GENERAL NOTES:

FOUNDATION INSPECTION: A PAD CERTIFICATE PREPARED BY A LICENSED CIVIL ENGINEER OR LAND SURVEYOR SHALL BE SUBMITTED TO THE PROJECT BUILDING INSPECTOR AT FOUNDATION INSPECTION. THIS CERTIFICATE SHALL CERTIFY COMPLIANCE WITH THE RECOMMENDATION AS SPECIFIED ON THE SOIL REPORT, & THAT THE BUILDING PAD ELEVATIONS & ON-SITE RETAINING WALL LOCATIONS & ELEVATIONS HAVE BEEN PREPARED ACCORDING TO THE APPROVED PLANS. HORIZONTAL & VERTICAL CONTROLS SHALL BE SET & CERTIFIED BY A LICENSED SURVEYOR OR REGISTERED CIVIL ENGINEER FOR THE FOLLOWING ITEMS:
1.) BUILDING PAD ELEVATION
2.) FINISH FLOOR ELEVATION
3.) FOUNDATION CORNER LOCATIONS
4.) RETAINING WALL(S) LOCATIONS & ELEVATIONS

PRIOR TO FOUNDATION INSPECTION BY THE CITY, A LICENSED LAND SURVEYOR OF RECORD SHALL PROVIDE A WRITTEN CERTIFICATE THAT ALL BUILDING SETBACKS COMPLY WITH THE APPROVED PLANS.

ENCROACHMENT PERMIT:APPLICANT (OWNER) SHALL OBTAIN AN ENCROACHMENT PERMIT FOR ANY & ALL IMPROVEMENTS IN ANY CITY RIGHT-OF-WAY OR CITY EASEMENT INCLUDING THE STORMWATER SWALE PRIOR TO COMMENCEMENT OF THE WORK.

CONSTRUCTION NADDLES SHALL BE INSTALLED ALONG STREET SIDES TO PREVENT EROSION DURING RAINY SEASON.

SILT AND MUD IN PUBLIC RIGHT-OF-WAY: IT IS THE RESPONSIBILITY OF THE CONTRACTOR & HOMEOWNER TO MAKE SURE THAT ALL DIRT TRACKED INTO THE PUBLIC RIGHT-OF-WAY IS CLEANED UP ON A DAILY BASIS. MUD, SILT, CONCRETE & OTHER CONSTRUCTION DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINS.

DOCUMENTATION SHALL BE PROVIDED, PRIOR TO FINAL INSPECTION, CONFIRMING COMPLIANCE TO THE WASTE MANAGEMENT PLAN PROVIDED TO THE JURISDICTION. CGBSC SECTION 4.408.2.1

CONSTRUCTION SITE FIRE SAFETY: ALL CONSTRUCTION SITES MUST COMPLY WITH APPLICABLE PROVISIONS OF THE CFC CHAPTER 33 & OUR STANDARD DETAIL & SPECIFICATION S1-7.

A COMPLETED CF3R-LTS-01-E FORM MUST BE PROVIDED TO THE CITY/TOWN BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

WATER SUPPLY REQUIREMENTS: POTABLE WATER SUPPLIES SHALL BE PROTECTED FROM CONTAMINATION CAUSED BY FIRE PROTECTION WATER SUPPLIES. IT IS THE RESPONSIBILITY OF THE APPLICANT & ANY CONTRACTOR & SUBCONTRACTORS TO CONTACT THE WATER PURVEYOR SUPPLYING THE SITE OF SUCH PROJECT & TO COMPLY WITH THE REQUIREMENTS OF THAT PURVEYOR. SUCH REQUIREMENTS SHALL BE INCORPORATED INTO THE DESIGN OF ANY WATER-BASED FIRE PROTECTION SYSTEMS, AND/OR FIRE SUPPRESSION WATER SUPPLY SYSTEMS OR STORAGE CONTAINERS THAT MAY BE PHYSICALLY CONNECTED IN ANY MANNER TO AN APPLIANCE CAPABLE OF CAUSING CONTAMINATION OF THE POTABLE WATER SUPPLY OF THE PURVEYOR OF RECORD. FINAL APPROVAL OF THE SYSTEM(S) UNDER CONSIDERATION WILL NOT BE GRANTED BY THIS OFFICE UNTIL COMPLIANCE WITH THE REQUIREMENTS OF THE WATER PURVEYOR OF RECORD ARE DOCUMENTED BY THAT PURVEYOR AS HAVING BEEN MET BY THE APPLICANT. CFC SEC. 903.3.5 & HEALTH & SAFETY CODE 13114.7

THE BUILDER MUST PROVIDE THE HOMEOWNER WITH A LUMINAIRE SCHEDULE (AS REQUIRED IN TITLE 24 CALIFORNIA CODE OF REGULATIONS, PART 1 §10-128(I)) THAT INCLUDES A LIST OF LAMPS INSTALLED IN THE LUMINARES.

A. ALL ADHESIVES, SEALANTS, CAULKS, PAINTS, COATINGS, & AEROSOL PAINT CONTAINERS MUST REMAIN ON THE SITE FOR FIELD VERIFICATION BY THE BUILDING INSPECTOR. CGBSC SECTION 4.504.2.4
B. PRIOR TO FINAL INSPECTION, A LETTER SIGNED BY THE GENERAL CONTRACTOR, OR THE OWNER/BUILDER, (FOR ANY OWNER/BUILDER PROJECTS) MUST BE PROVIDED TO THE TOWN OF LOS GATOS BUILDING OFFICIAL CERTIFYING THAT ALL ADHESIVES, SEALANTS, CAULKS, PAINTS, COATINGS, AEROSOL PAINTS, AEROSOL COATINGS, CARPET SYSTEMS (INCLUDING CARPETING, CUSHION & ADHESIVE), RESILIENT FLOORING SYSTEMS, & COMPOSITE WOOD PRODUCTS INSTALLED ON THIS PROJECT ARE WITHIN THE EMISSION LIMITS SPECIFIED IN CGBSC SECTION 4.504

AN OPERATION & MAINTENANCE MANUAL WILL BE LEFT ON SITE FOR THE OWNER OR OCCUPANT AT THE TIME OF FINAL INSPECTION. CGBSC 4.410.1

NOTE:

HERS VERIFICATION REQUIRED FOR INDOOR AIR QUALITY VENTILATION, THE KITCHEN HOOD, HVAC COOLING, HVAC HEATING, HVAC DISTRIBUTION. PROVIDE 3RD PARTY VERIFICATION (HERS) TO PROJECT BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

PROVIDE 6.0 KWdc SOLAR SYSTEM W/13 KWH BATTERY BACKUP. A SEPARATE PERMIT IS REQUIRED FOR THE PV SYSTEM THAT IS REQUIRED BY THE ENERGY CALCULATIONS COMPLIANCE MODELING. THE SEPARATE PV SYSTEM PERMIT MUST BE FINALED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

PV MODULE TYPE: PREMIUM; PV POWER ELECTRONICS MICROINVERTERS; INDOOR AIR QUALITY BALANCED FAN; & NORTHWEST ENERGY EFFICIENCY ALLIANCE RATED HEAT PUMP WATER HEATER. SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED IS REQUIRED FOR THIS PROJECT AS "REQUIRED SPECIAL FEATURES OF THE ENERGY CALCULATIONS"

EXCAVATION CUTS EXCEEDING 5' TYPICALLY REQUIRE A DOSH PERMIT. ALL EXCAVATIONS MUST CONFORM TO APPLICABLE OSHA & CAL-OSHA REQUIREMENTS. CONTACT CALIFORNIA DEPARTMENT OF OCCUPATIONAL SAFETY & HEALTH (DOSH) FOR INFORMATION ABOUT REQUIRED PERMITS. DOSH'S LOCAL OFFICE: (510) 794-2521. PRIOR TO EXCAVATION, THE EXCAVATION CONTRACTOR SHALL SUBMIT PROOF, TO THE TOWN BUILDING INSPECTOR, THAT SHOWS HE OR SHE HAS RECEIVED SUCH A PERMIT FROM DOSH.

ALL TREE MAINTENANCE & CARE SHALL BE PERFORMED BY A QUALIFIED ARBORIST (WITH A C-61/D-49 CALIFORNIA CONTRACTORS LIC. TREE MAINTENANCE & CARE SHALL BE SPECIFIED IN WRITING ACCORDING TO AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS, TREE, SHRUB & OTHER WOODY PLANT MANAGEMENT, STANDARD PRACTICES PARTS 1-10 & ADHERE TO ANSI Z133.1 SAFETY STANDARDS & LOCAL REGULATIONS. ALL MAINTENANCE IS TO BE PERFORMED ACCORDING TO AN ARBORICULTURAL MANAGEMENT PLAN.

1 PRIOR TO BUILDING PERMIT FINAL APPROVAL, THE PROPERTY SHALL BE IN COMPLIANCE WITH THE VEGETATION CLEARANCE REQUIREMENTS PRESCRIBED CALIF. FIRE CODE § 4906 INCLUDING CALIF. PUBLIC RESOURCES CODE 4291 OR CALIF. GOVERNMENT CODE 51182 CRC § R327.1.5

REGARDING THE PROPOSED BASEMENT, SEE SHEET A-1.0 FOR TEMPORARY EXCAVATION SLOPE STABILITY



VIEW FROM DRIVEWAY

A NEW RESIDENCE:

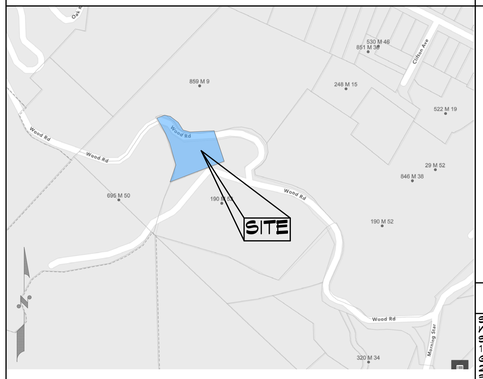
THE BOUKNIGHT RESIDENCE

144 WOOD ROAD

LOS GATOS, CA 95030

THIS PROJECT IS LOCATED IN THE WILDLAND URBAN INTERFACE

VICINITY MAP



PROJECT DIRECTORY

ARCHITECT:
KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVENUE, SUITE L
LOS GATOS, CA 95030
TEL.: (408) 395-2555

GEOLOGIC & GEOTECHNICAL ENGINEERING:
GEARTH
750 CAMDEN AVE, SUITE A
CAMPBELL, CA 95008
TEL.: (408) 866-5486

CIVIL ENGINEERING AND SURVEYOR:
HANNA-BRUNETTI
7651 EIGLEBERRY STREET
GILROY, CA 95020
TEL.: (408) 842-2173

LANDSCAPE ARCHITECT:
DAVID R. FOX & COMPANY
1188 KOTENBERG AVE
SAN JOSE, CA 95125
TEL.: (408) 761-0212

STRUCTURAL ENGINEER:
CORNERSTONE STRUCTURAL DESIGNS
2941 SUNRISE BOULEVARD, STE 220
RANCHO CORDOVA, CA 95742
TEL.: (916) 638-0848

ENERGY CONSULTANT:
MONTEREY ENERGY GROUP
227 FOREST AVENUE, SUITE 5
PACIFIC GROVE, CA 93950
TEL.: (831) 372-3525

SCOPE OF WORK

SITE AND ARCHITECTURAL DEVELOPMENT ON AN EXISTING VACANT HR-5 ZONED LOT.
WORK TO INCLUDE:
STRUCTURES:
1. CONSTRUCTION OF A NEW RESIDENCE WITH AN ATTACHED GARAGE AND BELOW GRADE FLOOR AREAS.
2. OPEN TRELLIS AND LOGGIA
3. EGRESS, VENTILATION WELL AND SITE STAIRS.
SITE WORK (SEE CIVIL AND LANDSCAPE PLANS FOR DETAILS):
1. ACCESS DRIVEWAY INCLUDING FIRE TRUCK TURNAROUND
2. UTILITY CONNECTIONS
3. PLANNING FOR FUTURE POOL AND SECURITY FENCING
4. PAVED YARD AREAS
5. LANDSCAPE AND IRRIGATIONS
ALSO SEE CIVIL PLANS FOR GRADING, DRAINAGE SCOPES.
NO TREE IS PROPOSED TO BE REMOVED.

CODE COMPLIANCE

THE CURRENT CODES, AS AMENDED & ADOPTED BY THE TOWN OF LOS GATOS AS OF JANUARY 1, 2020, ARE THE 2019 CALIFORNIA BUILDING STANDARDS CODE, CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1-12, INCLUDING LOCALLY ADOPTED ENERGY REACH CODES.

FIRE/ BUILDING NOTES

• FIRE SPRINKLERS: An automatic residential fire sprinkler system shall be installed in one- and two-family dwellings as follows: in all new one- and two-family dwellings and in existing one- and two-family dwellings when additions are made that increase the building area to more than 5,600 square feet. Note: The owner(s), occupant(s) and any contractor(s) or subcontractor(s) are responsible for consulting with the water purveyor of record in order to determine if any modification or upgrade of the existing water service is required. A State of California licensed (C-16) Fire Protection Contractor shall submit plans, calculations, a completed permit application and appropriate fees to this department for review and approval prior to beginning their work. CRC Sec. R13.2 as adopted and amended by LGTC.

• WATER SUPPLY REQUIREMENTS: Potable water supplies shall be protected from contamination caused by fire protection water supplies. It is the responsibility of the applicant and any contractors and subcontractors to contact the water purveyor supplying the site of such project, and to comply with the requirements of that purveyor. Such requirements shall be incorporated into the design of any water-based fire protection systems, and/or fire suppression water supply systems or storage containers that may be physically connected in any manner to an appliance capable of causing contamination of the potable water supply of the purveyor of record. Final approval of the system(s) under consideration will not be granted by this office until compliance with the requiremeTnts of the water purveyor of record are documented by that purveyor as having been met by the applicant(s). 2016 CFC Sec. 903.3.5 and Health and Safety Code 13114.7

• ADDRESS IDENTIFICATION: New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained. (CFC Sec. 505.1).

• EMERGENCY GATE/ACCESS GATE REQUIREMENTS: Gate installations shall conform with Fire Department Standard Details and Specification G-1 and, when open shall not obstruct any portion of the required width for emergency access roadways or driveways, if provided. Shall be Fire department approved prior to installation. Gates across the emergency access roadways shall be equipped with an approved access devices. Knox Key-switch is required for the automatic gate.

• FIRE APPARATUS (ENGINE) ACCESS DRIVEWAY REQUIRED: Provide an access driveway with a paved all weather surface, a minimum unobstructed width of 12 feet, vertical clearance of 13 feet 6 inches, minimum circulating turning radius of 36 feet outside and 23 feet inside, and a maximum slope of 15%. Installations shall conform to the Fire Department Standard Details Specifications D-1 and CFC Section 503.

• CONSTRUCTION SITE FIRE SAFETY: All construction site must comply with applicable provisions of the CFC chapter 33 and County of Santa Clara Standard Detail and Specification S1-7.

• REACH CODE COMPLIANCE: This residence will comply with the town's electric appliance, electric vehicle and energy storage system requirements in accordance with town code section 6.10.020 and 6.120.020.

PROJECT DATA

PROJECT ADDRESS:	144 WOOD ROAD, LOS GATOS
OWNER:	OMARI & KAVITA BOUKNIGHT 16711 SHANNON RD LOS GATOS, CA. 95032
APN#:	510-47-045
ZONING:	HR-5
OCCUPANCY GROUP:	R-3, U
CONSTRUCTION TYPE:	V-B
GROSS & NET SITE AREA:	29,692 SF
AVERAGE LOT SLOPE:	35.1%
NET LOT AREA:	11852.8SF (AFTER 60% DEDUCTION)
PARKING:	2 SPACES IN GARAGE, 4 SPACES ON DRIVEWAY
FIRE SPRINKLER:	YES

MAX. ALLOWABLE FLOOR AREA = 9,900SF

	FLOOR AREA (A)	EXCLUSIONS (B)*	(A)-(B)
MAIN FLOOR	1,693 SF	1,169 SF (1)	2,204 SF
LOWER FLOOR	505 SF	1,498 SF (1)	1,793 SF
UPPER FLOOR	1,214 SF		1,214 SF
GARAGE	496 SF	449 SF(1 & 2)	496 SF
TOTAL	3,908 SF		6,513 SF

STRUCTURE COVERAGE:

RESIDENCE + GARAGE FOOTPRINT	3,781 SF	* EXCLUSIONS: (1) BELOW GRADE SF
COVERED PATIOS, DECKS, BALCONIES	1,136 SF	(2) GARAGE UP TO 400SF
POOL & SPA	705 SF	
SUBTOTAL	5,622 SF	= 18.47%

DEFERRAL SUBMITTALS

2

• PRIVATE FIRE PROTECTION SYSTEM: RESIDENTIAL FIRE PROTECTION SYSTEMS SHALL COMPLY WITH FIRE DEPARTMENT STANDARDS M-1 & MANUFACTURER'S REQUIREMENTS. FIRE PROTECTION WATER SYSTEMS SHALL BE PERMITTED, INSTALLED & APPROVED BY THE FIRE PREVENTION OFFICE. THE NVARP HYDRANT SHALL BE ACCESSIBLE AT ALL TIMES. TANK SYSTEMS PROVIDING BOTH THE DOMESTIC SUPPLY & SUPPLY TO THE SPRINKLER SYSTEM AND/OR HYDRANT MAY REQUIRE CROSS CONTAMINATION PROTECTION. HYDRANT & TANK OUTLETS SHALL BE INSTALLED SUCH THAT THE CENTER OF THE HOSE CONNECTION IS NOT LESS THAN EIGHTEEN (18") INCHES NOT MORE THAN THIRTY (30") INCHES ABOVE THE FINAL GRADE. FOUR NBA 5,000 GALLON WATER TANKS & ONE 1,000 GALLON TANK TO BE INSTALLED WITH BOOSTER PUMP FOR DOMESTIC USE.
• PV SYSTEM - A SEPARATE BUILDING PERMIT IS REQUIRED FOR THE PV SYSTEM AS REQUIRED BY THE ENERGY CALCULATIONS COMPLIANCE MODELING AS WELL AS BATTERY BACKUP.
*STAIRS
*HANDRAILS
*GUARD RAILS
*ELEVATOR
THESE DEFERRED SUBMITTALS SHALL FIRST BE SUBMITTED TO THE PROJECT ARCHITECT & ENGINEER FOR REVIEW & COORDINATION. A SUBMITTAL TO THE TOWN SHALL BE MADE (FOR TOWN REVIEW & APPROVAL) WHICH SHALL INCLUDE A LETTER STATING THIS REVIEW & COORDINATION HAS BEEN PERFORMED & COMPLETED & PLANS & CALCULATIONS FOR THE DEFERRED ITEMS ARE FOUND TO BE ACCEPTABLE (E.G. WITH REGARD TO GEOMETRY, LOAD CONDITIONS, ETC.) WITH NO EXCEPTIONS. CRC SECTIONS R106.1 & R301.1.3.1

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REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	
2	PLAN CHECK COMMENTS 8/18/22	

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. L • LOS GATOS, CA. • 95030 • (408) 395-2555

LICENSED ARCHITECT — JAMES R. KOHLSAAT — No. C-23455 — RENEWAL 08/31/2023 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

NOTE:
Contractor shall verify all dimensions and conditions prior to starting any field work.
Any discrepancies shall be called to Architect's attention prior to execution.

COVER SHEET

DATE: 12/8/21

SCALE: AS SHOWN

SHEET A-1

1 OF 58

EXHIBIT 4B

TOWN OF LOS GATOS
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
(408) 354-6872 Fax (408) 354-7593

CIVIC CENTER
110 E. MAIN STREET
LOS GATOS, CA 95030

September 13, 2021

Gary Kohlsaat
51 University Avenue, Suite L
Los Gatos, CA 95030
Via Email

RE: **Wood Road**
Architecture and Site Application S-21-003

Requesting Approval for Construction of a New Single-Family Residence and Site Improvements Requiring a Grading Permit on Vacant Property Zoned HR-5.
APN 510-47-045.
PROPERTY OWNER: Omari and Kavita Bouknight
APPLICANT: Gary Kohlsaat
PROJECT PLANNER: Sean Mullin

At its meeting of September 8, 2021, the Town of Los Gatos Planning Commission approved the meeting minutes from August 25, 2021, confirming any additional or modified conditions of approval for the project.

The Planning Commission decision is now considered final.

The conditions of approval, including any additional or modified conditions of approval for the project in the underlined font attached to the letter dated August 25, 2021, are now considered final.

If you have any questions, I can be contacted by email at smullin@losgatosca.gov.

Sincerely,

Sean Mullin, AICP
Associate Planner

Cc: Jessie Delucchi, Omari Bouknight, Kavita Bouknight – Via email

N:\DEV\PC\PC ACTION Letters\2021 Follow up Ltrs\08-25-21 (Wood Road- Item 2; Approved).docx

PLANNING COMMISSION – *August 25, 2021*
CONDITIONS OF APPROVAL

Wood Road (APN 510-47-045)
Architecture and Site Application S-21-003

Requesting Approval for Construction of a New Single-family Residence and Site Improvements Requiring a Grading Permit on Vacant Property Zoned HR-5. APN 510-47-045.

PROPERTY OWNERS: Omari and Kavita Bouknight.
APPLICANT: Gary Kohlsaat, Architect.
PROJECT PLANNER: Sean Mullin

TO THE SATISFACTION OF THE DIRECTOR OF COMMUNITY DEVELOPMENT:

Planning Division

UNDERSTOOD 1. APPROVAL: This application shall be completed in accordance with all of the conditions of approval and in substantial compliance with the approved plans. Any changes or modifications to the approved plans and/or business operation shall be approved by the Community Development Director, DRC or the Planning Commission depending on the scope of the changes.
UNDERSTOOD 2. EXPIRATION: The approval will expire two years from the approval date pursuant to Section 29.20.320 of the Town Code, unless the approval has been vested.
NOTED ON SITE PLAN 3. OUTDOOR LIGHTING: Exterior lighting shall be kept to a minimum and shall be down directed fixtures that will not reflect or encroach onto adjacent properties. No flood lights shall be used unless it can be demonstrated that they are needed for safety or security.
UNDERSTOOD 4. EXTERIOR COLORS: The exterior colors of all structures shall comply with the Hillside Development Standards & Guidelines.
OWNER TO SIGN 5. DEED RESTRICTION: Prior to the issuance of a building permit, a deed restriction shall be recorded by the applicant with the Santa Clara County Recorder's Office that requires all exterior materials be maintained in conformance with the Town's Hillside Development Standards & Guidelines.
N/A 6. TREE REMOVAL PERMIT: A Tree Removal Permit shall be obtained for any trees to be removed, prior to the issuance of a building or grading permit.
UNDERSTOOD 7. EXISTING TREES: All existing trees shown on the plan and trees required to remain or to be planted are specific subjects of approval of this plan and must remain on the site.
CONTRACTOR TO PROVIDE 8. TREE FENCING: Protective tree fencing, and other protection measures shall be placed at the drip line of existing trees prior to issuance of demolition and building permits and shall remain through all phases of construction. Include a tree protection plan with the construction plans.
IN PLANSET 9. ARBORIST REQUIREMENTS: The developer shall implement, at their cost, all recommendations identified in the Arborist's report dated as received January 26, 2021 for the project, on file in the Community Development Department. These recommendations must be incorporated in the building permit plans and completed prior to issuance of a building permit where applicable.
OWNER TO SIGN 10. TREE DEED RESTRICTION: Prior to issuance of a building permit, a deed restriction shall be recorded by the applicant with the Santa Clara County Recorder's Office that identifies the on-site trees and those located in the adjacent exclusive use easement east of the subject property that were used to provide screening in the visibility analysis and requires their replacement if they die or are removed.
OWNER TO SIGN 11. MAINTENANCE AGREEMENT: Following the issuance of a certificate of occupancy, the property owner shall execute a five-year maintenance agreement with the Town that the property owner agrees to protect and maintain the trees shown to remain on the approved plans, trees planted as part of the tree replacement requirements, trees planted for screening, and guarantees that said trees will always be in a healthy condition during the term of the maintenance agreement.
IN PLANSET 12. FRONT YARD LANDSCAPE: Prior to issuance of a Certificate of Occupancy the front yard must be landscaped.
IN PLANSET 13. TREE REPLACEMENT: Prior to issuance of final occupancy replacement trees must be planted.
UNDERSTOOD 14. WATER EFFICIENCY LANDSCAPE ORDINANCE: The final landscape plan shall meet the Town of Los Gatos Water Conservation Ordinance or the State Water Efficient Landscape Ordinance, whichever is more restrictive. A review fee based on the current fee schedule adopted by the Town Council is required when working landscape and irrigation plans are submitted for review.
DONE 15. STORY POLES: The story poles on the project site shall be removed within 30 days of approval of the Architecture & Site application.
UNDERSTOOD 16. TOWN INDEMNITY: Applicants are notified that Town Code Section 1.10.115 requires that any applicant who receives a permit or entitlement from the Town shall defend, indemnify, and hold harmless the Town and its officials in any action brought by a third party to overturn, set aside, or void the permit or entitlement. This requirement is a condition of approval of all such permits and entitlements whether or not expressly set forth in the approval, and may be secured to the satisfaction of the Town Attorney.
THIS IS IT 17. COMPLIANCE MEMORANDUM: A memorandum shall be prepared and submitted with the building plans detailing how the Conditions of Approval will be addressed.

Building Division

UNDERSTOOD 18. PERMITS REQUIRED: A Building Permit is required for the construction of the new single-family residence and attached garage. Additional permits will be required for any detached structure such as pools, patio covers, vehicular gates, retaining walls that support a surcharge, etc... An additional Building Permit will be required for the PV System if the system is required by the California Energy Code.
IN PLANSET 19. APPLICABLE CODES: The current codes, as amended and adopted by the Town of Los Gatos as of January 1, 2020, are the 2019 California Building Standards Code, California Code of Regulations Title 24, Parts 1-12, including locally adopted Energy Reach Codes.
THIS IS IT 20. CONDITIONS OF APPROVAL: The Conditions of Approval must be blue lined in full on the cover sheet of the construction plans. A Compliance Memorandum shall be prepared and submitted with the building permit application detailing how the Conditions of Approval will be addressed.

DONE 21. BUILDING & SUITE NUMBERS: Submit requests for new building addresses to the Building Division prior to submitting for the building permit application process.
UNDERSTOOD 22. SIZE OF PLANS: Minimum size 24" x 36", maximum size 30" x 42".
DONE 23. SOILS REPORT: A Soils Report, prepared to the satisfaction of the Building Official, containing foundation and retaining wall design recommendations, shall be submitted with the Building Permit Application. This report shall be prepared by a licensed Civil Engineer specializing in soils mechanics.
N/A 24. SHORING: Shoring plans and calculations will be required for all excavations which exceed five (5) feet in depth or which remove lateral support from any existing building, adjacent property, or the public right-of-way. Shoring plans and calculations shall be prepared by a California licensed engineer and shall confirm to the Cal/OSHA regulations.
CIVIL TO PROVIDE 25. FOUNDATION INSPECTIONS: A pad certificate prepared by a licensed civil engineer or land surveyor shall be submitted to the project Building Inspector at foundation inspection. This certificate shall certify compliance with the recommendations as specified in the Soils Report, and that the building pad elevations and on-site retaining wall locations and elevations have been prepared according to the approved plans. Horizontal and vertical controls shall be set and certified by a licensed surveyor or registered Civil Engineer for the following items:
a. Building pad elevation
b. Finish floor elevation
c. Foundation corner locations
d. Retaining wall(s) locations and elevations
IN PLANSET 26. TITLE 24 ENERGY COMPLIANCE: All required California Title 24 Energy Compliance Forms must be blue-lined (sticky-backed), i.e. directly printed, onto a plan sheet.
IN PLANSET 27. TOWN RESIDENTIAL ACCESSIBILITY STANDARDS: New residential units shall be designed with adaptability features for single-family residences per Town Resolution 1994-61:
a. Wood backing (2" x 8" minimum) shall be provided in all bathroom walls, at water closets, showers, and bathtubs, located 34 inches from the floor to the center of the backing, suitable for the installation of grab bars if needed in the future.
b. All passage doors shall be at least 32-inch wide doors on the accessible floor level.
c. The primary entrance door shall be a 36-inch-wide door including a 5'x 5' level landing, no more than 1 inch out of plane with the immediate interior floor level and with an 18-inch clearance at interior strike edge.
d. A door buzzer, bell or chime shall be hard wired at primary entrance.
NONE REQD 28. BACKWATER VALVE: The scope of this project may require the installation of a sanitary sewer backwater valve per Town Ordinance 6.50.025. Please provide information on the plans if a backwater valve is required and the location of the installation. The Town of Los Gatos Ordinance and West Valley Sanitation District (WVSD) requires backwater valves on drainage piping serving fixtures that have flood level rims less than 12 inches above the elevation of the next upstream manhole.
IN PLANSET 29. HAZARDOUS FIRE ZONE: All projects in the Town of Los Gatos require Class A roof assemblies.
NOTED ON PLANS 30. WILDLAND-URBAN INTERFACE: This project is located in a Wildland-Urban Interface High Fire Area and must comply with Section R337 of the 2019 California Residential Code, Public Resources Code 4291 and California Government Code Section 51182.
INCLUDED IN LANDSCAPE PLANS 31. PROVIDE DEFENSIBLE SPACE/FIRE BREAK LANDSCAPING PLAN: Prepared by a California licensed Landscape Architect in conformance with California Public Resources Code 4291 and California Government Code Section 51182.
UNDERSTOOD 32. PRIOR TO FINAL INSPECTION: Provide a letter from a California licensed Landscape Architect certifying the landscaping and vegetation clearance requirements have been completed per the California Public Resources Code 4291 and Government Code Section 51182.
UNDERSTOOD 33. SPECIAL INSPECTIONS: When a special inspection is required by CBC Section 1704, the Architect or Engineer of Record shall prepare an inspection program that shall be submitted to the Building Official for approval prior to issuance of the Building Permit. The Town Special Inspection form must be completely filled-out and signed by all requested parties prior to permit issuance. Special Inspection forms are available from the Building Division Service Counter or online at www.losgatosca.gov/building.
IN PLANSET 34. BLUEPRINT FOR A CLEAN BAY SHEET: The Town standard Santa Clara Valley Nonpoint Source Pollution Control Program Sheet (page size same as submitted drawings) shall be part of the plan submittal as the second page. The specification sheet is available at the Building Division Service Counter for a fee of $2 or at ARC Blueprint for a fee or online at www.losgatosca.gov/building.
UNDERSTOOD 35. APPROVALS REQUIRED: The project requires the following departments and agencies approval before issuing a building permit:
a. Community Development – Planning Division: (408) 354-6874
b. Engineering/Parks & Public Works Department: (408) 399-5771
c. Santa Clara County Fire Department: (408) 378-4010
d. West Valley Sanitation District: (408) 378-2407
e. Local School District: The Town will forward the paperwork to the appropriate school district(s) for processing. A copy of the paid receipt is required prior to permit issuance.

TO THE SATISFACTION OF THE DIRECTOR OF PARKS & PUBLIC WORKS:

Engineering Division

INCLUDED IN CIVIL PLANS 36. GENERAL: All public improvements shall be made according to the latest adopted Town Standard Plans, Standard Specifications and Engineering Design Standards. All work shall conform to the applicable Town ordinances. The adjacent public right-of-way shall be kept clear of all job-related mud, silt, concrete, dirt and other construction debris at the end of the day. Dirt and debris shall not be washed into storm drainage facilities. The storing of goods and materials on the sidewalk and/or the street will not be allowed unless an encroachment permit is issued by the Engineering Division of the Parks and Public Works Department. The Owner's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in the issuance of correction notices, citations, or stop work orders and the Town performing the required maintenance at the Owner's expense.
UNDERSTOOD 37. APPROVAL: This application shall be completed in accordance with all the conditions of approval listed below and in substantial compliance with the latest reviewed and approved development plans. Any changes or modifications to the approved plans or conditions of approvals shall be approved by the Town Engineer.
SEE PAGE 7 OF CIVIL 38. CONSTRUCTION PLAN REQUIREMENTS: Construction drawings shall comply with Section 1 (Construction Plan Requirements) of the Town's Engineering Design Standards, which are available for download from the Town's website.
UNDERSTOOD 39. PRIOR APPROVALS: All conditions per prior approvals shall be deemed in full force and affect for this approval.
UNDERSTOOD 40. GENERAL LIABILITY INSURANCE: The property owner shall provide proof of insurance to the Town on a yearly basis. In addition to general coverage, the policy must cover all elements encroaching into the Town's right-of-way.
UNDERSTOOD 41. PUBLIC WORKS INSPECTIONS: The Owner or their representative shall notify the Engineering Inspector at least twenty-four (24) hours before starting any work pertaining to on-site drainage facilities, grading or paving, and all work in the Town's right-of-way. Failure to do so will result in penalties and rejection of any work that occurred without inspection.
CONTRACTOR TO PROVIDE 42. SITE SUPERVISION: The General Contractor shall provide qualified supervision on the job site at all times during construction.
UNDERSTOOD 43. STREET CLOSURE: Any proposed blockage or partial closure of the street and/or sidewalk requires an encroachment permit. Special provisions such as limitations on works hours, protective enclosures, or other means to facilitate public access in a safe manner may be required.
UNDERSTOOD 44. PLAN CHECK FEES: Plan check fees associated with the Grading Permit shall be deposited with the Engineering Division of the Parks and Public Works Department prior to the commencement of plan check review.
UNDERSTOOD 45. INSPECTION FEES: Inspection fees shall be deposited with the Town prior to the issuance of any grading or building permits or recordation of the Parcel / Final Map.
UNDERSTOOD 46. DESIGN CHANGES: Any proposed changes to the approved plans shall be subject to the approval of the Town prior to the commencement of any and all altered work. The Owner's project engineer shall notify, in writing, the Town Engineer at least seventy-two (72) hours in advance of all the proposed changes. Any approved changes shall be incorporated into the final "as-built" plans.
UNDERSTOOD 47. PLANS AND STUDIES: All required plans and studies shall be prepared by a Registered Professional Engineer in the State of California and submitted to the Town Engineer for review and approval. Additionally, any post-project traffic or parking counts, or other studies imposed by the Planning Commission or Town Council shall be funded by the Owner.

CIVIL TO PROVIDE 48. GRADING PERMIT: A grading permit is required for all site grading and drainage work except for exemptions listed in Section 12.20.015 of The Code of the Town of Los Gatos (Grading Ordinance). After the preceding Architecture and Site Application has been approved by the respective deciding body, the grading permit application (with grading plans and associated required materials and plan check fees) shall be made to the Engineering Division of the Parks and Public Works Department located at 41 Miles Avenue. The grading plans shall include final grading, drainage, retaining wall location(s), driveway, utilities and interim erosion control. Grading plans shall list earthwork quantities and a table of existing and proposed impervious areas. Unless specifically allowed by the Director of Parks and Public Works, the grading permit will be issued concurrently with the building permit. The grading permit is for work outside the building footprint(s). Prior to Engineering signing off and closing out on the issued grading permit, the Owner/Applicant/Developer's soils engineer shall verify, with a stamped and signed letter, that the grading activities were completed per plans and per the requirements as noted in the soils report. A separate building permit, issued by the Building Department, located at 110 E. Main Street, is needed for grading within the building footprint.
UNDERSTOOD 49. ILLEGAL GRADING: Per the Town's Comprehensive Fee Schedule, applications for work unlawfully completed shall be charged double the current fee. As a result, the required grading permit fees associated with an application for grading will be charged accordingly.
UNDERSTOOD 50. GRADING ACTIVITY RESTRICTIONS: Upon receipt of a grading permit, any and all grading activities and operations shall not occur during the rainy season, as defined by Town Code of the Town of Los Gatos, Sec. 12.10.020, (October 15-April 15), has ended.
UNDERSTOOD 51. COMPLIANCE WITH HILLSIDE DEVELOPMENT STANDARDS AND GUIDELINES: All grading activities and operations shall be in compliance with Section III of the Town's Hillside Development Standards and Guidelines. All development shall be in compliance with Section II of the Town's Hillside Development Standards and Guidelines.
UNDERSTOOD 52. DRIVEWAY: The driveway conform to existing pavement on Wood Road shall be constructed in a manner such that the existing drainage patterns will not be obstructed.
UNDERSTOOD 53. CONSTRUCTION EASEMENT: Prior to the issuance of a grading or building permit, it shall be the sole responsibility of the Owner to obtain any and all proposed or required easements and/or permissions necessary to perform the grading herein proposed. Proof of agreement/approval is required prior to the issuance of any Permit.
N/A 54. TREE REMOVAL: Copies of all necessary tree removal permits shall be provided prior to the issuance of a grading permit/building permit.
CIVIL TO PROVIDE 55. SURVEYING CONTROLS: Horizontal and vertical controls shall be set and certified by a licensed surveyor or registered civil engineer qualified to practice land surveying, for the following items:
a. Retaining wall: top of wall elevations and locations.
b. Toe and top of cut and fill slopes.
UNDERSTOOD 56. PRECONSTRUCTION MEETING: Prior to issuance of any grading or building permits or the commencement of any site work, the general contractor shall:
a. Along with the Owner, attend a pre-construction meeting with the Town Engineer to discuss the project conditions of approval, working hours, site maintenance and other construction matters;
b. Acknowledge in writing that they have read and understand the project conditions of approval and will make certain that all project sub-contractors have read and understand them as well prior to commencing any work, and that a copy of the project conditions of approval will be posted on-site at all times during construction.
CIVIL TO PROVIDE 57. RETAINING WALLS: A building permit, issued by the Building Department, located at 110 E. Main Street, may be required for site retaining walls. Walls are not reviewed or approved by the Engineering Division of Parks and Public Works during the grading permit plan review process.

GEOLOGICAL AND GEOLOGY:

UNDERSTOOD 58. SOILS ENGINEER CONSTRUCTION OBSERVATION: During construction, all excavations and grading shall be inspected by the Owner's soils engineer prior to placement of concrete and/or backfill so they can verify that the actual conditions are as anticipated in the design-level geotechnical report and recommend appropriate changes in the recommendations contained in the report, if necessary. The results of the construction observation and testing shall be documented in an "as-built" letter/report prepared by the Owner's soils engineer and submitted to the Town before a certificate of occupancy is granted.
UNDERSTOOD 59. SOIL RECOMMENDATIONS: The project shall incorporate the geotechnical/geological recommendations contained in the project's design-level geotechnical/geological investigation as prepared by the Owner's engineer(s), and any subsequently required report or addendum. Subsequent reports or addendum are subject to peer review by the Town's consultant and costs shall be borne by the Owner.

IMPROVEMENT PLANS:

CIVIL TO PROVIDE 60. JOINT TRENCH PLANS: Joint trench plans shall be reviewed and approved by the Town prior to recordation of a map/and or issuance of a grading permit. The joint trench plans shall include street and/or site lighting and associated photometrics. A letter shall be provided by PG&E stating that public street light billing will by Rule LS2A, and that private lights shall be metered with billing to the homeowners' association. Pole numbers, assigned by PG&E, shall be clearly delineated on the plans.
INCLUDED IN CIVIL PLANS 61. UTILITIES: The Owner shall install all new, relocated, or temporarily removed utility services, including telephone, electric power and all other communications lines underground, as required by Town Code Section 27.50.015(b). All new utility services shall be placed underground. Underground conduit shall be provided for cable television service. The Owner is required to obtain approval of all proposed utility alignments from any and all utility service providers before a Certificate of Occupancy for any new building can be issued. The Town of Los Gatos does not approve or imply approval for final alignment or design of these facilities.
OWNER TO SIGN 62. PRIVATE EASEMENTS: Agreements detailing rights, limitations and responsibilities of involved parties shall accompany any proposed private easement. Access driveway shall be within the recorded access easement. A new private access easement shall be recorded, and an electronic copy (PDF) of the recorded agreement shall be submitted to the Engineering Division of the Parks and Public Works Department, prior to issuance of a grading or building permit. A realigned access driveway shall be completed prior to the issuance of grading or building permit.
INCLUDED IN CIVIL PLANS 63. DRIVEWAY APPROACH: The Owner shall install a Town standard residential/commercial driveway approach. The new driveway approach shall be constructed per Town Standard Plans and must be completed and accepted by the Town before a Certificate of Occupancy for any new building can be issued. New concrete shall be free of stamps, logos, names, graffiti, etc. Any concrete identified that is displaying a stamp or equal shall be removed and replaced at the Contractor's sole expense and no additional compensation shall be allowed therefore.
UNDERSTOOD 64. FENCING: Any fencing proposed within two hundred (200) feet of an intersection shall comply with Town Code Section §23.10.080.
UNDERSTOOD 65. SIGHT TRIANGLE AND TRAFFIC VIEW AREA: Any proposed improvements, including but not limiting to trees and hedges, will need to abide by Town Code Sections 23.10.080, 26.10.065, and 29.40.030.

TRAFFIC AND TRANSPORTATION:

SEE PAGE 7 OF CIVIL 66. CONSTRUCTION VEHICLE PARKING: Construction vehicle parking within the public right-of-way will only be allowed if it does not cause access or safety problems as determined by the Town.
UNDERSTOOD 67. ADVANCE NOTIFICATION: Advance notification of all affected residents and emergency services shall be made regarding parking restriction, lane closure or road closure, with specification of dates and hours of operation.
UNDERSTOOD 68. HAULING OF SOIL: Hauling of soil on- or off-site shall not occur during the morning or evening peak periods (between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m.), and at other times as specified by the Director of Parks and Public Works. Prior to the issuance of a grading or building permit, the Owner and/or Applicant or their representative shall work with the Town Building Department and Engineering Division Inspectors to devise a traffic control plan to ensure safe and efficient traffic flow under periods when soil is hauled on or off the project site. This may include, but is not limited to provisions for the Owner and/or Applicant to place construction notification signs noting the dates and time of construction and hauling activities, or providing additional traffic control. Coordination with other significant projects in the area may also be required. Cover all trucks hauling soil, sand and other loose debris.
UNDERSTOOD 69. CONSTRUCTION HOURS: All subdivision improvements and site improvements construction activities, including the delivery of construction materials, labors, heavy equipment, supplies, etc., shall be limited to the hours of 8:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 4:00 p.m. Saturdays. The Town may authorize, on a case-by-case basis, alternate construction hours. The Owner shall provide written notice twenty-four (24) hours in advance of modified construction hours. Approval of this request is at discretion of the Town.
UNDERSTOOD 70. CONSTRUCTION NOISE: Between the hours of 8:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 4:00 p.m. Saturdays, construction, alteration or repair activities shall be allowed. No individual piece of equipment shall produce a noise level exceeding eighty-five (85) dBA at twenty-five (25) feet from the source. If the device is located within a structure on the property, the measurement shall be made at distances as close to twenty-five (25) feet from the device as possible. The noise level at any point outside of the property plane shall not exceed eighty-five (85) dBA.
SEE PAGE 7 OF CIVIL 71. CONSTRUCTION MANAGEMENT PLAN SHEET: Prior to the issuance of any grading or building permits, the Owner and/or Applicant's design consultant shall submit a construction management plan sheet (full-size) within the plan set that shall incorporate at a minimum the Earth Movement Plan, Traffic Control Plan, Project Schedule, site security fencing, employee parking, construction staging area, materials storage area(s), construction trailer(s), concrete washout(s) and proposed outhouse locations. Please refer to the Town's Construction Management Plan Guidelines document for additional information.
UNDERSTOOD 72. SHARED PRIVATE STREET: The private street accessing Project Site shall be kept open and in a safe, drive-able condition throughout construction. If temporary closure is needed, then formal written notice shall be provided at least one week in advance of closure.
UNDERSTOOD 73. PRIVATE STREET PAVEMENT RESTORATION: Prior to issuance of a Certificate of Occupancy for any new building, the Owner/Applicant/Developer shall overlay to section of private street pavement immediately in front of/adjacent to the subject property, or alternative pavement restoration measure as approved by the Town Engineer.
UNDERSTOOD 74. COMMON PRIVATE DRIVEWAY: The common private driveway accessing the Project Site shall be kept open and in a safe, drive-able condition throughout construction and in perpetuity after construction has been completed. If temporary closure is needed, then formal written notice shall be provided at least one (1) week in advance of closure.
UNDERSTOOD 75. EMERGENCY VEHICLE ACCESS: The Emergency Vehicle Access Easement (EVAE) that traverses the Project Site shall be kept open and in a safe, drive-able condition throughout construction. If temporary closure is needed, then formal written notice shall be provided at least one week in advance of closure.
UNDERSTOOD 76. EMERGECY VEHICLE ACCESS EASEMENT: Prior to the issuance of any grading or building permits, the Owner shall coordinate with the Santa Clara County Fire Department to ensure that any proposed modifications to the Emergency Vehicle Access Easement that traverses the Project Site are curvilinear, allows for the Department's equipment to travel across said easement, and meets all Department specifications. Plans shall be submitted to the Santa Clara County Fire Department for approval prior to construction.

OTHER PERMITS:

N/A 77. SANTA CLARA VALLEY WATER DISTRICT (SCVWD): Prior to start of any work along or within Santa Clara Valley Water District (SCVWD) right-of-way/easement, the Owner shall submit construction plans to SCVWD for review and approval and obtain necessary encroachment permits for the proposed work. A copy of approved encroachment permit is required to be submitted to the Engineering Division of the Parks and Public Works Department prior to Grading/Building Permit issuance.
NEW LATERAL 78. WVSD (West Valley Sanitation District): Sanitary sewer laterals are televised by West Valley Sanitation District and approved by the Town of Los Gatos before they are used. A Sanitary Sewer Clean-out is required for each property at the property line, within one (1) foot of the property line per West Valley Sanitation District Standard Drawing 3, or at a location specified by the Town.

STORMWATER MANAGEMENT:

CIVIL TO PROVIDE 79. STATE CONSTRUCTION GENERAL PERMIT: In the event that, during the production of construction drawings for the plans approved with this application by the Town of Los Gatos, it is determined that the project will disturb one (1) acre or more of site area, the filing of a Notice of Intent (NOI) and submittal of a Storm Water Pollution Prevention Plan (SWPPP) to the San Francisco Bay Regional Water Quality Control Board as part of a State Construction General Permit will be required. These items shall all be completed and accepted by the Engineering Division before issuance of a grading/building permit.
UNDERSTOOD 80. NPDES STORMWATER COMPLIANCE: In the event that, during the production of construction drawings for the plans approved with this application by the Town of Los Gatos, it is determined that the project will create and/or replace more than 2,500 square feet of impervious area, completion of the NPDES Stormwater Compliance Small Projects Worksheet and implementation of at least one of the six low impact development site design measures it specifies shall be completed and submitted to the Engineering Division before issuance of a grading/building permit.
CIVIL TO PROVIDE 81. SITE DESIGN MEASURES: All projects shall incorporate at least one of the following measures:
a. Protect sensitive areas and minimize changes to the natural topography.
b. Minimize impervious surface areas.
c. Direct roof downspouts to vegetated areas.
d. Use porous or pervious pavement surfaces on the driveway, at a minimum.
e. Use landscaping to treat stormwater.
UNDERSTOOD 82. UNLAWFUL DISCHARGES: It is unlawful to discharge any wastewater, or cause hazardous domestic waste materials to be deposited in such a manner or location as to constitute a threatened discharge, into storm drains, gutters, creeks or the San Francisco Bay. Unlawful discharges to storm drains include, but are not limited to: discharges from toilets, sinks, industrial processes, cooling systems, boilers, fabric cleaning, equipment cleaning or vehicle cleaning.
CONTRACTOR TO PROVIDE 83. DUST CONTROL: Blowing dust shall be reduced by timing construction activities so that paving and building construction begin as soon as possible after completion of grading, and by landscaping disturbed soils as soon as possible. Further, water trucks shall be present and in use at the construction site. All portions of the site subject to blowing dust shall be watered as often as deemed necessary by the Town, or a minimum of three (3) times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites in order to insure proper control of blowing dust for the duration of the project. Watering on public streets shall not occur. Streets shall be cleaned by street sweepers or by hand as often as deemed necessary by the Town Engineer, or at least once a day. Watering associated with on-site construction activity shall take place between the hours of 8 a.m. and 5 p.m. and shall include at least one (1) late-afternoon watering to minimize the effects of blowing dust. All public streets soiled or littered due to this construction activity shall be cleaned and swept on a daily basis during the workweek to the satisfaction of the Town. Demolition or earthwork activities shall be halted when wind speeds (instantaneous gusts) exceed twenty (20) miles per hour (MPH). All trucks hauling soil, sand, or other loose debris shall be covered.
CIVIL TO PROVIDE 84. AIR QUALITY: To limit the project's construction-related dust and criteria pollutant emissions, the following the Bay Area Air Quality Management District (BAAQMD)-recommended basic construction measures shall be included in the project's grading plan, building plans, and contract specifications:
a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, or otherwise kept dust-free.
b. All haul trucks designated for removal of excavated soil and demolition debris from site shall be staged off-site until materials are ready for immediate loading and removal from site.
c. All haul trucks transporting soil, sand, debris, or other loose material off-site shall be covered.
d. As practicable, all haul trucks and other large construction equipment shall be staged in areas away from the adjacent residential homes.
e. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day, or as deemed appropriate by Town Engineer. The use of dry power sweeping is prohibited. An on-site track-out control device is also recommended to minimize mud and dirt-track-out onto adjacent public roads.
f. All vehicle speeds on unpaved surfaces shall be limited to fifteen (15) miles per hour.
g. All driveways and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
h. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within forty-eight (48) hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. Please provide the BAAQMD's complaint number on the sign: 24-hour toll-free hotline at 1-800-334-ODOR (6367).
i. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed twenty (20) miles per hour.
j. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
CIVIL TO PROVIDE 85. DETAILING OF STORMWATER MANAGEMENT FACILITIES: Prior to the issuance of any grading or building permits, all pertinent details of any and all proposed stormwater management facilities, including, but not limited to, ditches, swales, pipes, bubble-ups, dry wells, outfalls, infiltration trenches, detention basins and energy dissipaters, shall be provided on submitted plans, reviewed by the Engineering Division of the Parks and Public Works Department, and approved for implementation.
UNDERSTOOD 86. CONSTRUCTION ACTIVITIES: All construction shall conform to the latest requirements of the CASQA Stormwater Best Management Practices Handbooks for Construction Activities and New Development and Redevelopment, the Town's grading and erosion control ordinance, and other generally accepted engineering practices for erosion control as required by the Town Engineer when undertaking construction activities.
UNDERSTOOD 87. SITE DRAINAGE: Rainwater leaders shall be discharged to splash blocks. No through curb drains will be allowed. Any storm drain inlets (public or private) directly connected to public storm system shall be stenciled/signed with appropriate "NO DUMPING - Flows to Bay" NPDES required language. On-site drainage systems for all projects shall include one of the alternatives included in section C.3.i of the Municipal Regional NPDES Permit. These include storm water reuse via cisterns or rain barrels, directing runoff from impervious surfaces to vegetated areas and use of permeable surfaces. If stormwater treatment facilities are to be used they shall be placed a minimum of ten (10) feet from the adjacent property line and/or right-of-way. Alternatively, the facility(ies) may be located with an offset between 5 and 10 feet from the adjacent property and/or right-of-way line(s) if the responsible engineer in charge provides a stamped and signed letter that addresses infiltration and states how facilities, improvements and infrastructure within the Town's right-of-way (driveway approach, curb and gutter, etc.) and/or the adjacent property will not be adversely affected. No improvements shall obstruct or divert runoff to the detriment of an adjacent, downstream or down slope property.
UNDERSTOOD 88. MAINTENANCE OF PRIVATE STREETS: It is the responsibility of the property owner(s)/homeowners association to implement a plan for street sweeping of paved private roads and cleaning of all storm drain inlets.
CONTRACTOR TO PROVIDE 89. SILT AND MUD IN PUBLIC RIGHT-OF-WAY: It is the responsibility of Contractor and homeowner to make sure that all dirt tracked into the public right-of-way is cleaned up on a daily basis. Mud, silt, concrete and other construction debris SHALL NOT be washed into the Town's storm drains.
CONTRACTOR TO PROVIDE 90. GOOD HOUSEKEEPING: Good housekeeping practices shall be observed at all times during the course of construction. All construction shall be diligently supervised by a person or persons authorized to do so at all times during working hours. The Owner's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in penalties and/or the Town performing the required maintenance at the Owner's expense.

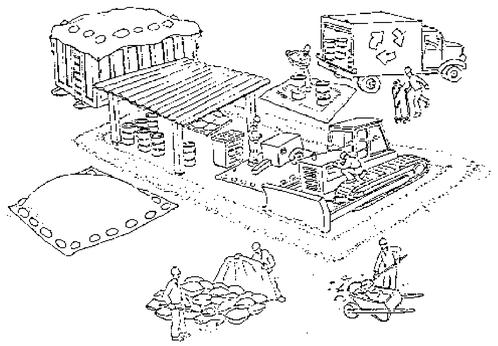
GENERAL:

OWNER TO PROVIDE 91. NEIGHBORHOOD CONSTRUCTION COMMUNICATION PLAN: Immediately upon approval of an encroachment permit, the Owner shall initiate a weekly neighborhood email notification program to provide project status updates. The email notices shall also be posted on a bulletin board placed in a prominent location along the project perimeter.

TO THE SATISFACTION OF THE SANTA CLARA COUNTY FIRE DEPARTMENT:

CONTRACTOR TO PROVIDE 92. Review of this Developmental proposal is limited to acceptability of site access, water supply and may include specific additional requirements as they pertain to fire department operations and shall not be construed as a substitute for formal plan review to determine compliance with adopted model codes. Prior to performing any work, the applicant shall make application to, and receive from, the Building Department all applicable construction permits.
IN PLANSET 93. FIRE SPRINKLERS REQUIRED: (As noted on Sheet A0) An automatic residential fire sprinkler system shall be installed in new one- and two-family dwellings.
INCLUDED IN CIVIL PLANS 94. FIRE DEPARTMENT (ENGINE) DRIVEWAY TURNAROUND REQUIRED: (As noted on Sheet L1.1) Dead- end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus. Provide an approved fire department engine driveway turnaround with a minimum radius of 36 feet outside and 23 feet inside. Maximum grade in any direction shall be 5%. Installations shall conform with Fire Department Standard Details and Specifications D-1. [CFC Section 503.2.5].
IN PLANSET 95. PRIVATE FIRE PROTECTION SYSTEM: (As noted on Sheet A0, A1.1 & response letter) Residential fire protection systems shall comply with Fire Department Standards W-1 and manufacturer's requirements. Fire protection water systems shall be permitted, installed and approved by the Fire Prevention Office. The wharf hydrant shall be accessible at all times. Tank systems providing both the domestic supply and supply to the sprinkler system and/or hydrant may require cross contamination protection. Check with the local Building Department for specific requirements related to protection of the domestic supply. Hydrants and tank outlets shall be installed such that the center of the hose connection is not less than eighteen (18") inches nor more than thirty (30") inches above the final grade. Proposed two new 5k gallon water tanks are not sufficient. Given project proximity to relatively urban development, water supply in accordance with NFPA 1142 is appropriate, per CFC B103.3. Preliminary NFPA 1142 calculations suggest a minimum of 20,000 gallons are necessary for the proposed structure. The proposed tank system does not meet design standard W-1 with respect to combining domestic, sprinkler and hydrant storage. Tank capacity for combined domestic/fire sprinkler systems shall be determined by adding the required hydrant and sprinkler system volume to a minimum of 1K gallons for domestic use. Water for other purposes, such as irrigation, shall not be combined in the same tank system [SCCFD Standard Details and Specifications sheet W-1].
a. Minimum of 20,000 gallons are required.
b. A more detailed design proposal for the water storage system is required.
c. Provide all details necessary to guarantee maintenance of the stored hydrant water for fire suppression purposes.
INCLUDED IN CIVIL PLANS 96. FIRE APPARATUS (ENGINE)ACCESS DRIVEWAY REQUIRED: (As noted on Sheet 5 of 7) Provide an access driveway with a paved all weather surface, a minimum unobstructed width of 12 feet, vertical clearance of 13 feet 6 inches, minimum circulating turning radius of 36 feet outside and 23 feet inside, and a maximum slope of 15%. Installations shall conform to Fire Department Standard Details and Specifications sheet D-1. Driveway profile provided on Sheet 5 of 6 shows slopes up to 20%. The request for slope greater than 15% but not to exceed 20%, as outlined in the Letter of Justification dated January 18, 2021 and demonstrated in the driveway profile, has been acknowledged and approved by SPE R. Campbell on 03/09/21.
IN PLANSET 97. CONSTRUCTION SITE FIRE SAFETY: (As noted on Sheet A0) All construction sites must comply with applicable provisions of the CFC Chapter 33 and our Standard Detail and Specification S1-7. Provide appropriate notations on subsequent plan submittals, as appropriate to the project. [CFC Chp. 33].
IN PLANSET 98. WATER SUPPLY REQUIREMENTS: (As noted on Sheet A0) Potable water supplies shall be protected from cont

Pollution Prevention — It's Part of the Plan



Make sure your crews and subs do the job right!



Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines will ensure your compliance with local ordinance requirements.

Materials storage & spill cleanup

Non-hazardous materials management

- ✔ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✔ Use (but don't overuse) reclaimed water for dust control as needed.
- ✔ Sweep streets and other paved areas daily. Do not wash down streets or work areas with water!
- ✔ Recycle all asphalt, concrete, and aggregate base material from demolition activities.
- ✔ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

Hazardous materials management

- ✔ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✔ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✔ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ✔ Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- ✔ Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- ✔ When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- ✔ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

Vehicle and equipment maintenance & cleaning



- ✔ Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- ✔ Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✔ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinsewater to run into gutters, streets, storm drains, or creeks.
- ✔ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.

Earthwork & contaminated soils

- ✔ Keep excavated soil on the site where it is least likely to collect in the street. Transfer to dump trucks should take place on the site, not in the street.
- ✔ Use hay bales, silt fences, or other control measures to minimize the flow of silt off the site.



- ✔ Avoid scheduling earth moving activities during the rainy season if possible. If grading activities during wet weather are allowed in your permit, be sure to implement all control measures necessary to prevent erosion.
- ✔ Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- ✔ If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fast-growing grasses as soon as possible. Place hay bales down-slope until soil is secure.
- ✔ If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call your local fire department for help in determining what testing should be done.
- ✔ Manage disposal of contaminated soil according to Fire Department instructions.

Dewatering operations



- ✔ Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- ✔ Be sure to call your city's storm drain inspector before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ✔ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the city inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

Saw cutting

- ✔ Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, hay bales, sand bags, or fine gravel dams to keep slurry out of the storm drain system.
- ✔ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ✔ If saw cut slurry enters a catch basin, clean it up immediately.

Paving/asphalt work



- ✔ Do not pave during wet weather or when rain is forecast.
- ✔ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ✔ Place drip pans or absorbent material under paving equipment when not in use.
- ✔ Protect gutters, ditches, and drainage courses with hay bales, sand bags, or earthen berms.
- ✔ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- ✔ Do not use water to wash down fresh asphalt concrete pavement.

Concrete, grout, and mortar storage & waste disposal

- ✔ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✔ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.



- ✔ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✔ If a suitable dirt area is not available, collect the wash water and remove it for appropriate disposal off site.

Painting



- ✔ Never rinse paint brushes or materials in a gutter or street!
- ✔ Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink. If you can't use a sink, direct wash water to a dirt area and spade it in.
- ✔ Paint out excess oil-based paint before cleaning brushes in thinner.
- ✔ Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.

B A S M A A
Bay Area Stormwater Management Agencies Association (BASMAA)
1-888-BAYWISE

Storm drain polluters may be liable for fines of up to $10,000 per day!

Tree Inventory, Assessment, and Protection Report

APN 510-47-045
145 Wood Road
Los Gatos, CA 95032

Prepared for:

Town of Los Gatos

March 22, 2021

Prepared By:

Richard Gessner

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Summary

The plans are to construct a new residence on the vacant lot and install all the required utilities. The access will largely mimic the current site ingress and egress. The inventory contains 37 trees comprised of 3 different species with 13 bay laurel (*Umbellularia californica*), 22 coast live oaks (*Quercus agrifolia*), and 2 valley oaks (*Quercus lobata*). Six oaks are considered Large Protected and no trees are Exempt. The trees are all in good or fair condition. None of them have been maintained as these are natural stands of trees with typical broken limbs and cavities. With the exception of trees in poor condition all have good suitability for preservation if retained within the stand. Their value is in their numbers in this instance because these are naturally occurring stands of native trees. Ten trees could be moderate to highly impacted primarily from the proposed retaining wall, driveway grading near #118, and the water and sanitary sewer bisecting the lower south stand of trees. Placing water and sewer under the driveway or directly down the slope adjacent to valley oak #128 could remove the utility issues. The retaining wall and grading around #109-#117 would need to be altered. For this project it would be best to protect the groves to the north and south of the proposed driveway and residence. There were 37 trees appraised for a rounded depreciated value of $101,320.00.

Introduction

Background

The Town of Los Gatos asked me to assess the site, trees, and proposed footprint plan, and to provide a report with my findings and recommendations to help satisfy planning requirements.

Assignment

- Provide an arborist's report including an assessment of the trees within the project area and on the adjacent sites. The assessment is to include the species, size (trunk diameter), condition (health, structure, and form), and suitability for preservation ratings. Affix number tags on the trees for reference on site and on plans.
- Provide tree protection specifications, guidelines, and impact ratings for those affected by the project.
- Provide appraised values using the Trunk Formula Technique.

Limits of the assignment

- The information in this report is limited to the condition of the trees during my inspection on March 16, 2021. No tree risk assessments were performed.
- Tree heights and canopy diameters are estimates.

- The plans reviewed for this assignment were as follows (Table 1)

Table 1: Plans Reviewed Checklist

Plan	Date	Sheet	Reviewed	Source
Existing Site Topographic				
Proposed Site Plan	01/25/21	A1, A1.1	Yes	Kohlsaat & Associates
Erosion Control				
Grading and Drainage	01/15/2021	5 of 6	Yes	Hanna Brunetti
Utility Plan and Hook-up locations	01/15/2021	4 of 6	Yes	Hanna Brunetti
Exterior Elevations				
Landscape Plan				
Irrigation Plan				
T-1 Tree Protection Plan				

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 Town of Los Gatos and the property owners as a reference for existing tree conditions to help satisfy planning requirements.

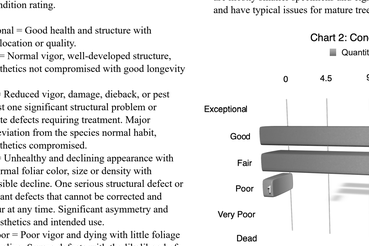
Observations

Tree Inventory

The inventory consists of trees protected by the Town of Los Gatos located on site and those in close proximity on neighboring properties. Sec. 29.10.0960. - Scope of protected trees. All trees which have a four-inch or greater diameter (twelve and one half-inch circumference) of any trunk, when removal relates to any review for which zoning approval or subdivision approval is required. (Appendix A and B). Los Gatos Town Ordinance 29.10.0970 Exceptions (1) states the following: "A fruit or nut tree that is less than eighteen (18) inches in diameter (fifty-seven-inch circumference).

The plans are to construct a new residence on the vacant lot and install all the required utilities. The access will largely mimic the current site ingress and egress.

The inventory contains 37 trees comprised of 3 different species (Chart 1). Six oaks are considered Large Protected[1] and no trees are Exempt[2].



[1] Large protected tree means any oak (*Quercus spp.*), California buckeye (*Aesculus californica*), or Pacific madrone (*Arbutus menziesii*) which has a 24-inch or greater diameter (75-inch circumference); or any other species of tree with a 48-inch or greater diameter (150-inch circumference).

[2] A fruit or nut tree that is less than eighteen (18) inches in diameter (fifty-seven-inch circumference).

Analysis

Tree appraisal was performed according to the Council of Tree & Landscape Appraisers *Guide for Plant Appraisal 10th Edition, 2019* (CLTA) along with Western Chapter International Society of Arboriculture *Species Classification and Group Assignment, 2004*. The trees were appraised using the "Cost Approach" and more specifically the "Trunk Formula Technique" (Appendix B).

"Trunk Formula Technique" is calculated as follows: Basic Tree Cost = (Unit tree cost x Appraised trunk area), Appraised Value = (Basic tree cost X functional Limitations (percentage) X Condition (percentage) X External Limitations (percentage)).

The trunk formula valuations are based on four tree factors; size (trunk cross sectional area), condition, functional limitations, and external limitations. There are two steps to determine the overall value. The first step is to determine the "Basic Tree Cost" based on size and unit tree cost. Unit tree cost is calculated by dividing the nursery wholesale cost of a 24 inch box specimen and its replacement size (cost per square inch trunk caliper) which is determined by the *Species Classification and Group Assignment, 2004 Western Chapter Regional Supplement*. The cost of the 24 inch box wholesale specimen was determined through personal communications with BrightView and Normans nurseries in Farmington and Central Wholesale in San Jose for an average of $214.00.

The second part is to depreciate the tree's Basic Cost through an assessment of condition, functional limitations, and external limitations. The condition assessment guidelines and percentages are defined in the "Condition Rating" section of this report. Functional limitations are based on factors associated with the tree's interaction to its planting site that would affect condition, limit development, or reduce the utility in the future and include genetics, placement, and site conditions for the individual tree. External limitations are outside the property, out of control of the owner and also affect condition, limit development, or reduce the utility in the future (i.e power lines, municipal restrictions, drought adaptations, or species susceptibility to pests).

There were 37 trees appraised for a rounded depreciated value of $101,320.00

Appraisal worksheets are available upon request

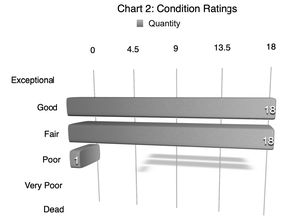
Discussion

Condition Rating

A tree's condition is a determination of its overall health, structure, and form. The assessment considered all three criteria for a combined condition rating.

- 100% - Exceptional = Good health and structure with significant size, location or quality.
- 61-80% - Good = Normal vigor, well-developed structure, function and aesthetics not compromised with good longevity for the site.
- 41-60 % - Fair = Reduced vigor, damage, dieback, or pest problems, at least one significant structural problem or multiple moderate defects requiring treatment. Major asymmetry or deviation from the species normal habit, function and aesthetics compromised.
- 21-40% - Poor = Unhealthy and declining appearance with poor vigor, abnormal foliar color, size or density with potential irreversible decline. One serious structural defect or multiple significant defects that cannot be corrected and failure may occur at any time. Significant asymmetry and compromised aesthetics and intended use.
- 6-20% - Very Poor = Poor vigor and dying with little foliage in irreversible decline. Severe defects with the likelihood of failure being probable or imminent. Aesthetically poor with little or no function in the landscape.
- 0-5% - Dead/Unstable = Dead or imminently ready to fail.

The trees are all in good or fair condition. None of them have been maintained as these are natural stands of trees with typical broken limbs and cavities. Eighteen are in good shape which are mostly smaller specimens and eighteen fair as they are older and have typical issues for mature trees.



Suitability for Conservation

A tree's suitability for preservation is determined based on Functional and External Limitations[3] (ISA, 2019).

- Good = Trees with good health, structural stability and longevity.
- Fair = Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, and may have shorter life spans than those in the good category.
- Poor = Trees in poor health with significant structural defects that cannot be mitigated and will continue to decline regardless of treatment. The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

With the exception of trees in poor condition all the trees have good suitability for preservation if retained within the stand. As individuals none of the trees particularly stand out as exemplary specimens. Their value is in their numbers in this instance because these are naturally occurring stands of native trees.

Expected Impact Level

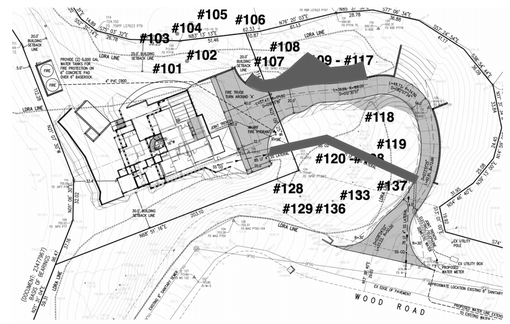
Impact level defines how a tree may be affected by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little influence on the tree.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.

Ten trees could be moderate to highly impacted primarily from the proposed retaining wall near #115 - #117, driveway grading near #118, and the water and sanitary sewer bisecting the lower stand near trees #120 through #128.

[3] Functional Limitations are based on factors associated with the tree's interaction to its planting site affecting plant condition, limiting plant development, or reducing the utility in the future and include genetics, placement, and site conditions for the individual tree (ISA, 2019). External Limitations are outside the property, out of control of the owner and also affect plant condition, limit plant development, or reduce the utility in the future (i.e power lines, municipal restrictions, drought adaptations, or species susceptibility to pests) (ISA, 2019).

The plan below indicates the area of expected impacts (Image 1). Highlighted in red are the areas where modifications could alleviate some issues. Running the water and sanitary sewer under the driveway or directly down the slope adjacent to valley oak #128 would remove the utility issues. The retaining wall and grading around #109-#117 would need to be altered.



Tree Protection

Typically there are three different tree protection schemes which are called Type I (Appendix D1), Type II and Type III (Appendix D2) trunk protection only. Tree protection focuses on avoiding damage to the roots, trunk, or scaffold branches (Appendix D). The most current accepted method for determining the TPZ is to use a formula based on species tolerance, tree age/vigor, and trunk diameter (Matheny, N. and Clark, J. 1998) (Fite, K, and Smiley, E. T., 2016). Preventing mechanical damage to the trunk from equipment or hand tools can be accomplished by wrapping the main stem with straw wattle or using vertical timbers (Appendix D).

There are two primary stands of trees on this site so there will not be any individual tree protection schemes. For this project it would be best to protect the groves to the north and south of the proposed driveway and residence.

Conclusion

The plans are to construct a new residence on the vacant lot and install all the required utilities. The access will largely mimic the current site ingress and egress. The inventory contains 37 trees comprised of 3 different species with 13 bay laurel, 22 coast live oaks, and 2 valley oaks. Six oaks are considered Large Protected and no trees are Exempt. The trees are all in good or fair condition. None of them have been maintained as these are natural stands of trees with typical broken limbs and cavities. Eighteen are in good shape which are mostly smaller specimens and eighteen fair as they are older and have typical issues for mature trees. With the exception of trees in poor condition all have good suitability for preservation if retained within the stand. As individuals none of the trees particularly stand out as exemplary specimens. Their value is in their numbers in this instance because these are naturally occurring stands of native trees. Ten trees could be moderate to highly impacted primarily from the proposed retaining wall near #115 - #117, driveway grading near #118, and the water and sanitary sewer bisecting the lower stand near trees #120 through #128. Running the water and sanitary sewer under the driveway or directly down the slope adjacent to valley oak #128 would remove the utility issues. The retaining wall and grading around #109-#117 would need to be altered. There are two primary stands of trees on this site so there will not be any individual tree protection schemes. For this project it would be best to protect the groves to the north and south of the proposed driveway and residence. There were 37 trees appraised for a rounded depreciated value of $101,320.00.

Recommendations

1. Place tree numbers and tree protection fence locations and guidelines on the plans including the grading, drainage, and utility plans. Produce a T-1 plan sheet to reflect the tree numbers provided in Appendix A and B of this report.
   Added tree numbers to site plan.
2. Consider relocating the utilities to an area that does not bisect the southern grove of trees, possibly follow the driveway.
   Ran joint trench around grove of trees
3. Consider adjusting the grading at the driveway radius to avoid the tree on both sides.
   Adjusted grading at driveway radius.
4. Place tree protection fence at the drip line radius around both the north and south stands of trees and eliminate grading in these areas.
   Added tree protection fence around grove.
5. All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: *Tree, Shrub and Other Woody Plant Management: Standard Practices* parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices.
   Added note to title sheet regarding all tree maintenance.
6. Provide a copy of this report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect. It is the responsibility of the owner to ensure all parties are familiar with this document.
   Provided a copy of this report to all contractors & project managers.
7. Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.
   Provided photos of tree protection to planning department as well as pre-construction meeting with all parties.

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American National Standard for Tree Care Operations: Tree, Shrub and Other Woody Plant Management : Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction)(Part 5). Londonderry, NH: Secretariat, Tree Care Industry Association, 2019. Print.

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Smiley, E, Matheny, N, Lilly, S, ISA. *Best Management Practices: Tree Risk Assessment:* International Society of Arboriculture, 2017. Print

Glossary of Terms

Basic Tree Cost: The cost of replacement for a perfect specimen of a particular species and cross sectional area prior to location and condition depreciation.

