



AGENDA

Scotts Valley Planning Commission Design Review Meeting

REMOTE ACCESS ONLY

February 24, 2022

Time: 6:00 PM

CITY OF SCOTTS VALLEY 1 Civic Center Drive Scotts Valley, CA 95066 831-440-5635	MEETING LOCATION City Council Chambers 1 Civic Center Drive Scotts Valley, CA 95066 Remote Access Only	POSTING: The agenda was posted on February 24, 2022 at City Hall and on the Internet at www.scottsvalley.org .
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PUBLIC ADVISORY REGARDING COVID-19

On September 16, 2021, Governor Newsom signed Assembly Bill 361 ("AB 361"), an urgency measure effective upon adoption, amending the Brown Act to allow legislative bodies to continue teleconferencing during a proclaimed State of Emergency, and either state or local officials have imposed or recommended measures to promote social distancing, or the legislative body determines that meeting in person would present imminent risks to the health or safety of attendees. In accordance with AB 361, the Scotts Valley City Council adopted Resolution No. 2007.1 on November 17, 2021, authorizing the continued use of teleconferenced meetings pursuant to AB 361. City Council and City Staff Members will be participating remotely via videoconference.

Public Participation

The meeting will be available on Zoom. For those wishing to participate via Zoom, you can join from a PC, Mac, iPad, iPhone or Android device by entering or clicking on the following URL: <https://us02web.zoom.us/j/88671741298>

You will be given an opportunity to provide public comment at the appropriate times throughout the meeting via Zoom.

How to comment via Zoom:

1. At the appropriate times during the meeting for public comment on items not on the agenda and on specific agenda items, the Planning Commission Chair will announce that public comment will be accepted. Our usual time limits of three minutes per individual, or five minutes for an individual who is representing a group of three or more, will apply. Please note that per our standard practice, this is not a question and answer time, but simply a time for you to provide comments to the Planning Commission.
2. There is an option on Zoom to raise your hand. Please click on this option when the Chair announces that public comments will be taken. If you are participating via dial-up only, use *9 to raise your hand at the requested time. Zoom places

people in line automatically. When it is your turn, you will be un-muted and you will be able to make your comments based on the above time frames. Once your time is up, you will once again be muted and the next person in line will be given their opportunity to speak.

Appointed Officials	City Staff Members
Lori Gentile, Vice Chair David Hodgin, Commissioner Chuck Maffia, Commissioner Steven Horlock, Commissioner Shawn Mosley, Commissioner	Taylor Bateman, Community Development Director Olivia Beers, Assistant Planner Scott Harriman, Contract Planner

Notice regarding Planning Commission Meetings:

The Planning Commission meets regularly on the 2nd Thursday of each month (unless otherwise noticed) at 6pm in the City Hall Council Chambers located at 1 Civic Center Drive, Scotts Valley, CA 95066. Currently meetings are being held remotely.

Agenda and Agenda Packet Materials:

The Planning Commission agenda and the complete agenda packet are available for review by 5pm the Friday before the Thursday meeting on the Internet at the City's website: www.scottsvally.org/AgendaCenter. City Hall is closed to the public therefore, the agenda is only available for viewing online.

CALL TO ORDER

(The Planning Commission Chair calls the meeting to order.)

ROLL CALL

(Planning Department staff conduct roll call of the Planning Commission.)

PUBLIC COMMENT TIME

This is the opportunity for individuals to make and/or submit written or oral comments to the Commission on any items within the purview of the Commission, which are NOT part of the Agenda. No action on the item may be taken, but the Commission may request the matter be placed on a future agenda.

ALTERATIONS TO CONSENT AGENDA

(The Commission can remove or add items to the Consent Agenda.)

CONSENT AGENDA

(The Consent Agenda is comprised of items which appear to be non-controversial. Persons wishing to speak on any items may do so raising their hand to be recognized by the Chair. These items will be acted upon in one motion unless they are removed from the consent agenda for discussion by the Commission.)

ALTERATIONS TO PUBLIC HEARING AGENDA

(Commission can remove or add items to the Regular Agenda.)

PUBLIC HEARING AGENDA

(Persons wishing to speak on any item may do so by raising their hand to be recognized by the Chair.)

ALTERATIONS TO REGULAR AGENDA

(Commission can remove or add items to the Regular Agenda.)

REGULAR AGENDA

(Persons wishing to speak on any item may do so by raising their hand to be recognized by the Chair.)

1. **Location:** Blue Bonnet Lane / APN 022-212-23 (Lot A - MLD 18-002)
Planning Permit Application: DR22-001, TR22-006
Applicant & Property Owner: Bobby and Missy Paul
Project Description: Design Review of a new single-family home on an existing residential lot, including tree removal permit.
Staff Planner: Scott Harriman, Contract Planner, sharriman@rqs.ca.gov
2. **Location:** Blue Bonnet Lane / APN 022-212-24 (Lot B - MLD 18-002)
Planning Permit Application: DR22-002, TR22-007
Applicant & Property Owner: Bob and Carrie Paul
Project Description: Design Review for a new single-family home on an existing residential lot, including tree removal permit.
Staff Planner: Scott Harriman, Contract Planner, sharriman@rqs.ca.gov

DISCUSSION ITEMS AND FUTURE AGENDA ITEMS (The Planning Commission or Community Development Director may request to schedule items on future agendas.)

WRITTEN COMMUNICATIONS – FOR INFORMATION ONLY DIRECTOR UPDATES

(The Community Development Director may provide any department or city updates that are available.)

ADJOURNMENT

(Adjournment shall be no later than 11pm unless extended by a four-fifths vote of all Planning Commission members or a unanimous vote of the members present per City Municipal Code Section 2.21.010.)

The City of Scotts Valley does not discriminate against persons with disabilities. The City Council Chambers is an accessible facility. If you wish to attend a Planning Commission meeting and require assistance such as sign language, a translator, or other special assistance or devices in order to attend and participate at the meeting, please call the Community Development Department at 831-440-5630 five to seven days in advance of the meeting to make arrangements for assistance. If you require the agenda of a Planning Commission meeting be available in an alternative format consistent with a specific disability, please call the Community Development Department. The California State Relay Service (TTY/VCO/HCO to Voice: English 1-800-735-2929, Spanish 1-800-855-3000; or, Voice to TTY/VCO/HCO: English 1-800-735-2922, Spanish 1-800-855-

3000), provides Telecommunications Devices for the Deaf and Disabled and will provide a link between the TDD caller and users of telephone equipment.

City of Scotts Valley
PLANNING COMMISSION
STAFF REPORT

Date: February 24, 2022

**Applicant /
Property Owner:** Bobby and Missy Paul

Applications: DR22-001, TR22-006

Location: Blue Bonnet Lane, APN 022-212-23, Lot A of MLD18-002

General Plan / Zoning: R-H, High Density Residential

Environmental Status: Exempt, Class 3

Request: Design Review approval of a new single-family home on an existing residential lot, including tree removal permit.

Staff Planner: Scott Harriman, Consulting Planner, (650) 587-7300 x66
sharriman@rgs.ca.gov

STAFF RECOMMENDATION

Staff recommends that the Planning Commission approve the proposed project based on findings and conditions contained in the attached Resolution and Exhibit A.

SITE AND PROJECT DESCRIPTIONS

The project proposes construction of a new single-family home on a vacant 7,230 square foot parcel (60' x 120.5') located on Blue Bonnet Lane. The project site is designated Lot A as part of Minor Subdivision MLD18-002, approved in 2018.

The project proposes construction of a new two-story, single-family home with a second floor accessory dwelling unit (ADU), driveway and landscape improvements. The proposed structure includes a primary residence of 3,138 square feet; 750 square foot ADU over the garage; and an 828 square foot garage. The total enclosed area of the structure is 4,716 square feet. Open (covered) porches are proposed at the front entry and rear yard patio.

Public utilities are available to the site including sanitary sewer, water from Scotts Valley Water District and gas and electric from Pacific Gas and Electric.

PROPOSED ENTITLEMENTS

The project requires the following planning permits:

1. Design Review – Architectural and site plan review is required for construction and alteration of structures in the High Density Residential zoning district pursuant to Municipal Code Section 17.10.050.
2. Tree Removal Permit – Two protected trees would be removed.

Each of these requested entitlements and the project's compliance with General Plan and Zoning standards are discussed below.

DISCUSSION AND ANALYSIS

The following section provides an analysis of the relevant general plan and zoning standards, requested development entitlements and environmental conditions associated with the proposed project.

GENERAL PLAN: The project site is designated R-H, High Density Residential in the General Plan. The development of the densities in high density neighborhoods has been guided by the topography, geology, vegetative cover, access to transportation and service facilities. Single and multi-family dwellings are consistent within High Density general plan areas. The proposed single-family home (and ADU) is consistent with the General Plan.

ZONING: The project site is in the R-H, High Density Residential zoning district. Single-family and multi-family dwellings are permitted in the R-H, with an allowed density of one unit for each 3,000 square feet of lot area. The following Zoning Compliance Table provides the required R-H zoning standards, the projects proposal, and its compliance.

Zoning Compliance Table – Blue Bonnet Lot A (APN 022-212-23)			
R-H, High Density Residential			
	Standard	Proposed	Compliance
Density	1 unit/3,000 sq. ft. of lot area 7,230/3,000=2.41, 2 units	1 (Note: ADUs do not count toward density per State law)	Yes
Setbacks - Front	20' min	25'	Yes
- Side	10% of lot width min, 10' max 60' lot width = 6' min	6'	Yes
- Rear	20% of lot depth min, 25' max 120.5' lot depth = 24.1' min	25'	Yes
Height	35'	30'	Yes
Site Coverage	55%	39.5%	Yes
Parking	2-car garage +1 guest (driveway) 1 space (driveway) for ADU	2+ car garage +2 driveway spaces	Yes

As shown in the Table above, the proposed home meets the R-H, High Density Residential development standards.

ACCESSORY DWELLING UNIT: The project proposes a 750-square foot ADU above the garage. The proposed ADU conforms to state law and does not count toward density. ADUs, pursuant to adopted state law, are ministerial in nature (i.e. not subject to discretionary review

such as conditional use permit). Therefore, the design review is limited to single-family dwelling structure and not the ADU.

DESIGN REVIEW: Architectural and Site Plan Design Review is required for all new structures in the R-H, High Density Residential zoning district subject to design criteria specified in Section 17.50.030. The Design Review process requires review for all structures by the Planning Commission. The Design Review process is established to carry out the objectives of the City's General Plan and related zoning regulations and to ensure that permits for construction will be carried out in a manner which is not detrimental to the surrounding uses and is consistent with the overall planning goals of the city.

Required Findings: The Planning Commission shall determine from data submitted whether the proposed building, structure or other improvement will meet the design standards prescribed in Section 17.50.030(D).

Required design standards and an analysis of how the project complies are shown below:

1. The siting of any structure on the property as compared to the siting of other structures in the immediate neighborhood;

Response: The proposed home would be situated on an existing 7,230 square foot parcel. The proposed home meets all R-H, High-Density Residential zoning standards and is consistent with the residential character within the surrounding area. As proposed, the single-family home is suited to the property, neighborhood setting, and zoning context.

2. Materials, colors, proportion, mass and detail. All structures shall be in good proportion, have simplicity of mass and detail and be compatible in appearance with surrounding structures. There shall be an appropriate use of materials; colors shall be appropriate within the context of use and should blend with surrounding structures;

Response: The project proposes exterior finishes including Hardie board horizontal lap siding base, white vertical board and batt siding on upper areas; dual glaze windows and wood trim; dark grey 40-year composition shingles on roof areas; stone entry; and black standing seam aluminum shed roofs to accent front and side elevations. The proposed materials, colors and mass and detail are in good proportion, provide interest on all elevations, and are consistent with the context of the surrounding areas.

3. Landscaping and irrigation plans shall be required on the site. Landscaping shall be in keeping with the character or design of the building. Existing trees shall be preserved wherever possible.

Response: The project proposes front and rear yard landscaping and automatic irrigation system throughout the site. A variety of plant materials are proposed including succulents, tall shrubs and two 15-gallon crepe myrtle trees. Conditions of approval require compliance with the City's tree preservation ordinance and the project Arborist Report dated September 18, 2021.

4. The size, location and arrangement of on-site parking and paved areas;

Response: The project provides a conventional, 18-foot wide, paved driveway leading to an over-sized (39' deep by 23' wide) two-car garage. The driveway provides the required 20-foot depth from the garage to the public sidewalk. The two proposed tandem driveway spaces and two garage parking spaces comply with on-site parking standards for the single-family home and accessory dwelling unit.

5. Ingress, Egress and Internal Traffic Circulation. All the above factors shall be related to the setting or established character of the neighborhood or surrounding area.

Response: Vehicular access to the residential site occurs through a conventional residential driveway in compliance with city standards and consistent with the neighborhood character.

6. Height and access to sunlight, setbacks, landscaping and use of materials for articulation and visual relief for fences and walls over eight feet tall or fences over three feet tall in front yards when across from Highway 17.

Response: The project site is not in the vicinity of highway 17. However, project does not propose fences over eight feet in height. As proposed, all fences and retaining walls are within and adjacent to landscaped areas with plants and shrubs to visually soften the appearance of walls and fences.

Tree Removal Permit: An Arborist Report, dated September 18, 2021, prepared by Kurt Fouts (ISA Certified Arborist WE0681A) is included as Attachment 3. Project proposes to remove two protected trees as part of development of the site; a 21" honey locust and a multi-trunk elm tree. Both trees are identified as having poor to fair health ratings and would be impacted by the proposed development of the site.

Two coast redwood trees, on an adjacent property to the south, overhang the subject parcel, listed in fair to good condition, would be preserved. The arborist report recommends tree protection measures, including installing protective fencing and hand grading within the protection zone. The arborist report provides an appraised valuation of \$20,000 for these two trees.

The proposed landscape plan shows two new 15-gallon crepe myrtle trees to be planted in the front yard along with other low shrubs and ground cover. The city's tree preservation ordinance allows for the removal of protected trees impacted by construction, requiring replacement on a two replacement trees for each tree removed. Removal of two protected trees would require a minimum of four, 15-gallon, replacement trees. Payment into the City's tree fund is an option if the site is not of sufficient size to accommodate the required number of replacement trees. The current tree mitigation fee is \$45 per tree not replaced on site.

Conditions of approval in the attached resolution require the applicant to comply with the City's Tree Preservation Ordinance and recommendations contained in the project arborist report, including but not limited to, establishing a tree protection zone, installing protective fencing, hand digging within that area, replanting or payment into City tree fund, and filing a Tree Protection security deposit (surety bond), for the two offsite redwood trees in the value of \$20,000, prior to obtaining Building Division permits.

ENVIRONMENTAL DETERMINATION

The project is exempt from CEQA pursuant to Section 15303, Class 3, New Construction or conversion of small structures.

PUBLIC NOTICE & COMMENT

A Notice of Proposed Development was posted on site. As of the date of this staff report no comments have been received on the proposed development.

FINDINGS AND CONCLUSION

Staff finds that the project’s site and architectural plans respond appropriately to the site and surrounding area and recommends that the Planning Commission approve the Design Review application and Tree Removal Permit subject to findings and conditions contained in the attached Resolution and Conditions of Approval.

ATTACHMENTS

1.	Draft Resolution and Conditions of Approval	006
	a. Fire District Letter	
	b. Water District Letter	
2.	Location Map.....	019
3.	Project Plans	020
4.	Arborist Report	040

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SCOTTS VALLEY APPROVING DESIGN REVIEW (DR22-001) AND TREE REMOVAL PERMIT (TR22-006), FOR A NEW SINGLE-FAMILY HOME AND RELATED SITE IMPROVEMENTS, SUBJECT TO CONDITIONS OF APPROVAL, LOCATED ON BLUE BONNET LANE / APN 022-212-23 / Lot A of MLD18-002

WHEREAS, the City of Scotts Valley has received an application for Design Review from Bobby and Missy Paul, property owners, to construct a new two-story single-family home and related site improvements on an existing vacant parcel on Blue Bonnet Lane, Lot A of MLD18-002, as shown on project plans on file with the Planning Department / APN 022-212-23; and

WHEREAS, the applicant has presented substantial evidence which supports the application; and

WHEREAS, the application has been reviewed for compliance with the California Environmental Quality Act ("CEQA"), and found to be exempt pursuant to Section 15303, Class 3; and

WHEREAS, the Planning Commission held duly published and noticed hearing on February 24, 2022, to review and consider the proposed development and the requested planning permits (entitlements), hear public testimony; and

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Scotts Valley ("Commission"), that the Commission hereby approves Design Review DR22-001 and Tree Removal Permit TR22-006:

SECTION 1: Approve Design Review based on the following findings, subject to Conditions of Approval (Exhibit A) attached hereto and incorporated herein:

1. ***The siting of any structure on the property as compared to the siting of other structures in the immediate neighborhood is appropriate.*** The proposed home would be situated on an existing 7,230 square foot parcel. The proposed home meets all R-H, High-Density Residential zoning standards and is consistent with the residential character within the surrounding area. As proposed, the single-family home is suited to the property, neighborhood setting, and zoning context.
2. ***The materials, colors, proportion, mass and detail of all structures shall be in good proportion, have simplicity of mass and detail and be compatible in appearance with surrounding structures. There shall be an appropriate use of materials. Colors shall be appropriate within the context of use and should blend with surrounding structures.*** The project proposes exterior finishes including Hardie board horizontal lap siding base, white vertical board and batt siding on upper areas; dual glaze windows and wood trim; dark grey 40-year composition shingles on roof areas; stone entry; and black standing seam aluminum shed roofs to accent front and side elevations. The proposed materials, colors and mass and detail are in good

proportion, provide interest on all elevations, and are consistent with the context of the surrounding areas.

3. ***Landscaping and irrigation plans shall be required on the site. Landscaping shall be in keeping with the character or design of the building. Existing trees shall be preserved wherever possible.*** The project proposes front and rear yard landscaping and automatic irrigation system throughout the site. A variety of plant materials are proposed including succulents, tall shrubs and two 15-gallon crepe myrtle trees. Conditions of approval require compliance with the City's tree preservation ordinance and the project Arborist Report dated September 18, 2021, incorporated herein by reference.
4. ***The size, location and arrangement of on-site parking and paved areas shall be appropriate.*** The project provides a conventional, 18-foot wide, paved driveway leading to an over-sized (39' deep by 23' wide) two-car garage. The two proposed tandem driveway spaces and two garage parking spaces comply with on-site parking standards for the single-family home and accessory dwelling unit.
5. ***For ingress, egress and internal traffic circulation, all the above factors shall be related to the setting or established character of the neighborhood or surrounding area.*** The project meets the requirement of this finding in that vehicular access to the residential site occurs through a conventional residential driveway in compliance with city standards and consistent with the neighborhood character.
6. ***For fences and walls over eight feet tall or fences over three feet tall in front yards when across from Highway 17, consider height and access to sunlight, setbacks, landscaping and use of materials for articulation and visual relief.*** The project site is not in the vicinity of highway 17. However, project does not propose fences over eight feet in height. As proposed, all fences and retaining walls are within and adjacent to landscaped areas with plants and shrubs to visual soften the appearance of walls and fences.

NOW THEREFORE, BE IT RESOLVED that, after careful consideration of the application and related materials, plans, maps, facts, exhibits, staff report, testimony and other evidence submitted in this matter, and incorporated herein by this reference, the Planning Commission of the City of Scotts Valley approves Design Review (DR22-001) and Tree Removal Permit (TR22-006) for a new single-family home and related site improvements on Blue Bonnet Lane / APN 022-212-23 / Lot A of MLD18-002 subject to Conditions of Approval (Exhibit A), and project development plans which are attached hereto and incorporated herein by this reference.

THE ABOVE AND FOREGOING RESOLUTION was duly and regularly passed by the Planning Commission of the City of Scotts Valley at a meeting held on the 24th day of February 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Approved: _____
Name
Planning Commission Chair

Attest: _____
Taylor Bateman
Community Development Director

Exhibit A
February 24, 2022
Conditions of Approval
Lot A Blue Bonnet Lane / APN 022-212-23
(#1 - #60)

Legal

1. The developer has agreed to and shall defend, indemnify and hold harmless the City of Scotts Valley, its officers, agents and employees from any claim, action or proceeding against the City or its officers, agents or employees to attach, set aside, void or annul any action of the City in connection with approvals under the California Environmental Quality Act or with respect to approval of the project, which action is brought within the time period(s) prescribed by law. The City shall promptly notify the developer of any such claim, action or proceeding and shall fully cooperate in defense.
2. The developer/applicant shall sign the Conditions of Approval agreeing to the Conditions of Approval prior to issuance of any grading/building permits, transfer of title, or within 30 days of approval of these planning permits, whichever occurs first.
3. The developer shall obtain all required grading, improvement plans, and building permits; and pay all appropriate required fees before starting any grading/earth disturbance on the property.

Planning Department

4. The home and site improvements shall be constructed substantially as shown in the plans prepared by Architect Name, which are on file in the Planning Department.
5. All site improvements shall be in conformance with the plans stamped approved, unless otherwise conditioned in this Exhibit to the satisfaction of the Community Development Director (CDD) and City.
6. Any future changes to the approved plans that the developer and/or other reviewing agencies initiate and/or propose, shall require prior review and approval by the City Community Development Department (CDD) and CDD confirmation regarding the level of environmental review and planning permits. As determined by the CDD, minor changes may be approved by the CDD while major changes may require review and approval by the Planning Commission and/or City Council, paid by the developer.
7. The accessory dwelling unit shall comply with all applicable State laws.
8. At no time shall either the primary or accessory dwelling unit be rented on a short term basis.

Archeological Resources

9. The applicant and construction contractor shall ensure that archeological resources are not destroyed during project grading.

10. The developer shall submit a copy of a contract with a qualified/registered archeologist to conduct monitoring of all earth disturbing activities for review and approval by the Community Development Director, before grading permit issuance. The developer shall include this requirement in the contract for all contractors involved with grading and subsurface work.
11. The qualified/registered archeologist shall monitor all earthwork activities.
12. The applicant/contractor shall provide the project archeologist with a copy of the final grading plans for review prior to any project grading.
13. Provide for daily monitoring during grading activities by the project archeologist to determine if archeological resources are encountered in excavated areas.
14. Allow for the recovery of any discovered archeological resources according to a recovery plan and methods specified by the project archeologist, including the donation of the recovered resources to a suitable repository (museum, school, etc.).
15. If recovery occurs, ensure that the project archeologist prepare a recovery report that details the type of resources recovered and the repository locations where they were taken.
16. Specify in the construction contract with the project grading contractor(s), that grading personnel are to cooperate with and assist the project archeologist during monitoring and any recovery activities, including assisting with recovery efforts if necessary.

Trees

17. The applicant/owner shall comply with the City's Tree Preservation Ordinance and all recommendations contained in the project Arborist Report prepared by Kurt Fouts, ISA Certified Arborist, dated September 18, 2021, revised date February 15, 2022, including but not limited to, establishing a tree protection zone, installing protective fencing, hand digging within that area, replanting or payment into City tree fund, and filing a Tree Protection security deposit (surety bond), for the two offsite redwood trees in the value of \$20,000, prior to obtaining Building Division permits.
18. The project is responsible for the replacement of four (4), 15-gallon trees as a result of the proposed removal of two trees (2:1 replacement ratio). The developer shall make payment into the City's in-lieu tree replacement fund for the number of trees that are not replaced on-site following acceptance by the City of the final tree replacement plan.
19. No tree removals shall occur until a grading and/or building permit is issued.
20. Prior to the issuance of any grading or building permits, the project arborist shall inspect tree protection fencing and the completion of pre-construction treatments.
21. The project arborist shall routinely inspect the development site through the term of the project.

Landscaping

22. The landscaping improvements shall be install per approved plans and shall be permanently maintained and irrigated with an automatic irrigation system.

Lighting

23. Exterior light levels are to be at the lowest level and carefully controlled for security, aesthetics, safety and identification without interfering with nearby land uses.
24. All exterior building lighting shall be designed to integrate into the building architecture with shielded and recessed light sources with final light fixture approval prior to the issuance of any building or grading permit.

Building Department

25. The developer shall obtain any required grading and/or building permit(s) and pay applicable fees.
26. All contractors on site shall limit their work to 8:00 A.M. to 6:00 P.M. on weekdays; 9:00 A.M. to 5:00 P.M. on Saturday; and no construction on Sunday.
27. If gasoline generators are used, they shall be contained in an enclosure that prevents their noise from being heard at adjacent properties.
28. A sign shall be posted on-site during all construction activities identifying the name and contact phone number of the primary general contractor to be notified of any disturbances or excessive noise emanating from the site.
29. Winter grading, from October 15th to April 15th, shall require prior review and approval by the City.
30. The location of all soil to be exported shall be reviewed and approved by the Building Department prior to issuance of a grading or building permit.
31. The developer shall pay all applicable City development impact fees before grading and/or building permit issuance.
32. The developer shall pay school impact fees to the Scotts Valley Unified School District before building permit issuance.
33. All trades of electrical, plumbing and mechanical will be issued under one building permit for said project (General Contractor permittee).
34. All buildings shall be designed to comply with the current codes in effect at the time of building permit issuance.
35. The building permit plans must comply with the current California Building Code (CBC) for water-conserving fixtures and fittings and with the CA Energy Commission Building Energy Efficiency Standards, which includes energy-saving fixtures and appliances to be used throughout the building.

36. All structures shall comply with the most current California Energy Commission Standards (Title 24).
37. All new construction shall comply with the City's current Green Building Guidelines, which requires various low-impact-development and resource efficient techniques, to the satisfaction of the CDD.
38. Structural calculations, if applicable, shall be submitted and wet-signed by the Engineer of record.
39. Provide names of Special Inspectors with certifications as required.
40. A soils report by a qualified geologic engineer shall be submitted with the application for any building permits.
41. All new utilities shall be installed underground.
42. The developer shall comply with the City's standard erosion control measures. The plans submitted for a building permit must include best management practices (e.g. erosion control practices and procedures) during construction, which include complying with Regional Air Quality Control Board emissions for construction equipment.
43. Site drainage erosion control and foundation plans must be reviewed and approved by a soils engineer.
44. The developer shall submit a plan review letter from the project Geotechnical Engineer confirming that the construction documents comply with the project geotechnical engineer's recommendations.
45. To ensure that City requirements are met, the developer shall specify to the Building Official the off-site disposal location of any exported soil material at a pre-construction meeting or before grading permit issuance. If the disposal site is located outside the City, the site shall be a legal facility such as a licensed landfill or permitted fill site.
46. Developer shall submit a plan showing temporary (during construction) and permanent erosion control measures to the Regional Water Quality Control Board (RWQCB), the agency that administers NPDES, and the City Building Department for review and approval.
47. A hazardous material containment plan shall be approved by City Building staff prior to commencement of land alteration and construction activities for the project. The plan shall contain the following elements:
 - A. Stationary equipment such as motors, pumps, welding equipment shall be placed over drip pans or other containment apparatus;
 - B. Any petroleum, lubricants or other hazardous materials used during construction shall be stored in a special storage location equipped with double containment and this location shall be shown on the erosion control plan and approved by the agencies that review this plan.

City Public Works Department- Engineering Division

48. Engineered improvement plans for all work, signed and prepared under the direction of a registered civil engineer, shall be approved by the Public Works Director/City Engineer prior to commencing work.
49. All work on public utility systems will require an encroachment permit application made to the satisfaction of the Public Works Director/City Engineer. The civil on-site work, as plan reviewed by the Public Works Department, will require an on-site civil engineering permit and inspection.
50. Applicant shall construct storm drain facilities in conformance with data and analysis in the latest adopted City of Scotts Valley Storm Drain Master Plan (SWMP) and in accordance with the City's SWMP Ordinance No. 184.1.
51. Stormwater Management Plan shall be submitted to the City Engineering Division for review and approval as part of any building and or grading permits issued for development.
52. The Stormwater Management Plan shall be prepared by a registered civil engineer and shall provide storm (hydrologic and hydraulic) calculations for appropriate storm drain facilities to control on-site drainage and mitigate off-site impacts. The design shall follow the criteria contained in the City of Scotts Valley Standard Details and the data and analysis contained in the latest adopted City of Scotts Valley Storm Drainage Master Plan.
53. The Stormwater Management Plan shall demonstrate that the Development will not increase the rate of flow (cubic feet per second) or velocity (feet per second) of site run-off water to any off-site drainage areas beyond the measured or calculated pre-project rate and velocity. **(See the Stormwater Technical Guide on the Scotts Valley City website for requirements and formatting under Public Works.)**
54. Impervious area must be shown on coversheet and included in the project's Stormwater management analysis and design.
55. Applicant shall pay the cost to accomplish the utility design and construction to underground the telephone, electric power, and television cables in each project contained easement, private or public road frontage. This under grounding of utilities to remove utility poles comes in addition to the state required under grounding of transmission for the project and any new service connections.
56. Pre-Construction Meeting: In order to ensure that project details are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property, with the exception of installation of temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing, the developer shall convene a pre-construction meeting on the site. The following parties shall attend: the developer, the grading contractor supervisor, the project architect, the project arborist, the project civil engineer, City of Scotts Valley Planning staff, City Engineer and Building Inspector. The temporary construction fencing demarcating the

disturbance envelope, tree protection fencing, and silt fencing will be inspected at that time.

57. Applicant shall construct storm drain facilities in conformance with data and analysis in the adopted City of Scotts Valley Storm Drain Master Plan (SWMP), December 1989 and in accordance with the City's SWMP Ordinance No. 184.1.
58. The applicant shall repair any damage to any public or private improvements as a result of damage caused by applicant or its contractors, consultants, and/or employees prior to issuance of a Certificate of Occupancy. A video recording, DVD format or equivalent, clearly showing the existing condition of Blue Bonnet Drive to the project site shall be presented to the Department of Public Works prior to the start of construction. Applicant is advised that, absent clear video evidence to the contrary, road damage must be repaired to the satisfaction of the City prior to issuance of a certificate of occupancy. Damage assessment will be at the sole discretion of the City.

Scott Valley Fire Protection District

59. The project shall comply with all requirements as provided in the Fire District letter dated January 31, 2022 and attached hereto.

Scott Valley Water District (SVWD)

60. The project shall comply with all requirements as provided in the Scotts Valley Water District letter dated February 7, 2022 and attached hereto.

End of conditions.



SCOTTS VALLEY FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

Ron Whittle
Fire Chief

January 31, 2022

Melissa and Bobby Paul
165 Harms Way
Watsonville, CA 95076

RE: Paul Residence with ADU
Blue Bonnet Lane
Scotts Valley CA 95066

We have reviewed the design review plans for a new single family dwelling to be located on Lot A, Blue Bonnet Lane, APN 022-212-23 Scotts Valley, CA. Our review is to insure compliance with the minimum code requirements related to fire and life safety as set forth in the California Fire Code, State Fire Marshal's Regulations and local fire code ordinance. At this time the District has no objections to this project. However, when moving forward with building construction permit the following items will be required to be on the plans to gain compliance.

NOTE on the plans "these plans are in compliance with California Building and Fire Codes (2019 edition) and Scotts Valley Fire Protection District Amendments". (CFC §1.1.3)

Fire flow requirements for this project is **1000 gallons per minute**. (the AVAILABLE FIRE FLOW information can be obtained from the water company). Note on the plans the available fire flow for a public fire hydrant within **600** feet of the project.

SHOW on the plans a public fire hydrant within **600** feet of any portion of the building meeting the minimum required fire flow for the building. Hydrant shall be on a fire apparatus access road, as measured by an approved drivable route around the exterior of the facility or building. (CFC §507.5.1)

If the public fire hydrant is further than 600 feet from any portion of the building, a new fire hydrant will be required. Note on the plans "**the new hydrant shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided**".

NOTE on the plans "All buildings shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13-D, and adopted standards of the Scotts Valley Fire Protection District." (CFC §903.3.1.3)

NOTE on the plans "the designer/installer shall submit three (3) sets of plans and calculations for the overhead Fire Sprinkler System for approval prior to construction." (CFC §901.2)

NOTE on the plans "all underground piping systems shall comply with the County Standard FPO-006 and shall require plan submittal and permit approval prior to installation. The standard is available at the Scotts Valley Fire Protection District upon request". (CFC 901.2)

Board of Directors

Robert Campbell Russ Patterson Daron Pisciotta Joseph Parker Edward Harmon

SHOW on the plans where the smoke alarms are to be installed according to the following locations and approved by this agency as a minimum requirement.

- One alarm adjacent to each sleeping area (hall, foyer, balcony, or etc.)
- One alarm in each sleeping room.
- One at the top of each stairway of 24" rise or greater and in an accessible location by a ladder.
- There must be at least one smoke alarm on each floor level regardless of area usage.
- There must be a minimum of one smoke alarm in every basement area.
(CFC §907.2.10.2 & CBC §907.2.11.2)

****NOTE** - When a fire alarm system is proposed in lieu of 110V/battery backup smoke detectors, a separate fire alarm permit and fee is required by the Scotts Valley Fire Protection District. **NOTE** on the plans, “three sets of fire alarm plans shall be submitted and approved prior to commencing work.” (CFC §907.1.1)

SHOW on the plans where the carbon monoxide alarms are to be installed according to the following locations and approved by this agency as a minimum requirement.

- One alarm adjacent to each sleeping area (hall, foyer, balcony, or etc.)
- There must be at least one carbon monoxide alarm on each floor level regardless of area usage.

(CBC §420.6)

NOTE on the plans “a 100-foot clearance shall be maintained around and adjacent to the building or structure to provide additional fire protection or fire break by removing all brush, flammable vegetation, or combustible growth.

EXCEPTION: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure.”

NOTE on the plans “building numbers shall be provided. Numbers shall be a minimum of four (4) inches in height on a contrasting background and visible from the street. Where numbers are not visible from the street, additional numbers shall be installed on a directional sign at the property driveway and the street.” (CFC §505.1)

NOTE on the plans, “Roof coverings to be no less than Class "B" rated roof.” (CBC §1505.1.2 & Santa Cruz County Code 12.10.215 (G))

NOTE on the plans, “A MINIMUM OF 48 HOURS NOTICE to the fire department is required prior to inspection.” (CFC §105.2.2)

NOTE on the plans “The job copies of the building and fire systems plans and permits must be on-site during inspections.” (CFC §105.3.5)

Our review is not to be construed as encompassing the structural integrity of the facility or abrogating more restrictive requirements by other agencies having responsibility. Final acceptance is subject to field inspection and necessary tests.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewer and reviewing agency.



SCOTTS VALLEY
WATER DISTRICT

2 Civic Center Dr
Scotts Valley, CA 95066

February 7, 2022

Robert Paul
5006 Bellevue St
Soquel, CA 95073

Re: New Single-Family Residence APN# 022-212-24

Dear Robert,

Scotts Valley Water District has reviewed the plans for the above-referenced project. Please see our comments below.

Based on the Water Supply Fixture Units. A new $\frac{3}{4}$ -inch water meter will need to be purchased from the District and installed.

1. Add note at the water meter that it is to be $\frac{3}{4}$ -inch.
2. Show existing recycled water main within Blue Bonnet Drive.
3. Add note at the service lateral and recycle main crossing – One-foot clear vertical distance shall be maintained between the new potable service lateral and existing recycled water main.

Fire Service

If the Scotts Valley Fire District is requiring a fire service to be installed. There are two options for the fire service installation.

Option 1

Detail 4 - Combination 2-inch Fire and Domestic Installation.

If the required fire sprinkler demand is greater than 30 gallons per minute (GPM), Detail 4 must be installed. This will require a new 2-inch service lateral to the water main. If Detail 4 is selected, add the following to your next submittal.

1. Add a note at the water meter that the service is to be Detail 4 - Combination 2-inch Fire and Domestic Installation.
2. Show both the domestic and fire service meter boxes.



SCOTTS VALLEY
WATER DISTRICT

2 Civic Center Dr
Scotts Valley, CA 95066

3. Include the below Details within your next submittal.
 - a. Detail 1 – Service Connection
 - b. Detail 2 – Meter Box Install
 - c. Detail 4 – Combination 2-inch Fire and Domestic Installation
 - d. Detail 5 – 2-inch and Smaller Service Installation
 - e. Detail 12 – Valve Box Lid Markings
 - f. Detail 13 – Valve Box Installation
 - g. Detail 14 – Standard Service Lateral Trench

Option 2

Detail 4A - Combination ¾-inch Fire and Domestic Service Connection

Because the home requires a ¾-inch water meter, you qualify for Detail 4A. This option is only allowed if the fire sprinkler demand is equal to or less than 30 gpm. If Detail 4A is selected, add the following notes to your next submittal.

1. Add note at the water meter that the service is to be Detail 4A - Combination ¾-inch Fire and Domestic Service Connection.
2. Include the below Details within your next submittal.
 - a. Detail 1 – Service Connection
 - b. Detail 2 – Meter Box Install
 - c. Detail 4A – Combination ¾-inch Fire and Domestic Service Connection
 - d. Detail 5 – 2-inch and Smaller Service Installation
 - e. Detail 14 – Standard Service Lateral Trench

All water system related work shall be installed in accordance with the District's Standard Specifications. Our Standard Specifications can be located on our website www.svwd.org.

Please contact me at bknutson@svwd.org or (831) 600-1905 if you have any questions.

Thank you,

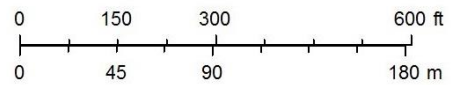
Brody Knutson
Engineering Technician
Scotts Valley Water District

Location Map

Blue Bonnet Lane, Lot A / APN 022-212-23



□ Parcels □ Project Site



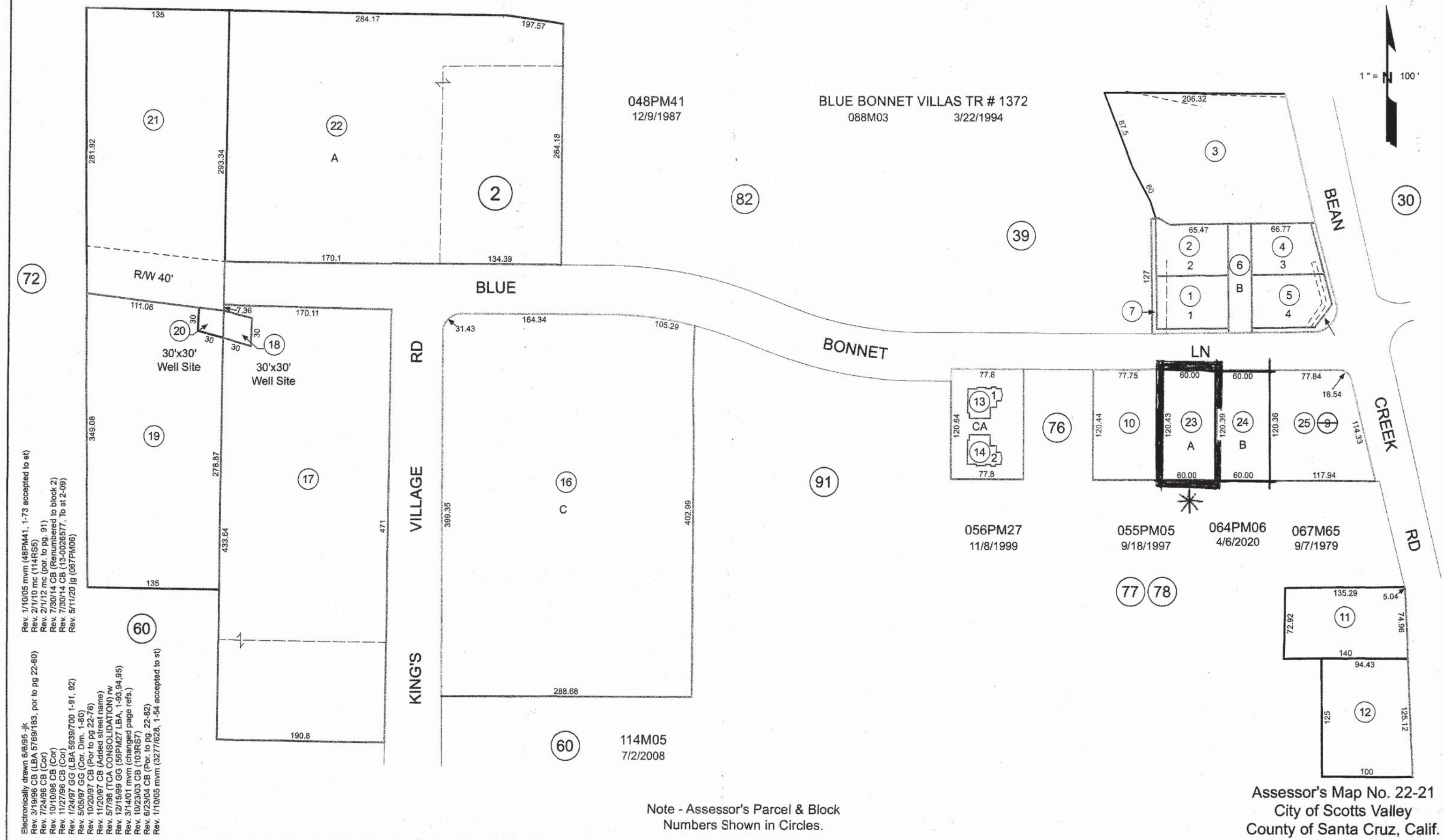
FOR TAX PURPOSES ONLY

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CITY OF SCOTTS VALLEY

Tax Area Code
4-050

22-21



APN Map

1" = 100'-0"



PROJECT TEAM

Owners

Melissa and Bobby Paul
165 Harms Way
Watsonville, California 95076
(831) 247-2394

Architect

James Reed Stroupe, C12455
P.O. Box 388
Aptos, California 95001
(831) 688-3300

Landscape Architect

Greg Lewis
736 Park Way
Santa Cruz, California 96065
(831) 425-4747

Surveyor

Hogan Land Services, Bob DeWitt
2601 41st Avenue, Suite A
Soquel, California 95073
(871) 544-2104

Geotechnical Engineer

Dees & Associates, Inc., Becky Dees
501 Mission Street, Suite 8A
Santa Cruz, California 95060
(831) 427-1770

Civil Engineer

C2G / Civil Consultants Group, Inc., Laurent Lindquist
4444 Scotts Valley Drive, Suite 6
Scotts Valley, California 95066
(831) 438-4420

Project Description

Construct a new detached 2-story single family residence with a ADU.
3,138 SF house plus 750 SF ADU = 3,888 SF total conditioned area, plus an attached 828 SF garage and two covered porches totalling 255 SF.
Provide all utility connections from the main house.
Provide driveway to new garage and walkways and stoops to all exterior doors and to ADU.
Construct a retaining wall along the right side of the property and a retaining wall on the left side. See civil drawings for these walls.
Grade the property to provide maximum of 20 inches from finish grade to top of ground floor subfloor.

FIRE NOTES

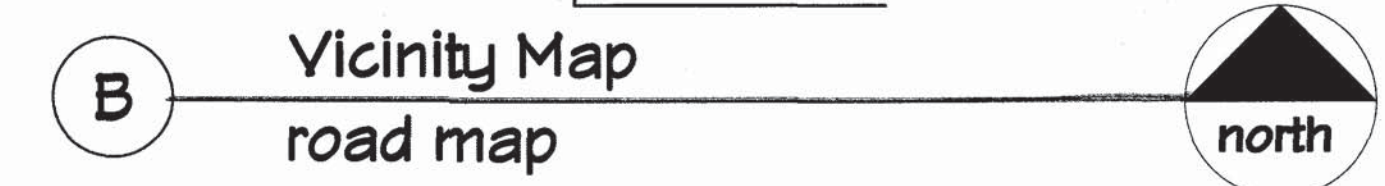
- 1 Maintain a 30-foot clearance with non-combustible vegetation around all structures.
- 2 Confirm a fire hydrant is located within 150 feet of any portion of the building meeting the required fire flow rate for the building.
- 3 Post and maintain address numbers to be plainly visible from the street. Numbers shall be minimum 5 inches high and a color contrasting to the background.

CONSTRUCTION WASTE RECYCLING

Contractor must recycle/salvage a minimum of 65% of all construction waste generated at this project site.
Green Waste Recovery is the exclusive hauler of the City of Scotts Valley.



SITE



PROJECT DATA

Assessor's Parcel	022-212-23
Site Address	??? Blue bonnet Lane Scotts Valley, California 95066
Owners	Melissa dn Bobby Paul
Occupancy	R3/U
Construction Type	V-B, sprinklered
Zoning	R-H, High-density Residential
Fire District	Scotts Valley Fire Department

Area Summary

EXISTING LOT	60.0' x 120.5'
Lot Dimensions	1,230 square feet
Gross Lot Area	2,856 square feet
Building Footprint	34.51 %
Lot Coverage	
PROPOSED	
Ground floor Heated	1,173 square feet
Upper floor Heated	2,115 square feet
Total Heated	3,888 square feet
Unconditioned Garage	828 square feet
Total Enclosed Area	4,716 square feet
Front Porch	127 square feet
Rear Porch	128 square feet
Total Covered Area	4,971 square feet

DRAWING INDEX

- 1 Vicinity Map, APN Map and Project Data
- 2 Survey by Hogan
- 3 Site Plan
- 4 Ground Floor Plan
- 5 Upper Floor Plan
- 6 Building Sections
- 7 North and West Exterior Elevations
- 8 South and East Exterior Elevations
- 9 Neighborhood Photographs
- L1 Planting Plan
- L2 Hydrozone Plan
- L3 Irrigation Plan
- L4 Landscape Details
- L5 Landscape Specifications

submitted
18 December 2021

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

Vicinity Map, Project Data,
Site Plan and Drawing Index

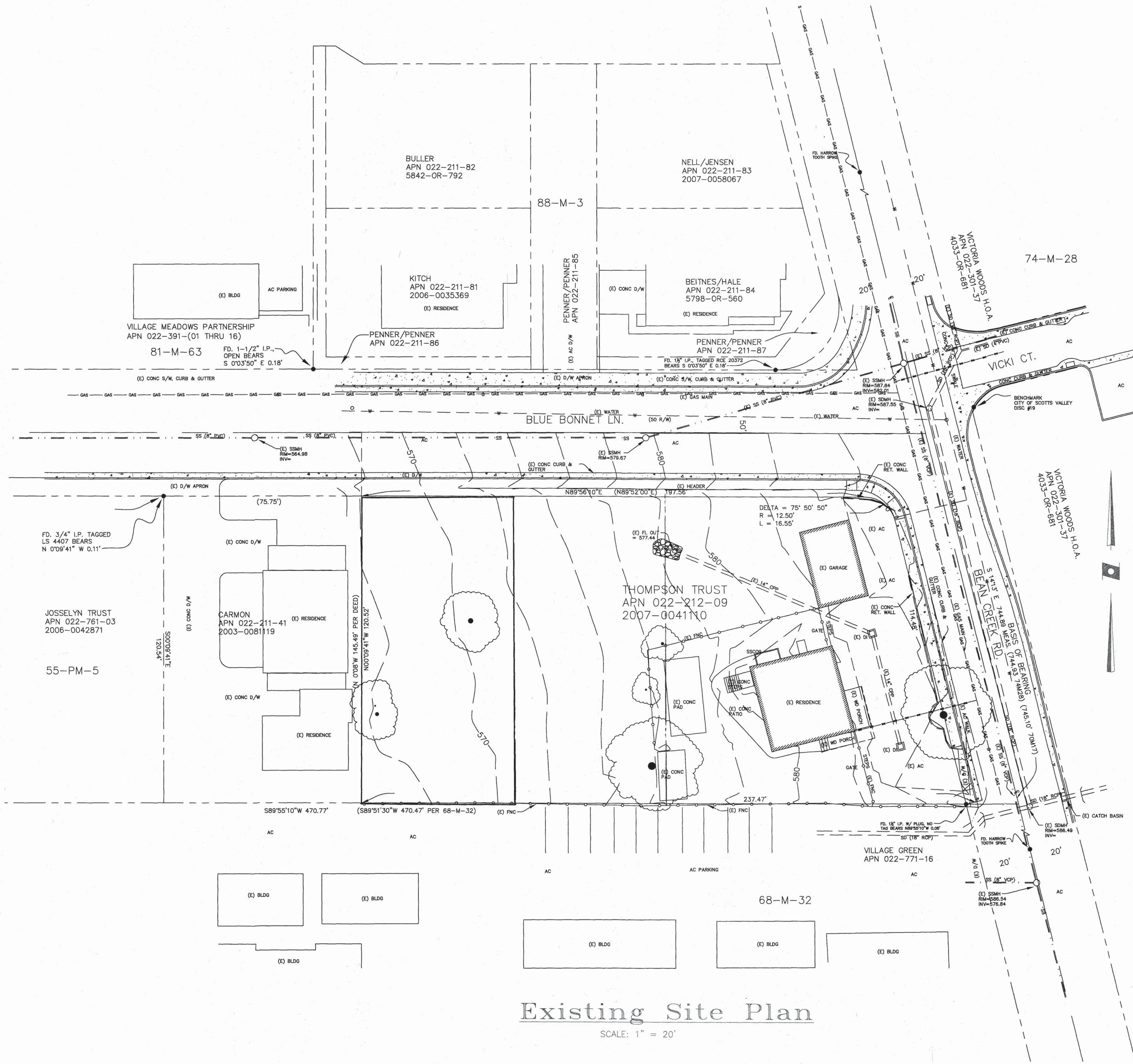
Paul Residence
??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 247-2394

APN 022-212-23

sheet number

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of 9

0024



Existing Site Plan

SCALE: 1" = 20'

EXISTING
TOPOGRAPHIC MAP

SURVEY NOTE:
MAP IS BASED UPON SURVEY AND TOPOGRAPHIC MAPPING BY ROBERT L. DEWITT & ASSOCIATES, JOB NO. R07168, DATED DECEMBER, 2007. MINOR EDITS TO THE MAP HAVE BEEN PERFORMED TO REFLECT CURRENT STATE OF IMPROVEMENTS TO BEAN CREEK ROAD.

VESTING TENTATIVE MAP
PREPARED AT THE REQUEST OF
MAUREEN WRUCK PLANNING CONSULTANT, LLC
FOR
WAYNE THOMPSON

P-2
OF 4

HOGAN LAND SERVICES
A CALIFORNIA CORPORATION
www.hoganls.com
802 Estates Dr., Ste. 100-A
Aptos, CA 95003
Tel: (831) 425-1617
Fax: (831) 425-0224

THIS PLAN WAS PREPARED BY ME OR UNDER MY
DIRECTION AT THE REQUEST OF:
JOEL PANZER FOR WAYNE THOMPSON

DRN:	RLD
CHK:	XXX
PM:	RLD
DATE:	DEC 2017
JOB #:	-

PROFESSIONAL ENGINEER & LAND SURVEYOR
ROBERT L. DEWITT
No. 20,319
12/08/17

sheet number

2

of 4

Paul Residence

??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 247-2344

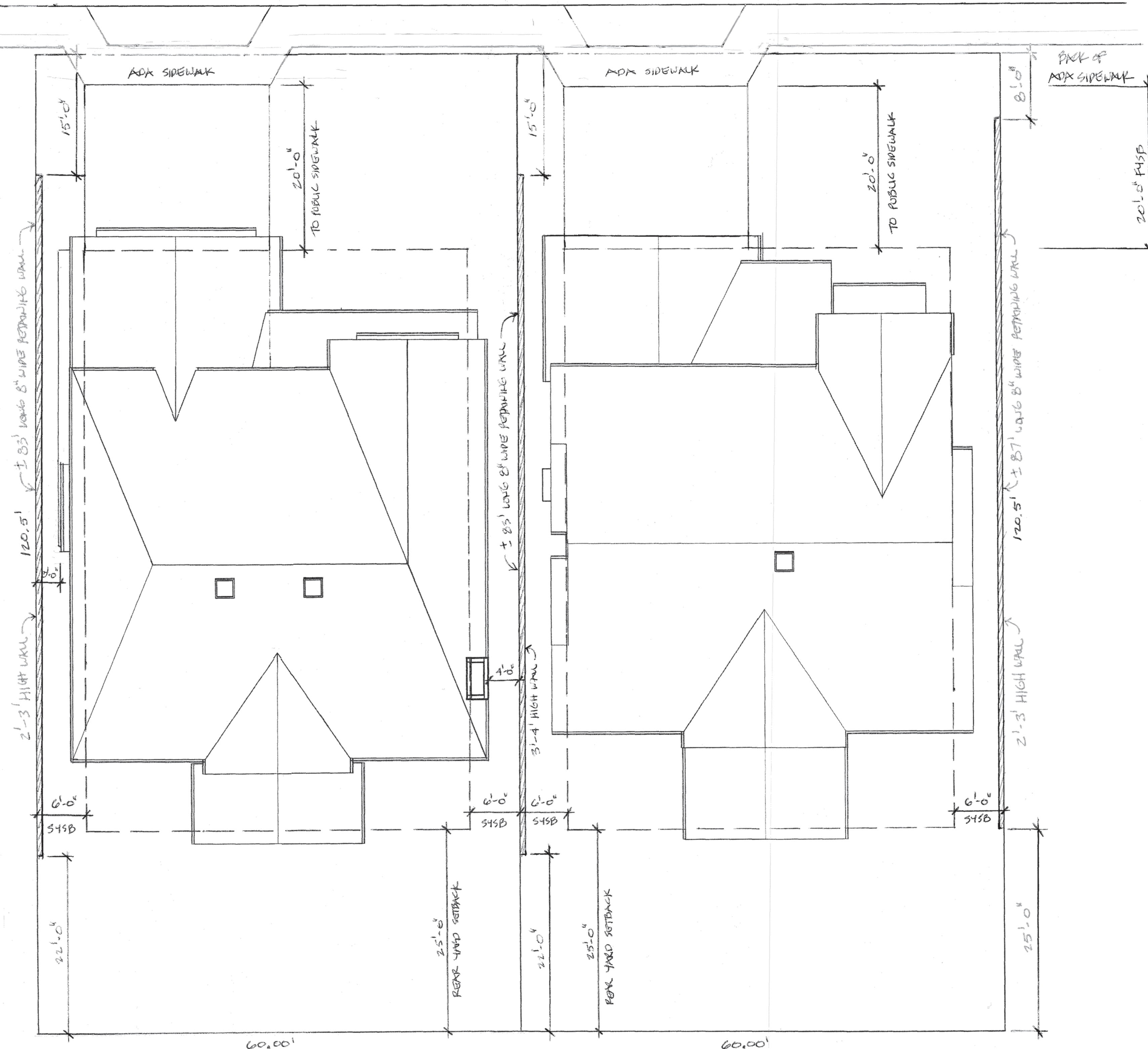
APN 022-212-23

Survey by Hogan

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

submitted
18 December 2021

Blue Bonnet Lane



APN 022-212-23
Bobby and Missy Paul

NOTE: NO COMBINATION OF RETAINING WALL AND FENCE HEIGHT SHALL EXCEED 23 FEET WITHOUT APPROVAL BY THE CITY.

Neighboring lot
APN 022-212-24
Bob and Carrie Paul

SITE NOTES

- 1 This is a "flat" site with less than 6 inches of slope from rear to street.
- 2 There are no watercourses located within 200 feet of this parcel.
- 3 There is no curb or gutter on this street.
- 4 There is no existing storm drain on this property and no catch basin or other storm drainage inlet is being proposed.
- 5 The closest storm drain inlet is across the street and the street is crowned.

EROSION CONTROL NOTES

- 1 Winter grading season is from 15 October to 15 April.
All exposed soils must be protected during this time.
- 2 Disturb as small an area as possible.
- 3 Replant all disturbed areas with permanent landscaping or seed mix.

SEED AND STRAW MULCH

- 1 Seed an straw mulch is to be used for soil disturbed areas as a means of temporary protection until permanent stabilization is established. It may be used on slopes up to 3:1 H:V (33%).
- 2 Seed and straw mulch shall consist of spreading seed (a minimum of 5 pounds per 1,000 square feet) over disturbed areas and then placing a uniform layer of straw (2-3 bales per 1,000 square feet) incorporating it into the soil with a studded roller or anchoring it with a tackifier stabilizing emulsion.
- 3 In areas that are not sensitive habitat, the seed shall be annual winter barley and the straw shall be derived from rice, barley or wheat.

SEDIMENT CONTROL NOTES

- 1 Fiber rolls are to be placed at the down slope perimeter of the disturbance limits to prevent or limit sediment from leaving the site. In urban areas or sites directly adjacent to streets, fiber rolls shall be placed at the back of a sidewalk or curb to limit sediment from entering the street.
- 2 Fiber rolls must be adequately trenched to be effective.

SITE HOUSEKEEPING REQUIREMENTS

CONSTRUCTION MATERIALS

- 1 All loose stockpiled construction materials that are not actively being used shall be covered and bermed.
(i.e. soil, spoils, aggregate, fly-ash, hydrated lime, etc.)
- 2 All chemicals shall be stored in water-tight containers with appropriate secondary containment to prevent any spillage or leakage or in a completely enclosed storage shed.
- 3 Exposure of construction materials to precipitation shall be minimized.
This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions.
(i.e. poles, equipment pads, cabinets, conductors, insulators , bricks, etc.)
- 4 Implement Best Management Practices to prevent the off-site tracking of loose construction and/or landscape materials.

LANDSCAPE MATERIALS

1. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
2. Contain fertilizers and other landscape materials when they are not actively being used.
3. Discontinue the application of any erodible material within 2 days before a forecasted rain event or during periods of precipitation.
4. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
5. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.

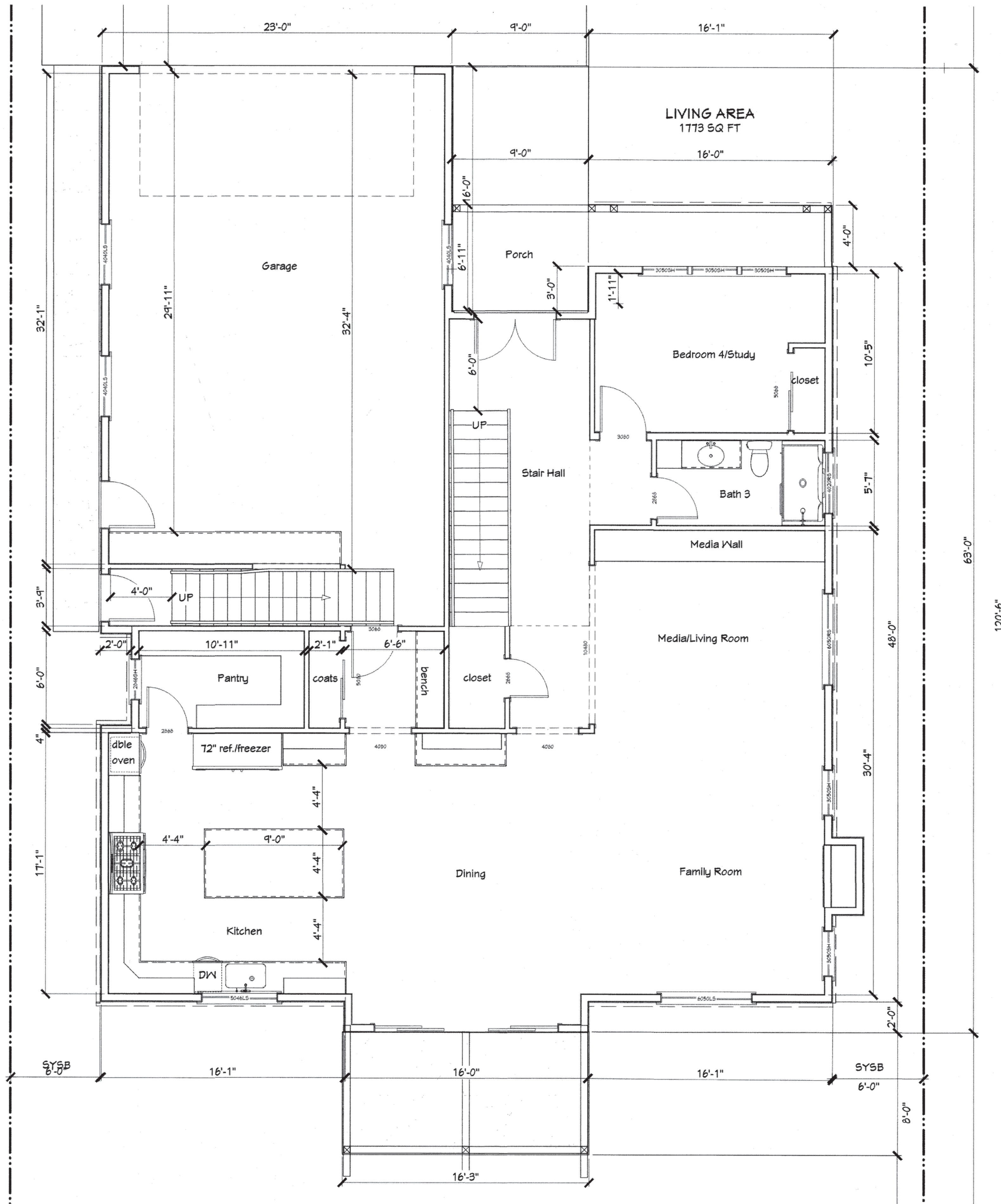
VEHICLE STORAGE AND MAINTENANCE

- 1 Measures shall be taken to prevent oil, grease or fuel from leaking into the ground, storm drains or surface waters.
- 2 All equipment and vehicles which are fueled, maintained and/or stored on-site shall be in a designated area fitted with appropriate BMP's.
- 3 All leaks shall be immediately cleaned and all leaked materials shall be disposed of properly.

WASTE MANAGEMENT

- 1 Prevent disposal of any rinse or wash waters or materials onto impervious or pervious site surfaces or into the storm drain system.
- 2 Contain sanitation facilities (e.g. portable toilets) to prevent discharge of pollutants into the storm drain system.
Locate sanitation facilities a minimum 20 feet from any inlet, driveway, street, stream, riparian area of other drainage facility.
- 3 Inspect sanitation facilities regularly for leaks and spills. Clean and replace as necessary.
- 4 Cover waste disposal containers at the end of every day and during any rain event.
- 5 Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.
- 6 Contain and protect stockpiled waste materials from wind and rain at all times unless actively being used.
- 7 Implement procedures that actively address hazardous and non-hazardous spills.
- 8 Keep available on site all equipment and materials necessary for cleanup of spills and leaks so they can be cleaned up immediately and disposed of properly.
- 9 Contain concrete washout areas and all other washout areas that may have additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.





PLAN NOTES

- 1 All habitable rooms shall have 8% of their floor area in natural light from windows, doors and skylights.
- 2 All habitable rooms shall have 4% of their floor area as natural ventilation.
- 3 Minimum ceiling height shall be 7'-6" in all rooms except kitchens, baths and halls, which shall have a minimum ceiling height of 7'-0".
- 4 All glass shall be tempered when it is in a door or shower enclosure, over a bath, shower or stairway.
- 5 All exterior doors shall have a minimum landing 44 inches perpendicular to the door and the full width of the door opening.
- 6 Egress/rescue windows shall have a minimum net clear openable area of 5.7 square feet. Their minimum net clear openable height shall be 24 inches. Their minimum net clear openable width shall be 20 inches. Their net clear opening shall not be more than 44 inches above the finished floor.

