

SITE AND ARCHITECTURAL REVIEW COMMITTEE

City of Campbell, California

Register in advance for this Zoom webinar:

June 23, 2020
Tuesday
7 PM

https://us02web.zoom.us/webinar/register/WN_APgoeh_cTayFs_Bq_oNfmA

After registering, you will receive a confirmation email containing information about joining the webinar.

SARC AGENDA
Remote ZOOM Meeting

CALL TO ORDER / INTRODUCTIONS

STAFF COMMUNICATIONS

AGENDA MODIFICATIONS OR POSTPONEMENTS

MEETING MANAGEMENT

The Site and Architectural Review Committee (SARC) is a subcommittee of the Planning Commission authorized by the Campbell Municipal Code to review the architectural design and site layout of proposed development projects. The SARC makes reports and recommendations to the Planning Commission, however, the SARC has no decision-making authority and its recommendations are not binding on the Planning Commission.

SCHEDULED ITEMS

ITEM/FILE NO.		ADDRESS	START TIME	APPLICANT
1.	PLN2019-213	1511 Van Dusen Ln	7 PM	Sean Rinde

Site and Architectural Review Permit to allow the construction of a new approximately 2,665 square-foot two-story single-family residence on property located at **1511 Van Dusen Lane**. Project Planner: *Naz Pouya Healy, Assistant Planner*.

ADJOURNMENT

Adjourn to the next remote Site and Architectural Review Committee meeting not yet scheduled.

Americans with Disabilities Act (ADA)

In compliance with the Americans with Disabilities Act, listening assistance devices are available for meetings held in the Council Chambers. If you require accommodation to participate in the meeting, please contact Corinne Shinn at the Community Development Department, at corinnes@cityofcampbell.com or (408) 866-2140.

MEMORANDUM

Community Development Department
Planning Division

To: Site and Architectural Review Committee **Date:** June 23, 2020
From: Naz Pouya Healy, Assistant Planner *NPH*
Via: Paul Kermoyan, Community Development Director *PK*
Subject: Site and Architectural Review Permit
File No.: PLN2019-213 ~ 1511 Van Dusen Ln

PROPOSAL

The applicant is seeking approval of a Site and Architectural Review Permit to allow construction of a new approximately 2,665 square-foot two-story single-family residence (reference **Attachment 1** – Project Plans).

PROJECT SITE

The project site is a 6,063 square-foot property located on Van Dusen Lane, west of Harriet Avenue and north of Highway 85, within the City's San Tomas Area Neighborhood in the R-1-9 (Single-Family Residential) Zoning District (reference **Attachment 2** – Location Map). The site is currently developed with a single-family home that will be demolished as part of the project. Pursuant to the San Tomas Area Neighborhood Plan (STANP), demolition and reconstruction of a single-family residence – which characterizes a lot as “undeveloped” – requires Site and Architectural approval by the Planning Commission.

PROJECT DATA

Zoning Designation:	R-1-9 (Single-Family Residential)	
General Plan Designation:	Low-Density Residential (less than 4.5 units/gr. acre)	
Net Lot Area:	6,063 square-feet ¹	
Building Height:	26 feet	28 feet (Max. Allowed)
Building Square Footage:		
First Floor Living:	1,603 square feet	
Second Floor Living:	631 square feet	
Attached Garage:	<u>431 square feet</u>	
	2,665 square feet (Total House Size)	
Floor Area Ratio (FAR):	.44 (2,665 sq. ft.)	.45 (2,728 sq. ft.) (Max. Allowed)
Parking:	2 spaces (covered)	2 spaces (Min. Required)
Building Coverage Areas:		
First Floor/Garage:	2,034 square feet	
Front Porch:	22 square feet	
Rear Patio:	<u>114 square feet</u>	

¹ Existing non-conforming lot (9,000 square-foot minimum lot size in the R-1-9 Zoning District)

	2,170 square feet (Total Building Coverage)	
Building (Lot) Coverage:	36% (2,170 sq. ft.)	40% (2,425 sq. ft.) (Max. Allowed) ²
Setbacks	<u>Proposed</u>	<u>Required</u>
Front	20 feet	20 feet
Garage	25 feet	25 feet
1 st -Story Side (north)	5 feet 6 inches	5 feet 3 inches ³
2 nd -Story Side (north)	10 feet 11 inches	10 feet 6 inches
1 st -Story Side (south)	5 feet 6 inches	5 feet 3 inches
2 nd -Story Side (south)	10 feet 11 inches	10 feet 6 inches
Rear	10 feet	10 feet ⁴

DISCUSSION

Review of the Site and Architectural Review Permit application is governed by the San Tomas Area Neighborhood Plan (STANP). The Plan provides development standards (e.g., height, setback, lot coverage, etc.) as well as design guidelines in terms of design compatibility, scale and mass, surface articulation, building orientation, and privacy. The guidelines are not meant to prescribe any particular style, but rather provide an overall framework for evaluating the design of new residences. Pursuant to CMC Section 21.54.050, the Site and Architectural Review Committee’s (SARC) purview is to review the project’s architectural design and site configuration, upon which a recommendation may be made to the Planning Commission.



Proposed Front Elevation



Proposed Rear Elevation



Proposed South Side Elevation



Proposed North Side Elevation

² STANP Section D – Exceptions for Legal Non-Conforming Lots allows for reduced side and rear setbacks and lot coverage requirements for legal non-conforming lots based on the standards of the zoning district in which the lot would be conforming (e.g. the setback and lot coverage requirement for a 6,063 square foot lot in an R-1-9 zoning district are to be based on the development standards of the R-1-6 zoning district).

³ 50% of the building wall height (for each side/story)

⁴ STANP Section B.3.b allows the Rear Yard Setback to be a minimum of 10 feet where the useable rear yard area is a minimum of 20 times the lot width. The proposed useable rear yard area is 1,548 square feet where 1,160 square feet is required (20 x 58-foot lot width).

Design: The proposed two-story, 2,665 square-foot single-family residence is presented in a traditional residential style incorporating hipped and gabled rooflines, asphalt composition roofing, shingle siding upper walls, and horizontal siding lower walls. The color scheme incorporates a brown body, white accents and trim, a dark brown roof, and earthtone stone wainscoting (reference **Attachment 3** – Materials Board). The overall architectural style is consistent with the new residences built within the San Tomas Area that achieve compatibility by incorporating design elements and materials representative of the homes in the neighborhood.

Massing and Scale/Surface Articulation: The STANP speaks extensively to scale and mass indicating that "the perceived scale and mass of new homes should be compatible with homes in the surrounding area." Although the STANP identifies various methods for minimizing scale and mass, it neither precludes two-story homes nor sets a maximize size (other than what results from the maximum floor area ratio).

The subject property is adjacent to what appears to be a three-story home to the north and a small undeveloped parcel to the south. Out of the 13 other homes on this portion of Van Dusen Lane, nine are two-story and four are one-story (one of which was recently approved for replacement with a new two-story home). The table below provides the total house size of the existing/approved two-story homes (floor area of living area and attached garage), the second story floor area as square footage and a percentage, and the building height based on available records. The proposed house size and building height is well below all but one of the existing two-story homes.

Address	Total House Size	Second Story Floor Area	Second Story % of Total Floor Area	Building Height
1383 Van Dusen Ln	4,168 SF	1,690 SF	41%	-
1420 Van Dusen Ln	4,357 SF	1,984 SF	46%	28 feet
1450 Van Dusen Ln	6,811 SF	2,133 SF	31%	26 feet
1451 Van Dusen Ln	3,769 SF	-	-	-
1490 Van Dusen Ln	3,678 SF	1,093 SF	30%	28 feet
1405 Harriet Ct	4,136 SF	-	-	-
1513 Van Dusen Ln	2,360 SF	848 SF	36%	22 feet
1561 Van Dusen Ln	4,477 SF	1,694 SF	38%	28 feet
1570 Van Dusen Ln	4,442 SF	1,730 SF	39%	28 feet
1573 Van Dusen Ln	6,303 SF	2,550 SF	40%	28 feet
1511 Van Dusen Ln	2,665 SF	631 SF	24%	26 feet

Privacy: Construction of a two-story home may present privacy concerns to neighboring residents. In this respect, pursuant to the STANP second-story windows should be carefully placed to lessen privacy impacts. To minimize privacy impacts, the second-story side-facing windows are small and/or clerestory except for one larger window at the interior stairs. Larger bedroom windows are facing the front yard.

Landscaping/Hardscaping: The property's front yard will be fully landscaped with new drought tolerant vegetation in compliance with the State water efficiency standards and three trees as required by the STANP. There are several existing unprotected trees on the property however, the proposed home is located within the driplines of two protected oak trees located on the adjacent properties to the west and north. The applicant provided a deposit for staff to procure an independent arborist report to confirm whether it is possible to protect and retain the existing oak

trees with construction of the proposed home. The arborist report stipulates specific construction and tree protection measures to be implemented to ensure the health and survival of the oak trees which have been incorporated into the plans (reference **Attachment 4** – Arborist Report).

Public Improvements: The required ultimate frontage improvements for this property (curb and gutter) are already in place. The applicant will be required to dedicate in fee the right-of-way for Van Dusen Lane.

OPTIONS

The SARC should discuss the proposed project's scale, design, site layout, and landscaping. If the SARC believes that the project warrants changes, the applicant may be asked to revise the design, which may be brought back to the SARC at a subsequent meeting.

Attachments:

1. Project Plans
2. Location Map
3. Materials Board
4. Arborist Report



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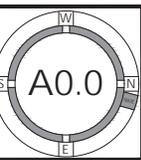
VETERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE

1511 VAN DUSEN LANE, CAMPBELL
GABRIELLA VETERE AND DERRYK DAVIS



PROJECT NO.	DESCRIPTION	DATE
10001	PLANNING PERMIT SUBMITTAL	10.31.2019
	PLANNING PERMIT RESUBMITTAL	02.18.2020

COVER SHEET



STUDIO 5 SQUARED ARCHITECTURE, INC.

FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION

VETERE DAVIS RESIDENCE

NEW SINGLE FAMILY RESIDENCE



1511 VAN DUSEN LANE, CAMPBELL

SCOPE OF WORK

NEW 4BR / 2.5BA SINGLE FAMILY RESIDENCE ON AN EXISTING 6,043.55 S.F. LOT. PROPOSED HOME TO HAVE 2,234.60 S.F. LIVING AREA AND 430.56 S.F. GARAGE TOTALING 2,665.16 S.F. -- SEE BELOW PROJECT SUMMARY FOR ADDITIONAL VALUES

DEFERRED SUBMITTALS

- FIRE SPRINKLERS IN ACCORDANCE WITH NFPA 13D AND STATE AND LOCAL REQUIREMENTS--NOTE THAT PER CRC 313.3.7, A SIGN OR VALVE TAG SHALL BE INSTALLED AT THE MAIN SHUTOFF VALVE TO THE WATER DISTRIBUTION SYSTEM STATING THE FOLLOWING: "WARNING: THE WATER SYSTEM FOR THIS HOME SUPPLIES FIRE SPRINKLERS THAT REQUIRE CERTAIN FLOWS AND PRESSURES TO FIGHT A FIRE. DEVICES THAT RESTRICT THE FLOW OR DECREASE THE PRESSURE OR AUTOMATICALLY SHUT OFF THE WATER TO THE FIRE SPRINKLER SYSTEM, SUCH AS WATER SOFTENERS, FILTRATION SYSTEMS AND AUTOMATIC SHUTOFF VALVES, SHALL NOT BE ADDED TO THIS SYSTEM WITHOUT A REVIEW OF THE FIRE SPRINKLER SYSTEM BY A FIRE PROTECTION SPECIALIST. DO NOT REMOVE THIS SIGN"
- STAIR GUARDRAIL SHOP DRAWINGS SIGNED AND STAMPED BY ENGINEER TO BE SUBMITTED TO BUILDING DEPARTMENT FOR REVIEW AND APPROVAL--NOTE THAT SHOP DRAWINGS TO DEMONSTRATE GUARDRAIL DESIGN IS ADEQUATE TO SUPPORT A SINGLE CONCENTRATED 200 POUND LOAD APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP OF THE RAIL PER CRC TABLE 301.5 AND 301.5 FOOTNOTE D
- SOLAR PHOTOVOLTAIC SYSTEM TO BE UNDER A SEPARATE PERMIT

SHEET INDEX

ARCHITECTURAL
A0.0 COVER SHEET
A0.2 FLOOR AREA CALCULATIONS
A0.3 STREETScape ELEVATION
A0.4 EXISTING SITE PHOTOGRAPHS
A1.0 SITE PLAN
A2.1a 1ST FLOOR PLAN
A2.1b 2ND FLOOR PLAN
A2.2a LOWER ROOF PLAN
A2.2b UPPER ROOF PLAN
A3.0 EXTERIOR ELEVATIONS
A3.1 EXTERIOR ELEVATIONS
A3.2 EXTERIOR PERSPECTIVES
A5.0 SECTIONS

PROJECT TEAM

OWNER
Gabriella Vetere and Deryk Davis
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Campbell, CA 95008
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email: DerykDavis@gmail.com

ARCHITECT/INTERIOR DESIGNER
Studio 5 Squared Architecture, Inc.
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email: Sean@Studio5zarch.com

STRUCTURAL ENGINEER
BCA Structural Engineering
attn: Geoff Cliford
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email: geoff@BCAeng.net

GEOTECHNICAL ENGINEER
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CIVIL ENGINEER
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LANDSCAPE ARCHITECT
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email: Tom@THNorton.com

HVAC / TITLE-24 ENGINEER
MR Engineering Consultants, Inc.
attn: Vishnu Vardhan Kumar Pajjuri
ph: 510 509 2362 x119
email: Vishnu@MREngCon.com

ARBORIST
Kelley Arborist Services LLC
attn: Kevin Kiely
ph: 650 515 9783
email: KKarbor0476@yahoo.com

REQ'D CONTRACTOR SUBMITTALS TO ARCHITECT

THE FOLLOWING ARE REQUIRED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL/REVIEW:

- WINDOW/DOOR PACKAGE
- CABINET SHOP DRAWINGS AND FINISH SAMPLES
- MECHANICAL DUCTING PLAN
- STAIR AND RAIL SHOP DRAWINGS
- MISC. STEEL SHOP DRAWINGS

NOTE: SEE STRUCTURAL PLANS FOR ADDITIONAL REQUIRED SUBMITTALS FOR SHOP DRAWINGS, ETC.

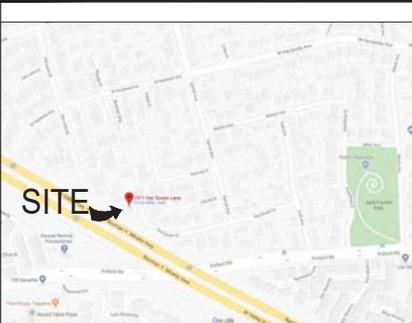
REQ'D CONTRACTOR SUBMITTALS TO BUILDING DEPT. PRIOR TO PERMIT ISSUANCE

- LICENSE NUMBER
- INSURANCE AND WORKER'S COMP POLICIES
- CONSTRUCTION STAGING PLAN
- CONSTRUCTION WASTE MANAGEMENT PLAN IN ACCORDANCE WITH CALGREEN 4.408.2

APPLICABLE CODES

APPLICABLE CODES (with Campbell Amendments)
2019 CALIFORNIA ADMINISTRATIVE CODE, CAC
2019 CALIFORNIA BUILDING CODE, CBC
2019 CALIFORNIA RESIDENTIAL BUILDING CODE, CRC
2019 CALIFORNIA ELECTRICAL CODE, CEC
2019 CALIFORNIA MECHANICAL CODE, CMC
2019 CALIFORNIA PLUMBING CODE, CPC
2019 CALIFORNIA ENERGY CODE, CECc
2019 CALIFORNIA HISTORICAL CODE, CHC
2019 CALIFORNIA FIRE CODE, CFC
2019 CALIFORNIA EXISTING BUILDING CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS
2019 CALIFORNIA REFERENCED STANDARDS
SANTA CLARA COUNTY STANDARD DETAIL AND SPECIFICATION S1.7 FOR CONSTRUCTION SITE SAFETY

LOCATION MAP



ASSESSOR'S PARCEL MAP



PROJECT SUMMARY

Assessor's Parcel No.	403-19-097
Zoning:	R-1-9 (subject to R-1-6 setbacks)
Jurisdiction:	Campbell
Type of Construction:	TYPE V-8, SPRINKLERED
Building Occ. Groups:	R-3/U (SINGLE FAMILY RESIDENTIAL)
Required Property Setbacks (1st / 2nd):	
Front	20'
Rear	10'
Right Side	greater of 1/2 wall height or 5'-0" min.
Left Side	greater of 1/2 wall height or 5'-0" min.
Proposed Property Setbacks (1st / 2nd):	
Front	20'-4"
Rear	10'-1"
Right Side	5'-6" / 10'-11"
Left Side	5'-6" / 10'-11"
Max. Allowed Building Height:	28'
Proposed Building Height:	25'-10" (AMSL=126.43')
Lot Area:	6,043.55
Total New Garage:	430.56
New First Floor Living Area:	1,403.40
New Living Second Floor Area:	631.20
Total New Living Area:	2,234.60
Total New Residence:	2,665.16
FAK Percentage:	43.95%
Building Coverage:	2,169.74
Building Coverage Percentage:	35.78%
Landscaping Coverage:	2,373.5F (39.0%)
Paving Coverage:	1,454.5F (27.5%)
Imperious / Pervious Coverage:	61% / 39%
Covered Parking Provided:	2 spaces 18' x 20'



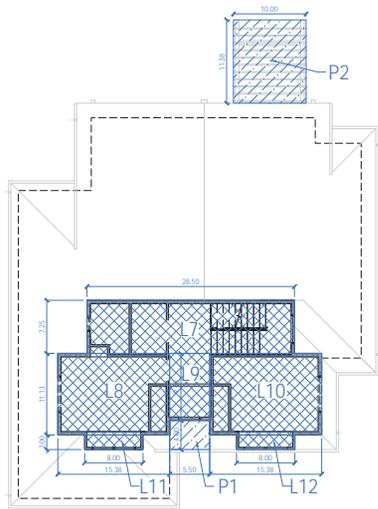
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P: (408) 998-0983

VETERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE
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GABRIELLA VETERE AND DERRYK DAVIS

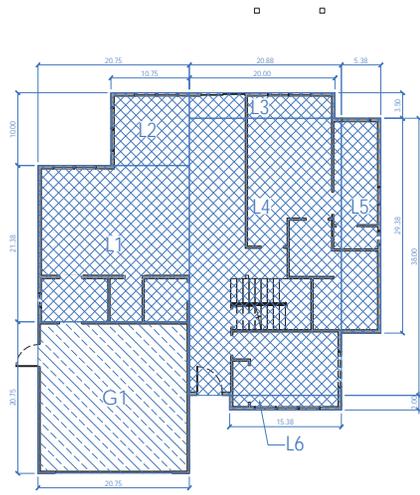


PROJECT NO.	DATE	DESCRIPTION	OWNER
19001	10.31.2019	PLANNING PERMIT SUBMITTAL	SJR
	02.18.2020	PLANNING PERMIT RESUBMITTAL	SJR

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2ND FLOOR



1ST FLOOR

New First Floor Living Area			
	X	Y	Area
L1	20.75	21.38	443.44
L2	10.75	10.00	107.50
L3	20.00	3.50	70.00
L4	20.88	38.00	793.44
L5	5.38	29.38	158.04
L6	15.38	2.00	30.76
Subtotal			1,603.40

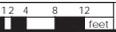
New Living Second Floor Area			
	X	Y	Area
L7	28.50	7.25	204.43
L8	15.38	11.13	171.18
L9	5.50	9.13	50.22
L10	15.38	11.13	171.18
L11	8.00	2.00	16.00
L12	8.00	2.00	16.00
Subtotal			631.20

New Garage Area			
	X	Y	Area
G1	20.75	20.75	430.56
Subtotal			430.56

Additional Building Coverage			
	X	Y	Area
P1	5.50	4.00	22.00
P2	10.00	11.38	113.80
Subtotal			135.80

LA	(of Area)	6,063.55	
NG	Total New Garage	430.6	
TNL+NFL+NSL	Total New Living Area	2,234.6	
TNR+NL+NG	Total New Residence	2,665.2	
TNR/LA	FAR Percentage	43.95%	<45% (OK)
BC+NFL+NG+P	Building Coverage	2,169.8	
BC/LA	Building Coverage Percentage	35.78%	<40% (OK)

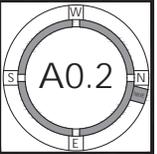
- L# = NEW LIVING AREA
- G# = NEW GARAGE AREA
- P# = ADDITIONAL AREAS THAT COUNT TOWARDS BUILDING COVERAGE SUCH AS PERGOLAS OR ROOF OVERHANGS IN EXCESS OF 24"



FLOOR AREA CALCS 1/8" 1

FLOOR AREA LEGEND

FLOOR AREA CALCULATION





1400 VAN DUSEN
EXISTING 2 STORY HOME



1420 VAN DUSEN
EXISTING 1 STORY HOME



1480 VAN DUSEN
EXISTING 2 STORY HOME



VACANT LOT



1511 VAN DUSEN
(SUBJECT PROPERTY)



1451 VAN DUSEN
EXISTING 4 STORY RESIDENCE

GOOGLE MAP SCREENSHOTS - MAY 2019 - 1



VACANT LOT

1511 VAN DUSEN
(SUBJECT PROPERTY)

1451 VAN DUSEN
EXISTING 4 STORY RESIDENCE



VAN DUSEN LANE STREETScape ELEVATION 1/8" 2



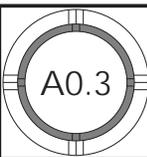
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DATE	DESCRIPTION	STATUS
10.13.2019	PLANNING PERMIT SUBMITTAL	
02.18.2020	PLANNING PERMIT RESUBMITTAL	

STREETScape ELEVATION



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ADJACENT VACANT LOT



EXISTING FRONT OF HOUSE



EXISTING REAR YARD



EXISTING REAR OF HOUSE



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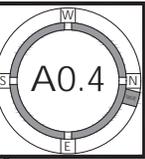
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REVISION	DATE	DESCRIPTION	BY	CHKD BY
10001	10.31.2019	PLANNING PERMIT SUBMITTAL	SZR	
	02.18.2020	PLANNING PERMIT RESUBMITTAL	SZR	

EXISTING SITE PHOTOGRAPHS



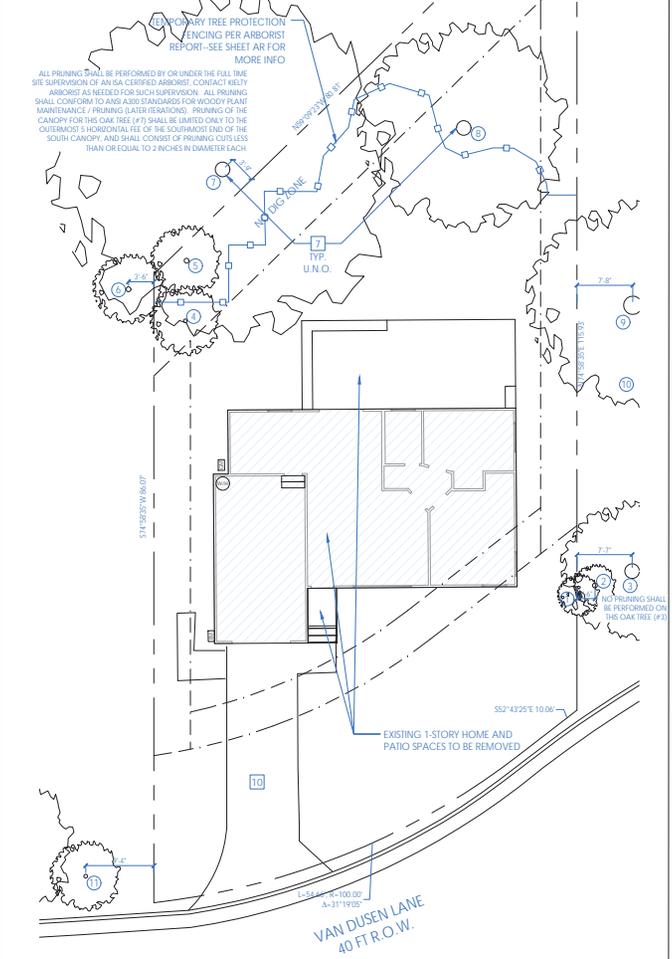
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STANDARDS FOR TREE PROTECTION DURING CONSTRUCTION

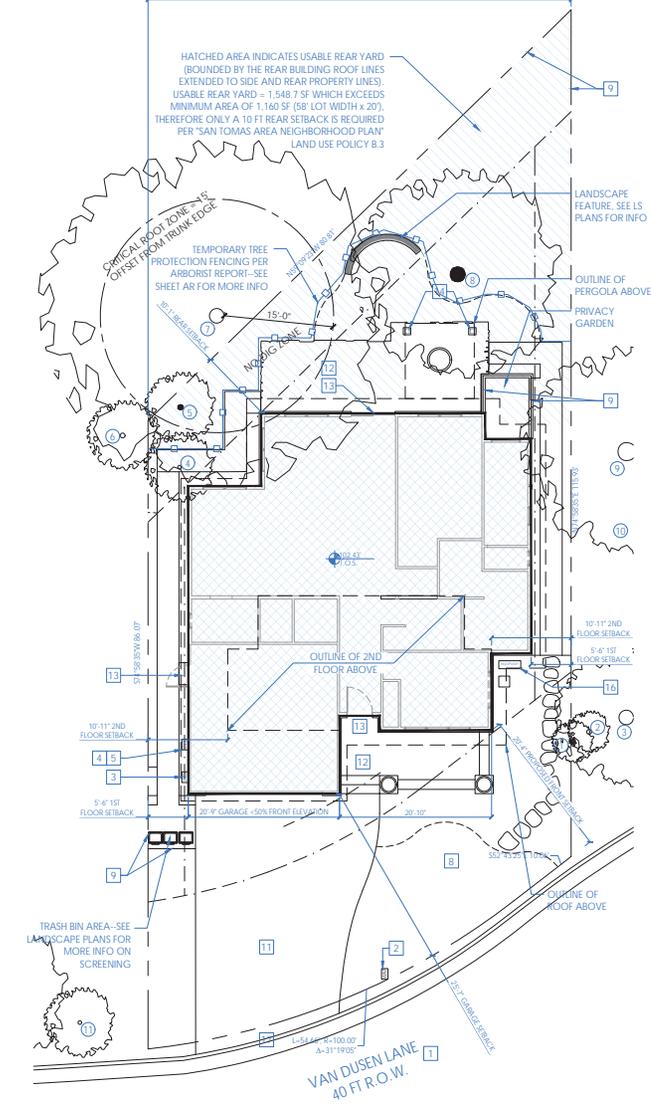
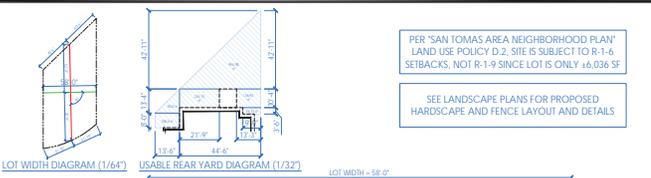
Construction of a building shall be discontinued for preservation shall be protected during development of a property by compliance with the following:

1. Protective fencing shall be installed no closer to the trunk than the drip-line, and the drip-line shall be clearly marked with reflective paint. The protective fencing shall be maintained at all times.
2. The fence shall be chain link, without slats or other visibility-reducing materials.
3. There shall be no cutting of any kind done on or within the tree protection zone.
4. There shall be no excavation or any other activity that would affect the protective zone.
5. The protective zone shall be established as necessary to maintain work adjacent within the protective zone.
6. The existing grade level around a tree shall normally be maintained out to the drip-line of the tree. A minimum grade level may be approved by the Community Development Department if the applicant can demonstrate that the proposed grade will not damage the health of the tree.
7. Trees that have been damaged by construction shall be replaced in accordance with the standards set forth in the City of Campbell's Tree Ordinance.
8. Trees cannot be pruned to accommodate grading of construction without the express written approval of the City of Campbell's Tree Ordinance. The "Pruning Schedule" of the "International Society of Arboriculture" and shall be used for all pruning activities.
9. The removal of a tree shall be subject to the approval of the tree and the removal of the tree shall be subject to the approval of the tree.
10. No tree stumps or stumps taller than six (6) feet shall be left on the site.
11. No tree stumps or stumps taller than six (6) feet shall be left on the site.
12. Any other measures deemed necessary by a qualified arborist and specified in any report prepared for the project shall be required.
13. The contractor shall submit a copy of the final report to the City of Campbell.
14. The contractor shall submit a copy of the final report to the City of Campbell.

TREE PROTECTION



DEMO SITE PLAN 1/8" = 2'



SITE PLAN 1/8" = 1'

- # = NUMBER TO KEY NOTE BELOW
1. EXISTING PUBLIC RIGHT OF WAY-ANY CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY MUST HAVE AN APPROVED PERMIT FOR CONSTRUCTION IN THE PUBLIC STREET PRIOR TO THE COMMENCEMENT OF THIS WORK. THE PERFORMANCE OF THIS WORK IS NOT AUTHORIZED BY THE BUILDING PERMIT ISSUANCE BUT SHOWN ON THE BUILDING PERMIT FOR INFORMATION ONLY
 2. (N) WATER METER-CONTRACTOR TO COORDINATE (N) METER WITH LOCAL WATER COMPANY IF REQUIRED BY INCREASED FIXTURE LOAD
 3. (N) GAS METER LOCATION-INSTALL TWO 2" DIAMETER x 30" TALL STEEL PIPE BOLLARDS EMBEDDED IN 2 FT DEEP CONCRETE FOOTINGS IF GAS METER IS WITHIN 3 FEET OF DRIVEWAY
 4. (N) ELECTRICAL METER LOCATION-CONTRACTOR TO COORDINATE WITH LOCAL ELECTRICAL COMPANY FOR UPGRADE (400 AMPS) TO (E) ELECTRICAL SERVICE-INSTALL UFER GROUND CONNECTION PER CEC 250-52
 5. UFER GROUND CONNECTION PER CEC 250-52
 6. (N) 4" SEWER LATERAL-CONTRACTOR TO VERIFY LOCATION IN FIELD-PROVIDE CLEANOUT AT THE POINT OF CONNECTION BETWEEN THE BUILDING SEWER AND THE MUNICIPAL LATERAL. USE AN APPROVED FITTING TO BRING THE CLEANOUT RISER TO GRADE WHERE SEWER CLEANOUTS ARE TO BE CONNECTED TO EXISTING MUNICIPAL LATERALS, SUCH CONNECTIONS SHALL BE ACCOMPLISHED BY USE OF AN APPROVED FITTING
 7. (E) TREE(S) TO REMAIN- PROTECT AS REQUIRED DURING CONSTRUCTION - DO NOT LEAVE MATERIALS OR EQUIPMENT IN ROOT AREAS FOR EXTENDED PERIODS OF TIME. SEE ARBORIST REPORT FOR ADDITIONAL INFORMATION
 8. (N) SOFTSCAPE-PROVIDE DRIP IRRIGATION-SEE LANDSCAPE PLANS FOR MORE INFO
 9. (N) FENCE AND GATE-VERIFY FINAL DESIGN AND FINISH WITH LANDSCAPE ARCHITECT-NEW FENCES TO CONFORM TO JURISDICTION'S FENCE REGULATIONS
 10. (E) DRIVEWAY TO BE REMOVED
 11. (N) DRIVEWAY-SEE LANDSCAPE PLANS FOR LAYOUT AND DETAILS
 12. (N) HARDSCAPE-SLOPE AWAY FROM HOUSE @ 2% MIN.
 13. (N) 36" MIN. DEEP LEVEL LANDING PER CRC 311.3 W STEPS (MAX. 7.75" RISER)- PROVIDE EQUAL RISERS IF MORE THAN 1 STEP
 14. (N) PORCH OR TRELIS COLUMNS
 15. (N) TRELIS ABOVE-SEE DETAIL (SKETCHUP DETAIL ON A3.47)
 16. (N) HEATPUMP UNIT PAD(S)-PROVIDE ELECTRICAL TO THIS LOCATION AS REQUIRED, VERIFY SIZE AND QUANTITY WITH HVAC CONTRACTOR. HEATPUMP UNITS TO COMPLY WITH JURISDICTION'S NOISE ORDINANCE-SEE HVAC PLANS
 17. (N) CURB CUT PER LOCAL JURISDICTION'S STANDARD DETAIL-SEE CIVIL PLANS

SITE PLAN KEYNOTES

- PROPERTY LINE-SEE TOPO SURVEY FOR MORE INFO
- REQUIRED YARD SETBACK/EASEMENT
- - - TREE PROTECTION FENCING
- [Hatched Box] EXISTING BUILDING AREA TO BE DEMOLISHED
- [Cross-hatched Box] NEW BUILDING AREA
- [Dotted Box] USABLE REAR YARD AREA TO ALLOW FOR 10 FT REAR SETBACK
- ⊕ APPROXIMATE SPOT ELEVATION, SEE CIVIL DRAWINGS FOR MORE INFO
- ① TREE NUMBER-REFER TO ARBORIST REPORT FOR SPECIES AND OTHER INFO SUCH AS PROTECTION AND EXCAVATION REQUIREMENTS WITHIN ROOT ZONES-ALSO SEE CAMPBELL TREE PROTECTION REQUIREMENTS THIS SHEET

NOTES:

1. (E) WATER SUPPLY TO BE REPLACED FROM METER IN
2. (E) SEWER LATERAL TO BE REPLACED FROM PROPERTY LINE IN
3. SEE LANDSCAPE PLANS FOR ALL SITE CONCRETE AND HARDSCAPE LAYOUT AND DETAILS-COORDINATE WITH CIVIL & GEOTECH. REQUIREMENTS
4. SEE LANDSCAPE PLANS FOR ALL FENCE LAYOUT AND DETAILS

SITE PLAN LEGEND



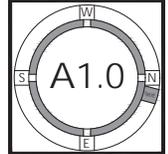
1000 S Winchester Blvd
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VETTERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE
1511 VAN DUSEN LANE, CAMPBELL
GABRIELLA VETTERE AND DERRICK DAVIS

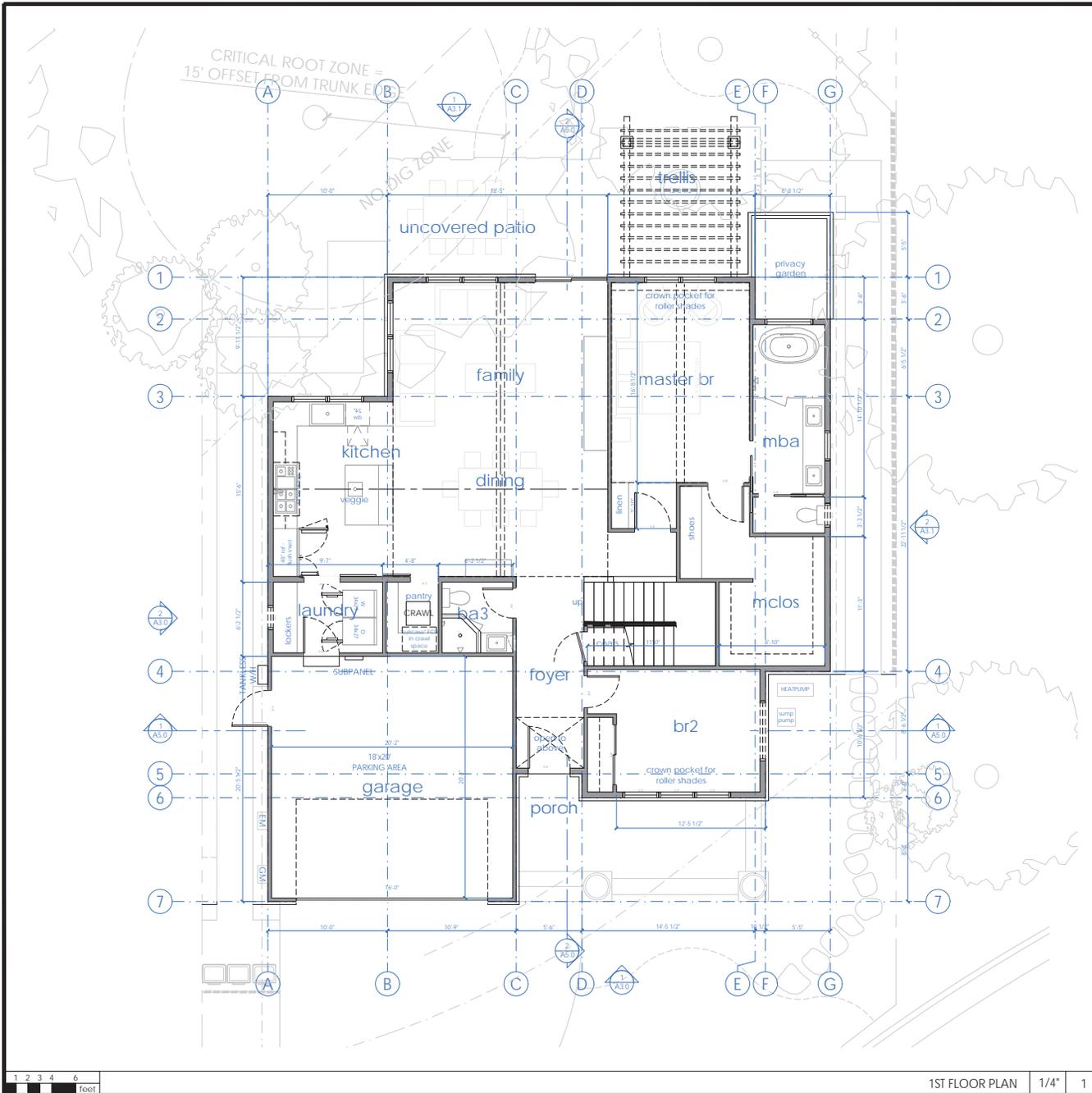


PROJECT NO.	DESCRIPTION	DATE
10001	PLANNING PERMIT SUBMITTAL	10.31.2019
	PLANNING PERMIT RESUBMITTAL	02.18.2020

SITE PLAN & DEMO SITE PLAN



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- # = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP(S)-10" MIN. TREAD AND MAX. 7" RISER HEIGHT
 - (N) LANDING-MIN. 3" DEEP X WIDTH OF DOOR-MAX. 7-3/4" RISER HEIGHT TO TOP OF THE DOOR THRESHOLD OR DOOR TRACK TO THE EXTERIOR LANDING IN ORDER TO VERIFY COMPLIANCE WITH CRC R311.3.1 OR R311.3.2
 - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
 - STONE VENEER-SEE ELEVATIONS FOR MORE INFO
 - INDICATES PREFAB CLOSET SYSTEM (OWNER PROVIDE/CONTRACTOR INSTALL)
 - INDICATES ROD AND SHELF AT 4'-0" ABOVE T.O.S.-VERIFY HEIGHT WITH OWNER
 - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
 - (N) 22" X 30" MIN. ATTIC ACCESS. ACCESS TO BE LARGE ENOUGH TO ALLOW FOR THE LARGEST PIECE OF EQUIPMENT TO FIT THROUGH
 - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A0.1a. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
 - (N) FURNACE IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A0.1a. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS AND HVAC PLANS
 - (N) FURNACE IN ATTIC, FIELD VERIFY UNOBSTRUCTED PASSAGEWAY TO FURNACE NOT LESS THAN 18" HIGH AND WIDE WITH SOLID FLOORING. ALSO PROVIDE 30" X 30" PLATFORM AND LIGHT ON SEPARATE SWITCH OVER SERVICE. FURNACE TO BE NO MORE THAN 20' TRAVEL DISTANCE FROM ATTIC ACCESS-SEE TITLE 24 REPORT AND HVAC PLANS FOR APPLIANCE REQUIREMENTS
 - (N) HEATPUMP SYSTEM-SEE MECHANICAL GENERAL NOTES FOR APPLIANCE REQUIREMENTS
 - CUSTOM CABINERY
 - FULL HEIGHT LINEN CABINET WITH KRAFFTMAID OR EQUAL
 - INSTALL MIN. 1/2" GYP.BD SOFFITS AT ENCLOSED ACCT UNDER-STAIR SURFACE, AND ANY SOFFITS AT ENCLOSED ACCT UNDER STAIRS PER CRC 302.7
 - ZURN 2880 OR EQ. 2-1/2" DIA DRAIN, DAYLIGHT AT EDGE OF PATIO (TO SIDEYARD)