Cost Approach: An indication of value by adding the land value to the depreciated value of improvements.

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): Measures at 1.4 meters (4.5 feet) above ground in the United States, Australia (arboriculture), New Zealand, and when using the Guide for Plant Appraisal, 9th edition; at 1.3 meters (4.3 feet) above ground in Australia (forestry), Canada, the European Union, and in UK forestry; and at 1.5 meters (5 feet) above ground in UK arboriculture.

Drip Line: Imaginary line defined by the branch spread or a single plant or group of plants. The outer extent of the tree crown.

Form: describes a plant's habit, shape or silhouette defined by its genetics, environment, or management.

Health: Assessment is based on the overall appearance of the tree, its leaf and twig growth, and the presence and severity of insects or disease.

Mechanical damage: Physical damage caused by outside forces such as cutting, chopping or any mechanized device that may strike the tree trunk, roots or branches.

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

Straw wattle: also known as straw worms, bio-logs, straw noodles, or straw tubes are man made cylinders of compressed, weed free straw (wheat or rice), 8 to 12 inches in diameter and 20 to 25 feet long. They are encased in jute, nylon, or other photo degradable materials,
and have an average weight of 35 pounds.

Structural evaluation: focused on the crown, trunk, trunk flare, above ground roots and the site conditions contributing to conditions and/or defects that may contribute to failure.

Tree Protection Zone (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.

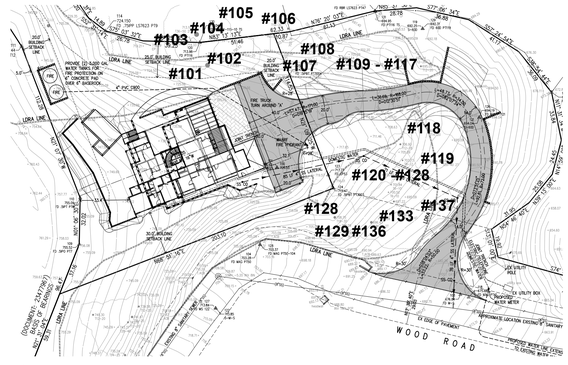
Tree Risk Assessment: Process of evaluating what unexpected things could happen, how likely it is, and what the likely outcomes are. In tree management, the systematic process to determine the level of risk posed by a tree, tree part, or group of trees.

Trunk: Stem of a tree.

Trunk Formula Technique: Method to appraise the monetary value of trees considered too large to be replaced with nursery or field grown stock. Based on developing a representative unit cost for replacement with the same or comparable species of the same size and in the same place, subject to depreciation for various factors. Contrast with replacement cost method.

Volunteer: A tree, not planted by human hands, that begins to grow on residential or commercial property. Unlike trees that are brought in and installed on property, volunteer trees usually spring up on their own from seeds placed onto the ground by natural causes or accidental transport by people. Normally, volunteer trees are considered weeds and removed, but many desirable and attractive specimens have gone on to become permanent residents on many public and private grounds.

Appendix A: Tree Inventory Map and Site Plan



REVISIONS

1.	PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-2555

CHRISTIAN DAVID KOHLSAAT — LANDSCAPE ARCHITECT — NO. 5245 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
Contractor shall verify all dimensions and conditions prior to starting any field work. Contractor shall notify Landscape Architect of any conditions different from those shown on the plans. Contractor shall call the Architect's attention prior to installation.

ARBORIST REPORT

DATE: 12/8/21
SCALE: AS SHOWN
SHEET
AR-1
4 OF 58

Appendix B: Tree Inventory and Assessment Tables

Table 3: Inventory and Assessment Summary

Tree Species	I.D. #	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition	Suitability	Expected Impact	Protection Status	Rounded Depreciated Value
valley oak (*Quercus agrifolia*)	101	24	45	Fair/50%	Fair	Low	Large Protected	$5,700.00
bay laurel (*Umbellularia californica*)	102	12, 6	15	Fair/50%	Fair	Low	Protected	$1,950.00
bay laurel (*Umbellularia californica*)	103	9	15	Good/70%	Good	Low	Protected	$1,130.00
coast live oak (*Quercus agrifolia*)	104	16, 16, 16, 12		Fair/50%	Fair	Low	Large Protected	$9,000.00
coast live oak (*Quercus agrifolia*)	105	18	35	Good/70%	Good	Low	Protected	$4,510.00
coast live oak (*Quercus agrifolia*)	106	18	25	Fair/50%	Fair	Low	Protected	$3,220.00
coast live oak (*Quercus agrifolia*)	107	20	35	Fair/50%	Fair	Low	Protected	$3,980.00
bay laurel (*Umbellularia californica*)	108	16	25	Good/70%	Good	Low	Protected	$3,560.00
coast live oak (*Quercus agrifolia*)	109	10	20	Good/70%	Good	Low	Protected	$1,390.00
coast live oak (*Quercus agrifolia*)	110	18	25	Good/70%	Good	Low	Protected	$4,510.00
coast live oak (*Quercus agrifolia*)	111	6	15	Good/70%	Good	Low	Protected	$500.00

Tree Species	I.D. #	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition	Suitability	Expected Impact	Protection Status	Rounded Depreciated Value
coast live oak (*Quercus agrifolia*)	112	6	15	Good/70%	Good	Low	Protected	$500.00
coast live oak (*Quercus agrifolia*)	113	27	45	Good/70%	Good	Low	Large Protected	$10,200.00
coast live oak (*Quercus agrifolia*)	114	8	20	Good/70%	Good	Low	Protected	$890.00
coast live oak (*Quercus agrifolia*)	115	2, 4	12	Fair/	Fair	Low	Protected	$250.00
bay laurel (*Umbellularia californica*)	116	4, 4 multi	12	Fair/	Fair	Moderate-High	Protected	$250.00
coast live oak (*Quercus agrifolia*)	117	9, 6	25	Fair/	Fair	Moderate-High	Protected	$1,200.00
coast live oak (*Quercus agrifolia*)	118	12, 12	35	Fair/	Fair	Moderate-High	Large Protected	$2,870.00
coast live oak (*Quercus agrifolia*)	119	20, 26	45	Fair/	Fair	Low	Large Protected	$10,800.00
coast live oak (*Quercus agrifolia*)	120	8	20	Good/70%	Good	Moderate-High	Protected	$890.00
coast live oak (*Quercus agrifolia*)	121	12	25	Good/70%	Good	Moderate-High	Protected	$2,010.00
bay laurel (*Umbellularia californica*)	122	6	10	Good/70%	Good	Moderate-High	Protected	$500.00
coast live oak (*Quercus agrifolia*)	123	8	20	Good/70%	Good	Moderate-High	Protected	$890.00
bay laurel (*Umbellularia californica*)	124	11	20	Good/70%	Good	Moderate-High	Protected	$1,680.00

Tree Species	I.D. #	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition	Suitability	Expected Impact	Protection Status	Rounded Depreciated Value
bay laurel (*Umbellularia californica*)	125	9	20	Good/70%	Good	Moderate-High	Protected	$1,130.00
coast live oak (*Quercus agrifolia*)	126	7	20	Fair/50%	Fair	Moderate-High	Protected	$490.00
coast live oak (*Quercus agrifolia*)	127	12, 12	35	Fair/50%	Fair	Low	Large Protected	$2,870.00
valley oak (*Quercus agrifolia*)	128	24	40	Fair/50%	Fair	Low	Large Protected	$5,700.00
coast live oak (*Quercus agrifolia*)	129	12	25	Good/70%	Good	Low	Protected	$2,010.00
bay laurel (*Umbellularia californica*)	130	5, 5	20	Fair/50%	Fair	Low	Protected	$640.00
bay laurel (*Umbellularia californica*)	131	8	15	Good/70%	Good	Low	Protected	$890.00
bay laurel (*Umbellularia californica*)	132	8	15	Poor/15	Poor	Low	Protected	$380.00
coast live oak (*Quercus agrifolia*)	133	13, 18, 18	45	Fair/50%	Fair	Low	Large Protected	$7,800.00
bay laurel (*Umbellularia californica*)	134	7, 11, 10	30	Fair/50%	Fair	Low	Protected	$2,550.00
bay laurel (*Umbellularia californica*)	135	6	15	Good/70%	Good	Low	Protected	$500.00
bay laurel (*Umbellularia californica*)	136	12	30	Fair/50%	Fair	Low	Protected	$1,430.00
coast live oak (*Quercus agrifolia*)	137	16	30	Fair/50%	Fair	Low	Protected	$2,550.00

Appendix C: Photographs

C1: North stand

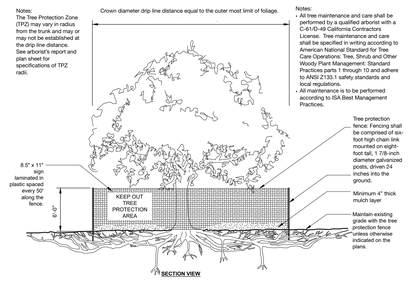


C2: South stand



Appendix D: Tree Protection Guidelines

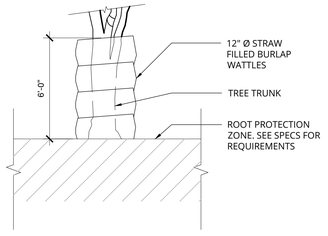
D1: Plan Sheet Detail S-X (Type I)



S-X TREE PROTECTION

URBAN TREE FOUNDATION © 2014
Detail Modified from Detail 1
Modified by Monarch Consulting Arborists LLC, 2019

D2: Plan Sheet Detail S-Y (Type III)



S-Y TRUNK PROTECTION WITH WATTLE

D3: Section 29.10.1005. - Protection of Trees During Construction

Tree Protection Zones and Fence Specifications

1. **Size and materials:** Six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than ten-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.
2. **Area type to be fenced:** Type I: Enclosure with chain link fencing of either the entire dripline area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with two-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.
3. **Duration of Type I, II, III fencing:** Fencing shall be erected before demolition, grading or construction permits are issued and remain in place until the work is completed. Contractor shall first obtain the approval of the project arborist on record prior to removing a tree protection fence.
4. **Warning Sign:** Each tree fence shall have prominently displayed an eight and one-half-inch by eleven-inch sign stating: "Warning —Tree Protection Zone—This fence shall not be removed and is subject to penalty according to Town Code 29.10.1025." Text on the signs should be in both English and Spanish (Appendix E).

All persons, shall comply with the following precautions

1. Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials, equipment cleaning, or parking of vehicles within the TPZ. The dripline shall not be altered in any way so as to increase the encroachment of the construction.
2. Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.
3. Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.
4. Prohibit the attachment of wires, signs or ropes to any protected tree.
5. Design utility services and irrigation lines to be located outside of the dripline when feasible.
6. Retain the services of a certified or consulting arborist who shall serve as the project arborist for periodic monitoring of the project site and the health of those trees to be preserved. The project arborist shall be present whenever activities occur which may pose a potential threat to the health of the trees to be preserved and shall document all site visits.
7. The Director and project arborist shall be notified of any damage that occurs to a protected tree during construction so that proper treatment may be administered.

Prohibited Activities

The following are prohibited activities within the TPZ:

- Grade changes (e.g. soil cuts, fills);
- Trenches;
- Root cuts;
- Pedestrian and equipment traffic that could compact the soil or physically damage roots;
- Parking vehicles or equipment;
- Burning of brush and woody debris;
- Storing soil, construction materials, petroleum products, water, or building refuse; and,
- Disposing of wash water, fuel or other potentially damaging liquids.

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

Roots greater than two inches in diameter shall not be cut. When roots over two inches in diameter are encountered and are authorized to be cut or removed, 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.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.

Tree Pruning and Removal Operations

All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Treatment, including pruning, shall be specified in writing according to the most recent ANSI A-300A Standards and Limitations and performed according to ISA Best Management Practices while adhering to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

This report and any appraisal value expressed herein represent the opinion of the consultant, and the consultant's fee is not contingent upon the reporting of a specified appraisal value, a stipulated result, or the occurrence of a subsequent event.

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

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.

Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist®. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner

ASCA Registered Consulting Arborist® #496
ISA Board Certified Master Arborist® WE-4341B

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REVISIONS

1	PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-3555

CERTIFIED ARBORIST WE-4341B
CERTIFIED ARBORIST NO. 496
REGISTERED PROFESSIONAL FORESTER NO. 2425
STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimensions, elevations and conditions, prior to starting any field work.
2. Plans shall be updated by field conditions or any conditions different from those shown on the plans shall be brought to the architect's attention prior to installation

ARBORIST REPORT

DATE: 12/8/21

SCALE: AS SHOWN

SHEET
AR-2

5 OF 58

APN 510-47-038

PROJECT SITE
APN 510-47-045

APN 510-47-027
4.3 Acres
EXISTING & PROPOSED

ARCH. SITE PLAN

SCALE: 1" = 10'

NOTE:
EXTERIOR LIGHTING SHALL BE KEPT TO A MINIMUM, & SHALL BE DOWN DIRECTED FIXTURES THAT WILL NOT REFLECT OR ENCROACH ONTO ADJACENT PROPERTIES. NO FLOOD LIGHTS SHALL BE USED UNLESS IT CAN BE DEMONSTRATED THAT THEY ARE NEEDED FOR SAFETY OR SECURITY.

NOTE:
(POOL IN NOT UNDER THE SCOPE OF THIS PERMIT. POOL & SPA ARE UNDER PERMIT B22-0027

LEGEND

- LOWER FLOOR GARAGE AND RESIDENCE
- MAIN FLOOR RESIDENCE
- MAIN FLOOR DECK AND LOGGIA
- UPPER FLOOR RESIDENCE
- UPPER FLOOR PAVERS YARD AREA
- LOWER FLOOR PAVERS DRIVEWAY AREA
- ASPHALT PAVED DRIVEWAY
- D.G. PATH & PATIO (SEE LANDSCAPE PLAN)
- GRASS AREA
- FUTURE POOL
- STONE FINISH RETAINING WALL AT YARD (SEE CIVIL FOR HTS)
- STUCCO FINISH RETAINING WALL AT BUILDING (SEE CIVIL FOR HTS)
- RUSTIC CONCRETE FINISH RETAINING WALL ALONG DRIVEWAY (SEE CIVIL FOR HTS)
- EXISTING WOOD FENCE
- NEW OPEN WOOD & IRON FENCE
- TREE PROTECTION FENCE (DURING CONSTRUCTION)
- EXISTING TREE (AND DRIP LINE) TO REMAIN
- EXISTING TREE TO BE REMOVED
- PROPERTY LINE
- SETBACK LINE
- LEAST RESTRICTIVE DEVELOPMENT AREA (LRDA) LINE
- E/M — JT — NEW ELECTRICAL AND DATA LINES VIA W/ NEW JOINT TRENCH LINE TO HOUSE
- W — NEW WATER METER W/ NEW LINE TO HOUSE AND FIRE PROTECTION TANKS
- SS — NEW SEWER CLEAN-OUT, W/ BACKFLOW DEVICE AS SHOWN.

SITE ADDRESS

ADDRESS SHALL BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE & VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MIN. 4" HIGH WITH A MIN. STROKE WIDTH OF ½". WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD & THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE, OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. CBC R319.1

PROPOSED EXTERIOR LIGHTS:

EXIT POINT FROM / AROUND RESIDENCE

TYPE FIXTURE TYPES:
- TYPE (FLOOR) A — CEILING SURFACED MOUNTED @ 10'-0" A.F.F.
- TYPE (FLOOR) B — PATH LIGHTS @ 3' A.F.F.
- TYPE (FLOOR) C — WALL SURFACED MOUNTED @ 7'-0" A.F.F.

EXTERIOR LIGHT FIXTURES WILL BE SHIELDED AND DOWNWARD DIRECT. ALL EXTERIOR FIXTURES LOCATED AT A HEIGHT OF FOUR FEET OR MORE WILL MEET THE REQUIREMENT TO BE FULLY CUTOFF. FIXTURES AND DOWNWARD DIRECTED SO THAT NO DIRECT LIGHT RAYS ARE EMITTED AT MORE THAN 90 DEGREES FROM THE VERTICAL.

REVISIONS
1 — PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-3555

CHRISTIAN KOHLSAAT — No. C-25455 — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
Contractor shall verify all dimensions, site conditions and conditions prior to starting any field work. Contact any discrepancies or any conditions different from those shown on these plans immediately to the Architect's attention prior to installation.

SITE PLAN

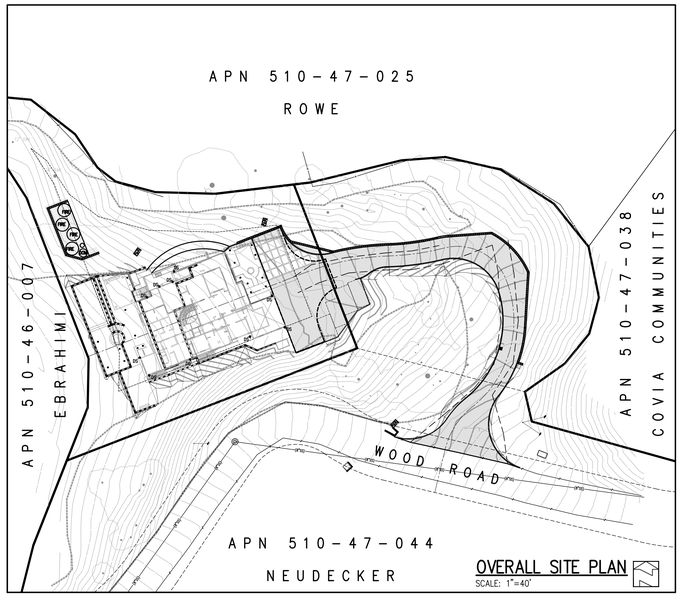
DATE: 12/8/21
SCALE: AS SHOWN
SHEET A-2
6 OF 59

PLAN FOR THE IMPROVEMENT OF

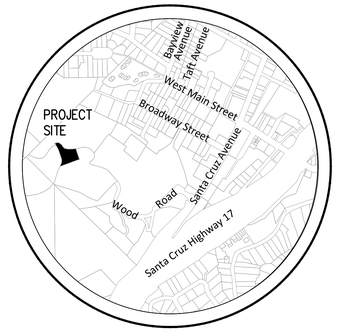
GRADING & DRAINAGE PLANS

144 WOOD ROAD - APN 510-47-045
TOWN OF LOS GATOS

GRADING PERMIT APPLICATION NO. GR 21-354



OVERALL SITE PLAN
SCALE: 1"=40'



VICINITY MAP

SHEET INDEX

1. TOWN NOTES, PROJECT DATA & ABBREVIATIONS
2.
3. EXISTING TOPOGRAPHIC SURVEY
4. SITE & UTILITY PLAN AND LEGEND
5. GRADING & DRAINAGE PLAN - 20 SCALE
   DRIVEWAY PROFILE
6. GRADING & DRAINAGE PLAN - 10 SCALE
7. CONSTRUCTION MANAGEMENT & EROSION CONTROL PLAN

TOWN OF LOS GATOS STANDARD GRADING NOTES

1. ALL WORK SHALL CONFORM TO CHAPTER 12 OF THE CODE OF THE TOWN OF LOS GATOS, THE ADOPTED CALIFORNIA BUILDING CODE AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION EXCEPT AS SPECIFIED OTHERWISE ON THESE PLANS AND DETAILS.
2. NO WORK MAY BE STARTED ON-SITE WITHOUT AN APPROVED GRADING PLAN AND A GRADING PERMIT ISSUED BY THE TOWN OF LOS GATOS, PARKS AND PUBLIC WORKS DEPARTMENT LOCATED AT 41 MILES AVENUE, LOS GATOS, CA 95030.
3. **A PRE-JOB MEETING SHALL BE HELD WITH THE TOWN ENGINEERING INSPECTOR FROM THE PARKS AND PUBLIC WORKS DEPARTMENT PRIOR TO ANY WORK BEING DONE. THE CONTRACTOR SHALL CALL THE INSPECTIONS LINE AT (408) 399-5771 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY GRADING OR ONSITE WORK. THIS MEETING SHOULD INCLUDE:**
   a. **A DISCUSSION OF THE PROJECT CONDITIONS OF APPROVAL, WORKING HOURS, SITE MAINTENANCE AND OTHER CONSTRUCTION MATTERS;**
   b. **ACKNOWLEDGEMENT IN WRITING THAT CONTRACTOR AND APPLICANT HAVE READ AND UNDERSTAND THE PROJECT CONDITIONS OF APPROVAL, AND WILL MAKE CERTAIN THAT ALL PROJECT SUB-CONTRACTORS HAVE READ AND UNDERSTAND THEM PRIOR TO COMMENCING WORK AND THAT A COPY OF THE PROJECT CONDITIONS OF APPROVAL WILL BE POSTED ON SITE AT ALL TIMES DURING CONSTRUCTION.**
4. APPROVAL OF PLANS DOES NOT RELEASE THE DEVELOPER OF THE RESPONSIBILITY FOR THE CORRECTION OF MISTAKES, ERRORS, OR OMISSIONS CONTAINED THEREIN. IF, DURING THE COURSE OF CONSTRUCTION OF THE IMPROVEMENTS, PUBLIC INTEREST AND SAFETY REQUIRES A MODIFICATION OR DEPARTURE FROM THE TOWN SPECIFICATIONS OR THESE IMPROVEMENT PLANS, THE TOWN ENGINEER SHALL HAVE FULL AUTHORITY TO REQUIRE SUCH MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE MADE.
5. APPROVAL OF THIS PLAN APPLIES ONLY TO THE GRADING, EXCAVATION, PLACEMENT, AND COMPACTION OF NATURAL EARTH MATERIALS. THIS APPROVAL DOES NOT CONFER ANY RIGHTS OF ENTRY TO EITHER PUBLIC PROPERTY OR THE PRIVATE PROPERTY OF OTHERS AND DOES NOT CONSTITUTE APPROVAL OF ANY OTHER IMPROVEMENTS.
6. EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO BE DISPOSED OF AT APPROVED LOCATION(S).
7. IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE OR CONTRACTOR TO IDENTIFY, LOCATE AND PROTECT ALL UNDERGROUND FACILITIES. PERMITTEE OR CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-227-2600 A MINIMUM OF FORTY-EIGHT (48) HOURS BUT NOT MORE THAN FOURTEEN (14) DAYS PRIOR TO COMMENCING ALL WORK.
8. ALL GRADING SHALL BE PERFORMED IN SUCH A MANNER AS TO COMPLY WITH THE STANDARDS ESTABLISHED BY THE AIR QUALITY MANAGEMENT DISTRICT FOR AIRBORNE PARTICULATES.
9. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, CODES, RULES AND REGULATIONS GOVERNING THE WORK IDENTIFIED ON THESE PLANS. THESE SHALL INCLUDE, WITHOUT LIMITATION, SAFETY AND HEALTH RULES AND REGULATIONS ESTABLISHED BY OR PURSUANT TO THE OCCUPATIONAL SAFETY AND HEALTH ACT OR ANY OTHER APPLICABLE PUBLIC AUTHORITY.
10. THE GENERAL CONTRACTOR SHALL PROVIDE QUALIFIED SUPERVISION ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
11. HORIZONTAL AND VERTICAL CONTROLS SHALL BE SET AND CERTIFIED BY A LICENSED SURVEYOR OR REGISTERED CIVIL ENGINEER QUALIFIED TO PRACTICE LAND SURVEYING, FOR THE FOLLOWING ITEMS:
    a. RETAINING WALL: TOP OF WALL ELEVATIONS AND LOCATIONS (ALL WALLS TO BE PERMITTED SEPARATELY AND APPLIED FOR AT THE TOWN OF LOS GATOS BUILDING DIVISION).
    b. TOE AND TOP OF CUT AND FILL SLOPES.
12. PRIOR TO ISSUANCE OF ANY PERMIT, THE APPLICANT'S SOILS ENGINEER SHALL REVIEW THE FINAL GRADING AND DRAINAGE PLANS TO ENSURE THAT DESIGNS FOR FOUNDATIONS, RETAINING WALLS, SITE GRADING, AND SITE DRAINAGE ARE IN ACCORDANCE WITH THEIR RECOMMENDATIONS AND THE PEER REVIEW COMMENTS. THE APPLICANT'S SOILS ENGINEER'S APPROVAL SHALL THEN BE CONVEYED TO THE TOWN EITHER BY LETTER OR BY SIGNING THE PLANS.
    SOILS ENGINEER: C2 EARTH, INC.
    REFERENCE REPORT NO. 210919C-01R1, DATED APRIL 28, 2021
    LETTER NO. 1 Grading and Drainage Plan Review, DATED AUGUST 26, 2021, SHALL BE THOROUGHLY COMPLIED WITH. BOTH THE MENTIONED REPORT AND ALL UPDATES/ADDENDUMS/
    LETTERS ARE HEREBY APPENDED AND MADE A PART OF THIS GRADING PLAN.
13. DURING CONSTRUCTION, ALL EXCAVATIONS AND GRADING SHALL BE INSPECTED BY THE APPLICANT'S SOILS ENGINEER. THE ENGINEER SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY GRADING. THE ENGINEER SHALL BE ON-SITE TO VERIFY THAT THE ACTUAL CONDITIONS ARE AS ANTICIPATED IN THE DESIGN-LEVEL GEOTECHNICAL REPORT AND/OR PROVIDE APPROPRIATE CHANGES TO THE REPORT RECOMMENDATIONS, AS NECESSARY. ALL UNOBSERVED AND/OR UNAPPROVED GRADING SHALL BE REMOVED AND REPLACED UNDER SOILS ENGINEER OBSERVANCE (THE TOWN INSPECTOR SHALL BE MADE AWARE OF ANY REQUIRED CHANGES PRIOR TO WORK BEING PERFORMED).
14. THE RESULTS OF THE CONSTRUCTION OBSERVATION AND TESTING SHOULD BE DOCUMENTED IN AN "AS-BUILT" LETTER/REPORT PREPARED BY THE APPLICANTS' SOILS ENGINEER AND SUBMITTED FOR THE TOWN'S REVIEW AND ACCEPTANCE BEFORE FINAL RELEASE OF ANY OCCUPANCY PERMIT IS GRANTED.
15. ALL PRIVATE AND PUBLIC STREETS ACCESSING PROJECT SITE SHALL BE KEPT OPEN AND IN A SAFE, DRIVABLE CONDITION THROUGHOUT CONSTRUCTION. IF TEMPORARY CLOSURE IS NEEDED, THEN FORMAL WRITTEN NOTICE TO THE ADJACENT NEIGHBORS AND THE TOWN OF LOS GATOS PARKS AND PUBLIC WORKS DEPARTMENT SHALL BE PROVIDED AT LEAST ONE (1) WEEK IN ADVANCE OF CLOSURE AND NO CLOSURE SHALL BE GRANTED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWN. NO MATERIAL OR EQUIPMENT SHALL BE STORED IN THE PUBLIC OR PRIVATE RIGHT-OF-WAY.
16. THE CONTRACTOR SHALL INSTALL AND MAINTAIN FENCES, BARRIERS, LIGHTS AND SIGNS THAT ARE NECESSARY TO GIVE ADEQUATE WARNING AND/PROTECTION TO THE PUBLIC AT ALL TIMES.
17. OWNER/APPLICANT: KAVITA BOUKNIGHT PHONE: 510.456.8167
18. GENERAL CONTRACTOR: TBD PHONE: _____
19. GRADING CONTRACTOR: TBD PHONE: _____
20. CUT: 697 CY EXPORT: 0 CY
    FILL: 534 CY IMPORT: 0 CY
21. WATER SHALL BE AVAILABLE ON THE SITE AT ALL TIMES DURING GRADING OPERATIONS TO PROPERLY MAINTAIN DUST CONTROL.
22. THIS PLAN DOES NOT APPROVE THE REMOVAL OF TREES. APPROPRIATE TREE REMOVAL PERMITS AND METHODS OF TREE PRESERVATION SHALL BE REQUIRED. TREE REMOVAL PERMITS ARE REQUIRED PRIOR TO THE APPROVAL OF ALL PLANS.
23. A TOWN ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY. A STATE ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK WITHIN STATE RIGHT-OF-WAY (IF APPLICABLE). THE PERMITTEE AND/OR CONTRACTOR SHALL BE RESPONSIBLE COORDINATING INSPECTION PERFORMED BY OTHER GOVERNMENTAL AGENCIES.
24. NO CROSS-LOT DRAINAGE WILL BE PERMITTED WITHOUT SATISFACTORY STORMWATER ACCEPTANCE DEED/FACILITIES. ALL DRAINAGE SHALL BE DIRECTED TO THE STREET OR OTHER ACCEPTABLE DRAINAGE FACILITY VIA A NON-EROSIVE METHOD AS APPROVED BY THE TOWN ENGINEER.
25. IT IS THE RESPONSIBILITY OF CONTRACTOR AND/OR OWNER TO MAKE SURE THAT ALL DIRT TRACKED INTO THE PUBLIC RIGHT-OF-WAY IS CLEANED UP ON A DAILY BASIS. MUD, SILT, CONCRETE AND OTHER CONSTRUCTION DEBRIS SHALL NOT BE WASHED INTO THE TOWN'S STORM DRAINS.
26. GOOD HOUSEKEEPING PRACTICES SHALL BE OBSERVED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION. SUPERINTENDENCE OF CONSTRUCTION SHALL BE DILIGENTLY PERFORMED BY A PERSON OR PERSONS AUTHORIZED TO DO SO AT ALL TIMES DURING WORKING HOURS. THE STORING OF GOODS AND/OR MATERIALS ON THE SIDEWALK AND/OR THE STREET WILL NOT BE ALLOWED UNLESS A SPECIAL PERMIT IS ISSUED BY THE ENGINEERING DIVISION. THE ADJACENT PUBLIC RIGHT-OF-WAY SHALL BE KEPT CLEAR OF ALL JOB RELATED DIRT AND DEBRIS AT THE END OF THE DAY. FAILURE TO MAINTAIN THE PUBLIC RIGHT-OF-WAY ACCORDING TO THIS CONDITION MAY RESULT IN PENALTIES AND/OR THE TOWN PERFORMING THE REQUIRED MAINTENANCE AT THE DEVELOPER'S EXPENSE.
27. GRADING SHALL BE UNDERTAKEN IN ACCORDANCE WITH CONDITIONS AND REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION CONTROL PLAN AND/OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP), THE TOWN OF LOS GATOS STORM WATER QUALITY MANAGEMENT PROGRAM, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND ANY OTHER PERMITS/REQUIREMENTS ISSUED BY THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD. PLANS (INCLUDING ALL UPDATES) SHALL BE ON-SITE AT ALL TIMES. NO DIRECT STORMWATER DISCHARGES FROM THE DEVELOPMENT WILL BE ALLOWED ONTO TOWN STREETS OR INTO THE PUBLIC STORM DRAIN SYSTEM WITHOUT TREATMENT BY AN APPROVED STORM WATER POLLUTION PREVENTION DEVICE OR OTHER APPROVED METHODS. MAINTENANCE OF PRIVATE STORMWATER POLLUTION PREVENTION DEVICES SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER. DISCHARGES OR CONNECTION WITHOUT TREATMENT BY AN APPROVED AND ADEQUATELY OPERATING STORMWATER POLLUTION PREVENTION DEVICE OR OTHER APPROVED METHOD SHALL BE CONSIDERED A VIOLATION OF THE ABOVE REFERENCED PERMIT AND THE TOWN OF LOS GATOS STORMWATER ORDINANCE.

TOWN OF LOS GATOS NPDES NOTES

1. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS AS REQUIRED BY THE STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT.
2. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND AS REQUIRED BY THE STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT.
3. APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILL OR RESIDES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF AS REQUIRED BY THE STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT.
4. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES AND MUST NOT BE DISCHARGED TO RECEIVING WATERS OR TO THE LOCAL STORM DRAIN SYSTEM.
5. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES (BMPS) AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
6. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY, ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
7. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT A STORM DOES NOT CARRY WASTE OR POLLUTANTS OFF OF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER (NON-STORMWATER DISCHARGES) ARE PROHIBITED EXCEPT AS AUTHORIZED BY AN INDIVIDUAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT OR THE STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, SOLVENTS, DETERGENTS, GLUES, LIME, PESTICIDES, HERBICIDES, FERTILIZERS, WOOD PRESERVATIVES AND ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE AND RELATED CUTTING OR CURING RESIDUES; FLOATABLE WASTES; WASTES FROM ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; WASTES FROM STREET CLEANING; AND SUPERCHLORINATED POTABLE WATER FROM LINE FLUSHING AND TESTING. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
8. DISCHARGING CONTAMINATED GROUNDWATER PRODUCED BY DEWATERING GROUNDWATER THAT HAS INFILTRATED INTO THE CONSTRUCTION SITE IS PROHIBITED. DISCHARGING OF CONTAMINATED SOILS VIA SURFACE EROSION IS ALSO PROHIBITED. DISCHARGING NON-CONTAMINATED GROUNDWATER PRODUCED BY DEWATERING ACTIVITIES REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

NOTE:

WHERE THE FIRM OF HANNA & BRUNETTI DOES NOT PROVIDE CONSTRUCTION STAKES, SAID FIRM WILL ASSUME NO RESPONSIBILITY WHATSOEVER FOR IMPROVEMENTS CONSTRUCTED THEREFROM.

NOTE TO CONTRACTOR

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

NOTE:

ADVANCE NOTICE SHALL BE PROVIDED TO NEIGHBORING PROPERTY OWNERS AND SCHOOLS OF HEAVY CONSTRUCTION ACTIVITIES AND HEAVY CONSTRUCTION SHALL NOT START BEFORE 8:30 AM ON DAYS WHEN SCHOOLS ARE IN SESSION. NO CONSTRUCTION IS ALLOWED ON SUNDAYS.

BASIS OF BEARINGS

THE BEARINGS ON THESE PLANS ARE BASED ON THE FOUND MONUMENTS ALONG THE WESTERLY PROPERTY LINE WITH A BEARING OF NORTH 21° 31' 04" EAST PER RECORDED DOCUMENT NUMBER 23477967.

BENCHMARK

BENCHMARK ID: BM1003
ORGANIZATION: SANTA CLARA VALLEY WATER DISTRICT
ELEVATION: 412.80 FEET (NAVD88)

DESCRIPTION:
BRASS DISK ON TOP OF CONCRETE SIDEWALK; AT THE SOUTH CORNER OF INTERSECTION FOR S SANTA CRUZ AVENUE AND W MAIN STREET; ABOUT 100 FEET SOUTHWEST FROM CENTERLINE FOR W MAIN STREET; NEAR A PUBLIC BUS STOP; RESET IN 2007. TOWN OF LOS GATOS.

FLOODZONE STATEMENT

COMMUNITY PANEL NUMBER: 06085C0376H
MAP REVISED: MAY 18, 2009

PROJECT IS LOCATED IN ZONE X

ZONE X
AN AREA INUNDATED BY 500-YEAR FLOODING; AN AREA INUNDATED BY 100-YEAR FLOODING WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; OR AN AREA PROTECTED BY LEVEES FROM 100-YEAR FLOODING.

TABLE OF PROPOSED PERVIOUS AND IMPERVIOUS AREAS

TOTAL SITE AREA: 29,632 SF	TOTAL SITE AREA DISTURBED: 14,637 SF *(INCLUDING CLEARING, GRADING OR EXCAVATING)*			
	EXISTING AREA (SF)	PROPOSED AREA (SF)		TOTAL AREA POST-PROJECT (SF)
		REPLACED	NEW	
IMPERVIOUS AREA	0	0	8,227 SF	8,227 SF
TOTAL NEW & REPLACED IMPERVIOUS AREA		8,227 SF		
PERVIOUS AREA	29,632 SF	21,405 SF	0	21,405 SF

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
ARV	AIR RELEASE VALVE
BC	BACK OF CURB
BFP	BACKFLOW PREVENTER
BW	BOTTOM OF WALL
CATV	CABLE TELEVISION
CB	CATCH BASIN
CFS	CUBIC FEET PER SECOND
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CY	CUBIC YARD
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWY	DRIVEWAY
(E)	EAST
EG	EXISTING GRADE
ELEC	ELECTRICAL
EP	EDGE OF PATH
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT
EX	EXISTING
FC	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCED MAIN
FS	FIRE SERVICE
FT	FEET
G	GAS
GA	GAUGE
GB	GRADE BREAK
GM	GAS METER
GS	GAS SERVICE
HDPE	HIGH-DENSITY POLYETHYLENE
HP	HIGH POINT
IEE	INGRESS/EGRESS EASEMENT
IN	INCH
INV	INVERT ELEVATION
LAT	LATERAL
LG	LIP OF GUTTER
LP	LOW POINT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MPH	MILES PER HOUR
(N)	NORTH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PAD	PAD ELEVATION
PCC	PORTLAND CEMENT CONCRETE
PERF	PERFORATED
PG&E	PACIFIC GAS & ELECTRIC COMPANY
PIEE	PRIVATE INGRESS/EGRESS EASEMENT
PL	PROPERTY LINE
PR	PROPOSED
PSDE	PRIVATE STORM DRAIN EASEMENT
PSE	PUBLIC SERVICE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RIM	RIM ELEVATION
R/W	RIGHT-OF-WAY
(S)	SOUTH
S	SLOPE
SCC	SANTA CLARA COUNTY
SCCFD	SANTA CLARA COUNTY FIRE DEPARTMENT
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SDE	STORM DRAIN EASEMENT
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SJWC	SAN JOSE WATER COMPANY
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSE	SANITARY SEWER EASEMENT
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
TC	TOP OF CURB
TELE	TELEPHONE
TLG	TOWN OF LOS GATOS
TW	TOP OF WALL
TYP	TYPICAL
VCP	VITRIFIED CLAY PIPE
(W)	WEST
W	WATER
WM	WATER METER
WS	WATER SERVICE
WV	WATER VALVE
WVSD	WEST VALLEY SANITATION DISTRICT
XING	CROSSING

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

REV.: DEC. 2015

REGISTERED PROFESSIONAL ENGINEER — ROBERT M. HANNA — No. 69278 — CIVIL — STATE OF CALIFORNIA
5-31-22

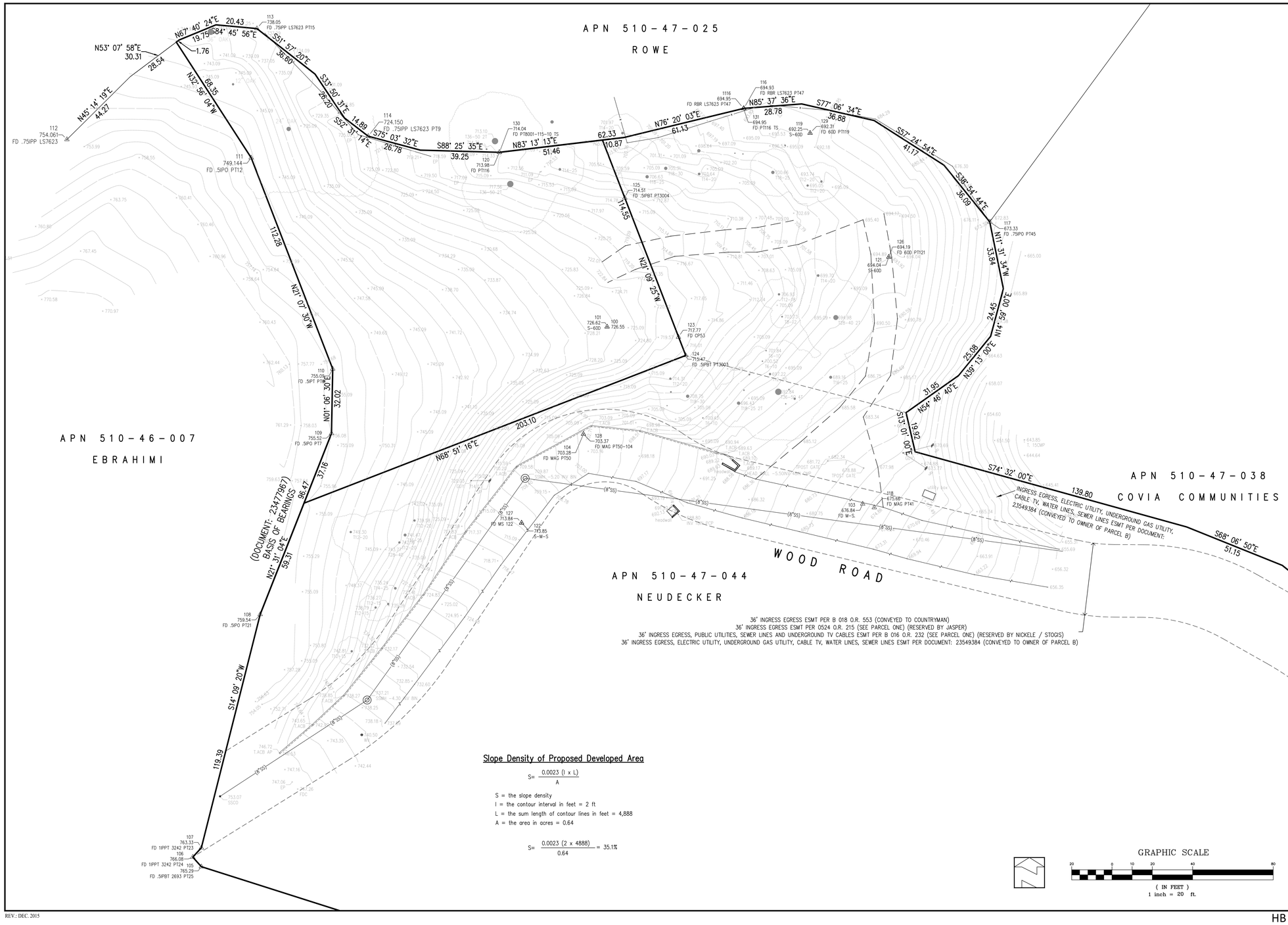
DATE: NOVEMBER 2021
SCALE: AS SHOWN
DESIGN: AM
DRAWN: TM
CHECK: XX
ENGR: AM
PROJECT NO.: 20053

PLAN FOR THE IMPROVEMENT OF
LANDS OF BOUKNIGHT - 144 WOOD ROAD
APN 510-47-045
TOWN NOTES, PROJECT DATA & ABBREVIATIONS
GRADING PERMIT APPLICATION NO. GR21-354
TOWN OF LOS GATOS — PARKS AND PUBLIC WORKS DEPARTMENT

HANNA-BRUNETTI
EST. 1978
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGERS
765 EDGLEBERRY STREET • GILROY • 95020 • CALIFORNIA
OFFICE (408) 842-2173 • FAX (408) 842-3862
EMAIL: ENGINEERING @ HANNABRUNETTI.COM

DATE	BY	REVISIONS

HB JOB NO. 20053



Slope Density of Proposed Developed Area

$$S = \frac{0.0023\ (I \times L)}{A}$$

S = the slope density
I = the contour interval in feet = 2 ft
L = the sum length of contour lines in feet = 4,888
A = the area in acres = 0.64

$$S = \frac{0.0023\ (2 \times 4888)}{0.64} = 35.1\%$$

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

REV.: DEC. 2015

3-31-22
REGISTERED PROFESSIONAL ENGINEER
ANDREW MICHAEL MOSTOFI-MUDGETT KHODEL
No. 69278
CIVIL
STATE OF CALIFORNIA

DATE:	MAY 21, 2021
SCALE:	AS SHOWN
DESIGN:	AM
DRAWN:	TM
CHECK:	XX
ENGR:	AM
PROJECT NO.:	20053

PLAN FOR THE IMPROVEMENT OF

LANDS OF BOUKNIGHT - 144 WOOD ROAD

APN 510-47-045

EXISTING TOPOGRAPHIC SURVEY

GRADING PERMIT APPLICATION NO. GR21-XXX

PARKS AND PUBLIC WORKS DEPARTMENT

TOWN OF LOS GATOS

HANNA-BRUNETTI
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGERS
7951 EIGLEBERRY STREET • GILROY • 95020 • CALIFORNIA
OFFICE (408) 842-2173 • FAX (408) 842-3662
EMAIL ENGINEERING @ HANNABRUNETTI.COM

DATE	BY	REVISIONS

HB JOB NO. 20053

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

EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED ON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATION MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 2 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 1-800-642-2444. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF UTILITIES SHOWN ON THESE PLANS, INDICATED IN THE FIELD BY LOCATING SERVICES, OR EVIDENCE BY FACILITIES VISIBLE AT OR ADJACENT TO THE JOB SITE. ANY ADDITIONAL COST INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR AND IS DEEMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.

EXISTING TREE PROTECTION DETAILS

1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND ADHERED TO DURING CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
2. FENCE SHALL BE MINIMUM 5 FEET TALL CONSTRUCTED OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH/ DURABILITY).
3. FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART.
4. TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD. INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION, REPAIRED AS NECESSARY TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL INSPECTION.
5. A SIGN THAT INCLUDES THE WORDS, "WARNING: TREE PROTECTION ZONE – THIS FENCE SHALL NOT BE REMOVED AND IS SUBJECT TO PENALTY ACCORDING TO TOWN CODE 29.10.1025," SHALL BE SECURELY ATTACHED TO THE FENCE IN A VISUALLY PROMINENT LOCATION.

36' INGRESS EGRESS ESMT PER B 018 O.R. 553 (CONVEYED TO COUNTRYMAN)
36' INGRESS EGRESS ESMT PER 0524 O.R. 215 (SEE PARCEL ONE) (RESERVED BY JASPER)
36' INGRESS EGRESS, PUBLIC UTILITIES, SEWER LINES AND UNDERGROUND TV CABLES ESMT PER B 016 O.R. 232 (SEE PARCEL ONE) (RESERVED BY NICKELE / STOGIS)
36' INGRESS EGRESS, ELECTRIC UTILITY, UNDERGROUND GAS UTILITY, CABLE TV, WATER LINES, SEWER LINES ESMT PER DOCUMENT: 23549384 (CONVEYED TO OWNER OF PARCEL B)

PROPOSED EASEMENT PLAN
SCALE: 1"=40'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

REV.: DEC. 2015

HB JOB NO. 20053

PROFESSIONAL ENGINEER – STATE OF CALIFORNIA – No. 69278 – CIVIL – REGISTERED PROFESSIONAL ENGINEER – MARK D. HANNA – 3-31-22

DATE:	NOVEMBER 2021
SCALE:	AS SHOWN
DESIGN:	AM
DRAWN:	TM
CHECK:	XX
ENGR:	AM
PROJECT NO.:	20053

PLAN FOR THE IMPROVEMENT OF
LANDS OF BOUKNIGHT - 144 WOOD ROAD
APN 510-47-045
SITE & UTILITY PLAN AND LEGEND
GRADING PERMIT APPLICATION NO. G21-354

PARKS AND PUBLIC WORKS DEPARTMENT

TOWN OF LOS GATOS

HANNA-BRUNETTI
EST. 1990
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGEMENT
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OFFICE (408) 842-2173 • FAX (408) 842-3662
EMAIL ENGINEERING @ HANNABRUNETTI.COM

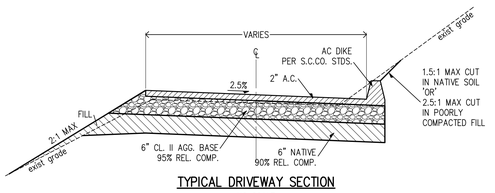
REVISIONS	BY	DATE

SHEET 4 OF 7

EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED ON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATION MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 2 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 1-800-642-2444. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF UTILITIES SHOWN ON THESE PLANS, INDICATED IN THE FIELD BY LOCATING SERVICES, OR EVIDENCE BY FACILITIES VISIBLE AT OR ADJACENT TO THE JOB SITE. ANY ADDITIONAL COST INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR AND IS DEEMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.

LEGEND

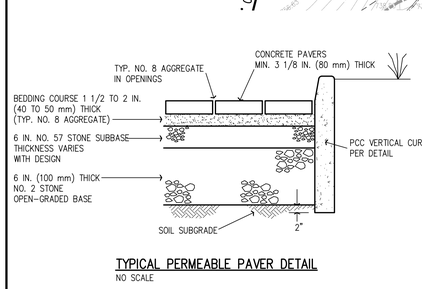
EXISTING	PROPOSED
450	454 CONTOUR ELEVATION
(W)	WATER MAIN
(SD)	(length) LF (size) SD @ S=(grade) STORM DRAIN
(SS)	(length) LF (size) SS @ S=(grade) SANITARY SEWER
	ELECTROLIER
	FLOW DIRECTION
	DROP INLET
	MANHOLE
	CURB INLET
	WATER METER SERVICE
	FIRE HYDRANT
	WATER VALVE
	SIDEWALK
	VERTICAL CURB
	CURB & GUTTER
	JOINT TRENCH
	RETAINING WALL
	DRAINAGE SWALE
	SEWER LATERAL
	TREE TO BE REMOVED
	MONUMENT
	ROCK RIP-RAP



TYPICAL DRIVEWAY SECTION

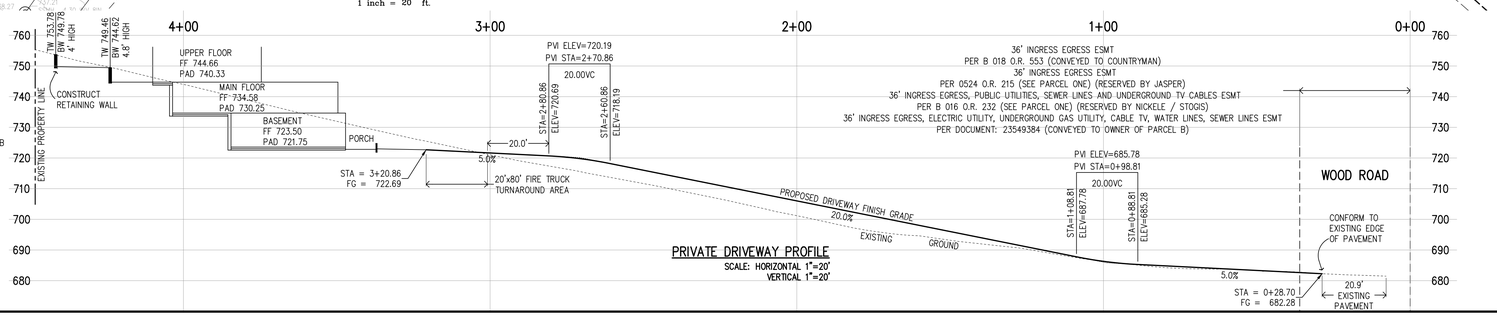
NO SCALE

NOTE: PER GEOTECHNICAL ENGINEER, USE A MINIMUM PAVEMENT SECTION OF 2 INCHES OF ASPHALT OVER 6 INCHES OF CALTRANS CLASS II BASEROCK COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.



TYPICAL PERMEABLE PAVER DETAIL

NO SCALE



PRIVATE DRIVEWAY PROFILE

SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=20'



GRAPHIC SCALE

36' INGRESS EGRESS ESMT PER B 018 O.R. 553 (CONVEYED TO COUNTRYMAN)
36' INGRESS EGRESS ESMT PER 0524 O.R. 215 (SEE PARCEL ONE) (RESERVED BY JASPER)
36' INGRESS EGRESS, PUBLIC UTILITIES, SEWER LINES AND UNDERGROUND TV CABLES ESMT PER B 016 O.R. 232 (SEE PARCEL ONE) (RESERVED BY NICKELE / STOGIS)
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REV.: DEC. 2015

PROFESSIONAL ENGINEER — REGISTERED — No. 69278 — CIVIL — STATE OF CALIFORNIA
5-31-22

DATE:	NOVEMBER 2021
SCALE:	AS SHOWN
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PLAN FOR THE IMPROVEMENT OF
LANDS OF BOUKNIGHT - 144 WOOD ROAD
APN 510-47-045
GRADING & DRAINAGE PLAN
GRADING PERMIT APPLICATION NO. GR21-354

PARKS AND PUBLIC WORKS DEPARTMENT

TOWN OF LOS GATOS

HANNA-BRUNETTI
EST. 1980
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGERS
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EMAIL ENGINEERING@HANNABRUNETTI.COM

DATE	BY	REVISIONS

SHEET 5 OF 7

HB JOB NO. 20053

HB JOB NO. 20053

◇	REVISIONS	BY	DATE

HANNA-BRUNETTI
EST. 1994
CIVIL ENGINEERS • LAND SURVEYORS
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EMAIL: ENGINEERING@HANNABRUNETTI.COM

PLAN FOR THE IMPROVEMENT OF

LANDS OF BOUKNIGHT - 144 WOOD ROAD

APN 510-47-045

GRADING & DRAINAGE PLAN

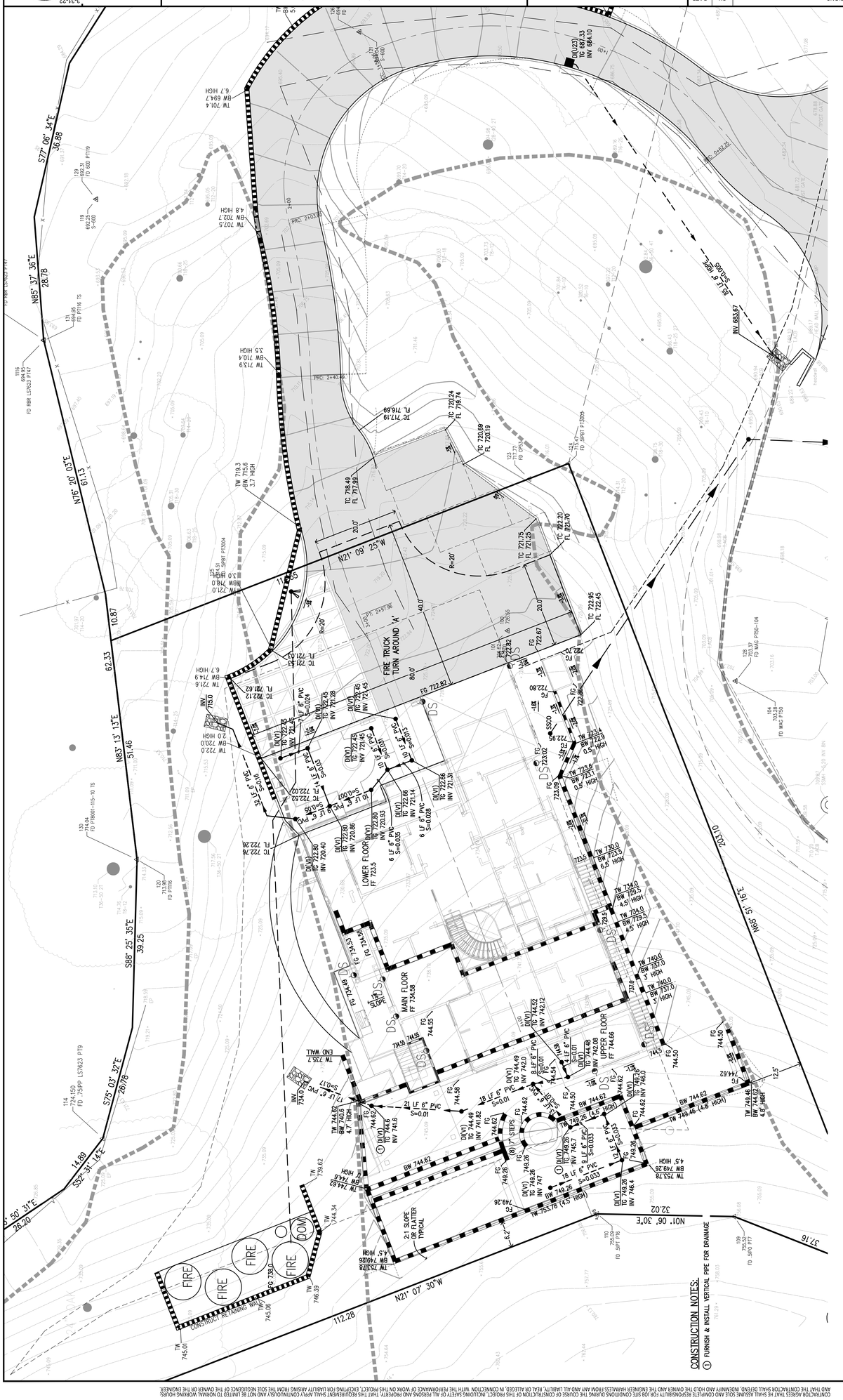
GRADING PERMIT APPLICATION NO. GR21-354

TOWN OF LOS GATOS — PARKS AND PUBLIC WORKS DEPARTMENT

DATE:	NOVEMBER 2021
SCALE:	1"=10'
DESIGN:	AM
DRAWN:	TM
CHECK:	XX
ENGR:	AM
PROJECT NO.:	20053

3-31-22

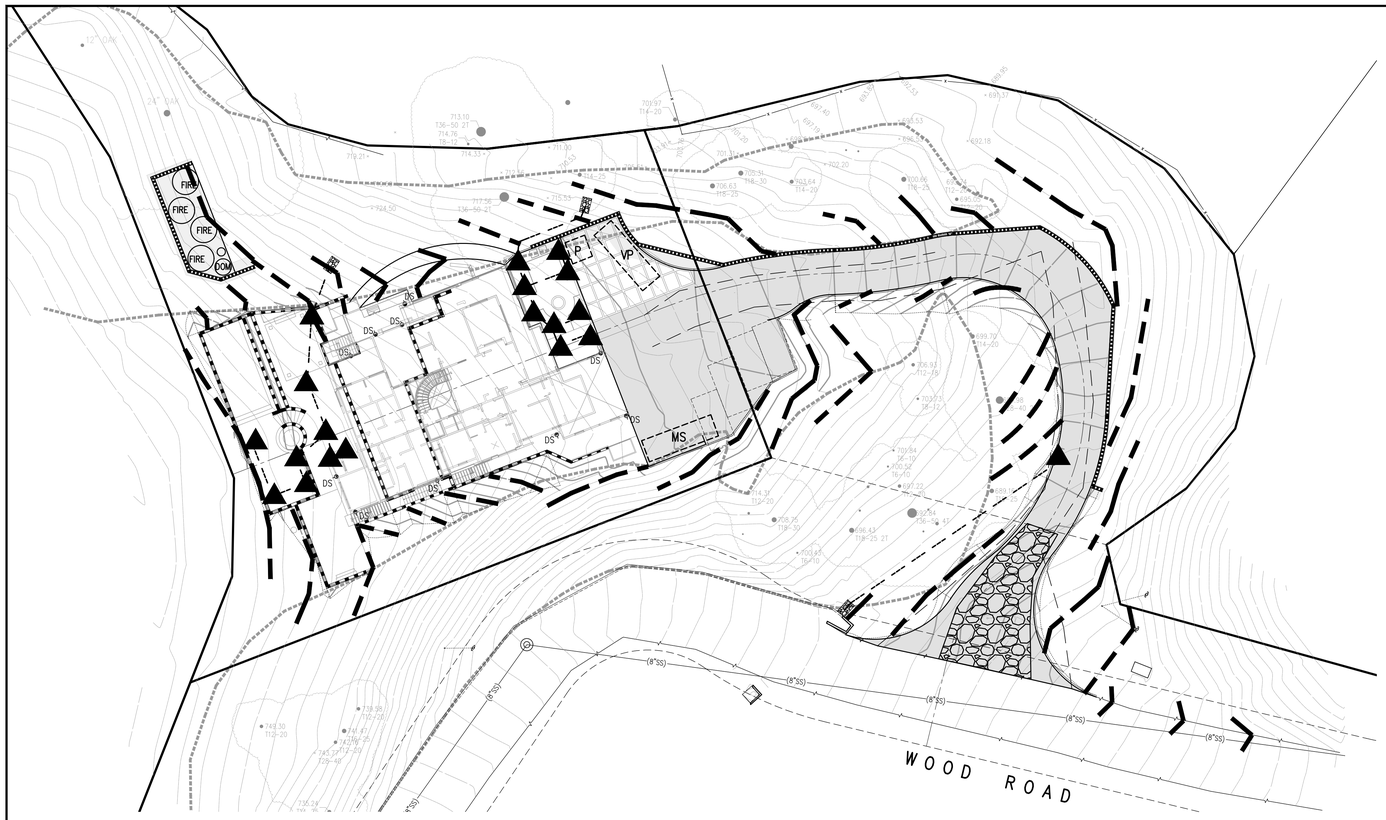
CIVIL ENGINEER
No. 69278
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA



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

REV.: DEC. 2015

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES SHALL BE EFFECTIVE FOR CONSTRUCTION DURING THE RAINY SEASON; OCTOBER 15 THROUGH APRIL 15.

2. NO STORM WATER RUNOFF SHALL BE ALLOWED TO DRAIN INTO THE EXISTING AND/OR PROPOSED UNDERGROUND STORM SYSTEM UNTIL SUITABLE EROSION CONTROL MEASURES ARE FULLY IMPLEMENTED. NO STORM WATER RUNOFF SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM THAT IS NOT CLEAR, AND FREE OF SILTS.

3. A FIBER ROLL PER "FIBER ROLL DETAIL SE-5" SHALL BE INSTALL ALONG THE PERIMETER OF THE PROJECT SITE. THE LOCATION OF THE FIBER ROLL ALONG THE PERIMETER SHALL BE ADJUSTED TO ELIMINATE SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE. A FIBER ROLL SHALL ALSO BE REQUIRED AROUND THE PERIMETER OF ANY STOCKPILE OR OTHER SITE OF BARE, LOOSE EARTH.

4. ALL STORM DRAIN MANHOLES, CATCH BASINS, AND/OR DROP INLETS THAT ARE TO ACCEPT STORM WATER SHALL HAVE INLET PROTECTION MEASURES PER DETAIL SE-10. STORM WATER RUNOFF SHALL BE DIRECTED TO THESE INLETS ONLY. STORM DRAIN CATCH BASINS THAT ARE NOT COMPLETE, SHALL BE BLOCKED OFF COMPLETELY.

5. THE NAME, ADDRESS, AND 24 HOUR TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR THE IMPLEMENTATION OF THE EROSION CONTROL PLAN SHALL BE PROVIDED TO THE CITY.

6. PRIOR TO GRADING, AN ENTRANCE SHALL BE CONSTRUCTED, CONSISTING OF A MINIMUM OF 50 LF OF DRAIN ROCK, 3" IN DIAMETER, PLACED OVER MIRAFI 500X (OR EQUAL) PER DETAIL TC-1. THE ENTRANCE SHALL CONFORM TO "CONSTRUCTION ENTRANCE DETAIL TC-1". THERE SHALL BE ONLY ONE ENTRANCE/EXIT POINT TO THE SITE DURING THE RAINY SEASON. THE LOCATION SHALL BE AS SHOWN ON THESE PLANS, OR AT A LOCATION APPROVED BY THE CITY.

7. ALL AREAS OF BARE, TURNED OR DISTURBED EARTH SHALL BE STABILIZED BY USE OF HYDROSEED OR NON-VEGETATIVE STABILIZATION PER EC-16, PER THE TABLE BELOW. ALL STOCKPILES, AND/OR BORROW AREAS SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES SUCH AS A PERIMETER SILT FENCE, AND OTHER METHODS TO PREVENT ANY EROSION OR SILTS MIGRATION. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THE EROSION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS, BUT ONLY WITH THE APPROVAL OF, OR AT THE DIRECTION OF THE QSD. THE STORM DRAIN SYSTEM SHALL MAINTAIN A FORM OF DRAIN INLET PROTECTION UNTIL CITY ACCEPTS THE FINAL STREET IMPROVEMENTS. THE DRAIN INLET PROTECTION SHALL BE MAINTAINED, EFFECTIVE AND SUBJECT TO CITY ENGINEER'S APPROVAL.

8. ALL PAVED STREET, AND AREAS ADJACENT TO THE SITE SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO ELIMINATE SEDIMENT LADEN RUNOFF FROM ENTERING THE STORM DRAIN SYSTEM.

9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT AND REPAIR ALL EROSION CONTROL FACILITIES AT THE END OF EACH DAY. ANY DAMAGED STRUCTURAL MEASURES ARE TO BE REPAIRED BY END OF THE DAY. TRAPPED SEDIMENT IN "SD INLETS" (AND OTHER EROSION CONTROL MEASURES) SHALL BE REMOVED TO MAINTAIN TRAP EFFIENCY. REMOVED SEDIMENT SHALL BE DISPOSED BY SPREADING ON SITE, WHERE IT WILL NOT MIGRATE.

10. IT IS THE RESPOSIBILITY OF THE CONTRACTOR TO PREVENT THE FORMATION OF AIRBORNE DUST NUISANCE AND SHALL BE RESPOSIBLE FOR ANY DAMAGE RESULTING FROM A FAILURE TO DO SO.

11. ALL DRAIN SWALES SHALL BE PER DETAIL EC-9.

12. INCOMPLETE GRADING SHALL NOT BE ALLOWED. CONTRATOR SHALL MAINATIN A DRAIN PATH AS SHOWN ON THIS PLAN. SAID DRAIN PATH SHALL BE MAINTAINED LINED DRAIN SWALES, AND INLET PROTECTION AT A MINIMUM. IF PONDING DOES OCCUR ON THE SITE AFTER GRADING, THE WATER MUST BE FREE AND CLEAR OF SEDIMENT PRIOR TO DISCHARGE TO THE STORM DRAIN SYSTEM. THIS REQUIREMENT MAY NECESSITATE THE USE OF NATURAL AND/OR MECHANICAL DESILTING METHODS, SUBJECT TO APPROVAL BY THE CITY ENGINEER.

13. IF THESE EROSION CONTROL MEASURE PROVE INADEQUATE, STRAW MULCH, TACKIFIER, AND ADDITIONAL HYDROSEEDING MAY BE REQUIRED.

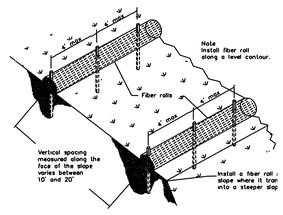
HYDROSEED TABLE

ITEM	LBS/ACRE
COMMON BARLEY	45
ANNUAL RYEGRASS	45
CRIMSON CLOVER	10
FERTILIZER 7-2-3	400
FIBER MULCH	2000
TACKIFIER	100

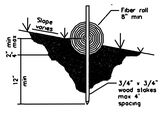
LEGEND

- CONSTRUCTION ENTRANCE/EXIT PER DETAIL ST-250
- FIBER ROLL BARRIER PER DETAIL SE-5
- STORM DRAIN INLET PROTECTION PER DETAIL SE-10
- SILT FENCE BARRIER PER DETAIL SE-1 AROUND PERIMETER OF PROJECT SITE
- P — PORT-O-LET WITH SECONDARY CONTAINMENT
- MS — MATERIAL STORAGE AND LAYDOWN AREA
- VP — CONSTRUCTION TRAILER AND VEHICLE PARKING AREA

SE-5 Fiber R

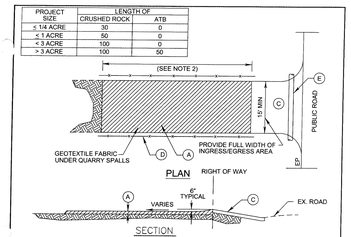


TYPICAL FIBER ROLL INSTALLATION
N.T.S



ENTRENCHMENT DETAIL
N.T.S.

PROJECT SIZE:	LENGTH OF: CRUSHED ROCK	ATB
≤ 1/4 ACRE	30	0
≤ 1 ACRE	50	0
< 3 ACRE	100	0
> 3 ACRE	100	50



(A) 4" CRUSHED ROCK WITH GEOTEXTILE MATERIAL UNDERNEATH.
(B) THE MINIMUM LENGTH SHALL BE LENGTHENED AS NECESSARY TO ENSURE MATERIAL IS NOT TRACKED INTO THE PUBLIC RIGHT-OF-WAY. ALTERNATE CONSTRUCTION ENTRANCES WILL BE ALLOWED WITH APPROVAL OF THE CITY ENGINEER ON A CASE BY CASE BASIS, WHERE PHYSICAL SITE CONDITIONS AND SIZE DICTATE.
(C) ATB DRIVEWAY RAMP, OR SITE ACCESS ROAD 20' WIDE MIN. SEE TABLE ABOVE FOR REQUIRED LENGTH.
(D) INSTALL ORANGE BARRIER FENCE TO DIRECT TRAFFIC ONTO CONSTRUCTION ENTRANCE
(E) INSTALL 12" MIN. DIA. CULVERT IF A ROADSIDE DITCH IS PRESENT.

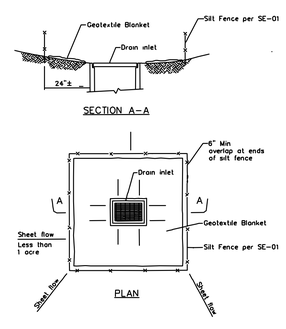
NOTES:
1 SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE PROVIDED
2 MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
3 WHEEL'S SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS USED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
4 PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

NOT TO SCALE

APPROVED BY	DATE	STABILIZED CONSTRUCTION ENTRANCE	STD PLAN NO.
TOWN ENGINEER	NOVEMBER 2010		ST-250

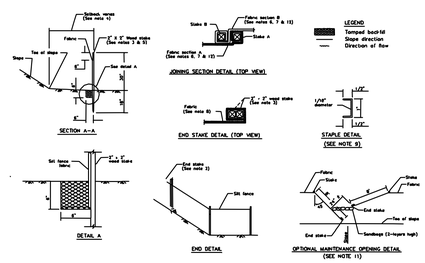
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E-10 Storm Drain Inlet Protection



DI PROTECTION TYPE 1
NOT TO SCALE

NOTES
1 For use in areas where grading has been completed and final soil stabilization and seeding are pending
2 Not applicable in paved areas
3 Not applicable with concentrated flows.



SE-1 Silt Fence

CONSTRUCTION MANAGEMENT PLAN

EARTH MOVEMENT PLAN

1. GRADE BUILDING PAD AND DRIVEWAY TO APPROPRIATE ELEVATIONS FOR CONSTRUCTION.
2. WATER WILL BE USED FOR DUST CONTROL WHILE EARTH MOVEMENT IS TAKING PLACE.

PRELIMINARY CONSTRUCTION SCHEDULE

MONTHS 1-2
(PENDING PERMIT APPROVAL)
EROSION CONTROL
DEMOLITION
GRADING
STORM DRAIN SYSTEM
BASEROCK DRIVEWAY
FOUNDATION/RETAINING WALLS
FOUNDATION FORMS
INSPECTION AND POUR

MONTH 3-4
FRAMING
SHEAR WALL
WINDOWS AND DOORS

MONTH 4-5
ELECTRICAL INSTALLATION
MECHANICAL INSTALLATION
PLUMBING INSTALLATION
ROOF AND WATERPROOF EXTERIOR

MONTH 6-7
PATIOS, FLATWORK, PLANTERS
SIDING INSTALLATION
INSPECTION
SHEETROCK, TAPE AND TEXTURE

MONTH 8-9
LANDSCAPING AND PLANTING
FINISHES
CABINETS
FLOORING
TILE

REV.: DEC. 2015

PLAN FOR THE IMPROVEMENT OF
LANDS OF BOUKNIGHT - 144 WOOD ROAD
APN 510-47-045
CONSTRUCTION MANAGEMENT & EROSION CONTROL PLAN
GRADING PERMIT APPLICATION GR21-354 PARKS AND PUBLIC WORKS DEPARTMENT
TOWN OF LOS GATOS

PROFESSIONAL ENGINEER ★ ANDREW MICHAEL ADAMS ★ No. 69278 ★ CIVIL ★ STATE OF CALIFORNIA
3-31-22

DATE: NOVEMBER 2021
SCALE: AS SHOWN
DESIGN: AM
DRAWN: TM
CHECK: XX
ENGR: AM
PROJECT NO.: 20053

HANNA-BRUNETTI
EST 1978
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGERS
7651 EIGLEBERRY STREET • GILROY • 95020 • CALIFORNIA
OFFICE (408) 842-2173 • FAX (408) 842-3662
EMAIL: ENGINEERING @ HANNABRUNETTI.COM

REVISIONS	BY	DATE

SHEET 7 OF 7

HB JOB NO. 20053

ARCHITECTURAL NOTES

OPENABLE WINDOW AREA
OPENABLE WINDOW AREA: HABITABLE ROOMS MUST BE 4% OF THE FLOOR AREA FOR VENTILATION. EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF @ GRADE LEVEL ROOMS | 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSIONS OF 24" HIGH AND 20" WIDE & SHALL NOT EXCEED 44" ABOVE FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPENABLE FROM INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED & OPERABLE FROM THE LOWEST LATCH. R303.1 , R310.