KEY TO WINDOW AND DOOR SYMBOLS

WINDOWS

(3050 = 3'-0" wide by 5'-0" high)

- FIX fixed glass
- SH single hung
- SL slider, OX
- XOX center panel slides open
- CSMT casement

DOORS

(3080 = 3'-0" wide by 8'-0" high)

- SLDR sliding glass doo, tempered
- OHDR overhead garage door

Ground Floor Plan, 1,773 SF Heated + 828 SF Unheated Garage + 255 SF Porches

1/4" = 1'-0"

submitted
18 December 2021

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

Ground Floor Plan

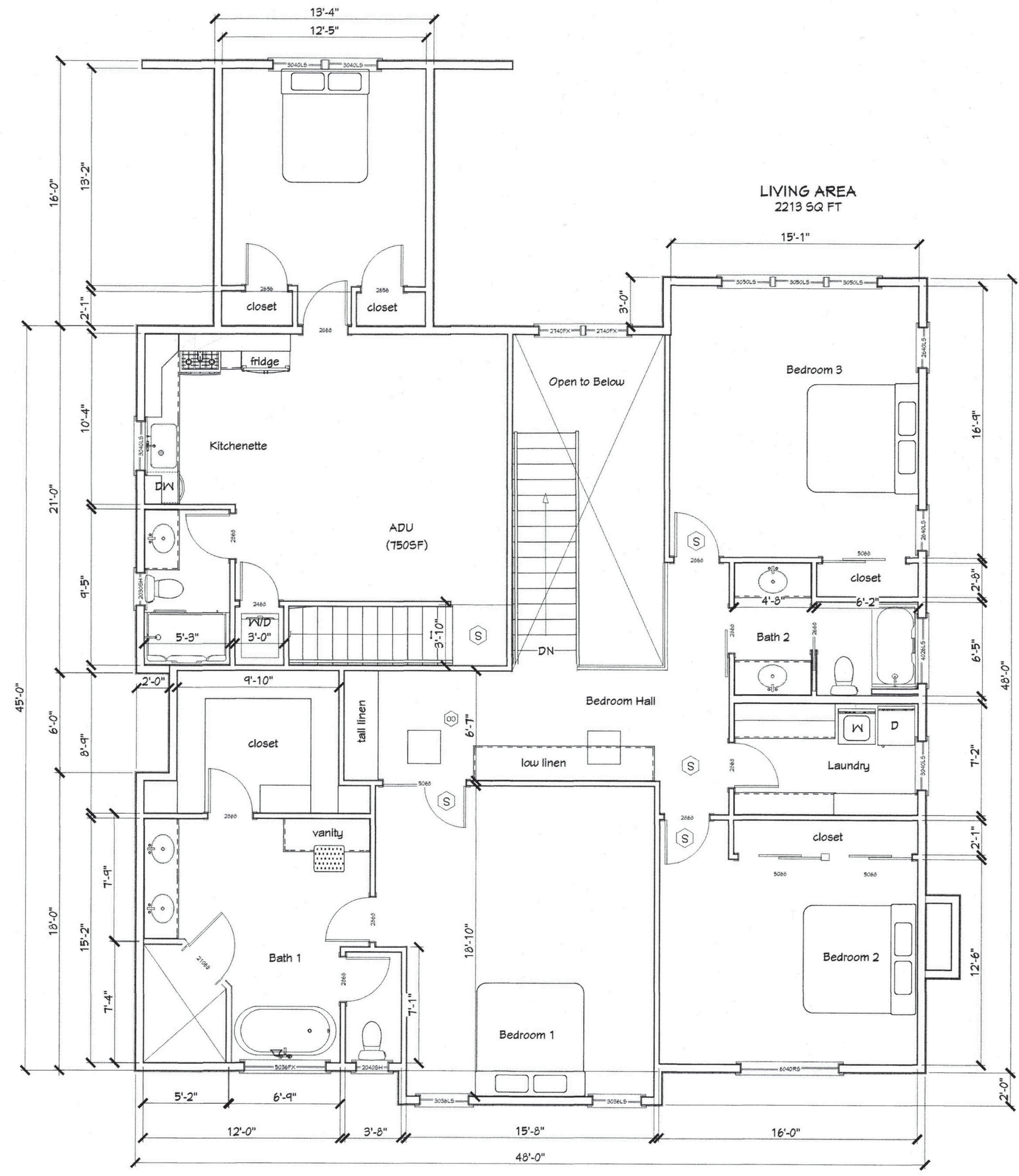
Paul Residence
??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 247-2344

APN 022-212-23

sheet number

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of 9



Upper Floor Plan, 2,115 SF Heated

1/4" = 1'-0"

PLAN NOTES

- 1 All habitable rooms shall have 8% of their floor area in natural light from windows, doors and skylights.
- 2 All habitable rooms shall have 4% of their floor area as natural ventilation.
- 3 Minimum ceiling height shall be 7'-6" in all rooms except kitchens, baths and halls, which shall have a minimum ceiling height of 7'-0".
- 4 All glass shall be tempered when it is in a door or shower enclosure, over a bath, shower or stairway.
- 5 All exterior doors shall have a minimum landing 44 inches perpendicular to the door and the full width of the door opening.
- 6 Egress/rescue windows shall have a minimum net clear openable area of 5.7 square feet. Their minimum net clear openable height shall be 24 inches. Their minimum net clear openable width shall be 20 inches. Their net clear opening shall not be more than 44 inches above the finished floor.

KEY TO WINDOW AND DOOR SYMBOLS

WINDOWS

(3050 = 3'-0" wide by 5'-0" high)

- FIX fixed glass
- SH single hung
- SL slider, OX
- XOX center panel slides open
- CSMT casement

DOORS

(3080 = 3'-0" wide by 8'-0" high)

- SLDR sliding glass doo,
- tempered
- OHDR overhead garage door

Insulation and Caulking Notes

1 Provide Certainteed GREENGUARD certified unface fiberglass batts as follows:

- Roof R-30, 8-1/4 inches thick
- Walls R-21, 5-1/4 inches thick
- Underfloor R-30, 8-1/4 inches thick

NOTE : Provide full R-15 sound insulation at all interior walls

2 Provide expanding foam spray-on insulation at all plate lines, penetrations in exterior sheathing, penetrations in Ground Floor OSB subfloor and penetrations of drywall finish at exterior walls. Provide low-VOC caulking manufactured by OSI Industries.



B

Transverse Building Section, at main ridge looking South

1/4" = 1'-0"

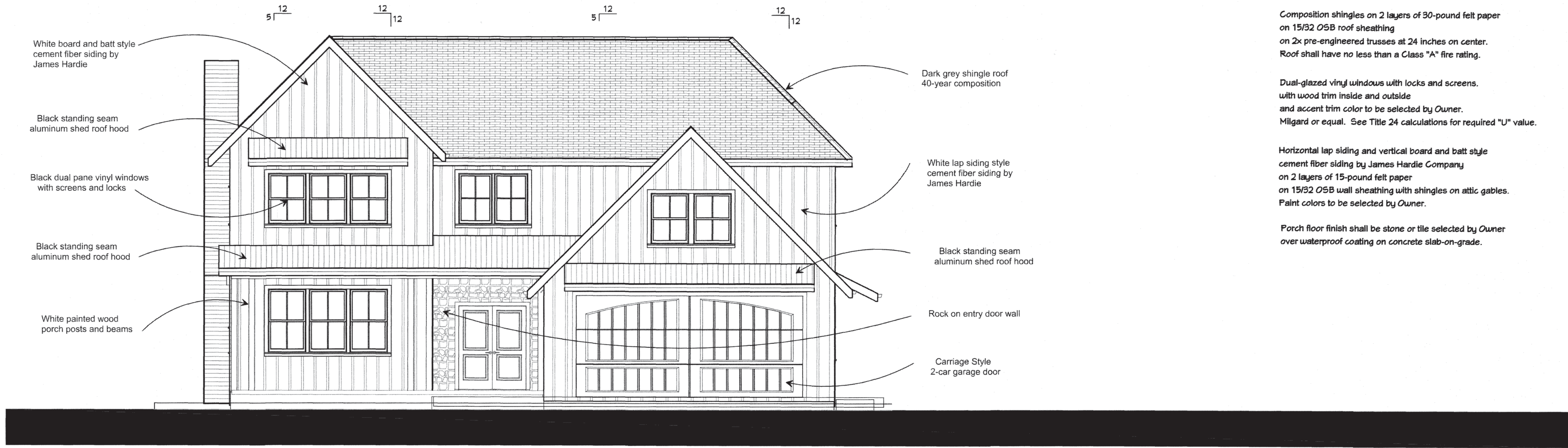
NOTE : Retaining walls are shown at their maximum heights and no combination of wall and fence will exceed 8 feet without approval by City.



A

Longitudinal Building Section, at centerline of rear ridge looking East

1/4" = 1'-0"



North Elevation, Front

B
1/4" = 1'-0"



West Elevation, Right Side

A
1/4" = 1'-0"

Exterior Finish Materials

Composition shingles on 2 layers of 30-pound felt paper
on 15/32 OSB roof sheathing
on 2x pre-engineered trusses at 24 inches on center.
Roof shall have no less than a Class "A" fire rating.

Dual-glazed vinyl windows with locks and screens.
with wood trim inside and outside
and accent trim color to be selected by Owner.
Milgard or equal. See Title 24 calculations for required "U" value.

Horizontal lap siding and vertical board and batt style
cement fiber siding by James Hardie Company
on 2 layers of 15-pound felt paper
on 15/32 OSB wall sheathing with shingles on attic gables.
Paint colors to be selected by Owner.

Porch floor finish shall be stone or tile selected by Owner
over waterproof coating on concrete slab-on-grade.

submitted
18 December 2021

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

North and West
Exterior Elevations

Paul Residence
??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 247-2394
APN 022-212-23

sheet number
7
0030
of 4

Exterior Finish Materials

Composition shingles on 2 layers of 30-pound felt paper on 15/32 OSB roof sheathing on 2x pre-engineered trusses at 24 inches on center. Roof shall have no less than a Glass "A" fire rating.

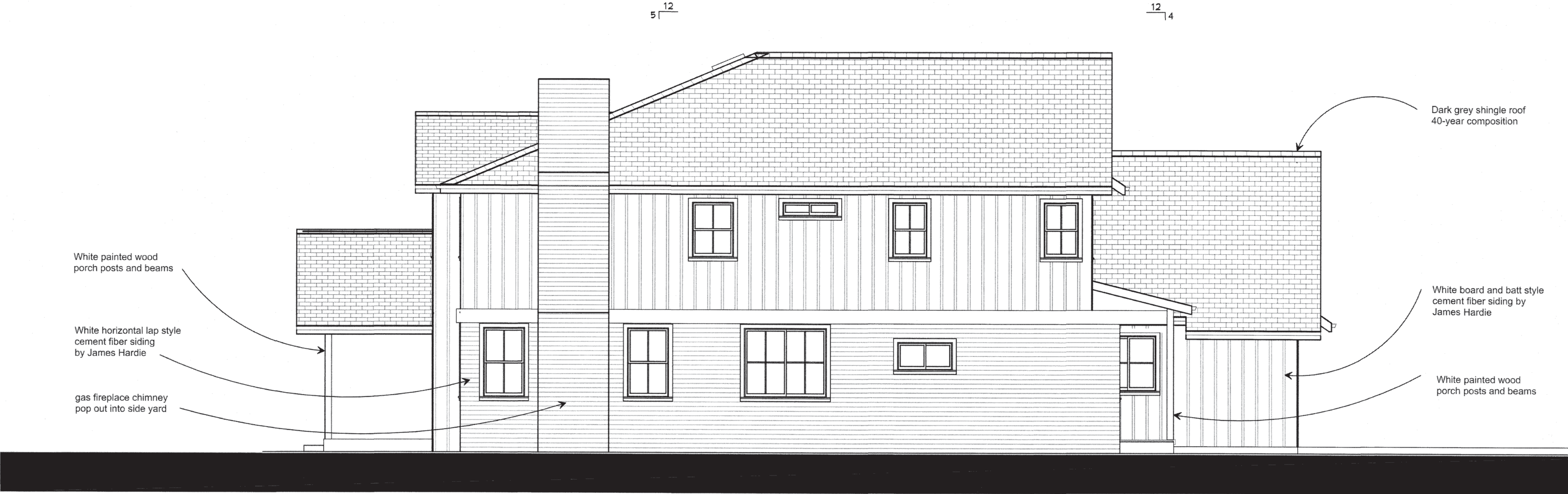
Dual-glazed vinyl windows with locks and screens. with wood trim inside and outside and accent trim color to be selected by Owner. Milgard or equal. See Title 24 calculations for required "U" value.

Horizontal lap siding and vertical board and batt style cement fiber siding by James Hardie Company on 2 layers of 15-pound felt paper on 15/32 OSB wall sheathing with shingles on attic gables. Paint colors to be selected by Owner.

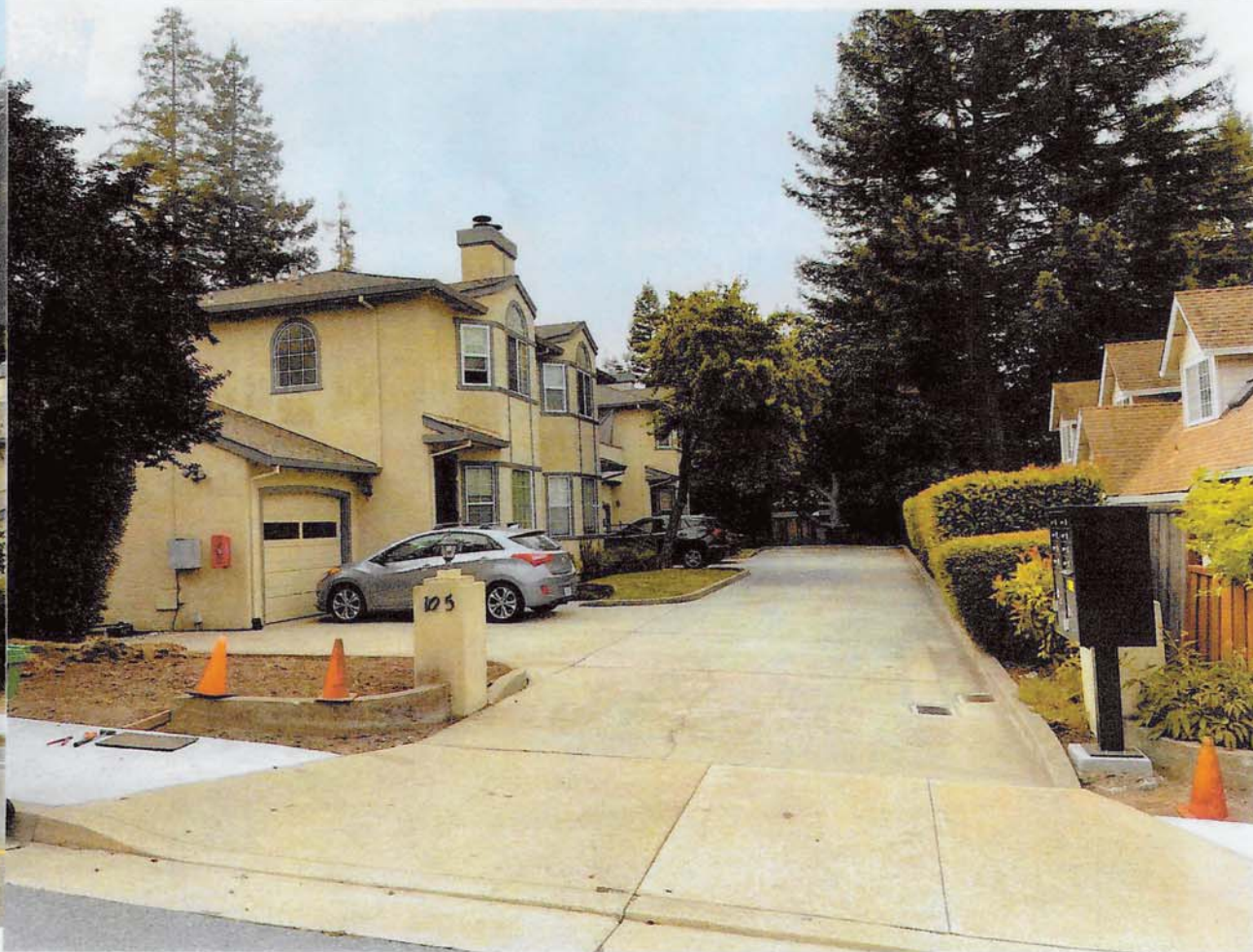
Porch floor finish shall be stone or tile selected by Owner over waterproof coating on concrete slab-on-grade.



B South Elevation, Rear
1/4" = 1'-0"



A East Elevation, Left Side
1/4" = 1'-0"



APN 022-212-24

APN 022-212-23

Plant Legend

KEY	QTY	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS WATER USE RATING
TREES					
LI		15 gal	Lagerstroemia Tuscarora	Crape Myrtle	LOW
TALL SCREEN SHRUBS					
PG		5	Podocarpus gracillor	Fern Pine	MED
GROUND COVERS					
DV	1		Diets iridioides	Fortnight Lily	LOW
SL	1		Salvia leucantha Santa Barbara	Mexican Sage	LOW
LP	1		Lomandra Breeze Platinum		LOW
LA	1		Lavandula Provence	Lavander	LOW
I	1		Iris douglasiana Canyon Snow	Native Iris	LOW
D	1		Aeonium canariense Mint Saucer	Succulent	LOW
LM	1		Lantana montevidensis	Low Purple Lantana	LOW

Contractor to do own plant count and install all plants shown on plan
Ask owner if he wants to upsize any of the plants at time of installation

Landscape Site Notes

- 1

3 foot wide solid wood gate with lockable latch. Adjust location of gate to coordinate with windows and to keep meters in front of gate so you don't need to go thru gate to get to meters
- 2

6 foot tall solid wood good neighbor fence along property lines on top or retaining wall
- 3

3 foot tall solid wood good neighbor fence along property line in front yard setback on top of retaining wall - horiz. 1x4 with 2.5 inch spaces between
- 4

Retaining wall along property line - see Grading Plan
- 5

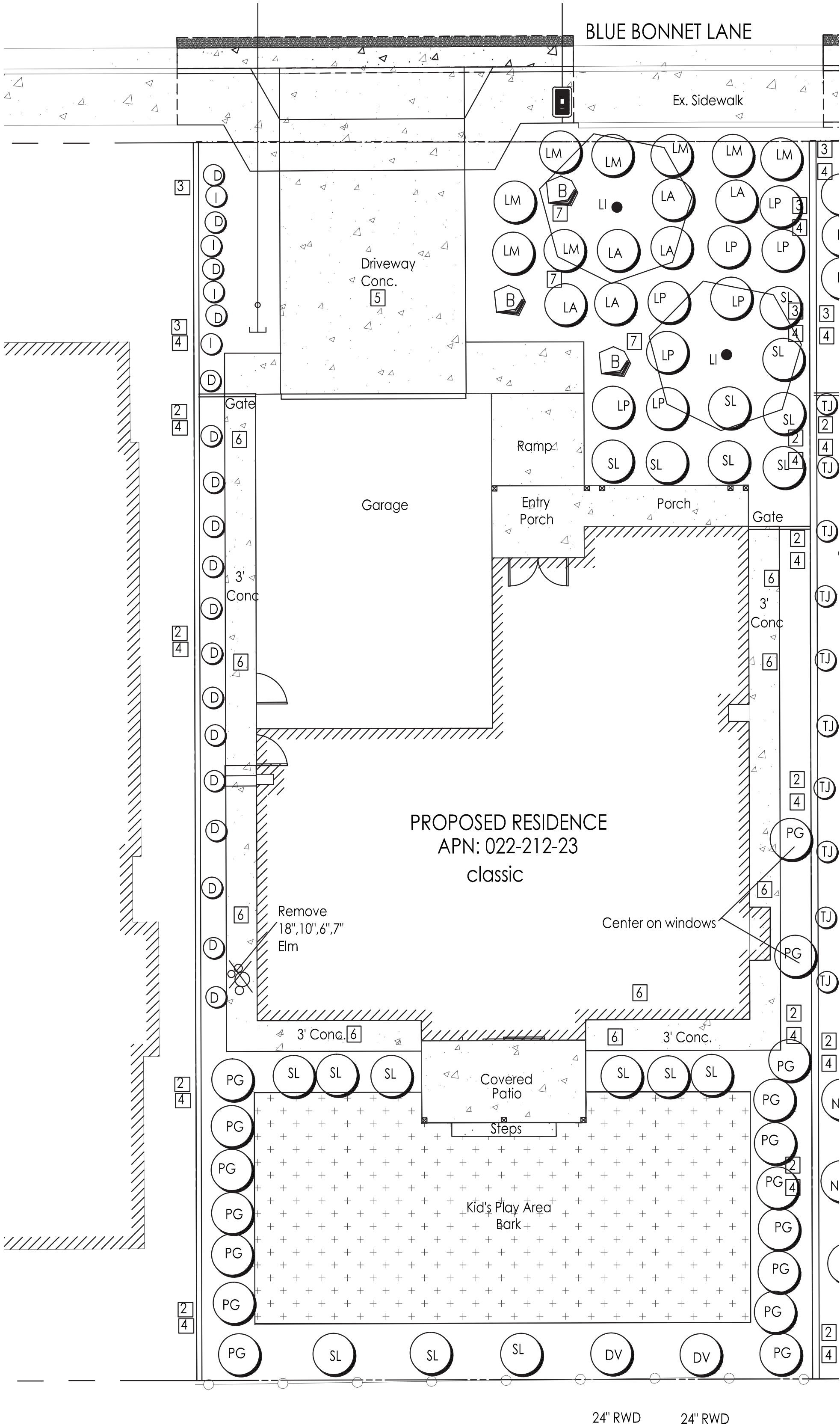
Driveway - Concrete
- 6

Side walkway - Concrete
- 7

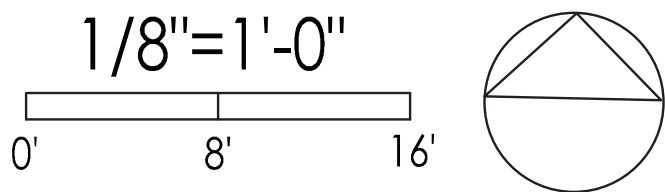
Possible boulders saved from site prior to building

Landscape Notes

- 1) See sheets L3, L4, and L5 for Detailed Irrigation Plan using Potable Water from the residence, Landscape Details, and Landscape Specifications that comply with the State of California Government Code Section 65596 Water Conservation in Landscaping and associated Model Water Efficient Landscaping Ordinance (WELO) for landscaping area equal or greater than 2500 sq.ft.
- 2) Exact location of plants on site to be adjusted so as to best coordinate with irrigation component locations, lights, drainage features, and swales
- 3) Use 3 inch deep mulch in all planting areas. Provide owner with different mulch samples and prices including dark brown Mahogany dyed Wonder Mulch from Vision Recycling n Watsonville or Fremont or nitrolized redwood sawdust. Bid the nitrolized RWD sawdust.
- 4) Install plants for all plant circles shown on the plan even if they aren't labeled. Call for clarification. For bidding purposes, if no one is available to answer questions, assume that any plant circle scaled less than 8' wide is 5 gal. size and any circle scaled larger is 15 gal. size
- 5) The plan is schematic. Don't install plants too close to edges of paving or buildings. Be sure plants are not blocking sprinklers excessively (no sprinklers on this plan). Keep valves and quick couplers away from trees.
- 6) Existing trees have been shown that are to be preserved. Do not trench in the area under the tree canopy without written approval of the project certified arborist. Do not grade, trench or store construction material in the natural protected area.
- 7) Make sure you have the most recent, city approved plans prior to finalizing bid and also at the time of installation.



Planting Plan



Revision

12/16/21

GREGORY LEWIS LANDSCAPE ARCHITECT

#2176

736 Park Way Santa Cruz, CA 95065 (831) 359-0960

1

of 5

0033

Bobby and Missy Paul Residence

Blue Bonnet Ln., Scotts Valley

APN: 022-212-23

Date

8/12/21

Scale

As Noted

Drawn

Greg

Job

Sheet

Hydrozone Summary

HYDROZONE	VALVES	IRRIG. METHOD	AREA sq.ft.	% of LANDSCAPE AREA
1 Low water shrub	2,3,4	Drip	1695	79%
2 Low water trees	1	Drip	50	2%
3 Med water shrub	5	Drip	404	19%
TOTAL			2149	100%

Summary by Hydrozone	Area (Sq.ft.)	% of Landscape Area
High Water Use	0	0%
Moderate Water use	404	19%
Low Water Use	1745	81%
TOTAL	2149	100%

THERE IS A TOTAL OF 2149 sf of NEW PROPOSED PLANTING AND IRRIGATION

WATER EFFICIENT LANDSCAPE WORKSHEET

Date: 12/16/2021 Project: Bobby and Missy Paul Address: Blue Bonnet Ln., Scotts Valley APN 022-212-23									
Total Planted Area (sq.ft.) 2,149									
Reference Evapotranspiration (Eto): 36.6 Scotts Valley									
HYDRO ZONE NO.	VALVES	HYDRO ZONE DESC.	Plant Factor PF	Irrig. Method	Irrig. Efficiency IE	ETAF PF/IE	LDSCP AREA Square Feet	ETAF x Area	Estimated Total Water Use (Gal.)
Regular Landscape Areas									
1	2,3,4	Drip, low water, shrub	0.3	Drip	0.81	0.3704	1,695	627.78	14,246
2	1	Drip, low water, tree	0.3	Drip	0.81	0.3704	50	18.52	420
3	5	Drip med water shrub	0.5	Drip	0.81	0.6173	404	249.38	5,659
4									
5									
6									
7									
8									
Totals							2,149	896	20,325

Special Landscape Areas									
						1	0		
						1			
						1			
						Totals	0		0
							17.68 CCF	ETWU Total	20,325
							Maximum Allowed Water Allowance (MAWA)		26,821

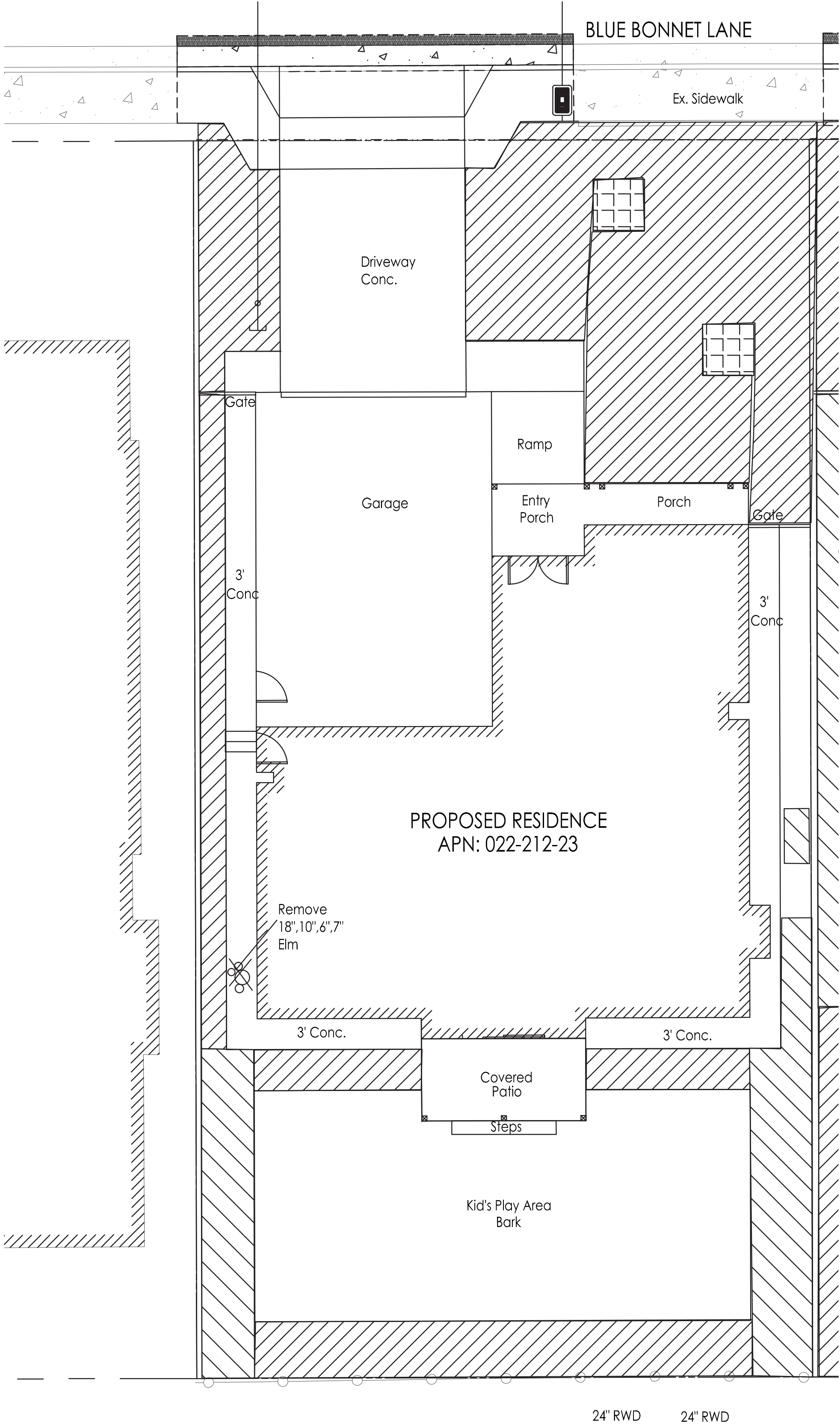
Ion residential ETAF for MAWA calc: 0.55 MAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

ETAF Calculations

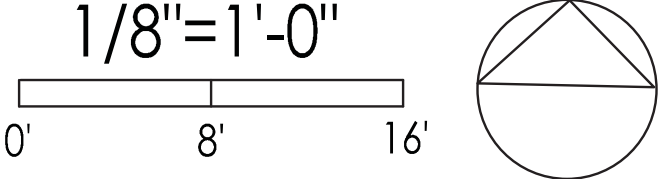
Regular Landscape Areas	
Total ETAF x Area	896
Total Area	2,149
Average ETAF	0.42

All Landscape Areas	
Total ETAF x Area	896
Total Area	2,149
Sitewide ETAF	0.42

Average total ETAF must be .55 or less for residential

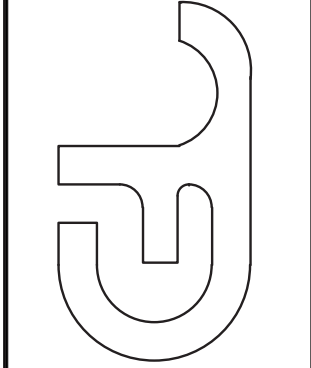


Hydrozone Plan



Revision
12/16/21

GREGORY LEWIS LANDSCAPE ARCHITECT
#2176
736 Park Way Santa Cruz, CA 95065 (831) 359-0960



Bobby and Missy Paul Residence
Blue Bonnet Ln., Scotts Valley
APN: 022-212-23

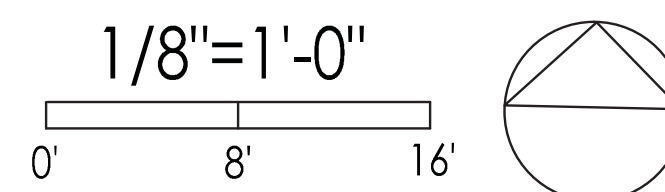
Date: 8/12/21
Scale: As Noted
Drawn: Greg
Job: 022-212-23
Sheet: 5

L2

KEY	MANUF.	MANUF. #	DESCRIPTION
		Hunter	4 station Controller with a 3 station module = 7 stations [expandable]
	PC 4		wall mount exterior with Wireless Solar Sync On-Site Weather Station. Controller will change its program based on current weather conditions. Install weather sensor where it will get full sun and rain.
	Solar Sync		Install wireless Solar Sync weather sensor and system for controller - install Install sensor on gutter where it will get full sun and rain
			Manual brass ball valve in valve box same size as pressure line
		Hunter PGV 075 ASV	3/4" antifreeze valve with 3/4" drip filter and 30 psi pressure regulator 12 inches above highest down stream drip emitter or outlet
			Nonpressure line - Sch 40 PVC 3/4" unless noted for larger size - 12" cover - pipes less than 2" to be Sch 40 PVC
			3/4" Pressure line - Sch 40 PVC - 18" of cover (24" of cover under A.C. paving)
			Lines under paving Sch 40 PVC - 24" of cover
			Pressure line - 3/4" Sch 40 PVC
			Non Pressure line - 3/4" Sch 40 PVC
			1" gray elec. conduit for control wires.
			Also install an extra capped 1" water line for future use under paving
			3/4" PE drip tubing with compression fittings - see drip notes
			Tree drip irrigation - 3/4" PE drip tubing with compression fittings - see drip notes
All lines under pavement to be sleeved using a Sch 40 PVC sleeve 2 sizes larger than the pipe inside			

Greg Lewis 12/16/21

- 1) See sheet L4 and L5 for details and specifications
- 2) This system is designed to operate with minimum 5 GPM at minimum 60 p.s.i. at each point of connection. If this condition is not met contact the Landscape Architect for possible redesign. If pressure exceeds 75 psi at point of connection install a Wilkins 60 3/4" pressure regulator . The static psi at the street is supposed to be
- 3) Detector tape should be installed with any pressure lines not buried in the same trench with control wires and with any lines of any kind under paving not in trench with control wires.
- 4) For valve groupings provide a threaded capped pressure line shutoff so it is easy to add additional valves later. Run a few extra wires to these locations from the controller.
- 5) Electric controllers should be set to water between 6:00 PM and 10:00 AM. to avoid watering during times of higher wind or temperature and programmed with repeat cycles to avoid runoff. This is not as important for drip that is not affected by the wind. Set irrigation schedule according to plants' water needs.
- 6) Run 2 extra control wires from the controller to each valve group so that additional valves could be added if necessary in the future.
- 7) The routing of sprinkler lines is schematic on the plan. Do not put valves too close to trees. Stay 8' to 10' away if possible. Do not put pressure lines under trees. Install line in planting areas instead of under paving wherever possible. Do not trench under drip line of existing tree canopies without written approval of the project certified arborist.
- 8) The contractor is to include an additional separate cost for an Irrigation Auditor by a certified irrigation auditor just in case it is required.
- 9) Install the wireless Solar Sync weather sensor where it will receive full sun and rain
- 10) Install sufficient check valves to keep excess water from draining out of the system when it is shutoff that would result in wasted water.

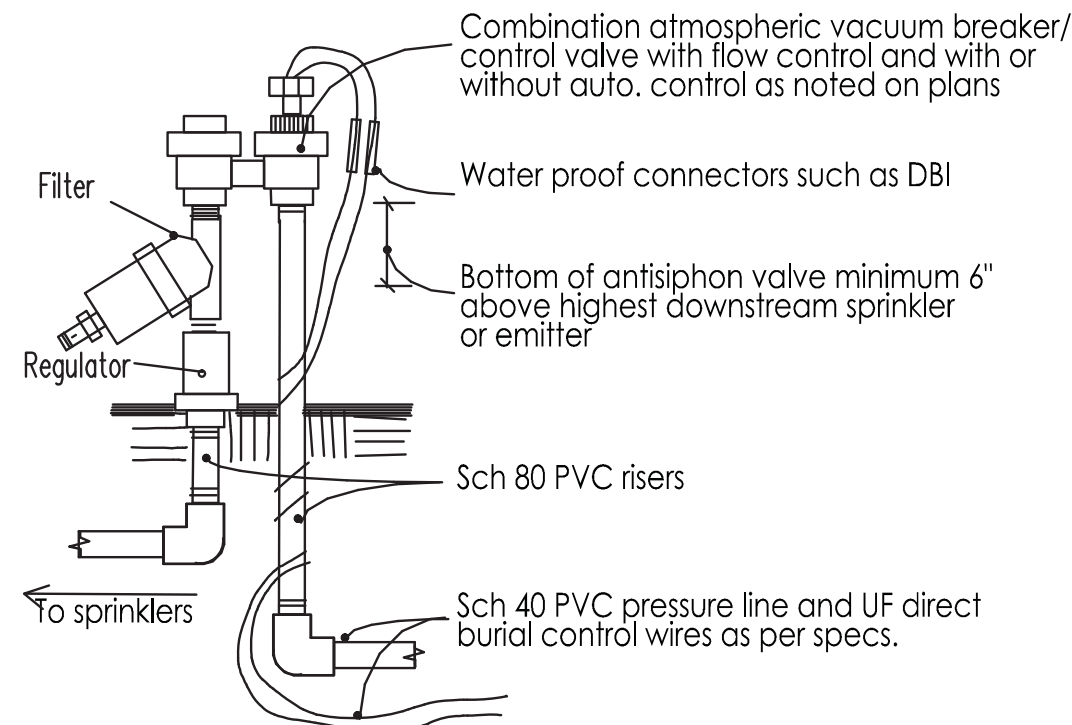


Emitter schedule:

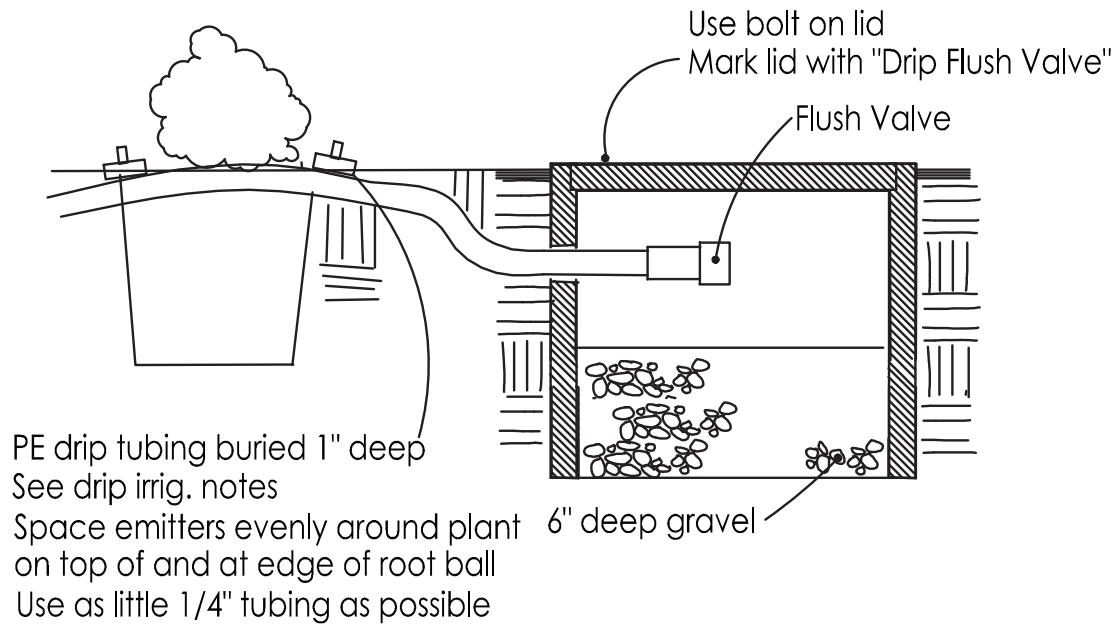
- Two 1 GPH emitters at small ground covers and shrubs [eventual size], D,LM,LA
- Three 1 GPH emitters at medium shrubs SL,DV,LP
- Four 1 GPH emitters at large shrubs PG

With shrubs that have multiple emitters, put some at edge of root ball (not right on stem) and some out under future canopy. Space emitters evenly in future root zone area.

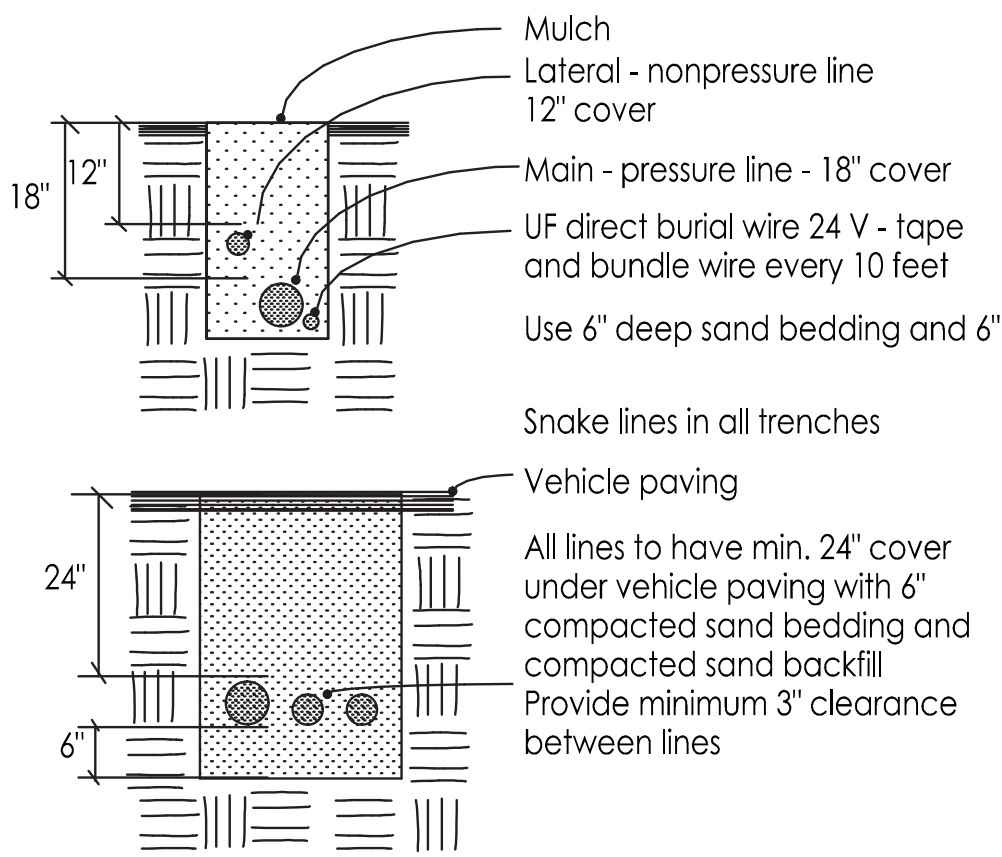
Trees to have six 1 GPH emitters at root ball and 14 additional 1 GPH emitters under future canopy of tree at 2x2 grid spacing



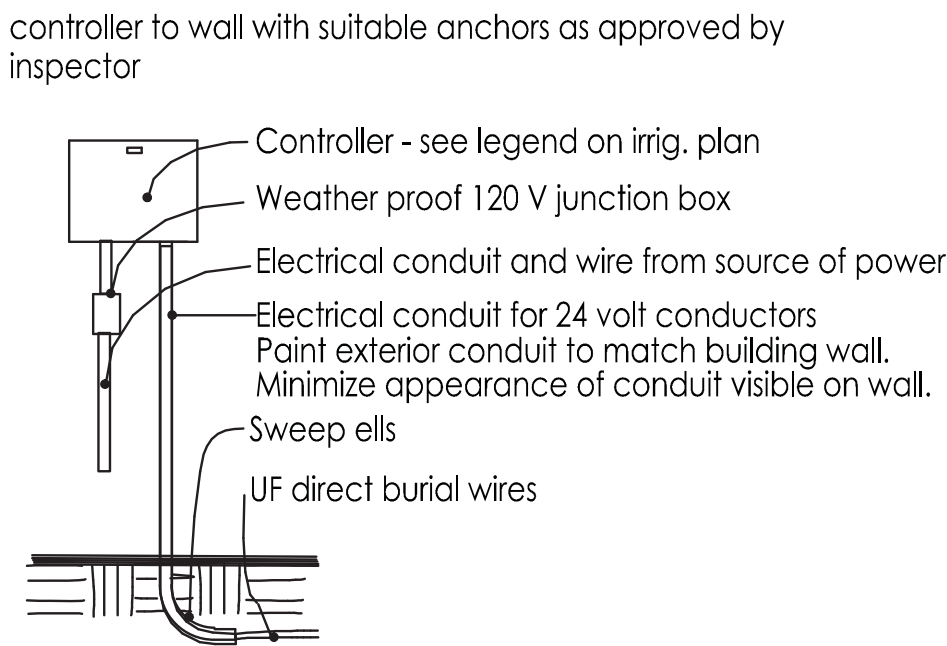
Auto. Antisiphon Valve
with Filter and Regulator for Drip
No Scale



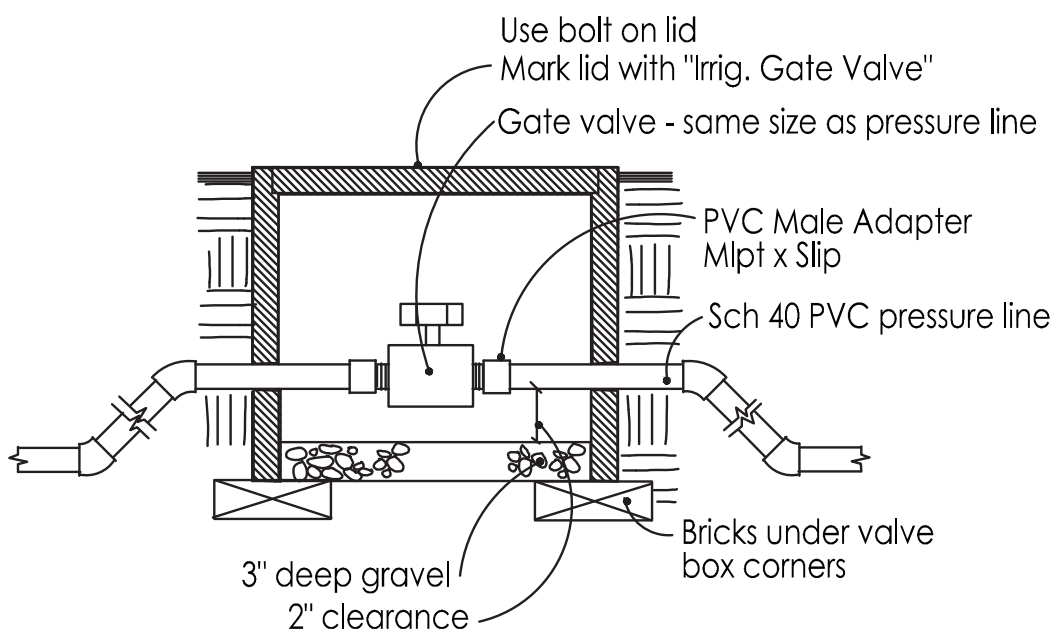
Drip Emitter and Flush Valve
No Scale



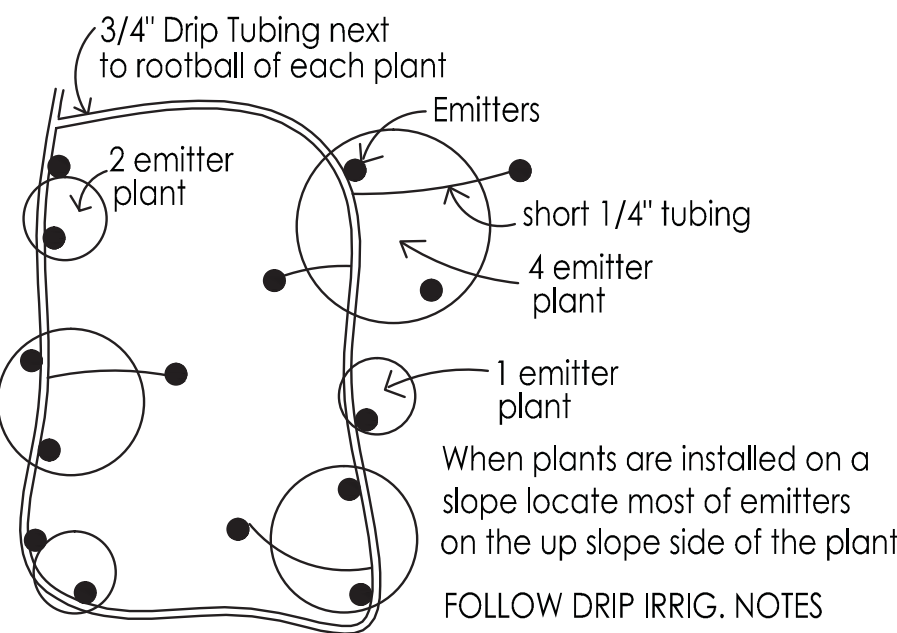
Trenches/Lines
No Scale



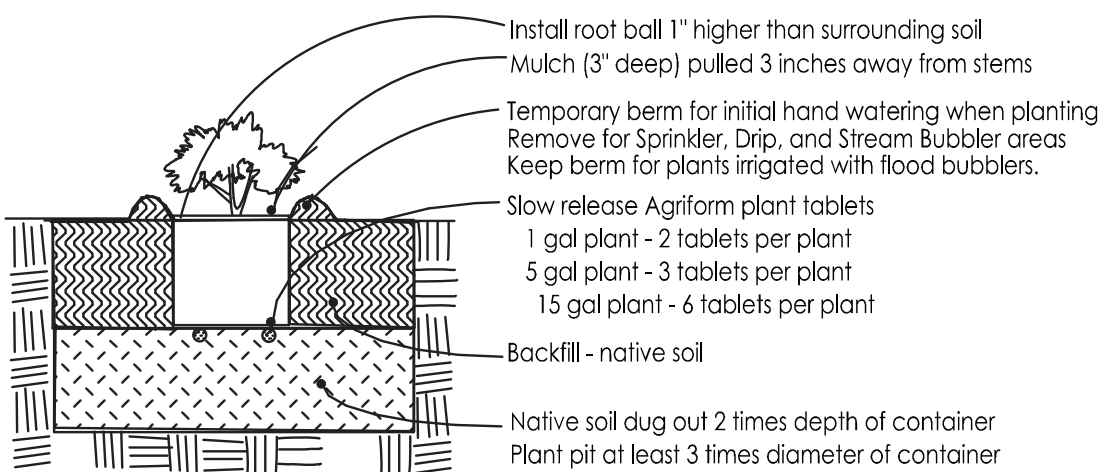
Wall Mount Controller
No Scale



Manual Gate Valve
No Scale

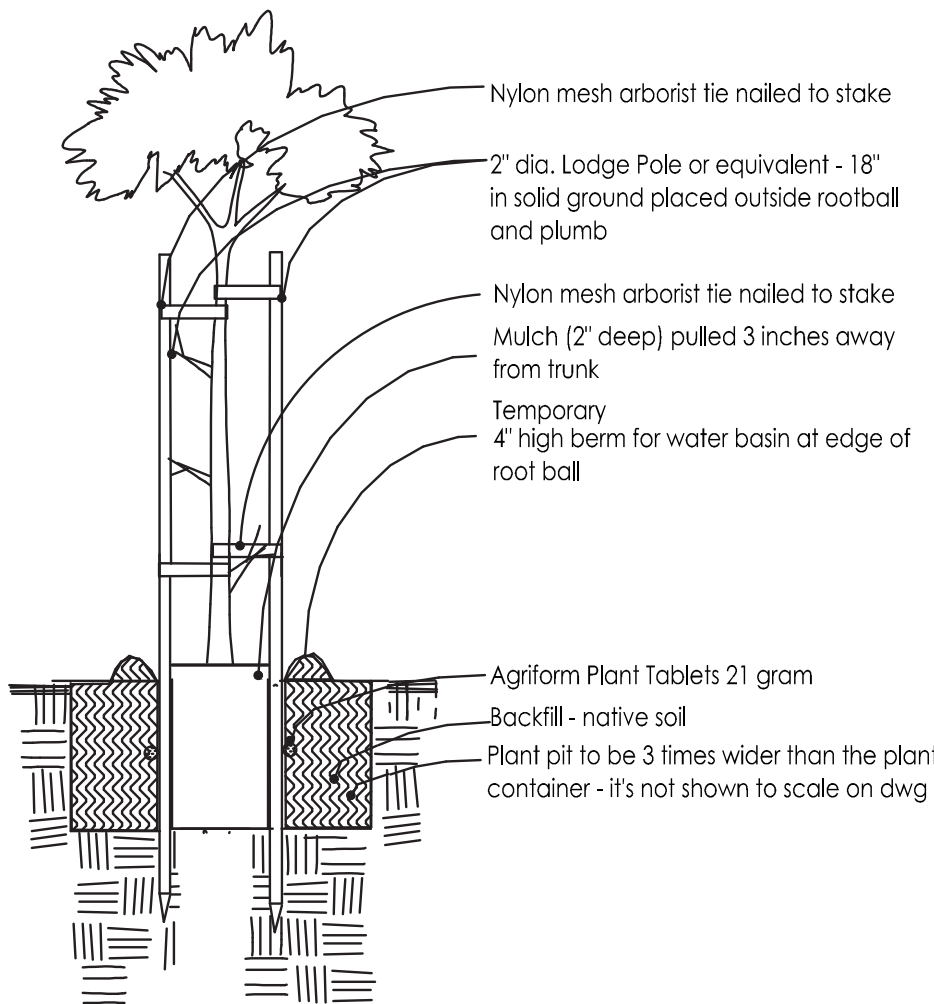


Drip Emitter Placement at Shrubs/
Ground Covers
No Scale



- 1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
- 2) Dig the plant hole at least 3 times the dia. and 2 times the depth of the plant container.
- 3) Replace this mixture in bottom half of hole and walk on it. The level of it should be such that when the plant is installed and settled it will be slightly above grade of existing soil. Fill hole with water.
- 4) Remove rootball carefully from container by tapping out, not pulling out by the stem. Scarify rootball walls in 3 vertical cuts and bottom to 1/2" deep, or by cutting roots of 1/2" or larger with shears. Do not pull roots apart.
- 5) Install fertilizer packets under rootball of plant. Set rootball on prepared surface and fill hole to 1/2 the depth, tamping soil around rootball. Fill hole with water.
- 6) Fill the remainder of the hole with backfill and pack it but do not tamp rootball.
- 7) Make the water basin.
- 8) Water shrub thoroughly within 1 hour of planting by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
- 9) Install mulch

Shrub Planting
No Scale



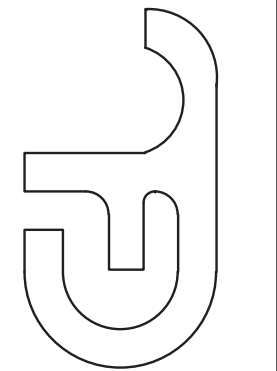
- 1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
- 2) Dig hole at least 3' deeper than the container and 3 times wider than the diameter of the container the plants were delivered in.
- 3) Gauge holes in the side of the plant pit - 2 holes per sq. ft. of wall surface
- 4) Remove rootball carefully from container with support from below. Sever any circling roots (3/16" dia. or greater) with sharp knife. Do not pull roots apart. The severing of large roots will encourage new roots at the cuts. Install enough backfill under root ball so top of rootball ends up 2' above grade of surrounding soil when it settles. Install some of fertilizer packets under root ball.
- 5) Fill around rootball with backfill mix to 1/2 its height and pack soil as you fill with shovel handle or feet being careful not to disturb root ball
- 6) Put Agriform Plant Tablet fertilizer at this level adjacent to rootball and at bottom of hole (5 tablets per 15 gal. or 5 tablets per 1 inch of caliper width. Fill the remainder of the hole with backfill and pack it.
- 7) Water tree thoroughly by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
- 8) Install stakes such that the stakes and the tree ties won't damage the tree and the stakes won't lean toward each other. Cut off tops of stakes if necessary to lower below branches that could be rubbed by stakes. Install stakes so they are straight up and don't lean in to each other

Tree Planting
No Scale

Landscape Details

Revision
12/16/21

#2176
GREGORY LEWIS LANDSCAPE ARCHITECT
738 Park Way Santa Cruz, CA 95065 (831) 425-4747



Bobby and Missy Paul Residence
Blue Bonnet Ln., Scotts Valley
APN: 022-212-23

Date 8/12/21
Scale As Noted
Drawn Greg
Job
Sheet

L4
of 5

GENERAL CONDITIONS – SOIL PREPARATION, PLANTING, AND IRRIGATION

1.1 QUALITY ASSURANCE:

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- B. It is the Contractor's responsibility to verify all information contained in the plans and specifications and to notify the Architect of any discrepancy prior to ordering products or commencing with the work.
- C. Check and verify dimensions, reporting any variations to the Architect before proceeding with the work.

1.2 CONTRACTOR COORDINATION

- A. It is the responsibility of the Landscape Contractor to familiarize himself with all grade differences, location of walls, retaining walls, etc., and to coordinate work with the General Contractor.

1.3 DIMENSIONS AND SCALE

- A. Dimensions are to take precedence over scale at all times. Large scale details are to take precedence over those at small scale. Dimensions shown on plans shall be adhered to insofar as it is possible, and no deviation from such dimensions shall be made except with the consent of the Architect. The Contractor shall verify all dimensions at the site and shall be solely responsible for same or deviations from same.

1.4 LAWS AND REGULATIONS

- A. The Contractor shall conform to and abide by all city, county, state and federal building, labor and sanitary laws, ordinances, rules, and regulations.

1.5 LICENSES AND PERMITS

- A. The Contractor shall give all notices and procure and pay for all permits and licenses that may be required to complete the work.

1.6 SUBMITTALS

- A. At the request of the owner or the Landscape Architect, submit manufacturer's and/or supplier's specifications and other data needed to prove compliance with the specified requirements including certificates stating quantity, type, composition, weight, and origin of all amendments, chemicals, import soil, planter mix, plants, and irrigation equipment used on the site.

1.7 PRODUCT SUBSTITUTIONS

- A. Any product substitutions shall be requested in writing. The Landscape Architect must approve or refuse any substitutions in writing. Lack of written approval will mean the substitution is not approved. Any difference in cost to the Contractor of a less expensive substitution shall be credited to the Owner's

1.8 ERRORS AND OMISSIONS

- A. The Contractor shall not take advantage of any unintentional error or omission in the drawings or specifications. He will be expected to furnish all necessary materials and labor that are necessary to make a complete job to the true intent and meaning of these specifications. Should there be discrepancies in the drawings or specifications, the contractor shall immediately call the attention of the Architect to same and shall receive the complete instructions in writing.

1.9 INSPECTIONS/REVIEWS DEFINITION

- A. Inspection or observation as used in these specifications means visual observation of materials, equipment, or construction work on an intermittent basis to determine that the work is in substantial conformance with the contract documents and the design intent. Such inspection or observation does not constitute acceptance of the work nor shall it be construed to relieve the contractor in any way from his responsibility for the means and methods of construction or for safety on the construction site. Inspection or observation will be done by the Landscape Architect only if requested by the owner in writing. This service will require a written contract for additional fees.

LANDSCAPE IRRIGATION

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. The work includes but is not necessarily limited to the furnishing of all materials, equipments, and labor required to install a complete irrigation system.

- 1.2 GUARANTEE. The entire sprinkler system shall be guaranteed by the Contractor in writing to be free from defects in material and workmanship for a period of one year from acceptance of the work. The guarantee shall include repair of any trench settlement occurring within the guarantee period, including related damage to paving, landscaping, or improvements of any kind.

1.3 REVIEWS

- A. Request the following reviews prior to progressing with the work: (1) Layout of system (2) Depth of lines prior to backfilling (3) Coverage adjustment of all heads, valve boxes and operation of system.

1.4 WATER PRESSURE

- A. Verify the existence of the minimum acceptable volume of water at the minimum acceptable dynamic pressure as per plan at the point of connection at the earliest opportunity, reporting insufficient volume and/or pressure to the Landscape Architect. Contractor is responsible for cost of installation of pressure regulator if pressure exceeds 80 psi.

1.5 UTILITIES

- A. Verify the location of all existing utilities and services in the line of work before excavating. Take all precautionary measures necessary to avoid damaging

1.6 ELECTRICAL CONNECTION

- A. Verify existence of 110 Volt 20 Amp. circuit for irrigation controller (by others) at location noted on plan for installation of controller.

PART 2 – PRODUCTS

2.1 PIPE

- A. Plastic pipe is to be polyvinyl chloride, marked 1120–1220, and bearing the seal of the National Sanitation Foundation. Use Schedule 40 polyvinyl chloride, type I–II fittings bearing the seal of the National Sanitation Foundation, and complying with ASTM D2466 for pressure line and also for any water lines under asphalt paving. Use Sch 40 PVC for lateral lines in planting areas unless stronger pipe is specified in the irrigation legend. For joining, use a solvent complying with ASTM D2466 and recommended by the manufacturer of the approved pipe. Pipe is to be continuously and permanently marked with the manufacturer's name, pipe size, schedule number, type of material, and code number.
- B. Galvanized steel pipe is to comply with ASTM A120 or ASTM A53, galvanized, Schedule 40, threaded, coupled, and hot-dip galvanized. Use 150 lb. rated galvanized malleable iron, banded pattern fittings. Wrap all galvanized pipe below grade with 2" wide, 10 mil. plastic wrapping tape (#50 Scotch wrap or equal).
- C. Drip tubing is to be as noted on plans. Use compression fittings.

2.2 CONTROL WIRE

- A. Use type UF direct burial wire minimum size #14, copper, U.L. approved for irrigation control use for runs of 1000 feet or less. For longer runs consult with Landscape Architect. Use 3M DBY Direct Bury Wire Splice Kits or dry splice type wire connectors at splices. No underground splices will be allowed without a splice box.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 EXCAVATION

- A. Trenches may be excavated either by hand or machine, but shall not be wider than is necessary to lay the pipes. Care should be taken to avoid damage to existing water lines, utility lines, and roots of plants to be saved.
- B. Minimum depth of cover for buried pipelines shall be: 1. Eighteen (18) inches for mainline pressure piping. 2. Eighteen (18) inches for 24 volt wiring from controllers to remote control valves. 3. Twelve (12) inches for lateral distribution lines. 4. Twenty-four (24) inches, minimum cover, with 6" sand bedding and 6" sand cover for any pipe or wire sleeve under A.C. paving.
- C. Under existing paving, piping may be installed by jacking, boring, or hydraulic driving except that no hydraulic driving will be permitted under asphalt concrete pavement (most pipes and sleeves under A.C. paving are to be installed prior to installation of the paving). Where cutting or breaking of existing pavement is necessary, secure permission from the Architect before cutting or breaking the pavement, and then make necessary repairs and replacements to the approval of the Architect and at no additional cost to the Owner.

3.3 INSTALLATION OF PIPE

- A. Handling and assembly of pipe, fittings, and accessories shall be by skilled tradesmen using methods and tools approved by the manufacturers of the pipe and equipment and exercising care to prevent damage to the materials or equipment.
- B. Metal pipe threads shall be sound, clean cut, and cored to full inside diameter. Threaded joints shall be made up with the best quality pure joint compound carefully and smoothly placed on the male threads only throughout the system.
- C. On plastic threaded connections use the sealer recommended by the manufacturer of the plastic valve or fitting. Do not use paste sealer products on plastic valves. Tighten plastic threaded connections with light wrench pressure only.
- D. Connections and controls shall be functionally as shown on the drawings, but physically shall be the most direct and convenient method while imposing the least hydraulic friction. Install lines in planting areas whenever possible.
- E. Thread male PVC connections into metal female connections rather than the opposite.
- F. Interior of pipe fittings, and accessories shall be kept clean at all times, and all openings in piping runs shall be closed at the end of each day's work or otherwise as necessary to prevent the entry of foreign materials. Bending of galvanized steel pipe will not be permitted. Install plastic pipe with the markings turned up to be seen from above until the pipe is buried. "Snake" the pipe in the trenches so that there will be a small amount of excess length in the line to compensate for contraction and expansion of the pipe.
- G. Place backfill in 6" layers such that there will be no settling. The top 6" of soil is to be the top soil and soil amendment mixture. All backfill shall be free of rock and debris. Test pipe for leaks prior to backfilling joints. Obtain approval of the owner's representative before backfilling joints.