- NOTE:
- SEE 2/A0.1 FOR MECHANICAL GENERAL NOTES
 - SEE 3/A0.1 FOR MECHANICAL GENERAL NOTES
 - SEE 4/A0.1 FOR MECHANICAL GENERAL NOTES
 - SEE 5/A0.1 FOR MECHANICAL GENERAL NOTES

FLOOR PLAN KEYNOTES	
	(N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C.-SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 2 LAYERS OF BUILDING PAPER (FOR STUCCO ONLY) OR 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2.-INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILING AT TUB/SHOWERS TO BE M.R. BOARD
	(N) EXISTING WALL W/ 1 HOUR SEPARATION-5/8" TYPE 'X' GYP ON GARAGE SIDE FROM FOUNDATION TO ROOF SHEATHING
	(N)/(E) STAGGERED STUD ACOUSTICAL WALL PER DETAIL [X/XXX]
	DENOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. (E) HOSE BIBBS TO REMAIN.
	(N) GAS COCK-REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION
	DOOR KEY--SEE A4.0 FOR MORE INFORMATION
	WINDOW KEY--SEE A4.0 FOR MORE INFORMATION
	FLOOR ELEVATION CHANGE--SEE CIVIL PLANS FOR MORE INFO



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VETERE-DAVIS RESIDENCE
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1511 VAN DUSEN LANE, CAMPBELL
GABRIELLA VETERE AND DERRICK DAVIS

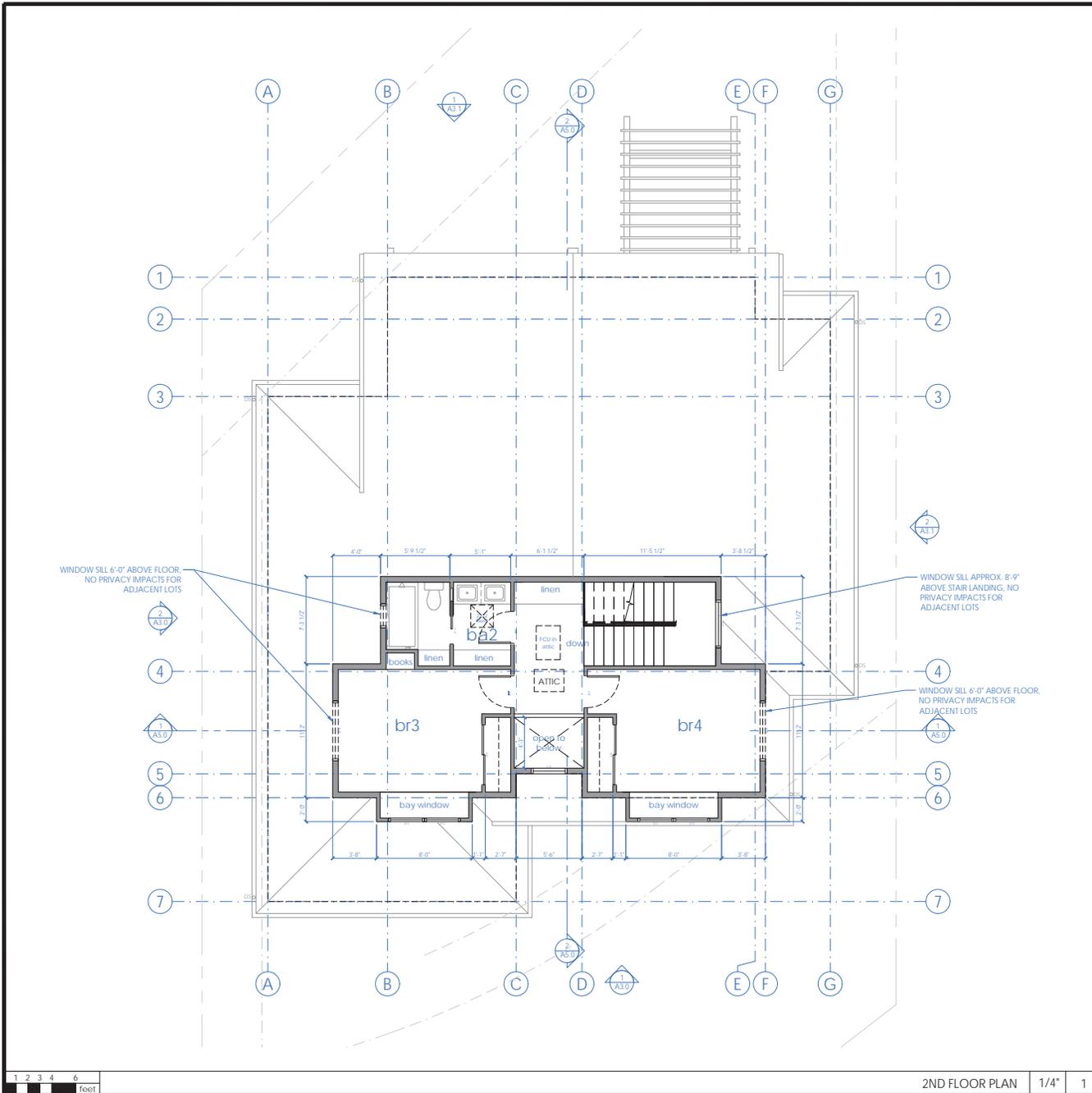


PROJECT NO.	DESCRIPTION	DATE
19001	PLANNING PERMIT SUBMITTAL	10.31.2019
	PLANNING PERMIT RESUBMITTAL	02.18.2020

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1ST FLOOR PLAN

A2.1a



- # = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP(S)--10" MIN. TREAD AND MAX. 7" RISER HEIGHT
 - (N) LANDING--MIN. 3" DEEP x WIDTH OF DOOR--MAX. 7-3/4" RISER HEIGHT TO TOP OF THE DOOR THRESHOLD OR DOOR TRACK TO THE EXTERIOR LANDING IN ORDER TO VERIFY COMPLIANCE WITH CRC R311.3.1 OR R311.3.2
 - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
 - STONE VENEER--SEE ELEVATIONS FOR MORE INFO
 - INDICATES PREFAB CLOSET SYSTEM (OWNER PROVIDE/CONTRACTOR INSTALL)
 - INDICATES ROD AND SHELF AT ±6'-0" ABOVE T.O.S.--VERIFY HEIGHT WITH OWNER
 - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
 - (N) 22" X 30" MIN. ATTIC ACCESS. ACCESS TO BE LARGE ENOUGH TO ALLOW FOR THE LARGEST PIECE OF EQUIPMENT TO FIT THROUGH
 - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT--PROVIDE 30" WIDE, HIGH AND DEEP CLEAR WORKING SPACE PER CMC 305.0. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
 - (N) FURNACE IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT--PROVIDE 30" WIDE, HIGH AND DEEP CLEAR WORKING SPACE PER CMC 305.0. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS AND HVAC PLANS
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 - (N) HEATPUMP SYSTEM--SEE TITLE 24 REPORT AND HVAC PLANS FOR APPLIANCE REQUIREMENTS
 - CUSTOM CABINERY
 - FULL HEIGHT LINEN CABINET WITH KRAFTMAID OR EQUAL
 - INSTALL MIN. 1/2" GYP.BD SOFFITS AT ENCLOSED ACCESS UNDER STAIR SURFACE, AND ANY UNDER STAIRS PER CRC 302.7
 - ZURN Z880 OR EQ. 2-1/2" DIA DRAIN, DAYLIGHT AT EDGE OF PATIO (TO SIDEYARD)

- NOTE:
- SEE 2/A0.1--MECHANICAL GENERAL NOTES
 - SEE 3/A0.1--ELECTRICAL GENERAL NOTES
 - SEE 4/A0.1--PLUMBING GENERAL NOTES
 - SEE 5/A0.1--ARCHITECTURAL AND INTERIOR GENERAL NOTES

FLOOR PLAN KEYNOTES		
	(N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C.--SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 2 LAYERS OF BUILDING PAPER (FOR STUCCO ONLY) OR 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2--INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILINGS AT TUB/SHOWERS TO BE M.R. BOARD	
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	(N)/(E) STAGGERED STUD ACOUSTICAL WALL PER DETAIL [X/XXX]	
	DENOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. (E) HOSE BIBBS TO REMAIN.	
	(N) GAS COCK--REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION	
	DOOR KEY--SEE A4.0 FOR MORE INFORMATION	
	WINDOW KEY--SEE A4.0 FOR MORE INFORMATION	
	FLOOR ELEVATION CHANGE--SEE CIVIL PLANS FOR MORE INFO	



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VETERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE

1511 VAN DUSEN LANE, CAMPBELL
GABRIELLA VETERE AND DERRICK DAVIS



PROJECT NUMBER	DESCRIPTION	DATE
190001	PLANNING PERMIT SUBMITTAL	10.31.2019
	PLANNING PERMIT SUBMITTAL	02.18.2020

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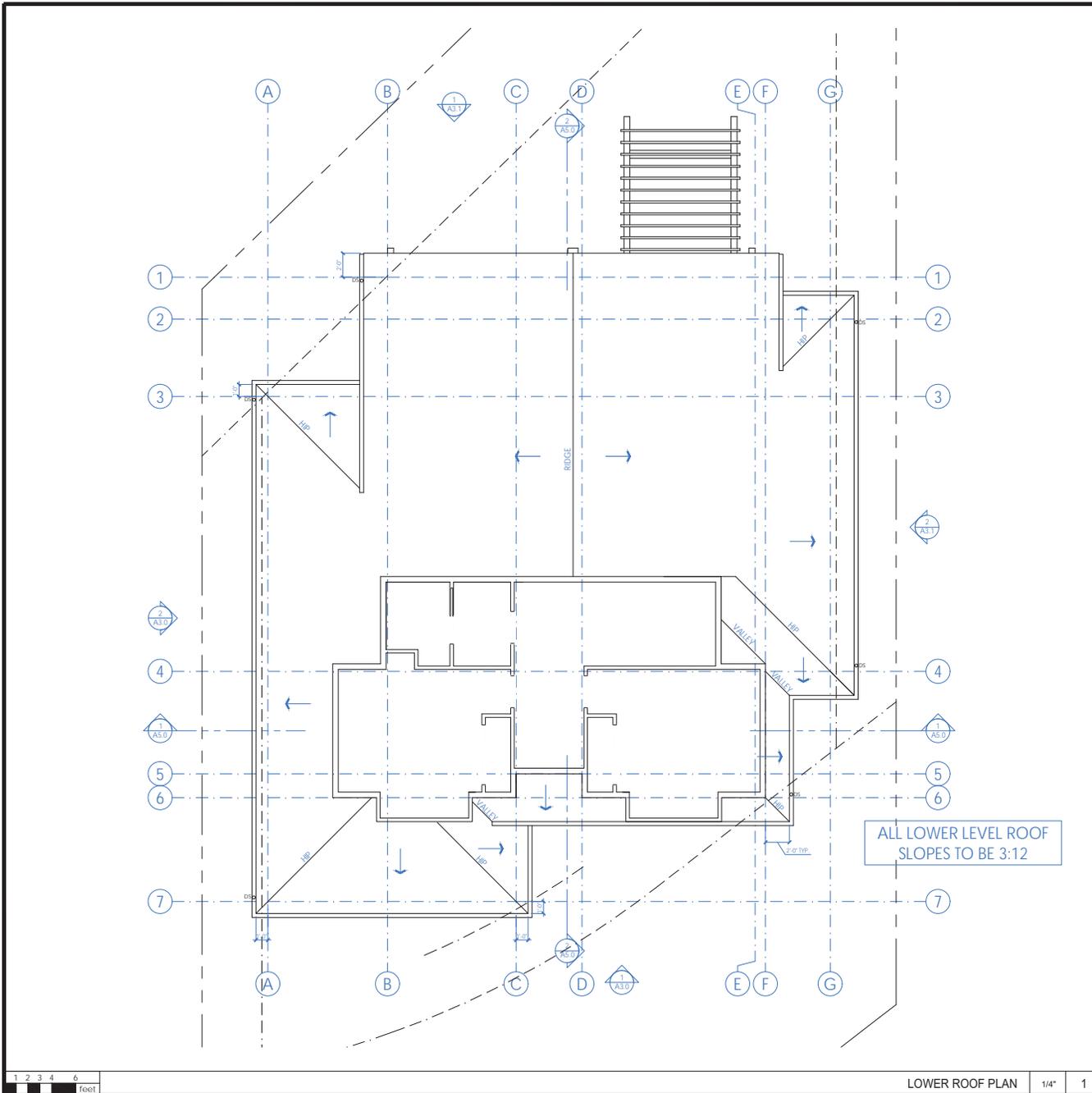
1 2 3 4 6 Feet

2ND FLOOR PLAN 1/4" 1

FLOOR PLAN LEGEND

2ND FLOOR PLAN

A2.1b



1. INSTALL ALL NEW ROOFING MATERIALS-SEE LEGEND BELOW FOR MATERIALS-CONFIRM COLOR SELECTION W/ OWNER PRIOR TO PLACING ORDER
2. PAINT ALL ROOF PENETRATIONS TO MATCH ROOFING COLOR.
3. PLUMBING VENTS TO BE MIN. 10' AWAY FROM, OR AT LEAST 3' ABOVE ANY OPERABLE WINDOW OR SKYLIGHT PER CPC 906.2.
4. ROUTE PLUMBING VENTS WITHIN ATTIC SPACE SO THAT ROOF PENETRATIONS ARE BEHIND MAIN ROOF RIDGE AND ARE NOT VISIBLE FROM THE STREET
5. FUTURE SOLAR PANELS PER CEC 110.10 (MINIMUM 250 S.F. ON A SOUTH SIDE ORIENTATION). KEEP AREA CLEAR OF ROOFING EYEBROW, MECHANICAL AND PLUMBING VENTS.
6. SEE ROOF PLAN FOR SLOPES
7. PROVIDE (N) GSM ROOF JACKS, TYP. CAULK ALL EXPOSED NAIL HEADS WITH SILICONE SEALANT.
8. PROVIDE (N) GUTTERS AND DOWNSPOUTS AT LOCATIONS SHOWN-GUTTERS TO SLOPE 1:240 FRONT-TO-BACK, BUT TO BE LEVEL SIDE TO SIDE
9. INSTALL KICKOUT FLASHING PER 8/A8.0 WHEREVER GUTTERS TERMINATE AT A WALL
10. ALL PLATE HEIGHTS PER SECTIONS AND RCP. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
11. CONNECT ALL DOWNSPOUTS TO FLEXIBLE PLASTIC DRAINPIPE AND RUN TO A LOCATION SPECIFIED BY CIVIL PLANS

NOTE:
 1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
 2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
 3. SEE 4/A0.1a FOR ELECTRICAL GENERAL NOTES
 4. SEE 5/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES

ROOF GENERAL NOTES

PROJECT NO.	DATE	DESCRIPTION	REVISION
19001	10.31.2019	PLANNING PERMIT SUBMITTAL	1
	02.18.2020	PLANNING PERMIT RESUBMITTAL	2

ATTIC VENTILATION CALCULATIONS AND NOTES

ALL ROOFING TO BE ASPHALT COMPOSITION SHINGLES w/ 1 LAYER 15# ROOF FELT (EXCEPT FOR AT ROOF SLOPES BETWEEN 2-4:12. INSTALL 2 LAYERS) PER CRC 905.2.7-MIN. CLASS C-MANUF. CERTAINTED. STYLE: PRESIDENTIAL TL SOLARIS (COOL ROOF). COLOR: SHADOW GRAY. LIFE EXPECTANCY: 30 YEAR MINIMUM-VERIFY FINAL SELECTION WITH OWNER PRIOR TO PLACING ORDER. INSTALL PER MANUF. WARRANTY INSTRUCTIONS AND ICC-ES EVALUATION REPORT #ESR-1389

DS DENOTES GUTTER DRAIN (3" DIA.) AND DOWNSPOUT (2" X 3") 26 GA ALUMINUM - FIELD VERIFY COLOR W/ OWNER. INSTALL PER MFR. INSTRUCTIONS

← DENOTES DIRECTION OF SLOPE FROM HIGH TO LOW-ROOF SLOPE APPROX. REFER TO ELEVATIONS FOR MAX HT AND VERTICAL CONTROL

--- LINE OF BLDG. BELOW



LOWER ROOF PLAN 1/4" 1

ROOF PLAN LEGEND



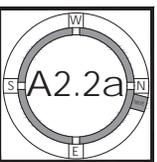
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VETTERE-DAVIS RESIDENCE
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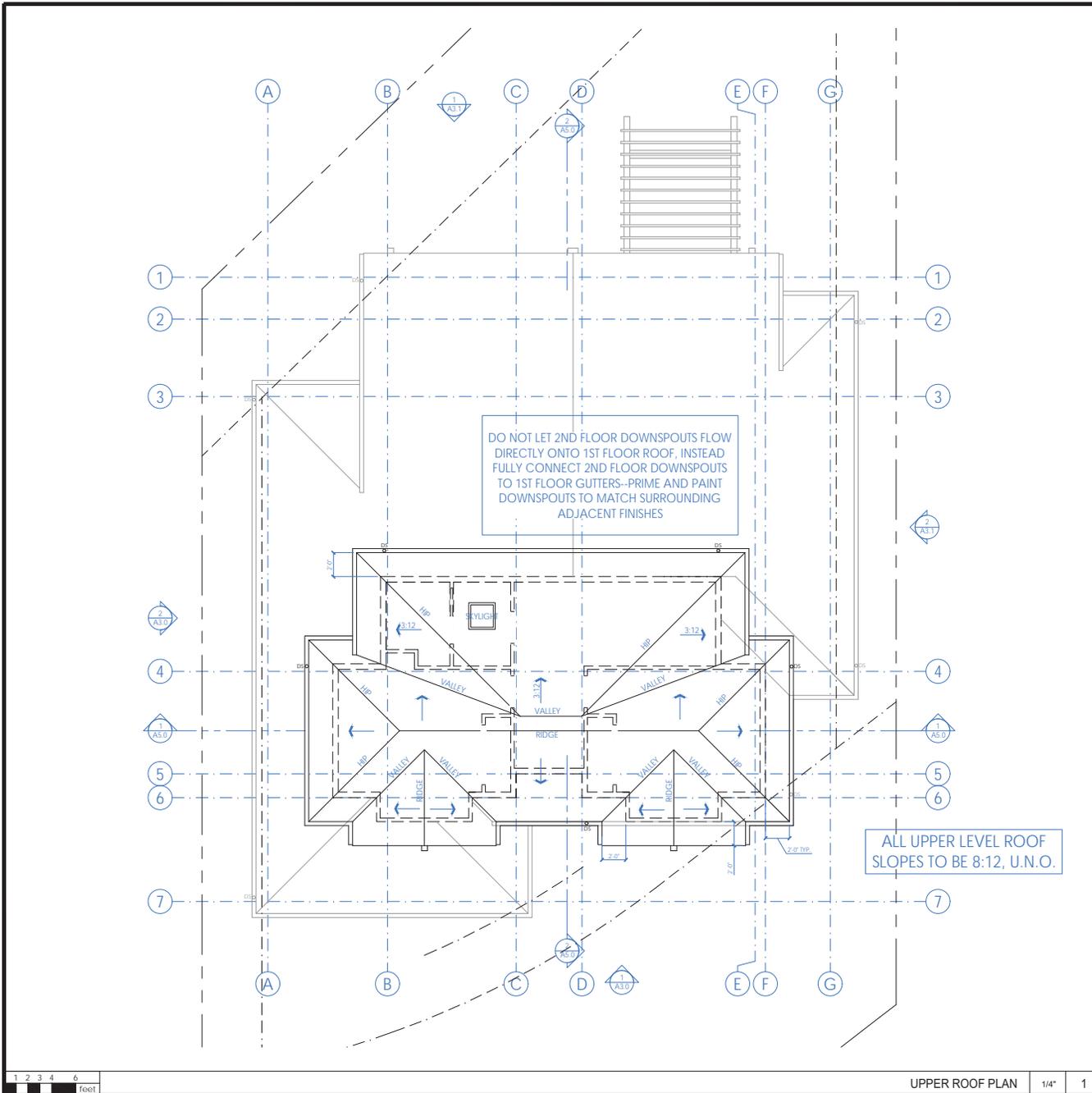


PROJECT NO.	DATE	DESCRIPTION	REVISION
19001	10.31.2019	PLANNING PERMIT SUBMITTAL	1
	02.18.2020	PLANNING PERMIT RESUBMITTAL	2

LOWER ROOF PLAN



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1. INSTALL ALL NEW ROOFING MATERIALS--SEE LEGEND BELOW FOR MATERIALS--CONFIRM COLOR SELECTION W/ OWNER PRIOR TO PLACING ORDER
2. PAINT ALL ROOF PENETRATIONS TO MATCH ROOFING COLOR.
3. PLUMBING VENTS TO BE MIN. 10' AWAY FROM, OR AT LEAST 3' ABOVE ANY OPERABLE WINDOW OR SKYLIGHT PER CPC 906.2.
4. ROUTE PLUMBING VENTS WITHIN ATTIC SPACE SO THAT ROOF PENETRATIONS ARE BEHIND MAIN ROOF RIDGE AND ARE NOT VISIBLE FROM THE STREET
5. FUTURE SOLAR PANELS PER CEC 110.10 (MINIMUM 250 S.F. ON A SOUTH SIDE ORIENTATION). KEEP AREA CLEAR OF ROOFING EYEBROW, MECHANICAL AND PLUMBING VENTS.
6. SEE ROOF PLAN FOR SLOPES
7. PROVIDE (N) GSM ROOF JACKS, TYP. CAULK ALL EXPOSED NAIL HEADS WITH SILICONE SEALANT.
8. PROVIDE (N) GUTTERS AND DOWNSPOUTS AT LOCATIONS SHOWN--GUTTERS TO SLOPE 1:240 FRONT-TO-BACK, BUT TO BE LEVEL SIDE TO SIDE
9. INSTALL KICKOUT FLASHING PER 8/A8.0 WHEREVER GUTTERS TERMINATE AT A WALL
10. ALL PLATE HEIGHTS PER SECTIONS AND RCP. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
11. CONNECT ALL DOWNSPOUTS TO FLEXIBLE PLASTIC DRAINPIPE AND RUN TO A LOCATION SPECIFIED BY CIVIL PLANS

NOTE:
 1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
 2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
 3. SEE 4/A0.1a FOR ELECTRICAL GENERAL NOTES
 4. SEE 5/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES

ROOF GENERAL NOTES

PROJECT NO.	DATE	DESCRIPTION	OWNER/CLIENT
19001	10.31.2019	PLANNING PERMIT SUBMITTAL	SZR
	02.18.2020	PLANNING PERMIT RESUBMITAL	SZR

ATTIC VENTILATION CALCULATIONS AND NOTES

ALL ROOFING TO BE ASPHALT COMPOSITION SHINGLES w/ 1 LAYER 15# ROOF FELT (EXCEPT FOR AT ROOF SLOPES BETWEEN 2-4:12. INSTALL 2 LAYERS) PER CRC 905.2.7--MIN. CLASS C--MANUF. CERTAINTED. STYLE: PRESIDENTIAL T. SOLARIS (COOL ROOF). COLOR: SHADOW GRAY. LIFE EXPECTANCY: 30 YEAR MINIMUM--VERIFY FINAL SELECTION WITH OWNER PRIOR TO PLACING ORDER. INSTALL PER MANUF. WARRANTY INSTRUCTIONS AND ICC-ES EVALUATION REPORT #ESR-1389

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← DENOTES DIRECTION OF SLOPE FROM HIGH TO LOW--ROOF SLOPE APPROX. REFER TO ELEVATIONS FOR MAX HT AND VERTICAL CONTROL

--- LINE OF BLDG. BELOW

ROOF PLAN LEGEND



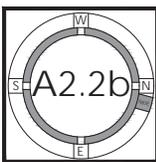
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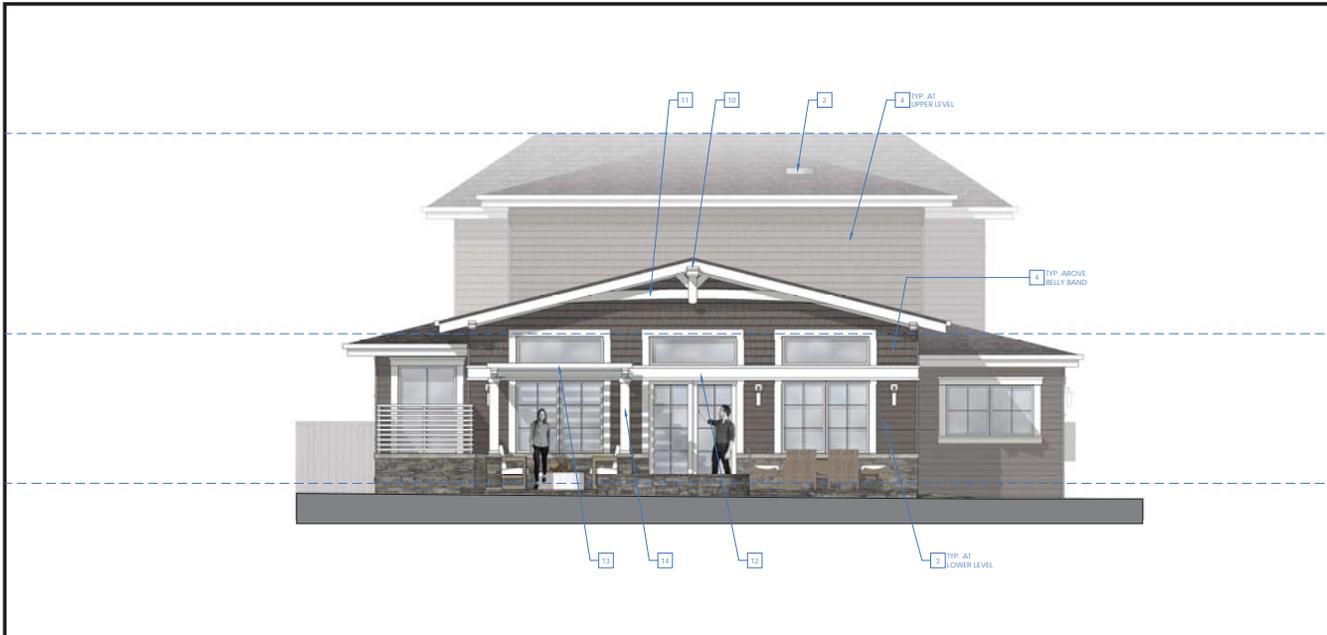


PROJECT NO.	DATE	DESCRIPTION	OWNER/CLIENT
19001	10.31.2019	PLANNING PERMIT SUBMITTAL	SZR
	02.18.2020	PLANNING PERMIT RESUBMITAL	SZR

UPPER ROOF PLAN



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WEST ELEVATION (BACK) 1/4" 1



NORTH ELEVATION (RIGHT) 1/4" 2

- KEYNOTE BELOW
- 1 ASPHALT COMP SHINGLE ROOFING--SEE ROOF PLAN FOR MORE INFO
 - 2 SKYLIGHT--SEE WINDOW SCHEDULE FOR MORE INFO
 - 3 FIELD PAINTED FIBER CEMENT LAP SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: ARTISAN; EXPOSURE: 6 INCHES; STYLE: SMOOTH--www.artisanluxury.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
 - 4 FIELD PAINTED FIBER CEMENT SHINGLE SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: STRAIGHT EDGE PANEL; EXPOSURE: 7"--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
 - 5 FIELD PAINTED FIBER CEMENT VERTICAL SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: SMOOTH--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
 - 6 ADHERED LIGHTWEIGHT STONE VENEER (<15 LBS/SF)--MANUF.: ELDORADO STONE; STYLE: CLIFFSTONE; COLOR: BANFF SPRINGS; INSTALLATION STYLE: DRYSTACK; WAINSCOT SILL OVER STEEL "L" ANGLE; SPLIT EDGE; SILL COLOR: GREY SKY--www.eldoradostone.com--USE POLYMER MODIFIED SETTING MORTAR--INSTALL PER MANUF. INSTRUCTIONS; ICC-ES EVALUATION REPORT ESR-1215; AND MVMA INSTALLATION GUIDE FOR COMPLIANCE WITH ASTM C1780; CONTACT TERESA VASQUEZ AT BORAL STONE GROUP (415-418-9730; Teresa.Vasquez@boral.com) FOR FIELD REVIEW OF LATH INSTALLATION PRIOR TO INSTALLING SCRATCH COAT; SEAL VENEER WITH SILANE OR SILOXANE BASED MASONRY TREATMENT SUCH AS CRAFTSHIELD PER MANUF. INSTRUCTIONS.
 - 7 PAINTED FIBER CEMENT TRIM--2x8 BARGEBOARD AND 1x2 DRIP EDGE
 - 8 PAINTED FIBER CEMENT TRIM--2x10 FASCIA WITH 4" SEAMLESS PAINTED SHEET METAL GUTTER--VERIFY GUTTER PROFILE WITH OWNER PRIOR TO FABRICATION--SEE ROOF PLAN FOR MORE INFO
 - 9 PAINTED REDWOOD OR A.Y.C. 6" x 6" SHAPED CORBEL/BRACKET--CUT BARGEBOARD TO FIT TIGHT TO TRIM ELEMENTS
 - 10 PAINTED REDWOOD OR A.Y.C. 6" x 6" SHAPED CORBEL
 - 11 PAINTED REDWOOD OR A.Y.C. CURVED 8" TRIM
 - 12 PAINTED FIBER CEMENT TRIM--1 1/2" BELLYBAND
 - 13 PAINT GRADE FIBER CEMENT TRELLIS--SEE ROOF PLAN FOR MORE INFO
 - 14 ONE PIECE STRAIGHT FIBER GLASS COLUMN, 8" SQUARE BASE, 5'-0" HEIGHT OVER STONE VENEER BASE
 - 15 PAINT GRADE WOOD GARAGE DOOR WITH TEMPERED GLAZING PICTURE WINDOWS--SEE DOOR SCHEDULE FOR MORE INFO
 - 16 WINDOW/DOOR OPENING WITH SIMULATED DIVIDED LITES; GRIDS ON THE INTERIOR AND EXTERIOR OF THE GLASS AND A SPACER BAR BETWEEN THE PANE OF GLASS--SEE WINDOW AND DOOR SCHEDULES FOR MORE INFO--DOORS AND WINDOWS TO HAVE 6" PAINTED FIBER CEMENT TRIM TYPICAL, U.N.O. EXTERIOR LIGHT; INSTALL PER MANUF. INSTRUCTIONS--dwellLED Nest 1 1/2" High Bronze LED Outdoor Wall Light, DARK SKY COMPLIANT FIXTURE
 - 17 PIN MOUNTED LED ILLUMINATED ADDRESS SIGNAGE, CLEARLY VISIBLE FROM ADJACENT STREET; HEIGHT: 8" STYLE: LUXELLO LED; MODERN NEUTRA HOUSE NUMBERS LED BACKLIT; FINISH: ANODIZED--www.surrounding.com/products/luxello--PROVIDE PHOTOSENSOR CONNECTED LED BACKLIGHTING @ EACH NUMBER
 - 18 CRAWLSPACE VENT--SEE CRAWLSPACE VENT CALCUS ON A2.1 FOR MORE INFO
 - 19 HARDSCAPE--SEE SITE PLAN AND FINISH FLOOR PLAN FOR MORE INFO
 - 20 HEATPUMP--SEE HVAC PLANS FOR MORE INFO
 - 22 ELECTRICAL METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO
 - 23 GAS METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO

PAINT SCHEDULE:
 SHINGLE SIDING / LAP SIDING: BROWN - BENJAMIN MOORE 2134-20 'MIDSUMMER NIGHT'
 VERTICAL SIDING / TRIM: WHITE - BENJAMIN MOORE OC-68 'DISTANT GRAY'

- NOTES:
1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
 2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
 3. SEE 3/A0.1a FOR ELECTRICAL GENERAL NOTES
 4. SEE 4/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
 5. EXTERIOR HARDSCAPE AND EXTERIOR STAIRS NOT SHOWN FOR CLARITY--SEE A0.3a FOR 3D MODEL VIEWS

KEYNOTES	-	-
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ELEVATION GRID LINE KEY
 A 1ST FLOOR TOP OF STRUCTURE = 102.43'
 B 2ND FLOOR TOP OF STRUCTURE = 112.68'
 C T.O. HIGHEST ROOF RIDGE = 128.43'

ELEVATION GRID LINE KEY	-	-
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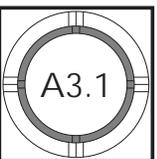
1000 S. Winchester Blvd
 San Jose, CA 95128
 P : (408) 998 - 0983

VETERE-DAVIS RESIDENCE
 NEW SINGLE FAMILY RESIDENCE
 1511 VAN DUSEN LANE, CAMPBELL
 GABRIELLA VETERE AND DERRICK DAVIS



DATE	DESCRIPTION	REVISION	BY	DATE
10.13.2019	PLANNING PERMIT SUBMITTAL			
02.18.2020	PLANNING PERMIT RESUBMITTAL			

EXTERIOR ELEVATIONS



FOR PERMIT REVIEW ONLY -- NOT FOR CONSTRUCTION



EXTERIOR PERSPECTIVE BACK - 4



EXTERIOR PERSPECTIVE FRONT - 1



EXTERIOR PERSPECTIVE BACK LEFT - 5



EXTERIOR PERSPECTIVE FRONT LEFT - 2



EXTERIOR PERSPECTIVE BACK RIGHT - 6



EXTERIOR PERSPECTIVE FRONT RIGHT - 3

LANDSCAPING SHOWN THIS SHEET IS DIAGRAMMATIC ONLY. SEE LANDSCAPE PLANS FOR ACTUAL PLANTING AND LAYOUT



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VETERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE

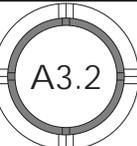
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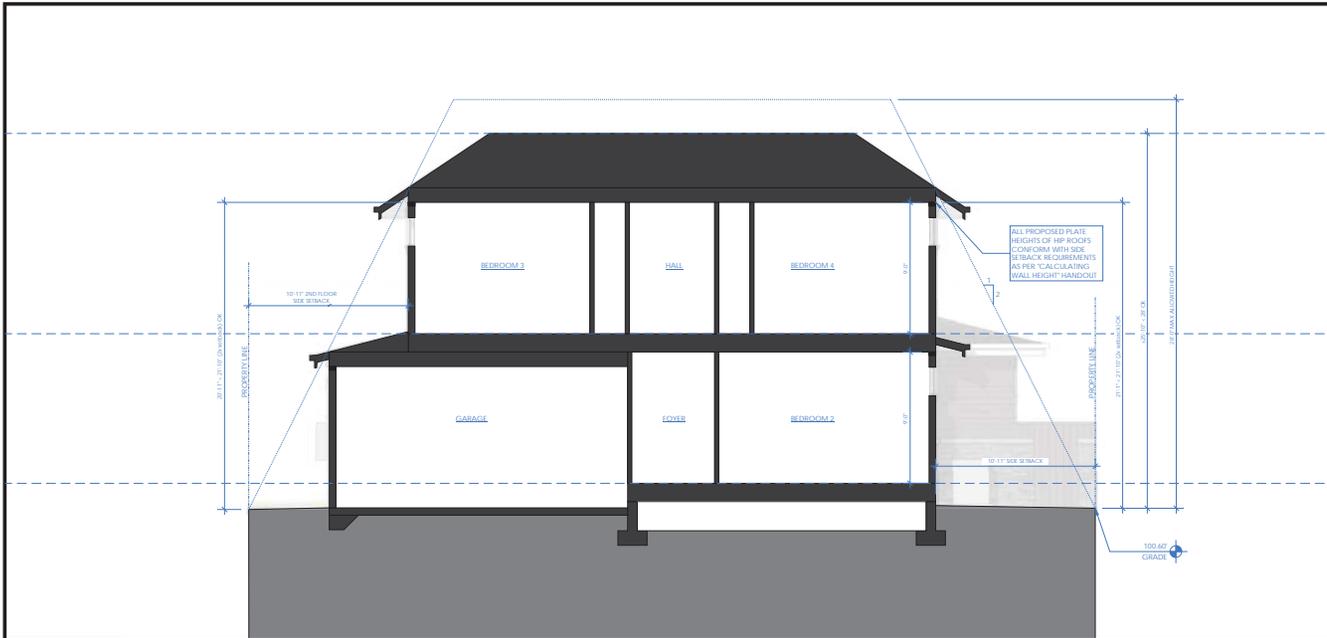


REVISION	DATE	DESCRIPTION	BY	CHK

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EXTERIOR PERSPECTIVES





SECTION 1 1/4" 1



SECTION 2 1/4" 2

1 - NUMBER OF KEYNOTE BELOW

- 1 (N) OR (E) ROOF FRAMING OR TRUSS PACKAGE WITH PLYWOOD SHEATHING WITH RADIANT BARRIER-SEE STRUCTURAL PLANS FOR MORE INFO. INSTALL INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 2 (N) OR (E) PLYWOOD SHEATHING WITH RADIANT BARRIER-SEE STRUCTURAL PLANS FOR MORE INFO
- 3 SKYLIGHT-SEE ROOF PLAN AND WINDOW SCHEDULE FOR MORE INFO--CONTRACTOR TO USE SHARPED FRAMING MEMBERS TO ENSURE THE SKYLIGHT SHAFT HAS NO JOGS OR ANGLES THAT ARE NOT SHOWN IN PLANS
- 4 (N) OR (E) 2x4 OR 2x4 EXTERIOR WALL STUDS @16" O.C. U.N.O. -SEE FLOOR PLAN FOR MORE INFO. INSTALL INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 5 (N) OR (E) 2x4 INTERIOR WALL STUDS @16" O.C. U.N.O.
- 6 5/8" GYPSUM WALL BOARD ON WALLS AND CEILING, TYPICAL THROUGHOUT, U.N.O.
- 7 5/8" TYPE 'X' GYPSUM BOARD ON WALLS AND CEILING IN GARAGE, FIRE TAPED. APPLY 2 LAYERS OF GYPSUM BOARD WHERE FRAMING IS @24" O.C.
- 8 TRAY CEILING--SEE REFLECTED CEILING PLAN FOR MORE INFO
- 9 (N) OR (E) FLOOR/CEILING FRAMING WITH PLYWOOD SHEATHING--SEE STRUCTURAL PLANS FOR MORE INFO
- 10 (N) OR (E) FLOOR FRAMING WITH PLYWOOD SHEATHING--SEE STRUCTURAL PLANS FOR MORE INFO. INSTALL CRAWLSPACE INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 11 (N) OR (E) CONCRETE SLAB--SEE STRUCTURAL PLANS FOR MORE INFO
- 12 DIAGRAMMATIC REPRESENTATION OF (N) OR (E) CONCRETE FOUNDATION--SEE STRUCTURAL PLANS FOR MORE INFO
- 13 18" MIN. CLEAR CRAWLSPACE
- 14 CLASS 1 VAPOR BARRIER OVER GROUND SURFACE / UNDER 3" RAT SLAB WITH REINFORCING MESH IN CRAWLSPACE

NOTES:

1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
3. SEE 3/A0.1a FOR ELECTRICAL GENERAL NOTES
4. SEE 4/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
5. SEE BID INSTRUCTIONS FOR INSULATION VALUES. INSULATION TO BE NOT LESS THAN AS INDICATED IN T24 REPORT

KEYNOTES - -

ELEVATION GRID LINE KEY
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 C T.O. HIGHEST ROOF RIDGE = 128.43'

