8200 HILLTOP DRIVE LEMON GROVE, CA 91945	
OWNER:	HILLTOP VIEW INVESTMENTS, INC.	
APN:	499-181-02	
ZONE:	RMH	
PROJECT DESCRIPTION		
THE PROJECT CONSISTS OF ONE STRUCTURE OF 6 CONDOMINIUMS. LANDSCAPE INCLUDES PERMEABLE PAVING WHERE PERMISSIBLE AND NON-PERMEABLE PAVING WILL DIRECT RUNOFF TO LANDSCAPE AREAS. BIOSWALES WILL FILTER AND ABSORB STORM RUNOFF. FOR WATER CONSERVATION PLANT MATERIAL HAS LOW WATER REQUIREMENTS PER WUCOLS. SOIL SHALL BE MULCHED AND AUTOMATICALLY IRRIGATED WITH LOW PRECIPITATION HEADS AND SUBSURFACE DRIP LINES FOR EFFICIENT WATER MANAGEMENT		
SCOPE OF PROJECT	10,283 SQ. FT.	100%
BUILDING AREA	3,300 SF	
PAVED AREA	5,035 SF	
TOTAL LANDSCAPED AREA	1,948 SQ. FT.	18.9%
TOTAL AREA IN TURF	0 SQ. FT.	
SHEET INDEX		
TITLE SHEET	L-1	
CONSTRUCTION PLAN	L-2	
STAKING PLAN	L-3	
IRRIGATION PLAN	L-4	
PLANTING PLAN	L-5	
DETAILS	L-6	
SPECIFICATIONS	L-10	

DATE 4-1-17  
SCALE  
PROJ #17-01  
SHEET  
L-1



REVISIONS
7-17-17 PL. ADD CURE & SEATING
6-12-17 PL. ADD ADD LOTS FINISHES
7-16-17 CONCRETE FIN 7-25-17 CURB FIN

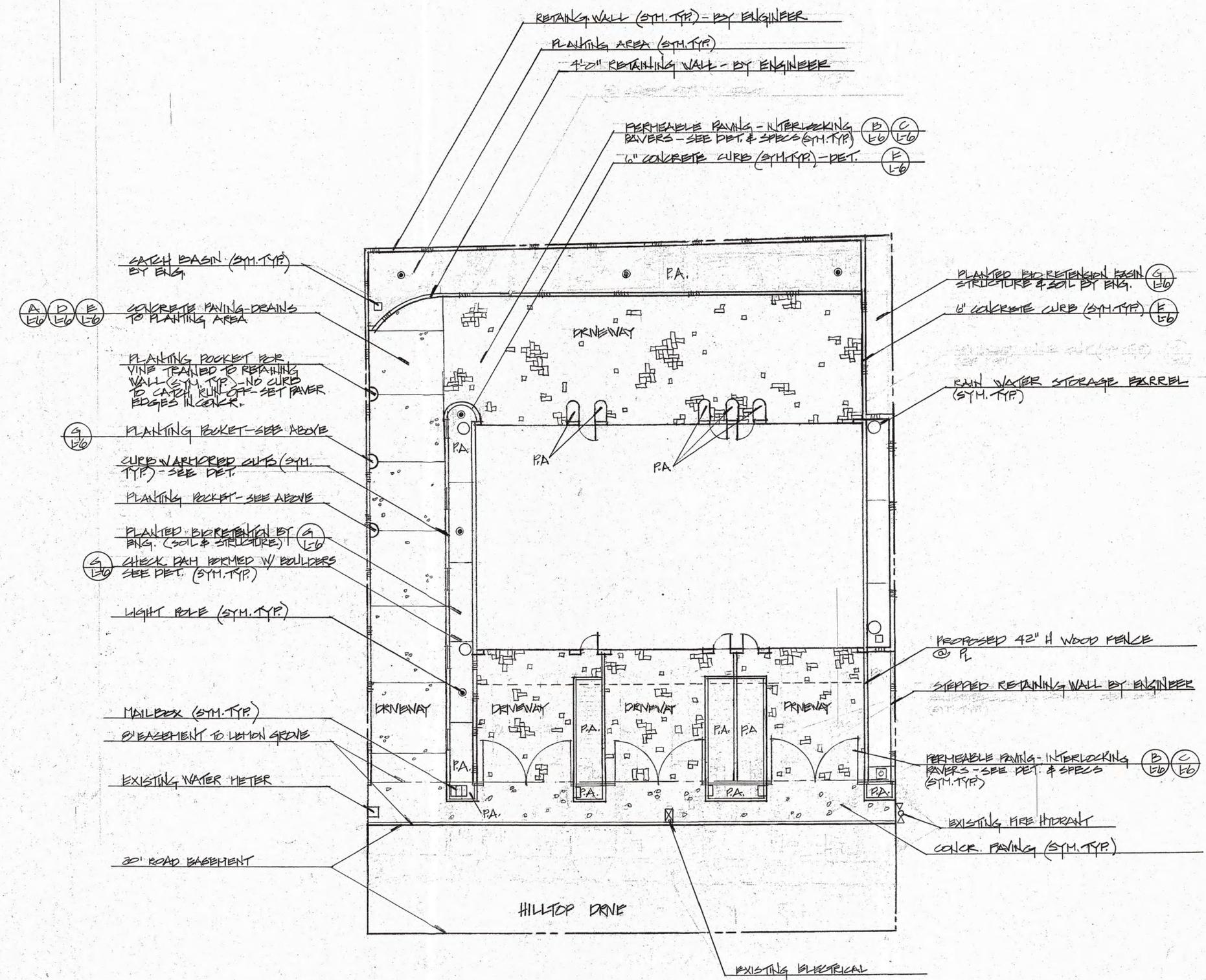
CONSTRUCTION PLAN

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Indiana Drive  
San Diego, California 92124  
antigua design studio

DATE 4-1-17  
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PROJ #17-01  
SHEET

L-2



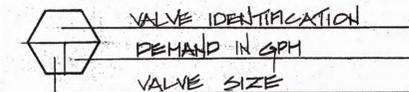
- (A) (D) (E)  
(L6) (L6) (L6) CATCH BASIN (SYM. TYP) BY ENG.
- (A) (D) (E)  
(L6) (L6) (L6) CONCRETE PAVING-DRAINS TO PLANTING AREA
- (S)  
(L6) PLANTING ROCKET FOR VINE TRAINED TO RETAINING WALL (SYM. TYP) - NO CURB TO CATCH RUN OFF - SET PAVEMENT EDGES IN CENTER.
- (S)  
(L6) PLANTING ROCKET - SEE ABOVE
- (S)  
(L6) CURB W/ ARMORED CUTS (SYM. TYP) - SEE DET.
- PLANTING ROCKET - SEE ABOVE
- (S)  
(L6) PLANTED BIORETENTION BY ENG. (SOIL & STRUCTURE)
- (S)  
(L6) CHECK DAM FORMED W/ BOULDERS SEE DET. (SYM. TYP)
- LIGHT POLE (SYM. TYP)
- MAILBOX (SYM. TYP)
- EASEMENT TO LEMON GROVE
- EXISTING WATER METER
- 30' ROAD EASEMENT

- RETAINING WALL (SYM. TYP) - BY ENGINEER
- PLANTING AREA (SYM. TYP)
- 4'-0" RETAINING WALL - BY ENGINEER
- PERMEABLE PAVING - INTERLOCKING PAVERS - SEE DET. & SPECS (SYM. TYP) (B) (C) (L6) (L6)
- 6" CONCRETE CURB (SYM. TYP) - DET. (E) (L6)
- PLANTED BIORETENTION BASIN (S) (L6) STRUCTURE & SOIL BY ENG.
- 6" CONCRETE CURB (SYM. TYP) (E) (L6)
- RAIN WATER STORAGE BARREL (SYM. TYP)
- PROPOSED 42" H WOOD FENCE @ PL
- STEPPED RETAINING WALL BY ENGINEER
- PERMEABLE PAVING - INTERLOCKING PAVERS - SEE DET. & SPECS (SYM. TYP) (B) (C) (L6) (L6)
- EXISTING FIRE HYDRANT
- CONCR. PAVING (SYM. TYP)
- EXISTING ELECTRICAL

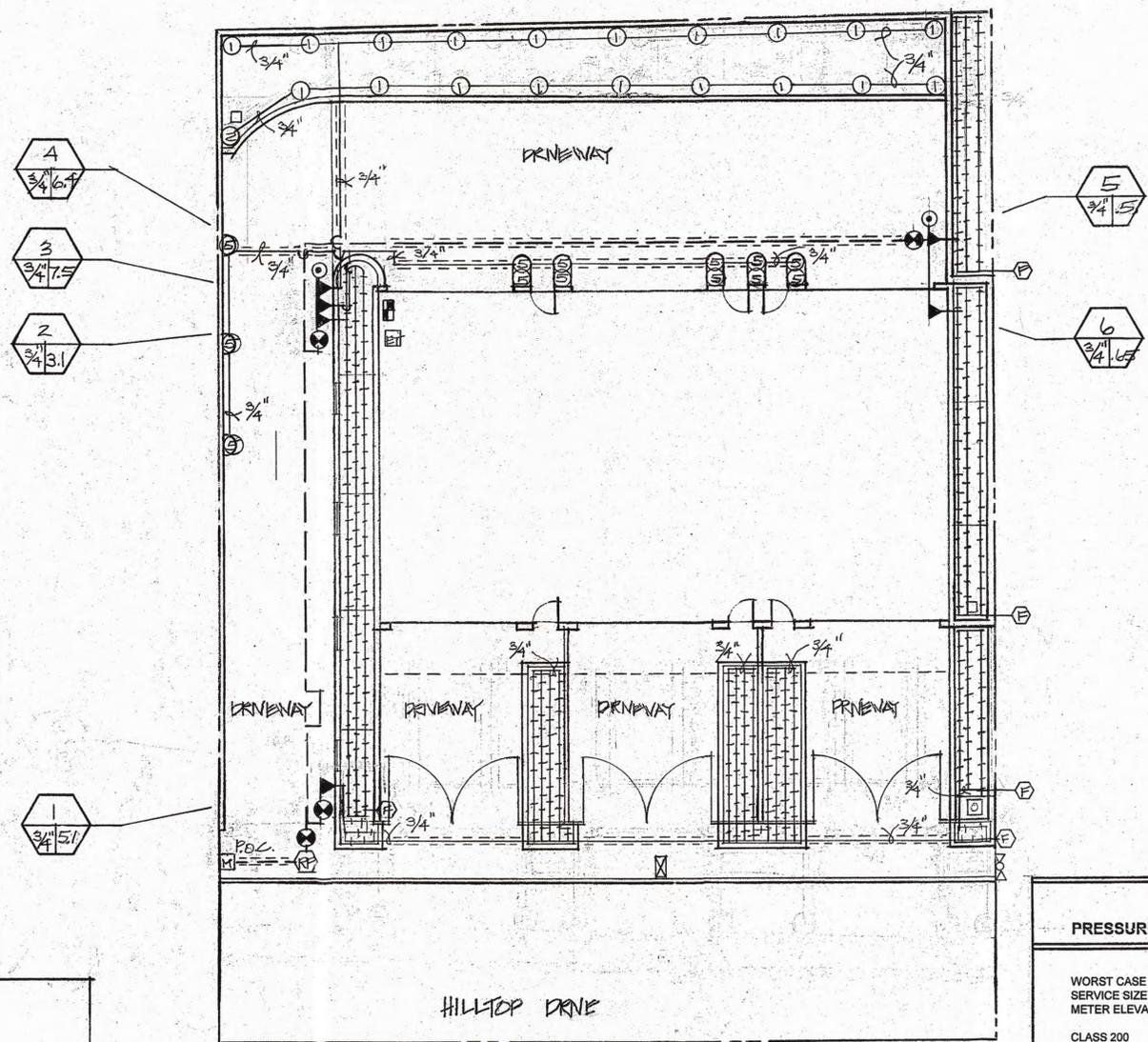


**IRRIGATION LEGEND**

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.	PSI	RADIUS	GPM	IPH	DETAIL
1	Rotor - quarter circle plus	Hunter Industries	MP1000-90	40	8'-14"	0.16-0.32		
2	Rotor - corner adjustable arc	Hunter Industries	MP2000-45-105	40	15'	0.34		
3	Rotor - Left corner strip	Hunter Industries	MPLCS515	40	5' x 15'	0.22		
4	Right corner strip	Hunter Industries	MPRCS515	40	5' x 15'	0.22		
5	Bubbler - trickle (no adjustment)	Rainbird	1402FC	30	n/a	0.5		H-L7
○	MPR Lawn Pop-up Body	Hunter	PROS-04-PRS40					F-L7
○	MPR Shrub Pop-up Body	Hunter	PROS-06-PRS40					F-L7
○	Riser w/ Shrub Adapter	Rainbird	PA-8S					G-L7
○	Riser w/ MPR Shrub Adapter	Hunter	PRS40					G-L7
⊕	Backflow Assembly - Reduced Pressure	Febco	825YA 3/4"					C-L9
⊕	Ball Valve (plastic w/ union)	King Bros.	BTU-0750					C-L7
⊕	Check Valve (anti-drain valve)	Hunter	HCV (included w/ MPR body)					H-L6
⊕	Controller (weather based)	Hunter	PCC-900					D-L8
⊕	ET Sensor	Hunter	ET System					
⊕	Flush Valve (manual)	Netafim	TLSOV					
⊕	Flow Sensor	Cal Sense	FM Series					
P.O.C.	Point of Connection							
○	Quick Coupler Valve	Rainbird	44LRC 1"					A-L8
▲	Remote Control Valve (4.4 gpm max)	Netafim	LVCZ-S80-10075-LF					E-L7
▲	Remote Control Valve (17.6 gpm max)	Netafim	LVCZ-S80-10075-HFHP					D-L7
□	Valve Box (plastic)	Buckner	VBX 6 (rnd), 1218 (rect)					B-L7
H	Water Meter							
---	Class 200 Lateral Line							
---	Schedule 40 Pressure Line							
---	Schedule 40 Sleeve (under paving)		2 times pipe diameter					
---	Techline CV Dripperline	Netafim	TLDL9-1201-03					



**REVISIONS**  
 Δ PL, SEATING, GATE 9-1-17



**WATER BUDGET LANDSCAPE WORKSHEET**

**WATER CALCULATIONS**  
**MAXIMUM APPLIED WATER ALLOWANCE**  
 THE PROJECT'S MAXIMUM APPLIED WATER ALLOWANCE SHALL BE CALCULATED USING THIS EQUATION:  
 $MAWA = (ET_0) (0.62) [(ETAF \times LA) + ((1-ETAF) \times SLA)]$   
 WHERE:  
 MAWA = MAXIMUM APPLIED WATER ALLOWANCE (GALLONS PER YEAR)  
 ET<sub>0</sub> = REFERENCE SAN DIEGO COUNTY EVAPOTRANSPIRATION MAP (INCHES PER YEAR)  
 0.55 = RESIDENTIAL EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF)  
 0.45 = NON-RESIDENTIAL EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF)  
 LA = LANDSCAPED AREA INCLUDING SPECIAL LANDSCAPE AREA (SQUARE FEET)  
 0.45 = RESIDENTIAL ADDITIONAL ETAF FOR SLA AND RECLAIMED WATER  
 0.55 = NON-RESIDENTIAL ADDITIONAL ETAF FOR SLA AND RECLAIMED WATER  
 0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)  
 SLA = PORTION OF THE LANDSCAPED AREA IDENTIFIED AS SPECIAL LANDSCAPE AREA (SQUARE FEET)  
 0.3 = ADDITIONAL ET ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREA (1.0-0.7=0.3)  
 SHOW VALUES:  
 ET<sub>0</sub> = 49.7 IN/YR  
 LA = 1948.0 SQ FT (TOTAL FROM COLUMN E OF HYDROZONE INFO TABLE)  
 SLA = 0.0 SQ FT  
 SHOW CALCULATIONS:  
 $49.7 \times .62 \times [(.55 \times 1948) + ((1-.55) \times 0)]$   
 $49.7 \times .62 \times [(1.071) + (0)]$   
 $49.7 \times .62 \times 1.242 = 33,002$   
 MAXIMUM APPLIED WATER ALLOWANCE (MAWA): 33,002 GALLONS/YEAR

**ESTIMATED TOTAL WATER USE (ETWU)**  
 THE PROJECT'S ESTIMATED TOTAL WATER USE IS CALCULATED USING THE FOLLOWING FORMULA:  
 $ETWU = [(ET_0) (0.62)] [(PF/IE \times HA/IE) + SLA]$   
 WHERE:  
 ETWU = ESTIMATED TOTAL WATER USE PER YEAR (GALLONS)  
 ET<sub>0</sub> = REFERENCE EVAPOTRANSPIRATION (INCHES)  
 SHOW VALUE: ET<sub>0</sub> = 49.7 IN/YR  
 SHOW CALCULATIONS:  
 $49.7 \times .62 \times [(499.0) + 0]$   
 $49.7 \times .62 \times 499.0 = 15,376$   
 \*SEE COLUMN I  
 ESTIMATED TOTAL WATER USE = 15,376 GALLONS PER YEAR