3.4 INSTALLATION OF EQUIPMENT

- A. Flush lines clean prior to installation of valves, sprinkler heads, or hose bibs. Install valves, sprinkler heads, controllers, backflow preventors, hose bibs, and other equipment as per the Irrigation Plan and details.

3.5 ELECTRICAL WORK

- A. The line voltage work shall consist of connecting the controller to the nearest available 115 volt supply. The line voltage connection shall be in conduit, in accordance with local electrical code. Controllers mounted inside buildings can be plugged into outlets. The low voltage work shall include all necessary wiring from the controller to the automatic sprinkler valves, installed in accordance with the manufacturer's recommendations. A loop of extra wire, a minimum of eighteen (18) inches long shall be provided at each automatic valve. Appropriate expansion loops shall be provided throughout the system to assure that no wiring will be under stress.
- B. All splices and connections on the 24 volt system shall be made using 3M DBY Direct Bury Splice Kits, Rain Bird Pentite connector, or equal.
- C. Wiring, wherever possible, shall be placed in the same trench with, and alongside of, the irrigation main water line. Tape and bundle wire every ten feet. All wiring placed under paving shall be put in adequately sized Sch 40 PVC pipe sleeves prior to paving operations.
- D. Wire for 24 volt control lines shall be size #14 UF direct burial irrigation wire. Unless noted differently on the plan, common grounds shall be white, size #14 UF direct burial wire. For wire runs over 1000 feet consult with Landscape Architect for wire size. Under no circumstances, on multiple controller installations, will a single common ground, shared by each controller, be permitted. Each controller shall have its own separate common ground wire.

3.6 TESTING

- A. All testing shall be done in the presence of the Owner's Representative. Center-load all pipelines with clean soil approximately every four feet to resist hydraulic pressures, but leave fittings exposed for inspection. Piping under paving shall be tested before paving is in place. Install a 0 to 160 P.S.I. gauge on lines to be tested. All valves shown on Plans shall be in place and shall be in the closed position. Mains shall be tested at 100 P.S.I., and laterals at 65 P.S.I. If available static water pressure is under 100 P.S.I., provide suitable pump for tests. Fill pipelines slowly to avoid pipe damage, and bleed all air from lines as they are being filled. After closing valve at water source, mains shall hold 100 P.S.I. gauge pressure for two hours with no leaks. Laterals are expected to have minor seepage at multiple swing joint assemblies. Major leaks are not acceptable. Laterals shall be tested for one hour at 65 P.S.I. solely to reveal any piping or assembly flaws. The laterals are not expected to hold gauge pressure. For testing laterals, cap risers or turn adjusting screws on nozzles to the "off" position, as appropriate. Repair any flaws discovered in mains or laterals, then retest in same fashion as outlined in presence of the Landscape Architect until all lines have been approved. Provide required testing equipment and personnel.

3.7 SYSTEM ADJUSTMENT

- A. The entire sprinkler system shall be properly adjusted before final acceptance. Adjustments shall include but not necessarily be limited to: (1) Adjustment of arc and distance control devices on sprinklers, including changing nozzle sizes if necessary to assure proper coverage of planted areas. (2) Relocation or addition of sprinkler heads if necessary to properly cover planted areas, without causing excessive water to be thrown onto building, walks, paving, etc. (3) Throttling of automatic valves as necessary to operate sprinklers at manufacturer's recommended pressure. (4) Adjustment and testing of all automatic control devices to assure their proper function, both automatically and manually. (5) Installation of pop-up heads anywhere there is a chance of pedestrians or vehicles hitting heads even if pop-ups are not shown on the plan. (6) Installation of check valves to keep sprinkler head drainage from eroding landscape areas, wasting water, or creating soggy spots in the landscaping.

3.8 AS-BUILT DRAWINGS AND INSTRUCTION

- A. Regularly update a print of the system noting any changes which are made by dimensioning features below grade from surface features with at least two dimensions. Prior to final approval, give the Owner 2 copies of clean blueprints marked to show changes during construction. The most important features to mark on the plan are valves, pressure lines, wires, and hose bibs.
- B. After the system has been completed, inspected, and approved, instruct the Owner's maintenance personnel in the operation and maintenance of the system. Give the Owner completed warranty cards for the irrigation equipment and keys to controllers and hose bibs.

SOIL PREPARATION AND PLANTING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work includes, but is not necessarily limited to, the furnishing of all materials, equipment, and labor required to do the installation and complete placement of topsoil, fine grading, soil conditioning, and planting.

1.2 QUALITY ASSURANCE

- A. Plant Identification and Quality
1. Plants are to be true to name, with one of each bundle or lot tagged with the name of the plants in accordance with standards of practice of the American Association of Nurserymen. In all cases, botanical names take precedence over common names.
2. Plants shall be vigorous, of normal growth habit, free of diseases, insects, eggs, larvae, excessive abrasions, sun scalds, or other objectionable disfigurements, and shall conform to the standards as outlined by the California Association of Nurserymen. Tree trunks shall be sturdy and well "hardened off". All plants shall have normal well developed branch system, and vigorous, fibrous root systems which are not root bound. Ground cover plants (rooted cuttings) shall have well developed root systems and be kept moist prior to and during installation. Plants shall be nursery grown and of size indicated on Drawings. All plants not conforming to those requirements will be considered defective, removed from the site and replaced with acceptable new plants at the Contractor's expense.
3. Sod shall have a well developed root system. Yellowing, brown, diseased, dried, or pest infested sod shall be rejected. Sod is to be cleanly mowed within 72 hours of delivery to the site. Sod is to be delivered to the site within 24 hours after being harvested and installed immediately after being delivered. Sod shall not be stored on the site overnight. Any sod delivered to the site that cannot be installed the same day shall be removed and not used on the site.
4. Ground cover is to have well developed roots and foliage. It is to be grown in and delivered to the site in flats.

1.3 SUBMITTALS

- A. Provide the results of lab tests done on representative samples of existing soils and imported soils to be used for the top 12" or more of landscape area. Tests are to be done by a reputable soils lab (i.e., Perry Lab, Watsonville or Santa Clara Soil and Plant Lab). Samples to be tested are to be collected by lab personnel. Soil samples are to be tested for:
1. Particle size distribution (clay, silt, sand).
2. Agricultural suitability including any excess problems; i.e., salinity (calcium, magnesium), boron, sodium, pH level.
3. Fertility – amounts of available nitrogen, potassium, phosphorous, iron, magnesium, copper, zinc, and boron.
4. Chemicals and/or poisons that would hinder plant growth. The owner is to decide if tests for poisons will be done since there is a small chance that any exist and the cost of testing for them is expensive and difficult.
- An interpretation of the test results and their effect on plant performance done by the lab staff or an approved horticultural consultant should be included in the report. The Owner is responsible for the cost of initial testing and for any additional chemicals and amendments that are required that are not already included in the Specifications or Drawings. Soils tests must be done as soon as possible and prior to ordering or installing soil amendments or plant materials. Plant selections and soil amendment specifications are subject to change depending on the results of the soil tests.
5. If bidding is done prior to soil fertility tests, bid 6 cu yds. of nitroized RWD sodwust and 16 lbs. of 12–12–12 fertilizer per 1000 sq.ft. tilled or dug into the top 6" to 8" of soil in all planting areas for bidding purposes only. Revise bid when results of soil fertility tests are obtained.

1.4 GUARANTEE

- A. Trees shall be guaranteed 1 year – all other plant material 120 days following final acceptance. Any plant material needing replacement because of weakness or probability of dying will be replaced with material of similar type and size to that of the surrounding area. The replacement plants will have the same guarantee as the original plants or trees, starting the day of their replacement. The Contractor is not responsible for losses due to vandalism if he has taken reasonable measures for protection of the plants.

1.5 PRODUCT HANDLING

- A. Protect plants before and during installation, maintaining them in a healthy condition. Application(s) of anti-desiccant may be required to minimize damage. The Contractor is responsible for vandalism, theft, or damage to plant material until commencement of the maintenance period.

1.6 REVIEWS

- A. Request the following reviews by the Owner's Representative at least three (3) days in advance (in writing): (1) Rough grading (of landscape area) (2) Soil test (3) Verification of incorporation depths (4) Finish grade (5) Plant material quality approval (6) Plant material layout (7) Plant pit sizes (prior to planting plants) (8) Preliminary inspection (9) Final inspection (5 day advance notice required)

PART 2 – PRODUCTS

2.1 TOPSOIL

- A. Native topsoil or import landscape soil

2.2 NATIVE TOPSOIL

- A. Native soil on site without admixture of subsoil, free from rocks over two cubic inches, debris, and other deleterious material. Native topsoil is to be stripped, stockpiled, and reinstalled.

2.3 IMPORT LANDSCAPE SOIL

- A. Import landscape soil must be tested and meet the following specification:
1. TEXTURE: Sandy loam to loam
2. GRADING:
- | SEIVE SIZE | PERCENT PASSING SIEVE |
|----------------------|-----------------------|
| 25.4 mm (1") | 95 – 100 |
| 9.51 mm (3/8") | 85 – 100 |
| 53 Micron (270 mesh) | 10 – 30 |
3. CHEMISTRY – SUITABILITY CONSIDERATIONS:
- a. Salinity: Saturation Extract Conductivity (E_{ce} x 103 @ 25 degree C.) Less than 4.0
- b. Sodium: Sodium Adsorption Ration (SAR) Less than 9.0
- c. Boron: Saturation Extract Concentration Less than 1.0 PPM
- d. Reaction: pH of Saturated Paste: 5.5 – 7.5
- e. Lime: less than 3% by weight

4. PESTS:

- a. The population of any single species of plant pathogenic nematode: fewer than 500 per pint of soil.
5. ORGANIC MATTER
- a. Soil is to have 5% to 10% organic matter at below 18 inches in depth. Soil is to have less than 30% organic matter at 0 to 18 inches in depth
- Organic matter to be less than 1" dia. Do not use mushroom compost. No noxious weeds are allowed.
6. FERTILITY CONSIDERATIONS:
- a. Soil is to contain sufficient quantities of available nitrogen, phosphorous, potassium, calcium, and magnesium to support normal plant growth. In the event of nutrient inadequacies, provisions shall be made to add required materials to overcome inadequacies prior to planting.
7. COMPACTION
- a. Compact the soil enough so it doesn't settle more when walked on and not significantly over time where the flow of drainage will be affected or soil needs to be added. Don't over compact or work soil when it has too much moisture. Dig bottom layer of import soil into existing soil. Compact in 6 inch lifts.

2.4 ORGANIC SOIL AMENDMENT

- A. Redwood sawdust, 0–1/4" in diameter, that is nitrogen stabilized by the supplier, and contains a wetting agent. Also see note on planting plan

2.5 ORGANIC MULCH

- A. See Planting Plan

2.6 PLANTER SOIL MIX

- A. See Planting Plan and Details.

2.7 BACKFILL FOR PLANT PITS

- A. For native soils with 50% or more clay content – 75% topsoil and 25% organic amendment thoroughly mixed and incorporated together with no topsoil clods larger than 1/2" diameter. In heavy clay soils or other soils with large clods this will require mixing the backfill in a stockpile at the site or at the supplier. For soils with less clay content amend only the top 8" of the plant pit backfill as per the soils lab recommendations.

2.8 FERTILIZER

- A. Fertilizer needs and amounts will be based on the results of the soil test
- B. Sod lawn areas (there is no lawn on the plan)

2.9 PLANT MATERIAL SUBSTITUTES

- A. Substitutes will not be permitted except when proof is submitted that plants specified are not available and then only upon approval of the Landscape Architect and Owner.

2.10 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Landscape Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.
- B. Weed and Debris Removal – All ground areas to be planted shall be cleaned of all weeds and debris prior to any soil preparation or grading work. Weeds and debris shall be disposed of off the site.

- C. Contaminated Soil – Do not perform any soil preparation work in areas where soil is contaminated with cement, plaster, paint or other construction debris. Bring such areas to the attention of the Owner's Representative and do not proceed until the contaminated soil is removed and replaced.
- D. Moisture Content – Soil shall not be worked when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in the air or that clods will not break readily. Water shall be applied, if necessary, to bring soil to an optimum moisture content for tilling and planting.

3.2 ROUGH GRADING AND TOPSOIL PLACEMENT

- A. Request a review by the Owner's Representative to verify specified limits and grades of work completed to date before starting soil preparation work. Place topsoil as required to obtain an 12" minimum depth of topsoil or as noted otherwise on the Plans. (Topsoil may already exist in the planting areas). Integrate topsoil layer into subsoil or existing compacted topsoil layer by ripping. Complete rough grading as necessary to round top and toe of all slopes, providing naturalized contouring to integrate newly graded area with the existing topography. Verify that rough grading is completed in accordance with civil engineering drawings and/or any landscape grading drawings. Break through any compacted layers of subgrade material (sometimes left from building or paving pad compaction) that will not allow water in planting areas to percolate through, causing a boggy, over saturated soil condition. You may have to use a backhoe or rotohammers to break up and turn soil to a minimum depth of 12". If proposed planters are in areas of existing paving or base rock, remove at least 12" of material and bring in top soil up to grade required by grading plan. Rough grading in planting areas is to be such that when amendment is incorporated and the mulch is installed, the grade will be +– 1" to finish grade.
- B. Soil Preparation: (1) Distribute soil (organic) amendment and fertilizer in the amounts recommended by the soils lab over all planting areas unless noted otherwise on the Plans. (2) Rip and/or till the amendment and fertilizer into the top 6" to 8" of soil until they are thoroughly mixed in. Hand work areas inaccessible to mechanical equipment. (3) Moisten to uniform depth for settlement and regrade to establish elevations and slopes indicated on Drawings.

3.3 FINISH GRADING

- A. The Contractor shall make himself familiar with the site and grading plans and do finished grading in conformance with said Plans and as herein specified.
- B. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given or between points established by walks, paving, curbs, or catch basins. Finish grades shall be smooth, even, and on a uniform plane with no abrupt changes of surface. Minor adjustments of finish grades shall be made at the direction of the Landscape Architect, if required.
- C. All grades shall provide for natural runoff of water without low spots or pockets. Flowline grades shall be accurately set and shall be not less than 2% gradient wherever possible. Grades shall slope away from building foundations unless otherwise noted on Plans. All finish grades (top of mulch) are 1" below finish grade of walks, pavements, curbs, and valve boxes unless otherwise noted.

3.5 MULCHING

- A. Recultivate soils compacted by planting or other operations and smooth the soil areas prior to applying mulch. Mulch all planting areas to a depth as noted on plans. This depth should be as per the plans even after being settled and stepped on 30 days after installation. Water lightly to settle mulch. Do not bury ground cover with mulch. Place and settle mulch in such a way that it does not get washed onto paving or block drain swales or inlets.

3.6 WEED CONTROL

- A. The Contractor is responsible for pre-emergent weed control. Follow the manufacturer's directions. The Contractor is responsible for the replacement of any plants (other than weeds) that are hurt or killed due to the misuse of weed control products or use of the wrong product. Clay soils can increase the effect of certain pre-emergents. Adjust the application rate accordingly. Some owners may prefer hand weeding to chemical weed control although it is usually more expensive.

3.7 MAINTENANCE

- A. Maintenance shall begin immediately after each plant is installed.
- B. Maintenance will include:
1. Continuous operations of watering, weeding, cultivating, fertilizing, spraying, insect, pest, fungus, and rodent control, and any other operations to assure good normal growth.
2. Fertilizing: In addition to fertilizing of trees, shrubs and ground covers, herein specified, furnish and apply any additional fertilizers necessary to maintain plantings in a healthy, green vigorous growing condition during the maintenance period.
3. Weeding, Cultivating and Clean Up: Planting areas shall be kept neat and free from debris at all times and shall be cultivated and weeded at no more than 10-day intervals.
4. Insect, Pest and Disease Control: Insects and diseases shall be controlled by the use of approved insecticides and fungicides. Moles, gophers, and other rodents shall be controlled by traps, approved pellets inserted by probe gun, or other approved means.
5. Protection: Work under this Section shall include complete responsibility for maintaining adequate protection for all areas. Any damaged areas shall be repaired at no additional expense to the Owner.
6. Replacements: Immediately replace any plant materials that die or are damaged. Replacements shall be made to the Specifications as required for original plantings.
7. Hand Watering: Even when planting areas are watered with automatic irrigation, the soil surrounding the plant pits can be moist while the sodwust/sand root ball is dry. This can cause the plants to deteriorate or not grow (even during the winter). The plants will do best (especially during the hot season) if they are hand watered deeply until their roots grow out into the surrounding soil.

3.8 PRELIMINARY INSPECTION

- A. As soon as all the planting is installed, the Contractor will request the Owner's Representative (in writing) to make a preliminary inspection. The 30 calendar day maintenance period will start when the work is approved. Replacement and/or repairs may be required for approval. The Contractor is to notify the Owner and the Owner's Representative in writing when the 30 day maintenance period begins.

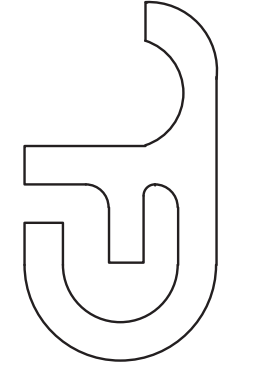
3.9 FINAL INSPECTION

- A. At least 5 days prior to the anticipated end of the maintenance period, the Contractor shall submit a written request for final inspection. The planting areas shall be weeded, neat and clean. The work shall be accepted by the Owner exclusive of the plant materials upon written approval of the work by the Owner's Representative.

Revision

12/16/21

GREGORY LEWIS LANDSCAPE ARCHITECT
736 Park Way Santa Cruz, CA 95065 (831) 425-4747
#2176



Bobby and Missy Paul Residence
Blue Bonnet Ln., Scotts Valley
APN: 022-212-23

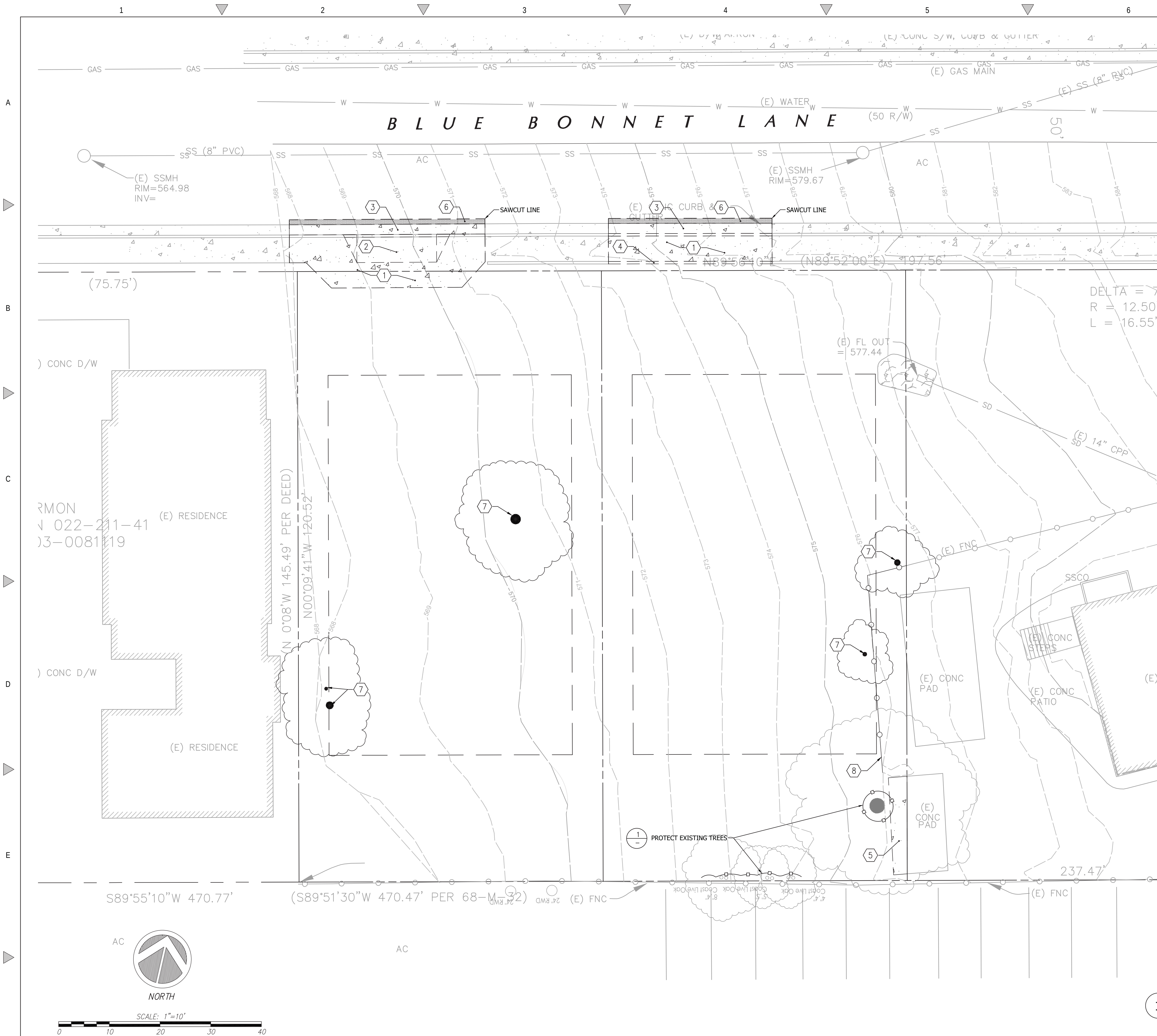
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Drawn Greg

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 DEMOLITION NOTES:

- 1 REMOVE EXISTING CONCRETE SIDEWALK
- 2 REMOVE EXISTING CONCRETE DRIVEWAY APRON
- 3 REMOVE EXISTING CONCRETE CURB AND GUTTER
- 4 REMOVE EXISTING CONCRETE CURB
- 5 REMOVE PORTION OF EXISTING CONCRETE PAD
- 6 REMOVE EXISTING AC PAVEMENT
- 7 REMOVE EXISTING TREE
- 8 REMOVE PORTION OF EXISTING FENCE

DEMOLITION & SITE PREPARATION NOTES:

THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION, DEMOLITION AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.

THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE AT NO ADDITIONAL COST.

UNLESS SPECIFICALLY NOTED TO BE SAVED / STOCKPILED (R&S) OR REUSED / RELOCATED (R&R), ALL SITE FEATURES CALLED FOR REMOVAL SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC, TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO COST TO THE OWNER.

ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.

DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF GRADING AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.

IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER, TO REUSE EXISTING GRAVEL IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR GRAVEL BORROW.

ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.

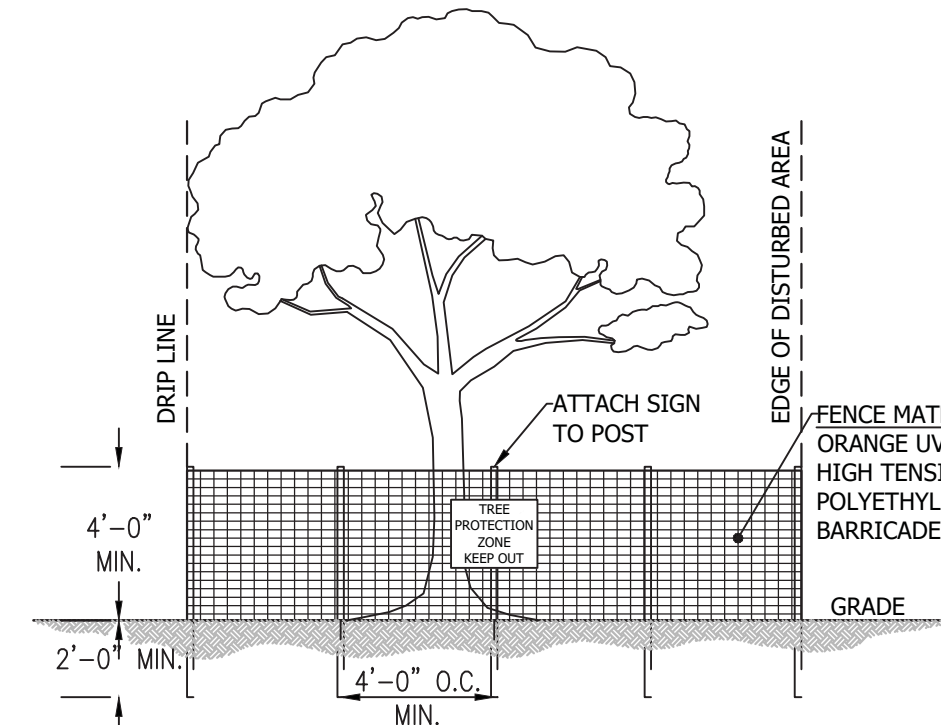
'CLEAR AND GRUB VEGETATION' SHALL INCLUDE REMOVAL OF GRASS, SHRUBS, AND UNDERBRUSH, REMOVAL OF ROOTS, ROUGH GRADING, INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF ESTABLISHMENT BY THE CONTRACTOR.

TREES DESIGNATED FOR REMOVAL SHALL BE TAGGED BY CONTRACTOR AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

STRIP & STORE EXISTING TOPSOIL FOR LATER REUSE WHERE APPROPRIATE, AND AS NOTED ON PLAN, WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS.

THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN, CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIER AFTER CLEARING UNDERBRUSH AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.



TREE PROTECTION

- NOTES:

1. ALL PLANTS DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING.
2. INSTALL TREE PROTECTION FENCE AT TREE DRY LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS PRIOR TO START OF CONSTRUCTION.
3. SPACE TREE PROTECTION ZONE SIGNS AT A MINIMUM OF ONE EVERY 30 FEET. SIGN MUST BE A MINIMUM OF 2'x2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE. SIGN SHALL READ "TREE PROTECTION ZONE, KEEP OUT", IN BOTH ENGLISH AND SPANISH.
4. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION ZONE.
5. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

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Date: 08.26.21

Scale: 1" = 10'

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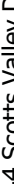
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0039

EXISTING SITE AND DEMOLITION PLAN



C2G / CIVIL CONSULTANTS GROUP, INC.
Engineers/Planners
 4444 Scotts Valley Drive / Suite 6
 Scotts Valley, CA 95066

PAUL RESIDENCE
BLUE BONNET LANE
SCOTTS VALLEY, CA 95066

Date: 08.26.21

Scale: 1" = 10'

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Job: 9026.01

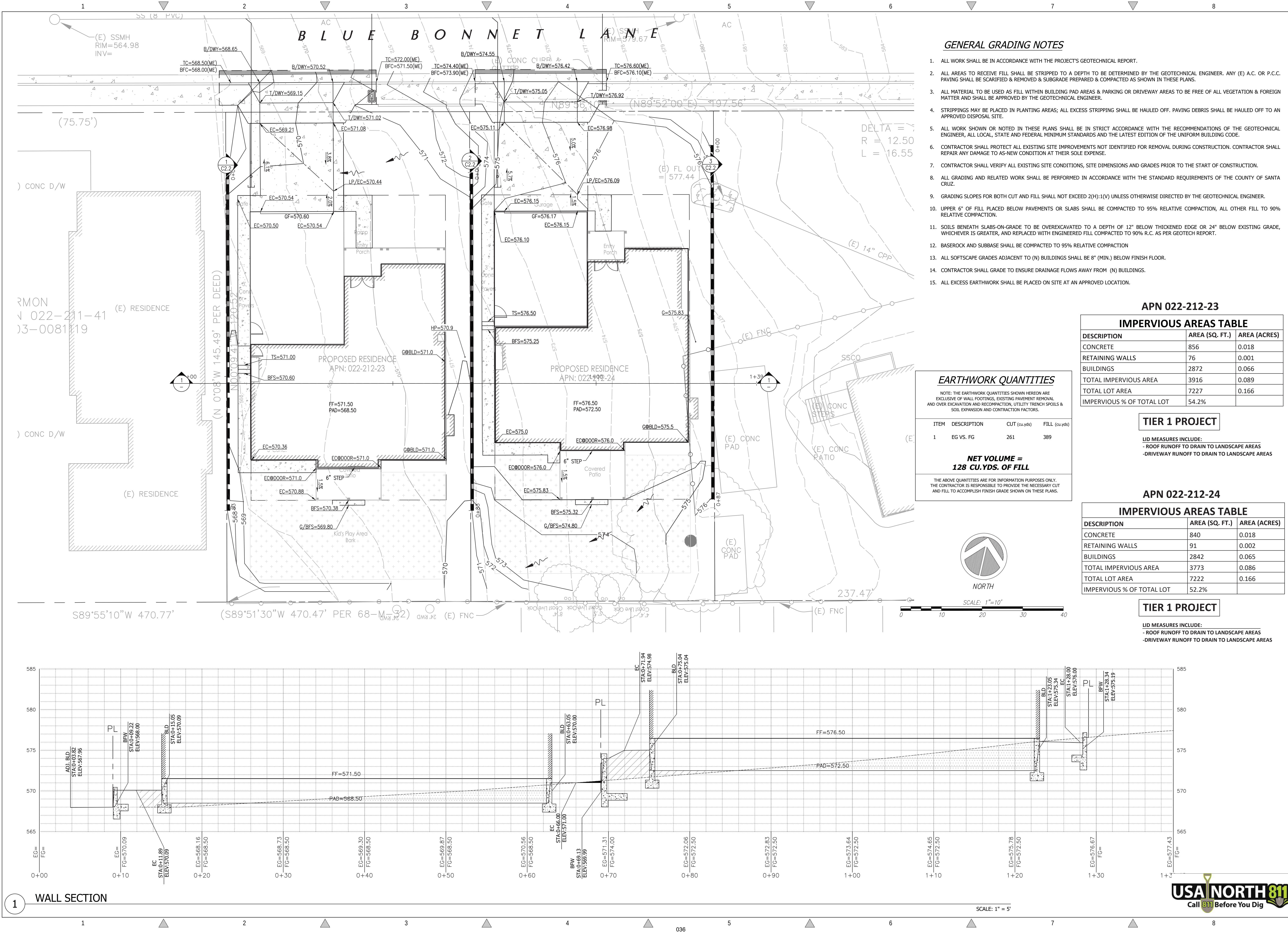
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GENERAL GRADING NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT.
- ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED TO A DEPTH TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY (E) A.C. OR P.C.C. PAVING SHALL BE SCARIFIED & REMOVED & SUBGRADE PREPARED & COMPACTED AS SHOWN IN THESE PLANS.
- ALL MATERIAL TO BE USED AS FILL WITHIN BUILDING PAD AREAS & PARKING OR DRIVEWAY AREAS TO BE FREE OF ALL VEGETATION & FOREIGN MATTER AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
- STRIPPINGS MAY BE PLACED IN PLANTING AREAS; ALL EXCESS STRIPPING SHALL BE HAULED OFF. PAVING DEBRIS SHALL BE HAULED OFF TO AN APPROVED DISPOSAL SITE.
- ALL WORK SHOWN OR NOTED IN THESE PLANS SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, ALL LOCAL, STATE AND FEDERAL MINIMUM STANDARDS AND THE LATEST EDITION OF THE UNIFORM BUILDING CODE.
- CONTRACTOR SHALL PROTECT ALL EXISTING SITE IMPROVEMENTS NOT IDENTIFIED FOR REMOVAL DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGE TO AS-NEW CONDITION AT THEIR SOLE EXPENSE.
- CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS, SITE DIMENSIONS AND GRADES PRIOR TO THE START OF CONSTRUCTION.
- ALL GRADING AND RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF THE COUNTY OF SANTA CRUZ.
- GRADING SLOPES FOR BOTH CUT AND FILL SHALL NOT EXCEED 2(H):1(V) UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
- UPPER 6" OF FILL PLACED BELOW PAVEMENTS OR SLABS SHALL BE COMPACTED TO 95% RELATIVE COMPACTION, ALL OTHER FILL TO 90% RELATIVE COMPACTION.
- SOILS BENEATH SLABS-ON-GRADE TO BE OVEREXCAVATED TO A DEPTH OF 12" BELOW THICKENED EDGE OR 24" BELOW EXISTING GRADE, WHICHEVER IS GREATER, AND REPLACED WITH ENGINEERED FILL COMPACTED TO 90% R.C. AS PER GEOTECH REPORT.
- BASEROCK AND SUBBASE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION
- ALL SOFTSCAPE GRADES ADJACENT TO (N) BUILDINGS SHALL BE 8" (MIN.) BELOW FINISH FLOOR.
- CONTRACTOR SHALL GRADE TO ENSURE DRAINAGE FLOWS AWAY FROM (N) BUILDINGS.
- ALL EXCESS EARTHWORK SHALL BE PLACED ON SITE AT AN APPROVED LOCATION.

APN 022-212-23

IMPERVIOUS AREAS TABLE		
DESCRIPTION	AREA (SQ. FT.)	AREA (ACRES)
CONCRETE	856	0.018
RETAINING WALLS	76	0.001
BUILDINGS	2872	0.066
TOTAL IMPERVIOUS AREA	3916	0.089
TOTAL LOT AREA	7227	0.166
IMPERVIOUS % OF TOTAL LOT	54.2%	

TIER 1 PROJECT

LID MEASURES INCLUDE:
- ROOF RUNOFF TO DRAIN TO LANDSCAPE AREAS
- DRIVEWAY RUNOFF TO DRAIN TO LANDSCAPE AREAS

APN 022-212-24

IMPERVIOUS AREAS TABLE		
DESCRIPTION	AREA (SQ. FT.)	AREA (ACRES)
CONCRETE	840	0.018
RETAINING WALLS	91	0.002
BUILDINGS	2842	0.065
TOTAL IMPERVIOUS AREA	3773	0.086
TOTAL LOT AREA	7222	0.166
IMPERVIOUS % OF TOTAL LOT	52.2%	

TIER 1 PROJECT

LID MEASURES INCLUDE:
- ROOF RUNOFF TO DRAIN TO LANDSCAPE AREAS
- DRIVEWAY RUNOFF TO DRAIN TO LANDSCAPE AREAS

EARTHWORK QUANTITIES

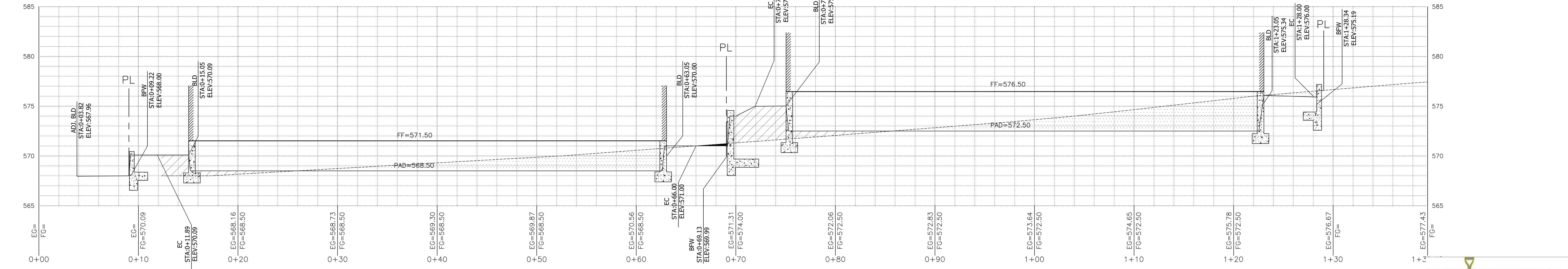
NOTE: THE EARTHWORK QUANTITIES SHOWN HEREON ARE EXCLUSIVE OF WALL FOOTINGS, EXISTING PAVEMENT REMOVAL AND OVER EXCAVATION AND RECONSTRUCTION, UTILITY TRENCH SPOILS & SOIL EXPANSION AND CONTRACTION FACTORS.

ITEM	DESCRIPTION	CUT (cu.yds)	FILL (cu.yds)
1	EG VS. FG	261	389

NET VOLUME =
128 CU.YDS. OF FILL

THE ABOVE QUANTITIES ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE NECESSARY CUT AND FILL TO ACCOMPLISH FINISH GRADE SHOWN ON THESE PLANS.

WALL SECTION



REVISIONS

BY

GRADING AND DRAINAGE PLAN

C2G CIVIL CONSULTANTS GROUP, INC.
Engineers/Planners
4400 Scotts Valley Road, Suite 6
Scotts Valley, CA 95066
T (831) 438-4420 F (831) 438-4420

PAUL RESIDENCE
BLUE BONNET LANE
SCOTTS VALLEY, CA 95066

Date: 08.26.21

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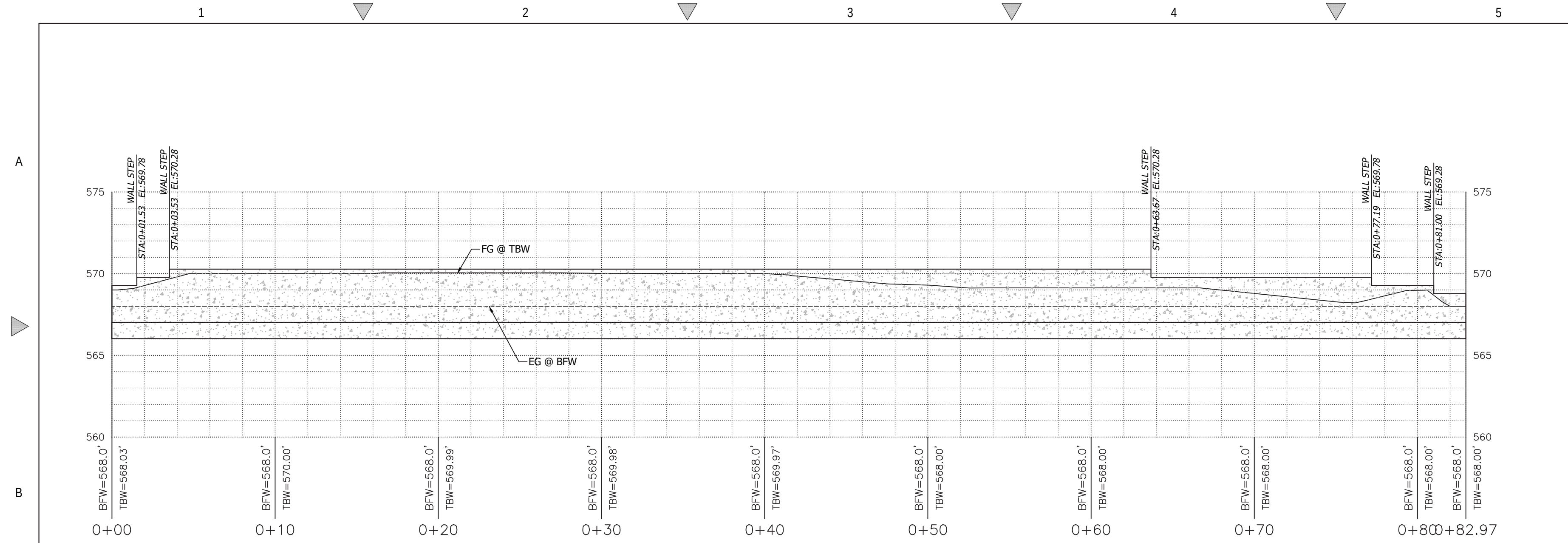
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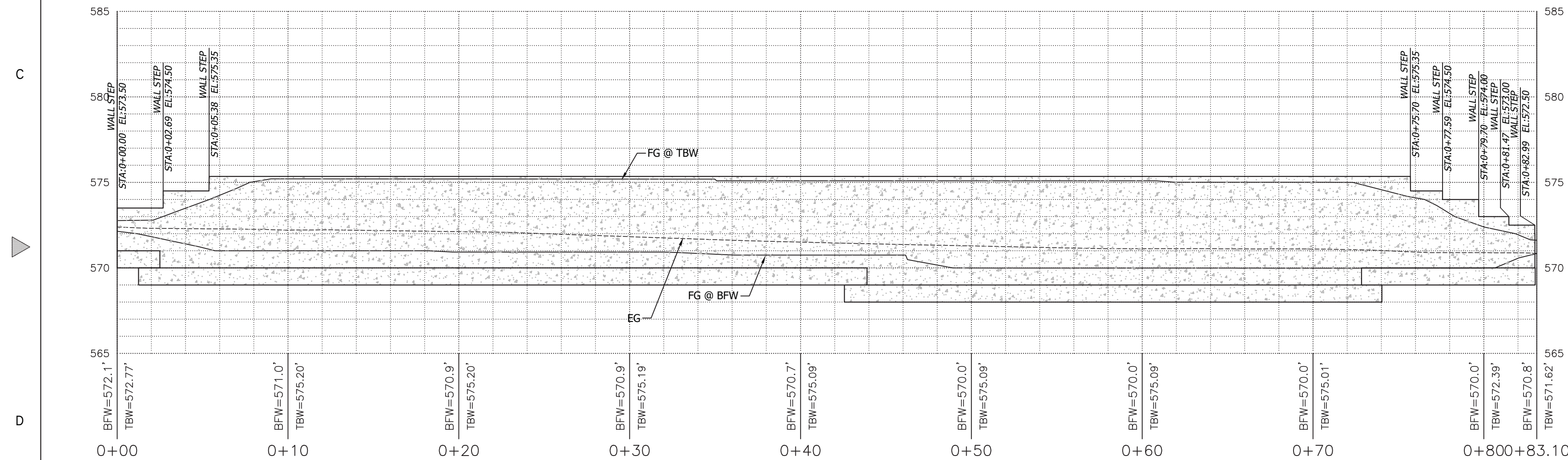
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USA NORTH 811
Call 811 Before You Dig



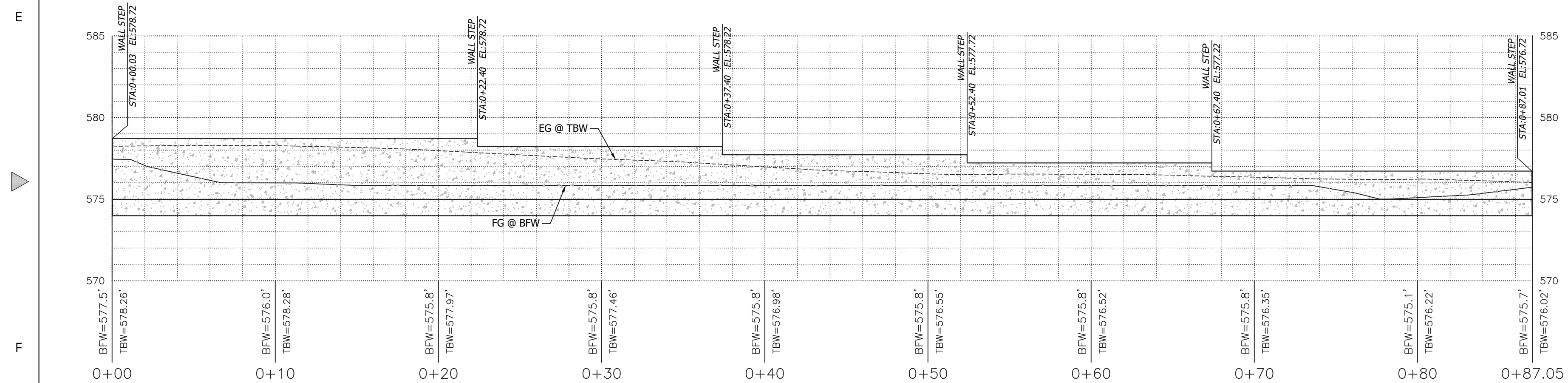
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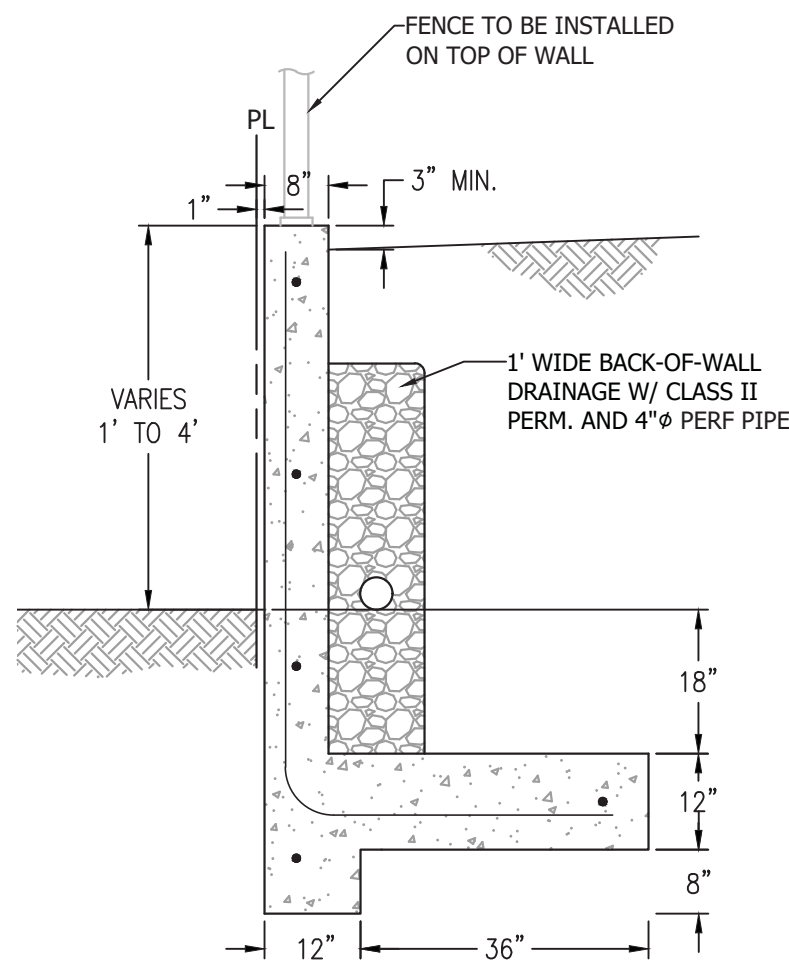
2 CENTER WALL PROFILE

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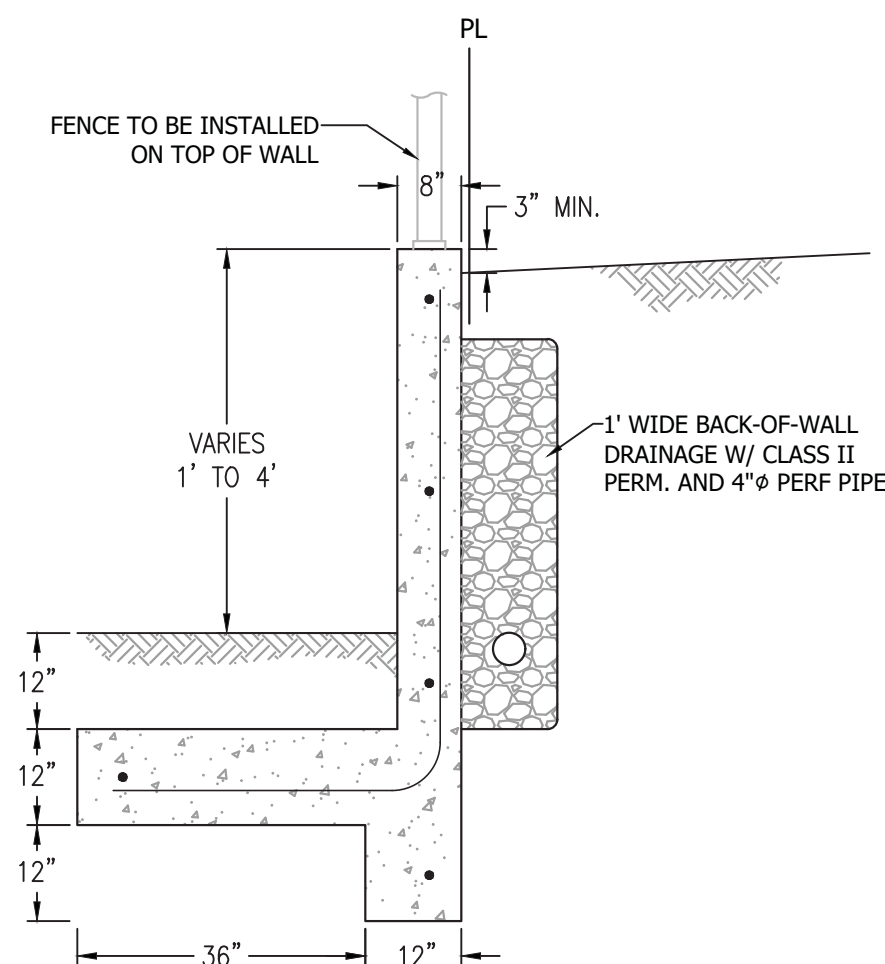
3 EAST WALL PROFILE

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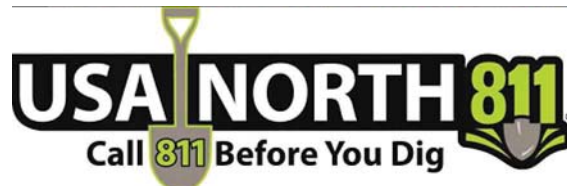
4 CENTER & WEST WALL SECTION

Scale: 1" = 2'



5 EAST WALL SECTION

Scale: 1" = 2'



REVISIONS	BY

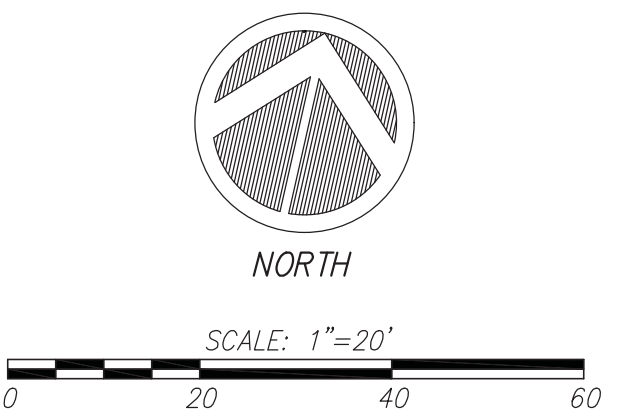
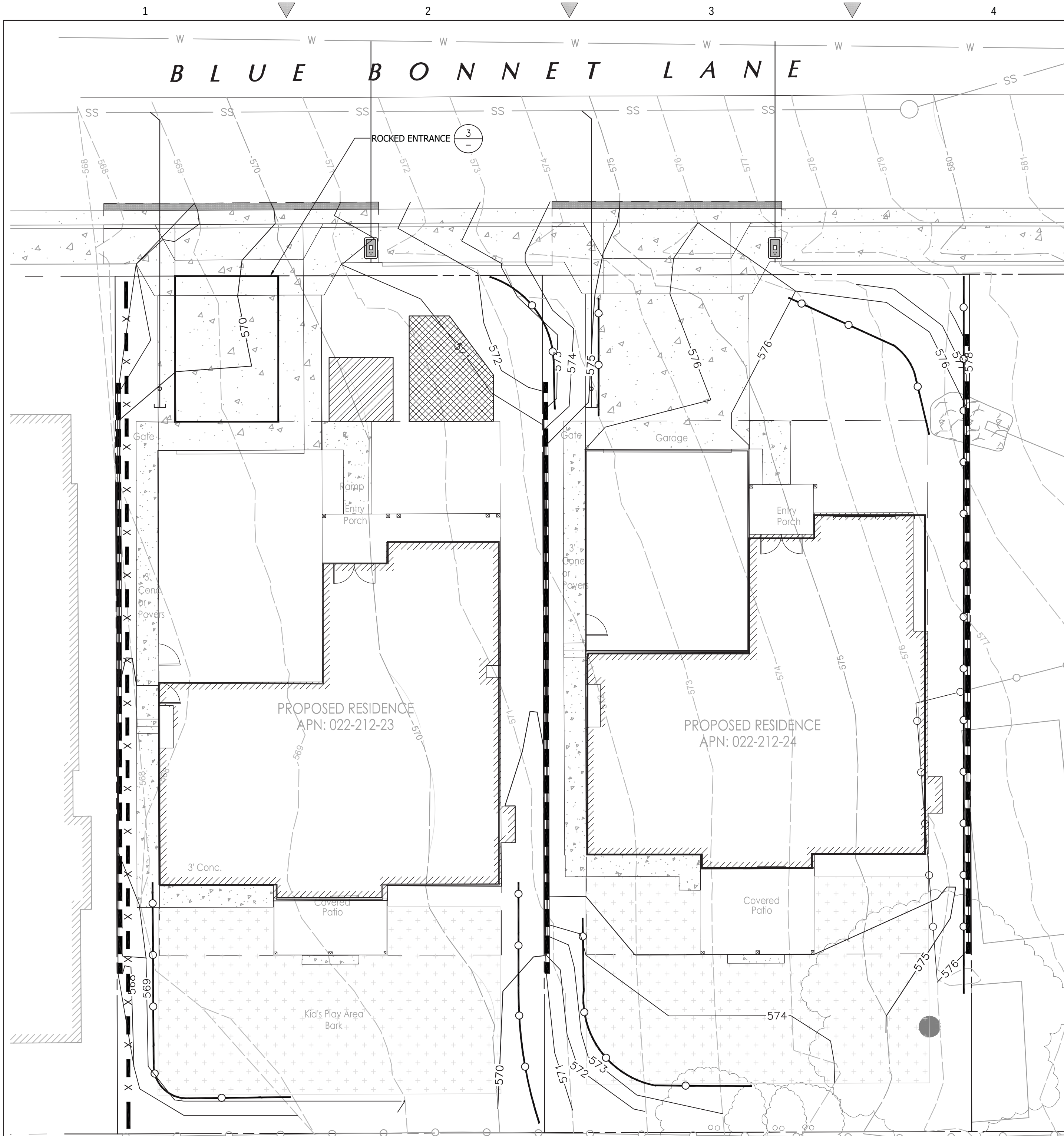
SECTIONS AND PROFILES



C2G CIVIL CONSULTANTS GROUP, INC.
Engineers/Planners
4400 Scotts Valley Road, Suite 6
Scotts Valley, CA 95066
T (831) 438-4420 F (831) 438-4420
By: Lauren Lindquist

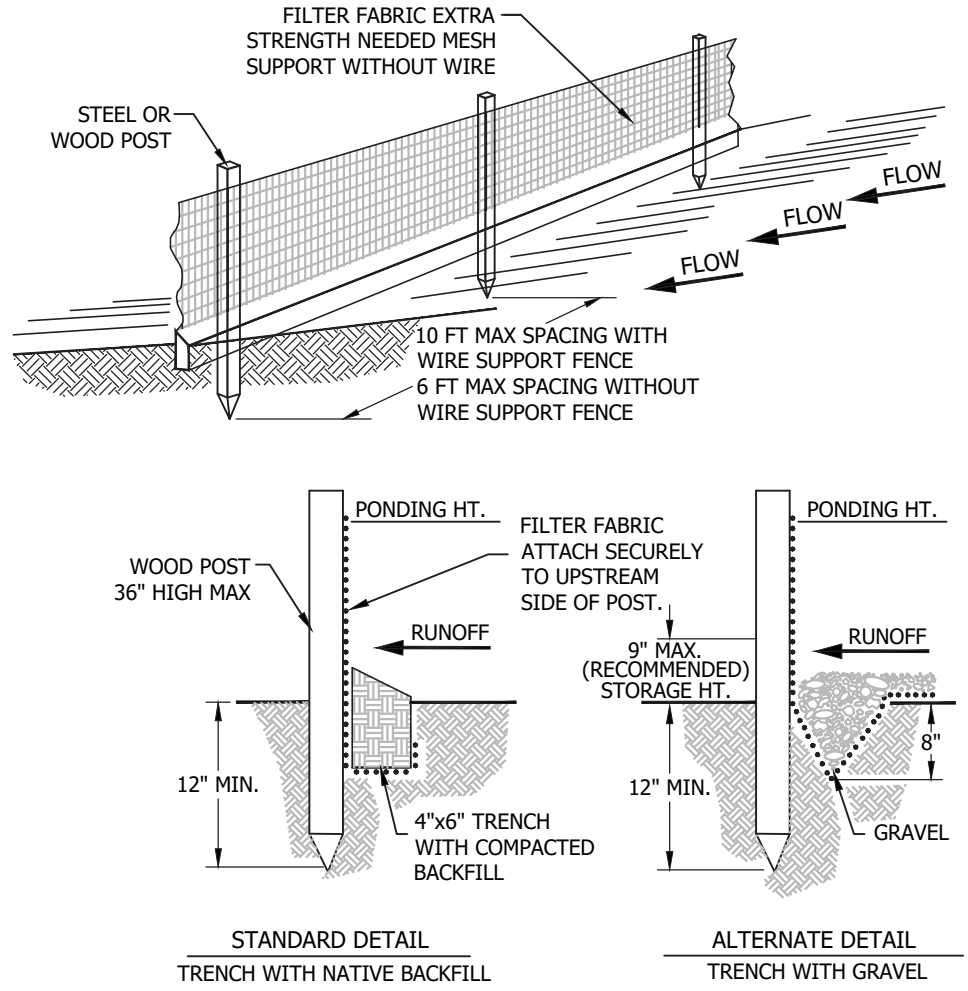
PAUL RESIDENCE
BLUE BONNET LANE
SCOTTS VALLEY, CA 95066

Date:	08.26.21
Scale:	1" = 20'
Drawn:	DD
Job:	9026.01
Sheet:	C2.2
Of	6 Sheets



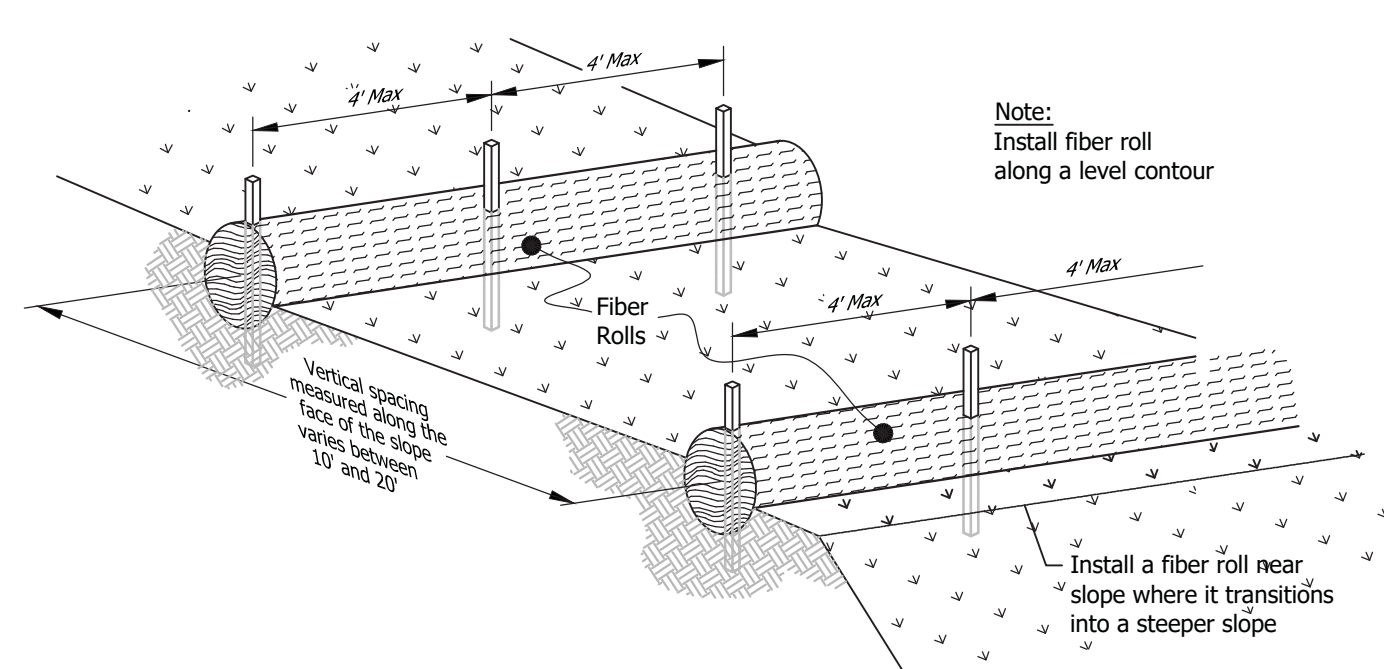
LEGEND

- X X SILT FENCE
- FIBER ROLL
- DIRECTION OF FLOW WITH STORM DRAIN INSTALLED
- CONSTRUCTION STORAGE
- CONCRETE WASHOUT



1 SILT FENCE

Scale: NTS



CONSTRUCTION SPECIFICATIONS

LOCATE FIBER ROLLS ON LEVEL CONTOURS SPACED AS FOLLOWS:

- SLOPE INCLINATION OF 4:1 (H:V) OR FLATTER: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 20 FT.
- SLOPE INCLINATION BETWEEN 4:1 AND 2:1 (H:V): FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 15 FT. (A CLOSER SPACING IS MORE EFFECTIVE).
- SLOPE INCLINATION OF 2:1 (H:V) OR GREATER: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 10 FT. (A CLOSER SPACING IS MORE EFFECTIVE).

TURN THE ENDS OF THE FIBER ROLL UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.

STAKE FIBER ROLLS INTO A 2 TO 4 IN. DEEP TRENCH WITH A WIDTH EQUAL TO THE DIAMETER OF THE FIBER ROLL.

- DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FT MAXIMUM ON CENTER.
- USE WOOD STAKES WITH A NOMINAL CLASSIFICATION OF 0.75 BY 0.75 IN. AND A MINIMUM LENGTH OF 24 IN.

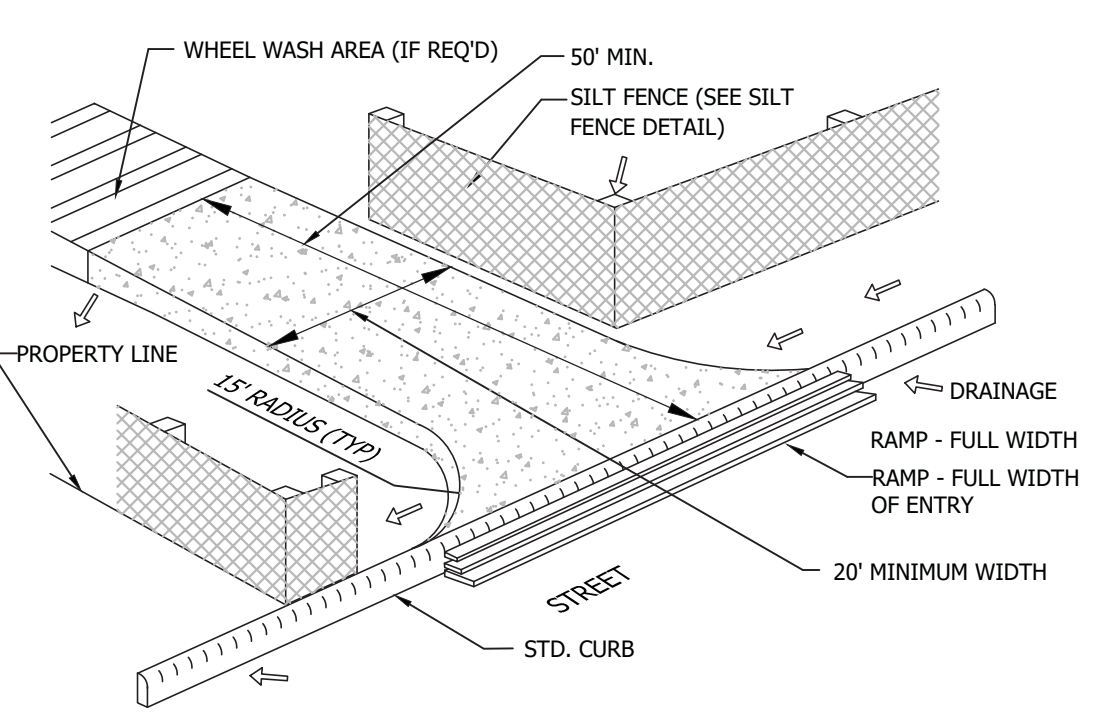
IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED, NOT ABUTTED.

REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.

IF THE FIBER ROLL IS USED AS A SEDIMENT CAPTURE DEVICE, OR AS AN EROSION CONTROL DEVICE TO MAINTAIN SHEET FLOWS, SEDIMENT THAT ACCUMULATES IN THE BMP MUST BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF THE DESIGNATED SEDIMENT STORAGE DEPTH, USUALLY ONE-HALF THE DISTANCE BETWEEN THE TOP OF THE FIBER ROLL AND THE ADJACENT GROUND SURFACE. SEDIMENT REMOVED DURING THE MAINTENANCE MAY BE INCORPORATED INTO EARTHWORK ON THE SITE OR DISPOSED AT AN APPROPRIATE LOCATION.

2 FIBER ROLLS

Scale: NTS



3 ROCKED CONSTRUCTION ENTRANCE

Scale: NTS

EROSION CONTROL NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND MAINTAIN EROSION CONTROL MEASURES AS REQUIRED THROUGHOUT THE LIFE OF THE PROJECT IN CONFORMANCE WITH THE COUNTY OF SANTA CRUZ.
- CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.
- ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED THROUGHOUT THE SEASON. REPLACEMENT SUPPLIES SHOULD BE KEPT ON SITE.
- SITE INSPECTIONS SHALL BE CONDUCTED BEFORE AND AFTER EACH STORM EVENT, AND EVERY 24 HOURS FOR EXTENDED STORM EVENTS, TO IDENTIFY AREAS THAT CONTRIBUTE TO EROSION AND SEDIMENT PROBLEMS OR ANY OTHER POLLUTANT DISCHARGES. IF ADDITIONAL MEASURES ARE NEEDED, REVISE THE EROSION CONTROL PLAN AND IMPLEMENT THE MEASURES IMMEDIATELY. DOCUMENT ALL INSPECTION FINDINGS AND ACTIONS TAKEN.
- CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES DURING CONSTRUCTION FOR CONTROL OF STORM WATER RUNOFF.
- BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. HAY BALES, FILTER BERMS, OR OTHER MEANS SHALL BE EMPLOYED TO PREVENT TURBID RUNOFF TO ADJOINING PROPERTIES.
- UNNECESSARY GRADING AND DISTURBING OF SOIL IS NOT ALLOWED.
- ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE OR STOCKPILED IN A MANNER TO AVOID RUNOFF ONTO ADJOINING PROPERTIES.
- UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED AREAS SHALL BE PERMANENTLY RE-VEGETATED PER LANDSCAPE PLANS.
- ANY MATERIAL STOCKPILED DURING CONSTRUCTION SHALL BE COVERED WITH PLASTIC.
- DURING CONSTRUCTION, NO TURBID SITE WATER SHALL BE PERMITTED TO ENTER STORM DRAIN SYSTEM. USE OF SILT AND GREASE TRAPS, FILTER BERMS, OR HAY BALES MAY BE USED TO PREVENT SUCH DISCHARGE.
- CONTRACTOR SHALL NOTIFY SANTA CRUZ COUNTY 48 HOURS BEFORE ANY EARTHWORK IS BEGUN.
- ALL CONSTRUCTION SHALL CONFORM TO SANTA CRUZ COUNTY BUILDING STANDARDS. A WINTER GRADING PERMIT IS REQUIRED FOR ALL CLEARING, GRADING, OR EXCAVATION THAT SHALL TAKE PLACE BETWEEN OCTOBER 15, AND APRIL 15. ALL DISTURBED SOIL SHALL BE SEED, MULCHED, OR OTHERWISE PROTECTED BY OCTOBER 15.
- COA #30: TO REDUCE DUST GENERATION FROM PROJECT GRADING AND CONSTRUCTION TO MINIMAL LEVELS, THE PROJECT PROPONENT SHALL REQUIRE THE GRADING CONTRACTOR TO IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) FOR DUST CONTROL, INCLUDING WATERING DOWN EXPOSED EARTH SURFACES EACH NON-RAINFALL DAY AT INTERVALS THAT ATTENUATE DUST PROBLEMS. ANY DIRT TRACKED ON TO SCOTT'S VALLEY DRIVE SHALL BE REMOVED DAILY IN A MANNER THAT DOES NOT CREATE SUBSTANTIAL AIRBORNE DUST. THE FOLLOWING BMPs SHALL BE IMPLEMENTED DURING SITE GRADING:
 - EXCAVATION OF THE SITE SHALL BE DONE IN PHASES BY GRADING ONLY THOSE AREAS WHERE IMMEDIATE ACTIVITY WILL TAKE PLACE, LEAVING THE REMAINING AREAS IN THEIR ORIGINAL CONDITION WITH GROUND COVER;
 - A WATER TRUCK, USING RECYCLED WATER, SHALL BE AVAILABLE ON A REPEATED BASIS EACH DAY THROUGHOUT THE GRADING PHASE OF THE PROJECT TO SPRAY EXPOSED EARTH SURFACES;
 - IN ADDITION TO REGULAR WATER SPRAYING, A BIODEGRADABLE CHEMICAL PALLIATIVE SHALL BE SPRAYED ON ANY GRADED AREAS THAT WILL REMAIN EXPOSED WITHOUT ADDITIONAL GRADING FOR THREE OR MORE DAYS IN SUCCESSION;
 - THE SITE ENTRANCE SHALL BE BASE ROCKED TO AVOID OR MINIMIZE TRACKING MUD ON SCOTT'S VALLEY DRIVE BY CONSTRUCTION VEHICLES;
 - THE SEGMENT OF SCOTT'S VALLEY DRIVE ALONG THE PROJECT FRONTAGE SHALL BE MECHANICALLY SWEEP AT THE END OF EACH WORK DAY WHEN ANY DIRT OR MUD HAS BEEN TRACKED ON THE STREET;
- NO GRADING ACTIVITIES SHALL OCCUR DURING DAYS OF HIGH WIND VELOCITY;
- FINISHED GRADED AREAS THAT ARE DESIGNATED AS OPEN SPACE AND LANDSCAPE AREAS OF PROJECT, SHALL BE COVERED WITH AN ACCEPTED EROSION CONTROL SUBSTANCE SUCH AS STRAW MULCH OR HYDROMULCH WITH A TACKIFIER; AND
- CONSTRUCTION STAFF SHALL MONITOR DAILY ALL AREAS THAT HAVE RECEIVED A CHEMICAL PALLIATIVE SPRAY OR APPLICATION OF MULCH TO DETERMINE IF THESE AREAS REMAIN IN A DUST-FREE CONDITION AND TAKE CORRECTIVE ACTION AS NEEDED TO MAINTAIN A DUST-FREE ENVIRONMENT.
- COA #56: TO PREVENT SEDIMENTATION AND DISCHARGE OF CONTAMINANTS OFF-SITE DURING PROJECT CONSTRUCTION, THE PROJECT APPLICANT SHALL HAVE THE CONSTRUCTION CONTRACTOR IMPLEMENT THE APPROVED EROSION CONTROL PLAN DISCUSSED IN MITIGATION MEASURE GEO-2 AND IMPLEMENT A BEST MANAGEMENT PRACTICE/HAZARDOUS MATERIALS CONTAINMENT PLAN DURING THE ENTIRE TIME CONSTRUCTION ACTIVITIES ARE OCCURRING. THE HAZARDOUS MATERIALS CONTAINMENT PLAN SHALL BE APPROVED BY CITY PLANNING STAFF PRIOR TO COMMENCEMENT OF LAND ALTERATION AND CONSTRUCTION ACTIVITIES FOR THE PROJECT. IT SHALL CONTAIN THE FOLLOWING ELEMENTS:
 - STATIONARY EQUIPMENT SUCH AS MOTORS, PUMPS, WELDING EQUIPMENT SHALL BE PLACED OVER DRIP PANS OR OTHER CONTAINMENT APPARATUS;
 - CONSTRUCTION MATERIALS SHALL NOT BE STOCKPILED OR STORED WHERE THEY COULD BE ACCIDENTALLY DISCHARGED DOWNSLOPE OR IN TO SCOTT'S VALLEY DRIVE; AND
 - ANY PETROLEUM, LUBRICANTS OR OTHER HAZARDOUS MATERIALS USED DURING CONSTRUCTION SHALL BE STORED IN A SPECIAL STORAGE LOCATION EQUIPPED WITH DOUBLE CONTAINMENT AND THIS LOCATION SHALL BE SHOWN ON THE EROSION CONTROL PLAN AND APPROVED BY THE AGENCIES THAT REVIEW THIS PLAN. (MITIGATION MEASURE APPLICANT SHALL CONSTRUCT ALL STORM DRAIN FACILITIES IN CONFORMANCE WITH DATA AND ANALYSIS IN THE ADOPTED CITY OF SCOTT'S VALLEY STORMWATER TECHNICAL GUIDE, FEBRUARY 2014.

REVISIONS	BY

EROSION CONTROL PLAN

REGISTERED PROFESSIONAL ENGINEER
TODD R. CREMER
No. C 64561
Exp. 6/30/23
CIVIL
STATE OF CALIFORNIA

C2G CIVIL CONSULTANTS GROUP, INC.
Engineers/Planners
4400 Scotts Valley Drive, Suite 6
Scotts Valley, CA 95066
T (831) 438-4420 F (831) 438-4420
By: Lauren Laquast
Last Project: Mid Dec. 22, 2021 - 4:00pm

PAUL RESIDENCE
BLUE BONNET LANE
SCOTT'S VALLEY, CA 95066

Date: 08.26.21
Scale: 1" = 10'
Drawn: DD
Job: 9026.01
Sheet: C3.1
Of 6 Sheets





2 VEHICULAR CONCRETE SECTION

3 CONCRETE CURB AND GUTTER TYPES

4 CONCRETE CURB & CURB TAPER

LEGEND

1. FINISH SURFACE OF PAVING.
2. SCORE JOINT, TOOLED, 1/4" WIDE AND 3/8" DEEP. LOCATE PER PLAN.
3. CONTROL JOINT, TOOLED, 1/4" WIDE; DEPTH TO EQUAL 1/3 OF SLAB THICKNESS. (INCLUDING WHERE SLABS THICKEN) LOCATE PER PLAN.
4. 1/2" TOOLED EDGE AT CONCRETE PAVING.
5. 1/2" THICK EXPANSION JOINT FILLER SHALL BE ASPHALT IMPREGNATED FELT. DOWEL TO MATCH SLAB THICKNESS.
6. DOWEL J. SMOOTH REBAR X 12" LONG @ 18" O.C. AND 6" CLEAR FROM EDGE OF SLAB, SLIP ONE END. WHERE ABUTTING EXISTING CONCRETE, DRILL AND EPOXY DOWEL INTO EXISTING CONCRETE AND SLIP ONE END.
7. CONCRETE PAVING.

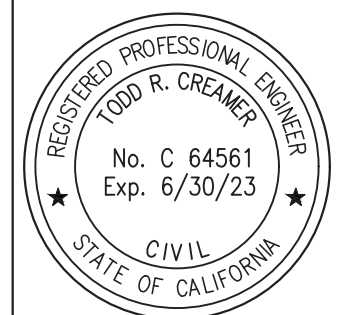
EXPANSION JOINTS SHALL BE LOCATED WHERE CONCRETE PAVING MEETS THE BACK OF CURBS, FACE OF BUILDING OR SITE WALLS, AND WHERE SHOWN ON PLAN.



7 STANDARD AC PAVEMENT SECTION

REVISIONS	BY

CONSTRUCTION DETAILS



PAUL RESIDENCE
BLUE BONNET LANE
SCOTT'S VALLEY, CA 95066

Date:	08.26.21
Scale:	NONE
Drawn:	DD
Job:	9026.01

Sheet:
C4.1
Of **6** Sheets



ARBORIST REPORT-
Tree Inventory, Impact Assessment & Protection Plan
Bluebonnet Lane
APN: 022-212-23 & 022-212-24
Scotts Valley, CA
September 18, 2021

Prepared for:

Bobby Paul
Bluebonnet Lane
Scotts Valley, CA 95066

Prepared by:



ISA Certified Arborist WE0681A

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Attachments: Appendix A - H

Appendix A – Tree Assessment Chart

Appendix B – Criteria for Tree Assessment Chart

Appendix C – Tree Protection Plan

Appendix D – Appraised Value of “Protected” Trees

Appendix E – Bibliography

Appendix F – Glossary of Terms

Appendix G – Tree Protection Guidelines & Restrictions

- Protecting Trees During Construction
- Project Arborist Duties & Inspection Schedule
- Tree Protection Fencing
- Tree Protection Signs
- Monitoring
- Root Pruning
- Tree Work Standards & Qualifications
- City of Scotts Valley Protected Tree

Appendix H - Assumptions & Limiting Conditions

SUMMARY

This report provides the following information:

1. A summary of the health and structural condition of 8 trees.
 2. An evaluation of anticipated construction impacts to the trees.
 3. Recommendations for retention or removal of assessed trees based on their condition and anticipated construction impacts.
 4. Tree protection specifications for retained trees.
 5. Appraised value of impacted, retained trees, (protected size).
- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.
 - Site improvements are planned for two unimproved parcels.
 - Eight trees within or near the parcel boundaries were inventoried.
 - Five trees are suitable for preservation and can be incorporated in the proposed project.
 - Three “protected” trees are recommended for removal due to poor condition or high construction impacts.
 - If removals are permitted, replacement trees will be required.

Background

Plans will be submitted to the City of Scotts Valley, to develop the two parcels. Mr. Bobby Paul has requested my services, to assess the condition of trees on the applicant's property and the construction impacts that may affect them. Further, to provide a report with my findings and recommendations to meet City of Scotts Valley planning requirements.

Assignment

Provide an arborist report that includes an assessment of the trees within the project area. The assessment is to include the species, size (trunk diameter, height and canopy spread), condition (health and structure), and suitability for preservation ratings. Further, to review the preliminary development plans and assess the potential construction impacts.

To complete this assignment, the following services were performed:

- **Tree Resource Evaluation:** Inventory, evaluate and assign suitability for preservation ratings for subject trees.

Assignment continued:

- **Plan Review: Reviewed provided plans including:** Vesting Tentative Map, by Hogan Land Services, dated 12/2017. Grading and Elevation Plan, dated 6/2021, and Proposed Floor Plan, dated 7/2021 both by James Stroupe.
- **Construction Impact Assessment:** Combine tree resource data with anticipated construction impacts, to provide recommendations for removal or retention of trees.
- **Mapping:** Tree locations were plotted onto: Proposed Floor Plan, sheet 2, dated 7/2021 by James Stroupe, and a Tree Protection Plan was created.

Limits of the Assignment

The information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection on 7/28/2021.

The inspection is limited to visual examination of accessible items without climbing, dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in questions may not arise in the future.

Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the developer, their agents, the City of Scotts Valley, as a reference for existing tree conditions and to help satisfy the City of Scotts Valley planning requirements.

Resources

All information within this report is based on site plans as of the date of this report. Resources are as follows:

- Vesting Tentative Map, by Hogan Land Services, dated 12/2017. Grading and Elevation Plan, dated 6/2021, and Proposed Floor Plan, dated 7/2021 both by James Stroupe.
- Site Visit, Tree Survey & Condition Evaluation at Bluebonnet Lane, Scotts Valley, on 7/28/2021.
- City of Scotts Valley Municipal Code –Section 17.44.080 Tree Protection Regulations (applicable sections).
- *1) Guide for Plant Appraisal 9th Edition, 2) Species Classification and Group Assignment*, (Wester Chapter Edition).

OBSERVATIONS

Two undeveloped lots were surveyed. The lots sit side by side along Bluebonnet Lane. The parcels gently slope from east to west, (Image #1).



Image #1 –Project area bordered by Bluebonnet Lane. Sidewalk improvements were recently completed.

I surveyed 6 trees on the two parcels and two trees with canopies that overhang the applicant's property. All the trees surveyed are "protected" according to City of Scotts Valley Ordinance:

B. Any single-trunk **oak tree** greater than or equal to eight (8) inch diameter (25 inch circumference).** **C.** Any multi-trunk **oak tree** with any trunk greater than or equal to four (4) inches diameter (12 inch circumference).** **E.** Any single-trunk tree greater than or equal to 13-inch diameter (40 inch circumference).** **F.** Any multi-trunk tree with any trunk greater than or equal to eight (8) inch diameter (25 inch circumference).**

There were three mature trees on the two parcels including an elm, locust and white alder. A maturing coast live oak and two young coast live oak make up the remainder of the tree population on the two parcels. Two maturing coast redwood grow on the property adjacent to the western parcel (APN: 022-212-23)

Most of the trees were in good or fair condition.

One tree, the elm was in poor condition. The elm was in fair health but had poor structure. Multiple trunks were poorly developed. Two trunks had significant leans, with all structural development on one side only. This created an unbalanced canopy with a strong weight bias. Many limb tear outs have occurred due to the overextended limbs, (Image #2)



Image #2 - Tree T1, elm. The tree canopy is dense, but structural development is poor.

Tree T2, a mature honey locust is showing signs of drought stress as evidenced by tip dieback over the entire canopy (Image #3).

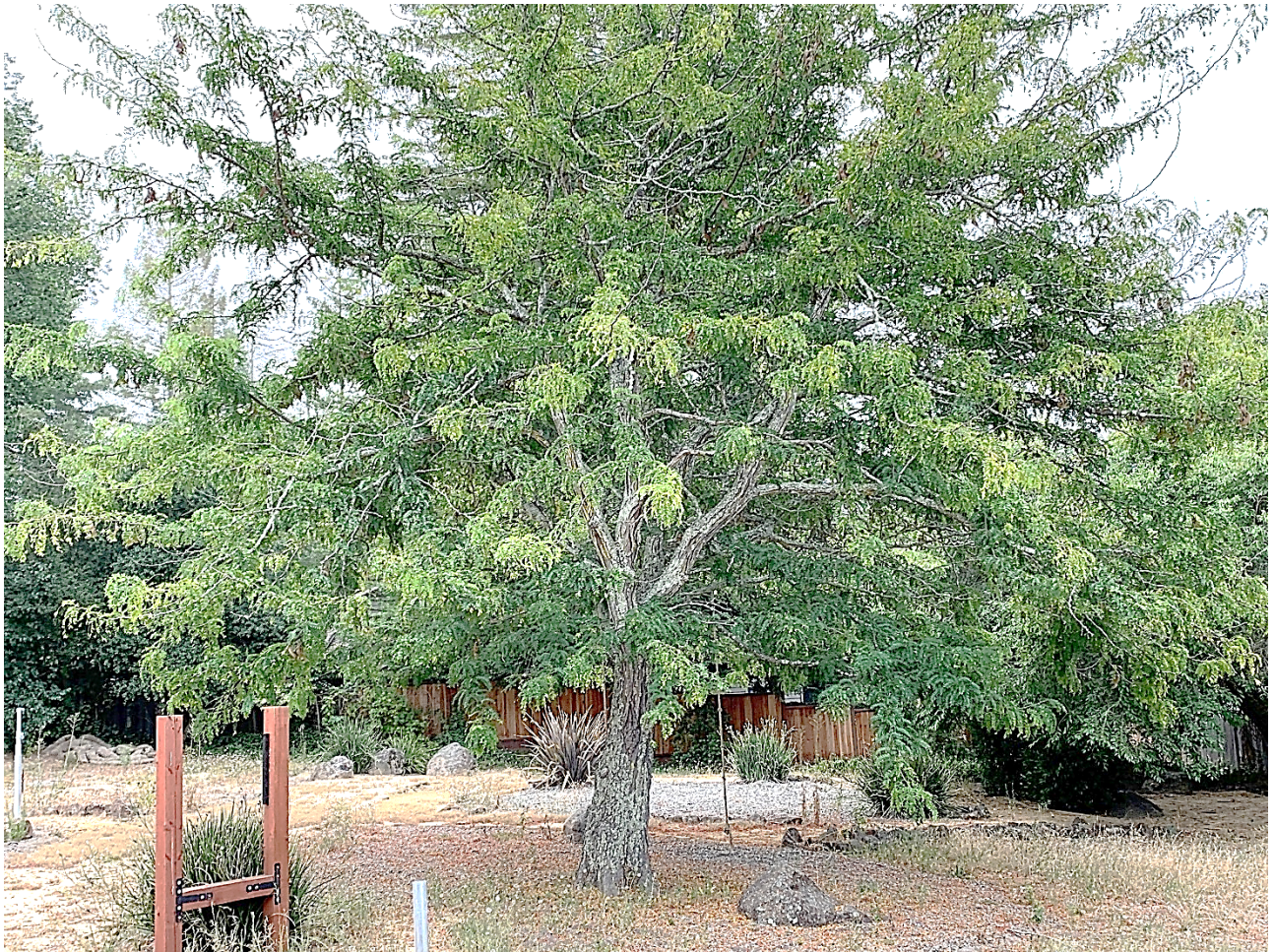


Image #3 – Tree T2, honey locust. Tip dieback is found throughout the canopy.

The locust is in fair condition.

A white alder growing in the rear of the property (southeast corner), is in good condition, (Image #4)



Image #4 – Tree T3, white alder, (circled).

This is a very large mature specimen with two codominant trunks.

Structure is good and primary limbs appear well attached. A few overextended limbs curve down towards the ground in the lower half of the tree. The tree is vigorous producing ample amounts of new growth.

Tree T4 is a maturing coast live oak, (Image #5).



Image #5 – Tree T4, coast live oak.

The tree is in good health but has been topped at 10- and 14-feet above grade. Several new leaders have regrown where the two leaders were topped. These new leaders are poorly attached.

The remainder of the trees include two young coast live oak. They grow along the rear fence line (Image #6)



Image #6 – Trees T5, & T6, coast live oak. The largest of the two oaks T6, is circled. The smaller oak, T5, grows to the left of T6, and is screened by T6 in this image.

Both oaks have two co-dominant trunks and are in good condition.

Two maturing coast redwoods grow on the property adjacent to the applicant's western parcel. Their canopies overhang the applicants parcel by 16-feet. Both trees are showing minor water deficit symptoms as evidenced by needle yellowing throughout the canopy but are otherwise in good condition.

DISCUSSION

Species List

TOTAL SUBJECT TREES: 8 Trees

Protected: 8

1	Elm	(<i>Ulmus spp.</i>)
1	Honey Locust	(<i>Gleditsia triacanthos</i>)
1	White Alder	(<i>Alnus rhombifolia</i>)
3	Coast Live Oak	(<i>Quercus agrifolia</i>)
2	Coast Redwood	(<i>Sequoia sempervirens</i>)

Tree Evaluation and Recording Methods

Site evaluations were made on 7/28/2021. The health and structural **condition** of each tree was assessed and recorded. Based on the trees health and structural condition, each trees **suitability for preservation** was rated and recorded.

The recorded data is included in the *Tree Assessment Chart, Appendix A*, of this report. Tree numbers were plotted on the attached *Tree Protection Plan sheet, T1*. **To correlate the data in the Tree Assessment Chart to the tree's location on the site, refer to the Tree Protection Plan sheet T1 - Appendix C.**

Condition Rating

A trees condition is determined by an assessing both the **health** and **structure**, then combining the two factors to reach a *condition rating*. If the health rating and the structure rating differ, the lower rating becomes the default *condition rating*. Tree condition is rated as poor, fair or good. The quantity of trees assigned for each category (good, fair or poor), is indicated below:

Tree Condition Rating- Protected Trees

- Good - 3
- Fair - 4
- Poor - 1

Suitability for Preservation

A trees suitability for preservation is determined based on its health, structure, age, species characteristics and longevity using a scale of good, fair or poor. The quantity of trees assigned to each category (good, fair or poor), is listed below.

Suitability Rating- Protected Trees

- Good - 3
- Fair – 4
- Poor - 1

Trees Recommended for Removal Due to Poor Condition:

One tree

T1	Elm	(<i>Ulmus spp.</i>)
----	-----	-----------------------

Tree Protection Zone

The tree protection zone (TPZ), is a defined area within which certain activities are prohibited or restricted to minimize potential injury to designated trees during construction.

The size of the optimal TPZ can be determined by a formula based on 1) trunk diameter 2) species tolerance to construction impacts, and 3) tree age (Matheny, N. and Clark, J 1998). In some instances, tree drip line is used as the TPZ. Development constraints can also influence the final size of the tree protection zone.

Fencing is installed to delineate the (TPZ), and to protect tree roots, trunk, and scaffold branches from construction equipment. *The fenced protection area may be smaller than the optimal or designated TPZ area in some circumstances.* Tree protection may also involve the armoring of the tree trunk and/or scaffold limbs with barriers to prevent mechanical damage from construction equipment. *See Tree Protection Guidelines & Restrictions – Appendix E.*

Once the TPZ is delineated and fenced (prior to any site work, equipment and materials move in), construction activities are only to be permitted within the TPZ if allowed for and specified by the project arborist.

Where tree protection fencing cannot be used, or as an additional protection from heavy equipment, tree wrap may be used. Wooden slats at least one inch thick are to be bound securely, edge to edge, around the trunk. A single layer or more of orange plastic construction fencing is to be wrapped and secured around the outside of the wooden slats. Major scaffold limbs may require protection as determined by the City arborist or Project arborist. Straw wattle may also be used as a trunk wrap and secured with orange plastic fencing.

Data has been entered in the *Tree Assessment Chart – Appendix A*, which indicates the optimal Tree Protection Zone for each tree.

Critical Root Zone

Critical Root Zone (CRZ) is the area of soil around the trunk of a tree where roots are located that provide critical stability, uptake of water and nutrients required for a tree's survival. The CRZ is the minimum distance from the trunk that trenching that requires root cutting should occur and can be calculated as three to the five times the trunk Diameter at Breast Height (DBH). For example, if a tree is one foot in trunk diameter then the CRZ is three to five feet from the trunk location. We will often average this as four times the trunk diameter or 1ft. DBH = 4ft. CRZ (Smiley, E.T., Fraedrich, B. and Hendrickson, N. 2007).

Root Disturbance Distance

No one can estimate and predict with absolute certainty, what distance from a tree a soil disturbance such as excavation for construction should be, to ensure it will not significantly affect tree stability or health. Or to what degree, (low, moderate or high), a tree might be impacted. There are simply too many variables involved that we cannot see or anticipate. However, three times the D.B.H. (diameter at breast height), is a widely accepted minimum used in the industry for root disturbance, *on one side of the trunk*, and is supported by several research studies including (Smiley, Fraedich & Hendrickson 2002, Bartlett Tree Research Laboratories). This distance is often used during the design and planning phases of a project in order to estimate root loss due to construction activities. This distance is a guideline only and should be increased for trees with significant leans, decay or other structural problems.

The ISA, International Society of Arboriculture- Root Management (2017) publication recommends, "cutting roots at a distance greater than six times the trunk diameter (DBH) minimizes the likelihood of affecting both health and stability. This recommendation is given further direction by the companion publication, A.N.S.I. (*American National Standard*) A300 (Part 8)- 2013 Root Management, when roots are cut in a *non-selective* manner, i.e. in a straight line on one side of a tree. It says, if the cutting is "within six times the trunk diameter (DBH), mitigation shall be recommended". Further, A.N.S.I. recommends the "minimum distance from the trunk for root cutting should be adjusted according to trunk diameter, species tolerance to root loss, tree age, health and site condition".

In general, root cutting that occurs at a distance less than six times the diameter of a tree should be undertaken by hand digging and hand (or Sawzall), root pruning. These methods help mitigate root loss impacts.

Impacts to Subject Trees

Construction impact assessments are based on the Proposed Floor Plan, Sheet 2, dated 7/8/2021, and Elevation Plan with Proposed Grading, sheet 9 dated 6/8/2021, by James Stroupe.

Five “protected” trees will have low or moderate construction impacts and are suitable for incorporation into the project.

The grade will be lowered approximately of 1.5 feet in some areas of eastern parcel, (APN: 022-212-24), and could impact tree T3, white alder, (Image #7).

It is recommended that soil removal (grade lowering), does not occur closer than 8 feet to tree T3, white alder. This is within the tree protection zone, but outside the critical root zone of the tree, and can be done without significant negative impact, if mitigation methods are used.

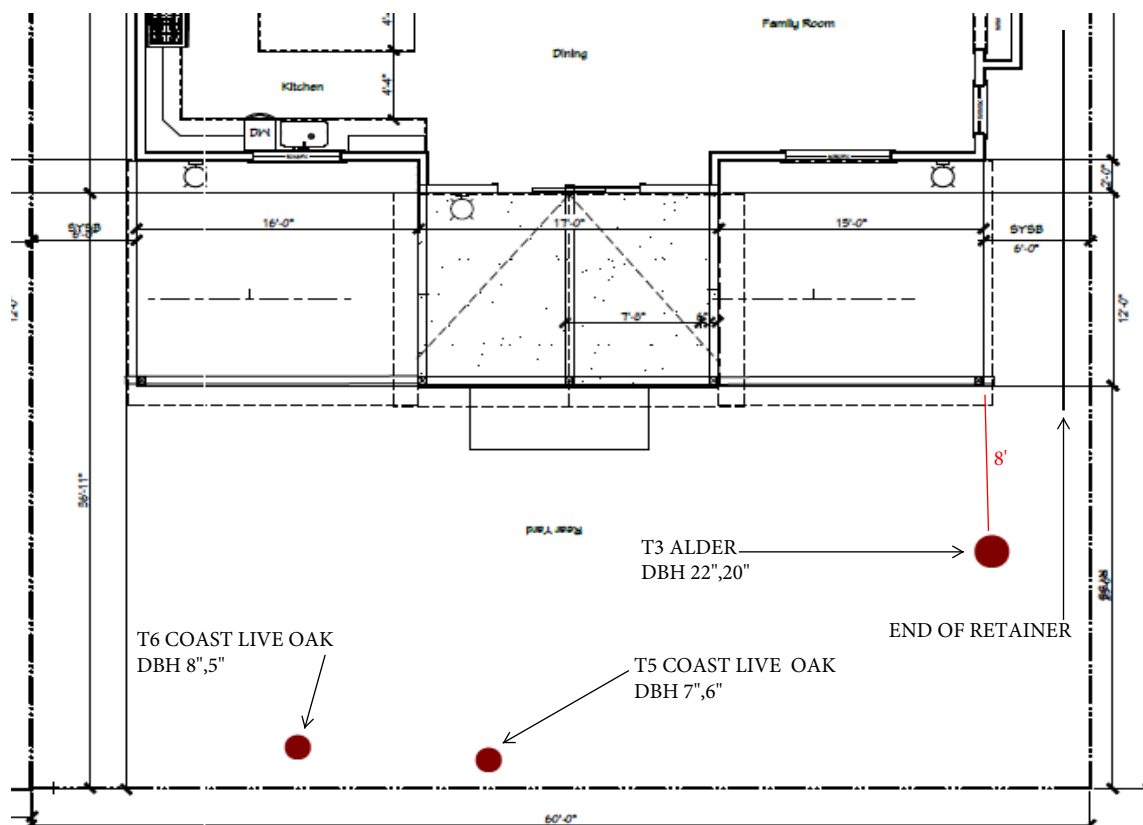


Image #7 – Tree 3, white alder. A patio will be constructed within 8 feet of the tree.

Grading (soil removal), will occur within the tree protection zone of white alder, T13. The alder will suffer some root loss, the tree can tolerate this loss, and mitigation methods to reduce root loss will be necessary. A retaining wall is proposed for construction in conjunction with the grade lowering. To reduce root loss impacts to tree T3, is recommended that the retainer be terminated just beyond the south corner of the proposed patio, (Image #7).

The grade will be lowered approximately of one foot in some areas of the western parcel, (APN: 022-212-24), and could impact trees T1-A and T2-A, coast redwoods growing on the adjacent property, (Image #8).

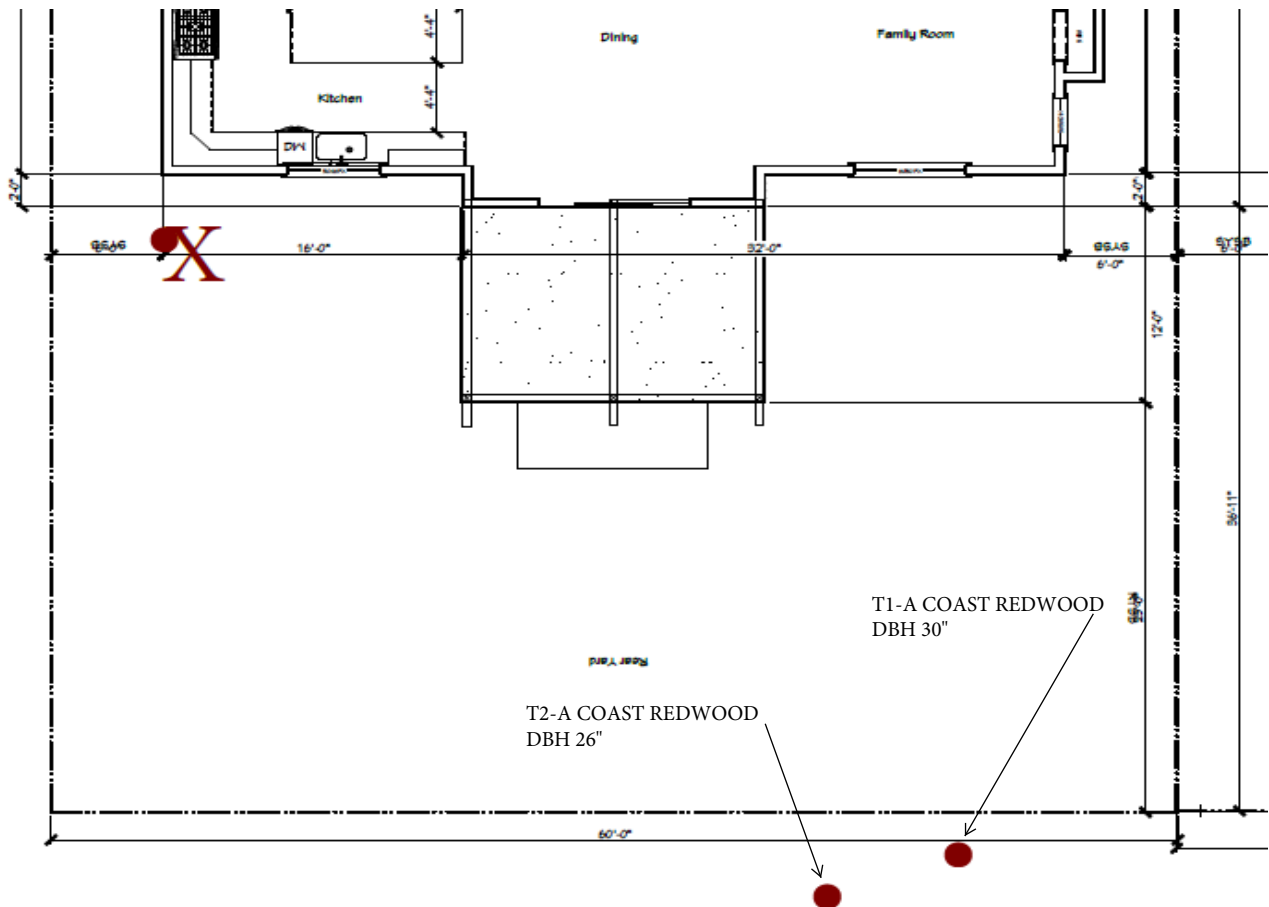


Image #8 – Trees T1-A & T2-A, coast redwood.

Grading (soil removal), could occur within the tree protection zone of coast redwoods, T1-A and T2-A. The redwoods will suffer some root loss, the trees can tolerate this loss, and mitigation methods to reduce root loss will be necessary. (Image #8).

Impacts to Subject Trees, Continued

Since the white alder T3, and coast redwoods T1-A and T2-A could suffer some root loss, reducing their ability to uptake water, one of the mitigation specifications will be to supply supplemental irrigation to them during the construction period.

Impact Level

Impact level rates the degree a tree may be impacted by construction activity and is primarily determined by how close the construction procedures occur to the tree. Construction impacts are rated as low, moderate, high. The quantity of trees assigned for each category (low, moderate, high), is indicated below:

Impact Rating to Trees - Protected

- Low - 2
- Moderate – 3
- High - 3

Mitigation Measures for Retained Trees

The trees retained on this project will require some or all the following methods to protect them from the impacts described above and to minimize root loss during the construction phases.

- Tree Protection Fencing
- Hand trenching.
- Supervised root pruning.

Tree protection specifications are included on the Tree Protection Plan, sheets T1 & T2. **These plan sheets shall become an element of the final plan set.**

Trees Recommended for Removal Due to Anticipated Construction Impacts:

Three

- | | | |
|------|----------------|----------------------------------|
| - T1 | Elm | (<i>Ulmus</i> spp.) |
| - T2 | Honey Locust | (<i>Gleditsia triacanthos</i>) |
| - T4 | Coast Live Oak | (<i>Quercus agrifolia</i>) |

Tree Protection Specifications & Recommended Sequence

(These specifications are included on the Tree Protection Plan, sheet T2)

Demolition Phase:

1. Tree Removal – Remove trees marked for removal.
2. Tree Pruning – Lay out edge of proposed building closest to tree T3, white alder. Perform clearance pruning if necessary, to achieve a minimum of 5 feet clearance from new building. Work shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA), and the American National Standards Institute, Safety Requirements in Arboriculture Operations ANSI Z133-2017. Contractor licensing and insurance coverage shall be verified. No limbs greater than 4" in diameter shall be removed.
3. Supplemental Irrigation – A temporary hose bib shall be installed withing the vicinity of trees T3, T1-A and T2-A. A battery-operated hose end irrigation timer shall be installed on the hose bib. Soaker hoses shall be laid out within the canopy drip line of the two trees to provide supplemental irrigation for the duration of the project. **If it is necessary to temporarily move the hoses during construction phases adjacent to the trees, the hoses shall be reinstalled once the work is completed.**
4. Tree Protection Fencing - Install Tree Protection Fencing, in location indicated on Tree Location & Removal Plan, sheet T1, and copied on Tree Protection Plan, sheet T2, prior to beginning of demolition.

Construction Phase:

1. Grading in Back Yard of Both Parcels – Excavation for grade lowering adjacent to trees T3, T1-A & T2-A shall be by hand methods. See Tree Protection Plan, sheet T2 for location. *Under supervision of Project Arborist, temporarily remove tree protection fencing. Grading and soil removal shall be by hand methods.* Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted. *When hand grading and root pruning is completed, re-install tree protection fencing.*
2. Retaining Wall, Parcel, APN:022-212-24 - Retaining wall shall be terminated 1-2 feet beyond the south corner of the proposed patio.
3. New Patio , Parcel, APN:022-212-24 - _Excavation for new foundation and patio adjacent to tree T6, shall be by hand methods. See Tree Protection Plan, sheet T2 for location. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.
4. Retaining Wall Parcel APN:022-212-23 – Excavation for retaining wall within the tree protection zone for tree T1-A, shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.

Tree Appraisal & Valuation– Protected Trees

The City of Scotts Valley requires valuation of all retained protected trees potentially affected by a construction project. The value of three trees has been appraised. References included, 1) *Guide for Plant Appraisal 9th Edition*, 2) *Species Classification and Group Assignment*, (Wester Chapter Edition).

The total appraised value is \$ 21,620 The criteria for appraisal are included in the attached spreadsheet, *Appendix D, Appraised Value of “Protected” Trees – Trunk Formula Method*.

The owner/applicant will be required to obtain, and file with the Community Development Director, a Tree Protection security deposit (surety bond), prior to obtaining Building Division permits. The total value of the security deposit will be \$21,620.

Tree Replacement

Three (3) “protected” trees are recommended for removal, two due to construction impacts, and one due to poor condition.

Compensation for tree removal necessary to construct the project include:

- Preservation and protection of the retained trees during construction.
- Pre-construction treatments for specific trees.
- Tree planting specified in the landscape design for this project.

The City of Scotts Valley recommends a minimum ratio of two trees are to be replanted (15 gallon or 24-inch box size), for every “protected” tree removed. Currently, three trees are recommended for removal. Therefore, a total of six replacement trees is required.

The recommended tree replanting locations are indicated on the Tree Protection Plan, sheet T1.

CONCLUSION

- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.
- Site improvements are planned for two unimproved parcels.
- Eight trees within or near the parcel boundaries were inventoried.
- Five trees are suitable for preservation and can be incorporated in the proposed project, including trees T1, white alder and T5 & T6, coast live oak, and T1-A and T2-A, coast redwood.
- Three trees, T3 white alder, and T1-A and T2-A, will be moderately impacted, can tolerate the impacts, and will require mitigation methods to reduce construction impacts including tree protection fencing and other treatments.
- Two trees T5 & T6, coast live oak, will have low construction impacts and will require tree protection fencing to minimize construction impacts.
- Three trees are recommended for removal including trees T1 elm, T2, honey locust and T4, coast live oak.
- If removals are permitted, replacement trees will be required.
- The City of Scotts Valley recommends a minimum ratio of two trees are to be replanted (15 gallon or 24-inch box size), for every “protected” tree removed. Currently, three trees are recommended for removal. Therefore, a total of six replacement trees is required.
- The City of Scotts Valley requires valuation of all retained protected trees potentially affected by a construction project. The value of three trees has been appraised. The total appraised value is \$ 21,620. The criteria for appraisal are included in the attached spreadsheet, *Appendix D, Appraised Value of “Protected” Trees – Trunk Formula Method*. The owner/applicant will be required to obtain, and file with the Community Development Director, a Tree Protection security deposit (surety bond), prior to obtaining Building Division permits. The total value of the security deposit will be \$21,620.

RECOMMENDATIONS

1. Obtain all necessary permits prior to removing or significantly altering any trees on site.
2. Remove trees recommended for removal.
3. Plant replacement trees in locations indicated on sheet T1.
4. Follow tree protection specifications as indicated on page 16 of this report, and copied on Tree Protection Plan, sheet T1.

Respectfully submitted,

Kurt Fouts

Kurt Fouts ISA Certified Arborist WE0681A



Bluebonnet Lane, , Scotts Valley

APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Suitability for Preservation Ratings:

Good: Trees in good health and structural condition with potential for longevity on the site

Fair: Trees in fair health and/or with structural defects that may be reduced with treatment procedures

Poor: Trees in poor health and/or with poor structure that cannot be effectively abated with treatment

Retention or Removal Code:

RT: Retain Tree

RI: Remove Due to Construction Impacts

I.M. Impacts Can Be Mitigated With Pre-Construction Treatments

R.C. Remove Due to Condition

Protected Tree City of Scotts Valley Any tree 13 inches or greater in diameter measured at 4.5 feet above grade. Any multi-trunk with one trunk 8" in diameter or greater. Any oak 8 inches or greater. Any tree 8 inches or greater, if located within 20 feet of a slope > 20%. Certain undesirable species exempt.

Tree #	Species	Trunk Diameter @ 54 inches a.g.	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
T1	elm (<i>Ulmus spp.</i>)	14", 13",12", 9"	Yes	30'X35'	Fair	Fair-Poor	Poor	N/A	High (Within grading limits)	R.I.,R.C.	Co-dominant trunks at 4' above grade. Two trunks with significant leans or bows, are unbalanced with strong weight bias. Overextended scaffolds.
T2	honey locust (<i>Gleditsia triacanthos</i>)	21" at 4' a.g.	Yes	35'x35'	Fair-Poor	Fair	Fair	N/A	High (Within grading limits)	R.I.	Significant drought stress symptoms, including tip dieback over entire canopy. Canopy density is thin.
 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com							Page 1 of 3				9/18/2021

Bluebonnet Lane, , Scotts Valley
APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 54 inches a.g.	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
T3	white alder (<i>Alnus rhombifolia</i>)	22",20"	Yes	60'x35'	Good	Good	Good	18'	Moderate (root loss , excavation, canopy loss, clearance pruning)	R.T., I.M.	Co-dominant trunks at 3' above grade. Several low limbs between 9" and 5" in diameter will require removal to accommodate second story of new home.
T4	coast live oak (<i>Quercus agrifolia</i>)	15"	Yes	25'X10'	Good	Fair-Poor	Fair	10'	High (Within grading limits)	R.I.	Less than 3' from new foundation. Topped at 10' and 14' above grade.
T5	coast live oak	7",6"	Yes	25'X10'	Good	Fair	Fair	8'	Low	R.T., I.M.	Co-dominant trunks at grade.
T6	coast live oak	8",5"	Yes	30'x15'	Good	Fair	Fair	8'	Low	R.T., I.M.	Co-dominant trunks at grade.
 Kurt Fouts Arborist Consultant 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com							Page 2 of 3				9/18/2021

Bluebonnet Lane, , Scotts Valley

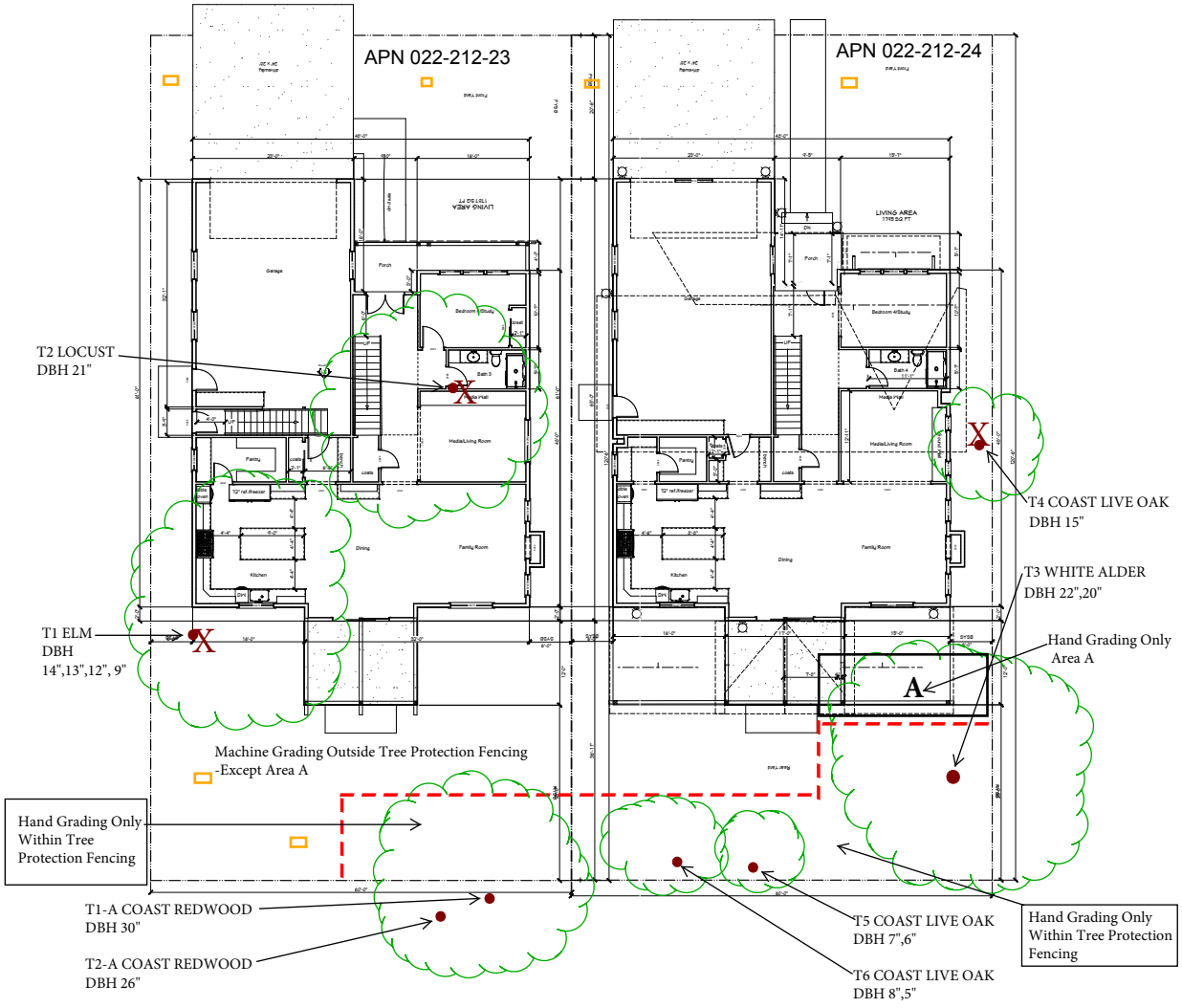
APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 4.5'	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
Trees Located on Adjacent Property											
T1-A	coast redwood (<i>Sequoia sempervirens</i>)	30" (estimated)	Yes	80'X15'	Fair	Good	Good	20'	Moderate (root loss, excavation)	R.T., I.M.	One foot from fence line. Canopy overhangs applicants parcel by 16'. Appears drought stressed as evidenced by yellowing needles throughout canopy.
T2-A	coast redwood	26" (estimated)	Yes	75'X10'	Fair	Good	Good	20'	Moderate (root loss, excavation)	R.T., I.M.	Three feet from fence line. Canopy overhangs applicants parcel by 16'. Appears drought stressed as evidenced by yellowing needles throughout canopy.
							Page 3 of 3			9/18/2021	

Legend

Tree Location	●
Tree Protection Fencing	---
Tree Canopy Extents	○
Hand Trenching & Root Pruning	~~~~~
Remove Tree	X
Replacement Tree	□



Tree Protection Specifications & Recommended Sequence

Demolition Phase:

1. **Tree Removal** - Remove trees marked for removal.
2. **Tree Pruning** - Lay out edge of proposed building closest to tree T3, white alder. Perform clearance pruning if necessary, to achieve a minimum of 5 feet clearance from new building. Work shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA), and the American National Standards Institute. Safety Requirements in Arboriculture Operations ANSI Z133-2017. Contractor licensing and insurance coverage shall be verified. No limbs greater than 4" in diameter shall be removed.
3. **Supplemental Irrigation** - A temporary hose bib shall be installed within the vicinity of trees T3, T1-A and T2-A. A battery-operated hose end irrigation timer shall be installed on the hose bib. Soaker hoses shall be laid out within the canopy drip line of the two trees to provide supplemental irrigation for the duration of the project. If it is necessary to temporarily move the hoses during construction phases adjacent to the trees, the hoses shall be reinstalled once the work is completed.
4. **Tree Protection Fencing** - Install Tree Protection Fencing, in location indicated on Tree Location & Removal Plan, sheet T1, and copied on Tree Protection Plan, sheet T2, prior to beginning of demolition.

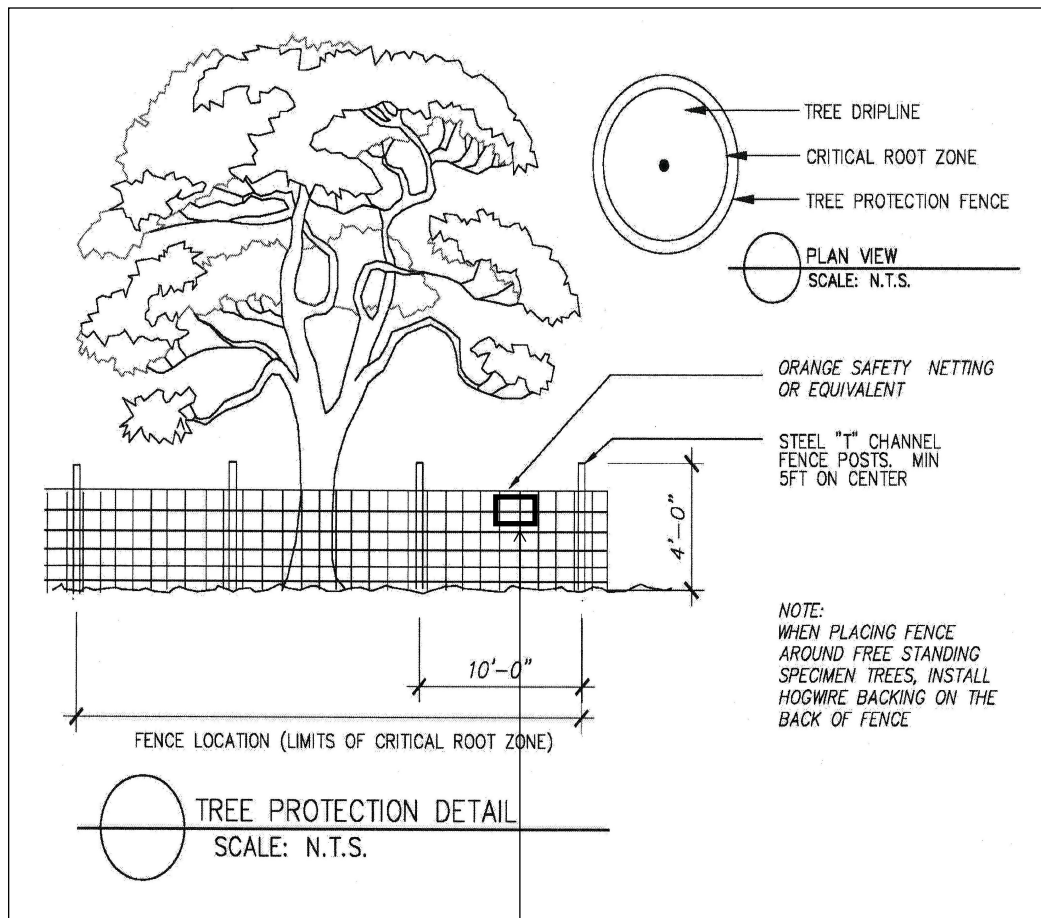
Construction Phase:

1. **Grading in Back Yard of Both Parcels** - Excavation for grade lowering adjacent to trees T3, T1-A & T2-A shall be by hand methods. See Tree Protection Plan, sheet T2 for location. *Under supervision of Project Arborist, temporarily remove tree protection fencing. Grading and soil removal shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted. When hand grading and root pruning is completed, re-install tree protection fencing.*
2. **Retaining Wall, Parcel, APN:022-212-24** - Retaining wall shall be terminated 1-2 feet beyond the south corner of the proposed patio.
3. **New Patio, Parcel, APN:022-212-24** - Excavation for new foundation and patio adjacent to tree T6, shall be by hand methods. See Tree Protection Plan, sheet T2 for location. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.
4. **Retaining Wall Parcel APN:022-212-23** - Excavation for retaining wall within the tree protection zone for tree T1-A, shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.

Additional tree protection information can be found in Appendix G of arborist report dated 9/18/2021.

1/8" = 1'-0"





Warning

Tree Protection Zone

Keep Out

NOTICE: PROTECTIVE FENCING IS REQUIRED ON THIS JOB SITE.
REMOVAL OR DAMAGE OF THIS FENCING MAY RESULT IN A FINE

This sign must be prominently displayed. Fencing may not be moved or removed without permission of the Project Arborist.
During demolition and construction, all reasonable steps necessary to prevent damage, or the destruction of protected trees is required. Failure to comply with all precautions may result in a STOP WORK order being issued by the regulating agency.

No Entry without Project Arborist Authorization
Kurt Fouts - Arborist Consultant - 831 - 359 - 3607

PRE-CONSTRUCTION ROOT PRUNING

Excavation shall only occur within the TPZ (Tree Protection Zone), of retained trees, when designated by the Project Arborist. Excavations within (or outside of the TPZ, as designated), the Tree Protection Zone, will be performed by hand in order to preserve roots. Pruning of roots 2" in diameter or greater shall be conducted under the supervision of the Project Arborist. These activities will be documented, and a monitoring report will be provided to the City Arborist.

Trenches for root pruning will be hand dug according to locations shown on Tree Protection Plan sheet:

- Trenches will be dug one foot behind staking on tree side of stakes.
- The depth of the trench will equal the depth required for installation of the adjacent element.
- Cleanly prune any roots encountered smaller than 2" in diameter. Use lopper, hand saw, or Sawzall. A sharp spade may be used for palm roots.
- The pruned roots should be backfilled before the end of the day. If this is not feasible, the roots shall be covered with burlap layers or carpeting and kept moist until the trench is backfilled.
- If roots are encountered 2" in diameter or greater, the Project Arborist shall be notified, and a determination shall be made to prune the root or retain it depending on site specific conditions.

Bluebonnet Lane, Scotts Valley

APN: 022-212-23 & 022-212-24

Appraised Value of "Protected" Trees - Trunk Formula Method

Tree #	Species	Trunk Diameter @ 4.5'	Basic Tree Cost	Species	Condition	Site	Contribution	Placement	Appraised Value
T3	white alder (<i>Alnus rhombifolia</i>)	22",20"	\$34,208	10%	75%	75%	55%	60%	\$1,620
T1-A	coast redwood (<i>Sequoia sempervirens</i>)	30"	\$27,811	90%	75%	70%	65%	65%	\$11,600
T2-A	coast redwood	26"	\$21,375	90%	75%	70%	60%	45%	\$8,400
Total Value of Appraised Trees									\$21,620
 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com				Sheet 1 of 1			9/18/2021		

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Harris, R.W., Clark, J.R. and Matheny, N.P. Arboriculture: Integrated management of landscape tree, shrubs, and vines. 4th ed. Upper Saddle River, NJ: Prentice-Hall, Inc. c.2004

Matheny, N. and Clark, J. Evaluation of Hazard Trees in Urban Areas. Champaign, IL: Wadley Graphix Corp. c.1994

Smiley, E.T., Matheny, N., Lilly, S. Tree Risk Assessment – Best Management Practices, Champaign, ILL: International Society of Arboriculture c. 2011

Costello, L., Perry, E., & Matheny, N. Abiotic Disorders of Landscape Plants: A Diagnostic Guide Oakland, CA: UC/ANR Publications (Publication 3420) c.2003.

Glossary of Terms

Basal rot: decay of the lower trunk, trunk flare, or buttress roots.

Canker: Localized diseased area on stems, roots and branches. Often sunken and discolored.

Critical Root Zone (CRZ): Area of soil around a tree where a minimum number of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of the DBH, but because root growth can be asymmetric due to site conditions, on-site investigation may be required.

Codominant branches/stems: Forked branches (or trunks), nearly the same size in diameter, arising from a common junction and lacking a normal branch union, may have included bark.

Crown: Upper part of a tree, measured from the lowest branch, including all branches and foliage.

Defect: An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measurement of trunk diameter at 4.5 feet above grade.

Frass: Fecal material and/or wood shavings produced by insects.

Included Bark Attachments (crotches): Branch/limb or limb /trunk, or codominant trunks originating at acute angles from each other. Bark remains between such crotches, preventing the development of axillary wood. The inherent weakness of such attachments increases with time, through the pressure of opposing growth and increasing weight of wood and foliage, often resulting in failure.

Live Crown Ratio (LCR): Ratio of the the crown length (live foliage), to total tree height.

Scaffold branches: Permanent or structural branches that form the scaffold architecture or structure of a tree.

Suppressed: Trees that have been overtopped and occupy an understory position within a group or grove of trees. Suppressed trees often have poor structure.

Tree Protection Zones (TPZ): Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Trunk flare: Transition zone from trunk to roots where the trunk expands into the buttress or structural roots.

This Glossary of Terms was adapted from the *Glossary of Arboricultural Terms* (ISA, 2015)

Appendix G- TREE PROTECTION GUIDELINES AND RESTRICTIONS

Protecting Trees During Construction:

- 1) Before the start of site work, equipment or materials move in, clearing, excavation, construction, or other work on the site, every tree to be retained shall be securely fenced- off as delineated in approved plans. Such fences shall remain continuously in place for the duration of the work undertaken in connection with the development.
- 2) If the proposed development, including any site work, will encroach upon the tree protection zone, special measures shall be utilized, as approved by the project arborist, to allow the roots to obtain necessary oxygen, water, and nutrients.
- 3) Underground trenching shall avoid the major support and absorbing tree roots of protected trees. If avoidance is impractical, hand excavation undertaken under the supervision of the project arborist may be required. Trenches shall be consolidated to service as many units as possible. Boring/tunneling under roots should be considered as an alternative to trenching.
- 4) Concrete or asphalt paving shall not be placed over the root zones of protected trees, unless otherwise permitted by the project arborist.
- 5) Artificial irrigation shall not occur within the root zone of native oaks, unless deemed appropriate on a temporary basis by the project arborist to improve tree vigor or mitigate root loss.
- 6) Compaction of the soil within the tree protection zone shall be avoided.
- 7) Any excavation, cutting, or filling of the existing ground surface within the tree protection zone shall be minimized and subject to such conditions as the project arborist may impose. Retaining walls shall likewise be designed, sited, and constructed to minimize their impact on protected trees.
- 8) Burning or use of equipment with an open flame near or within the tree protection zone shall be avoided. All brush, earth, and other debris shall be removed in a manner that prevents injury to the tree.
- 9) Oil, gas, chemicals, paints, cement, stucco or other substances that may be harmful to trees shall not be stored or dumped within the tree protection zone of any protected tree, or at any other location on the site from which such substances might enter the tree protection zone of a protected tree.
- 10) Construction materials shall not be stored within the tree protection zone of a protected tree.

Project Arborist Duties and Inspection Schedule:

The project arborist is the person(s) responsible for carrying out technical tree inspections, assessment of tree health, structure and risk, arborist report preparation, consultation with designers and municipal planners, specifying tree protection measures, monitoring, progress reports and final inspection.

A qualified project arborist (or firm) should be designated and assigned to facilitate and insure tree preservation practices. He/she/they should perform the following inspections:

Inspection of site: Prior to equipment and materials move in, site work, demolition, landscape construction and tree removal: The project arborist will meet with the general contractor, architect / engineer, and owner or their representative to review tree preservation measures, designate tree removals, delineate the location of tree protection fencing, specify equipment access routes and materials storage areas, review the existing condition of trees and provide any necessary recommendations.

Inspection of site: During excavation or any activities that could affect trees: Inspect site during any activity within the Tree Protection Zones of preserved trees and any recommendations implemented. Assess any changes in the health of trees since last inspection.

Final Inspection of Site: Inspection of site following completion of construction. Inspect for tree health and make any necessary recommendations.

Kurt Fouts shall be the Project Arborist for this project. All scheduled inspections shall include a brief Tree Monitoring report, documenting activities and provided to the City Arborist.

Tree Protection Fencing

Tree Protection fencing shall be installed prior to the arrival of construction equipment or materials. Fence shall be comprised of six -foot chain link fence mounted on eight - foot tall, 1 and 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced on a minimum of 10-foot centers. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

A final inspection by the City Arborist at the end of the project will be required prior to removing any tree protection fencing.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Root Pruning

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Tree Work Standards and Qualifications

All tree work, removal, pruning, planting, shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA) and the American National Standards Institute series, *Safety Requirements in Arboriculture Operations* ANSI Z133-2017,

Contractor licensing and insurance coverage shall be verified.

During tree removal and clearance, sections of the Tree Protection Fencing may need to be temporarily dismantled to complete removal and pruning specifications. After each section is completed, the fencing is to be re-installed.

Trees to be removed shall be cut into smaller manageable pieces consistent with safe arboricultural practices, and carefully removed so as not to damage any surrounding trees or structures. The trees shall be cut down as close to grade as possible. Tree removal is to be performed by a qualified contractor with valid City Business/ State Licenses and General Liability and Workman's Compensation insurance.

Development Site Tree Health Care Measures

RECOMMENDED TO PROVIDE OPTIMUM GROWING CONDITIONS, PHYSIOLOGICAL INVIGORATION AND STAMINA, FOR PROTECTION AND RECOVERY FROM CONSTRUCTION IMPACT.

Establish and maintain TPZ fencing, trunk and scaffold limb barriers for protection from mechanical damage, and other tree protection requirements as specified in the arborist report.