ELEVATION GRID LINE KEY - -



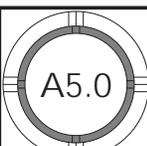
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VETERE-DAVIS RESIDENCE
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DATE	DESCRIPTION	BY	CHKD BY
10.13.2019	PLANNING PERMIT SUBMITTAL		
02.18.2020	PLANNING PERMIT RESUBMITTAL		

SECTIONS



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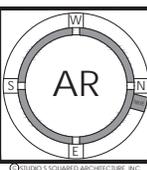
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VETERE-DAVIS RESIDENCE
NEW SINGLE FAMILY RESIDENCE
1511 VAN DUSEN LANE, CAMPBELL
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PROJECT NO.	19001
DATE	02/18/2020
DESCRIPTION	PLANNING PERMIT SUBMITTAL
DATE	10/31/2019
DESCRIPTION	PLANNING PERMIT SUBMITTAL
DATE	02/18/2020
DESCRIPTION	PLANNING PERMIT SUBMITTAL

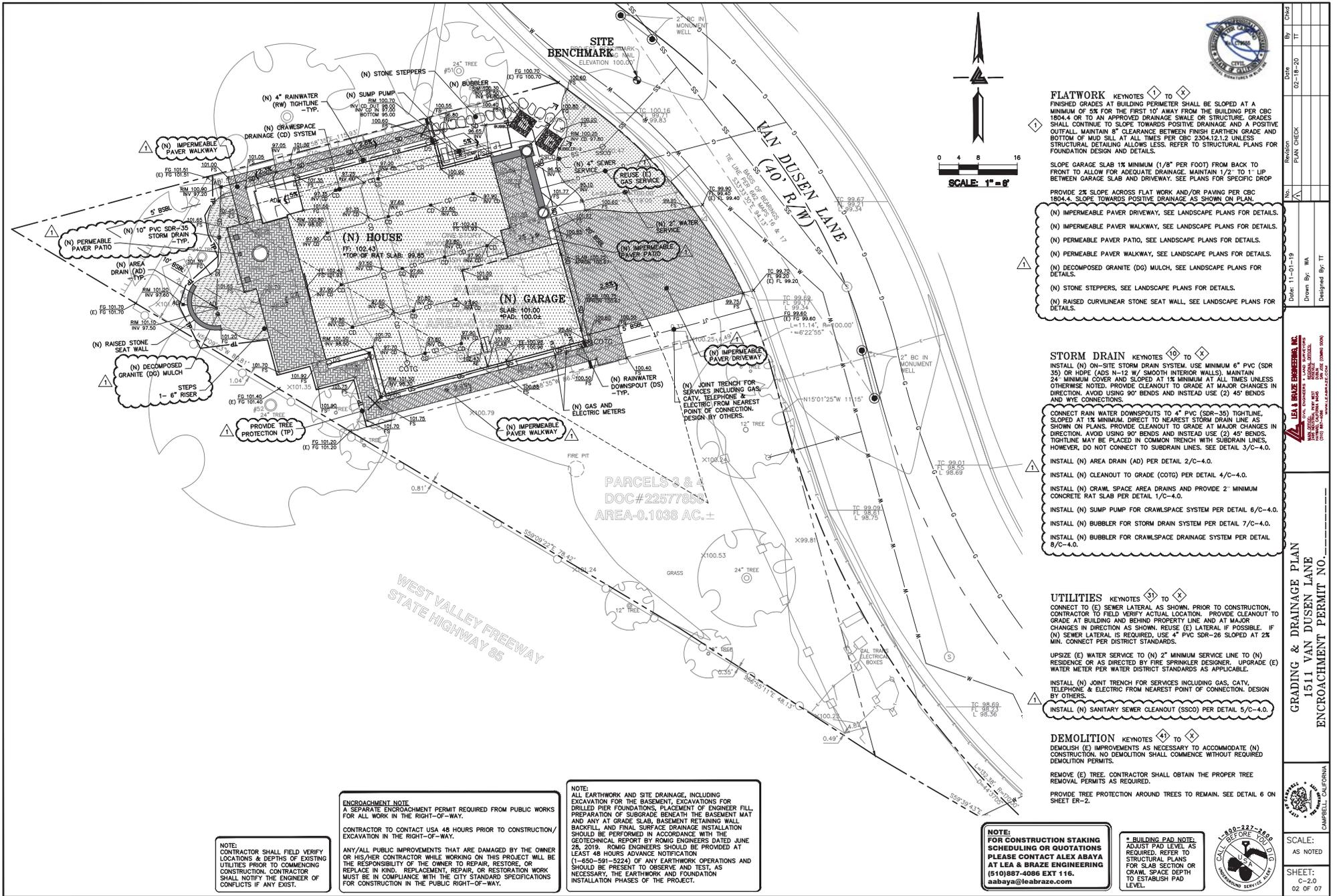
ARBORIST REPORT



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<p>Kieley Arborist Services LLC Certified Arborist WE0476A P.O. Box 6187 San Mateo, CA 94401 650-515-9783</p> <p>July 9, 2019</p> <p>Derrick Davis derrykdv@gmail.com Site: 1511 Van Dusen Lane, Campbell, CA</p> <p>Dear Mr. Davis,</p> <p>As requested on Wednesday, April 3, 2019, I visited the above site for the purpose of inspecting and commenting on the trees. A new two-story home is being designed for this site and your concern as to the future health and safety of the trees has prompted this visit. A schematic design was reviewed with recommendations to be given. Once more plans are available, they should be sent to the Project Arborist for review.</p> <p>Method: All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on an existing topography map provided by you. The trees were then measured for diameter at 48 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The tree condition rating is based on 50 percent vitality and 50 percent form, using the following scale:</p> <table border="1"> <tr><td>1 - 29</td><td>Very Poor</td></tr> <tr><td>30 - 49</td><td>Poor</td></tr> <tr><td>50 - 69</td><td>Fair</td></tr> <tr><td>70 - 89</td><td>Good</td></tr> <tr><td>90 - 100</td><td>Excellent</td></tr> </table> <p>The height of the trees were measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.</p>	1 - 29	Very Poor	30 - 49	Poor	50 - 69	Fair	70 - 89	Good	90 - 100	Excellent	<p>1511 Van Dusen 7/9/19 (2)</p> <p>Survey:</p> <table border="1"> <thead> <tr> <th>Tree#</th> <th>Species</th> <th>DBH</th> <th>CON</th> <th>H/SP</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>1*</td> <td>Leyland cypress (<i>Scoparius nypsis a leylandii</i>)</td> <td>7.1</td> <td>50</td> <td>2010</td> <td>Fair vigor, fair to poor form, suppressed.</td> </tr> <tr> <td>2*</td> <td>Almond (<i>Prunus dulcis</i>)</td> <td>8x4</td> <td>40</td> <td>1510</td> <td>Poor vigor, poor form, suppressed.</td> </tr> <tr> <td>3*</td> <td>Coast live oak (<i>Quercus agrifolia</i>)</td> <td>20x8</td> <td>80</td> <td>4630</td> <td>Good vigor, good form.</td> </tr> <tr> <td>4</td> <td>Chinese pistache (<i>Pistacia chinensis</i>)</td> <td>4.4</td> <td>50</td> <td>2012</td> <td>Fair vigor, fair form, suppressed, codominant at grade.</td> </tr> <tr> <td>5</td> <td>Coast live oak (<i>Quercus agrifolia</i>)</td> <td>8.0</td> <td>50</td> <td>1510</td> <td>Fair vigor, fair form, suppressed.</td> </tr> <tr> <td>6*</td> <td>Coast live oak (<i>Quercus agrifolia</i>)</td> <td>8.0</td> <td>70</td> <td>2512</td> <td>Good vigor, fair form, suppressed.</td> </tr> <tr> <td>7*</td> <td>Valley oak (<i>Quercus lobata</i>)</td> <td>24x8</td> <td>80</td> <td>5045</td> <td>Good vigor, good form, aesthetically pleasing.</td> </tr> <tr> <td>8*</td> <td>Incense cedar (<i>Calocedrus decurrens</i>)</td> <td>19.5</td> <td>70</td> <td>5012</td> <td>Good vigor, good form, good screen.</td> </tr> <tr> <td>9**</td> <td>Incense cedar (<i>Calocedrus decurrens</i>)</td> <td>30x5</td> <td>65</td> <td>5015</td> <td>Fair vigor, fair form, minor canker caused die back.</td> </tr> <tr> <td>10**</td> <td>Incense cedar (<i>Calocedrus decurrens</i>)</td> <td>20x8</td> <td>40</td> <td>5012</td> <td>Fair vigor, fair form, in decline, large amounts of dead wood from canker.</td> </tr> <tr> <td>11*</td> <td>Crape myrtle (<i>Lagerströmia sp.</i>)</td> <td>4x8</td> <td>50</td> <td>83</td> <td>Fair vigor, poor form, topped.</td> </tr> </tbody> </table> <p>* indicates neighbors tree P-indicates protected tree by city ordinance (12 inches or larger) B-indicates tree proposed for removal for facilitate construction</p>	Tree#	Species	DBH	CON	H/SP	Comments	1*	Leyland cypress (<i>Scoparius nypsis a leylandii</i>)	7.1	50	2010	Fair vigor, fair to poor form, suppressed.	2*	Almond (<i>Prunus dulcis</i>)	8x4	40	1510	Poor vigor, poor form, suppressed.	3*	Coast live oak (<i>Quercus agrifolia</i>)	20x8	80	4630	Good vigor, good form.	4	Chinese pistache (<i>Pistacia chinensis</i>)	4.4	50	2012	Fair vigor, fair form, suppressed, codominant at grade.	5	Coast live oak (<i>Quercus agrifolia</i>)	8.0	50	1510	Fair vigor, fair form, suppressed.	6*	Coast live oak (<i>Quercus agrifolia</i>)	8.0	70	2512	Good vigor, fair form, suppressed.	7*	Valley oak (<i>Quercus lobata</i>)	24x8	80	5045	Good vigor, good form, aesthetically pleasing.	8*	Incense cedar (<i>Calocedrus decurrens</i>)	19.5	70	5012	Good vigor, good form, good screen.	9**	Incense cedar (<i>Calocedrus decurrens</i>)	30x5	65	5015	Fair vigor, fair form, minor canker caused die back.	10**	Incense cedar (<i>Calocedrus decurrens</i>)	20x8	40	5012	Fair vigor, fair form, in decline, large amounts of dead wood from canker.	11*	Crape myrtle (<i>Lagerströmia sp.</i>)	4x8	50	83	Fair vigor, poor form, topped.	<p>1511 Van Dusen 7/9/19 (3)</p> <p>Summary: A mix of imported and native trees were surveyed on this property. All trees with a condition rating under 50 are considered poor trees and should receive mitigations if possible to increase the tree condition ratings. Trees #1-3 are located on the neighbor's property to the north. Almond tree #2 is in decline due to growing within the suppressed conditions. The neighbor's oak tree #3 is a protected tree. No impacts are expected for these trees as they are a good distance away from the proposed construction. The proposed home and existing home near these trees are near the same location. Property line fencing during construction will act as tree protection for these trees.</p> <p>Trees #4-7 are located within the south western corner of the property. Trees #6 & 7 are located outside of the property line. Valley oak tree #7 is the only protected tree in this area. Tree protection fencing will need to be placed 3 feet from the proposed foundation when underneath the drip-line of the tree in order to allow for access. The foundation is recommended to be excavated carefully by hand when within 24 feet from valley oak tree #7. All encountered roots must be clearly cut using loppers or a hand saw while under the Project Arborist supervision. The proposed foundation is a good distance away from the tree. Impacts are expected to be minor to nonexistent. Depending on the number and size of roots disturbed, minor irrigation at the foundation may be needed. No turf or high irrigation plants shall be planted underneath the canopy of the native oak trees surveyed.</p>  <p>Showing valley oak tree #7</p>	<p>1511 Van Dusen 7/9/19 (4)</p> <p>Incense cedar tree #8 is located in the north western corner of the property and is in good condition. The client would like to know how close to the tree they could build. The trunk formula method for determining the tree protection zone radius, as seen in "Best Management Practices, Managing Trees During Construction", was used to determine a distance away from the tree where a foundation could be built. This method takes into consideration the species tolerance to construction damage and the tree's relative age. Incense cedar trees have a moderate tolerance to construction damage. The tree is relatively young for the species. After taking into consideration the age and construction tolerance of the tree, the tree was given a tree protection zone multiplication factor of 8. To then figure out the tree protection zone radius, the diameter of the tree is then multiplied by 8 and divided by 12 to get a tree protection zone radius of 13 feet from the tree. With the proposed foundation being a minimum of 13 feet from this tree, impacts are expected to be minor to nonexistent. Tree protection fencing must be placed as close as possible to the proposed foundation while still allowing for construction to safely continue. It is recommended the hand dig the foundation when within 20 feet from the tree. All encountered roots are recommended to be clearly cut. Irrigation for this tree is recommended to take place twice a month during the dry season. The area within 20 feet of the tree is recommended to be irrigated until the top foot of soil is saturated. This will keep the tree in good health. It is recommended to have the Project Arborist on site during the foundation excavation near this tree.</p>  <p>Showing cedar tree #8</p>
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<p>1511 Van Dusen 7/9/19 (5)</p> <p>Neighbor's incense cedar trees #9 and #10 are located at an estimated 8 feet from the property line to the north. Cedar tree #9 is in fair condition and cedar tree #10 is in poor condition due to extensive die back caused by an incense cedar branch canker disease. The disease is likely to spread causing more dieback. The neighbor should have the diseased wood pruned out of the tree and disposed of off site. Both trees are recommended to be heavily irrigated on the property side every 2 weeks when possible. The Project Arborist is recommended to be called out to the site when the foundation excavation on the north side of the home is to take place. When within 25 feet of these trees it is recommended to hand dig the foundation. Encountered roots will need to be clearly cut and shown to the Project Arborist before being cut. The foundation is an estimated 13 feet from these trees. Impacts are expected to be minor. The recommended deep irrigation every 2 weeks will help to reduce impacts. Tree protection fencing for this tree is recommended to extend off of the property line fence out to the proposed foundation and to a width equal to the canopy spread.</p>  <p>Showing cedar trees #9 and #10</p> <p>Crape myrtle tree #11 is in fair condition. The tree has been topped in the past. The following tree protection plan will help to insure the future health of the retained trees on site.</p>	<p>1511 Van Dusen 7/9/19 (6)</p> <p>Tree Protection Plan: Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for the protection zones should be 6 foot tall metal chain link (minimum 12 gauge) supported by 2 inch galvanized iron post pounded into the ground by no less than 2 feet. The support poles should be spaced no more than 10 feet apart on center. This detail shall appear on grading, demolition, and building permit plans. The location of the protection fencing during demolition, and any proposed grading and drainage, as well as construction must be placed at a distance equal to 6 times the diameter. Any deviation in determining the tree protection zone will require approval by the Site Arborist. No excavation shall be allowed inside tree protection zones without the Site Arborist consent. Signs should be placed on fencing notifying "Tree Protection Zone - Keep Out". No materials or equipment should be stored or cleaned inside the tree protection zones. It is recommended to match the tree protection zones using 4x4 inches of wood chips. Tree protection fencing can only be removed at the end of the project by approval from the city. A site meeting with the general contractor, and Site Arborist before the project starts is recommended.</p> <p>Root cutting Any roots to be cut should be monitored and documented. Large roots measuring 2 inches in diameter or larger will not be impacted by the site arborist before cut. If possible, roots should be cut back to sound lateral roots under the supervision of the Site Arborist. The site arborist will likely recommend irrigation if root cutting is significant. Cut all roots clean with a saw or loppers. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. The site arborist will be on site for excavation near all protected trees on site. If injury is to take place to tree roots proper mitigation measures will need to be applied.</p> <p>Trenching Trenching for irrigation, electrical, drainage or any other reason should be hand dug in combination with an air spade when beneath the drip-lines of protected trees. Hand digging and carefully laying pipes below or beside protected roots will dramatically reduce root loss of desired trees thus reducing trauma to the entire tree. Trenches should be backfilled as soon as possible with native material and compacted to near its original level. Trenches that must be left exposed for a period of time should also be covered with layers of burlap and kept moist. Plywood over the top of the trench will also help protect exposed roots below. All trenching within a tree protection zone will need to be observed by the Site Arborist so that proper mitigation measures can be applied.</p> <p>Grading The grading contractors are recommended to meet with the Project Arborist at the site prior to beginning grading to review tree protection measures. The Project Arborist shall perform an inspection during the course of rough grading adjacent to the tree protection zone to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The Site Arborist shall be notified at least 48 hours before an inspection is needed. If compaction from grading has taken place within a tree protection zone proper mitigation measures will need to be applied.</p>	<p>1511 Van Dusen 7/9/19 (7)</p> <p>Irrigation The retained native oak trees on site shall not be irrigated unless their root zones are traumatized. All incense cedar trees, including the neighboring cedars, are recommended to be irrigated every 2 weeks during the dry season until the top foot of soil is saturated. Irrigation shall stay at least 2 feet away from the trunk of the trees.</p> <p>Kieley Arborist Services can be reached at (650) 515-9783 (Kevin), (650) 532-4418 (David), or by email at kiarbor@kiesquared.com. This information should be kept on site at all times. The information included in this report is believed to be true and based on sound arboricultural principles and practices.</p> <p>Sincerely, Kevin R. Kieley Certified Arborist WE0476A</p> <p>David P. Beckham Certified Arborist WE10724A</p>	<p>1511 Van Dusen 7/9/19 (8)</p> <p>Kieley Arborist Services P.O. Box 6187 San Mateo, CA 94401 650-515-9783</p> <p>ARBORIST DISCLOSURE STATEMENT</p> <p>Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.</p> <p>Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fall in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like a medicine, cannot be guaranteed.</p> <p>Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.</p> <p>Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.</p> <p>Arborist: Kevin R. Kieley Date: July 9, 2019</p>																																																																																		



SITE BENCHMARK
ELEVATION 100.00'

PARCELS 3 & 4
DOC#22577855
AREA=0.1038 AC. ±

WEST VALLEY FREEWAY
STATE HIGHWAY 65

VAN DUSEN LANE
(40' R/W)



FLATWORK KEYNOTES 1 to X
FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.4 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 2" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.12, UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP

PROVIDE 2% SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 1804.4. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

- (N) IMPERMEABLE PAVER DRIVEWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) IMPERMEABLE PAVER WALKWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) PERMEABLE PAVER PATIO, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) PERMEABLE PAVER WALKWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) DECOMPOSED GRANITE (DG) MULCH, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) STONE STEPPERS, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) RAISED CURVILINEAR STONE SEAT WALL, SEE LANDSCAPE PLANS FOR DETAILS.

STORM DRAIN KEYNOTES 10 to X
INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HOPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM, DIRECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLANS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES. HOWEVER, DO NOT CONNECT TO SUBDRAIN LINES. SEE DETAIL 3/C-4.0.

- INSTALL (N) AREA DRAIN (AD) PER DETAIL 2/C-4.0.
- INSTALL (N) CLEANOUT TO GRADE (COTO) PER DETAIL 4/C-4.0.
- INSTALL (N) CRAWL SPACE AREA DRAINS AND PROVIDE 2" MINIMUM CONCRETE RAT SLAB PER DETAIL 1/C-4.0.
- INSTALL (N) SUMP PUMP FOR CRAWLSPACE SYSTEM PER DETAIL 6/C-4.0.
- INSTALL (N) BUBBLER FOR STORM DRAIN SYSTEM PER DETAIL 7/C-4.0.
- INSTALL (N) BUBBLER FOR CRAWLSPACE DRAINAGE SYSTEM PER DETAIL 8/C-4.0.

UTILITIES KEYNOTES 3 to X
CONNECT TO (E) SEWER LATERAL AS SHOWN. PRIOR TO CONSTRUCTION, CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. IF (N) SEWER LATERAL IS REQUIRED, USE 4" PVC SDR-26 SLOPED AT 2% MIN. CONNECT PER DISTRICT STANDARDS.

UPSIZE (E) WATER SERVICE TO (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE.

INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV, TELEPHONE & ELECTRIC FROM NEAREST POINT OF CONNECTION, DESIGN BY OTHERS.

INSTALL (N) SANITARY SEWER CLEANOUT (SSCO) PER DETAIL 5/C-4.0.

DEMOLITION KEYNOTES 4 to X
DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

PROVIDE TREE PROTECTION AROUND TREES TO REMAIN. SEE DETAIL 6 ON SHEET ER-2.

NOTE:
FOR CONSTRUCTION STAKING
SCHEDULING OR QUOTATIONS
PLEASE CONTACT ALEX ABAVA
AT LEA & BRITZ ENGINEERING
(510)887-4086 EXT 116.
aabava@leabraze.com

BUILDING PAD NOTE:
ADJUST PAD LEVEL AS
REQUIRED. REFER TO
STRUCTURAL PLANS
FOR 4" BAR SECTION OR
CRAWL SPACE DEPTH
TO ESTABLISH PAD
LEVEL.



ENCROACHMENT NOTE
A SEPARATE ENCROACHMENT PERMIT REQUIRED FROM PUBLIC WORKS FOR ALL WORK IN THE RIGHT-OF-WAY.

CONTRACTOR TO CONTACT USA 48 HOURS PRIOR TO CONSTRUCTION/ EXCAVATION IN THE RIGHT-OF-WAY.

ANY/ALL PUBLIC IMPROVEMENTS THAT ARE DAMAGED BY THE OWNER OR HIS/HER CONTRACTOR WHILE WORKING ON THIS PROJECT WILL BE THE RESPONSIBILITY OF THE OWNER TO REPAIR, RESTORE, OR REPLACE IN KIND. REPLACEMENT, REPAIR, OR RESTORATION WORK MUST BE IN COMPLIANCE WITH THE CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY.

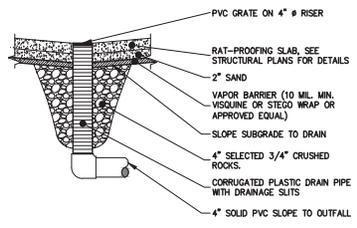
NOTE:
ALL EARTHWORK AND SITE DRAINAGE, INCLUDING EXCAVATION FOR THE BASEMENT, EXCAVATIONS FOR DRILLED PIER FOUNDATIONS, PLACEMENT OF ENGINEER FILL, PREPARATION OF SUBGRADE BENEATH THE BASEMENT MAT AND ANY AT GRADE SLAB, BASEMENT RETAINING WALL, BACKFILL, AND FINAL SURFACE DRAINAGE INSTALLATION SHOULD BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT BY ROMIG ENGINEERS DATED JUNE 28, 2019. ROMIG ENGINEERS SHOULD BE PROVIDED AT LEAST 48 HOURS ADVANCE NOTIFICATION (1-850-591-5224) OF ANY EARTHWORK OPERATIONS AND SHOULD BE PRESENT TO OBSERVE AND TEST. AS NECESSARY, THE EARTHWORK AND FOUNDATION INSTALLATION PHASES OF THE PROJECT.

NOTE:
CONTRACTOR SHALL FIELD VERIFY LOCATIONS & DEPTHS OF EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONFLICTS IF ANY EXIST.

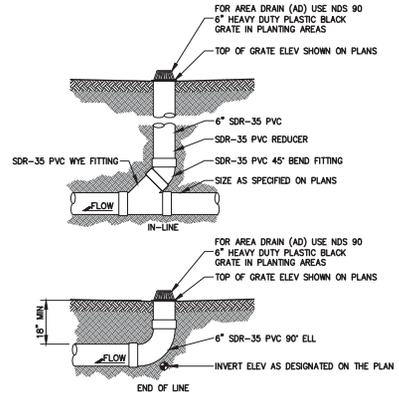
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No.	Date	Drawn By	Designated By		
	11-01-19	WA	TT		

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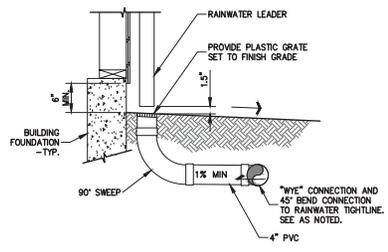
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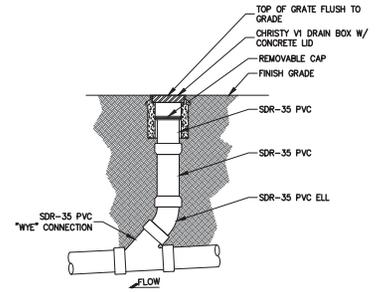
1 CRAWLSPACE DRAIN (CD) DETAIL
C-4.0 NTS



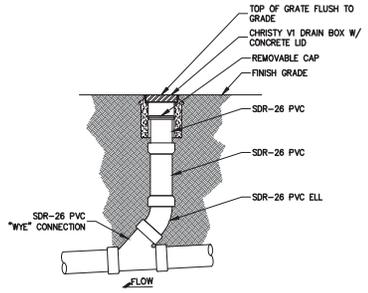
2 AREA DRAIN (AD)
C-4.0 NTS



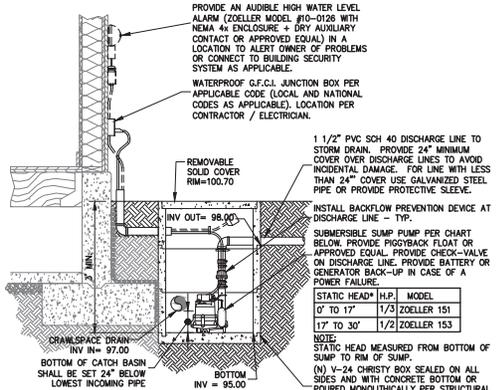
3 RAIN WATER LEADER TO TIGHTLINE CONNECTION
C-4.0 NTS



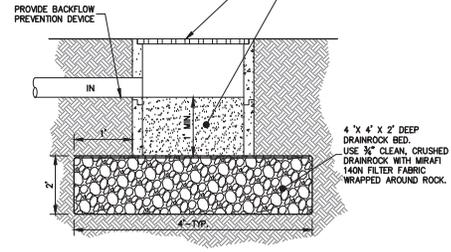
4 CLEANOUT TO GRADE (COTG)
C-4.0 NTS



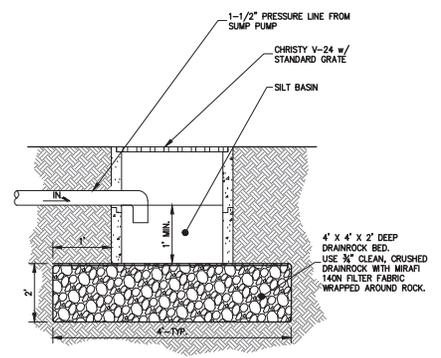
5 SANITARY SEWER CLEANOUT (SSCO)
C-4.0 NTS



6 CRAWLSPACE SUMP PUMP
C-4.0 NTS



7 BUBBLER BOX
C-4.0 NTS



8 BUBBLER BOX W/ PRESSURE LINE
C-4.0 NTS

LEA & BRADY ENGINEERING, INC.
 1511 VAN DUSEN LANE
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DETAILS
 1511 VAN DUSEN LANE
 ENCROACHMENT PERMIT NO.

Chd	
By	TT
DRN	02-18-20
Revision	PLAN CHECK
No.	1
Date:	11-01-19
Drawn By:	WA
Designed By:	TT

SCALE: N.T.S.

SHEET: C-4.0 04 OF 07

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREAS THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

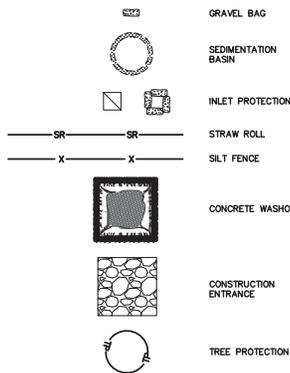
EROSION CONTROL NOTES:

- IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
- THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
- OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
- EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS LONGER.
- IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
- MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
- EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 15TH.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS GREATER.
- PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT(MRP) NPDES PERMIT CAS 612008.
- THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
- THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ON-SITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAR OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION. METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
- SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INCEPTION OF ANY WORK ON-SITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
- STOCKPILED MATERIALS SHALL BE COVERED WITH WISQUEEN OR A TARPULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
- EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
- SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS, TO PUBLIC OWNED FACILITIES.

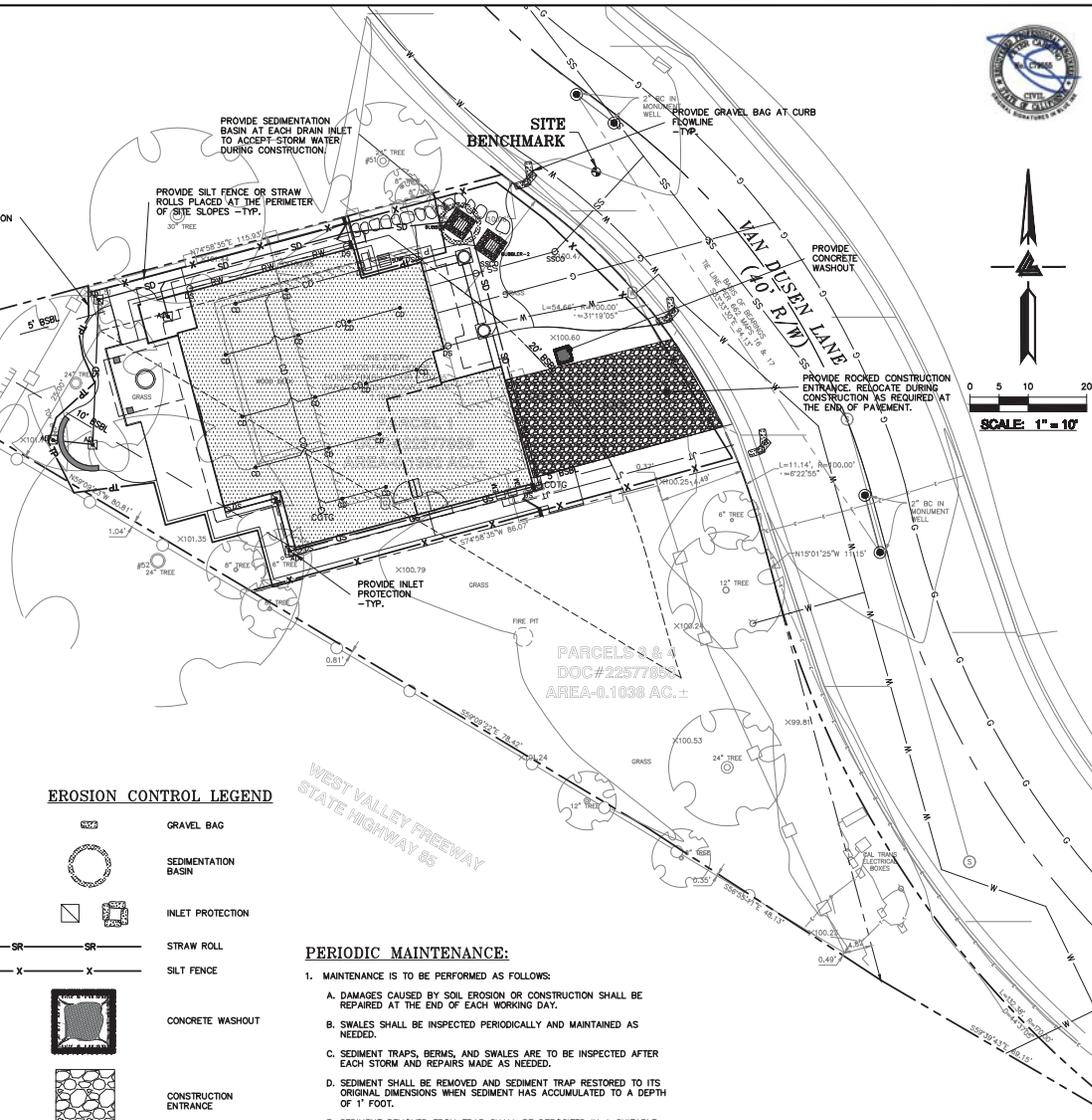
EROSION CONTROL MEASURES:

- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
- SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
- ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL MATS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 207 EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LATEST REVISION. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
- INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL, ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN.
- THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
- THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
- STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURERS SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

EROSION CONTROL LEGEND



NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP



PERIODIC MAINTENANCE:

- MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
 - SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
 - SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
 - SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - RILLS AND GULLIES MUST BE REPAIRED.
- GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
- STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
- SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
- CONSTRUCTION ENTRANCE SHALL BE REGRAVELLED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
- ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION.

REFERENCES:

- CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL.
- CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION.



Revision	PLAK CHECK	TT
No.	1	TT
Date:	11-01-19	
Drawn By:	WA	
Designed By:	TT	

EROSION CONTROL PLAN
1511 VAN DUSEN LANE
ENCROACHMENT PERMIT NO. _____

SCALE: AS NOTED

SHEET: ER-1
05 OF 07



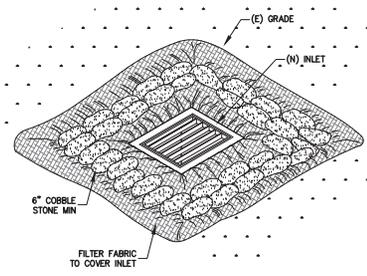
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DRW	02-18-20	
Revision	PLAK CHECK	
No.	1	
Date:	11-01-19	
Drawn By:	WA	
Designed By:	TT	

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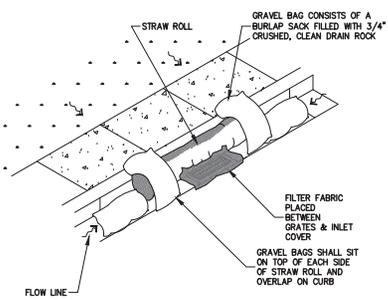
EROSION CONTROL DETAILS
 1511 VAN DUSEN LANE
 ENCINO, CALIFORNIA 91436
 ENCROACHMENT PERMIT NO. _____



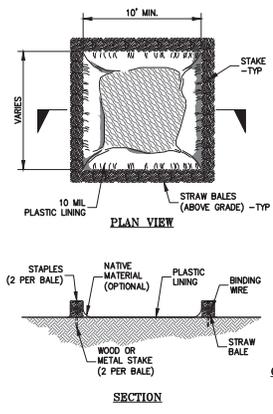
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ER-2
06 OF 07



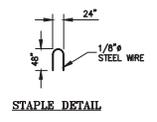
1 INLET PROTECTION
ER-2 NTS



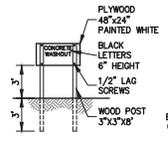
2 STREET INLET PROTECTION
ER-2 NTS



3 CONCRETE WASHOUT
ER-2 NTS

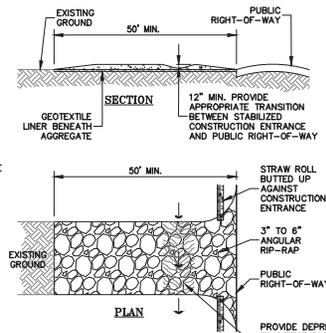


STAPLE DETAIL



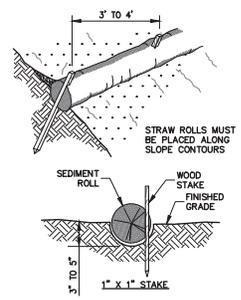
CONCRETE WASHOUT SIGN DETAIL

NOTES:
ACTUAL LAYOUT DETERMINED IN FIELD.
THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

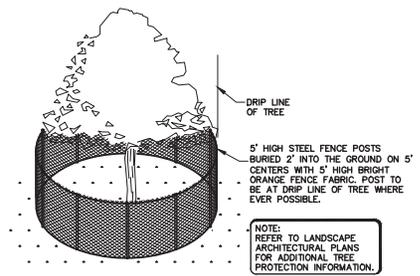


4 CONSTRUCTION ENTRANCE
ER-2 NTS

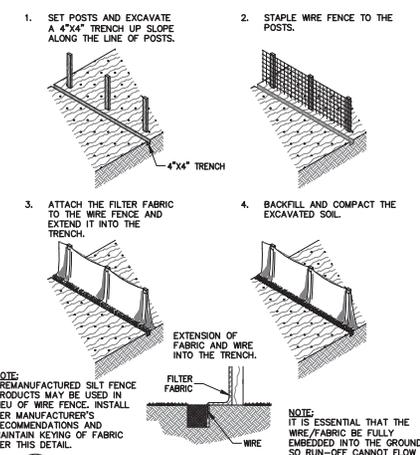
NOTES:
STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3\"/>



5 STRAW ROLLS FLAT LOT
ER-2 NTS



6 EXISTING TREE PROTECTION DETAIL
ER-2 NTS



7 SILT FENCE
ER-2 NTS

NOTE:
PREMANUFACTURED SILT FENCE PRODUCTS MAY BE USED IN LIEU OF WIRE FENCE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN KEYING OF FABRIC PER THIS DETAIL.
NOTE:
IT IS ESSENTIAL THAT THE WIRE FABRIC BE FULLY EMBEDDED INTO THE GROUND SO RUN-OFF CANNOT FLOW FREELY UNDER FENCE.



Date:	02-18-20
Drawn By:	TT
Checked By:	TT
Revision:	
No.:	
PLAN CHECK:	
Designated By:	TT

Date:	01-01-19
Drawn By:	WA
Checked By:	TT
Revision:	
No.:	
PLAN CHECK:	
Designated By:	TT

Date:	07/07/03
Drawn By:	
Checked By:	
Revision:	
No.:	
PLAN CHECK:	
Designated By:	

Date:	07/07/03
Drawn By:	
Checked By:	
Revision:	
No.:	
PLAN CHECK:	
Designated By:	



LEA & BRUCE ENGINEERING INC.
 1511 VAN DUSEN LANE
 CAMPBELL, CALIFORNIA 95008
 (408) 883-1100 FAX (408) 883-1101
 WWW.LEA-AND-BRUCE.COM

BLUEPRINT FOR A CLEAN BAY
 ENCROACHMENT PERMIT NO. _____

1511 VAN DUSEN LANE
 ENCROACHMENT PERMIT NO. _____

SCALE: NO SCALE

SHEET: 07 OF 07

PLAN FOR THE IMPROVEMENT OF	ENCROACHMENT PERMIT NO.
ENCROACHMENT PERMIT NO.	
SCALE: N.T.S.	
SHEET: 07 OF 07	

PAINTING AND APPLICATION OF SOLVENTS AND ADHESIVES

BEST MANAGEMENT PRACTICES FOR THE: PAINTING CLEANUP

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water based paints, paint out brushes to the extent possible, and rinse to the sanitary sewer.
- For oil based paints, paint out brushes to the extent possible, filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.
- What can you do?
 - Recharge/leave paint containers wherever possible.
 - Recycle excess water-based paint, or use up. Dispose of excess liquid, including sludges, as hazardous waste.
 - Reuse leftover oil-based paint. Dispose of excess liquid, including sludges, as hazardous waste.

PAINT REMOVAL

- Chemical paint stripping residue is a hazardous waste.
- Chips and dust from marine paint or paint containing lead or tributyl tin are hazardous wastes. Dry sweep and dispose of appropriately.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up and disposed as trash.
- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Wash water onto a dirt area and grade into soil. Check with the local wastewater treatment authority to find out if you can collect (slop or vacuum) building cleaning water and dispose to the sanitary sewer.

STORM DRAIN POLLUTION FROM PAINTS, SOLVENTS, AND ADHESIVES

All paints, solvents, and adhesives contain chemicals that are harmful to the wildlife in our creeks and bays. Toxic chemicals may come from liquid or solid products used for cleaning residues or rags. It is especially important not to clean brushes in an area where paint residue can flow to a gutter, street, or storm drain.

HEAVY EQUIPMENT OPERATION

BEST MANAGEMENT PRACTICES FOR THE:

- Vehicle and equipment operators
- Site supervisors
- General contractors
- Home builders
- Developers

SITE PLANNING AND PREVENTIVE VEICULE MAINTENANCE

- Designate one area of the construction site, well away from streets or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and engine maintenance.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks.
- Perform major maintenance, repair job, vehicle, and equipment washing off site.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and recycle whenever possible.
- Do not use diesel oil to lubricate equipment or parts.
- Clean up spills immediately when they happen.