GLAZING CERTIFICATION
ALL NEW GLAZING (FENESTRATIONS) WILL BE INSTALLED WITH A CERTIFYING LABEL ATTACHED, SHOWING THE U-VALUE

EXTERIOR DOORS
ALL EXTERIOR DOORS SHALL BE SOLID CORE DOORS W/ STILES & RAILS NOT LESS THAN 1¾" THICK. PANELS NOT LESS THAN 1¼" THICK. ALL GLAZING SHALL BE DUAL GLAZED & TEMPERED.

SAFETY GLAZING
GLAZING IN THE FOLLOWING LOCATIONS SHALL BE OF SAFETY GLAZING MATERIAL IN ACCORDANCE WITH CRC SECTION R308.4:
a) FIXED & SLIDING PANELS OF SLIDING DOOR ASSEMBLIES & PANELS IN SWINGING DOORS.
b) ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR WHEN CLOSED & THE BOTTOM EDGE IS 60" OR LESS ABOVE THE WALKING SURFACE.
c) DOORS, ENTERIOR WINDOWS & ENCLOSURES FOR BATHTUBS & SHOWERS & IN ANY PORTION OF A BATHTUB OR SHOWER ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE & DRAIN OUTLET.
d) GLAZING WHERE THE EXPOSED AREA OF AN INDIVIDUAL PANE IS MORE THAN 9 SQUARE FEET, THE BOTTOM EDGE IS LESS THAN 18 INCHES FROM THE FLOOR, THE TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR & ONE OR MORE WALKING SURFACES IS WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

SHOWER WINDOWS
WINDOWS IN SHOWERS SHALL BE MADE FROM MATERIALS THAT ARE NOT ADVERSELY AFFECTED BY MOISTURE. GLAZING SHALL BE TEMPERED. CRC R307.2 R308.4

WOODEN BACKING
WINDOW, DOOR, WOODEN BACKING SHALL BE PROVIDED IN ALL BATHROOM WALLS AT WATER CLOSETS, SHOWERS, BATHTUBS & TOWEL BAR WALLS LOCATED 34" FROM THE FLOOR. FURTHER, PROVIDE BACKING FOR GRAB BARS FOR TOILETS ON FIRST FLOOR.

FINISHES
PROVIDE 5/8" GYP. BOARD AT ALL INTERIOR WALL & CEILG LOCATIONS.
INTERIOR WALL AND CEILING PAINTS SHALL BE LOW-VOC (100 GPL/VOCS (NON-FLAT) AND (150 VOCS (NON-FLAT GLOSS)) WOOD FINISHES SHALL BE LOW (VOC WATER BASED ((280 GPL/VOCS)) GAULK & CONSTRUCTION ADHESIVES SHALL BE LOW (VOC (70 GPL/VOCS)) TO KEEP FORMALDEHYDE IN INTERIOR FINISHES A MINIMUM OF 50% OF INTERIOR TRIM SHALL BE POPLAR OR ALDER

ACCESS
WOMEN FLOOR.
ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH THE FLOOR SHALL BE A MINIMUM 18" X 24". OPENINGS THROUGH A PERIMETER WALL SHALL BE NOT LESS THAN 16" X 24". R408.4

ATTIC
BUILDING WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT EXCEED 30 SQ. FEET & HAVE A VERTICAL HEIGHT OF 30" OR GREATER. THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE OPENING SHALL NOT BE LESS THAN 22" X 30" AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHEN THE ACCESS IS LOCATED IN A CEILING, A MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30" AT SOME POINT ABOVE THE ATTIC ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF THE CEILING FRAMING MEMBERS. R307.1

LANDING
FLOORS & LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼" UNIT VERTICAL IN 12 UNIT HORIZONTAL (2%) R311.3

RESIDENTIAL TOWN ACCESSIBILITY STANDARDS
THE RESIDENCE SHALL BE DESIGNED WITH ADAPTABILITY FEATURES FOR A SINGLE FAMILY RESIDENCE PER TOWN RESOLUTION 1994-81:
A. WOODEN BACKING (2" X 8" MINIMUM) SHALL BE PROVIDED IN ALL BATHROOM WALLS, AT WATER CLOSETS, SHOWERS AND BATHTUBS AT 34" FROM THE FLOOR TO THE CENTER OF THE BACKING, SUITABLE FOR THE INSTALLATION OF GRAB BARS.
B. ALL PASSAGE DOORS SHALL BE AT LEAST 32" WIDE ON THE ACCESSIBLE FLOOR.
C. PRIMARY ENTRANCE SHALL BE A 36" WIDE DOOR MINIMUM INCLUDING A LEVEL LANDING, NO MORE THAN 1" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE.
D. DOOR BUZZER, BELL OR CHIME SHALL BE HARD WIRED AT PRIMARY ENTRANCE.

WILDLAND-URBAN INTERFACE

ROOF VALLEYS:
VALLEYS & GUTTERS SHALL BE 26 GAUGE GALV. SHEET CORROSION-RESISTANT METAL INSTALLED OVER NOT LESS THAN ONE LAYER OF 72LB MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ASTM D 3909, AT LEAST 36" WIDE THE FULL LENGTH OF THE VALLEY. GUTTERS WILL HAVE THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES & DEBRIS IN THE GUTTER. AS REQ'D PER SEC. R337.5.3 & R337.5.4 TYP.

VENTS:
WHERE PROVIDED, VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, & UNDERFLOOR VENTILATION SHALL BE IN ACCORDANCE WITH SECTION 1203 OF THE CBC & SECTIONS R337.7.6.1 THROUGH R337.5.3 OF THIS SECTION TO RESIST BUILDING IGNITION FROM THE INTRUSION OF BURNING EMBERS & FLAME THROUGH THE VENTILATION OPENING. R337.7.6.1

EXTERIOR WALLS:
EXTERIOR WALL COVERINGS SHALL BE APPROVED NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL & EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF & TERMINATE AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE. R337.7.5

ENCLOSED EAVES & EAVE SOFFITS:
THE EXPOSED UNDERSIDE OF ENCLOSED EAVES HAVING EITHER A BONED-IN EAVE SOFFIT WITH A HORIZONTAL UNDERSIDE, OR SLOPING RAFTER TAILS WITH AN EXTERIOR COVERING APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS, SHALL BE PROTECTED BY ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL
2. IGNITION RESISTANT MATERIAL
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.
5. BOXED IN EAVE SOFFIT ASSEMBLIES WITH A HORIZONTAL UNDERSIDE THAT MEET THE PERFORMANCE CRITERIA IN ACCORDANCE WITH THE TEST PROCEDURES SET FORTH IN EITHER OF THE FOLLOWING:
   5.1 SFM STANDARD 12-7A-5 OR ASTM E2957
   EXCEPTIONS: THE FOLLOWING MATERIALS DO NOT REQUIRE PROTECTION:
   1. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
   2. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.5

UNDERFLOOR PROTECTION:
UNDERFLOOR AREAS SHALL MAINTAIN THE IGNITION-RESISTANT INTEGRITY OF EXTERIOR WALLS. PER SEC. R337.7.5 TYP.

EXTERIOR GLAZING:
EXTERIOR GLAZING SHALL BE INSULATING GLASS UNITS WITH A MINIMUM OF ONE TEMPERED PANE. PER R337.5.2

EXTERIOR DOORS:
EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-1 OR SHALL BE OF APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES & RAILS NOT LESS THAN 1⅜" THICK WITH INTERIOR FIELD PANEL THICKNESS NO LESS THAN 1⅛" THICK, OR SHALL HAVE A FIRE-RESISTANT RATING OF NOT LESS THAN 20 MIN. PER R337.8.3

GUTTERS
GUTTER SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. CBC R337.5.4

OPEN ROOF EAVES
THE EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL CONSIST OF ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL.
2. IGNITION RESISTANT MATERIAL.
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF THE ROOF DECK.
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WAL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE ROOF DECK. DESIGNED FOR EXTERIOR FIRE EXPOSURE INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.

EXCEPTIONS:
1. SOLID WOOD RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
2. SOLID WOOD BLOCKING INSTALLED BETWEEN RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
3. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
4. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.4

A1.0 STRUCTURE

- A1.1 4" NOM. STUD WALL — 3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.2 6" NOM. STUD WALL — 5½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.3 8" NOM. STUD WALL — 7½" THICK STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.4 10" NOM. STUD WALL — 9½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.5 6" CONCRETE RETAINING WALL W/2X WOOD WALL — 6" CONCRETE RETAINING WALL W/½" GAP W/2X FLAT LAY STUDS @ 16" O.C.
- A1.6 8" CONCRETE RETAINING WALL W/2X WOOD WALL — 8" CONCRETE RETAINING WALL W/½" GAP W/2X FLAT LAY STUDS @ 16" O.C.
- A1.7 12" CONCRETE RETAINING WALL W/2X4 STUD WALL — 12" CONCRETE RETAINING WALL W/½" GAP W/2X4 STUDS @ 16" O.C.
- A1.8 UNDER FLOOR ACCESS — FLOORS & LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼ UNIT VERTICAL IN 12 UNITS HORIZONTAL (2%) CRC R311.3 FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOOR SHALL BE THE SAME. FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 7¾" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR CRC R311.3.1
- A1.10 TEMPERED GLASS — SEE ARCHITECTURAL NOTE FOR SAFETY GLAZING
- A1.11 PROTECTION OF WOOD & WOOD BASED PRODUCTS AGAINST DECAY — LOCATION REQUIRED. PROTECTION OF WOOD & WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY THE USE OF NATURAL DECAY RESISTANT WOOD OR WOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PROD UCT, PRESERVATIVE & END USE. PRESERVATIVE SHALL BE LISTED IN SECTION 4 OF AWPA U1.
  WOOD SIDING, SHEATHING & WOOD FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND OR LESS THAN 2 INCHES MEASURED VERTICALLY FROM CONCRETE STEPS, PORCH SLABS, PATIO SLABS, AND SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER. R317.1
- A1.12 STAIRWAYS. — STAIRWAYS: WIDTH. STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT & BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4½" ON EITHER SIDE OF THE STAIRWAY & THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT & BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS & LANDINGS, SHALL NOT BE LESS THAN 31½", WHERE A HANDRAIL IS INSTALLED ON ONE SIDE & 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE MAXIMUM RISER HEIGHT SHALL BE 7¾". THE MINIMUM TREAD DEPTH SHALL BE 10". AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1¼ Ø TO 2" STAIR HANDRAIL BAR TO 30" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4½" DIA SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A1.16 GUARDS @ BALCONY — PROVIDE 42" H. GUARDRAIL AT LANDINGS, WALKWAYS, BALCONIES & SIMILAR WALKING SURFACES WITH ADJACENT OPENINGS MORE THAN 30" ABOVE FLOOR OR GRADE BELOW. PROVIDE BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A1.17 FRONT DOOR — PRIMARY ENTRANCE SHALL BE A 36" WIDE DOOR MINIMUM INCLUDING A 5'X5' LEVEL LANDING, NO MORE THAN 1" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE
- A1.18 PATIO STAIR — STAIR AT PATIO FROM MAIN FLOOR TO UPPER FLOOR SHALL HAVE A 6¾" RISE X 10" RUN W/ A HANDRAIL ON AT LEAST ONE SIDE
- A1.19 LIGHT WELL STAIR — STAIR AT BOTH SIDE LIGHT WELL SHALL HAVE A 6 ½" RISE X 11" RUN W/HANDRAIL ON AT LEAST ONE SIDE.
- A1.19 LOWER TO MAIN FLOOR STAIR — 16 RISERS @ 7" 15 TREADS 10½" MEASURED 12" FROM INSIDE EDGE
- A1.14 MAIN TO SECOND FLOOR STAIR — 17 RISERS @ 7" 16 TREADS 12" WITH 2 INTERMEDIATE LANDINGS
- A1.15 HANDRAIL @ STAIR — AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1¼" Ø TO 2" STAIR HANDRAIL BAR TO 30" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4½" DIA SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
  HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1¼" & NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4" & NOT GREATER THAN 6¼" WITH A MAXIMUM CROSS SECTION OF 2¼". EDGES SHALL HAVE A MINIMUM RADIUS OF .01" CRC R311.1

A2.0 FINISHES

- A2.1 ⅝" GYPSUM BOARD — ⅝" GYPSUM BOARD SHALL BE APPLY THROUGH OUT THE RESIDENCE. TYP. U.O.N.
- A2.2 ⅝" TYPE 'X' GYPSUM BOARD — ⅝" TYPE 'X' GYPSUM BOARD AT GARAGE CEILNG
- A2.2 STONE VENEER — ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12 CLEARANCES ON EXTERIOR VENEER WALLS SHALL BE: 4" MIN. ABOVE EARTH, 2" ABOVE PAVED AREAS, 1" ABOVE EXTERIOR FACING SURFACES WHICH ARE SUPPORTED BY THE FOUNDATION THAT SUPPORTS THE EXTERIOR WALLS. R703.12.1

A3.0 FENESTRATION

- A3.1 SOLID CORE DOOR — PROVIDE SOLID CORE 20 MIN. RATED DOOR WITH SELF CLOSER AND WEATHER STRIPPING, TIGHTLY SEAL TO CREATE AIR BARRIER
- A3.2 SAFETY GLASS SHOWER DOORS — PROVIDE FULLY TEMPERED, LAMINATED SAFETY GLASS SHOWER ENCLOSURE AND DOOR. SHOWER DOOR SHALL HAVE A MIN. CLEAR FINISHED OPENING OF 22" MIN.
- A3.3 EGRESS WINDOW — EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF AT GRADE LEVEL & 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSION OF 24" HIGH & 20" WIDE & SHALL NOT EXCEED 44" CLEAR OPENING ABOVE FINISHED FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPERABLE FROM INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED & OPERABLE FROM THE LOWEST LATCH R310
- A3.4 EXTERIOR VENTS — ANY EXTERIOR WALL OR DOOR VENTS SHALL BE COVERED W/ CORROSION-RESISTANT NON-MESH W/MESH OPENINGS OF 1/16TH" MIN. & 1/8TH" MAX. CRC § R337.8.2
- A3.5 GARAGE DOOR — WHEN VISIBLE GAPS EXCEED ⅛" BETWEEN DOORS & DOOR OPENINGS AT THE BOTTOM, SIDES, & TOPS OF DOORS, SUCH GAPS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:
  A. WEATHER-STRIPPING LISTED IN ACCORDANCE WITH THE TESTING CRITERIA OF CRC § R337.8.4, PROVIDE MANUFACTURER'S SPECIFICATIONS SHOWING COMPLIANCE WITH CRITERIA & NOT THE MANUFACTURER'S NAME & WEATHER-STRIPPING TYPE ON THE PLANS. CRC § R337.8.4, OPTION #1.
  B. DOOR OVERLAPS ONTO JAMBS & HEADERS. CRC § R337.8.4, OPTION #2
  C. GARAGE DOOR JAMBS & HEADERS COVERED WITH METAL FLASHING. CRC § R337.8.4, OPTION #3

A4.0 CABINETRY

- A4.1 BUILT-IN VANITY — BUILT-IN ENCLOSED VANITY
- A4.2 BUILT-IN CABINETS — UPPER & LOWER CABINETS AND COUNTERTOPS
- A4.3 CLOSETS — FOLDS & SHELVES, CONFIG. PER INT. DESIGNER
- A4.5 ISLAND COUNTER — LOWER CABINETS W/COUNTER & SEATING AREA
- A4.6 PANTRY SHELVES — CONFIG. PER INT. DESIGNER

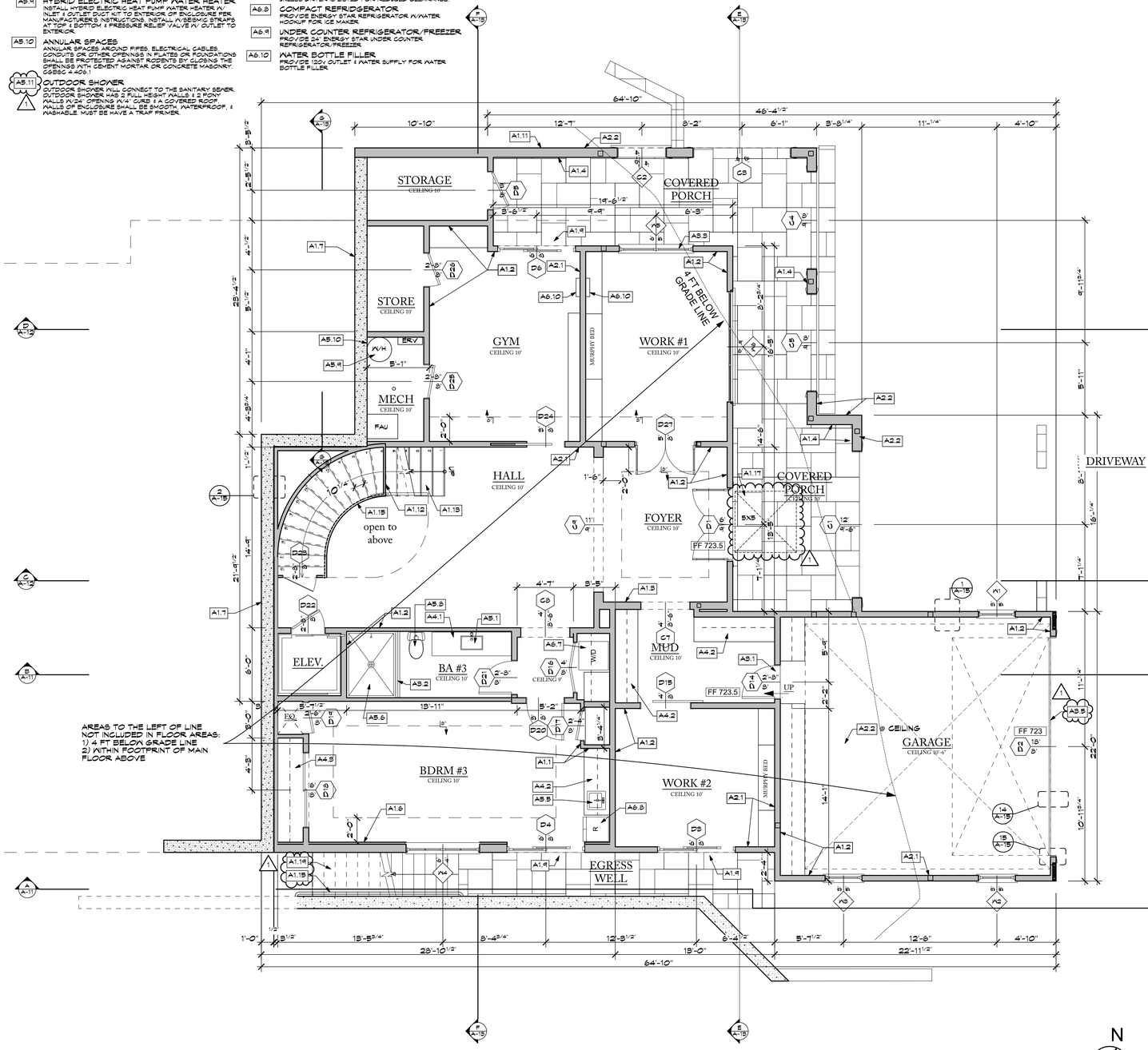
A5.0 PLUMBING

- A5.1 REGT. SINK(S) IN VANITY CABINET
- A5.2 LARGE DOUBLE SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.4 UTILITY SINK — 50" WIDE UTILITY SINK PER OWNER
- A5.5 SMALL SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.6 TILED SHOWER — SHOWER STALL WITH WATER PROOF PAN & INSTEGET TILE FULL HEIGHT ABOVE FLOOR LINE OVER FIBER CEMENT BOARD OVER REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS & FIBER-REINFORCED GYPSUM BACKERS. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS. R307.2 & R702.4.2 & R702.3.8 SHOWER & TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE OR BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 408.3
- A5.7 SPA BATH TUB — THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE JETTED BATH TUB (WHIRLPOOL BATHTUB FILLER SHALL BE LIMITED TO 120°F BY A DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3. PROVIDE GFCI OUTLET ON SEPARATE GFCI PROTECTED CIRCUIT FOR WHIRLPOOL TUB. CIRCULATION PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. PROVIDE REMOVABLE PANEL TO ACCESS & REMOVE THE PUMP. THE PUMP & COMPLATION PUMP SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. CPC TELE 1402.1. PROVIDE FITTING ON WHIRLPOOL BATH FILLER PER ASME STANDARD WITH THE LISTED STANDARDS. CPC 409.5 BATH TUB TO BE SELECTED BY OWNER
- A5.8 HIGH-EFFICIENCY WALL MOUNTED TOILET — PROVIDE ONLY HIGH-EFFICIENCY DUAL-FLUSH OR 1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL OR OBSTRUCTION & SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5
- A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER — INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER W/ INLET & OUTLET DUCT KIT TO EXTERIOR OR BALCONIES PER MANUFACTURER'S INSTRUCTIONS. INSTALL W/SEISMIC STRAPS AT TOP & BOTTOM & PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.
- A5.10 ANNULAR SPACES — ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES OR FOUNDATIONS SHALL NOT EXCEED 4" IN ANY DIMENSION. SEAL BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CBSEC 4.406.1
- A5.11 OUTDOOR SHOWER — OUTDOOR SHOWER WILL CONNECT TO THE SANITARY SEWER. SHOWER WILL HAVE A FULL HEIGHT PRIVACY WALLS ON 3 SIDES WALLS W/24" OPENING W/4" CURB & A COVERED ROOF. WALLS OF ENCLOSURE SHALL BE SMOOTH, WATERPROOF, & WASHABLE MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

- A6.1 48" INDUCTION RANGE — PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.
- A6.2 RANGE VENT HOOD — PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER SOURCE. MIN. 100CFM. WHERE COMBUSTION APPLIANCES OR SOLID-FUEL BURNING APPLIANCES ARE LOCATED INSIDE THE RESIDENCE BOUNDARY, THE MAXIMUM ALLOWABLE NET EXHAUST FLOW OF THE TWO LARGEST EXHAUST FANS SHALL NOT EXCEED 15 CFM PER 100 SQ FT. OF OCCUPIABLE SPACE WHEN OPERATING AT FULL CAPACITY. IF THE DESIGNED TOTAL NET FLOW EXCEEDS THIS LIMIT, THE NET EXHAUST FLOW MUST BE REDUCED BY REDUCING THE EXHAUST FLOW OR PROVIDING COMPENSATING OUT-DOOR AIRFLOW (NOTE: IF MAKE-UP AIR IS INSTALLED, IT MUST BE ELECTRICALLY INTERLOCKED WITH THE LARGEST EXHAUST FAN). ASHRAE 62.2 § 6.4
- A6.5 COUNTER DEPTH REFRIGERATOR/FREEZER — PROVIDE 36" ENERGY STAR REFRIGERATOR/FREEZER W/ WATER FOR AUTOMATIC ICE MAKER
- A6.4 DISHWASHER — PROVIDE ENERGY STAR DISHWASHER USING ≤ 5.8 GAL/ CYCLE (≤ 270 KWH/YEAR). NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OF FLOOR MATE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIRGAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD. W/HICHEVER IS HIGHER. CPC § 807.5
- A6.5 WASHER — FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR AND CEE TIER 2 REQUIREMENTS (MODIFIED ENERGY FACTOR 2.0, WATER FACTOR 6.0)
- A6.6 DRYER — PROVIDE 4" MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX. LENGTH 14' PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.7 STACKED WASHER/DRYER — PROVIDE 4" MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX. LENGTH 14' PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.8 COMPACT REFRIDGERATOR — PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER.
- A6.9 UNDER COUNTER REFRIGERATOR/FREEZER — PROVIDE 24" ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER
- A6.10 WATER BOTTLE FILLER — PROVIDE 120V OUTLET & WATER SUPPLY FOR WATER BOTTLE FILLER.
- A6.11 78" ELECTRIC FIREPLACE — PROVIDE 120V, 15 AMP JUNCTION BOX, W/ LISTING CSA 22.2 NO. 46-M1983. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS.
- A6.12 43" ELECTRIC FIREPLACE — PROVIDE 120V, 15 AMP JUNCTION BOX, W/ LISTING CSA 22.2 NO. 46-M1983. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS.

LEGEND
- WOOD STUD WALL
- CONCRETE REC. WALL
- PAVED OUTDOOR DECK / PATIOS
- PAVED YARD AREAS
- ROOF COVERING



LOWER FLOOR PLAN

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

N

REVISIONS	
1	PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
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REGISTERED ARCHITECT — CHRISTOPHER KOHLSAAT — No. C-25455 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
Contractor shall verify all dimensions and conditions prior to starting any field work. Called to Field conditions, or any conditions different from those shown on the plans shall be brought to the Architect's attention prior to installation

LOWER FLOOR PLAN

DATE: 12/8/21

SCALE: AS SHOWN

SHEET
A-3
13 OF 58

ARCHITECTURAL NOTES

OPENABLE WINDOW AREA
OPENABLE WINDOW AREA IN HABITABLE ROOMS MUST BE 4% OF THE FLOOR AREA FOR VENTILATION. EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF AT GRADE LEVEL ROOMS 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSIONS OF 24" HIGH AND 20" WIDE & SHALL NOT EXCEED 44" ABOVE FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPERABLE FROM INSIDE TO PROVIDE A FULL OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL BEDROOM WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED & OPERABLE FROM THE LOWEST LATCH. R303.1, R310.

GLAZING CERTIFICATION
ALL NEW GLAZING (FENESTRATIONS) WILL BE INSTALLED WITH A CERTIFYING LABEL ATTACHED, SHOWING THE U-VALUE.

EXTERIOR DOORS
ALL EXTERIOR DOORS SHALL BE SOLID CORE DOORS W/ STILES & RAILS NOT LESS THAN 1 3/8" THICK & PANELS NOT LESS THAN 1¼" THICK. ALL GLAZING SHALL BE DUAL GLAZED & TEMPERED.

SAFETY GLAZING
GLAZING IN THE FOLLOWING LOCATIONS SHALL BE OF SAFETY GLAZING MATERIAL IN ACCORDANCE WITH CRC SECTION R308.4:
a) FIXED & SLIDING PANELS OF SLIDING DOOR ASSEMBLIES & PANELS IN SWINGING DOORS.
b) ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR WHEN CLOSED & THE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
c) DOORS, ENCLOSURE WINDOWS & ENCLOSURES FOR BATHTUBS & SHOWERS & IN ANY PANEL OR A DOOR & WINDOW ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE & DRAIN OUTLET.
d) GLAZING IN ANY INDIVIDUAL PANE WITHIN THE INDIVIDUAL IS MORE THAN 9 SQUARE FEET, THE BOTTOM EDGE IS LESS THAN 18 INCHES FROM THE FLOOR, THE TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR & ONE OR MORE WALKING SURFACES IS WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

SHOWER WINDOWS
WINDOWS IN SHOWERS SHALL BE MADE FROM MATERIALS THAT ARE NOT ADVERSELY AFFECTED BY MOISTURE. GLAZING SHALL BE TEMPERED. CRC R307.2 R308.4

WOODEN BACKING
WIND. WOODEN BACKING SHALL BE PROVIDED IN ALL BATHROOM WALLS AT WATER CLOSETS, SHOWERS, BATHTUBS & TOWEL BAR WALLS LOCATED 34" FROM THE FLOOR, FURTHER, PROVIDE BACKING FOR GRAB BARS FOR TOILETS ON FIRST FLOOR.

FINISHES
PROVIDE 5/8" GYP. BOARD AT ALL INTERIOR WALL & CEILG LOCATIONS. INTERIOR WALL AND CEILING PAINTS SHALL BE LOW-VOC (100 GPL/VOCS (NON-FLAT) & (150 VOCS (NON-FLAT) GLOSS). WOOD FINISHES SHALL BE LOW VOC WATER BASED ((250 GPL/VOCS). CAULK & CONSTRUCTION ADHESIVES SHALL BE LOW VOC (70 GPL/VOCS). CARPET & CARPET CUSHION IN INTERIOR FINISHES A MINIMUM OF 50% OF INTERIOR TRIM SHALL BE POPLAR OR ALDER.

ACCESS
MAIN FLOOR.
ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH THE FLOOR SHALL BE A MINIMUM 18" X 24". OPENINGS THROUGH A PERIMETER WALL SHALL BE NOT LESS THAN 16" X 24". R408.4

ATTIC
BULLDING WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT EXCEED 30 SQ. FEET & HAVE A VERTICAL HEIGHT OF 30" OR GREATER. THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE MINIMUM UNOBSTRUCTED OPENING SHALL BE NOT LESS THAN 22 1/2 SQ. AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE THE ACCESS OPENING IS A CEILING HATCH, A MINIMUM CLEAR HEADROOM IN THE ATTIC SPACE SHALL BE 30" AT SOME POINT ABOVE THE ATTIC ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF THE CEILING FRAMING MEMBERS. R807.1

LANDING
FLOORS & LANDINGS AT EXTERIOR DOORS. THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF THE TRAVEL. THE SLOPE AT LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼" UNIT VERTICAL IN 12 UNIT HORIZONTAL (2%) R311.3

RESIDENTIAL TOWN ACCESSIBILITY STANDARDS
THE RESIDENCE SHALL BE DESIGNED WITH ADAPTABILITY FEATURES FOR A SINGLE FAMILY RESIDENCE PER TOWN RESOLUTION 1994-81:
A. WOODEN BACKING (2" X 8" MINIMUM) SHALL BE PROVIDED IN ALL BATHROOM WALLS, AT WATER CLOSETS, SHOWERS AND BATHTUBS AT THE FRONT, TO THE FLOOR TO THE CENTER OF THE BACKING, SUITABLE FOR THE INSTALLATION OF GRAB BARS.
B. ALL PASSAGE DOORS SHALL BE AT LEAST 32" WIDE ON THE ACCESSIBLE FLOOR.
C. PRIMARY ENTRANCE SHALL BE A 36" WIDE DOOR WHICH INCLUDING A 5'-0" LEVEL LANDING. NO MORE THAN 1" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE.
D. DOOR BUZZER, BELL OR CHIME SHALL BE HARD WIRED AT PRIMARY ENTRANCE.

WILDLAND-URBAN INTERFACE

ROOF VALLEYS:
VALLEYS & GUTTERS SHALL BE 26 GAUGE GALV. SHEET CORROSION-RESISTANT METAL INSTALLED OVER NOT LESS THAN ONE LAYER OF 72LB MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ID 8404. AT LEAST 36" WIDE THE FULL LENGTH OF THE VALLEY. GUTTERS WILL HAVE THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES & DEBRIS IN THE GUTTER. AS REQ'D PER SEC. R337.5.3 & R337.5.4 TYP.

VENTS:
WHERE PROVIDED, VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, & UNDERFLOOR VENTILATION SHALL BE IN ACCORDANCE WITH SECTION 1203 OF THE CBC & SECTIONS R337.6.1 THROUGH R337.6.3 OF THIS SECTION TO RESIST BULDING IGNITION FROM THE INTRUSION OF BURNING EMBERS & FLAME THROUGH THE VENTILATION OPENING. R337.6.1

EXTERIOR WALLS:
EXTERIOR WALL COVERINGS SHALL BE APPROVED NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL & EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF & TERMINATE AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE. R337.7.3

ENCLOSED EAVES & EAVE SOFFITS:
THE EXPOSED UNDERSIDE OF ENCLOSED EAVES HAVING EITHER A BOXED-IN EAVE SOFFIT WITH A HORIZONTAL UNDERSIDE, OR SLOPING RAFTER TAILS WITH AN EXTERIOR COVERING APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS, SHALL BE PROTECTED BY ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL
2. IGNITION RESISTANT MATERIAL
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.
5. BOXED IN EAVE SOFFIT ASSEMBLIES WITH A HORIZONTAL UNDERSIDE THAT MEET THE PERFORMANCE CRITERIA IN ACCORDANCE WITH THE TEST PROCEDURES SET FORTH IN EITHER OF THE FOLLOWING:
   5.1 ASTM STANDARD 12-7A-3 OR ASTME837
   EXCEPTIONS: THE FOLLOWING MATERIALS DO NOT REQUIRE PROTECTION:
   1. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
   2. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.5

UNDERFLOOR PROTECTION:
UNDERFLOOR AREAS SHALL MAINTAIN THE IGNITION-RESISTANT INTEGRITY OF EXTERIOR WALLS. PER SEC. R337.7.3 TYP.

EXTERIOR GLAZING:
EXTERIOR GLAZING SHALL BE INSULATING GLASS UNITS WITH A MINIMUM OF ONE TEMPERED PANE PER R337.8.2

EXTERIOR DOORS:
EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-1 OR SHALL BE OF APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES & RAILS NOT LESS THAN 1⅜" THICK WITH INTERIOR FIELD PANEL THICKNESS NO LESS THAN 1⅜" THICK, OR SHALL HAVE A FIRE-RESISTANT RATING OF NOT LESS THAN 20 MIN. PER R337.8.3

GUTTERS
GUTTER SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. CBC R337.5.4

OPEN ROOF EAVES
THE EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL CONSIST OF ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL.
2. IGNITION RESISTANT MATERIAL.
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF THE ROOF DECK.
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE ROOF DECK DESIGNED FOR EXTERIOR FIRE EXPOSURE INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.

EXCEPTIONS:
1. SOLID WOOD RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
2. SOLID WOOD BLOCKING INSTALLED BETWEEN RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
3. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
4. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.4

A1.0 STRUCTURE

A1.1 4" NOM. STUD WALL
3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.

A1.2 6" NOM. STUD WALL
5½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.

A1.3 8" NOM. STUD WALL
7¼" THICK STUD WALL FROM 2X STUDS @ 16" O.C.

A1.4 10" NOM. STUD WALL
9¼" TH. STUD WALL FROM 2X STUDS @ 16" O.C.

A1.5 6" CONCRETE RETAINING WALL W/2X NOOD WALL
6" CONCRETE RETAINING WALL W/½" GAP W/2X FLAT LAY STUDS @ 16" O.C.

A1.6 8" CONCRETE RETAINING WALL W/2X NOOD WALL
8" CONCRETE RETAINING WALL W/½" GAP W/2X FLAT LAY STUDS @ 16" O.C.

A1.7 12" CONCRETE RETAINING WALL W/2X4 STUD WALL
12" CONCRETE RETAINING WALL W/½" GAP W/2X4 STUDS @ 16" O.C.

A1.8 UNDER FLOOR ACCESS
18" X 24" OPENING IN FLOOR OR 16" X 24" IN PERIMETER WALL R408.4

A1.9 EXTERIOR LANDINGS
FLOORS & LANDINGS AT EXTERIOR DOORS. THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF THE TRAVEL. THE SLOPE AT LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼" UNIT VERTICAL IN 12 UNIT HORIZONTAL (2%) R311.3

A1.10 TEMPERED GLASS
SEE ARCHITECTURAL NOTE FOR SAFETY GLAZING

A1.11 PROTECTION OF NOOD & NOOD BASED PRODUCTS AGAINST DECAY
LOCATION REQUIRED.
PROTECTION OF WOOD & WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE & END USE. PRESERVATIVE SHALL BE LISTED IN SECTION 4 OF AWPA U1.
WOOD SIDING, SHEATHING & WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND OR, LESS THAN 2 INCHES MEASURED VERTICALLY FROM CONCRETE STEPS, PORCH SLABS, PATIO SLABS, & SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER. R317.1

A1.12 STAIRWAYS:
STAIRWAYS: WIDTH. STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT & BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4½" ON EITHER SIDE OF THE STAIRWAY & THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT & BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS & LANDINGS, SHALL NOT BE LESS THAN 31½", WHERE A HANDRAIL IS INSTALLED ON ONE SIDE & 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE MAXIMUM RISER HEIGHT SHALL BE 7¾". THE MINIMUM TREAD DEPTH SHALL BE 10". RISER: THE RISER HEIGHT SHALL BE MEASURED, PROVIDE MIN. ONE 1½ @ TO 2-0 STAIR HANDRAIL 34", TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS SHALL PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE A CLEAR SPACE OF 1½" BETWEEN THE HANDRAIL & WALL & SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR OTHER CONSTRUCTION TO PREVENT OBJECTS FROM BEING CAUGHT. GRIPS: WHERE REQUIRED HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1¼" & NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4" & NOT GREATER THAN 6¼" WITH A MAXIMUM CROSS SECTION OF 2¼". EDGES SHALL HAVE A MINIMUM RADIUS OF 0" CRC R311.7

A1.13 LOWER TO MAIN FLOOR STAIR.
18 RISERS 7" 18 TREADS 10½" MEASURED 12" FROM INSIDE EDGE

A1.14 MAIN TO SECOND FLOOR STAIR
17 RISERS 7" 16 TREADS 10½" WITH 2 INTERMEDIATE LANDINGS

A1.15 HANDRAIL @ STAIR
AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1½"Ø TO 2"Ø @ 34" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE A 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FOR THE FULL FLIGHT & TERMINATE AT NEWEL POSTS OR RETURN TO WALL PROVIDE BALUSTERS. WHERE REQUIRED SUCH THAT A 4⅜" SPHERE CANNOT PASS THROUGH. HANDRAILS SHALL PROVIDE SHOE BRACKS. SPECS. & CALCS FOR APPROVAL BY ARCHITECT. CRC R312

A1.16 GUARDS @ BALCONY
PROVIDE 42" H. GUARDRAIL AT LANDINGS, WALKWAYS, BALCONIES & DECKS. LANDING SURFACES WITH ADJACENT OPENINGS MORE THAN 30" ABOVE FLOOR OR GRADE BELOW. PROVIDE BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS., SPECS. & CALCS FOR APPROVAL BY ARCHITECT. CRC R312

A1.17 ARGONT DOOR
PRIMARY ENTRANCE SHALL BE A 36" WIDE DOOR WHICH INCLUDING A 5'-0" LEVEL LANDING. NO MORE THAN ½" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE.

A1.18 PATIO STAIR
STAIR AT PATIO FROM MAIN FLOOR TO UPPER FLOOR SHALL HAVE 6 @ 8½" RISE X 10" RUN W/ A HANDRAIL ON AT LEAST ONE SIDE

A1.19 LIGHT WELL STAIR
STAIR AT BOOTS SIDE LIGHT WELL SHALL HAVE A 6 ½" RISE X 11" RUN W/HANDRAIL ON AT LEAST ONE SIDE

A2.0 FINISHES

A2.1 ⅝" GYPSUM BOARD
⅝" GYPSUM BOARD SHALL BE APPLY THROUGH OUT THE RESIDENCE TYP. U.N.

A2.2 ⅝" TYPE 'X' GYPSUM BOARD
⅝" TYPE 'X' GYPSUM BOARD AT GARAGE CEILING

A2.3 STONE VENEER
ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12
CLEARANCES ON EXTERIOR VENEER WALLS SHALL BE 4" MIN. ABOVE EARTH, 2" ABOVE PAVED AREAS, ½" ABOVE EXTERIOR SURFACES SLOPED AWAY & 6" SEPARATED BY THE FOUNDATION THAT SUPPORTS THE EXTERIOR WALLS. R703.12.1

A3.0 FENESTRATION

A3.1 SOLID CORE DOOR
PROVIDE SOLID CORE 20 MIN. RATED DOOR WITH SELF CLOSER, WITH WEATHER STRIPPING, TIGHTLY SEAL TO CREATE AIR BARRIER

A3.2 SAFETY GLASS SHOWER DOORS
PROVIDE FULLY TEMPERED LAMINATED SAFETY GLASS SHOWER ENCLOSURE AND DOOR. SHOWER DOOR SHALL HAVE A MIN. CLEAR FINISHED OPENING OF 22" WIDE

A3.3 EGRESS WINDOW
EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF AT GRADE LEVEL & 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSION OF 24" HIGH & 20" WIDE & SHALL NOT EXCEED 44" CLEAR OPENING ABOVE FINISHED FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPERABLE FROM INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED & OPERABLE FROM THE LOWEST LATCH. R310

A3.4 EXTERIOR VENTS
VENTS ENTERING ATTIC OR DOOR VENTS SHALL BE COVERED W/ CORROSION-RESISTANT WIRE MESH W/MESH OPENINGS OF 1/16TH MIN. & 1/8TH MAX. SEC § R337.6.2

A3.5 GARAGE DOOR
WHEN VISIBLE GAPS EXCEED ½" BETWEEN DOORS & DOOR OPENINGS AT THE BOTTOM, SIDES, & TOP, GAPS OF EXCESS SUCH GAPS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:
A. WEATHER-STRIPPING LISTED IN ACCORDANCE WITH THE TESTING CRITERIA IN CRC § R337.5.4. PROVIDED MANUFACTURER'S SPECIFICATIONS SHOWING COMPLIANCE WITH CRITERIA & NOT THE MANUFACTURER'S NAME & VENTILATION RATING TYPE ON THE PLANS. CRC § R337.5.4.
   OPTION #1
B. GASKETS OVERLAPS ONTO JAMBS & HEADERS. CRC § R337.5.4.
   OPTION #2
C. GARAGE DOOR JAMBS & HEADERS COVERED WITH METAL FLASHING. CRC § R337.5.4. OPTION #3

A4.0 CABINETRY

A4.1 BUILT-IN VANITY
BUILT-IN ENCLOSED VANITY

A4.2 BUILT-IN CABINETS
UPPER & LOWER CABINETS AND COUNTERTOPS

A4.3 CLOSETS
ROLL 6 SHELVES, CONFIG. PER INT. DESIGNER

A4.5 ISLAND COUNTER
LOWER CABINETS W/COUNTER & SEATING AREA

A4.6 PANTRY SHELVES
CONFIG. PER INT. DESIGNER

A5.0 PLUMBING

A5.1 RECT. SINK(S) IN VANITY CABINET

A5.2 LARGE DOUBLE SINK W/DISPOSAL
PROVIDE AIR SWITCH FOR DISPOSAL

A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL
PROVIDE AIR SWITCH FOR DISPOSAL

A5.4 UTILITY SINK
30" WIDE UTILITY SINK PER OWNER

A5.5 SMALL SINK W/DISPOSAL
PROVIDE AIR SWITCH FOR DISPOSAL

A5.6 TILED SHOWER
SHOWER STALL WITH WATER PROOF PAN & WETSET TILE FULL HEIGHT ABOVE FLOOR. LINE CLEAR FISHER CEMENT FIBER-MAT REINFORCED CEMENT. GLASS MAT GYPSUM BACKERS (FIBERBOARD OR GYPSUM BACKERS. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS. R702.3 & R702.4.2 R307.2 & R309.3 SHOWER & TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 408.3

A5.7 SPA BATH TUB
THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB FILLER SHALL BE LIMITED TO 120°F BY A DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3. CPC 409.4 SPA TUB ON SEPARATE GFCI PROTECTED CIRCUIT. FOR WHIRLPOOL TUB, CIRCULATION PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. PROVIDE REMOVABLE PANEL TO ACCESS & REMOVE THE PUMP. THE PUMP & CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. CPC TBLE 14011, PROVIDE ANTI-SCALD FAUCETS. IF SHOWER HEAD IS NOT FLUSH WITH THE LISTED STANDARDS. CPC 409.6 BATH TUB TO BE SELECTED BY OWNER.

A5.8 HIGH-EFFICIENCY WALL MOUNTED TOILET
PROVIDE ONLY HIGH-EFFICIENCY DUAL-FLUSH OR 1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL THE CLEAR SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5

A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER
INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER W/ INLET & OUTLET DUCT KIT TO EXTERIOR OR CONDITIONED SPACE PER MANUFACTURER'S INSTRUCTIONS. INSTALL W/SEISMIC STRAPS AT TOP & BOTTOM & PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.

A5.10 ANNULAR SPACES
ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES OR FOUNDATIONS SHALL BE PROTECTED AGAINST RODENTS BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CBSSC 4.406.1

A5.11 OUTDOOR SHOWER
OUTDOOR SHOWER WILL CONNECT TO THE SANITARY SEWER. OUTDOOR SHOWER HAS A TILED FLOOR & WALLS W/24" OPENING W/4" CURB & A COVERED ROOF. PROVIDE ENCLOSURE SHALL BE WEATHERPROOF, & WASHABLE. MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

A6.1 48" INDUCTION RANGE
PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.

A6.2 RANGE VENT HOOD
PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER FOR LIGHT, 100CFM
WHERE COMBUSTION APPLIANCES OR SOLID-FUEL BURNING APPLIANCES ARE LOCATED INSIDE THE PRESCRIBED BOUNDARY, THE MAXIMUM ALLOWABLE NET EXHAUST FLOW FROM THE HOME'S EXHAUST SYSTEM SHALL NOT EXCEED 15 CFM PER 100 SQ FT OF OCCUPIABLE SPACE. WHEN SECTION 1710 APPLIES, IF THE CALCULATED ALLOWABLE NET FLOW EXCEEDS THIS LIMIT, THE NET EXHAUST FLOW SHALL JUST BE REDUCED BY KEEPING THE SMALLEST FLOOR PROVIDING COMPENSATING OUT-DOOR AIRFLOW (NOTE: IF RANGE HOOD IS INTERLOCKED WITH THE LARGEST EXHAUST FAN, IT MUST BE ELECTRICALLY INTERLOCKED WITH THE LARGEST EXHAUST FAN). ASHRAE 62.2 6.5.4

A6.3 COUNTER DEPTH REFRIGERATOR/FREEZER
PROVIDE 36" ENERGY STAR REFRIGERATOR/FREEZER W/ WATER, ICE & CRYSTAL ICE MAKER

A6.4 DISHWASHER
PROVIDE ENERGY STAR DISHWASHER USING ≤ 3.5 GAL/CYCLE & ≤ 270 KWH/YEAR. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD WASTE DISPOSER UNLESS THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE IS INSTALLED. AIRGAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL (FL) MARKING FOR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD WHICHEVER IS HIGHER. CPC § 807.5

A6.5 WASHER
FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR VER. 8.0 TIER 2 REQUIREMENTS (MODIFIED ENERGY FACTOR 2.0, WATER FACTOR 6.0)

A6.6 DRYER
PROVIDE 4" DIA. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' PER CMC 504.4.4.1 MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.

A6.7 STACKED WASHER/DRYER
PROVIDE 4" MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' PER CMC 504.4.4.1 MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.

A6.8 COMPACT REFRIDGERATOR
PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER

A6.9 UNDER COUNTER REFRIGERATOR/FREEZER
PROVIDE ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER

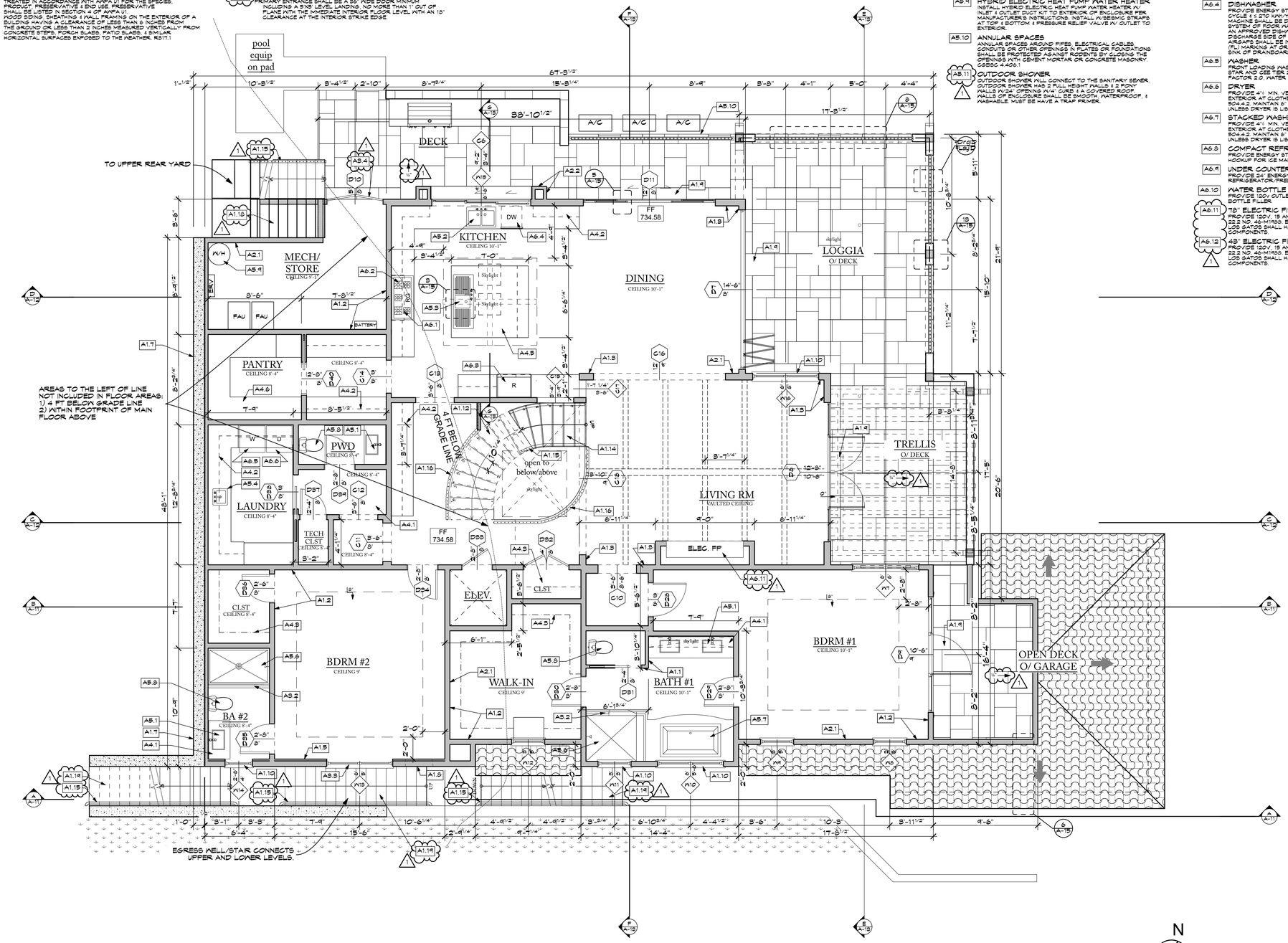
A6.10 WATER BOTTLE FILLER
PROVIDE 120V OUTLET & WATER SUPPLY FOR WATER BOTTLE FILLER

A6.11 78" ELECTRIC FIREPLACE
PROVIDE 120 V, 15 AMP JUNCTION BOX. UL LISTING CSA 22.2 NO. 46-M1985. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS

A6.12 48" ELECTRIC FIREPLACE
PROVIDE 120 V, 15 AMP JUNCTION BOX. UL LISTING CSA 22.2 NO. 46-M1985. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS

LEGEND

WOOD STUD WALL
CONCRETE REC. WALL
PAVED OUTDOOR DECK / PATIOS
PAVED YARD AREAS
ROOF COVERING



MAIN FLOOR PLAN

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

REVISIONS
1. PLAN CHECK COMMENTS 6/16/22

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REGISTERED ARCHITECT — KENNETH KOHLSAAT — No. C-22455 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimension, site visions and conditions, prior to starting any field work.
2. Any discrepancies found between plans and/or any conditions differing from those shown on the plans shall be brought to the Architect's attention prior to installation.

MAIN FLOOR PLAN

DATE: 12/8/21
SCALE: AS SHOWN
SHEET A-4
14 OF 58

ARCHITECTURAL NOTES

OPENABLE WINDOW AREA
OPENABLE WINDOW AREA IN HABITABLE ROOMS MUST BE 4% OF THE FLOOR AREA FOR VENTILATION. EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF AT GRADE LEVEL ROOMS | 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSIONS OF 24" HIGH AND 20" WIDE & SHALL NOT EXCEED 44" ABOVE FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPENABLE FROM INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED 1 OPERABLE FROM THE LOWEST LATCH. R303.1, R310.

GLAZING CERTIFICATION
ALL NEW GLAZING (FENESTRATION) WILL BE INSTALLED WITH A CERTIFYING LABEL ATTACHED, SHOWING THE U-VALUE

EXTERIOR DOORS
ALL EXTERIOR DOORS SHALL BE SOLID CORE DOORS W/ STILES & RAILS NOT LESS THAN 1¾" THICK IF PANELS NOT LESS THAN 1¼" THICK. ALL GLAZING SHALL BE DUAL GLAZED & TEMPERED.

SAFETY GLAZING
GLAZING IN THE FOLLOWING LOCATIONS SHALL BE OF SAFETY GLAZING MATERIAL IN ACCORDANCE WITH CRC SECTION R308.4.
a) BOTH LEADING PANELS OF SLIDING DOOR ASSEMBLIES 1 PANELS IN SWINGING DOORS.
b) GLASS IN A DOOR WHERE THE NEAREST EXPOSED EDGE IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR WHEN CLOSED & THE BOTTOM EDGE OF THE EXPOSED EDGE IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
c) DOORS, ENTERIOR WINDOWS ENCLOSING FOR BATHTUBS & SHOWERS 4 IN ANY PERSON OF A BATHTUB OR SHOWER ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE & DRAIN OUTLET.
d) GLAZING IN THE PANELS OF FIXED OR SLIDING PANEL IS MORE THAN 6 SQUARE FEET, THE BOTTOM EDGE IS LESS THAN 18 INCHES FROM THE FLOOR, THE TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR, & ONE OR MORE WALKING SURFACES IS WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

SHOWER WINDOWS
WINDOWS IN SHOWERS SHALL BE MADE FROM MATERIALS THAT ARE NOT ADVERSELY AFFECTED BY MOISTURE. GLAZING SHALL BE TEMPERED. CRC R307.2 R308.4

WOODEN BACKING
MINIMUM 2"X10" WOODEN BACKING SHALL BE PROVIDED IN ALL BATHROOM WALLS AT WATER CLOSETS, SHOWERS, BATHTUBS & TOWEL BAR WALLS LOCATED 34" FROM THE FLOOR. FURTHER, PROVIDE BACKING FOR GRAB BARS FOR TOILETS ON FIRST FLOOR.

FINISHES
PROVIDE 5/8" GYP. BOARD AT ALL INTERIOR WALL & CEILG LOCATIONS. INTERIOR WALL AND CEILING PAINTS SHALL BE LOW-VOC (100 GPL/VOCG (NON-FLAT) AND (150 GPL/VOCG (NON-FLAT) AND (250 GPL/VOCG) WOOD FINISHES SHALL BE (LOW WATER BASED) (1280 GPL/VOCG) GAULK & CONSTRUCTION ADHESIVES SHALL BE LOW VOCG (70 GPL/VOCG) TO REDUCE EXPOSURE TO PARTICLE IN INTERIOR FINISHES A MINIMUM OF 50% OF INTERIOR TRIM SHALL BE POPLAR OR ALDER

ACCESS
UNDER FLOOR:
ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH THE FLOOR SHALL BE A MINIMUM 18" X 24". OPENINGS THROUGH A PERIMETER WALL SHALL BE NOT LESS THAN 16" X 24". R408.4

ATTIC
BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT EXCEED 30 SQ. FEET & HAVE A VERTICAL HEIGHT OF 30" OR GREATER. THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE MINIMUM FRAMED OPENING SHALL NOT BE LESS THAN 22 1/2 SQ. AND SHALL BE A LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHEN THE ACCESS IS LOCATED IN A CEILING WITH UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30" AT SOME POINT ABOVE THE ATTIC ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF THE CEILING FRAMING MEMBERS. R307.1

LANDING
FLOORS & LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼" UNIT VERTICAL IN 12 UNIT HORIZONTAL (2%) R311.3

RESIDENTIAL TOWN ACCESSIBILITY STANDARDS
THE RESIDENCE SHALL BE DESIGNED WITH ADAPTABILITY FEATURES FOR A SINGLE FAMILY RESIDENCE PER TOWN RESOLUTION 1994-81:
A. WOODEN BACKING (2" X 8" MINIMUM) SHALL BE PROVIDED IN ALL BATHROOM WALLS AT WATER CLOSETS, SHOWERS AND BATHTUBS AT THE FLOOR TO THE CENTER OF THE BACKING, SUITABLE FOR THE INSTALLATION OF GRAB BARS.
B. ALL PASSAGE DOORS SHALL BE AT LEAST 32" WIDE ON THE ACCESSIBLE FLOOR.
C. THE ENTRANCE SHALL BE A MINIMUM WIDE DOOR MINIMUM INCLUDING A LEVEL LANDING. NO MORE THAN 1" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE
D. DOOR BUZZER, BELL OR CHIME SHALL BE HARD WIRED AT PRIMARY ENTRANCE.

WILDLAND-URBAN INTERFACE

ROOF VALLEYS:
VALLEYS & GUTTERS SHALL BE 26 GAUGE GALV. SHEET CORROSION-RESISTANT METAL INSTALLED OVER NOT LESS THAN ONE LAYER OF 72LB MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ASTM D 3909, AT LEAST 36" WIDE THE FULL LENGTH OF THE VALLEY. GUTTERS WILL HAVE THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES & DEERIS IN THE GUTTER. AS REQ'D PER SEC. R337.5.3 & R337.5.4 TYP.

VENTS:
WHERE PROVIDED, VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, & UNDERFLOOR VENTILATION SHALL BE IN ACCORDANCE WITH SECTION 1203 OF THE CBC & SECTIONS R337.6.1 THROUGH R337.6.3 OF THIS SECTION TO RESIST BUILDING IGNITION FROM THE INTRUSION OF BURNING EMBERS & FLAME THROUGH THE VENTILATION OPENING. R337.5.1

EXTERIOR WALLS:
EXTERIOR WALL COVERINGS SHALL BE APPROVED NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL & EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF, & TERMINATE AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE. R337.7.5

ENCLOSED EAVES & EAVE SOFFITS:
THE EXPOSED UNDERSIDE OF ENCLOSED EAVES HAVING EITHER A BOXED-IN EAVE SOFFIT WITH A HORIZONTAL UNDERSIDE, OR SLOPING RAFTER TAILS WITH AN EXTERIOR COVERING APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS, SHALL BE PROTECTED BY ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL
2. IGNITION RESISTANT MATERIAL
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.
5. BOXED IN EAVE SOFFIT ASSEMBLIES WITH A HORIZONTAL UNDERSIDE THAT MEET THE PERFORMANCE CRITERIA IN ACCORDANCE WITH THE TEST PROCEDURES SET FORTH IN EITHER OF THE FOLLOWING:
   5.1 ISPM STANDARD 12-3-3 OR ASTME971
   EXCEPTIONS: THE FOLLOWING MATERIALS DO NOT REQUIRE PROTECTION:
   1. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
   2. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.5

UNDERFLOOR PROTECTION:
UNDERFLOOR AREAS SHALL MAINTAIN THE IGNITION-RESISTANT INTEGRITY OF EXTERIOR WALLS. PER SEC. R337.7.5 TYP.

EXTERIOR GLAZING:
EXTERIOR GLAZING SHALL BE INSULATING GLASS UNITS WITH A MINIMUM OF ONE TEMPERED PANE. PER R337.8.2

EXTERIOR DOORS:
EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-1 OR SHALL BE OF APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES & RAILS NOT LESS THAN 1⅜" THICK WITH INTERIOR FIELD PANEL THICKNESS NO LESS THAN 1¼" THICK, OR SHALL HAVE A FIRE-RESISTANT RATING OF NOT LESS THAN 20 MIN. PER R337.8.3

GUTTERS
GUTTER SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. CBC R337.5.4

OPEN ROOF EAVES
THE EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL CONSIST OF ONE OF THE FOLLOWING:
1. NONCOMBUSTIBLE MATERIAL
2. IGNITION RESISTANT MATERIAL
3. ONE LAYER OF ⅝" TYPE 'X' GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF THE ROOF DECK.
4. THE EXTERIOR PORTION OF A 1 HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE ROOF DECK DESIGNED FOR EXTERIOR FIRE EXPOSURE INCLUDING ASSEMBLIES USING THE GYPSUM PANEL & SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.

EXCEPTIONS:
1. SOLID WOOD RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
2. SOLID WOOD BLOCKING INSTALLED BETWEEN RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MIN. NOMINAL DIMENSION OF 2".
3. GABLE END OVERHANGS & ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF THE RAFTER TAILS.
4. FASCIA & OTHER ARCHITECTURAL TRIM BOARDS. CBC R337.7.4

A1.0 STRUCTURE

- A1.1 4" NOM. STUD WALL — 3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.2 6" NOM. STUD WALL — 5½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.3 8" NOM. STUD WALL — 7¼" THICK STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.4 10" NOM. STUD WALL — 9¼" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A1.5 6" CONCRETE RETAINING WALL W/2X WOOD WALL — 6" CONCRETE RETAINING WALL W/2" GAP W/2X FLAT LAY STUDS @ 16" O.C.
- A1.6 8" CONCRETE RETAINING WALL W/2X WOOD WALL — 8" CONCRETE RETAINING WALL W/2" GAP W/2X FLAT LAY STUDS @ 16" O.C.
- A1.7 12" CONCRETE RETAINING WALL W/2X4 STUD WALL — 12" CONCRETE RETAINING WALL W/2" GAP W/2X4 STUDS @ 16" O.C.
- A1.8 UNDER FLOOR ACCESS — 18" X 24" OPENING IN FLOOR OR 16" X 24" IN PERIMETER WALL. R408.4
- A1.9 EXTERIOR LANDINGS — FLOORS & LANDINGS AT EXTERIOR DOORS, THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼" UNIT VERTICAL IN 12 UNIT HORIZONTAL (2%) R311.3
- A1.10 TEMPERED GLASS — SEE ARCHITECTURAL NOTE FOR SAFETY GLAZING
- A1.11 PROTECTION OF WOOD & WOOD — PROTECTION OF WOOD & WOOD BASED PRODUCTS AGAINST DECAY LOCATION REQUIRED: PROTECTION OF WOOD & WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AWWA U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE & END USE. PRESERVATIVE SHALL BE LISTED IN SECTION 2 OF AWPA U1.
- A1.12 STAIRWAYS: — STAIRWAY WIDTH: STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT & BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4½" ON EITHER SIDE OF THE STAIRWAY & SHALL HAVE A MINIMUM CLEAR WIDTH OF THE STAIRWAY AT & BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS & LANDINGS, OF NOT LESS THAN 31½" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE & 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE SOLID RISER SHALL NOT BE LESS THAN 4" NOR MORE THAN 8" THE TREAD DEPTH SHALL BE 10". AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1½"Ø TO 3½"Ø STAIR HANDRAIL 34" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL OR FLOOR. PROVIDE BALUSTERS, WHERE REQUIRED, SUCH THAT A 4½" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWINGS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A1.13 LOWER TO MAIN FLOOR STAIR — 17 RISERS @ 7" TREADS 11" MEASURED 12" FROM INSIDE EDGE
- A1.14 MAIN TO SECOND FLOOR STAIR — 17 RISERS @ 7" 16 TREADS 12" WITH 2 INTERMEDIATE LANDINGS
- A1.15 HANDRAIL @ STAIR — AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1½"Ø TO 3½"Ø STAIR HANDRAIL 34" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL OR FLOOR. PROVIDE BALUSTERS, WHERE REQUIRED, SUCH THAT A 4½" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWINGS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A1.16 GUARDS @ BALCONY — PROVIDE 42" H. GUARDRAIL AT LANDINGS, WALKWAYS, BALCONIES & SIMILAR WALKING SURFACES WITH ADJACENT OPENINGS MORE THAN 30" TO FLOOR OR GRADE BELOW. PROVIDE BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWINGS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A1.17 FRONT DOOR — PRIMARY ENTRANCE SHALL BE A 36" WIDE DOOR MINIMUM INCLUDING A 36" WIDE LEVEL LANDING. NO MORE THAN 1" OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18" CLEARANCE AT THE INTERIOR STRIKE EDGE
- A1.18 PATIO STAIR — STAIR AT PATIO FROM MAIN FLOOR TO UPPER FLOOR SHALL HAVE 6" 6½" RISE X 12" RUN W/ A SPIRAL STAIR AT LEAST ONE SIDE
- A1.19 LIGHT WELL STAIR — STAIR AT SOUTH SIDE LIGHT WELL SHALL HAVE A 6 ½" RISE X 11" RUN
- A2.1 FINISHES — ⅝" GYPSUM BOARD — ⅝" GYPSUM BOARD SHALL BE AFFLY THROUGH OUT THE RESIDENCE TYP.
- A2.2 ⅝" TYPE 'X' GYPSUM BOARD — ⅝" TYPE 'X' GYPSUM BOARD AT GARAGE CEILING
- A2.2 STONE VENEER — STONE VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12 CLEARANCE ON EXTERIOR WALLS SHALL BE 6" CLEARANCE ABOVE EARTH, 2" ABOVE PAVED AREAS, 6" ABOVE EXTERIOR PLANTING SURFACES WHICH ARE SUPPORTED BY THE FOUNDATION WALL & 2" ABOVE EXTERIOR WALLS. R703.12.1
- A3.1 SOLID CORE DOOR — PROVIDE SOLID CORE 20 MIN. RATED DOOR WITH SELF CLOSER AND WEATHER STRIPPING TIGHTLY SEAL TO CREATE AIR BARRIER
- A3.2 SAFETY GLASS SHOWER DOORS — PROVIDE FULLY TEMPERED, LAMINATED SAFETY GLASS SHOWER ENCLOSURE AND DOOR. SHOWER DOOR SHALL HAVE A MIN. CLEAR FINISHED OPENING OF 22" MIN.
- A3.3 EGRESS WINDOW — EMERGENCY ESCAPE OPENINGS IN HABITABLE ROOMS SHALL BE 5 SF AT GRADE LEVEL & 5.7 SF AT ALL OTHER LEVELS, WITH MIN. DIMENSIONS OF 24" HIGH AND 20" WIDE & SHALL NOT EXCEED 44" ABOVE FLOOR. THE EMERGENCY DOOR OR WINDOW SHALL BE OPENABLE FROM INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED 1 OPERABLE FROM THE LOWEST LATCH R310
- A3.4 EXTERIOR VENTS — ANY EXTERIOR WALL OR DOOR VENTS SHALL BE COVERED W/ CORROSION-RESISTANT WIRE MESH W/MESH OPENINGS OF 1/16TH" MIN. & 1/1TH" MAX. CRC § R337.8.2
- A3.5 GARAGE DOOR — WHEN VISIBLE GAPS EXCEED ⅛" BETWEEN DOORS & DOOR OPENINGS AT THE BOTTOM, SIDES, & TOPS OF DOORS. SUCH GAPS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:
   A. WEATHER-STRIPPING LISTED IN ACCORDANCE WITH THE TESTING CRITERIA OF CRC § R337.9.4. PROVIDE MANUFACTURER'S SPECIFICATIONS SHOWING COMPLIANCE WITH CRITERIA & NOT THE MANUFACTURER'S NAME & WEATHER-STRIPPING TYPE ON THE PLANS. CRC § R337.8.4, OPTION #1.
   B. DOOR OVERLAPS ONTO JAMBS & HEADERS. CRC § R337.8.4, OPTION #2
   C. GARAGE DOOR JAMBS & HEADERS COVERED WITH METAL FLASHING. CRC § R337.8.4, OPTION #3

A2.0 FINISHES

A3.0 FENESTRATION

A4.0 CABINETRY

- A4.1 BUILT-IN VANITY — BUILT-IN ENCLOSED VANITY
- A4.2 BUILT-IN CABINETS — UPPER & LOWER CABINETS AND COUNTERTOPS
- A4.3 CLOSETS — SHELVES & RAILINGS, CONFIG. PER INT. DESIGNER
- A4.5 ISLAND COUNTER — LOWER CABINETS W/COUNTER & SEATING AREA
- A4.6 PANTRY SHELVES — CONFIG. PER INT. DESIGNER

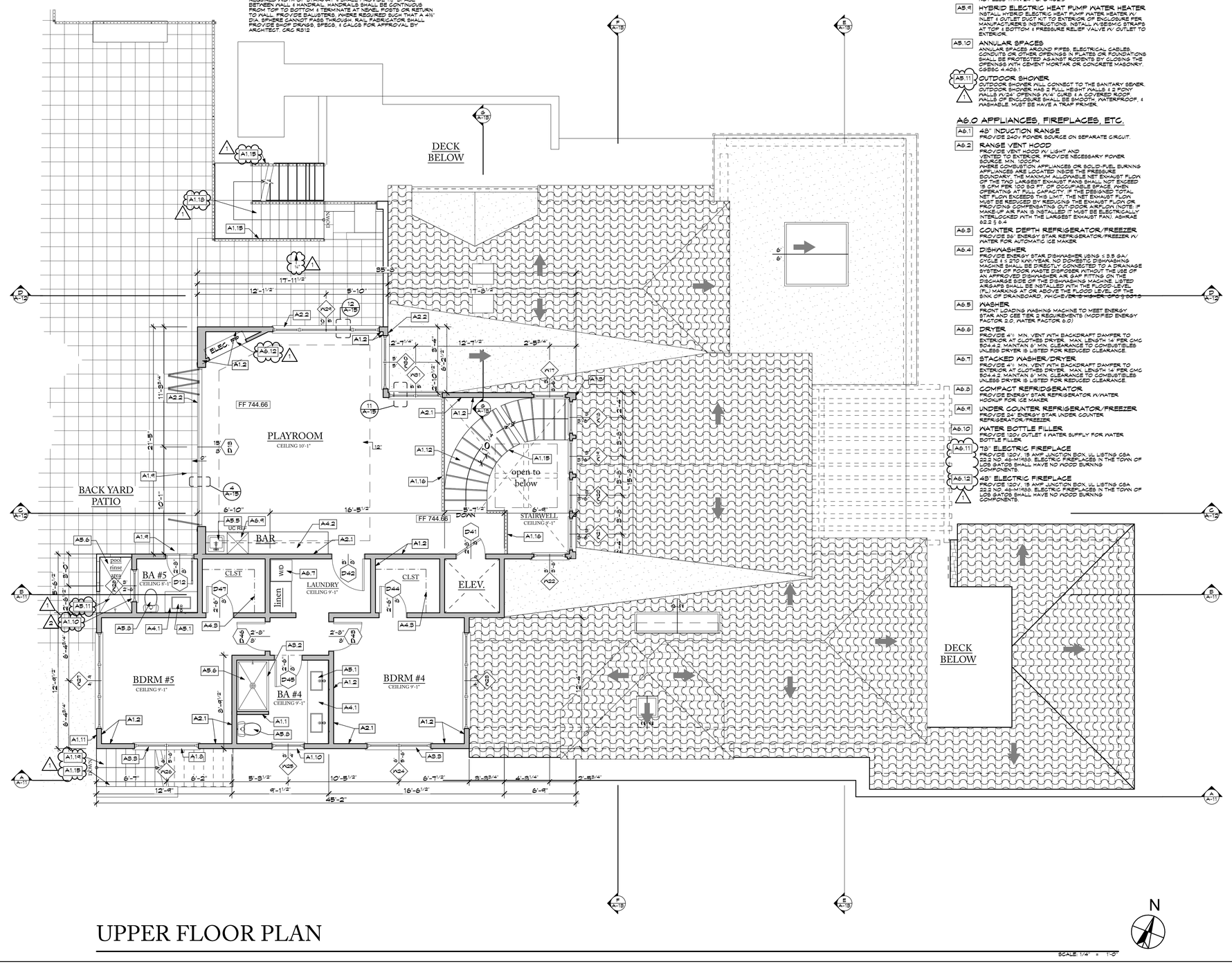
A5.0 PLUMBING

- A5.1 RECT. SINK(S) IN VANITY CABINET
- A5.2 LARGE DOUBLE SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.4 UTILITY SINK — 50" ADE UTILITY SINK PER OWNER
- A5.5 SMALL SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.6 TILED SHOWER — SHOWER STALL WITH WATER PROOF PAN & KETSET TILE FULL HEIGHT ABOVE FLOOR LINE OVER FIBER-CEMENT FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS, OR FIBER-REINFORCED GYPSUM BACKERS. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS. R307.2 & R702.4.2 & R702.3.8. SHOWER & TUB SHOWERS COMBINATION VALVES SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 409.3
- A5.7 SPA BATH TUB — THE MAXIMUM WATER TEMPERATURE DISCHARGING FROM THE BATHTUB & WHIRLPOOL BATHTUB FILLER SHALL BE LIMITED TO 120°F. CPC 607.1 & ANSI/ASSE 1070 OR CSA B125.3. CPC 409.4 SPA TUB ON SEPARATE GFCI PROTECTED CIRCUIT. PROVIDE ACCESS PANEL OR REMOVABLE PANEL BE LOCATED WITHIN 12" OF THE MOTOR-IMPELLER. THAT SHALL BE LOCATED WITHIN THE DOWN WALL OF THE TRAP. PROVIDE REMOVABLE PANEL TO ACCESS & REMOVE THE PUMP. THE PUMP & CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. SPEC TABLE 1401.1, SUCTION FITTINGS ON WHIRLPOOL BATHTUBS SHALL COMPLY WITH THE LISTED STANDARDS. CPC 409.6 BATH TUB TO BE SELECTED BY OWNER.
- A5.8 HIGH-EFFICIENCY WALL MOUNTED TOILET — PROVIDE ONLY HIGH-EFFICIENCY DUAL-FLUSH OR 1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL. THE CLEAR SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5
- A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER — INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER. INLET & OUTLET DUCT KIT TO EXTERIOR OF ENCLOSURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL CONDENSING DRAIN AT TOP OF BOTTOM 4 PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.
- A5.10 ANNULAR SPACES — ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES FOR FOUNDATIONS SHALL BE PROTECTED AGAINST RODENTS BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CGBSC 4.406.1
- A5.11 OUTDOOR SHOWER — OUTDOOR SHOWER ALL CONNECT TO THE SANITARY SEWER. OUTDOOR SHOWER HAS A FINISHED FLOOR, 3 CONCRETE MASONRY WALLS W/24" OPENING W/4" CURB, 1 A COVERED ROOF. WALLS OF ENCLOSURE SHALL BE SMOOTH, NONABSORBENT, WATERPROOF, & WASHABLE. MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

- A6.1 48" INDUCTION RANGE — PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.
- A6.2 RANGE VENT HOOD — PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER SOURCE. MIN. 100CFM. WHERE COMMON APPLIANCES OR SOLID-FUEL BURNING APPLIANCES ARE LOCATED INSIDE THE PRESSURE BOUNDARY, THE MAXIMUM ALLOWABLE NET EXHAUST FLOW OF THE TWO LARGEST EXHAUST FANS SHALL NOT EXCEED 15 CFM PER 100 SQ FT OF CONDITIONED SPACE WHEN OPERATING AT FULL CAPACITY. IF THE DESIGNED TOTAL NET FLOW EXCEEDS THIS LIMIT, THE NET EXHAUST FLOW MUST BE REDUCED BY REDUCING THE EXHAUST FLOW OR PROVIDING COMPENSATING OUTDOOR AIR. SPEC. IF MAKE-UP AIR FAN IS INSTALLED, IT MUST BE ELECTRICALLY INTERLOCKED WITH THE LARGEST EXHAUST FAN). ASHRAE 62.2 § 6.4
- A6.3 COUNTER DEPTH REFRIGERATOR/FREEZER — PROVIDE 24> ENERGY STAR REFRIGERATOR/FREEZER W/ WATER FOR AUTOMATIC ICE MAKER
- A6.4 DISHWASHER — PROVIDE ENERGY STAR DISHWASHER USING ≤ 3.5 8 GA/ CYCLE & ≤ 270 KWH/YEAR. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OF FLOOR WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIR GAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL OF THE (E) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER. CPC § 807.3
- A6.5 WASHER — FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR AND CEE TIER 2 REQUIREMENTS (MODIFIED ENERGY FACTOR 2.0, WATER FACTOR 6.0)
- A6.6 DRYER — PROVIDE 4" MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX. LENGTH 14' PER CMC 504.4.2 MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.7 STACKED WASHER/DRYER — PROVIDE 4" MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX. LENGTH 14' PER CMC 504.4.2 MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.8 COMPACT REFRIDGERATOR — PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER.
- A6.9 UNDER COUNTER REFRIGERATOR/FREEZER — PROVIDE 24> ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER.
- A6.10 WATER BOTTLE FILLER — PROVIDE 120V OUTLET & WATER SUPPLY FOR WATER BOTTLE FILLER.
- A6.11 78" ELECTRIC FIREPLACE — PROVIDE 120V, 15 AMP JUNCTION BOX, UL LISTING CSA 22.2 NO. 46-M1986. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS.
- A6.12 48" ELECTRIC FIREPLACE — PROVIDE 120V, 15 AMP JUNCTION BOX, UL LISTING CSA 22.2 NO. 46-M1986. ELECTRIC FIREPLACES IN THE TOWN OF LOS GATOS SHALL HAVE NO WOOD BURNING COMPONENTS.