Project arborist to specify site-specific soil surface coverings (wood chip mulch or other) for prevention of soil compaction and loss of root aeration capacity.

Soil, water and drainage management is to follow the ISA BMP for "Managing Trees During Construction" and the ANSI Standard A300(Part 2)- 2011 Soil Management (a. Modification, b. 'Fertilization, c. Drainage.)

Fertilizer / soil amendment product(s) amounts and method of application to be specified by certified arborist.

City of Scotts Valley - Protected Tree List*

- A. Any size tree located within five (5) feet of a public right-of-way or street.
- B. Any single-trunk **oak tree** greater than or equal to eight (8) inch diameter (25 inch circumference).**
- C. Any multi-trunk **oak tree** with any trunk greater than or equal to four (4) inches diameter (12 inch circumference).**
- D. Any tree greater than or equal to eight (8) inch diameter (25 inch circumference)** if located within 20 feet of a moderate slope (greater than 20% slope).
- E. Any single-trunk tree greater than or equal to 13-inch diameter (40 inch circumference).**
- F. Any multi-trunk tree with any trunk greater than or equal to eight (8) inch diameter (25 inch circumference).**
- G. Any tree, regardless of size, required as part of a permit approved by the Planning Department, Planning Commission or City Council, or required as a replacement tree for a removed tree.
- H. Any **Heritage Tree**, as specified in Municipal Code Section 17.44.080 and Exhibit A. A list and map of Heritage Trees are available at the Planning Department. Fees for removal of Heritage Trees are higher than other protected tree removals and applications must be approved at a public hearing before the Planning Commission.

* **Note:** No tree removal permit is required to remove:

- C Monterey Pine trees that are infected with pitch canker; ***proof of infection is required***;
- C Blue Gum Eucalyptus or Acacia trees;
- C Bay Laurel trees ***if*** they are growing under the drip-line of an established oak tree; or,
- C Fruit trees.

** Tree measurement shall be taken 4½ feet (54 inches) above the ground.

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as the quality of any title.
2. The appraiser/consultant can neither guarantee nor be responsible for accuracy of information provided by others.
3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire appraisal/evaluation.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of this appraiser/consultant.
6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches. Diagrams. Graphs. Photos. Etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

CONSULTING 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 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. 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 medicine, cannot be guaranteed.

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 all trees.



City of Scotts Valley
PLANNING COMMISSION
STAFF REPORT

Date: February 24, 2022

**Applicant /
Property Owner:** Bob and Carrie Paul

Applications: DR22-002, TR22-007

Location: Blue Bonnet Lane, APN 022-212-24, Lot B of MLD18-002

General Plan / Zoning: R-H, High Density Residential

Environmental Status: Exempt, Class 3

Request: Design Review approval for a new single-family home on an existing residential lot, including tree removal permit.

Staff Planner: Scott Harriman, Consulting Planner, (650) 587-7300 x66
sharriman@rgs.ca.gov

STAFF RECOMMENDATION

Staff recommends that the Planning Commission approve the proposed project based on findings and conditions contained in the attached Resolution and Exhibit A.

SITE AND PROJECT DESCRIPTIONS

The project proposes construction of a new single-family home on a vacant 7,230 square foot parcel (60' x 120.5') located on Blue Bonnet Lane. The project site is designated Lot B as part of Minor Subdivision MLD18-002, approved in 2018.

The project proposes construction of a new two-story, single-family home, driveway and landscape improvements. Project plans are included as Attachment 3. The proposed structure includes a 3,668 square foot residence and a 760 square foot garage. The total enclosed area of the structure is 4,228 square feet. Open (covered) porches are proposed at the front entry and rear yard patio.

Public utilities are available to the site including sanitary sewer, water from Scotts Valley Water District and gas and electric from Pacific Gas and Electric.

PROPOSED ENTITLEMENTS

The project requires the following planning permits:

1. Design Review – Architectural and site plan review is required for construction and alteration of structures in the High Density Residential zoning district pursuant to Municipal Code Section 17.10.050.
2. Tree Removal Permit – Two protected trees would be removed.

Each of these requested entitlements and the project's compliance with General Plan and Zoning standards are discussed below.

DISCUSSION AND ANALYSIS

The following section provides an analysis of the relevant general plan and zoning standards, requested development entitlements and environmental conditions associated with the proposed project.

GENERAL PLAN: The project site is designated R-H, High Density Residential in the General Plan. The development of the densities in R-H neighborhoods has been guided by the topography, geology, vegetative cover, access to transportation and service facilities. Single and multi-family dwellings are consistent within High Density general plan areas. The proposed single-family home is consistent with the General Plan.

ZONING: The project site is in the R-H, High Density Residential zoning district. Single-family and multi-family dwellings are permitted in the R-H, with an allowed density of one unit for each 3,000 square feet of lot area. The following Zoning Compliance Table provides the R-H zoning standard, the projects proposal, and its compliance.

Zoning Compliance Table – Blue Bonnet Lot B (APN 022-212-24)			
R-H, High Density Residential			
	Standard	Proposed	Compliance
Density	1 unit/3,000 sq. ft. of lot area $7,230/3,000 = 2.41$. 2 units	1	Yes
Setbacks - Front	20' min	25'	Yes
- Side	10% of lot width min, 10' max 60' lot width = 6' min	6'	Yes
- Rear	20% of lot depth min, 25' max 120.5' lot depth = 24.1' min	25'	Yes
Height	35' max	30'	Yes
Site Coverage	55% max	43.3%	Yes
Parking	2-car garage +1 guest (driveway) 1 space (driveway) for ADU	2+ car garage +2 driveway spaces	Yes

As shown in the Table above, the proposed home meets the R-H, High Density Residential development standards.

DESIGN REVIEW: Architectural and Site Plan Design Review is required for all new structures in the R-H, High Density Residential zoning district subject to design criteria specified in Section 17.50.030. The Design Review process is established to carry out the objectives of the City's General Plan and related zoning regulations and to ensure that

permits for construction will be carried out in a manner which is not detrimental to the surrounding uses and is consistent with the overall planning goals of the city.

Required Findings: The Planning Commission shall determine from data submitted whether the proposed building, structure or other improvement will meet the design standards prescribed in Section 17.50.030(D).

Required design standards and an analysis of how the project complies are shown below:

1. The siting of any structure on the property as compared to the siting of other structures in the immediate neighborhood;

Response: The proposed home would be situated on an existing 7,230 square foot parcel. The proposed home meets all R-H, High-Density Residential zoning standards and is consistent with the residential character within the surrounding area. As proposed, the single-family home is suited to the property, neighborhood setting, and zoning context.

2. Materials, colors, proportion, mass and detail. All structures shall be in good proportion, have simplicity of mass and detail and be compatible in appearance with surrounding structures. There shall be an appropriate use of materials; colors shall be appropriate within the context of use and should blend with surrounding structures;

Response: The project proposes exterior finishes including Hardie board horizontal lap siding base, white vertical board and batt siding on upper areas; dual glaze windows and wood trim; dark grey 40-year composition shingles on roof areas; stone entry; and black standing seam aluminum shed roofs to accent front and side elevations. The proposed materials, colors and mass and detail are in good proportion, provide interest on all elevations, and are consistent with the context of the surrounding areas.

3. Landscaping and irrigation plans shall be required on the site. Landscaping shall be in keeping with the character or design of the building. Existing trees shall be preserved wherever possible.

Response: The project proposes front and rear yard landscaping and automatic irrigation system throughout the site. A variety of plant materials are proposed including succulents, tall shrubs and two 15-gallon western redbud trees. Conditions of approval require compliance with the City's tree preservation ordinance and the project Arborist Report dated September 18, 2021.

4. The size, location and arrangement of on-site parking and paved areas;

Response: The project provides a conventional, 18-foot wide, paved driveway leading to an over-sized (32.6' deep by 23' wide) two-car garage. The driveway provides the 20-foot depth between the garage and public sidewalk. The two proposed tandem driveway spaces and two garage parking spaces comply with on-site parking standards for the single-family home.

5. Ingress, Egress and Internal Traffic Circulation. All the above factors shall be related to the setting or established character of the neighborhood or surrounding area.

Response: Vehicular access to the residential site occurs through a conventional residential driveway in compliance with city standards and consistent with the neighborhood character.

6. Height and access to sunlight, setbacks, landscaping and use of materials for articulation and visual relief for fences and walls over eight feet tall or fences over three feet tall in front yards when across from Highway 17.

Response: The project site is not in the vicinity of highway 17. However, project does not propose fences over eight feet in height. As proposed, all fences and retaining walls are within and adjacent to landscaped areas with plants and shrubs to visually soften the appearance of walls and fences.

Tree Removal Permit: An Arborist Report, dated September 18, 2021, prepared by Kurt Fouts (ISA Certified Arborist WE0681A) is included as Attachment 4. The project proposes to preserve three multi-trunk coast live oak trees along the rear property line. The applicant is requesting to remove two protected trees as part of development of the site; a 14" coast live oak and a multi-trunk white alder. The arborist report identifies the oak tree to be removed as being in good condition although, previously topped with new growth poorly attached. Arborist report recommends removal of this oak tree due to construction impacts. The Arborist report found the alder tree to be in good condition and not impacted by construction of the home with implementation of protective measures during construction.

On February 12, 2022, the project arborist met the property owner on site to re-inspect the alder without leaf coverage. The arborist reported that "the tree, T3 from my arborist report dated 9/18/2021, is in good condition. There is one approximately 9-inch diameter scaffold with deadwood and possible decay at the location of an old limb tear out. To reduce the risk of the limb failing at the tear out location, the limb should either be a) shortened, b) pruned below the tear out location, or c) removed where it attaches to the trunk. Any of these three options could be undertaken without significant impact to the tree."

The applicant is, however, requesting that the Planning Commission authorize removal the entire tree as part of the Design Review process as the canopy of the tree will overhang the home, potentially conflict with Fire Department "fire defense" requirements, block solar access to the house, and will not visually enhance the new landscape plan and use of the back yard. Landscape plans submitted for Commission review show this alder tree removed. The Planning Commission may approve the tree removal request as part of the design review process or request the applicant implement measures to preserve the tree. The conditions of approval contained in the attached Resolution (Exhibit A, condition #16) will be revised to reflect the Planning Commission's determination on this point.

The proposed landscape plan shows two new 15-gallon western redbud trees to be planted in the front yard along with other low shrubs and ground cover. The city's tree preservation ordinance allows for the removal of protected trees requiring replacement on a two replacement trees for each tree removed. Removal of two trees would require four, 15-gallon minimum, replacement trees. Payment into the City's tree fund is an option if the site is not of sufficient size to accommodate the required number of replacement trees. The current tree mitigation fee is \$45 per tree not replaced on site.

Conditions in the attached approval resolution require the applicant to comply with the City's Tree Preservation Ordinance and recommendations contained in the project arborist report, including but not limited to, establishing a tree protection zone, installing protective fencing, hand digging within that area, replanting and/or payment into City tree fund.

ENVIRONMENTAL DETERMINATION

The project is exempt from CEQA pursuant to Section 15303, Class 3, New Construction or conversion of small structures.

PUBLIC NOTICE & COMMENT

A Notice of Proposed Development was posted on site. As of the date of this staff report no comments have been received on the proposed development.

FINDINGS AND CONCLUSION

Staff finds that the project's site and architectural plans respond appropriately to the site and surrounding area and recommends that the Planning Commission approve the Design Review application subject to findings and conditions contained in the attached Resolution and Conditions of approval.

ATTACHMENTS

1.	Draft Resolution and Conditions of Approval.....	006
	a. Fire District Letter	
	b. Water District Letter	
2.	Location Map.....	019
3.	Project Plans	020
4.	Arborist Report	040

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SCOTTS VALLEY APPROVING DESIGN REVIEW (DR22-002) AND TREE REMOVAL PERMIT (TR22-007), FOR A NEW SINGLE-FAMILY HOME AND RELATED SITE IMPROVEMENTS, SUBJECT TO CONDITIONS OF APPROVAL, LOCATED ON BLUE BONNET LANE / APN 022-212-24 / Lot B of MLD18-002

WHEREAS, the City of Scotts Valley has received an application for Design Review from Bob Paul, property owner, to construct a new two-story single-family home and related site improvements on an existing vacant lot on Blue Bonnet Lane, Lot B of MLD18-002, as shown on project plans on file with the Planning Department / APN 022-212-24; and

WHEREAS, the applicant has presented substantial evidence which supports the application; and

WHEREAS, the application has been reviewed for compliance with the California Environmental Quality Act ("CEQA"), and found to be exempt pursuant to Section 15303, Class 3; and

WHEREAS, the Planning Commission held duly published and noticed hearing on February 24, 2022, to review and consider the proposed development and the requested planning permits (entitlements), hear public testimony; and

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Scotts Valley ("Commission"), that the Commission hereby approves Design Review DR22-002 and Tree Removal Permit TR22-007:

SECTION 1: Approve Design Review based on the following findings, subject to Conditions of Approval (Exhibit A) attached hereto and incorporated herein:

1. ***The siting of any structure on the property as compared to the siting of other structures in the immediate neighborhood is appropriate.*** The proposed home would be situated on an existing 7,230 square foot parcel. The proposed home meets all R-H, High-Density Residential zoning standards and is consistent with the residential character within the surrounding area. As proposed, the single-family home is suited to the property, neighborhood setting, and zoning context.
2. ***The materials, colors, proportion, mass and detail of all structures shall be in good proportion, have simplicity of mass and detail and be compatible in appearance with surrounding structures. There shall be an appropriate use of materials. Colors shall be appropriate within the context of use and should blend with surrounding structures.*** The project proposes exterior finishes including Hardie board horizontal lap siding base, white vertical board and batt siding on upper areas; dual glaze windows and wood trim; dark grey 40-year composition shingles on roof areas; stone entry; and black standing seam aluminum shed roofs to accent front and side elevations. The proposed materials, colors and mass and detail are in good proportion, provide interest on all elevations, and are consistent with the context of the surrounding areas.

3. ***Landscaping and irrigation plans shall be required on the site. Landscaping shall be in keeping with the character or design of the building. Existing trees shall be preserved wherever possible.*** The project proposes front and rear yard landscaping and automatic irrigation system throughout the site. A variety of plant materials are proposed including succulents, tall shrubs and two 15-gallon western redbud trees. Conditions of approval require compliance with the City's tree preservation ordinance and the project Arborist Report dated September 18, 2021, incorporated herein by reference.
4. ***The size, location and arrangement of on-site parking and paved areas shall be appropriate.*** The project provides a conventional, 18-foot wide, paved driveway leading to an over-sized (32.6' deep by 23' wide) two-car garage. The two proposed tandem driveway spaces and two garage parking spaces comply with on-site parking standards for the single-family home and accessory dwelling unit.
5. ***For ingress, egress and internal traffic circulation, all the above factors shall be related to the setting or established character of the neighborhood or surrounding area.*** The project meets the requirement of this finding in that vehicular access to the residential site occurs through a conventional residential driveway in compliance with city standards and consistent with the neighborhood character.
6. ***For fences and walls over eight feet tall or fences over three feet tall in front yards when across from Highway 17, consider height and access to sunlight, setbacks, landscaping and use of materials for articulation and visual relief.*** The project site is not in the vicinity of highway 17. However, project does not propose fences over eight feet in height. As proposed, all fences and retaining walls are within and adjacent to landscaped areas with plants and shrubs to visually soften the appearance of walls and fences.

NOW THEREFORE, BE IT RESOLVED that, after careful consideration of the application and related materials, plans, maps, facts, exhibits, staff report, testimony and other evidence submitted in this matter, and incorporated herein by this reference, the Planning Commission of the City of Scotts Valley approves Design Review (DR22-002) and Tree Removal Permit (TR22-007) for a new single-family home and related site improvements on Blue Bonnet Lane / APN 022-212-24 / Lot B of MLD18-002 subject to Conditions of Approval (Exhibit A), and project development plans which are attached hereto and incorporated herein by this reference.

THE ABOVE AND FOREGOING RESOLUTION was duly and regularly passed by the Planning Commission of the City of Scotts Valley at a meeting held on the 24th day of February 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Approved: _____
Name
Planning Commission Chair

Attest: _____
Taylor Bateman
Community Development Director

Exhibit A
February 24, 2022
Conditions of Approval
Blue Bonnet Lane / APN 022-212-24
(#1 - #58)

Legal

1. The developer has agreed to and shall defend, indemnify and hold harmless the City of Scotts Valley, its officers, agents and employees from any claim, action or proceeding against the City or its officers, agents or employees to attach, set aside, void or annul any action of the City in connection with approvals under the California Environmental Quality Act or with respect to approval of the project, which action is brought within the time period(s) prescribed by law. The City shall promptly notify the developer of any such claim, action or proceeding and shall fully cooperate in defense.
2. The developer/applicant shall sign the Conditions of Approval agreeing to the Conditions of Approval prior to issuance of any grading/building permits, transfer of title, or within 30 days of approval of these planning permits, whichever occurs first.
3. The developer shall obtain all required grading, improvement plans, and building permits; and pay all appropriate required fees before starting any grading/earth disturbance on the property.

Planning Department

4. The home and site improvements shall be constructed substantially as shown in the plans prepared by Architect Name, which are on file in the Planning Department.
5. All site improvements shall be in conformance with the plans stamped approved, unless otherwise conditioned in this Exhibit to the satisfaction of the Community Development Director (CDD) and City.
6. Any future changes to the approved plans that the developer and/or other reviewing agencies initiate and/or propose, shall require prior review and approval by the City Community Development Department (CDD) and CDD confirmation regarding the level of environmental review and planning permits. As determined by the CDD, minor changes may be approved by the CDD while major changes may require review and approval by the Planning Commission and/or City Council, paid by the developer.

Archeological Resources

7. The applicant and construction contractor shall ensure that archeological resources are not destroyed during project grading.
8. The developer shall submit a copy of a contract with a qualified/registered archeologist to conduct monitoring of all earth disturbing activities for review and approval by the Community Development Director, before grading permit issuance. The developer shall include this requirement in the contract for all contractors involved with grading and subsurface work.

9. The qualified/registered archeologist shall monitor all earthwork activities.
10. The applicant/contractor shall provide the project archeologist with a copy of the final grading plans for review prior to any project grading.
11. Provide for daily monitoring during grading activities by the project archeologist to determine if archeological resources are encountered in excavated areas.
12. Allow for the recovery of any discovered archeological resources according to a recovery plan and methods specified by the project archeologist, including the donation of the recovered resources to a suitable repository (museum, school, etc.).
13. If recovery occurs, ensure that the project archeologist prepare a recovery report that details the type of resources recovered and the repository locations where they were taken.
14. Specify in the construction contract with the project grading contractor(s), that grading personnel are to cooperate with and assist the project archeologist during monitoring and any recovery activities, including assisting with recovery efforts if necessary.

Trees

15. All recommendations in the Arborist Report prepared by Kurt Fouts, ISA Certified Arborist, dated September 18, 2021, are incorporated as conditions of project approval.
16. The project is responsible for the replacement of **two (2) or four(4)**, 15-gallon trees as a result of the proposed removal of **one or two** trees (2:1 replacement ratio). The developer shall make payment into the City's in-lieu tree replacement fund for the number of trees that are not replaced on-site following acceptance by the City of the final tree replacement plan.
17. No tree removals shall occur until a grading and/or building permit is issued.
18. Prior to the issuance of any grading or building permits, the project arborist shall inspect tree protection fencing and the completion of pre-construction treatments.
19. The project arborist shall routinely inspect the development site through the term of the project.

Landscaping

20. The landscaping improvements shall be install per approved plans and shall be permanently maintained and irrigated with an automatic irrigation system.

Lighting

21. Exterior light levels are to be at the lowest level and carefully controlled for security, aesthetics, safety and identification without interfering with nearby land uses.
22. All exterior building lighting shall be designed to integrate into the building architecture with shielded and recessed light sources with final light fixture approval prior to the issuance of any building or grading permit.

Building Department

23. The developer shall obtain any required grading and/or building permit(s) and pay applicable fees.
24. All contractors on site shall limit their work to 8:00 A.M. to 6:00 P.M. on weekdays; 9:00 A.M. to 5:00 P.M. on Saturday; and no construction on Sunday.
25. If gasoline generators are used, they shall be contained in an enclosure that prevents their noise from being heard at adjacent properties.
26. A sign shall be posted on-site during all construction activities identifying the name and contact phone number of the primary general contractor to be notified of any disturbances or excessive noise emanating from the site.
27. Winter grading, from October 15th to April 15th, shall require prior review and approval by the City.
28. The location of all soil to be exported shall be reviewed and approved by the Building Department prior to issuance of a grading or building permit.
29. The developer shall pay all applicable City development impact fees before grading and/or building permit issuance.
30. The developer shall pay school impact fees to the Scotts Valley Unified School District before building permit issuance.
31. All trades of electrical, plumbing and mechanical will be issued under one building permit for said project (General Contractor permittee).
32. All buildings shall be designed to comply with the current codes in effect at the time of building permit issuance.
33. The building permit plans must comply with the current California Building Code (CBC) for water-conserving fixtures and fittings and with the CA Energy Commission Building Energy Efficiency Standards, which includes energy-saving fixtures and appliances to be used throughout the building.
34. All structures shall comply with the most current California Energy Commission Standards (Title 24).
35. All new construction shall comply with the City's current Green Building Guidelines, which requires various low-impact-development and resource efficient techniques, to the satisfaction of the CDD.
36. Structural calculations, if applicable, shall be submitted and wet-signed by the Engineer of record.
37. Provide names of Special Inspectors with certifications as required.

38. A soils report by a qualified geologic engineer shall be submitted with the application for any building permits.
39. All new utilities shall be installed underground.
40. The developer shall comply with the City's standard erosion control measures. The plans submitted for a building permit must include best management practices (e.g. erosion control practices and procedures) during construction, which include complying with Regional Air Quality Control Board emissions for construction equipment.
41. Site drainage erosion control and foundation plans must be reviewed and approved by a soils engineer.
42. The developer shall submit a plan review letter from the project Geotechnical Engineer confirming that the construction documents comply with the project geotechnical engineer's recommendations.
43. To ensure that City requirements are met, the developer shall specify to the Building Official the off-site disposal location of any exported soil material at a pre-construction meeting or before grading permit issuance. If the disposal site is located outside the City, the site shall be a legal facility such as a licensed landfill or permitted fill site.
44. Developer shall submit a plan showing temporary (during construction) and permanent erosion control measures to the Regional Water Quality Control Board (RWQCB), the agency that administers NPDES, and the City Building Department for review and approval.
45. A hazardous material containment plan shall be approved by City Building staff prior to commencement of land alteration and construction activities for the project. The plan shall contain the following elements:
 - A. Stationary equipment such as motors, pumps, welding equipment shall be placed over drip pans or other containment apparatus;
 - B. Any petroleum, lubricants or other hazardous materials used during construction shall be stored in a special storage location equipped with double containment and this location shall be shown on the erosion control plan and approved by the agencies that review this plan.

City Public Works Department- Engineering Division

46. Engineered improvement plans for all work, signed and prepared under the direction of a registered civil engineer, shall be approved by the Public Works Director/City Engineer prior to commencing work.
47. All work on public utility systems will require an encroachment permit application made to the satisfaction of the Public Works Director/City Engineer. The civil on-site work, as plan reviewed by the Public Works Department, will require an on-site civil engineering permit and inspection.

48. Applicant shall construct storm drain facilities in conformance with data and analysis in the latest adopted City of Scotts Valley Storm Drain Master Plan (SWMP) and in accordance with the City's SWMP Ordinance No. 184.1.
49. Stormwater Management Plan shall be submitted to the City Engineering Division for review and approval as part of any building and or grading permits issued for development.
50. The Stormwater Management Plan shall be prepared by a registered civil engineer and shall provide storm (hydrologic and hydraulic) calculations for appropriate storm drain facilities to control on-site drainage and mitigate off-site impacts. The design shall follow the criteria contained in the City of Scotts Valley Standard Details and the data and analysis contained in the latest adopted City of Scotts Valley Storm Drainage Master Plan.
51. The Stormwater Management Plan shall demonstrate that the Development will not increase the rate of flow (cubic feet per second) or velocity (feet per second) of site run-off water to any off-site drainage areas beyond the measured or calculated pre-project rate and velocity. **(See the Stormwater Technical Guide on the Scotts Valley City website for requirements and formatting under Public Works.)**
52. Impervious area must be shown on coversheet and included in the project's Stormwater management analysis and design.
53. Applicant shall pay the cost to accomplish the utility design and construction to underground the telephone, electric power, and television cables in each project contained easement, private or public road frontage. This under grounding of utilities to remove utility poles comes in addition to the state required under grounding of transmission for the project and any new service connections.
54. Pre-Construction Meeting: In order to ensure that project details are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property, with the exception of installation of temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing, the developer shall convene a pre-construction meeting on the site. The following parties shall attend: the developer, the grading contractor supervisor, the project architect, the project arborist, the project civil engineer, City of Scotts Valley Planning staff, City Engineer and Building Inspector. The temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing will be inspected at that time.
55. Applicant shall construct storm drain facilities in conformance with data and analysis in the adopted City of Scotts Valley Storm Drain Master Plan (SWMP), December 1989 and in accordance with the City's SWMP Ordinance No. 184.1.
56. The applicant shall repair any damage to any public or private improvements as a result of damage caused by applicant or its contractors, consultants, and/or employees prior to issuance of a Certificate of Occupancy. A video recording, DVD format or equivalent, clearly showing the existing condition of Blue Bonnet Drive to the project site shall be presented to the Department of Public Works prior to the start of construction. Applicant

is advised that, absent clear video evidence to the contrary, road damage must be repaired to the satisfaction of the City prior to issuance of a certificate of occupancy. Damage assessment will be at the sole discretion of the City.

Scott Valley Fire Protection District

57. The project shall comply with all requirements as provided in the Fire District letter dated January 31, 2022 and attached hereto.

Scott Valley Water District (SVWD)

58. The project shall comply with all requirements as provided in the Scotts Valley Water District letter dated February 4, 2022 and attached hereto.

End of conditions.



SCOTTS VALLEY FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

Ron Whittle
Fire Chief

January 31, 2022

Carrie and Bob Paul
5006 Bellevue St.
Soquel, CA 95073

RE: Paul Residence
Blue Bonnet Lane
Scotts Valley CA 95066

We have reviewed the design review plans for a new single family dwelling to be located on Lot B, Blue Bonnet Lane (APN 022-212-24) Scotts Valley, CA. Our review is to insure compliance with the minimum code requirements related to fire and life safety as set forth in the California Fire Code, State Fire Marshal's Regulations and local fire code ordinance. At this time the District has no objections to this project. However, when moving forward with building construction permit the following items will be required to be on the plans to gain compliance.

NOTE on the plans "these plans are in compliance with California Building and Fire Codes (2019 edition) and Scotts Valley Fire Protection District Amendments". (CFC §1.1.3)

Fire flow requirements for this project is **1000 gallons per minute**. (the AVAILABLE FIRE FLOW information can be obtained from the water company). Note on the plans the available fire flow for a public fire hydrant within **600** feet of the project.

SHOW on the plans a public fire hydrant within **600** feet of any portion of the building meeting the minimum required fire flow for the building. Hydrant shall be on a fire apparatus access road, as measured by an approved drivable route around the exterior of the facility or building. (CFC §507.5.1)

If the public fire hydrant is further than 600 feet from any portion of the building, a new fire hydrant will be required. Note on the plans "**the new hydrant shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided**".

NOTE on the plans "All buildings shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13-D, and adopted standards of the Scotts Valley Fire Protection District." (CFC §903.3.1.3)

NOTE on the plans "the designer/installer shall submit three (3) sets of plans and calculations for the overhead Fire Sprinkler System for approval prior to construction." (CFC §901.2)

NOTE on the plans "all underground piping systems shall comply with the County Standard FPO-006 and shall require plan submittal and permit approval prior to installation. The standard is available at the Scotts Valley Fire Protection District upon request". (CFC 901.2)

Board of Directors

Robert Campbell Russ Patterson Daron Pisciotta Joseph Parker Edward Harmon

SHOW on the plans where the smoke alarms are to be installed according to the following locations and approved by this agency as a minimum requirement.

- One alarm adjacent to each sleeping area (hall, foyer, balcony, or etc.)
- One alarm in each sleeping room.
- One at the top of each stairway of 24" rise or greater and in an accessible location by a ladder.
- There must be at least one smoke alarm on each floor level regardless of area usage.
- There must be a minimum of one smoke alarm in every basement area.
(CFC §907.2.10.2 & CBC §907.2.11.2)

****NOTE** - When a fire alarm system is proposed in lieu of 110V/battery backup smoke detectors, a separate fire alarm permit and fee is required by the Scotts Valley Fire Protection District. **NOTE** on the plans, “three sets of fire alarm plans shall be submitted and approved prior to commencing work.” (CFC §907.1.1)

SHOW on the plans where the carbon monoxide alarms are to be installed according to the following locations and approved by this agency as a minimum requirement.

- One alarm adjacent to each sleeping area (hall, foyer, balcony, or etc.)
- There must be at least one carbon monoxide alarm on each floor level regardless of area usage.

(CBC §420.6)

NOTE on the plans “a 100-foot clearance shall be maintained around and adjacent to the building or structure to provide additional fire protection or fire break by removing all brush, flammable vegetation, or combustible growth.

EXCEPTION: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure.”

NOTE on the plans “building numbers shall be provided. Numbers shall be a minimum of four (4) inches in height on a contrasting background and visible from the street. Where numbers are not visible from the street, additional numbers shall be installed on a directional sign at the property driveway and the street.” (CFC §505.1)

NOTE on the plans, “Roof coverings to be no less than Class "B" rated roof.” (CBC §1505.1.2 & Santa Cruz County Code 12.10.215 (G))

NOTE on the plans, “A MINIMUM OF 48 HOURS NOTICE to the fire department is required prior to inspection.” (CFC §105.2.2)

NOTE on the plans “The job copies of the building and fire systems plans and permits must be on-site during inspections.” (CFC §105.3.5)

Our review is not to be construed as encompassing the structural integrity of the facility or abrogating more restrictive requirements by other agencies having responsibility. Final acceptance is subject to field inspection and necessary tests.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewer and reviewing agency.



SCOTTS VALLEY
WATER DISTRICT

2 Civic Center Dr
Scotts Valley, CA 95066

February 7, 2022

Robert Paul
5006 Bellevue St
Soquel, CA 95073

Re: New Single-Family Residence APN# 022-212-24

Dear Robert,

Scotts Valley Water District has reviewed the plans for the above-referenced project. Please see our comments below.

Based on the Water Supply Fixture Units. A new $\frac{3}{4}$ -inch water meter will need to be purchased from the District and installed.

1. Add note at the water meter that it is to be $\frac{3}{4}$ -inch.
2. Show existing recycled water main within Blue Bonnet Drive.
3. Add note at the service lateral and recycle main crossing – One-foot clear vertical distance shall be maintained between the new potable service lateral and existing recycled water main.

Fire Service

If the Scotts Valley Fire District is requiring a fire service to be installed. There are two options for the fire service installation.

Option 1

Detail 4 - Combination 2-inch Fire and Domestic Installation.

If the required fire sprinkler demand is greater than 30 gallons per minute (GPM), Detail 4 must be installed. This will require a new 2-inch service lateral to the water main. If Detail 4 is selected, add the following to your next submittal.

1. Add a note at the water meter that the service is to be Detail 4 - Combination 2-inch Fire and Domestic Installation.
2. Show both the domestic and fire service meter boxes.



SCOTTS VALLEY
WATER DISTRICT

2 Civic Center Dr
Scotts Valley, CA 95066

3. Include the below Details within your next submittal.
 - a. Detail 1 – Service Connection
 - b. Detail 2 – Meter Box Install
 - c. Detail 4 – Combination 2-inch Fire and Domestic Installation
 - d. Detail 5 – 2-inch and Smaller Service Installation
 - e. Detail 12 – Valve Box Lid Markings
 - f. Detail 13 – Valve Box Installation
 - g. Detail 14 – Standard Service Lateral Trench

Option 2

Detail 4A - Combination ¾-inch Fire and Domestic Service Connection

Because the home requires a ¾-inch water meter, you qualify for Detail 4A. This option is only allowed if the fire sprinkler demand is equal to or less than 30 gpm. If Detail 4A is selected, add the following notes to your next submittal.

1. Add note at the water meter that the service is to be Detail 4A - Combination ¾-inch Fire and Domestic Service Connection.
2. Include the below Details within your next submittal.
 - a. Detail 1 – Service Connection
 - b. Detail 2 – Meter Box Install
 - c. Detail 4A – Combination ¾-inch Fire and Domestic Service Connection
 - d. Detail 5 – 2-inch and Smaller Service Installation
 - e. Detail 14 – Standard Service Lateral Trench

All water system related work shall be installed in accordance with the District's Standard Specifications. Our Standard Specifications can be located on our website www.svwd.org.

Please contact me at bknutson@svwd.org or (831) 600-1905 if you have any questions.

Thank you,

Brody Knutson
Engineering Technician
Scotts Valley Water District

Location Map

Blue Bonnet Lane, Lot B / APN 022-212-24



□ Parcels □ Project Site

0 150 300 600 ft
0 45 90 180 m

PROJECT TEAM

Owners
Carrie and Bob Paul
5006 Bellevue Street
Soquel, California 95073
(831) 465-4368

Architect
James Reed Stroupe, C12455
P.O. Box 388
Aptos, California 95001
(831) 688-3300

Landscape Architect
Greg Lewis
736 Park Way
Santa Cruz, California 96065
(831) 425-4747

Surveyor
Hogan Land Services, Bob DeWitt
2601 41st Avenue, Suite A
Soquel, California 95073
(877) 544-2104

Geotechnical Engineer
Dees & Associates, Inc., Becky Dees
501 Mission Street, Suite 8A
Santa Cruz, California 95060
(831) 421-1770

Civil Engineer
C2G / Civil Consultants Group, Inc., Laurent Lindquist
4444 Scotts Valley Drive, Suite 6
Scotts Valley, California 95066
(831) 438-4420

Project Desription

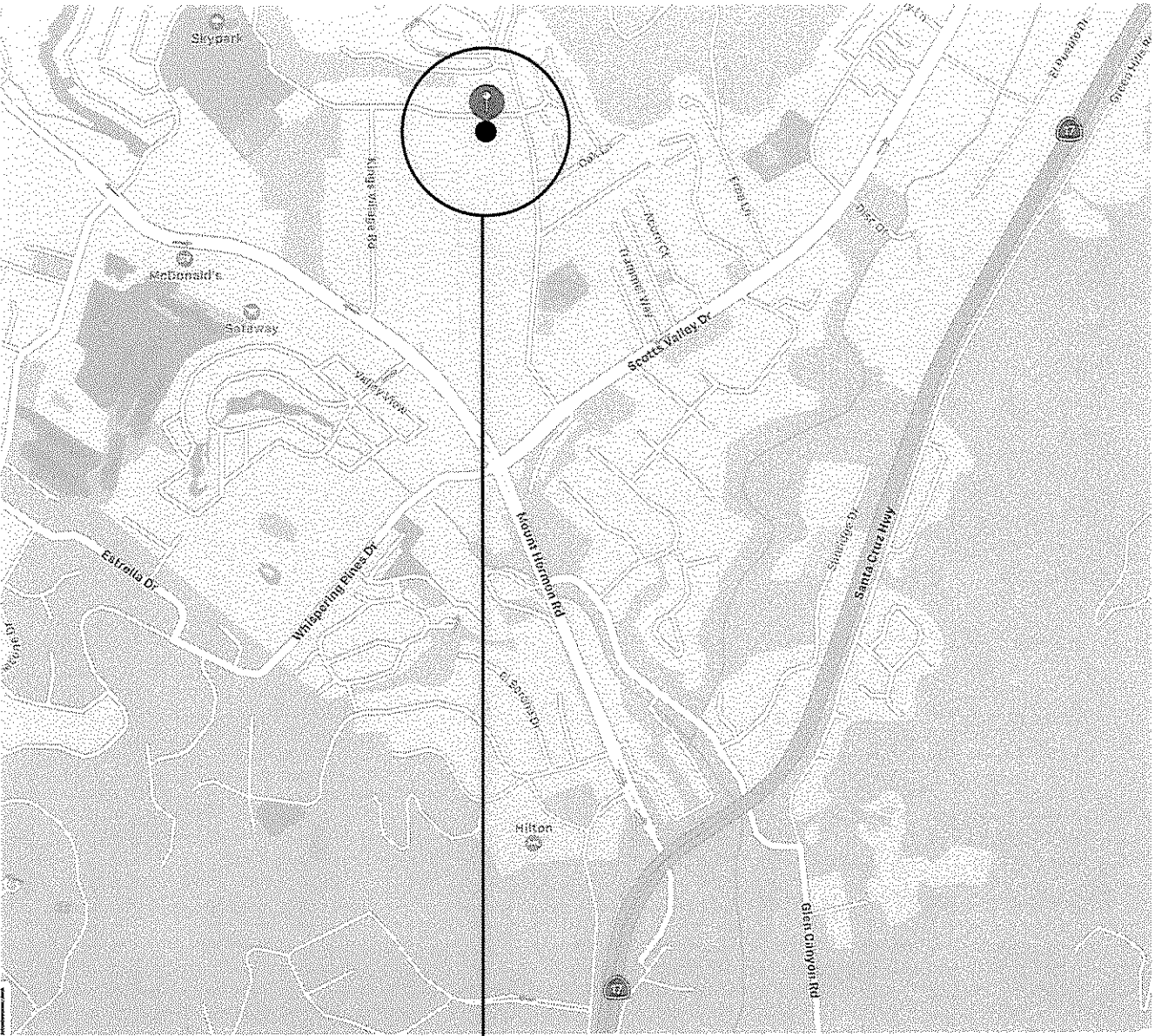
Construct a new 2-story detached single family residence.
3,668 SF total conditioned area, plus an attached 760 SF garage and 216 SF covered porches.
Provide all utility connections from the public ways.
Provide driveway to new garage and walkways and stoops to all exterior doors.
Construct a retaining wall along the left side of the property and a retaining wall on the right side. See civil drawings for retaining walls.
Grade the property to provide maximum 20 inches from finish grade to top of ground floor subfloor.

FIRE NOTES

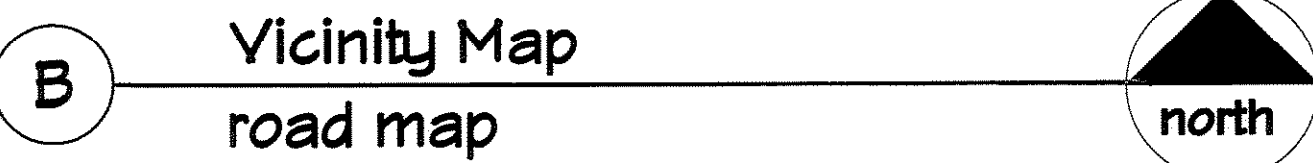
- 1 Maintain a 30-foot clearance with non-combustible vegetation around all structures.
- 2 Confirm a fire hydrant is located within 150 feet of any portion of the building meeting the required fire flow rate for the building.
- 3 Post and maintain address numbers to be plainly visible from the street. Numbers shall be minimum 5 inches high and a color contrasting to the background.

CONSTRUCTION WASTE RECYCLING

Contractor must recycle/salvage a minimum of 65% of all construction waste generated at this project site.
Green Waste Recovery is the exclusive hauler of the City of Scotts Valley.



SITE



PROJECT DATA

Assessor's Parcel	022-212-24
Site Address	??? Blue bonnet Lane
	Scotts Valley, California 95066
Owners	Carrie and Bob Paul
Occupancy	R3/U
Construction Type	V-B, sprinklered
Zoning	R-H, High-density Residential
Fire District	Scotts Valley Fire Department

Area Summary

EXISTING LOT	
Lot Dimensions	60.0' x 120.5'
Gross Lot Area	7,230 square feet
Building Footprint	3,130 square feet
Lot Coverage	43.30 %
PROPOSED	
Ground floor Heated	1,754 square feet
Upper floor Heated	1,914 square feet
Total Heated	3,668 square feet
Unconditioned Garage	760 square feet
Total Enclosed Area	4,428 square feet
Front Porch	84 square feet
Rear Porch	192 square feet
Total Covered Area	4,704 square feet

DRAWING INDEX

- 1 Vicinity Map, APN Map and Project Data
- 2 Survey by Hogan
- 3 Site Plan
- 4 Ground Floor Plan
- 5 Upper Floor Plan
- 6 Building Sections
- 7 North and West Exterior Elevations
- 8 South and East Exterior Elevations
- 9 Neighborhood Photographs
- L1 Planting Plan
- L2 Hydrozone Plan
- L3 Irrigation Plan
- L4 Landscape Details
- L5 Landscape Specifications

Paul Residence

??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 465-4368

sheet number

1

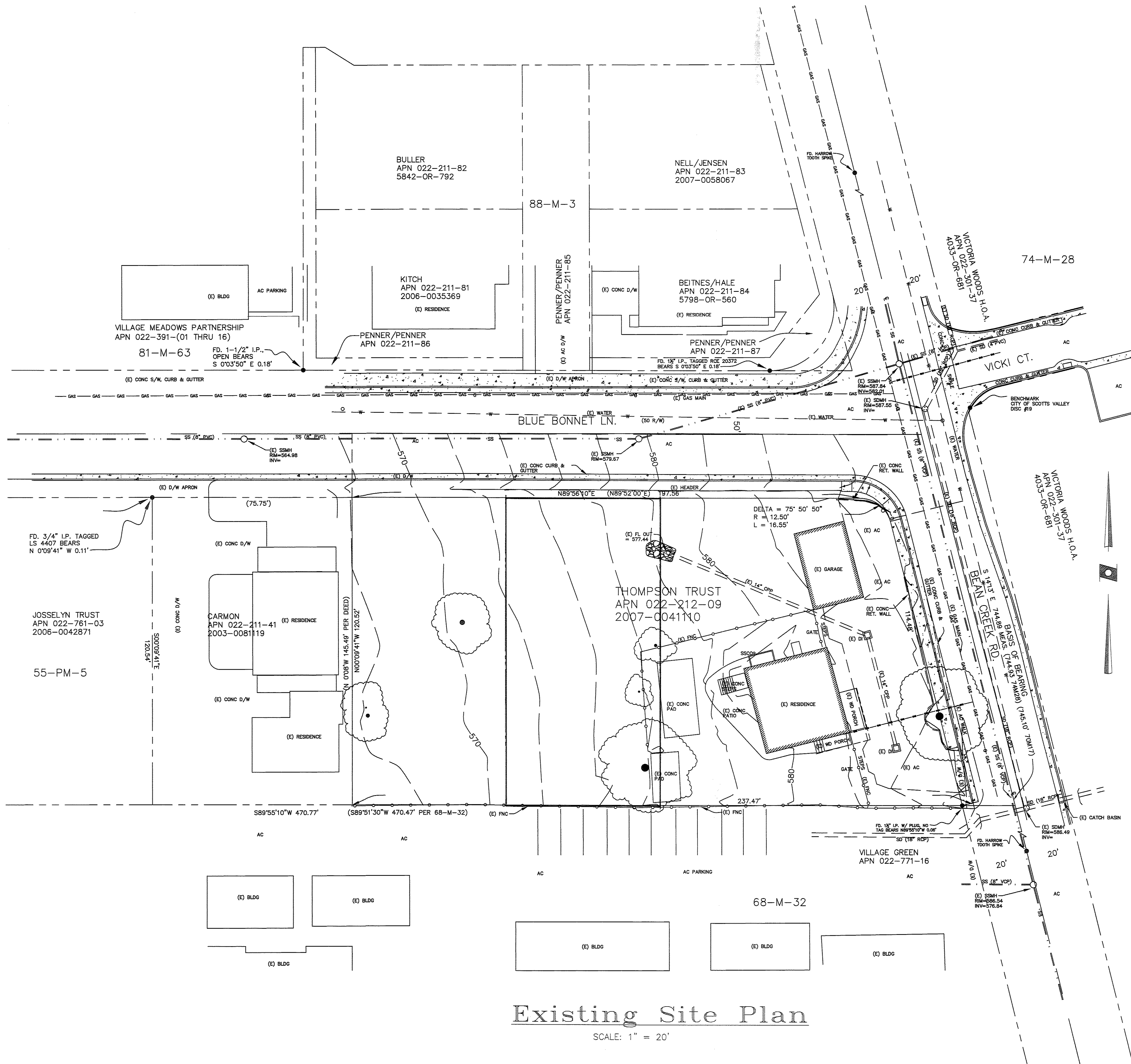
of 9

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

Vicinity Map, Project Data,
Site Plan and Drawing Index

APN 022-212-24

submitted
18 December 2021



Existing Site Plan
SCALE: 1" = 20'

EXISTING
TOPOGRAPHIC MAP

SURVEY NOTE:
MAP IS BASED UPON SURVEY AND TOPOGRAPHIC MAPPING BY ROBERT L. DEWITT & ASSOCIATES, JOB NO. R07168, DATED DECEMBER, 2007. MINOR EDITS TO THE MAP HAVE BEEN PERFORMED TO REFLECT CURRENT STATE OF IMPROVEMENTS TO BEAN CREEK ROAD.

VESTING TENTATIVE MAP
PREPARED AT THE REQUEST OF
MAUREN WRUCK PLANNING CONSULTANT, LLC
FOR
WAYNE THOMPSON

HOGAN LAND SERVICES
A CALIFORNIA CORPORATION
802 Estates Dr., Ste. 100-A
Aptos, CA 95003
www.hoganis.com
Tel (831) 425-1617
Fax (831) 425-0224

THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER & LAND SURVEYOR IN THE STATE OF CALIFORNIA.
JOEL PANZER FOR WAYNE THOMPSON
No. 20,915
CIVIL
12/08/17
ROBERT L. DEWITT, P.E.

P-2
OF 4

sheet number

2

of 4

Paul Residence

??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 465-4368

APN 022-212-24

Survey by Hogan

ARCHITECT
James Reed Stroupe
P.O. Box 386
Aptos, CA 95001
(831) 688-3900

submitted
18 December 2021

Blue Bonnet Lane

SITE NOTES

- 1 This is a "flat" site with less than 6 inches of slope from rear to street.
- 2 There are no watercourses located within 200 feet of this parcel.
- 3 There is no curb or gutter on this street.
- 4 There is no existing storm drain on this property and no catch basin or other storm drainage inlet is being proposed.
- 5 The closest storm drain inlet is across the street and the street is crowned.

EROSION CONTROL NOTES

- 1 Winter grading season is from 15 October to 15 April.
All exposed soils must be protected during this time.
- 2 Disturb as small an area as possible.
- 3 Replant all disturbed areas with permanent landscaping or seed mix.

SEED AND STRAW MULCH

- 1 Seed and straw mulch is to be used for soil disturbed areas as a means of temporary protection until permanent stabilization is established. It may be used on slopes up to 3:1 H:V (33%).
- 2 Seed and straw mulch shall consist of spreading seed (a minimum of 5 pounds per 1,000 square feet) over disturbed areas and then placing a uniform layer of straw (2-3 bales per 1,000 square feet) incorporating it into the soil with a studded roller or anchoring it with a tackifier stabilizing emulsion.
- 3 In areas that are not sensitive habitat, the seed shall be annual winter barley and the straw shall be derived from rice, barley or wheat.

SEDIMENT CONTROL NOTES

- 1 Fiber rolls are to be placed at the down slope perimeter of the disturbance limits to prevent or limit sediment from leaving the site. In urban areas or sites directly adjacent to streets, fiber rolls shall be placed at the back of a sidewalk or curb to limit sediment from entering the street.
- 2 Fiber rolls must be adequately trenched to be effective.

SITE HOUSEKEEPING REQUIREMENTS

CONSTRUCTION MATERIALS

- 1 All loose stockpiled construction materials that are not actively being used shall be covered and bermed. (i.e. soil, spoils, aggregate, fly-ash, hydrated lime, etc.)
- 2 All chemicals shall be stored in water-tight containers with appropriate secondary containment to prevent any spillage or leakage or in a completely enclosed storage shed.
- 3 Exposure of construction materials to precipitation shall be minimized.
This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions. (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.)
- 4 Implement Best Management Practices to prevent the off-site tracking of loose construction and/or landscape materials.

LANDSCAPE MATERIALS

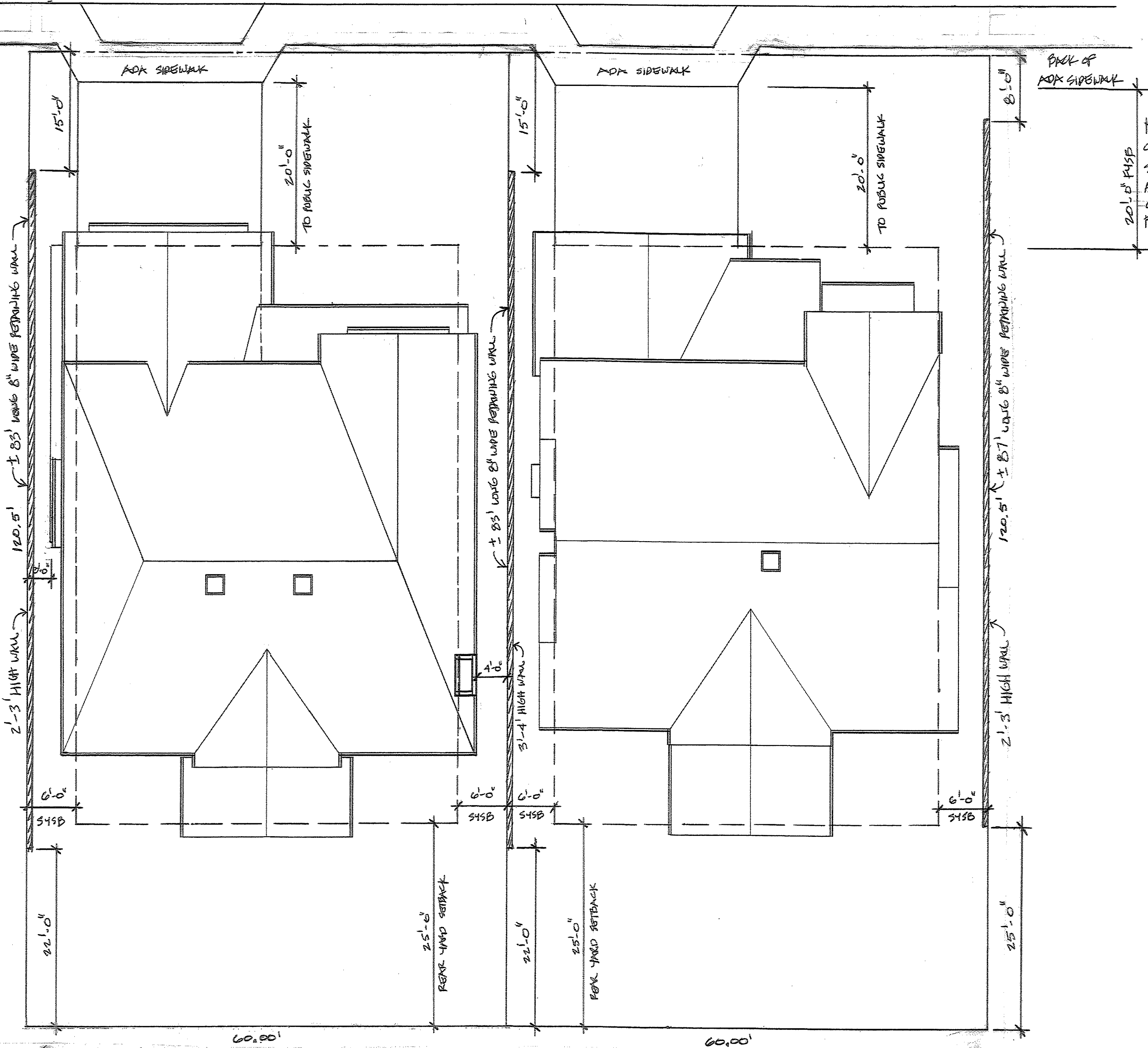
- 1 Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
- 2 Contain fertilizers and other landscape materials when they are not actively being used.
- 3 Discontinue the application of any erodible material within 2 days before a forecasted rain event or during periods of precipitation.
- 4 Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
- 5 Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.

VEHICLE STORAGE AND MAINTENANCE

- 1 Measures shall be taken to prevent oil, grease or fuel from leaking into the ground, storm drains or surface waters.
- 2 All equipment and vehicles which are fueled, maintained and/or stored on-site shall be in a designated area fitted with appropriate BMP's.
- 3 All leaks shall be immediately cleaned and all leaked materials shall be disposed of properly.

WASTE MANAGEMENT

- 1 Prevent disposal of any rinse or wash waters or materials onto impervious or pervious site surfaces or into the storm drain system.
- 2 Contain sanitation facilities (e.g. portable toilets) to prevent discharge of pollutants into the storm drain system.
Locate sanitation facilities a minimum 20 feet from any inlet, driveway, street, stream, riparian area of other drainage facility.
- 3 Inspect sanitation facilities regularly for leaks and spills. Clean and replace as necessary.
- 4 Cover waste disposal containers at the end of every day and during any rain event.
- 5 Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.
- 6 Contain and protect stockpiled waste materials from wind and rain at all times unless actively being used.
- 7 Implement procedures that actively address hazardous and non-hazardous spills.
- 8 Keep available on site all equipment and materials necessary for cleanup of spills and leaks so they can be cleaned up immediately and disposed of properly.
- 9 Contain concrete washout areas and all other washout areas that may have additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.



APN 022-212-24
Bob and Carrie Paul

(SEE CIVIL DRAWINGS FOR RETAINING WALL DETAILS)
NOTE: NO COMBINATION OF RETAINING WALL AND FENCE HEIGHT SHALL EXCEED 6 FEET WITHOUT APPROVAL BY THE CITY.

Neighboring lot
APN 022-212-23
Bobby and Melissa Paul

Site Plan

1/8" = 1'-0"



submitted
18 December 2021

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

Site Plan

Paul Residence
??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 465-4366

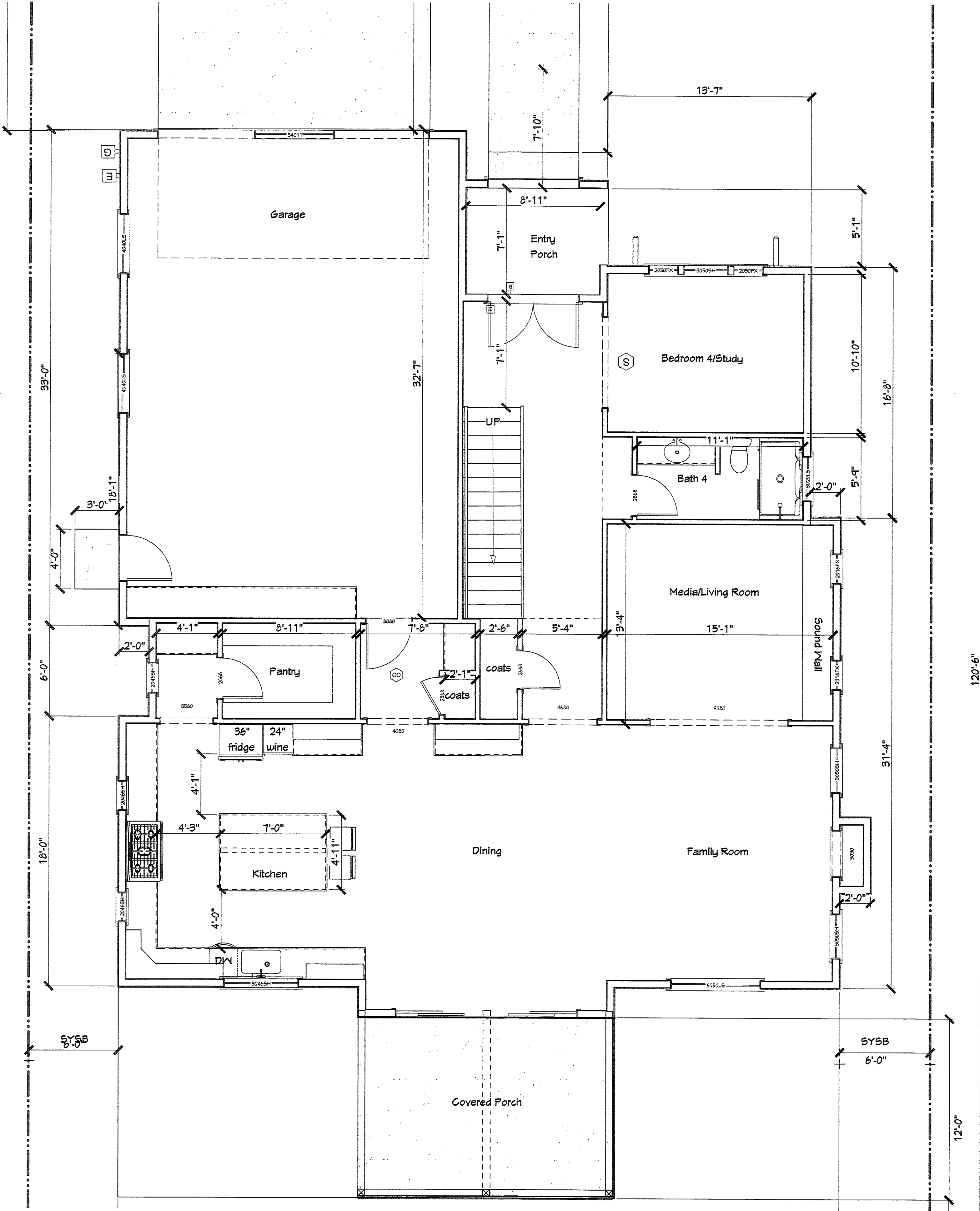
APN 022-212-24

sheet number

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0101



PLAN NOTES

- 1 All habitable rooms shall have 8% of their floor area in natural light from windows, doors and skylights.
- 2 All habitable rooms shall have 4% of their floor area as natural ventilation.
- 3 Minimum ceiling height shall be 7'-6" in all rooms except kitchens, baths and halls, which shall have a minimum ceiling height of 7'-0".
- 4 All glass shall be tempered when it is in a door or shower enclosure, over a bath, shower or stairway.
- 5 All exterior doors shall have a minimum landing 44 inches perpendicular to the door and the full width of the door opening.
- 6 Egress/rescue windows shall have a minimum net clear openable area of 5.7 square feet. Their minimum net clear openable height shall be 24 inches. Their minimum net clear openable width shall be 20 inches. Their net clear opening shall not be more than 44 inches above the finished floor.

KEY TO WINDOW AND DOOR SYMBOLS

WINDOWS

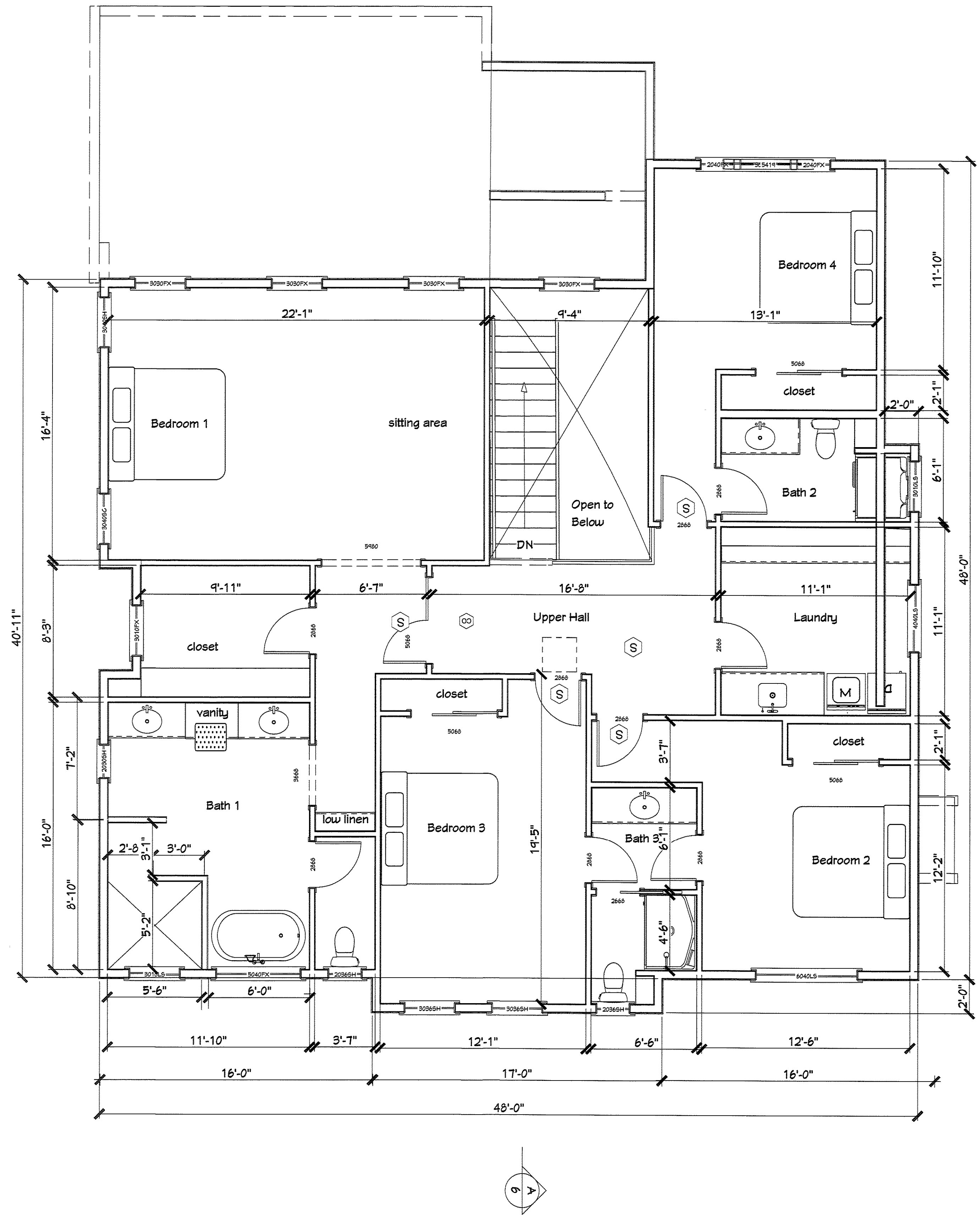
(3050 = 3'-0" wide by 5'-0" high)

- FIX fixed glass
- SH single hung
- SL slider, OX
- XOX center panel slides open
- CSMT casement

DOORS

(3080 = 3'-0" wide by 8'-0" high)

- SLDR sliding glass doo, tempered
- OHDR overhead garage door



Upper Floor Plan, 1,914 SF Heated

1/4" = 1'-0"

PLAN NOTES

- 1 All habitable rooms shall have 8% of their floor area in natural light from windows, doors and skylights.
- 2 All habitable rooms shall have 4% of their floor area as natural ventilation.
- 3 Minimum ceiling height shall be 7'-6" in all rooms except kitchens, baths and halls, which shall have a minimum ceiling height of 7'-0".
- 4 All glass shall be tempered when it is in a door or shower enclosure, over a bath, shower or stairway.
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KEY TO WINDOW AND DOOR SYMBOLS

WINDOWS

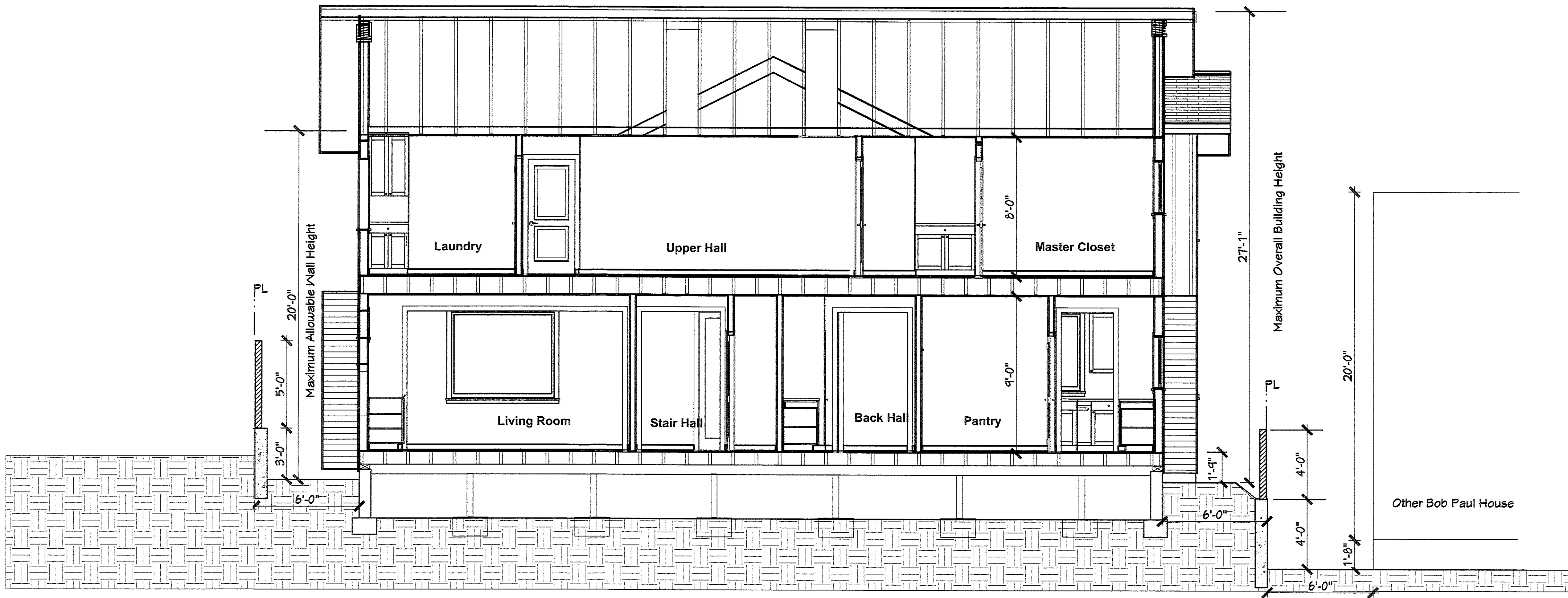
(3050 = 3'-0" wide by 5'-0" high)

- | | |
|------|--------------------------|
| FIX | fixed glass |
| SH | single hung |
| SL | slider, OX |
| XOX | center panel slides open |
| CSMT | casement |

DOORS

(3080 = 3'-0" wide by 8'-0" high)

- | | |
|----------|----------------------|
| SLDR | sliding glass doo, |
| tempered | |
| OHDR | overhead garage door |



Transverse Building Section, at main ridge looking South

B
1/4" = 1'-0"



Longitudinal Building Section, at centerline of rear ridge looking East

A
1/4" = 1'-0"

Insulation and Caulking Notes

1 Provide Certainteed GREENGUARD certified unfaced fiberglass batts as follows:

Roof	R-30, 8-1/4 inches thick
Walls	R-21, 5-1/4 inches thick
Underfloor	R-30, 8-1/4 inches thick

NOTE : Provide full R-15 sound insulation at all interior walls

2 Provide expanding foam spray-on insulation at all plate lines, penetrations in exterior sheathing, penetrations in Ground Floor OSB subfloor and penetrations of drywall finish at exterior walls. Provide low-VOC caulking manufactured by OSI Industries.