**HYDROZONE INFORMATION TABLE**

IRRIGATION POINT OF CONNECTION (P.O.C.) # 1

A	B	C	D	E	F	G	H	I	J
Controller	Hydrozone	Valve	Plant	Hydrozone	Irrigation	IE	PF x HA	PF x HA / IE	% of Total Landscape
		Circuit #	Factor - PF	Area - HA	Method				
1	1	1	0.20	369	D	0.81	73.8	91	18.94%
	2	2	0.20	276	D	0.81	55.2	68	14.17%
	3	3	0.20	61	S	0.75	12.2	16	3.13%
	4	4	0.20	868	S	0.75	173.6	231	44.56%
	5	5	0.20	162	D	0.81	32.4	40	8.32%
	6	6	0.20	212	D	0.81	42.4	52	10.88%
<b>TOTALS</b>				<b>1948</b>				<b>499</b>	<b>100%</b>

Hydrozone Category	PF - Plant Factor
High Water Use, Pool	0.7-1.0
Moderate Water Use	0.4-0.6
Low Water Use	0.1-0.3
Very Low Water Use	0.0-0.1
Special Landsc. Area	1.0

Irrigation Method Code	IE-Irrigation Efficiency
S = Spray	0.75
D = Drip	0.81

SLA = Special Landscaped Area  
 Artificial turf & temporary Irrigation is considered low water use

**PRESSURE LOSS CALCULATIONS**

WORST CASE VALVE NO.	SERVICE SIZE	METER ELEVATION	GPM	LOSS/1'	DIST.	PSI LOSS
4	3/4"	458.6				
CLASS 200	3/4"		10	0.0429	110	4.72
	1"		16	0.0310	0	0.00
	1 1/4"		26	0.0244	0	0.00
SCHEDULE 40	3/4"		8	0.0512	75	3.84
	1"		12	0.0335	0	0.00
	1 1/4"		22	0.0271	0	0.00
FITTINGS (10% OF ALL PIPE)						0.86
VALVE ELEVATION CHANGE	SIZE 3/4"		0.433	14.4		6.24
SUBTOTAL						19.45
BACKFLOW PREVENTER METER	SIZE 3/4"					12.00
OPERATING PSI						30.00
TOTAL PSI REQUIRED BY SYSTEM						61.45
STATIC PRESSURE AVAILABLE AT METER						70.00

IRRIGATION PLAN

B & S TOWN HOUSES  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CA 92104

858-541-1076  
 5346 Indalo Drive  
 San Diego, California 92124  
 antilyra design studio

DATE 9-1-17  
 SCALE 1"=10'-0"  
 PROJ #17201  
 SHEET

L-4

# PLANT LIST

Code	Botanical Name	Common Name	Quantity	Size	Remarks	WUCOL
<b>Trees</b>						
ER	Eriobotrya japonica	Loquat	3	24" Box	Multi-trunk	V
FI	Ficus carica 'Black Mission'	Black Mission Edible Fig	2	15 Gallon		L
OE	Olea europaea 'Swan Hill'	Swan Hill Fruitless Olive	2	24" Box		H
PU	Punica granatum 'Wonderful'	Pomegranate Wonderful	2	15 Gallon		H
<b>Shrubs</b>						
CC	Carpenteria calif. 'Elizabeth'	Elizabeth Bush Anemone	15	5 Gallon		V
RH	Rhamnus californica 'Eve Case'	Eve Case Compact Coffeeberry	18	5 Gallon		V
RV	Ribes viburnifolium	Evergreen Currant	22	1 Gallon		V
RC	Rosa californica	California Wild Rose	25	1 Gallon		V
<b>Ground covers</b>						
CO	Cotoneaster dammeri 'Lowfast'	Lowfast Bearberry	6	1 Gallon		V
DY	Dymondia margaretae	Dymondia	3	Flat	Plant @ 9" Diag. O.C.	V
<b>Vines</b>						
FR	Ficus repens	Creeping Fig	3	5 Gal Staked	Train to Wall	H
<b>Perennials</b>						
AF	Anigozanthos flavidus 'Big Red'	Kangaroo Paws Big Red	5	5 Gallon		V
MI	Mimulus aurantiacus	Sticky Monkey Flower	17	1 Gallon		V
<b>Grasses</b>						
JU	Juncus patens	California Gray Rush	45	1 Gallon		H
NT	Nassella tenuissima	Mexican Feather Grass	48	1 Gallon		V



**REVISIONS**  
 7-1-17 A R  
 6-12-19 A P A  
 AEDLES, HAUERON  
 7-12-19 WUCOL &  
 RATIO WUCOL &  
 7-25-19 A CUBES  
 TO PLAN

**LANDSCAPE & IRRIGATION**

Development Services Department  
 3232 Main Street, Lemon Grove, CA 91945  
 Phone 619-825-3805  
 www.lemongrove.ca.gov

INFORMATION BULLETIN

**18**

June 2016

The following regulations apply to all new and renovated landscape areas which require submittal of a building, planning, or landscape permit application and appropriate fees, however, new plantings and additions to existing irrigation systems are considered to be maintenance with no permit requirements provided the existing landscape and irrigation system is not substantially renovated. Please reference Sections 17.24.050 and 18.08.130 and Chapter 18.44 of the Municipal Code for further clarification and exceptions associated with the requirements herein.

Applications shall include a landscape documentation package that contains the following elements:

1. Planting and irrigation plans that describe the landscaping (size, type, water use classification [WUCOLS], and location) and irrigation (type and location) for the project. The plans shall include the following notes and schematics:
  - a. Installations shall be per San Diego Regional Standard Drawings (appropriate drawings shall be added to plans).
  - b. A pre-inspection prior to installation is required to inspect: 1) the irrigation, root barrier, ground cover, and planting excavations, 2) the compost and soil materials prior to blending, and 3) the irrigation, root barrier, ground cover, and planting materials. Contact the project planner for an inspection.
  - c. A final inspection is required after installation to inspect: 1) irrigation locations, types and flows, 2) planting locations, types and sizes, 3) ground cover depth, and 4) root barrier and tree staking installations. Contact the project planner for an inspection.
  - d. Holes for plantings shall be excavated slightly shallower and a minimum of two times the width of the root ball or container. The root ball shall be set so that the top of the root ball will sit slightly higher than the final grade.
  - e. Compost shall be uniformly blended with excavated soil at a ratio of one part compost (one-third) per two parts soil (two-thirds). The compost-soil blend shall be backfilled around the root ball within the planting hole.
  - f. Turf and shallow planting areas shall include compost at a minimum depth of one inch and the area shall be tilled to a minimum five inches in depth.
  - g. Plantings shall be thoroughly watered during and after plantings.
  - h. Nonvegetated natural ground cover shall be a minimum of three inches deep and shall be one inch below surrounding paved surfaces.
  - i. New impervious surfaces shall direct storm water drainage to landscape areas.
  - j. Storm water shall not be diverted to flow onto adjacent property, nonirrigated areas, structures, walkways, roadways, or other paved areas, whether due to runoff, low head drainage, overspray, or other similar condition unless approved by the Engineering Division.
  - k. Water use shall conform to the Maximum Applied Water Allowance (MAWA).
  - l. Best Management Practices shall be implemented at all times.
  - m. Each person issued a landscape approval shall submit a signed certificate of completion, under penalty of perjury, on a form provided by the city.
2. Minimum plantings per landscape area are required as follows:
  - a. An area shall be devoted to landscaping which amounts to a minimum of fifteen percent of total lot area in residential developments, and ten percent of the total lot area in nonresidential developments.
  - b. Landscape areas may consist of very low and low water use plant materials per WUCOLS.
  - c. Landscape areas consisting of moderate and high water use plant materials per WUCOLS shall not exceed a ratio of 1 part planting area (one-third) per 2 parts of no water use natural nonvegetated ground cover (two-thirds). Alternative landscapes not in compliance with this regulation are allowed provided they comply fully with the State MWELD.
  - d. A minimum of 25 percent of the landscape area shall consist of vegetated plant materials.
  - e. A minimum of one 15 gallon tree shall be provided per 1,000 sq. ft. of landscape area (existing trees included).
  - f. A minimum of 100 sq. ft. of edible planting area or one 15 gallon fruit or nut tree shall be planted for each dwelling unit, but for no more than five dwelling units on a single lot.

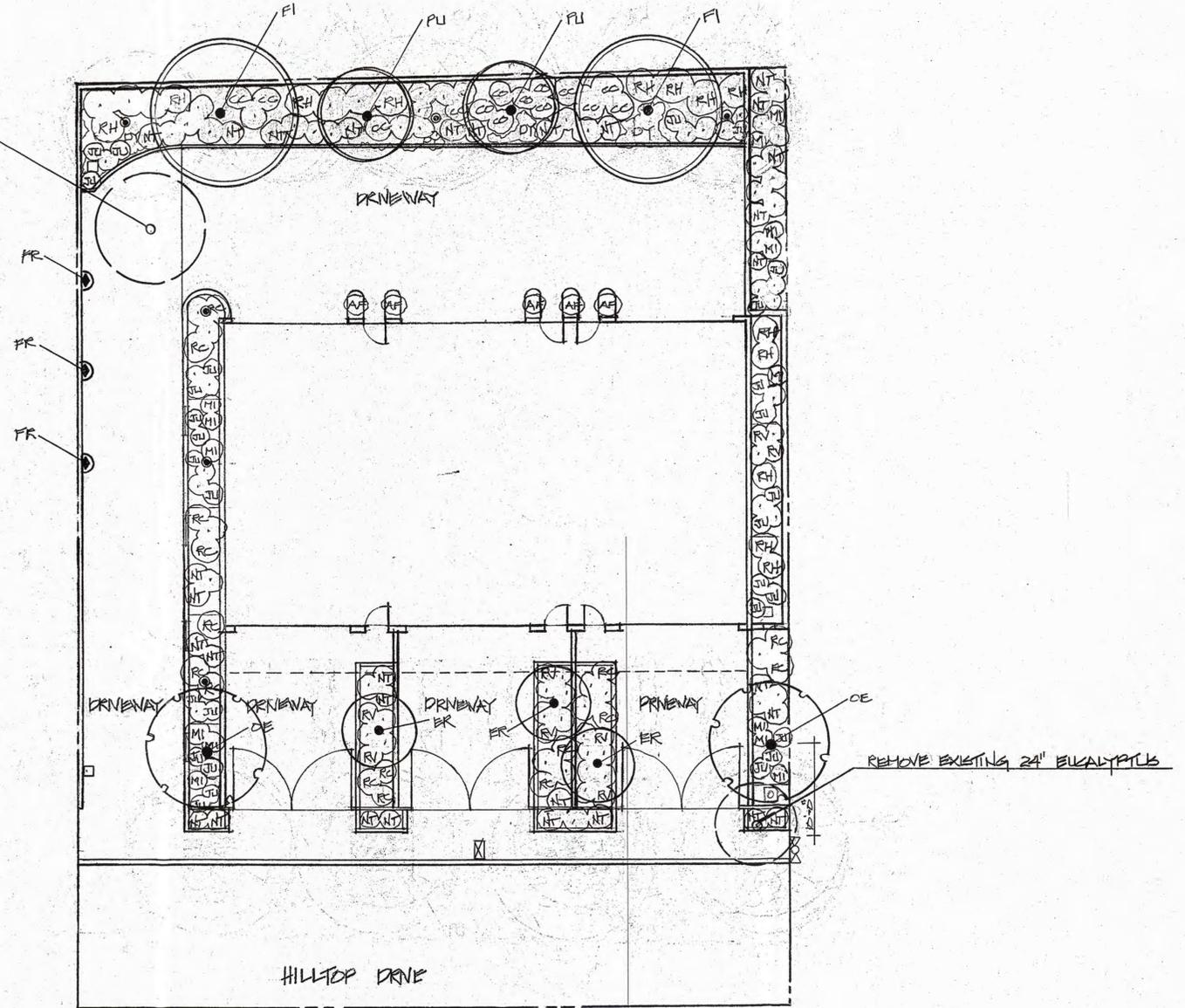
g. For all off-street parking areas of five or more spaces, an area equivalent to a minimum of ten percent of the area provided for parking shall be landscaped. Such landscaping shall be considered as a portion of the landscaping required for the entire lot. As part of this landscaping, one tree for every six parking spaces, or fraction thereof, shall be provided and located so as to visually disrupt long rows of parked automobiles. These trees shall be at least fifteen gallons in size, may be clustered and shall be provided with a means of irrigation and properly maintained.

3. Slopes greater than twenty-five percent shall be irrigated with an irrigation system with a precipitation rate of 0.75 inches per hour or less to prevent runoff and erosion. An applicant may employ an alternative design if the plan demonstrates that no runoff or erosion will occur.
4. All wiring and piping under a paved area that a vehicle may use, such as a parking area, driveway or roadway, shall be installed inside a PVC conduit.
5. Irrigation piping and irrigation devices within twenty-four inches of a vehicle or pedestrian use area and that deliver water, such as sprinkler heads, shall be installed below grade. The director may allow on-grade piping where landform constraints make below grade piping infeasible.
6. Low volume or subsurface irrigation shall be used to irrigate any vegetation within twenty-four inches of an impermeable surface unless the adjacent impermeable surfaces are designed and constructed to cause water to drain entirely into a landscaped area.
7. A manual shutoff valve shall be installed as close as possible to the water supply. Additional manual shutoff valves shall be installed between each zone of the irrigation system and the water supply.
8. New irrigation systems shall include an automatic irrigation controller and consist of drip or microspray systems.
9. High-efficiency, matched-precipitation rate sprinkler nozzles shall be required at all homes (residential landscapes), common areas, parks, and commercial/industrial landscapes.
10. Dedicated meters for outdoor water use shall be required as follows:
  - a. In single-family residences with one or more acre(s) of irrigated landscape,
  - b. In all parks and common areas,
  - c. In commercial, industrial, government, and multi-family sites with 5,000 square feet or more of irrigated landscape;
11. Enroll all new irrigation meters (except those at single-family residences) in the Helix Water Budget Program and provide documentation of irrigated landscape area at the time of meter purchase.
12. Pervious and porous surfaces that minimize runoff shall be encouraged.
13. New roofs shall be encouraged to direct storm water to landscape areas or to water capture and reuse containers.
14. Except in RL and RL/M districts, all planting areas shall be bounded by a curb having a minimum height of six inches.
15. If grading is proposed, the following shall be included:
  - a. A grading plan that complies with Sections 18.08.130 and 18.08.070.
  - b. All slopes shall include an irrigation system which shall be used by the permittee to promote the growth of plants to protect the slopes against erosion. The plan shall show the finished configuration and elevations of each landscaped area including the height of graded slopes, the drainage pattern, pad elevations, finish grade and any stormwater retention improvements.
  - c. The landscape documentation package shall be prepared by a licensed landscape architect.
  - d. Provide a soil management report that provides the analysis of the soil within each landscaped area of the project and makes recommendations regarding soil additives.

**After approval of a landscape and irrigation plan, the owner is required to:**

1. Maintain and operate the landscaping and irrigation system on the property.
2. Replace broken or malfunctioning irrigation system components with components of the same materials and specifications, their equivalent or better.
3. Ensure that when vegetation is replaced, replacement plantings are consistent with regulations in this Chapter.

Please coordinate with the Planning Division regarding questions.