STORM DRAIN POLLUTION FROM HEAVY EQUIPMENT ON THE CONSTRUCTION SITE

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze or other fluids on the construction site are common sources of storm water pollution. Fuel, oil, and other fluids can be spilled and leaks by leaking hoses or hydraulic lines. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment, construction debris, landscaping runoff containing pesticides or weed killers, and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION PREVENTION

Local Pollution Control Agencies

1. Dial 911
2. Santa Clara Valley Water District Environment Compliance Division (408) 927-0710.
3. Governor's Office of Environment Services Warning Center (800) 552-7500 (24 hours).

Local Pollution Control Agencies

- Santa Clara County Office of Toxics and Solid Waste Management (408) 441-1195
- Santa Clara Valley Water District (408) 927-0710
- San Jose/Santa Clara Water Pollution Control Plant (408) 945-3300
- Serving Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara and Saratoga
- Sunnyside Water Pollution Control Plant (408) 730-7370
- Palo Alto Regional Water Quality Control Plant (415) 259-2595
- Serving East Palo Alto, Los Altos, Los Altos Hills, Mountain View, Palo Alto, and Stanford

Note: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. Owner and contractor may be held responsible for any environmental damage caused by the subcontractors or employees.

LANDSCAPING, GARDENING, AND POOL MAINTENANCE

BEST MANAGEMENT PRACTICES FOR THE:

- Landscapers
- Gardeners
- Swimming pool/spa service and repair workers
- General contractors
- Home builders
- Developers

GENERAL BUSINESS PRACTICES

- Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- Schedule grading and excavation projects for dry weather.
- Use temporary check dams or ditches to divert runoff away from storm drains.
- Protect storm drains with hay bales or other erosion controls.
- Revegetation is an excellent form of erosion control for any site.

LANDSCAPING/GARDEN MAINTENANCE

BEST MANAGEMENT PRACTICES FOR THE:

- Use up pesticides. Rinse containers, and use rinse water as product. Dispose of rinsed containers in the trash.
- Dispose of unused pesticides as hazardous waste.
- Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.
- In communities with curbside yard waste recycling, leave clippings and pruning waste for pickup in approved bags or containers. Or, take to a landfill that accepts yard waste.
- Do not place yard waste in gutters.
- Do not blow or rake leaves, etc. into the street.

STORM DRAIN POLLUTION FROM LANDSCAPING AND SWIMMING POOL MAINTENANCE

Many landscaping activities disperse soils and increase the likelihood that fertilizers and garden chemicals will runoff into the storm drains during irrigation or when it rains. Swimming pool waste containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

FRESH CONCRETE AND MORTAR APPLICATION

BEST MANAGEMENT PRACTICES FOR

- Masons and bricklayers
- Sidewalk construction crews
- Patio construction workers
- Construction inspectors
- General contractors
- Home builders
- Developers

GENERAL BUSINESS PRACTICES

- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Place hay bales or other erosion control devices to capture runoff carrying mortar or cement before it reaches the storm drain.
- When breaking up paving, be sure to pick up all the pieces and dispose properly.
- Recycle large chunks of broken concrete as a landfill.
- Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Never bury waste material.

STORM DRAIN POLLUTION FROM MASONRY AND PAVING

Fresh concrete and cement-related materials that wash into lakes, streams, or streams are toxic to fish and the aquatic environment. Disposing of these materials in the storm drains or creeks causes serious problems and is prohibited by law.

DURING CONSTRUCTION

- Don't mix up more fresh concrete or cement than you will use in a day.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.

GENERAL CONSTRUCTION AND SITE SUPERVISION

BEST MANAGEMENT PRACTICES FOR THE: MATERIALS/WASTE HANDLING

- Practice Source Reduction: minimize waste when you order materials. Order only the amount you need to finish the job.
- Use recyclable materials whenever possible.
- Dispose of all wastes properly. Many construction materials and wastes, including asbestos, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleaned vegetation can be recycled. (See the reference list of construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- Keep pollutants off exposed surfaces. Place trash cans and recycling receptacles around the site to minimize litter.
- Clean up leaks, drips, and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces.
- Never hose down "dirty" pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.
- Make sure brooms prevent dust and cement buildup from rainfall or runoff.
- Shovel or vacuum saw-cut slurry and remove from the site. Cover or barricade storm drain during saw-cutting if necessary.
- Never hose down streets to clean up tracked dirt.
- Make sure portable toilets are in good working order. Check frequently for leaks.

STORM DRAIN POLLUTION FROM CONSTRUCTION ACTIVITIES

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter or street have a direct impact on storm drains and the Bay. As a contractor, site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

ROADWORK AND PAVING

BEST MANAGEMENT PRACTICES FOR THE:

- Road Crews
- Driveway/sidewalk/parking lot construction crews
- Seal coat contractors
- Operators of grading equipment
- Asphalt contractors
- Concrete mixers
- Construction inspectors
- General contractors
- Developers

WHAT CAN YOU DO?

- Develop and implement erosion/sediment control plans for construction.
- Schedule excavation and grading work for dry weather.
- Check for and repair leaking equipment.
- Perform major equipment repairs in designated areas or your yard, away from the construction site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- Do not use diesel oil to lubricate equipment or parts.
- Recycle used oil, concrete, broken asphalt, etc. whenever possible.

STORM DRAIN POLLUTION FROM ROADWORK

Road paving, surfacing, and pavement removal happens right in the street, where there are numerous opportunities for storm drain contamination by asphalt, saw-cut slurry, or excavated material. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains and creeks.

EARTH MOVING ACTIVITIES

BEST MANAGEMENT PRACTICES FOR THE: DETECTING CONTAMINATED SOIL OR GROUNDWATER

- Bulldozers, backhoes, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers

WATCH FOR ANY OF THESE CONDITIONS:

- Unusual soil conditions, discoloration, or odor
- Abandoned underground tanks
- Buried barrels, debris, or trash

STORM DRAIN POLLUTION FROM EARTH-MOVING ACTIVITIES

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains if handled improperly. Soil ends up as a combination of contaminated soil, increased runoff, and increased flow velocity. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

DURING CONSTRUCTION

- Remove existing vegetation only when absolutely necessary?
- Consider planting temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with hay bales or temporary drainage swales.
- Use check dams or ditches to divert runoff around excavations.
- Cover stockpiles and excavated soil with silt curtains or plastic sheeting.
- Schedule excavation and grading work for dry weather.
- Perform major equipment repairs away from the job site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- Do not use diesel oil to lubricate equipment or parts.

Blueprint for a Clean Bay

BEST MANAGEMENT PRACTICES FOR THE CONSTRUCTION INDUSTRY.

SANTA CLARA VALLEY NONPOINT SOURCE POLLUTION CONTROL PROGRAM

LANDSCAPE CONSTRUCTION DOCUMENTS

VETERE-DAVIS RESIDENCE LANDSCAPE IMPROVEMENTS

WATER USE CALCULATIONS

1511 VAN DUSEN COURT, CAMPBELL, CA

Eto	43	ZONE	WATER USE	PF	METHOD	IE	ETAF	HA	ETAF*HA	ETWU
Total HA	828	1 - MEADOW	MOD	0.4	DRIP	0.81	0.5	331	163	4,358
Special HA	0	2 - SHRUBS	MOD	0.4	DRIP	0.81	0.5	183	90	2,409
ETAF Average	0.49	3 - TREE	MOD	0.4	DRIP	0.81	0.5	40	20	527
ETAF Total	0.49	4 - POIS	MOD	0.4	DRIP	0.81	0.5	40	20	527
		5 - SHRUBS	MOD	0.4	DRIP	0.81	0.5	174	86	2,291
		6 - VINES	MOD	0.4	DRIP	0.81	0.5	60	30	790
		LS TOTALS						828	409	10,901

$$MAWA = (Eto) (0.62) [(0.7 \times LA) + 0.3 \times SLA]$$

MAWA

15,452 Gallons

2,066 HCF

$$ETWU = (Eto) (0.62) \times [(PF \times HA) / ED + SLA]$$

ETWU

10,901 Gallons

SLA	WATER USE	ETAF	HA	ETAF*HA	ETWU
WATER FEATURE	HIGH	1.0	0	0	0
SLA TOTALS					

SHRUB	6,282	88%
LAWN (25% MAX)	892	12%

PAVING COVERAGE CALCULATIONS

ELEMENT	AREA (SF)	COVERAGE %
FRONT YARD SF W/IN SETBACK	1,318 SF	
FRONT YARD PAVING	521 SF	39%

*MAX ALLOWABLE PAVING IN FRONT YARD SETBACK 659 SF

LANDSCAPE COVERAGE CALCULATIONS

ELEMENT	AREA (SF)	COVERAGE %
TOTAL LOT S.F.	6,063 SF	
IMPERVIOUS SURFACE AREA		
BUILDING	2,034 SF	33.5%
HARDSCAPE (WALKS, PATIOS, DRIVEWAY)	1,656 SF	27.5%
PERVIOUS AREAS		
LANDSCAPE AREAS	2,373 SF	39%
50% OF IMPERVIOUS AREA = 1,845		

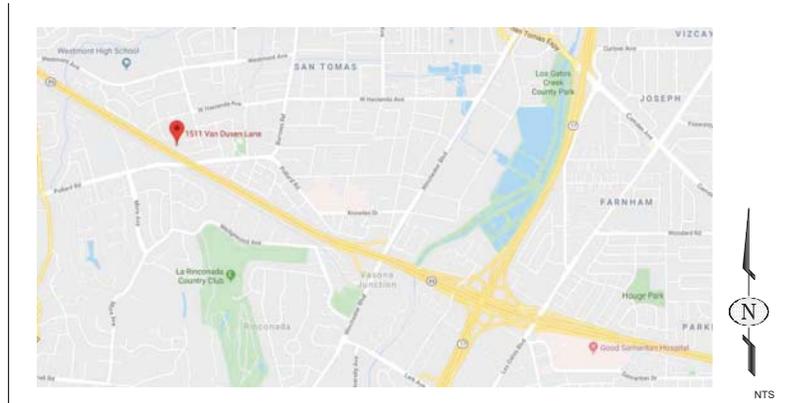
PRECONSTRUCTION MEETING & SITE OBSERVATION:

- CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT UPON BEING AWARDED THE CONTRACT TO SCHEDULE A PRE-CONSTRUCTION MEETING AND WALK THROUGH.
- THE LANDSCAPE ARCHITECT SHALL BE CONTACTED FOR SITE OBSERVATION AT LEAST 72 HOURS PRIOR TO EACH OF THE FOLLOWING:
 - PRE-CONSTRUCTION
 - CONCRETE FORMING AND HEADER LAYOUT
 - BACKFILLING OF UTILITIES, INCLUDING: IRRIGATION, MAINLINE, LATERALS, ELECTRICAL CONDUIT, GAS LINES, ETC.
 - IRRIGATION COVERAGE TEST - PRIOR TO PLANT INSTALLATION
 - PLANT DELIVERIES & SPECIMEN TREE INSTALLATION

EQUIPMENT SPECIFICATIONS & SUBSTITUTIONS:

- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT WITH ANY PROPOSED CHANGES/DEVIATIONS FROM THE PLANS, INCLUDING BUT NOT LIMITED TO: IRRIGATION EQUIPMENT, LIGHTING SPECIFICATIONS, PLANT SPECIES, SIZES, OR QUANTITIES, FINISH MATERIALS, LUMBER SELECTION, LANDSCAPE EDGING, ETC.
- CONTRACTOR TO SUBMIT CUT SHEETS FOR ANY AND ALL MATERIALS AND EQUIPMENT SUBSTITUTIONS
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY AND ALL UNAPPROVED MATERIALS AND EQUIPMENT AND FOR RE-INSTALLATION OF SPECIFIED EQUIPMENT AT NO ADDITIONAL COST TO THE CLIENT.

GENERAL NOTES



VICINITY MAP

CLIENT

GABRIELLA VETERE & DERRYK DAVIS
1511 VAN DUSEN LANE
CAMPBELL, CA

LANDSCAPE ARCHITECT

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CONCORD, CA 94520
CONTACT: TOM NORTON
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EMAIL: TOM@THNORTON.COM

CONTACT

TITLE SHEET	T.1.1
CONSTRUCTION PLAN	L.1.1
CONSTRUCTION DETAILS	L.2.1-2.2
CONSTRUCTION SPECIFICATIONS	L.3.1
IRRIGATION PLAN	L.4.1
IRRIGATION DETAILS	L.5.1-L.5.3
IRRIGATION SPECIFICATIONS	L.6.1
PLANTING PLAN	L.7.1
PLANTING DETAILS	L.8.1
PLANTING SPECIFICATIONS	L.9.1

SHEET INDEX

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VETERE-DAVIS RESIDENCE
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CAMPBELL, CA



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REVISION	DATE

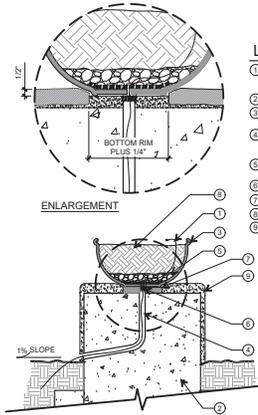
DATE	02/20/20
YEAR	19008
PROJECT	RESIDENTIAL



TITLE SHEET

T.1.1
13

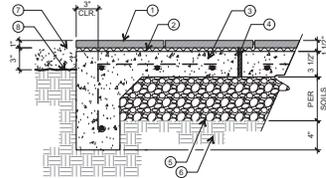
PLOT 000 - 001/19/10/2020



LEGEND

- ① 1/4" DRIP TUBE, CONNECT TO ADJACENT IRRIGATION WITH BUG CAP & 1/2" SPHERICAL Emitter
- ② POT BASE OR PILASTER
- ③ PLANTED POT - SEE POT SCHEDULE, SHEET D.1.1
- ④ 1 1/2" SCH 40, PVC DRAINLINE, DAYLIGHT TO PLANTING AREA OR CONNECT TO LANDSCAPE DRAIN
- ⑤ 2" DP, 3/4" DRAIN ROCK OVER FILTER FABRIC
- ⑥ 2" HDG PLAT DRAIN CAP
- ⑦ MORTAR BASE - SLOPE TO DRAIN
- ⑧ PLANTING MIX
- ⑨ CAP PER PLAN

G POT WATER FILTRATION

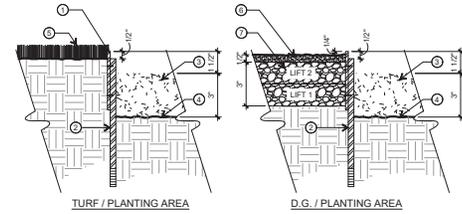


LEGEND

- ① FLAGSTONE VENEER, PER FINISH SCHEDULE
- ② MORTAR LEVELING BED
- ③ CONCRETE FOUNDATION WITH THICKENED EDGE - REINFORCEMENT PER STRUCTURAL ENGINEER
- ④ 1/4" POLY-FELT EXPANSION JOINT - LOCATE PER PLAN
- ⑤ BASE ROCK, PER SOILS REPORT
- ⑥ COMPACTED SUBGRADE, PER SOILS REPORT
- ⑦ 3" LAYER OF MULCH AT PLANTER AREAS
- ⑧ FINISH GRADE

NOTE: THIS DETAIL IS PROVIDED FOR DESIGN INTENT. REFER TO STRUCTURAL PLANS FOR FOOTINGS AND REINFORCEMENT. REFER TO SOILS REPORT FOR SUBGRADE.

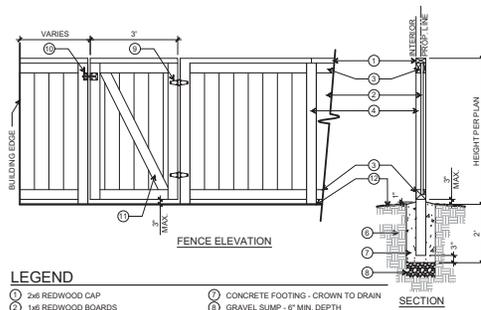
D IMPERMEABLE PAVER WALK



LEGEND

- ① 4" x 3/16" HEADER, PER FINISH SCHEDULE
- ② STEEL STAKE AT 4" MAX. SECURE PER MANUFACTURER SPECIFICATIONS
- ③ 3" LAYER OF MULCH
- ④ FINISH GRADE AT PLANTING AREA
- ⑤ FINISH GRADE AT TURF
- ⑥ 1/2" OF LOOSE GRAVEL / D.G. TOP DRESSING, PER FINISH SCHEDULE
- ⑦ DECOMPOSED GRANITE WALKWAY - STABILIZED AND COMPACTED TO 90%. INSTALL IN (G) LIFTS.

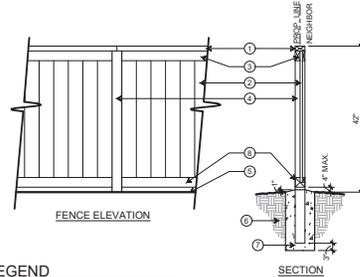
A STEEL HEADER



LEGEND

- ① 2x6 REDWOOD CAP
- ② 1x6 REDWOOD BOARDS
- ③ 2x4 RAILS ON OUTSIDE OF FENCE AND 1x4 RAILS ON INSIDE OF FENCE
- ④ 4x4 PT POST @ 8' O.C. MAX.
- ⑤ 4x4 BOTTOM RAIL - RABBIT TRIM WITH 1/2 FINISH TRIM INSIDE FENCE
- ⑥ 2x6 CONCRETE FOOTING - CROWN TO DRAIN
- ⑦ GRAVEL SLUMP - 6" MIN. DEPTH
- ⑧ HEAVY-DUTY, SELF-CLOSING GALVANIZED STRAP HINGES
- ⑨ LOCKABLE BOLT-ON LATCH
- ⑩ 2x4 CROSS BRACE ON INSIDE
- ⑪ FINISH GRADE

H PERIMETER FENCE



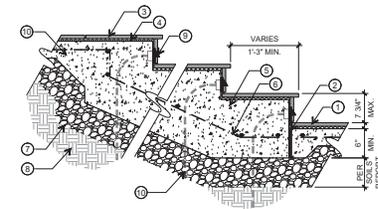
LEGEND

- ① 2x6 REDWOOD CAP
- ② 1x6 REDWOOD BOARDS (TYP.)
- ③ 2x4 RAILS ON OUTSIDE OF FENCE AND 1x4 RAILS ON INSIDE OF FENCE
- ④ 4x4 PT REDWOOD POST @ 8' O.C. MAX.
- ⑤ FINISH GRADE
- ⑥ COMPACTED SUB-GRADE PER SOILS REPORT
- ⑦ CONCRETE FOOTING - CROWN TO DRAIN
- ⑧ 4x4 BOTTOM RAIL - RABBIT TRIM WITH 1/2 FINISH TRIM OUTSIDE FENCE

NOTES:

- FENCE SHALL BE INSTALLED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BOTH SIDES. VERIFY WITH CIVIL ENGINEERS GRADING PLAN.
- WATERPROOF STAIN ALL WOOD SURFACES STAIN TO BE BEHR 909. APPLY PER MANUFACTURER'S RECOMMENDATIONS. VERIFY WITH OWNER.

E 42" LOW FENCE

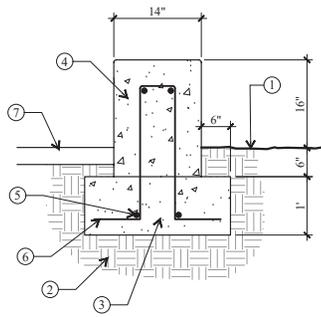


LEGEND

- ① ADJACENT PAVING, PER PLAN
- ② 1/2" POLY-FELT EXPANSION JOINT
- ③ STONE VENEER - REFER TO FINISH SCHEDULE. SLOPE MIN. 1/8" PER FOOT
- ④ 1/2" MORTAR LEVELLING BED
- ⑤ P.I.P. CONCRETE FOUNDATION
- ⑥ REINFORCEMENT, PER STRUCTURAL ENGINEER. 3" CLEAR, TYP.
- ⑦ MIN. 10" CLASS II AGGREGATE BASE, PER SOILS REPORT.
- ⑧ COMPACTED SUBGRADE, PER SOILS REPORT
- ⑨ LOW-VOLTAGE LIGHT, TYP. - PER PLAN
- ⑩ ELECTRICAL CONDUIT, TYP. TERMINATE AT PULL BOX, VERIFY BOX LOCATION AND CONNECTION TO CONTROL IN FIELD

NOTE: THIS DETAIL IS PROVIDED FOR DESIGN INTENT. REFER TO STRUCTURAL PLANS FOR FOOTINGS AND REINFORCEMENT. REFER TO SOILS REPORT FOR SUB-BASE.

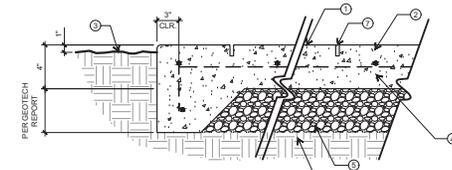
B STONE STEPS



LEGEND

- ① FINISHED GRADE
- ② COMPACTED SUBGRADE PER SOILS REPORT
- ③ P.I.P. CONCRETE FOOTING
- ④ P.I.P. CONCRETE SEAT WALL W/ NATURAL COLOR AND TOP CAST 25 FINISH
- ⑤ NO. 3 BAR CONTINUE @ TOP AND BOTTOM - MIN. 2" CLR.
- ⑥ NO. 4 BAR VERT. @ 24" O.C. ALT. BEND @ FOOTING - MIN. 2" CLR.
- ⑦ ADJACENT FINISH SURFACE

F CONCRETE SEAT WALL



LEGEND

- ① FINISH SURFACE - SEE FINISH SCHEDULE
- ② 1/2" RADIUS ALL EDGES
- ③ FINISH GRADE
- ④ REINFORCEMENT PER CIVIL PLANS
- ⑤ CLASS II BASE ROCK, SECTION PER GEOTECH REPORT
- ⑥ COMPACTED SUBGRADE PER GEOTECH REPORT
- ⑦ SMOOTH TROWEL JOINT - 1" DEEP MIN. SCORELINE PATTERN PER PLAN

C IMPERMEABLE PAVER DRIVE

VETERE-DAVIS RESIDENCE
1511 VAN DUSEN LANE
CAMPBELL, CA



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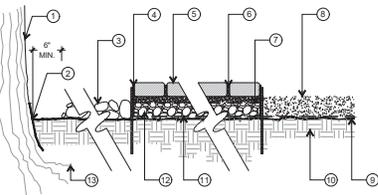
REVISION	DATE

APP	N.T.S.
DRAWN	MY
DESIGNED	TN
CHECKED	TN
DATE	02/20/20
PROJECT	19008
TYPE	RESIDENTIAL



CONSTRUCTION DETAILS

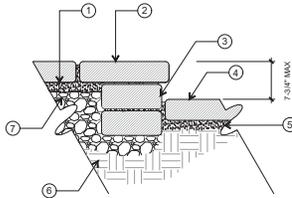
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LEGEND

- ① EXISTING HERITAGE TREE
- ② ROOT COLLAR
- ③ 4" DOUBLE LAYER WASHED RIVERSTONE MAINTAIN 6" CLEARANCE FROM ADJACENT TREE TRUNK
- ④ 5" x 14" STEEL HEADER, PER FINISH SCHEDULE STEEL STAKE AT 4" O" MAX. SECURE PER MANUFACTURER SPECIFICATIONS
- ⑤ PERMEABLE INTERLOCKING PAVERS, PER FINISH SCHEDULE
- ⑥ ASHTO NO. 8 (3/8") CRUSHED STONE INFILL PAVER JOINT
- ⑦ MIRAFI FILTER FABRIC
- ⑧ 3" MIN. MULCH LAYER AT PLANTING AREA
- ⑨ UNDISTURBED NATURAL GRADE
- ⑩ UNDISTURBED NATURAL SUBGR. Z1
- ⑪ TENSAR BX 1100 BI-AXIAL GEOTRID OVER EXISTING ROOT & SOIL SURFACE
- ⑫ 3" LAYER CLASS II PERMEABLE AGGREGATE BASE ROCK, HAND-TAMPED TO MAX. 75-80%
- ⑬ TREE ROOTS

D PERMEABLE PAVER PATIO/WALK



LEGEND

- ① 1" SAND LEVELING BED
- ② PAVER LANDING - TO MATCH ADJACENT PATIO/WALK
- ③ PAVER RISER - TO MATCH ADJACENT PATIO/WALK
- ④ ADJACENT PAVER WALK
- ⑤ REFER TO DETAIL D, SHEET L2.2 FOR SUBGRADE
- ⑥ SUBGRADE PER SOILS REPORT
- ⑦ AGGREGATE BASE - PER SOILS ENGINEER

E PAVER STEP

TINDER FIRE TABLE / HEMISPHERE 40 / MATCH LIGHT

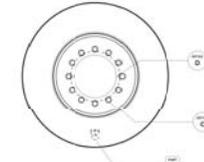
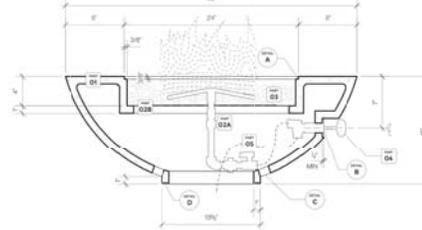
SPECIFICATIONS

PROJECT INFO

PROJECT #	
NAME	
COLOR / FINISH	
FUEL TYPE	
SHIPPING	

OPTIONAL ACCESSORIES

INFILL COVER	
ANCHORS	
GLASS SHIELD	



ADDITIONAL ACCESSORIES

SUNBELLA FABRIC COVER FIRE TABLE UNIT COVER TO PROTECT UNIT WHILE NOT IN USE
INFILL COVER 22 1/2" DIA. TO 6" ALUMINUM INFILL COVER

PARTS

01 TINDER	00A BURNER - UNIT	00B EXTENSION COLLAR	00C AGGREGATE	04 KEY & VALVE	05 FLEXLINE
HEMI 40 360 LBS PRECAST GLASS FIBER REINFORCED CONCRETE HEMISPHERE FIRE TABLE.	PENTA BURNER 18" DIA. 65,000 BTU CSA CERTIFIED FIRE-ASSEMBLED BURNER KIT (SEE PAGE 2 FOR CLEANANCE)	22 3/4" OD, 16 1/2" ID SS EXTENSION COLLAR FLAT STAINLESS STEEL PAN & COLLAR.	1.00 CUBIC FT (2 BAGS) 1-2" ROLLED LAVA ROCK	PEWTER ANGLED MANUAL BALL VALVE W/ KEY	24" (3/4") WHISPER FLEX CAPACITY FLEX LINE SET ROUNDER/FLEXOR, 1/2" OD, 1/2" ID, 3/8" FEMALE THREAD AT BOTH ENDS. 2. 20FT 1/2" ID MALE TO 1/2" ID MALE ADAPTER 3. 20FT 1/2" ID MALE TO 1/2" ID FEMALE ADAPTER

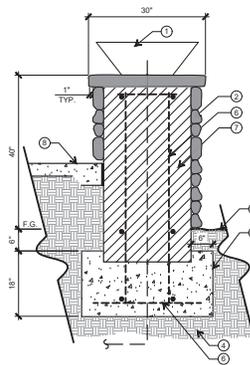
DETAILS

A RECESS FORMED FOR OPTIONAL ALUMINUM TABLE INSERT SOLD SEPARATELY.	B KEYHOLE FORWARD OPENING FOR GAS KEY & FLAME SHALL VALVE ON INTERIOR OF CONCRETE FIRE TABLE.	C VENTILATION VENTILATION HOLES EQUALLY SPACED BUTTING TO ADJACENT TORNSKA INSULATION (OPT. IS)	D WEEP HOLES Ø 3/8" WEEP HOLE AT BASE (OPT. IS)
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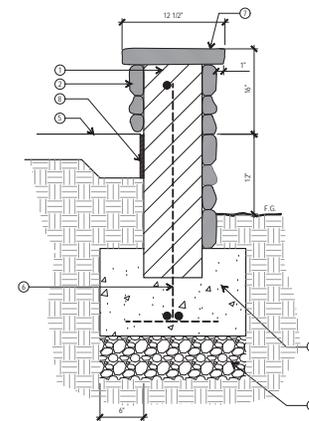
2013 Everett St. Alameda, CA 94501 concreteworks.com 510.534.7941

A 40" TINDER HEMISPHERE GAS FIRE PIT



LEGEND

- ① POT PER POT SCHEDULE, SHEET L7.1. REFER TO DETAIL FOR POT IRRIGATION AND DRAINAGE
- ② STONE VENEER - REFER TO FINISH SCHEDULE
- ③ CONCRETE FOOTING
- ④ 90% COMPACTED SUBGRADE
- ⑤ FINISHED GRADE
- ⑥ REINFORCEMENT PER STRUCTURAL ENGINEER
- ⑦ C&I. GROUT ALL CELLS SOLID
- ⑧ PATIO - PER ARCHITECT



LEGEND

- ① P.P. CONCRETE
- ② STONE VENEER, PER FINISH SCHEDULE
- ③ CONCRETE FOOTING
- ④ BASE ROCK, PER SOILS REPORT
- ⑤ PATIO, PER ARCHITECT
- ⑥ REINFORCEMENT PER STRUCTURAL ENGINEER
- ⑦ STONE CAP - FLUSH WITH FACE OF WALL
- ⑧ EXPANSION JOINT, SEE DETAIL

NOTE: DETAIL FOR DESIGN INTENT ONLY. FOOTINGS AND REINFORCEMENT PER STRUCTURAL ENGINEER.

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VETERE-DAVIS RESIDENCE
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CAMPBELL, CA



Know what's below.
Call before you dig.

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REVISION	DATE

DATE	02/20/20
PROJECT	RESIDENTIAL



CONSTRUCTION DETAILS

L2.2
13

PL07100 03/19/2020

GENERAL NOTES

- 1.0 BIDS, CONTRACTS AND INSURANCE
A. EACH BIDDER SHALL INSPECT THE SITE BEFORE SUBMITTING HIS BID.
B. THE OWNER RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.
C. SEPARATE CONTRACTS: THE OWNER RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONJUNCTION WITH THIS CONTRACT. THE CONTRACTOR SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE EXECUTION OF THEIR WORK AND SHALL PROPERLY COORDINATE HIS WORK WITH THEIRS.
D. LIABILITY AND COMPENSATION INSURANCE. THE CONTRACTOR SHALL CARRY AND PAY FOR ADEQUATE LIABILITY AND COMPENSATION INSURANCE AND SHALL, IF REQUIRED, FURNISH THE OWNER WITH EVIDENCE TO THIS EFFECT.
E. GUARANTEE BOND: THE CONTRACTOR SHALL HAVE THE RIGHT, PRIOR TO THE SIGNED OF THE CONTRACT TO REQUIRE THE CONTRACTOR TO FURNISH BOND GUARANTEEING THE FAITHFUL PERFORMANCE OF THE CONTRACT AND THE PAYMENT OF ALL OBLIGATIONS ARISING THEREUNDER, IN SUCH FORM AS THE OWNER MAY PREScribe AND WITH SUCH SURETIES AS HE MAY APPROVE. IF SUCH BOND IS REQUIRED, THE PREMIUM SHALL BE PAID BY THE OWNER.

- 2.0 PLANS AND PERMITS
A. ALL CONSTRUCTION SHALL BE ACCORDING TO CONSTRUCTION DOCUMENTS, UNLESS OTHERWISE APPROVED BY OWNER AND LANDSCAPE ARCHITECT.
B. CORRELATION OF DRAWINGS AND SPECIFICATIONS: ANY WORK NOT ACCORDING TO DRAWINGS AND SPECIFICATIONS OR ORDINANCES AND LAWS SHALL BE REMOVED.
C. DO NOT SCALE DRAWINGS. USE DIMENSIONS INDICATED.
D. ANY DISCREPANCY IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CALLED TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT. FAILURE TO DO SO WILL PLACE RESPONSIBILITY ON THE CONTRACTOR.
E. PERMITS, FEES, ETC.: THE CONTRACTOR SHALL ARRANGE AND PAY FOR THE BUILDING PERMIT AND EACH SUBCONTRACTOR SHALL ARRANGE AND PAY FOR PERMITS FOR THEIR RESPECTIVE WORK.

- 3.0 EXECUTION
A. CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATION OF ANY UNDERGROUND UTILITIES ON SITE.
B. DEMOLITION AND REMOVAL SHALL PROCEED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT/OWNER.
C. CUT, CAP, OR PLUG AS REQUIRED; THOSE UTILITY LINES SERVING THE AREA WITHIN THE PROJECT LIMITS SHALL REMAIN UNINTERRUPTED DURING THE WORK PROGRESS.
D. CARE IS TO BE TAKEN NOT TO DEFACE, CRACK OR DAMAGE ANY EXISTING STRUCTURES, FENCES OR CONCRETE WORK. ALL DAMAGES TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
E. CUTTING AND PATCHING: THE CONTRACTOR SHALL DO ALL CUTTING, FITTING OR PATCHING OF HIS WORK THAT MAY BE REQUIRED TO MAKE IT COMPLETE AS SHOWN ON DRAWINGS AND SPECIFICATIONS. WHEN CONCRETE SLABS OCCUR NEXT TO WALLS, JOINTS SHALL BE MATCHED TO 90%.
4.0 CLEANING
A. SPECIAL CARE SHALL BE USED TO PREVENT STAINING OF EXPOSED MORTAR AND GROUT. ANY MORTAR OR GROUT WHICH COMES IN SUCH FACES SHALL BE PROMPTLY AND THOROUGHLY REMOVED BY EFFECTIVE AND APPROVED MEANS.
B. ENTIRE SITE TO BE CLEANED AND ALL DEBRIS REMOVED PRIOR TO FINAL INSPECTION.

TUBULAR STEEL

- 1.0 SCOPE OF WORK
WORK INCLUDED:
A. FURNISH AND INSTALL TUBULAR STEEL PER PLANS, DETAILS AND SPECIFICATIONS.
RELATIONS TO BE MAINTAINED IN THIS SECTION:
2.0 QUALITY ASSURANCE
A. QUALIFICATIONS
1. A1. PERFORM SHOP WELDING ON THE PREMISES OF A FABRICATOR LICENSED BY THE CITY BUILDING AND SAFETY DEPARTMENT.
A.2. ALL WELDING SHALL BE TO THE STANDARDS APPROVED AND CERTIFIED IN ACCORDANCE WITH REQUIREMENTS OF AWS.
B.1. "AISC" STEEL CONSTRUCTION MANUAL.
B.2. "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION" AWS F1.0 OF THE AMERICAN WELDING SOCIETY.
B.3. "METAL FINISHES MANUAL," OF THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NANMM).
3.0 SUBMITTALS
A. SUBMIT COMPLETE SHOP DRAWINGS TO THE LANDSCAPE ARCHITECT AND OWNER REPRESENTATIVE FOR REVIEW IN ADVANCE OF FABRICATION.
A.1. SHOW DIMENSIONS, SIZES, THICKNESSES, GALVANES, FINISHES, JOINING, ATTACHMENTS AND RELATIONSHIP TO ADJACENT WORK.
A.2. WHERE WELDED CONNECTIONS, CONCRETE INSERTS, AND OTHER ITEMS ARE REQUIRED TO RECEIVE OTHER WORK, SHOW EXACT LOCATIONS REQUIRED.
A.3. FOR STANDARD MANUFACTURED ITEMS, SUBMIT WORK SHEETS SHOWING REQUIRED DIMENSIONS AND INDICATED CUTS OF ITEMS TO BE FURNISHED, SCALE, DETAILS AND DIMENSIONS.
4.0 MATERIALS
A. ROLLED STEEL SHAPES AND STEEL PLATES: ASTM A36.
B. STEEL TUBING: ASTM A500 GRADE A, OR ASTM 1501 SEAMLESS - G.A. PER DETAILS.
C. STEEL PIPE: ASTM A315, TYPE I OR S, GRADE A OR A120, GALVANIZED 6" DIAMETER.
D. STEEL BOLTS: ASTM A307, GRADE A.
E. WELDING RODS: CONFORM TO AWS REQUIREMENTS FOR INTENDED USE.
F. CONCRETE PATCHING MATERIAL: CONFORM TO ASTM C-1107.
G. SHOP PRIME-COAT PAINT: CONFORM TO EITHER FST-11-86 TYPE I FOR RED LEAD/ALLOY TYPE PAINT OR TO FST-11-86 FOR ZINC CHROMATE TYPE PAINT.
H. TOUCH-UP FOR GALVANIZED SURFACES: ALL STATE NO. 321 GALVANIZING POWDER, 100% ZINC, 0% LEAD, MANUFACTURED BY ALL MANUFACTURERS BY ALL STATE WELDING AGENCIES, OR SPEED GALVANIZED BY W.D. LO. OR EQUAL.
I. NON-SHRINK GROUT: MINN VAC CONSTRUCTION PRODUCTS DIVISION POR-ROCK, OR APPROVED EQUAL.
J. METAL CHANNEL: FS TP-31C (2 COATS).
5.0 FABRICATION
A. CONFORM TO THE REQUIREMENTS OF THE REFERENCED STANDARDS.
A.1. FOR MANUAL WELDING, USE LOW HYDROGEN TYPE E7018 AND 7018 ELECTRODES.
A.2. WELD PREHEAT SHALL BE DETERMINED FROM MILL REPORTS SHOWING THE CHEMICAL COMPOSITION OF THE REINFORCEMENT.
B. SHOP PRIME ALL FERROUS ITEMS TO 1 MILL DRY COAT THICKNESS AFTER FABRICATION. USE BURRING AND GRINDING SMOOTH WELDS AND ROUGH SPOTS. TOUCH-UP AFTER INSTALLATION. LEAVE IN PROPER CONDITION TO RECEIVE FINISH PAINTING.
C. B.1. DO NOT PAINT REBAR AND STEEL SURFACES TO BE EMBEDDED IN OR BONDED TO CONCRETE.
C.2. REBAR AND STEEL SHALL BE SMOOTHLY, ALL WELD SPATTER REMOVED AND SHALL COMPLY WITH THE SPECIFICATIONS OF THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC."
D. SUBCONTRACTOR TO PERFORM ALL THE ABOVE WORK IN ACCORDANCE WITH THE GOVERNING PLANS AND SPECIFICATIONS.
6.0 COORDINATION WITH OTHER WORK
A. EXAMINE DRAWINGS AND SPECIFICATIONS, AND INCLUDE ALL MISCELLANEOUS METAL WORK WHICH IS NOT DISTINCTLY SPECIFIED IN OTHER SECTIONS.
B. PROVIDE ALL CONNECTIONS, ANCHORS, BOLTS, WELDING, CUTTING, PUNCHING, DRILLING, TAPPING OR OTHER CONNECTION REQUIRED TO FIT MISCELLANEOUS METAL WITH OTHER WORK.
C. PROVIDE ITEMS TO BE INSTALLED BY OTHER TRADES WELL IN ADVANCE TO PERMIT PROPER SEQUENCING AND SCHEDULING OF OTHER WORK.
7.0 INSTALLATION
A. MISCELLANEOUS METALWORK SHALL BE FREE FROM DEFECTS WHICH WOULD IMPAIR STRENGTH, DURABILITY AND APPEARANCE.
B. ERECT PLUMBS, STRAIGHT, TRUE AND ACCURATELY FIT IN PLACE BRACE, REINFORCE, AND ANCHOR IN PLACE. GRIND ALL FIELD WELDS.
C. PROVIDE NON-SHRINK GROUTING OF ALL FRAMES, PLATES, SILLS, BOLTS AND OTHER ITEMS NOT DESIGNATED TO BE DONE BY OTHERS.
D. CONCEAL ALL CONNECTIONS IN THE FINISHED WORK, WHERE POSSIBLE. EXPOSED SCREW CONNECTIONS SHALL BE ALLEN HEAD SCREWS MATCHING THE MATERIAL, THEY FASTEN.
E. SET BASE PLATE FOR SUPPORT POSTS, TRUE AND PLUMB IN CONCRETE TOUCHING FEET DETAILS.
F. PROTECT ALL DISSIMILAR METALS FROM GALVANIC CORROSION BY PRESURE TAPES, COATINGS OR ISOLATORS.
G. AFTER ERECTION, CLEAN OFF ALL RUST, SCALE AND OIL. CLEAN FIELD TO MATCH THE LAST WORKING DAY EACH WEEK. ALL TRASH SHALL BE REMOVED COMPLETELY FROM THE PROJECT SITE.
H. TOUCH-UP: CONTRACTOR SHALL CLEAN AND RETOUCH CONTRACTORS WORK AS NECESSARY, OR AS REQUIRED FOR FINAL APPROVAL BY THE LANDSCAPE ARCHITECT WITHIN 24 HOURS NOTICE.
I. SPECIALLY NOTED OR DETAIL NOTED SURFACES SHALL BE PAINTED, PAINTED, HARDWARE, OR PLANT MATERIALS FREE FROM ANY PAINT, STAIN, SPATTERING, SMEARS OR SMUDGES WHICH ARE THE RESULT OF FABRICATION OR INSTALLATION.
J. LOCATION: CONTRACTOR SHALL NOT CLEAN EQUIPMENT AND BRUSHES OR OTHER TOOLS OR THINERS, PAINT OR OTHERS CHEMICALS IN AREAS TO BE PLANTED OR IN THE VICINITY OF EXISTING PLANTS.