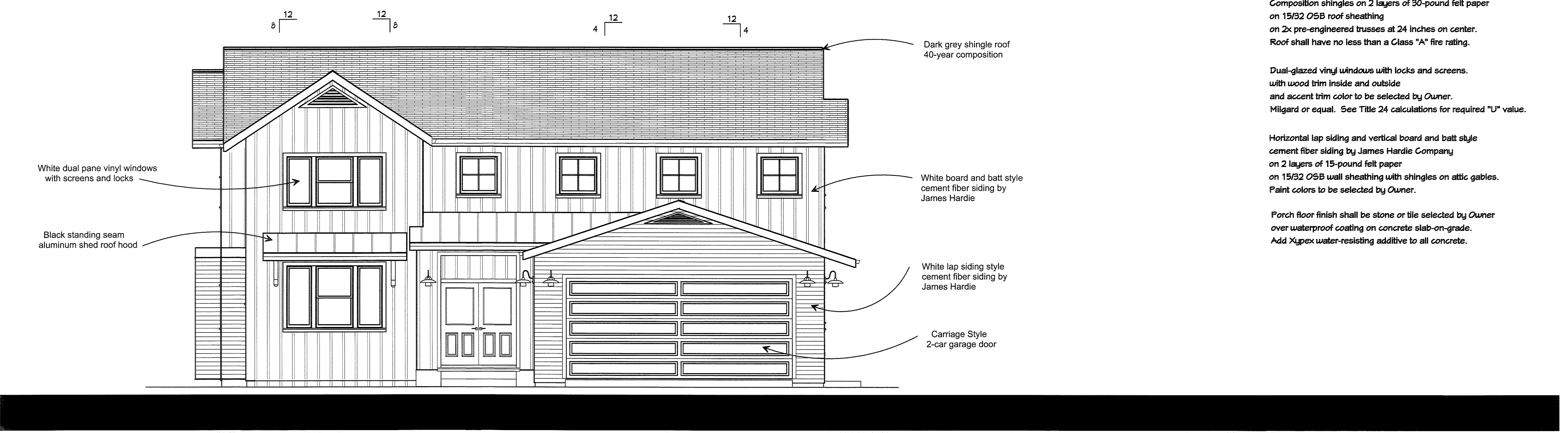
submitted
18 December 2021

ARCHITECT
James Reed Stroupe
P.O. Box 388
Aptos, CA 95001
(831) 688-3300

Building Sections

Paul Residence
??? Blue Bonnet Lane
Scotts Valley, CA 95066
(831) 465-4368
APN 022-212-24

sheet number
6
of 9



B North Elevation, Front
1/4" = 1'-0"



A West Elevation, Right Side
1/4" = 1'-0"

Exterior Finish Materials

Composition shingles on 2 layers of 30-pound felt paper on 15/32 OSB roof sheathing on 2x pre-engineered trusses at 24 inches on center. Roof shall have no less than a Class "A" fire rating.

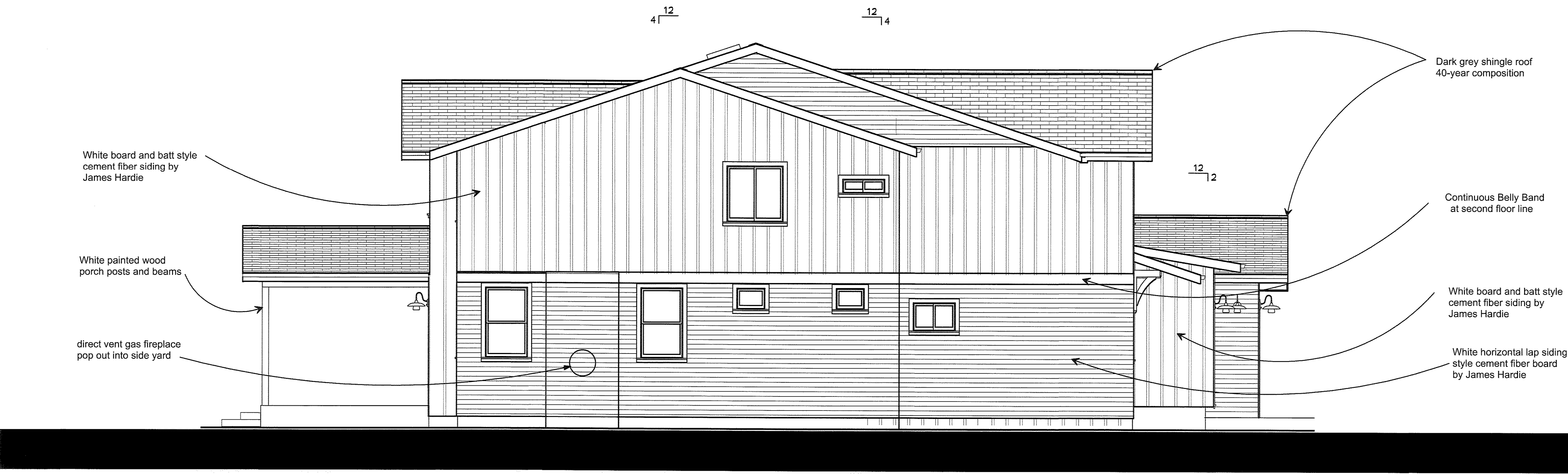
Dual-glazed vinyl windows with locks and screens, with wood trim inside and outside and accent trim color to be selected by Owner. Milgard or equal. See Title 24 calculations for required "U" value.

Horizontal lap siding and vertical board and batt style cement fiber siding by James Hardie Company on 2 layers of 15-pound felt paper on 15/32 OSB wall sheathing with shingles on attic gables. Paint colors to be selected by Owner.

Forch floor finish shall be stone or tile selected by Owner over waterproof coating on concrete slab-on-grade. Add Xypex water-resisting additive to all concrete.



B South Elevation, Rear
1/4" = 1'-0"



A East Elevation, Left Side
1/4" = 1'-0"

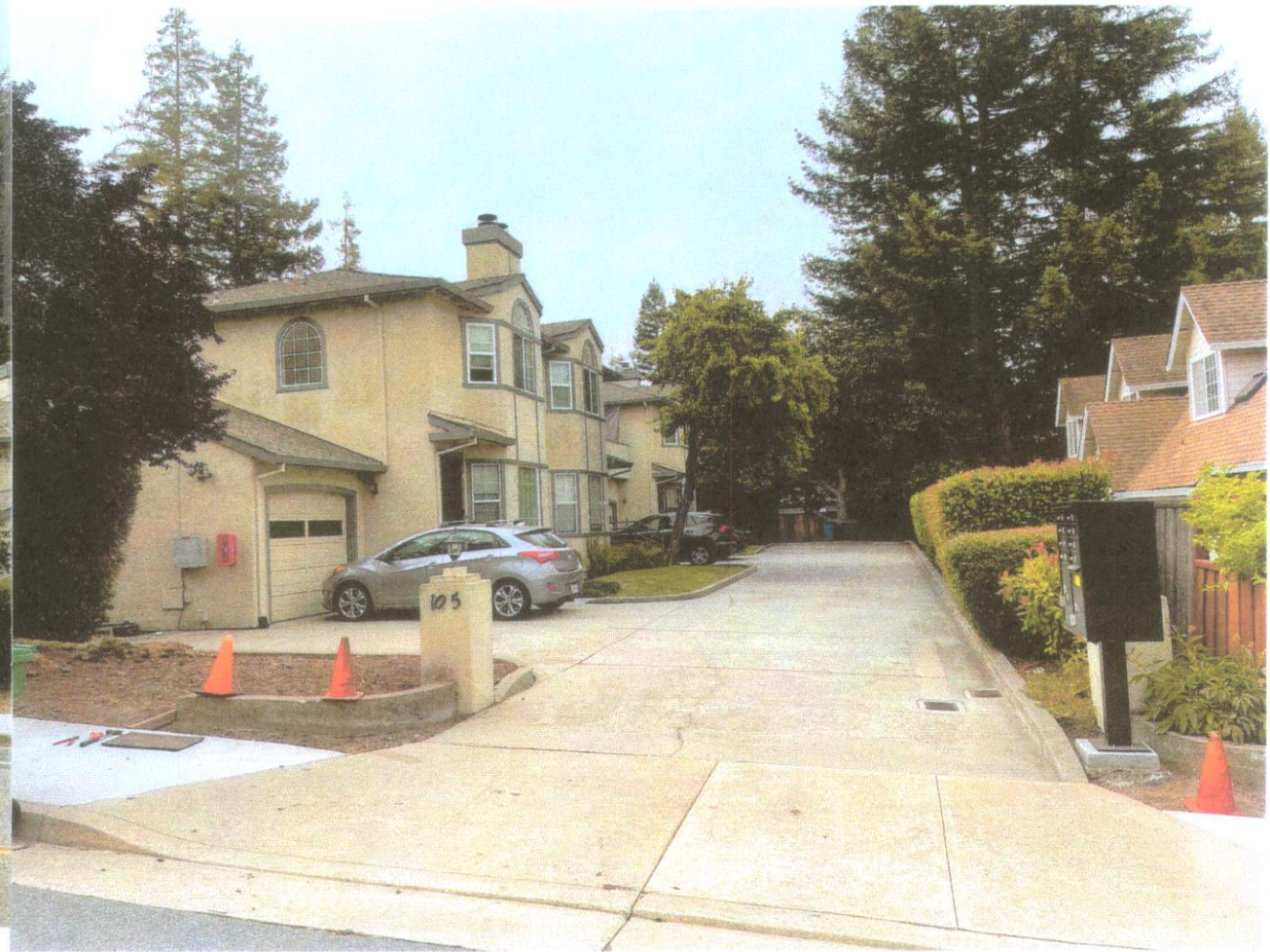
Exterior Finish Materials

Composition shingles on 2 layers of 30-pound felt paper
on 15/32 O5B roof sheathing
on 2x pre-engineered trusses at 24 inches on center.
Roof shall have no less than a Class "A" fire rating.

Dual-glazed vinyl windows with locks and screens.
with wood trim inside and outside
and accent trim color to be selected by Owner.
Milgard or equal. See Title 24 calculations for required "U" value.

Horizontal lap siding and vertical board and batt style
cement fiber siding by James Hardie Company
on 2 layers of 15-pound felt paper
on 15/32 O5B wall sheathing with shingles on attic gables.
Paint colors to be selected by Owner.

Porch floor finish shall be stone or tile selected by Owner
over waterproof coating on concrete slab-on-grade.
Add Xypex water-resisting additive to all concrete.



APN 022-212-24

APN 022-212-23

Plant Legend

KEY	QTY	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS WATER USE RATING
TREES					
CC	2	15		Western Redbud	LOW
Replacement trees for removing 14" Coast Live Oak					
TALL SCREEN SHRUBS					
LN	5		Laurus nobilis	Grecian Laurel	LOW
MEDIUM SHRUBS					
LC	1		Loropetalum Razzeberry		LOW
Vines					
TJ	5		Trachelospermum jasminoides	Star Jasmine	MED
staked vine - train on stainless steel horiz. wires on fence					
Ground Cover					
SL	1		Salvia leucantha	Mexican Sage	LOW
NC	1		Nandina Gulf Stream	Heavenly Bamboo	LOW
DV	1		Dietes iridioides	Fortnight Lily	LOW
LP	1		Lomandra Breeze Platinum		LOW
BF	1		Bulbine frutescens		LOW
C	1		Chondropetalum tectorum	Small Cape Rush	LOW
D	1		Aeonium urbicum Dinner Platter	Succulent	LOW

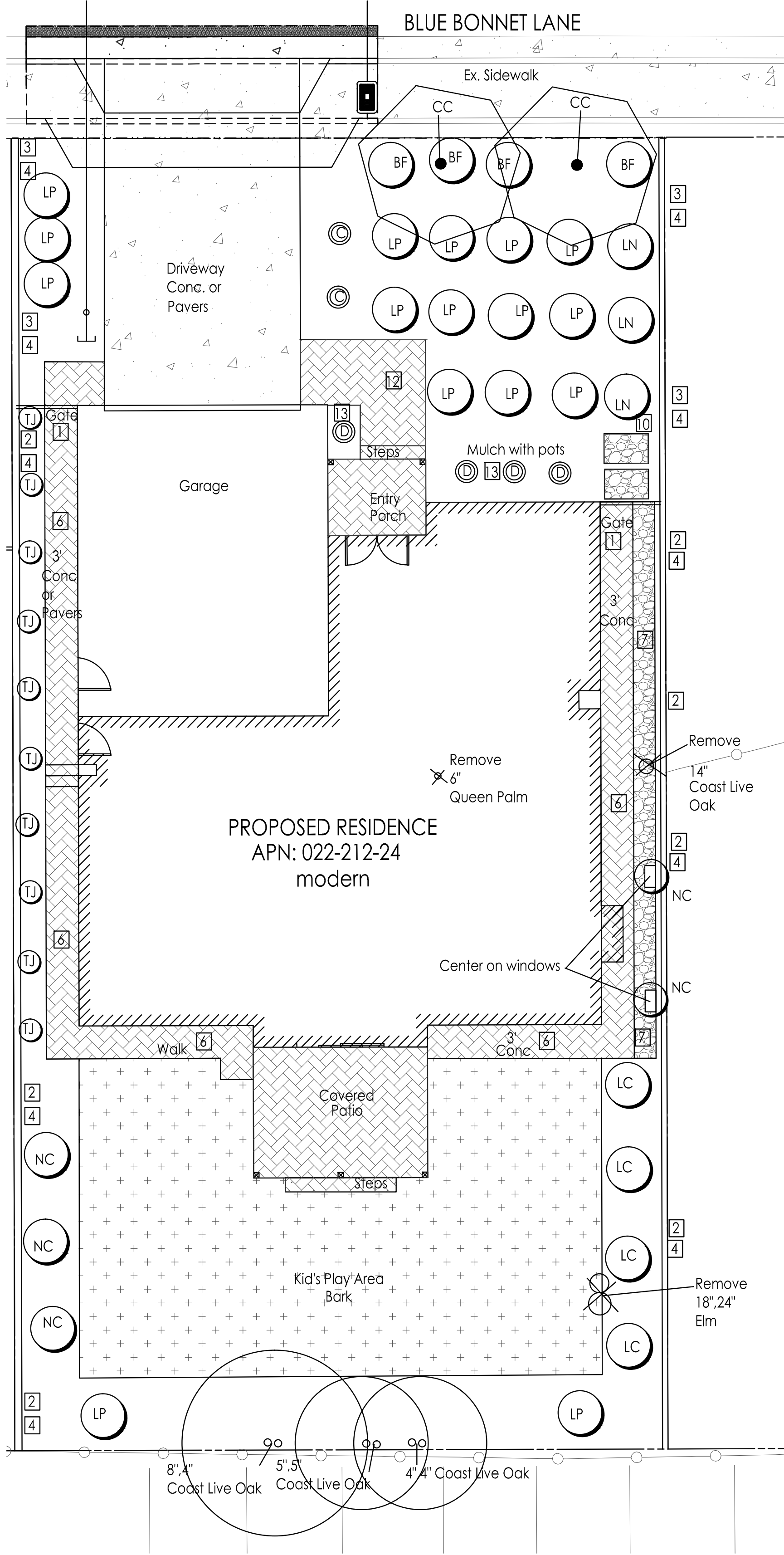
Contractor to do own plant count and install all plants shown on plan
Ask owner if he wants to upsize any of the plants at time of installation

Landscape Site Notes

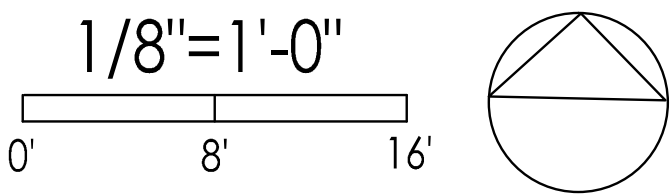
- 1
- 3 foot wide solid wood gate with lockable latch. Adjust location of gate to coordinate with windows and to keep meters in front of gate so you don't need to go thru gate to get to meters
- 2
- 6 foot tall solid wood good neighbor fence along property lines on top or retaining wall
- 3
- 3 foot tall solid wood good neighbor fence along property line in front yard setback on top of retaining wall
- 4
- Retaining wall along property line - see Grading Plan
- 5
- Driveway - Pavers or concrete
- 6
- Side walkway - Pavers or concrete
- 7
- Side walkway - Gravel with weed cloth
- 8
-
- 9
- Rear patio - Pavers or concrete
- 10
- 3 foot tall wood fence - horiz. 1x4 with spaces between
- 11
-
- 12
- Front path - pavers or concrete
- 13
- Pots obtained by owner-set on stable footing so it doesn't settle

Landscape Notes

- 1) See sheets L3, L4, and L5 for Detailed Irrigation Plan using Potable Water from the residence, Landscape Details, and Landscape Specifications that comply with the State of California Government Code Section 65596 Water Conservation in Landscaping and associated Model Water Efficient Landscaping Ordinance (WELO) for landscaping area equal or greater than 2500 sq.ft.
- 2) Exact location of plants on site to be adjusted so as to best coordinate with irrigation component locations, lights, drainage features, and swales
- 3) Use 3 inch deep mulch in all planting areas. Provide owner with different mulch samples and prices including dark brown Mahogany dyed Wonder Mulch from Vision Recycling n Watsonville or Fremont or nitrilized redwood sawdust. Bid the nitrilized RWD sawdust.
- 4) Install plants for all plant circles shown on the plan even if they aren't labeled. Call for clarification. For bidding purposes, if no one is available to answer questions, assume that any plant circle scaled less than 8' wide is 5 gal. size and any circle scaled larger is 15 gal. size
- 5) The plan is schematic. Don't install plants too close to edges of paving or buildings. Be sure plants are not blocking sprinklers excessively (no sprinklers on this plan). Keep valves and quick couplers away from trees.
- 6) Existing trees have been shown that are to be preserved. Do not trench in the area under the tree canopy without written approval of the project certified arborist. Do not grade, trench or store construction material in the natural protected area.
- 7) Make sure you have the most recent, city approved plans prior to finalizing bid and also at the time of installation.



Planting Plan



Hydrozone Summary

HYDROZONE	VALVES	IRRIG. METHOD	AREA sq.ft.	% of LANDSCAPE AREA
1 Low water shrub	2,4	Drip	1560	80%
2 Low water trees	1	Drip	50	3%
3 Med water shrub	5	Drip	141	7%
4 Med water pots	3	Drip	199	10%
TOTAL			1950	100%

Summary by Hydrozone

	Area (Sq.ft.)	% of Landscape Area
High Water Use	0	0%
Moderate Water use	340	17%
Low Water Use	1610	83%
TOTAL	1950	100%

THERE IS A TOTAL OF 1950 sf of NEW PROPOSED PLANTING AND IRRIGATION

WATER EFFICIENT LANDSCAPE WORKSHEET

Date:	12/16/2021	Total Planted Area (sq.ft.)	1,950
Project	Bob and Carrie Paul		
Address:	Blue Bonnet Ln., Scotts Valley	APN	022-212-24

Reference Evapotranspiration (Eto): 36.6									
Scotts Valley									
HYDRO ZONE NO.	VALVES	HYDRO ZONE DESC.	Plant Factor PF	Irrig Method	Irrig Efficiency IE	ETAF PF/IE	LDSCP AREA Square Feet	ETAF x Area	Estimated Total Water Use (Gal.)
1	2,4	Drip, low water shrub	0.3	Drip	0.81	0.3704	1,560	577.78	13,111
2	1	Drip, low water tree	0.3	Drip	0.81	0.3704	50	18.52	420
3	5	Drip med water shrub	0.5	Drip	0.81	0.6173	141	87.04	1,975
4	3	Drip med water pots	0.5	Drip	0.81	0.6173	199	122.84	2,787
5									
6									
7									
8									
Totals							1,950	806	18,293

Special Landscape Areas									
						1	0		
						1			
						1			
						Totals	0		0
						17.68 CCF	ETWU Total		18,293
						Maximum Allowed Water Allowance (MAWA)			24,337

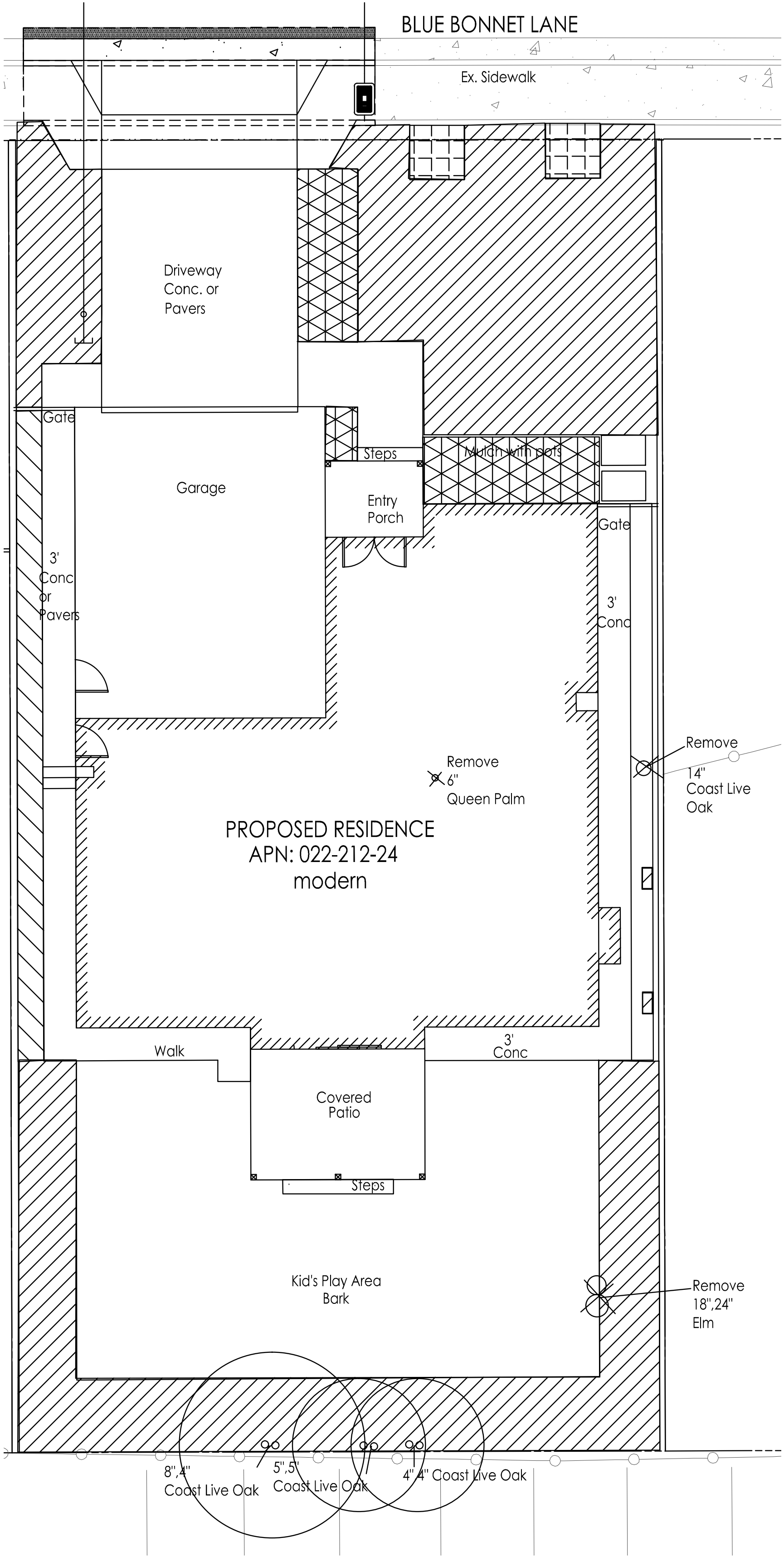
Ion residential ETAF for MAWA calc: 0.55 MAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

ETAF Calculations

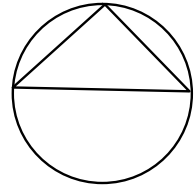
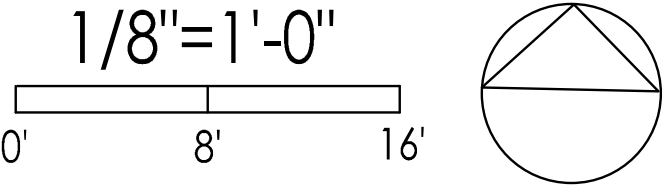
Regular Landscape Areas	
Total ETAF x Area	806
Total Area	1,950
Average ETAF	0.41

All Landscape Areas	
Total ETAF x Area	806
Total Area	1,950
Sitewide ETAF	0.41

Average total ETAF must be .55 or less for residential



Hydrozone Plan



Revision

12/16/21

GREGORY LEWIS LANDSCAPE ARCHITECT

#2176

736 Park Way Santa Cruz, CA 95065 (831) 359-0960

Bob and Carrie Paul Residence

Blue Bonnet Ln., Scotts Valley

APN: 022-212-24

Date

8/12/21

Scale

As Noted

Drawn

Greg

Job

Sheet

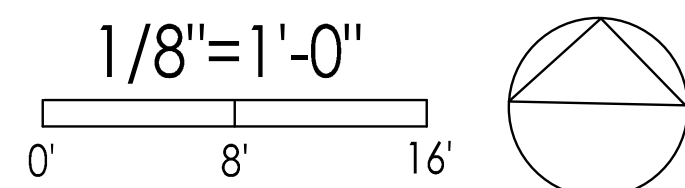
L2

of 5

KEY	MANUF.	MANUF. #	DESCRIPTION
	Hunter	PC 4	4 station Controller with enough modules for the valves at each house (expandable) wall mount exterior with Wireless Solar Sync On-Site Weather Station. Controller will change it's program based on current weather conditions. Install weather sensor where it will get full sun and rain.
		Solar Sync	Install wireless Solar Sync weather sensor and system for controller - install Install sensor on gutter where it will get full sun and rain
			Manual brass ball valve in valve box same size as pressure line
		Hunter	PGV 075 ASV 3/4" antiphon valve with 3/4" drip filter and 30 psi pressure regulator 12 inches above highest down stream drip emitter or outlet
		Hunter	PGV 075 ASV 3/4" antiphon valve for sprinklers
			Nonpressure line - Sch 40 PVC 3/4" unless noted for larger size - 12" cover - pipes less than 2' to be Sch 40 PVC
			3/4" Pressure line - Sch 40 PVC - 18" of cover (24" of cover under A.C. paving)
			Lines under paving Sch 40 PVC - 24" of cover
			Pressure line - 3/4" Sch 40 PVC
			Non Pressure line - 3/4" Sch 40 PVC
		1" gray elec. conduit for control wires.	
			Also install an extra capped 1" water line for future use under paving

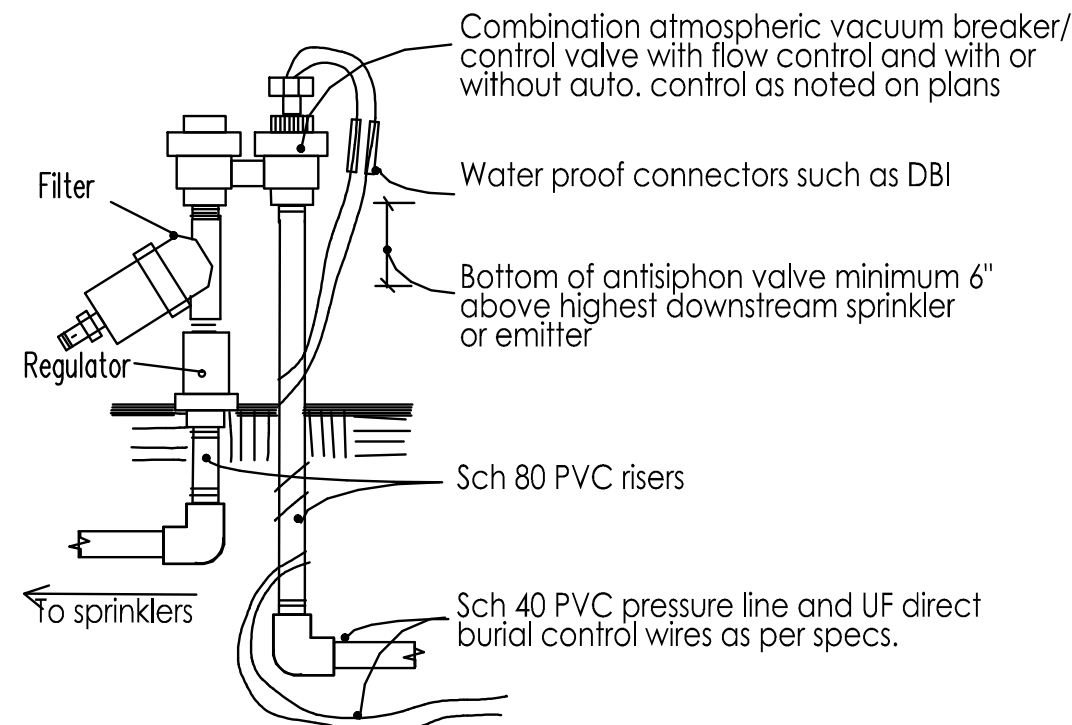
Greg Lewis 12/16/21

- 1) See sheet L4 and L5 for details and specifications
- 2) This system is designed to operate with minimum 5 GPM at minimum 60 p.s.i. at each point of connection. If this condition is not met contact the Landscape Architect for possible redesign. If pressure exceeds 75 psi at point of connection install a Wilkins 600 3/4" pressure regulator. The static psi at the street is supposed to be
- 3) Detector tape should be installed with any pressure lines not buried in the same trench with control wires and with any lines of any kind under paving not in a trench with control wires.
- 4) At valve groupings provide a threaded capped pressure line stubout so it is easy to add additional valves later. Run a few extra wires to these locations from the controller.
- 5) Electric controllers should be set to water between 6:00 PM and 10:00 a.m. to avoid watering during times of higher wind or temperature and programmed with repeat cycles to avoid runoff. This is not as important for drip that is not affected by the wind. Set irrigation schedule according to plants' water needs.
- 6) Run 2 extra control wires from the controller to each valve group so that additional valves could be added if necessary in the future.
- 7) The routing of sprinkler lines is schematic on the plan. Do not put valves too close to trees. Stay 8' to 10' away if possible. Do not put pressure lines under trees. Install line in planting areas instead of under paving whenever possible. Do not trench under drip line of existing tree canopies without written approval of the project certified arborist.
- 8) The contractor is to include an additional separate cost for an Irrigation Audit by a certified irrigation auditor just in case it is required. This would not usually be required for a project this small.
- 9) Install the wireless Solar Sync weather sensor where it will receive full sun and rain
- 10) Install sufficient check valves to keep excess water from draining out of the system when it is shutoff that would result in wasted water.

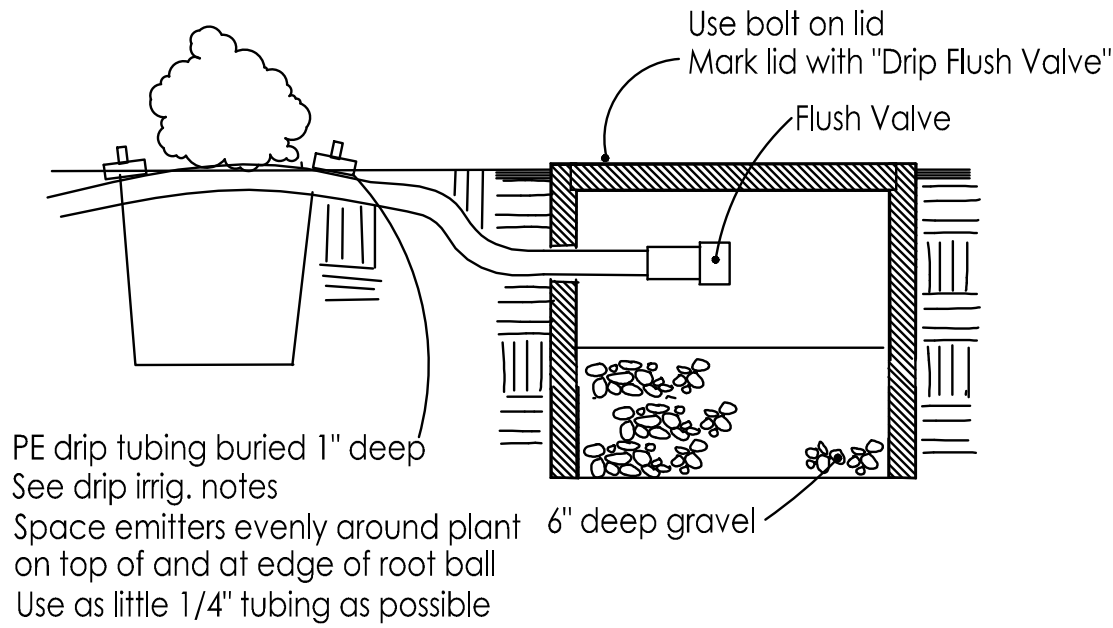


- 1) Secure large 3/4" drip tubing 1" below grade with 7" or 11" U-shaped stakes 3 feet on center or closer so that the tubing can be found easily but does not show if the mulch gets brushed away. Cover tubing with soil and mulch and install manual flush valves at ends of tubing and mark them so they can be found easily.
- 2) Run large tubing over top of or right next to edge of plant rootballs to minimize length of smaller 1/4" tubing. Secure emitters on 3/4" tubing at plant root balls. When necessary run short lengths of 1/4" tubing from emitters to plant root balls. Install stakes on 1/4" tubing at 12" on center and cover tubing with soil at the spot plus mulch.
- 3) As the plant and plant rootball increase in size, the locations of the emitters may need to be adjusted so they are evenly spaced over the rootball.
- 4) Install pressure compensating emitters (with minimal difference in flow between 10 PSI and 40 PSI) at each plant on root ball (not right at stem). Use Agrilim PC Plus (pressure compensating emitters). Use the ones that 1/4" tubing can be connected to. Other emitters may have a higher discharge rate at startup requiring larger pipe sizes.

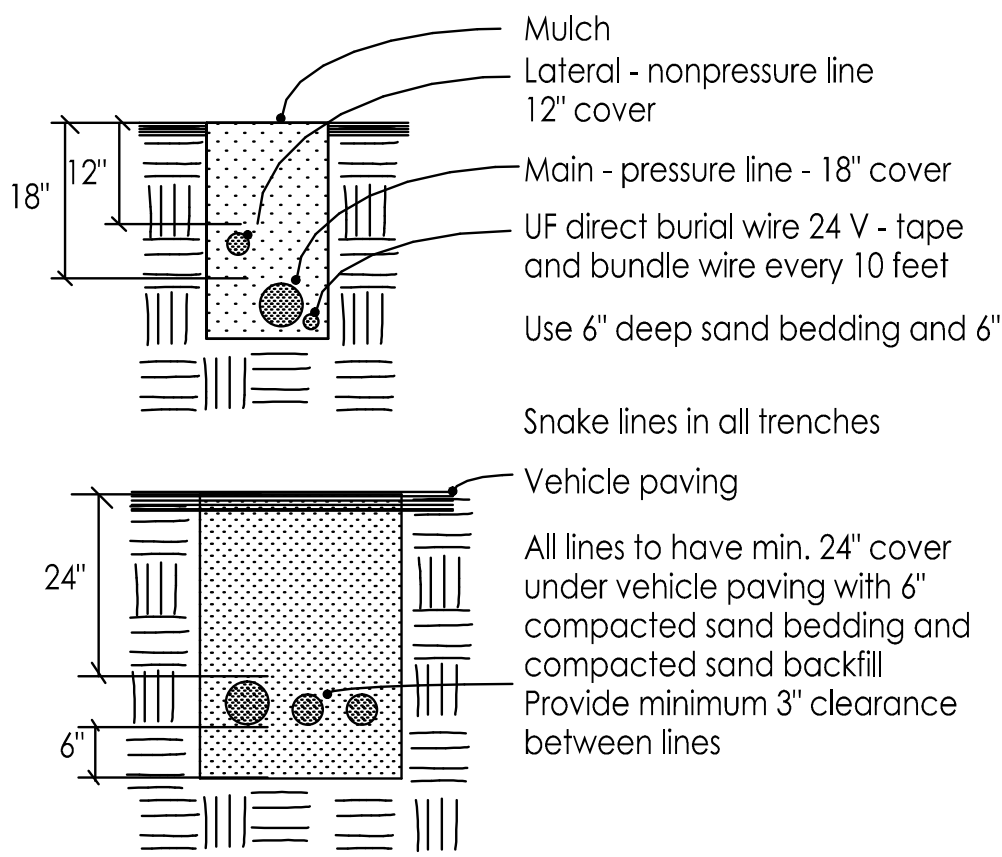
Emitter schedule:
Two 1 GPH emitters at small ground covers and shrubs (eventual size) none
Three 1 GPH emitters at medium shrubs R.L.I.C.,A.H.S.L.,N.C.I.B.,J.,C
Four 1 GPH emitters at large shrubs none
With shrubs that have multiple emitters, put some at edge of root ball (not right on stem) and some out under future canopy. Splice emitters evenly in future root zone area.
Trees to have six 1 GPH emitters at root ball and 14 additional 1 GPH emitters under future canopy of tree at 2x2 grid spacing



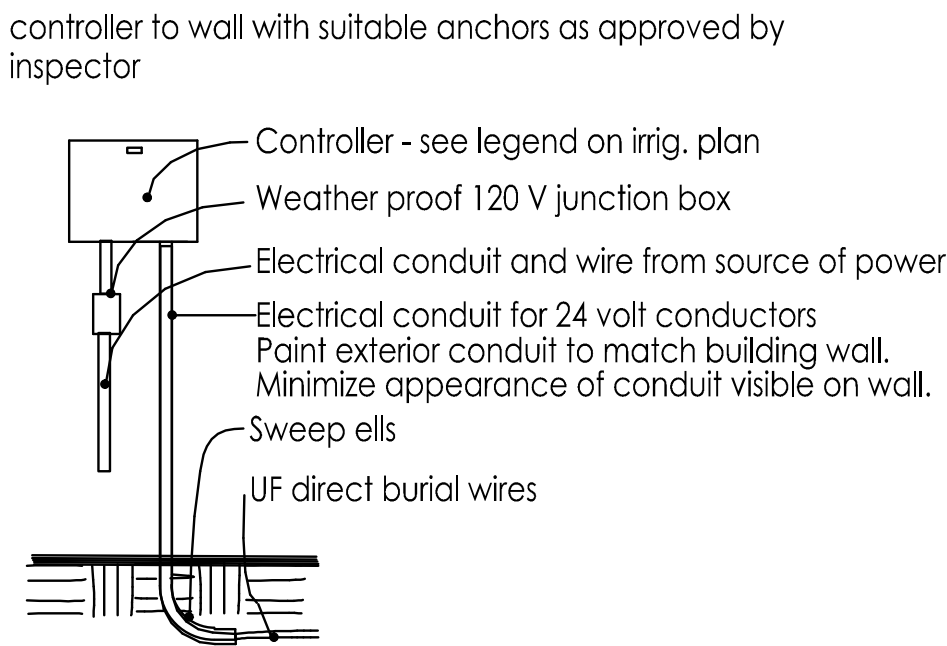
Auto. Antisiphon Valve
with Filter and Regulator for Drip
No Scale



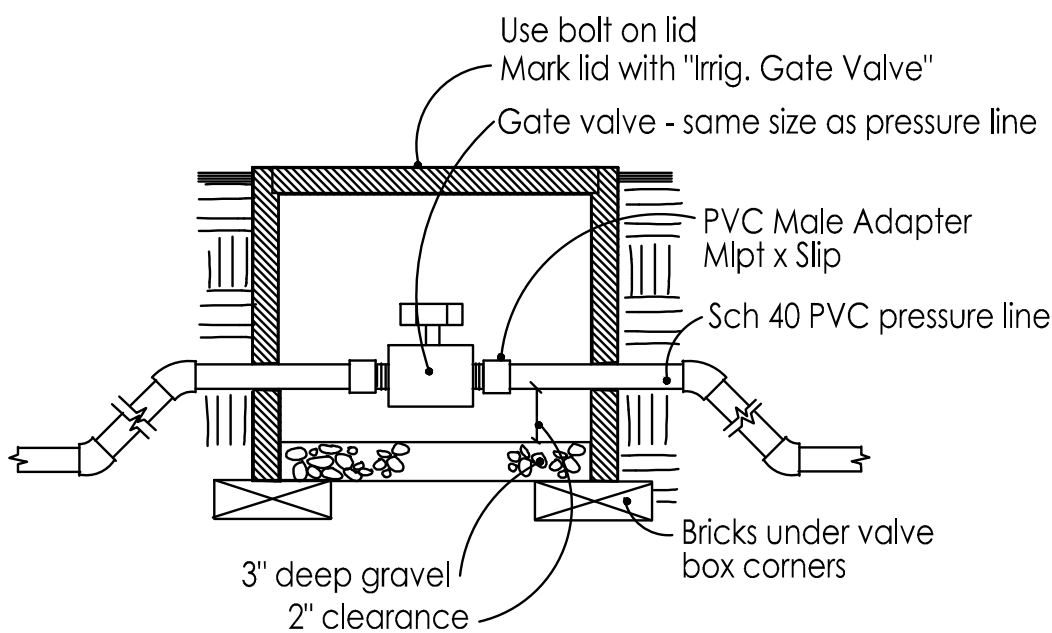
Drip Emitter and Flush Valve
No Scale



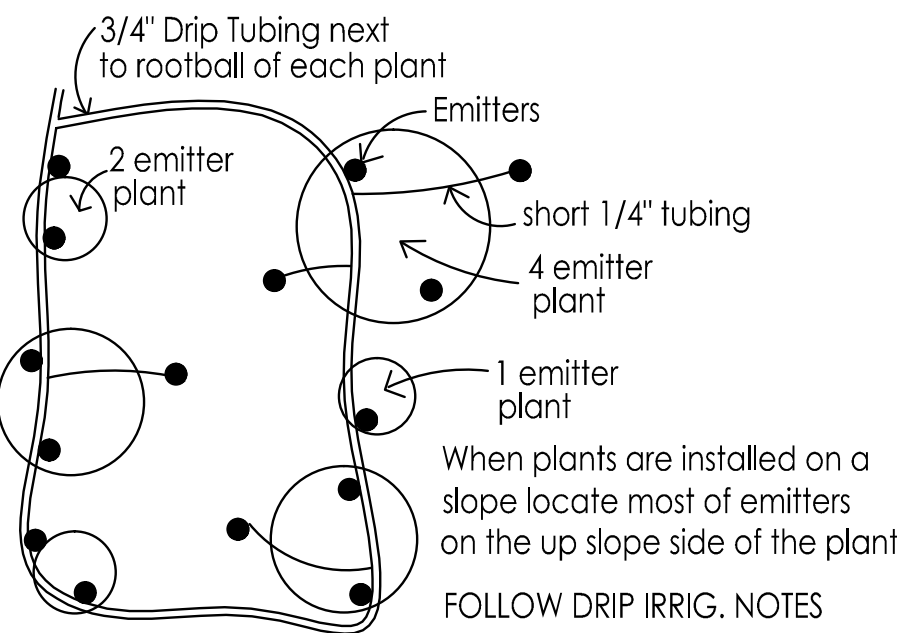
Trenches/Lines
No Scale



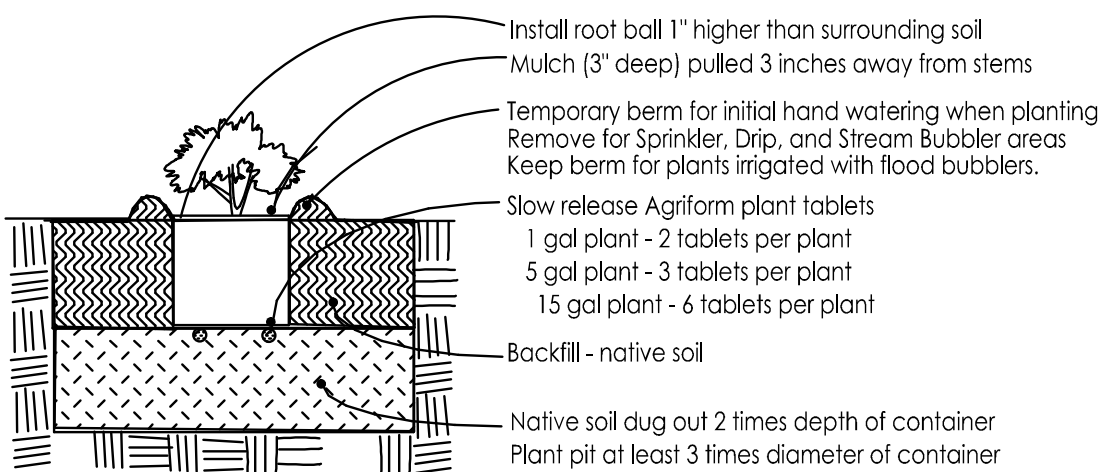
Wall Mount Controller
No Scale



Manual Gate Valve
No Scale

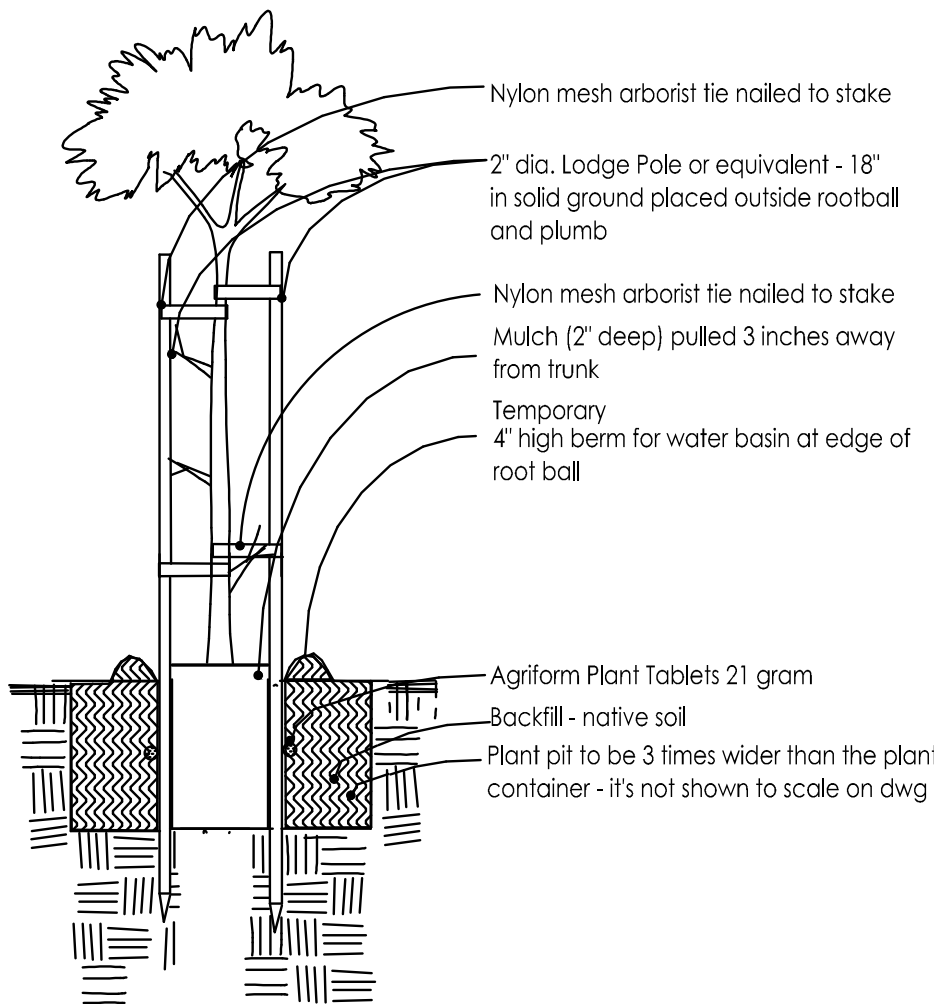


Drip Emitter Placement at Shrubs/
Ground Covers
No Scale



- 1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
- 2) Dig the plant hole at least 3 times the dia. and 2 times the depth of the plant container.
- 3) Replace this mixture in bottom half of hole and walk on it. The level of it should be such that when the plant is installed and settled it will be slightly above grade of existing soil. Fill hole with water.
- 4) Remove rootball carefully from container by tapping out, not pulling out by the stem. Scarify rootball walls in 3 vertical cuts and bottom to 1/2" deep, or by cutting roots of 1/2" or larger with shears. Do not pull roots apart.
- 5) Install fertilizer packets under rootball of plant. Set rootball on prepared surface and fill hole to 1/2 the depth, tamping soil around rootball. Fill hole with water.
- 6) Fill the remainder of the hole with backfill and pack it but do not tamp rootball.
- 7) Make the water basin.
- 8) Water shrub thoroughly within 1 hour of planting by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
- 9) Install mulch

Shrub Planting
No Scale



- 1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
- 2) Dig hole at least 3' deeper than the container and 3 times wider than the diameter of the container the plants were delivered in.
- 3) Gauge holes in the side of the plant pit - 2 holes per sq. ft. of wall surface
- 4) Remove rootball carefully from container with support from below. Sever any circling roots (3/16" dia. or greater) with sharp knife. Do not pull roots apart. The severing of large roots will encourage new roots at the cuts. Install enough backfill under root ball so top of rootball ends up 2' above grade of surrounding soil when it settles. Install some of fertilizer packets under root ball.
- 5) Fill around rootball with backfill mix to 1/2 its height and pack soil as you fill with shovel handle or feet being careful not to disturb root ball
- 6) Put Agriform Plant Tablet fertilizer at this level adjacent to rootball and at bottom of hole (5 tablets per 15 gal. or 5 tablets per 1 inch of caliper width. Fill the remainder of the hole with backfill and pack it.
- 7) Water tree thoroughly by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
- 8) Install stakes such that the stakes and the tree ties won't damage the tree and the stakes won't lean toward each other. Cut off tops of stakes if necessary to lower below branches that could be rubbed by stakes. Install stakes so they are straight up and don't lean in to each other

Tree Planting
No Scale

Landscape Details

GENERAL CONDITIONS – SOIL PREPARATION, PLANTING, AND IRRIGATION

1.1 QUALITY ASSURANCE:

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- B. It is the Contractor's responsibility to verify all information contained in the plans and specifications and to notify the Architect of any discrepancy prior to ordering products or commencing with the work.
- C. Check and verify dimensions, reporting any variations to the Architect before proceeding with the work.

1.2 CONTRACTOR COORDINATION

- A. It is the responsibility of the Landscape Contractor to familiarize himself with all grade differences, location of walls, retaining walls, etc., and to coordinate work with the General Contractor.

1.3 DIMENSIONS AND SCALE

- A. Dimensions are to take precedence over scale at all times. Large scale details are to take precedence over those at small scale. Dimensions shown on plans shall be adhered to insofar as it is possible, and no deviation from such dimensions shall be made except with the consent of the Architect. The Contractor shall verify all dimensions at the site and shall be solely responsible for same or deviations from same.

1.4 LAWS AND REGULATIONS

- A. The Contractor shall conform to and abide by all city, county, state and federal building, labor and sanitary laws, ordinances, rules, and regulations.

1.5 LICENSES AND PERMITS

- A. The Contractor shall give all notices and procure and pay for all permits and licenses that may be required to complete the work.

1.6 SUBMITTALS

- A. At the request of the owner or the Landscape Architect, submit manufacturer's and/or supplier's specifications and other data needed to prove compliance with the specified requirements including certificates stating quantity, type, composition, weight, and origin of all amendments, chemicals, import soil, planter mix, plants, and irrigation equipment used on the site.

1.7 PRODUCT SUBSTITUTIONS

- A. Any product substitutions shall be requested in writing. The Landscape Architect must approve or refuse any substitutions in writing. Lack of written approval will mean the substitution is not approved. Any difference in cost to the Contractor of a less expensive substitution shall be credited to the Owner's

1.8 ERRORS AND OMISSIONS

- A. The Contractor shall not take advantage of any unintentional error or omission in the drawings or specifications. He will be expected to furnish all necessary materials and labor that are necessary to make a complete job to the true intent and meaning of these specifications. Should there be discrepancies in the drawings or specifications, the contractor shall immediately call the attention of the Architect to same and shall receive the complete instructions in writing.

1.9 INSPECTIONS/REVIEWS DEFINITION

- A. Inspection or observation as used in these specifications means visual observation of materials, equipment, or construction work on an intermittent basis to determine that the work is in substantial conformance with the contract documents and the design intent. Such inspection or observation does not constitute acceptance of the work nor shall it be construed to relieve the contractor in any way from his responsibility for the means and methods of construction or for safety on the construction site. Inspection or observation will be done by the Landscape Architect only if requested by the owner in writing. This service will require a written contract for additional fees.

LANDSCAPE IRRIGATION

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. The work includes but is not necessarily limited to the furnishing of all materials, equipments, and labor required to install a complete irrigation system.

- 1.2 GUARANTEE. The entire sprinkler system shall be guaranteed by the Contractor in writing to be free from defects in material and workmanship for a period of one year from acceptance of the work. The guarantee shall include repair of any trench settlement occurring within the guarantee period, including related damage to paving, landscaping, or improvements of any kind.

1.3 REVIEWS

- A. Request the following reviews prior to progressing with the work: (1) Layout of system (2) Depth of lines prior to backfilling (3) Coverage adjustment of all heads, valve boxes and operation of system.

1.4 WATER PRESSURE

- A. Verify the existence of the minimum acceptable volume of water at the minimum acceptable dynamic pressure as per plan at the point of connection at the earliest opportunity, reporting insufficient volume and/or pressure to the Landscape Architect. Contractor is responsible for cost of installation of pressure regulator if pressure exceeds 80 psi.

1.5 UTILITIES

- A. Verify the location of all existing utilities and services in the line of work before excavating. Take all precautionary measures necessary to avoid damaging

1.6 ELECTRICAL CONNECTION

- A. Verify existence of 110 Volt 20 Amp. circuit for irrigation controller (by others) at location noted on plan for installation of controller.

PART 2 – PRODUCTS

2.1 PIPE

- A. Plastic pipe is to be polyvinyl chloride, marked 1120–1220, and bearing the seal of the National Sanitation Foundation. Use Schedule 40 polyvinyl chloride, type I–II fittings bearing the seal of the National Sanitation Foundation, and complying with ASTM D2466 for pressure line and also for any water lines under asphalt paving. Use Sch 40 PVC for lateral lines in planting areas unless stronger pipe is specified in the irrigation legend. For joining, use a solvent complying with ASTM D2466 and recommended by the manufacturer of the approved pipe. Pipe is to be continuously and permanently marked with the manufacturer's name, pipe size, schedule number, type of material, and code number.
- B. Galvanized steel pipe is to comply with ASTM A120 or ASTM A53, galvanized, Schedule 40, threaded, coupled, and hot-dip galvanized. Use 150 lb. rated galvanized malleable iron, banded pattern fittings. Wrap all galvanized pipe below grade with 2" wide, 10 mil. plastic wrapping tape (#50 Scotch wrap or equal).
- C. Drip tubing is to be as noted on plans. Use compression fittings.

2.2 CONTROL WIRE

- A. Use type UF direct burial wire minimum size #14, copper, U.L. approved for irrigation control use for runs of 1000 feet or less. For longer runs consult with Landscape Architect. Use 3M DBY Direct Bury Wire Splice Kits or dry splice type wire connectors at splices. No underground splices will be allowed without a splice box.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 EXCAVATION

- A. Trenches may be excavated either by hand or machine, but shall not be wider than is necessary to lay the pipes. Care should be taken to avoid damage to existing water lines, utility lines, and roots of plants to be saved.
- B. Minimum depth of cover for buried pipelines shall be: 1. Eighteen (18) inches for mainline pressure piping. 2. Eighteen (18) inches for 24 volt wiring from controllers to remote control valves. 3. Twelve (12) inches for lateral distribution lines. 4. Twenty-four (24) inches, minimum cover, with 6" sand bedding and 6" sand cover for any pipe or wire sleeve under A.C. paving.
- C. Under existing paving, piping may be installed by jacking, boring, or hydraulic driving except that no hydraulic driving will be permitted under asphalt concrete pavement (most pipes and sleeves under A.C. paving are to be installed prior to installation of the paving). Where cutting or breaking of existing pavement is necessary, secure permission from the Architect before cutting or breaking the pavement, and then make necessary repairs and replacements to the approval of the Architect and at no additional cost to the Owner.

3.3 INSTALLATION OF PIPE

- A. Handling and assembly of pipe, fittings, and accessories shall be by skilled tradesmen using methods and tools approved by the manufacturers of the pipe and equipment and exercising care to prevent damage to the materials or equipment.
- B. Metal pipe threads shall be sound, clean cut, and cored to full inside diameter. Threaded joints shall be made up with the best quality pure joint compound carefully and smoothly placed on the male threads only throughout the system.
- C. On plastic threaded connections use the sealer recommended by the manufacturer of the plastic valve or fitting. Do not use paste sealer products on plastic valves. Tighten plastic threaded connections with light wrench pressure only.
- D. Connections and controls shall be functionally as shown on the drawings, but physically shall be the most direct and convenient method while imposing the least hydraulic friction. Install lines in planting areas whenever possible.
- E. Thread male PVC connections into metal female connections rather than the opposite.
- F. Interior of pipe fittings, and accessories shall be kept clean at all times, and all openings in piping runs shall be closed at the end of each day's work or otherwise as necessary to prevent the entry of foreign materials. Bending of galvanized steel pipe will not be permitted. Install plastic pipe with the markings turned up to be seen from above until the pipe is buried. "Snake" the pipe in the trenches so that there will be a small amount of excess length in the line to compensate for contraction and expansion of the pipe.
- G. Place backfill in 6" layers such that there will be no settling. The top 6" of soil is to be the top soil and soil amendment mixture. All backfill shall be free of rock and debris. Test pipe for leaks prior to backfilling joints. Obtain approval of the owner's representative before backfilling joints.

3.4 INSTALLATION OF EQUIPMENT

- A. Flush lines clean prior to installation of valves, sprinkler heads, or hose bibs. Install valves, sprinkler heads, controllers, backflow preventors, hose bibs, and other equipment as per the Irrigation Plan and details.

3.5 ELECTRICAL WORK

- A. The line voltage work shall consist of connecting the controller to the nearest available 115 volt supply. The line voltage connection shall be in conduit, in accordance with local electrical code. Controllers mounted inside buildings can be plugged into outlets. The low voltage work shall include all necessary wiring from the controller to the automatic sprinkler valves, installed in accordance with the manufacturer's recommendations. A loop of extra wire, a minimum of eighteen (18) inches long shall be provided at each automatic valve. Appropriate expansion loops shall be provided throughout the system to assure that no wiring will be under stress.
- B. All splices and connections on the 24 volt system shall be made using 3M DBY Direct Bury Splice Kits, Rain Bird Pentite connector, or equal.
- C. Wiring, wherever possible, shall be placed in the same trench with, and alongside of, the irrigation main water line. Tape and bundle wire every ten feet. All wiring placed under paving shall be put in adequately sized Sch 40 PVC pipe sleeves prior to paving operations.
- D. Wire for 24 volt control lines shall be size #14 UF direct burial irrigation wire. Unless noted differently on the plan, common grounds shall be white, size #14 UF direct burial wire. For wire runs over 1000 feet consult with Landscape Architect for wire size. Under no circumstances, on multiple controller installations, will a single common ground, shared by each controller, be permitted. Each controller shall have its own separate common ground wire.