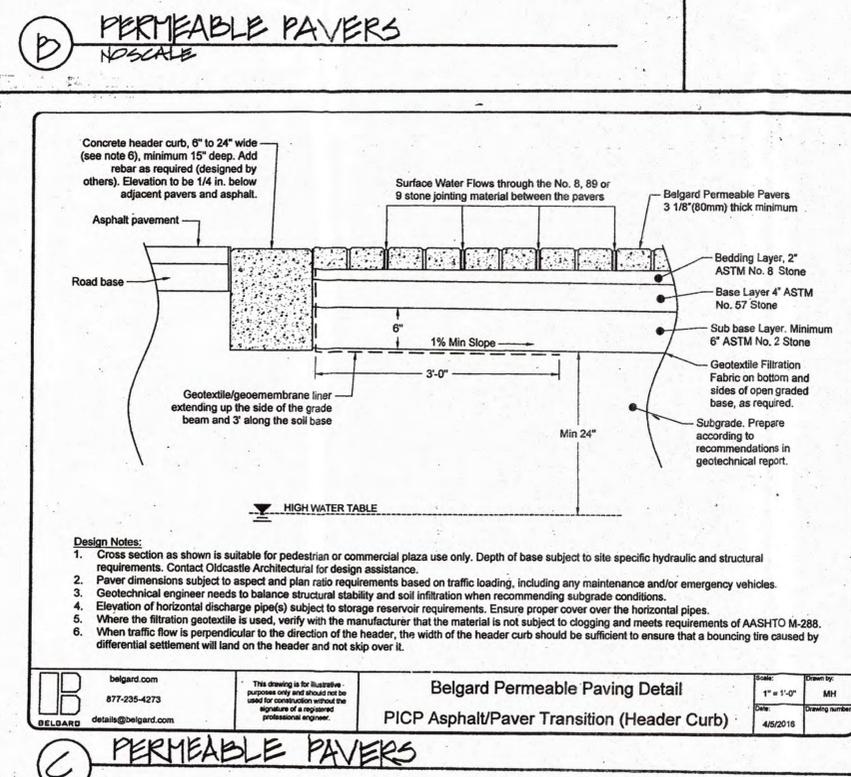
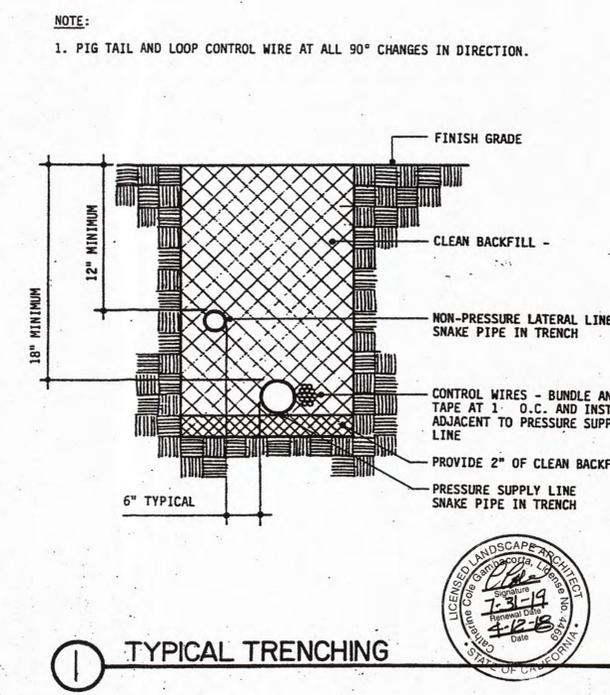
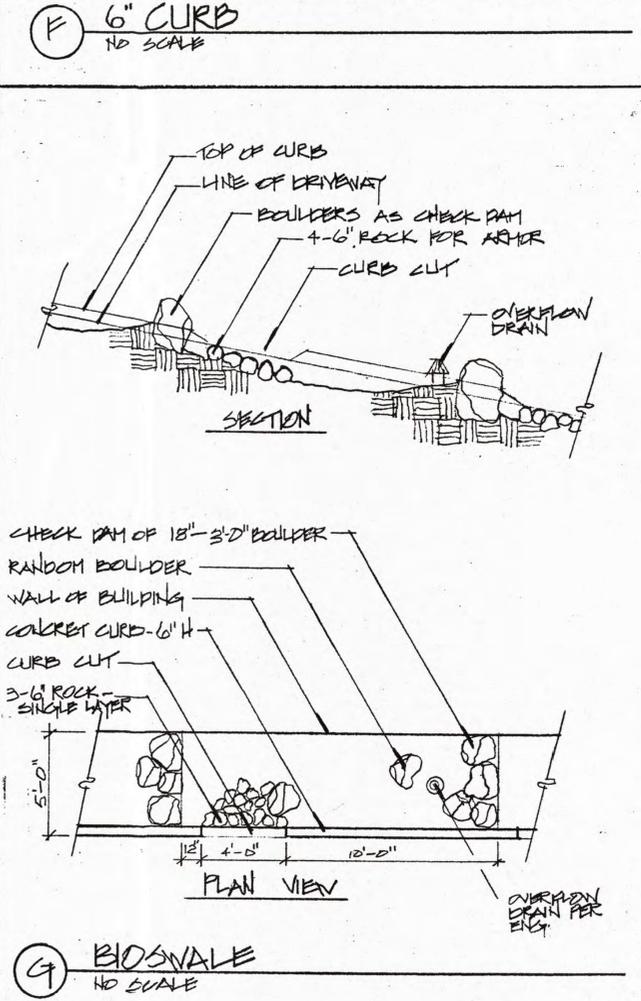
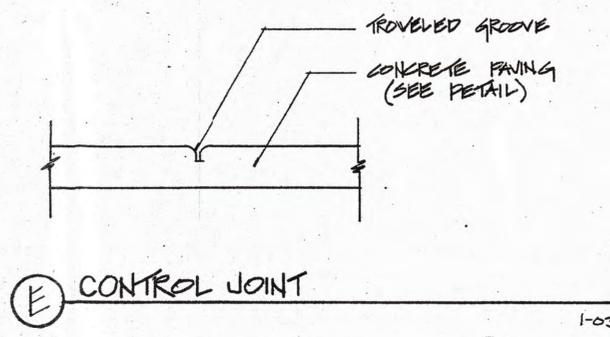
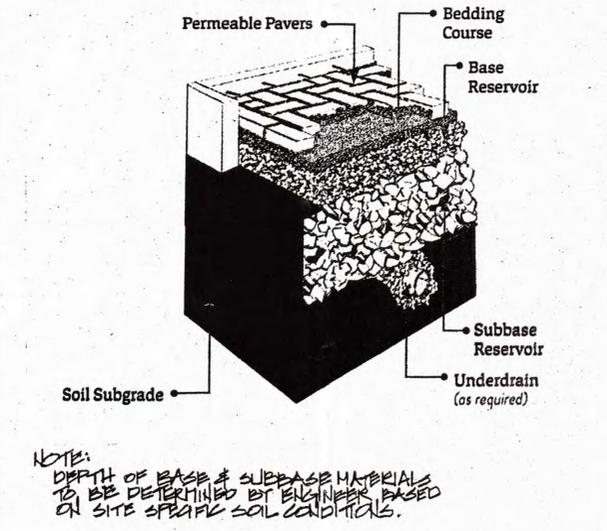
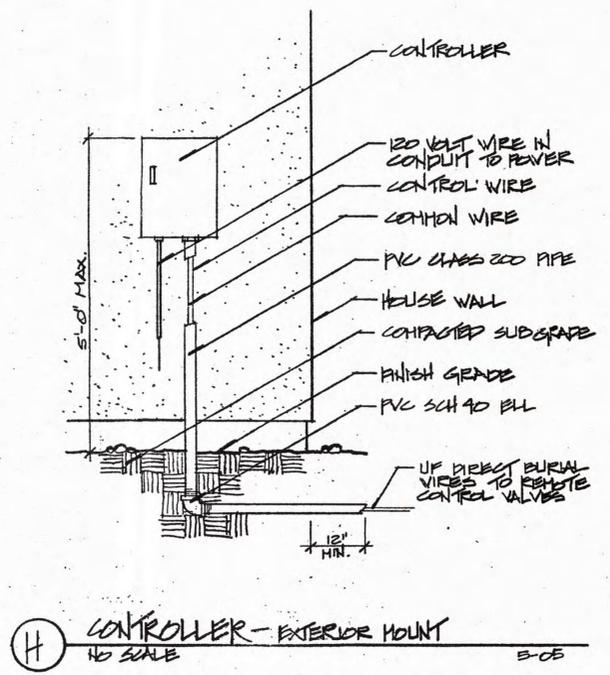
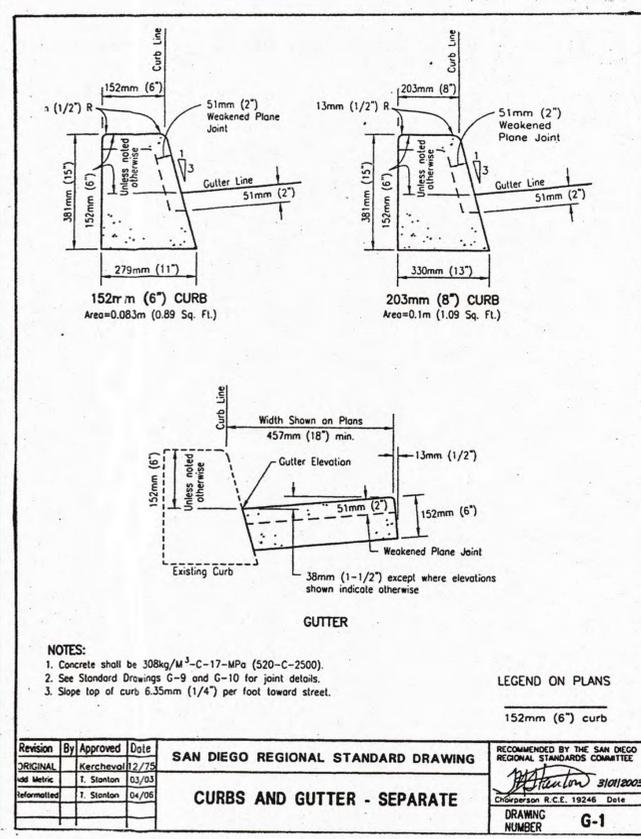
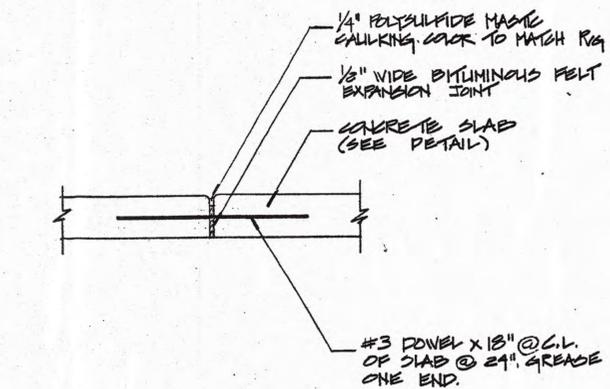
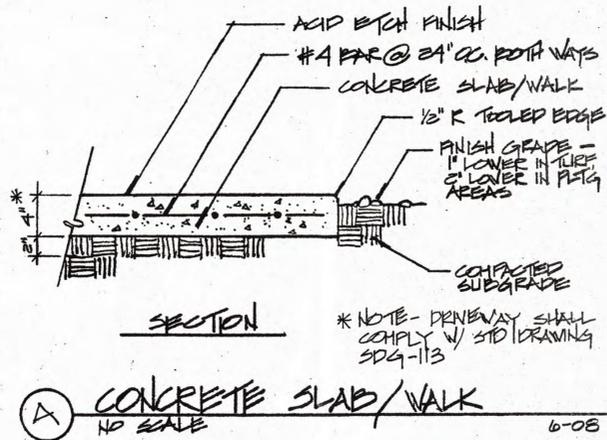
PLANTING PLAN

B & S TOWN HOUSES  
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 LEMON GROVE, CA 92104

858-541-1076  
 5346 Hilltop Drive  
 San Diego, California 92124  
 design studio

DATE 4-1-17  
 SCALE 1"=10'-0"  
 PROJ #17-01  
 SHEET

L-5



Revision	By	Approved	Date
ORIGINAL	Kerchival		2/75
1	T. Stanton		03/03
2	T. Stanton		04/06

**SAN DIEGO REGIONAL STANDARD DRAWING**  
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

**CURBS AND GUTTER - SEPARATE**

3/10/2003  
Drawing R.C.E. 19246 Date

**DRAWING NUMBER G-1**

**REVISIONS**

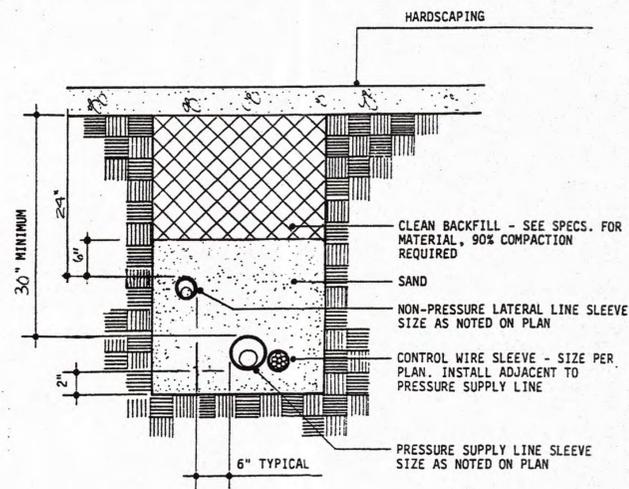
**DETAILS**

**B & S TOWN HOUSES**  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

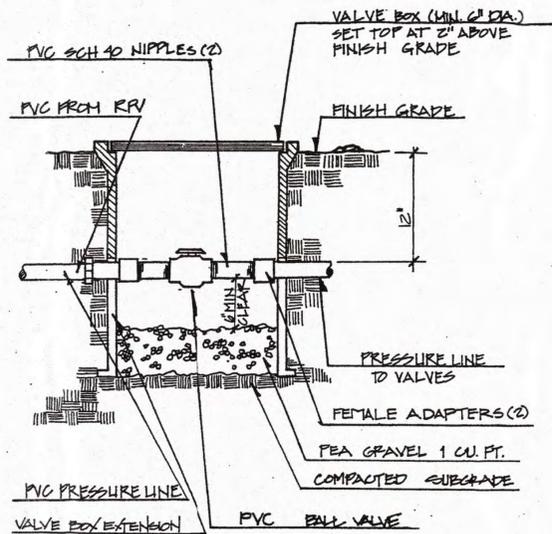
858-541-1076  
5346 Balduino Drive  
San Diego, California 92124  
antiqua design studio

**DATE 4-1-17**  
**SCALE**  
**PROJ # 17-01**  
**SHEET**  
**L-6**

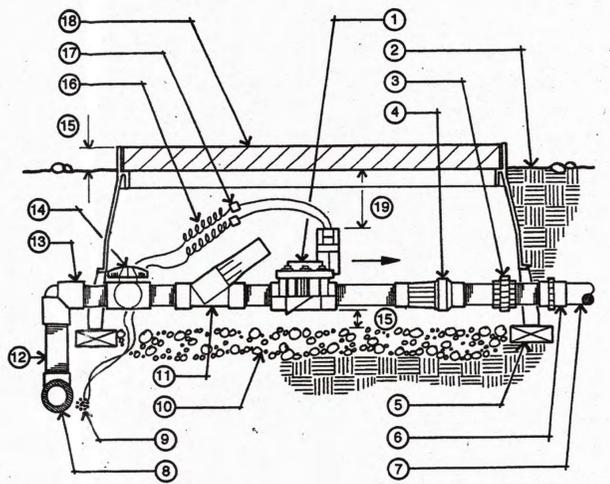
- NOTE:
1. ALL SLEEVES TO BE SCH 40 PVC.
  2. EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPING AT BOTH ENDS.
  3. INSTALL SLEEVES UNDER HARDSCAPING AREAS AS INDICATED ON IRRIGATION PLANS.



**A** TYPICAL SLEEVING

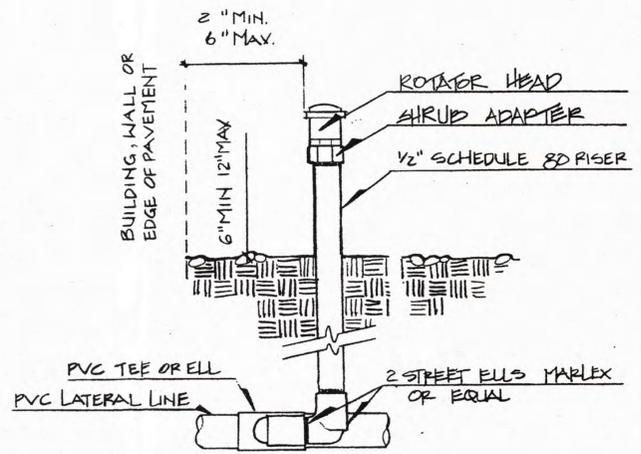


**C** BALL VALVE (PVC)  
NO SCALE

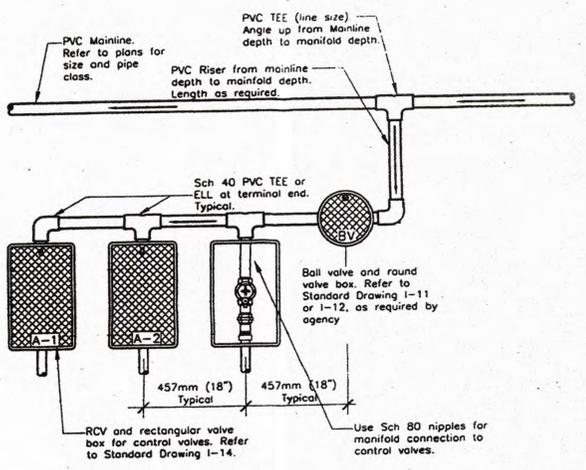


- 1- ELECTRIC REMOTE CONTROL VALVE
  - 2- FINISH GRADE
  - 3- SCH. 80 PVC UNION
  - 4- PRESSURE REGULATOR (PRE-SET)
  - 5- BRICK OR CONC. SUPPORTS UNDER ENTIRE BOX (TYP.)
  - 6- SCH. 40 PVC FEMALE ADAPTER
  - 7- TO EMITTERS—ANGLE PIPE TO SPECIFIED DEPTH WITH 45° ELLS
  - 8- PVC PRESSURE MAINLINE AND FITTING
  - 9- DIRECT BURIAL CONTROL WIRES
  - 10- 3/4-INCH CRUSHED ROCK
  - 11- FILTER (MAY BE SEPARATE—SEE LEGEND)
  - 12- PVC NIPPLES (TYP.)
  - 13- PVC 90° ELL
  - 14- PVC BALL VALVE
  - 15- 2 INCHES
  - 16- WIRE EXPANSION COILS
  - 17- WIRE CONNECTORS
  - 18- JUMBO VALVE BOX WITH LOCKING LID
  - 19- 6 INCHES
- NOTES:  
1. ALL UNIONS, NIPPLES, AND ELLS SHALL BE SCHEDULE 80 PVC.  
2. CLOSE NIPPLES SHALL NOT BE USED.  
3. DISTANCE BETWEEN RCV AND PRESSURE REGULATOR SHALL BE 10 PIPE DIAMETERS (MIN.).