LEGEND
- WOOD STUD WALL
- CONCRETE REC. WALL
- PAVED OUTDOOR DECK / PATIOS
- PAVED YARD AREAS
- ROOF COVERING



UPPER FLOOR PLAN

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

N

REVISIONS
1. PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
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REGISTERED ARCHITECT — JOHN KOHLSAAT — NO. C 22455 — EXP. 8-31-23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE:
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO STARTING ANY WORK.
2. ALL DIMENSIONS ARE TO BE FIELD VERIFIED BY CONTRACTOR. ANY DISCREPANCIES OR ANY OMISSIONS OR ANY CONDITIONS DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT'S ATTENTION PRIOR TO INSTALLATION

UPPER FLOOR PLAN

DATE: 12/8/21
SCALE: AS SHOWN
SHEET A-5
15 OF 58

Door Schedule

ID	Room	Nominal W x H	View From Reveal Side	Type	Frame Material	Tempered Glass	Screen	Egress	Remarks	Header Height
G1	FOYER	12'-0"x8'-0"	0'-1" 0'-8"	Opening	Stucco w/Trim	No	No	No		8'-0"
G2	COVERED PORCH	4'-0"x8'-0"	0'-8"	Opening	Stucco w/Trim	No	No	No		8'-0"
G3	COVERED PORCH	8'-0"x8'-0"	0'-1" 0'-8"	Opening	Stucco w/Trim	No	No	No		8'-0"
G4	COVERED PORCH	8'-0"x8'-0"	0'-1" 0'-8"	Opening	Stucco w/Trim	No	No	No		8'-0"
G5	COVERED PORCH	8'-0"x8'-0"	0'-1" 0'-8"	Opening	Stucco w/Trim	No	No	No		8'-0"
G6	KITCHEN DECK	9'-2"x3'-4"	2'-4"	Opening	Stucco w/Trim	No	No	No		9'-10"
G7	MUD ROOM/ FOYER	4'-0"x8'-0"	0'-8"	Opening	Gipsum	No	No	No		8'-0"
G8	MUD ROOM/ WORK 12	4'-0"x8'-0"	0'-8"	Opening	Gipsum	No	No	No		8'-0"
G9	FOYER/HALL	11'-0"x8'-0"	0'-1" 0'-8"	Opening	Gipsum	No	No	No		8'-0"
G10	LIVING/ BEDROOM 1	5'-6"x8'-0"	0'-8"	Opening	Gipsum	No	No	No		8'-0"
G11	LANDING/ HALL	5'-6"x8'-0"	2'-4"	Opening	Gipsum	No	No	No		8'-0"
G12	HALL/HALL	5'-6"x8'-0"	2'-4"	Opening	Gipsum	No	No	No		8'-0"
G13	KITCHEN/ LANDING	5'-6"x8'-0"		Opening	Gipsum	No	No	No		8'-0"
G14	KITCHEN/ PANTRY	5'-6"x8'-0"		Opening	Gipsum	No	No	No		8'-0"
G15	KITCHEN/ LANDING	5'-4"x8'-4"	2'-8"	Opening	Gipsum	No	No	No		7'-0"
G16	DINING ROOM/ LIVING ROOM	12'-0"x8'-0"	0'-1" 0'-8"	Opening	Gipsum	No	No	No		8'-0"
G17	KITCHEN/ LIVING ROOM	1'-7"x8'-8"	0'-8"	Opening	Gipsum	No	No	No		8'-4"
G18	LIVING/ LANDING	15'-10"x8'-0"	0'-1" 0'-8"	Opening	Gipsum	No	No	No		8'-0"
D1	FOYER	6'-0"x8'-0"	0'-1" 0'-8"	Entry	Alum Clad Wood Frame	Yes	No	Yes		8'-0"
D2	GARAGE	18'-0"x8'-0"	0'-1"	Sectional Roll-up Garage Door	Steel	Yes	No	No		8'-0"
D3	WORK 12	6'-0"x8'-0"		Slider	Alum Clad Wood Frame	Yes	Yes	Yes		8'-0"

Door Schedule

ID	Room	Nominal W x H	View From Reveal Side	Type	Frame Material	Tempered Glass	Screen	Egress	Remarks	Header Height
D4	BEDROOM 6	6'-0"x8'-0"		Bifold	Alum Clad Wood Frame	Yes	No	Yes		8'-0"
D5	LOWER FLOOR STORAGE	8'-0"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D6	GYM	6'-0"x8'-0"		Bifold	Alum Clad Wood Frame	Yes	No	Yes		8'-0"
D7	DINING ROOM	14'-6"x8'-0"		Bifold	Steel	Yes	Yes	No		8'-0"
D8	LIVING ROOM	12'-6"x10'-6"		Dbl Swing Sidelites	Steel	Yes	Yes	No		8'-0"
D9	BEDROOM 1	10'-6"x8'-0"		Swing w/ Sidelites	Steel	Yes	No	No		8'-0"
D10	2ND FLOOR MEP/ STORAGE	8'-0"x8'-0"		Double Swing	Fiberglass	Yes	No	No		8'-0"
D11	DINING ROOM	12'-0"x8'-0"		Double Bifold	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
D12	BATH 5	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D13	PLAYROOM	15'-10"x8'-0"		Bifold	Steel	Yes	Yes	No		8'-0"
D14	MUDROOM	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D15	MUD ROOM/ WORK 12	4'-0"x8'-0"		Opening	Gipsum	No	No	No		8'-0"
D16	LOWER FLOOR LAUNDRY	4'-0"x8'-0"		Double Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D17	BEDROOM 5 CLOSET	2'-4"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D18	BEDROOM 5 CLOSET	2'-8"x8'-0"		Bypass	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D19	ELEVATOR EQUIPMENT	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D20	BEDROOM 5	9'-0"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D21	BATH 5	2'-8"x8'-0"	1	Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D22	LOWER FLOOR ELEVATOR	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D23	KNE SELLER	2'-8"x8'-0"		Swing	Glass	Yes	No	No		8'-0"
D24	GYM/HALL	5'-0"x8'-0"		Pocket	Solid Core Wood 1 3/4"	No	No	No	Series 2000 Hdr Hdr	8'-0"
D25	MECH ROOM	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"

Door Schedule

ID	Room	Nominal W x H	View From Reveal Side	Type	Frame Material	Tempered Glass	Screen	Egress	Remarks	Header Height
D26	STORAGE	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D27	FOYER/ WORK 1	8'-0"x8'-0"		Double Swing	Alum Clad Wood Frame	Yes	No	Yes		8'-0"
D28	BEDROOM 1	9'-0"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D29	BATH 1	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D30	WALK-IN CLOSET	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D31	BATH 1 CLOSET	2'-4"x8'-0"		Pocket	Solid Core Wood 1 3/4"	No	No	No	Series 2000 Hdr Hdr	8'-0"
D32	LANDING CLOSET	4'-0"x8'-0"		Double Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D33	MED LEVEL ELEVATOR	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D34	BEDROOM 2	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D35	BATH 2	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D36	BEDROOM 2 CLOSET	2'-6"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D37	TECH CLOSET	2'-4"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D38	LAUNDRY	5'-0"x8'-0"		Pocket	Solid Core Wood 1 3/4"	No	No	No	Series 2000 Hdr Hdr	8'-0"
D39	FOYER	2'-8"x8'-0"		Pocket	Solid Core Wood 1 3/4"	No	No	No	Series 2000 Hdr Hdr	8'-0"
D40	PANTRY	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D41	UPPER FLOOR ELEVATOR	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D42	LAUNDRY/ PLAYROOM	9'-0"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D43	BEDROOM 4	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D44	BEDROOM 4 CLOSET	2'-6"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D45	BATH 4	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D46	BEDROOM 5	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"
D47	BEDROOM 5 CLOSET	2'-8"x8'-0"		Swing	Solid Core Wood 1 3/4"	No	No	No		8'-0"

REVISIONS

1	PLAN CHANGES	6/16/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 'L' • LOS GATOS, CA. • 95030 • (408) 395-3555

JOHN D. KOHLSAAT — No. C 26245 — REN 2-28-23 — STATE OF CALIFORNIA — LICENSED ARCHITECT

THE BOUKNIGHT FAMILY

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
- The Contractor shall verify all dimensions, site visions and conditions prior to starting any field work.
- Any deviation called by field conditions or any conditions different from those noted on the plans shall be brought to the attention of the Architect prior to installation.

OPENING & DOOR SCHEDULE

DATE: 12/8/21
SCALE: AS SHOWN
SHEET
A-6
16 OF 25

Window Schedule

ID	Room	Nominal W x H	View from Reveal Side	Type	Frame Material	Tempered Glass	Screen	Egress	Remarks	Header Height
W1	GARAGE	3'-0"x5'-0"		Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W2	GARAGE	3'-0"x5'-0"	5'-0" / 4'-6"	Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W3	GARAGE	3'-0"x5'-0"	5'-0" / 4'-6"	Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W4	BEDROOM 3	6'-0"x4'-0"		Double Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
W5	WORK 1	6'-0"x5'-0"		Double Casement	Alum Clad Wood Frame	2 Yes, At least one pane	Yes	Yes		8'-0"
W6	WORK 1	9'-0"x6'-0"	1'-9" / 4'-4"	XOX Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		9'-0"
W7	BEDROOM 1	6'-0"x6'-0"		Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W8	BEDROOM 1	3'-0"x5'-0"		Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W9	BEDROOM 1	3'-0"x5'-0"		Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W10	BATH 1	6'-0"x5'-6"	6'-0" / 5'-0"	Double Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-6"
W11	BATH 1	3'-0"x3'-0"		Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
W12	WALK IN	3'-0"x5'-0"		Casement	Alum Clad Wood Frame	2 Yes, At least one pane	Yes	No		8'-0"
W13	BEDROOM 2	6'-0"x5'-0"		Double Casement	Alum Clad Wood Frame	Yes	Yes	Yes		8'-0"
W14	BATH 2	2'-6"x4'-0"		Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
W15	KITCHEN	9'-0"x6'-6"	1'-0" / 2'-6" / 4'-0"	Fixed over Slider	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		9'-6"
W16	LIVING ROOM	6'-0"x6'-0"		Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W17	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"

Window Schedule

ID	Room	Nominal W x H	View from Reveal Side	Type	Frame Material	Tempered Glass	Screen	Egress	Remarks	Header Height
W18	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"
W19	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"
W20	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"
W21	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"
W22	STAIRWELL	3'-0"x3'-6"	3'-6" / 3'-2"	Fixed	Alum Clad Wood Frame	Yes, At least one pane	No	No		8'-2"
W23	BEDROOM 4	9'-0"x4'-0"		XOX Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	Yes		8'-0"
W24	BEDROOM 4	6'-0"x5'-6"	6'-0" / 5'-0"	Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-6"
W25	BATH 4	3'-0"x4'-0"		Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
W26	BEDROOM 5	6'-0"x5'-6"	6'-0" / 5'-0"	Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-6"
W27	BEDROOM 5	9'-0"x4'-0"		XOX Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	Yes		8'-0"
W28	BATH 5	3'-0"x2'-6"		Casement	Alum Clad Wood Frame	Yes	Yes	No		8'-0"
W29	PLAYROOM	10'-0"x5'-0"	5'-0" / 4'-6"	Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W30	PLAYROOM	5'-0"x5'-0"	5'-0" / 4'-6"	Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"
W31	PLAYROOM	5'-0"x5'-0"		Double Casement	Alum Clad Wood Frame	Yes, At least one pane	Yes	No		8'-0"

NOTE:
THIS PROJECT IS LOCATED IN THE WILDLAND URBAN INTERFACE. ALL WINDOWS TO HAVE AT LEAST ONE PANE TEMPERED GLASS

REVISIONS
1 PLAN CHECK COMMENTS 8/16/22
2 PLAN CHECK COMMENTS 8/18/22

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LICENSED ARCHITECT — CHRISTOPHER J. KOHLSAAT — No. C 23435 — RENEWAL 08/31/2023 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Prior to construction visit verify all dimensions, elevations and conditions, prior to starting any field work.
2. Notify architect of any discrepancies or any conditions different from shown which may affect the work proposed by this contract.
3. Do not scale drawings.
4. All work shall conform to the latest adopted codes.

WINDOW SCHEDULE

DATE: 12/8/21
SCALE: AS SHOWN
SHEET A-7
17 OF 58

ROOF LEGEND

R1 — ROOFING
CLASS "A" ROOF ASSEMBLY. 2-PIECE CLAY BARREL TILE ROOF BY LUDOWICI. O/1 LAYER TOR "GAF/GLASS" MINERAL-SURFACED, CAP SHEET BY GAF, OR EQUAL OR BETTER. O/1 LAYER #30 FELT U.O.N. SLOPES BETWEEN 2½/12 & 4/12 SHALL HAVE 2 LAYERS OF UNDERLAYMENT. CRC R905.3.3.2 & R905.3.5

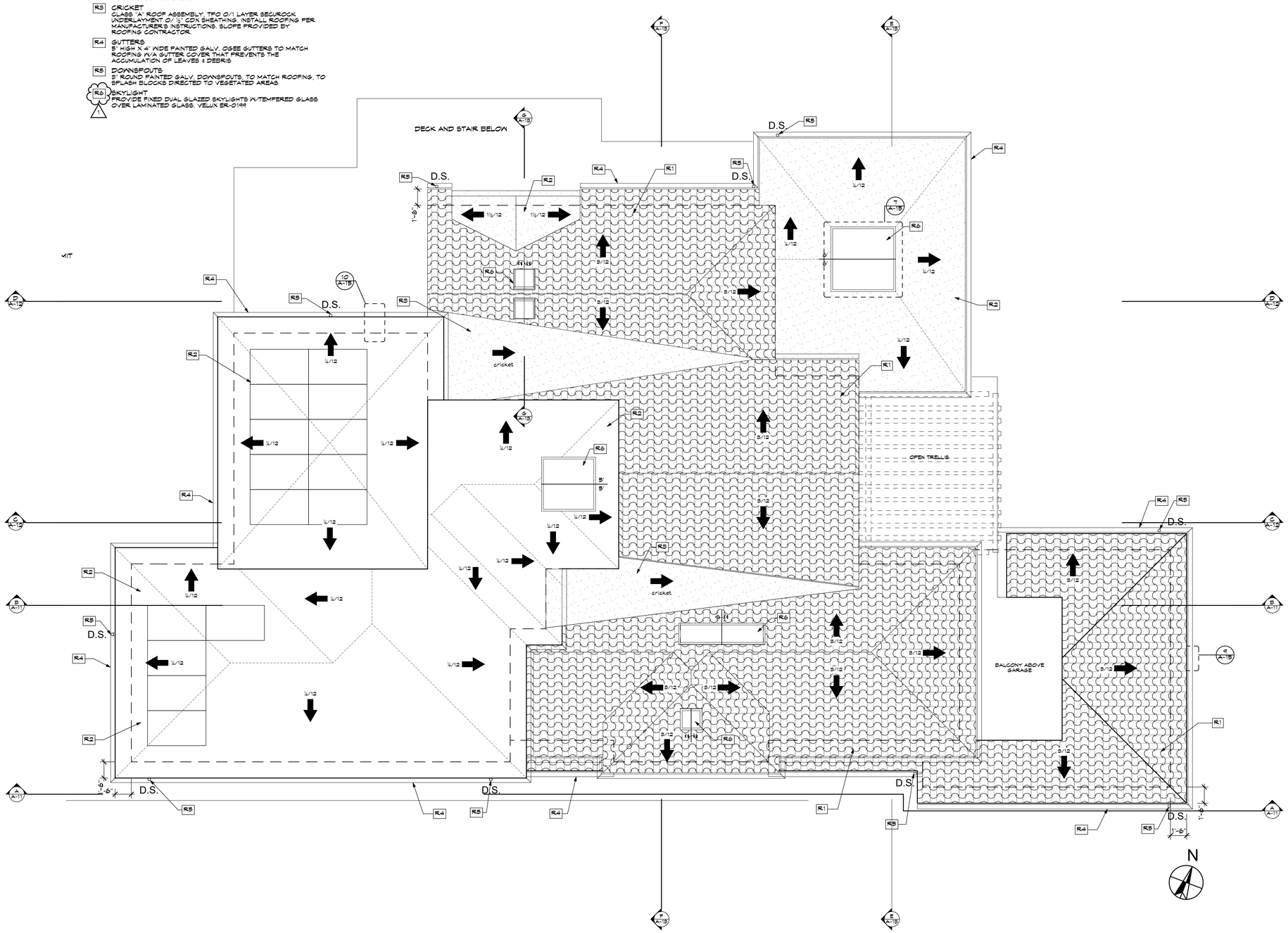
R2 — FLAT ROOF AREA
CLASS "A" ROOF ASSEMBLY. TPO O/1 LAYER SECUROCK UNDERLAYMENT O/ ½" CDX SHEATHING. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS. SLOPE PROVIDED BY ROOFING CONTRACTOR.

R3 — CRICKET
CLASS "A" ROOF ASSEMBLY. TPO O/1 LAYER SECUROCK UNDERLAYMENT O/ ½" CDX SHEATHING. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS. SLOPE PROVIDED BY ROOFING CONTRACTOR.

R4 — GUTTERS
5" HIGH X 4" WIDE PAINTED GALV. OGEE GUTTERS TO MATCH ROOFING W/A GUTTER COVER THAT PREVENTS THE ACCUMULATION OF LEAVES & DEBRIS

R5 — DOWNSPOUTS
5" ROUND PAINTED GALV. DOWNSPOUTS, TO MATCH ROOFING, TO SPLASH BLOCKS DIRECTED TO VEGETATED AREAS

R6 — SKYLIGHT
PROVIDE FIXED DUAL GLAZED SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX ER-0198



ROOF PLAN

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

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-2555

LICENSED ARCHITECT — CHARLES EDWARD KOHLSAAT — No. C 24245 — REG. 2-28-23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimensions, elevations and conditions, prior to starting any field work.
2. Any conditions differing from those shown on the plans shall be reported to the architect's attention prior to installation

ROOF PLAN

DATE: 12/8/21

SCALE: AS SHOWN

SHEET
A-8
18 OF 58

ELEVATION LEGEND

A1 ROOFING
CLASS 'A' ROOF ASSEMBLY. 2-PIECE CLAY BARREL TILE ROOF BY LUDOWICI O/1 LAYER TDF "GAFGLASS" MINERAL-SURFACED, CAP SHEET BY GAF, OR EQUAL OR BETTER, O/1 LAYER #30 FELT, U.O.N.

A2 FLAT ROOF AREA
CLASS 'A' ROOF ASSEMBLY. TPO O/1 LAYER SECUROCK UNDERLAYMENT O/ ½" CDX SHEATHING. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS. SLOPE PROVIDED BY ROOFING CONTRACTOR.

A3 EXTERIOR WALL FINISH
INTEGRAL COLOR SMOOTH 4 COAT STUCCO W/ANTIFRACTURE MEMBRANE O/CORROSION RESISTANT METAL WIRE MESH O/2 LAYERS GRADE 'D' BUILDING PAPER O/½" CDX PLYWOOD SHEATHING

A4 STONE VENEER
ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12 CLEARANCES ON EXTERIOR VENEER WALLS SHALL BE, 4" MIN. ABOVE EARTH, 2" ABOVE PAVED AREAS, ½" ABOVE EXTERIOR WALKING SURFACES WHICH ARE SUPPORTED BY THE FOUNDATION THAT SUPPORTS THE EXTERIOR WALLS. R703.12.1

A5 WINDOWS & DOORS
ALUM. CLAD WOOD FRAMED WINDOWS & DOORS, RECESSED 2" FROM EXTERIOR.

A6 GUTTERS
5" HIGH X 4" WIDE PAINTED GALV. OGEE GUTTERS TO MATCH ROOFING W/A GUTTER COVER THAT PREVENTS THE ACCUMULATION OF LEAVES & DEBRIS

A7 CAST STONE MOLDING
PROVIDE CAST STONE MOLDING W/INTEGRAL GUTTER. STYLE TO BE DETERMINED BY ARCHITECT.

A8 DOWNSPOUTS
5" ROUND PAINTED GALV. DOWNSPOUTS, TO MATCH ROOFING, TO SPLASH BLOCKS DIRECTED TO VEGETATED AREAS

A9 WOOD WRAP 8" COLUMNS
8" SQ WOOD WRAPPED COLUMNS W/TRIM TOP & BOTTOM

A10 GARAGE DOOR
INSTALL NEW WOOD SECTIONAL ROLL-UP GARAGE DOOR WITH OPENER.

A11 SITE ADDRESS
ADDRESS SHALL BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE & VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MIN. 4" HIGH WITH A MIN. STROKE WIDTH OF ½". WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD & THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE, OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. CBC R314.1

A12 WATER TABLE
STUCCO WATER TABLE APPLIED TO STUCCO. STYLE TBD BY ARCHITECT.

A13 42" METAL RAILING
PROVIDE 42" HIGH WROUGHT IRON METAL RAILING AT BALCONY WITH BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312

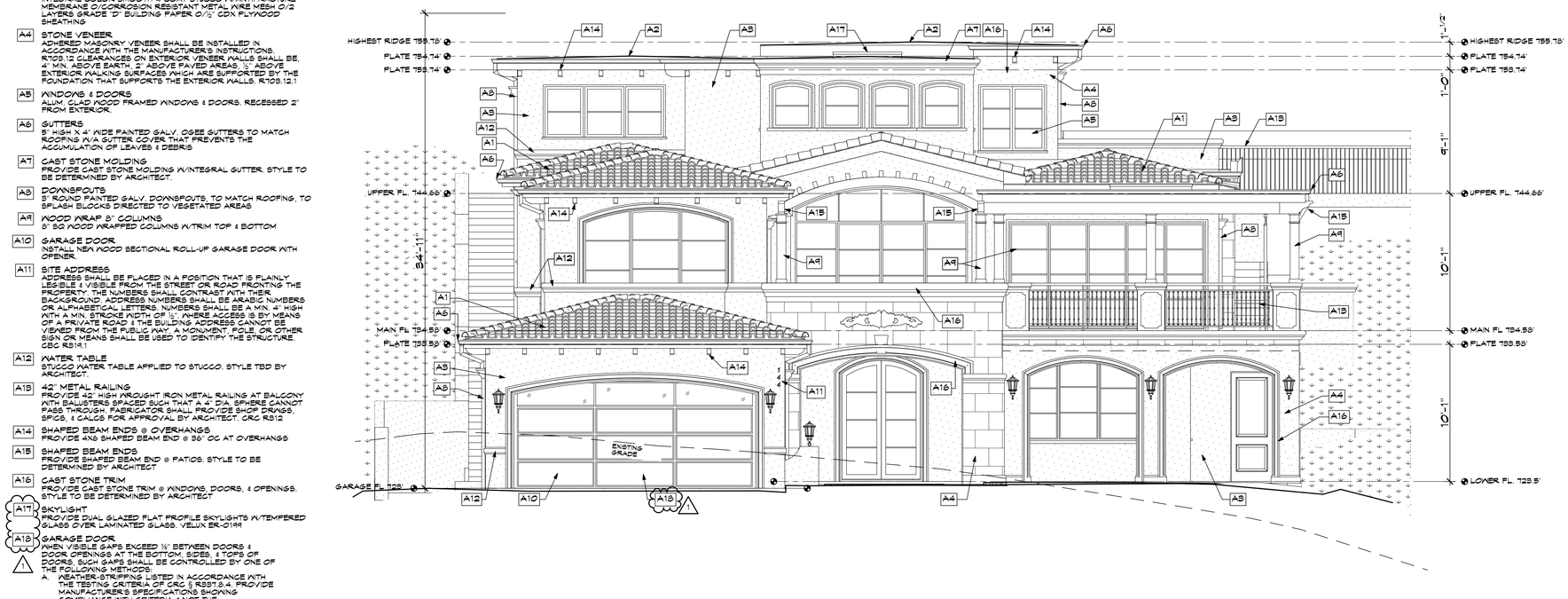
A14 SHAPED BEAM ENDS @ OVERHANGS
PROVIDE 4X6 SHAPED BEAM END @ 36" OC AT OVERHANGS

A15 SHAPED BEAM ENDS
PROVIDE SHAPED BEAM END @ PATIOS. STYLE TO BE DETERMINED BY ARCHITECT

A16 CAST STONE TRIM
PROVIDE CAST STONE TRIM @ WINDOWS, DOORS, & OPENINGS. STYLE TO BE DETERMINED BY ARCHITECT

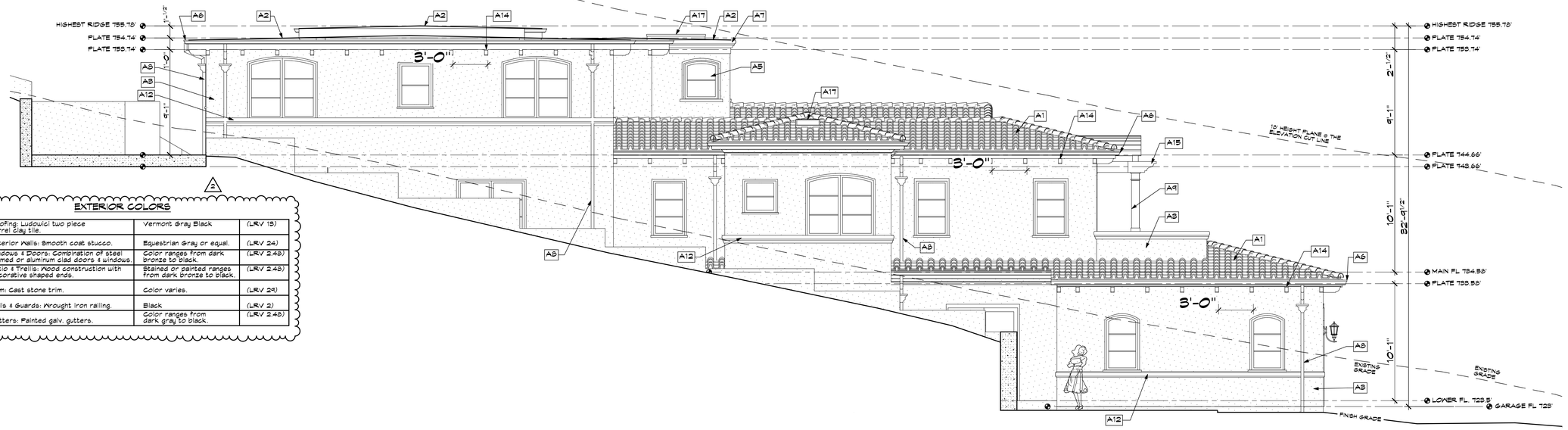
A17 SKYLIGHT
PROVIDE DUAL GLAZED FLAT PROFILE SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX EK-0198

A18 GARAGE DOOR
WHEN VISIBLE GAPS EXCEED ¼" BETWEEN DOORS & DOOR OPENINGS AT THE BOTTOM, SIDES, & TOPS OF DOORS, SUCH GAPS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:
A. WEATHER-STRIPPING LISTED IN ACCORDANCE WITH THE TESTING CRITERIA OF CRC § R337.9.4. PROVIDE MANUFACTURER'S SPECIFICATIONS SHOWING COMPLIANCE WITH CRITERIA & NOT THE MANUFACTURER'S NAME / WEATHER-STRIPPING TYPE ON THE PLANS. CRC § R337.9.4, OPTION #1.
B. DOOR OVERLAPS ONTO JAMBS & HEADERS. CRC § R337.9.4, OPTION #2
C. GARAGE DOOR JAMBS & HEADERS COVERED WITH METAL FLASHING. CRC § R337.9.4, OPTION #3



FRONT ELEVATION

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



LEFT ELEVATION

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

EXTERIOR COLORS

Roofing: Ludowici two piece barrel clay tile.	Vermont Gray Black	(LRV 13)
Exterior Walls: Smooth coat stucco.	Equestrian Gray or equal.	(LRV 24)
Windows & Doors: Combination of steel framed or aluminum clad doors & windows.	Color ranges from dark bronze to black.	(LRV 2.48)
Patio & Trellis: Wood construction with decorative shaped ends.	Stained or painted ranges from dark bronze to black.	(LRV 2.48)
Trim: Cast stone trim.	Color varies.	(LRV 29)
Rails & Guards: Wrought iron railing.	Black	(LRV 2)
Gutters: Painted galv. gutters.	Color ranges from dark gray to black.	(LRV 2.48)

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22
2	PLAN CHECK COMMENTS 8/18/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 'L' • LOS GATOS, CA. • 95030 • (408) 395-3555

CERTIFIED ARCHITECT — VINCENT KOHLSAAT — NO. C 25455 — REG. EXP. 8-31-23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimensions, elevations and conditions, prior to starting any field work. Differing conditions, or any conditions different from those shown on the plans shall be brought to the Architect's attention prior to installation.

ELEVATIONS

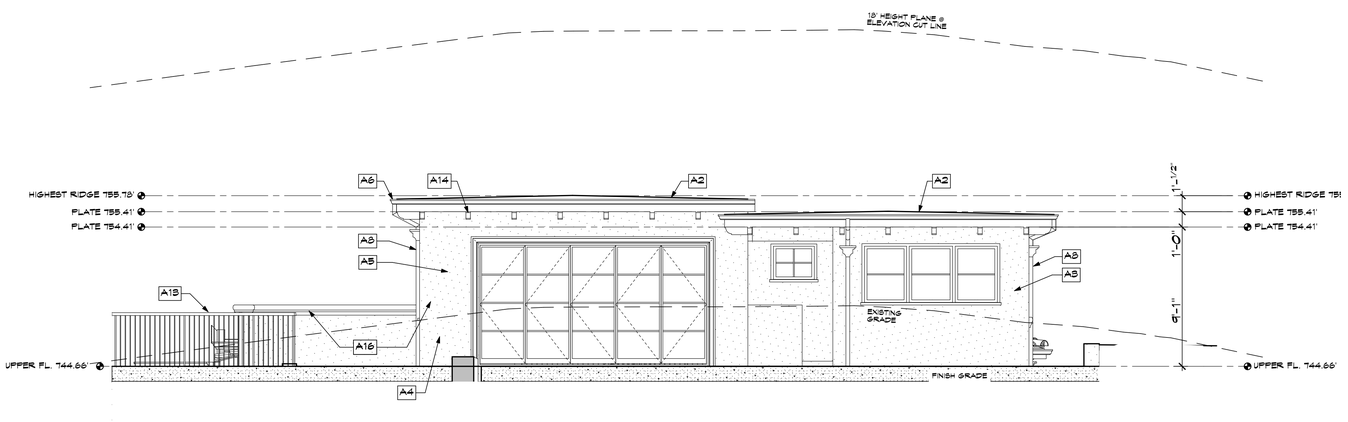
DATE: 12/8/21

SCALE: AS SHOWN

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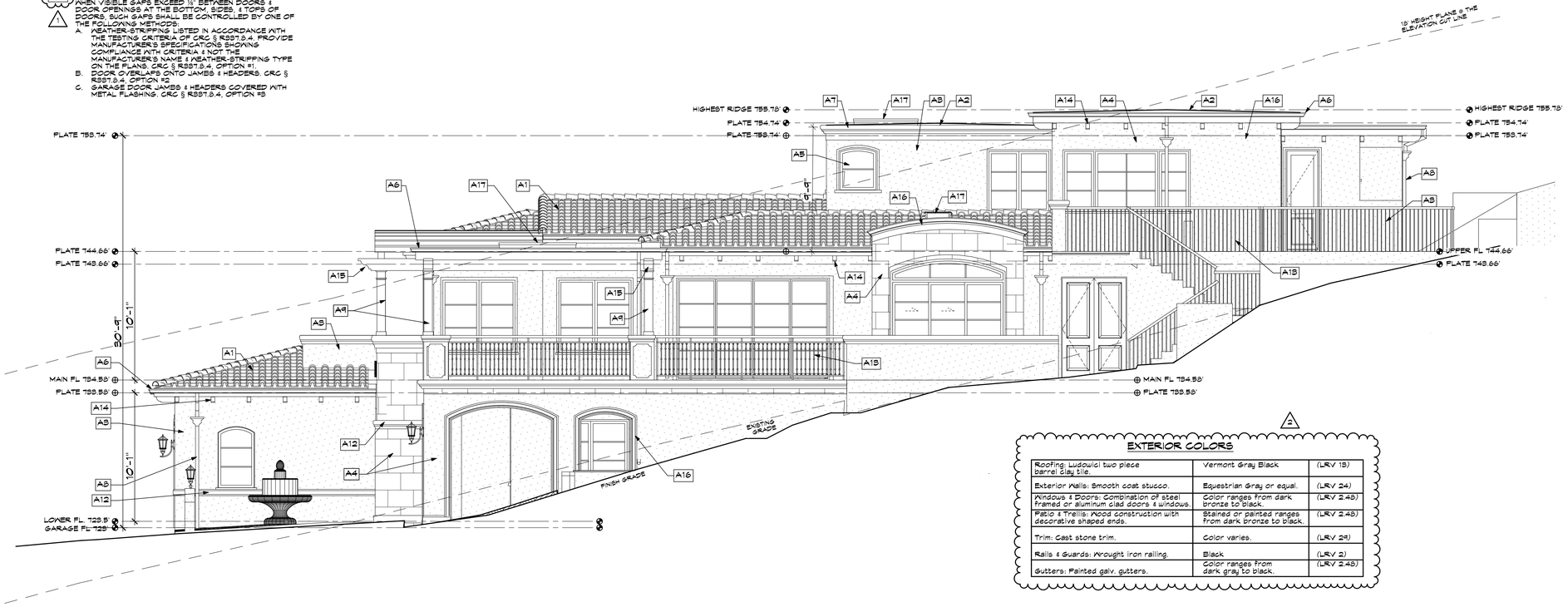
ELEVATION LEGEND

- A1 ROOFING
  CLASS 'A' ROOF ASSEMBLY. 2-PIECE CLAY BARREL TILE ROOF BY LUDOWICI O/1 LAYER TEX "GAFGLASS" MINERAL-SURFACED, CAP SHEET BY GAF, OR EQUAL OR BETTER, O/1 LAYER #30 FELT. U.O.N.
- A2 FLAT ROOF AREA
  CLASS 'A' ROOF ASSEMBLY. TPO O/1 LAYER SECUROCK UNDERLAYMENT O/ ½" CDX SHEATHING. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS. SLOPE PROVIDED BY ROOFING CONTRACTOR.
- A3 EXTERIOR WALL FINISH
  INTEGRAL COLOR SMOOTH 4 COAT STUCCO W/ANTIFRACTURE MEMBRANE O/CORROSION RESISTANT METAL WIRE MESH O/ 2 LAYERS GRADE 'D' BUILDING PAPER O/½" CDX PLYWOOD SHEATHING
- A4 STONE VENEER
  ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12 CLEARANCES ON EXTERIOR VENEER WALLS SHALL BE, 4" MIN. ABOVE EARTH, 2" ABOVE PAVED AREAS, ½" ABOVE EXTERIOR WALKING SURFACES WHICH ARE SUPPORTED BY THE FOUNDATION THAT SUPPORTS THE EXTERIOR WALLS. R703.12.1
- A5 WINDOWS & DOORS
  ALUM. CLAD WOOD FRAMED WINDOWS & DOORS. RECESSED 2" FROM EXTERIOR.
- A6 GUTTERS
  5" HIGH X 4" WIDE PAINTED GALV. OSEE GUTTERS TO MATCH ROOFING W/A GUTTER COVER THAT PREVENTS THE ACCUMULATION OF LEAVES & DEBRIS
- A7 CAST STONE MOLDING
  PROVIDE CAST STONE MOLDING W/INTEGRAL GUTTER. STYLE TO BE DETERMINED BY ARCHITECT.
- A8 DOWNSPOUTS
  3" ROUND PAINTED GALV. DOWNSPOUTS, TO MATCH ROOFING, TO SPLASH BLOCKS DIRECTED TO VEGETATED AREAS
- A9 WOOD WRAP 8" COLUMNS
  8" SQ WOOD WRAPPED COLUMNS W/TRIM TOP & BOTTOM
- A10 GARAGE DOOR
  INSTALL NEW WOOD SECTIONAL ROLL-UP GARAGE DOOR WITH OPENER.
- A11 SITE ADDRESS
  ADDRESS SHALL BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE & VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MIN. 4" HIGH WITH A MIN. STROKE WIDTH OF ½". WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD & THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE, OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. CBC R319.1
- A12 WATER TABLE
  STUCCO WATER TABLE APPLIED TO STUCCO. STYLE TBD BY ARCHITECT.
- A13 42" METAL RAILING
  PROVIDE 42" HIGH WROUGHT IRON METAL RAILING AT BALCONY WITH BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A14 SHAPED BEAM ENDS @ OVERHANGS
  PROVIDE 4X6 SHAPED BEAM END @ 36" OC AT OVERHANGS
- A15 SHAPED BEAM ENDS
  PROVIDE SHAPED BEAM END @ PATIOS. STYLE TO BE DETERMINED BY ARCHITECT
- A16 CAST STONE TRIM
  PROVIDE CAST STONE TRIM @ WINDOWS, DOORS, & OPENINGS. STYLE TO BE DETERMINED BY ARCHITECT
- A17 SKYLIGHT
  PROVIDE DUAL GLAZED FLAT PROFILE SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX ER-0199
- A18 GARAGE DOOR
  WHEN VISIBLE GAPS EXCEED ¼" BETWEEN DOORS & DOOR OPENINGS AT THE BOTTOM, SIDES, & TOPS OF DOORS, SUCH GAPS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:
  - A. WEATHER-STRIPPING LISTED IN ACCORDANCE WITH THE TESTING CRITERIA OF CRC § R337.5.4. PROVIDE MANUFACTURER'S SPECIFICATIONS SHOWING COMPLIANCE WITH CRITERIA & NOT THE MANUFACTURER'S NAME & WEATHER-STRIPPING TYPE ON THE PLANS. CRC § R337.5.4, OPTION #1.
  - B. DOOR OVERLAPS ONTO JAMBS & HEADERS. CRC § R337.5.4, OPTION #2
  - C. GARAGE DOOR JAMBS & HEADERS COVERED WITH METAL FLASHING. CRC § R337.5.4, OPTION #3



REAR ELEVATION

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



2

EXTERIOR COLORS

Roofing: Ludowici two piece barrel clay tile.	Vermont Gray Black	(LRV 13)
Exterior Walls: Smooth coat stucco.	Equestrian Gray or equal.	(LRV 24)
Windows & Doors: Combination of steel framed or aluminum clad doors & windows.	Color ranges from dark bronze to black.	(LRV 2.48)
Patio & Trellis: Wood construction with decorative shaped ends.	Stained or painted ranges from dark bronze to black.	(LRV 2.48)
Trim: Cast stone trim.	Color varies.	(LRV 29)
Rails & Guards: Wrought iron railing.	Black	(LRV 2)
Gutters: Painted galv. gutters.	Color ranges from dark gray to black.	(LRV 2.48)

RIGHT ELEVATION

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

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	
2	PLAN CHECK COMMENTS 8/18/22	

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-3555

LICENSED ARCHITECT — DAVID KOHLSAAT — No. C-25435 — EXP. 8-31-23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

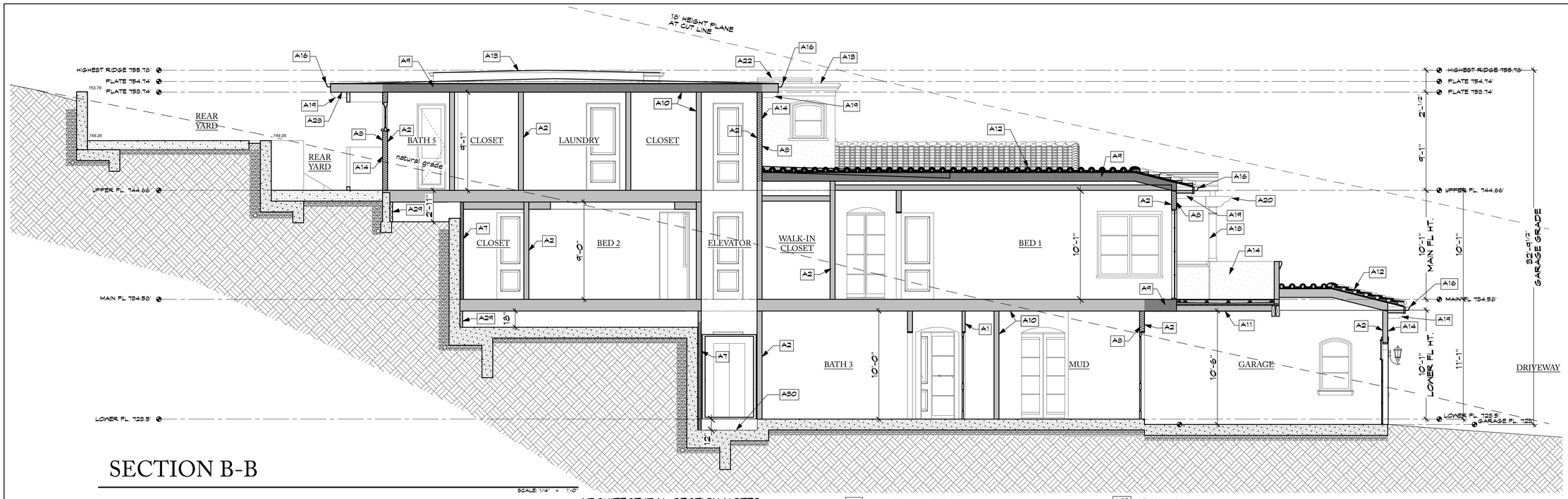
NOTE
1. Contractor shall verify all dimensions, elevations and conditions, prior to starting any field work.
2. Any discrepancies found by field conditions or any conditions differing from those shown on the drawings shall be brought to the architect's attention prior to installation

ELEVATIONS

DATE: 12/8/21

SCALE: AS SHOWN

SHEET
A-10
20 OF 58

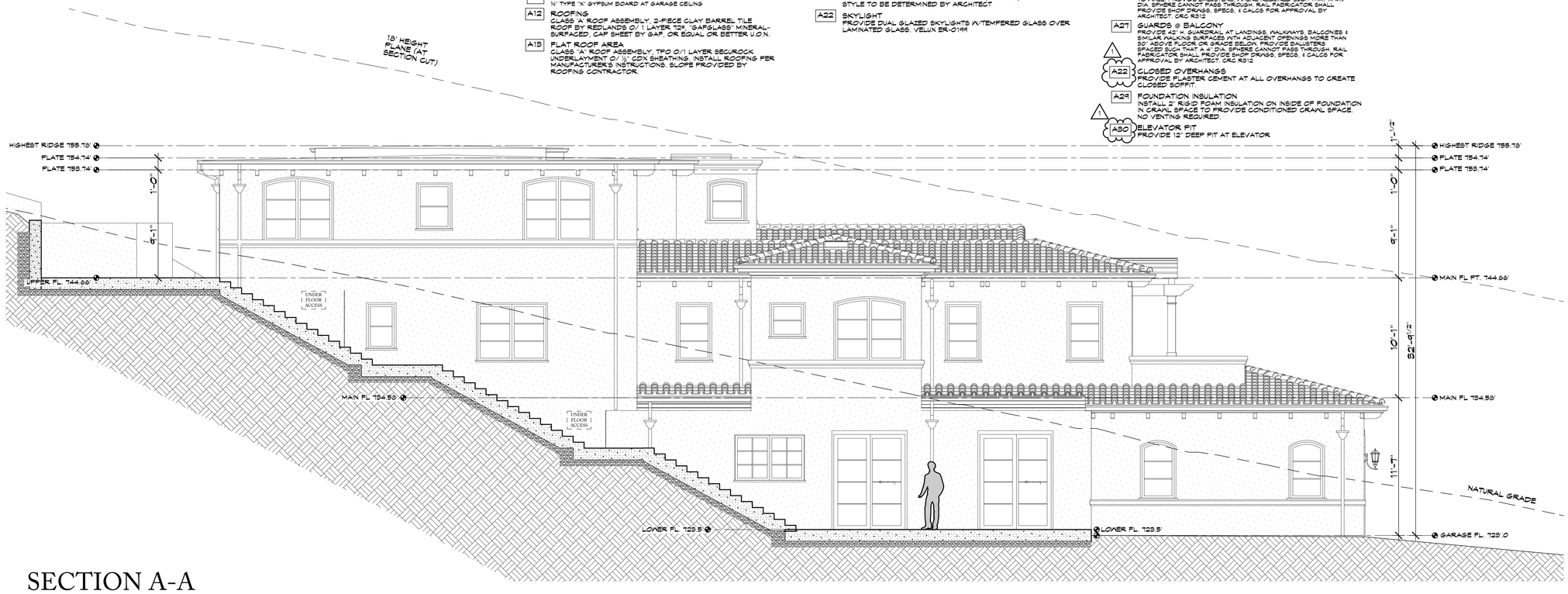


SECTION B-B

SCALE 1/4" = 1'-0"

ARCHITECTURAL SECTION NOTES

- A1 4" NOM. STUD WALL
  3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A2 6" NOM. STUD WALL
  5½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A3 8" NOM. STUD WALL
  7½" THICK STUD WALL FROM 2X STUDS @ 16" O.C.
- A4 10" NOM. STUD WALL
  9½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A5 6" CONCRETE RETAINING WALL W/2X WOOD WALL
  6" CONCRETE RETAINING WALL W/5" GAF W/2X FLAT LAY STUDS @ 16" O.C.
- A6 8" CONCRETE RETAINING WALL W/2X WOOD WALL
  8" CONCRETE RETAINING WALL W/5" GAF W/2X FLAT LAY STUDS @ 16" O.C.
- A7 12" CONCRETE RETAINING WALL W/2X4 STUD WALL
  12" CONCRETE RETAINING WALL W/5" GAF W/2X4 STUDS @ 16" O.C.
- A8 WALL INSULATION TYP.
  PROVIDE R-21 LOW-EMITTING BATT INSULATION PER TITLE 24
- A9 CLOSED CELL CEILING INSULATION
  APPLY R-38 DENSE CLOSED CELL SPRAY FOAM INSULATION TO UNDERSIDE OF ROOF SHEATHING. R-VALUE 7.4 PER INCH. SEE TITLE 24 FOR R VALUES REQUIRED, ESR-3210
- A10 ⅝" GYPSUM BOARD
  ⅝" GYPSUM BOARD SHALL BE APPLY THROUGH OUT THE RESIDENCE. TYP. U.O.N.
- A11 ⅝" TYPE 'X' GYPSUM BOARD
  ⅝" TYPE 'X' GYPSUM BOARD AT GARAGE CEILING
- A12 ROOFING
  CLASS 'A' ROOF ASSEMBLY, 2-PIECE CLAY BARREL TILE ROOF BY REDLANDS O/ 1 LAYER 72# "GAFGLASS" MINERAL-SURFACED, GAF SHEET BY GAF, OR EQUAL OR BETTER U.O.N.
- A13 FLAT ROOF AREA
  CLASS 'A' ROOF ASSEMBLY, TPO O/1 LAYER SECUROCK UNDERLAYMENT O/ ½" CDX SHEATHING. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS. SLOPE PROVIDED BY ROOFING CONTRACTOR.
- A14 EXTERIOR WALL FINISH
  INTEGRAL COLOR SMOOTH 4 COAT STUCCO W/ANTIFRACTURE MEMBRANE O/ CORROSION RESISTANT METAL ARE WESH O/ 2 LAYERS GRADE 'D' BUILDING PAPER O/ ½" CDX PLYWOOD SHEATHING
- A15 STONE VENEER
  ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. R703.12 CLEARANCES ON EXTERIOR VENEER WALLS SHALL BE, 4" MIN. ABOVE EARTH, 2" ABOVE PAVED AREAS, ½" ABOVE EXTERIOR WALKING SURFACES WHICH ARE SUPPORTED BY THE FOUNDATION THAT SUPPORTS THE EXTERIOR WALLS. R703.12.1
- A16 GUTTERS
  5" HIGH X 4" WIDE PAINTED GALV. OGEE GUTTERS TO MATCH ROOFING W/A GUTTER COVER THAT PREVENTS THE ACCUMULATION OF LEAVES & DEBRIS
- A17 DOWNSPOUTS
  5" ROUND PAINTED GALV. DOWNSPOUTS, TO MATCH ROOFING, TO SPLASH BLOCKS DIRECTED TO VEGETATED AREAS
- A18 WOOD WRAP 5" COLUMNS
  5" SQ WOOD WRAPPED COLUMNS W/TRIM TOP & BOTTOM
- A19 SHAPED BEAM ENDS @ OVERHANGS
  PROVIDE 4X6 DF #1 SHAPED BEAM END @ 36" OC AT OVERHANGS
- A20 SHAPED BEAM ENDS
  PROVIDE SHAPED BEAM END @ PATIOS. STYLE TO BE DETERMINED BY ARCHITECT
- A21 CAST STONE TRIM
  PROVIDE CAST STONE TRIM @ WINDOWS, DOORS, & OPENINGS. STYLE TO BE DETERMINED BY ARCHITECT
- A22 SKYLIGHT
  PROVIDE DUAL GLAZED SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX EK-0199
- A23 STAIRWAYS:
  STAIRWAYS: WIDTH. STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT & BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4½" ON EITHER SIDE OF THE STAIRWAY & THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT & BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS & LANDINGS, SHALL NOT BE LESS THAN 31½" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE & 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE MAXIMUM RISER HEIGHT SHALL BE 7¾". THE MINIMUM TREAD DEPTH SHALL BE 10". AT STAIRS WITH MORE THAN THREE RISERS PROVIDE MIN. ONE 11" D TO 2'-0 STAIR HANDRAIL 34" TO 50" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4½" DIA. SPHERE CANNOT PASS THROUGH HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1¼ & NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4" & NOT GREATER THAN 6¼" WITH A MAXIMUM CROSS SECTION OF 2¼". EDGES SHALL HAVE A MINIMUM RADIUS OF .01" CRC R311.7
- A24 LOWER TO MAIN FLOOR STAIR
  18 RISERS "I" 18 TREADS 10¼" MEASURED 12" FROM INSIDE EDGE
- A25 MAIN TO SECOND FLOOR STAIR
  17 RISERS "I" 16 TREADS 12" WITH 2 INTERMEDIATE LANDINGS
- A26 HANDRAIL @ STAIR
  AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 11'-0" TO 2'-0 STAIR HANDRAIL 34" TO 50" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4½" DIA SPHERE CANNOT PASS THROUGH RAIL FABRICATOR SHALL PROVIDE SHOP DRWGS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A27 GUARDS @ BALCONY
  PROVIDE 42" H. GUARDRAIL AT LANDINGS, WALKWAYS, BALCONIES & SIMILAR WALKING SURFACES WITH LOWEST OPENINGS MORE THAN 30" ABOVE FLOOR OR GRADE BELOW. PROVIDE BALUSTERS SPACED SUCH THAT A 4" DIA. SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRWGS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- 1 A22 CLOSED OVERHANGS
  PROVIDE PLASTER CEMENT AT ALL OVERHANGS TO CREATE CLOSED SOFFIT.
- 1 A29 FOUNDATION INSULATION
  INSTALL 2" RIGID FOAM INSULATION ON INSIDE OF FOUNDATION IN CRAWL SPACE TO PROVIDE CONDITIONED CRAWL SPACE. NO VENTING REQUIRED.
- 1 A30 ELEVATOR PIT
  PROVIDE 12" DEEP PIT AT ELEVATOR



SECTION A-A

SCALE 1/4" = 1'-0"

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	

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CHARLES ROGER KOHLSAAT — No. C-23455 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

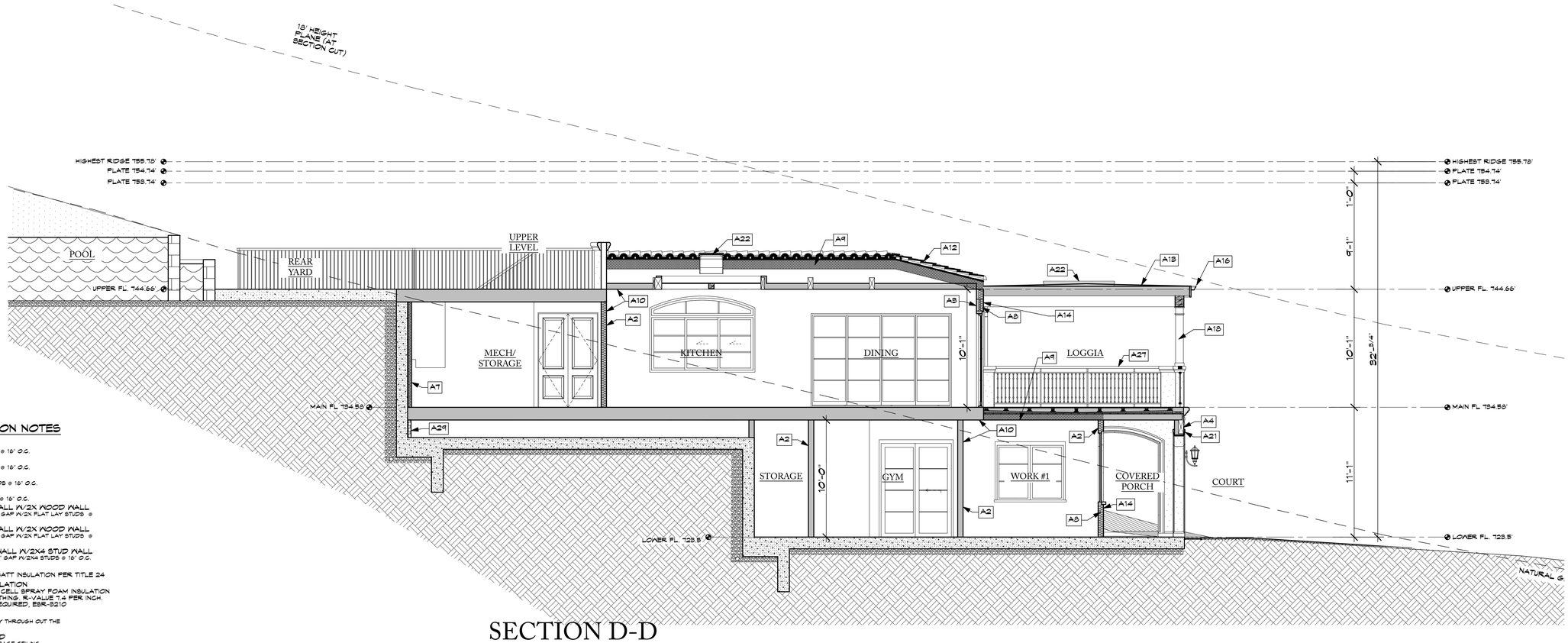
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SECTIONS A & B

DATE: 12/8/21

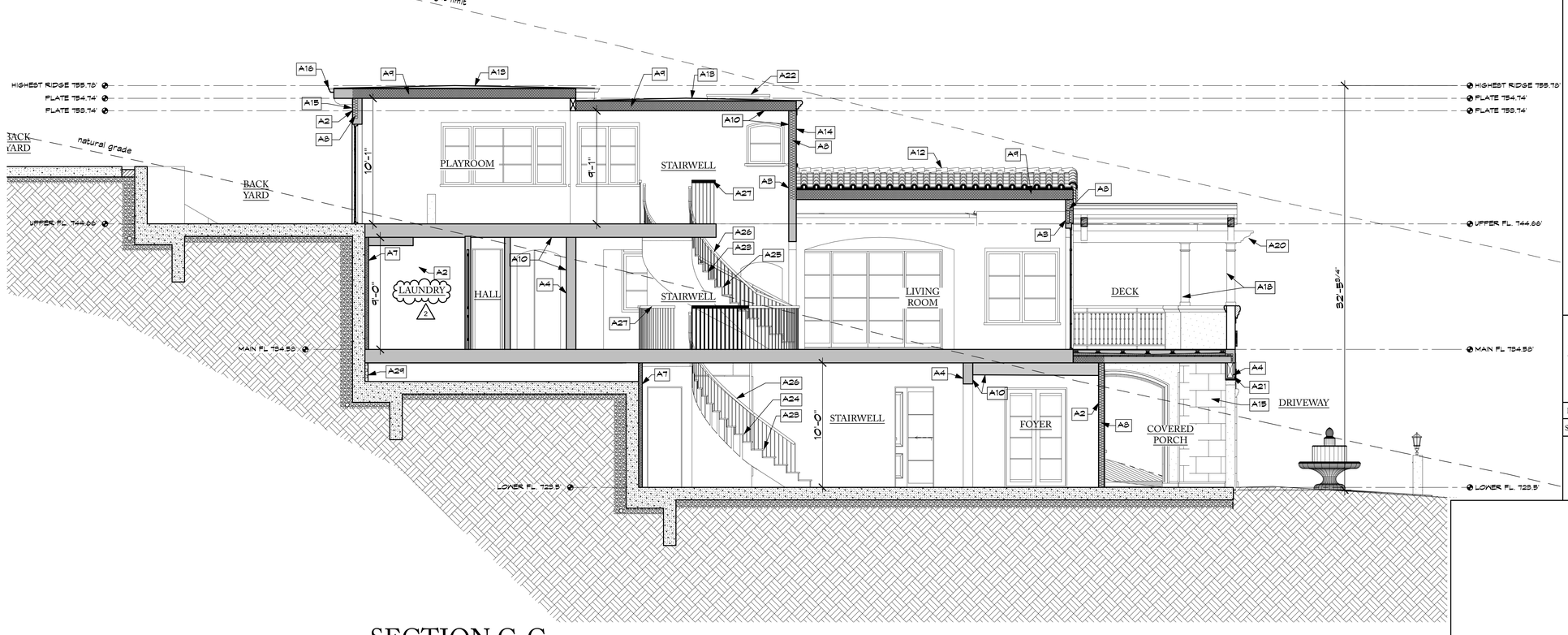
SCALE: AS SHOWN

SHEET
A-11
21 OF 58



SECTION D-D

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



SECTION C-C

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

ARCHITECTURAL SECTION NOTES

- A1 — 4" NOM. STUD WALL
  3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A2 — 6" NOM. STUD WALL
  5½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
- A3 — 8" NOM. STUD WALL
  7½" THICK STUD WALL FROM 2X STUDS @ 16" O.C.
- A4 — 10" NOM. STUD WALL
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- A5 — 6" CONCRETE RETAINING WALL W/2X WOOD WALL
  6" CONCRETE RETAINING WALL W/½" GAP W/2X FLAT LAY STUDS @ 16" O.C.
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- A8 — WALL INSULATION TYP
  PROVIDE R-21 LOW-EMITTING BATT INSULATION PER TITLE 24
- A9 — CLOSED CELL CEILING INSULATION
  APPLY R-38 DEMILEC CLOSED CELL SPRAY FOAM INSULATION TO UNDERSIDE OF ROOF SHEATHING. R-VALUE 7.4 PER INCH. SEE TITLE 24 FOR R VALUES REQUIRED. ESR-3210
- A10 — ⅝" GYPSUM BOARD
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- A11 — ⅝" TYPE "X" GYPSUM BOARD
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- A17 — DOWNSPOUTS
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- A19 — SHAPED BEAM ENDS @ OVERHANGS
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- A20 — SHAPED BEAM ENDS
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  PROVIDE CAST STONE TRIM @ WINDOWS, DOORS, & OPENINGS. STYLE TO BE DETERMINED BY ARCHITECT
- A22 — SKYLIGHT
  PROVIDE DUAL GLAZED SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX EK-0198
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- A24 — LOWER TO MAIN FLOOR STAIR
  16 RISERS @ 7" 15 TREADS 10½" MEASURED 12" FROM INSIDE EDGE
- A25 — MAIN TO SECOND FLOOR STAIR
  17 RISERS @ 7" 16 TREADS 12" WITH 2 INTERMEDIATE LANDINGS
- A26 — HANDRAIL @ STAIR
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- 1 / A22 — CLOSED OVERHANGS
  PROVIDE PLASTER CEMENT AT ALL OVERHANGS TO CREATE CLOSED SOFFIT.
- A29 — FOUNDATION INSULATION
  INSTALL 2" RIGID FOAM INSULATION ON INSIDE OF FOUNDATION IN CRAWL SPACE TO PROVIDE CONDITIONED CRAWL SPACE. NO VENTING REQUIRED.
- 1 / A30 — ELEVATOR PIT
  PROVIDE 12" DEEP PIT AT ELEVATOR

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 'L' • LOS GATOS, CA. • 95030 • (408) 395-2555
LICENSED ARCHITECT — JAMES W. KOHLSAAT — No. C 22455 — REG. 2/28/23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

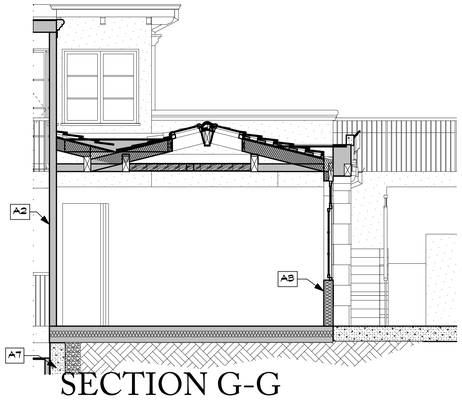
NOTE
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SECTIONS C & D

DATE: 12/8/21

SCALE: AS SHOWN

SHEET
A-12
22 OF 58

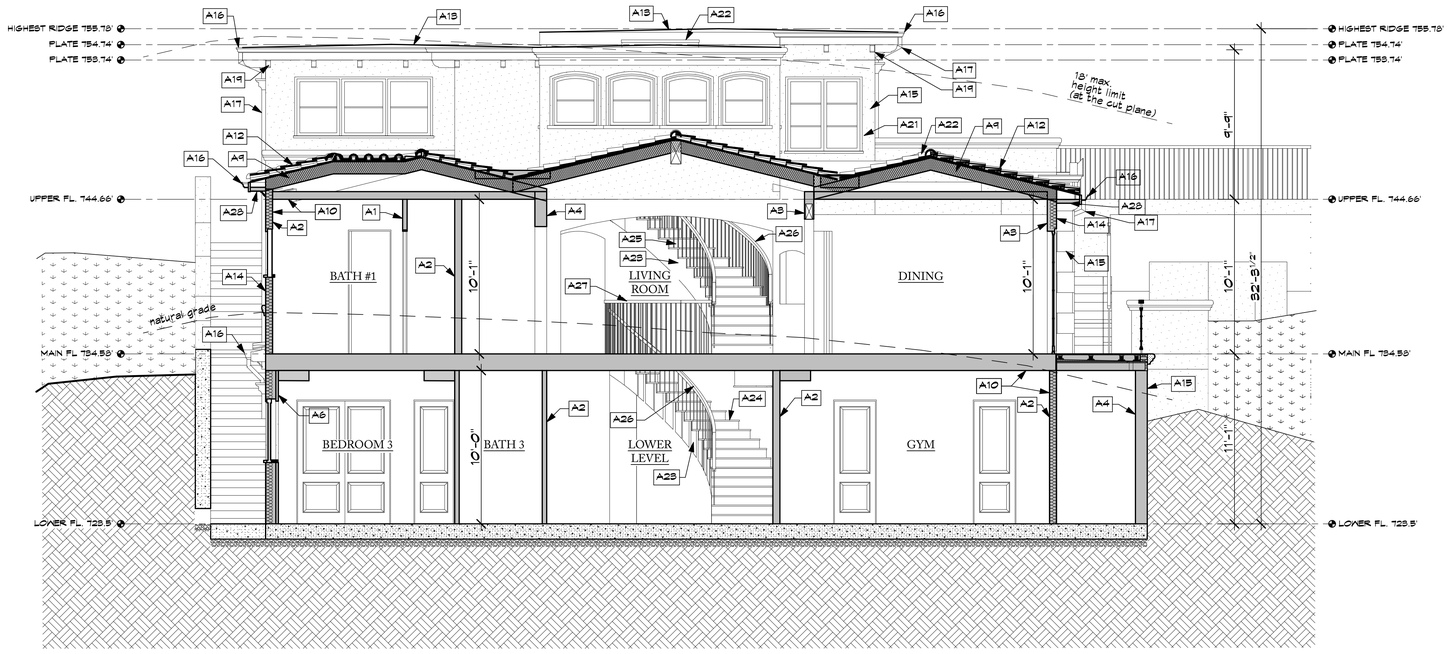


SECTION G-G

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

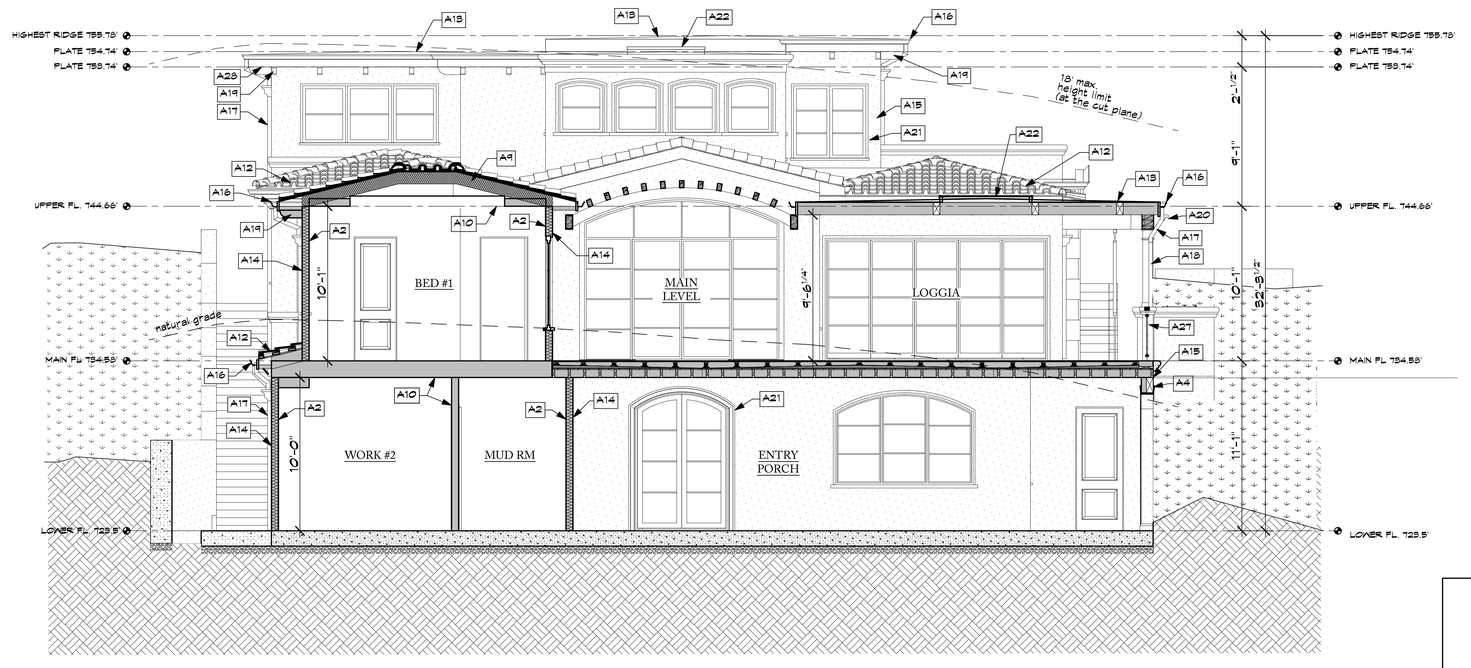
ARCHITECTURAL SECTION NOTES

- A1 — 4" NOM. STUD WALL
  3½" TH. STUD WALL FROM 2X STUDS @ 16" O.C.
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  6" CONCRETE RETAINING WALL W/½" GAF W/2X FLAT LAY STUDS @ 16" O.C.
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  PROVIDE DUAL GLAZED SKYLIGHTS W/TEMPERED GLASS OVER LAMINATED GLASS. VELUX EK-0149
- A23 — STAIRWAYS.
  STAIRWAYS. WIDTH. STAIRWAYS SHALL NOT BE LESS THAN 36", IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT & BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4½" ON EITHER SIDE OF THE STAIRWAY & THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT & BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS & LANDINGS, SHALL NOT BE LESS THAN 31½" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE & 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE MAXIMUM RISER HEIGHT SHALL BE 7¾". THE MINIMUM TREAD DEPTH SHALL BE 10". AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1¼'-0" TO 2'-0" STAIR HANDRAIL 34" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4⅜" DIA SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A24 — LOWER TO MAIN FLOOR STAIR
  14 RISERS @ 7" 13 TREADS 10½" MEASURED 12" FROM INSIDE EDGE
- A25 — MAIN TO SECOND FLOOR STAIR
  17 RISERS @ 16 TREADS 12" WITH 2 INTERMEDIATE LANDINGS
- A26 — HANDRAIL @ STAIR
  AT STAIRS WITH MORE THAN THREE RISERS, PROVIDE MIN. ONE 1¼'-0" TO 2'-0" STAIR HANDRAIL 34" TO 38" ABOVE STAIR NOSING WITH NO SHARP EDGES. HANDRAILS MAY PROJECT A MAX. OF 4½" INTO REQUIRED WIDTH OF STAIRWAY & SHALL PROVIDE 1½" SPACE BETWEEN WALL & HANDRAIL. HANDRAILS SHALL BE CONTINUOUS FROM TOP TO BOTTOM & TERMINATE AT NEWEL POSTS OR RETURN TO WALL. PROVIDE BALUSTERS, WHERE REQUIRED SUCH THAT A 4⅜" DIA SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A27 — GUARDS @ BALCONY
  PROVIDE 42" H. GUARDRAIL AT LANDINGS, WALKWAYS, BALCONIES & SIMILAR WALKING SURFACES WITH ADJACENT OPENINGS MORE THAN 30" ABOVE FLOOR OR GRADE BELOW. PROVIDE BALUSTERS SPACED SUCH THAT A 4" DIA SPHERE CANNOT PASS THROUGH. RAIL FABRICATOR SHALL PROVIDE SHOP DRAWS, SPECS, & CALCS FOR APPROVAL BY ARCHITECT. CRC R312
- A22 — CLOSED OVERHANGS
  PROVIDE PLASTER CEMENT AT ALL OVERHANGS TO CREATE CLOSED SOFFIT.
- A28 — FOUNDATION INSULATION
  INSTALL 2" RIGID FOAM INSULATION ON INSIDE OF FOUNDATION IN CRAWL SPACE TO PROVIDE CONDITIONED CRAWL SPACE. NO VENTING REQUIRED.
- A30 — ELEVATOR PIT
  PROVIDE 12" DEEP PIT AT ELEVATOR



SECTION F-F

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



SECTION E-E

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

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	

KOHLSAAT & ASSOCIATES
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LICENSED ARCHITECT — CHARLES ROBERT KOHLSAAT — No. C-24245 — RENEWAL 08/31/2023 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

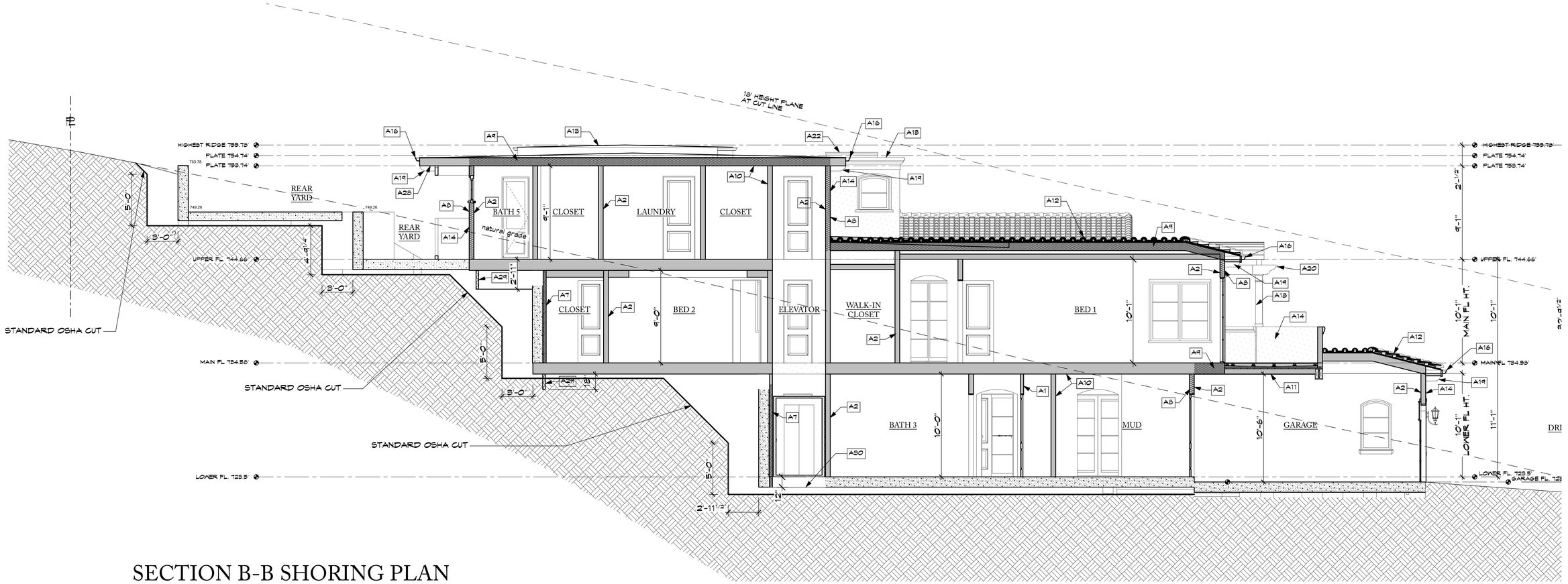
NOTE
1. Contractor shall verify all dimensions and conditions prior to starting any field work.
2. Field work - caused by field conditions or any conditions different from those shown on the drawings shall be brought to the Architect's attention prior to installation.