3.6 TESTING

- A. All testing shall be done in the presence of the Owner's Representative. Center-load all pipelines with clean soil approximately every four feet to resist hydraulic pressures, but leave fittings exposed for inspection. Piping under paving shall be tested before paving is in place. Install a 0 to 160 P.S.I. gauge on lines to be tested. All valves shown on Plans shall be in place and shall be in the closed position. Mains shall be tested at 100 P.S.I., and laterals at 65 P.S.I. If available static water pressure is under 100 P.S.I., provide suitable pump for tests. Fill pipelines slowly to avoid pipe damage, and bleed all air from lines as they are being filled. After closing valve at water source, mains shall hold 100 P.S.I. gauge pressure for two hours with no leaks. Laterals are expected to have minor seepage at multiple swing joint assemblies. Major leaks are not acceptable. Laterals shall be tested for one hour at 65 P.S.I. solely to reveal any piping or assembly flaws. The laterals are not expected to hold gauge pressure. For testing laterals, cap risers or turn adjusting screws on nozzles to the "off" position, as appropriate. Repair any flaws discovered in mains or laterals, then retest in same fashion as outlined in presence of the Landscape Architect until all lines have been approved. Provide required testing equipment and personnel.

3.7 SYSTEM ADJUSTMENT

- A. The entire sprinkler system shall be properly adjusted before final acceptance. Adjustments shall include but not necessarily be limited to: (1) Adjustment of arc and distance control devices on sprinklers, including changing nozzle sizes if necessary to assure proper coverage of planted areas. (2) Relocation or addition of sprinkler heads if necessary to properly cover planted areas, without causing excessive water to be thrown onto building, walks, paving, etc. (3) Throttling of automatic valves as necessary to operate sprinklers at manufacturer's recommended pressure. (4) Adjustment and testing of all automatic control devices to assure their proper function, both automatically and manually. (5) Installation of pop-up heads anywhere there is a chance of pedestrians or vehicles hitting heads even if pop-ups are not shown on the plan. (6) Installation of check valves to keep sprinkler head drainage from eroding landscape areas, wasting water, or creating soggy spots in the landscaping.

3.8 AS-BUILT DRAWINGS AND INSTRUCTION

- A. Regularly update a print of the system noting any changes which are made by dimensioning features below grade from surface features with at least two dimensions. Prior to final approval, give the Owner 2 copies of clean blueprints marked to show changes during construction. The most important features to mark on the plan are valves, pressure lines, wires, and hose bibs.
- B. After the system has been completed, inspected, and approved, instruct the Owner's maintenance personnel in the operation and maintenance of the system. Give the Owner completed warranty cards for the irrigation equipment and keys to controllers and hose bibs.

SOIL PREPARATION AND PLANTING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work includes, but is not necessarily limited to, the furnishing of all materials, equipment, and labor required to do the installation and complete placement of topsoil, fine grading, soil conditioning, and planting.

1.2 QUALITY ASSURANCE

- A. Plant Identification and Quality
1. Plants are to be true to name, with one of each bundle or lot tagged with the name of the plants in accordance with standards of practice of the American Association of Nurserymen. In all cases, botanical names take precedence over common names.
2. Plants shall be vigorous, of normal growth habit, free of diseases, insects, eggs, larvae, excessive abrasions, sun scalds, or other objectionable disfigurements, and shall conform to the standards as outlined by the California Association of Nurserymen. Tree trunks shall be sturdy and well "hardened off". All plants shall have normal well developed branch system, and vigorous, fibrous root systems which are not root bound. Ground cover plants (rooted cuttings) shall have well developed root systems and be kept moist prior to and during installation. Plants shall be nursery grown and of size indicated on Drawings. All plants not conforming to those requirements will be considered defective, removed from the site and replaced with acceptable new plants at the Contractor's expense.
3. Sod shall have a well developed root system. Yellowing, brown, diseased, dried, or pest infested sod shall be rejected. Sod is to be cleanly mowed within 72 hours of delivery to the site. Sod is to be delivered to the site within 24 hours after being harvested and installed immediately after being delivered. Sod shall not be stored on the site overnight. Any sod delivered to the site that cannot be installed the same day shall be removed and not used on the site.
4. Ground cover is to have well developed roots and foliage. It is to be grown in and delivered to the site in flats.

1.3 SUBMITTALS

- A. Provide the results of lab tests done on representative samples of existing soils and imported soils to be used for the top 12" or more of landscape area. Tests are to be done by a reputable soils lab (i.e., Perry Lab, Watsonville or Santa Clara Soil and Plant Lab). Samples to be tested are to be collected by lab personnel. Soil samples are to be tested for:
1. Particle size distribution (clay, silt, sand).
2. Agricultural suitability including any excess problems; i.e., salinity (calcium, magnesium), boron, sodium, pH level.
3. Fertility – amounts of available nitrogen, potassium, phosphorous, iron, magnesium, copper, zinc, and boron.
4. Chemicals and/or poisons that would hinder plant growth. The owner is to decide if tests for poisons will be done since there is a small chance that any exist and the cost of testing for them is expensive and difficult.
- An interpretation of the test results and their effect on plant performance done by the lab staff or an approved horticultural consultant should be included in the report. The Owner is responsible for the cost of initial testing and for any additional chemicals and amendments that are required that are not already included in the Specifications or Drawings. Soils tests must be done as soon as possible and prior to ordering or installing soil amendments or plant materials. Plant selections and soil amendment specifications are subject to change depending on the results of the soil tests.
5. If bidding is done prior to soil fertility tests, bid 6 cu yds. of nitroized RWD sodwust and 16 lbs. of 12–12–12 fertilizer per 1000 sq.ft. tilled or dug into the top 6" to 8" of soil in all planting areas for bidding purposes only. Revise bid when results of soil fertility tests are obtained.

1.4 GUARANTEE

- A. Trees shall be guaranteed 1 year – all other plant material 120 days following final acceptance. Any plant material needing replacement because of weakness or probability of dying will be replaced with material of similar type and size to that of the surrounding area. The replacement plants will have the same guarantee as the original plants or trees, starting the day of their replacement. The Contractor is not responsible for losses due to vandalism if he has taken reasonable measures for protection of the plants.

1.5 PRODUCT HANDLING

- A. Protect plants before and during installation, maintaining them in a healthy condition. Application(s) of anti-dessicant may be required to minimize damage. The Contractor is responsible for vandalism, theft, or damage to plant material until commencement of the maintenance period.

1.6 REVIEWS

- A. Request the following reviews by the Owner's Representative at least three (3) days in advance (in writing): (1) Rough grading (of landscape area) (2) Soil test (3) Verification of incorporation depths (4) Final grade (5) Plant material quality approval (6) Plant material layout (7) Plant pit sizes (prior to planting plants) (8) Preliminary inspection (9) Final inspection (5 day advance notice required)

PART 2 – PRODUCTS

2.1 TOPSOIL

- A. Native topsoil or import landscape soil

2.2 NATIVE TOPSOIL

- A. Native soil on site without admixture of subsoil, free from rocks over two cubic inches, debris, and other deleterious material. Native topsoil is to be stripped, stockpiled, and reinstalled.

2.3 IMPORT LANDSCAPE SOIL

- A. Import landscape soil must be tested and meet the following specification:
1. TEXTURE: Sandy loam to loam
2. GRADING:
- | SEIVE SIZE | PERCENT PASSING SIEVE |
|----------------------|-----------------------|
| 25.4 mm (1") | 95 – 100 |
| 9.51 mm (3/8") | 85 – 100 |
| 53 Micron (270 mesh) | 10 – 30 |
3. CHEMISTRY – SUITABILITY CONSIDERATIONS:
- a. Salinity: Saturation Extract Conductivity (E_{ce} x 103 @ 25 degree C.) Less than 4.0
- b. Sodium: Sodium Adsorption Ration (SAR) Less than 9.0
- c. Boron: Saturation Extract Concentration Less than 1.0 PPM
- d. Reaction: pH of Saturated Paste: 5.5 – 7.5
- e. Lime: less than 3% by weight

4. PESTS:

- a. The population of any single species of plant pathogenic nematode: fewer than 500 per pint of soil.

5. ORGANIC MATTER

- a. Soil is to have 5% to 10% organic matter at below 18 inches in depth. Soil is to have less than 30% organic matter at 0 to 18 inches in depth
- Organic matter to be less than 1" dia. Do not use mushroom compost.
- No noxious weeds are allowed.

6. FERTILITY CONSIDERATIONS:

- a. Soil is to contain sufficient quantities of available nitrogen, phosphorous, potassium, calcium, and magnesium to support normal plant growth. In the event of nutrient inadequacies, provisions shall be made to add required materials to overcome inadequacies prior to planting.

7. COMPACTION

- a. Compact the soil enough so it doesn't settle more when walked on and not significantly over time where the flow of drainage will be affected or soil needs to be added. Don't over compact or work soil when it has too much moisture. Dig bottom layer of import soil into existing soil. Compact in 6 inch lifts.

2.4 ORGANIC SOIL AMENDMENT

- A. Redwood sawdust, 0–1/4" in diameter, that is nitrogen stabilized by the supplier, and contains a wetting agent. Also see note on planting plan

2.5 ORGANIC MULCH

- A. See Planting Plan

2.6 PLANTER SOIL MIX

- A. See Planting Plan and Details.

2.7 BACKFILL FOR PLANT PITS

- A. For native soils with 50% or more clay content – 75% topsoil and 25% organic amendment thoroughly mixed and incorporated together with no topsoil clods larger than 1/2" diameter. In heavy clay soils or other soils with large clods this will require mixing the backfill in a stockpile at the site or at the supplier. For soils with less clay content amend only the top 8" of the plant pit backfill as per the soils lab recommendations.

2.8 FERTILIZER

- A. Fertilizer needs and amounts will be based on the results of the soil test

- B. Sod lawn areas (there is no lawn on the plan)

2.9 PLANT MATERIAL SUBSTITUTES

- A. Substitutes will not be permitted except when proof is submitted that plants specified are not available and then only upon approval of the Landscape Architect and Owner.

2.10 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Landscape Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.
- B. Weed and Debris Removal – All ground areas to be planted shall be cleaned of all weeds and debris prior to any soil preparation or grading work. Weeds and debris shall be disposed of off the site.

- C. Contaminated Soil – Do not perform any soil preparation work in areas where soil is contaminated with cement, plaster, paint or other construction debris. Bring such areas to the attention of the Owner's Representative and do not proceed until the contaminated soil is removed and replaced.
- D. Moisture Content – Soil shall not be worked when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in the air or that clods will not break readily. Water shall be applied, if necessary, to bring soil to an optimum moisture content for tilling and planting.

3.2 ROUGH GRADING AND TOPSOIL PLACEMENT

- A. Request a review by the Owner's Representative to verify specified limits and grades of work completed to date before starting soil preparation work. Place topsoil as required to obtain an 12" minimum depth of topsoil or as noted otherwise on the Plans. (Topsoil may already exist in the planting areas). Integrate topsoil layer into subsoil or existing compacted topsoil layer by ripping. Complete rough grading as necessary to round top and toe of all slopes, providing naturalized contouring to integrate newly graded area with the existing topography. Verify that rough grading is completed in accordance with civil engineering drawings and/or any landscape grading drawings. Break through any compacted layers of subgrade material (sometimes left from building or paving pad compaction) that will not allow water in planting areas to percolate through, causing a boggy, over saturated soil condition. You may have to use a backhoe or rotohammers to break up and turn soil to a minimum depth of 12". If proposed planters are in areas of existing paving or base rock, remove at least 12" of material and bring in top soil up to grade required by grading plan. Rough grading in planting areas is to be such that when amendment is incorporated and the mulch is installed, the grade will be +– 1" to finish grade.
- B. Soil Preparation: (1) Distribute soil (organic) amendment and fertilizer in the amounts recommended by the soils lab over all planting areas unless noted otherwise on the Plans. (2) Rip and/or till the amendment and fertilizer into the top 6" to 8" of soil until they are thoroughly mixed in. Hand work areas inaccessible to mechanical equipment. (3) Moisten to uniform depth for settlement and regrade to establish elevations and slopes indicated on Drawings.

3.3 FINISH GRADING

- A. The Contractor shall make himself familiar with the site and grading plans and do finished grading in conformance with said Plans and as herein specified.
- B. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given or between points established by walks, paving, curbs, or catch basins. Finish grades shall be smooth, even, and on a uniform plane with no abrupt changes of surface. Minor adjustments of finish grades shall be made at the direction of the Landscape Architect, if required.
- C. All grades shall provide for natural runoff of water without low spots or pockets. Flowline grades shall be accurately set and shall be not less than 2% gradient wherever possible. Grades shall slope away from building foundations unless otherwise noted on Plans. All finish grades (top of mulch) are 1" below finish grade of walks, pavements, curbs, and valve boxes unless otherwise noted.

3.5 MULCHING

- A. Recultivate soils compacted by planting or other operations and smooth the soil areas prior to applying mulch. Mulch all planting areas to a depth as noted on plans. This depth should be as per the plans even after being settled and stepped on 30 days after installation. Water lightly to settle mulch. Do not bury ground cover with mulch. Place and settle mulch in such a way that it does not get washed onto paving or block drain swales or inlets.

3.6 WEED CONTROL

- A. The Contractor is responsible for pre-emergent weed control. Follow the manufacturer's directions. The Contractor is responsible for the replacement of any plants (other than weeds) that are hurt or killed due to the misuse of weed control products or use of the wrong product. Clay soils can increase the effect of certain pre-emergents. Adjust the application rate accordingly. Some owners may prefer hand weeding to chemical weed control although it is usually more expensive.

3.7 MAINTENANCE

- A. Maintenance shall begin immediately after each plant is installed.
- B. Maintenance will include:
1. Continuous operations of watering, weeding, cultivating, fertilizing, spraying, insect, pest, fungus, and rodent control, and any other operations to assure good normal growth.
2. Fertilizing: In addition to fertilizing of trees, shrubs and ground covers, herein specified, furnish and apply any additional fertilizers necessary to maintain plantings in a healthy, green vigorous growing condition during the maintenance period.
3. Weeding, Cultivating and Clean Up: Planting areas shall be kept neat and free from debris at all times and shall be cultivated and weeded at no more than 10-day intervals.
4. Insect, Pest and Disease Control: Insects and diseases shall be controlled by the use of approved insecticides and fungicides. Moles, gophers, and other rodents shall be controlled by traps, approved pellets inserted by probe gun, or other approved means.
5. Protection: Work under this Section shall include complete responsibility for maintaining adequate protection for all areas. Any damaged areas shall be repaired at no additional expense to the Owner.
6. Replacements: Immediately replace any plant materials that die or are damaged. Replacements shall be made to the Specifications as required for original plantings.
7. Hand Watering: Even when planting areas are watered with automatic irrigation, the soil surrounding the plant pits can be moist while the sodwust/sand root ball is dry. This can cause the plants to deteriorate or not grow (even during the winter). The plants will do best (especially during the hot season) if they are hand watered deeply until their roots grow out into the surrounding soil.

3.8 PRELIMINARY INSPECTION

- A. As soon as all the planting is installed, the Contractor will request the Owner's Representative (in writing) to make a preliminary inspection. The 30 calendar day maintenance period will start when the work is approved. Replacement and/or repairs may be required for approval. The Contractor is to notify the Owner and the Owner's Representative in writing when the 30 day maintenance period begins.

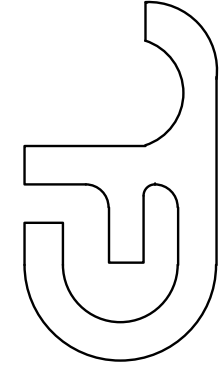
3.9 FINAL INSPECTION

- A. At least 5 days prior to the anticipated end of the maintenance period, the Contractor shall submit a written request for final inspection. The planting areas shall be weeded, neat and clean. The work shall be accepted by the Owner exclusive of the plant materials upon written approval of the work by the Owner's Representative.

Revision

12/16/21

GREGORY LEWIS LANDSCAPE ARCHITECT
736 Park Way Santa Cruz, CA 95065 (831) 425-4747
#2176



Bob and Carrie Paul Residence
Blue Bonnet Ln., Scotts Valley
APN: 022-212-24

Date 8/12/21

Scale As Noted

Drawn Greg

Job
Sheet

L5

of 5

A

B

C

D

E

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B

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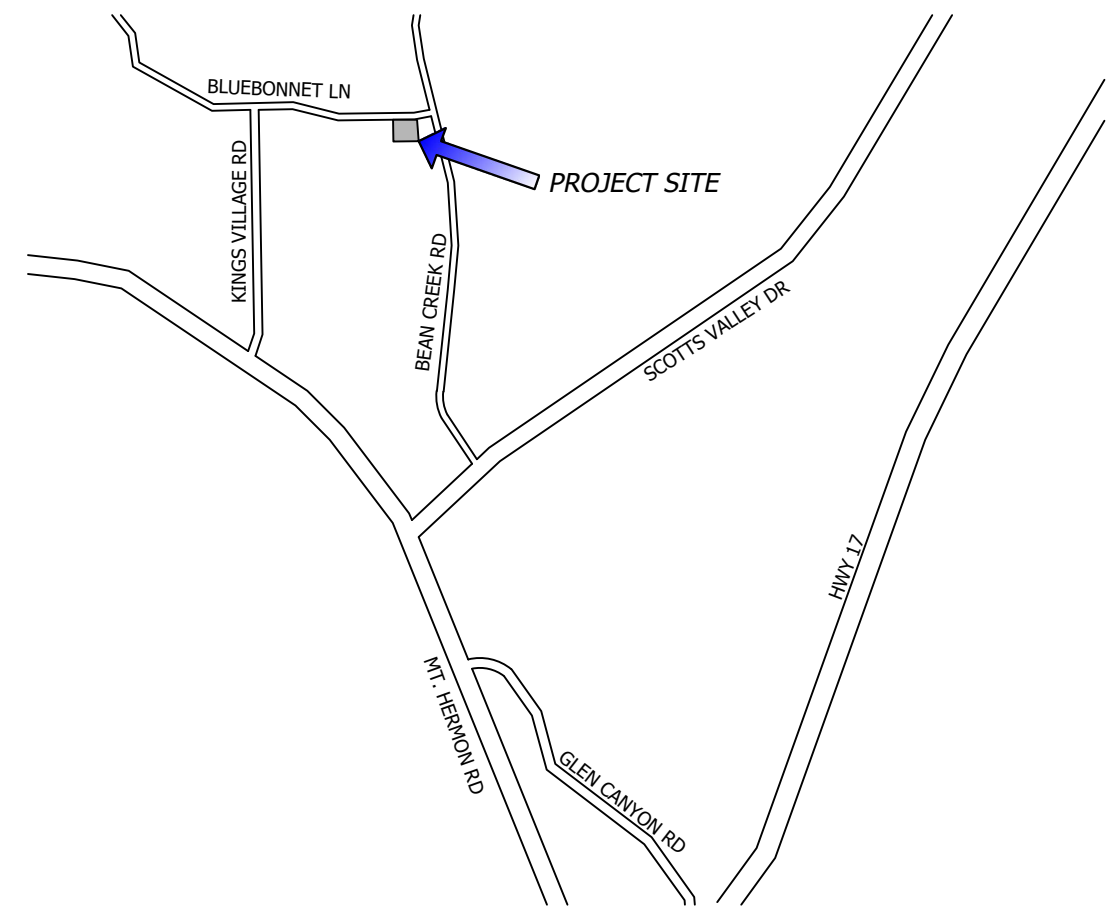
SCALE: 1"=20'



A horizontal scale bar with alternating black and white segments. It is marked with the numbers 0, 20, 40, and 60 at regular intervals.



USA NORTH 811
Call 811 Before You Dig



E

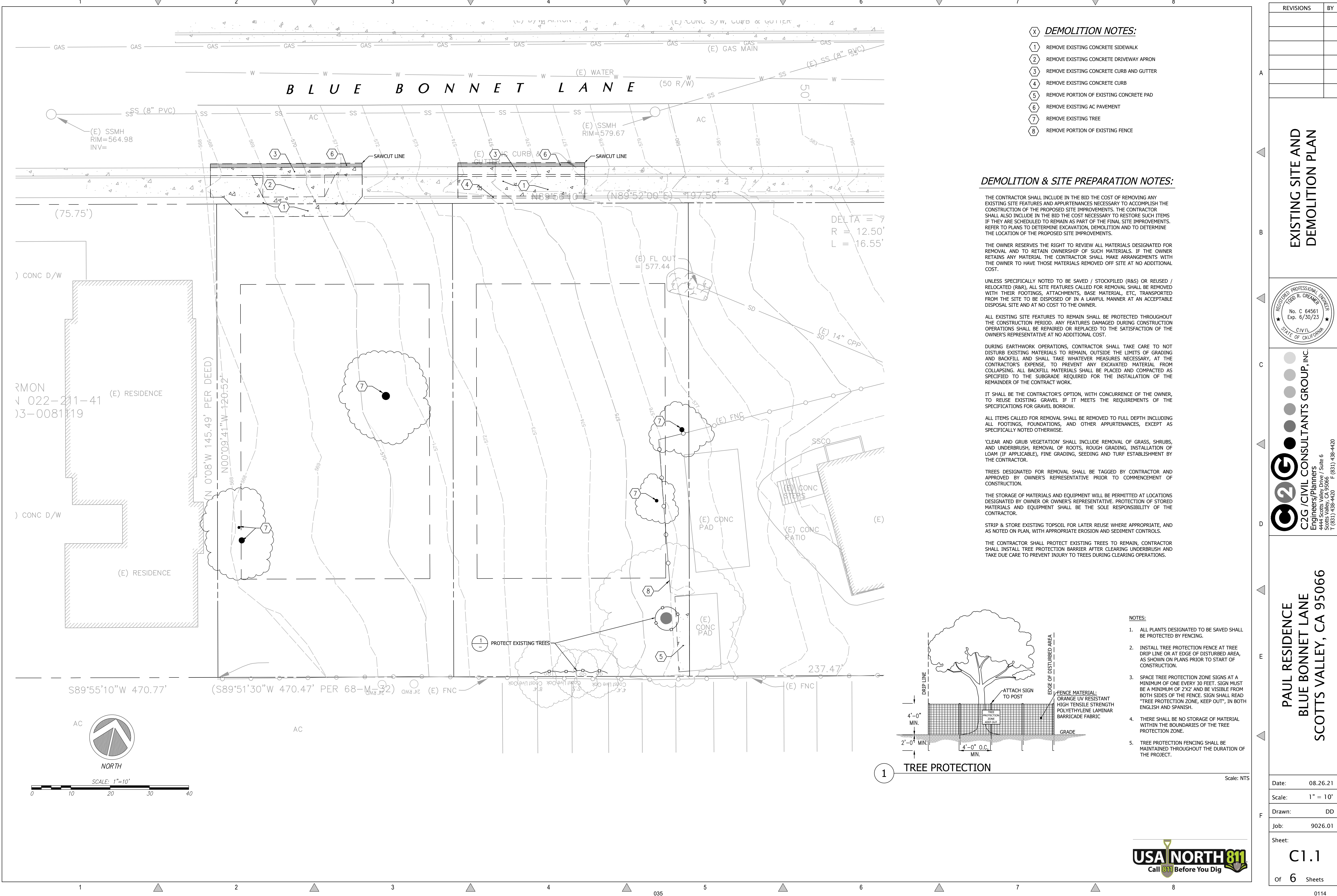
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- DEMOLITION NOTES:**
- 1 REMOVE EXISTING CONCRETE SIDEWALK
 - 2 REMOVE EXISTING CONCRETE DRIVEWAY APRON
 - 3 REMOVE EXISTING CONCRETE CURB AND GUTTER
 - 4 REMOVE EXISTING CONCRETE CURB
 - 5 REMOVE PORTION OF EXISTING CONCRETE PAD
 - 6 REMOVE EXISTING AC PAVEMENT
 - 7 REMOVE EXISTING TREE
 - 8 REMOVE PORTION OF EXISTING FENCE

DEMOLITION & SITE PREPARATION NOTES:

THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION, DEMOLITION AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.

THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE AT NO ADDITIONAL COST.

UNLESS SPECIFICALLY NOTED TO BE SAVED / STOCKPILED (R&S) OR REUSED / RELOCATED (R&R), ALL SITE FEATURES CALLED FOR REMOVAL SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC., TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO COST TO THE OWNER.

ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.

DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF GRADING AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.

IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER, TO REUSE EXISTING GRAVEL IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR GRAVEL BORROW.

ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.

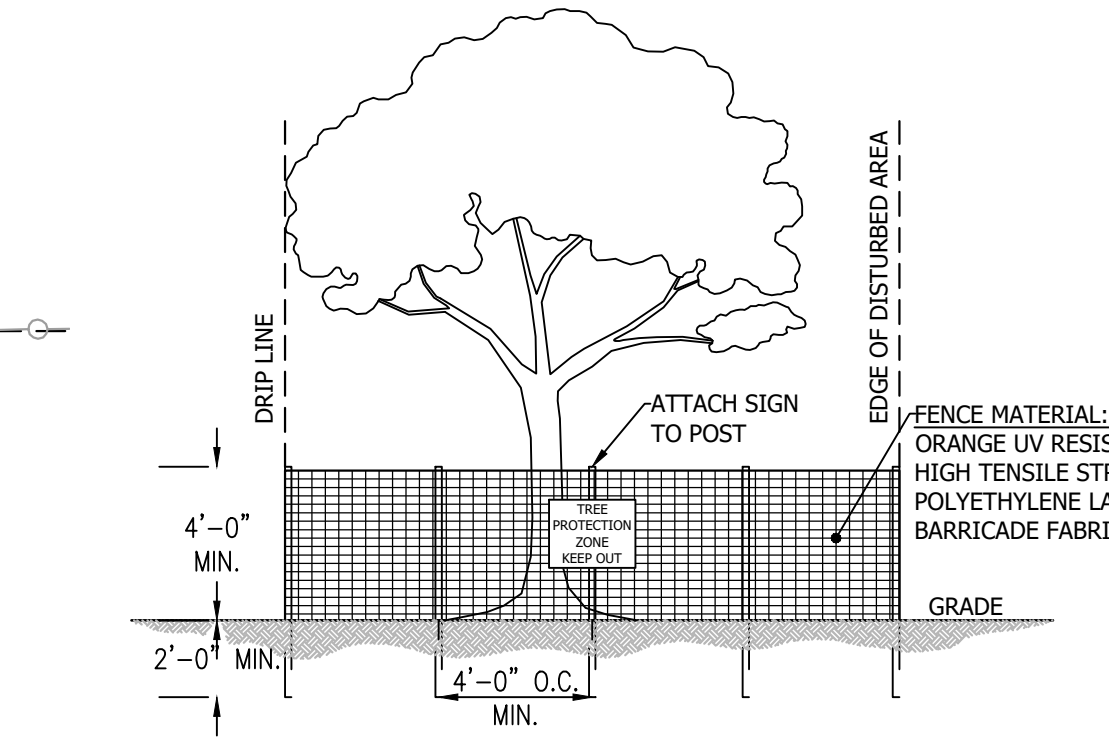
'CLEAR AND GRUB VEGETATION' SHALL INCLUDE REMOVAL OF GRASS, SHRUBS, AND UNDERBRUSH, REMOVAL OF ROOTS, ROUGH GRADING, INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF ESTABLISHMENT BY THE CONTRACTOR.

TREES DESIGNATED FOR REMOVAL SHALL BE TAGGED BY CONTRACTOR AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

STRIP & STORE EXISTING TOPSOIL FOR LATER REUSE WHERE APPROPRIATE, AND AS NOTED ON PLAN, WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS.

THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN, CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIER AFTER CLEARING UNDERBRUSH AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.



- NOTES:**
- 1. ALL PLANTS DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING.
 - 2. INSTALL TREE PROTECTION FENCE AT TREE DRIP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS PRIOR TO START OF CONSTRUCTION.
 - 3. SPACE TREE PROTECTION ZONE SIGNS AT A MINIMUM OF ONE EVERY 30 FEET. SIGN MUST BE A MINIMUM OF 2'X2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE. SIGN SHALL READ "TREE PROTECTION ZONE, KEEP OUT", IN BOTH ENGLISH AND SPANISH.
 - 4. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION ZONE.
 - 5. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

1 TREE PROTECTION

Scale: NTS



REVISIONS		BY

EXISTING SITE AND DEMOLITION PLAN

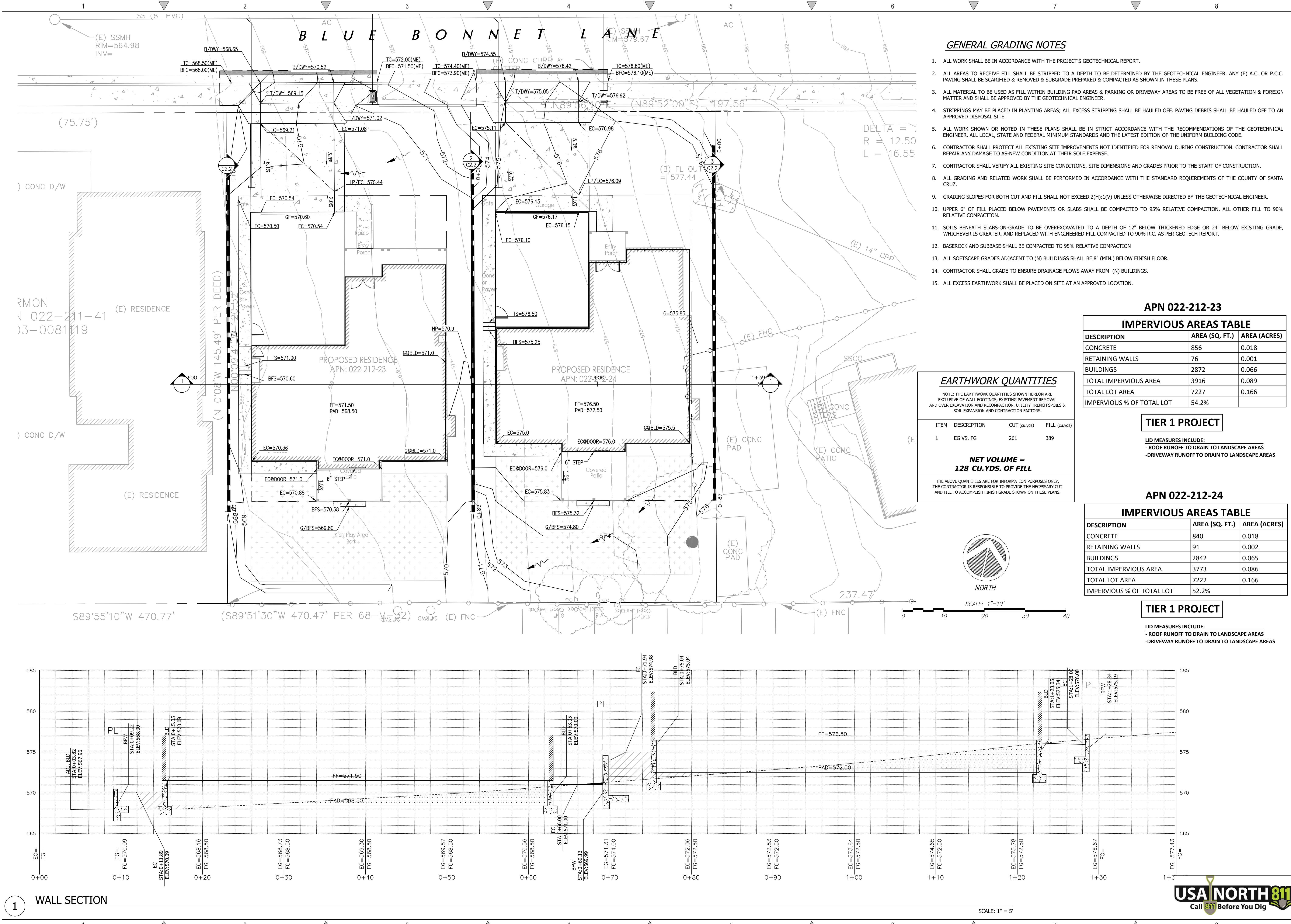
REGISTERED PROFESSIONAL ENGINEER
TODD R. CREMER
No. C 64561
Exp. 6/30/23
CIVIL
STATE OF CALIFORNIA

C2G CIVIL CONSULTANTS GROUP, INC.
Engineers/Planners
4400 Scotts Valley Road, Suite 6
Scotts Valley, CA 95066
T (831) 438-4420 F (831) 438-4420
Last Project: Mod Dec 22, 2021 - 5:13pm By: Lauren/Laquet

**PAUL RESIDENCE
BLUE BONNET LANE
SCOTTS VALLEY, CA 95066**

Date:	08.26.21
Scale:	1" = 10'
Drawn:	DD
Job:	9026.01
Sheet:	C1.1
Of	6 Sheets

Drawing: Z:\Shared CAD\9026.01 - Paul Residence\Design\CAD\Sheet\9026.01 - C1.1 - EX SITE & DEMO.dwg Layout: C1.1 - EX SITE & DEMO Mod Sep 01, 2021 - 1:49pm Last Saved: Mod Sep 01, 2021 - 1:49pm By: Lauren/Laquet



GENERAL GRADING NOTES

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT.
- 2. ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED TO A DEPTH TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY (E) A.C. OR P.C.C. PAVING SHALL BE SCARIFIED & REMOVED & SUBGRADE PREPARED & COMPACTED AS SHOWN IN THESE PLANS.
- 3. ALL MATERIAL TO BE USED AS FILL WITHIN BUILDING PAD AREAS & PARKING OR DRIVEWAY AREAS TO BE FREE OF ALL VEGETATION & FOREIGN MATTER AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
- 4. STRIPPINGS MAY BE PLACED IN PLANTING AREAS; ALL EXCESS STRIPPING SHALL BE HAULED OFF. PAVING DEBRIS SHALL BE HAULED OFF TO AN APPROVED DISPOSAL SITE.
- 5. ALL WORK SHOWN OR NOTED IN THESE PLANS SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, ALL LOCAL, STATE AND FEDERAL MINIMUM STANDARDS AND THE LATEST EDITION OF THE UNIFORM BUILDING CODE.
- 6. CONTRACTOR SHALL PROTECT ALL EXISTING SITE IMPROVEMENTS NOT IDENTIFIED FOR REMOVAL DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGE TO AS-NEW CONDITION AT THEIR SOLE EXPENSE.
- 7. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS, SITE DIMENSIONS AND GRADES PRIOR TO THE START OF CONSTRUCTION.
- 8. ALL GRADING AND RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF THE COUNTY OF SANTA CRUZ.
- 9. GRADING SLOPES FOR BOTH CUT AND FILL SHALL NOT EXCEED 2(H):1(V) UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
- 10. UPPER 6" OF FILL PLACED BELOW PAVEMENTS OR SLABS SHALL BE COMPACTED TO 95% RELATIVE COMPACTION, ALL OTHER FILL TO 90% RELATIVE COMPACTION.
- 11. SOILS BENEATH SLABS-ON-GRADE TO BE OVEREXCAVATED TO A DEPTH OF 12" BELOW THICKENED EDGE OR 24" BELOW EXISTING GRADE, WHICHEVER IS GREATER, AND REPLACED WITH ENGINEERED FILL COMPACTED TO 90% R.C. AS PER GEOTECH REPORT.
- 12. BASEROCK AND SUBBASE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION
- 13. ALL SOFTSCAPE GRADES ADJACENT TO (N) BUILDINGS SHALL BE 8" (MIN.) BELOW FINISH FLOOR.
- 14. CONTRACTOR SHALL GRADE TO ENSURE DRAINAGE FLOWS AWAY FROM (N) BUILDINGS.
- 15. ALL EXCESS EARTHWORK SHALL BE PLACED ON SITE AT AN APPROVED LOCATION.

APN 022-212-23

IMPERVIOUS AREAS TABLE		
DESCRIPTION	AREA (SQ. FT.)	AREA (ACRES)
CONCRETE	856	0.018
RETAINING WALLS	76	0.001
BUILDINGS	2872	0.066
TOTAL IMPERVIOUS AREA	3916	0.089
TOTAL LOT AREA	7227	0.166
IMPERVIOUS % OF TOTAL LOT	54.2%	

TIER 1 PROJECT

- LID MEASURES INCLUDE:
- ROOF RUNOFF TO DRAIN TO LANDSCAPE AREAS
 - DRIVEWAY RUNOFF TO DRAIN TO LANDSCAPE AREAS

APN 022-212-24

IMPERVIOUS AREAS TABLE		
DESCRIPTION	AREA (SQ. FT.)	AREA (ACRES)
CONCRETE	840	0.018
RETAINING WALLS	91	0.002
BUILDINGS	2842	0.065
TOTAL IMPERVIOUS AREA	3773	0.086
TOTAL LOT AREA	7222	0.166
IMPERVIOUS % OF TOTAL LOT	52.2%	

TIER 1 PROJECT

- LID MEASURES INCLUDE:
- ROOF RUNOFF TO DRAIN TO LANDSCAPE AREAS
 - DRIVEWAY RUNOFF TO DRAIN TO LANDSCAPE AREAS

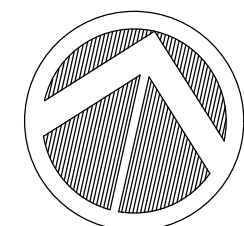
EARTHWORK QUANTITIES

NOTE: THE EARTHWORK QUANTITIES SHOWN HEREON ARE EXCLUSIVE OF WALL FOOTINGS, EXISTING PAVEMENT REMOVAL AND OVER EXCAVATION AND RECONSTRUCTION, UTILITY TRENCH SPOILS & SOIL EXPANSION AND CONTRACTION FACTORS.

ITEM	DESCRIPTION	CUT (cu.yds)	FILL (cu.yds)
1	EG VS. FG	261	389

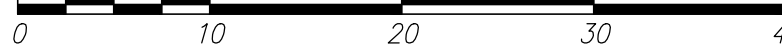
NET VOLUME =
128 CU.YDS. OF FILL

THE ABOVE QUANTITIES ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE NECESSARY CUT AND FILL TO ACCOMPLISH FINISH GRADE SHOWN ON THESE PLANS.

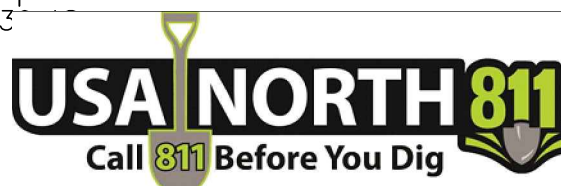


NORTH

SCALE: 1"=10'



WALL SECTION



REVISIONS

BY

GRADING AND DRAINAGE PLAN

REGISTERED PROFESSIONAL ENGINEER

TODD R. CREMER

No. C 64561

Exp. 6/30/23

CIVIL

STATE OF CALIFORNIA

C2G CIVIL CONSULTANTS GROUP, INC.

Engineers/Planners

44000 Highway 99, Suite 6

Scotts Valley, CA 95066

T (831) 438-4420 F (831) 438-4420

PAUL RESIDENCE

BLUE BONNET LANE

SCOTTS VALLEY, CA 95066

Date: 08.26.21

Scale: AS SHOWN

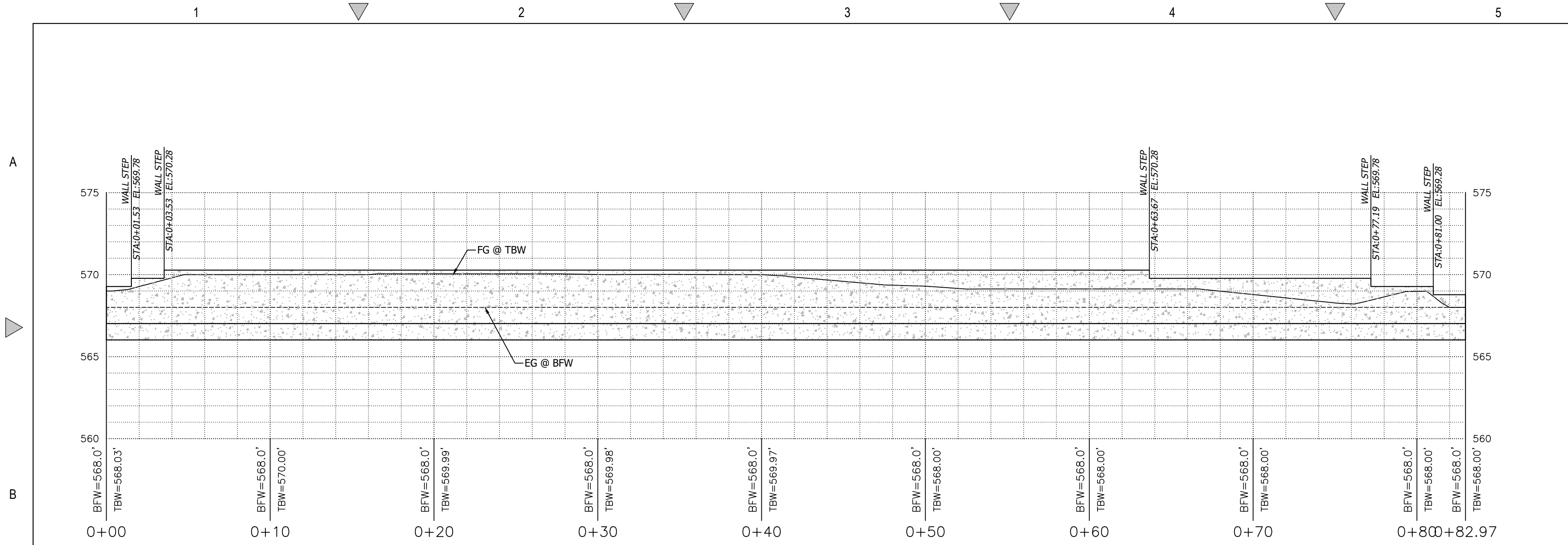
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Job: 9026.01

Sheet: C2.1

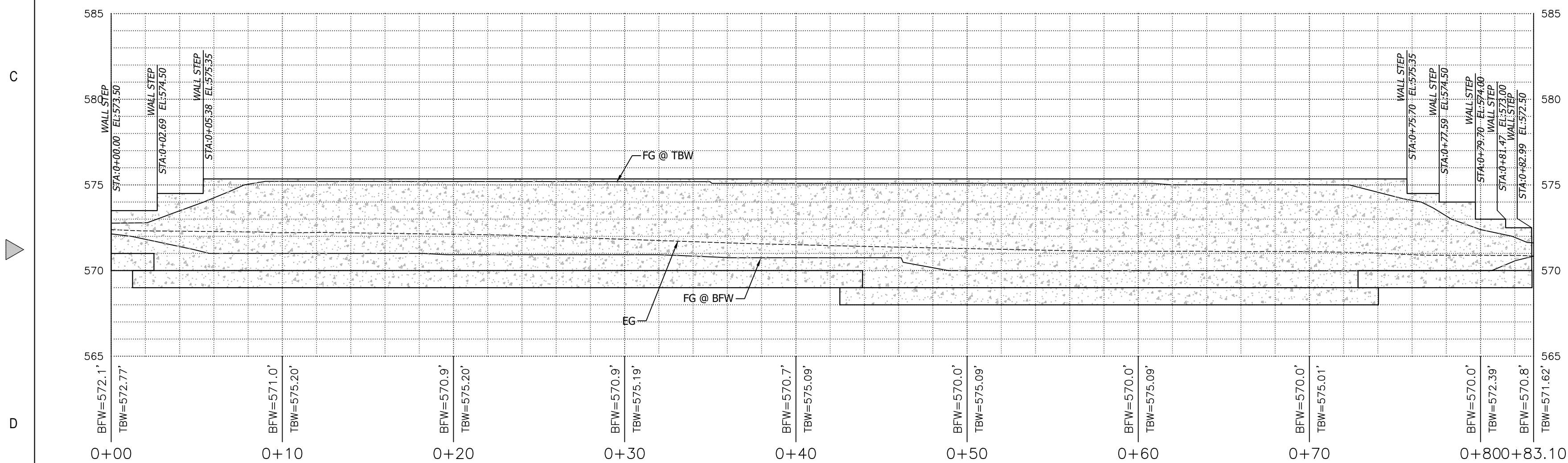
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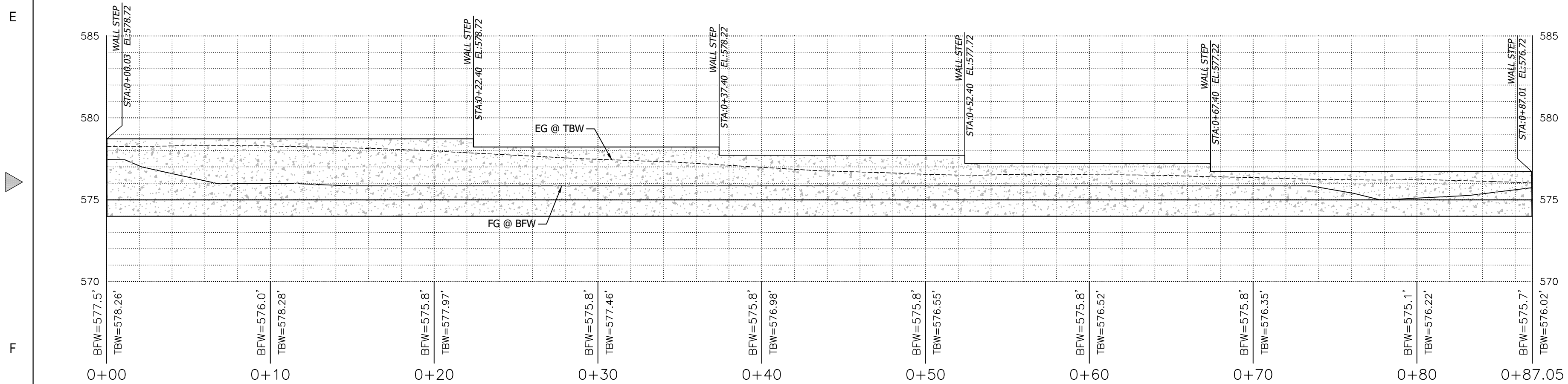
1 WEST WALL PROFILE

Scale: 1:1



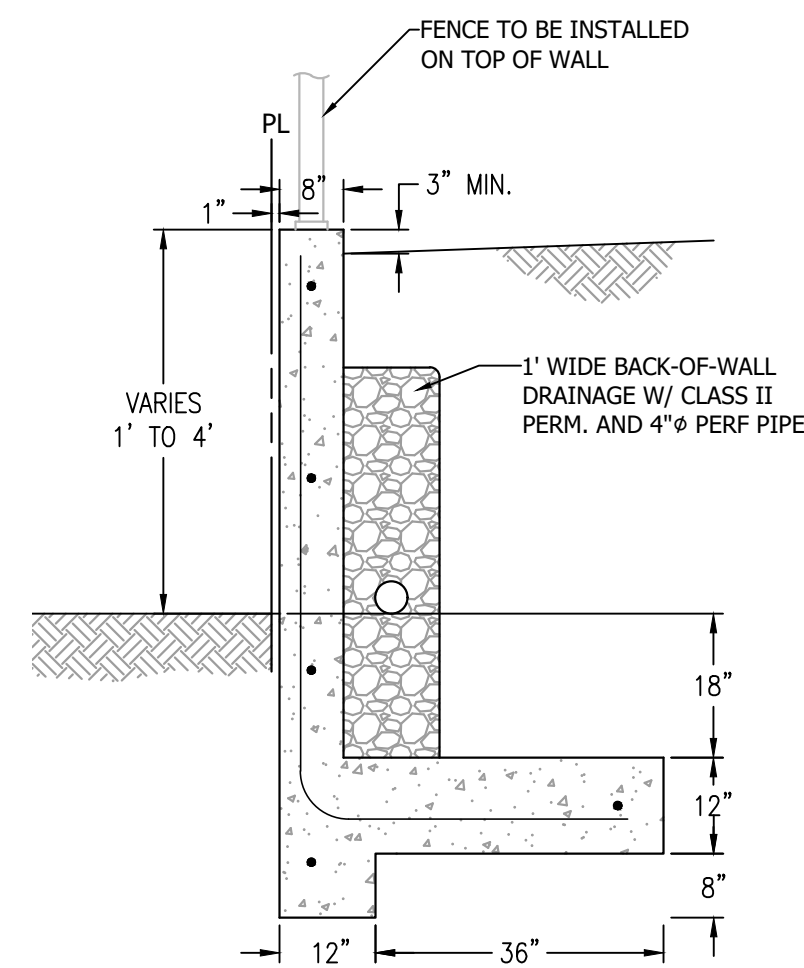
2 CENTER WALL PROFILE

Scale: 1:1



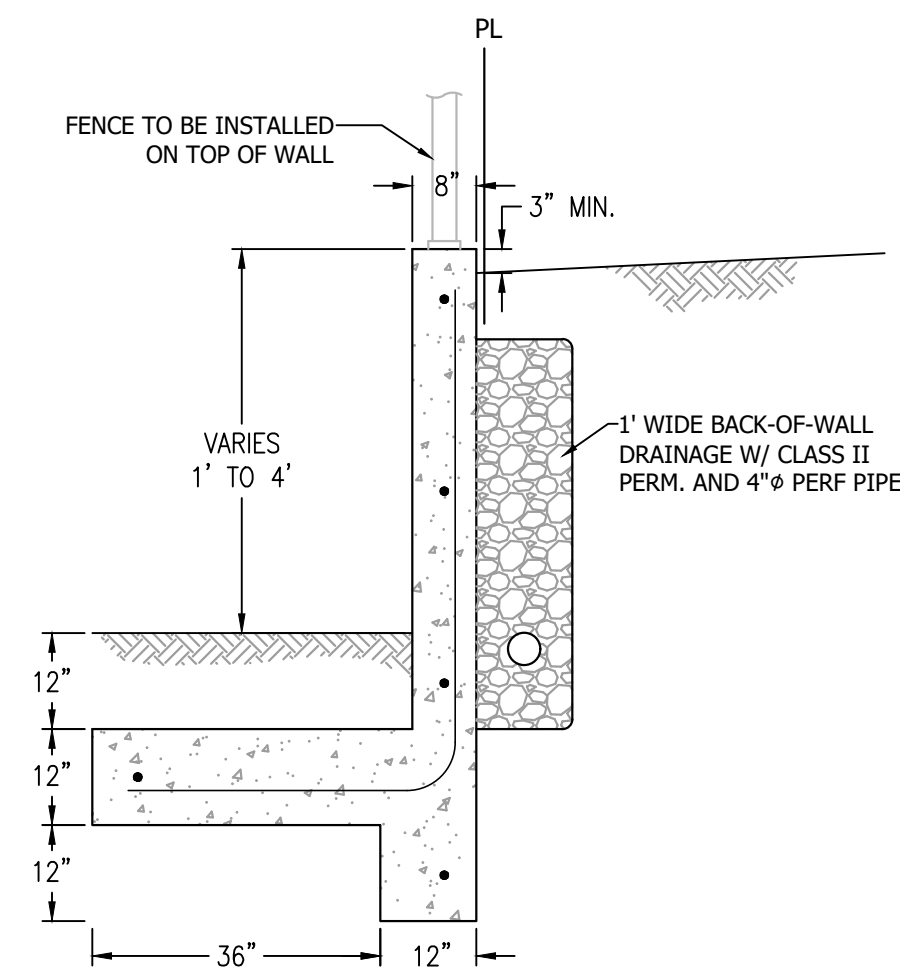
3 EAST WALL PROFILE

Scale: 1:1



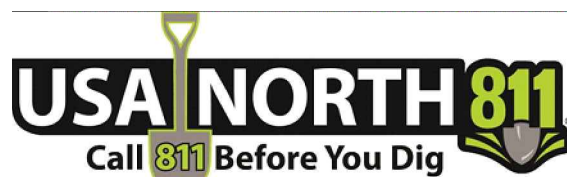
4 CENTER & WEST WALL SECTION

Scale: 1" = 2'



5 EAST WALL SECTION

Scale: 1" = 2'



REVISIONS	BY

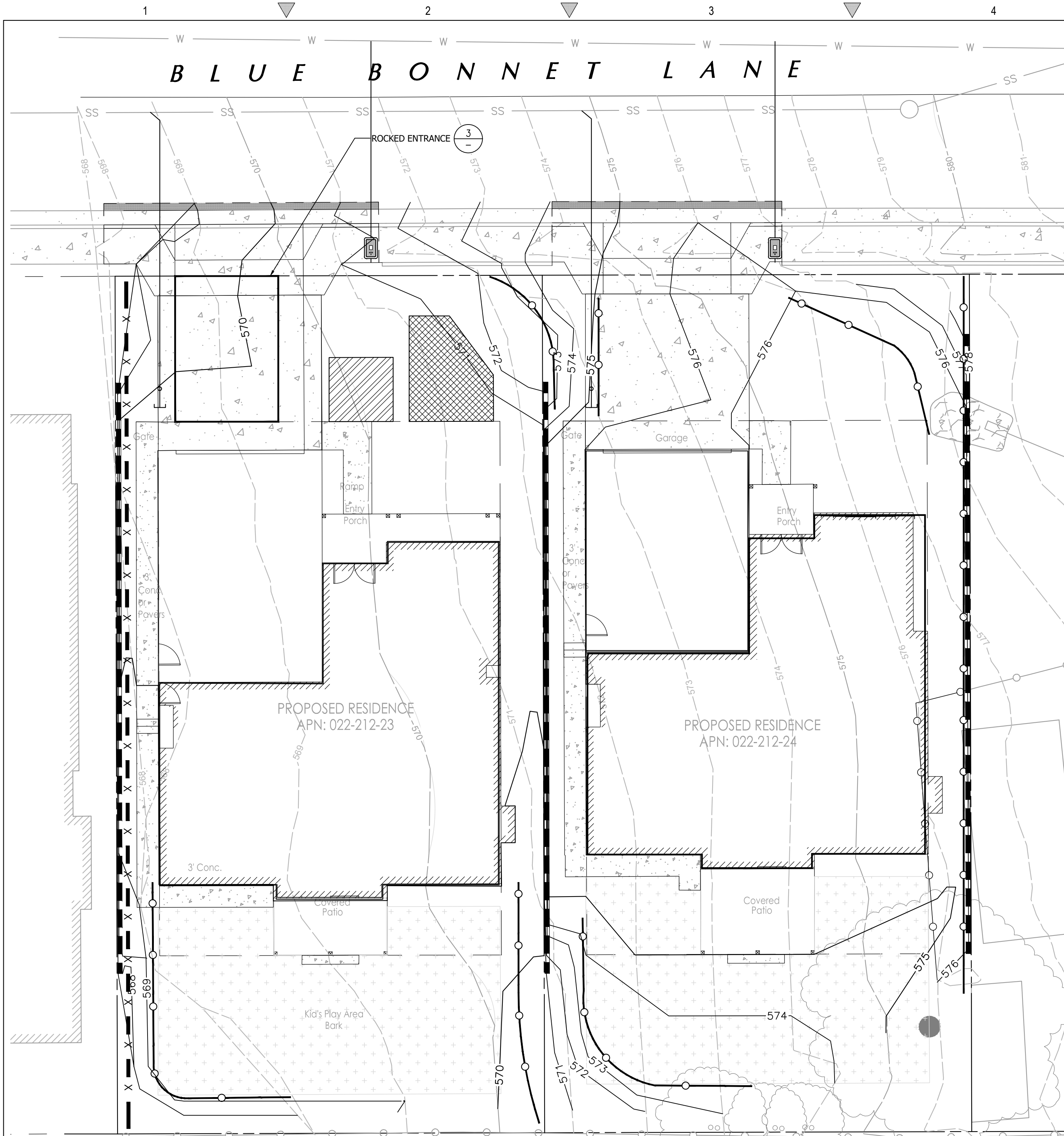
SECTIONS AND
PROFILES



C2G
C2G CIVIL CONSULTANTS GROUP, INC.
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By: Lauren Lindquist

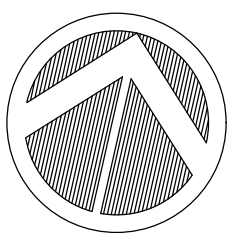
PAUL RESIDENCE
BLUE BONNET LANE
SCOTTS VALLEY, CA 95066

Date:	08.26.21
Scale:	1" = 20'
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Job:	9026.01
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Of	6 Sheets



EROSION CONTROL NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND MAINTAIN EROSION CONTROL MEASURES AS REQUIRED THROUGHOUT THE LIFE OF THE PROJECT IN CONFORMANCE WITH THE COUNTY OF SANTA CRUZ.
- CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH: SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.
- ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED THROUGHOUT THE SEASON. REPLACEMENT SUPPLIES SHOULD BE KEPT ON SITE.
- SITE INSPECTIONS SHALL BE CONDUCTED BEFORE AND AFTER EACH STORM EVENT, AND EVERY 24 HOURS FOR EXTENDED STORM EVENTS, TO IDENTIFY AREAS THAT CONTRIBUTE TO EROSION AND SEDIMENT PROBLEMS OR ANY OTHER POLLUTANT DISCHARGES. IF ADDITIONAL MEASURES ARE NEEDED, REVISE THE EROSION CONTROL PLAN AND IMPLEMENT THE MEASURES IMMEDIATELY. DOCUMENT ALL INSPECTION FINDINGS AND ACTIONS TAKEN.
- CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES DURING CONSTRUCTION FOR CONTROL OF STORM WATER RUNOFF.
- BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. HAY BALES, FILTER BERMS, OR OTHER MEANS SHALL BE EMPLOYED TO PREVENT TURBID RUNOFF TO ADJOINING PROPERTIES.
- UNNECESSARY GRADING AND DISTURBING OR SOIL IS NOT ALLOWED.
- ANY EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE OR STOCKPILED IN A MANNER TO AVOID RUNOFF ONTO ADJOINING PROPERTIES.
- UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED AREAS SHALL BE PERMANENTLY RE-VEGETATED PER LANDSCAPE PLANS.
- ANY MATERIAL STOCKPILED DURING CONSTRUCTION SHALL BE COVERED WITH PLASTIC.
- DURING CONSTRUCTION, NO TURBID SITE WATER SHALL BE PERMITTED TO ENTER STORM DRAIN SYSTEM. USE OF SILT AND GREASE TRAPS, FILTER BERMS, OR HAY BALES MAY BE USED TO PREVENT SUCH DISCHARGE.
- CONTRACTOR SHALL NOTIFY SANTA CRUZ COUNTY 48 HOURS BEFORE ANY EARTHWORK IS BEGUN.
- ALL CONSTRUCTION SHALL CONFORM TO SANTA CRUZ COUNTY BUILDING STANDARDS. A WINTER GRADING PERMIT IS REQUIRED FOR ALL CLEARING, GRADING, OR EXCAVATION THAT SHALL TAKE PLACE BETWEEN OCTOBER 15, AND APRIL 15. ALL DISTURBED SOIL SHALL BE SEED, MULCHED, OR OTHERWISE PROTECTED BY OCTOBER 15.
- COA #30: TO REDUCE DUST GENERATION FROM PROJECT GRADING AND CONSTRUCTION TO MINIMAL LEVELS, THE PROJECT PROPONENT SHALL REQUIRE THE GRADING CONTRACTOR TO IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) FOR DUST CONTROL, INCLUDING WATERING DOWN EXPOSED EARTH SURFACES EACH NON-RAINFALL DAY AT INTERVALS THAT ATTENUATE DUST PROBLEMS. ANY DIRT TRACKED ON TO SCOTT'S VALLEY DRIVE SHALL BE REMOVED DAILY IN A MANNER THAT DOES NOT CREATE SUBSTANTIAL AIRBORNE DUST. THE FOLLOWING BMPs SHALL BE IMPLEMENTED DURING SITE GRADING:
 - EXCAVATION OF THE SITE SHALL BE DONE IN PHASES BY GRADING ONLY THOSE AREAS WHERE IMMEDIATE ACTIVITY WILL TAKE PLACE, LEAVING THE REMAINING AREAS IN THEIR ORIGINAL CONDITION WITH GROUND COVER;
 - A WATER TRUCK, USING RECYCLED WATER, SHALL BE AVAILABLE ON A REPEATED BASIS EACH DAY THROUGHOUT THE GRADING PHASE OF THE PROJECT TO SPRAY EXPOSED EARTH SURFACES;
 - IN ADDITION TO REGULAR WATER SPRAYING, A BIODEGRADABLE CHEMICAL PALLIATIVE SHALL BE SPRAYED ON ANY GRADED AREAS THAT WILL REMAIN EXPOSED WITHOUT ADDITIONAL GRADING FOR THREE OR MORE DAYS IN SUCCESSION;
 - THE SITE ENTRANCE SHALL BE BASE ROCKED TO AVOID OR MINIMIZE TRACKING MUD ON SCOTT'S VALLEY DRIVE BY CONSTRUCTION VEHICLES;
 - THE SEGMENT OF SCOTT'S VALLEY DRIVE ALONG THE PROJECT FRONTAGE SHALL BE MECHANICALLY SWEEP AT THE END OF EACH WORK DAY WHEN ANY DIRT OR MUD HAS BEEN TRACKED ON THE STREET;
- NO GRADING ACTIVITIES SHALL OCCUR DURING DAYS OF HIGH WIND VELOCITY;
- FINISHED GRADED AREAS THAT ARE DESIGNATED AS OPEN SPACE AND LANDSCAPE AREAS OF PROJECT, SHALL BE COVERED WITH AN ACCEPTED EROSION CONTROL SUBSTANCE SUCH AS STRAW MULCH OR HYDROMULCH WITH A TACKIFIER; AND
- CONSTRUCTION STAFF SHALL MONITOR DAILY ALL AREAS THAT HAVE RECEIVED A CHEMICAL PALLIATIVE SPRAY OR APPLICATION OF MULCH TO DETERMINE IF THESE AREAS REMAIN IN A DUST-FREE CONDITION AND TAKE CORRECTIVE ACTION AS NEEDED TO MAINTAIN A DUST-FREE ENVIRONMENT.
- COA #56: TO PREVENT SEDIMENTATION AND DISCHARGE OF CONTAMINANTS OFF-SITE DURING PROJECT CONSTRUCTION, THE PROJECT APPLICANT SHALL HAVE THE CONSTRUCTION CONTRACTOR IMPLEMENT THE APPROVED EROSION CONTROL PLAN DISCUSSED IN MITIGATION MEASURE GEO-2 AND IMPLEMENT A BEST MANAGEMENT PRACTICE-HAZARDOUS MATERIALS CONTAINMENT PLAN DURING THE ENTIRE TIME CONSTRUCTION ACTIVITIES ARE OCCURRING. THE HAZARDOUS MATERIALS CONTAINMENT PLAN SHALL BE APPROVED BY CITY PLANNING STAFF PRIOR TO COMMENCEMENT OF LAND ALTERATION AND CONSTRUCTION ACTIVITIES FOR THE PROJECT. IT SHALL CONTAIN THE FOLLOWING ELEMENTS:
 - STATIONARY EQUIPMENT SUCH AS MOTORS, PUMPS, WELDING EQUIPMENT SHALL BE PLACED OVER DRIP PANS OR OTHER CONTAINMENT APPARATUS;
 - CONSTRUCTION MATERIALS SHALL NOT BE STOCKPILED OR STORED WHERE THEY COULD BE ACCIDENTLY DISCHARGED DOWNSLOPE OR IN TO SCOTT'S VALLEY DRIVE; AND
 - ANY PETROLEUM, LUBRICANTS OR OTHER HAZARDOUS MATERIALS USED DURING CONSTRUCTION SHALL BE STORED IN A SPECIAL STORAGE LOCATION EQUIPPED WITH DOUBLE CONTAINMENT AND THIS LOCATION SHALL BE SHOWN ON THE EROSION CONTROL PLAN AND APPROVED BY THE AGENCIES THAT REVIEW THIS PLAN. (MITIGATION MEASURE APPLICANT SHALL CONSTRUCT ALL STORM DRAIN FACILITIES IN CONFORMANCE WITH DATA AND ANALYSIS IN THE ADOPTED CITY OF SCOTT'S VALLEY STORMWATER TECHNICAL GUIDE, FEBRUARY 2014.