CONCRETE

- 1.0 SCOPE OF WORK
FURNISH AND INSTALL ALL CONCRETE WORK COMPLETE AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO:
A. BURNISH AND SET ALL REINFORCING STEEL, BOLTS AND ANCHORS.
B. INSTALL ALL ITEMS REQUIRED BY OTHER TRADES WHICH ARE TO BE CAST IN PLACE WITH CONCRETE.
C. CONCRETE MOW CURBS, BANDING, OTHER FLATWORK, FOOTINGS, PADS AND SLABS FOR WALLS, FENCING, CONTROLLERS, ETC., WHERE APPLICABLE.
2.0 GENERAL
ALL REQUIREMENTS OF SUBSECTION 3.31, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SHALL APPLY EXCEPT AS SPECIFIED HEREIN.
2.1 INSPECTION OF SITE
EXAMINE RELATED WORK AND SURFACES BEFORE STARTING WORK IN THIS SECTION. REPORT TO THE LANDSCAPE ARCHITECT IN WRITING, SITE CONDITIONS WHICH WILL PREVENT THE PROPER PERFORMANCE OF THIS WORK, BEGINNING THE WORK IN THIS SECTION WITHOUT REPORTING UNSUITABLE CONDITIONS TO THE LANDSCAPE ARCHITECT CONSTITUTES ACCEPTANCE OF SITE CONDITIONS BY THE CONTRACTOR. ANY REQUIRED REMOVAL, REPAIR, OR REPLACEMENT OF THIS WORK CAUSED BY UNSUITABLE CONDITIONS SHALL BE DONE AT NO ADDITIONAL COST TO OWNER.
2.2 PROTECTION OF EXISTING CONDITIONS
CONTRACTOR SHALL ACQUAINT HIMSELF WITH ALL SITE CONDITIONS, HE SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE CONDITIONS. WHERE DAMAGE IS INCURRED, THIS CONTRACTOR SHALL REPAIR DAMAGE TO ITS ORIGINAL CONDITION OR FURNISH AND INSTALL EQUAL REPLACEMENT AT HIS OWN EXPENSE, TO THE SATISFACTION OF THE OWNER.
2.3 COORDINATION
A. COOPERATION ON-SITE: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS AND THE TRADE TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE.
B. WORK WITH OTHER TRADES: COORDINATE WITH GENERAL CONTRACTOR ITEMS OF OTHER TRADES TO BE FURNISHED AND SET IN PLACE. SUCH PORTIONS OF THEIR WORK AS ALL OR IN PART EMBEDDED, BUILT-IN, OR OTHERWISE INSTALLED, OR SURFACES TO BE FINISHED, SHALL BE THEM IN AMPLIE TIME THAT PROGRESS OF THE WORK IS NOT DELAYED, ANY CUTTING OR PATCHING MADE NECESSARY TO COMPLY WITH THIS INJUNCTION SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
2.4 APPROVAL
WHEREVER THE TERMS "APPROVAL," "APPROVED," OR "APPROVED" ARE USED IN THE SPECIFICATIONS, THEY MEAN APPROVAL OF THE LANDSCAPE ARCHITECT IN THE OWNERS REPRESENTATIVE OR THEIR FIELD REPRESENTATIVES, IN WRITING.
2.5 SUBMITTALS
AFTER AWARD OF CONTRACT, CONTRACTOR SHALL SUBMIT FOR APPROVAL SAMPLES AND SPECIFICATIONS OF SPECIFIED ITEMS PRIOR TO BEGINNING WORK. APPROVED SAMPLES SHALL BE STANDARDS FOR COMPLETING WORK. SAMPLES SHALL CONSIST OF 3 SQUARE PANELS. CONTRACTOR SHALL PROVIDE ONE PANEL FOR EACH CONCRETE AND/OR FINISH ON THE JOB SITE. EACH SAMPLE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2.6 SUBSTITUTIONS
A. STANDARDS: SPECIFIC REFERENCE TO MANUFACTURERS NAMES AND PRODUCTS SPECIFIED IN THIS SECTION ARE USED AS STANDARDS; THIS IMPLIES THE RIGHT TO SUBSTITUTE OTHER MATERIAL OR METHODS WITHOUT WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
B. APPROVAL: INSTALLATION OF ANY APPROVED SUBSTITUTIONS IS THE CONTRACTOR'S RESPONSIBILITY. ANY CHANGES REQUIRED FOR THE INSTALLATION OF ANY APPROVED SUBSTITUTION SHALL BE MADE TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE CONTRACTOR TO OWNER. APPROVAL BY LANDSCAPE ARCHITECT OF SUBSTITUTED MATERIALS AND/OR DIMENSIONAL DRAWINGS DOES NOT WAIVE THESE REQUIREMENTS.
2.7 WARRANTY
IN ADDITION TO MANUFACTURERS' GUARANTEES OR WARRANTIES, ALL WORK SHALL BE WARRANTED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP BY CONTRACTOR. WARRANTY SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES.
2.8 MATERIALS
A. PORTLAND CEMENT SHALL CONFORM TO ASTM-C150, TYPE I OR TYPE II.
B. CONCRETE AGGREGATE SHALL CONFORM TO ASTM-C33.
C. CLEAN FREE FROM STRONG ACIDS, ALKALI, OIL OR ORGANIC MATTER.
C.1. ADMIXTURE FOR ALL FORMED CONCRETE SHALL BE SIKKA CHEMICAL CORP'S "PLASTIMET" OR APPROVED EQUAL, APPLIED IN STRICT ACCORDANCE WITH MANUFACTURERS DIRECTIONS.
D. REINFORCEMENT: REINFORCING STEEL ASTM A151 AND ASTM A305.
E. FORMS:
E.1. LUMBER SHALL BE "CONSTRUCTION GRADE" DOUGLAS FIR.
E.2. PLYWOOD FOR FORMING OF CONCRETE WHICH IS EXPOSED SHALL BE 1/2" THICK AND EDGES SEALED.
F. EXPANSION JOINT FILLER SHALL CONFORM WITH ASTM-D778 (PREMIUM).
G. THE FORMS SHALL BE FOLLOWED IN ALL APPLICABLE PROCEDURES, THE PROPERTIES OF REINFORCING BARS AND WELDED WIRE FABRIC.
G.1. REINFORCING BARS: DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A618, CLEAN AND FREE FROM RUST, SCALE, OR COATING THAT WILL REDUCE BOND.
G.2. WELDED WIRE FABRIC:
G.2.1. CONFORM TO ASTM A185. TAGS DESIGNATING WIRE SIZE AND SPACING SHALL BE LEFT ON EACH ROLL UNTIL READY FOR USE.
G.2.2. BY THE LANDSCAPE ARCHITECT. WELDED WIRE MESH SHALL BE 6" X 6" No. 10 to 10 CONTINUOUS.
4.0 CONCRETE
A. QUALITY
A.1. CONTRACTOR ASSUMES RESPONSIBILITY FOR THE DESIGN MIX AND GUARANTEES THE SPECIFIED ULTIMATE STRENGTH AS INDICATED OR SPECIFIED HEREIN.
A.2. THE PROPER PROPORTIONS OF AGGREGATE TO CEMENT SHALL PROVIDE A DENSE MIXTURE WHICH WILL REACTLY WORK UP ALL CORNERS OF THE FORMS. SHALL BE PLACED AND FINISHED WITHOUT ANY SEGREGATION OF THE MATERIALS, CAUSE EXCESS FINE WATER TO SEPARATE FROM THE SURFACE OR CAUSE EXCESSIVE BLEEDING OF THE FORMS.
B.2. THE RECOMMENDED PRACTICES OF THE AMERICAN CONCRETE INSTITUTE SHALL BE FOLLOWED IN ALL APPLICABLE PROCEDURES, THE MAXIMUM SLUMP SHALL NOT EXCEED 4" FOUR INCHES FOR FOOTINGS, SLABS, SIDEWALKS, AND MASS CONCRETE; 5 INCHES FOR FOUNDATION WALLS.
C. CONTROL: THE CONCRETE QUALITY, PROPORTIONS, CONSISTENCY, ETC., IS SUBJECT TO THE APPROVAL OF THE OWNER, AND NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL.

5.1 FORMWORK

- A. FORMS FOR CONCRETE WORK SHALL BE EITHER METAL OR WOOD. FORMS THAT ARE WARPED OR THAT DO NOT HAVE A SMOOTH STRAIGHT UPPER EDGE SHALL NOT BE USED. FORMS SHALL BE SET WITH THE UPPER EDGE OF THE BOARD TRUE TO LINE AND GRADE AND SHALL BE STAKED RIGIDLY. NO MORE THAN 24 HOURS SHALL ELAPSE FROM THE TIME THE FORMS ARE TO REMAIN IMMEDIATELY THROUGHOUT THE CONSTRUCTION. ALL FORMS SHALL BE APPROVED BY LANDSCAPE ARCHITECT WITHIN A TOLERANCE OF ONE PERCENT (1%). NOTIFY LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION. ALL MATERIALS SHALL BE ACCURATELY AND THOROUGHLY WEIGHED AND MEASURED CONTINUOUSLY UNTIL THE DISTRIBUTION OF MATERIAL IS UNIFORM AND THE MASS OF CONCRETE IS HOMOGENEOUS.
B. TWO AND ONE-HALF (2 1/2) GALLONS OF WATER PER CUBIC YARD, SHALL BE WITHDRAWN FROM THE MIX AT THE PLANT, AND ALL OR A PORTION MAY BE ADDED TO THE MIX AT THE JOB SITE AS DIRECTED BY THE SUPERVISOR. THE CONCRETE SHALL BE MIXED AT LEAST 5 MINUTES AFTER SUCH WATER IS ADDED AND NOT LESS THAN 30 MINUTES OF THIS MIX SHALL BE IMMEDIATELY PRIOR TO THE DISCHARGE OF THE BATCH. TOTAL MIXING TIME AFTER ADDING ORIGINAL WATER SHALL BE AT LEAST 15 MINUTES.
C. CONCRETE WHICH IS NOT PLACED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF CEMENT AND WATER, AND CONCRETE WHICH HAS STOOD FOR 30 MINUTES AFTER LEAVING THE MIXER, SHALL NOT BE USED.
5.2 REBAR
A. REINFORCING BAR SHALL BE SPLICED WITH 30-BAR DIAMETERS MINIMUM OVERLAP.
B. ALL REINFORCING BAR SHALL BE PLACED WITH 7" MINIMUM CLEARANCE FROM CONCRETE EDGES.
6.0 CONVEYING AND PLACING
A. BEFORE POURING, ALL FORMS SHALL BE THOROUGHLY CLEANED AND MADE TRUE. THE BOTTOM OF TRENCHES SHALL BE WETTED DOWN WITH WATER. POURING FOOTINGS: EARTH SHALL NOT BE MUDDY AT THE TIME OF POURING. CONCRETE SHALL NOT BE PLACED UNTIL REINFORCEMENTS, ROUGH HARDWARE, AND FORMS ARE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.
B. BEFORE DEPOSITING NEW CONCRETE AGAINST OLD CONCRETE, ALL LATANCE SHALL BE REMOVED, AND THE SURFACES ROUGHENED TO EXPOSE THE EMBEDDED AGGREGATE. THE SURFACES SHALL THEN BE COVERED WITH WETTED GROUT. THE SURFACES SHALL BE COVERED WITH A COURSE OF AGGREGATE OMITTED, 1 1/2 INCHES THICK.
C. CONCRETE WHICH IS NOT PLACED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF INGREDIENTS, AND IN NO CASE SHALL THE FREE FALL EXCEED 6 FEET. TRIMMER SHALL BE USED AS REQUIRED. SURGES OF CONCRETE SHALL BE KEPT REASONABLY LEVEL, WITH A MINIMUM AMOUNT OF CONCRETE BEING ALLOWED TO FLOW AFTER BEING PLACED. PLACING SHALL BE PERFORMED AS A CONTINUOUS OPERATION UNTIL EACH SECTION IS COMPLETE.
D. CONCRETE SHALL BE SPADED AND VIBRATED WITH MECHANICAL VIBRATORS TO A MAXIMUM SUBSIDENCE, WITHOUT SEPARATION OF INGREDIENTS, THE MOVING OF CONCRETE BY VIBRATION WILL NOT BE PERMITTED.
6.1 COLORED CONCRETE
INTEGRAL COLOR SHALL BE PER PLAN WHERE APPLICABLE.
7.0 GROUTING
A. GROUT SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT AND TWO PARTS OF FINE AGGREGATE BY VOLUME. MATERIALS SHALL BE MIXED DRY AND WATER ADDED JUST SUFFICIENT TO MAKE THE MIXTURE FLOW UNDER ITS OWN WEIGHT.
8.0 CURING AND PROTECTION
A. ALL EXPOSED SURFACES OF CONCRETE SHALL BE PROTECTED FROM DAMAGE DUE TO TEMPERATURE, ELEMENTS, AND CONSTRUCTION OPERATIONS.
B. ALL EXPOSED SURFACES OF CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND FRESHLY PLACED CONCRETE SHALL BE PROTECTED AGAINST WASH BY RAIN. ALL CONCRETE SHALL BE KEPT MOIST FOR A PERIOD OF 7 DAYS AFTER PLACING.
B.2. ALL LIQUID CURING COMPOUNDS SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS AND SHALL NOT BE USED ON SURFACES RECEIVING CONCRETE HARDENER.
9.0 DEFECTIVE CONCRETE
A. CONCRETE WHICH IS NOT IN ACCORDANCE WITH THESE SPECIFICATIONS, OUT OF LINE, LEVEL, OR PLUMB; SHOWING STRUCTURAL CRACKS, ROCK POCKETS, WOODS, SPALLS, HONEYCOMBING, EXPOSED REINFORCING OR OTHER DAMAGED SURFACES SHALL BE CONSIDERED AS DEFECTIVE.
B. ALL FINES AND IRREGULARITIES SHALL BE REMOVED FROM EXPOSED CONCRETE SURFACES WHILE THE CONCRETE IS STILL GREEN. WHERE PATCHING IS REQUIRED, ALL USE AND UNIFORM CONCRETE SHALL BE REMOVED PRIOR TO PATCHING.
10.0 CONCRETE FINISHES
FLAT SURFACES SHALL BE SCREED TO THE REQUIRED LEVELS AND SLOPES AND ANY EXCESS WATER OR LATANCE REMOVED. CONCRETE SHALL BE COMPACTED WITH A GRID TAMPER AND THEN FLOATED TO A TRUE AND LEVEL SURFACE WITHIN THE TOLERANCE OF 1/8 INCH ALONG A 10 FOOT STRAIGHT EDGE. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ON ALL FLATWORK. SEE PLANS FOR CONCRETE FINISH.
11.0 EXPANSION JOINTS
CONTROL JOINTS AND OTHER JOINTS SHALL BE FORMED IN FRESH CONCRETE USING A CLEAN EDGING OR EDGING TOOL TO PROVIDE A SMOOTH UNIFORM FINISH.
12.0 CLEAN-UP
UPON COMPLETION OF ALL CONCRETE WORK AND BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL REMOVE ALL EXCESS MATERIALS, APPROVED DEBRIS, ETC., FROM THE SITE AND THE SITE SHALL BE LEFT IN A CLEAN, NEAT CONDITION ACCEPTABLE TO OWNER.

WOODWORKING SPECIFICATIONS

- 1.0 SCOPE OF WORK
A. GENERAL: THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR AND MATERIAL FOR CONSTRUCTION OF OVERHEAD WOOD TRUSSES, FENCES AND SCREENS, AS DETAILED ON THE PLANS. THE WORK DOES NOT INCLUDE POST FOOTINGS AND HARDWARE SET IN PAVED AREAS.
B. COORDINATION: WOODWORKING CONTRACTOR SHALL LOCATE AND STAKE POST LOCATIONS FOR CONCRETE AND/OR MASONRY CONTRACTOR BEFORE PAVING OR MASONRY IS BEGUN.
C. SITE CONDITIONS: VERIFY ALL DIMENSIONS AND SITE CONDITIONS ON THE DAY PRIOR TO BEGINNING WORK. ANY DISCREPANCY SHALL BE CALLED TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT.
D. PERMITS: CONTRACTOR SHALL OBTAIN ALL BUILDING PERMITS AND APPROVALS (REFER TO GENERAL NOTES).

2.0 MATERIALS

- A. GENERAL: ALL MATERIALS SHALL BE NEW AND PROPERLY GRADE-MARKED OR CERTIFIED. ONLY LUMBER CONSISTING OF SOUND WOOD, FREE OF DECAY, WARPING, SPLITS OR CHECKS WILL BE ACCEPTED.
B.1. ALL LUMBER SIZES SHOWN ON THE PLANS OR SPECIFIED REFER TO NOMINAL SIZES AND THE AMERICAN STANDARD ROUGH-DRESSED SIZES WILL BE ACCEPTED AS CONFORMING THEREIN.
B.2. DOUGLAS FIR SHALL BE OF THE SPECIES "PSEUDOTSUGA MENZIESII" AND SHALL BE GRADED IN ACCORDANCE WITH THE CURRENT STANDARD GRADING AND DRESSING RULES FOR DOUGLAS FIR.
B.3. CEDAR SHALL BE OF THE SPECIES "CHAMAECYPARIS LAWSONIANA" AND SHALL BE GRADED IN ACCORDANCE WITH THE CURRENT GRADING AND DRESSING RULES.
B.4. ALL WOOD BEARING ON CONCRETE OR MASONRY LESS THAN 4" ABOVE GRADE SHALL BE PRESSURE TREATED. WOOD JOINTS OR THE BOTTOM OF WOOD FLOORS LESS THAN 18" ABOVE GRADE SHALL ALSO BE PRESSURE TREATED.
C.5. ALL STRUCTURAL MEMBER (IE. BEAMS, RAFTERS, POSTS, JOINTS) TO BE DOUGLAS FIR NO. 1 OR BETTER UNLESS OTHERWISE NOTED. LATH AND DECKING AS SPECIFIED.
C. HARDWARE
C.1. NAILS TO BE GENERAL FRAMING COMMON OF STANDARD SIZE AND KIND, HOT DIPPED GALVANIZED OR AS REQUIRED FOR FINAL APPROVAL BY THE NOTED. BOX NAILS WILL BE ACCEPTED.
C.2. WASHERS TO BE REINFORCED MALLEABLE IRON, GALVANIZED.
C.3. ALL BRACKETS AND HANGERS TO BE SIMPSON OR APPROVED EQUAL.

3.0 EXECUTION

- A. WORKMANSHIP: ALL WOODWORK SHALL BE CUT, FITTED, JOINED TOGETHER, TIED, SET TO REQUIRED LEVELS AND LEVELS SHOWN IN PLACE ETC., IN A NEAT WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE LANDSCAPE ARCHITECT. ALL SPLIT WOOD SHALL BE REPAIRED AND REPLACED.
B. BOLTING: HEADS AND NUTS OF MACHINE BOLTS AND NUTS OF CARBIDE BOLTS SHALL HAVE WASHERS, EXCEPT FOR STEEL PLATES, BOLTS, SPLICE AND HEAD ALL BEAMS AS SHOWN ON DRAWINGS. CUT ALL BOLTS FLUSH WITH NUTS. PLAN ALL BOLTS AND NUTS TO BE PLACED TO THE CORNER. BOLTS SHALL BE BORED 1/32 TO 1/16" LARGER THAN NOMINAL BOLT DIAMETER. NAILS SHALL BE DRIVEN TO THE CORNER. DRILLED HOLES, LONGER AND DRILLED HOLES, ONE SIZE SMALLER THAN NAIL SHANK, SHALL BE USED WHERE WOOD MEMBERS ARE LIABE TO BE SPLIT BY NORMALLY DRIVEN NAILS. ALL NAILING SHALL BE IN ACCORDANCE WITH U.S.C.
C. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIALLY NOTED OR DETAIL NOTED.
D. FINISHING: CONTRACTOR TO STAIN, PAINT OR SEAL WOOD. REFER TO DRAWINGS. PAINT ALL METAL TO MATCH WOOD FINISH UNLESS NOTED OTHERWISE. (1) COAT ZINC-RICH PRIMER AND (2) COAT SEMI-GLOSS OIL BASE EXTERIOR PAINT.
E. OTHER: CONTRACTOR SHALL DAILY REMOVE ALL RUBBISH, SCRAPS, EXTRANEOUS CONCRETE AND HARDWARE FROM THE PREMISES AND KEEP THE JOB REASONABLY CLEAN AND ORDERLY. ALL EXCESS MATERIALS SHALL BE IMMEDIATELY CLEANED OFF OF FINISHED SURFACES AND THE LANDSCAPE ARCHITECT'S SATISFACTION. SPECIAL CARE SHALL BE EXERCISED TO PREVENT ACCUMULATIONS OF MATERIAL TO FORM A FIRE OR SAFETY HAZARD.

MASONRY SPECIFICATIONS

- 1.0 SCOPE OF WORK
A. GENERAL: THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR AND MATERIAL FOR CONSTRUCTION OR INSTALLATION OF ALL LABOR AND STRUCTURES, AND BRICK OR TILE PATHS AND PATIOLAS.
B. WORK INCLUDES THE INSTALLATION OF ANCHORS AND INSERTS FURNISHED BY OTHER TRADES FOR OTHER TRADES, REINFORCEMENT STEEL, CONCRETE BASES OR FOOTINGS, AND STUCCO FINISHES.
2.0 MATERIALS
A. REFER TO PLANS FOR SPECIFIC MATERIAL, TYPES, COLORS FINISHES, ETC.
CONCRETE MASONRY UNITS: CONFORM TO ASTM C30, GRADE N AND THE REQUIREMENTS OF THE QUALITY CONTROL STANDARDS OF THE CONCRETE MASONRY ASSOCIATION, AS MANUFACTURED BY OROCO BLOCK CO. OR EQUAL.
B. PORTLAND CEMENT: CONFORM TO ASTM C150, TYPE I OR TYPE II, LOW ALKALI. USE ONLY ONE BRAND THROUGHOUT WORK. PROVIDE WHITE CEMENT AS REQUIRED FOR USE IN COLORED MORTAR.
C. HYDRATED LIME: CONFORM TO ASTM C007, TYPE S, AND CONTAINING 95% BY WEIGHT OF CALCIUM OXIDE.
D. AGGREGATES: CONFORM TO ASTM C144.
E.1. SAND: CONSIST OF FINE GRANULAR MATERIALS, NOT LESS THAN 5% PASSING NO. 8 SIEVE), COMPOSED OF HARD, STRONG DURABLE MINERAL PARTICLES, FREE FROM INJURIOUS AMOUNTS OF SALINE, ALKALINE, ORGANIC OR OTHER DELTERIOUS SUBSTANCES.
E.2. PEARL DOLITE: GRADED WITH NO MORE THAN 5% OVER THE NO. 8 SIEVE AND WITH 100% PASSING THE 30" SIEVE.
F. REINFORCING STEEL: CONFORM TO ASTM A618. REINFORCING BARS OF DOMESTIC MANUFACTURE CONFORMING TO ASTM 1515.
G. WATER: CLEAN, POTABLE. FROM DOMESTIC SUPPLY.
H. ADMIXTURE FOR MORTAR: "RED LABEL" USED IN ACCORDANCE WITH THE SPECIFICATIONS.
I. MORTAR: FRESHLY PREPARED AND UNIFORMLY MIXED IN THE RATIO BY VOLUMES OF 1 PART CEMENT, 1/2 PART LIME PUTTY, 4 1/2 PARTS SAND. GROUT SHALL BE OMITTED. MORTAR SHALL MATCH COLOR OF BLOCK, UNLESS OTHERWISE SPECIFIED.
J. PUTTY: FLUID CONSISTENCY AND MIXED IN THE RATIO BY PARTS SAND, 2 PARTS FEA GRAD.
K. LIME PUTTY: ASTM C5, HIGH CALCIUM LIME, COMPLETELY SLAKED BEFORE USING.
3.0 EXECUTION
A. EXECUTE WORK IN BEST WORKMANSHIP LIKE MANNER IN FULL COMPLIANCE WITH APPLICABLE BIDDING ORDINANCES.
B. CONCRETE BLOCK SHALL BE Laid AS REINFORCED FULL CELL UNIT MASONRY. BLOCK SHALL BE Laid ON 3" THICK FULL MORTAR BED ON ALL WEBS AND FACE SHELLS. VERTICAL FACED JOINTS SHALL BE WELL BUTTERED TO A DEPTH OF 1/2" FROM EXTERIOR FACES AND ALL JOINTS SHALL BE SHOVED INTO PLACE, SO THE MORTAR BONDS WELL WITH BOTH BLOCKS. FURROWING OF THE MORTAR IS NOT PERMITTED. INTERSECTING MASONRY SHALL BE GROUDED 4" (4" MAXIMUM) POURS. UNLESS OTHERWISE NOTED ON PLANS, ALL CELLS CONTAINING REINFORCING SHALL BE SOLID GROUDED. PUDDLE THE GROUT WITH A STICK IN EACH CELL, EACH TIME IT IS POURED, TO OBTAIN A COMPLETE FILLING OF THE VOIDS. RECONSTRUCT ALL GROUT. RUN ALL HORIZONTAL BARS IN BOND BEAM BLOCK AND LAP AROUND CORNER AND AT ALL SPLICE 2'4" MINIMUM. RUN ALL VERTICAL BARS IN OPEN END BLOCK.
C. DO NOT START MASONRY IF THE HORIZONTAL OR VERTICAL ALIGNMENT OF THE FOUNDATION IS A MAXIMUM OF 1" TOTAL IN ERROR.
D. ALL UNITS SHALL BE CLEANED WHERE LAD. CONCRETE UNITS SHALL BE DRY. BRICK SHALL BE WETTED BUT HAVE NO FREE MOVING WATER WHEN LAD.

Advertisement for T.H. NORTON landscape architecture, inc. 1220 DIAMOND WAY, Suite 245, CONCORD, CA 94520. Phone: 925.822.8085. Vertical text: VETERE-DAVIS RESIDENCE 1511 VAN DUSEN LANE CAMPBELL, CA. Includes a table with columns for DATE, TIME, and LOCATION, and a logo for CONSTRUCTION SPECIFICATIONS L3.1.

LATERAL PIPE SIZING CHART	
SCH. 40 PVC	
SIZE	FLOW (GPM)
3/4"	= 0- 8
1"	= 8.1- 12
1-1/4"	= 12.1- 22
1-1/2"	= 22.1- 30
2"	= 30.1- 50

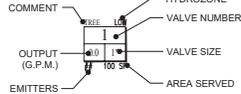
DRIP EMITTER SCHEDULE	
PLANT SIZE	EMITTER No.
1 GAL. MATERIAL	2 - 2 GPH
5 GAL. MATERIAL	3 - 2 GPH*
15 GAL. MATERIAL	4 - 2 GPH*
24" BOX	6 - 2 GPH*
36" BOX	8 - 2 GPH*
* SPACE EQUALLY ABOUT TRUNK	
CONTRACTOR SHALL ADJUST EMITTER QUANTITIES AS REQUIRED FOR SOIL TYPES	

IRRIGATION LEGEND

SYM	MFG	MODEL	GPM (GPH)	PSI	DETAIL
●	JAIN IRR.	OCTA-BUBBLER MODEL OCT168 - 1/4" DISTRIB. TUBING. SEE EMITTER SCHEDULE.	2.0 GPH / OUTLET	25	E,FL5.1
○	HUNTER	RZWS-36-25 - (2) PER TREE	0.25	15	IL/L5.1
■	HUNTER	FLOOD BUBBLER PROS-00-PCN-25	0.25	30	HL/L5.1
□	HUNTER	ECOMAT - INSTALL PER DETAILS AND MFR'S RECOMMENDATIONS.	0.6 GPH @ 12" O.C	15	FL/L5.2
□	NETAFIM	TECHLINE CV DRIFLINE - INSTALL PER DETAILS AND MFR'S RECOMMENDATIONS.	0.26 GPH @ 18" O.C	15	A-H/L5.3
M	EXISTING	DOMESTIC WATER METER			
⊕	NETAFIM	AUTOMATIC FLUSH VALVE W/ INSERT INLET (INSTALL IN BOX AT TERMINATION OF LINE)			FL/L5.3
⊖	NETAFIM	AIR RELIEF VALVE (INSTALL AT HIGH POINT OF EACH SYSTEM)			G,HL/L5.3
○	APPROVED	3/4" DEDICATED DOMESTIC SUB-METER			
■	FEBCO	3/4" BACKFLOW PREVENTER, MODEL LF825Y			CL/L5.1
EZ	EZ FLO	EZ-FLO FERTILIZER INJECTION SYSTEM MODEL EZ-005-KX WITHIN BLACK CARSON JUMBO VALVE BOX (OR APPROVED EQUAL).			E/L5.2
C	HUNTER	I-CORE AUTOMATIC IRRIGATION CONTROLLER - MODEL IC-600-PL. CONTRACTOR TO INCLUDE NECESSARY EXPANSION MODULES.			A/L5.1 A/L5.2
⊕	HUNTER	WIRELESS WEATHER STATION - MODEL WSS-SEN. COORDINATE LOCATION W/ G.C.			B/L5.1
⊕	NIBCO	SCH 80 PVC ISOLATION VALVE (LINE SIZE)			GL/L5.1
⊕	HUNTER	ICV-101 REMOTE CONTROL VALVE (SIZE PER PLAN).			D/L5.1 D/L5.2
⊕	HUNTER	ICZ-101 REMOTE CONTROL VALVE WITH DRIP ZONE KIT (SIZE PER PLAN).			D/L5.1 D/L5.2
---	APPROVED	PVC SCHED 40 LATERAL. SIZE PER PLAN.			B/L5.2
---	APPROVED	PVC SCHED 40 MAINLINE. SIZE PER PLAN. 18" COVER MIN.			B/L5.2
---	APPROVED	PVC SCHED 40 SLEEVE. 2x PIPE DIAMETER.			C/L5.2

NOTES:

1. COMBINE SCHEDULED IRRIGATION VALVES FOR A FLOW OF MIN. 6 GPM TO MAX. 15 GPM
2. INSTALL VALVES IN BLACK CARSON 1419 VALVE BOX, OR APPROVED EQUAL.
3. CONTRACTOR TO INSTALL NETAFIM SYSTEM PER MANUFACTURER'S RECOMMENDATIONS, DETAILS, AND SPECIFICATIONS. CONTACT LOCAL REPRESENTATIVE FOR INSTALLATION GUIDANCE PRIOR TO COMMENCEMENT OF WORK.
4. CONTRACTOR TO INSTALL TEMPORARY OVERHEAD SPRAY SYSTEM TO SUPPLEMENT ECO-MAT IRRIGATION DURING THE ESTABLISHMENT PERIOD OF THE SOD.
5. VALVE GPM/ BUBBLER QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SUFFICIENT NUMBER BUBBLERS FOR PLANT MATERIAL SHOWN ON THESE PLANS. REFER TO DETAILS FOR EMITTER LAYOUT. CONTRACTOR SHALL ADJUST SYSTEM DESIGN AS REQUIRED TO MEET THE PLANT MATERIAL NEEDS.
6. CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT FOR FIELD INSPECTIONS PER SPECIFICATIONS.



IRRIGATION NOTES

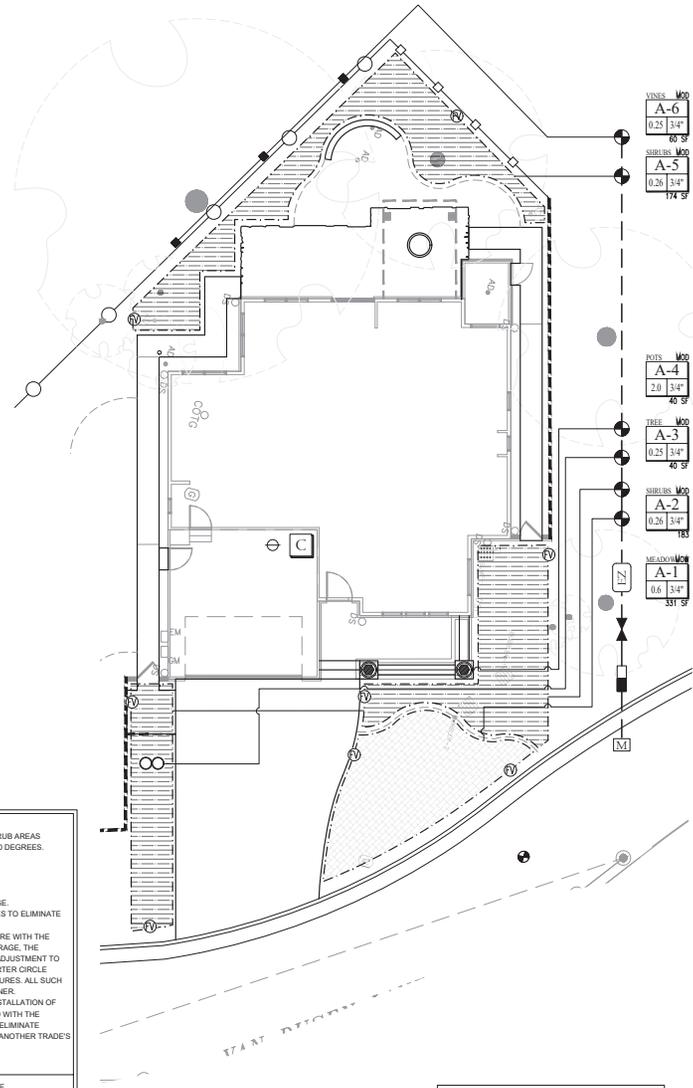
1. INSTALL ALL IRRIGATION COMPONENTS ACCORDING TO LOCAL CODES AND ORDINANCES.
2. THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ANY AND ALL PERMITS AND ALL INSPECTIONS AS REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY ENCROACHMENT INTO ADJACENT PROPERTY, R.O.W'S, EASEMENTS, SETBACKS OR ANY OTHER LEGAL PROPERTY RESTRICTIONS EITHER MARKED OR UNMARKED.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR/REPLACE AT NO ADDITIONAL COST TO THE OWNER, ANY DAMAGE TO UNDERGROUND UTILITIES THAT MAY OCCUR.
5. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY AND ALL DAMAGES TO OPERATIONS OR WORK OF OTHER CONTRACTORS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ACTIVITIES WITH ALL AGENCIES AND OTHER TRADES.
6. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON PLANS AT THE SITE PRIOR TO COMMENCEMENT OF ANY WORK. ALL DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO LANDSCAPE ARCHITECT FOR DIRECTION. ANY CONTINUATION OF WORK IS AT THE CONTRACTOR'S RISK AND EXPENSE.
7. THE CONTRACTOR SHALL ONLY APPLY SUFFICIENT WATER TO PROMOTE HEALTHY GROWTH OF THE PLANT MATERIAL. AT NO TIME WILL THE CONTRACTOR APPLY WATER AT A RATE OF FREQUENCY WHICH CAUSES RUNOFF OR SOIL SATURATION.
8. REFER TO DETAILS AND SPECIFICATIONS FOR INSTALLATION OF ALL COMPONENTS.
9. THE WORK SHOWN ON THESE PLANS IS DIAGNAMTIC. ALL ITEMS, I.E. CONTROLLERS, VALVES, MAINLINES, SLEEVES, WIRES, IRRIGATION HEADS, ETC. ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. DO NOT SCALE DRAWINGS. DETAIL DRAWINGS MAY CLARIFY LOCATION OF SOME ITEMS. THE CONTRACTOR SHALL NOT LOCATE ANY ITEMS WHERE IT IS OBVIOUS THAT THEY ARE IN CONFLICT WITH UNDERGROUND UTILITIES, STRUCTURES, OTHER IMPROVEMENTS, OR VEHICULAR OR PEDESTRIAN SAFETY CONSIDERATIONS.
10. ADJUST ALL HEADS FOR MINIMUM OVERSPRAY ON ANY NONPLANTED AREAS AND COMPLETE COVERAGE OF LANDSCAPE AREAS. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING CONDITIONS (USE VARIABLE ARC NOZZLES AS NECESSARY).
11. LOCATE ALL SHRUB SPRAY HEADS 24" FROM EDGE OF PAVING.
12. DO NOT LOCATE ANY IRRIGATION HEADS CLOSER THAN 24" FROM HOUSE.
13. DO NOT USE FIXED RISERS IN TRAFFIC AREAS.
14. USE 6" POP-UP HEADS IN TURF AREAS, AND 12" POP-UP HEADS IN SHRUB AREAS.
15. USE VARIABLE ARC NOZZLES FOR AREAS OTHER THAN 90, 180, OR 360 DEGREES.
16. SLEEVE IRRIGATION WIRING UNDER ALL PAVING. SLEEVE LATERALS UNDER ALL PAVING 4 FEET AND WIDER. SLEEVE MAINLINE UNDER ALL PAVING 4 FEET AND WIDER. ALL SLEEVES TO BE 2x SIZE OF PIPE TO BE SLEEVED.
17. USE CHECK VALVES AS REQUIRED TO ELIMINATE LOW HEAD DRAINAGE. PRESSURE COMPENSATING DEVICES SHALL BE USED ON ALL NOZZLES TO ELIMINATE FOGGING.
18. WHERE VERTICAL OBSTRUCTIONS IN THE LANDSCAPE AREA INTERFERE WITH THE SPRAY PATTERN OF ANY SPRINKLER RESULTING IN IMPROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL RECTIFY THE SITUATION BY FIELD ADJUSTMENT TO THE IRRIGATION SYSTEM. THIS MAY REQUIRE THE ADDITION OF QUARTER CIRCLE SPRINKLERS TO EACH SIDE OF THE OBSTRUCTIONS OR OTHER MEASURES. ALL SUCH ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
19. PIRING AND WIRE CONDUIT PENETRATIONS THROUGH WALLS AND INSTALLATION OF ANY IRRIGATION EQUIPMENT UNDER PAVING MUST BE COORDINATED WITH THE GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES TO ELIMINATE PROBLEMS THAT MAY ARISE FROM INACCESSIBILITY OR DAMAGE TO ANOTHER TRADES WORK.

SCHEDULING NOTES

- NOTE: CONTRACTOR SHALL ADJUST THE IRRIGATION SCHEDULE FOR THE ESTABLISHMENT PERIOD AS FOLLOWS:
- RUN ALL STATIONS TO KEEP THE SOIL OPTIMALLY MOIST AT ALL TIMES DURING THE FIRST 90 DAYS OF ESTABLISHMENT.
 - ADJUST EACH STATION AS NECESSARY FOR ACTUAL SITE CONDITIONS.
 - AT NO TIME SHALL RUNOFF BE PERMITTED. ADJUST START TIMES TO ACCOMMODATE LOCAL SOIL PROFILES.

SMART CONTROLLER NOTE:

- DO NOT OVERRIDE SMART CONTROLLER FUNCTIONS.
- CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INPUT OF ALL IRRIGATION SYSTEM REQUIREMENTS FOR SCHEDULING INCLUDING: PRECIPITATION RATES, PLANT TYPES, SOIL PROFILE, SLOPE, ETC.