SECTIONS E, F, & G

DATE: 12/8/21

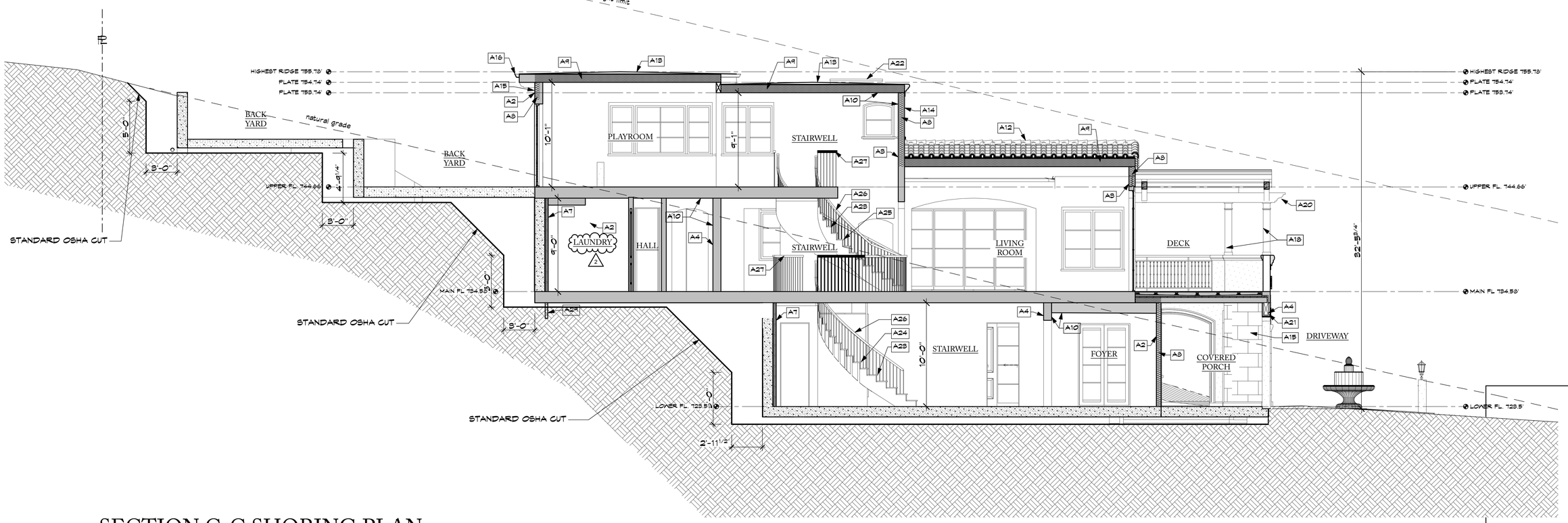
SCALE: AS SHOWN

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SECTION B-B SHORING PLAN

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



SECTION C-C SHORING PLAN

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

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	
2	PLAN CHECK COMMENTS 8/18/22	

KOHLSAAT & ASSOCIATES
51 UNIVERSITY AVE. 7 • LOS GATOS, CA. • 95030 • (408) 395-2555

LICENSED ARCHITECT — CHRISTOPHER KOHLSAAT — No. C 23655 — REG. 2/28/23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOOD ROAD • LOS GATOS, CA 95030

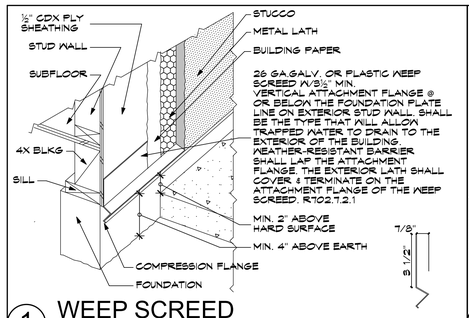
NOTE
1. Contractor shall verify all dimensions, elevations and conditions prior to starting any field work.
2. Any discrepancies caused by field conditions, or any conditions different from those shown on the plans shall be brought to the Architect's attention prior to installation.

SHORING PLAN

DATE: 12/8/21

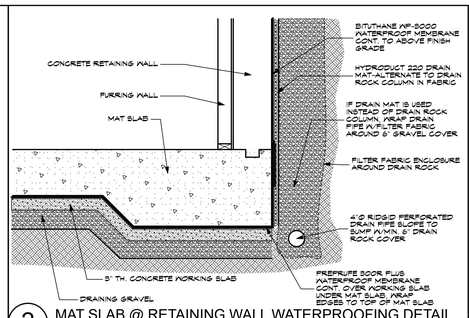
SCALE: AS SHOWN

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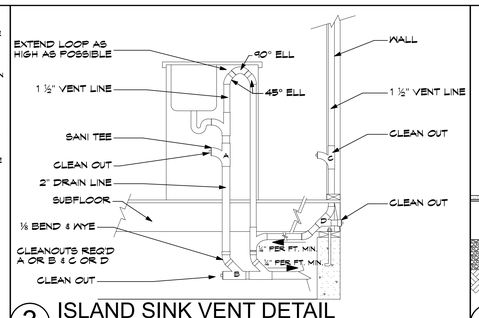
1 WEEP SCREED

SCALE 1 1/2" = 1'-0"



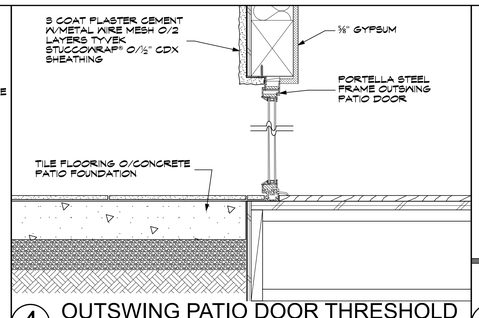
2 MAT SLAB @ RETAINING WALL WATERPROOFING DETAIL

SCALE ¾" : 1 ' - 0 "



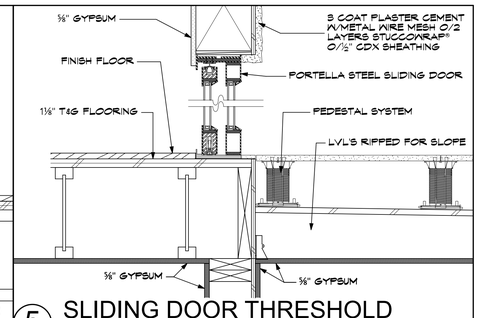
3 ISLAND SINK VENT DETAIL

SCALE ¾" : 1 ' - 0 "



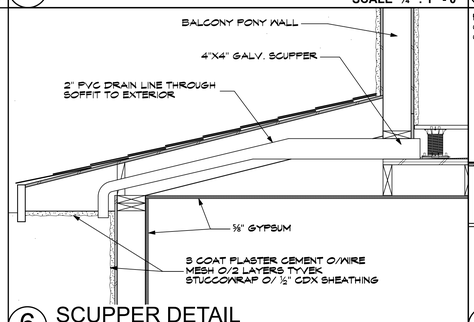
4 OUTSWING PATIO DOOR THRESHOLD

SCALE 1 1/2" = 1'-0"



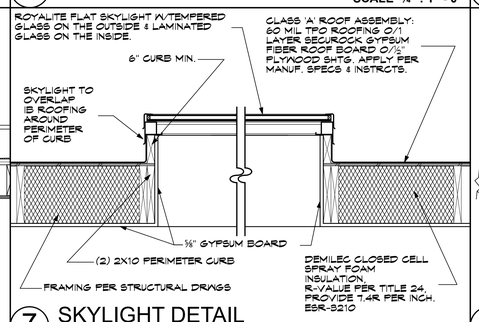
5 SLIDING DOOR THRESHOLD

SCALE 1 1/2" = 1'-0"



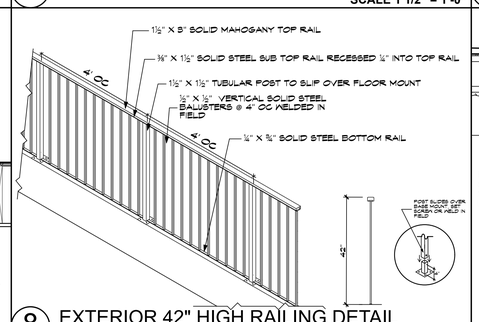
6 SCUPPER DETAIL

SCALE 1" : 1 ' - 0 "



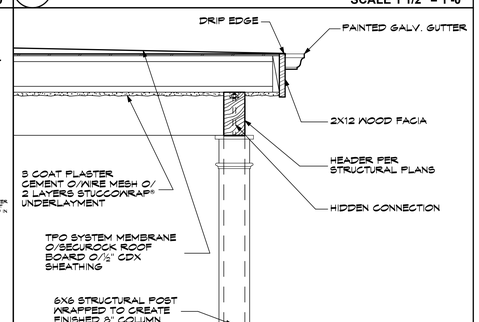
7 SKYLIGHT DETAIL

SCALE 1" : 1 ' - 0 "



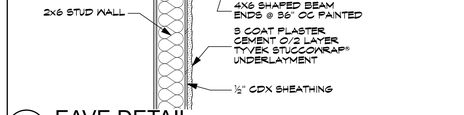
8 EXTERIOR 42" HIGH RAILING DETAIL

SCALE ½" = 1'-0"



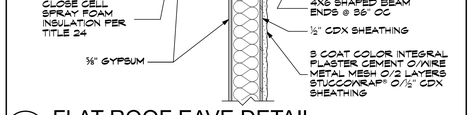
13 BALCONY COLUMN DETAIL

SCALE ¾" : 1 ' - 0 "



9 EAVE DETAIL

SCALE 1" : 1 ' - 0 "



10 FLAT ROOF EAVE DETAIL

SCALE 1" : 1 ' - 0 "



11 WINDOW SILL DETAIL

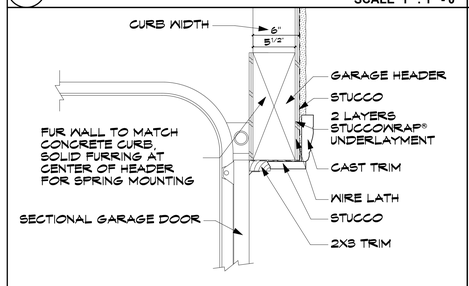
SCALE 3" : 1 ' - 0 "



12 WINDOW JAMB / HEAD DETAIL

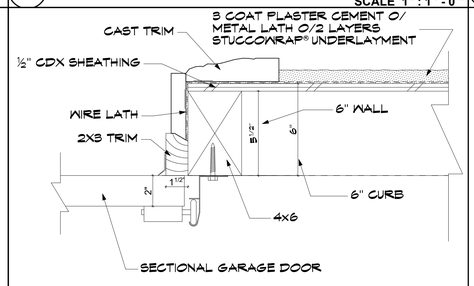
*WINDOW HEAD DETAIL SIMILAR

SCALE 3" : 1 ' - 0 "



14 GARAGE DOOR HEADER

SCALE 1 1/2" = 1'-0"



15 GARAGE DOOR JAMB DETAIL

SCALE 3" : 1 ' - 0 "

REVISIONS

1	PLAN CHECK COMMENTS 6/16/22	

KOHLSAAT & ASSOCIATES
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LICENSED ARCHITECT — JAMES A. KOHLSAAT — No. C 25455 — REN. 8-31-23 — STATE OF CALIFORNIA

ARCHITECTURAL AND SITE DEVELOPMENT FOR:

THE BOUKNIGHT FAMILY

144 WOODSIDE ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimensions, site utilities and conditions prior to starting any field work.
2. Any field work performed based on incorrect dimensions or any conditions different from those shown on the plans shall be the responsibility of the Contractor unless otherwise directed by the Architect's attention prior to installation.

ARCHITECTURAL DETAILS

DATE: 12/8/21

SCALE: AS SHOWN

SHEET

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CAL GREEN MANDATORY MEASURES 2019

MANDATORY FEATURE OR MEASURE	VERIFICATION REQUIREMENTS	
PLANNING & DESIGN		
Site Development:		
4.106.2 A plan is developed and implemented to manage storm water drainage during construction.	☑	☐
4.106.3 Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	☑	☐
4.106.4 Provide capability for electric vehicle charging in one- and two-family dwellings and in townhouses with attached private garages; and 5 percent of total parking spaces, specified, for multifamily dwellings.	☑	☐
General		
4.201.1 Building meets or exceeds the requirements of the California Building Energy Efficiency Standards.	☑	☐
WATER EFFICIENCY AND CONSERVATION		
Indoor Water Use		
4.303.1 Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4.303.1.1 through 4.303.1.4:	☑	☐
i. 1.28 gpf for water closets		
ii. 1.8 gpm @ 80psi for showers		
iii. 1.2 gpm @ 60psi for lavatory faucets		
iv. 1.8 rpm @ 60psi for kitchen faucets		
4.303.2 Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the California Plumbing code, and shall meet the applicable referenced standards.	☑	☐
Outdoor Water Use		
4.304.1 After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options: 1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent; or 2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.	☑	☐
MATERIAL CONSERVATION & RESOURCE EFFICIENCY		
Enhanced Durability & Reduced Maintenance		
4.406.1 Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.	☑	☐
Construction Waste Reduction, Disposal, & Recycling		
4.408.1 Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with one of the following: 1. Comply with a more stringent local construction & demolition waste management ordinance; or 2. A construction waste management plan, per Section 4.408.2; or 3. A waste management company, per Section 4.408.3; or 4. The waste stream reduction alternative, per Section 4.408.4	☑	☐
Building Maintenance & Operation		
4.410.1 An operation and maintenance manual shall be provided to the building occupant or owner.	☑	☐
ENVIRONMENTAL QUALITY		
Fireplaces		
4.503.1 Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	☑	☐
Pollutant Control		
4.504.1 Duct openings and other related air distribution component openings shall be covered during construction.	☑	☐
4.504.2.1 Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits.	☑	☐
4.504.2.2 Paints, stains and other coatings shall be compliant with VOC limits.	☑	☐
4.504.2.3 Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds.	☑	☐
4.504.2.4 Documentation shall be provided to verify that compliant VOC limit finish materials have been used.	☑	☐
4.504.3 Carpet and carpet systems shall be compliant with VOC limits.	☑	☐
4.504.4 80% of floor area receiving resilient flooring shall comply with specified VOC criteria.	☑	☐
4.504.5 Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.	☑	☐
Interior Moisture Control		
4.505.2 Vapor retarder and capillary break in installed at slab on grade foundation.	☑	☐
4.505.3 Moisture content of building materials used in wall and floor framing is checked before enclosure.	☑	☐
Environmental Comfort		
4.507.2. Duct systems are sized, designed, and equipment is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ ACCA 2 Manual J-2011 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or equivalent. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.	☑	☐
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS		
Qualifications		
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	☑	☐
702.2 Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting.	☑	☐
Verifications		
709.1 Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	☑	☐

ELEC./MECH. NOTES

EXHAUST AIR
THE DISCHARGE POINT FOR EXHAUST AIR WILL BE AT LEAST 3 FT. FROM ANY OPENING WHICH ALLOWS AIR ENTRY INTO OCCUPIED PORTIONS OF THE BUILDING. CMC 504.4

HOSE BIBBS
ALL HOSE BIBBS TO HAVE BACKFLOW PREVENTION DEVICES. CPC 603.4.6

ANTI-HAMMER VALVES
PROVIDE ANTI-HAMMER VALVES WITH ACCESS PANELS AT DISHWASHER & WASHING MACHINE OFF LOCK. CPC 604.10

AIR DUCTS
ALL AIR DUCTS PENETRATING SEPARATION WALL OR CEILING BETWEEN GARAGE & LIVING AREA SHALL BE 26 GA. MIN. CRC R302.5.2

SHOWERS & TUB SHOWERS
PROVIDE INDIVIDUAL CONTROL VALVES FOR THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE CPC 408.3

ELEC. BOND @ W.H. PIPES
PROVIDE ELECTRICAL BOND BETWEEN INTERIOR GAS LINES & HOT & COLD LINES AT WATER HEATER. CEC 250.104

PIPING
ALL HOT WATER PIPES SHALL BE INSULATED FULL LENGTH. ALL PIPING SHALL BE SIZED & INSTALLED PARALLEL W/ DEMAND CONTROLLED CIRCULATION PUMP. CPC 604.11, CPC L601.5.1

SMOKE & CARBON MONOXIDE DETECTORS
SMOKE DETECTORS SHALL BE INTERCONNECTED WITH BATTERY BACKUP IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED. ALSO SHALL BE INSTALLED IN ALL SLEEPING ROOMS & OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, NOT LESS THAN 3' FROM BATHROOMS, MORE THAN 20' FROM ANY COOKING APPLIANCE. NOT LESS 3 INSTRUCTIONS SHALL BE INSTALLED UNLESS THEY HAVE BEEN LISTED & APPROVED BY THE STATE MARSHALL FIRE PROTECTION ESTABLISHED. EVIDENCE MUST BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION. PER CRC R314.3.1

HVAC SYSTEM
DESIGN HVAC SYSTEM TO ACCA MANUAL J, D, & S RECOMMENDATIONS. INSTALL UNIT & DUCTWORK WITHIN CONDITIONED SPACE. SIZE DUCT MASTIC OR TAPE. DUCT JOINTS & SEAMS. PROTECT DUCTS DURING CONSTRUCTION & CLEAN BEFORE OCCUPANCY. INSTALL BALANCED VENTILATION SYSTEM. PROVIDE HIGH EFFICIENCY HVAC FILTER. (MERV 13+).

WALL & FLOOR PENETRATIONS
ALL NON-LISTED PLUMBING, ELECTRICAL & SIMILAR PENETRATIONS OF THE FLOOR & CEILING SHALL BE FIRE CAULKED WITH A RESIDENTIAL RATED CAULK WITH AN ASTM RATING OF E136.

GFCI OUTLETS
GROUND-FAULT CIRCUIT-INTERRUPTERS ARE REQUIRED TO PROTECT THE RECEPTACLES IN BATHROOMS, GARAGES, OUTDOORS, KITCHENS & LAUNDRY AREAS. (DISHWASHER BRANCH CIRCUITS, GFCI RECEPTACLES CAN BE USED ON AN AFCI-FAULT PROTECTED CIRCUIT. CEC 210.8

APPLIANCE BRANCH CIRCUITS
PROVIDE TWO APPLIANCE BRANCH CIRCUITS IN KITCHEN THAT ARE LIMITED TO SUPPLYING RECEPTACLE OR COUNTER-MOUNTED OUTLETS FOR THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. NOTE: THESE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, BATHROOMS, OR GARAGES. DISHWASHERS OR MICROWAVES-ONLY REQUIRED COUNTER TOP/WALL OUTLETS INCLUDING REFRIGERATOR. CEC 210.50

BATHROOM DEDICATED CIRCUIT
A DEDICATED 20-AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPTION: WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED.) CEC 210.11

LAUNDRY DEDICATED CIRCUIT
A DEDICATED 20-AMP BRANCH CIRCUIT IS REQUIRED TO SERVE THE LAUNDRY RECEPTACLE OUTLETS. CEC 210.11

AFCI BRANCH CIRCUITS
ALL 120V, 15 & 20 AMP ELECTRICAL CIRCUITS SUPPLYING OUTLETS (LIGHTING & RECEPTACLES) INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, OR COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUITS. PROTECTED. CEC 210.12

BATHROOM VENTILATION
BATHROOMS CONTAINING BATHTUBS, SHOWERS OR SPAS SHALL BE MECHANICALLY VENTILATED IN ACCORDANCE WITH THE CMC. PER CRC SECTION R303.3 BATHROOM FANS TO BE ENERGY STAR RATED, VENTED TO THE OUTSIDE, & CONTROLLED WITH A HUMIDISTAT SWITCH. CGBSC 4.506

DOOR BELL/BUZZER
DOOR BUZZER, BELL, OR CHIME SHALL BE HARD WIRES AT THE PRIMARY ENTRANCE.

RECEPTACLES
ALL RECEPTACLES SHALL BE TAMPER RESISTANT. CEC 406.12 SPACING. RECEPTACLES SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6' FROM A RECEPTACLE OUTLET. ANY SPACE 2 OR MORE IN WIDTH (SPACE AFFORDED BY FIXED ROOM DIVIDERS, FLOOR-TO-CEILING PARTITIONS) TO BE COUNTED AS PART OF THE REQD NUMBER UNLESS WITHIN 18" OF THE WALL. CEC 210.52

MECHANICAL VENTILATION
IN BATHROOMS, WATER CLOSETS COMPARTMENTS & OTHER SIMILAR ROOMS THAT DON'T HAVE THE REQUIRED NATURAL VENTILATION, PROVIDE MECHANICAL VENTILATION. THE MINIMUM VENTILATION RATES SHALL BE 50 CUBIC FEET PER MIN. FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET PER MIN. FOR CONTINUOUS VENTILATION. PER CEC R303.3

SHOWER HEADS:
SHOWER HEADS SHALL BE DESIGNED & INSTALLED SO THAT THEY WILL NOT EXCEED A WATER SUPPLY FLOW RATE OF 1.8 GPM MEASURED AT 80 PSI. CPC 408.2

FAUCETS:
FAUCETS AT KITCHENS, LAVATORIES, WETBARS, LAUNDRY SINKS, OR OTHER SIMILAR USE FIXTURES SHALL BE DESIGNED & MANUFACTURED SO THAT THEY WILL NOT EXCEED A WATER SUPPLY FLOW RATE OF: KITCHEN 1.8 @ 60 PSI, LAV. FAUCETS 1.2 @ 60 PSI. ALL OTHERS 2.2 @ 60 PSI CPC 407

HIGH EFFICIENCY TOILETS
NEW WATER CLOSETS & ASSOCIATED FLUSHOMETER VALVES SHALL USE NO MORE THAN 1.28 GALLONS PER FLUSH. CPC 411

SEWER CLEANOUTS
PROVIDE SEWER CLEANOUT WITHIN 1 FOOT OF BASEMENT, WITHIN 2 FEET OF EACH DWELLING & AT 100 FOOT INTERVALS. CPC 719, 721

SANITARY SEWER BACK FLOW VALVE
VERIFY IF THE MAIN UPSTREAM MANHOLE IS 12" OR MORE BELOW THE FLOOD LEVEL RIMS OF FIXTURES SERVICED BY DRAINAGE PIPING. PROVIDE BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVELS LESS THAN 12" ABOVE THE ELEVATION ABOVE THE NEXT UPSTREAM MANHOLE. CPC 710.0

ELECTRIC VEHICLE CHARGING STATION:
ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS WITH PRIVATE GARAGES, & ADUS SHALL HAVE THE TWO PAIRED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) OUTLETS. EACH SUPPLIED BY A SEPARATE 40 AMP MIN. DEDICATED BRANCH CIRCUIT, & SHALL BE INSTALLED SPECIFICALLY FOR SUPPLYING ELECTRICAL POWER TO AN ELECTRIC VEHICLE CHARGER. ONE OUTLET SHALL BE INSTALLED INSIDE THE GARAGE & THE OTHER OUTLET SHALL BE INSTALLED OUTSIDE THE GARAGE.

LIGHTING
LUMINAIRE REQUIREMENTS
LUMINAIRE EFFICACY. ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY IN ACCORDANCE WITH TABLE 150.0-A.

RECESSED LUMINAIRES IN INSULATED CEILINGS
1. BE LISTED, AS DEFINED IN SECTION 100.1, FOR ZERO CLEARANCE INSULATION CONTACT (IC) BY UNDERWRITERS LABORATORIES OR OTHER NATIONALLY RECOGNIZED TESTING/RATING LABORATORY; & 2. HAVE A LABEL THAT CERTIFIES THE LUMINAIRE IS AIRTIGHT WITH AN LEAKAGE LESS THAN 2.0 CFM AT 75 PASCALS WHEN TESTED IN ACCORDANCE WITH ASTM E283. AN EXHAUST FAN HOUSING SHALL NOT BE REQUIRED TO BE CERTIFIED AIRTIGHT, BUT SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE LUMINAIRE HOUSING & CEILING. & HAVE ALL AIR LEAK PATHS BETWEEN CONDITIONED & UNCONDITIONED SPACES SEALED WITH A GASKET OR CAULK, & 3. FOR LUMINAIRES WITH HARDWIRED BALLASTS OR DRIVERS, ALLOW BALLAST OR DRIVER MAINTENANCE & REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS FROM BELOW THE CEILING WITHOUT REQUIRING THE CUTTING OF HOLES IN THE CEILING. & V. SHALL NOT CONTAIN SCREW BASE SOCKETS; & SHALL CONTAIN LIGHT SOURCES THAT COMPLY WITH REFERENCES JOINT APPENDIX JA8, INCLUDING THE ELEVATED TEMPERATURE REQUIREMENTS, & THAT ARE MARKED JA8-2019-E AS SPECIFIED IN REFERENCE JOINT APPENDIX JA8.

A. SCREW-BASED LUMINAIRES SHALL CONTAIN LAMPS THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8. EXCEPTION: LUMINAIRES WITH HARD-WIRED BASE SOCKETS FOR HIGH INTENSITY DISCHARGE LAMPS. JA8 COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JA8-2019" OR "JA8-2019-E". JA8-2019-E LUMINAIRES ARE DEEMED APPROPRIATE FOR USE IN ENCLOSED LUMINAIRES. (CEC 150.0(K).5
B. ALL JA8 COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EXCEPTION CLOSETS LESS THAN 70 SF. (HALLWAYS. CEC 150.0(K)2.B.
C. AT LEAST ONE FIXTURE IN THE SHOP CONTROLLED BY A VACANCY SENSOR. CEC 150.0(K)2I
ALL OUTDOOR LIGHTING SHALL BE HIGH EFFICACY WITH MANUAL ON/OFF SWITCH & ONE OF THE FOLLOWING IN ACCORDANCE WITH CEC 150.0(K)3:
i. PHOTOCELL & MOTION SENSOR
ii. PHOTOCELL & AUTOMATIC TIME SWITCH CONTROL
iii. ASTRONOMICAL TIME SWITCH CONTROL
iv. ENERGY MANAGEMENT CONTROL SYSTEMS
D. A COMPLETED CF6R-LTG-01-E FORM MUST BE PROVIDED TO THE CITY/TOWN BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.
E. AT LEAST ONE FIXTURE IN BATHROOMS, UTILITY, LAUNDRY, & GARAGES MUST BE CONTROLLED BY A VACANCY SENSOR.

NOTE TO MECHANICAL CONTRACTOR:

Heating and air-conditioning system design. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ACCA Manual J, ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ACCA 29-D Manual D, ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods.

CGBSC 4.507.2

A2. DWELLING-UNIT MECHANICAL VENTILATION RATE (from ANSI/ASHRAE 62.2-2019) The required mechanical ventilation rate (Qfan) shall be the rate Qtot in Section 4.1.1 plus the required additional airflow calculated in accordance with Section A3. If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.2 In these cases, Section A3 shall be applied before Section 4.1.2 when determining the final mechanical ventilation rate.

4.1 Ventilation Rate. A mechanical exhaust system, supply system, or combination thereof, shall be installed to operate for each dwelling unit to provide continuous dwelling-unit ventilation with outdoor air at a rate not less than specified in Section 4.1.1.

4.1.1 Total Ventilation Rate. The total required ventilation rate (Qtot) shall be as specified in Table 4-1a

(I-P) or 4-1b (SI) or alternatively calculated using Equation 4-1a (I-P) or 4-1b (SI).

$$Qtot = 0.03Afloor + 7.5(Nbr + 1) \quad (4\text{-}1a)$$

where
Qtot = total required ventilation rate, cfm
Afloor = dwelling-unit floor area, ft2
Nbr = number of bedrooms (not to be less than 1)

5. LOCAL EXHAUST
5.1 Local Mechanical Exhaust. A local mechanical exhaust system shall be installed in each kitchen and bathroom. Nonenclosed kitchens shall be provided with a demand-controlled mechanical exhaust system meeting the requirements of Section 5.2. Each local ventilation system for all other kitchens and bathrooms shall be either one of the following:
a. A demand-controlled mechanical exhaust system meeting the requirements of Section 5.2
b. A continuous mechanical exhaust system meeting the requirements of Section 5.3

Table 5-1 Demand-Controlled Local Ventilation Exhaust Airflow Rates

Application	Airflow
Enclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm or a capacity of 5 ach
Nonenclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s)
Bathroom	50 cfm

Air Changes per Hour (ACH), which is determined by multiplying the volume of the space by 5, ACH = cubic feet per hour, and then dividing by 60 minutes per hour to determine the cubic feet per minute, cfm).

5.4 Airflow Measurement. The airflow required by this section is the quantity of indoor air exhausted by the ventilation system as installed and shall be measured according to the ventilation equipment manufacturer instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals, or in the connected ventilation ducts.

Exception to 5.4: Manufacturer design criteria or the prescriptive requirements of Table 5-3 shall be permitted in place of a measurement. When using Table 5-3, the airflow rating according to Section 7.1 shall meet or exceed a static pressure of 0.25 in. of water (62.5 Pa). Use of Table 5-3 is limited to duct systems not exceeding 25 ft (8 m) in length, duct systems with no more than three (3) elbows, and duct systems with exterior termination fittings having a hydraulic diameter greater than or equal to the minimum duct diameter and not less than the hydraulic diameter of the fan outlet.

Table 5-3 Prescriptive Duct Sizing

Fan Airflow Rating, CFM at minimum static pressure of 0.25 in. of water (Lis at minimum 62.5 Pa)	≤50 (25)	≤80 (40)	≤100 (50)	≤125 (60)	≤150 (70)	≤175 (85)	≤200 (95)	≤250 (120)	≤350 (165)	≤400 (190)	≤450 (210)	≤700 (330)	≤800 (380)
Duct Type	Minimum Duct Diameter, in. (mm) a,b												
Rigid duct	4" (100)	5 (125)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	10 (255)	12" (305)
Flex duct[c]	4 (100)	5 (125)	6 (150)	7 (150)	7 (150)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	NP	NP	NP

a. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. NP = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted.
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm).

EXHAUST ONLY

$Q_{fan} = 0.03A_{floor} + 7.5(N_{br}+1)$ 244.8 CFM=.03*5910+7.5(8+1)

DUV = DWELLING UNIT VENTILATION DUV

KITCHEN WILL PROVIDE LOCAL VENTILATION EXHAUST.

ELECTRIC/MECHANICAL LEGEND

- 250V, OUTLET @ 42" OFF FLOOR (U.N.O.)
- 125V, DUPLEX AFCI OUTLET
- 125V, DUPLEX AFCI/GFCI OUTLET
- 125V, WEATHER PROOF GFIC OUTLET
- 125V, 1/2 HOT DUPLEX OUTLET
- 125V, QUADRIPLEX OUTLET
- 125V, DUPLEX FLOOR OUTLET
- ELECTRIC VEHICLE CHARGING STATION
- JUNCTION BOX
- WALL SWITCH
- DIMMER SWITCH
- MANUAL ON MOTION SWITCH (MOTION SENSOR SHALL ONLY BE OPERATIONAL WHEN IN 'ON' POSITION)
- HUMIDISTAT TIMER
- HARDWIRED DOORBELL/BUZZER
- 4" RECESSED LED CAN AT/IC
- 4" RECESSED DIRECTIONAL LED CAN AT/IC
- SURFACE MOUNTED LED FIXTURE
- CEILING MOUNT UL LISTED 7ELB RATED JUNCTION BOX FOR LIGHT OR FAN
- WALL MTD LED FIXTURE
- WALL MOUNTED LED STEP LIGHT
- HEADER MTD LED LIGHT
- UNDER CABINET LED LIGHTS
- SURFACE MOUNTED LED LIGHTS
- SMOKE DETECTOR/CARBON MONOXIDE DETECTOR COMBO.
- 100 CFM EXHAUST FAN - ENERGY STAR RATED, VENTED TO EXTERIOR
- 270 CFM PANTECH FB270-3 EXHAUST FAN-ENERGY STAR-VENTED TO EXT.
- PANASONIC FV-10VEC2 ENERGY RECOVERY VENTILATION UNIT. 50-100 CFM
- COMMUNICATIONS BUNDLE
- HOSE BIBB
- FLOOR HVAC REGISTER
- CEILING HVAC REGISTER
- WALL HVAC REGISTER
- KICK HVAC REGISTER
- C.A.R. COLD AIR RETURN @ CEILING
- C.A.R. COLD AIR RETURN @ WALL
- SUB-PANEL

W INDICATES WET LOCATION
S INDICATES SLOPED LOCATION

A5.0 PLUMBING

- A5.1 RECT. SINK(S) IN VANITY CABINET
- A5.2 LARGE DOUBLE SINK W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.4 50" WIDE UTILITY SINK FOR OWNER
- A5.5 SMALL SINK W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.6 TILED SHOWER PROVIDE EXHAUST WITH WATER PROOF FAN & WETSET TILE FULL HEIGHT ABOVE FLOOR LINE OVER FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS & FIBER-REINFORCED GYPSUM BACKING. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS. R307.2 & R702.4.2 R702.3.3 SHOWER / TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH PRESSURE BALANCED VALVES OR THE THERMOSTATIC MIXING VALVE TYPE CPC 408.3
- A5.7 SPA BATH TUB THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB FILLER, WHIRLPOOL BATHTUB, OR SPA SHALL BE LIMITED TO 120°F BY A FIXED OR TEMPERATURE CONTROL VALVE OR OTHER MEANS THAT CONFORMS TO ASSE 1070 OR CSA B125.3. CPC 409.4 SPA TUB OR SEPARATE GFCI PROTECTED PUMP SHALL BE PROVIDED. PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. PROVIDE REMOVABLE PANEL TO ACCESS PUMP & REMOVE THE PUMP. THE PUMP & CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. CPC TBLE 1402.1 SUCTION FITTINGS ON WHIRLPOOL BATHTUBS SHALL COMPLY WITH THE LISTED STANDARDS. CPC 409.6 BATH TUB TO BE SELECTED BY OWNER
- A5.8 HIGH-EFFICIENCY TOILET PROVIDE LOW FLOW ENERGY DUAL-FLUSH OR ≤1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL THE CLOSET SHALL BE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5
- A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER W/ INLET & OUTLET DUCT KIT TO INTERIOR OF ENCLOSURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL W/SEISMIC STRAPS AT TOP & BOTTOM & PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.
- A5.10 ANNULAR SPACES ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES OR FOUNDATIONS SHALL BE PROTECTED AGAINST RODENTS BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CGBSC 4.406.1
- A5.11 OUTDOOR SHOWER OUTDOOR SHOWER WILL CONNECT TO THE SANITARY SEWER. OUTDOOR SHOWER HAS 2 FULL HEIGHT WALLS & 2 PONY WALLS W/24" OPENING W/4" CURB & A COVERED ROOF. WALLS OF ENCLOSURE SHALL BE SMOOTH, WATERPROOF, & WASHABLE. MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

- A6.1 48" INDUCTION RANGE PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.
- A6.2 RANGE VENT HOOD PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER SOURCE. NOTE: COMBUSTION APPLIANCES OR SOLID-FUEL BURNING APPLIANCES ARE LOCATED INSIDE THE PRESSURE BOUNDARY. THE MAXIMUM ALLOWABLE EXHAUST FLOW OF THE TWO LARGEST EXHAUST FANS SHALL NOT EXCEED 15 CFM PER 100 SQ FT. OF OCCUPIABLE SPACE. WHEN OPERATING AT FULL CAPACITY. IF THE DESIGNED TOTAL VENT FLOW EXCEEDS THIS LIMIT, THE TOTAL EXHAUST FLOW MUST BE REDUCED BY REQUIRING THE EXHAUST FLOW OR PROVIDING MAKEUP AIR INTERLOCKED WITH THE RANGE HOOD. IF MAKE-UP AIR FAN IS INSTALLED, IT MUST BE ELECTRICALLY INTERLOCKED WITH THE LARGEST EXHAUST FAN(S). RMEC 622.2 § 6.4
- A6.3 COUNTER DEPTH REFRIGERATOR/FREEZER PROVIDE ENERGY STAR REFRIGERATOR/FREEZER W/ WATER FOR AUTOMATIC ICE MAKER.
- A6.4 DISHWASHER PROVIDE ENERGY STAR DISHWASHER USING ≤ 3.5 GA/ CYCLE & ≤ 270 KWH/YEAR. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OF FLOOR MOUNTED DISPOSER WITHOUT THE USE OF AN APPROVED AIR GAP OR AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIR GAPS TO BE INSTALLED WITH THE FLOOD-LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER. CPC § 807.3
- A6.5 WASHER FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR MOST EFFICIENT REQUIREMENTS (MODIFIED ENERGY FACTOR ≥ 2.0 WATER FACTOR ≤ 6.0)
- A6.6 DRYER PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THE LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.7 STACKED WASHER/DRYER PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THE LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE.
- A6.8 COMPACT REFRIDGERATOR PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER.
- A6.9 UNDER COUNTER REFRIGERATOR/FREEZER PROVIDE 24" ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER

A7.0 MECHANICAL

- A7.1 BATHROOM FANS MECHANICAL EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT & DUCTED TO TERMINATE OUTSIDE THE BUILDING. & SHALL BE CONTROLLED BY A HUMIDISTAT THAT IS CAPABLE OF ADJUSTING THE RELATIVE HUMIDITY BETWEEN 50%-80%. CGBSC 4.506.1
- A7.2 HEAT PUMP UNIT PROVIDE HIGH EFFICIENCY A.C. UNIT W/ ENVIRONMENTALLY RESPONSIBLE REFRIGERANTS ANCHORED ON AN APPROVED PAD THAT IS A MIN. OF 3" ABOVE THE FINISHED GRADE OR LANDSCAPING
- A7.3 AIR HANDLER PROVIDE MIN. 24"x24" OUTLET FOR SERVICE EQUIPMENT UNLESS OTHERWISE SPECIFIED. NOT LESS THAN 30" IN DEPTH, WIDTH & HEIGHT OF WORKING SPACE SHALL BE PROVIDED.
- A7.4 ENERGY RECOVERY VENTILATION PROVIDE PANASONIC FV-11VEC2 ENERGY RECOVERY VENTILATION FAN PER TITLE 24. A MANUAL SWITCH FOR THE BUILDING VENTILATION MUST BE LABELED WITH THE FOLLOWING TEXT: THIS SWITCH CONTROLS THE INDOOR AIR QUALITY VENTILATION FOR THE HOME. LEAVE IT ON UNLESS THE OUTDOOR AIR QUALITY IS VERY POOR." CBSC § 150.0 (O) 1
- A7.5 DRYER VENT A DURABLE FLAGARD (MIN. SIZE OF 4"X8") MUST BE PERMANENTLY AFFIXED ON A WALL NEAR & VISIBLE FROM THE DRYER LOCATION. THE FLAGARD SHALL STATE THE ACTUAL LENGTH OF THE INSTALLED DRYER EXHAUST VENT & INCLUD

ELEC./MECH. NOTES

EXHAUST AIR.
THE DISCHARGE POINT FOR EXHAUST AIR WILL BE AT LEAST 3 FT. FROM ANY OPENING WHICH ALLOWS AIR ENTRY INTO OCCUPIED PORTIONS OF THE BUILDING. CMC 504.4

HOSE BIBBS
ALL HOSE BIBBS TO HAVE BACKFLOW PREVENTION DEVICES. CPC 603.4.6

ANTI-HAMMER VALVES
PROVIDE ANTI-HAMMER VALVES WITH ACCESS PANELS AT DISHWASHER & WASHING MACHINE CPC 609.10

AIR DUCTS
ALL AIR DUCTS PENETRATING SEPARATION WALL OR CEILING BETWEEN GARAGE & LIVING AREA SHALL BE 26 GA. MIN. CRC R302.5.2

SHOWERS & TUB SHOWERS
PROVIDE INDIVIDUAL CONTROL VALVES FOR THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 408.3

ELEC. BOND @ W.H. PIPES
PROVIDE ELECTRICAL BOND BETWEEN INTERIOR GAS LINES & HOT & COLD LINES AT WATER HEATER. CEC 250.104

PIPING
ALL HOT WATER PIPES SHALL BE INSULATED FULL LENGTH. ALL PIPING SHALL BE END-NEERED PARALLEL W/ DEMAND CONTROLLED CIRCULATION PUMP. CPC 609.11, CMC 1601.1.1

SMOKE/CARBON MONOXIDE DETECTORS
SMOKE DETECTORS SHALL BE INTERCONNECTED WITH BATTERY BACKUP IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED. SHALL BE INSTALLED IN ALL SLEEPING ROOMS & OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. NOT LESS THAN 3' FROM BATHROOMS. MORE THAN 20' FROM ANY COOKING APPLIANCE. NO ALARMS INSTRUCTIONS SHALL BE INSTALLED UNLESS THEY HAVE BEEN LISTED & APPROVED BY THE SITE FIRE MARSHALL PRIOR TO INSTALLATION. EVIDENCE MUST BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION. PER CRC R314 & 315

HVAC SYSTEM
DESIGN HVAC SYSTEM TO ACCA MANUAL J, D, & S RECOMMENDATIONS. INSTALL UNIT & DUCTWORK WITHIN CONDITIONED SPACE. USE DUCT MASTIC ON ALL DUCT JOINTS & SEAMS. PROTECT DUCTS DURING CONSTRUCTION & CLEAN BEFORE OCCUPANCY. PRESSURE RELIEVE THE DUCTWORK SYSTEM. PROVIDE HIGH EFFICIENCY HVAC FILTER (MERV 13+)

WALL & FLOOR PENETRATIONS
ALL MECHANICAL, PLUMBING, ELECTRICAL & SIMILAR PENETRATIONS OF THE FLOOR & CEILING SHALL BE FIRE CAULKED WITH A RESIDENTIAL RATED CAULK WITH AN ASTM RATING OF E136.

GFCI OUTLETS
GROUND-FAULT CIRCUIT-INTERRUPTERS ARE REQUIRED TO PROTECT THE RECEPTACLES IN BATHROOMS, GARAGES, OUTDOORS, KITCHENS, & LAUNDRY AREAS. & DISHWASHER BRANCH CIRCUITS. GFCI RECEPTACLES CAN BE USED ON AN ARC-FAULT PROTECTED CIRCUIT. CEC 210.8

APPLIANCE BRANCH CIRCUITS
PROVIDE TWO APPLIANCE BRANCH CIRCUITS IN KITCHEN THAT ARE LIMITED TO SUPPLYING WALL OR COUNTER SPACE OUTLETS FOR THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. NOTE: THESE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, RANGE HOOD, DISPOSALS, DISHWASHERS OR MICROWAVES-ONLY REQUIRED COUNTER TOP/WALL OUTLETS INCLUDING REFRIGERATOR. CEC 210.52

BATHROOM DEDICATED CIRCUIT
A DEDICATED 20-AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPTION: WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED.) CEC 210.11

LAUNDRY DEDICATED CIRCUIT
A DEDICATED 20-AMP BRANCH CIRCUIT IS REQUIRED TO SERVE THE LAUNDRY RECEPTACLE OUTLETS. CEC 210.11

AFCI BRANCH CIRCUITS
ALL 120 V 15 & 20 AMP ELECTRICAL CIRCUITS SUPPLYING OUTLETS (LIGHTING & RECEPTACLES) INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT-INTERRUPTER, OR COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUITS. PROTECTED. CEC 210.12

BATHROOM VENTILATION
BATHROOMS CONTAINING BATHTUBS, SHOWERS OR SPAS SHALL BE MECHANICALLY VENTILATED IN ACCORDANCE WITH THE CMC. PER CRC SECTION R303.3 BATHROOM FANS TO BE ENERGY STAR RATED. VENTED TO THE OUTSIDE. & CONTROLLED WITH A HUMIDISTAT SWITCH. CGBSC & R4.9

DOOR BELL/BUZZER
DOOR BUZZER, BELL, OR CHIME SHALL BE HARD WIRES AT THE PRIMARY ENTRANCE.

RECEPTACLES
ALL RECEPTACLES SHALL BE TAMPER RESISTANT. CEC 406.12 SPACING. RECEPTACLES SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS GREATER THAN 6 FROM A RECEPTACLE OUTLET. ANY SPACE 2 OR MORE IN WIDTH. SPACE AFFORDED BY FIXED ROOM DIVIDERS. FLOORING OUTLETS SHALL BE COUNTED AS PART OF THE REQD NUMBER UNLESS WITHIN 18" OF THE WALL. CEC 210.52

MECHANICAL VENTILATION
BATHROOMS, WATER CLOSET COMPARTMENTS & OTHER SIMILAR ROOMS THAT DONT HAVE THE REQUIRED NATURAL VENTILATION. PROVIDE MECHANICAL VENTILATION. THE MINIMUM VENTILATION RATES SHALL BE 50 CUBIC FEET PER MIN. FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET PER MIN. FOR CONTINUOUS VENTILATION. PER CBC R303.9

SHOWER HEADS:
SHOWER HEADS SHALL BE DESIGNED & INSTALLED SO THAT THEY ALL NOT EXCEED A WATER SUPPLY FLOW RATE OF 1.8 GPM MEASURED AT 80 PSI. CPC 408.2

FAUCETS:
FAUCETS AT KITCHENS, LAVATORIES, BIDEARS, LAUNDRY SINKS, OR OTHER SIMILAR USE FIXTURES SHALL BE DESIGNED & INSTALLED SO THAT THEY ALL NOT EXCEED A WATER SUPPLY FLOW RATE OF, KITCHEN 1.8 @ 60 PSI, LAV. FAUCETS 1.2 @ 60 PSI. ALL OTHERS 2.5 @ 60 PSI CPC 407

HIGH EFFICIENCY TOILETS
NEW WATER CLOSETS & ASSOCIATED FLUSHOMETER VALVES SHALL USE NO MORE THAN 1.28 GALLONS PER FLUSH. CPC 411

SEWER CLEANOUTS
PROVIDE SEWER CLEANOUT WITHIN 1 FOOT OF EASEMENT, WITHIN 2 FEET OF EACH DWELLING & AT 100 FOOT INTERVALS. CPC 719, UPC 721

SANITARY SEWER BACK FLOW VALVE
VERIFY IF THE NEST UPSTREAM MANHOLE IS 12" OR MORE BELOW THE FLOOD LEVEL RIMS OF FIXTURES SERVICED BY DRAINAGE PIPING. PROVIDE BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVELS LESS THAN 12" ABOVE THE ELEVATION ABOVE THE NEXT UPSTREAM MANHOLES PER CPC 710.0.

ELECTRIC VEHICLE CHARGING STATION:
ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS WITH PRIVATE GARAGES, & ADUS SHALL PROVIDE TWO WIRED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) OUTLETS. EACH SUPPLIED BY A SEPARATE 40 AMP MIN. DEDICATED BRANCH CIRCUIT. & SHALL BE INSTALLED SPECIFICALLY FOR SUPPLYING ELECTRICAL POWER TO AN ELECTRIC VEHICLE CHARGER. ONE OUTLET SHALL BE INSTALLED INSIDE THE GARAGE & THE OTHER OUTLET SHALL BE INSTALLED OUTSIDE THE GARAGE

LIGHTING
LUMINAIRE REQUIREMENTS
LUMINAIRE EFFICACY. ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY IN ACCORDANCE WITH TABLE 150.0-A

RECESSED LUMINAIRES IN INSULATED CEILINGS
I. BE LISTED, AS DEFINED IN SECTION 100.1, FOR ZERO CLEARANCE INSULATION CONTACT (IC) BY UNDERWRITERS LABORATORIES OR OTHER NATIONALLY RECOGNIZED TESTING/RATING LABORATORY. & II. HAVE A LABEL THAT CERTIFIES THE LUMINAIRE IS AIRTIGHT WITH AIR LEAKAGE LESS THAN 2.0 CFM AT 75 PASCALS (WEN TESTED IN ACCORDANCE WITH ASTM E283. AN EXHAUST FAN HOUSING SHALL NOT BE REQUIRED TO BE CERTIFIED AIRTIGHT. & III. BE SEALED WITH A GASKET OR CAULK BETWEEN THE LUMINAIRE HOUSING & CEILING. TO SEAL ALL AIR LEAK PATHS BETWEEN CONDITIONED & UNCONDITIONED SPACES SEALED WITH A GASKET OR CAULK. & I. FOR LUMINAIRES WITH HARDWIRED BALLASTS OR DRIVERS. AJ(A). A BALLAST OR DRIVER MAINTENANCE & REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS FROM BELOW THE CEILING WITHOUT REQUIRING THE CUTTING OF HOLES IN THE CEILING. & V. SHALL NOT CONTAIN SCREW BASE SOCKETS. & SHALL CONTAIN LIGHT SOURCES THAT COMPLY WITH REFERENCES JOINT APPENDIX JA8, INCLUDING THE ELEVATED TEMPERATURE REQUIREMENTS. & THAT ARE MARKED "JA8-2016-E" AS SPECIFIED IN REFERENCE JOINT APPENDIX JA8.

A. SCREW-BASED LUMINAIRES SHALL CONTAIN LAMPS THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8. EXCEPTION: LUMINAIRES WITH HARD-WIRED BALLASTS FOR HIGH INTENSITY DISCHARGE LAMPS. JA8 COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JA8-2016" OR "JA8-2016-E"(JA8-2016-E LUMINAIRES ARE DEEMED APPROPRIATE FOR USE IN ENCLOSED LUMINAIRES) CEC 150.0(K)1G
B. ALL JA8 COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EXCEPTION CLOSETS LESS THAN 70 SF & HALLWAYS) CEC 150.0(K)2C:
C. AT LEAST ONE FIXTURE IN THE SHOP CONTROLLED BY A VACANCY SENSOR. CEC 150.(K)3
D. ALL OUTDOOR LIGHTING SHALL BE HIGH EFFICACY WITH MANUAL ON/OFF SWITCH & ONE OF THE FOLLOWING IN ACCORDANCE WITH CEC 150.0(K)3:
I. PHOTOCELL & MOTION SENSOR
II. PHOTOCELL & AUTOMATIC TIME SWITCH CONTROL
III. ASTRONOMICAL TIME SWITCH CONTROL
IV. ENERGY MANAGEMENT CONTROL SYSTEMS
D1. A COMPLETED CF6R-LTG-21-E FORM MUST BE PROVIDED TO THE CITY/TOWN BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.
E. AT LEAST ONE FIXTURE IN BATHROOMS, UTILITY, LAUNDRY, & GARAGES MUST BE CONTROLLED BY A VACANCY SENSOR

NOTE TO MECHANICAL CONTRACTOR:

Heating and air-conditioning system design. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ACCA Manual J, ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ACCA 29-D Manual D, ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods.

CGBSC 4.507.2

A2. DWELLING-UNIT MECHANICAL VENTILATION RATE (from ANSI/ASHRAE 62.2-2019) The required mechanical ventilation rate (Qfan) shall be the rate Qtot in Section 4.1.1 plus the required additional airflow calculated in accordance with Section A3. If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.2 In these cases, Section A3 shall be applied before Section 4.1.2 when determining the final mechanical ventilation rate.

4.1 Ventilation Rate. A mechanical exhaust system, supply system, or combination thereof, shall be installed to operate for each dwelling unit to provide continuous dwelling-unit ventilation with outdoor air at a rate not less than specified in Section 4.1.1.

4.1.1 Total Ventilation Rate. The total required ventilation rate (Qtot) shall be as specified in Table 4-1a (I-P) or 4-1b (SI) or alternatively calculated using Equation 4-1a (I-P) or 4-1b (SI).

$$Qtot = 0.03Afloor + 7.5(Nbr + 1) \quad (4\text{-}1a)$$

where
Qtot = total required ventilation rate, cfm
Afloor = dwelling-unit floor area, ft2
Nbr = number of bedrooms (not to be less than 1)

5. LOCAL EXHAUST

5.1 Local Mechanical Exhaust. A local mechanical exhaust system shall be installed in each kitchen and bathroom. Nonenclosed kitchens shall be provided with a demand-controlled mechanical exhaust system meeting the requirements of Section 5.2. Each local ventilation system for all other kitchens and bathrooms shall be either one of the following:
a. A demand-controlled mechanical exhaust system meeting the requirements of Section 5.2
b. A continuous mechanical exhaust system meeting the requirements of Section 5.3

Table 5-1 Demand-Controlled Local Ventilation Exhaust Airflow Rates

Application	Airflow
Enclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm or a capacity of 5 ach
Nonenclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s)
Bathroom	50 cfm

Air Changes per Hour (ACH), which is determined by multiplying the volume of the space by 5, ACH = cubic feet per hour, and then dividing by 60 minutes per hour to determine the cubic feet per minute. (cfm).

5.4 Airflow Measurement. The airflow required by this section is the quantity of indoor air exhausted by the ventilation system as installed and shall be measured according to the ventilation equipment manufacturer instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals, or in the connected ventilation ducts.
Exception to 5.4: Manufacturer design criteria or the prescriptive requirements of Table 5-3 shall be permitted in place of a measurement. When using Table 5-3, the airflow rating according to Section 7.1 shall meet or exceed a static pressure of 0.25 in. of water (62.5 Pa). Use of Table 5-3 is limited to duct systems not exceeding 25 ft (8 m) in length, duct systems with no more than three (3) elbows, and duct systems with exterior termination fittings having a hydraulic diameter greater than or equal to the minimum duct diameter and not less than the hydraulic diameter of the fan outlet.

Table 5-3 Prescriptive Duct Sizing

Fan Airflow Rating, CFM at minimum static pressure of 0.25 in. of water (L/s at minimum 62.5 Pa)	≤50 (25)	≤80 (40)	≤100 (50)	≤125 (60)	≤150 (70)	≤175 (85)	≤200 (95)	≤250 (120)	≤350 (165)	≤400 (190)	≤450 (210)	≤700 (330)	≤800 (380)
Duct Type	Minimum Duct Diameter, in. (mm) a,b												
Rigid duct	4" (100)	5 (125)	5 (125)	6 (150)	7 (150)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	10 (255)	12 (305)	12* (305)
Flex duct[c]	4 (100)	5 (125)	6 (150)	6 (150)	7 (150)	7 (180)	8 (205)	9 (230)	9 (230)	10 (255)	NP	NP	NP

a. For nonicircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. NP = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted.
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm).

EXHAUST ONLY

$Q_{fan} = 0.03A_{floor} + 7.5(N_{br}+1)$ 244.8 CFM=.03*5910+7.5(8+1)

DUV = DWELLING UNIT VENTILATION

KITCHEN WILL PROVIDE LOCAL VENTILATION EXHAUST.

NOTE FOR DRYER OR STACKER LAUNDRY CENTER:
A DURABLE PLACARD (MIN. SIZE OF 4"X5") MUST BE PERMANENTLY AFFIXED ON A WALL NEAR & VISIBLE FROM THE DRYER LOCATION. THE PLACARD SHALL STATE THE ACTUAL LENGTH OF THE INSTALLED DRYER EXHAUST VENT & INCLUDE THE FOLLOWING LANGUAGE:

WARNING:
CHECK THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ANY DOMESTIC DRYER THAT WILL BE INSTALLED AT THIS LOCATION. THE INSTRUCTIONS SHOULD ALLOW THE DRYER TO BE CONNECTED TO AN EXHAUST DUCT (VENT) THAT IS A MAXIMUM _____ (24" LONG. DO NOT REMOVE THIS PLACARD

A5.0 PLUMBING

- A5.1 RECT. SINK(S) IN VANITY CABINET
- A5.2 LARGE DOUBLE SINK W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.4 UTILITY SINK 30" WIDE UTILITY SINK PER OWNER
- A5.5 SMALL SINK W/DISPOSAL PROVIDE AIR SWITCH FOR DISPOSAL
- A5.6 TILED SHOWER THE MINIMUM SHOWER WATER PROOF PAN & WETSET TILE FULL HEIGHT ABOVE FLOOR LINE OVER FIBER-CEMENT FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS & FIBER-REINFORCED GYPSUM BACKERS. SHOWER WALL PANEL ASSEMBLY BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB ENCLOSURES. PER CRC R702.4.2 & R702.4.2.1 FOR SHOWER & TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 408.3
- A5.7 SPA BATH TUB THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB & WHIRLPOOL BATHTUB FILLERS SHALL BE LIMITED TO A DELIVERY TEMPERATURE CONFORMING TO ASSE 1070 OR CSA B125.3. CPC ADR & SPA TUB ON SEPARATE GFCI PROTECTED CIRCUIT. ALL EQUIPMENT, SUCH AS THE CIRCULATION PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. PROVIDE REMOVABLE ACCESS PANEL. REMOVE THE PUMP. REMOVE THE PUMP THE PUMP & CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. CPC. TRUE TYPE OF SUCTION FITTINGS ON WHIRLPOOL BATHTUBS SHALL COMPLY WITH THE LISTED STANDARDS. CPC ADR & BATH TUB TO BE SELECTED BY OWNER
- A5.8 HIGH-EFFICIENCY TOILET PROVIDE HIGH-EFFICIENCY DUAL-FLUSH OR ≤1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL, THE CLEAR SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5
- A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER W/ NOM. 1 OUTLET DUCT. DUCT TO BE CONNECTED TO EXHAUST PER MANUFACTURER'S INSTRUCTIONS. INSTALL W/SEISMIC STRAPS ON TOP & BOTTOM & PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.
- A5.10 ANNULAR SPACES ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES OR FOUNDATIONS SHALL BE PROTECTED AGAINST RODENTS BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CGBSC 4.406.1
- A5.11 OUTDOOR SHOWER OUTDOOR SHOWER WILL CONNECT TO THE SANITARY SEWER. OUTDOOR SHOWER HAS A FULL HEIGHT WALLS & 2 PONY WALLS W/24" OPENING W/4" CURB & A COVERED ROOF. WALLS OF ENCLOSURE SHALL BE SMOOTH, WATERPROOF, & WASHABLE. MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

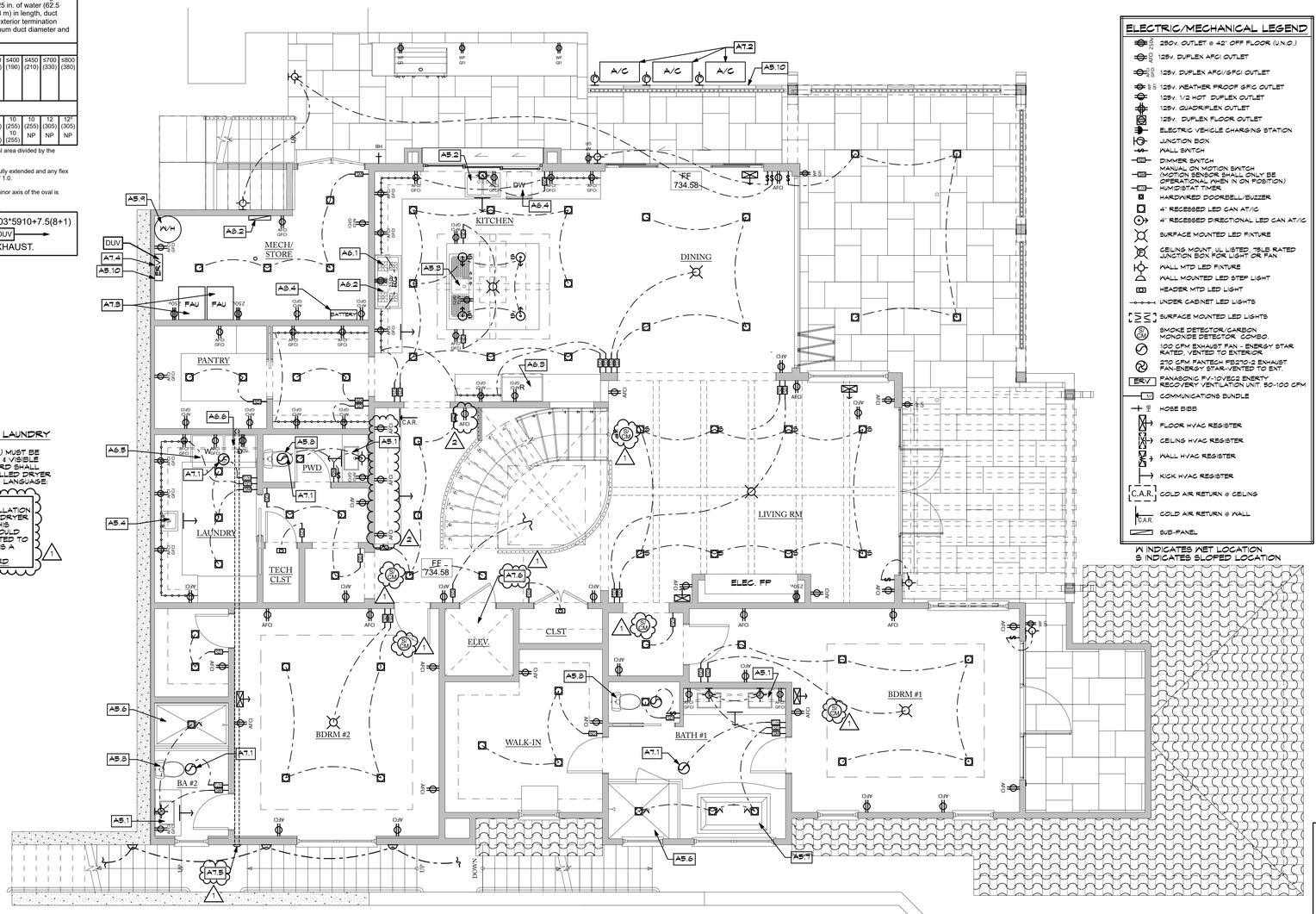
- A6.1 48" INDUCTION RANGE PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.
- A6.2 RANGE VENT HOOD PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER SOURCE MIN. 20CFM
- A6.3 COUNTER DEPTH REFRIGERATOR/FREEZER ENERGY STAR 24" BUILT-IN REFRIGERATOR/FREEZER W/ WATER FOR AUTOMATIC ICE MAKER
- A6.4 DISHWASHER PROVIDE ENERGY STAR DISHWASHER USING ≤ 3.5 GA/ CYCLE & ≤ 270 KWH/YEAR. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OF FOUR INCH DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIR GAPS SHALL BE INSTALLED WITH THE FLOOD-LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER. CPC § 807.3
- A6.5 WASHER FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR AND CEC TIER 2 REQUIREMENTS (MODIFIED ENERGY FACTOR 2.0 / WATER FACTOR 9.0)
- A6.6 DRYER PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THE LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE
- A6.7 STACKED WASHER/DRYER PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THE LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE
- A6.8 COMPACT REFRIDGERATOR PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER
- A6.9 UNDER COUNTER REFRIGERATOR/FREEZER PROVIDE 24" ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER

A7.0 MECHANICAL

- A7.1 BATHROOM FANS MECHANICAL EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT & DUCTED TO TERMINATE OUTSIDE THE BUILDING. & SHALL BE CONTROLLED BY A HUMIDISTAT THAT IS CAPABLE OF ADJUSTING THE RELATIVE HUMIDITY BETWEEN 80%-50%. CGBSC 4.506.1
- A7.2 HEAT PUMP UNIT PROVIDE HIGH EFFICIENCY A.C. UNIT W/ ENVIRONMENTALLY RESPONSIBLE REFRIGERANTS ANCHORED ON AN APPROVED PAD THAT IS A MIN. OF 5" ABOVE THE FINISHED GRADE OR LANDSCAPING
- A7.3 AIR HANDLER PROVIDE MIN. 24Ø DUCT FOR SERVICE EQUIPMENT. UNLESS OTHERWISE SPECIFIED, NOT LESS THAN 30" IN DEPTH, WIDTH & HEIGHT OF WORKING SPACE SHALL BE PROVIDED.
- A7.4 ENERGY RECOVERY VENTILATION PROVIDE PANASONIC FV-10VEC2 OR REHAIRE EV200 ERV BALANCED VENTILATION FAN PER TITLE 24. A MANUAL SWITCH FOR THE BUILDING VENTILATION MUST BE LABELED WITH THE FOLLOWING TEXT: THIS SWITCH CONTROLS THE INDOOR AIR QUALITY VENTILATION FOR THE DWELLING. LEAVE IT ON WHEN THE OUTDOOR AIR QUALITY IS VERY POOR." CBC § 150.0 (o) 1
- A7.5 DRYER VENT A DURABLE PLACARD (MIN. SIZE OF 4"X5") MUST BE PERMANENTLY AFFIXED ON A WALL NEAR & VISIBLE FROM THE DRYER LOCATION. THE PLACARD SHALL STATE THE ACTUAL LENGTH OF THE INSTALLED DRYER EXHAUST VENT & INCLUDE THE FOLLOWING LANGUAGE. SEE NOTE THIS PAGE FOR LENGTH
- A7.6 RESIDENTIAL ELEVATOR RESIDENTIAL ELEVATOR SHALL COMPLY WITH ASME A17.1 CRC § R322

A8.0 ELECTRICAL

- A8.1 400 AMP, POWER PANEL-MAIN ELECTRICAL POWER PANEL W/ METER. PROVIDE INTERSYSTEM BONDING DEVICE AT OR BEFORE MAIN ELECTRICAL PANEL CONNECTED TO UFER GROUND CEC 250.94 250.52.A.3
- A8.2 POWER SUB-PANEL SUB-PANEL SIZE TO BE DETERMINED BY ELECTRICIAN
- A8.3 ELECTRIC VEHICLE CHARGING ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS WITH PRIVATE GARAGES, & ADUS SHALL BE PREPARED FOR SUPPLYING ELECTRICAL POWER TO AN ELECTRIC VEHICLE CHARGER. ONE OUTLET SHALL BE INSTALLED INSIDE THE GARAGE & THE OTHER OUTLET SHALL BE INSTALLED OUTSIDE THE GARAGE
- A8.4 BATTERY BACKUP 5KwH MIN. ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS, & ADUS SHALL BE PREPARED FOR THE INSTALLATION OF BATTERY STORAGE THE PREPARING SHALL BE IN ACCORDANCE WITH THE PRESCRIPTIVE BUILDING REQUIRED & ELECTRICAL CODES & BE ADEQUATELY SERVED BY A LICENSED PROFESSIONAL. PROVIDE CONDUCTORS FROM THE GARAGE TO LOCATIONS INSTALLED IN THE CRITICAL LOAD PANEL WITH A MIN. OF 5 KWH.



N INDICATES WET LOCATION
S INDICATES SLOPED LOCATION

ELECTRIC/MECHANICAL LEGEND

- 250V, OUTLET @ 42" OFF FLOOR (U.N.O.)
- 125V, DUPLEX AFCI OUTLET
- 125V, DUPLEX AFCI/GFCI OUTLET
- 125V, WEATHER PROOF GFIC OUTLET
- 125V, 1/2 HOT DUPLEX OUTLET
- 125V, QUADPLEX OUTLET
- 125V, DUPLEX FLOOR OUTLET
- ELECTRIC VEHICLE CHARGING STATION
- JUNCTION BOX
- WALL SWITCH
- DIMMER SWITCH
- MANUAL ON MOTION SWITCH (MOTION SENSOR SHALL ONLY BE MANUAL-ON WHEN IN ON POSITION)
- HUMIDISTAT TIMER
- HARDWIRED DOORBELL/BUZZER
- 4" RECESSED LED CAN AT/IC
- 4" RECESSED DIRECTIONAL LED CAN AT/IC
- SURFACE MOUNTED LED FIXTURE
- CEILING MOUNT, UL LISTED, 75LB RATED JUNCTION BOX FOR LIGHT OR FAN
- WALL MTD LED FIXTURE
- WALL MOUNTED LED STEP LIGHT
- HEADER MTD LED LIGHT
- UNDER CABINET LED LIGHTS
- SURFACE MOUNTED LED LIGHTS
- SURFACE MOUNTED LED LIGHTS
- SMOKE DETECTOR/CARBON MONOXIDE DETECTOR, COMBO.
- 100 CFM EXHAUST FAN - ENERGY STAR RATED, VENTED TO EXTERIOR
- 270 CFM PANTECH FBS70-S EXHAUST FAN-ENERGY STAR,-VENTED TO EXT.
- ERV PANASONIC FV-10VEC2 ENERTY RECOVERY VENTILATION UNIT, 50-100 CFM
- COMMUNICATIONS BUNDLE
- HOSE BIBB
- FLOOR HVAC REGISTER
- CEILING HVAC REGISTER
- WALL HVAC REGISTER
- KICK HVAC REGISTER
- C.A.R. COLD AIR RETURN @ CEILING
- C.A.R. COLD AIR RETURN @ WALL
- SUB-PANEL

NOTE
1. All dimensions are approximate, verify all dimensions, elevations and conditions, DO NOT scale drawing.
2. Any field work conducted by field conditions, or any conditions different from those shown on the drawings shall be brought to the architect's attention prior to installation.