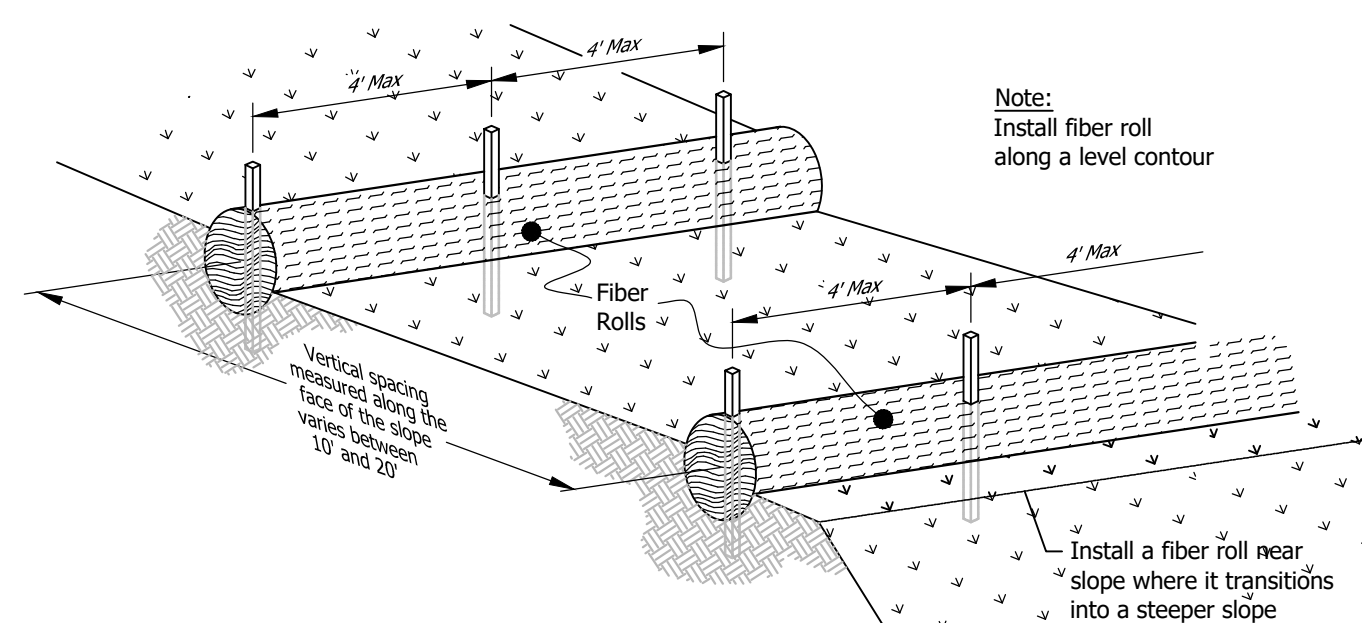
SCALE: 1"=20'

LEGEND

- SILT FENCE
- FIBER ROLL
- DIRECTION OF FLOW WITH STORM DRAIN INSTALLED
- CONSTRUCTION STORAGE
- CONCRETE WASHOUT

1 SILT FENCE

Scale: NTS



CONSTRUCTION SPECIFICATIONS

- LOCATE FIBER ROLLS ON LEVEL CONTOURS SPACED AS FOLLOWS:
- SLOPE INCLINATION OF 4:1 (H:V) OR FLATTER: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 20 FT.
 - SLOPE INCLINATION BETWEEN 4:1 AND 2:1 (H:V): FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 15 FT. (A CLOSER SPACING IS MORE EFFECTIVE).
 - SLOPE INCLINATION OF 2:1 (H:V) OR GREATER: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 10 FT. (A CLOSER SPACING IS MORE EFFECTIVE).

TURN THE ENDS OF THE FIBER ROLL UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.

STAKE FIBER ROLLS INTO A 2 TO 4 IN. DEEP TRENCH WITH A WIDTH EQUAL TO THE DIAMETER OF THE FIBER ROLL.

- DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FT MAXIMUM ON CENTER.
- USE WOOD STAKES WITH A NOMINAL CLASSIFICATION OF 0.75 BY 0.75 IN. AND A MINIMUM LENGTH OF 24 IN.

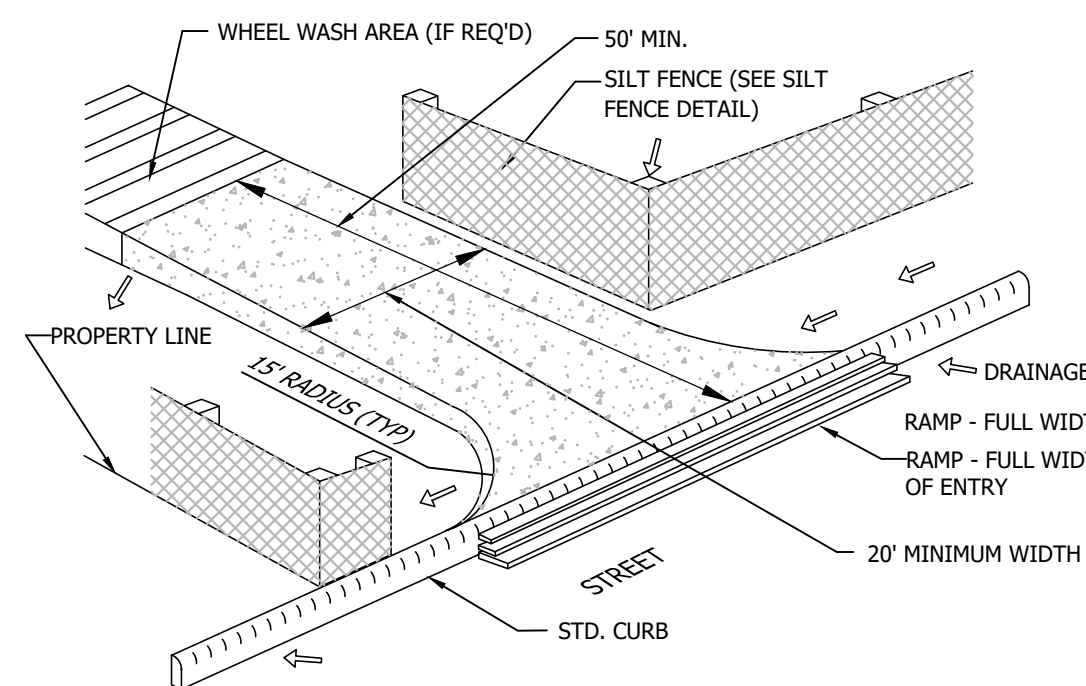
IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED, NOT ABUTTED.

REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.

IF THE FIBER ROLL IS USED AS A SEDIMENT CAPTURE DEVICE, OR AS AN EROSION CONTROL DEVICE TO MAINTAIN SHEET FLOWS, SEDIMENT THAT ACCUMULATES IN THE BMP MUST BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF THE DESIGNATED SEDIMENT STORAGE DEPTH, USUALLY ONE-HALF THE DISTANCE BETWEEN THE TOP OF THE FIBER ROLL AND THE ADJACENT GROUND SURFACE. SEDIMENT REMOVED DURING THE MAINTENANCE MAY BE INCORPORATED INTO EARTHWORK ON THE SITE OR DISPOSED AT AN APPROPRIATE LOCATION.

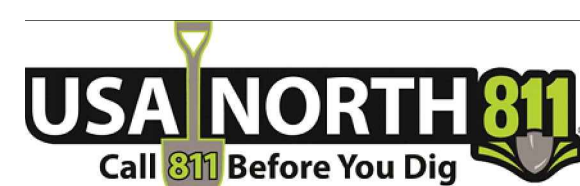
2 FIBER ROLLS

Scale: NTS



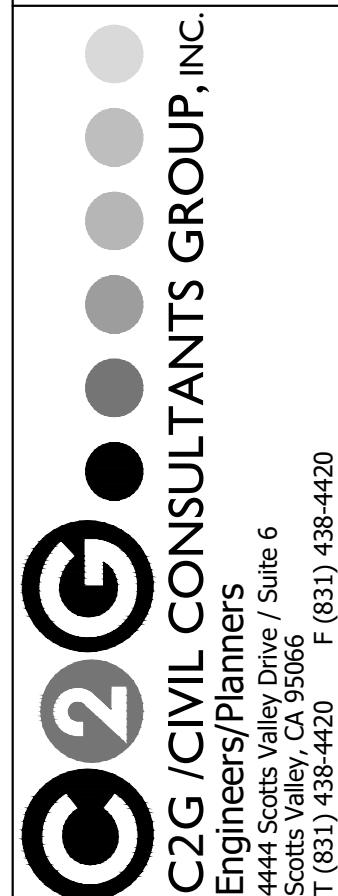
3 ROCKED CONSTRUCTION ENTRANCE

Scale: NTS



REVISIONS	BY

EROSION CONTROL PLAN



PAUL RESIDENCE
BLUE BONNET LANE
SCOTT'S VALLEY, CA 95066

Date: 08.26.21
Scale: 1" = 10'
Drawn: DD
Job: 9026.01

Sheet: C3.1
Of 6 Sheets

ARBORIST REPORT-
Tree Inventory, Impact Assessment & Protection Plan
Bluebonnet Lane
APN: 022-212-23 & 022-212-24
Scotts Valley, CA
September 18, 2021

Prepared for:

Bobby Paul
Bluebonnet Lane
Scotts Valley, CA 95066

Prepared by:



ISA Certified Arborist WE0681A

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Attachments: Appendix A - H

Appendix A – Tree Assessment Chart

Appendix B – Criteria for Tree Assessment Chart

Appendix C – Tree Protection Plan

Appendix D – Appraised Value of “Protected” Trees

Appendix E – Bibliography

Appendix F – Glossary of Terms

Appendix G – Tree Protection Guidelines & Restrictions

- Protecting Trees During Construction
- Project Arborist Duties & Inspection Schedule
- Tree Protection Fencing
- Tree Protection Signs
- Monitoring
- Root Pruning
- Tree Work Standards & Qualifications
- City of Scotts Valley Protected Tree

Appendix H - Assumptions & Limiting Conditions

SUMMARY

This report provides the following information:

1. A summary of the health and structural condition of 8 trees.
 2. An evaluation of anticipated construction impacts to the trees.
 3. Recommendations for retention or removal of assessed trees based on their condition and anticipated construction impacts.
 4. Tree protection specifications for retained trees.
 5. Appraised value of impacted, retained trees, (protected size).
- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.
 - Site improvements are planned for two unimproved parcels.
 - Eight trees within or near the parcel boundaries were inventoried.
 - Five trees are suitable for preservation and can be incorporated in the proposed project.
 - Three “protected” trees are recommended for removal due to poor condition or high construction impacts.
 - If removals are permitted, replacement trees will be required.

Background

Plans will be submitted to the City of Scotts Valley, to develop the two parcels. Mr. Bobby Paul has requested my services, to assess the condition of trees on the applicant's property and the construction impacts that may affect them. Further, to provide a report with my findings and recommendations to meet City of Scotts Valley planning requirements.

Assignment

Provide an arborist report that includes an assessment of the trees within the project area. The assessment is to include the species, size (trunk diameter, height and canopy spread), condition (health and structure), and suitability for preservation ratings. Further, to review the preliminary development plans and assess the potential construction impacts.

To complete this assignment, the following services were performed:

- **Tree Resource Evaluation:** Inventory, evaluate and assign suitability for preservation ratings for subject trees.

Assignment continued:

- **Plan Review: Reviewed provided plans including:** Vesting Tentative Map, by Hogan Land Services, dated 12/2017. Grading and Elevation Plan, dated 6/2021, and Proposed Floor Plan, dated 7/2021 both by James Stroupe.
- **Construction Impact Assessment:** Combine tree resource data with anticipated construction impacts, to provide recommendations for removal or retention of trees.
- **Mapping:** Tree locations were plotted onto: Proposed Floor Plan, sheet 2, dated 7/2021 by James Stroupe, and a Tree Protection Plan was created.

Limits of the Assignment

The information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection on 7/28/2021.

The inspection is limited to visual examination of accessible items without climbing, dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in questions may not arise in the future.

Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the developer, their agents, the City of Scotts Valley, as a reference for existing tree conditions and to help satisfy the City of Scotts Valley planning requirements.

Resources

All information within this report is based on site plans as of the date of this report. Resources are as follows:

- Vesting Tentative Map, by Hogan Land Services, dated 12/2017. Grading and Elevation Plan, dated 6/2021, and Proposed Floor Plan, dated 7/2021 both by James Stroupe.
- Site Visit, Tree Survey & Condition Evaluation at Bluebonnet Lane, Scotts Valley, on 7/28/2021.
- City of Scotts Valley Municipal Code –Section 17.44.080 Tree Protection Regulations (applicable sections).
- *1) Guide for Plant Appraisal 9th Edition, 2) Species Classification and Group Assignment*, (Wester Chapter Edition).

OBSERVATIONS

Two undeveloped lots were surveyed. The lots sit side by side along Bluebonnet Lane. The parcels gently slope from east to west, (Image #1).



Image #1 –Project area bordered by Bluebonnet Lane. Sidewalk improvements were recently completed.

I surveyed 6 trees on the two parcels and two trees with canopies that overhang the applicant's property. All the trees surveyed are "protected" according to City of Scotts Valley Ordinance:

B. Any single-trunk **oak tree** greater than or equal to eight (8) inch diameter (25 inch circumference).** **C.** Any multi-trunk **oak tree** with any trunk greater than or equal to four (4) inches diameter (12 inch circumference).** **E.** Any single-trunk tree greater than or equal to 13-inch diameter (40 inch circumference).** **F.** Any multi-trunk tree with any trunk greater than or equal to eight (8) inch diameter (25 inch circumference).**

There were three mature trees on the two parcels including an elm, locust and white alder. A maturing coast live oak and two young coast live oak make up the remainder of the tree population on the two parcels. Two maturing coast redwood grow on the property adjacent to the western parcel (APN: 022-212-23)

Most of the trees were in good or fair condition.

One tree, the elm was in poor condition. The elm was in fair health but had poor structure. Multiple trunks were poorly developed. Two trunks had significant leans, with all structural development on one side only. This created an unbalanced canopy with a strong weight bias. Many limb tear outs have occurred due to the overextended limbs, (Image #2)



Image #2 - Tree T1, elm. The tree canopy is dense, but structural development is poor.

Tree T2, a mature honey locust is showing signs of drought stress as evidenced by tip dieback over the entire canopy (Image #3).

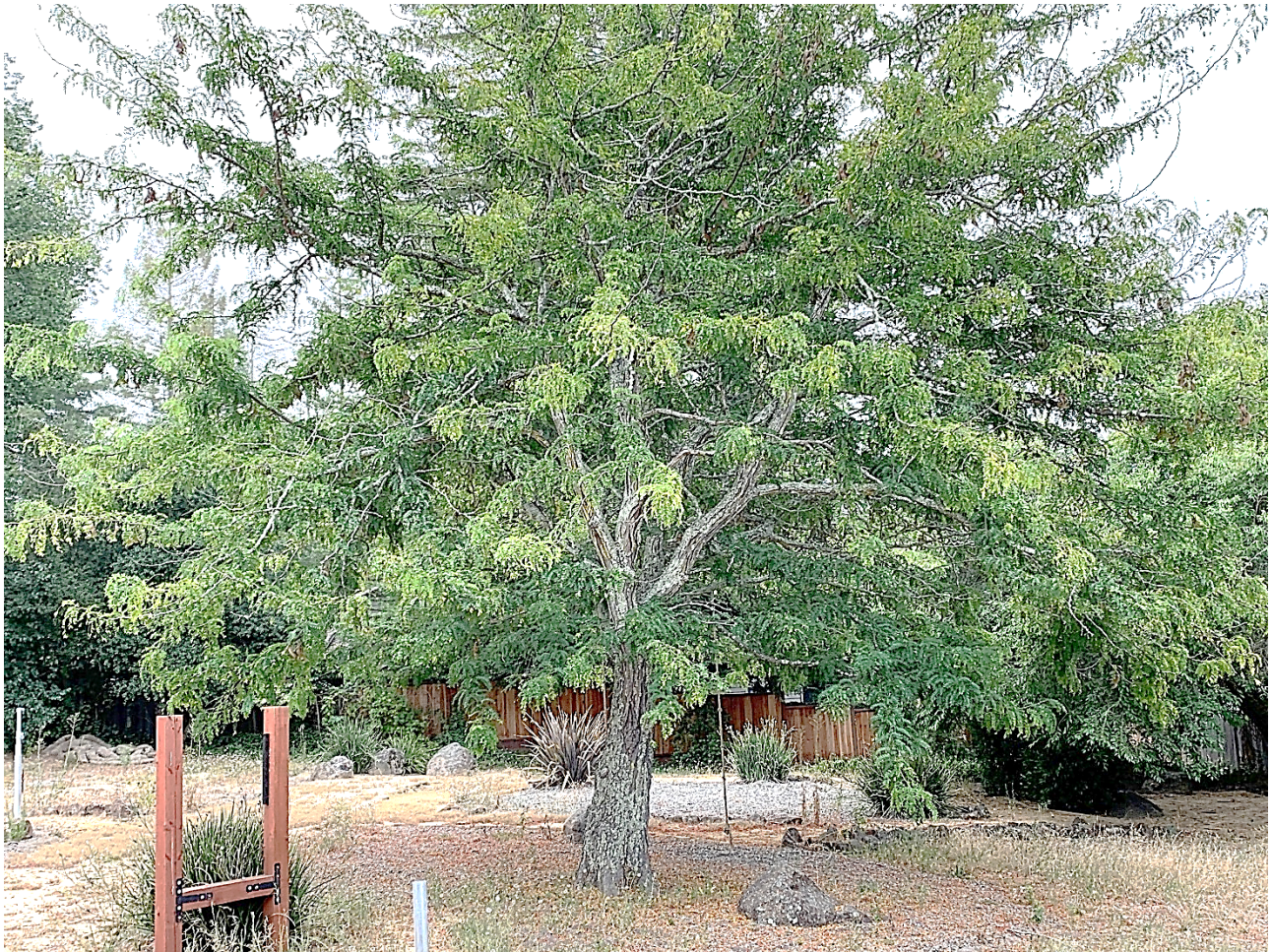


Image #3 – Tree T2, honey locust. Tip dieback is found throughout the canopy.

The locust is in fair condition.

A white alder growing in the rear of the property (southeast corner), is in good condition, (Image #4)



Image #4 – Tree T3, white alder, (circled).

This is a very large mature specimen with two codominant trunks.

Structure is good and primary limbs appear well attached. A few overextended limbs curve down towards the ground in the lower half of the tree. The tree is vigorous producing ample amounts of new growth.

Tree T4 is a maturing coast live oak, (Image #5).



Image #5 – Tree T4, coast live oak.

The tree is in good health but has been topped at 10- and 14-feet above grade. Several new leaders have regrown where the two leaders were topped. These new leaders are poorly attached.

The remainder of the trees include two young coast live oak. They grow along the rear fence line (Image #6)



Image #6 – Trees T5, & T6, coast live oak. The largest of the two oaks T6, is circled. The smaller oak, T5, grows to the left of T6, and is screened by T6 in this image.

Both oaks have two co-dominant trunks and are in good condition.

Two maturing coast redwoods grow on the property adjacent to the applicant's western parcel. Their canopies overhang the applicants parcel by 16-feet. Both trees are showing minor water deficit symptoms as evidenced by needle yellowing throughout the canopy but are otherwise in good condition.

DISCUSSION

Species List

TOTAL SUBJECT TREES: 8 Trees

Protected: 8

1	Elm	(<i>Ulmus spp.</i>)
1	Honey Locust	(<i>Gleditsia triacanthos</i>)
1	White Alder	(<i>Alnus rhombifolia</i>)
3	Coast Live Oak	(<i>Quercus agrifolia</i>)
2	Coast Redwood	(<i>Sequoia sempervirens</i>)

Tree Evaluation and Recording Methods

Site evaluations were made on 7/28/2021. The health and structural **condition** of each tree was assessed and recorded. Based on the trees health and structural condition, each trees **suitability for preservation** was rated and recorded.

The recorded data is included in the *Tree Assessment Chart, Appendix A*, of this report. Tree numbers were plotted on the attached *Tree Protection Plan sheet, T1*. **To correlate the data in the Tree Assessment Chart to the tree's location on the site, refer to the Tree Protection Plan sheet T1 - Appendix C.**

Condition Rating

A trees condition is determined by an assessing both the **health** and **structure**, then combining the two factors to reach a *condition rating*. If the health rating and the structure rating differ, the lower rating becomes the default *condition rating*. Tree condition is rated as poor, fair or good. The quantity of trees assigned for each category (good, fair or poor), is indicated below:

Tree Condition Rating- Protected Trees

- Good - 3
- Fair - 4
- Poor - 1

Suitability for Preservation

A trees suitability for preservation is determined based on its health, structure, age, species characteristics and longevity using a scale of good, fair or poor. The quantity of trees assigned to each category (good, fair or poor), is listed below.

Suitability Rating- Protected Trees

- Good - 3
- Fair – 4
- Poor - 1

Trees Recommended for Removal Due to Poor Condition:

One tree

T1	Elm	(<i>Ulmus spp.</i>)
----	-----	-----------------------

Tree Protection Zone

The tree protection zone (TPZ), is a defined area within which certain activities are prohibited or restricted to minimize potential injury to designated trees during construction.

The size of the optimal TPZ can be determined by a formula based on 1) trunk diameter 2) species tolerance to construction impacts, and 3) tree age (Matheny, N. and Clark, J 1998). In some instances, tree drip line is used as the TPZ. Development constraints can also influence the final size of the tree protection zone.

Fencing is installed to delineate the (TPZ), and to protect tree roots, trunk, and scaffold branches from construction equipment. *The fenced protection area may be smaller than the optimal or designated TPZ area in some circumstances.* Tree protection may also involve the armoring of the tree trunk and/or scaffold limbs with barriers to prevent mechanical damage from construction equipment. *See Tree Protection Guidelines & Restrictions – Appendix E.*

Once the TPZ is delineated and fenced (prior to any site work, equipment and materials move in), construction activities are only to be permitted within the TPZ if allowed for and specified by the project arborist.

Where tree protection fencing cannot be used, or as an additional protection from heavy equipment, tree wrap may be used. Wooden slats at least one inch thick are to be bound securely, edge to edge, around the trunk. A single layer or more of orange plastic construction fencing is to be wrapped and secured around the outside of the wooden slats. Major scaffold limbs may require protection as determined by the City arborist or Project arborist. Straw wattle may also be used as a trunk wrap and secured with orange plastic fencing.

Data has been entered in the *Tree Assessment Chart – Appendix A*, which indicates the optimal Tree Protection Zone for each tree.

Critical Root Zone

Critical Root Zone (CRZ) is the area of soil around the trunk of a tree where roots are located that provide critical stability, uptake of water and nutrients required for a tree's survival. The CRZ is the minimum distance from the trunk that trenching that requires root cutting should occur and can be calculated as three to the five times the trunk Diameter at Breast Height (DBH). For example, if a tree is one foot in trunk diameter then the CRZ is three to five feet from the trunk location. We will often average this as four times the trunk diameter or 1ft. DBH = 4ft. CRZ (Smiley, E.T., Fraedrich, B. and Hendrickson, N. 2007).

Root Disturbance Distance

No one can estimate and predict with absolute certainty, what distance from a tree a soil disturbance such as excavation for construction should be, to ensure it will not significantly affect tree stability or health. Or to what degree, (low, moderate or high), a tree might be impacted. There are simply too many variables involved that we cannot see or anticipate. However, three times the D.B.H. (diameter at breast height), is a widely accepted minimum used in the industry for root disturbance, *on one side of the trunk*, and is supported by several research studies including (Smiley, Fraedich & Hendrickson 2002, Bartlett Tree Research Laboratories). This distance is often used during the design and planning phases of a project in order to estimate root loss due to construction activities. This distance is a guideline only and should be increased for trees with significant leans, decay or other structural problems.

The ISA, International Society of Arboriculture- Root Management (2017) publication recommends, "cutting roots at a distance greater than six times the trunk diameter (DBH) minimizes the likelihood of affecting both health and stability. This recommendation is given further direction by the companion publication, A.N.S.I. (*American National Standard*) A300 (Part 8)- 2013 Root Management, when roots are cut in a *non-selective* manner, i.e. in a straight line on one side of a tree. It says, if the cutting is "within six times the trunk diameter (DBH), mitigation shall be recommended". Further, A.N.S.I. recommends the "minimum distance from the trunk for root cutting should be adjusted according to trunk diameter, species tolerance to root loss, tree age, health and site condition".

In general, root cutting that occurs at a distance less than six times the diameter of a tree should be undertaken by hand digging and hand (or Sawzall), root pruning. These methods help mitigate root loss impacts.

Impacts to Subject Trees

Construction impact assessments are based on the Proposed Floor Plan, Sheet 2, dated 7/8/2021, and Elevation Plan with Proposed Grading, sheet 9 dated 6/8/2021, by James Stroupe.

Five “protected” trees will have low or moderate construction impacts and are suitable for incorporation into the project.

The grade will be lowered approximately of 1.5 feet in some areas of eastern parcel, (APN: 022-212-24), and could impact tree T3, white alder, (Image #7).

It is recommended that soil removal (grade lowering), does not occur closer than 8 feet to tree T3, white alder. This is within the tree protection zone, but outside the critical root zone of the tree, and can be done without significant negative impact, if mitigation methods are used.

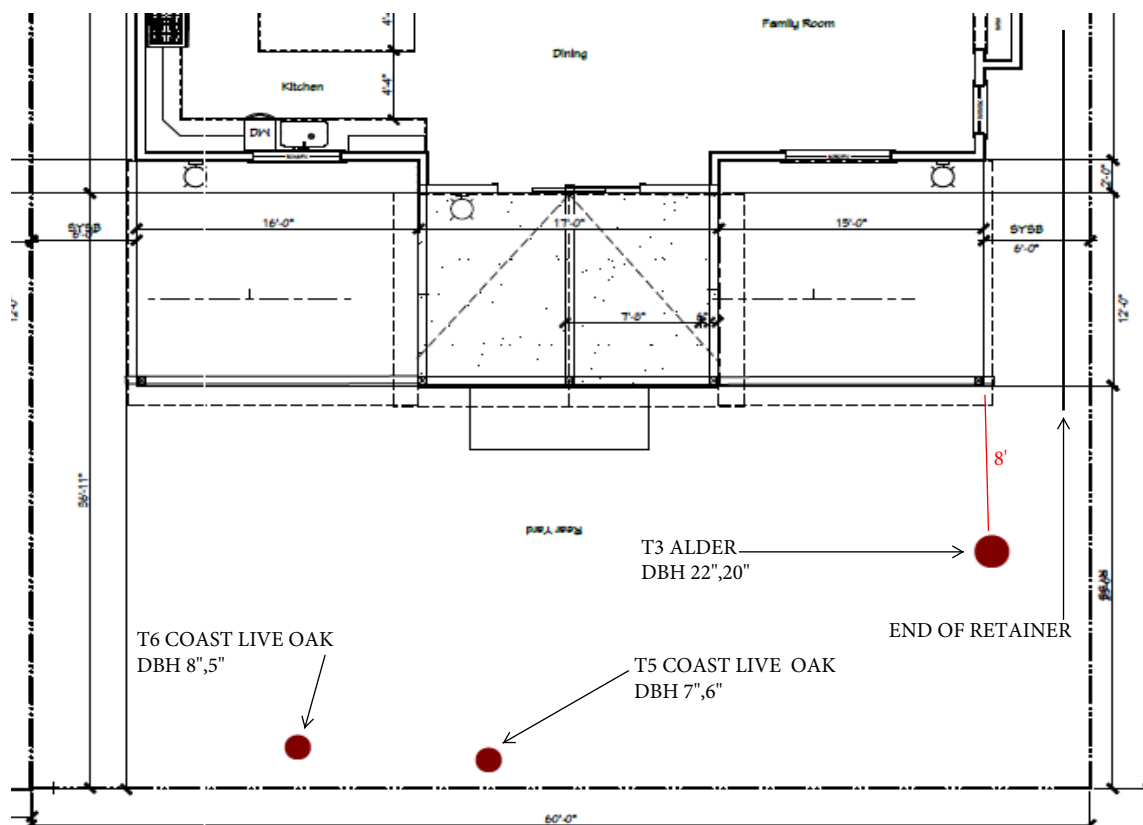


Image #7 – Tree 3, white alder. A patio will be constructed within 8 feet of the tree.

Grading (soil removal), will occur within the tree protection zone of white alder, T13. The alder will suffer some root loss, the tree can tolerate this loss, and mitigation methods to reduce root loss will be necessary. A retaining wall is proposed for construction in conjunction with the grade lowering. To reduce root loss impacts to tree T3, is recommended that the retainer be terminated just beyond the south corner of the proposed patio, (Image #7).

Impacts to Subject Trees, Continued

The grade will be lowered approximately of one foot in some areas of the western parcel, (APN: 022-212-24), and could impact trees T1-A and T2-A, coast redwoods growing on the adjacent property, (Image #8).

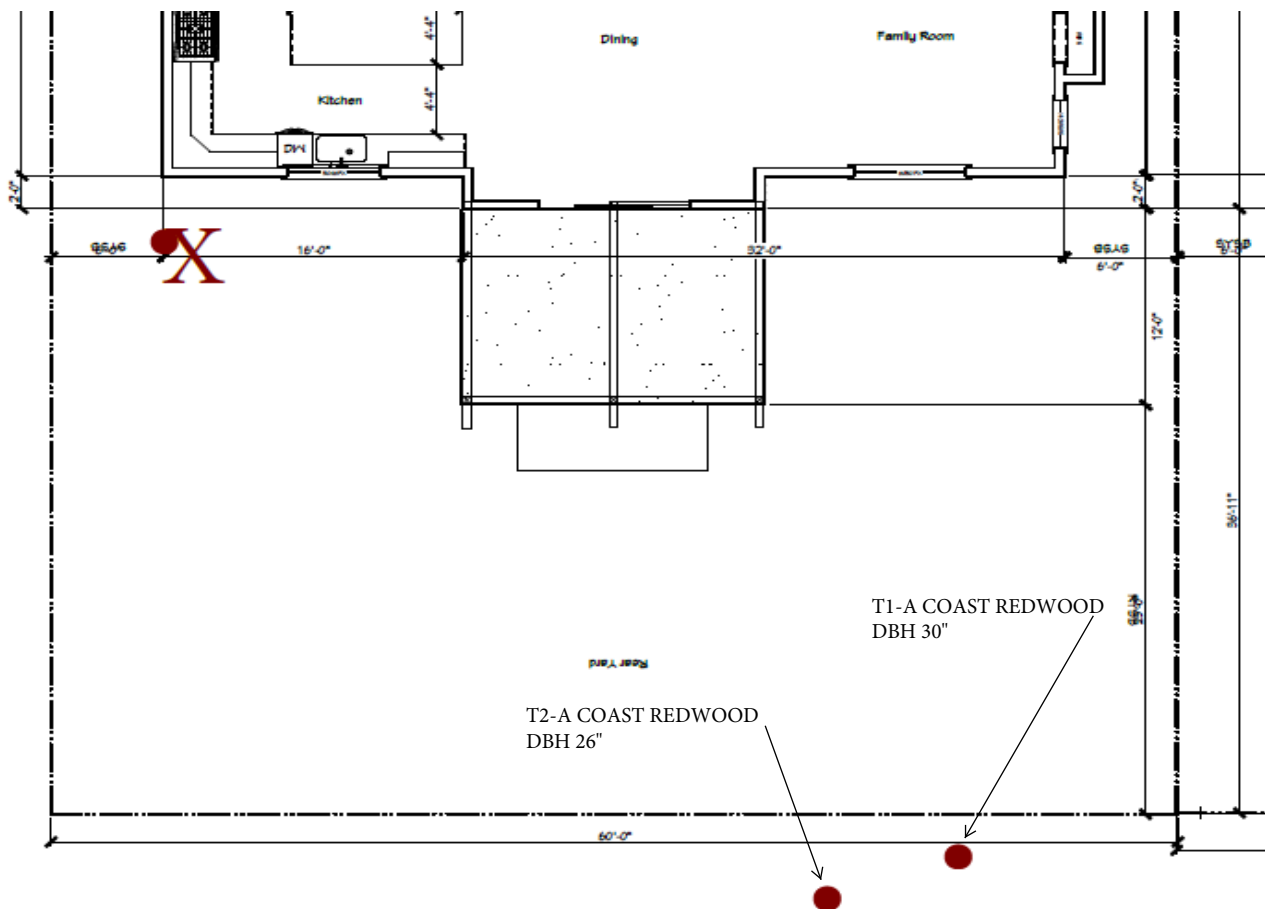


Image #8 – Trees T1-A & T2-A, coast redwood.

Grading (soil removal), could occur within the tree protection zone of coast redwoods, T1-A and T2-A. The redwoods will suffer some root loss, the trees can tolerate this loss, and mitigation methods to reduce root loss will be necessary. (Image #8).

Impacts to Subject Trees, Continued

Since the white alder T3, and coast redwoods T1-A and T2-A could suffer some root loss, reducing their ability to uptake water, one of the mitigation specifications will be to supply supplemental irrigation to them during the construction period.

Impact Level

Impact level rates the degree a tree may be impacted by construction activity and is primarily determined by how close the construction procedures occur to the tree. Construction impacts are rated as low, moderate, high. The quantity of trees assigned for each category (low, moderate, high), is indicated below:

Impact Rating to Trees - Protected

- Low - 2
- Moderate – 3
- High - 3

Mitigation Measures for Retained Trees

The trees retained on this project will require some or all the following methods to protect them from the impacts described above and to minimize root loss during the construction phases.

- Tree Protection Fencing
- Hand trenching.
- Supervised root pruning.

Tree protection specifications are included on the Tree Protection Plan, sheets T1 & T2. **These plan sheets shall become an element of the final plan set.**

Trees Recommended for Removal Due to Anticipated Construction Impacts:

Three

- | | | |
|------|----------------|----------------------------------|
| - T1 | Elm | (<i>Ulmus</i> spp.) |
| - T2 | Honey Locust | (<i>Gleditsia triacanthos</i>) |
| - T4 | Coast Live Oak | (<i>Quercus agrifolia</i>) |

Tree Protection Specifications & Recommended Sequence

(These specifications are included on the Tree Protection Plan, sheet T2)

Demolition Phase:

1. Tree Removal – Remove trees marked for removal.
2. Tree Pruning – Lay out edge of proposed building closest to tree T3, white alder. Perform clearance pruning if necessary, to achieve a minimum of 5 feet clearance from new building. Work shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA), and the American National Standards Institute, Safety Requirements in Arboriculture Operations ANSI Z133-2017. Contractor licensing and insurance coverage shall be verified. No limbs greater than 4" in diameter shall be removed.
3. Supplemental Irrigation – A temporary hose bib shall be installed withing the vicinity of trees T3, T1-A and T2-A. A battery-operated hose end irrigation timer shall be installed on the hose bib. Soaker hoses shall be laid out within the canopy drip line of the two trees to provide supplemental irrigation for the duration of the project. **If it is necessary to temporarily move the hoses during construction phases adjacent to the trees, the hoses shall be reinstalled once the work is completed.**
4. Tree Protection Fencing - Install Tree Protection Fencing, in location indicated on Tree Location & Removal Plan, sheet T1, and copied on Tree Protection Plan, sheet T2, prior to beginning of demolition.

Construction Phase:

1. Grading in Back Yard of Both Parcels – Excavation for grade lowering adjacent to trees T3, T1-A & T2-A shall be by hand methods. See Tree Protection Plan, sheet T2 for location. *Under supervision of Project Arborist, temporarily remove tree protection fencing. Grading and soil removal shall be by hand methods.* Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted. *When hand grading and root pruning is completed, re-install tree protection fencing.*
2. Retaining Wall, Parcel, APN:022-212-24 - Retaining wall shall be terminated 1-2 feet beyond the south corner of the proposed patio.
3. New Patio , Parcel, APN:022-212-24 - _Excavation for new foundation and patio adjacent to tree T6, shall be by hand methods. See Tree Protection Plan, sheet T2 for location. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.
4. Retaining Wall Parcel APN:022-212-23 – Excavation for retaining wall within the tree protection zone for tree T1-A, shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.

Tree Appraisal & Valuation– Protected Trees

The City of Scotts Valley requires valuation of all retained protected trees potentially affected by a construction project. The value of three trees has been appraised. References included, 1) *Guide for Plant Appraisal 9th Edition*, 2) *Species Classification and Group Assignment*, (Wester Chapter Edition).

The total appraised value is \$ 21,620 The criteria for appraisal are included in the attached spreadsheet, *Appendix D, Appraised Value of “Protected” Trees – Trunk Formula Method*.

The owner/applicant will be required to obtain, and file with the Community Development Director, a Tree Protection security deposit (surety bond), prior to obtaining Building Division permits. The total value of the security deposit will be \$21,620.

Tree Replacement

Three (3) “protected” trees are recommended for removal, two due to construction impacts, and one due to poor condition.

Compensation for tree removal necessary to construct the project include:

- Preservation and protection of the retained trees during construction.
- Pre-construction treatments for specific trees.
- Tree planting specified in the landscape design for this project.

The City of Scotts Valley recommends a minimum ratio of two trees are to be replanted (15 gallon or 24-inch box size), for every “protected” tree removed. Currently, three trees are recommended for removal. Therefore, a total of six replacement trees is required.

The recommended tree replanting locations are indicated on the Tree Protection Plan, sheet T1.

CONCLUSION

- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.
- Site improvements are planned for two unimproved parcels.
- Eight trees within or near the parcel boundaries were inventoried.
- Five trees are suitable for preservation and can be incorporated in the proposed project, including trees T1, white alder and T5 & T6, coast live oak, and T1-A and T2-A, coast redwood.
- Three trees, T3 white alder, and T1-A and T2-A, will be moderately impacted, can tolerate the impacts, and will require mitigation methods to reduce construction impacts including tree protection fencing and other treatments.
- Two trees T5 & T6, coast live oak, will have low construction impacts and will require tree protection fencing to minimize construction impacts.
- Three trees are recommended for removal including trees T1 elm, T2, honey locust and T4, coast live oak.
- If removals are permitted, replacement trees will be required.
- The City of Scotts Valley recommends a minimum ratio of two trees are to be replanted (15 gallon or 24-inch box size), for every “protected” tree removed. Currently, three trees are recommended for removal. Therefore, a total of six replacement trees is required.
- The City of Scotts Valley requires valuation of all retained protected trees potentially affected by a construction project. The value of three trees has been appraised. The total appraised value is \$ 21,620. The criteria for appraisal are included in the attached spreadsheet, *Appendix D, Appraised Value of “Protected” Trees – Trunk Formula Method*. The owner/applicant will be required to obtain, and file with the Community Development Director, a Tree Protection security deposit (surety bond), prior to obtaining Building Division permits. The total value of the security deposit will be \$21,620.

RECOMMENDATIONS

1. Obtain all necessary permits prior to removing or significantly altering any trees on site.
2. Remove trees recommended for removal.
3. Plant replacement trees in locations indicated on sheet T1.
4. Follow tree protection specifications as indicated on page 16 of this report, and copied on Tree Protection Plan, sheet T1.

Respectfully submitted,

Kurt Fouts

Kurt Fouts ISA Certified Arborist WE0681A



Bluebonnet Lane, , Scotts Valley

APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Suitability for Preservation Ratings:

Good: Trees in good health and structural condition with potential for longevity on the site

Fair: Trees in fair health and/or with structural defects that may be reduced with treatment procedures

Poor: Trees in poor health and/or with poor structure that cannot be effectively abated with treatment

Retention or Removal Code:

RT: Retain Tree

RI: Remove Due to Construction Impacts

I.M. Impacts Can Be Mitigated With Pre-Construction Treatments

R.C. Remove Due to Condition

Protected Tree City of Scotts Valley Any tree 13 inches or greater in diameter measured at 4.5 feet above grade. Any multi-trunk with one trunk 8" in diameter or greater. Any oak 8 inches or greater. Any tree 8 inches or greater, if located within 20 feet of a slope > 20%. Certain undesirable species exempt.

Tree #	Species	Trunk Diameter @ 54 inches a.g.	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
T1	elm (<i>Ulmus spp.</i>)	14", 13",12", 9"	Yes	30'X35'	Fair	Fair-Poor	Poor	N/A	High (Within grading limits)	R.I.,R.C.	Co-dominant trunks at 4' above grade. Two trunks with significant leans or bows, are unbalanced with strong weight bias. Overextended scaffolds.
T2	honey locust (<i>Gleditsia triacanthos</i>)	21" at 4' a.g.	Yes	35'x35'	Fair-Poor	Fair	Fair	N/A	High (Within grading limits)	R.I.	Significant drought stress symptoms, including tip dieback over entire canopy. Canopy density is thin.
 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com							Page 1 of 3				9/18/2021

Bluebonnet Lane, , Scotts Valley
APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 54 inches a.g.	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
T3	white alder (<i>Alnus rhombifolia</i>)	22",20"	Yes	60'x35'	Good	Good	Good	18'	Moderate (root loss , excavation, canopy loss, clearance pruning)	R.T., I.M.	Co-dominant trunks at 3' above grade. Several low limbs between 9" and 5" in diameter will require removal to accommodate second story of new home.
T4	coast live oak (<i>Quercus agrifolia</i>)	15"	Yes	25'X10'	Good	Fair-Poor	Fair	10'	High (Within grading limits)	R.I.	Less than 3' from new foundation. Topped at 10' and 14' above grade.
T5	coast live oak	7",6"	Yes	25'X10'	Good	Fair	Fair	8'	Low	R.T., I.M.	Co-dominant trunks at grade.
T6	coast live oak	8",5"	Yes	30'x15'	Good	Fair	Fair	8'	Low	R.T., I.M.	Co-dominant trunks at grade.
 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com							Page 2 of 3				9/18/2021

Bluebonnet Lane, , Scotts Valley

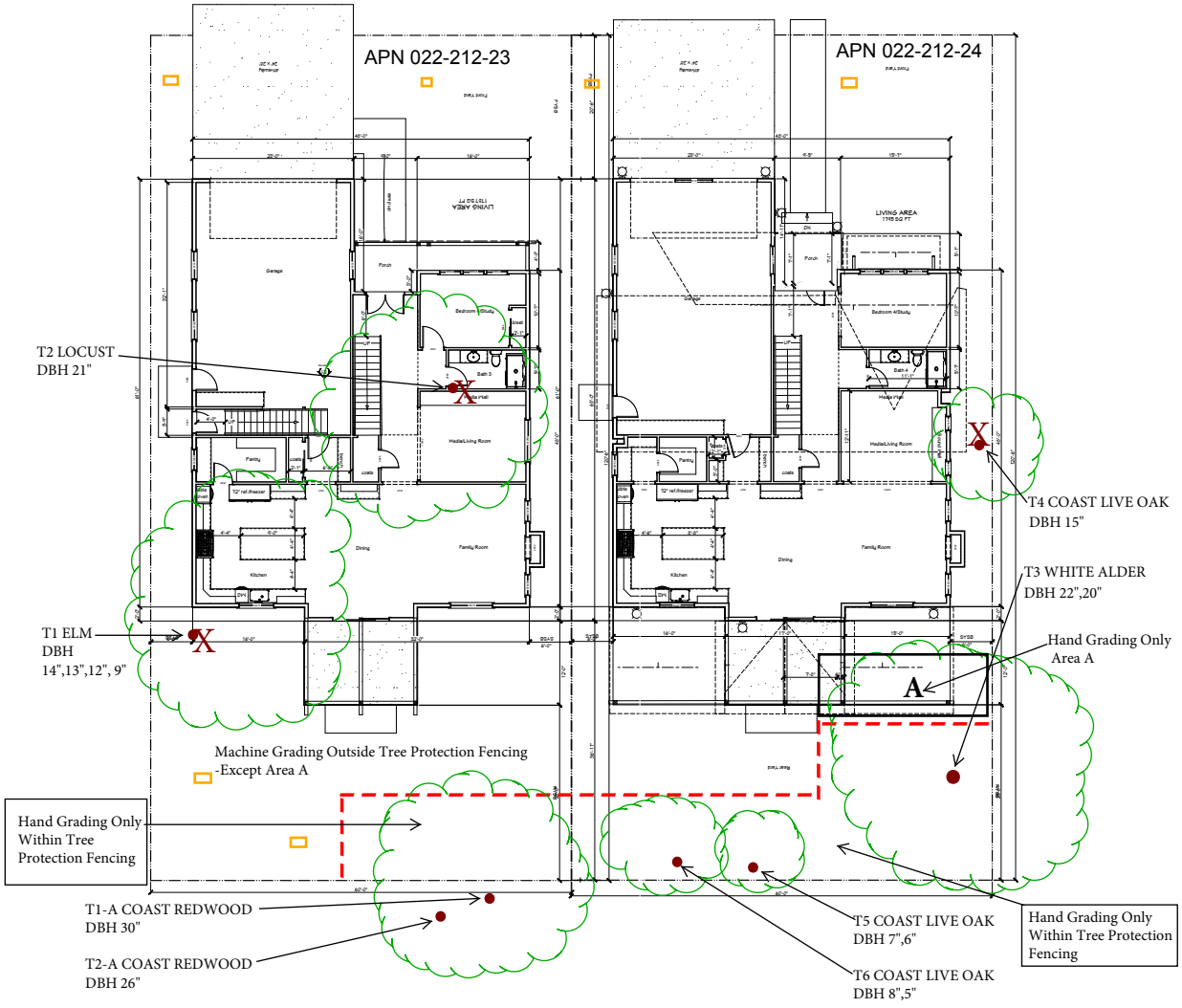
APN: 022-212-23 & 022-212-24

Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 4.5'	Protected Tree	Crown Height & Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (radius from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
Trees Located on Adjacent Property											
T1-A	coast redwood (<i>Sequoia sempervirens</i>)	30" (estimated)	Yes	80'X15'	Fair	Good	Good	20'	Moderate (root loss, excavation)	R.T., I.M.	One foot from fence line. Canopy overhangs applicants parcel by 16'. Appears drought stressed as evidenced by yellowing needles throughout canopy.
T2-A	coast redwood	26" (estimated)	Yes	75'X10'	Fair	Good	Good	20'	Moderate (root loss, excavation)	R.T., I.M.	Three feet from fence line. Canopy overhangs applicants parcel by 16'. Appears drought stressed as evidenced by yellowing needles throughout canopy.
							Page 3 of 3			9/18/2021	

Legend

Tree Location	●
Tree Protection Fencing	---
Tree Canopy Extents	○
Hand Trenching & Root Pruning	~~~~~
Remove Tree	X
Replacement Tree	□



1/8" = 1'-0"



Additional tree protection information can be found in
Appendix G of arborist report dated 9/18/2021.

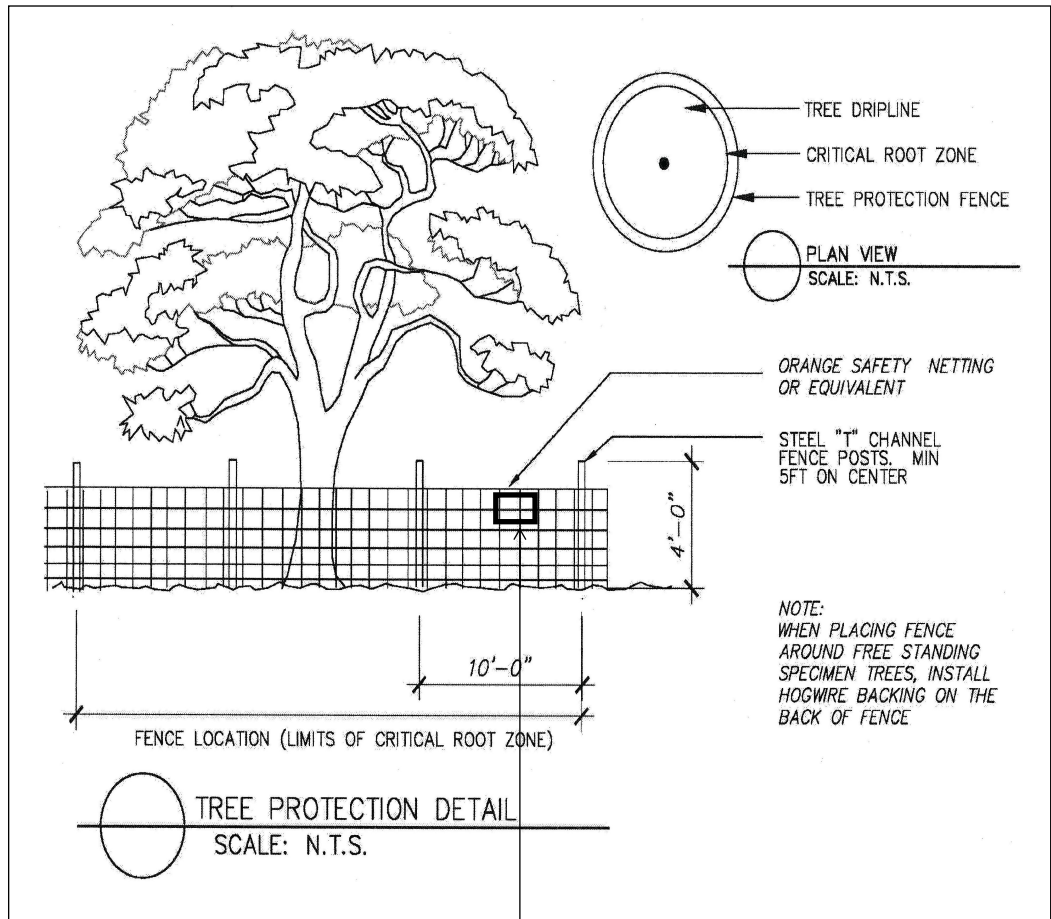
Tree Protection Specifications & Recommended Sequence

Demolition Phase:

1. **Tree Removal** - Remove trees marked for removal.
2. **Tree Pruning** - Lay out edge of proposed building closest to tree T3, white alder. Perform clearance pruning if necessary, to achieve a minimum of 5 feet clearance from new building. Work shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA), and the American National Standards Institute. Safety Requirements in Arboriculture Operations ANSI Z133-2017. Contractor licensing and insurance coverage shall be verified. No limbs greater than 4" in diameter shall be removed.
3. **Supplemental Irrigation** - A temporary hose bib shall be installed within the vicinity of trees T3, T1-A and T2-A. A battery-operated hose end irrigation timer shall be installed on the hose bib. Soaker hoses shall be laid out within the canopy drip line of the two trees to provide supplemental irrigation for the duration of the project. If it is necessary to temporarily move the hoses during construction phases adjacent to the trees, the hoses shall be reinstalled once the work is completed.
4. **Tree Protection Fencing** - Install Tree Protection Fencing, in location indicated on Tree Location & Removal Plan, sheet T1, and copied on Tree Protection Plan, sheet T2, prior to beginning of demolition.

Construction Phase:

1. **Grading in Back Yard of Both Parcels** - Excavation for grade lowering adjacent to trees T3, T1-A & T2-A shall be by hand methods. See Tree Protection Plan, sheet T2 for location. *Under supervision of Project Arborist, temporarily remove tree protection fencing. Grading and soil removal shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted. When hand grading and root pruning is completed, re-install tree protection fencing.*
2. **Retaining Wall, Parcel, APN:022-212-24** - Retaining wall shall be terminated 1-2 feet beyond the south corner of the proposed patio.
3. **New Patio, Parcel, APN:022-212-24** - Excavation for new foundation and patio adjacent to tree T6, shall be by hand methods. See Tree Protection Plan, sheet T2 for location. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.
4. **Retaining Wall Parcel APN:022-212-23** - Excavation for retaining wall within the tree protection zone for tree T1-A, shall be by hand methods. Any roots found less than 2" in diameter, shall be cleanly pruned with loppers, hand saw or Sawzall. If roots are encountered 2" in diameter or greater, they shall be pruned under supervision of the Project Arborist. Roots shall be pruned by methods indicated on Tree Protection Plan sheet T3, Pre-Construction Root Pruning. No use of machinery is permitted.



Warning

Tree Protection Zone

Keep Out

NOTICE: PROTECTIVE FENCING IS REQUIRED ON THIS JOB SITE.
REMOVAL OR DAMAGE OF THIS FENCING MAY RESULT IN A FINE

This sign must be prominently displayed. Fencing may not be moved or removed without permission of the Project Arborist.
During demolition and construction, all reasonable steps necessary to prevent damage, or the destruction of protected trees is required. Failure to comply with all precautions may result in a STOP WORK order being issued by the regulating agency.

No Entry without Project Arborist Authorization
Kurt Fouts - Arborist Consultant - 831 - 359 - 3607

PRE-CONSTRUCTION ROOT PRUNING

Excavation shall only occur within the TPZ (Tree Protection Zone), of retained trees, when designated by the Project Arborist. Excavations within (or outside of the TPZ, as designated), the Tree Protection Zone, will be performed by hand in order to preserve roots. Pruning of roots 2" in diameter or greater shall be conducted under the supervision of the Project Arborist. These activities will be documented, and a monitoring report will be provided to the City Arborist.

Trenches for root pruning will be hand dug according to locations shown on Tree Protection Plan sheet:

- Trenches will be dug one foot behind staking on tree side of stakes.
- The depth of the trench will equal the depth required for installation of the adjacent element.
- Cleanly prune any roots encountered smaller than 2" in diameter. Use lopper, hand saw, or Sawzall. A sharp spade may be used for palm roots.
- The pruned roots should be backfilled before the end of the day. If this is not feasible, the roots shall be covered with burlap layers or carpeting and kept moist until the trench is backfilled.
- If roots are encountered 2" in diameter or greater, the Project Arborist shall be notified, and a determination shall be made to prune the root or retain it depending on site specific conditions.

Bluebonnet Lane, Scotts Valley

APN: 022-212-23 & 022-212-24

Appraised Value of "Protected" Trees - Trunk Formula Method

Tree #	Species	Trunk Diameter @ 4.5'	Basic Tree Cost	Species	Condition	Site	Contribution	Placement	Appraised Value
T3	white alder (<i>Alnus rhombifolia</i>)	22",20"	\$34,208	10%	75%	75%	55%	60%	\$1,620
T1-A	coast redwood (<i>Sequoia sempervirens</i>)	30"	\$27,811	90%	75%	70%	65%	65%	\$11,600
T2-A	coast redwood	26"	\$21,375	90%	75%	70%	60%	45%	\$8,400
Total Value of Appraised Trees									\$21,620
 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com				Sheet 1 of 1			9/18/2021		

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Costello, L.R., Watson, G., Smiley E.T. Root Management – Best Management Practices, Champaign, ILL: International Society of Arboriculture c. 2017

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Harris, R.W., Clark, J.R. and Matheny, N.P. Arboriculture: Integrated management of landscape tree, shrubs, and vines. 4th ed. Upper Saddle River, NJ: Prentice-Hall, Inc. c.2004

Matheny, N. and Clark, J. Evaluation of Hazard Trees in Urban Areas. Champaign, IL: Wadley Graphix Corp. c.1994

Smiley, E.T., Matheny, N., Lilly, S. Tree Risk Assessment – Best Management Practices, Champaign, ILL: International Society of Arboriculture c. 2011

Costello, L., Perry, E., & Matheny,N, Abiotic Disorders of Landscape Plants: A Diagnostic Guide Oakland, CA:UC/ANR Publications (Publication 3420) c.2003.

Glossary of Terms

Basal rot: decay of the lower trunk, trunk flare, or buttress roots.

Canker: Localized diseased area on stems, roots and branches. Often sunken and discolored.

Critical Root Zone (CRZ): Area of soil around a tree where a minimum number of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of the DBH, but because root growth can be asymmetric due to site conditions, on-site investigation may be required.

Codominant branches/stems: Forked branches (or trunks), nearly the same size in diameter, arising from a common junction and lacking a normal branch union, may have included bark.

Crown: Upper part of a tree, measured from the lowest branch, including all branches and foliage.

Defect: An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measurement of trunk diameter at 4.5 feet above grade.

Frass: Fecal material and/or wood shavings produced by insects.

Included Bark Attachments (crotches): Branch/limb or limb /trunk, or codominant trunks originating at acute angles from each other. Bark remains between such crotches, preventing the development of axillary wood. The inherent weakness of such attachments increases with time, through the pressure of opposing growth and increasing weight of wood and foliage, often resulting in failure.

Live Crown Ratio (LCR): Ratio of the the crown length (live foliage), to total tree height.

Scaffold branches: Permanent or structural branches that form the scaffold architecture or structure of a tree.

Suppressed: Trees that have been overtopped and occupy an understory position within a group or grove of trees. Suppressed trees often have poor structure.

Tree Protection Zones (TPZ): Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Trunk flare: Transition zone from trunk to roots where the trunk expands into the buttress or structural roots.

This Glossary of Terms was adapted from the *Glossary of Arboricultural Terms* (ISA, 2015)

Appendix G- TREE PROTECTION GUIDELINES AND RESTRICTIONS

Protecting Trees During Construction:

- 1) Before the start of site work, equipment or materials move in, clearing, excavation, construction, or other work on the site, every tree to be retained shall be securely fenced- off as delineated in approved plans. Such fences shall remain continuously in place for the duration of the work undertaken in connection with the development.
- 2) If the proposed development, including any site work, will encroach upon the tree protection zone, special measures shall be utilized, as approved by the project arborist, to allow the roots to obtain necessary oxygen, water, and nutrients.
- 3) Underground trenching shall avoid the major support and absorbing tree roots of protected trees. If avoidance is impractical, hand excavation undertaken under the supervision of the project arborist may be required. Trenches shall be consolidated to service as many units as possible. Boring/tunneling under roots should be considered as an alternative to trenching.
- 4) Concrete or asphalt paving shall not be placed over the root zones of protected trees, unless otherwise permitted by the project arborist.
- 5) Artificial irrigation shall not occur within the root zone of native oaks, unless deemed appropriate on a temporary basis by the project arborist to improve tree vigor or mitigate root loss.
- 6) Compaction of the soil within the tree protection zone shall be avoided.
- 7) Any excavation, cutting, or filling of the existing ground surface within the tree protection zone shall be minimized and subject to such conditions as the project arborist may impose. Retaining walls shall likewise be designed, sited, and constructed to minimize their impact on protected trees.
- 8) Burning or use of equipment with an open flame near or within the tree protection zone shall be avoided. All brush, earth, and other debris shall be removed in a manner that prevents injury to the tree.
- 9) Oil, gas, chemicals, paints, cement, stucco or other substances that may be harmful to trees shall not be stored or dumped within the tree protection zone of any protected tree, or at any other location on the site from which such substances might enter the tree protection zone of a protected tree.
- 10) Construction materials shall not be stored within the tree protection zone of a protected tree.

Project Arborist Duties and Inspection Schedule:

The project arborist is the person(s) responsible for carrying out technical tree inspections, assessment of tree health, structure and risk, arborist report preparation, consultation with designers and municipal planners, specifying tree protection measures, monitoring, progress reports and final inspection.

A qualified project arborist (or firm) should be designated and assigned to facilitate and insure tree preservation practices. He/she/they should perform the following inspections:

Inspection of site: Prior to equipment and materials move in, site work, demolition, landscape construction and tree removal: The project arborist will meet with the general contractor, architect / engineer, and owner or their representative to review tree preservation measures, designate tree removals, delineate the location of tree protection fencing, specify equipment access routes and materials storage areas, review the existing condition of trees and provide any necessary recommendations.

Inspection of site: During excavation or any activities that could affect trees: Inspect site during any activity within the Tree Protection Zones of preserved trees and any recommendations implemented. Assess any changes in the health of trees since last inspection.

Final Inspection of Site: Inspection of site following completion of construction. Inspect for tree health and make any necessary recommendations.

Kurt Fouts shall be the Project Arborist for this project. All scheduled inspections shall include a brief Tree Monitoring report, documenting activities and provided to the City Arborist.

Tree Protection Fencing

Tree Protection fencing shall be installed prior to the arrival of construction equipment or materials. Fence shall be comprised of six -foot chain link fence mounted on eight - foot tall, 1 and 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced on a minimum of 10-foot centers. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

A final inspection by the City Arborist at the end of the project will be required prior to removing any tree protection fencing.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Root Pruning

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Tree Work Standards and Qualifications

All tree work, removal, pruning, planting, shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA) and the American National Standards Institute series, *Safety Requirements in Arboriculture Operations* ANSI Z133-2017,

Contractor licensing and insurance coverage shall be verified.

During tree removal and clearance, sections of the Tree Protection Fencing may need to be temporarily dismantled to complete removal and pruning specifications. After each section is completed, the fencing is to be re-installed.

Trees to be removed shall be cut into smaller manageable pieces consistent with safe arboricultural practices, and carefully removed so as not to damage any surrounding trees or structures. The trees shall be cut down as close to grade as possible. Tree removal is to be performed by a qualified contractor with valid City Business/ State Licenses and General Liability and Workman's Compensation insurance.

Development Site Tree Health Care Measures

RECOMMENDED TO PROVIDE OPTIMUM GROWING CONDITIONS, PHYSIOLOGICAL INVIGORATION AND STAMINA, FOR PROTECTION AND RECOVERY FROM CONSTRUCTION IMPACT.

Establish and maintain TPZ fencing, trunk and scaffold limb barriers for protection from mechanical damage, and other tree protection requirements as specified in the arborist report.

Project arborist to specify site-specific soil surface coverings (wood chip mulch or other) for prevention of soil compaction and loss of root aeration capacity.

Soil, water and drainage management is to follow the ISA BMP for "Managing Trees During Construction" and the ANSI Standard A300(Part 2)- 2011 Soil Management (a. Modification, b. 'Fertilization, c. Drainage.)

Fertilizer / soil amendment product(s) amounts and method of application to be specified by certified arborist.

City of Scotts Valley - Protected Tree List*

- A. Any size tree located within five (5) feet of a public right-of-way or street.
- B. Any single-trunk **oak tree** greater than or equal to eight (8) inch diameter (25 inch circumference).**
- C. Any multi-trunk **oak tree** with any trunk greater than or equal to four (4) inches diameter (12 inch circumference).**
- D. Any tree greater than or equal to eight (8) inch diameter (25 inch circumference)** if located within 20 feet of a moderate slope (greater than 20% slope).
- E. Any single-trunk tree greater than or equal to 13-inch diameter (40 inch circumference).**
- F. Any multi-trunk tree with any trunk greater than or equal to eight (8) inch diameter (25 inch circumference).**
- G. Any tree, regardless of size, required as part of a permit approved by the Planning Department, Planning Commission or City Council, or required as a replacement tree for a removed tree.
- H. Any **Heritage Tree**, as specified in Municipal Code Section 17.44.080 and Exhibit A. A list and map of Heritage Trees are available at the Planning Department. Fees for removal of Heritage Trees are higher than other protected tree removals and applications must be approved at a public hearing before the Planning Commission.

* **Note:** No tree removal permit is required to remove:

- C Monterey Pine trees that are infected with pitch canker; ***proof of infection is required***;
- C Blue Gum Eucalyptus or Acacia trees;
- C Bay Laurel trees ***if*** they are growing under the drip-line of an established oak tree; or,
- C Fruit trees.

** Tree measurement shall be taken 4½ feet (54 inches) above the ground.

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as the quality of any title.
2. The appraiser/consultant can neither guarantee nor be responsible for accuracy of information provided by others.
3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire appraisal/evaluation.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of this appraiser/consultant.
6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches. Diagrams. Graphs. Photos. Etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

CONSULTING 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 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. 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 medicine, cannot be guaranteed.

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 all trees.