I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED SUCH CRITERIA FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

10/29/19
THOMAS NORTON
DATE

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IRRIGATION PLAN

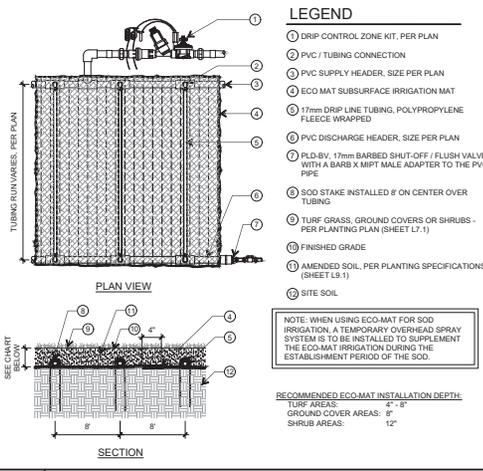
L4.1

13

REFER TO SHEET T1.1 FOR IRRIGATION CALCULATIONS
REFER TO SHEET L1.1 FOR CORRESPONDING CONSTRUCTION PLAN
REFER TO SHEET L7.1 FOR CORRESPONDING PLANTING PLAN

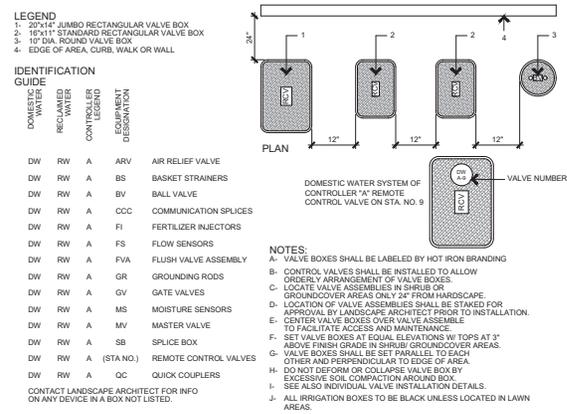
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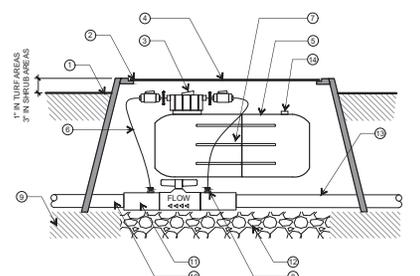
- LEGEND**
- DRIP CONTROL ZONE KIT, PER PLAN
 - PVC / TUBING CONNECTION
 - PVC SUPPLY HEADER, SIZE PER PLAN
 - ECO MAT SUBSURFACE IRRIGATION MAT
 - 17mm DRIP LINE TUBING, POLYPROPYLENE FLEECE WRAPPED
 - PVC DISCHARGE HEADER, SIZE PER PLAN
 - P.L.D.-BY 17mm BARBED SHUT-OFF / FLUSH VALVE WITH A BARB X MPT MALE ADAPTER TO THE PVC PIPE
 - SOD STAKE INSTALLED IF ON CENTER OVER TUBING
 - TURF GRASS, GROUND COVERS OR SHRUBS - PER PLANTING PLAN (SHEET L7.1)
 - FINISHED GRADE
 - AMENDED SOIL, PER PLANTING SPECIFICATIONS (SHEET L5.1)
 - SITE SOIL
- NOTE:** WHEN USING ECO-MAT FOR SOD IRRIGATION, A TEMPORARY OVERHEAD SPRAY SYSTEM IS TO BE INSTALLED TO SUPPLEMENT THE ECO-MAT IRRIGATION DURING THE ESTABLISHMENT PERIOD OF THE SOD.
- RECOMMENDED ECO-MAT INSTALLATION DEPTH:**
 TURF AREAS: 4" - 8"
 GROUND COVER AREAS: 6"
 SHRUB AREAS: 12"

F ECO-MAT



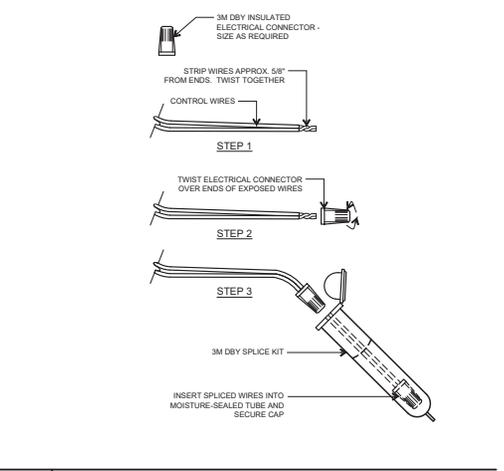
- LEGEND**
- 20"x14" JUMBO RECTANGULAR VALVE BOX
 - 18"x11" STANDARD RECTANGULAR VALVE BOX
 - 10" DIA. ROUND VALVE BOX
 - EDGE OF AREA, CURB, WALK OR WALL
- IDENTIFICATION GUIDE**
- | DW | RW | A | ARV | AIR RELIEF VALVE |
|--|--|---|-----------|-----------------------|
| DW <td>RW <td>A <td>BS</td> <td>BASKET STRAINERS</td> </td></td> | RW <td>A <td>BS</td> <td>BASKET STRAINERS</td> </td> | A <td>BS</td> <td>BASKET STRAINERS</td> | BS | BASKET STRAINERS |
| DW <td>RW <td>A <td>BV</td> <td>BALL VALVE</td> </td></td> | RW <td>A <td>BV</td> <td>BALL VALVE</td> </td> | A <td>BV</td> <td>BALL VALVE</td> | BV | BALL VALVE |
| DW <td>RW <td>A <td>CCC</td> <td>COMMUNICATION SPLICES</td> </td></td> | RW <td>A <td>CCC</td> <td>COMMUNICATION SPLICES</td> </td> | A <td>CCC</td> <td>COMMUNICATION SPLICES</td> | CCC | COMMUNICATION SPLICES |
| DW <td>RW <td>A <td>FI</td> <td>FERTILIZER INJECTORS</td> </td></td> | RW <td>A <td>FI</td> <td>FERTILIZER INJECTORS</td> </td> | A <td>FI</td> <td>FERTILIZER INJECTORS</td> | FI | FERTILIZER INJECTORS |
| DW <td>RW <td>A <td>FS</td> <td>FLOW SENSORS</td> </td></td> | RW <td>A <td>FS</td> <td>FLOW SENSORS</td> </td> | A <td>FS</td> <td>FLOW SENSORS</td> | FS | FLOW SENSORS |
| DW <td>RW <td>A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td> </td></td> | RW <td>A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td> </td> | A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td> | FVA | FLUSH VALVE ASSEMBLY |
| DW <td>RW <td>A <td>GR</td> <td>GROUNDING RODS</td> </td></td> | RW <td>A <td>GR</td> <td>GROUNDING RODS</td> </td> | A <td>GR</td> <td>GROUNDING RODS</td> | GR | GROUNDING RODS |
| DW <td>RW <td>A <td>GV</td> <td>GATE VALVES</td> </td></td> | RW <td>A <td>GV</td> <td>GATE VALVES</td> </td> | A <td>GV</td> <td>GATE VALVES</td> | GV | GATE VALVES |
| DW <td>RW <td>A <td>MS</td> <td>MOISTURE SENSORS</td> </td></td> | RW <td>A <td>MS</td> <td>MOISTURE SENSORS</td> </td> | A <td>MS</td> <td>MOISTURE SENSORS</td> | MS | MOISTURE SENSORS |
| DW <td>RW <td>A <td>MV</td> <td>MASTER VALVE</td> </td></td> | RW <td>A <td>MV</td> <td>MASTER VALVE</td> </td> | A <td>MV</td> <td>MASTER VALVE</td> | MV | MASTER VALVE |
| DW <td>RW <td>A <td>SB</td> <td>SPLICE BOX</td> </td></td> | RW <td>A <td>SB</td> <td>SPLICE BOX</td> </td> | A <td>SB</td> <td>SPLICE BOX</td> | SB | SPLICE BOX |
| DW <td>RW <td>A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> </td></td> | RW <td>A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> </td> | A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> | (STA NO.) | REMOTE CONTROL VALVES |
| DW <td>RW <td>A <td>QC</td> <td>QUICK COUPLERS</td> </td></td> | RW <td>A <td>QC</td> <td>QUICK COUPLERS</td> </td> | A <td>QC</td> <td>QUICK COUPLERS</td> | QC | QUICK COUPLERS |
- CONTACT LANDSCAPE ARCHITECT FOR INFO ON ANY DEVICE IN A BOX NOT LISTED.

D BOX IDENTIFICATION

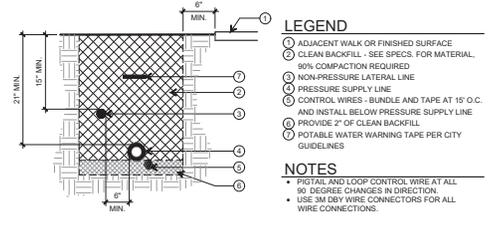


- LEGEND**
- FINISHED GRADE
 - VALVE BOX & COVER - 30" L x 18" W x 17" H
 - PROPORTIONING CAP WITH FEED ADJUSTMENT KNOB
 - EZ-FLO SHUT OFF VALVES WITH DISCONNECT WASHERS
 - EZ-FLO FERTILIZING SYSTEM - PER PLAN, CONNECT CLEAR TUBE TO GREEN CONNECTIONS ON PROPORTIONING CAP AND COUPLING
 - CONNECT BLACK TUBE TO BLUE CONNECTIONS ON PROPORTIONING CAP AND COUPLING
 - WATER IN
 - 1/4" TUBING CLAMP - BOTH THE GREEN AND BLUE COUPLING TUBING CONNECTIONS
 - APPROVED BACKFILL
 - PVC MAN LINE TO VALVE MANIFOLD
 - EZ-FLO BALL VALVE COUPLING CONNECTOR - INSTALL ACCORDING TO WATER FLOW DIRECTION ARROW (PURCHASED SEPARATELY)
 - 1 CU. FT. PEA GRAVEL
 - PVC MANLINE FROM BACK-FLOW PREVENTER
 - PRESSURE RELIEF VALVE

E EZ-FLO FERTIGATION

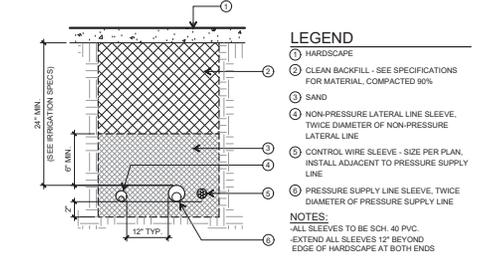


A WIRE CONNECTORS



- LEGEND**
- ADJACENT WALK OR FINISHED SURFACE
 - CLEAN BACKFILL - SEE SPECS. FOR MATERIAL, 90% COMPACTION REQUIRED
 - NON-PRESSURE LATERAL LINE
 - PRESSURE SUPPLY LINE
 - CONTROL WIRES - BUNDLE AND TAPE AT 15' O.C. AND INSTALL BELOW PRESSURE SUPPLY LINE
 - PROVIDE 2" OF CLEAN BACKFILL
 - POTABLE WATER WARNING TAPE PER CITY GUIDELINES
- NOTES**
- POSTAL AND LOOP CONTROL WIRE AT ALL 90 DEGREE CHANGES IN DIRECTION.
 - USE 3M DRY WIRE CONNECTORS FOR ALL WIRE CONNECTIONS.

B TRENCHING



- LEGEND**
- HARDSCAPE
 - CLEAN BACKFILL - SEE SPECIFICATIONS FOR MATERIAL, COMPACTED 90%
 - SAND
 - NON-PRESSURE LATERAL LINE SLEEVE, TWICE DIAMETER OF NON-PRESSURE LATERAL LINE
 - CONTROL WIRE SLEEVE - SIZE PER PLAN, INSTALL ADJACENT TO PRESSURE SUPPLY LINE
 - PRESSURE SUPPLY LINE SLEEVE, TWICE DIAMETER OF PRESSURE SUPPLY LINE
- NOTES:**
- ALL SLEEVES TO BE SCH. 40 PVC.
 - EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPE AT BOTH ENDS

C SLEEVING

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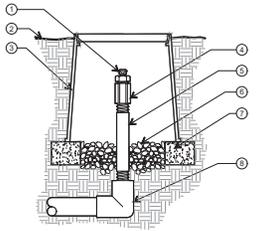
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DATE	19008
DATE	RESIDENTIAL



IRRIGATION DETAILS

L5.2
 13

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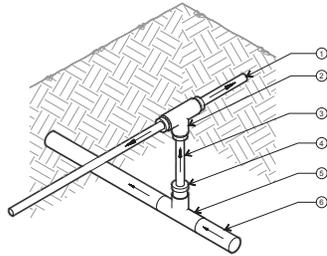


LEGEND

- ① NETAFIM TLAVRV AIR / VACUUM VALVE
- ② FINISHED GRADE
- ③ 6" ROUND VALVE BOX - BLACK
- ④ 1/2" PVC COUPLING (T x T)
- ⑤ 1/2" SCH. 80 NIPPLE (LENGTH AS REQUIRED)
- ⑥ PEA GRAVEL SUMP (6")
- ⑦ BRICK SUPPORTS
- ⑧ PVC PIPING AND FITTING

NOTES

- INSTALL AIR VAC. RELIEF VALVE AT HIGH POINT OF EACH DRIP SYSTEM
- USE FOR ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO PVC)

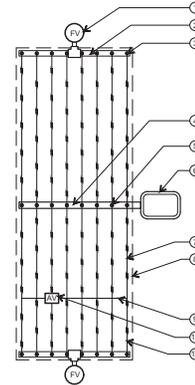


LEGEND

- ① NETAFIM TECHLINE DRIPPERLINE
- ② NETAFIM TL TEE ELBOW
- ③ NETAFIM TECHLINE BLANK TUBING
- ④ NETAFIM TL075MA ADAPTER
- ⑤ PVC TEE (S x S)
- ⑥ PVC PIPE

LEGEND

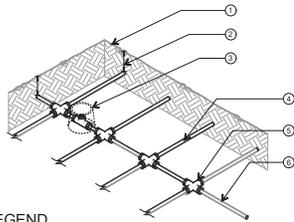
- ① NETAFIM TL FV - 1 LINE FLUSHING VALVE PLUMBED TO TUBING (TVP) - REFER TO "FLUSH VALVE" DETAIL
- ② PVC FLUSH MANIFOLD - REFER TO "MANIFOLD LAYOUT" DETAIL
- ③ NETAFIM TL TEE ELBOW TO MANIFOLD CONNECTION - REFER TO "MANIFOLD TO TEE" DETAIL
- ④ PVC SUPPLY MANIFOLD - REFER TO "CENTERFEED TO MANIFOLD" DETAIL
- ⑤ NETAFIM TL075TEE MANIFOLD TO TEE CONNECTION - REFER TO "MANIFOLD TO TEE" DETAIL
- ⑥ REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR - REFER TO "REMOTE CONTROL VALVE" DETAIL
- ⑦ NETAFIM TECHLINE DRIPPERLINE
- ⑧ AREA PERIMETER
- ⑨ AIR/VACUUM RELIEF LATERAL - CENTERED AT HIGH POINT OF SYSTEM. REFER TO "AIR RELIEF VALVE" DETAIL
- ⑩ NETAFIM TLAVRV AIR/VACUUM RELIEF VALVE TO NETAFIM TECHLINE BLANK TUBING AT EACH HIGH POINT - REFER TO "AIR RELIEF VALVE TO LATERAL" DETAIL
- ⑪ PERIMETER LATERALS 2'-4" FROM EDGE



G NETAFIM AIR RELIEF VALVE

D NETAFIM MANIFOLD TO TEE CONNECTION

A NETAFIM CENTER FEED LAYOUT

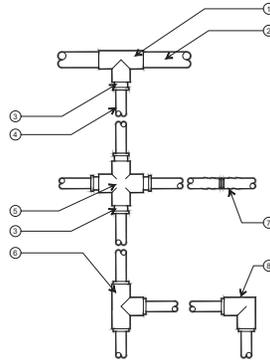


LEGEND

- ① FINISHED GRADE
- ② DEPTH PER SPECIFICATIONS
- ③ NETAFIM TLAVRV AIR/VACUUM VALVE IN BLACK VALVE BOX LOCATE AT HIGHEST POINTS IN SYSTEM
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ PVC CROSS TO NETAFIM TL075MA ADAPTERS. SEE DETAIL
- ⑥ NETAFIM TECHLINE BLANK TUBING

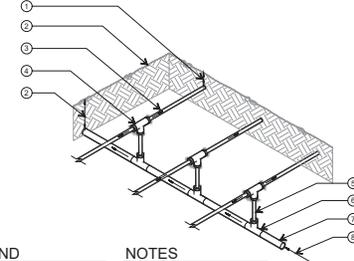
NOTES

- SEE PLANS & LEGEND FOR ALL DIMENSIONS AND NETAFIM TECHLINE LATERAL SPACING.
- RATIO OF NETAFIM TECHLINE LATERALS TO START MAY VARY PER HYDRAULIC DEMAND AT THE START CONNECTION (SEE PLANS & LEGEND)



LEGEND

- ① PVC TEE
- ② PVC PIPE
- ③ NETAFIM TL075MA ADAPTOR
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ PVC CROSS
- ⑥ NETAFIM TL COUP COUPLING
- ⑦ NETAFIM TL075TEE COMBINATION TEE
- ⑧ NETAFIM TL TEE ELBOW



LEGEND

- ① DEPTH PER CHART
- ② FINISHED GRADE
- ③ NETAFIM TECHLINE DRIPPERLINE
- ④ NETAFIM TL075TEE COMBINATION TEE
- ⑤ NETAFIM TECHLINE BLANK TUBING
- ⑥ PVC TEE TO TORO DL2000 COMPRESSION ADAPTER (CA710). TYPICAL. SEE DETAIL.
- ⑦ PVC SUPPLY MANIFOLD
- ⑧ FLOW FROM VALVE

NOTES

- SEE PLANS & LEGEND FOR ALL DIMENSIONS AND NETAFIM TECHLINE LATERAL SPACING.
- RATIO OF NETAFIM TECHLINE LATERALS TO START MAY VARY PER HYDRAULIC DEMAND AT THE START CONNECTION (SEE PLANS & LEGEND)

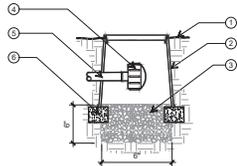
BURIAL DEPTH

TREE RINGS	ON SURFACE
SHRUB AREAS	2"
TURF AREAS	6"

H NETAFIM AIR RELIEF TO LATERAL

E NETAFIM 5/8" FITTINGS

B NETAFIM CENTER FEED TO MANIFOLD

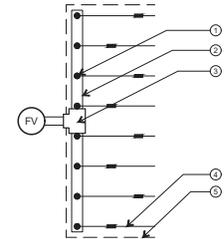


LEGEND

- ① FINISHED GRADE
- ② 6" ROUND VALVE BOX, BLACK
- ③ 6" PEA GRAVEL SUMP
- ④ NETAFIM TL FV - 1 LINE FLUSHING VALVE NETAFIM TL060MFV-1 BARBED FLUSH VALVE
- ⑤ NETAFIM TECHLINE
- ⑥ BRICK SUPPORTS

NOTES

- INSTALL FLUSH VALVES AT TERMINUS OF EACH RUN OF DRIPPER LINE



LEGEND

- ① NETAFIM TL TEE ELBOW - MANIFOLD CONNECTION
- ② PVC FLUSH MANIFOLD
- ③ NETAFIM TL FV - 1 LINE FLUSHING VALVE
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ AREA PERIMETER

F NETAFIM FLUSH VALVE

C NETAFIM MANIFOLD LAYOUT

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PROJECT	TN
CLIENT	TN
DATE	02/20/20
YEAR	19008
TYPE	RESIDENTIAL



IRRIGATION DETAILS

L5.3

PART A: IRRIGATION

10 SCOPE

FURNISH ALL MATERIALS, EQUIPMENT, SERVICES, SUPERVISION, TRANSPORTATION AND LABOR NECESSARY TO PERFORM ALL IRRIGATION WORK COMPLETELY, INCLUDING BUT NOT LIMITED TO: SERVICE MANUALS, RECORD DRAWINGS, LOOSE EQUIPMENT, GUARANTEE MATERIALS, AND INSTALLATION.

2.0 DRAWINGS AND SPECIFICATIONS

A. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INDICATE AND SPECIFY A COMPLETE AND EFFICIENT IRRIGATION SYSTEM.
B. PLOT DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND SHALL REPORT ANY VARIATIONS TO LANDSCAPE ARCHITECT.
C. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, ETC., WHICH MAY BE REQUIRED. CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL RISER WORK, AND PLAN HIS WORK ACCORDINGLY. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER, SO THAT CONFLICTS BETWEEN IRRIGATION COMPONENTS AND PLANTING AND ARCHITECTURAL FEATURES WILL BE AVOIDED.

3.0 SERVICE MANUALS/MATERIALS LIST

A. CONTRACTOR SHALL FURNISH ONE (1) MANUAL TO OWNER. THE MANUAL MAY BE LOOSE LEAFED AND SHALL CONTAIN COMPLETE EXPLODED DRAWINGS OF ALL EQUIPMENT INSTALLED SHOWING COMPONENTS AND CATALOG NUMBERS TO GO TOGETHER WITH THE MANUFACTURER'S NAME AND ADDRESS. ADDITIONAL SHEETS SHALL COVER OPERATION INSTRUCTIONS SIMPLE ENOUGH TO BE UNDERSTOOD WITHOUT SPECIALIZED KNOWLEDGE.
B. CONTRACTOR SHALL FURNISH A MATERIALS LIST TO OWNER FOR APPROVAL PRIOR TO START OF WORK. MATERIALS LIST SHALL CONFORM TO PERFORMANCE STANDARDS AND DATA AS SHOWN ON DRAWINGS, LEGENDS, AND ON DETAILS.
4.0 AS BUILT DRAWINGS:

A. RECORD ACCURATELY ON ONE SET OF BLACK AND WHITE PRINTS (IRRIGATION DRAWINGS), ALL CHANGES IN WORK, CONSTRUCTING DEPARTURES FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING CHANGES IN BOTH PRESSURE AND NON-PRESSURE LINES.
B. UPON COMPLETION OF EACH INCREMENT OF WORK, TRANSFER ALL SUCH INFORMATION AND DIMENSIONS TO THE PRINTS, RECORD CHANGES AND DIMENSIONS IN A LEGIBLE AND PROFESSIONAL MANNER. WHEN THE DRAWINGS ARE APPROVED, TRANSFER ALL INFORMATION TO A SET OF REPRODUCIBLE DRAWINGS.
C. DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE (MONUMENTS, SIDEWALKS, CURBS, AND PAVEMENT) POINT INFORMATION ON AS BUILT DRAWINGS DAY TO DAY. ALL DIMENSIONS SHALL BE LEGIBLY NOTED ON THE DRAWINGS SHALL BE 1/4 INCH IN SIZE.
D. SHOW DIMENSIONS OF ALL MAINS AND DEPTHS OF THE FOLLOWING:
I. POINT OF CONNECTION (P.O.C.)
II. BACKFLOW PREVENTION ASSEMBLY, MASTER VALVE AND FLOW SENSOR.
E. ROUTING OF IRRIGATION PRESSURE MAINS (DIMENSION MAXIMUM 100 FEET ALONG ROUTING AND ALL DIRECTIONAL CHANGES).
F. BALL AND BUTTERFLY VALVES
G. IRRIGATION CONTROL VALVES
H. AUTOMATIC CONTROLLER, RAIN SENSORS AND ELECTRICAL CONDUITS.
I. SLEEVES AND PULL BOXES
J. OTHER RELATED EQUIPMENT AS DIRECTED BY THE ENGINEER.
E. MAINTAIN AS-BUILT DRAWINGS ON SITE AT ALL TIMES. THESE DRAWINGS ARE SUBJECT TO INSPECTION AT ANY TIME.
F. MAKE ALL CHANGES TO REPRODUCIBLE DRAWINGS IN INK (NO BALLPOINT PEN); MAKE CHANGES IN A MANNER EQUAL TO THE ORIGINAL DRAWINGS.
G. CONTRACTOR MUST SUBMIT AS-BUILT DRAWINGS (SMIL MYRALS AND ONE SET OF BLUELINES) TO THE ARCHITECT INSPECTING THE SITE SEVEN DAYS PRIOR TO THE START OF THE MAINTENANCE PERIOD FOR APPROVAL.
H. CONTROLLER CHARTS, THREE-CONTROLLER CHARTS PER CONTROLLER, ENCASED IN 20 MIL PLASTIC, SHOWING CLEARLY THE AREAS SERVICED BY EACH REMOTE CONTROL VALVE (EACH VALVE DEPTED BY A DIFFERENT COLOR) SHALL BE PROVIDED AT EACH CONTROLLER. CONTROLLER CHARTS SHALL BE MADE USING REDUCED APPROVED AS-BUILT PLANS.

5.0 LOOSE EQUIPMENT

LOOSE SPRINKLING EQUIPMENT, OPERATING KEYS AND SPARE PARTS WILL BE FURNISHED BY THE CONTRACTOR IN THE FOLLOWING QUANTITIES:
1. 4 WATER FILTERS
2. 4 OSCILLATOR BODIES
3. 3 HOSE BIB KEYS
4. 3 SPARE KEYS FOR MANUAL VALVES
E. 2 CONTROLLER KEYS
F. 2 ENCLOSURE KEYS
G. 4 COUPLER INSERTS AND HOSE SPLICERS
I. 1 3/8" SOIL PROBE
J. 1 VALVE BOX KEY

6.0 GUARANTEE

A. THE ENTIRE IRRIGATION SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACKFILLED AREAS BELOW GRADE FOR A PERIOD OF ONE (1) YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK. OWNER MAY EXERCISE OPTION TO WITHHOLD PART OF FINAL PAYMENT UNTIL THE ONE YEAR PRODUCT/WORKMANSHIP GUARANTEE HAS ELAPSED FROM DATE OF FINAL ACCEPTANCE.
B. IF WITHIN ONE YEAR FROM THE DATE OF COMPLETION, SETTLEMENT OCCURS, AND ADJUSTMENTS IN PIPES, VALVES AND SPRINKLER HEADS OR PAVING IS NECESSARY TO BRING THE SYSTEM OR PAVING TO THE PROPER LEVEL OF THE PERMANENT GRADES, CONTRACTOR, AS PART OF HIS OBLIGATION UNDER HIS CONTRACT, SHALL MAKE ALL ADJUSTMENTS WITHOUT EXTRA COST TO OWNER, INCLUDING THE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER EQUIPMENT OF ANY KIND.
C. SHOULD ANY DIFFICULTIES DEVELOP WITHIN THE SPECIFIED GUARANTEE PERIOD WHICH OWNERS FEELS MAY BE DUE TO INFIRMITY OF MATERIALS AND/OR WORKMANSHIP, THESE DIFFICULTIES SHALL BE IMMEDIATELY CORRECTED BY CONTRACTOR TO THE SATISFACTION OF OWNER AT NO ADDITIONAL COST TO OWNER, WITHIN 72 HOURS OF WRITTEN NOTICE, INCLUDING ANY AND ALL OTHER DAMAGE CAUSED BY SUCH DEFECTS. FAILURE OF CONTRACTOR TO RESPOND IN A TIMELY MANNER TO REPAIR DAMAGED CONDITIONS, SHALL PROMPT OWNER TO REPAIR SAME AND DEDUCT COSTS OF LABOR, MATERIAL AND EQUIPMENT USED FROM CONTRACTOR FINAL PAYMENT.

7.0 MATERIALS

A. PIPE AND FITTINGS
A.1. BRASS: BRASS PIPE SHALL BE IPS STANDARD WEIGHT 85% RED BRASS. FITTINGS SHALL BE WITH STANDARD 125 POUND CAST BRONZE THREADED FITTINGS.
A.2. PVC CONDUIT - PIPE THAT IS USED FOR CONTROL WIRES SHALL BE PVC CONDUIT SCHEDULE 40, TYPE 1220, ALL WIRES UNDER PAVING SHALL BE INSTALLED IN PVC CONDUIT OR SLEEVES.
A.3. PVC NORMAL IMPACT PIPE-TYPE 1220 (PVC SCHEDULE 40 & 80)
A.4. 1/2" TYPE I GRADE 150# IMPACT PIPE FROM ALL VENDOR MATERIALS.
A.5. OUTSIDE DIAMETER OF PIPE SHALL BE THE SAME SIZE AS IRON PIPE.
A.3.3. PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED 10 FEET WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC TYPE AND GRADE (I.E., 1220) SDR RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION C-256-60. PIPE SHALL BE MARKED AT INTERVALS WITH THE FOLLOWING INFORMATION: TYPE OF PIPE, MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC TYPE AND GRADE (I.E., 1220) SDR RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION C-256-60. MARKING SHALL INCLUDE EXTRUSION DATE.
A.3.5. PVC TYPE I SHALL NOT BE THREADED

A.3.6. PVC FITTINGS SHALL BE PVC TYPE II, SCHEDULE 40 NSF APPROVED, SOLVENT SHALL BE NO. 175 GRAY NSF APPROVED AS MANUFACTURED BY INDUSTRIAL POLYCHEMICAL SERVICE, GARDENA, CALIFORNIA, OR EQUAL.
A.3.8. CAUTION SHALL BE UTILIZED IN HANDLING TYPE I PIPE DUE TO THE POSSIBILITY OF CRACKING, OR OF SPLITTING WHEN DROPPED OR HANDLED CARELESSLY.
A.3.9. ALL PLASTIC TUBING, PLASTIC TO METAL, MALE ADAPTERS, PLUS ONE TURN WITH A STRAP WRENCH; JOINT COMPOUND SHALL BE PERMATEX TYPE II.
A.4. RING-TITE PVC PIPE
A.4.1. ALL PIPE INSTALLED ON THE WORKING DRAWINGS, SHALL BE CLASS 160 PSI JOINT-MANVILLE PVC PIPE WITH RING-TITE JOINTS.
A.4.2. ALL RING-TITE JOINTS SHALL BE SEALED WITH RUBBER RINGS AS PROVIDED BY THE MANUFACTURER. ALL PIPE JOINTS SHALL PROVIDE FOR EXPANSION AND CONTRACTION.
A.4.3. THRUST BLOCKS SHALL BE PROVIDED AS REQUIRED FOR PROPER ANCHORAGE AND DURABILITY OF THE RING-TITE PIPE. (REFER TO DETAILS)

B. SPRINKLER HEADS

SPRINKLER HEADS SHALL BE AS SHOWN ON PLAN. N/A
C. VALVES
C.1. REMOTE CONTROL VALVES -ELECTRIC REMOTE CONTROL VALVES SHALL BE AS SHOWN ON PLANS AND DETAILS. SIZE AND LOCATION SHALL BE AT 30' INTERVALS MINIMUM AND ELSEWHERE AS INDICATED ON PLAN.
C.2. GATEBALL VALVES -APPROVED GATEBALL VALVES SHALL BE AS SHOWN ON PLANS AND DETAILS. SIZE AND LOCATION SHALL BE AT 30' INTERVALS MINIMUM AND ELSEWHERE AS INDICATED ON PLAN.
C.3. ALL VALVES SHALL BE LOCATED 2' AWAY FROM CURBS OR SIDEWALKS, AND POSITIONED PERPENDICULAR TO THE EDGE OF PAVING.
C.4. ALL VALVES SHALL BE MARKED AT A CURB LOCATION, FINAL LOCATION AND METHOD OF MARKING TO BE APPROVED BY THE CITY.
C.5. VALVES SHALL BE CLUSTERED IN GROUPS PER PLAN.
D. AUTOMATIC CONTROLLER SHALL BE AS SHOWN ON PLANS AND DETAILS.
E. CONTROL WIRE SHALL BE INSTALLED IN CONDUIT ATTACHED TO THE UNDERSIDE OF ALL WIRING TO BE USED FOR CONNECTING THE AUTOMATIC CONTROLLER TO THE ELECTRICAL SOLENOID ACTUATED BY REMOTE CONTROL VALVE SHALL BE TYPE UF-600V, 14 GAUGE UNBraid COPPER, PVC INSULATED, SINGLE CONDUCTOR, UL APPROVED UNDERGROUND FEEDER CABLE. EACH PLOT OR 10' TYPICAL WIRE SHALL BE COLOR CODED FOR EACH VALVE. COMMON WIRE BEING WHITE AND STRIPPED DIFFERENTLY FOR EACH VALVE. "PVG-TAL" TAG COMING WIRE WITH STATION NUMBERS ON EACH END "PVG-TAL" WIRING EVERY 150' OR AT EACH END OF RUN. ENCLOSE 3 FT. PVG-TAL IN CONTROL BOXES WITH COVER STAMPED "SB" (SPLICE BOX). VALVE WIRES EXTRA WIRE IN EACH DIRECTION SHALL BE ATTACHED TO THE UNDERSIDE OF THE MAINLINE WHERE POSSIBLE. THE CONTRACTOR SHALL RUN TWO (2) EXTRA WIRES IN EACH DIRECTION TO EACH VALVE. THESE WIRES SHALL BE INSTALLED IN EACH DIRECTION (COLORS TO BE ORANGE AND ORANGE WITH A WHITE STRIPE).
F. VALVE BOXES AND PULL BOXES
ALL VALVE BOXES SHALL BE PLASTIC WEATHER RESISTANT, UV RESISTANT AND SOLID RESISTANT. THE WORKING AREA SHALL BE 12" X 12" X 4" IN COLOR. VALVE BOXES IN LAWN AREAS SHALL BE GREEN IN COLOR, AND PULL BOXES SHALL BE GRAY IN COLOR. VALVE BOXES SHALL BE LOCKABLE WITH A STAINLESS STEEL BOLT. VALVE BOXES SHALL HAVE A LOAD BEARING CAPACITY OF 1500 PSI. VALVE BOX EXTENSIONS SHALL HAVE THE SAME STRENGTH AS THE MAINLINE. VALVE BOXES SHALL BE COVERED WITH AN APPROVED EQUAL. BOX LIDS SHALL BE STAMPED AS IDENTIFIED ON THE BOX IDENTIFICATION DETAIL. PULL BOXES SHALL BE UNIMPAIRABLE. PULL BOXES SHALL BE INSTALLED EVERY 200' MIN. INSTALL PULL BOXES IN LANDSCAPE AREAS ONLY.
G. BACKFLOW PREVENTION UNITS
ALL BACKFLOW PREVENTION UNITS SHALL BE AS SHOWN ON PLANS AND DETAILS. THE BACKFLOW PREVENTION UNITS SHALL BE TYPE K, BRASS COPPER PIPE.

8.0 INSTALLATION

A. TRENCHING
A.1. EXCAVATION SHALL BE OPEN VERTICAL CONSTRUCTION SUFFICIENTLY WIDE TO PERMIT THE USE OF LEGALLY AT NO COST TO OWNER. INSTALLED AND TO PROVIDE AMPLE SPACE FOR BACKFILLING AND COMPACTING.
A.2. TRENCHES FOR PIPE SHALL BE CUT TO REQUIRED GRADE LINES, AND TRENCH BOTTOM SHALL BE PLACED TO PROVIDE AN ACCURATE GRADE AND UNIFORM BEARING FOR THE FULL LENGTH OF THE LINE.
A.3. WHEN TWO (2) PIPES ARE TO BE COMPLETED IN THE SAME TRENCH, A 6" SPACE SHALL BE MAINTAINED BETWEEN PIPES. (REFER TO PIPE INSTALLATION DETAIL).
B. BACKFILLING
B.1. BACKFILL MATERIAL SHALL BE APPROVED SOIL, UNSUITABLE MATERIAL INCLUDING CLDS AND ROCKS OVER 1" IN SIZE SHALL BE REMOVED FROM THE PROJECT AREA.
B.2. ALL BACKFILLING SHALL BE DONE CAREFULLY AND SHALL BE PROPERLY COMPACTED TO THE SATISFACTION OF THE ARCHITECT.
B.3. DEPTH OF TRENCHES SHALL BE SUFFICIENT TO PROVIDE A MINIMUM COVER ABOVE THE TOP OF THE PIPE. SEE IRRIGATION LEGEND.
C. PVC PIPE
C.1. PVC PIPE SHALL BE SNAKED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER.
C.2. ALL PLASTIC TO METAL JOINTS SHALL BE MADE WITH PLASTIC MALE ADAPTERS, UNLESS OTHERWISE SHOWN IN DETAILS.
C.3. THE JOINTS SHALL BE ALLOWED TO SET AT LEAST TWENTY-FOUR (24) HOURS BEFORE PRESSURE IS APPLIED TO THE PVC PIPE SYSTEM.
C.4. MAIN LINES SHALL BE TESTED IN PLACE BEFORE BACKFILLING FOR A PERIOD OF NOT LESS THAN FOUR (4) HOURS AND SHALL SHOW NO LEAKAGE OR LOSS OF PRESSURE. DURING THE TEST PERIOD, MINIMUM TEST PRESSURE, AT THE HIGHEST POINT OF THE SECTION BEING TESTED, SHALL BE 150 POUNDS PER SQUARE INCH. CENTER FILLING OF PIPE LENGTHS IS ALLOWED.
C.5. AFTER ALL NEW SPRINKLER PIPING AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF THE REMOTE CONTROL VALVES, THE SYSTEM SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM FOR A MINIMUM OF FIVE (5) MINUTES. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, THE RISERS SHALL BE CAPED OFF AND THE SYSTEM PRESSURE TESTED.
C.6. MAINTENANCE RECORDS SHALL BE KEPT. THE HEADS SHALL BE INSTALLED AND TESTED FOR OPERATION IN ACCORDANCE WITH DESIGN REQUIREMENTS UNDER NORMAL OPERATING PRESSURE. CONTRACTOR SHALL VERIFY HEAD PRESSURES WITH PITOT TUBE AND ADJUST VALVE TO CORRESPOND WITH DESIGN PRESSURE.
C.7. CONTRACTOR SHALL NOT BE ALLOWED TO START ANY WORK PRIOR TO COMPLETION AND APPROVAL OF PRESSURE TEST. IF CONTRACTOR BACKFILLS TRENCHING PRIOR TO PRESSURE TESTING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIRECT AND INDIRECT COSTS OF EXPOSING WORK FOR PROPER TESTING AND OBSERVATION BY LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

D. INTENTIONALLY LEFT BLANK

E. SPRINKLERS

E.1. ALL NOZZLES ON STATIONARY POP-UP SPRINKLERS SHALL BE TIGHTENED PRIOR TO INSTALLATION. ALL SPRINKLERS HAVING AN ADJUSTMENT STEM SHALL BE ADJUSTED ON A LATERAL LINE FOR PROPER RADII, DIAMETER AND/OR CALL OUTS FOR APPROVAL OF THE LANDSCAPE ARCHITECT.
E.2. SPRINKLER HEADS AND RISERS SHALL BE INSTALLED ACCORDING TO DETAILS FOR FINAL APPROVAL.
F. VALVES
F.1. REMOTE CONTROL VALVES SHALL BE ADJUSTED IN ORDER THAT A UNIFORM DISTRIBUTION OF WATER IS APPLIED BY EACH SPRINKLER HEADS TO THE PLANTING AREAS FOR EACH INDIVIDUAL VALVE SYSTEM.
F.2. QUICK COUPLING POINTS SHALL BE SET SPRINKLER HEADS FROM WALKS, CURBS, HEADERBOARDS, OR PAVED AREAS WHERE DESIGNED. REFER TO INSTALLATION DETAIL.
F.3. NO CONTROL VALVES SHALL BE LOCATED IN TURF AREAS WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.