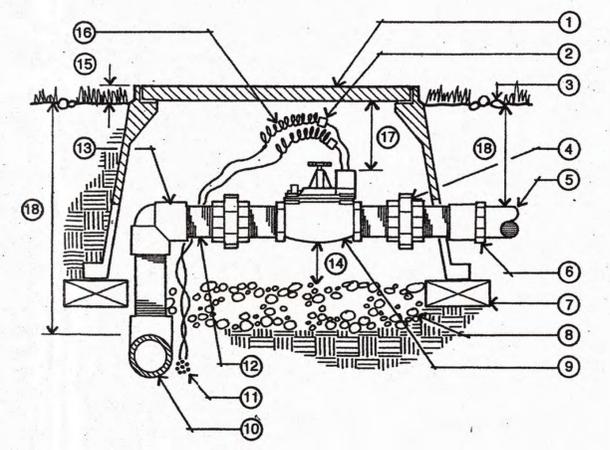
**E** REMOTE CONTROL VALVE ASSEMBLY (LOW FLOW) NO SCALE 11-05



**G** IRRIGATION HEAD  
NO SCALE

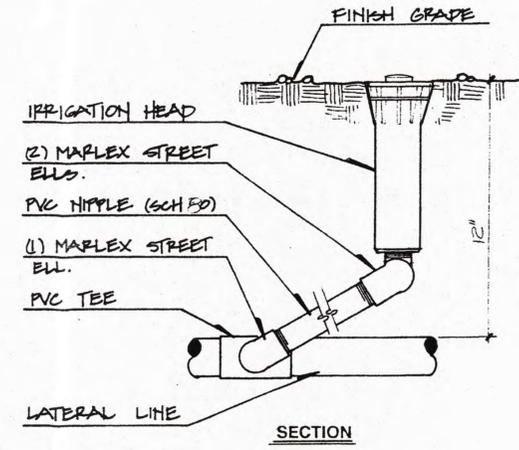


**B** VALVE MANIFOLD  
NO SCALE



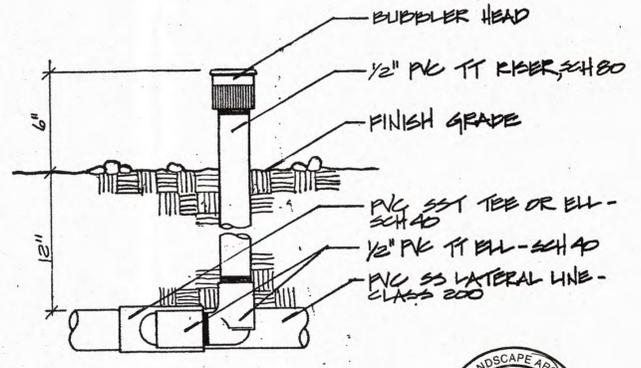
- 1- VALVE BOX WITH LOCKING LID
  - 2- WIRE CONNECTORS (TYP.)
  - 3- FINISH GRADE
  - 4- PVC UNION—EACH SIDE
  - 5- TO SPRINKLERS—ANGLE PIPE TO SPECIFIED DEPTH WITH 45° ELLS
  - 6- SCH. 40 PVC FEMALE ADAPTER
  - 7- BRICK OR CONC. SUPPORTS UNDER ENTIRE BOX (TYP.)
  - 8- 3/4-INCH CRUSHED ROCK (1 CU. FT.)
  - 9- ELECTRIC REMOTE CONTROL VALVE
  - 10- PVC PRESSURE MAIN LINE AND FITTING
  - 11- DIRECT BURIAL CONTROL WIRES
  - 12- PVC NIPPLES (TYP.)
  - 13- PVC 90° ELL
  - 14- 2 INCHES
  - 15- 1 INCH IN LAWN AREAS; 2 INCHES IN SHRUB AREA
  - 16- WIRE EXPANSION LOOPS
  - 17- 6 INCHES
  - 18- DEPTH AS REQUIRED (SEE SPEC.)
- NOTES:  
1. ALL UNIONS, NIPPLES, & ELLS SHALL BE SCHEDULE 80 PVC.  
2. CLOSE NIPPLES SHALL NOT BE USED.

**D** REMOTE CONTROL VALVE  
NO SCALE 2-04



- NOTES:  
IRRIGATION HEADS SHALL BE LOCATED 6" MINIMUM FROM ALL PAVING, WALLS, BUILDINGS ETC. UNLESS OTHERWISE NOTED OR SHOWN ON PLANS.

**F** IRRIGATION HEAD  
NO SCALE POP-UP



**H** IRRIGATION HEAD—BUBBLER  
NO SCALE 5-05

REVISIONS

DETAILS

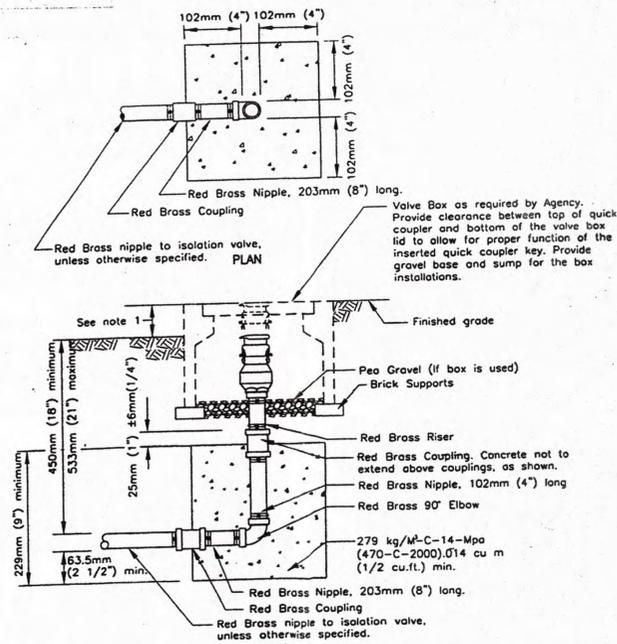
B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

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5346 Islando Drive  
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design studio

DATE 4-17  
SCALE  
PRJ #17-01  
SHEET

L-7





**NOTES**

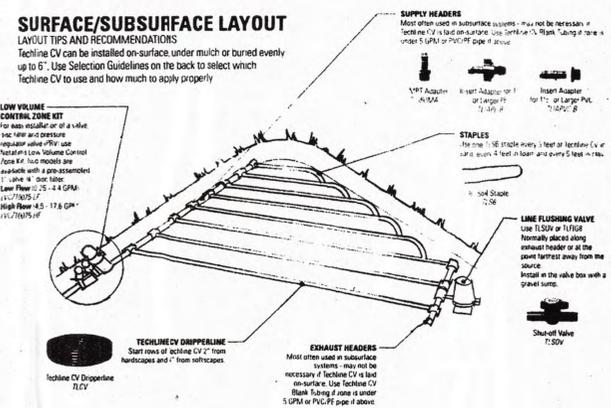
1. Quick coupling valves or boxes shall be set flush in lawn and 51-76mm (2-3") above finish grade in shrub/groundcover areas, per mulch depth.
2. Dimensions of concrete anchors are minimum.
3. Close nipples shall not be used.
4. Provide appropriate key and swivel adapter as specified on plans.

**LEGEND ON PLANS**

OCV

Revision	By	Approved	Date
ORIGINAL	T. Stanton	Kerschbaum	12/75
ADD METRIC	T. Stanton		03/03
UPDATE	M. Caro		05/04

**QUICK COUPLING VALVE**  
SDRSD 1-15 NO SCALE

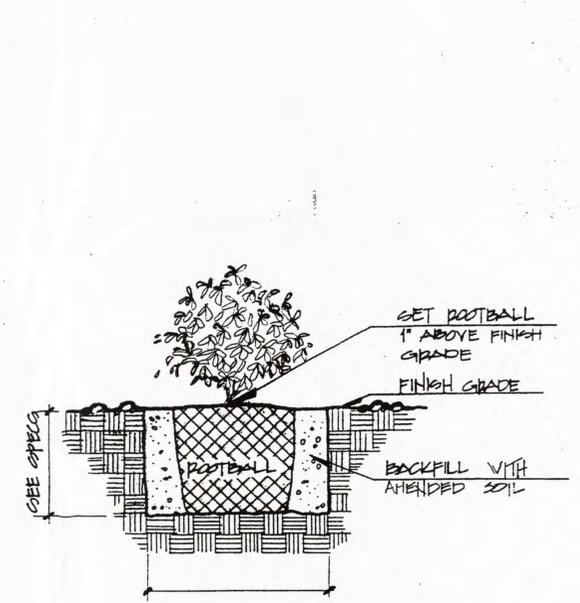


**SURFACE/SUBSURFACE LAYOUT**

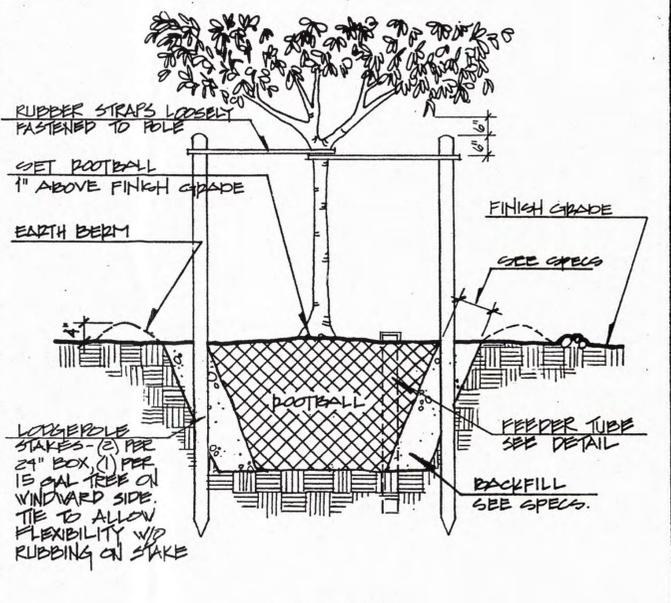
TECHLINE CV DRIPFLUSHING  
Start lines of applying CV 2" from hardscapes and 7" from softscapes.

EXHAUST HEADERS  
Most often used in subsurface systems, may not be necessary if Techline CV is laid on surface. Use Techline CV Blank Flange if rate is under 5 GPM or PEX/PP pipe if above.

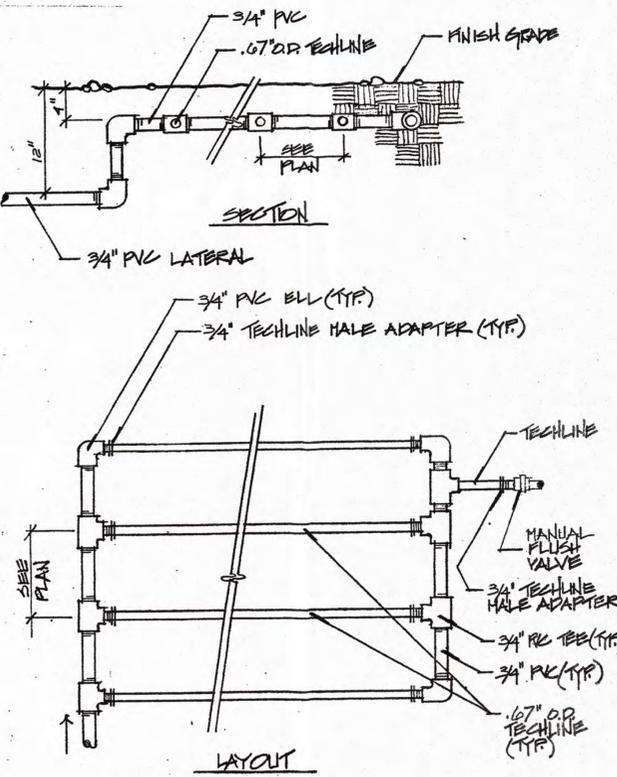
**SUBSURFACE DRIP SYSTEM - CURVES**  
NO SCALE



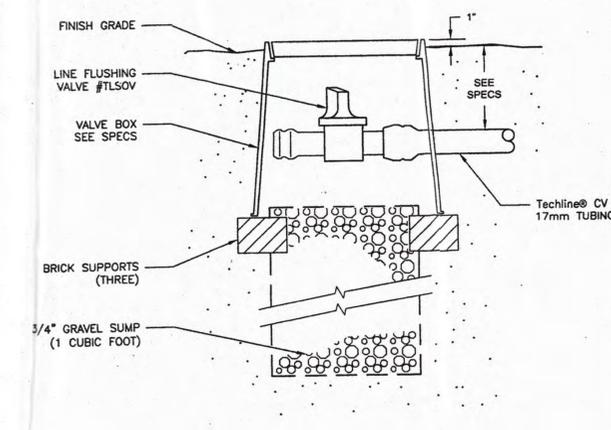
**PLANTING SHRUB OR VINE**  
NO SCALE



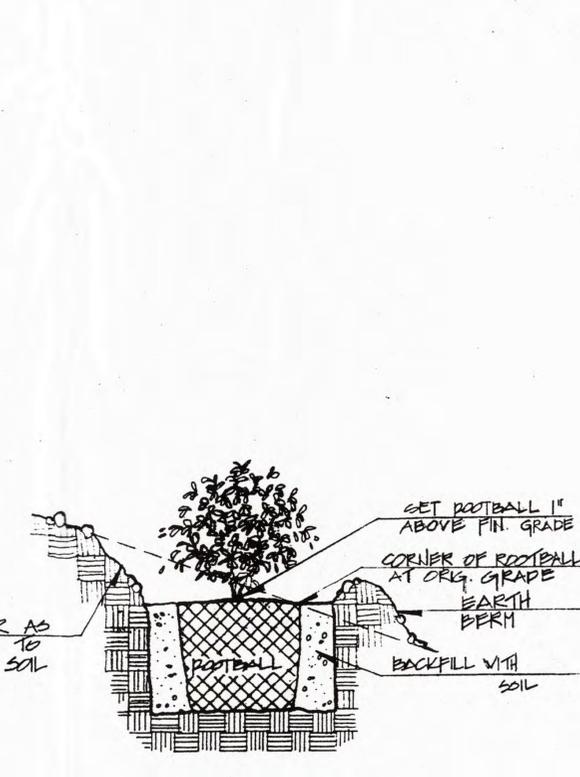
**PLANTING TREE**  
NO SCALE



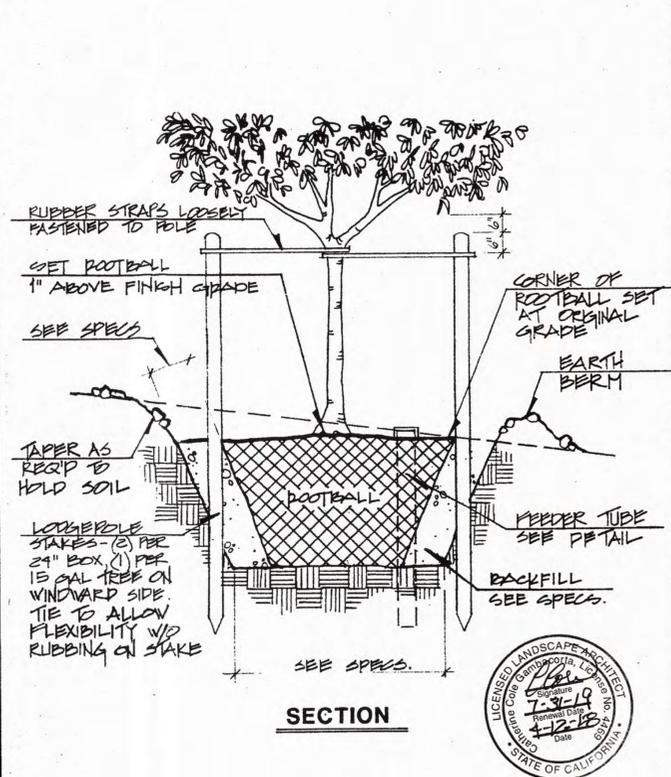
**TECHLINE SUBSURFACE DRIP SYSTEM - CV**  
NO SCALE



**MANUAL LINE FLUSHING VALVE TLSOV PLUMBED TO TUBING**  
NOT TO SCALE



**PLANTING SHRUB ON SLOPE**  
NO SCALE



**PLANTING TREE ON SLOPE**  
NO SCALE

REVISIONS

DETAILS

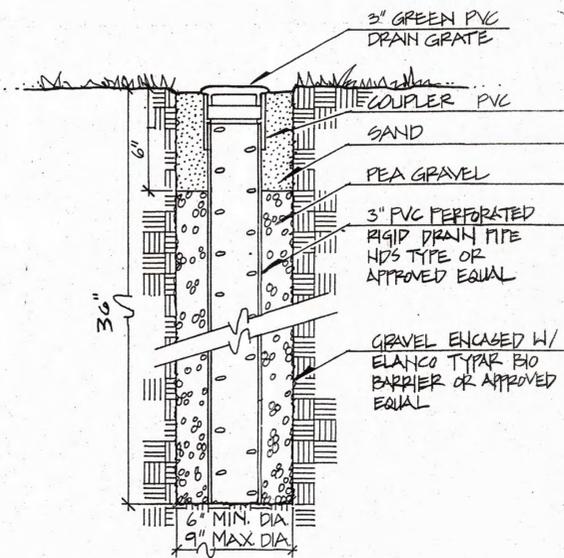
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DATE 4-17  
SCALE  
PROJ #17-01  
SHEET