ELEC/MECH MAIN FLOOR PLAN

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

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REVISIONS
1 PLAN CHECK COMMENTS 6/16/22

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

ELEC/MECH MAIN FLOOR PLAN

DATE: 12/8/21
SCALE: AS SHOWN
SHEET E-2
27 OF 58

ELEC./MECH. NOTES

EXHAUST AIR
THE DISCHARGE POINT FOR EXHAUST AIR WILL BE AT LEAST 3 FT. FROM ANY OPENING WHICH ALLOWS AIR ENTRY INTO OCCUPIED PORTIONS OF THE BUILDING. CMC 502.4

HOSE BIBBS
ALL HOSE BIBBS TO HAVE BACKFLOW PREVENTION DEVICES. CPC 603.4.6

ANTI-HAMMER VALVES
PROVIDE ANTI-HAMMER VALVES WITH ACCESS PANELS AT DISHWASHER & WASHING MACHINE CPC 609.10

AIR DUCTS
ALL AIR DUCTS PENETRATING SEPARATION WALL OR CEILING BETWEEN GARAGE & LIVING AREA SHALL BE 26 GA. MIN. CRC R302.5.2

SHOWERS & TUB SHOWERS
PROVIDE INDIVIDUAL CONTROL VALVES FOR THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE CPC 408.3

ELEC. BOND @ W.H. PIPES
PROVIDE ELECTRICAL BOND BETWEEN INTERIOR GAS LINES & HOT & COLD LINES AT WATER HEATER. CEC 250.104

PIPING
ALL HOT WATER PIPES SHALL BE INSULATED FULL LENGTH. ALL PIPING SHALL BE ENGINEERED PARALLEL W/ DEMAND CONTROLLED CIRCULATION PUMP. CPC 609.11, CPC 1601.3

SMOKE/CARBON MONOXIDE DETECTORS
SMOKE DETECTORS SHALL BE INTERCONNECTED WITH BATTERY BACKUP IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED. SMOKE ALARMS SHALL BE INSTALLED IN ALL SLEEPING ROOMS & OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, NOT LESS THAN 3' FROM BATHROOMS, MORE THAN 20' FROM ANY COOKING APPLIANCE. NO ALARMS & INSTRUCTIONS SHALL BE INSTALLED UNLESS THEY HAVE BEEN LISTED & APPROVED BY THE SITE FIRE MARSHALL PRIOR TO INSTALLATION. EVIDENCE MUST BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION. PER CRC R314 315

HVAC SYSTEM
DESIGN HVAC SYSTEM TO ACCA MANUAL J, D, & S RECOMMENDATIONS. INSTALL UNIT & DUCTWORK WITHIN CONDITIONED SPACE. USE DUCT MASTIC ON ALL DUCT JOINTS & SEAMS. PROTECT DUCTS DURING CONSTRUCTION & CLEAN BEFORE OCCUPANCY. PRESSURE RELIEVE THE DUCTWORK SYSTEM. PROVIDE HIGH EFFICIENCY HVAC FILTER. (MERV 13+)

WALL & FLOOR PENETRATIONS
ALL MECHANICAL, PLUMBING, ELECTRICAL & SIMILAR PENETRATIONS OF THE FLOOR & CEILING SHALL BE FIRE CAULKED WITH A RESIDENTIAL RATED CAULK WITH AN ASTM RATING OF E136.

GFCI OUTLETS
GROUND-FAULT CIRCUIT-INTERRUPTERS ARE REQUIRED TO PROTECT THE RECEPTACLES IN BATHROOMS, GARAGES, OUTDOORS, KITCHENS, & LAUNDRY AREAS. & DISHWASHER BRANCH CIRCUITS. GFCI RECEPTACLES CAN BE USED ON AN AFCI-FAULT PROTECTED CIRCUIT. CEC 210.8

APPLIANCE BRANCH CIRCUITS
PROVIDE TWO APPLIANCE BRANCH CIRCUITS IN KITCHEN THAT ARE LIMITED TO SUPPLYING WALL OR COUNTER SPACE OUTLETS FOR THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. NOTE: THESE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, RANGE HOOD, DISPOSALS, DISHWASHERS OR MICROWAVES-ONLY REQUIRED COUNTER TOP/WALL OUTLETS INCLUDING REFRIGERATOR CEC 210.50

BATHROOM DEDICATED CIRCUIT
A DEDICATED 20-AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPTION:WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED) CEC 210.11

LAUNDRY DEDICATED CIRCUIT
A DEDICATED 20-AMP BRANCH CIRCUIT IS REQUIRED TO SERVE THE LAUNDRY RECEPTACLE OUTLETS. CEC 210.11

AFCI BRANCH CIRCUITS
ALL 120V, 15 & 20 AMP ELECTRICAL CIRCUITS SUPPLYING OUTLETS (LIGHTING & RECEPTACLES) INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, OR COMBINATION-TYPE INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUITS. PROTECTED CEC 210.12

BATHROOM VENTILATION
BATHROOMS CONTAINING BATHTUBS, SHOWERS OR SPAS SHALL BE MECHANICALLY VENTILATED IN ACCORDANCE WITH THE CMC PER CMC SECTION 502.3.5. BATHROOM FANS TO BE ENERGY STAR RATED, VENTED TO THE OUTSIDE, & CONTROLLED WITH A HUMIDISTAT SWITCH. CGBSC 4.506

DOOR BELL/BUZZER
DOOR BUZZER, BELL, OR CHIME SHALL BE HARD WIRES AT THE PRIMARY ENTRANCE.

RECEPTACLES
ALL RECEPTACLES SHALL BE TAMPER RESISTANT. CEC 406.12 SPACING. RECEPTACLES SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6' FROM A RECEPTACLE OUTLET ANY SPACE 2' OR MORE IN WIDTH (SPACE AFFORDED BY FIXED ROOM DIVIDERS) FLOOR OUTLETS SHALL NOT BE COUNTED AS PART OF THE REQD NUMBER UNLESS WITHIN 18" OF THE WALL. CEC 210.52

MECHANICAL VENTILATION
IN BATHROOMS, WATER CLOSET COMPARTMENTS & OTHER SIMILAR ROOMS THAT DONT HAVE THE REQUIRED NATURAL VENTILATION, PROVIDE MECHANICAL VENTILATION. THE MINIMUM VENTILATION RATES SHALL BE 50 CUBIC FEET PER MIN. FOR INTERMITTENT VENTILATION OR 25 CUBIC FEET PER MIN. FOR CONTINUOUS VENTILATION. PER CGBSC R303.9

SHOWER HEADS:
SHOWER HEADS SHALL BE DESIGNED & INSTALLED SO THAT THEY WILL NOT EXCEED A WATER SUPPLY FLOW RATE OF 1.8 GPM MEASURED AT 80 PSI. CPC 408.2

FAUCETS:
FAUCETS AT KITCHENS, LAVATORIES, WETBARS, LAUNDRY SINKS, OR OTHER SIMILAR USE FIXTURES SHALL BE DESIGNED & MANUFACTURED SO THAT THEY WILL NOT EXCEED A WATER SUPPLY FLOW RATE OF: KITCHEN 1.8 @ 60 PSI, LAV. FAUCETS 1.2 @ 60 PSI. ALL OTHERS 2.2 @ 60 PSI CPC 407

HIGH EFFICIENCY TOILETS
NEW WATER CLOSETS & ASSOCIATED FLUSHOMETER VALVES SHALL USE NO MORE THAN 1.28 GALLONS PER FLUSH. CPC 411

SEWER CLEANOUTS
PROVIDE SEWER CLEANOUT WITHIN 1 FOOT OF EASEMENT, WITHIN 2 FEET OF EACH DWELLING & AT 100 FOOT INTERVALS. CPC 719, 721

SANITARY SEWER BACK FLOW VALVE
VERIFY IF THE NEST UPSTREAM MANHOLE IS 12" OR MORE BELOW THE FLOOD LEVEL RIMS OF FIXTURES SERVICES BY DRAINAGE PIPING. PROVIDE BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVELS LESS THAN 12" ABOVE THE ELEVATION ABOVE THE NEXT UPSTREAM MANHOLES PER CPC 710.0.

ELECTRIC VEHICLE CHARGING STATION:
ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS WITH PRIVATE GARAGES, & ADU'S SHALL PROVIDE TWO WIRED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) OUTLETS, EACH SUPPLIED BY A SEPARATE 40 AMP MIN. DEDICATED BRANCH CIRCUIT. & SHALL BE INSTALLED SPECIFICALLY FOR SUPPLYING ELECTRICAL POWER TO AN ELECTRIC VEHICLE CHARGER. ONE OUTLET SHALL BE INSTALLED INSIDE THE GARAGE & THE OTHER OUTLET SHALL BE INSTALLED OUTSIDE THE GARAGE.

LIGHTING
LUMINAIRE REQUIREMENTS
LUMINAIRE EFFICACY. ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY IN ACCORDANCE WITH TABLE 150.0-A

RECESSED LUMINAIRES IN INSULATED CEILINGS
I. BE LISTED, AS DEFINED IN SECTION 100.1, FOR ZERO CLEARANCE INSULATION CONTACT (IC) BY UNDERWRITERS LABORATORIES OR OTHER NATIONALLY RECOGNIZED TESTING/RATING LABORATORY. & II. HAVE A LABEL THAT CERTIFIES THE LUMINAIRE IS AIRTIGHT WITH AIR LEAKAGE LESS THAN 2.0 CFM AT 75 PASCALS WHEN TESTED IN ACCORDANCE WITH ASTM E283. AN EXHAUST FAN HOUSING SHALL NOT BE REQUIRED TO BE CERTIFIED AIRTIGHT; & III. BE SEALED WITH A GASKET OR CAULK BETWEEN THE LUMINAIRE HOUSING & CEILING. & HAVE ALL AIR LEAK PATHS BETWEEN CONDITIONED & UNCONDITIONED SPACES SEALED WITH A GASKET OR CAULK; & IV. FOR LUMINAIRES WITH HARDWIRED BALLASTS OR DRIVERS, ALLOW BALLAST OR DRIVER MAINTENANCE & REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS FROM BELOW THE CEILING WITHOUT REQUIRING THE CUTTING OF HOLES IN THE CEILING. & V. SHALL NOT CONTAIN SCREW BASE SOCKETS; & SHALL CONTAIN LIGHT SOURCES THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8, INCLUDING THE ELEVATED TEMPERATURE REQUIREMENTS, & THAT ARE MARKED "JA8-2016-E" AS SPECIFIED IN REFERENCE JOINT APPENDIX JA8.

A. SCREW-BASED LUMINAIRES SHALL CONTAIN LAMPS THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8, EXCEPTION: LUMINAIRES WITH HARD-WIRED BALLASTS FOR HIGH INTENSITY DISCHARGE LAMPS. JA8 COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JA8-2016" OR "JA8-2016-E"(JA8-2016-E LUMINAIRES ARE DEEMED APPROPRIATE FOR USE IN ENCLOSED LUMINAIRES). CEC 150.0(K)1B

B. ALL JA8 COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EXCEPTION CLOSETS LESS THAN 70 SQ.FT.) HALLWAYS. CEC 150.0(K)2(N).

C. AT LEAST ONE LUMINAIRE IN THE SHOP CONTROLLED BY A VACANCY SENSOR. CEC 150.(K)2.

D. ALL OUTDOOR LIGHTING SHALL BE HIGH EFFICACY WITH MANUAL ON/OFF SWITCH & ONE OF THE FOLLOWING IN ACCORDANCE WITH CEC 150.0(K)3:
- I. PHOTOCELL & MOTION SENSOR
- II. PHOTOCELL & AUTOMATIC TIME SWITCH CONTROL
- III. ASTRONOMICAL TIME SWITCH CONTROL
- IV. ENERGY MANAGEMENT CONTROL SYSTEMS

D. A COMPLETED CF2R-LTG-02-E FORM MUST BE PROVIDED TO THE CITY/TOWN BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

E. AT LEAST ONE FIXTURE IN BATHROOMS, UTILITY, LAUNDRY, & GARAGES MUST BE CONTROLLED BY A VACANCY SENSOR.

NOTE TO MECHANICAL CONTRACTOR:

Heating and air-conditioning system design. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ACCA Manual J, ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ACCA 29-D Manual D, ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods.

CGBSC 4.507.2

A2. DWELLING-UNIT MECHANICAL VENTILATION RATE (from ANSI/ASHRAE 62.2-2019) The required mechanical ventilation rate (Qfan) shall be the rate Qtot in Section 4.1.1 plus the required additional airflow calculated in accordance with Section A3. If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.2 In these cases, Section A3 shall be applied before Section 4.1.2 when determining the final mechanical ventilation rate.

4.1 Ventilation Rate. A mechanical exhaust system, supply system, or combination thereof, shall be installed to operate for each dwelling unit to provide continuous dwelling-unit ventilation with outdoor air at a rate not less than specified in Section 4.1.1.

4.1.1 Total Ventilation Rate. The total required ventilation rate (Qtot) shall be as specified in Table 4-1a

(I-P) or 4-1b (SI) or alternatively calculated using Equation 4-1a (I-P) or 4-1b (SI).

$$Qtot = 0.03Afloor + 7.5(Nbr + 1) \quad (4\text{-}1a)$$

where
- Qtot = total required ventilation rate, cfm
- Afloor = dwelling-unit floor area, ft2
- Nbr = number of bedrooms (not to be less than 1)

5. LOCAL EXHAUST

5.1 Local Mechanical Exhaust. A local mechanical exhaust system shall be installed in each kitchen and bathroom. Nonenclosed kitchens shall be provided with a demand-controlled mechanical exhaust system meeting the requirements of Section 5.2. Each local ventilation system for all other kitchens and bathrooms shall be either one of the following:
a. A demand-controlled mechanical exhaust system meeting the requirements of Section 5.2
b. A continuous mechanical exhaust system meeting the requirements of Section 5.3

Table 5-1 Demand-Controlled Local Ventilation Exhaust Airflow Rates

Application	Airflow
Enclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm or a capacity of 5 ach
Nonenclosed kitchen	• Vented range hood (including appliance-range hood combinations): 100 cfm • Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s)
Bathroom	50 cfm

Air Changes per Hour (ACH), which is determined by multiplying the volume of the space by 5, ACH = cubic feet per hour, and then dividing by 60 minutes per hour to determine the cubic feet per minute, (cfm).

5.4 Airflow Measurement. The airflow required by this section is the quantity of indoor air exhausted by the ventilation system as installed and shall be measured according to the ventilation equipment manufacturer instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals, or in the connected ventilation ducts.
Exception to 5.4: Manufacturer design criteria or the prescriptive requirements of Table 5-3 shall be permitted in place of a measurement. When using Table 5-3, the airflow rating according to Section 7.1 shall meet or exceed a static pressure of 0.25 in. of water (62.5 Pa). Use of Table 5-3 is limited to duct systems not exceeding 25 ft (8 m) in length, duct systems with no more than three (3) elbows, and duct systems with exterior termination fittings having a hydraulic diameter greater than or equal to the minimum duct diameter and not less than the hydraulic diameter of the fan outlet.

Table 5-3 Prescriptive Duct Sizing

Fan Airflow Rating CFM at minimum static pressure of 0.25 in. of water (L/s at minimum 62.5 Pa)	≤50 (25)	≤80 (40)	≤100 (50)	≤125 (60)	≤150 (70)	≤175 (85)	≤200 (95)	≤250 (120)	≤350 (165)	≤400 (190)	≤450 (210)	≤700 (330)	≤800 (380)
Duct Type	Minimum Duct Diameter, in. (mm) a,b												
Rigid duct	4" (100)	5 (125)	(125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	9 (230)	10 (255)	10 NP	12 (305) NP	12c (305) NP
Flex duct c	4 (100)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	NP	NP	NP

a. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. NP = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted.
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm).

EXHAUST ONLY (1)

$Q_{fan} = 0.03A_{floor} + 7.5(N_{br}+1)$ — 244.8 CFM=.03*5910+7.5(8+1)

DUV = DWELLING UNIT VENTILATION — DUV

KITCHEN WILL PROVIDE LOCAL VENTILATION EXHAUST.

A5.0 PLUMBING

- A5.1 REGT. SINK(S) IN VANITY CABINET
- A5.2 LARGE DOUBLE SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.3 MED. SINGLE SINK W/DRAINBOARD EACH SIDE W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.4 UTILITY SINK — 50" WIDE UTILITY SINK PER OWNER
- A5.5 SMALL SINK W/DISPOSAL — PROVIDE AIR SWITCH FOR DISPOSAL
- A5.6 TILED SHOWER — SHOWER STALL WITH WATER PROOF PAN & KETSET TILE FULL HEIGHT ABOVE FLOOR LINE OVER FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT BOARD OVER MIN. 2" LESS MAT GYPSUM BACKERS & FIBER-REINFORCED GYPSUM BACKERS. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB ENCLOSURES. REF'D 2 R702.4.2 R702.3.5 & SHOWER & TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. CPC 408.3
- A5.7 SPA BATH TUB — THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB & WHIRLPOOL BATHTUB FILLER SHALL BE LIMITED TO 120°F BY A DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3. & CPC ACK 4 SPA TUB OR SEPARATE SFC/ PUMP & ELECTRICAL CIRCUIT. ACCESS TO THE MOTOR & PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. PROVIDE 12"X12" MIN. ACCESS DOOR & REMOVE THE PUMP. THE PUMP & CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION. & TABLE 1401.1, SUCTION FITTINGS ON WHIRLPOOL BATHTUBS SHALL COMPLY WITH THE LISTED STANDARDS. CPC 409.6 BATH TUB TO BE SELECTED BY OWNER
- A5.8 HIGH-EFFICIENCY TOILET — PROVIDE ONE HIGH-EFFICIENCY DUAL-FLUSH OR ≤1.28 GPF TOILETS. NO FIXTURE SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO A SIDE WALL THE CLEAR SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24". CPC 402.5
- A5.9 HYBRID ELECTRIC HEAT PUMP WATER HEATER — INSTALL HYBRID ELECTRIC HEAT PUMP WATER HEATER W/ INLET & OUTLET DUCT KIT TO EXTERIOR OF ENCLOSURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL W/SEISMIC STRAPS AT TOP & BOTTOM & PRESSURE RELIEF VALVE W/ OUTLET TO EXTERIOR.
- A5.10 ANNULAR SPACES — ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES OR FOUNDATIONS SHALL BE PROTECTED AGAINST RODENTS BY CLOSING THE OPENINGS WITH CEMENT MORTAR OR CONCRETE MASONRY. CGBSC 4.406.1
- A5.11 OUTDOOR SHOWER — OUTDOOR SHOWER WILL CONNECT TO THE SANITARY SEWER. OUTDOOR SHOWER HAS 2 FULL HEIGHT WALLS & 2 PONY WALLS W/24" OPENING W/ CURB & A DOOR. FINISHES W/ TILE. WALLS OF ENCLOSURE SHALL BE SMOOTH, WATERPROOF, & WASHABLE. MUST BE HAVE A TRAP PRIMER.

A6.0 APPLIANCES, FIREPLACES, ETC.

- A6.1 48" INDUCTION RANGE — PROVIDE 240V POWER SOURCE ON SEPARATE CIRCUIT.
- A6.2 RANGE VENT HOOD — PROVIDE VENT HOOD W/ LIGHT AND VENTED TO EXTERIOR. PROVIDE NECESSARY POWER SOURCE AND WIRING. WHERE COMBUSTION APPLIANCES OR SOLID-FUEL BURNING APPLIANCES ARE LOCATED WITHIN THE SAME ROOM OR BOUNDARY, THE MAXIMUM ALLOWABLE NET EXHAUST FLOW OF THE TWO LARGEST EXHAUST FANS SHALL NOT EXCEED 15 CFM PER SQ. FT. OF OCCUPIABLE SPACE, WHEN OPERATING AT FULL CAPACITY. IF THE DESIGNED TOTAL NET FLOW EXCEEDS THIS LIMIT, THE NET EXHAUST FLOW MUST BE REDUCED BY REDUCING THE EXHAUST FLOW OR PROVIDING COMPENSATING MAKE-UP AIR. NOTE: IF MAKE-UP AIR FAN IS INSTALLED, IT MUST BE ELECTRICALLY INTERLOCKED WITH THE LARGEST EXHAUST FAN. ASHRAE 62.2 § 6.4
- A6.3 COUNTER DEPTH REFRIGERATOR/FREEZER — PROVIDE 24" ENERGY STAR REFRIGERATOR/FREEZER W/ WATER FOR AUTOMATIC ICE MAKER.
- A6.4 DISHWASHER — PROVIDE ENERGY STAR DISHWASHER USING ≤ 3.5 GAL/ CYCLE & ≤ 270 KWH/YEAR. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FLOOR WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIRGAPS SHALL BE INSTALLED WITH THE FLOOD-LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER. CPC § 807.3
- A6.5 WASHER — FRONT LOADING WASHING MACHINE TO MEET ENERGY STAR AND CEE TIER 3 REQUIREMENTS (MODIFIED ENERGY FACTOR 2.0; WATER FACTOR 9.0)
- A6.6 DRYER — PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/ 2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THIS LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE
- A6.7 STACKED WASHER/DRYER — PROVIDE 4"Ø MIN. VENT WITH BACKDRAFT DAMPER TO EXTERIOR AT CLOTHES DRYER. MAX LENGTH 14' W/ 2 90° ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. REDUCE THIS LENGTH BY 2 FOR EVERY ELBOW IN EXCESS OF 2. PER CMC 504.4.2. MAINTAIN 6" MIN. CLEARANCE TO COMBUSTIBLES UNLESS DRYER IS LISTED FOR REDUCED CLEARANCE
- A6.8 COMPACT REFRIDGERATOR — PROVIDE ENERGY STAR REFRIGERATOR W/WATER HOOKUP FOR ICE MAKER
- A6.9 UNDER COUNTER REFRIGERATOR/FREEZER — PROVIDE 24" ENERGY STAR UNDER COUNTER REFRIGERATOR/FREEZER

A7.0 MECHANICAL

- A7.1 BATHROOM FANS — MECHANICAL EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT & DUCTED TO TERMINATE OUTSIDE THE BUILDING. & SHALL BE CONTROLLED BY A HUMIDISTAT THAT IS CAPABLE OF ADJUSTING THE RELATIVE HUMIDITY BETWEEN 50%-80%. CGBSC 4.506.1
- A7.2 HEAT PUMP UNIT — PROVIDE HIGH EFFICIENCY A.C. UNIT W/ ENVIRONMENTALLY RESPONSIBLE REFRIGERANTS ANCHORED ON AN APPROVED PAD THAT IS A MIN. OF 3" ABOVE THE FINISHED GRADE OR LANDSCAPING
- A7.3 AIR HANDLER — PROVIDE MIN. 240V OUTLET FOR SERVICE EQUIPMENT, UNLESS OTHERWISE SPECIFIED, NOT LESS THAN 30" IN DEPTH, WIDTH & HEIGHT OF WORKING SPACE SHALL BE PROVIDED
- A7.4 ENERGY RECOVERY VENTILATION — PROVIDE PANASONIC FV-10VEC2 RENEWAIRE EV200 ERV BALANCED VENTILATION FAN PER TITLE 24. A MANUAL SWITCH FOR THE BUILDING VENTILATION MUST BE LABELED WITH THE FOLLOWING TEXT: THIS SWITCH CONTROLS THE INDOOR AIR QUALITY VENTILATION FOR THE HOME. DO NOT TURN UNLESS THE OUTDOOR AIR QUALITY IS VERY POOR." CGBC § 150.0 (O) 1
- A7.5 DRYER VENT — A DURABLE PLACARD (MIN. SIZE OF 4"X6") MUST BE PERMANENTLY AFFIXED ON A WALL NEAR & VISIBLE FROM THE DRYER LOCATION. THE PLACARD SHALL STATE THE ACTUAL LENGTH OF THE INSTALLED DRYER EXHAUST VENT & INCLUDE THE FOLLOWING LANGUAGE. SEE NOTE THIS PAGE FOR LENGTH
- A7.6 RESIDENTIAL ELEVATOR — RESIDENTIAL ELEVATOR SHALL COMPLY WITH ASME A17.1 CRC § R321

A8.0 ELECTRICAL

- A8.1 400 AMP, POWER PANEL-MAIN — ELECTRICAL POWER PANEL W/ METER. PROVIDE INTERSYSTEM BONDING DEVICE AT OR NEAR MAIN ELECTRICAL PANEL. CONNECTED TO UFER GROUND CEC 250.94 250.52.A.3
- A8.2 POWER SUB-PANEL — SUB-PANEL-SIZE TO BE DETERMINED BY ELECTRICIAN
- A8.3 ELECTRIC VEHICLE CHARGING — ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS, & ADU'S SHALL BE PREPARED & ADUS SHALL PROVIDE TWO WIRED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) OUTLETS, EACH SUPPLIED BY A SEPARATE 40 AMP MIN. DEDICATED BRANCH CIRCUIT. & SHALL BE INSTALLED SPECIFICALLY FOR SUPPLYING ELECTRICAL POWER TO AN ELECTRIC VEHICLE CHARGER. ONE OUTLET SHALL BE INSTALLED INSIDE THE GARAGE & THE OTHER OUTLET SHALL BE INSTALLED OUTSIDE THE GARAGE.
- A8.4 BATTERY BACKUP 5kwh MIN. — ALL SINGLE-FAMILY RESIDENTIAL BUILDINGS, LOW-RISE MULTIFAMILY BUILDINGS, & ADU'S SHALL BE PREPARED FOR THE INSTALLATION OF BATTERY STORAGE THE PREPARING SHALL BE IN ACCORDANCE WITH THE FOLLOWING: & RESIDENTIAL & ELECTRICAL CODES & BE ADEQUATELY SIZED BY A LICENSED PROFESSIONAL ENGINEER BASED ON THE SIZE OF LOADS INSTALLED IN THE CRITICAL LOAD PANEL WITH A MIN. OF 5 KWH.

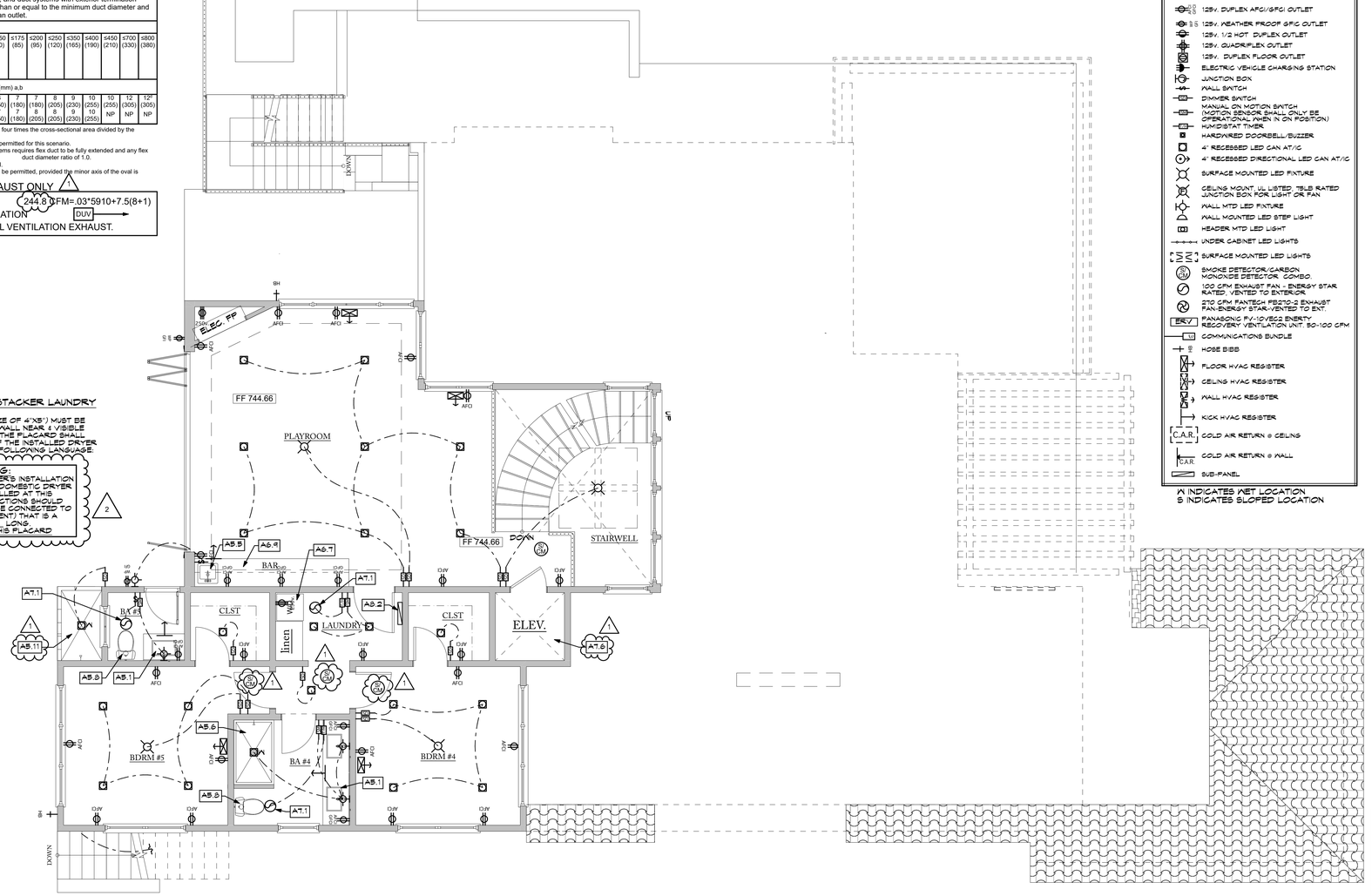
ELECTRIC/MECHANICAL LEGEND

- 250V. OUTLET @ 42" OFF FLOOR (U.N.O.)
- 125V. DUPLEX AFCI OUTLET
- 125V. DUPLEX AFCI/GFCI OUTLET
- 125V. WEATHER PROOF GFIC OUTLET
- 125V. 1/2 HOT DUPLEX OUTLET
- 125V. QUADRUPLEX OUTLET
- 125V. DUPLEX FLOOR OUTLET
- ELECTRIC VEHICLE CHARGING STATION
- JUNCTION BOX
- WALL SWITCH
- 3-WAY SWITCH
- MANUAL ON MOTION SWITCH (NOTE: IN SENSOR SHALL ONLY BE OPERATIONAL WHEN IN ON POSITION)
- HUMIDISTAT TIMER
- HOME DOORBELL/BUZZER
- 4" RECESSED LED CAN AT/IC
- 4" RECESSED DIRECTIONAL LED CAN AT/IC
- SURFACE MOUNTED LED FIXTURE
- CEILING MOUNT, UL LISTED, TBLB RATED JUNCTION BOX FOR LIGHT OR FAN
- WALL MTD LED FIXTURE
- WALL MOUNTED LED STEP LIGHT
- HEADER MTD LED LIGHT
- UNDER CABINET LED LIGHTS
- SURFACE MOUNTED LED LIGHTS
- SMOKE DETECTOR/CARBON MONOXIDE DETECTOR COMBO.
- 100 CFM EXHAUST FAN - ENERGY STAR RATED, VENTED TO EXTERIOR
- 270 CFM PANTECH FB270-2 EXHAUST FAN-ENERGY STAR-VENTED TO EXT.
- ERV VENTING FV-10VEC2 ENERGY RECOVERY VENTILATION UNIT, 50-100 CFM
- COMMUNICATIONS BUNDLE
- HOSE BIBB
- FLOOR HVAC REGISTER
- CEILING HVAC REGISTER
- WALL HVAC REGISTER
- KICK HVAC REGISTER
- C.A.R. COLD AIR RETURN @ CEILING
- C.A.R. COLD AIR RETURN @ WALL
- SUB-PANEL

W INDICATES WET LOCATION
S INDICATES SLOPED LOCATION

NOTE FOR DRYER OR STACKER LAUNDRY CENTER:
A DURABLE PLACARD (MIN. SIZE OF 4"X5") MUST BE PERMANENTLY AFFIXED ON A WALL NEAR & VISIBLE FROM THE DRYER LOCATION. THE PLACARD SHALL STATE THE ACTUAL LENGTH OF THE INSTALLED DRYER EXHAUST VENT & INCLUDE THE FOLLOWING LANGUAGE.

WARNING:
CHECK THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ANY DOMESTIC DRYER THAT WILL BE INSTALLED AT THIS LOCATION. THE INSTRUCTIONS SHOULD ALLOW THE DRYER TO BE CONNECTED TO AN EXHAUST DUCT (VENT) THAT IS A MAXIMUM 10' LONG. DO NOT REMOVE THIS PLACARD



ELEC/MECH UPPER FLOOR PLAN

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

N

KOHLSAAT & ASSOCIATES
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REVISIONS

1	PLAN CHECK COMMENTS 6/16/22

ARCHITECTURAL AND SITE DEVELOPMENT FOR:
THE BOUKNIGHT FAMILY
144 WOOD ROAD • LOS GATOS, CA 95030

NOTE
1. Contractor shall verify all dimensions, elevations and conditions, prior to starting any field work.
2. Any discrepancies found by field conditions or any conditions different from those shown on the drawings shall be brought to the architect's attention prior to installation.

ELEC/MECH UPPER FLOOR PLAN

DATE: 12/8/21

SCALE: AS SHOWN

SHEET E-3

28 OF 58

TITLE 24 THESE DRAWINGS AND SPECIFICATIONS REMAIN WITH THE ENGINEER WITHOUT PREJUDICE. WHEN CONSTRUCTION IS PERFORMED FROM PLANS WHICH CONSTITUTE PRIMA FACIA EVIDENCE OF THE ACCEPTANCE OF THESE RESTRICTIONS. MONTEREY ENERGY GROUP, INC.

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Bouknight Residence **Calculation Date/Time:** 2022-05-20T08:52:54-07:00 **(Page 1 of 14)**

Calculation Description: Title 24 Analysis **Input File Name:** 21-646 Bouknight Res. - VS2.ribd19x

GENERAL INFORMATION					
01	Project Name	Bouknight Residence			
02	Run Title	Title 24 Analysis			
03	Project Location	144 Wood Road			
04	City	Los Gatos	05	Standards Version	2019
06	Zip code	95030	07	Software Version	EnergyPro 8.3
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	69
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	NewConstruction	13	Number of Bedrooms	5
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	3
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.38
18	Total Cond. Floor Area (ft^2)	5682	19	Glazing Percentage (%)	26.87%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	No			

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Bouknight Residence **Calculation Date/Time:** 2022-05-20T08:52:54-07:00 **(Page 2 of 14)**

Calculation Description: Title 24 Analysis **Input File Name:** 21-646 Bouknight Res. - VS2.ribd19x

ENERGY DESIGN RATING

	Energy Design Ratings		Compliance Margins	
	Efficiency[1] (EDR)	Total[2] (EDR)	Efficiency[1] (EDR)	Total[2] (EDR)
Standard Design	45.8	29.5		
Proposed Design	45.5	13.3	0.3	16.2

RESULT: [3] COMPLIES

1: Efficiency EDR includes improvements to the building envelope and more efficient equipment
2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
3: Building complies when efficiency and total compliance margins are greater than or equal to zero

- Standard Design PV Capacity: 4.16 kWdc

ENERGY USE SUMMARY

Energy Use (kTOV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	11.18	27.29	3.89	12.5
Space Cooling	0.29	5.16	-4.87	-1679.3
IAQ Ventilation	4.97	7.96	-2.99	-60.2
Water Heating	7.01	7.23	-0.22	-3.1
Self Utilization/Flexibility Credit	n/a	-4.78	4.78	n/a
Compliance Energy Total	**43.45**	**42.86**	**0.59**	**1.4**

REQUIRED PV SYSTEMS - SIMPLIFIED

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
6	NA	Premium	Fixed	Microinverters	false	180	Degrees	22	4.85	96	100

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Bouknight Residence **Calculation Date/Time:** 2022-05-20T08:52:54-07:00 **(Page 3 of 14)**

Calculation Description: Title 24 Analysis **Input File Name:** 21-646 Bouknight Res. - VS2.ribd19x

ENERGY DESIGN RATING BATTERY INPUTS

01	02	03	04	05	06
Control	Capacity (kWh)	Charging Efficiency	Rate (kW)Rate (kW)	Discharging Efficiency	Rate (kW)Rate (kW)
Advanced DR	13	0.95	n/a	0.95	n/a

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- PV module type: Premium
- PV power electronics: Microinverters
- Battery System: 13 kWh (Self Utilization Credit taken)
- Indoor air quality, balanced fan
- IAQ Ventilation System Heat Recovery: minimum 77 SRE and 77 ASRE
- IAQ Ventilation System: supply outside air inlet, filter, and HERV cores accessible per RACM Reference Manual
- IAQ Ventilation System: fault indicator display
- Window overhangs and/or fins
- Non-standard duct location (any location other than attic)
- Recirculating with demand control, occupancy/motion sensor
- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- Minimum Airflow
- Verified SEER
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM

Heating System Verifications:
- Verified HSPF
- Verified heat pump rated heating capacity

HVAC Distribution System Verifications:
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

Domestic Hot Water System Verifications:
- -- None --

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Bouknight Residence **Calculation Date/Time:** 2022-05-20T08:52:54-07:00 **(Page 4 of 14)**

Calculation Description: Title 24 Analysis **Input File Name:** 21-646 Bouknight Res. - VS2.ribd19x

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Bouknight Residence	5682	1	5	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Entire House	Conditioned	Ducted Heatpumps1	5682	10.59	DHW Sys 1	N/A

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
LMass (Stem Walls)	Entire House	12 Concrete Stem Wall +	159	Left	94.8	0	90
BMass (Stem Walls)	Entire House	12 Concrete Stem Wall +	249	Back	209.8	0	90
RMass (Stem Walls)	Entire House	12 Concrete Stem Wall +	339	Right	117.8	0	90
BMass1	Entire House	12 Concrete Wall + R-15	249	Back	873.6	0	90
RMass1	Entire House	12 Concrete Wall + R-15	339	Right	75.8	0	90
LMass2	Entire House	8 Concrete Wall + R-15	159	Left	289.2	72	90
LMass3	Entire House	6 Concrete Wall + R-15	159	Left	210	40	90
FWall	Entire House	R-21 Wall	69	Front	1238.9	554.4	90
LWall	Entire House	R-21 Wall	159	Left	976.5	223.5	90
BWall	Entire House	R-21 Wall	249	Back	476	163.5	90
RWall	Entire House	R-21 Wall	339	Right	1425.6	441.8	90
Partition Wall	Entire House>>__Garage__	R-21 Wall1	n/a	n/a	200	21.3	n/a
Raised Floor X	Entire House	R-19 Floor No Crawlspace1	n/a	n/a	20	n/a	n/a
Partition Floor	Entire House	R-19 Floor No Crawlspace	n/a	n/a	49	n/a	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Bouknight Residence **Calculation Date/Time:** 2022-05-20T08:52:54-07:00 **(Page 5 of 14)**

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OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
FWall2	__Garage__	R-0 Garage Wall	69	Front	231	0	90
LWall2	__Garage__	R-0 Garage Wall	159	Left	241.5	0	90
BWall2	__Garage__	R-0 Garage Wall	249	Back	24.5	0	90
RWall2	__Garage__	R-0 Garage Wall	339	Right	241.5	0	90

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Area (ft^2)	Skylight Area (ft^2)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Flat Roof	Entire House	R-30 Flat Roof	0	n/a	1135	25	0	0.1	0.85	No
Roof	Entire House	R-30 Roof	0	n/a	2085.3	28	3	0.1	0.85	No
Flat Roof2	__Garage__	R-0 Garage Roof	0	n/a	447	0	0	0.1	0.85	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
W14,D4	Window	LMass2	Left	159			1	72	0.3	NFRC	0.25	NFRC	Bug Screen
W13,14	Window	LMass3	Left	159			1	40	0.3	NFRC	0.25	NFRC	Bug Screen
D1	Window	FWall	Front	69	6	9	1	54	0.3	NFRC	0.25	NFRC	Bug Screen
W6	Window	FWall	Front	69	9	6	1	54	0.3	NFRC	0.25	NFRC	Bug Screen
D8,9	Window	FWall	Front	69			1	227.4	0.55	NFRC	0.25	NFRC	Bug Screen
D7	Window	FWall	Front	69	14.5	8	1	116	0.55	NFRC	0.25	NFRC	Bug Screen
W32,18-21,23	Window	FWall	Front	69			1	103	0.3	NFRC	0.25	NFRC	Bug Screen
D3	Window	LWall	Left	159			1	48	0.3	NFRC	0.25	NFRC	Bug Screen
W8-12	Window	LWall	Left	159			1	87	0.3	NFRC	0.25	NFRC	Bug Screen

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
W22,24-26	Window	LWall	Left	159			1	88.5	0.3	NFRC	0.25	NFRC	Bug Screen
W27-28	Window	BWall	Back	249			1	43.5	0.3	NFRC	0.25	NFRC	Bug Screen
D13	Window	BWall	Back	249			1	120	0.55	NFRC	0.25	NFRC	Bug Screen
D6	Window	RWall	Right	339	6	8	1	48	0.3	NFRC	0.25	NFRC	Bug Screen
W5	Window	RWall	Right	339	6	5	1	30	0.3	NFRC	0.25	NFRC	Bug Screen
W7,D11W15,C6	Window	RWall	Right	339			1	221	0.3	NFRC	0.25	NFRC	Bug Screen
W16	Window	RWall	Right	339	6	6	1	36	0.3	NFRC	0.25	NFRC	Bug Screen
W29,31,17	Window	RWall	Right	339			1	85.5	0.3	NFRC	0.25	NFRC	Bug Screen
Skylight	Skylight	Flat Roof		0			1	25	0.39	NFRC	0.28	NFRC	None
Skylight2	Skylight	Roof		0			1	28	0.39	NFRC	0.28	NFRC	None

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
DoorD12	RWall	21.3	0.5
Door	Partition Wall	21.3	0.5

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
D1	10.5	0.5	0	0	0	0	0	0	0	0	0	0	0
W6	7	0	0	4	0	0	0	0	0	0	0	0	0

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
D7	4	0.5	0	0	0	0	0	0	0	0	0	0	0
D6	8	0	0	0	0	0	0	0	0	0	0	0	0
W5	8	0	0	0	0	0	0	0	0	0	0	0	0
W16	7.6	0.5	0	0	0	0	0	0	0	0	0	0	0

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Entire House	3099	308.1	none	0	80%	No
Slab-on-Grade2	__Garage__	496	70.3	none	0	0%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Garage Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
12 Concrete Stem Wall +	Exterior Walls	Concrete / ICF / Brick	None	n/a	R-15 / None	0.059	Inside Finish: Gypsum Board Insulation/Furring: R-15 / no furring Mass Layer: 6 in. Concrete Exterior Finish: 3 Coat Stucco

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
12 Concrete Wall + R-15	Exterior Walls	Concrete / ICF / Brick	None	n/a	R-15 / None	0.069	Inside Finish: Gypsum Board Insulation/Furring: R-15 / 3 Sin. wd Mass Layer: 6 in. Concrete Exterior Finish: 3 Coat Stucco
8 Concrete Wall + R-15	Exterior Walls	Concrete / ICF / Brick	None	n/a	R-15 / None	0.068	Inside Finish: Gypsum Board Insulation/Furring: R-15 / 3 Sin. wd Mass Layer: 8 in. Concrete Exterior Finish: 3 Coat Stucco
6 Concrete Wall + R-15	Exterior Walls	Concrete / ICF / Brick	None	n/a	R-15 / None	0.069	Inside Finish: Gypsum Board Insulation/Furring: R-15 / 3 Sin. wd Mass Layer: 6 in. Concrete Exterior Finish: 3 Coat Stucco
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco
R-0 Garage Roof	Cathedral Ceilings	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-0	None / None	0.478	Roofing: 5 PSF (Normal Gravel) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board
R-30 Flat Roof	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-30 Roof	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.036	Roofing: 10 PSF (RoofTileAirGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board
R-21 Wall1	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.064	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board
R-19 Floor No Crawlspace1	Exterior Floors	Wood Framed Floor	2x8 @ 16 in. O. C.	R-19	None / None	0.048	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x8
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x8 @ 16 in. O. C.	R-19	None / None	0.046	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x8 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

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www.montereyenergygroup.com
cal@meg4.com

BOUKNIGHT RESIDENCE

144 WOOD ROAD
LOS GATOS, CA. 95030

ENERGY COMPLIANCE

DATE: 05/20/2022
SCALE: AS NOTED
DRAWN: MEG
CHECKED:
CHECKED:
FILE NAME:

SHEET: T-1
SHEET OF SHEETS

TITLE 24 ENERGY CONSULTANTS
HERS PROVIDER

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**
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WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Demand Recirculation Sensor Controls	DHW Heater 1 (2)	n/a	None	n/a

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Heat Pump	n/a	2	80	NEEA Rated	<= 12 kW	n/a	n/a	n/a	Rheem\PROPH80 T2 RH37530 (80 gal)	Garage

RECIRCULATION LOOPS

01	02	03	04	05
Water Heating System Name	Number of Recirculation Loops	Loop Insulation Thickness (in)	Recirculation Loop Location	Recirculation Pump Power (W)
DHW Sys 1	1	1.5	Conditioned	0

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/2	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

Registration Number: 221-P0102006778-000-000-0000000-0000 — Registration Date/Time: 2022-05-20 08:50:02 — HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.2.000 — Schema Version: rev 20200901 — Report Generated: 2022-05-20 08:47:44

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SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
Ducted Heatpumps1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	HVAC Fan 1	Air Distribution System 1	Setback	New	NA	3	3

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	Heating		Cooling		Zonally Controlled	Compressor Type	HERS Verification
			HSPF/COP	Cap 47	Cap 17	SEER	EER/CEER			
Heat Pump System 1	Central split HP	3	10.5	60000	48500	17	10.5	Zonally Controlled	Multi-speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Required	350	Not Required	Required	Yes	Yes	Yes	Yes

Registration Number: 221-P0102006778-000-000-0000000-0000 — Registration Date/Time: 2022-05-20 08:50:02 — HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.2.000 — Schema Version: rev 20200901 — Report Generated: 2022-05-20 08:47:44

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HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Design Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-6	R-6	Conditio ned Zone	Conditio ned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.58

Registration Number: 221-P0102006778-000-000-0000000-0000 — Registration Date/Time: 2022-05-20 08:50:02 — HERS Provider: CalCERTS Inc.
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IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
SFam IAQVentRpt 1-1	234	0.794872	Balanced	77	77	Yes

PROJECT NOTES

Balanced ventilation system required to meet the state energy code. (1) Panasonic FV-10VEC2 and (1) RenewAire EV200 modeled for compliance. If substituted provide CFM, Watts and unit efficiency prior to installation.

Registration Number: 221-P0102006778-000-000-0000000-0000 — Registration Date/Time: 2022-05-20 08:50:02 — HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.2.000 — Schema Version: rev 20200901 — Report Generated: 2022-05-20 08:47:44

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**
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Calculation Description: Title 24 Analysis — **Input File Name:** 21-646 Bouknight Res. - VS2.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Michael Hafner	Michael Hafner
Company:	Signature Date:
Monterey Energy Group	2022-05-20 08:50:02
Address:	CEA/ HERS Certification Identification (If applicable):
26465 Carmel Rancho Blvd. #8	R16-18-20117
City/State/Zip:	Phone:
Carmel, CA 93923	831-372-8328

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name:	Responsible Designer Signature:
Michael Hafner	Michael Hafner
Company:	Date Signed:
Monterey Energy Group	2022-05-20 08:50:02
Address:	License:
26465 Carmel Rancho Blvd. #8	R16-18-20117
City/State/Zip:	Phone:
Carmel, CA 93923	831-372-8328

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. "Exceptions may apply."
(Original 08/2019)

Building Envelope Measures:

§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labelling.** Fenestration products and exterior doors must have a label meeting the requirements of Section 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather stripped.*
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of Section 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be tested per §10-113 when the installation of a cool roof is specified on the CF-1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Ceiling and Rafter Roof Insulation.** Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.*
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less, (R-19 in 2x6 or U-factor of 0.074 or less). Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102, equivalent to an installed value of R-13 in a wood framed assembly. Masonry walls must meet Table 150.1-A or B.*
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings no greater than 0.3%; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*

Fireplaces, Decorative Gas Appliances, and Gas Log Measures:

§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*

Space Conditioning, Water Heating, and Plumbing System Measures:

§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the Energy Commission.*
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4: § 110.3(c)4.	**Water Heating Recirculation Loops Serving Multiple Dwelling Units.** Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBTU per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.*
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

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§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least 5 feet from the outlet of any dryer vent.
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of 1 inch or a minimum insulation R-value of 7.7: the first 5 feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than 1 inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use;" a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than 2 inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.

Ducts and Fans Measures:

§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with California Mechanical Code (CMC) Section 604.0. If a contractor installs the insulation, the contractor must certify to the customer in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet the requirements of the CMC Section 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.*
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a 2 inch depth or can be 1 inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

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Requirements for Ventilation and Indoor Air Quality

§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality.** All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	**Single Family Detached Dwelling Units.** Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	**Multifamily Attached Dwelling Units.** Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	**Multifamily Building Central Ventilation Systems.** Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20% of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	**Kitchen Range Hoods.** Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. Kitchen range hoods must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.

Pool and Spa Systems and Equipment Measures:

§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*

Lighting Measures:

§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labelling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	**Electronic Ballasts for Fluorescent Lamps.** Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	**Night Lights, Step Lights, and Path Lights.** Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, will not more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	**Interior Switches and Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	**Interior Switches and Controls.** Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	**Interior Switches and Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.

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§ 150.0(k)2G:	**Interior Switches and Controls.** An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.5(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	**Interior Switches and Controls.** A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	**Interior Switches and Controls.** In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	**Interior Switches and Controls.** Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are controlled by occupancy or vacancy sensors, must have dimming controls.*
§ 150.0(k)2K:	**Interior Switches and Controls.** Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3AI (ON and OFF switch) and the requirements in either § 150.0(k)3AII (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3AIII (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either Section 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by Section 150.0(k)3B or Section 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must comply with § 140.8, or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.

Solar Ready Buildings:

§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	**Low-rise Multifamily Buildings.** Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.*
§ 110.10(b)2:	**Azimuth.** All sections of the solar z

MINIMUM NAILING SCHEDULE (U.N.O.):

CONNECTION	NAILING[1]
1. JOIST TO FOUNDATION SILL, FLOOR GIRDER OR WALL TOP PLATE, TOENAIL	3-8d COMMON
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d COMMON
3. 1"x6" SUB FLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d COMMON
4. WIDER THAN 1"x6" SUB FLOOR TO EACH JOIST, FACE NAIL	3-8d COMMON
5. 2" SUB FLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d COMMON
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	16d AT 16" O.C.
SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	3-16d PER 16"
7. TOP PLATE TO STUD, END NAIL	2-16d COMMON
8. STUD TO SOLE PLATE	4-8d COMMON, TOENAIL OR 2-16d COMMON, END NAIL
9. DOUBLE STUDS, FACE NAIL	16d AT 24" O.C.
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL	16d AT 16" O.C.
DOUBLE TOP PLATES, LAP SPLICE	8-16d COMMON
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8d COMMON
12. RIM JOIST TO TOP PLATE, TOENAIL	8d AT 6" O.C.
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d COMMON
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON AT 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOENAIL	3-8d COMMON
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d COMMON
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d COMMON
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d COMMON
19. RAFTER TO PLATE, TOENAIL	3-8d COMMON
20.1 DIAGONAL BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d COMMON
21. 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d COMMON
22 WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d COMMON
23. BUILT-UP CORNER STUDS	16d COMMON AT 24" O.C.
24. BUILT-UP GIRDER AND BEAMS, FACE NAIL — 20d COMMON AT 32" O.C. AT TOP & BOTTOM, STAGGERED ON OPP. SIDES; 2-20d AT ENDS AND AT EACH SPLICE	16d COMMON AT EACH BEARING
25. 2" PLANKS	
26. WOOD STRUCTURAL PANELS AND PARTICLEBOARD:[2] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING):[3]	
1/2" AND LESS	6d[4,5]
19/32" - 3/4"	8d[4] OR 6d[5]
7/8" - 1"	8d[4]
1 1/8" - 1 1/4"	10d[4] OR 8d[5]
SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING):[2]	
3/4" AND LESS	6d[3]
7/8" - 1"	8d[3]
1 1/8" - 1 1/4"	10d[4] OR 8d[5]
27. PANEL SIDING (TO FRAMING):	
1/2" OR LESS	6d[4]
5/8"	8d[4]
28. FIBERBOARD SHEATHING:[1]	
1/2"	NO. 11 ga,[4] 1 1/2" LONG, 7/16" HEAD OR 16 ga. STAPLE[4] NO. 16 ga. STAPLE[4]
25/32"	NO. 11 ga,[4] 1 3/4" LONG, 7/16" HEAD OR 16 ga. STAPLE[4]
29. INTERIOR PANELING	
1/4"	4d[6]
3/8"	6d[6]

1. COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE STATED
2. NAILS SPACED AT 6 INCHES ON CENTER AT EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
3. COMMON OR DEFORMED SHANK
4. COMMON
5. DEFORMED SHANK
6. CORROSION-RESISTANT SIDING OR CASING NAIL.
7. FASTENERS SPACED AT 3 INCHES ON CENTER AT EXTERIOR EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS, SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
8. CORROSION-RESISTANT ROOFING NAILS WITH 7/16 INCH-DIAMETER HEAD AND 1 1/2 INCH LENGTH FOR 1/2 INCH SHEATHING AND 1 3/4 INCH LENGTH FOR 25/32 INCH SHEATHING.
9. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16 INCH CROWN & 1 1/8 INCH LENGTH FOR 1/2 INCH SHEATHING AND 1 1/2 INCH LENGTH FOR 25/32 INCH SHEATHING. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STERENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
10. CASING OR FINISH NAILS SPACED AT 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
11. PANEL SUPPORTS AT 24 INCHES, CASING OR FINISH NAILS SPACED AT 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS
12. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2 1/2"x0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.

STRUCTURAL NAILS

NAIL SIZE	SHANK DIA.	HEAD DIA.	LENGTH
8d COMMON	.131 IN.	.281 IN.	2 1/2 IN.
10d COMMON	.148 IN.	.312 IN.	3 IN.
16d COMMON	.162 IN.	.344 IN.	3 1/2 IN.
20d COMMON	.192 IN.	.406 IN.	4 IN.

CONCRETE GRADE BEAM REINFORCEMENT LAP SPLICE LENGTHS (IN INCHES)

F'C = 3,000 PSI AT 28 DAYS									
SPLICE CLASS	REINFORCEMENT LOCATION	REINFORCEMENT SIZE (GR60, UNO)							
		#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	28	37	47	56	81	93	105	118	142
	OTHER	22	29	36	43	63	72	81	91	101

FOOTNOTES:
1. TABLE ABOVE BASED ON UNCOATED REINFORCING STEEL AND NORMAL WEIGHT CONCRETE.
2. TOP REINFORCING IS HORIZONTAL REINFORCEMENT THAT HAS MORE THAN TWELVE INCHES OF FRESH CONCRETE CAST BELOW IT.
3. FOR BARS WITH COVER LESS THAN 1 BAR DIAMETER OR WITH CLEAR SPACING LESS THAN 2 BAR DIAMETERS, INCREASE LAP SPLICE BY 50%.
4. FOR LIGHTWEIGHT AGGREGATE CONCRETE, (WT = 110 PCF) INCREASE LAP SPLICE BY 30%.
5. ALL LAP SPLICES SHALL BE CLASS B, UNO

FASTENER (SCREW) REQUIREMENTS:

1. ALL FASTENERS SUPPLIED TO THE PROJECT SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO USE. THIS REVIEW DOES NOT CONSTITUTE AN APPROVAL. IT IS PROVIDED FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
2. PROVIDE AN INTERNATIONAL CODE COUNCIL (ICC) EVALUATION REPORT FOR ALL TYPES AND BRANDS OF FASTENERS USED.
3. SUBSTITUTIONS FOR SPECIFIC FASTENERS IDENTIFIED WITHIN THESE PLANS MAY BE MADE PROVIDED THAT THE SUBSTITUTION IS COMPLIANT WITH NOTES 1 & 2, AND FOUND TO BE ACCEPTABLE BY ENGINEER OF RECORD. EACH REQUEST SHALL BE IN WRITTEN FORM IDENTIFYING THE ITEM BEING SUBSTITUTED FOR, THE SUBSTITUTION ITEM WITH BRAND NAME, PART NUMBER, AND INTERNATIONAL CODE COUNCIL (ICC) REPORT. THE AFFECTED PLANS, DETAILS, AND SECTIONS SHALL ALSO BE IDENTIFIED. SEE GENERAL NOTES FOR ADDITIONAL SUBSTITUTION REQUIREMENTS.
4. FASTENERS SHOWN TO PROJECT THROUGH MAIN FRAMING MEMBERS SHALL PROJECT BEYOND THE MEMBER BY 3 FULL THREADS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE PROPER FASTENER FEATURES UNLESS NOTED:
   A. FLAT HEAD FASTENERS SHALL BE USED AT PLYWOOD CONNECTIONS.
   B. WAFFER HEAD FASTENERS SHALL BE USED AT FRAMING CONNECTIONS COVERED WITH PLYWOOD, GYP BOARD OR OTHER MATERIAL THAT MAY BE IMPEDED BY THE PROJECTION OF THE FASTENER HEAD.
   C. HEX WASHER HEAD FASTENERS SHALL BE USED AT ALL OTHER CONDITIONS.
   D. THREAD PITCH SHALL BE COMPATIBLE WITH THE THICKNESS OF THE PARTS BEING CONNECTED. THINNER GAUGE PARTS REQUIRE COARSER THREADS COMPARED TO THICKER GAUGE PARTS.
   E. THE FASTENER SHALL BE OF SUFFICIENT LENGTH IN ORDER TO COMPLY WITH NOTE 4 ABOVE.
   F. SELECT THE PROPER PROPRIETARY SELF-DRILLING TIP TYPE THAT IS CAPABLE OF TAPPING THE MATERIALS BEING CONNECTED.
6. ALL SCREWS SHALL BE MANUFACTURED BY EITHER GRABBER CONSTRUCTION PRODUCTS OR BY ITW BUILDEX (TEKS BRAND) UNLESS PROVIDING AN EQUIVALENT SUBSTITUTION IN ACCORDANCE WITH NOTE 3 ABOVE.
7. FRAMING SCREWS SHALL BE #8 x5/8" (16 MM) WAFER HEAD SELF-DRILLING UNO.
8. PLYWOOD SCREWS SHALL BE A MINIMUM #8x1" (25 MM) FLAT HEAD WITH A MINIMUM HEAD DIAMETER OF .292" (7.4 MM).

STEEL NOTES:

1. FAB., ERECTION AND MATERIALS SHALL CONFORM W/THE AISC 360-10 SPEC. FOR THE DESIGN, FAB. AND ERECTION OF STRUCTURAL STEEL FOR BUILDING AND CBC, 2019 EDITION.
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
   A) ASTM A992 GRADE 50 (Fy=50ksi), WF EMS & COLs
   B) ASTM A36 (Fy=36ksi), MISC. STEEL, UNO.
3. PIPE COLUMNS SHALL CONFORM TO ASTM A53 GRADE B, TYPE E OR S (Fy=35ksi).
4. TUBE COLUMNS SHALL CONFORM TO ASTM A500 GRADE B (Fy = 46 KSI).
5. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE W/"AWS" STANDARDS, USING ONLY CERTIFIED WELDERS. ALL BUTT WELDS SHALL HAVE COMPLETE PENETRATION. ALL EXPOSED BUTT WELDS SHALL BE GROUND.
6. PLACE NON-SHRINK GROUT UNDER ALL BEARINGS ON CONCRETE OR MASONRY BEFORE ADDING VERTICAL LOAD.
7. ALL STRUCT. STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMP. BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS ARE PROVIDEED TO ADEQUATELY BRACE THE STRUCTURE.
8. HOLES FOR BOLTS SHALL BE OF THE SAME NOMINAL DIAM AS THE BOLT PLUS 1/16".
9. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE.
10. WRAP STRUCTURAL STEEL EMBEDDED IN CONCRETE w/6x6-W1.4xW1.4 WWF. DO NOT PAINT EMBED AREAS.
11. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO HIGH STRENGTH BOLTS CONFORMING TO ASTM A325 UNLESS SHOWN OTHERWISE. NUTS FOR HIGH STRENGTH BOLTS SHALL BE HEAVY HEX GRADE C, CONFORMING TO ATSM A563.
12. FOR ALL HIGH STRENGTH BOLTS, HARDENED WASHERS SHALL BE PROVIDED UNDER THE TURNING ELEMENT OF BOLT FOR TORQUING AS REQUIRED.
13. "SLIP CRITICAL" BOLTED CONNECTIONS:
   A) "SLIP CRITICAL" CONNECTIONS (A325 SC DESIGN VALUES w/SPECIAL INSPECTION) ARE REQUIRED AT ALL MAIN LONSITUDINAL AND TRANSVERSE BRACED FRAME LINES AND ALL BOLTS IN OVERSIZED OR SLOTTED HOLES.
   B) THE SPECIAL INSPECTOR MUST BE PRESENT DURING THE ENTIRE INSTALLATION AND TIGHTENING OPERATION OF "SLIP CRITICAL" CONNECTIONS.
14. WHERE MINIMUM AISC FILLET WELD THICKNESS REQUIREMENTS EXCEED WELDS SHOWN ON DETAIL, OR IF NO SIZE IS SHOWN, PROVIDE MINIMUM AISC WELD
15. MILL CERTIFICATION ON STEEL FOR THE FOLLOWING GRADES WILL BE REQUIRED PRIOR TO ERECTION / INSPECTION:
   ATSM A992 GRADE 50
   ASTM A500, GRADE B
16. ALL BEAMS AND GIRDERS SHALL BE CAMBERED AS INDICATED ON STRUCTURAL DRAWINGS.
17. SPLICING STRUCT. MEMBERS WHERE NOT DETAILED ON THE DWGS IS PROHIBITED W/O PRIOR APPROVAL . ALT. CONNECTION DETAILS PROPOSED BY THE FABRICATOR SHALL BE SUBJECT TO ENGINEER'S APPROVAL. IF ALT. CONNEC. ARE APPROVED, THE STRUCT. CALCS FOR SUCH CONNECTIONS SHALL BE PREPARED BY A REG. PROF. ENG. IN THE STATE OF CALIF. AND SUBMITTED FOR ENGINEER'S APPROVAL PRIOR TO PROCEEDING w/ANY FABRICATION WORK.
18. THE STEEL FABRICATION SHALL BE CERTIFIED BY THE AISC QUALITY CERTIFICATION PROGRAM.

DEFERRED APPROVAL

1. GUARD RAILS, HANDRAILS, AND GUARDRAIL POSTS SHALL BE SUBMITTED AS DEFFERRED APPROVAL ITEMS AS DEFINED BY CBC 107.3.4.1. THE DEFERRED SUBMITTAL WILL INCLUDE BUT NOT BE LIMITED TO GUARDRAIL, HANDRAIL, GUARDRAIL POSTS AND POST ANCHORAGE DETAILS. TWO COPIES OF EACH DEFERRED SUBMITTAL WILL FIRST BE SUBMITTED TO THE ARCHITECT/ENGINEER OF RECORD, WHO WILL REVIEW THEM AND FORWARD THEM TO THE CONTRACTOR WITH NOTATIONS INDICATING THAT THE SUBMITTALS CONFORM TO THE DESIGN OF THE BUILDING.

SHOP DRAWINGS

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOP DRAWING PRODUCT DATA SAMPLES PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
1. DETAILS ON THE SHOP DRAWINGS THAT DEVIATE FROM THE CONTRACT DOCUMENTS SHALL BE CLEARLY MARKED WITH THE NOTE "THIS IS A NOTED CHANGE".
2. ACAD FILES OF APPROVED STRUCTURAL DRAWINGS WILL NOT BE PROVIDED TO THE CONTRACTOR FOR THEIR PREPARATION OF SHOP DRAWINGS.THE CONTRACTOR AGREES THAT SHOP DRAWING SUBMITTALS ARE NOT CHANGE ORDERS.
3. CONTRACTOR FULLY AGREES THAT THE PURPOSE OF SHOP DRAWING SUBMITTALS IS TO DEMONSTRATE THAT THE CONTRACTOR FULLY UNDERSTANDS THE DESIGN INTENT OF THE PROJECT AND COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS BY INDICATING WHICH MATERIAL THE CONTRACTOR INTENDS TO FURNISH AND INSTALL AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS THE CONTRACTOR INTENDS TO USE.
4. CONTRACTORS ARE RESPONSIBLE FOR ALL MATERIAL QUANTITIES ON THE SHOP DRAWINGS.

SPECIAL INSPECTIONS:

IN ADDITION TO THE INSPECTION ITEMS REQUIRED BY CHAPTER 17 OF THE 2019 CBC, SPECIAL INSPECTION SHALL BE PERFORMED ON THE FOLLOWING ITEMS:
A. OBSERVATION OF SUBGRADE PREPARATION AND FOUNDATION CONSTRUCTION OPERATIONS BY THE GEOTECHNICAL ENGINEER PER CBC 1705.6
B. CONCRETE REINFORCING CBC 1705.3, TABLE 1705.3
C. STRUCTURAL STEEL CONSTRUCTION - HIGH STRENGTH BOLTING A325- OR A325-X AT BEAM CONNECTIONS PER CBC 1705.2
D. STRUCTURAL STEEL WELDING PER CBC 1705.2
E. SEISMIC RESISTANCE PER CBC 1705.12 WHERE Sds EXCEEDS 0.5g
F. OBSERVATION OF ELEMENTS OF THE LATERAL FORCE RESISTING SYSTEM ALONG LINES WHERE THE SHEARWALL NAILING IS 4" OC. OR CLOSER. ELEMENTS OF THE SPECIAL INSPECTION SHALL INCLUDE NAILING, BOLTING, ANCHORING, AND OTHER FASTENING WITHIN THE SEISMIC FORCE RESISTING SYSTEM, INCLUDING WOOD SHEARWALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS, AND HOLDOWNS PER SECTION 1705.11.1

WOOD NOTES:

1. ALL STRUCTURAL WOOD SHALL CONFORM WITH THE FOLLOWING SPECIFICATION. DOUGLAS FIR - COAST REGION - INCLUD GRADING RULES #17 OF #1, EXCEPT 2X4 AND 2X6 WALL STUDS, PLATES, AND BLOCKING MAY BE DF #2. REDWOOD - CALIFORNIA REDWOOD ASSOCIATION GRADING RULES, LATEST EDITION. GLUED LAMINATED BEAMS - STANDARD SPEC. FOR STRUCTURAL GLUED LAMINATED TIMBER AITC 117 LATEST EDITION. SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION OF GLUED-LAMINATED MEMBERS. PLYWOOD - U.S. PRODUCT STANDARD PS1-09 FOR SOFT PLYWOOD STRUCT I @ WALLS; CDX @ FLOORS AND ROOF - U.N.O. PRESSURE TREATED DOUGLAS FIR - 2014 CBC STANDARD NO. 2303.1.9.
2. ALL WOOD IN DIRECT CONTACT WITH EARTH, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED.
3. BEARING & SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES, LAPPED @ WALL & PARTITION INTERSECTION w/ 3-16D NAILS. SPLICE UPPER & LOWER PLATES AS IN DETAIL I ON TYP. DETAIL SHEET.
4. PROVIDE SOLID BLCK'G. BTWN. JOISTS & RAFTERS AT ALL SUPPORTS.
5. PROVIDE BLOCKING AT ALL CEILING LEVELS.
6. JOISTS UNDER AND PARALLEL TO PARTITIONS SHALL BE DOUBLED AND NAILED TOGETHER.
7. HOLES FOR BOLTS IN WOOD SHALL BE BORED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT PLUS 1/16".
8. HOLES FOR LAG SCREWS SHALL BE FIRST BORED TO THE SAME DIAMETER AND DEPTH AS THE SHANK AND THE REST NO LARGER THAN THE ROOT OF THE THREAD.
9. LAG SCREWS & WOOD SCREWS SHALL BE SCREWED & NOT DRIVEN INTO PLACE. SOAP MAY BE USED TO LUBRICATE THE SCREWS.
10. ALL BOLTS & LAG SCREWS SHALL BE PROVIDED w/ METAL WASHERS UNDER HEADS & NUTS WHICH BEAR ON WOOD. APPLIES ALSO TO INSERTED EXPANDING FASTENERS, RED HEAD, ETC.