G. VALVE BOXES

G.1. VALVE BOXES SHALL BE SET ONE INCH (1") ABOVE THE DESIGNATED FINISH GRADE. CLOSURE SHALL BE 12" X 12" X 4" (7) ABOVE FINISH GRADE IN GROUND COVER AREAS.
G.2. VALVE BOXES INSTALLED NEAR WALKS, CURBS, HEADERBOARDS, AND BROKEN SPRINKLER LINES, THE RISER HEIGHT OF SPRINKLERS SHOULD BE ADJUSTED AS REQUIRED, BUT NOT TO INTERFERE WITH PEDESTRIAN TRAFFIC. POP-UP TYPE SPRINKLERS SHOULD BE ADJUSTED TO MAINTAIN THE SPRINKLER HEAD FLUSH WITH THE SURROUNDING GRADE. POP-UP TYPE SPRINKLERS SHOULD ALWAYS BE USED ADJACENT TO TRAFFIC AREAS.
G.3. PERIODICALLY, THE RISER HEIGHTS MAY NEED TO BE ADJUSTED TO ACCOMMODATE FUTURE PLANT GROWTH. APPROPRIATE CORRECTIVE MEASURES SHOULD BE MADE IMMEDIATELY TO CORRECT ANY OF THESE PROBLEMS AND ENSURE APPROPRIATE COVERAGE IN ALL AREAS. PREVENT OVER WATERING AND MINIMIZE ANY OVERSPRAY. AFTER ANY IRRIGATION REPAIR, PIPING SHOULD BE FLUSHED AND RETESTED FOR PROPER FUNCTION AND ADEQUATE COVERAGE OF REGULAR INSPECTIONS SHOULD BE PERFORMED TO MONITOR THE AMOUNT OF WATER BEING APPLIED, AND CORRECTIVE MEASURES TAKEN, IF NECESSARY.

H. AUTOMATIC CONTROLLER LOCATION AND INSTALLATION

H.1. THE AUTOMATIC CONTROLLER SHALL BE INSTALLED AT THE LOCATION SPECIFIED ON PLANS. VERIFY EXACT LOCATION OF CONTROLLER WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
H.2. THE LOCAL AND REMOTE CONTROL WIRES SHALL TAKE PRECEDENCE IN CONNECTING THE 120 VOL. ELECTRICAL SERVICE TO THE CONTROLLER. IRRIGATION CONTRACTOR SHALL PROVIDE POWER TO CONTROLLER AND SHALL COMPLETE HOOKUP TO CONTROLLER.
H.3. THERE SHALL BE ADEQUATE COVERAGE OF SOIL (1" MINIMUM) OVER THE 24" CONTROL WIRE. INSTALL WIRE IN MAIN LINE TRENCH AND TYPED TO SIDES OF MAINLINE AT 15' INTERVALS. SEE DETAIL.
I. CONTROLLER WIRE
I.1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL COMPLY WITH LOCAL AND STATE CODES AND BE INSTALLED BY THOSE SKILLED AND LICENSED IN THE TRADE.
I.2. CONNECTING AND SPLICING OF WIRE AT THE VALVES OR IN THE FIELD SHALL BE MADE USING 3M SEaled CONNECTORS OR EQUAL. WIRE CONNECTORS SHALL BE WATERPROOF AND NON-REUSABLE. ALL SPLICES SHALL BE MADE USING SEaled WATERPROOF CONNECTORS. CONNECTORS SHALL HAVE A TWO PIECE BODY, COPPER CRIMP SLEEVE, AND WATER PROOF SEALANT.
I.3. THREE (3) FEET LONG PVG-TAL WIRE SPLICES SHALL BE ALLOWED ONLY AT 150' FT. INTERVALS. THE WIRE SPLICES SHALL BE ENCLOSED IN A TIGHT COVER WITH COVER STAMPED WITH THE LETTERS "SB".
J. BACKFLOW PREVENTION UNITS
J.1. THE BACKFLOW PREVENTION UNITS SHALL BE INSTALLED AS SHOWN ON PLANS AND DETAILS. BACKFLOW PREVENTION UNITS SHALL BE INSTALLED PER LOCAL CODES INCLUDING CERTIFICATION.

9.0 OBSERVATION SEQUENCE

OBSERVATIONS BY THE LANDSCAPE ARCHITECT WILL BE REQUIRED AT THE FOLLOWING TIMES:
1. PRIOR TO INSTALLATION OF MAINLINE (PRIOR TO BACKFILLING) FOR PRESSURE TEST.
2. TEST.
3. UPON INSTALLATION OF IRRIGATION SPRAY HEADS AND DRIPE LINE SYSTEMS PRIOR TO PLANTING BUT AFTER FIN GRADING) FOR COVERAGE TEST.
4. AT THE END OF MAINTENANCE PERIOD.

PART B: IRRIGATION SYSTEM MAINTENANCE

WHEN REPAIRS TO THE SYSTEM ARE REQUIRED, IDENTICAL MATERIALS SHOULD BE USED IN ALL REPAIRS. THE SYSTEM SHALL BE MAINTAINED BY THE IRRIGATION CONTROLLER.
THE IRRIGATION CONTROLLER IS DEFINED AS THE MASTER CONTROLS THAT REGULATE THE IRRIGATION PROGRAM. THE SYSTEM HAS BEEN INSTALLED USING THE LATEST EQUIPMENT AVAILABLE, BUT COMPONENTS WILL NEED TO BE REPAIRED OR REPLACED PERIODICALLY.
IRRIGATION CONTROLLERS MONITOR THE TIME OF DAY AND THE FREQUENCY WITH WHICH THE IRRIGATION SYSTEM DISPENSES WATER ACCORDING TO A WATERING SCHEDULE WHICH IS PROGRAMMED INTO THE CLOCK.
EACH CONTROLLER HAS A BATTERY BACK-UP. HOWEVER, THE SCHEDULE MAY BE LOST AS A RESULT OF A POWER OUTAGE. CHANGING SHORT-TERM WEATHER CONDITIONS AND SEASONAL CHANGES WILL REQUIRE FINE-TUNING THE PROGRAM OF THE SYSTEM TO ACCOMMODATE CHANGING WEATHER PATTERNS.
MULTIPLE IRRIGATION CYCLES SHOULD BE USED AS NEEDED TO ALLOW EACH WATERING TO COMPLETELY SOAK-IN. THIS WILL REDUCE RUNOFF AND WASTED WATER.
CONTROLLER SCHEDULES SHALL CONFORM TO LOCAL CODES AND ORDINANCES. CONTRACTOR SHALL MAINTAIN SCHEDULES FOR A MINIMUM OF 60 MIN TO A MAXIMUM OF 15 GPM FOR EACH RUN TIME.

MAINTENANCE REQUIRED:

1. REGULAR INSPECTIONS OF OUTDOOR CONTROLLERS TO MINIMIZE MOISTURE DAMAGE AND CORROSION. REGULAR CHECKING FOR DEAD BACK-UP BATTERY, LOOSENED CONNECTIONS, DETERIORATED WEATHERPROOFING OR CONTROLLER MOUNTING HARDWARE. LIGHTING STRIKES COULD ALSO AFFECT THE SYSTEM, AND IT SHOULD BE CHECKED AFTER ELECTRICAL STORMS FOR ANY ADVERSE EFFECTS.
2. PERIODIC INSPECTION OF TIME CLOCKS TO DETERMINE THAT THE SCHEDULED PROGRAM IS WORKING PROPERLY AND ADJUSTING THE PROGRAM FOR PROPER FAILURES TO RESTORE SCHEDULED PROGRAMMING.
3. RESETTING TIME CLOCKS FOR DAYLIGHT SAVINGS TIME AND AFTER POWER FAILURES TO RESTORE SCHEDULED PROGRAMMING.
4. MONTHLY RESETTING AND ADJUSTMENT OF EACH IRRIGATION STATION'S RUN TIME IN RESPONSE TO CHANGING WEATHER CONDITIONS AND PLANT NEEDS. DURING EXTENDED RAINY PERIODS, THE CONTROLLERS SHOULD BE SHUT DOWN UNTIL ADDITIONAL WATER IS NEEDED IN THE LANDSCAPE AREAS. CONTROLLERS SHOULD BE ADJUSTED BASED ON THE ACTUAL NEEDS OF THE PLANTS WHICH ARE BEING WATERED.
5. MONTHLY INSPECTION AND ADJUSTMENT OF EACH IRRIGATION STATION'S RUN TIME IN RESPONSE TO CHANGING WEATHER CONDITIONS AND PLANT NEEDS. DURING EXTENDED RAINY PERIODS, THE CONTROLLERS SHOULD BE SHUT DOWN UNTIL ADDITIONAL WATER IS NEEDED IN THE LANDSCAPE AREAS. CONTROLLERS SHOULD BE ADJUSTED BASED ON THE ACTUAL NEEDS OF THE PLANTS WHICH ARE BEING WATERED.
6. EVENTUALLY, REPLACEMENT OF ELECTRIC TIME CLOCKS, WHEN NEEDED.

IF BACKFLOW PREVENTERS

IF BACKFLOW PREVENTERS ARE DEFINED AS A DEVICE WHOSE FUNCTION IS TO PERMANENTLY SEPARATE THE POTABLE WATER SUPPLY FROM THE IRRIGATION SYSTEM.
MAINTENANCE REQUIRED:
1. FAILURE TO INSPECT TIME CLOCKS AS NECESSARY MAY RESULT IN INADEQUATE OR OVER WATERING WHICH FOR EVEN A SHORT PERIOD OF TIME, COULD BE DASTROUS TO SURROUNDING LANDSCAPING. OVER-WATERING CAN ALSO CAUSE WATER ACCUMULATION LEADING TO PLANT DEATH, PAVEMENT FAILURES AND WATERPROOFING PROBLEMS. IT IS VERY IMPORTANT THAT REGULAR INSPECTIONS BE PERFORMED TO IDENTIFY ANY OVERLY WET AREAS AND THAT CORRECTIVE MEASURES BE IMPLEMENTED IMMEDIATELY. TIME CLOCKS THAT ARE NOT PROPERLY SET MAY ALSO CAUSE WATERING DURING INAPPROPRIATE HOURS.

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EFFECTS OF DEFERRED MAINTENANCE:

FAILURE TO INSPECT AND REPAIR BACKFLOW UNITS MAY AFFECT NEARBY TURF TREES, AND OTHER PLANT LIFE. INSPECTIVE BACKFLOW UNITS CAN ALSO CAUSE CONTAMINATION OF THE DOMESTIC WATER SUPPLY.

III. SPRINKLER HEADS / EMTTERS

WHILE THE SPRINKLER SYSTEM PATTERNS HAVE BEEN CHOSEN TO KEEP OVERWATERING TO A MINIMUM, OVERWATERING OF AREAS, BUILDINGS, WINDY CONDITIONS, PLANT GROWTH, AND OTHER FACTORS WILL SOMETIMES RESULT IN ISOLATED AREAS OF OVERWATERING. THESE AREAS WILL BE IDENTIFIED BY MONTHLY WATER APPLICATION NEEDS TO BE RESET ON A MONTHLY AND SEASONAL BASIS TO REPLACE WATER LOST THROUGH EVAPOTRANSPIRATION WITH ALLOWANCE FOR UNIFORM DISTRIBUTION OF WATER IS APPLIED BY EACH SPRINKLER HEADS TO THE PLANTING AREAS FOR EACH INDIVIDUAL VALVE SYSTEM.
NOTE: WATER SHOULD BE APPLIED ONLY IN AMOUNTS TO MEET PLANT NEEDS, AND SHOULD BE APPLIED IN ACCORDANCE WITH WEATHER AND GROWTH BY MONTH. WATER APPLICATION NEEDS TO BE RESET ON A MONTHLY AND SEASONAL BASIS TO REPLACE WATER LOST THROUGH EVAPOTRANSPIRATION WITH ALLOWANCE FOR UNIFORM DISTRIBUTION OF WATER IS APPLIED BY EACH SPRINKLER HEADS TO THE PLANTING AREAS FOR EACH INDIVIDUAL VALVE SYSTEM.
THE IRRIGATION SCHEDULE ON THE INSTALLATION PLANS SHOULD BE USED AS AN INDICATOR OF PLANTING POINTS FOR SET SPRINKLER HEADS. EACH IRRIGATION SYSTEMS RUN TIME AND CYCLE SHOULD BE EVALUATED AND ADJUSTED IN THE FIELD.

MAINTENANCE REQUIRED:

FREQUENT INSPECTION FOR BROKEN OR IMPROPERLY ADJUSTED SPRINKLER COVERAGE, CLOSURE AND/OR ON EMTTERS, WORKING NOZZLES AND ADEQUATE GRIT IN SEALS OR MOVING PARTS, MOWER OR OTHER PHYSICAL DAMAGE, AND BROKEN SPRINKLER LINES. THE RISER HEIGHT OF SPRINKLERS SHOULD BE ADJUSTED AS REQUIRED, BUT NOT TO INTERFERE WITH PEDESTRIAN TRAFFIC. POP-UP TYPE SPRINKLERS SHOULD BE ADJUSTED TO MAINTAIN THE SPRINKLER HEAD FLUSH WITH THE SURROUNDING GRADE. POP-UP TYPE SPRINKLERS SHOULD ALWAYS BE USED ADJACENT TO TRAFFIC AREAS.
PERIODICALLY, THE RISER HEIGHTS MAY NEED TO BE ADJUSTED TO ACCOMMODATE FUTURE PLANT GROWTH. APPROPRIATE CORRECTIVE MEASURES SHOULD BE MADE IMMEDIATELY TO CORRECT ANY OF THESE PROBLEMS AND ENSURE APPROPRIATE COVERAGE IN ALL AREAS. PREVENT OVER WATERING AND MINIMIZE ANY OVERSPRAY. AFTER ANY IRRIGATION REPAIR, PIPING SHOULD BE FLUSHED AND RETESTED FOR PROPER FUNCTION AND ADEQUATE COVERAGE OF REGULAR INSPECTIONS SHOULD BE PERFORMED TO MONITOR THE AMOUNT OF WATER BEING APPLIED, AND CORRECTIVE MEASURES TAKEN, IF NECESSARY.

FREQUENCY:

INSPECTION AND APPROPRIATE ADJUSTMENTS OF SPRINKLERS TO ASSURE ADEQUATE COVERAGE AND PREVENT OVERSPRAY SHOULD BE DONE A MINIMUM OF ONCE A WEEK, MORE FREQUENTLY DURING THE DRYER, WARMER SEASONS.
EFFECTS OF DEFERRED MAINTENANCE:
FAILURE TO INSPECT, REPLACE, AND ADJUST SPRINKLER SYSTEM COMPONENTS MAY RESULT IN INADEQUATE OR SURPLUS WATER SUPPLY TO AFFECTED AREAS, AFFECTING NEARBY TURF TREES, AND OTHER PLANT LIFE. OVER WATERING MAY EVENTUALLY LEAD TO SOIL EROSION, AND COULD EFFECT NEARBY STRUCTURES AND/OR HARDSCAPE SURFACES.

IV. VALVES

MAINTENANCE REQUIRED:

REGULAR INSPECTION OF VALVES TO VERIFY THAT THEY ARE OPERATING CORRECTLY. CHECKING FOR DAMPPRAG OR SEAT WEAR, STICKING SOLENOIDS OR DAMPPRAG, CORROSION OF WIRE CONNECTIONS, CLOGGED SCREENS AND/OR CORPICES, AND DEBRIS OR STONES LODGED UNDER THE DIAPHRAGM. REPAIRS AND/OR REPLACEMENT AS NECESSARY.
REMOTE CONTROL VALVES MAY HAVE ASSOCIATED UNIONS AND ISOLATION VALVES. THESE SHOULD ALSO BE CHECKED PERIODICALLY FOR LEAKAGE OR DAMAGE.

FREQUENCY:

VALVES SHOULD BE MANUALLY OPERATED AND VISUALLY INSPECTED AT LEAST ONCE PER MONTH. A MORE THOROUGH INSPECTION OF ALL VALVES SHOULD BE PERFORMED AT LEAST ONCE A YEAR WITH REPAIRS OR REPLACEMENT DONE AS SOON AS ANY MALFUNCTION IS DETECTED. THIS SAME FREQUENCY OF INSPECTION SHOULD BE APPLIED TO THE BALL OR GATE VALVES LOCATED THROUGHOUT THE SYSTEM.

EFFECTS OF DEFERRED MAINTENANCE:

AS THE REMOTE CONTROL VALVES CONTROL THE DISPERSION OF WATER, REPAIRS THAT ARE NOT ATTENDED TO IMMEDIATELY COULD RESULT IN LONG TERM DAMAGE TO LANDSCAPING IN THE AFFECTED AREAS.

V. IRRIGATION PIPE

MAINTENANCE REQUIRED:

THE IRRIGATION SUPPLY AND LATERAL PIPES ARE PLASTIC (PVC), IF NOT DISTURBED BY TRENCHING OR DIGGING, MINIMAL ONGOING MAINTENANCE SHOULD BE REQUIRED. ON OCCASION, SOME REPAIRS MAY NEED TO BE DONE TO MAINTAIN THE INTEGRITY OF THE SYSTEM AND AN OCCASIONAL INSPECTION OF PORTIONS OF THE SYSTEM IS RECOMMENDED. REPAIRS SHOULD BE MADE WITH IDENTICAL MATERIALS.
FREQUENCY:
IF REPAIRS ARE REQUIRED, THEY SHOULD BE DONE IMMEDIATELY.

EFFECTS OF DEFERRED MAINTENANCE:

AS WITH OTHER COMPONENTS OF THE IRRIGATION SYSTEM, REPAIRS THAT ARE NOT ATTENDED TO IMMEDIATELY COULD RESULT IN LONG TERM DAMAGE TO LAWN AND PLANT LIFE IN THE AFFECTED AREAS.

- END OF SECTION -

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IRRIGATION SPECIFICATIONS

L6.1

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PART A PLANTING

- 1.0 SCOPE
2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

- INSPECTION AND STORED ON SITE UNTIL THE FURNISHING OF MATERIALS IS COMPLETED. DELIVERY MAY BEGUN UPON APPROVAL OF SAMPLES BY LANDSCAPE ARCHITECT.
A. ORGANIC FERTILIZER MAY BE PROCESSING SEWAGE SLUDGE WITH A MINIMUM CONTENT OF 1% NITROGEN AND 0.5% PHOSPHORIC ACID AND MAY TO "NRO-HUMUS" METHOD OF PROCESSING SHALL NOT DESTROY NORMAL BACTERIAL CONTENT...

- SETTLED BY WATER APPLICATION. (REFER TO PLANTING DETAILS AND SPACING DETAILS)
A. WATER TO BE APPLIED IN A VERTICAL POSITION SO THAT CROWN OF BALL WILL BE LEVEL WITH FINISH GRADE AFTER ALLOWING FOR WATERING AND SETTLING OF MULCH TO THE SURFACE OF SPACING BALLS AND EARTH...

- 27.0 PROTECTION
CONTRACTOR SHALL CAREFULLY AND CONTINUOUSLY PROTECT ALL AREAS INCLUDED IN THE CONTRACT, INCLUDING PLANT MATERIALS, FENCES, SUPPORTS, ETC. UNTIL FINAL ACCEPTANCE OF THE WORK BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
28.0 MAINTENANCE
A. CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF MEN AND ADEQUATE EQUIPMENT TO PERFORM THE WORK HEREIN SPECIFIED. PLANT MAINTENANCE WORK SHALL CONSIST OF APPLYING TWO HERBICIDES BY A CERTIFIED SPRAYER...

- 7. REMOVAL OF TURF BY HAND, FROM WITHIN 12 INCHES OF TREE TRUNKS TO ELIMINATE DAMAGE POTENTIAL FROM MOWERS AND STRING TRIMMERS.
8. REGULAR CARE OF INSPECTING AND DISPOSAL OF LEAVES AND TRASH.
FREQUENCY:
1. MOWING OF GRASS WILL NOT BE DONE ON A WEEKLY BASIS. EDGE TRIMMING WILL NEED TO BE DONE 2 TIMES PER MONTH...



- 3.0 QUANTITIES AND TYPES
PLANT MATERIALS SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED FOR EACH LOCATION, AND SHALL BE OF THE SPECIES, KINDS, SIZES, ETC. AS SYMBOLIZED AND/OR DESCRIBED IN THE "PLANT MATERIAL LEGEND" ON THE DRAWINGS. THE LANDSCAPE ARCHITECT HAS PREPARED QUANTITIES ONLY AS A CONVENIENCE TO CONTRACTOR AND ASSUMES NO RESPONSIBILITY FOR ACCURACY...

- 9.0 STAKING MATERIALS
A. TREE STAKING SHALL BE AS PER DETAILS.
B. TIES FOR HOLDING TREES SHALL BE AS PER DETAILS.
C. TREE GUYSING SHALL BE AS PER DETAILS.
10.0 GRADING AND SOIL PREPARATION
A. CONTRACTOR IS TO FINISH GRADE TO WITHIN 1/10TH OF A FOOT BELOW THE TOP OF PAVING WHERE PAVING EXISTS PER DETAIL...

- 16.0 TREES OCCURRING IN LAWN
A. TREES OCCURRING IN LAWN SHALL BE PLANTED BEFORE FINAL PREPARATION OF THOSE AREAS.
B. A SPIN (NOT) HOLLOW SOUL BE INSTALLED WITH BARK PROTECTION DEVICES AT THEIR BASE.
17.0 CARE OF PLANTS BEFORE AND DURING PLANTING
A. PLANTS SHALL NOT BE STORED OR HELD BEING PLANTED. KEEP EXPOSED ROOTS MOIST BY MEANS OF WET SAWDUST, FEAT MOSS OR BURLAP AT ALL TIMES DURING PLANTING OPERATIONS...

- 29.0 LAWN MAINTENANCE
A. CONTRACTOR SHALL WATER EVERY DAY ONCE PER DAY FOR TWO WEEKS AND THEREAFTER GRADUALLY REDUCE FREQUENCY OF WATERING TO THREE TIMES PER WEEK. CONTRACTOR SHALL CONTINUE TO MAINTAIN THE LAWN WATERED ONCE PER DAY UNTIL THE LAWN HAS GROWN TO A HEIGHT OF 3" TO 4" WITH A ROTOZ MOWER.
B. FERTILIZING - APPLY 12-12 (BEST OR EQUAL) AT THE RATE OF 5 POUNDS PER 1000 SQUARE FEET THREE TIMES PER YEAR...

- 1. PERIODIC PRUNING TO REMOVE DEAD, DISAPPEAR OR WEAKENED LIMBS TO PROMOTE HEALTHY AND SYMMETRIC GROWTH OF THE TREE.
2. SELECTED THINNING OR LACING OF TREES.
3. STAKING OF YOUNGER TREES TO PROMOTE GROWTH IN THE APPROPRIATE DIRECTION.
4. PERIODIC APPLICATION OF INSECTICIDES TO CONTROL INFESTATIONS.
5. PERIODIC APPLICATION OF FERTILIZERS TO PROMOTE HEALTHY GROWTH...

- 5.0 OBSERVATION / CERTIFICATION
A. ALL OBSERVATIONS SHALL BE MADE BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. CONTRACTOR SHALL REQUEST INSPECTION AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF THE TIME INSPECTION IS REQUESTED.
B. QUALITY CONTROL OBSERVATION SEQUENCES ARE AS FOLLOWS:
1. TESTING OF EACH CONTAINER FOR APPLICATION OF FERTILIZER AND BARK CENTER FILLING OF MAIN LINE SHALL BE ALLOWED...

- 11.0 SOIL CONDITIONERS AND SOIL TESTING
A. UNLESS OTHERWISE INSTRUCTED BY AN AGRONOMY REPORT (SEE PLAN IN ALL PLANTING AREAS) THE FOLLOWING APPLICATION SHALL BE MADE PER 1000 SQUARE FEET OF AREA AND SHOWS:
1. NITROGEN (N) - 1/2" TO 1" IN TWO DIRECTIONS INTO THE TOP 6" OF SOIL, AND THE AREA WATERED DOWN.
2. 150 LBS. NITROGEN (N) PER ACRE (AMOUNT/CULTIVATED YARD)
A.1 160 LBS. GROW POWER PLUS FERTILIZER
A.2 160 LBS. AG GYPSUM
A.3 160 LBS. IRON SULFATE
A.4 10 LBS. SOIL SULFUR
A.5 20 LBS. IRON SULFATE

- 18.0 DROPPED SEEDING
A. SLOPE AREAS: REFER TO PLANTING PLAN AND SLOPE MIX DESIGNS FOR TYPES AND AMOUNT OF SEEDS TO BE USED. ALTERNATE SEED MIXES MAY BE USED ONLY UPON APPROVAL OF THE LANDSCAPE ARCHITECT. THE DESIGNED SLURRY MIXES SHALL BE APPLIED BY AN APPROVED HYDROMULCH COMPANY.
19.0 DROPPED SEEDING
A. SLOPE AREAS: REFER TO PLANTING PLAN AND SLOPE MIX DESIGNS FOR TYPES AND AMOUNT OF SEEDS TO BE USED. ALTERNATE SEED MIXES MAY BE USED ONLY UPON APPROVAL OF THE LANDSCAPE ARCHITECT. THE DESIGNED SLURRY MIXES SHALL BE APPLIED BY AN APPROVED HYDROMULCH COMPANY...

- 30.0 GROUNDCOVER AND SHRUB AREA MAINTENANCE
A. WATERING - NEW PLANTINGS SHALL BE WATERED ONCE PER DAY FOR TWO (2) WEEKS. THEREAFTER WATER THREE (3) TIMES PER WEEK.
B. FERTILIZATION - FERTILIZE THREE (3) WEEKS AFTER PLANTING WITH 5 POUNDS 12-12 (BEST OR EQUAL) PER 1000 SQUARE FEET. FERTILIZE THEREAFTER EVERY THIRTY (30) DAYS.
C. DISEASE AND PEST CONTROL - FOR CONTROL OF SLUGS AND SNAILS APPLY GRANULETTED DESIGNED SLURRY MIXES TO THE ENTIRE PLANTING AREA...

- 1. PRUNING AND TREE THINNING SHOULD BE DONE ONCE A YEAR. TREE REMOVAL AND REPLACEMENT SHOULD BE DONE ON A YEARLY BASIS.
2. PRUNING OF YOUNGER TREES TO PROMOTE GROWTH IN THE APPROPRIATE DIRECTION.
3. STAKING OR LACING AS REQUIRED. SHOULD BE DONE ONCE PER YEAR.
4. PERIODIC APPLICATION OF INSECTICIDES TO CONTROL INFESTATIONS (SUCH AS APHIDS).
5. APPLICATION OF FERTILIZERS IN MARCH AND SEPTEMBER OF EACH YEAR TO PROMOTE HEALTHY GROWTH...

- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO WAVE, SHORTEN OR EXTEND EACH CONTAINER SCHEDULE. THE LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE TO NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL SITE CONDITIONS. PERSONAL WEEDS AND GRASSES TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: NUT GRASS, PUNCTURE VINE, DALLAS GRASS, MUSTARD PLANT, ST. AUGUSTINE GRASS, ALFALFA, JOHNSON WIRE WEED, MORNING GLORY, BERBERIS, THIS SHALL BE AS PER DETAIL. A GRANULAR PEST-EMERGENT, NON-SELECTIVE HERBICIDE SHALL BE APPLIED TO SOILS TO MAINTAIN WEED-FREE CONDITIONS.
11.0 SOIL CONDITIONERS AND SOIL TESTING
A. UNLESS OTHERWISE INSTRUCTED BY AN AGRONOMY REPORT (SEE PLAN IN ALL PLANTING AREAS) THE FOLLOWING APPLICATION SHALL BE MADE PER 1000 SQUARE FEET OF AREA AND SHOWS:
1. NITROGEN (N) - 1/2" TO 1" IN TWO DIRECTIONS INTO THE TOP 6" OF SOIL, AND THE AREA WATERED DOWN.
2. 150 LBS. NITROGEN (N) PER ACRE (AMOUNT/CULTIVATED YARD)
A.1 160 LBS. GROW POWER PLUS FERTILIZER
A.2 160 LBS. AG GYPSUM
A.3 160 LBS. IRON SULFATE
A.4 10 LBS. SOIL SULFUR
A.5 20 LBS. IRON SULFATE

- 12.0 FINISH GRADING
WHEN PRELIMINARY GRADING (INCLUDING WEEDING AND FERTILIZING) HAS BEEN COMPLETED AND THE SOIL HAS DRIED SUFFICIENTLY IT TO BE READY FOR WORK, ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO THE ELEVATIONS INDICATED ON THE DRAWINGS. GRADES NOT OTHERWISE INDICATED SHALL BE FORMAL LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN. MINOR ADJUSTMENTS OF FINISH GRADES SHALL BE MADE IN THE DIRECTION OF THE FINISH GRADE WHICH SHALL BE AT OPTIMUM MOISTURE CONTENT FOR WORKING.
13.0 METHOD OF PLANTING AND WORK PROCEDURE
A. NO PLANTING SHALL BE DONE UNTIL ALL OPERATIONS IN CONNECTION WITH THE INSTALLATION OF THE IRRIGATION SYSTEM HAVE BEEN COMPLETED. FINAL GRADES HAVE BEEN ESTABLISHED. THE PLANTING AREAS HAVE BEEN PREPARED (GRADED AND PREPARED) AS SPECIFIED, AND THE WORK APPROVED BY THE LANDSCAPE ARCHITECT.
B. THE RELATIVE POSITION OF ALL TREES AND PLANTS IS SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, AND THEY SHALL, IF NECESSARY, BE RELOCATED AS DIRECTED AS PART OF THE CONTRACT.
C. ALL PLANTS SHALL BE EXCAVATED EARLY IN THE CONTAINER AND SET SO THAT, WHEN SETTLED, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE THAT THEY WOULD BEAR TO THE NATURAL GRADE BEFORE BEING SET. EACH PLANT SHALL BE PLANTED IN THE CENTER OF THE PIT AND BACKFILLED, UNLESS OTHERWISE SPECIFIED. SOIL SHALL BE COMPACTED TO THE REQUIRED CONDITION SHALL BE USED FOR BACKFILLING. NO FILLING WILL BE PERMITTED AROUND TRUNKS OR STEMS. ALL BROKEN OR FLAYED ROOTS SHALL BE PROMPTLY CUT OFF.
D. LANDSCAPE ARCHITECT SHALL APPROVE THE PLACING AND PLANTING OF ALL PLANTS.
E. IN THE EVENT THAT UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN THE PLANTING OPERATION, ALTERNATE LOCATIONS FOR PLANT MATERIALS WILL BE SELECTED BY THE LANDSCAPE ARCHITECT, AND PLANTING COMPLETED AT NO EXTRA COST TO OWNER.

- 20.0 WATERING
A. IMMEDIATELY AFTER PLANTING, WATER SHALL BE APPLIED BY HOSE IN A MODERATE STREAM IN THE PLANTING HOLES UNTIL THE MATERIAL ABOVE THE ROOTS IS MOIST. WATERING SHALL BE MADE AS OFTEN AS SEASONAL, AND SOIL CONDITIONS REQUIRE, TO KEEP THE GROUND WET AT ALL TIMES. WELL BELOW THE ROOT SYSTEM OF GRASS AND PLANTING, CARE IS TO BE TAKEN IN WATERING SLOPES SO AS NOT TO CAUSE EROSION DAMAGE.
D. FOLLOWING THE PLANTING OF GRASS AND PLANTS IMMEDIATELY AND THEREAFTER WATER BY THE IRRIGATION SYSTEM, OR BY A SLOW RUNNING HOSE SPRAYING.
21.0 WATERING BASINS
A. UNLESS A PLANT IS TO BE IRRIGATED BY A DRIP TUBING SYSTEM, CONSTRUCT A WATERING BASIN AT THE EDGE OF AND FOLLOWING THE SHAPE OF THE PLANTING PIT. THE BASIN SHALL BE AT LEAST 4" HIGH. PROVIDE A COVER OR LARGER CONTAINERS SHALL BE AT LEAST 4" HIGH. MOUNDS FOR ALL OTHER TREES, VINES, OR PLANTS NOT OTHERWISE SPECIFIED SHALL BE AT LEAST 2" HIGH. ALL PLANTS SHALL BE COVERED FROM THE CONTAINER AND SET. ANY SETTLEMENT WITHIN THE BASINS RETAINING WATER SHALL BE REFILLED TO THE ORIGINAL GRADE IMMEDIATELY. THE BASINS SHALL BE STABILIZED SANDWICH WORKED INTO THE SURFACE AS REQUIRED TO RESTORE THE ORIGINAL CONDITION.
B. WATERING BASINS SHALL BE PLANTER AREAS AT THE TIME OF BARK INSTALLATION.
23.0 TREE STAKING
A. ALL TREES NOTED DURING AT TIME OF PLANTING BY PLACING STAKE IN THE PREPARED HOLE AND TRIVING IT 1/2" INTO SOIL GROUND. PLANT THE TREE AS CLOSE TO THE STAKE AS POSSIBLE WITHOUT CHOKING THE ROOTS. FASTEN THE TREE TO THE UPPER END OF THE STAKE USING "C" BUSH TIES. (REFER TO DETAIL)
B. ALL TREES IN BOX SIZE OR LARGER SHALL BE IMMEDIATELY ROOT-GUYPED AFTER PLANTING WITH DUCKBILL ROOT BALL ANCHOR OR EQUIV. PER MFG. INSTRUCTIONS.

- 31.0 GUARANTEE AND REPLACEMENTS
A. ALL SHRUBS AND GROUNDCOVER SHALL BE GUARANTEED BY CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF 90 DAYS AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD. AND/OR FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT. ALL TREES UP TO 24" BOX SIZE SHALL BE GUARANTEED BY CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD, AND/OR FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT.
B. ALL PLANTS THAT SHOW SIGNS OF FAILING GROWTH AT ANY TIME DURING THE LIFE OF THE CONTRACT, INCLUDING THE MAINTENANCE PERIOD, OR THOSE PLANTS INJURED OR DAMAGED AS A RESULT OF BEING UNSUITABLE FOR THE OPERATIONS OF THE CONTRACT, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
C. CONTRACTOR SHALL WITHIN 14 DAYS AFTER THE LANDSCAPE ARCHITECT REMOVE AND REPLACE ALL GUARANTEED PLANT MATERIALS THAT DO NOT SATISFY THE REQUIREMENTS OF THE GUARANTEE. REPLACEMENT SHALL BE WITHIN 14 DAYS AFTER THE LANDSCAPE ARCHITECT HAS SPECIFIED THE ORIGINAL PLANTING, AND ALL SUCH REPLACEMENT MATERIALS SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL GUARANTEED MATERIALS.

- 1. PRUNING SHOULD BE DONE AS NEEDED TO PREVENT SHRUBS AND PLANTS FROM BECOMING "RANGEY" AND TO CONTAIN THEIR SIZE. PRUNING SHOULD BE DONE WITH CARE NOT TO "POODLE" SHRUBS. ALL TRIMMINGS SHOULD BE PROMPTLY REMOVED FROM THE SITE.
2. APPLICATION OF INSECTICIDES, ONLY AS REQUIRED.
3. AS SMALL AS CAN BE A PROBLEM IN THIS AREA, SMALL BUT SHOULD BE APPLIED AS REQUIRED TO CONTROL THE PROBLEM.
4. FERTILIZATION OF SHRUBS WILL OCCUR IN CONJUNCTION WITH THE FERTILIZATION OF GROUND COVER AREAS, AS DISCUSSED EARLIER. SHRUBS SHOULD BE REGULARLY MONITORED FOR SIGNS OF MICRO-NUTRIENT DEFICIENCY, AND TREATED AS NECESSARY AS NEEDED.
5. APPLICATION OF FUNGICIDES, BACTERICIDES, ETC. AS SYMPTOMS APPEAR. VINES AND ESPALLERS SHOULD BE MONITORED ON AN "ON-GOING" BASIS.

- 6.0 MATERIALS
PLANT MATERIALS INDICATED ON THE DRAWINGS AND HEREIN SPECIFIED SHALL CONFORM TO THE FOLLOWING:
A. NOMENCLATURE - PLANT NAMES INDICATED ON THE DRAWINGS CONFORM TO "STANDARD PLANT NAMES" ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE, EXCEPT FOR NAMES COVERED THEREIN, THE STANDARD CUSTOM OF THE NATURAL, "RUN-OFF" WATER, GRASSING SHALL BE DONE WHEN SOIL IS AT OPTIMUM MOISTURE CONTENT FOR WORKING.
B. CONDITION - PLANTS SHALL BE SYMMETRICAL, TYPICAL FOR VARIETY AND SPECIES, SOUND, UNDEVELOPED, FREE FROM PLANT DISEASE, INSECT PESTS, OR THEIR EGGS, AND SHALL BE HEALTHY, NORMAL ROOT SYSTEMS, WELL FILLING THEIR CONTAINERS, BUT NOT TO THE POINT OF BEING ROOT BOUND. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY, EXCEPT AS AUTHORIZED BY LANDSCAPE ARCHITECT. IN NO CASE SHALL TREES BE DAMAGED BEFORE DELIVERY TO THE SITE.
C. DIMENSIONS - THE HEIGHT AND SPREAD OF ALL PLANT MATERIAL SHALL BE MEASURED WITH BRANCHES IN THEIR NORMAL POSITION, AND SHALL BE AS INDICATED ON THE DRAWINGS. THE CALIPERS OF ALL TREES SHALL BE MEASURED AT AROUND THE SURFACE OF THE GROUND, WHERE CALIPER OR OTHER INSTRUMENTS ARE USED TO MEASURE. THE CALIPERS SHALL BE TAKEN FROM THE "PLANT LEGEND." IT SHALL BE UNDERSTOOD THAT THESE PLANT MATERIALS SHALL BE THE NORMAL AMERICAN GROWN AND STOCKED FOR THE LISTED.
D. INSPECTION - ALL PLANT MATERIALS MUST HAVE BEEN PREVIOUSLY INSPECTED AT THE NURSERY BY A STATE OR COUNTY HORTICULTURAL DEPARTMENT, AND SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE PLANTING.
E. PLANT LIST - IS INDICATED ON DRAWINGS AND LEGEND.
F. SIZES OF PLANTS - SHALL BE AS STATED ON THE LEGEND. PLANT SIZES SHALL MEET THE "AMERICAN STANDARD FOR NURSERY STOCK" AN S1, 2, 3, 1, 2, 6, 1 - 1996.
G. SUBSTITUTIONS - SUBSTITUTIONS FOR THE INDICATED PLANT MATERIALS WILL BE PERMITTED PROVIDED THE SUBSTITUTE MATERIALS ARE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT, AND THE SUBSTITUTIONS ARE MADE AT NO ADDITIONAL COST TO OWNER. EXCEPT FOR AUTHORIZED VARIATIONS, ALL SUBSTITUTE PLANT MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THIS SPECIFICATION. IF THE ACCEPTED SUBSTITUTE MATERIALS ARE OF A LESSER VALUE THAN THOSE INDICATED OR SPECIFIED, THE CONTRACTOR SHALL BE ADJUSTED IN ACCORDANCE WITH THE PROVISIONS OF THE CONTRACT.
H. PLANTS NOT APPROVED - PLANTS NOT APPROVED ARE TO BE REMOVED FROM THE SITE IMMEDIATELY AND RE-ORDERED TO THE INDICATED PLANTS. THE OWNER OR LAND ARCHITECT RESERVES THE RIGHT TO SELECT ENTIRE LOTS OF PLANTS REPRESENTED BY DEFINITIVE SAMPLES.