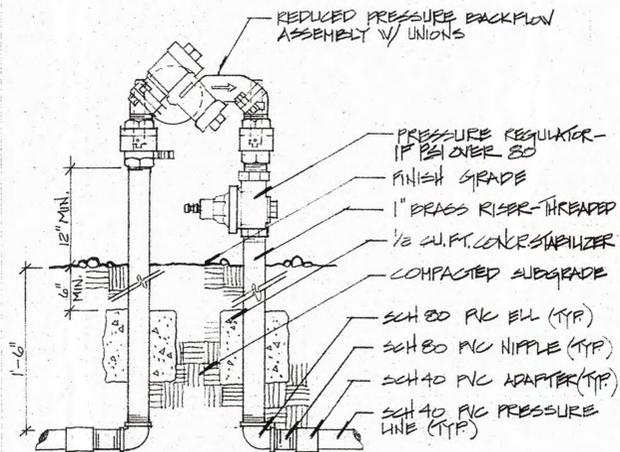
L-8



SECTION

**A FEEDER TUBE**

NO SCALE



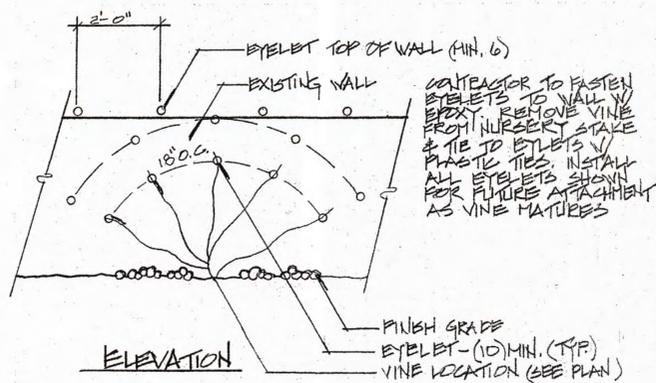
SECTION

**C BACKFLOW PREVENTER - REDUCED PRESSURE**

NO SCALE

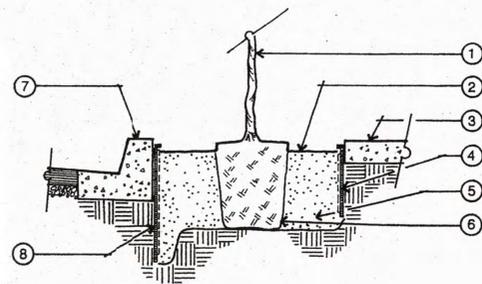
NOTES:

- 3/4" TEFLON TAPE TO BE USED ON ALL THREADED CONNECTIONS.
- GLOBE NIPPLES SHALL NOT BE USED.
- INSTALL PER CITY OF PUNAY STD DRAWING #AV-26



**B VINE ATTACHMENT**

NO SCALE



SECTION

**D ROOT BARRIER**

NO SCALE

10-04

- 1- TREE TRUNK - EQUIDISTANT FROM BOTH ENDS OF ROOT BARRIER
- 2- FINISH GRADE
- 3- SIDEWALK (TYP.)
- 4- PLASTIC ROOT BARRIER: 18-INCH MIN. DEPTH ADJ. TO SIDEWALK
- 5- BACKFILL MIX
- 6- ROOTBALL
- 7- CURB/GUTTER (TYP.)
- 8- PLASTIC ROOT BARRIER: 24-INCH MIN. DEPTH ADJ. TO CURB

NOTES:

1. ROOT BARRIER SHALL BE INSTALLED IN A LINEAR FASHION PARALLEL TO EDGE OF HARDSCAPE (NOT ENCIRCLING ROOTBALL) - 12 FEET MIN. LENGTH EACH TREE.
2. TOP OF ROOT CONTROL BARRIER SHALL BE ONE INCH ABOVE FINISH GRADE (MIN.).
3. ROOT BARRIER SHALL BE INSTALLED WITH RAISED ROOT DIVERTERS FACING TOWARD THE TREE ROOTBALL.

REVISIONS  
7-12-19 FOOT PRINT

DETAILS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Palmdale Drive  
San Diego, California 92124  
antigua design studio

DATE 4-1-17

SCALE

PROJ #17-01

SHEET

L9

# CONSTRUCTION SPECIFICATIONS

## PLANS

ALL CONSTRUCTION ITEMS SHALL BE LOCATED AS DIMENSIONED ON THE PLANS UNLESS OTHERWISE INDICATED IN NOTES, DETAILS, LEGENDS AND SPECIFICATIONS.

THESE PLANS ARE PREPARED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND RESOLVE ANY DISCREPANCIES WITH THE OWNER PRIOR TO COMMENCEMENT OF WORK.

## CONCRETE WORK

### MATERIALS

CEMENT SHALL BE PORTLAND CEMENT 520-A-2500 CONFORMING TO THE LATEST "GREEN BOOK" ASTM STANDARD SPECIFICATION FOR PORTLAND CEMENT, C-150 TYPE II LOW ALKALINE. ONE BRAND ONLY SHALL BE USED.

AGGREGATE SHALL COMPLY WITH "GREEN BOOK" ASTM C-33, EXCEPT AS NOTED ON THE PLANS.

WATER SHALL BE FRESH, CLEAN, FREE FROM OIL, ACID, ALKALI, SALTS, AND ORGANIC MATTER.

ALL TRANSIT MIXED CONCRETE SHALL BE DELIVERED IN ACCORDANCE WITH ASTM C-94.

CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 2500 PSI AT THE END OF TWENTY EIGHT DAYS.

### INSTALLATION

ALL CONCRETE SHALL BE DENSE, FREE FROM HONEYCOMBING OR OTHER DEFECTS, AND SHALL CONFORM TO THE SHAPES, DIMENSIONS AND FINISH GRADE ELEVATIONS AS INDICATED ON THE PLANS.

ALL EXPOSED SURFACES SHALL BE FREE FROM JOINT AND POUR LINES AND SHALL HAVE A UNIFORM TEXTURE. ALL CONCRETE SHALL CONFORM TO THE TEXTURES AND FINISHES AS CALLED FOR IN THE PLANS.

EXPANSION JOINTS SHALL BE A MINIMUM OF ONE HALF INCH THICK AND SHALL BE PLACED THE FULL DEPTH OF THE CONCRETE. EXPANSION JOINT MATERIAL SHALL BE CELOTEX FLEX CELL OR APPROVED EQUAL.

WHEN CURING COMPOUNDS ARE USED, ADJACENT SURFACES SHALL BE PROTECTED BY CONTRACTOR FROM OVERSPRAY.

ALL WALKS SHALL DRAIN AT A MINIMUM OF 1% CROSSFALL, OR AS NOTED ON THE PLANS.

## MASONRY WORK

### BLOCK

ALL MASONRY COURSES FOR RETAINING WALLS SHALL BE SET LEVEL. CONTRACTOR SHALL RESOLVE ALL DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

ALL STUCCO FINISHES SHALL MATCH BUILDING ARCHITECTURE UNLESS OTHERWISE NOTED ON PLANS.

### MORTAR JOINTS

ALL MORTAR JOINTS SHALL BE PORTLAND CEMENT-LIME MORTAR TYPE "S" AND CONFORM TO THE LATEST ASTM STANDARDS.

CONTRACTOR SHALL USE MATERIALS AND MIX BY PROPORTIONS IN ACCORDANCE WITH BIA M1-72.

ALL VISIBLE JOINTS SHALL NOT EXCEED 1/8".

## PERMEABLE CONCRETE PAVING UNITS

### MATERIALS

THE PRODUCT SHALL BE BELGARD BERGERAC STONE PAVERS, MANUFACTURED BY OLDCASTLE ARCHITECTURAL, INC., MEETING ASTM C936 REQUIREMENTS, OR AS DIRECTED BY OWNER. COLOR AND FINISH TO BE SELECTED BY OWNERS. CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND INSTALLATION PROCEDURES. SHOULD OWNER SELECT ANOTHER PRODUCT.

BEDDING, BASE AND SUBBASE MATERIAL AND DEPTH SHALL BE DETERMINED BY MANUFACTURER'S ENGINEERS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SOIL TESTS TO DETERMINE SOIL TYPE. FOR CONVENIENCE OF CONTRACTOR NORMAL CONDITIONS PROVIDED FOR ESTIMATING PURPOSES, BUT SHOULD NOT BE USED AS INSTRUCTIONS.

SAND SETTING BED AND JOINT SAND SHALL BE COARSE, CLEAN SAND MEETING ASTM C33 STANDARDS. MASONRY SAND, STONE DUST OR SCREENINGS ARE NOT PERMITTED.

### INSTALLATION

CONTRACTOR TO EXCAVATE TO THE DEPTH REQUIRED FOR APPLICATION AND TO A WIDTH BEYOND PAVING LIMITS EQUAL TO THE DEPTH OF THE BASE MATERIAL. COMPACT SOIL TO 98% PROCTOR DENSITY PER ASTM D698.

LAY HORTICULTURAL FILTER CLOTH, WOVEN OR UNWOVEN, ON HORIZONTAL AND VERTICAL SURFACES, OVERLAPPING EDGES BY 12 INCHES. A GEOTEXTILE SHOULD BE USED IN ADDITION IF SUBGRADE IS CLAY OR IS POORLY DRAINED AND APT TO STAY WET FOR EXTENDED PERIODS. SPREAD REQUIRED DEPTH OF BASE MATERIAL AND RE-COMPACT.

UNLESS INSTRUCTED OTHERWISE, THE EDGE COURSE OF PAVERS SHALL BE SET IN TROWELED CONCRETE AS AN EDGE RESTRAINT. HOUSE FOOTINGS AND PROPERLY CONSTRUCTED RETAINING WALLS OR CURBS WILL SUFFICE FOR AN EDGE RESTRAINT.

A TWO INCH LAYER OF LOOSE SCREEDED SAND SHALL BE SPREAD OVER THE BASE LAYER WITHIN THE EDGE RESTRAINT, SLOPING THE SURFACE TOWARDS DRAINS. THE SAND BASE IS NOT TO BE COMPACTED PRIOR TO INSTALLATION OF PAVERS. PAVERS SHALL BE Laid IN AN ASHLAR PATTERN AS DETERMINED BY THE MANUFACTURER. CUT PAVERS WITH A SPLITTER OR MASONRY SAW TO FIT ALONG THE EDGE OF PAVEMENT. COMPACT PAVERS INTO SAND BED WITH A PLATE COMPACTOR.

SPREAD SAND OVER PAVERS AND ALLOW TO DRY. SWEEP SAND OVER THE PAVERS AND USE A PLATE COMPACTOR TO COMPLETELY FILL JOINTS. IT MAY BE NECESSARY TO RE-SAND THE PAVING IN TWO TO THREE WEEKS.

## ORNAMENTAL IRON FENCES

ORNAMENTAL IRON FENCE, POSTS, HARDWARE AND ACCESSORIES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM SPECIFICATIONS A-123-85 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS" AND ASTM A-163-82 "ZINC COATINGS (HOT-DIP) ON IRON AND STEEL HARDWARE" AS APPLICABLE.

ALL GALVANIZING SLAG SHALL BE REMOVED FROM METAL SURFACES, PRIOR TO APPLICATION OF PRIMER. ALL METAL SURFACES SHALL BE CLEANED WITH ANCHERMETAL-PREP 79 OR EQUAL BY FULL IMMERSION, FOLLOWED BY IMMERSION IN ANCHERMETAL-PREP 80-3 COATING CHEMICAL OR EQUAL, IN STRICT ACCORDANCE WITH FACTORY PROCEDURES AND INSTRUCTION.

PRIMER SHALL BE HI-BUILD, HI-SOLID EPOXY POLYMAID COLOR-MEDIUM GREY APPLIED TO A MINIMUM OF 2.5 MILS DRY FILM THICKNESS AS REQUIRED BY THE PAINT MANUFACTURER.

FINISH COAT SHALL BE HI-BUILD, HI-SOLID ALPHAEATIC POLYURETHANE WITH A MINIMUM THICKNESS OF 2 MILS DRY FILM THICKNESS AS RECOMMENDED BY THE PAINT MANUFACTURER. COLOR AS INDICATED ON PLANS.

## GUARANTEE

ALL CONSTRUCTION WORK SHALL BE GUARANTEED AGAINST ALL DEFECTS OF WORKMANSHIP AND MATERIALS, INCLUDING SETTLING OR GRADED AREAS, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE (COMPLETION) BY OWNER.

## DRAINAGE NOTES

GRADING AND DRAINAGE PLANS, INCLUDING BIOSWALE CONSTRUCTION AND ASSOCIATED SOIL MIX, HAVE BEEN PREPARED BY A LICENSED ENGINEER AND ARE NOT INCLUDED IN THE LANDSCAPE PLANS. THE NOTES BELOW ARE PUT FORTH IN THE LANDSCAPE PLAN FOR CONVENIENCE OF THE CITY AND THE CONTRACTOR ONLY, AND DO NOT REPRESENT FULL GRADING AND DRAINAGE SPECIFICATIONS. REFER TO ENGINEERS PLANS FOR COMPLETE SPECIFICATIONS.

PROPOSED SITE IMPROVEMENTS INCLUDE PERMEABLE PAVING AND BIOSWALES. NEW IMPERVIOUS SURFACES SHALL DIRECT STORM WATER DRAINAGE TO LANDSCAPE AREAS. DOWN SPOUTS SHALL BE PROVIDED WITH ARMORED EXITS THAT PREVENT EROSION AND DIRECT STORM WATER TO BIOSWALES AND LANDSCAPE AREAS.

CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ALL DISCREPANCIES BETWEEN CONDITIONS FOUND ON SITE AND THOSE REPRESENTED ON THE PLAN. LANDSCAPE ARCHITECT SHALL APPROVE ALL CHANGES TO THE PLAN PRIOR TO INSTALLATION.

CONTRACTOR SHALL RECEIVE SITE AT GRADE.

## FINISH GRADING/SURFACE DRAINAGE

LANDSCAPE GRADING AND DRAINAGE SHALL CONFORM TO CITY OF LEMON GROVE GRADING ORDINANCE, STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP) ORDINANCE, AND OTHER APPLICABLE CODES AND ORDINANCES.

CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADES BEING SMOOTH AND ROCK, CLOD AND ROOT FREE, WITHOUT LOW SPOTS OR GRADING IRREGULARITIES. CONTRACTOR SHALL UNIFORMLY SMOOTH AND ROUND OFF ALL TOPS AND TOES OF SLOPES.

CONTRACTOR SHALL PERFORM WATER TEST FOR POSITIVE DRAINAGE IN THE PRESENCE OF OWNER OR LANDSCAPE ARCHITECT.

FINISH GRADE AT BUILDING EDGE SHALL BE 6 INCHES BELOW FINISH FLOOR ELEVATION. THE FINISH GRADE SHALL BE TWO INCHES BELOW ADJACENT FINISH PAVING SURFACES IN SHRUB BEDS AND ONE INCH BELOW ADJACENT FINISH PAVING SURFACES IN TURF AREAS. SOIL BACKFILL BEHIND RETAINING WALLS SHALL BE 4 INCHES LOWER THAN TOP OF WALL.

## DRAINAGE SYSTEM

STORM WATER SHALL NOT BE DIVERTED TO FLOW ONTO ADJACENT PROPERTY, NON-IRRIGATES AREAS, STRUCTURES, WALKWAYS, ROADWAYS, OR OTHER PAVED AREAS, WHETHER DUE TO RUNOFF, LOW HEAD DRAINAGE OVERSPRAY OR OTHER SIMILAR CONDITIONS UNLESS APPROVED BY THE ENGINEERING DIVISION.

CONTRACTOR SHALL PROVIDE CLEAN-OUTS AS REQUIRED FOR EFFICIENT CLEARING OF ALL DRAIN PIPES.

## IRRIGATION SPECIFICATIONS

### PLANS

THE PLANS ARE DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT SHALL BE LOCATED IN PLANTING AREAS AND NOT IN PAVED AREAS, UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE PLANS AND APPROVED BY THE CITY. REFER TO NOTES, DETAILS, AND LEGENDS TO VERIFY LOCATION OF IRRIGATION EQUIPMENT.

ALL IRRIGATION LINES AND AFFURTENANCES ARE TO BE INSTALLED INSIDE THE PROPERTY LINE AND OUTSIDE OF PUBLIC RIGHT OF WAY. AT NO TIME WILL AN IRRIGATION LINE CROSS A PUBLIC STREET, UNLESS SPECIFICALLY INDICATED OTHERWISE.

APPLICABLE LAWS, ORDINANCES AND REGULATIONS GOVERNING IRRIGATION WORK ARE INCORPORATED INTO THESE REQUIREMENTS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. REQUIREMENT OF THIS SECTION SHALL NOT BE CONSTRUED TO CONFLICT WITH APPLICABLE LAWS, ORDINANCES AND REGULATIONS. HOWEVER, IF ABOVE REQUIREMENTS DESCRIBE MATERIALS, WORKMANSHIP AND CONSTRUCTION OF BETTER QUALITY, HIGHER STANDARD AND LARGER SIZE THAN IS REQUIRED BY ORDINANCES AND REGULATIONS, PROVISIONS OF THESE SPECIFICATIONS SHALL TAKE PRECEDENCE.

### SITE CONDITIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING PLANTING AND IRRIGATION PLAN LAYOUT AGAINST ACTUAL GRADED FIELD CONDITIONS PRIOR TO COMMENCEMENT OF WORK. ANY DEVIATIONS IN ACTUAL FIELD CONDITIONS FROM THOSE SHOWN ON THE IRRIGATION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING AND/OR MODIFYING ANY IRRIGATION EQUIPMENT INSTALLED WHERE FIELD CONDITIONS DIFFER FROM THOSE SHOWN ON PLANTING AND/OR IRRIGATION PLANS WHEN SAID INSTALLATION HAS NOT BEEN APPROVED IN ADVANCE BY OWNER OR LANDSCAPE ARCHITECT.

### PLUMBING PERMIT

A SEPARATE PLUMBING PERMIT AND INSPECTION WILL BE REQUIRED FROM THE BUILDING INSPECTION DEPARTMENT FOR THE INSTALLATION OF THE IRRIGATION SYSTEM SHOWN ON THESE DRAWINGS.

### MATERIALS

#### PVC PIPE

PRESSURE LINE PIPE SHALL BE SCHEDULE 40 PVC TYPE 1120-1220. PRESSURE LINE FITTINGS SHALL BE TYPE I-I, SCHEDULE 40, NSF APPROVED.