BOLT DIAM.	MI WASHER	STEEL WASHER
1/2"	2" dia x 1/4"	2"x2"x 3/16"
5/8"	3" dia x 1/4"	3"x3"x 1/4"
3/4"	3 1/2" dia x 5/16"	3 1/2"x3 1/2"x 1/4"
1"	4" dia x 5/16"	3 1/2"x3 1/2"x 1/4"

11. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED ON INSTALLATION AND RETIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.
12. LAY ALL STRUCTURAL PLYWOOD ON ROOF AND FLOORS WITH FACE GRAIN PERPENDICULAR TO SUPPORT UNLESS NOTED OTHERWISE.
13. BLOCK SP JOINTS WITH 2X4 FLAT BLOCKING WHERE NOTED ON ROOF OR FLOOR FRAMING PLANS AND WITH BLOCKING SAME AS STUDS AT WALLS UNLESS NOTED OTHERWISE IN SHEARWALL SCHEDULE. USE PLY CLIPS AT MIDSPAN OF UNSUPPORTED PLYWOOD EDGES.
14. CONNECTOR HARDWARE MODEL NUMBER ARE THOSE FOR SIMPSON STRONG-TIE COMPANY. EQUIVALENT CONNECTORS WITH ICC ACCEPTANCE MAY BE SUBSTITUTED. ALL HARDWARE SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
15. NOTIFY STRUCTURAL ENGINEER AFTER WALL, FLOOR, AND ROOF SP NAILING HAS BEEN COMPLETED AND A MINIMUM OF 48 HOURS PRIOR TO CONCEALING SP.
16. CUTTING AND NOTCHING OF EXTERIOR WALLS AND BEARING PARTITIONS SHALL NOT EXCEED 25 % OF THE STUD WIDTH
17. CUTTING AND NOTCHING OF NON-BEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE HEIGHT OF THE PARTITION SHALL NOT EXCEED 40% OF THE STUD WIDTH.
18. A BORED HOLE NOT GREATER THAN 40 PERCENT OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD.
19. BORED HOLES NOT GREATER THAN 60 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NON-BEARING PARTITIONS AND IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THEN TWO SUCCESSIVE DOUBLE STUDS ARE SO BORED.
20. WHERE FRAMING HANGERS ARE REQUIRED AND ARE NOT SHOWN ON SECTIONS, DETAILS OR PLANS THE FOLLOWING SIMPSON HANGERS SHALL BE USED. SLOPE, SKEW, TURN IN FLANGES AND PROVIDE TOP FLANGE HANGERS AS REQUIRED.
   2X & 3X MEMBERS ..... U HANGERS
   4X MEMBERS ..... HU HANGERS
   6X MEMBERS ..... HUTF HANGERS
   I-JOIST MEMBERS ..... MIT HANGERS
   GLU LAM MEMBERS ..... LEG HANGERS
21. PROVIDE PLYWOOD EDGE NAILING AROUND ALL OPENINGS AND BLOCK ALL UNSUPPORTED PLYWOOD EDGES.
22. UPSET THREADS ON SILL BOLTS ARE NOT ALLOWED.
23. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF INSTALLATION AND SHALL BE AT 19% MAXIMUM MOISTURE CONTENT (VERIFIED BY INSPECTOR OF RECORD) BEFORE BEING ENCLOSED BY INSULATION, GYPBOARD, OR OTHER SURROUNDING ARCHITECTURAL MATERIALS. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROVIDE LUMBER MEETING THESE CRITERIA.
24. BOLTS ARE NOT TO BE INSTALLED IN LUMBER OVER 19% MOISTURE CONTENT.
25. ALL METAL ANCHORS, FASTENERS, CONNECTORS, ETC. THAT WILL BE IN CONTACT WITH PRESSURE TREATED LUMBER MUST BE HOT DIPPED GALVANIZED OR OTHER APPROVED CORROSION APPROVED MATERIAL.
26. MINIMUM WIDTH OF FLOOR AND ROOF SHEATHING PANELS SHALL BE 24" PER 2015 SDPWS

STRUCTURAL COMPOSITE LUMBER NOTES:

1. GLUED-LAMINATED BEAMS SHALL BE MANUFACTURED FROM VISUALLY GRADED WESTERN SPECIES AND SHALL CONFORM TO THE FOLLOWING COMBINATIONS:
   SIMPLE SPAN MEMBERS: 24F-V4
   CANTILEVER & CONTINUOUS MEMBERS: 24F-V8
2. VERSALAM BEAMS SHALL BE EXTERIOR GRADE, MANUFACTURED FROM WESTERN SPECIES AND SHALL CONFORM TO THE FOLLOWING DESIGN STRESSES:
   E = 2,000,000 PSI
   Fb = 3100 PSI
   Fc = 750 PSI
   Fc = 3000 PSI
   Fv = 285 PSI
3. MICROLAM BEAMS SHALL BE EXTERIOR GRADE, MANUFACTURED FROM WESTERN SPECIES AND SHALL CONFORM TO THE FOLLOWING DESIGN STRESSES:
   E = 1,900,000 PSI
   Fb = 2600 PSI
   Fc = 750 PSI (PERPENDICULAR) ⊥
   Fc = 2510 PSI (PARALLEL) ||
   Fv = 285 PSI
4. CAMBER ALL BEAMS ON 2000 FT. RADIUS BETWEEN SUPPORTS (NO CAMBER AT CANTILEVERS), TYPICAL UNLESS NOTED OTHERWISE.
5. EACH STRUCTURAL COMPOSITE LUMBER BEAM SHALL BE STAMPED WITH THE AITC QUALITY CONTROL MARK.
6. EACH STRUCTURAL COMPOSITE LUMBER BEAM SHALL BE FABRICATED WITH EXTERIOR GLUE AND SHALL BE ASSUMED TO BE FOR EXTERIOR USE.
7. STRUCTURAL COMPOSITE LUMBER SHALL CONFORM TO STANDARD SPECIFICATION FOR STRUCTURAL GLUE-LAMINATED TIMBER AITC 117 LATEST EDITION. SUBMIT SHOP DRAWINGS TO FIELD INSPECTOR PRIOR TO FABRICATION.

CONCRETE NOTES:

1. STRUCTURAL CONCRETE SHALL ATTAIN 28 DAY COMPRESSIVE STRENGTH, f'c = 3,000 PSI, (RETAINING WALLS = 4000 PSI)
2. CONCRETE MIX DESIGN SHALL BE PREPARED BY AN INDEPENDENT LABORATORY APPROVED BY THE STRUCTURAL ENGINEER. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE PER CBC SECTION 1905.3 OR 1905.4.
3. CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II.
4. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33. AGGREGATES FOR LIGHTWEIGHT CONC. SHALL CONFORM TO ASTM C-330.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A615 - GRADE 40. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
6. ALL PREHEATING & WELDING OF REINFORCING BARS SHALL BE DONE IN ACCORDANCE WITH AWS D1.4 LATEST EDITION AND SHALL BE CONTINUOUSLY INSPECTED BY A QUALIFIED LABORATORY. CONTRACTOR SHALL FURNISH TO THE LABORATORY, REBAR MILL CERTIFICATES.
7. REINFORCING STEEL SHALL BE FABRICATED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION."
8. WIRE FABRIC SHALL CONFORM TO ASTM A-185.
9. DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO THE FACE OF MAIN BARS AND DENOTE CLEAR COVERAGE. CONCRETE COVERAGE SHALL BE AS FOLLOWS: CONCRETE DEPOSITED AGAINST GROUND (EXCEPT SLABS) - 3". CONCRETE EXPOSED TO GROUND BUT PLACED IN FORMS - 2". SLABS (ON GROUND) - 2" CLEAR FROM TOP UNO.
10. SPLICES IN CONTINUOUS REINFORCEMENT SHALL BE 48 BAR DIAMETERS & SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN 5'-0" APPART. SPLICE CONTINUOUS BARS IN SPANDRELS, GRADE BEAMS, ETC., AS FOLLOWS: TOP BARS AT MID-SPAN, BOTTOM BARS AT CENTERLINE AT SUPPORT, UNLESS NOTED OTHERWISE. SPLICES IN WWF SHALL BE 1-1/2" MESHES WIDE.
11. CONSTRUCTION JOINTS SHALL BE MADE ROUGH AND ALL LAITANCE REMOVED FROM THE SURFACE. CONCRETE MAY BE ROUGHENED BY CHIPPING THE ENTIRE SURFACE, SAND BLASTING OR RAKING THE SURFACE TO PRODUCE 1/4" DEEP DEFORMATION
12. REMOVE ALL DEBRIS FROM FORMS BEFORE CASTING ANY CONCRETE.
13. REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC., TO BE EMBEDDED IN CONCRETE SHALL BE TIED SECURELY IN POSITION BEFORE PLACING CONCRETE.
14. MAXIMUM FREE FALL OF CONCRETE SHALL BE 8'-0".
15. NO WOOD SPREADERS ALLOWED. NO WOOD STAKES ALLOWED IN AREAS TO BE CONCRETED.
16. CONSOLIDATE CONCRETE PLACED IN FORMS BY MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND-SPADING, RODDING OR TAMPING. USE EQUIPMENT AND PROCEDURES FOR CONSOLIDATION OF CONCRETE IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF ACI 309 TO SUIT THE TYPE OF CONCRETE AND PROJECT CONDITIONS.
17. ALL SAW CUTTING SHALL BE DONE AFTER INITIAL SET HAS OCCURRED TO AVOID TEARING OR DAMAGE BY THE SAW BLADE, BUT BEFORE INITIAL SHRINKAGE HAS OCCURRED.
18. DRILL THROUGH STEEL COLUMNS, BEAMS AND PLATES TO PASS CONTINUOUS REINFORCING.
19. ADDITIONAL REINFORCING IN PRECAST OR TILT-UP PANELS REQUIRED FOR LIFTING STRESSES SHALL BE SUPPLIED BY THE CONTRACTOR.
20. PROVIDE 2-#4X4'-0" DIAGONAL REINFORCING AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS TYPICAL.

SAFETY NOTES:

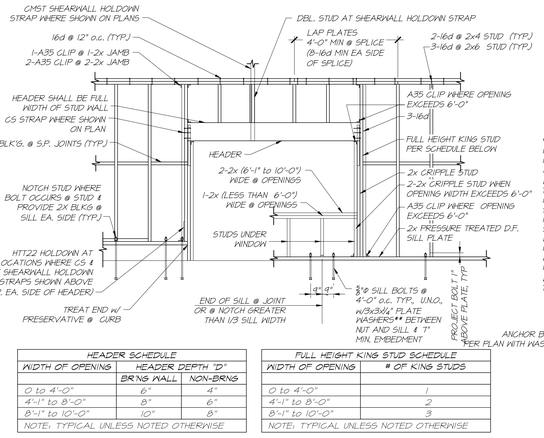
1. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY W/THE PERTINENT SECTIONS OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA LATEST EDITION, AND ALL O.S.H.A. REQUIREMENTS AS THEY APPLY TO THE PROJECT.
2. THE STRUCTURAL ENGINEER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTORS FAILURE TO COMPLY W/THESE REQUIREMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS AND SHORING REQUIRED, AND ANY OTHER TEMPORARY SUPPORT WHICH WILL BE NEEDED FOR THE SAFE COMPLETION OF THE PROJECT.

DESIGN LOADS:

2019 CALIFORNIA BUILDING CODE (CBC)
LIVE LOADS
  FLOOR - 40 PSF (REDUCIBLE) TYP, EXTERIOR DECK - 60 PSF
  ROOF - 20 PSF (REDUCIBLE)
DEAD LOADS
BUCKED ROOF - 23.8 PSF (2 PIECE CLAY BARREL TILE)
(FLAT ROOF - 11.8 PSF)
  DECK INCLUDING PEDESTAL SYSTEM - 30 PSF
WIND
  EXP. B, Iw = 1.0
  ENCLOSED BLDG
  BASIC WIND SPEED = 110 MPH
  ROOF ANGLE VARIES - USE SIMPLIFIED ANALYSIS
SEISMIC - 2019 CBC (ASCE 7-16)
  OCCUPANCY CATEGORY II — Fa = 1.2
  Ie = 1.0 — Fv = 1.4
  SITE CLASS = C — R = 6.5 (Wood diaphragm)
  Ss = 2.559g (1566 Hazmap) — Sds - 2.047g
  S1 = 0.810g (1566 Hazmaps) — Sd1 - 0.821g — SDC - E
  EQUIVALENT LATERAL FORCE SYSTEM Cs - 0.3350
  Vbase = 571.0k

FOUNDATION NOTES:

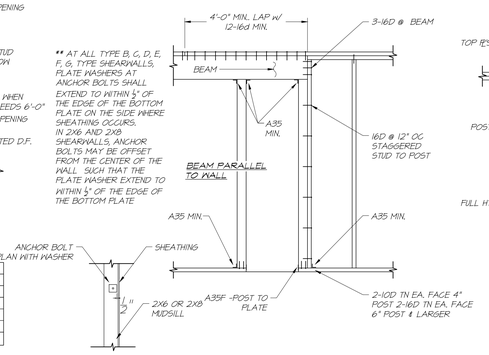
1. REFER TO GEOTECHNICAL REPORT #21019G-01R1 BY G2 EARTH, INC. DATED 28 APRIL 2021 FOR FTG, SLAB, WALLS, AND SITE DATA NOT INCLUDED HERE.
2. ALL FOUNDATION WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2019 CBC.
3. BOTTOMS OF ALL FOUNDATIONS SHALL BE LEVEL. CHANGES IN BOTTOM OF FOUNDATION ELEVATION SHALL BE MADE ACCORDING TO STEPPED FOOTING DETAIL 9.
4. ALL PILE CAPS, GRADE BEAMS, TIE BEAMS & OTHER FOOTINGS SHALL BE FORMED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL DESIGNER. FOUNDATIONS MAY BE CAST IN NEAT EXCAVATIONS PROVIDED WRITTEN APPROVAL IS OBTAINED AND FOOTINGS ARE INCREASED 2" IN WIDTH. USE 2X12 PLANK AT EDGE OF EXCAVATION TO PROTECT AGAINST SLUFFING, AS REQUIRED.
5. CONTRACTOR SHALL NOTIFY CORNERSTONE STRUCTURAL CONSULTANTS 24



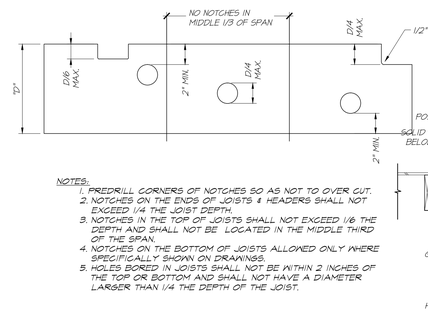
HEADER SCHEDULE		
WIDTH OF OPENING	HEADER DEPTH "D"	
	BRNG WALL	NON-BRNG
0 to 4'-0"	6"	4"
4'-1" to 8'-0"	8"	6"
8'-1" to 10'-0"	10"	8"
NOTE: TYPICAL UNLESS NOTED OTHERWISE		

FULL HEIGHT KING STUD SCHEDULE	
WIDTH OF OPENING	# OF KING STUDS
0 to 4'-0"	1
4'-1" to 8'-0"	2
8'-1" to 10'-0"	3
NOTE: TYPICAL UNLESS NOTED OTHERWISE	

1 / S1.1 TYPICAL WALL STUD FRAMING
N.T.S.



2 / S1.1 POST & BEAM CONNECTIONS
N.T.S.

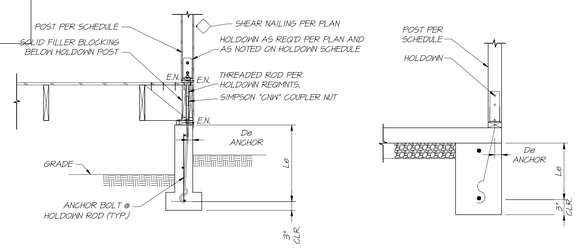


NOTES:
1. PREDRILL CORNERS OF NOTCHES SO AS NOT TO OVER CUT.
2. NOTCHES ON THE ENDS OF JOISTS & HEADERS SHALL NOT EXCEED 1/4 THE JOIST DEPTH.
3. NOTCHES IN THE TOP OF JOISTS SHALL NOT EXCEED 1/6 THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN.
4. NOTCHES ON THE BOTTOM OF JOISTS ALLOWED ONLY WHERE SPECIFICALLY SHOWN ON DRAWINGS.
5. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM AND SHALL NOT HAVE A DIAMETER LARGER THAN 1/4 THE DEPTH OF THE JOIST.

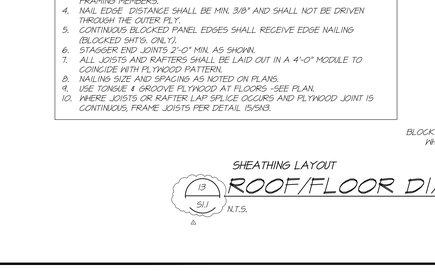
3 / S1.1 TYPICAL BEAM NOTCHING
N.T.S.

SIMPSON HOLDOWN	ANCHOR	EMBEDMENT Le	De	ATTACHMENT TO POST	POST SIZE
LTT20B	SSTB20	18"	1 3/4"	10-10D x 1 1/2"	DBL. 2x
HDU4	SSTB20	17"	1 3/4"	10-1/4"x2 1/2" SDS	4X
HDU5	SSTB24	25"	1 3/4"	14-1/4"x2 1/2" SDS	4X
HDU8	SSTB28	25"	1 3/4"	20-1/4"x2 1/2" SDS	4x
HDU11	1"ø A307	25"	1 3/4"	30-1/4"x2 1/2" SDS	6x
HDU14	1"ø A307	25"	1 3/4"	36-1/4"x2 1/2" SDS	6x

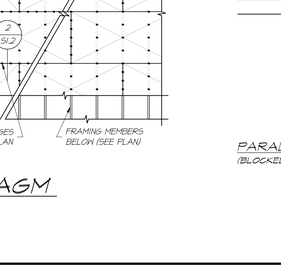
NOTES.
1. ANCHOR BOLTS ARE BASED ON A TWO POUR FOUNDATION SYSTEM.
2. DEEPEN FOOTING TO ACCOMODATE EMBEDMENT DEPTH.
3. INCREASE FOOTING DEPTH AS REQUIRED TO ACCOMODATE 3" CLEAR.
4. ANCHOR BOLT SHALL BE INSTALLED PER MFR. RECOMMENDATION.



4 / S1.1 HOLDOWN DETAIL
N.T.S.

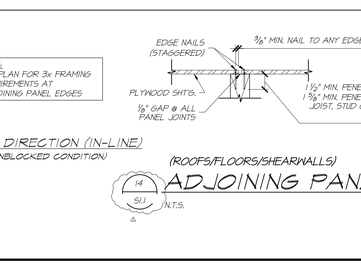


5 / S1.1 TYPICAL STUD FRAMING AT CORNERS
N.T.S.



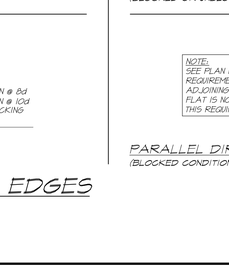
NOTE: USE WHERE POST IS NOT WITHIN WALL U.N.O.

6 / S1.1 POST & BEAM DETAIL
N.T.S.

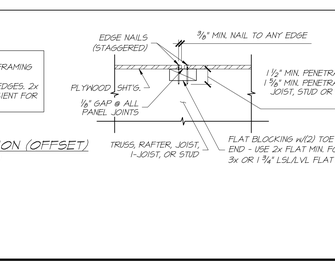


NOTE: OPENINGS TO BE 4'-0" MAXIMUM.

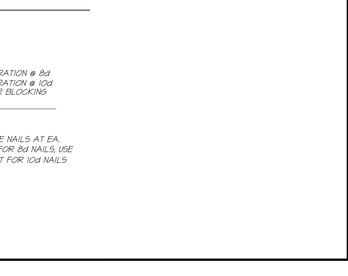
7 / S1.1 DIAPHRAGM OPENING
N.T.S.



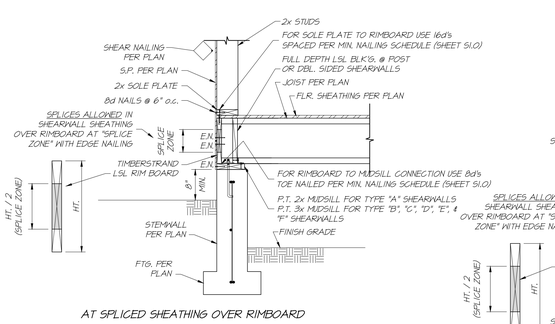
8 / S1.1 STEPPED FOOTING
N.T.S.



9 / S1.1 TYP. CORNER REINFORCING
N.T.S.

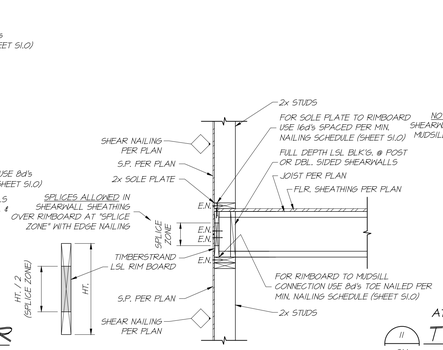


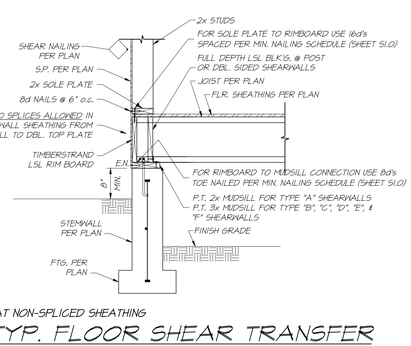
9A / S1.1 POST & BEAM DETAIL
N.T.S.



AT SPLICED SHEATHING OVER RIMBOARD

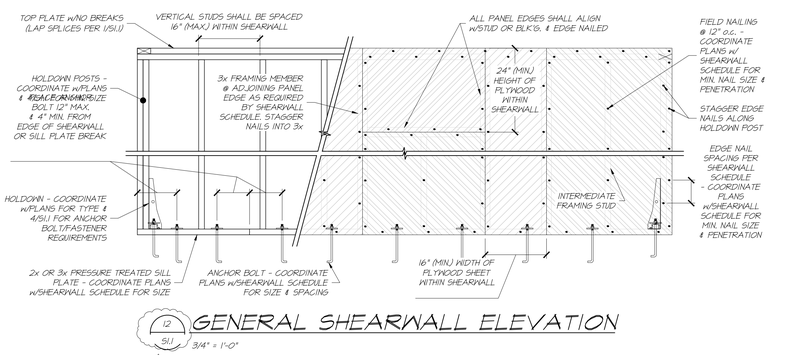
10 / S1.1 TYP. FLOOR SHEAR TRANSFER
N.T.S.





AT NON-SPLICED SHEATHING

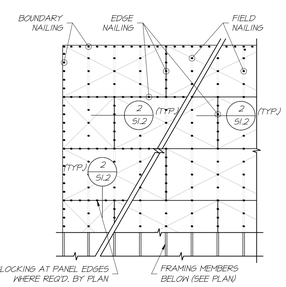
11 / S1.1 TYP. FLOOR SHEAR TRANSFER
N.T.S.



12 / S1.1 GENERAL SHEARWALL ELEVATION
3/4" = 1'-0"

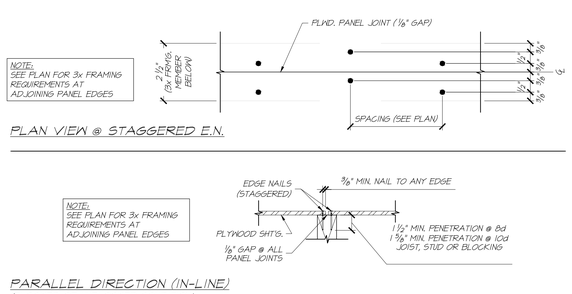
GENERAL NOTES

1. ROOF SHEATHING PANELS SHALL MEET THE FOLLOWING MINIMUM DIMENSIONS:
   A. 2 BAYS/SPANS (32" MIN.) IN THE DIRECTION PERPENDICULAR TO THE FRAMING, NO EXCEPTIONS.
   B. 2'-0" IN THE DIRECTION PARALLEL TO THE ROOF FRAMING. EXCEPTION: PANEL DIMENSION IN THIS DIRECTION MAY BE LESS THAN 2'-0" PROVIDED THAT EACH EDGE IS BLOCKED AND EDGE NAILED.
2. SEE PLAN FOR PLYWOOD THICKNESS AND NAILING.
3. LONG DIMENSION OF PANELS SHALL RUN ACROSS (PERPENDICULAR TO) FRAMING MEMBERS.
4. NAIL EDGE DISTANCE SHALL BE MIN. 3/8" AND SHALL NOT BE DRIVEN THROUGH THE OUTER PLY.
5. CONTINUOUS BLOCKED PANEL EDGES SHALL RECEIVE EDGE NAILING (BLOCKED SHT'G. ONLY).
6. STAGGER END JOINTS 2'-0" MIN. AS SHOWN.
7. ALL JOISTS AND RAFTERS SHALL BE LAID OUT IN A 4'-0" MODULE TO COINCIDE WITH PLYWOOD PATTERN.
8. NAILING SIZE AND SPACING AS NOTED ON PLANS.
9. USE TONGUE & GROOVE PLYWOOD AT FLOORS -SEE PLAN.
10. WHERE JOISTS OR RAFTER LAP SPLICE OCCURS AND PLYWOOD JOINT IS CONTINUOUS, FRAME JOISTS PER DETAIL 15/S9.3.



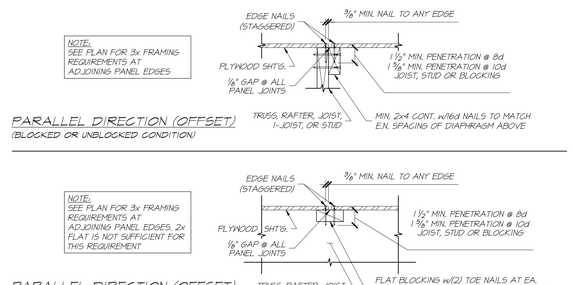
SHEATHING LAYOUT

13 / S1.1 ROOF/FLOOR DIAPHRAGM
N.T.S.



(ROOFS/FLOORS/SHEARWALLS)

14 / S1.1 ADJOINING PANEL EDGES
N.T.S.



GENERAL NOTE:

SPECIFIC DETAILS AND NOTES ON OTHER SHEETS SHALL PREVAIL OVER TYPICAL DETAILS AND NOTES ON THIS SHEET

CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD., SUITE 6, ELK GROVE, CA 95624 T: 916-638-0848

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REGISTERED PROFESSIONAL ENGINEER — No. C60061 EXP. 06/30/23 — STRUCTURAL — STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

Project Name

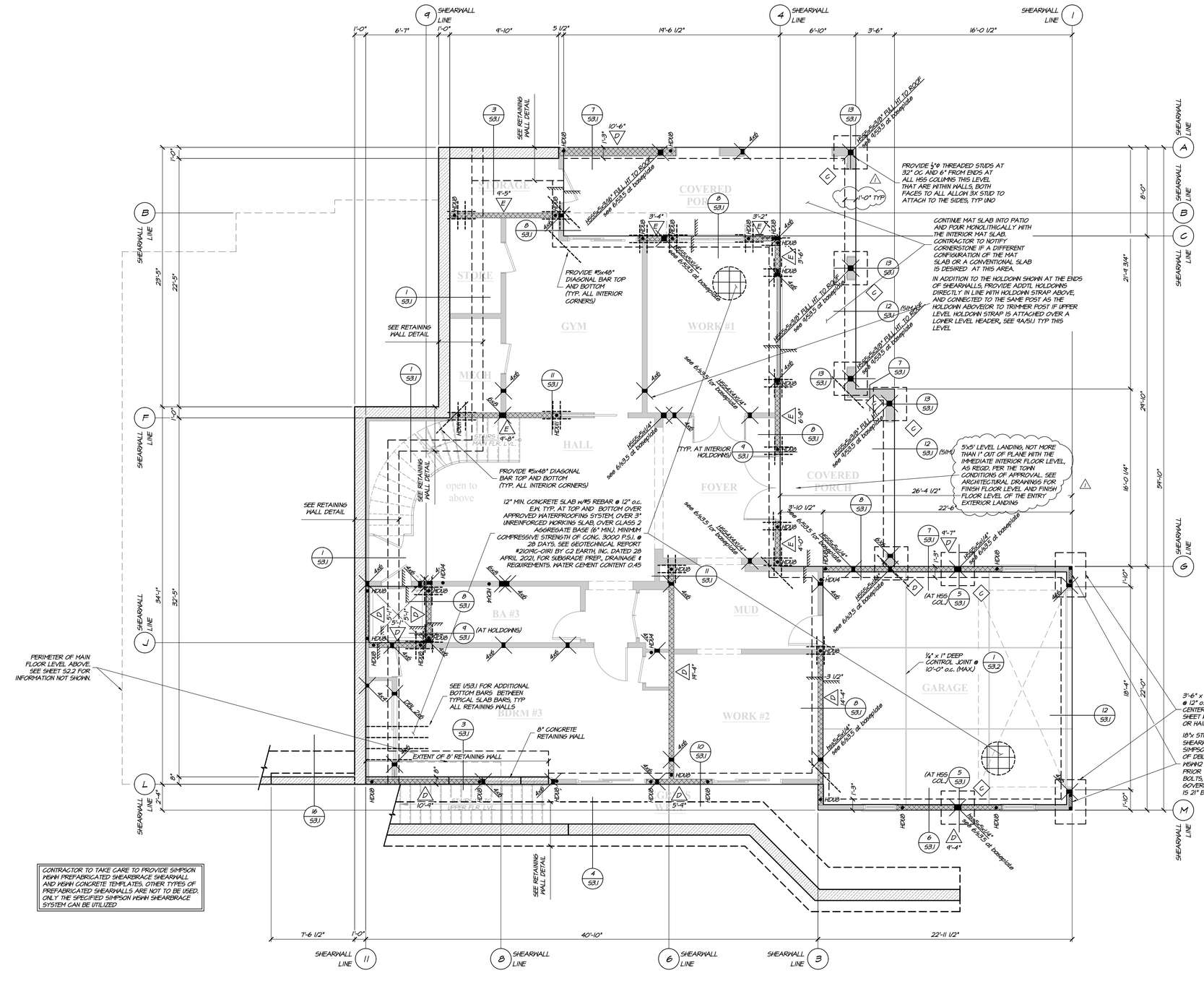
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

TYPICAL DETAILS

REVISIONS	BY	REVISIONS	BY
P.C.K. COMMENT 5-4-22			

PLAN NO.	JOB: 21-038	SHEET NO.
	DR. BLB	S1.1
DATE: 11/29/2021	SC: AS NOTED	



CONTRACTOR TO TAKE CARE TO PROVIDE SIMPSON HSNHI PREFABRICATED SHEARBRACE SHEARWALL AND HSNHI CONCRETE TEMPLATES. OTHER TYPES OF PREFABRICATED SHEARWALLS ARE NOT TO BE USED. ONLY THE SPECIFIED SIMPSON HSNHI SHEARBRACE SYSTEM CAN BE UTILIZED

LEGEND:

1. INDICATES STRUCTURAL POST UP. SIZE, SPECIFICATIONS, ETC... AS INDICATED PER PLAN
2. INDICATES STRUCTURAL POST BELOW. SEE PLAN BELOW FOR SIZE, SPECIFICATIONS, ETC...
3. INDICATES HOLDOWN TO FOUNDATION. PROVIDE 4x POST (MIN. U.N.O.) w/5.P.S. EDGE NAILING FULL HT. TO POST.
4. SHEARWALL REFERENCE MARK
   LENGTH OF SHEARWALL (FT-IN)
5. INDICATES SHEARWALL PANEL FROM THIS LEVEL UP. SHEATHING TO BE PLACED ON SIDE OF REFERENCE MARK.
6. INDICATES A FLR. ELEVATION CHANGE

FOOTING SCHEDULE

PLAN INDICATOR	SIZE
F1	24" X 24" X 12" DEEP
F2	30" X 30" X 12" DEEP
F3	36" X 36" X 18" DEEP
F4	42" X 42" X 18" DEEP

NOTE: ALL FOOTINGS SHALL BE EMBEDDED 12" MINIMUM INTO UNDISTURBED GRADE w/#4 REBAR AT 12" EA. WAY 3" CLEAR FROM BTM. OF FOOTING.

LOWER LEVEL FOUNDATION PLAN

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

15/32" SHEAR WALL SCHEDULE

MK	SHEATHING	EDGE NAILING	ANCHOR BOLTS	PLY., INT. STUD/ SILL PLATE (SEE ⚠ IF 3x RUN)	FLOOR TRANSFER CONNECTIONS *
⚠1	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 6" o.c.	5/8"ø @ 48" o.c.	2x 2x	(C) 16d @ 4" o.c., 9 (D) A35 @ 16" o.c.
⚠2	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 4" o.c.	5/8"ø @ 48" o.c.	3x 3x	(C) SDS25600 @6"o.c.,8 (D) 2-A35 @ 16" o.c.
⚠3	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 3" o.c.	5/8"ø @ 30" o.c.	3x 3x	(C) SDS25600 @6"o.c.,8 (D) A35 @ 16" o.c.
⚠4	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 2" o.c.	5/8"ø @ 24" o.c.	3x 3x	(C) 2-LPT4@16" o.c., 8,9 (D) 2-A35 @ 16" o.c.
⚠5	15/32" STRUCTURAL I SHEATHING (OSB)	10d @ 2" o.c.	5/8"ø @ 12" o.c.	3x 3x	(C) 2-LPT4@16" o.c., 8,9 (D) 3-A35 @ 16" o.c.
⚠6	15/32" STRUCTURAL I SHEATHS (OSB) EA. FACE	10d @ 4" o.c. EA. SIDE	5/8"ø @ 12" o.c.	3x 3x	(C) 2-LPT4@16" o.c., 8,9 (D) 3-A35 @ 16" o.c.
⚠7	15/32" STRUCTURAL I SHEATHS (OSB) EA. FACE	10d @ 3" o.c. EA. SIDE	5/8"ø @ 12" o.c.	3x 3x	(C) 3-LPT4@16" o.c., 8,9 (D) 4-A35 @ 16" o.c.

NOTES: 1. SEE PLANS FOR LOCATION AND SHEAR TRANSFER DETAILS FOR APPLICATION.
2. TYPE "E", "F", "G" SHEAR WALL PANEL JOINTS EA. SIDE TO FALL ON DIFFERENT FRAMING MEMBERS OR 3x SILL AND STUDS PER NOTE 3.
3. PROVIDE 3X MIN. FOUNDATION SILL AND PANEL JOINT MEMBERS FOR SHEAR WALL TYPE "B" THRU "G".
4. STAGGER NAILS @ SCREWS AS REQ'D. TO PREVENT SPLITTING OF RIMBOARD.
5. PROVIDE 1/2" MIN. EDGE NAILING DISTANCE TO ALL DBL. TOP PLATES, RIMBOARDS, STUDS, SOLE PLATES, MUDSILLS, AND ANY OTHER STRUCTURAL MEMBER.
6. PROVIDE 3/4" MIN. EDGE SCREWING DISTANCE TO ALL DBL. TOP PLATES, RIMBOARDS, STUDS, SOLE PLATES, MUDSILLS, AND ANY OTHER STRUCTURAL MEMBER.
7. CONTRACTORS OPTION TO USE ONE SIMPSON LTP4 TIE PLATE @ 16" o.c. FOR TYPE "9" CONNECTION.
8. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 6" o.c. FOR TYPE "9" CONNECTION.
9. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 4" o.c. FOR TYPE "9" CONNECTION.
10. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 3" o.c. FOR TYPE "9" CONNECTION.

FOUNDATION NOTES

1. ALL REINFORCEMENT SHALL BE GRADE 60 U.O.N.
2. ALL REINFORCEMENT SHALL BE PLACED IN CONFORMANCE w/ACI REQUIREMENTS.
3. PROVIDE 1-#4 REBAR TOP & BOTTOM OF ALL CONTINUOUS FOOTINGS, 2 BARS MINIMUM U.N.O.
4. USE 3000 PSI CONCRETE, 5 SACK MIX, 1½" MAX AGGREGATE SIZE.
5. AT NON-SHEARWALL LOCATIONS PROVIDE 5/8" DIA. ANCHOR BOLTS w/7" MINIMUM EMBEDMENT (U.N.O.) @ 4'-0"OC MAXIMUM AT ALL PERIMETER WALLS w/3"x3"x1/4" SQUARE PLATE WASHERS, U.N.O. AT SHEARWALL LOCATIONS SEE SHEARWALL SCHEDULE.
6. ALL HOLDOWNS ARE TO BE FASTENED IN PLACE PRIOR INSPECTION.
7. REFER TO GEOTECHNICAL REPORT NUMBER 210116-01R1 BY C2 EARTH, INC. DATED 28 APRIL 2021 FOR GEOTECHNICAL RECOMMENDATIONS, ALLOWABLE DEAD PLUS LIVE SOIL BEARING PRESSURES.
8. ALL FRAMING LUMBER IN DIRECT CONTACT w/CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR LARCH.
9. ALL HARDWARE SHALL BE SIMPSON STRONG-TIE AND SHALL BE IN PLACE PRIOR TO FOUNDATION INSPECTION. SEE DETAIL 4/S5.1 FOR HOLDOWN INSTALLATION DETAIL.
10. SEE SHEARWALL SCHEDULE FOR SHEAR PANEL INFORMATION.
11. USE CB59 POST BASE @ ALL POST CONNECTIONS OUTSIDE OF WALLS TO FOUNDATION U.N.O.
12. SHEATH ALL EXTERIOR WALLS w/ 15/32" OSB w/8d @6"OC EDGE AND 12"OC FIELD NAILING SEE SHEAR WALL AND BRACED WALL SCHEDULES FOR ADDITIONAL REQUIREMENTS.
13. ALL HARDWARE SPECIFIED SHALL BE SIMPSON STRONG-TIE SHALL BE INSTALLED PER MFR'S RECOMMENDATIONS.
14. ● REPRESENTS SIMPSON HOLDOWN PER PLAN. AT ALL HOLDOWNS, PROVIDE 4X POST OR 2-2x w/FULL HEIGHT S.P. EDGE NAILING U.N.O. NAIL STUD TO STUD w/8d @ 6"OC. SEE DETAIL 4/S5.1
15. SEE S1 SHEETS FOR TYPICAL DETAILS AND GENERAL NOTES.
16. DEEPEN FOOTINGS AS REQUIRED AT HOLDOWNS, SEE DETAIL 4 SHEET S1.1.
17. REFER TO MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION, BRACING, WEB STIFFENERS, AND PENETRATIONS, ETC. FOR ALL I-JOISTS SHOWN ON PLAN.
18. FLOOR PLYWOOD SHALL BE GLUED TO THE TOP OF THE FLOOR JOISTS AND NAILED AS SHOWN UNO
19. ALL STEEL HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED. REFER TO SIMPSON CATALOG FOR CORROSION PROTECTION INFORMATION.
20. CONTRACTOR SHALL PROVIDE ADDITIONAL WIDTH TO THE SIDE OF THE CONCRETE FOOTING OR GRADE BEAM AS REQUIRED TO SUPPORT BRICK, STONE, OR ANY OTHER FINISH MATERIAL IF NOT NOTED ON THE STRUCTURAL DETAILS. NOTIFY CORNERSTONE STRUCTURAL CONSULTANTS PRIOR TO POURING CONCRETE IF ANY ADDITIONAL WIDTHS ARE TO BE ADDED. MINIMUM DEPTH OF ADDITIONAL CONCRETE SHALL BE 9" (VERTICALLY) BELOW THE FINISH.
21. CONTRACTOR SHALL REVIEW THE UNDERFLOOR VENTING REQUIREMENTS AS NOTED ON THE ARCHITECTURAL DRAWINGS AND CONFIRM ALL SIZES AND LOCATIONS WITH ARCHITECT/DESIGNER AND SHALL NOTIFY CORNERSTONE STRUCTURAL CONSULTANTS IN ADVANCE OF CONCRETE POURING IF ANY ALTERATION TO FRAMING OR CONCRETE IS REQUIRED.
22. THE GEOTECHNICAL ASPECTS OF THE CONSTRUCTION, INCLUDING FOUNDATION EXCAVATION, PREPARATION OF SUBGRADE AND BASEROCK, COMPACTION BENEATH THE SLABS, PLACEMENT AND COMPACTION OF ENGINEERED FILL, AND INSTALLATION OF SURFACE DRAINAGE CONTROL SYSTEMS, EARTHWORK, SITE DRAINAGE, SHOULD BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY C2 EARTH, INC., DATED 28 APRIL 2021. C2 EARTH, INC. SHOULD BE PROVIDED AT LEAST 48 HOURS IN ADVANCE NOTIFICATION (408) 866-5436 OF ANY GEOTECHNICAL ASPECTS OF THE CONSTRUCTION AND SHOULD BE PRESENT TO OBSERVE AND TEST THE EARTHWORK, FOUNDATION, AND DRAINAGE INSTALLATION PHASES OF THE PROJECT. INSPECTION AND TESTING REPORTS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT.

CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD., SUITE 6, ELK GROVE, CA 95624 T: 916-638-0848

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REGISTERED PROFESSIONAL ENGINEER — DAVID A. GOTTI — No. C60091 EXP. 06/30/22 — STATE OF CALIFORNIA — CIVIL

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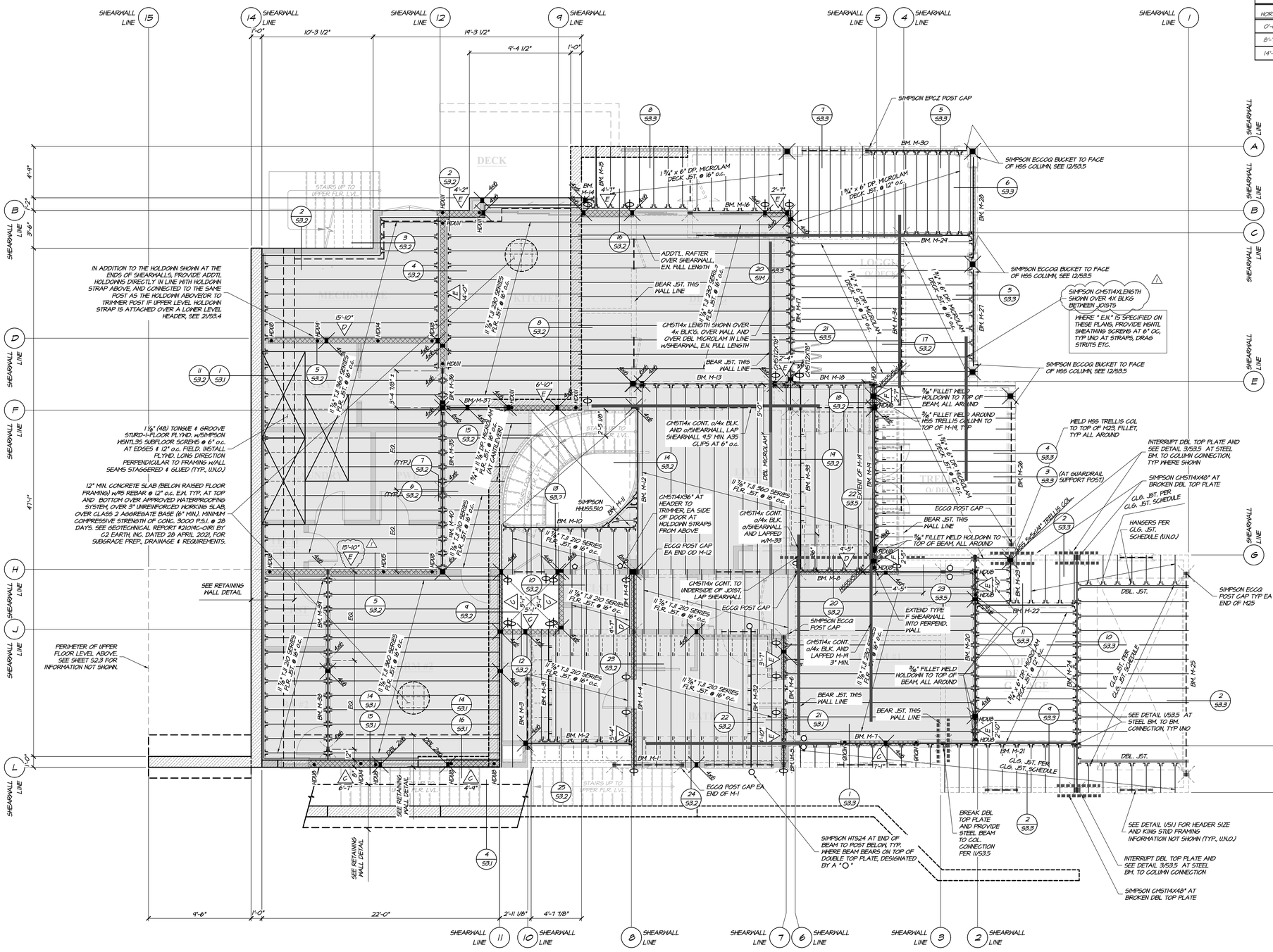
Project Name

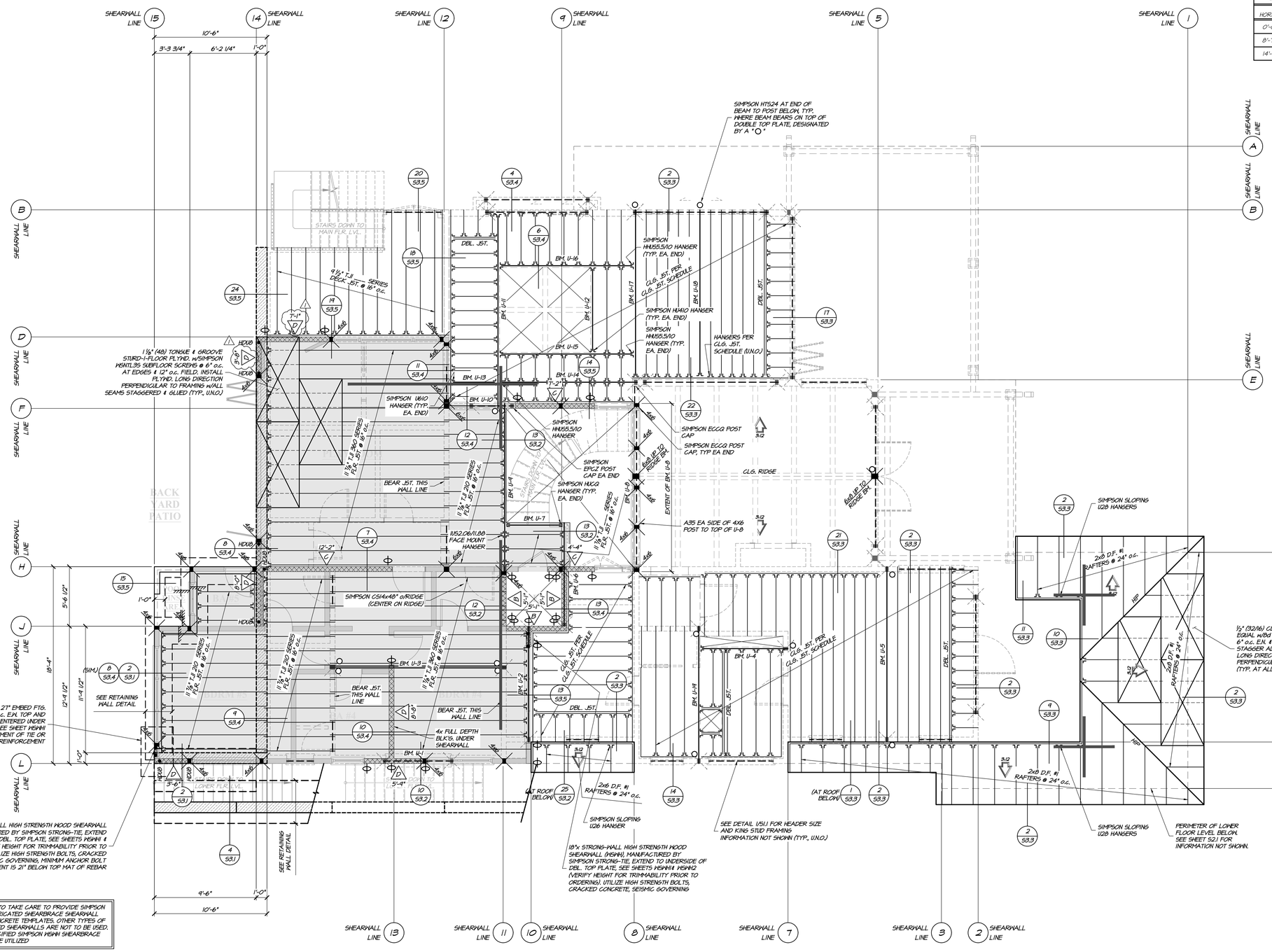
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE
LOWER LEVEL FOUNDATION PLAN

REVISIONS	BY	REVISIONS	BY
⚠1 PCK COMMENT 5-4-22			

PLAN NO.	JOB: 21-038	SHEET NO.
	DR. BLB	S2.1
DATE: 11/29/2021	SC: AS NOTED	


SHEARWALL LINE 15
SHEARWALL LINE 14
SHEARWALL LINE 12
SHEARWALL LINE 9
SHEARWALL LINE 5
SHEARWALL LINE 4
SHEARWALL LINE 1
SHEARWALL LINE A
SHEARWALL LINE B
SHEARWALL LINE C
SHEARWALL LINE D
SHEARWALL LINE E
SHEARWALL LINE F
SHEARWALL LINE G
SHEARWALL LINE H
SHEARWALL LINE J
SHEARWALL LINE K
SHEARWALL LINE L
SHEARWALL LINE M
1'-0"
10'-3 1/2"
14'-3 1/2"
9'-4 1/2"
1'-0"
4'-9"
1'-2"
3'-6"
47'-1"
9'-6"
1'-0"
22'-0"
2'-11 1/8"
4'-7 7/8"
DECK
STAIRS UP TO UPPER FLR. LVL.
SIMPSON EPC7 POST CAP
SIMPSON ECCQQ BUCKET TO FACE OF HSS COLUMN, SEE 12/S3.5
SIMPSON ECCQQ BUCKET TO FACE OF HSS COLUMN, SEE 12/S3.5
SIMPSON ECCQQ BUCKET TO FACE OF HSS COLUMN, SEE 12/S3.5
BM. M-30
BM. M-29
BM. M-24
BM. M-27
BM. M-34
BM. M-17
BM. M-18
BM. M-13
BM. M-36
BM. M-37
BM. M-35
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BM. M-8
BM. M-23
BM. M-22
BM. M-20
BM. M-24
BM. M-25
BM. M-39
BM. M-38
BM. M-32
BM. M-33
BM. M-4
BM. M-3
BM. M-2
BM. M-1
BM. M-21
I 9¼" x 6" DP. MICROLAM DECK J5T. @ 16" o.c.
I 9¼" x 6" DP. MICROLAM DECK J5T. @ 12" o.c.
ADDT'L. RAFTER OVER SHEARWALL, E.N. FILL LENGTH
BEAR J5T. THIS WALL LINE
CMST14x LENGTH SHOWN OVER 4x BLK'G. OVER WALL AND OVER DBL MICROLAM IN LINE w/SHEARWALL, E.N. FILL LENGTH
SIMPSON CMST14XLENGTH SHOWN OVER 4X BLK'G BETWEEN JOISTS
WHERE " E.N." IS SPECIFIED ON THESE PLANS, PROVIDE VENTIL SHEATHING SCREWS AT 6" OC, TYP UNO AT STRAPS, DRAG STRUTS ETC.
IN ADDITION TO THE HOLDOWN SHOWN AT THE ENDS OF SHEARWALLS, PROVIDE ADDTL HOLDOWNS DIRECTLY IN LINE WITH HOLDOWN STRAP ABOVE, AND CONNECTED TO THE SAME POST AS THE HOLDOWN ABOVE(OR TO TRIMMER POST IF UPPER LEVEL HOLDOWN STRAP IS ATTACHED OVER A LOWER LEVEL HEADER, SEE 21/S3.4
1 ½" (48) TONGUE & GROOVE STURD-I-FLOOR FLYND. w/SIMPSON WENTL36 SUBFLOOR SCREWS @ 6" o.c. AT EDGES & 12" o.c. FIELD. INSTALL FLYND. LONG DIRECTION PERPENDICULAR TO FRAMING w/ALL SEAMS STAGGERED & GLUED (TYP., U.N.O.)
12" MIN. CONCRETE SLAB (BELOW RAISED FLOOR FRAMING) w/#5 REBAR @ 12" o.c. E.N. TYP. AT TOP AND BOTTOM OVER APPROVED WATERPROOFING SYSTEM, OVER 3" UNREINFORCED MORKING SLAB, OVER CLASS 2 AGGRESATE BASE (6" MIN.) MINIMUM COMPRESSIVE STRENGTH OF CONC. 3000 P.S.I. @ 28 DAYS. SEE GEOTECHNICAL REPORT #210MC-01R1 BY C2 EARTH, INC. DATED 28 APRIL 2021 FOR SUBGRADE PREP., DRAINAGE & REQUIREMENTS.
SEE RETAINING WALL DETAIL
PERIMETER OF UPPER FLOOR LEVEL ABOVE. SEE SHEET S2.3 FOR INFORMATION NOT SHOWN.
CMST14x CONT. o/4x BLK. AND o/SHEARWALL, LAP SHEARWALL 4.5" MIN. A35 CLIPS AT 6" o.c.
CMST14X36" AT HEADER TO TRIMMER, EA SIDE OF DOOR AT HOLDOWN STRAPS FROM ABOVE
ECCQ POST CAP EA END OD M-12
CMST14x CONT. TO UNDERSIDE OF JOIST, LAP SHEARWALL
ECCQ POST CAP
CMST14x CONT. o/4x BLK. o/SHEARWALL AND LAPPED w/M-33
SIMPSON ECCQ POST CAP
CMST14x CONT. o/4x BLK. AND LAPPED M-19 3" MIN.
BEAR J5T. THIS WALL LINE
ECCQ POST CAP EA END OF M-1
SIMPSON HHUS5.510
EXTEND TYPE F SHEARWALL INTO PERPEND. WALL
3/8" FILLET WELD HOLDOWN TO TOP OF BEAM, ALL AROUND
3/8" FILLET WELD HOLDOWN TO TOP OF BEAM, ALL AROUND
3/8" FILLET WELD AROUND HSS TRELLIS COLUMN TO TOP OF M-19, TYP
WELD HSS TRELLIS COL TO TOP OF M23, FILLET, TYP ALL AROUND
INTERRUPT DBL TOP PLATE AND SEE DETAIL 3/S3.5 AT STEEL BM. TO COLUMN CONNECTION, TYP WHERE SHOWN
SIMPSON CMST14X48" AT BROKEN DBL TOP PLATE
CLG. J5T. PER CLG. J5T. SCHEDULE
HANGERS PER CLG. J5T. SCHEDULE (U.N.O.)
SEE DETAIL 1/S3.1 FOR CONT. CLG. J5T. SCHEDULE
SIMPSON ECCQ POST CAP TYP EA END OF M25
(AT GUARDRAIL SUPPORT POST)
DBL. J5T.
CLG. J5T. PER CLG. J5T. SCHEDULE
SEE DETAIL 1/S3.5 AT STEEL BM. TO COLUMN CONNECTION, TYP UNO
BREAK DBL TOP PLATE AND PROVIDE STEEL BEAM TO COL. CONNECTION PER 11/S3.5
SIMPSON HTS24 AT END OF BEAM TO POST BELOW, TYP. WHERE BEAM BEARS ON TOP OF DOUBLE TOP PLATE, DESIGNATED BY A "O"
SEE DETAIL 1/S3.1 FOR HEADER SIZE AND KING STUD FRAMING INFORMATION NOT SHOWN (TYP., U.N.O.)
INTERRUPT DBL TOP PLATE AND SEE DETAIL 3/S3.5 AT STEEL BM. TO COLUMN CONNECTION
SIMPSON CMST14X48" AT BROKEN DBL TOP PLATE
SEE RETAINING WALL DETAIL
SEE RETAINING WALL DETAIL
11 7/8" TJI 210 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 360 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 230 SERIES FLR. J5T. @ 16" o.c.
9 1/4" x 11 7/8" DP. MICROLAM FLR. J5T. @ 16" o.c. (AT CANTILEVER)
9 1/4" x 14" DP. MICROLAM FLR. J5T. @ 16" o.c.
9 1/4" x 9 1/4" DBL MICROLAM
9 1/4" x 7" DP. MICROLAM DECK J5T. @ 16" o.c.
9 1/4" x 7" DP. MICROLAM DECK J5T. @ 12" o.c.
9 1/4" x 6" DP. MICROLAM DECK J5T. @ 16" o.c.
9 1/4" x 6" DP. MICROLAM DECK J5T. @ 12" o.c.
9 1/4" x 14" DP. MICROLAM FLR. J5T. @ 16" o.c.
9 1/4" x 11 7/8" DP. MICROLAM FLR. J5T. @ 16" o.c.
9 1/4" x 11 7/8" DP. MICROLAM FLR. J5T. @ 12" o.c.
11 7/8" TJI 230 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 360 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 210 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 230 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 360 SERIES FLR. J5T. @ 16" o.c.
11 7/8" TJI 210



UPPER LEVEL FOUNDATION/FLOOR FRAMING PLAN

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

CEILING JOIST SCHEDULE

MAXIMUM HORIZONTAL SPAN	SIZE/SPACING	TYPICAL HANGER (U.N.O.)
0'-0" THRU 8'-6"	2x4 DOUG FIR #2 @ 16" o.c.	LUS24 (4 LUS24-2 @ DBL. JST.)
8'-7" THRU 14'-0"	2x6 DOUG FIR #2 @ 16" o.c.	LUS26 (4 LUS26-2 @ DBL. JST.)
14'-1" THRU 16'-3"	2x6 DOUG FIR #1 @ 12" o.c.	LUS26 (4 LUS26-2 @ DBL. JST.)

HIP/VALLEY BEAM SCHEDULE

HORIZONTAL SPAN	MEMBER
0'-10'	1¾" x 11 ¼" MSR20.4M
10'-15'	2 - 1¾"x11 ¼" MSR20LAMS (STITCH NAILED)

UPPER LEVEL FRM'G. BEAM SCHEDULE

MARK	SIZE	BEAM ELEVATION (U.N.O.)
U-1	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-2	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-3	7"x 11 7/8" versalam 3100, 2.0e	-
U-4	4x12 df#1	-
U-5	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-6	7"x 11 7/8" versalam 3100, 2.0e	-
U-7	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-8	7"x 18" versalam 3100, 2.0e	-
U-9	7"x 11 7/8" versalam 3100, 2.0e	-
U-10	5 1/4"x 14" versalam 3100, 2.0e	-
U-11	7"x 11 7/8" versalam w 1 9/32"x 11 7/8" microlam to one side, stitch screw with 3 rows @ 12" o.c.	-
U-12	3 1/2"x 11 7/8" versalam 3100, 2.0e	-
U-13	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-14	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-15	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-16	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-17	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-18	5 1/4"x 11 7/8" versalam 3100, 2.0e	-
U-19	3 1/2"x 11 7/8" versalam 3100, 2.0e	-
-	-	-
-	-	-
-	-	-

15/32" SHEAR WALL SCHEDULE

MK	SHEATHING	EDGE NAILING	ANCHOR BOLTS	PLY. AT STRUCT SILL PLATE SEE #2 & #3 BLW.	FLOOR TRANSFER CONNECTIONS 4
1	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 6" o.c.	⅝"ø @ 48" o.c.	2x	(C) 16d @ 4" o.c. 9
				2x	(D) A35 @ 16" o.c.
2	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 4" o.c.	⅝"ø @ 48" o.c.	3x	(C) SDS25600 @6"o.c. 9
				3x	(D) 2-A35 @ 16" o.c.
3	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 3" o.c.	⅝"ø @ 30" o.c.	3x	(C) SDS25600 @6"o.c. 6,7
				3x	(D) 2-A35 @ 16" o.c.
4	15/32" STRUCTURAL I SHEATHING (OSB)	8d @ 2" o.c.	⅝"ø @ 24" o.c.	3x	(C) 2-LPT4@16" o.c. 6,7
				3x	(D) 2-A35 @ 16" o.c.
5	15/32" STRUCTURAL I SHEATHING (OSB)	10d @ 2" o.c.	⅝"ø @ 12" o.c.	3x	(C) 2-LPT4@16" o.c. 6,7
				3x	(D) 3-A35 @ 16" o.c.
6	15/32" STRUCTURAL I SHEATHING (OSB) EA FACE	10d @ 4" o.c. EA. SIDE	⅝"ø @ 12" o.c.	3x	(C) 2-LPT4@16" o.c. 6,7
				3x	(D) 3-A35 @ 16" o.c.
7	15/32" STRUCTURAL I SHEATHING (OSB) EA FACE	10d @ 3" o.c. EA. SIDE	⅝"ø @ 12" o.c.	3x	(C) 3-LPT4@16" o.c. 6,10
				3x	(D) 4-A35 @ 16" o.c.

NOTES: 1. SEE PLANS FOR LOCATION AND SHEAR TRANSFER DETAILS FOR APPLICATION.
2. TYPE "B", "F" "G" SHEAR WALL PANEL JOINTS EA. SIDE TO FALL ON DIFFERENT FRAMING MEMBERS OR 3x SILL AND STUDS PER NOTE 3.
3. PROVIDE 3X MIN. FOUNDATION SILL AND PANEL JOINT MEMBERS FOR SHEAR WALL TYPE "B", THRU "G".
4. STAGGER NAILS 4 SCREWS AS REQ'D. TO PREVENT SPLITTING OF RIMBOARD.
5. PROVIDE 1 MIN. EDGE MARGIN DISTANCE TO ALL DBL. TOP PLATES, RIMBOARDS, STUDS, SOLE PLATES, HEADERS, AND ANY OTHER STRUCTURAL MEMBERS.
6. PROVIDE 2" MIN. EDGE MARGIN DISTANCE TO ALL DBL. TOP PLATES, RIMBOARDS, STUDS, SOLE PLATES, HEADERS, AND ANY OTHER STRUCTURAL MEMBERS.
7. CONTRACTORS OPTION TO USE ONE SIMPSON LPT4 TIE PLATE @ 16" o.c. FOR TYPE "3" CONNECTION.
8. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 6" o.c. FOR TYPE "4" CONNECTION.
9. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 4" o.c. FOR TYPE "5" CONNECTION.
10. CONTRACTORS OPTION TO USE ONE SIMPSON SDS25500 SCREW @ 3" o.c. FOR TYPE "6" CONNECTION.

LEGEND:

1. INDICATES STRUCTURAL POST UP. SIZE, SPECIFICATIONS, ETC... AS INDICATED PER PLAN
2. INDICATES STRUCTURAL POST BELOW. SEE PLAN BELOW FOR SIZE, SPECIFICATIONS, ETC...
3. INDICATES VERTICALLY ORIENTED CMST14X78" STRAP. SEE DETAILS 16/S3.4 AND 17/S3.4.
4. SHEARWALL REFERENCE MARK. LENGTH OF SHEARWALL (FT-IN)
5. INDICATES SHEARWALL PANEL FROM THIS LEVEL UP. SHEATHING TO BE PLACED ON SIDE OF REFERENCE MARK.
6. INDICATES CONCRETE RETAINING WALLS BELOW. SEE S2.2 FOR INFORMATION NOT SHOWN.
7. INDICATES UPPER LEVEL WALLS ABOVE
8. INDICATES MAIN LEVEL WALLS BELOW
9. INDICATES A FLR. ELEVATION CHANGE

FRAMING NOTES

1. ALL HARDWARE SHALL BE SIMPSON STRONG-TIE AND SHALL BE IN PLACE PRIOR TO INSPECTION.
2. JOISTS SPACING SHALL BE 16"OC MAX. U.O.N. SIZES AS NOTED ON PLAN.
3. SHEATH ALL EXTERIOR WALLS w/ 15/32" OSB w/ 8d @ 6"OC EDGE AND 12"OC FIELD NAILING, SEE SHEAR PALL AND BRACED WALL SCHEDULES FOR ADDITIONAL REQUIREMENTS.
4. ALL LOWER FLOOR BRG. WALL HEADERS AT BRACED PANEL WALL LINES SHALL BE 4x12 D.F. NO. 2, U.O.N.
5. ALL FRAMING SHALL BE INSTALLED IN COMPLIANCE WITH 2019 CBC & CRC REQUIREMENTS.
6. ALL BEAMS AND HEADERS SHALL BE SUPPORTED WITH FULL BEARING, USE #2 DF-L SUPPORTS, U.O.N.
7. ALL DOUBLE TOP PLATES OF BEARING WALLS SHALL BE #2 DF-L, FOR DESIGNATED SHEAR WALL LINES, LAP SPLICES SHALL BE 48" w/24-16d OR CS14x42" STRAP, U.O.N.
8. SEE DETAIL 1/S1.1 FOR TYPICAL BEARING WALL FRAMING INFORMATION.
9. ALL POSTS ARE 4x4 D.F. #2, TYP. UNO
10. ALL SOLID SAWN BEAMS ARE DOUGLAS FIR #2 UNO
11. PROVIDE 4x POSTS UNDER ALL GIRDER TRUSSES UNO
12. ALL POST CAPS ARE EC6Z/EC6Z POST CAPS TYP. UNO
13. SEE SI SHEETS FOR TYPICAL DETAILS AND NOTES NOT SHOWN HERE
14. SLOPING HANGER TO BE USED AT ALL SLOPING MEMBERS UNO
15. PROVIDE DBL. JOIST AND BLK'G. UNDER ALL FIREPLACE STONE, ROCK, OR BRICK FACED HEARTHS
16. FULL DEPTH, 4x K.D.D.F. SQUASH BLOCKS SHALL BE USED UNDER ALL POSTS AT SECOND LEVEL AND SHALL BEAR TIGHT ON DOUBLE TOP PLATES, BEAMS, OR POSTS AT FIRST LEVEL.
17. PROVIDE WEB STIFFENERS AT ALL END AND INTERMEDIATE JOIST BEARING LOCATIONS. REFER TO TJI RECOMMENDATIONS FOR ALL FRAMING STIFFENERS, HOLES, NAILING, ETC..
18. FLOOR PLYWOOD SHALL BE GLUED TO THE TOP OF THE FLOOR JOISTS AND NAILED AS SHOWN UNO

CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD., SUITE A, ELK GROVE, CA 95624 T: 916-638-4848

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REGISTERED PROFESSIONAL ENGINEER — ROBERT A. CORTTEN — No. C60081 — EXP. 06/30/23 — STRUCTURAL — STATE OF CALIFORNIA

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Project Name

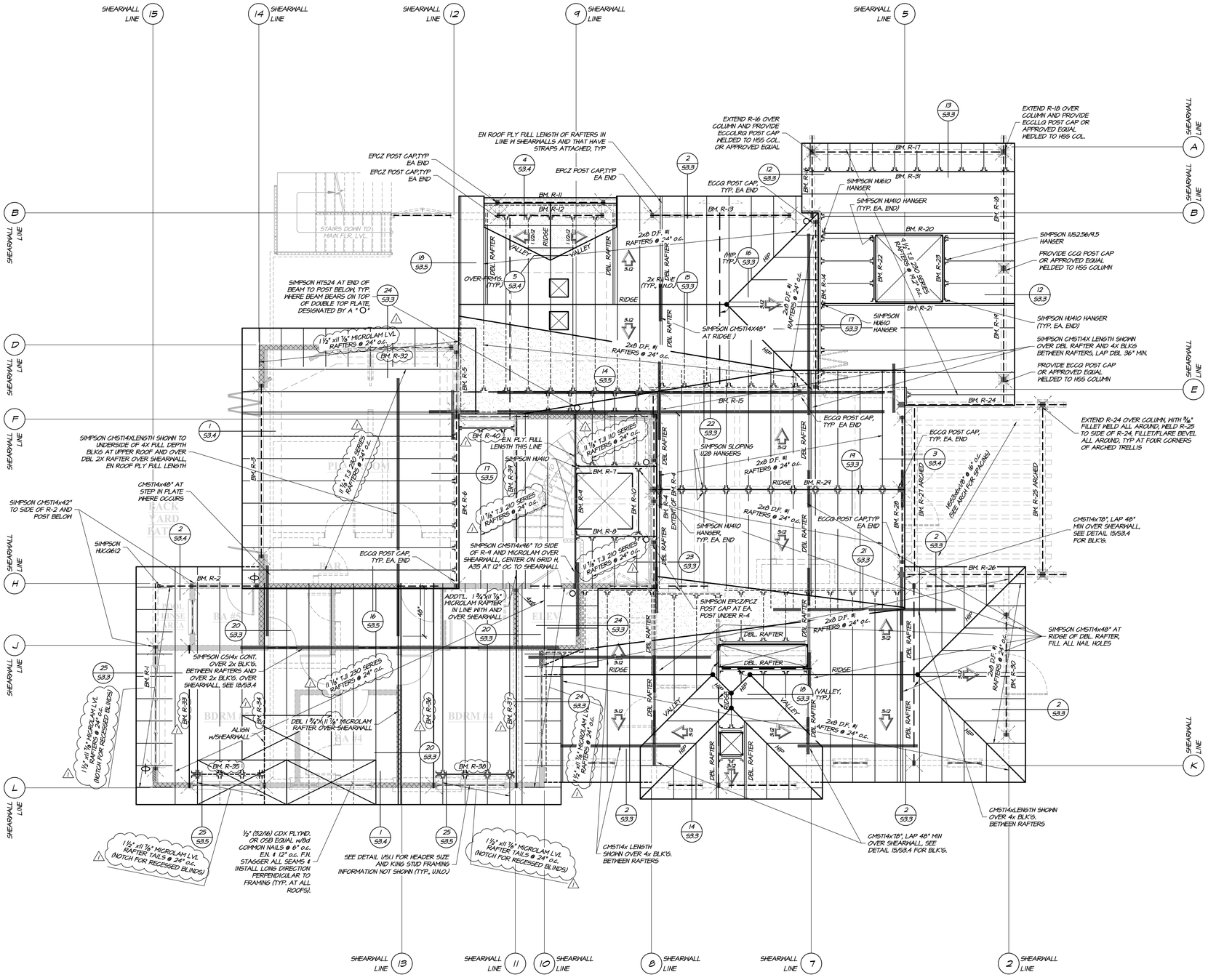
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

UPPER LEVEL FLOOR FRAMING PLAN

REVISIONS	BY	REVISIONS	BY
1 P.C.K. COMMENT 5-4-22			

PLAN NO.	JOB: 21-038	SHEET NO.
	DR. BLB	S2.3
DATE: 11/29/2021	SC: AS NOTED	



ROOF FRAMING PLAN

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

HIP/VALLEY BEAM SCHEDULE

HORIZONTAL SPAN	MEMBER
0-10'	1¾" x 11⅞" MICROLAM
10'-15'	2 - 1¾"x11 ⅞" MICROLAMS (TYPICAL NAILED)

ROOF FRAMING BEAM SCHEDULE

MARK	SIZE	BEAM ELEVATION (+/-)
R-1	5 1/4"x11 1/4" versalam 3100, 2.0e	-
R-2	5 1/4"x11 1/4" versalam 3100, 2.0e	-
R-3	5 1/4"X 14" versalam 3100, 2.0e	-
R-4	5 1/4"x9 1/4" versalam 3100, 2.0e	-
R-5	6x10 DF#1	-
R-6	3 1/2"x10 versalam 3100, 2.0e	-
R-7	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-8	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-9	7"x9 1/2" versalam w 1 3/4"x 9 1/2" microlam w 3-rails at 12" o.c. full length	-
R-10	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-11	5 1/4"x9 1/4" versalam 3100, 2.0e	-
R-12	3 1/2"x14" versalam 3100, 2.0e	-
R-13	5 1/4"x11 7/8" versalam 3100, 2.0e	-
R-14	5 1/4"x16" versalam 3100, 2.0e	-
R-15	5 1/4"x11 7/8" versalam 3100, 2.0e	-
R-16	6x12 pt. df #1	-
R-17	6x12 pt. df #1	-
R-18	6x12 pt. df #1	-
R-19	6x12 pt. df #1	-
R-20	5 1/4"x9 1/2" versalam 3100, 2.0e	-
R-21	5 1/4"x9 1/2" versalam 3100, 2.0e	-
R-22	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-23	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-24	HSS 10x5x1/4"	-
R-25	HSS 10x5x1/4"	-
R-26	HSS 10x5x1/4"	-
R-27	HSS 10x5x1/4"	-
R-28	5 1/4"x14" versalam 3100, 2.0e	-
R-29	6 3/4"x 18" dF 24f-v4 glu lam beam	-
R-30	6x12 df#1	-
R-31	5 1/4"x9 1/2" versalam 3100, 2.0e	-
R-32	5 1/4"x9 1/2" versalam 3100, 2.0e	-
R-33	3 1/2"x9 1/2" versalam 3100, 2.0e	-
R-34	3 1/2"x11 1/8" versalam 3100, 2.0e	-
R-35	3 1/2"x11 1/8" versalam 3100, 2.0e	-
R-36	3 1/2"x11 1/8" versalam 3100, 2.0e	-
R-37	3 1/2"x11 1/8" versalam 3100, 2.0e	-
R-38	3 1/2"x11 1/8" versalam 3100, 2.0e	-
R-39	-	-
R-40	-	-
-	-	-
-	-	-

FRAMING NOTES

1. ALL HARDWARE SHALL BE SIMPSON STRONG-TIE AND SHALL BE IN PLACE PRIOR TO INSPECTION.
2. JOISTS SPACING SHALL BE 16"OC MAX, U.O.N. SIZES AS NOTED ON PLAN.
3. SHEATH ALL EXTERIOR WALLS w/ 15/32" OSB w/8d @ 6"OC EDGE AND 12"OC FIELD NAILING, SEE SHEAR WALL AND BRACED WALL SCHEDULES FOR ADDITIONAL REQUIREMENTS.
4. ALL LOWER FLOOR BRG. WALL HEADERS AT BRACED PANEL WALL LINES SHALL BE 4x12 D.F. NO. 2, U.O.N.
5. ALL FRAMING SHALL BE INSTALLED IN COMPLIANCE WITH 2019 CBC & CRC REQUIREMENTS.
6. ALL BEAMS AND HEADERS SHALL BE SUPPORTED WITH FULL BEARING, USE #2 DF-L SUPPORTS, U.O.N.
7. ALL DOUBLE TOP PLATES OF BEARING WALLS SHALL BE #2 DF-L. FOR DESIGNATED SHEAR WALL LINES, LAP SPLICES SHALL BE 48" w/24-16d OR CS14x42" STRAP, U.O.N.
8. SEE DETAIL I/S1.1 FOR TYPICAL BEARING WALL FRAMING INFORMATION.
9. ALL POSTS ARE 4x4 D.F. #2, TYP. U.N.O
10. ALL SOLID SAWN BEAMS ARE DOUGLAS FIR #2 U.N.O
11. PROVIDE 4x POSTS UNDER ALL GIRDER TRUSSES U.N.O
12. ALL POST CAPS ARE ECQQ/ECQQ POST CAPS TYP. U.N.O
13. SEE SI SHEETS FOR TYPICAL DETAILS AND NOTES NOT SHOWN HERE
14. SLOPING HANGER TO BE USED AT ALL SLOPING MEMBERS U.N.O
15. RAFTERS SHALL BE NAILED TO ADJACENT CEILING JOISTS FOR A CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS, WHERE NOT PARALLEL, RAFTERS SHALL BE TIED TO 1-INCH BY 4-INCH (NOMINAL) MINIMUM-SIZE CROSSTIES. RAFTER TIES SHALL BE SPACED NOT MORE THAN 4-FEET ON CENTER.