- 14.0 PLANTING OF TREES
A. POSITION PLANTS IN PLANT LOCATIONS INDICATED ON DRAWINGS AND SECURE APPROVAL BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS INDICATED.
B. ALL PITS FOR TREES SHALL BE DUG SQUARE WITH BOTTOMS LEVEL, THE LENGTH OR SIDES AND DEPTH EQUAL TO ONE AND ONE-HALF TIMES THE DIAMETER OF THE TREE TO BE PLANTED BY THE LANDSCAPE ARCHITECT. REFER TO DETAIL.
25.0 BARK MULCH
WEED CONTROL BARK INSTALLATION SHALL CONSIST OF PLACING 3" OF MEDIUM

- 22.0 CLEAR-UP
UPON COMPLETION OF THE WORK IN THIS SECTION, CONTRACTOR SHALL REMOVE ALL RUBBISH, TRASH AND DEBRIS RESULTING FROM HIS OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS SERVICE AND LEAVE THE AREA INVOLVED IN A NEAT AND ACCEPTABLE CONDITION IN ORDER TO GAIN THE APPROVAL OF THE LANDSCAPE ARCHITECT.
33.0 TURF AND/OR GROUNDCOVERS
WEEDS WILL BE A CONTINUOUS PROBLEM, MORE SO DURING THE EARLY STAGES BEFORE PLANTINGS BECOME FULLY ESTABLISHED, AND TO A LESSER DEGREE THEREAFTER. ALL AREAS SHOULD BE MAINTAINED WEED-FREE.
PART B MAINTENANCE REQUIRED:
1. REGULAR MOWING AND EDGE TRIMMING OF GRASS AND TURF.
2. PERIODIC APPLICATION OF INSECTICIDES FOR CONTROL OF APHIDS, SNAILS, ETC. AND CHEMICAL CONTROL OF PLANT DISEASES AS DIRECTED BY A LICENSED PESTICIDE PROFESSIONAL.
3. PERIODIC APPLICATION OF FUNGICIDES OR FERTILIZERS TO CONTROL INFESTATIONS OF HERBICIDES FOR CONTROL OF WEEDS SUCH AS BERMUDA GRASS, CRABGRASS, ALFALFA AND DANDELIONS AS DIRECTED BY A LICENSED HERBICIDE PROFESSIONAL.
4. PERIODIC APPLICATION OF ORGANIC FERTILIZERS TO REFRESH SOIL.
5. 4 YEARLY AERATION OF TURF AREAS TO RELIEVE SOIL COMPACTION AND THATCH BUILDUP. ALLOWING AIR TO REACH ROOTS AND TO ENRICH SYSTEM OF GRASS.
6. CUTTING BACK OF EXCESS GROUNDCOVER TO PREVENT "CHOKING" OF OTHER TREES AND SHRUBS, AND TO KEEP IT FROM GROWING OVER WALKWAYS AND DRIVEWAYS.

- 26.0 BARK MULCH
WEED CONTROL BARK INSTALLATION SHALL CONSIST OF PLACING 3" OF MEDIUM BARK WOOD BARK IN ALL SHRUB PLANTING AREAS. CONTRACTOR SHALL SUPPLY A ONE GALLON BARK SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO DELIVERY OF MULCH TO THE WORK AREA. MULCH SHALL BE DELIVERED AND EARTH CURED 48 HOURS BEFORE APPLICATION.
26.0 CERTIFICATES
IN ADDITION TO ANY OTHER CERTIFICATES SPECIFIED, CONTRACTOR SHALL FURNISH A CERTIFICATE WITH EACH DELIVERY OF PLANT MATERIALS, STATING THE SOURCE, QUANTITY AND TYPE OF MATERIAL AND THAT THE MATERIAL CONFORMS TO THE SPECIFICATIONS OF THE DRAWINGS AND/OR SPECIFICATIONS. ORGANIC FERTILIZER, THE CERTIFICATE SHALL ALSO STATE THE VOLUME, NET WEIGHT, PERCENT OF NITROGEN AND PHOSPHORUS, AND THAT THE MATERIAL IS FREE FROM FERTILIZER AND SOIL CONDITIONER. IN CONTAINERS, A SIMILAR CERTIFICATE OR INVOICE SHALL BE FURNISHED STATING TOTAL QUANTITIES BY WEIGHT AND VOLUME. THIS CERTIFICATE AND INVOICE SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT PRIOR TO THE START OF THE MAINTENANCE PERIOD.
27.0 PROTECTION
CONTRACTOR SHALL CAREFULLY AND CONTINUOUSLY PROTECT ALL AREAS INCLUDED IN THE CONTRACT, INCLUDING PLANT MATERIALS, FENCES, SUPPORTS, ETC. UNTIL FINAL ACCEPTANCE OF THE WORK BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
28.0 MAINTENANCE
A. CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF MEN AND ADEQUATE EQUIPMENT TO PERFORM THE WORK HEREIN SPECIFIED. PLANT MAINTENANCE WORK SHALL CONSIST OF APPLYING TWO HERBICIDES BY A CERTIFIED SPRAYER...

- 1. PRUNING SHOULD BE DONE AS NEEDED TO PREVENT SHRUBS AND PLANTS FROM BECOMING "RANGEY" AND TO CONTAIN THEIR SIZE. PRUNING SHOULD BE DONE WITH CARE NOT TO "POODLE" SHRUBS. ALL TRIMMINGS SHOULD BE PROMPTLY REMOVED FROM THE SITE.
2. APPLICATION OF INSECTICIDES, ONLY AS REQUIRED.
3. AS SMALL AS CAN BE A PROBLEM IN THIS AREA, SMALL BUT SHOULD BE APPLIED AS REQUIRED TO CONTROL THE PROBLEM.
4. FERTILIZATION OF SHRUBS WILL OCCUR IN CONJUNCTION WITH THE FERTILIZATION OF GROUND COVER AREAS, AS DISCUSSED EARLIER. SHRUBS SHOULD BE REGULARLY MONITORED FOR SIGNS OF MICRO-NUTRIENT DEFICIENCY, AND TREATED AS NECESSARY AS NEEDED.
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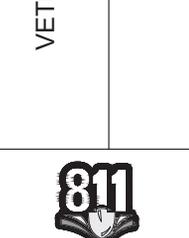
- 7.0 FERTILIZERS AND SOIL CONDITIONS (FOR BID PURPOSES ONLY)
SAMPLES OF ALL SOIL AMENDMENTS, SOIL AND PLANTS SHALL BE SUBMITTED FOR

- 15.0 FINISH GRADING
WHEN PRELIMINARY GRADING (INCLUDING WEEDING AND FERTILIZING) HAS BEEN COMPLETED AND THE SOIL HAS DRIED SUFFICIENTLY IT TO BE READY FOR WORK, ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO THE ELEVATIONS INDICATED ON THE DRAWINGS. GRADES NOT OTHERWISE INDICATED SHALL BE FORMAL LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN. MINOR ADJUSTMENTS OF FINISH GRADES SHALL BE MADE IN THE DIRECTION OF THE FINISH GRADE WHICH SHALL BE AT OPTIMUM MOISTURE CONTENT FOR WORKING.
16.0 METHOD OF PLANTING AND WORK PROCEDURE
A. NO PLANTING SHALL BE DONE UNTIL ALL OPERATIONS IN CONNECTION WITH THE INSTALLATION OF THE IRRIGATION SYSTEM HAVE BEEN COMPLETED. FINAL GRADES HAVE BEEN ESTABLISHED. THE PLANTING AREAS HAVE BEEN PREPARED (GRADED AND PREPARED) AS SPECIFIED, AND THE WORK APPROVED BY THE LANDSCAPE ARCHITECT.
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E. IN THE EVENT THAT UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN THE PLANTING OPERATION, ALTERNATE LOCATIONS FOR PLANT MATERIALS WILL BE SELECTED BY THE LANDSCAPE ARCHITECT, AND PLANTING COMPLETED AT NO EXTRA COST TO OWNER.

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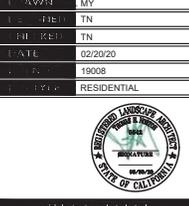


Know what's below. Call before you dig.

REVISION DATE

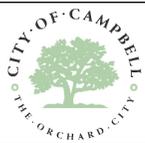
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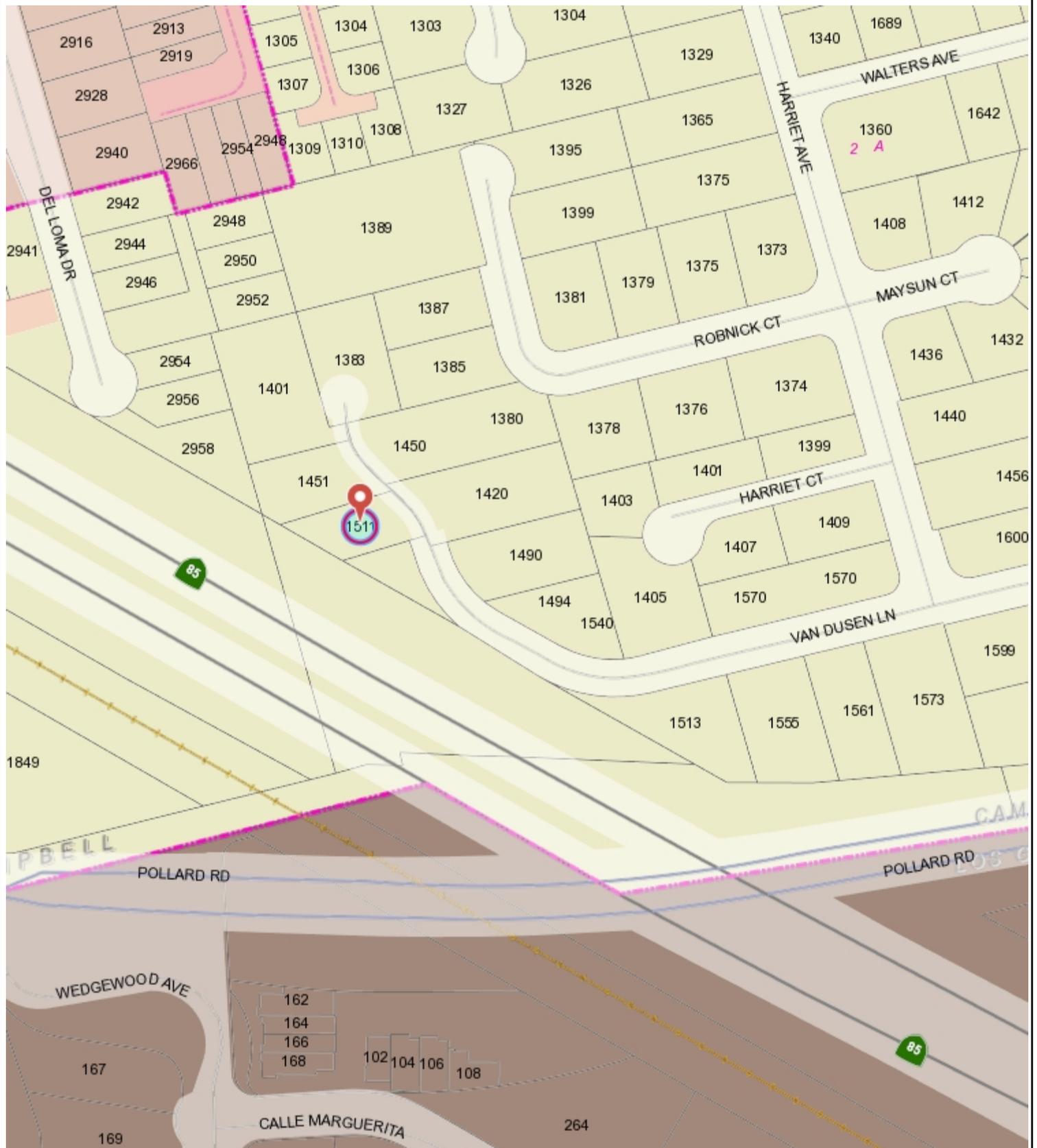


PLANTING SPECIFICATIONS

FILE L9.1



1511 Van Dusen Lane



This map is based on GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors.



1 ASPHALT COMPOSITION SHINGLE ROOFING

CERTAINEED:
PRESIDENTIAL TL SOLARIS;
COLOR: SHADOW GRAY



3 FIELD PAINTED FIBER CEMENT LAP SIDING

JAMES HARDIE; STYLE: ARTISAN
COLOR: BENJAMIN MOORE - MIDSUMMER NIGHT



4 FIELD PAINTED FIBER CEMENT SHINGLE SIDING

JAMES HARDIE; STYLE: STRAIGHT EDGE PANEL
COLOR: BENJAMIN MOORE - MIDSUMMER NIGHT



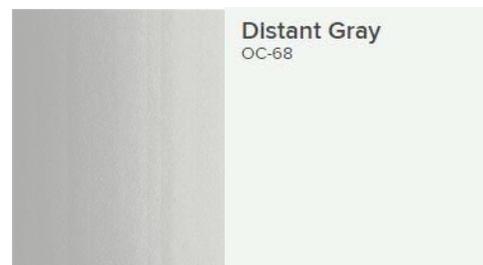
5 FIELD PAINTED FIBER CEMENT VERTICAL SIDING

JAMES HARDIE; STYLE: SMOOTH
COLOR: BENJAMIN MOORE - DISTANT GRAY



6 ADHERED LIGHTWEIGHT STONE VENEER

ELDORADO STONE; STYLE: CLIFFSTONE
COLOR: BANFF SPRINGS



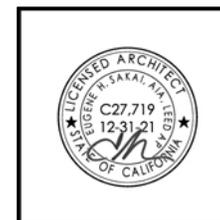
8 PAINTED FIBER CEMENT TRIM

JAMES HARDIE; STYLE: SMOOTH
COLOR: BENJAMIN MOORE - DISTANT GRAY



KEYNOTES #2 AND #7 ARE NOT SHOWN ON THIS ELEVATION

VETERE-DAVIS RESIDENCE (PLN2019-213)
NEW SINGLE FAMILY RESIDENCE
1511 VAN DUSEN LANE, CAMPBELL
GABRIELLA VETERE AND DERRYK DAVIS





ISA Tree Risk Assessment Qualified

ASCA Registered Consulting Arborist #401

ISA Certified Arborist #WE-3172A

1/21/2020

Assessment of and recommendations for two (2) oak specimens
Adjacent to
1511 Van Dusen
Campbell, CA

Naz Pouya, RLA
Assistant Planner
City of Campbell Planning Division
70 N 1st St
Campbell, CA 95008

Dear Ms. Pouya,

Planning Division retained Walter Levison, Consulting Arborist (WLCA) to perform a site visit to the above-noted address, and assess two (2) neighboring oak specimens: one at the neighbor's property just north of the existing garage corner, and one in the Caltrans right of way behind the south side of the rear yard (see WLCA tree map markup for reference). WLCA was also requested by Planning Division to prepare a written report detailing the existing conditions of the trees, and make recommendations to support their long term viability in the landscape.

The following written report is the work product that encompasses the above scope of work. WLCA included a tree map markup and various digital images from his site visit 1/21/2020 below as additional reference of existing conditions. Various markups on the tree map were created using Adobe Acrobat Pro, and are best viewed using Adobe CS or Adobe Pro (they may or may not all be visible when this report is opened using a free version of Adobe reader).

Background

The site is a residential lot with a single story residence that is currently lived in by the owner Mr. Derry Davis.

The proposed plan will expand the footprint of the residence southwestward toward valley oak 52, and includes construction of a rear yard patio area that would further encroach into the canopy dripline of this very large Caltrans-owned California native oak specimen. The most damaging items on the proposed plans in terms of potentially causing severe root loss to oak 52 are as follows:

- a. The proposed patio foundation, which as currently proposed will encroach to 5 or 6 horizontal feet offset from the tree 52 trunk edge. The depth of cut below existing soil surface grade is currently shown on sheet C4.0 detail 2 (called "concrete walkways") as a 14 inch cut depth below grade, plus additional subbase work consisting of compaction of the parent soil below that excavated elevation of 14 inches below grade. This extent of excavation and compaction is not acceptable, and would cause severe damage to the oak 52 root system.
- b. The proposed storm drain, downspout drain, and area drain system as shown on grading and drainage plan sheet C2.0 encroach to even further within the canopy dripline than the patio footprint, and will be cut at approximately 4 feet of the oak 52 trunk edge. If the width of the storm drain trench is also taken into account, the actual distance from trunk may be as little as 3.0 or 3.5 horizontal feet offset from the trunk edge of oak 52. The extent of damage to the oak 52 root system caused by this proposed trenching work as currently shown on the plan set would be severe, and as such, is unacceptable.

The proposed plan would also involve construction of a 2nd story addition near to neighbor-owned oak 51. This coast live oak may be somewhat impacted by horizontal and/or vertical clearance pruning to clear the proposed 2nd story addition which will be set back from the property corner such that the roof corner facing north into the oak 51 area will be at least 16 to 18 horizontal feet from the trunk edge. Because the majority of the south-extended portion of the canopy extends only +/- 20 horizontal feet south of trunk at an elevation of 20 to 25 feet above grade, it is possible that only minor horizontal clearance pruning will be required. I scaled the north corner of the proposed 2nd story roof eave at 20 to 21 feet elevation above grade per the applicant's sheet A3.0 "Exterior Elevations", which means that there may only be 3 to 5 horizontal feet

of conflict here in terms of required clearance pruning of oak 51 to allow for the roof to be built by contractors working on top of the new finish elevation of roof itself. It is WLCA's opinion that pruning will not cause significant damage to oak 51.

Tree Data & Discussion of Impacts Based on Current Proposed Plan Documents

Oak 51 is a coast live oak (*Quercus agrifolia*) measuring 17.7 inches diameter at 4.5 feet above grade.

It stands 45 feet in height, with a canopy spread of approximately 30 feet, lopsided mainly to the south over the 1511 Van Dusen site.

On scales from 1 to 100% each, the tree rates out with a health of 80% and a structural rating of 70%, for an overall condition rating of 75% or "good".

Live twig density and extension is moderate to good.

The canopy extends some 15 feet southward past the 1511 Van Dusen property line, with the majority of the extended limbs located at 20 to 25 feet elevation above grade. The new 2nd story roofline will encroach to roughly 16 or 18 feet from the trunk of this tree.

One (1) 6" diameter limb extends southward at +/- 23 feet elevation, and is roughly horizontal in form. This is really the only limb in contention that might require pruning. Even if the entire limb were to be removed at its attachment point on the mainstem, that 6" diameter cut and the removal of that biomass would not significantly cause a decline in the tree's structure or health.

The presence of the existing property line fence (wooden) will act as a de-facto Root Protection Zone (RPZ) barrier during construction on the 1511 Van Dusen property. The trunk edge is roughly 6 to 7 feet northward offset from the property line fence, which means that all of that root zone between the trunk edge and south to the property line is protected by the presence of the fence, and will continue to be protected during construction if the fence remains as-is during site work.

Oak 52 is a California valley oak (*Quercus lobata*) measuring an estimated 30 inches diameter at 4.5 feet above grade (there was not access to the trunk due to the Caltrans property line chain link fence).

The tree stands approximately 55 feet in height, with a canopy spread of roughly 60 feet total diameter that is somewhat evenly distributed in terms of extension.

On scales from zero to 100% each, this tree rates out with a health rating of 70% and a structural rating of 65%, for an overall condition rating of 70% or "good".

The tree is out of leaf for winter, but given the existing twigs and buds visible from the ground, the live twig density and extension appears to be moderate.

Scaffold limbs and branches measuring 2 to 4 inches in diameter each extend as an eastward canopy system that is approximately 30 total horizontal feet east/northeastward toward the proposed residence and patio work area at elevations of +/- 18 feet above grade, which means that the proposed finish roof elevations will likely clear all of the existing canopy of this tree without any clearance pruning required, even accounting for airspace required for contractors to climb over the rooftops.

The root system is likely extended 50 to 100 feet radius in all directions out from trunk, and is impeded only by foundations such as the existing 1511 Van Dusen residence foundation at approximately 31 feet east from trunk edge. The root system will be severely compromised by both proposed storm drain trenching at 3 to 4 feet offset from trunk edge, and by proposed patio foundation excavation 14 inches cut depth plus additional compaction of the subbase which is shown on the applicant's grading and drainage plan at 5 to 6 horizontal feet of the trunk edge. Both of these impacts will need to be

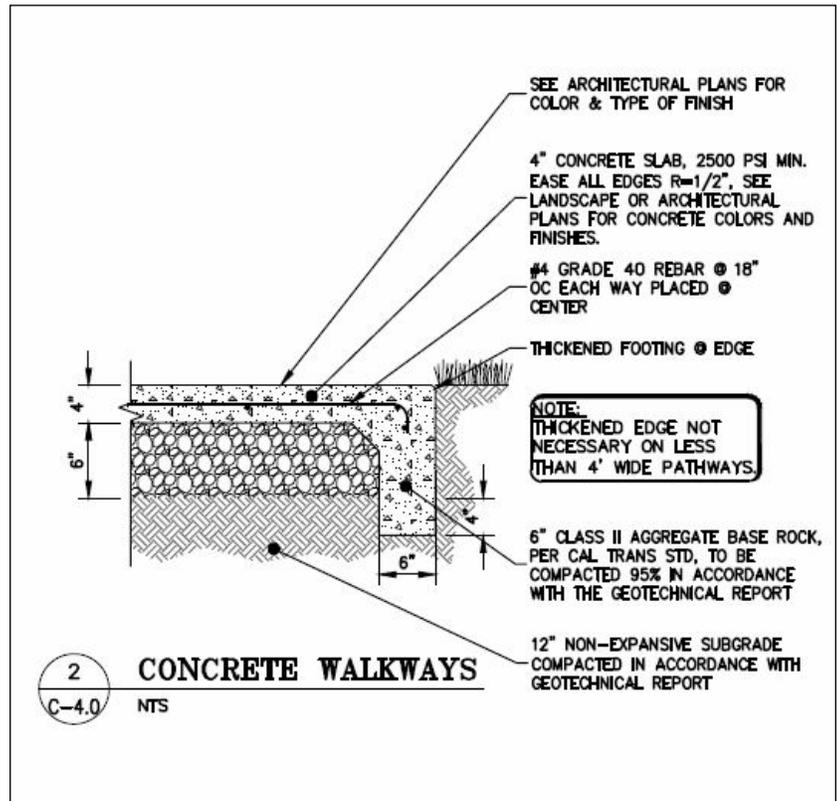
mitigated through either eliminating the items, moving the items, or using alternative methods/materials to float the work above grade as “no-dig” type construction, which is detailed below in the Recommendations section of this report.

Critical Root Zone Calculation

Critical Root Zone (CRZ) has been formally established internationally as of 2017 as “6 X diameter” in terms of an appropriate construction offset distance from the trunk edge of a tree.¹ Although it is not clarified in the text, WLCA assumes that the authors of this CRZ calculation assumed that a subject tree would be impacted around all sides of the trunk. However, on most construction projects, only one or two sides of a tree are typically impacted by new work. Therefore, it is possible that some leniency can be allowed in terms of construction encroachments into the CRZ offset distance from trunk edge.

The CRZ for oak 52 is calculated by WLCA to be 6 X (est. diameter of 30 inches) = a construction offset of 15 feet from trunk edge, measured as horizontal along grade. This means that the proposed residence addition, the proposed patio, and the proposed storm drain pipe trench route will all encroach within this CRZ if built as currently shown on the applicant’s sheet C2.0 grading and drainage plan. The proposed residence addition corner distance at 13 feet from trunk edge is acceptable to WLCA. However, the storm drain and patio construction offsets are so minimal that those items are deemed “severe impacts” to oak 52, and will either have to be eliminated or redesigned to mitigate impacts to a minor or moderate level of impact to oak 52. Refer to recommendations below in this report for details of how to achieve storm drain and patio construction impact mitigation.

Below Right: Snippet of detail 2 on applicant’s page C4.0 showing the footing to be used for both the proposed walkways and the proposed rear yard patio of concern due to its location in close proximity to rear yard oak 52.



¹ 2017. *Root Management*. A Best Management Practices handbook accompanying the ANSI A300 standards for tree care operations. International Society of Arboriculture press.

Recommendations

1. Storm Drain Proposed (see WLCA map magenta highlighted area):

Option a: Tightline the new storm drain against the southwest corner of the proposed new residence footprint to keep it at least 12 feet or more offset distance from the trunk edge of oak 52.

Option b: Eliminate the sections of storm drain, area drain, downspout drain, etc. within 12 or 13 feet of the oak 52 trunk edge.

Option c: Use a directional bore machine to install drain lines without cutting a trench.

2. Patio Proposed & Walkway Proposed (see WLCA map yellow highlighted area):

Option a: Eliminate the patio completely, such that the entire open soil area between the Caltrans fence and the new proposed residence southwest corner at 13 feet from trunk edge of oak 52 is retained as unadulterated soil root zone.

Option b: Push the proposed patio footprint to farther distance from the trunk edge of oak 52, such that there is roughly a 12 to 13 foot minimum offset distance between the patio edge and the oak 52 trunk edge.

Option c: Change the proposed construction spec for the patio foundation and walkway foundation such that it becomes a floating over-grade "no dig" type system per the sample spec on page 6 below. In order to allow for the entire baserock base section to be placed over existing soil grade with no compaction of the parent soil and no excavation prep, a geogrid of high quality and high load bearing spec will need to be utilized, such as **Tensar TriAx TX140 triaxial geogrid**, available locally from Dan Toda of Reed and Graham geosynthetics sales in their San Jose California office:

Dan Toda, geosynthetics sales
Reed and Graham
dan@rginc.com
(408) 425-3013

The geogrid layer is placed directly over the soil surface with no compaction prep, and baserock is then laid directly over the geogrid and tamped down before installing the finishing treatments. Construction proceeds as standard once the baserock is laid down over the grid.

WLCA has used this product on numerous parking lot, walkway, and driveway construction situations in the Bay Area over the last two years, including throughout Stanford University, Palo Alto, CA (see photos below on page 5, showing installs at Stanford (right) and a private residence driveway (left) in 2019).

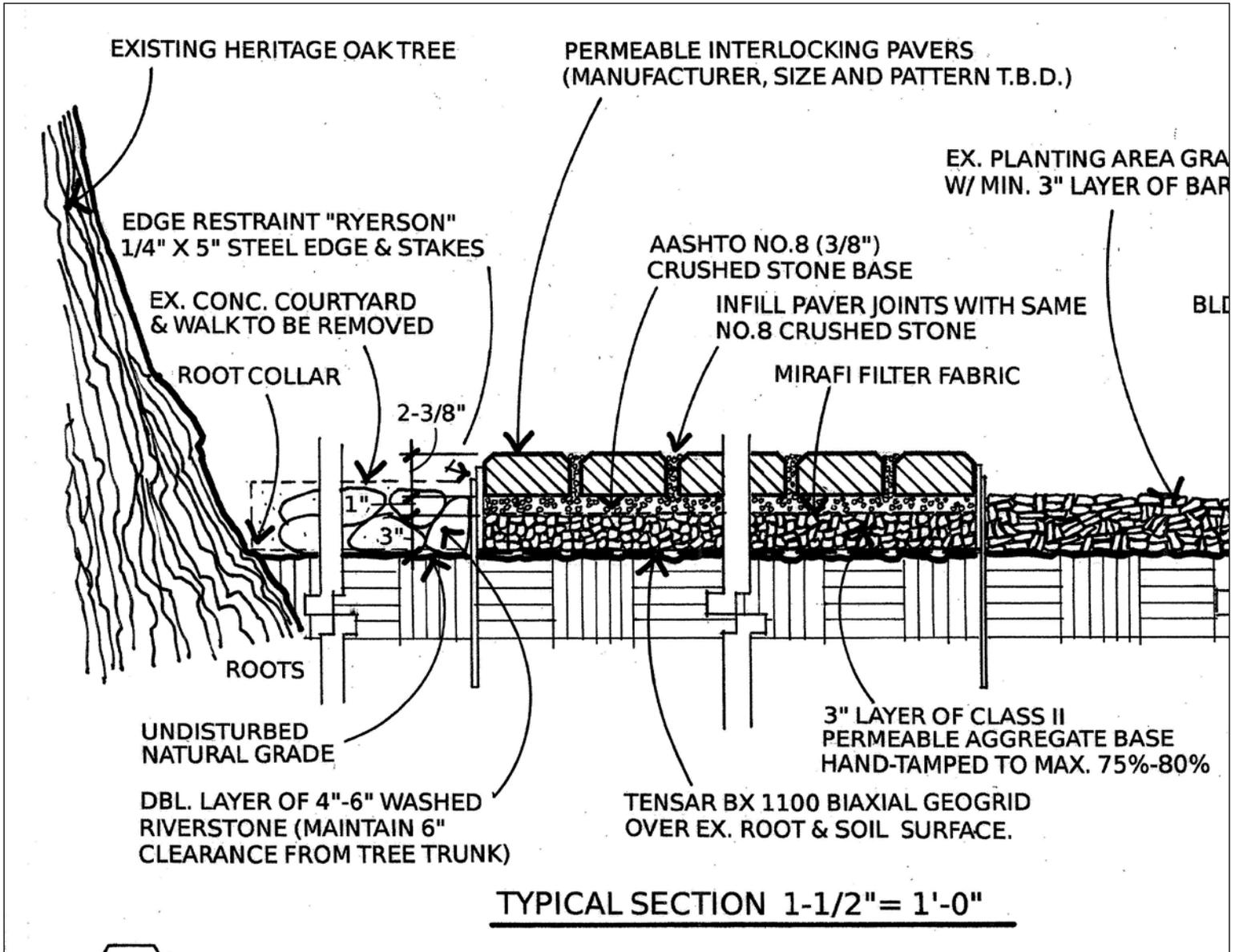
Important Note on Edging Treatments:

For edging restraints along the sides of a geogrid project where a geogrid is being installed and root zone is being preserved directly underneath the grid, all siding (edging) has to be poured as concrete that is flush in elevation with the geogrid, otherwise the tree root preservation aspect of the project will be nullified (i.e. keep all concrete perimeter work shallow with zero-cut. Simply pour it at grade with no excavation below existing soil surface).



Above left: Menlo Park driveway underlayment of Tensar TriAx TX140. The tree root systems being preserved are all at the left side of the image. The left side of driveway was set with baserock and pavers over this geogrid, and was allowed to remain without any edging restraints, in order to avoid cutting downward into the root system of the trees.

Above right: Stanford University Comstock parking lot using underlayment of Tensar TriAx. The curbs are all shallow cut with almost zero depth of excavation below grade. The curb bases are all poured at the elevation of the TriAx geogrid.



Above: Spec (copyrighted) for use at a local Palo Alto construction site where zero-cut (no-dig) spec was required to preserve a very large oak specimen in close proximity to the proposed new paver walkway project.

Note: the "Ryerson steel edge & stakes" are placed over grade with zero inches of cut into the ground. The lines running vertically downward into the ground in this side cut detail image are only small diameter steel landscape pins that hold the Ryerson steel edging in place.

3. Tree Protection Fencing:

- a. Set chain link fence panels on moveable concrete footings (per locations not yet determined as of the date of writing), prior to starting any demolition of the existing older concrete pads in the rear yard. See photo at right for a sample of how to set up the fencing.

Note on the tree map markup attached to this report there is no indication of the routing for this root protection zone (RPZ) fence, due to the fact that the current proposed patio and current proposed storm drain routing is within the 13 foot offset area west of the new residence addition that WLCA suggests to be retained as a virgin root zone “no dig” area.



The RPZ protective fence location will ideally be set up at roughly 10 feet minimum northeast of the rear yard property boundary chain link fence, so that a “construction corridor” of roughly 5 feet width is maintained between the RPZ fence and the proposed new residence exterior siding.

4. Pruning & Other Maintenance:

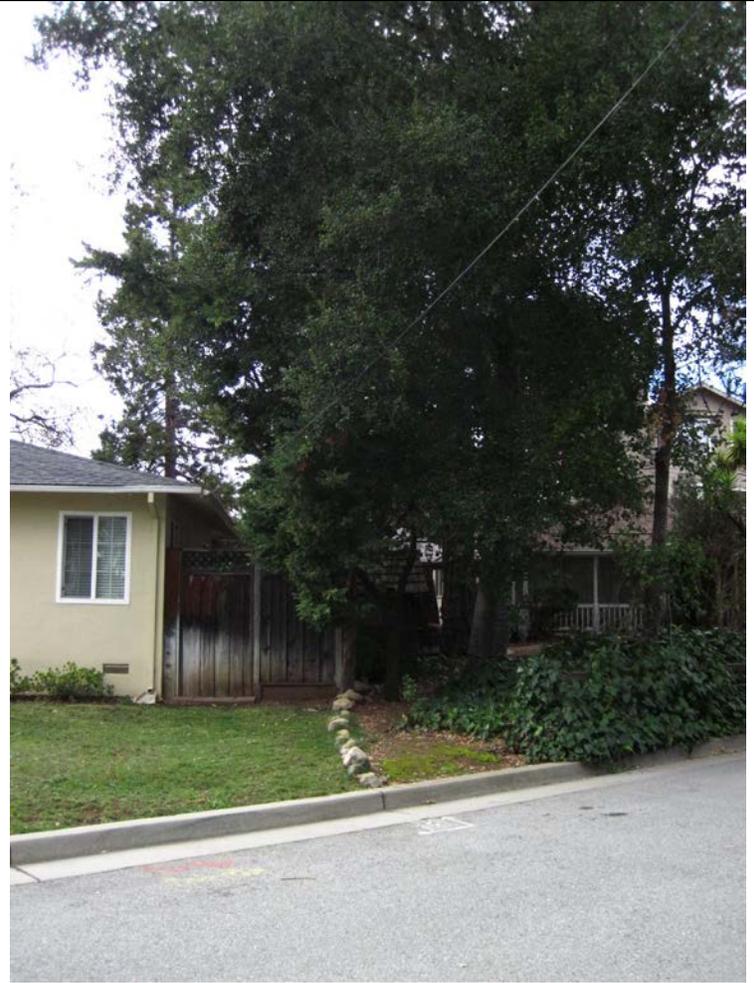
- a. All pruning shall be performed by or under full time site supervision of an ISA Certified Arborist.
- b. All pruning shall conform to ANSI A300 standards for woody plant maintenance / pruning (latest iterations).
- c. No pruning shall be performed on oak 52.
- d. Pruning of the canopy of oak 51 shall be limited (if possible) only to the outermost 5 horizontal feet of the southmost end of the south canopy, and shall consist of pruning cuts less than or equal to 2 inches diameter each.

Digital Images (WLCA) 1/21/2020



Center of image:

Oak 51 viewed from the street in front of the neighboring property (tree owner).



Center of image:

Oak 51 as viewed from the street, looking due west down along the property line separating 1151 Van Dusen (left side of image) from the adjoining property where the tree is located (right side of image).



Center-left portion of image:

Oak 52 viewed looking northwestward.

The existing residence footprint shown at the right edge of the above image is roughly 30 horizontal feet offset from the trunk edge of this tree.

The proposed new residence will encroach to roughly 13 feet offset from trunk edge.



Oak 52 upper elevations of the 55 foot elevation canopy.

This tree is in good overall condition.



Left side of image: Oak 52, looking northwest.

Assumptions and Limiting Conditions

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised and evaluated as through free and clean, under responsible ownership and competent management.

It is assumed that any property is not in violation of any applicable codes, ordinance, statutes, or other government regulations.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

Unless required by law otherwise, the possession of this report or a copy thereof does not imply right of publication or use for any other purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualifications.

This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

Sketches, drawings, and photographs in this report, being intended for visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by engineers, architects, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Walter Levison to the sufficiency or accuracy of said information.

Unless expressed otherwise:

information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection; and the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Loss or alteration of any part of this report invalidates the entire report.

Arborist Disclosure Statement:

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

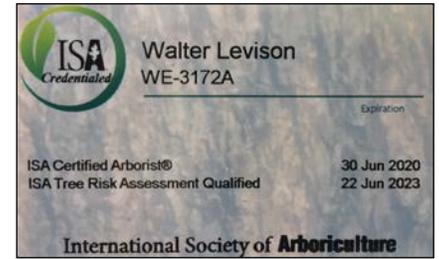
Certification

I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signature of Consultant

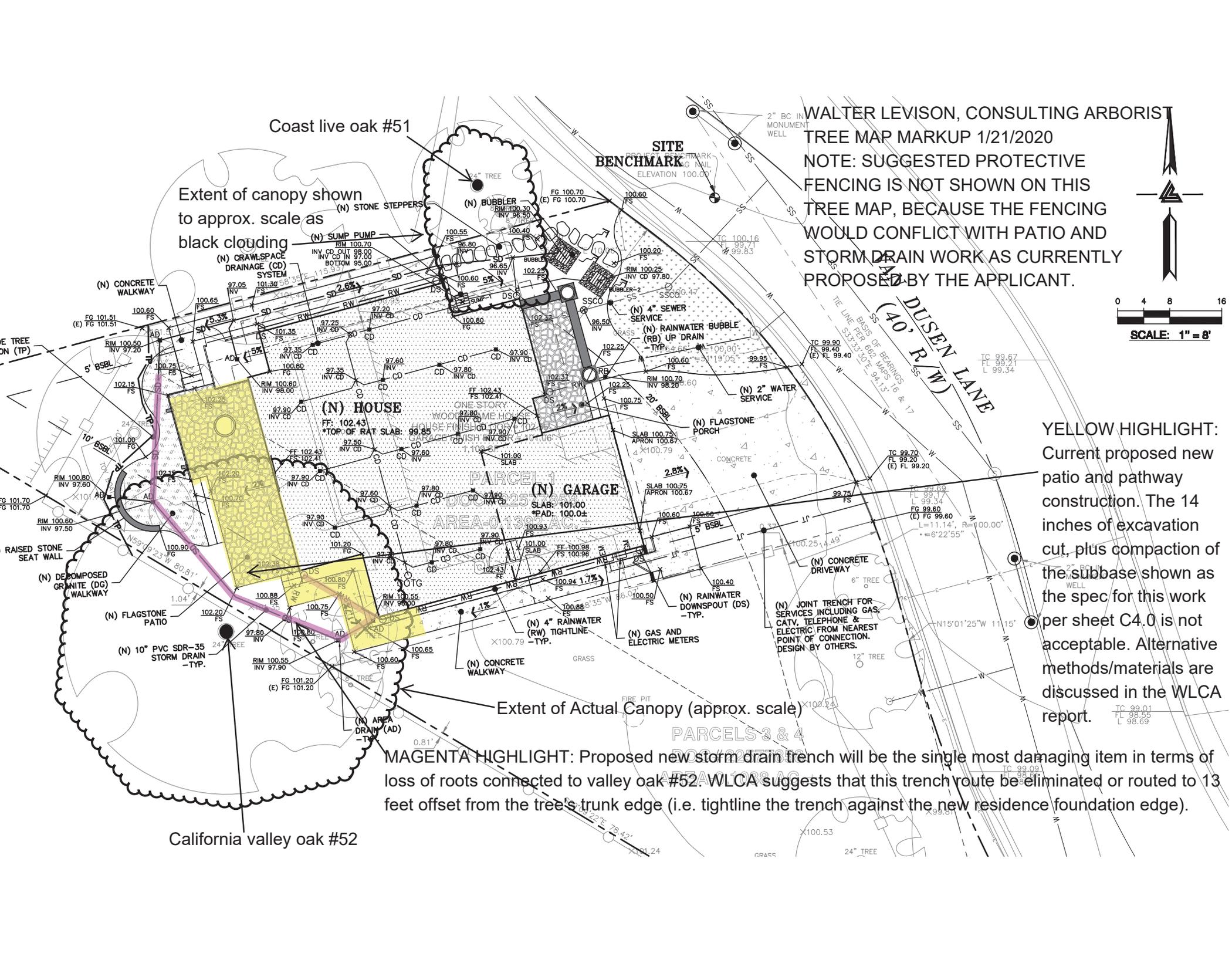


Walter Levison, Consulting Arborist



Attached:

Tree Map Markup (WLCA)



WALTER LEVISON, CONSULTING ARBORIST

TREE MAP MARKUP 1/21/2020
 NOTE: SUGGESTED PROTECTIVE FENCING IS NOT SHOWN ON THIS TREE MAP, BECAUSE THE FENCING WOULD CONFLICT WITH PATIO AND STORM DRAIN WORK AS CURRENTLY PROPOSED BY THE APPLICANT.



Coast live oak #51

Extent of canopy shown to approx. scale as black clouding

SITE BENCHMARK
 MARKING NAIL ELEVATION 100.00'

DUSEN LANE
 (40' R/W)

YELLOW HIGHLIGHT: Current proposed new patio and pathway construction. The 14 inches of excavation cut, plus compaction of the subbase shown as the spec for this work per sheet C4.0 is not acceptable. Alternative methods/materials are discussed in the WLCA report.

Extent of Actual Canopy (approx. scale)

MAGENTA HIGHLIGHT: Proposed new storm drain trench will be the single most damaging item in terms of loss of roots connected to valley oak #52. WLCA suggests that this trench route be eliminated or routed to 13 feet offset from the tree's trunk edge (i.e. tightline the trench against the new residence foundation edge).

California valley oak #52