LATERAL NON-PRESSURE PIPE SHALL BE PVC SCHEDULE 40 TYPE 1120-1220. LATERAL LINE FITTINGS SHALL BE TYPE I-I, SCHEDULE 40, NSF APPROVED.

PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED FIVE FEET WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, PIPE SIZE, PVC TYPE AND GRADE, AND PRESSURE RATING IN PSI.

ALL THREADED FITTINGS SHALL BE TYPE I-I, SCHEDULE 80, NSF APPROVED.

THREADED PVC NIPPLES SHALL BE GREY OR BLACK IN COLOR.

TEFLON TAPE, 3/4" WIDE, MINIMUM TWO LAYERS, SHALL BE USED ON ALL THREADED CONNECTIONS.

#### SOLVENT CEMENT

SOLVENT CEMENT AND PRIMER FOR PVC PIPE SHALL BE AS RECOMMENDED BY PIPE MANUFACTURER AND NSF APPROVED. CEMENT USED ON PRESSURE MAIN LINE PIPE AND FITTINGS SHALL HAVE MEDIUM SET TIME AND CURE TIME OF 24 HOURS MINIMUM.

## SUBSURFACE DRIP LINE

SUBSURFACE DRIP LINE SHALL BE TECHLINE SELF-CLEANING, PRESSURE COMPENSATING EMITTER LINE MANUFACTURED BY NETAFIM WITH .67" OUTSIDE DIAMETER AND .57" INTERIOR DIAMETER. SPACING OF FACTORY INSTALLED EMITTERS SHALL BE 12 INCHES APART. DRIPLINE OUTPUT SHALL BE .9 GPH EXCEPT AS NOTED BELOW IN NARROW BEDS.

ALL ADAPTERS AND BARBED CONNECTORS SHALL BE TECHLINE PARTS MANUFACTURED BY NETAFIM. ALL SUPPLY AND EXHAUST HEADERS AND FITTINGS SHALL BE 1/2 INCH PVC.

### CONTROL WIRE

ALL DIRECT BURIAL CONTROL WIRE SHALL BE AWG-U.F. #14-600 VOLT U.L. APPROVED. COMMON WIRE SHALL BE WHITE. A DIFFERENT COLOR SHALL BE PROVIDED FOR EACH VALVE STATION INCLUDING EXTRA WIRE. COMMON (NEUTRAL) WIRES SHALL BE WHITE. CONTROL WIRES SHALL BE COLORS OTHER THAN WHITE AND RED. CONTRACTOR SHALL INSTALL WIRES IN ACCORDANCE WITH THE VALVE MANUFACTURER'S SPECIFICATIONS.

WIRE CONNECTIONS SHALL BE MADE WITH EPOXY FILLED, WATERPROOF SPLICE KITS, SUCH AS PEN-TITE OR APPROVED EQUAL.

### VALVES

MANIFOLD BALL VALVES SHALL BE THE SAME SIZE AS LARGEST CONTROL VALVE IN THE MANIFOLD.

REMOTE CONTROL VALVES SHALL BE ENERGY AND FLOW EFFICIENT, GLOBE OR ANGLE TYPE, WITH BODIES CONSTRUCTED OF BRASS OR HEAVY-DUTY PLASTIC. CONTROL VALVES SHALL BE OF SLOW-CLOSING DESIGN, AND AUTOMATICALLY CLOSE IF POWER IS INTERRUPTED AND VALVES MALFUNCTION.

### VALVE BOXES

FOR MANUAL VALVES: VALVE BOXES SHALL BE TWO PIECE-SLIP ADJUSTMENT TYPE PLASTIC, COMPLETE WITH COVERS. SHAFTS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 5/8" AND SHALL BE PROVIDED WITH SUITABLE BELLS OR BASES.

FOR REMOTE CONTROL VALVES: VALVE BOXES SHALL BE ONE PIECE PLASTIC WITH PLASTIC COVER MARKED "IRRIGATION".

### BACKFLOW PREVENTION DEVICE

BACKFLOW PREVENTION DEVICES SHALL BE LOCATED AS INDICATED ON THE IRRIGATION PLAN. INSTALLATION SHALL CONFORM TO LOCAL GOVERNING CODES AND REGULATIONS AND MANUFACTURER'S SPECIFICATIONS.

### INSTALLATION

CONTRACTOR SHALL NOT WILLFULLY INSTALL IRRIGATION SYSTEM AS SHOWN ON DRAWINGS IF OBSTRUCTIONS, GRADE DIFFERENCES AND DISCREPANCIES IN AREA DIMENSIONS EXIST IN THE FIELD, WHICH MAY NOT HAVE BEEN KNOWN DURING IRRIGATION SYSTEM DESIGN. NOTIFY LANDSCAPE ARCHITECT AND, IF PROPERTY IS LOCATED IN POWAY, THE CITY AS SOON AS OBSTRUCTIONS AND DIFFERENCES ARE DISCOVERED. IF NOTIFICATION IS NOT PERFORMED, THEN CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR FIELD CHANGES.

IRRIGATION SYSTEM SHALL MEET PERFORMANCE STANDARDS WITH RESPECT TO WATER APPLICATION AND CONSERVATION NOTED BELOW.

IRRIGATION WATER SHALL BE APPLIED AT RATES THAT WHEN MATCHED TO THE SLOPE GRADIENT SUCH THAT SOIL PERCOLATION RATES ARE NOT EXCEEDED. IF VARYING SOIL TYPES ARE PRESENT ON SITE, THEN IRRIGATION SYSTEM DESIGN SHALL BE COMPATIBLE WITH SOIL HAVING LOWEST PERCOLATION RATE.

SLOPES WITH A GRADIENT OF 3:1 OR STEEPER AND GREATER THAN 6 FEET IN HEIGHT THAT ARE IRRIGATED WITH AN OVERHEAD SPRAY SYSTEM MUST HAVE A PRECIPITATION RATE NO GREATER THAN 0.75 INCHES PER HOUR.

AUTOMATIC SYSTEMS SHALL BE UTILIZED AND PROGRAMMED TO PREVENT PONDING AND RUNOFF OF IRRIGATION WATER. IF RUNOFF OCCURS BEFORE LANDSCAPE WATER REQUIREMENTS ARE MET, THEN AUTOMATIC CONTROLLERS SHALL BE REPROGRAMMED WITH SHORTER AND MORE FREQUENT WATERING CYCLES.

IRRIGATION SYSTEMS SHALL DISTRIBUTE WATER UNIFORMLY THROUGHOUT LANDSCAPED AREAS, WITH NO EXCESSIVELY WET OR DRY AREAS.

### POINT OF CONNECTION

PLAN INDICATES POINT OF CONNECTION ON EXISTING MAIN PRESSURE LINE BETWEEN METER AND HOUSE OR BUILDING. CONTRACTOR SHALL VERIFY SIZE OF METER, LOCATION OF MAIN LINE AND THAT MAINLINE PIPE IS SCHEDULE 40 AND THE SAME DIAMETER OR LARGER THAN THE LARGEST NEW LATERAL PIPE TO BE INSTALLED. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IF METER OR MAINLINE SIZE DOES NOT MEET REQUIREMENTS OF PLAN.

### BACKFLOW PREVENTION DEVICE

CONCRETE PADS SHALL BE INSTALLED BELOW BACKFLOW PREVENTERS. BOTTOM OF BACKFLOW PREVENTER SHALL BE 12 INCHES MINIMUM AND 18 INCHES MAXIMUM ABOVE FINISHED SURFACE OF CONCRETE PAD.

BACKFLOW DEVICES SHALL MEET REQUIREMENT OF STATE OF CALIFORNIA ADMINISTRATIVE CODE, TITLE 17, CALIFORNIA DEPARTMENT OF HEALTH SERVICES "GUIDANCE MANUAL FOR CROSS CONNECTION CONTROL PROGRAMS," LATEST EDITION (PUBLIC WATER SUPPLY BRANCH); AND SAN DIEGO REGIONAL STANDARD DRAWINGS, INCLUDING CITY OF POWAY SUPPLEMENTAL AMENDMENTS (LATEST EDITION).

IF WATER PRESSURE IS INCREASED TO ABOVE CURRENT WATER PRESSURE OF 70 PSI, CONTRACTOR SHALL PROVIDE BACKFLOW PREVENTER WITH STRAINERS AND PRESSURE REGULATION VALVES TO PROTECT DEVICES FROM WATER SUPPLY SYSTEM PRESSURE SURGES AND HIGH SYSTEM PRESSURE.

### CONTROLLER

CONTRACTOR SHALL VERIFY LOCATION FOR THE INSTALLATION OF NEW AUTOMATIC CONTROLLER WITH OWNER.

### TRENCHING

CONTRACTOR SHALL AVOID CUTTING ROOTS OVER TWO INCHES IN DIAMETER. WHEN SUCH ROOTS ARE ENCOUNTERED, CONTRACTOR SHALL HAND TRENCH AROUND ROOTS TO PIPE GRADE. MINIMUM WIDTH OF TRENCH SHALL BE AT LEAST FOUR INCHES.

TRENCHES SHALL BE DUG WITH STRAIGHT RUNS. BOTTOMS OF TRENCHES SHALL EVENLY SUPPORT PIPES. TRENCHING SHALL FOLLOW LAYOUT INDICATED ON PLANS, UNLESS OBSTRUCTIONS OCCUR IN THE FIELD.

CONTRACTOR SHALL PROVIDE MINIMUM COVER OF 30 INCHES MINIMUM OVER PRESSURE LINES UNDER VEHICULAR PAVING AND 24 INCHES MINIMUM OVER NON-PRESSURE LINES UNDER VEHICULAR PAVING. WITHIN THE LANDSCAPE PROVIDE 18 INCHES FOR PRESSURE SUPPLY LINES AND 12 INCHES FOR ALL LATERAL NON-PRESSURE LINES. PROVIDE MINIMUM COVER OF 18 INCHES FOR DIRECT BURIAL CONTROL WIRING AND 24 INCHES FOR ELECTRICAL CABLE IN CONDUIT.

FOR SUBSURFACE DRIP LINES, CONTRACTOR SHALL PROVIDE PARALLEL TRENCHES FOR EMITTER TUBING AND PVC END CONNECTIONS WITH 4 INCHES COVER. SPACING BETWEEN LINES SHALL BE AS INDICATED ON PLAN.

ALL IRRIGATION PRESSURE LINES SHALL HAVE A MINIMUM FOUR INCH CLEARANCE WHEN CROSSING OTHER PRESSURE LINES, ANY LATERAL LINES, AND LINES OF OTHER TRADES. PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER ONE ANOTHER, EXCEPT WHEN INDICATED.

### SLEEVES

INSTALL SCHEDULE 40 PVC SLEEVES TWO TIMES THE DIAMETER OF THE PIPE (2 INCHES MINIMUM DIAMETER) IT IS RECEIVING WHERE IRRIGATION LINES (MAIN AND LATERALS) ARE LOCATED UNDER PAVING OR CROSS THROUGH ANY HARDSCAPE MATERIALS. SLEEVES SHALL EXTEND 12" BEYOND EACH SIDE OF PAVEMENT. SLEEVING SHALL BE MARKED WITH A PAINTED SPONT ON THE BACK FACE OF THE CURB OR HARDSCAPE.

### VALVES

PROVIDE ISOLATION BALL VALVES AT POINTS-OF-CONNECTION AND AT BRANCHES AND "TEES" IN MAIN LINES. AN ISOLATION VALVE SHALL BE INSTALLED UPSTREAM FROM SLOPES.

### REMOTE CONTROL VALVES

REMOTE CONTROL VALVES MANIFOLDS SHALL BE CONNECTED OFF OF A SINGLE TEE ON THE MAINLINE EXCEPT AT THE END OF THE MAINLINE. VALVES SHALL BE SET A MINIMUM OF SIX INCHES (6") APART TO ALLOW SERVICING.

INSTALL VALVES BELOW GRADE IN RECTANGULAR VALVE BOXES WITH LOCKING LIDS. VALVE BOXES SHALL BE MANUFACTURED OF HEAVY-DUTY PLASTIC. INSTALL ONLY ONE VALVE IN EACH VALVE BOX.

CLEARANCE BETWEEN TOP OF VALVE FLOW CONTROL HANDLES AND VALVE BOX LIDS AND BETWEEN BOTTOM OF VALVES AND GRAVEL SUMPS SHALL BE TWO INCHES MINIMUM AND SIX INCHES MAXIMUM.

CLEARANCE BETWEEN TOP OF PIPING AND BOTTOM OF VALVE BOXES AND VALVE BOX "KNOCK-OUTS" SHALL BE TWO INCHES MINIMUM AND FOUR INCHES MAXIMUM.

VALVES SHALL NOT BE INSTALLED CLOSER THAN 12 INCHES FROM PAVING AND STRUCTURES.

### QUICK COUPLING VALVES

VALVES LOCATED IN MANIFOLDS WITH REMOTE CONTROL VALVES SHALL BE PLACED AT END OF MANIFOLDS.

VALVES SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS (ONE CUBIC FOOT MINIMUM).

### CHECK VALVES AND ANTI-DRAIN VALVES

IF LOW HEAD DRAINAGE OCCURS, CONTRACTOR SHALL INSTALL ANTI-DRAIN VALVES ON SPRAY HEADS.

CHECK VALVES SHALL BE INSTALLED ON LATERALS LOCATED ABOVE THE ELEVATION OF REMOTE CONTROL VALVES TO PREVENT DRAINAGE OF WATER FROM IRRIGATION SPRINKLERS DUE TO CHANGES IN ELEVATION.

### PIPE

PVC PIPE SHALL BE INSTALLED IN A SERPENTINE MANNER (SNAKED) TO ALLOW FOR EXPANSION AND CONTRACTION IN THE TRENCH BEFORE BACKFILLING.

PIPE SHALL BE INSTALLED IN TRENCHES WITH MARKINGS AT TOP OF PIPE AND CLEARLY VISIBLE FOR INSPECTION.

TEFLON TAPE, 3/4" WIDE, MINIMUM TWO LAYERS, SHALL BE USED ON ALL PRESSURE LINE THREADED CONNECTIONS (BRASS AND PVC).

CONTRACTOR SHALL CUT PLASTIC PIPE AND TUBING CLEANLY WITH PIPE CUTTERS OR SHEARS. DO NOT CUT PIPE WITH SAWS.

PRIOR TO INSTALLATION OF SPRINKLER HEADS AND HOSE BIBBS, THOROUGHLY FLUSH PIPING SYSTEM UNDER A FULL HEAD OF WATER. MAINTAIN FLUSHING UNTIL ALL PIPES ARE CLEAR OF ALL FOREIGN MATTER. AFTER FLUSHING, IMMEDIATELY CAP ALL RISERS.

### IRRIGATION HEADS

ALL IRRIGATION HEADS ARE TO BE LOCATED A MINIMUM OF SIX INCHES (6") AWAY FROM ANY HARDSCAPE, WALLS, OR STRUCTURE.

IRRIGATION HEADS WITHIN 24 INCHES ADJACENT TO VEHICLE OR PEDESTRIAN USE AREAS SHALL BE INSTALLED WITH POPUP SPRINKLERS.

IRRIGATION HEADS SHALL BE INSTALLED WITH DOUBLE SWING JOINTS OR MULTIPLE THREADED ELLS BETWEEN HEADS AND LATERAL PIPING.

NOZZLE RADIUS, NOZZLE ARC AND SCREEN SIZE ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR SHALL ADJUST THESE AS NECESSARY TO ACHIEVE 100% COVERAGE AND MINIMAL OVERSPRAY.

### SUBSURFACE DRIPLINES

EACH VALVE CIRCUIT SHALL BE A CLOSED SYSTEM OF PARALLEL ROWS OF DRIP LINES CONNECTED WITH SCHEDULE 40 PVC SUPPLY AND EXHAUST LINES. SINGLE DEAD END LINES ARE NOT PERMITTED. DISTANCE BETWEEN LINES SHALL BE AS SHOWN ON PLAN.

CONTRACTOR SHALL ENSURE THAT AN EMITTER IS WITHIN 3 INCHES OF ALL JUNCTIONS, CONNECTIONS AND SPLICES OF DRIP LINES OR THAT THE GREATEST DISTANCE BETWEEN ANY TWO EMITTERS IS THAT OF THE FACTORY INSTALLED EMITTERS IN THE IN THE DRIP LINE TUBING.

OVERSIZED PLANTS MAY BE PLANTED PRIOR TO INSTALLATION OF DRIPLINE PROVIDED ROOT ZONE IS KEPT MOIST. ALTERNATIVELY, DRIPLINE MAY BE CUT AND TAPED SHUT PRIOR TO PLANTING AND SPLICED AFTER INSTALLING OVERSIZED MATERIAL.

DRIPLINE SHALL BE STABILIZED WITH 6 INCH SOIL STAPLES EVERY 3 FEET IN SANDY SOIL, 4 FEET IN LOAM AND 5 FEET IN CLAY SOIL.

CONTRACTOR SHALL INSTALL A MANUAL FLUSH VALVE NEAR THE END OF EACH CIRCUIT UNLESS INDICATED OTHERWISE ON THE PLAN.

PRIOR TO COVERING TRENCHES SYSTEM SHALL BE TESTED FOR LEAKS.

### PLANTING GUIDELINES FOR SUBSURFACE DRIPLINES

PRE-IRRIGATE TO ENSURE THAT THE SOIL IS HYDRATED TO FIELD CAPACITY BEFORE PLANTING OR HYDROSEEDING BEGINS.

OVER-IRRIGATE DURING ESTABLISHMENT PERIOD TO MAINTAIN UNIFORM SOIL MOISTURE NECESSARY FOR DEVELOPMENT OF ROOTS FROM SMALLER SIZED CONTAINERS.

### WIRE

WIRE RUNS ARE TO BE CONTINUOUS FROM CONTROLLER TO VALVE WITH SPLICES AT VALVES ONLY. APPROVED WIRE SPLICES SHALL BE MADE IN PULL BOXES ONLY.

CONTRACTOR SHALL INSTALL NEW WIRE FROM CONTROLLER TO VALVES. EXISTING CONTROL WIRE SHALL BE TESTED FOR CONTINUITY AND REPLACED IF DEFECTIVE.

REVISIONS

SPECIFICATIONS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Delandia Drive  
San Diego, California 92124  
design studio

antigua

DATE 4-1-17

SCALE

PROJECT # 17-01

SHEET

L-10



CONTRACTOR SHALL INSTALL 2 SPARE CONTROL WIRES MINIMUM BUNDLED TOGETHER WITH THE PILOT WIRES FOR EACH MAIN LINE RUN. WIRE SHALL BE #14 AWG AND RED IN COLOR. ALL SPARE WIRES SHALL PASS FROM END OF MAINLINE TRENCH THROUGH ALL VALVE BOX LOCATIONS SERVICED BY THE CONTROLLER AND SHALL TERMINATE WITHIN THE CONTROLLER ENCLOSURE.

CONTROL WIRES SHALL BE BUNDLED WITH ELECTRICAL TAPE AT MAXIMUM TEN FOOT INTERVALS. WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE TAPED WITH DUCT TAPE AT TWENTY FOOT INTERVALS TO THE BOTTOM OF PRESSURE SUPPLY LINES WHENEVER POSSIBLE.

ALL WIRES SHALL BE INSTALLED WITH TWELVE INCHES OF EXCESS WIRE COILED AT NINETY DEGREE CHANGES IN DIRECTION. A MINIMUM OF 24" OF EXCESS WIRE SHALL BE COILED AT EACH VALVE.

#### BACKFILL

TRENCHES SHALL NOT BE BACKFILLED UNTIL AFTER REQUIRED TESTS AND INSPECTIONS ARE PERFORMED.

BACKFILL SHALL BE FREE FROM DEBRIS, EARTH CLODS OR STONES OVER 1/2 INCH IN SIZE OR ORGANIC MATERIAL THAT MAY DAMAGE PIPES OR EQUIPMENT. CONTRACTOR SHALL COMPACT BACKFILL TO A DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL IN PLANTING AREAS AND TO NINETY-FIVE PERCENT RELATIVE COMPACTION UNDER PAVED AREAS. FINISH GRADE OF BACKFILLED TRENCH SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS, AND OTHER SURFACE IRREGULARITIES.

CONTRACTOR SHALL PROVIDE THREE INCHES MINIMUM CLEAN BACKFILL UNDER IRRIGATION LINES.

IF BACKFILL SETTLEMENT OCCURS AND ADJUSTMENTS IN GRADES, IRRIGATION EQUIPMENT, PLANTING, OR OTHER IMPROVEMENTS ARE NECESSARY, THE CONTRACTOR SHALL MAKE REQUIRED REPAIRS AT NO COST TO THE OWNER.

#### TRENCHING AND BACKFILL UNDER PAVING

INSTALLATION OF IRRIGATION PIPE UNDER EXISTING WALKS (SIX FEET AND LESS IN WIDTH) MAY BE ACCOMPLISHED BY JACKING OR BORING. IF CUTTING OR BREAKING OF SIDEWALKS IS REQUIRED, PRIOR APPROVAL SHALL BE OBTAINED FROM THE CITY REPRESENTATIVE.

PROVIDE MINIMUM COVER OF 24 INCHES BETWEEN TOP OF PIPE AND BOTTOM OF PAVING FOR PRESSURE AND NON-PRESSURE PIPE INSTALLED UNDER PAVING.

SCHEDULE 40 PVC SLEEVES SHALL BE INSTALLED FOR IRRIGATION PIPING UNDER PAVED AREAS. IRRIGATION PIPE SLEEVES UNDER PAVING SHALL BE MARKED WITH METALLIC LOCATING TAPE. MARKING TAPE SHALL BE INSTALLED 12 ABOVE AND ALONG ENTIRE LENGTH OF SLEEVES.

TRENCHES LOCATED BELOW ASPHALTIC CONCRETE AND PCC PAVING SHALL BE BACKFILLED WITH SAND (SIX INCHES BELOW AND ABOVE PIPE). COMPACT BACKFILL IN LIFTS TO 95% RELATIVE DENSITY WITH MANUAL OR MECHANICAL TAMPING DEVICES. TRENCHES SHALL BE FLUSH WITH ADJOINING SUBGRADE. CONTRACTOR SHALL SET IN PLACE, CAP, AND PRESSURE TEST IRRIGATION PIPING UNDER PAVING PRIOR TO START OF PAVING WORK.

#### MANUFACTURER'S DIRECTIONS

REFER TO MANUFACTURERS' INSTRUCTIONS AND DETAILED DRAWINGS FOR WORK NOT SHOWN IN CONSTRUCTION DOCUMENTS.

#### TESTING

##### PRESSURE TEST

CONTRACTOR SHALL TEST ALL PRESSURE LINES IN OPEN TRENCHES UNDER HYDROSTATIC PRESSURE OF ONE HUNDRED TWENTY-FIVE POUNDS PER SQUARE INCH PRIOR TO BACKFILLING TRENCHES. PRESSURE SHALL BE SUSTAINED FOR 4 HOURS MINIMUM. CONTRACTOR SHALL SUSTAIN DESIGN OPERATING PRESSURE IN LATERAL LINES FOR NOT LESS THAN ONE HOUR.

IF LEAKS DEVELOP, CONTRACTOR SHALL REPAIR LEAKING PORTIONS AND REPEAT TEST UNTIL ENTIRE SYSTEM IS PROVEN WATER TIGHT.

TEST SHALL BE OBSERVED AND APPROVED BY OWNER.

##### COVERAGE TEST AND ADJUSTMENT

WHEN SYSTEM IS COMPLETE, THE CONTRACTOR SHALL PERFORM A COVERAGE TEST IN THE PRESENCE OF THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF INADEQUATE COVERAGE.

CONTRACTOR SHALL ADJUST ALL IRRIGATION HEADS TO MINIMIZE OVERTHROW ONTO WALKS, WINDOWS, BUILDINGS, PARKING AREAS OR ROADWAYS.

#### MISCELLANEOUS

CONTRACTOR SHALL INSTALL ONE VALVE PER VALVE BOX ONLY, EXCEPT THAT VALVE BOXES 10" X 16" IN SIZE OR LARGER MAY ACCOMMODATE TWO VALVES.

ALL QUICK-COUPPLERS SHALL HAVE YELLOW RING CAPS OR BE PAINTED WITH YELLOW ENAMEL, EXCEPT WHEN DIRECTED, AND THEN ONLY ON NON-PUBLIC PROJECTS.

CONTRACTOR SHALL PROVIDE OWNER AT TURN-OVER CONTROLLER KEYS AND MANUALS AND SIX ADDITIONAL NOZZLES OF EACH TYPE SPECIFIED.

#### MAINTENANCE

WATER USE SHALL CONFORM TO THE MAXIMUM APPLIED WATER ALLOWANCE (MAWA) ESTABLISHED BY THE STATE MWEL (ORD 438 S 1, 2016; ORD. 387 S 3, 2010).

SYSTEM SHALL BE MAINTAINED IN GOOD CONDITION. DEFECTIVE, BROKEN OR MISSING COMPONENTS SHALL BE REPLACED PROMPTLY AND SYSTEM SHALL NOT BE USED UNTIL REPAIRS HAVE BEEN COMPLETED. REPLACEMENT PARTS SHALL BE THOSE SPECIFIED IN THESE PLANS.

IRRIGATION SYSTEM SHALL BE MAINTAINED IN A MANNER THAT WILL PREVENT OVERSPRAY ONTO HARDSCAPE AND BUILDINGS, PUDDLING OF WATER, EROSION AND WATER WASTE. MAINTENANCE CONTRACTOR SHALL UTILIZE A SOIL PROBE TO CHECK SOIL MOISTURE BEFORE AND AFTER IRRIGATION, AND TO IDENTIFY AREAS OF SATURATED SOIL. SOIL ADJACENT TO BUILDINGS SHALL BE KEPT DAMP AND NOT SATURATED.

IRRIGATION SCHEDULING SHALL ENSURE ESTABLISHMENT OF HEALTHY ROOT SYSTEMS WITHOUT OVER WATERING.

IRRIGATION SCHEDULING SHALL BE GRADUALLY REDUCED AFTER PLANTS ARE ESTABLISHED TO THE LEAST AMOUNT OF WATER NECESSARY TO MAINTAIN HEALTHY, THRIVING PLANT MATERIAL.

CONTRACTOR SHALL ADJUST CONTROLLER TIMING AND HEAD COVERAGE ON A REGULAR BASIS FOR SEASONAL CHANGES.

CONTRACTOR SHALL PERIODICALLY CHECK FOR BLOCKAGE BY PLANTS AND ELIMINATE ANY BLOCKAGE IMMEDIATELY. ALL PRUNED DEBRIS SHALL BE REMOVED FROM SITE THE SAME DAY.

OVERHEAD IRRIGATION SHALL BE SCHEDULED BETWEEN 8:00 PM AND 10:00 AM UNLESS WEATHER CONDITIONS PREVENT.

#### GUARANTEE

THE WORK INCLUDED IN THESE PLANS SHALL BE GUARANTEED AGAINST ALL DEFECTS IN WORKMANSHIP AND MATERIALS FOR THE DURATION OF THE MAINTENANCE PERIOD, EXCEPT TRENCH BACKFILL WHICH WILL BE GUARANTEED FOR ONE FULL YEAR AGAINST SETTLING.

## PLANTING SPECIFICATIONS

#### PLANS

THE PLANS ARE DIAGRAMMATIC. ALL PLANT MATERIAL LOCATIONS SHOWN ARE APPROXIMATE.

QUANTITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND ARE ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. PLANT SYMBOLS AND/OR "ON CENTER" SPACING TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED. CONTRACTOR SHALL INFORM OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.

BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES (ORD. 438 S 1, 2016; ORD. 387 S 3, 2010).

#### CLEARING AND GRUBBING

IN ALL PLANTED AREAS, CONTRACTOR SHALL REMOVE DEBRIS, ROOTS, CLODS AND ROCKS OVER ONE INCH IN DIAMETER FOR A MINIMUM DEPTH OF TWO INCHES. FINISH PLANTING SURFACE SHALL BE SMOOTH, EVEN AND CONFORMING TO REQUIRED FINISH GRADE AFTER FULL SETTLEMENT HAS OCCURRED.

CONTRACTOR SHALL DIG OUT WEEDS, INCLUDING BERMUDA GRASS, BY THEIR ROOTS FROM ALL PLANTING AREAS. WHEN NECESSARY TO DISCOURAGE REGROWTH, THE CONTRACTOR MAY APPLY A SUITABLE HERBICIDE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

CONTRACTOR SHALL REMOVE ALL GRUBBED MATERIAL FROM THE SITE AT ONCE.

#### HERBICIDES/PESTICIDES

CONTRACTOR SHALL MAINTAIN THE SITE FREE OF DISEASE, DAMAGING INSECTS, RODENTS AND SNAILS, DAMAGING FUNGI AND ALL WEEDS.

CONTRACTOR SHALL OBTAIN APPROVAL BY THE OWNER PRIOR TO APPLICATION OF ANY HERBICIDE, INSECTICIDE, FUNGICIDE OR OTHER CHEMICALS, EXCEPT FERTILIZERS, TO BE USED ON SITE. CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE OF CALIFORNIA AND COUNTY OF SAN DIEGO REGULATIONS FOR THE SAFE APPLICATION AND MANAGEMENT OF ANY CHEMICALS AND SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS. ALL WORKERS APPLYING SUCH CHEMICALS SHALL BE LICENSED IF REQUIRED BY LAW.

#### DELIVERY AND STORAGE

CONTRACTOR SHALL DELIVER SOIL AMENDMENTS TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE NAME OR TRADEMARK, AND STATEMENT INDICATED CONFORMANCE TO STATE AND FEDERAL LAW. IN LIEU OF CONTAINERS, SOIL AMENDMENTS MAY BE FURNISHED IN BULK, AND A CERTIFICATE INDICATING THE ABOVE INFORMATION SHALL ACCOMPANY EACH DELIVERY.

CONTRACTOR SHALL ARRANGE FOR OWNER TO CERTIFY ALL UNOPENED FERTILIZER PACKAGES ON SITE. FERTILIZER PACKAGES SHALL NOT BE REMOVED FROM SITE UNTIL AFTER INCORPORATION INTO SOIL AS PER SPECIFICATIONS, AND ONLY WHEN DIRECTED BY OWNER.

CONTRACTOR SHALL STORE AND PROTECT PLANTS NOT INSTALLED ON THE DELIVERY DAY AT THE SITE.

#### TOPSOIL

IF SPECIFIED, TOPSOIL SHALL BE CLASS A' TOPSOIL IN ACCORDANCE WITH SECTION TEN, PUBLIC WORKS LANDSCAPE IMPROVEMENT PROJECTS.

TOPSOIL SHALL BE FREE OF UNDESIRABLE INSECTS, PLANT PATHOGENS, WEED AND GRASS SEEDS, SUBSOIL, REFUSE, LITTER AND DEBRIS, LARGE CLAY LUMPS, STONES LARGER THAN ONE INCH IN SIZE, BRUSH AND HEAVY ROOTS AND OTHER DELETERIOUS SUBSTANCES.

TOPSOIL SHALL BE FREE OF INSOLUBLE CARBONATES AND HAVE THE FOLLOWING CHEMICAL ANALYSIS:

PH: MINIMUM OF 6.0 AND MAXIMUM OF 7.5 (ACID-ALKALINE REACTION)  
ECE: ZERO TO THREE MAXIMUM (ELECTRICAL CONDUCTIVITY)  
SAR: ZERO TO SIX MAXIMUM (SODIUM ABSORPTION RATIO)

TOPSOIL ANALYSIS SHALL BE SUBJECT TO REVIEW BY CITY OF POWAY BEFORE START OF CONSTRUCTION.

TOPSOIL, IF SPECIFIED, FOR PLANTING AREAS SHALL CONFORM TO ALL THE SPECIFICATIONS FOR TOPSOIL LISTED UNDER GRADING SPECIFICATIONS. TOPSOIL SHALL BE PLACED TO A TOTAL DEPTH OF 6 INCHES. PLACE IN TWO APPLICATIONS.

#### SOIL TESTING

OWNER SHALL PROVIDE TO CONTRACTOR A SOIL ANALYSIS REPORT WHICH RECOMMENDS ADJUSTED SOIL AMENDMENTS, QUANTITIES AND THE METHOD OF APPLICATION PRIOR TO BEGINNING WORK.

A SOIL MANAGEMENT REPORT PREPARED BY A QUALIFIED AGRONOMIC SOILS TESTING LABORATORY SHALL BE SUBMITTED TO THE CITY OF LEMON GROVE PRIOR TO START OF CONSTRUCTION. REPORTS SHALL CONTAIN CHEMICAL ANALYSIS FROM ALL PLANTING AREAS WITH WRITTEN RECOMMENDATIONS FOR SOIL AMENDMENTS. CONTRACTOR SHALL COMPLY WITH RECOMMENDATIONS IN REPORT. TEXTURAL ANALYSIS MAY ALSO BE REQUIRED TO DETERMINE SUITABLE TREATMENT OF TRAIL SURFACES, IF APPLICABLE, SELECTION OF PLANT MATERIALS AND APPROPRIATE IRRIGATION SYSTEMS AND MANAGEMENT.

SOIL ANALYSIS SHALL MEASURE THE FOLLOWING CHEMICAL PROPERTIES:

- FERTILITY: NITROGEN, PHOSPHORUS, POTASSIUM (N-P-K) AND SECONDARY NUTRIENTS (CALCIUM, IRON, SULFUR),
- MICRONUTRIENTS,
- SALINITY AS MEASURED BY ELECTRICAL CONDUCTIVITY (ECE IN MMHOS/CM @ 25 DEGREES C),
- PH (ACID-ALKALINE REACTION),
- SODIUM ABSORPTION RATIO - SAR (ALKALI/SODIC SOIL),
- SPECIFIC TOXICITIES: ELEMENTS THAT MAY RESTRICT PLANT GROWTH SUCH AS BORON, CHLORINE, AND SODIUM.

SOIL TESTS SHALL INCLUDE 24-HOUR PERCOLATION TEST TO DETERMINE SOIL DRAINAGE CHARACTERISTICS. SOIL SAMPLES FOR TESTING SHOULD BE TAKEN AFTER ROUGH SITE GRADING IS COMPLETE AND BEFORE START OF PLANTING. SAMPLING SHALL BE IN ACCORDANCE WITH SOIL TESTING LABORATORY REQUIREMENTS.

PERCOLATION TESTS SHALL BE PERFORMED TO DETERMINE SOIL DRAINAGE CHARACTERISTICS. A ONE CUBIC FOOT HOLE SHALL BE FILLED AT THE BOTTOM OF A TREE PIT WITH WATER. REFILL AFTER WATER DRAINS COMPLETELY FROM HOLE. IF ANY STANDING WATER REMAINS IN THE HOLE 24 HOURS AFTER REFILLING,

CONTRACTOR SHALL SUBMIT PROCEDURES TO CORRECT POOR DRAINAGE. PERCOLATION TEST RESULTS SHALL BE SUBMITTED TO CITY OF POWAY REPRESENTATIVE PRIOR TO INSTALLATION OF PLANTS.

#### SOIL AMENDMENTS

COMPOSTED ORGANIC SOIL AMENDMENTS SHALL BE STABLE, COMPLETELY DECOMPOSED ORGANIC MATTER CONTAINING NO TOXINS AND HARMFUL ORGANISMS THAT WOULD INHIBIT PLANT GROWTH.

COMPOST SHALL BE FROM SELECTED WOOD FIBERS (REDWOOD, CEDAR, FIR, PINE) AND GREEN WASTE. COMPOST SHALL BE LEACHED, NITROGEN STABILIZED WITH RESIDUAL NITROGEN CONTENT OF 0.5% - 1.0% AND TREATED WITH IRON AND WETTING AGENT.

SUBJECT TO SOIL ANALYSIS RECOMMENDATIONS, PACKAGED AND BULK SOIL AMENDMENTS SHALL BE APPLIED AT THE RATE SHOWN PER THOUSAND SQUARE FEET:

ORGANIC MATERIAL	COMPOST	6 CU. YDS.
AGRICULTURAL GYPSUM	BEN FRANKLIN OR EQUAL	80 LBS
SOIL SULFUR	IRON SUPPLEMENT	25 LBS
WETTING AGENT	IRONITE OR EQUAL	5 LBS
	SOIL-AIRE OR EQUAL	3 LBS

#### FERTILIZER

PRE- AND POST-PLANTING FERTILIZER (N-P-K) SHALL BE COMMERCIAL GRADE, PELLETED OR GRANULAR MATERIAL HAVING CHEMICAL ANALYSIS AS SPECIFIED IN SOIL REPORT RECOMMENDATIONS.

FERTILIZER PLANTING TABLETS SHALL BE TIGHTLY COMPRESSED COMMERCIAL GRADE PLANTING TABLETS WITH 12-8-8 OR 20-10-5 FORMULATION.

#### TREE, SHRUB, AND GROUND COVER AREAS

ALL PLANTS SHALL RECEIVE AGRIFORM (OR EQUAL) PLANT TABLETS (20-10-5) PLACED BY CONTRACTOR BELOW GRADE (THREE INCHES FOR CONTAINER STOCK; ONE INCH FOR FLATS OF GROUND COVER) AT THE FOLLOWING RATES:

- 5 GRAM TABLET PER PLANT FROM FLATS AND 4 INCH POTS
- 21 GRAM TABLETS PER ONE GALLON PLANT
- 21 GRAM TABLETS PER FIVE GALLON PLANT
- 21 GRAM TABLETS PER FIFTEEN GALLON PLANT
- 21 GRAM TABLET PER EACH LINEAR 4 INCHES BOXED MATERIAL

#### SOIL PREPARATION

IN ALL PLANTED AREAS, EXCEPT ON SLOPES 3:1 OR STEEPER, CONTRACTOR SHALL ROTOTILL OR THOROUGHLY INCORPORATE SOIL AMENDMENTS, CONDITIONERS AND FERTILIZER INTO SOIL TO A DEPTH OF EIGHT INCHES MINIMUM. SOIL IN PLANTING AREAS SHALL BE SCARIFIED (LOOSENED) TO A MINIMUM DEPTH OF 12 INCHES.

TURF AND SHALLOW PLANTING AREAS SHALL INCLUDE COMPOST AT A MINIMUM DEPTH OF ONE INCH AND THE AREA SHALL BE TILLED TO A MINIMUM FIVE INCHES IN DEPTH.

BACKFILL FOR ALL CONTAINER STOCK ONE GALLON OR LARGER SHALL BE ONE PART COMPOST, CONDITIONERS AND FERTILIZER BY VOLUME, THOROUGHLY MIXED WITH TWO PARTS EXCAVATED NATIVE SOIL. THE COMPOST-SOIL BLEND SHALL BE BACKFILLED AND FIRMED AROUND THE ROOT BALL WITHIN THE PLANTING HOLE.

ALL PAVING SHALL BE SWEEPED OF ALL SOIL AMENDMENTS AND FERTILIZER PRIOR TO ANY IRRIGATION TO PREVENT STAINING OF HARDSCAPE.

#### PLANT MATERIAL

SUBSTITUTION OF PLANT MATERIAL WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE OWNER. SUBSTITUTIONS MUST BE REQUESTED AT LEAST THIRTY DAYS IN ADVANCE OF SCHEDULED PLANTING TIME IF PLANT SPECIES ARE UNAVAILABLE. IF SOURCES ARE UNKNOWN TO CONTRACTOR, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR INFORMATION.

PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS WITH NORMALLY DEVELOPED BRANCH AND ROOT SYSTEMS, FREE FROM PLANT DISEASE, INSECT PESTS, SUNSCALD, BARK ABRASIONS, AND OTHER DISFIGUREMENT.

PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE INDICATED. PLANT MATERIAL SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA 'GRADING CODE OF NURSERY STOCK', NO. 1 GRADE.

CONTAINER GROWN PLANTS SHALL HAVE SUFFICIENT ROOT GROWTH TO HOLD THE EARTH INTACT WHEN REMOVED FROM CONTAINERS, BUT SHALL NOT BE ROOT BOUND AND ARE FREE OF GIRDLING ROOTS. IN TREE BOX CONTAINERS, SOIL SURFACE SHALL NOT BE GREATER THAN SIX INCHES BELOW THE TOP OF THE BOX.

TREES SHALL HAVE STRAIGHT TRUNKS UNLESS OTHERWISE SPECIFIED. TERMINAL LEADERS SHALL BE UNCUED AND UNDAUNTED. TREES WITH PRUNED OR DAMAGED LEADERS SHALL BE REJECTED AND REMOVED FROM THE JOB SITE. ALL TREES SHALL BE OF ADEQUATE CALIPER TO STAND WITHOUT SUPPORT, STURDY AND WELL HARDENED OFF.

GROUND COVER PLANTS SHALL BE WELL-ROOTED CUTTINGS GROWN IN SOIL FILLED FLATS, AND SHALL REMAIN IN THOSE FLATS UNTIL PLANTED WITH MINIMUM DISTURBANCE FURING PLANTING. IF UNROOTED TIP CUTTINGS ARE SPECIFIED, THEY SHALL BE AT LEAST EIGHT INCHES LONG AND PLANTED AT LEAST TWO NODES BELOW GRADE.

PLANT SPECIES AND VARIETY SHALL BE IDENTIFIED WITH LEGIBLE, WEATHERPROOF LABELS AND WEATHER-RESISTANT INK WITH A MINIMUM OF ONE LABEL SECURELY ATTACHED PER TEN PLANTS IN A LOT, OR CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION FROM NURSERY IDENTIFYING BY QUANTITY, SPECIES AND VARIETY. CONTRACTOR SHALL BE DEEMED TO BE NOT READY FOR CONSTRUCTION OBSERVATION IF LABELS ARE NOT PRESENT.

THE OWNER RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL FOUND TO BE DEFECTIVE. DEFECTIVE MATERIAL SHALL BE REMOVED FROM SITE AT THE CONTRACTOR'S EXPENSE. DO NOT PRUNE, TRIM, OR TOP TREES AND OTHER PLANT MATERIAL PRIOR TO DELIVERY.

PRIOR TO PLANTING, CONTRACTOR SHALL CAREFULLY HANDLE AND STORE PLANTS TO PROTECT THEM FROM SUNBURN, DRYING OUT, WINDBURN AND OTHER INJURY.

CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PLANT MATERIAL, NEW OR EXISTING, DUE TO NEGLIGENCE OR IRRIGATION SYSTEM FAILURE DURING CONSTRUCTION AND THE SPECIFIED MAINTENANCE PERIOD.

#### PLANT INSTALLATION

##### PLANTING HOLES

PLANTING HOLES FOR CONTAINER STOCK SHALL BE EXCAVATED BY THE CONTRACTOR TO TWO TIMES THE WIDTH AND ONE INCH LESS THAN THE DEPTH OF THE CORRESPONDING ROOTBALL. BOXED MATERIAL PLANTING HOLES SHALL BE MINIMUM SIX INCHES CLEAR OF ALL SIDES, EXCLUDING BOTTOM, OF THE ROOTBALL. SIDES OF PLANTING HOLE SIDES AND BOTTOM SHALL BE SCARIFIED. HOLES SHALL BE WIDE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY AND BREAKAGE TO PLANT ROOTS AND ROOT BALLS.

EXCESS SOIL GENERATED FROM PLANTING HOLES MAY BE LEGALLY DISPOSED OF OFFSITE.

##### PLANT PLACEMENT

NO MORE PLANTS SHALL BE DISTRIBUTED IN PLANTING AREAS THAN CAN BE PLANTED AND WATERED IN ONE DAY. PLANTS SHALL BE REMOVED FROM CONTAINERS SO THAT ROOT BALLS ARE NOT BROKEN. THEY SHALL BE PLANTED AND WATERED IMMEDIATELY AFTER REMOVAL FROM CONTAINERS. PLANTS SHALL NOT BE REMOVED FROM CONTAINERS PRIOR TO PLACING IN PLANTING HOLES.

ROOT BALLS SHALL BE INSPECTED BY CONTRACTOR DURING PLANTING. CIRCLING ROOTS SHALL BE SEPARATED FROM THE ROOT BALLS AND SPREAD OUT IN PLANTING HOLES.

CONTRACTOR SHALL INSTALL ALL SHRUB AND HERBACEOUS CONTAINER STOCK AT THE SPECIFIED SPACING AS GRAPHICALLY INDICATED ON THE PLANS. MINIMUM DISTANCE FROM ANY TOP OR TOE OF SLOPE OR PLANTING AREA EDGE SHALL BE ONE HALF OF THE SPECIFIED SPACING.

CONTRACTOR SHALL INSTALL GROUND COVER PLANTS ON TRIANGULAR SPACING AS NOTED ON PLANS. MAXIMUM DISTANCE FROM ANY PLANTING AREA EDGE IS ONE-HALF THE SPECIFIED SPACING.

ALL PLANT MATERIAL SHALL BE PLANTED SO AS NOT TO IMPAIR PROPER APPLICATION OF WATER FROM THE IRRIGATION SYSTEM.

WHEN PLANT HOLES ARE HALF FILLED WITH BACKFILL, CONTRACTOR SHALL FILL HOLES WITH WATER TO THOROUGHLY SATURATE ROOT BALLS AND ADJACENT SOIL.

CONTRACTOR SHALL CONSTRUCT AN EARTH BERM AROUND EACH CONTAINER GROWN PLANT WHOSE DIAMETER IS THE SAME SIZE AS THE ROOT BALL AND IS OF SUFFICIENT SIZE TO SATURATE ROOT BALLS. WATERING BASINS SHALL BE CONSTRUCTED OF AMENDED BACKFILL MATERIALS.

AFTER PLANTING EACH PLANT AND ITS BACKFILL SHALL BE WATERED. WATER IS TO BE APPLIED IN MODERATE STREAMS, WITHOUT DISTURBING BACKFILL, UNTIL SOIL AROUND ROOTS AND BACKFILL IS COMPLETELY SATURATED.

#### ROOT BARRIERS AND TRUNK GUARDS

CONTRACTOR SHALL INSTALL "DEEP ROOT" 2 FOOT DEEP LINEAR ROOT BARRIER, OR EQUAL, ADJACENT AND PARALLEL TO EDGE OF SIDEWALKS, DRIVEWAYS AND STREETS, PARKING LOTS OR OTHER HARDSCAPE ADJACENT TO TREES WITHIN SIX FEET OF HARDSCAPE TO PREVENT DAMAGE FROM TREE ROOTS. BARRIER SHALL BE A MINIMUM TWENTY FEET MINIMUM IN LENGTH AND SHALL BE CENTERED ON TREE TRUNK. ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CIRCULAR ROOT BARRIERS ARE NOT PERMITTED.

#### STAKING AND GUYING

##### STAKING

UNLESS OTHERWISE NOTED ON THE PLANS, CONTRACTOR SHALL REMOVE ALL TRAINING STAKES AND TIES FROM ALL CONTAINER STOCK. TREES SHALL BE STAKED WITH TEN FOOT LONG MINIMUM, TWO INCH DIAMETER STRAIGHT GRAINED TREATED LODGEPOLE STAKES AS FOLLOWS:

SINGLE STAKE	5 GALLON TREE
DOUBLE STAKE	15 GAL AND 24" BOX

SUPPORT STAKES SHALL BE PLACED OUTSIDE THE ROOT BALL. SECURE TREES TO STAKES WITH ONE INCH DIA. AND FLEXIBLE RUBBER OR VINYL STRAPS SO THAT TREES ARE ALLOWED ADEQUATE MOVEMENT TO ENSURE PROPER DEVELOPMENT. TWO TIES SHALL BE USED WITH SINGLE STAKES AND FOUR TIES WITH DOUBLE STAKES. TREE TIES SHALL BE APPROVED BY THE CITY.

TREE STAKES SHALL NOT RUB AGAINST TRUNKS OR BRANCHES. TRIM TOPS OR STAKES TO SIX INCHES BELOW LOWEST CANOPY BRANCHES.

IN WINDY LOCATIONS, SECURE TREES AT BOTH THE BASE OF THE CANOPY AND IN THE CANOPY. STAKES SHALL BE PLACED UP-WIND AND DOWN-WIND OF TRUNK.

##### VINES AND ESPALIERS

CONTRACTOR SHALL REMOVE NURSERY STAKES AND TIES AFTER PLANTING. CONTRACTOR SHALL 'FAN OUT' ALL VINES AND ESPALIERS IN A SYMMETRICAL RADIATING PATTERN AND SECURE TO ADJACENT FENCE, WALL, OR COLUMN SURFACE WITH NON-METALLIC TIES. SEE DETAILS.

##### PRUNING

PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE INJURED TWIGS AND BRANCHES. PRUNING FOR FORM SHALL BEGIN THE YEAR AFTER INSTALLATION.

TREE PRUNING SHALL BE LIMITED TO REMOVAL OF INJURED BRANCHES, RUBBING OR CROSSING BRANCHES. LEADERS SHALL REMAIN INTACT. NO HEADING BACK IS PERMITTED. BRANCHES ON TRUNK BELOW CANOPY SHALL REMAIN THE FIRST YEAR TO STRENGTHEN TRUNK. FURTHER PRUNING FOR FORM SHALL BEGIN THE YEAR AFTER INSTALLATION.

##### MULCH

MULCH MAY CONSIST OF COMPOSTED ORGANIC MATERIAL (REFER TO SOIL AMENDMENTS ABOVE), 1/2-1 1/2" SIZED SHREDDED BARK MULCH OF REDWOOD, CEDAR, OR FIR, OR CLEAN, CHIPPED AND SHREDDED PLANT TRIMMINGS FREE OF DEBRIS AND FOUL ODOR. PRIOR TO DELIVERY TO SITE, CONTRACTOR SHALL SUBMIT SAMPLES TO CITY'S REPRESENTATIVE FOR APPROVAL.

CONTRACTOR SHALL SPREAD A THREE INCH LAYER OF FINELY SHREDDED FIR OR REDWOOD BARK OVER THE SOIL SURFACE OF ALL PLANTED AREAS, INCLUDING AREAS OF GROUND COVER. CARE SHALL BE TAKEN TO PREVENT MOUNDING BARK AGAINST TRUNKS AND STEMS. CARE SHALL BE TAKEN TO BRUSH AWAY MULCH IN CONTACT WITH TREE TRUNKS AND SHRUB STEMS.

#### MAINTENANCE AND PLANT ESTABLISHMENT

PLANTING AREAS SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE SPECIFIED PLANT ESTABLISHMENT PERIOD.

MAINTENANCE SHALL INCLUDE WATERING, MOWING, FERTILIZING, PRUNING, WEEDING, AND REPLACEMENT OF DEAD, DYING AND INJURED PLANT MATERIAL.

DURING THE PLANT ESTABLISHMENT PERIOD OF 90 DAYS, PROVIDE SUFFICIENT IRRIGATION TO KEEP ROOT ZONES MOIST FOR OPTIMUM PLANT GROWTH. BERMS AROUND SHRUBS AND TREES ON SLOPES SHALL BE MAINTAINED. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION TO ELIMINATE SILTATION AROUND PLAN ROOT CROWNS.

TIES SHOULD BE LOOSENED AS TREE TRUNK GROWS IN DIAMETER. STAKES AND TIES ARE TO BE REMOVED WITHIN TWO YEARS OF PLANTING.

OWNER AGREES THAT WHEN VEGETATION IS REPLACES, REPLACEMENT PLANTINGS ARE CONSISTENT WITH CITY REGULATIONS IN CHAPTER 18.44 WATER EFFICIENT LANDSCAPE REGULATIONS.

#### GUARANTEE

ALL PLANT MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR THE FOLLOWING LENGTHS OF TIME UPON COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD:

ALL SHRUBS, GROUND COVER, VINES, ESPALIERS, LAWN AND TREES UNDER 24 INCH BOX SIZE FOR THREE MONTHS BEYOND THE MAINTENANCE PERIOD.

ALL 24 INCH BOX TREES AND LARGER FOR 1 YEAR BEYOND THE MAINTENANCE PERIOD.



REVISIONS

SPECIFICATIONS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-441-1076  
5346 Colorado Drive  
San Diego, California 92124  
design studio

DATE 4-1-17

SCALE

PROJ #17-01

SHEET

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