LEGEND:

1. INDICATES STRUCTURAL POST UP. SIZE, SPECIFICATIONS, ETC... AS INDICATED PER PLAN
2. INDICATES STRUCTURAL POST BELOW. SEE PLAN BELOW FOR SIZE, SPECIFICATIONS, ETC...
3. INDICATES SHEARWALL PANEL BELOW. SEE PLAN LEVELS BELOW FOR MIN. LENGTH OF WALL & NAILING REQUIREMENTS.
4. INDICATES EXTENT OF CALIFORNIA OVERFRAMING (2x6 D.F #2 @ 24" o.c., TYP. w/8'-0" MAX. UNSUPPORTED LENGTH)
5. INDICATES 2x DIAGONAL BRACE PER PLAN TO SUPPORTING MEMBER BELOW
6. INDICATES UPPER LEVEL FLOOR WALLS BELOW
7. INDICATES MAIN LEVEL WALLS BELOW

CORNERSTONE STRUCTURAL CONSULTANTS
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REGISTERED PROFESSIONAL ENGINEER — No. C80081 — EXP. 06/30/22 — STATE OF CALIFORNIA

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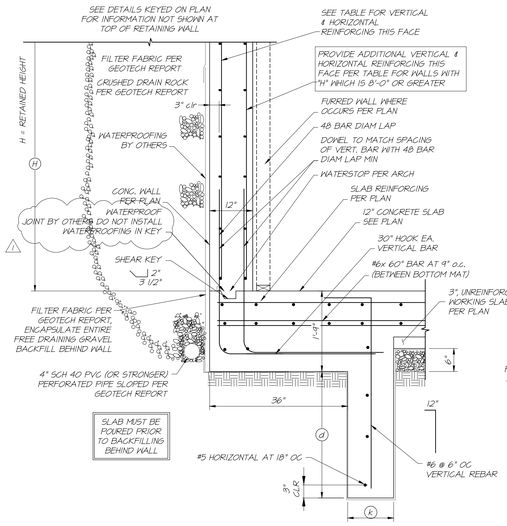
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

ROOF FRAMING PLAN

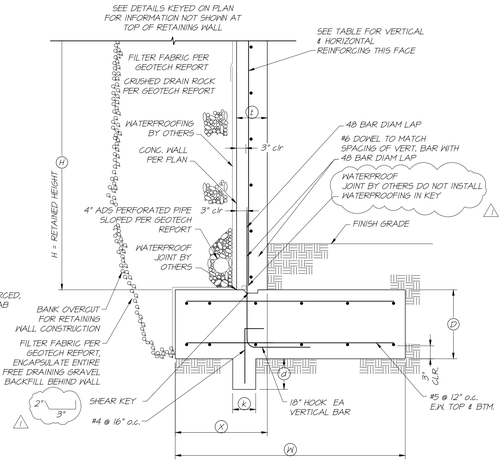
REVISIONS	BY	REVISIONS	BY
⚠ PCK COMMENT 5-4-22			

PLAN NO.	JOB: 21-038	SHEET NO.
	DR. BLB	S2.4
DATE: 11/29/2021	SC: AS NOTED	



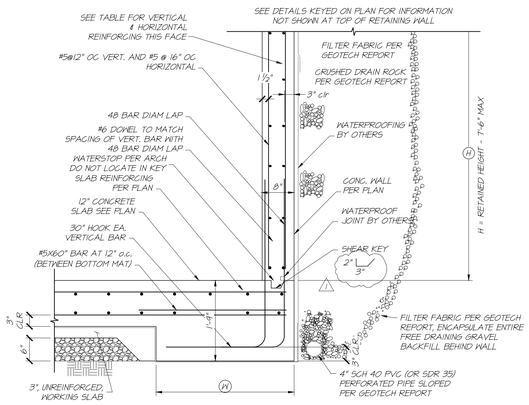
RETAINING WALL TABLE								
(H) MAX FT.	(k)	(D)	(d)	VERTICAL BARS	HORIZONTAL BARS
9'-0"	12"	1'-9"	44"	#6 @ 10" o.c.	#5 @ 12" o.c.

1 DETAIL
531 3/4" = 1'-0"



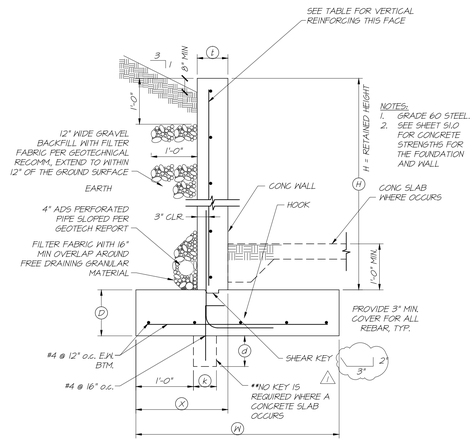
RETAINING WALL TABLE								
(H) MAX FT.	(k)**	(W)	(D)	(X)	(d)**	(t)	VERTICAL BARS	HORIZONTAL BARS
3'-6"	8"	2'-6"	1'-6"	1'-0"	12"	8"	#5 @ 12" o.c.	#5 @ 16" o.c.
5'-0"	8"	3'-9"	1'-6"	1'-6"	18"	8"	#5 @ 10" o.c.	#5 @ 12" o.c.

2 DETAIL
531 3/4" = 1'-0"



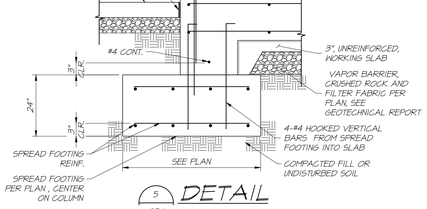
RETAINING WALL TABLE			
(H) MAX FT.	(W)	VERTICAL BARS	HORIZONTAL BARS
7'-6"	3'-0"	#6 @ 9" o.c.	#5 @ 12" o.c.

3 DETAIL
531 3/4" = 1'-0"

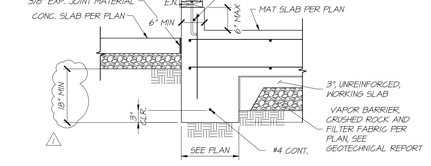


RETAINING WALL TABLE								
(H)	(k)**	(W)	(D)	(X)	(d)**	(t)	VERTICAL BARS	HORIZONTAL BARS
2'-6"	8"	1'-9"	1'-0"	1'-0"	0"	8"	#4 @ 16" o.c.	#5 @ 16" o.c.
3'-6"	8"	2'-3"	1'-6"	1'-3"	8"	8"	#5 @ 12" o.c.	#5 @ 16" o.c.
5'-6"	8"	3'-6"	1'-6"	1'-6"	12"	8"	#5 @ 12" o.c.	#5 @ 16" o.c.

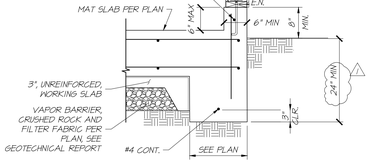
4 DETAIL
531 3/4" = 1'-0"



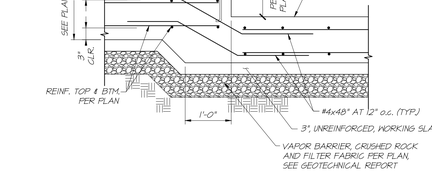
5 DETAIL
531 3/4" = 1'-0"



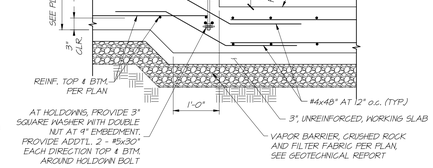
6 DETAIL
531 3/4" = 1'-0"



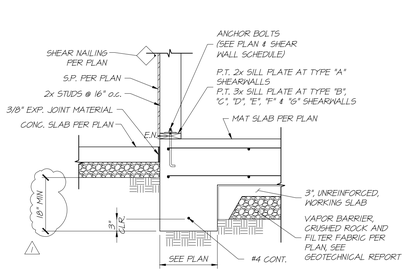
7 DETAIL
531 3/4" = 1'-0"



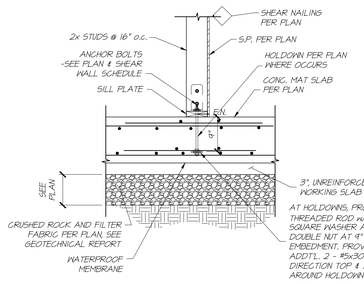
8 DETAIL
531 3/4" = 1'-0"



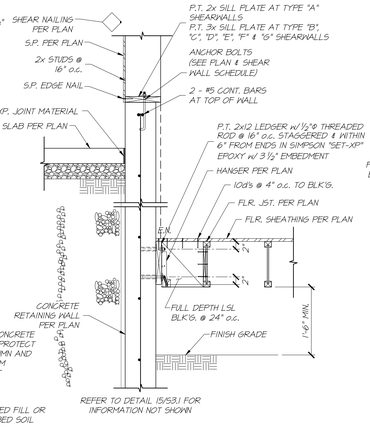
9 DETAIL
531 3/4" = 1'-0"



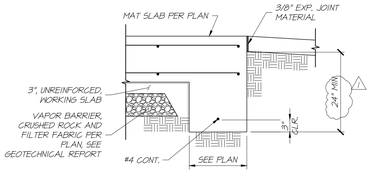
10 DETAIL
531 3/4" = 1'-0"



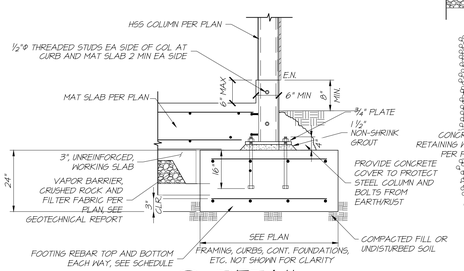
11 DETAIL
531 3/4" = 1'-0"



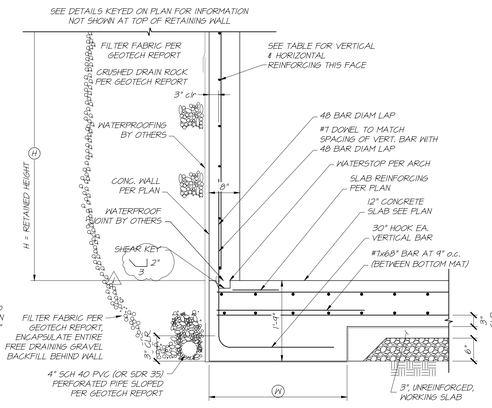
14 DETAIL
531 3/4" = 1'-0"



12 DETAIL
531 3/4" = 1'-0"

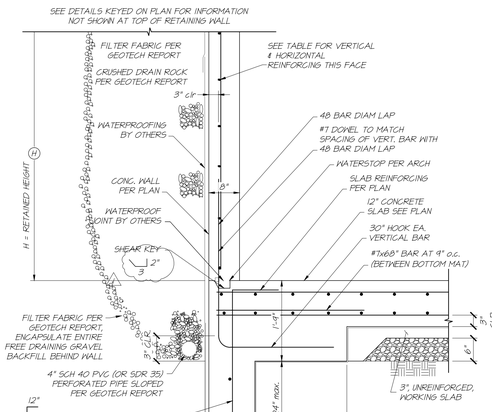


13 DETAIL
531 3/4" = 1'-0"



RETAINING WALL TABLE			
(H)	(W)	VERTICAL BARS	HORIZONTAL BARS
5'-0"	2'-0"	#5 @ 12" o.c.	#5 @ 16" o.c.
6'-8"	2'-6"	#6 @ 11" o.c.	#5 @ 16" o.c.
7'-8"	3'-0"	#6 @ 7" o.c.	#5 @ 16" o.c.

15 DETAIL
531 3/4" = 1'-0"



RETAINING WALL TABLE			
(H)	(W)	VERTICAL BARS	HORIZONTAL BARS
6'-0"	3'-6"	#5 @ 9" o.c.	#5 @ 16" o.c.

16 DETAIL
531 3/4" = 1'-0"

CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD., SUITE 6, ELK GROVE, CA 95624 T: 916-638-8848

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REGISTERED PROFESSIONAL ENGINEER
TODD A. COURTEL
No. C60081
EXP. 06/30/22
STRUCTURAL
STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

Project Name

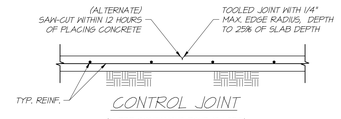
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

STRUCTURAL DETAILS

REVISIONS	BY	REVISIONS	BY
PCK COMMENT 5-4-22			

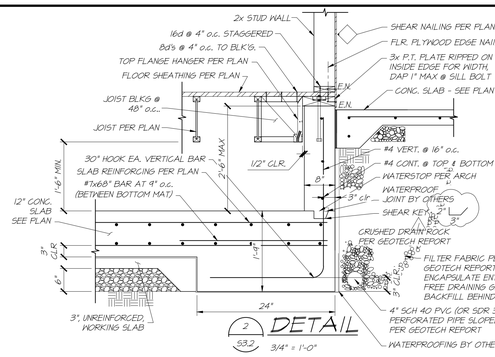
PLAN NO.
JOB: 21-038
DR. BLB
DATE: 11/29/2021
SC: AS NOTED
SHEET NO. S3.1

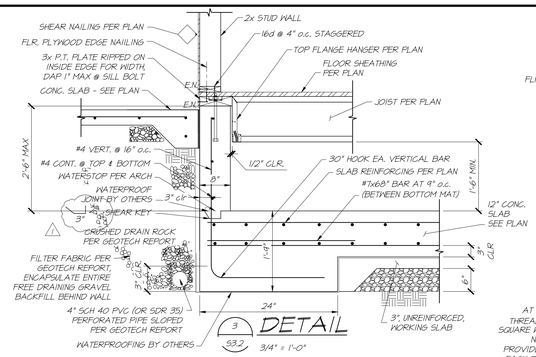


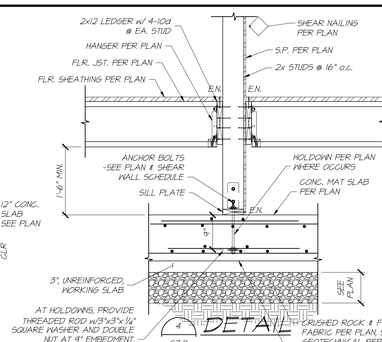
CONTROL JOINT

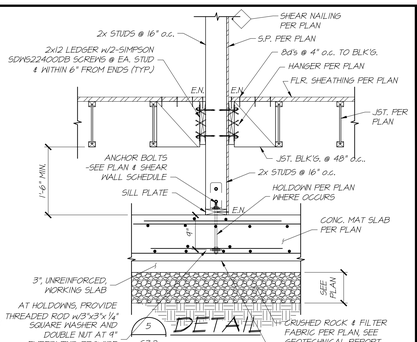
(WHERE CONTINUOUS POUR IS USED)

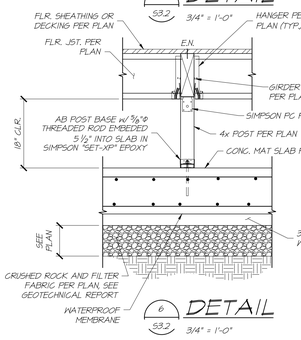
NOTE: LOCATE CONTROL AND CONSTRUCTION JOINTS AS INDICATED PER PLAN.

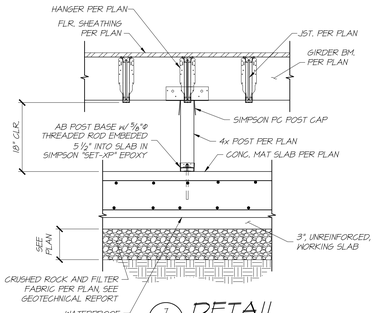


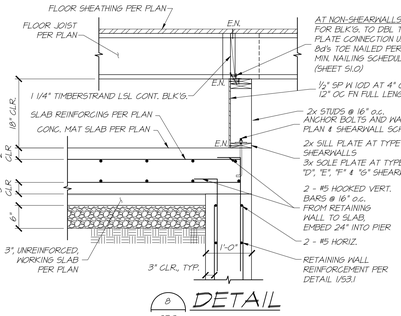


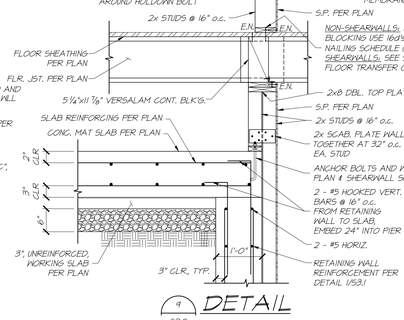


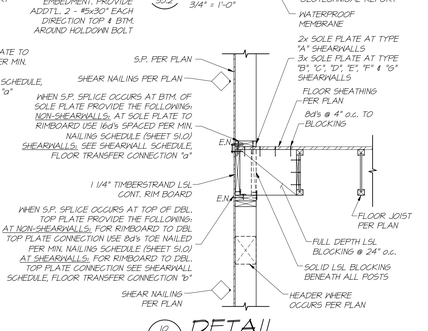


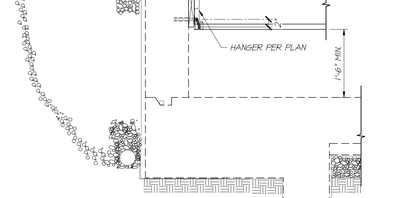


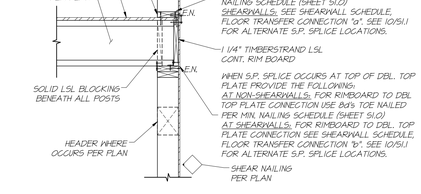






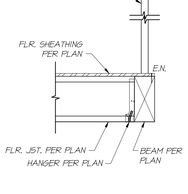


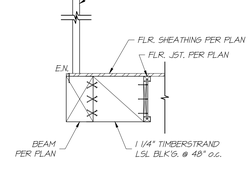


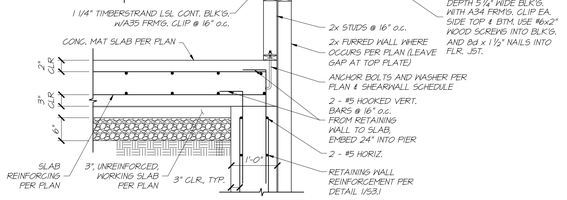


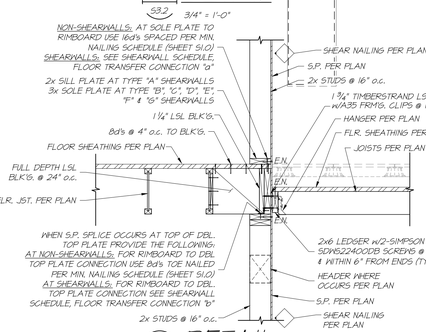
WHEN S.P. SPLICE OCCURS AT BTM. OF SOLE PLATE PROVIDE THE FOLLOWING: NON-SHEARWALLS: AT SOLE PLATE TO RIMBOARD USE 16d's SPACED PER MIN. NAILING SCHEDULE (SHEET S1.0) SHEARWALLS: SEE SHEARWALL SCHEDULE, FLOOR TRANSFER CONNECTION "a". SEE 1/S1.1 FOR ALTERNATE S.P. SPLICE LOCATIONS.

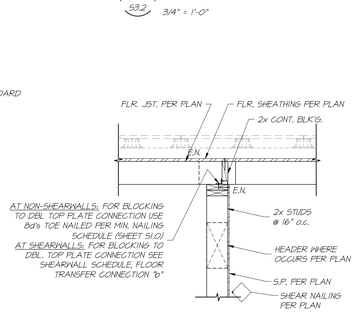
WHEN S.P. SPLICE OCCURS AT TOP OF DBL. TOP PLATE PROVIDE THE FOLLOWING: NON-SHEARWALLS: FOR RIMBOARD TO DBL TOP PLATE CONNECTION USE 8d's TOE NAILED PER MIN. NAILING SCHEDULE (SHEET S1.0) AT SHEARWALLS: FOR RIMBOARD TO DBL. TOP PLATE CONNECTION SEE SHEARWALL SCHEDULE, FLOOR TRANSFER CONNECTION "b". SEE 1/S1.1 FOR ALTERNATE S.P. SPLICE LOCATIONS.

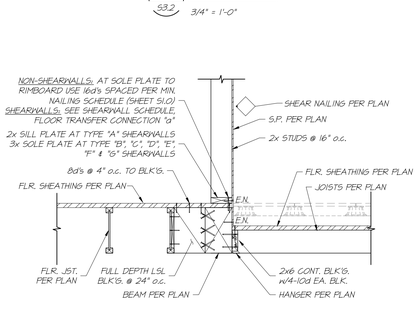


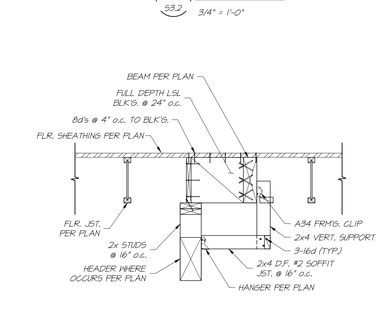


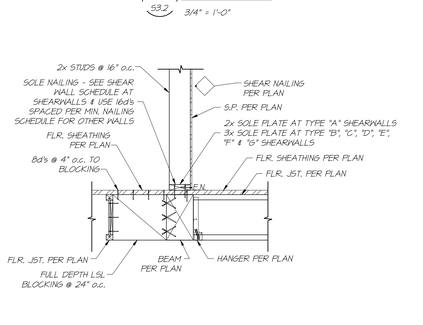


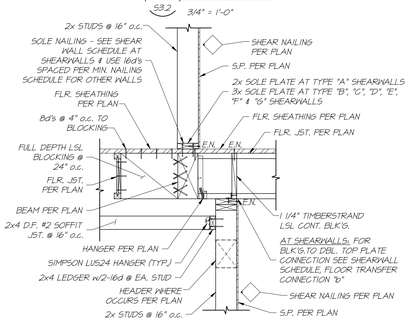


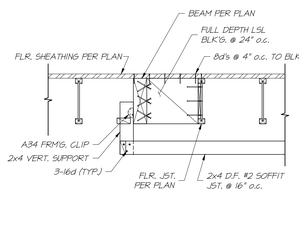


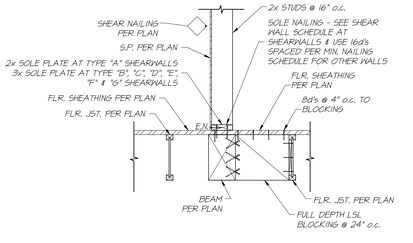


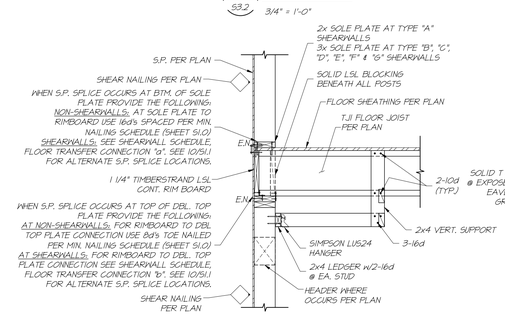


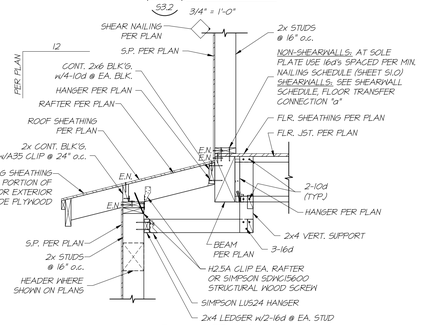












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REGISTERED PROFESSIONAL ENGINEER — CHAD A. GOTTI — No. C60091 EXP. 06/30/22 — CIVIL — STATE OF CALIFORNIA

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Project Name

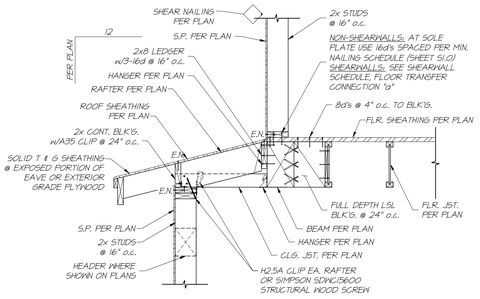
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

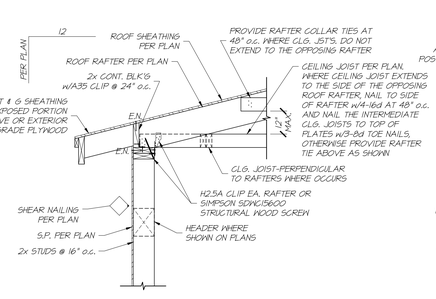
STRUCTURAL DETAILS

REVISIONS	BY	REVISIONS	BY
1 P.C.K. COMMENT 5-4-22			

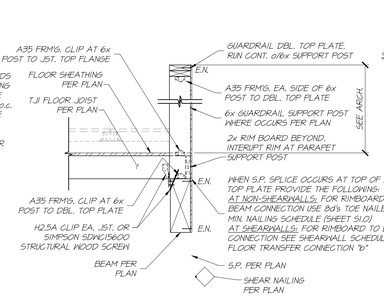
PLAN NO.
JOB: 21-038
DR. BLB
DATE: 11/29/2021
SC: AS NOTED
SHEET NO. S3.2



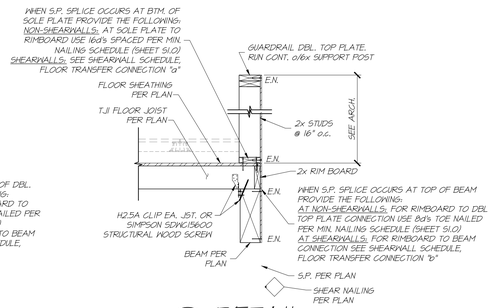
1 DETAIL
53.3 3/4" = 1'-0"



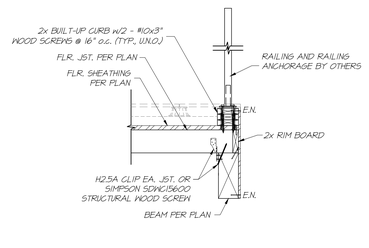
2 DETAIL
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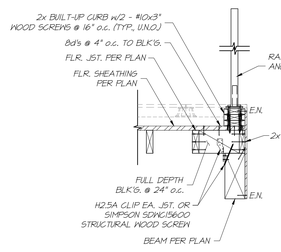
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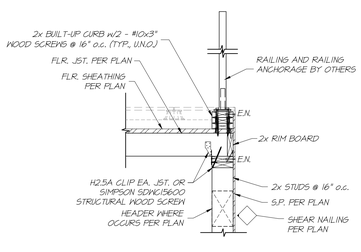
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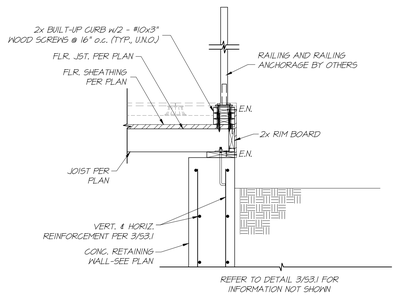
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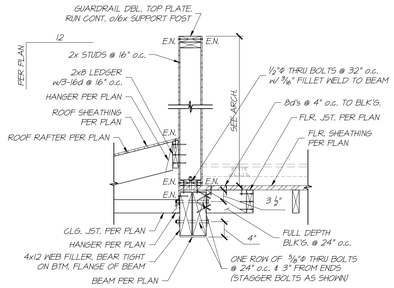
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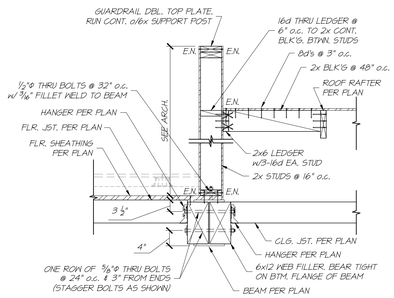
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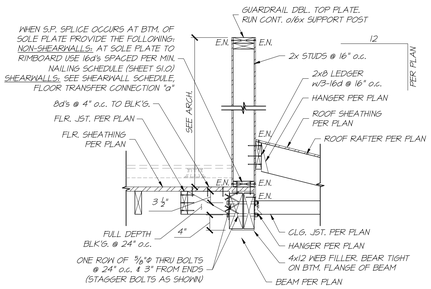
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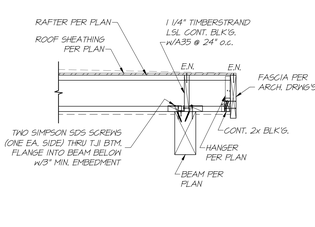
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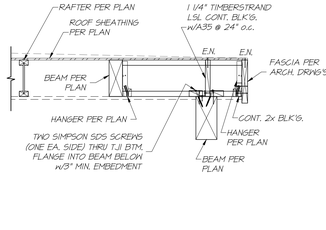
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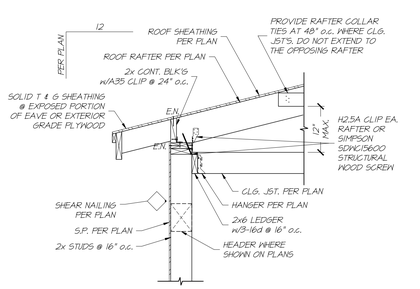
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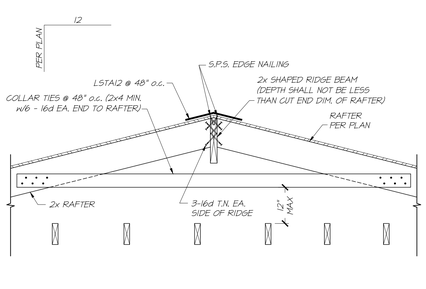
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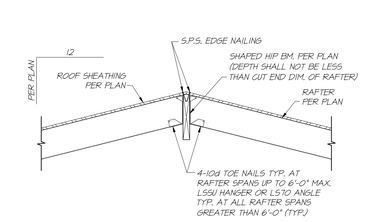
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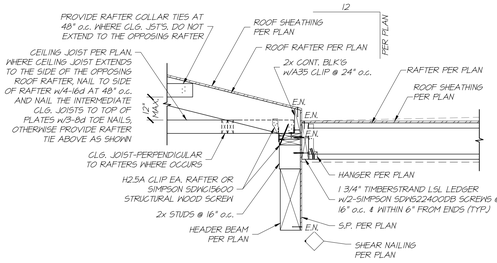
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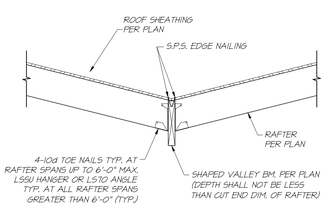
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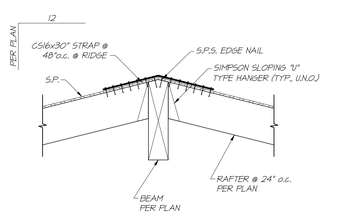
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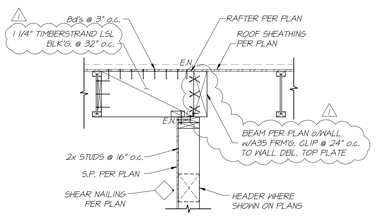
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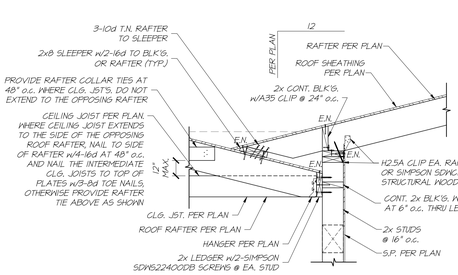
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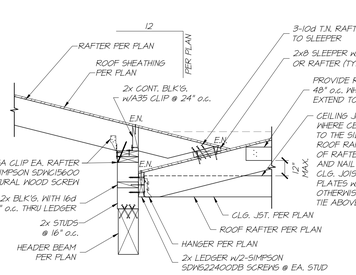
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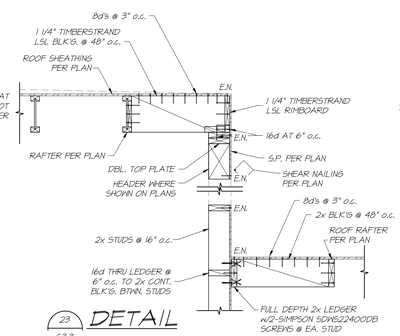
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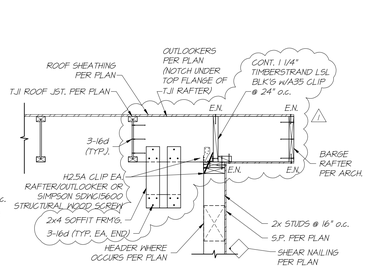
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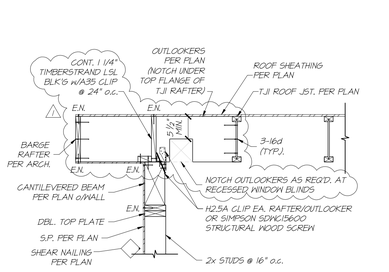
22 DETAIL
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23 DETAIL
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24 DETAIL
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CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD., SUITE 6, ELK GROVE, CA 95624 T: 916-638-8848

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REGISTERED PROFESSIONAL ENGINEER — No. C60081 — Exp. 06/30/22 — CIVIL — STATE OF CALIFORNIA

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Project Name

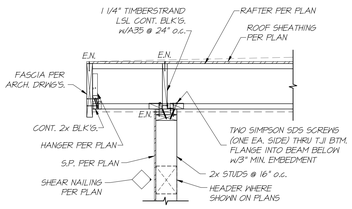
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

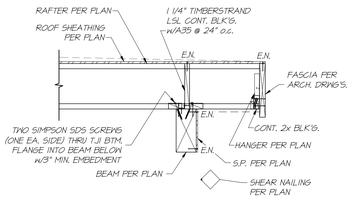
STRUCTURAL DETAILS

REVISIONS	BY	REVISIONS	BY
1 PCK COMMENT 5-4-22			

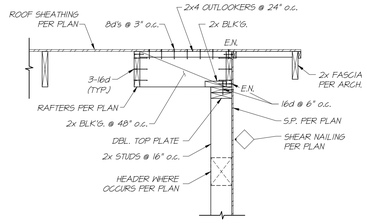
PLAN NO.
JOB: 21-038
DR. BLB
DATE: 11/29/2021
SC: AS NOTED
SHEET NO. S3.3



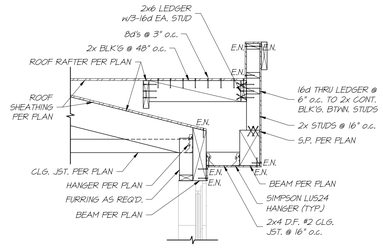
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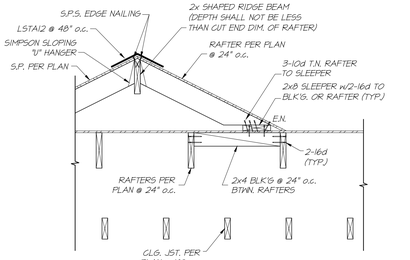
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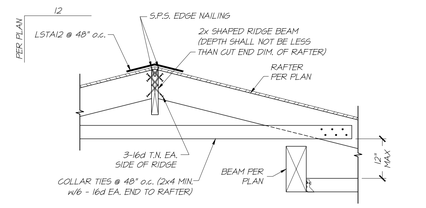
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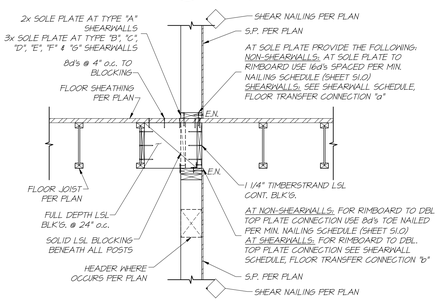
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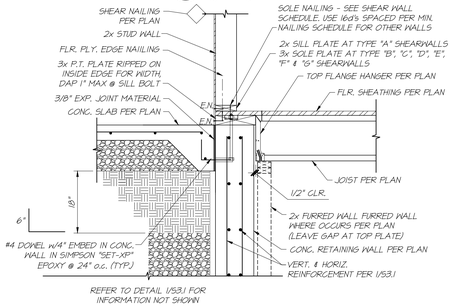
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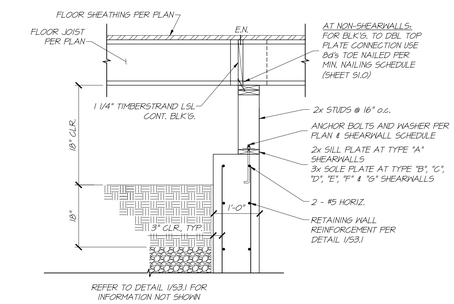
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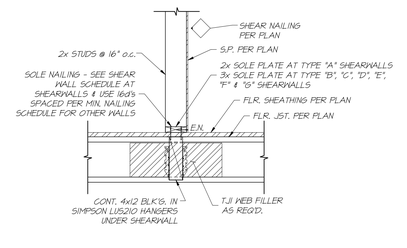
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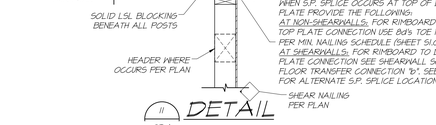
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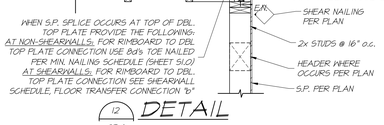
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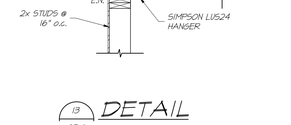
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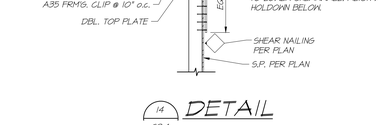
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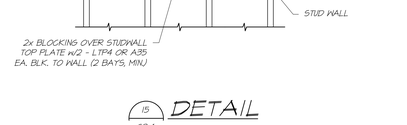
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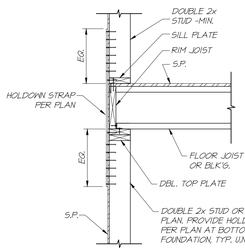
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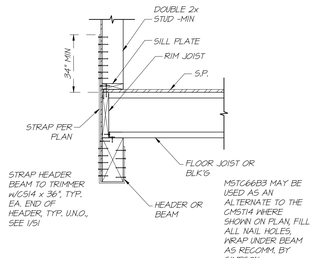
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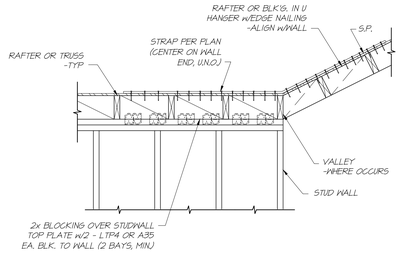
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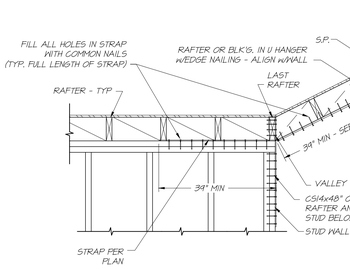
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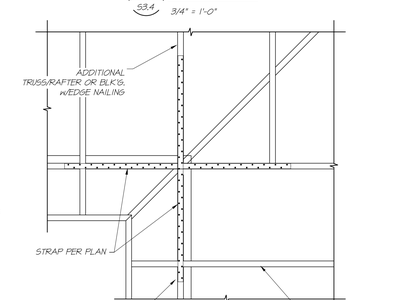
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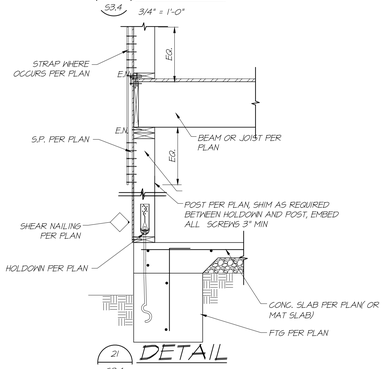
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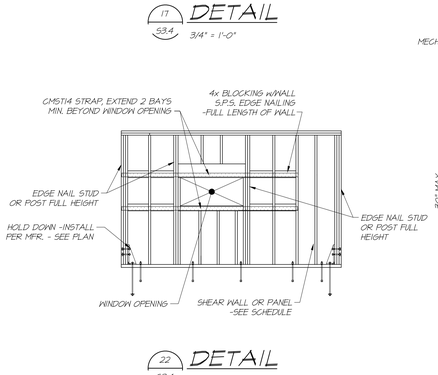
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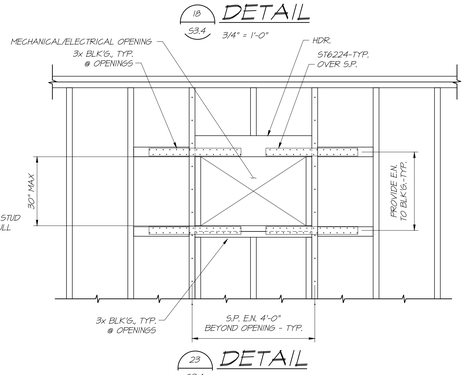
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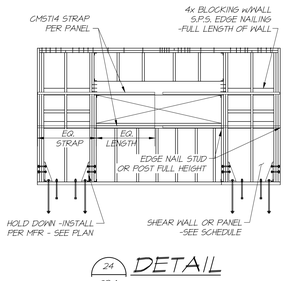
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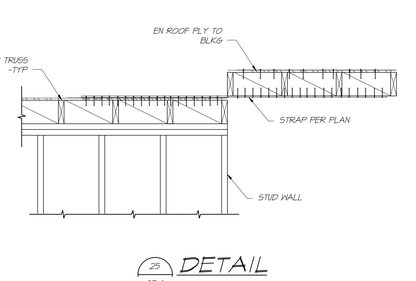
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REGISTERED PROFESSIONAL ENGINEER — TODD A. GURTH — No. C60091 — EXP. 06/30/22 — CIVIL — STATE OF CALIFORNIA

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Project Name

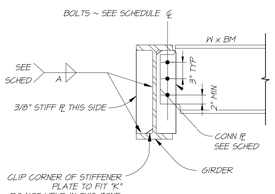
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

STRUCTURAL DETAILS

REVISIONS	BY	REVISIONS	BY
1 P.C.K. COMMENT 5-4-22			

PLAN NO.
JOB: 21-038
DR: BLB
DATE: 11/24/2021
SC: AS NOTED
SHEET NO. S3.4



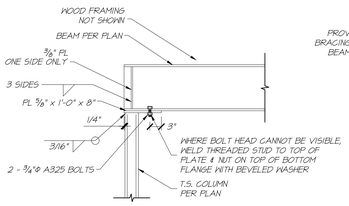
NOTE: ONE SIDED CONN OCCURS WHERE OPPOSITE BEAMS ARE OFFSET BY 12" OR MORE.

SIMPLE BEAM CONNECTION SCHEDULE			
SHEAR PL CONNECTION			
MEMBER (DEPTH)	# OF BOLTS	CONN PL t	WELD SIZE A
8" - 10"	2	3/8"	3/16"
12" - 14"	3	3/8"	3/16"
16"	4	3/8"	3/16"

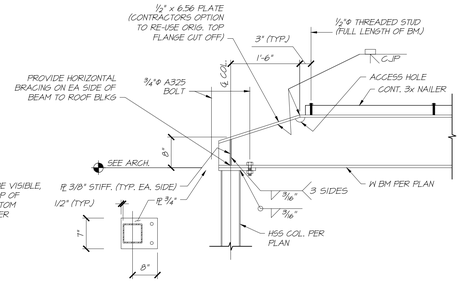
NOTES:

1. FILLET WELD SIZE SHALL BE AS SHOWN UNLESS A GREATER SIZE IS REQUIRED BY AISC TABLE J2.4.
2. ALL BOLTS ARE 7/8"Φ (UNLESS NOTED OTHERWISE) AND ARE TO BE A 325-SC BOLTS.
3. DOUBLE ANGLES MAY BE SUBSTITUTED FOR CONNECTOR PLATES, PROVIDED THEY MEET OR EXCEED THE REQUIREMENTS OF THE AISC.

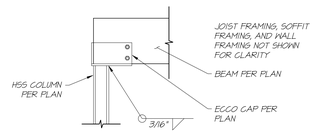
1 S3.5 DETAIL — 3/4" = 1'-0"



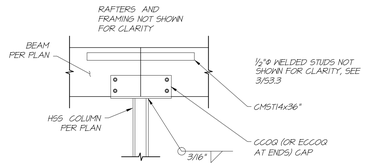
2 S3.5 DETAIL — 3/4" = 1'-0"



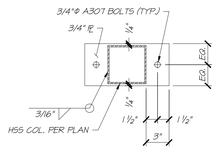
3 S3.5 DETAIL — 3/4" = 1'-0"



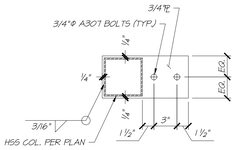
4 S3.5 DETAIL — 3/4" = 1'-0"



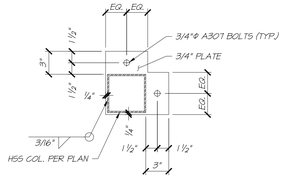
5 S3.5 DETAIL — 3/4" = 1'-0"



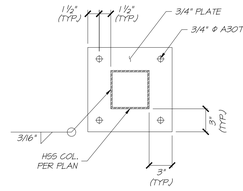
6 S3.5 DETAIL — 3/4" = 1'-0"



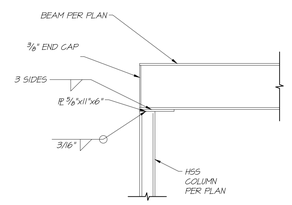
7 S3.5 DETAIL — 3/4" = 1'-0"



8 S3.5 DETAIL — 3/4" = 1'-0"



9 S3.5 DETAIL — 3/4" = 1'-0"



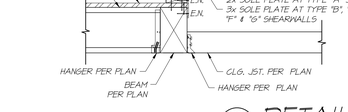
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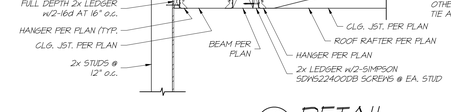
11 S3.5 DETAIL — 3/4" = 1'-0"



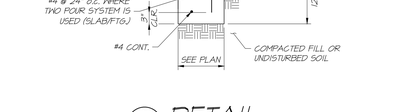
12 S3.5 DETAIL — 3/4" = 1'-0"



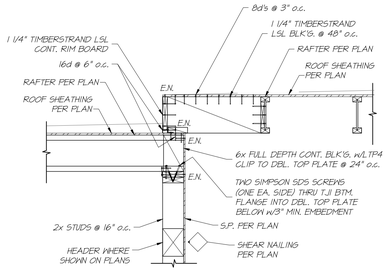
13 S3.5 DETAIL — 3/4" = 1'-0"



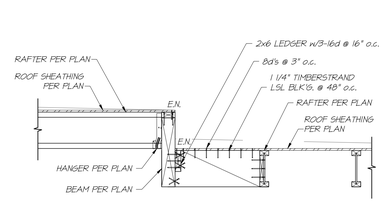
14 S3.5 DETAIL — 3/4" = 1'-0"



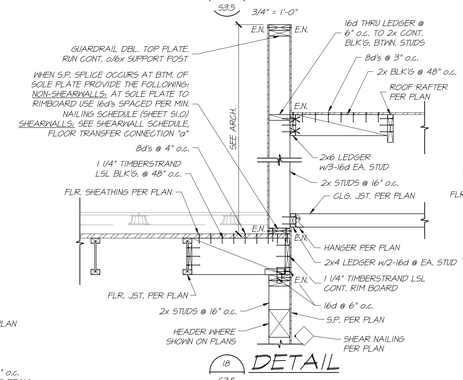
15 S3.5 DETAIL — 3/4" = 1'-0"



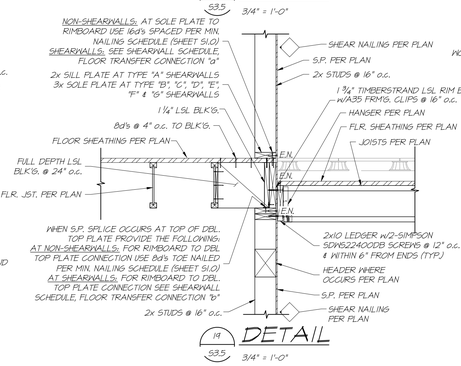
16 S3.5 DETAIL — 3/4" = 1'-0"



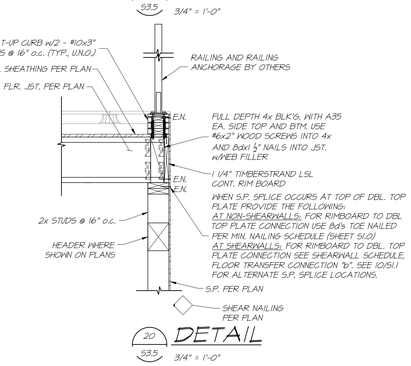
17 S3.5 DETAIL — 3/4" = 1'-0"



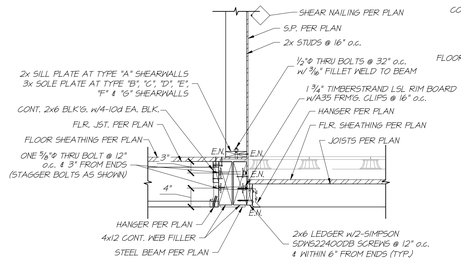
18 S3.5 DETAIL — 3/4" = 1'-0"



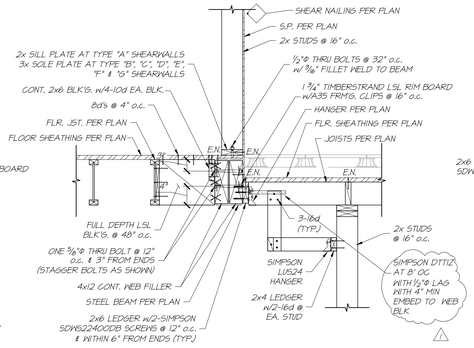
19 S3.5 DETAIL — 3/4" = 1'-0"



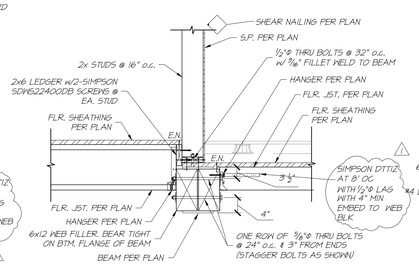
20 S3.5 DETAIL — 3/4" = 1'-0"



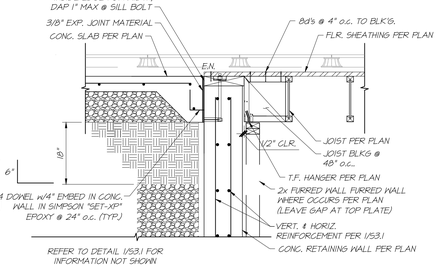
21 S3.5 DETAIL — 3/4" = 1'-0"



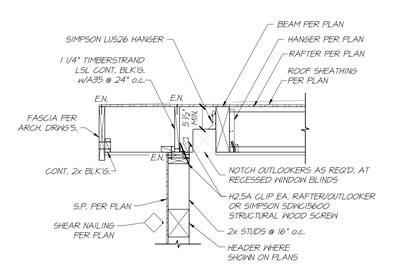
22 S3.5 DETAIL — 3/4" = 1'-0"



23 S3.5 DETAIL — 3/4" = 1'-0"



24 S3.5 DETAIL — 3/4" = 1'-0"



25 S3.5 DETAIL — 3/4" = 1'-0"

CORNERSTONE STRUCTURAL CONSULTANTS
9005 ELK GROVE BLVD, SUITE 6, ELK GROVE, CA 95624 T: 916-638-6848

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REGISTERED PROFESSIONAL ENGINEER — DAVID A. GOSTIC — No. C60081 EXP. 06/30/22 — CIVIL — STATE OF CALIFORNIA

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Project Name

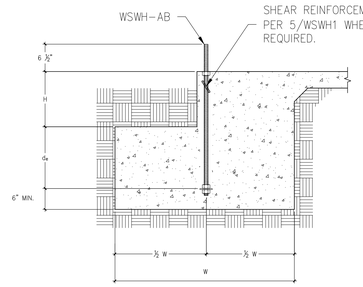
THE BOUKNIGHT RESIDENCE
144 Wood Road
Los Gatos, CA 95030

SHEET TITLE

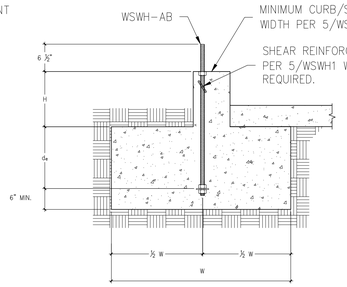
STRUCTURAL DETAILS

REVISIONS	BY	REVISIONS	BY
1 PCK COMMENT 5-4-22			

PLAN NO.	JOB: 21-038	SHEET NO. S3.5
	DR. BLB	
DATE: 11/29/2021	SC: AS NOTED	



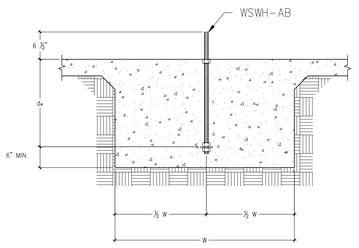
SLAB ON GRADE FOUNDATION



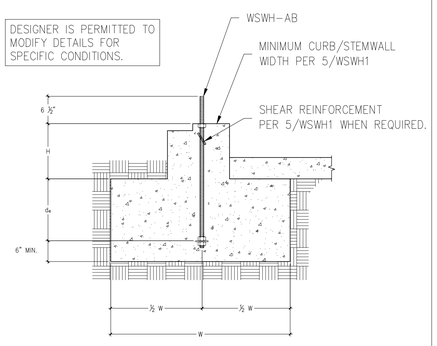
CURB OR STEMWALL FOUNDATION

NOTES :
1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = l_e–d_e. SEE 3/WSWH1 AND 4/WSWH1 FOR l_e.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

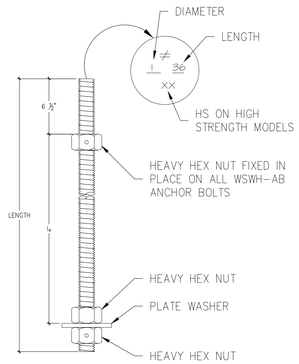


INTERIOR FOUNDATION



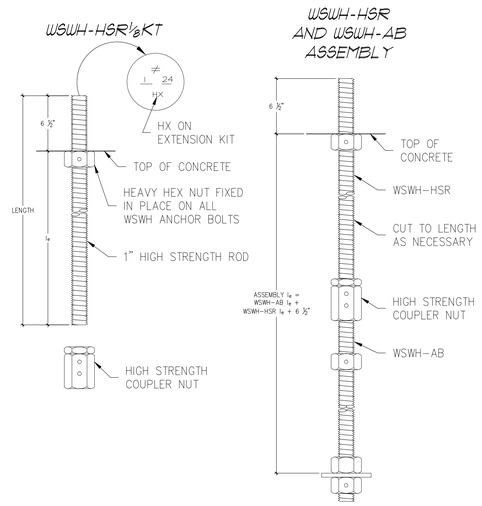
BRICK LEDGE FOUNDATION

STRONG-WALL® WSWH ANCHORAGE - TYPICAL SECTIONS | 1



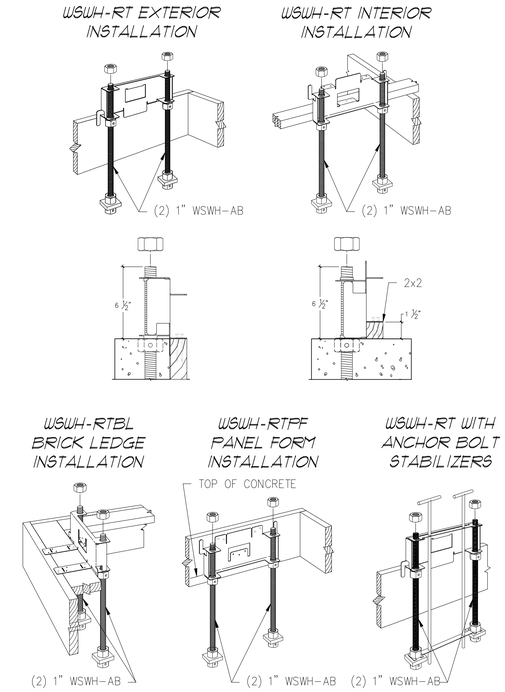
WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-AB1x24	1"	24"	15 ½"
	WSWH-AB1x24HS	1"	24"	15 ½"
	WSWH-AB1x30	1"	30"	21 ½"
	WSWH-AB1x30HS	1"	30"	21 ½"
	WSWH-AB1x36	1"	36"	27 ½"
	WSWH-AB1x36HS	1"	36"	27 ½"

WSWH ANCHOR BOLTS | 3

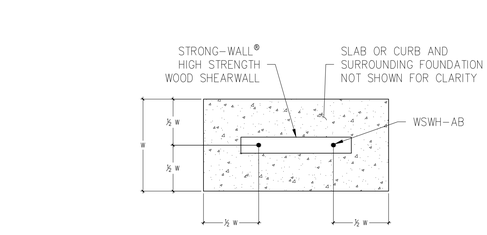


WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-HSR1x24KT	1"	24"	17 ½"
	WSWH-HSR1x36KT	1"	36"	29 ½"

WSWH ANCHOR BOLT EXTENSION | 4



WSWH ANCHOR BOLT TEMPLATES | 6



FOUNDATION PLAN VIEW

NOTES :
1. ANCHORAGE DESIGNS CONFORM TO ACI 318–11 APPENDIX D, ACI 318–14 CHAPTER 17 AND ACI 318–19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH–AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C–F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318–11 SECTION D.3.3.4.3, ACI 318–14 SECTION 17.2.3.4.3 AND ACI 318–19 SECTION 17.10.5.3.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/WSWH1 FOR d_e.

WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	33	11
			17,100	35	12
		HIGH STRENGTH	34,100	52	18
			36,800	55	19
	UNCRACKED	STANDARD	15,700	28	10
			17,100	30	10
		HIGH STRENGTH	33,500	45	15
			36,800	48	16
WIND	CRACKED	STANDARD	6,200	16	6
			11,400	24	8
			17,100	32	11
		HIGH STRENGTH	21,100	36	12
			27,300	42	14
			34,100	48	16
			36,800	51	17
	UNCRACKED	STANDARD	6,400	14	6
			12,500	22	8
			17,100	28	10
		HIGH STRENGTH	22,900	33	11
			26,400	36	12
			34,200	42	14
			36,800	44	15

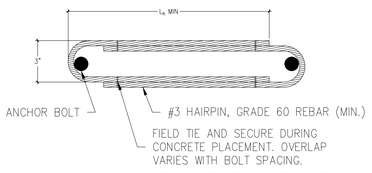
WSWH ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	31	11
			17,100	33	11
		HIGH STRENGTH	33,900	49	17
			36,800	52	18
	UNCRACKED	STANDARD	16,300	27	9
			17,100	28	10
		HIGH STRENGTH	34,000	43	15
			36,800	46	16
WIND	CRACKED	STANDARD	5,600	14	6
			10,200	21	7
			17,100	30	10
		HIGH STRENGTH	20,000	33	11
			26,500	39	13
			33,600	45	15
			36,800	48	16
	UNCRACKED	STANDARD	6,200	13	6
			12,800	21	7
			17,100	26	9
		HIGH STRENGTH	21,800	30	10
			28,900	36	12
			33,100	39	13
			36,800	42	14

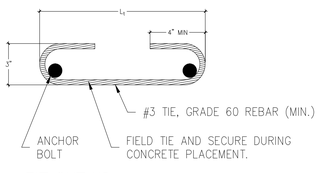
WSWH ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	27	9
			17,100	29	10
		HIGH STRENGTH	34,700	44	15
			36,800	46	16
	UNCRACKED	STANDARD	15,700	23	8
			17,100	25	9
		HIGH STRENGTH	33,900	38	13
			36,800	40	14
WIND	CRACKED	STANDARD	6,800	14	6
			11,600	20	7
			17,100	26	9
		HIGH STRENGTH	21,400	30	10
			28,400	36	12
			32,400	39	13
			36,800	43	15
	UNCRACKED	STANDARD	6,800	12	6
			12,400	18	6
			17,100	23	8
		HIGH STRENGTH	22,800	27	9
			26,700	30	10
			30,700	33	11
			36,800	37	13

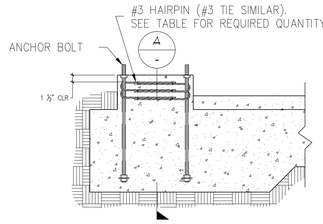
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI | 2



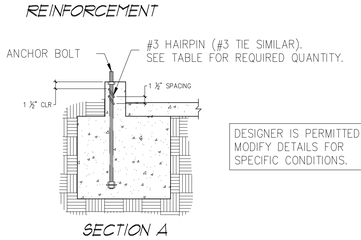
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE

MODEL	SEISMIC[3]			WIND[4]			
	L_4 OR L_{HP} (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)	
						UNCRACKED	CRACKED
WSWH12	10 ¼	(1) #3 TIE	6	SEE NOTE 7	6	1,080	770
WSWH18	15	(2) #3 HAIRPINS [5,6]	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX. ALLOW SHEAR LOAD OF THE WSWH	
WSWH24	19	(2) #3 HAIRPINS [5]	6	(2) #3 HAIRPINS[5]	6		

NOTES :
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318–19, ACI 318–11 AND ACI 318–14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318–19, SECTION 17.10.6.3, ACI 318–14, SECTION 17.2.3.5.3
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.
6. USE (1) #3 HAIRPIN FOR WSWH18 WHEN STANDARD STRENGTH ANCHOR IS USED.
7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS.
9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318–19 SECTION 17.9.2, ACI 318–14 SECTION 17.7.2 AND ACI 318–11 SECTION D.8.2.
10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS | 5

NO.	DATE	REVISIONS
0	02-26-2021	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER M. GRIFFITH — No. 026901 EXP. 06/30/2022 — STATE OF CALIFORNIA — CIVIL

SIMPSON Strong-Tie Co. Inc.
5956 W. Las Positas Blvd.
Pleasanton, CA 94588
Tel: (800) 999-5099
Website: www.strongtie.com

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL® WSWH
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	WSWH1
OF	SHEETS
JOB NO.	

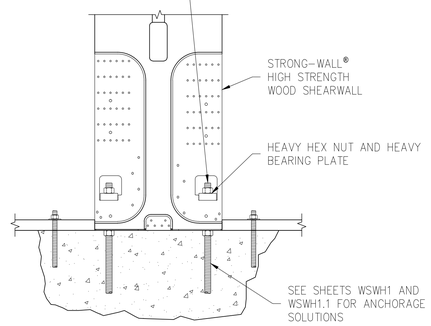
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

NOTES :
1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 ½".
2. ALL PANELS COME WITH PRE-ATTACHED HOLDOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
3. ALL PANELS ARE 3½" THICK.

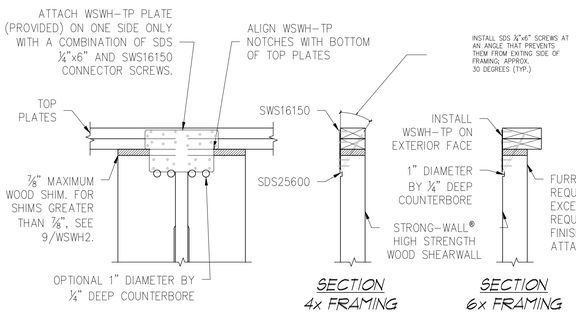
PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1⅝" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + ½" TURN.

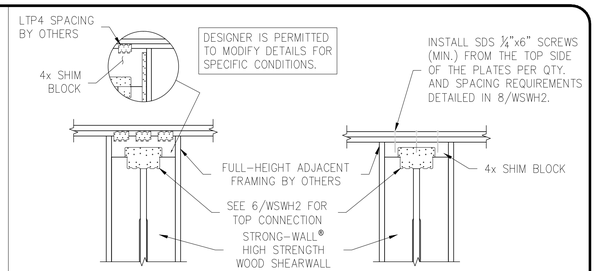
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



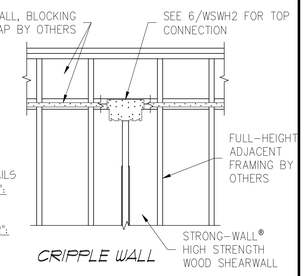
WSWH-TP CONNECTION		
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.





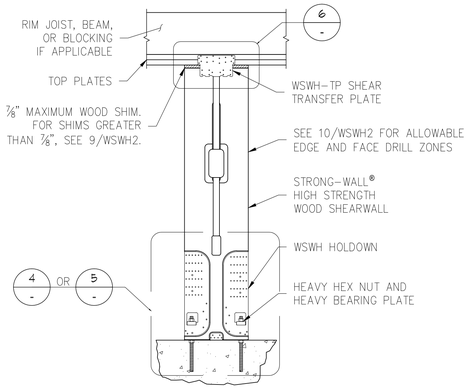
DESIGNER SHALL DESIGN AND DETAIL FOR:
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT



FOR 8" TO 12" BLOCK DEPTHS:
ATTACH SIMPSON STRONG-TIE® CS16 STRAPS AT EDGE OF WSWH PANEL (EACH SIDE) USING 10dx1 ½" NAILS
SHIM BLOCK HEIGHTS GREATER THAN 8" AND UP TO 10":
- 8 NAILS INTO BLOCK
- 8 NAILS INTO WSWH PANEL

SHIM BLOCK HEIGHTS GREATER THAN 10" AND UP TO 12":
- 10 NAILS INTO BLOCK
- 10 NAILS INTO WSWH PANEL

STRONG-WALL® WSWH MODELS | 1



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

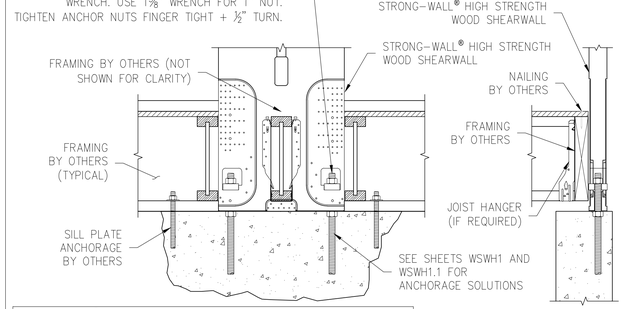
ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

SINGLE STORY WSWH ON CONCRETE | 2

STANDARD INSTALLATION BASE CONNECTION | 4

PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1⅝" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + ½" TURN.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



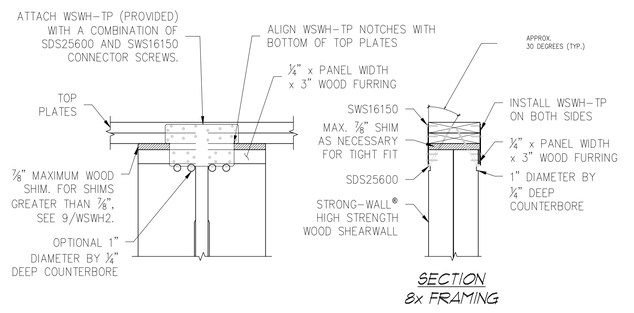
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

WOOD FLOOR SYSTEM BASE CONNECTION | 5

TOP CONNECTION | 6

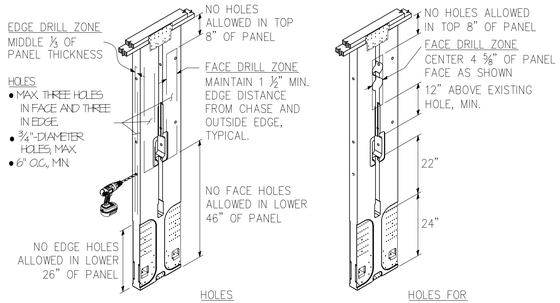
WSWH-TP CONNECTION		
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	28	4
WSWH-TP18	52	8
WSWH-TP24	92	16

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

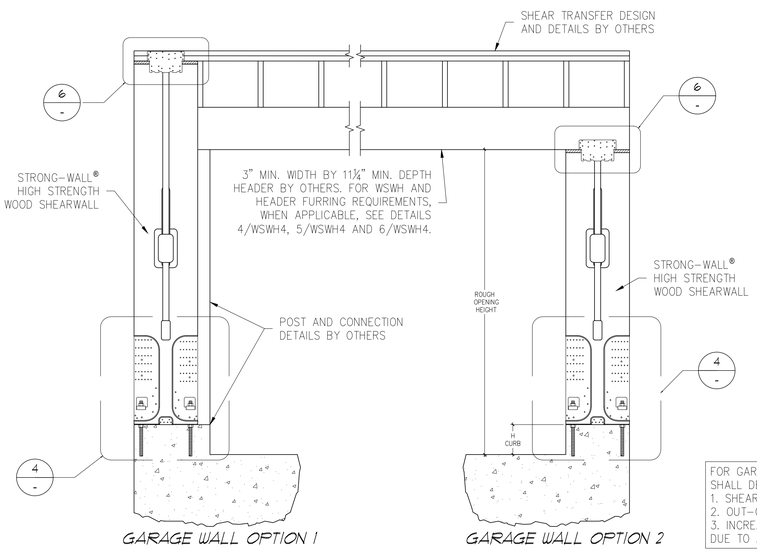


BACK-TO-BACK TOP CONNECTION | 7

TOP OF WALL HEIGHT ADJUSTMENTS | 9



TRIM ZONE AND ALLOWABLE HOLES | 10



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSWH-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5 ½"	6'-11 ½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	85 ½"	0"	7'-1 ½"
	93 ¼"	5 ½"	8'-2 ¾"
		6"	8'-3 ¼"

NOTES :
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74 ½".
2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

FOR GARAGE WALL OPTION 2, DESIGNER SHALL DESIGN AND DETAIL FOR:
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

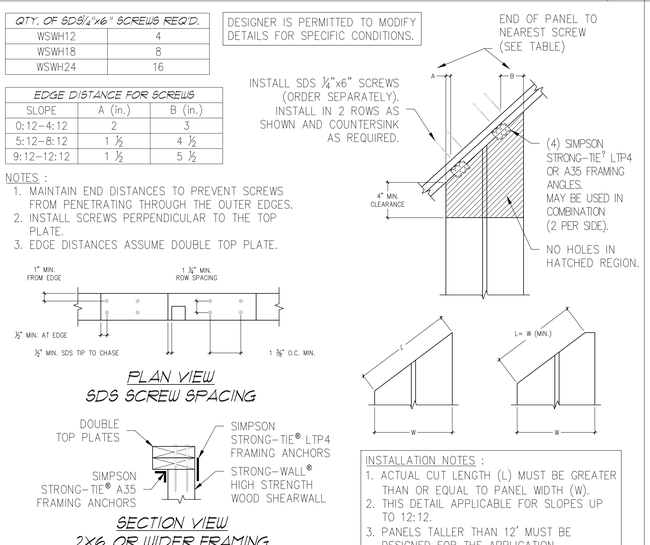
ALTERNATE WSWH GARAGE FRONT OPTIONS | 3

QTY. OF SDS¼"x6" SCREWS REQ'D.	
WSWH12	4
WSWH18	8
WSWH24	16

EDGE DISTANCE FOR SCREWS		
SLOPE	A (in.)	B (in.)
0:12-4:12	2	3
5:12-8:12	1 ½	4 ½
9:12-12:12	1 ½	5 ½

NOTES :
1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



INSTALLATION NOTES :
1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

RAKE WALL | 8

NOTES | 11

1. STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
7. SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
9. SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

NO.	DATE	REVISIONS
0	11-20-2020	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS

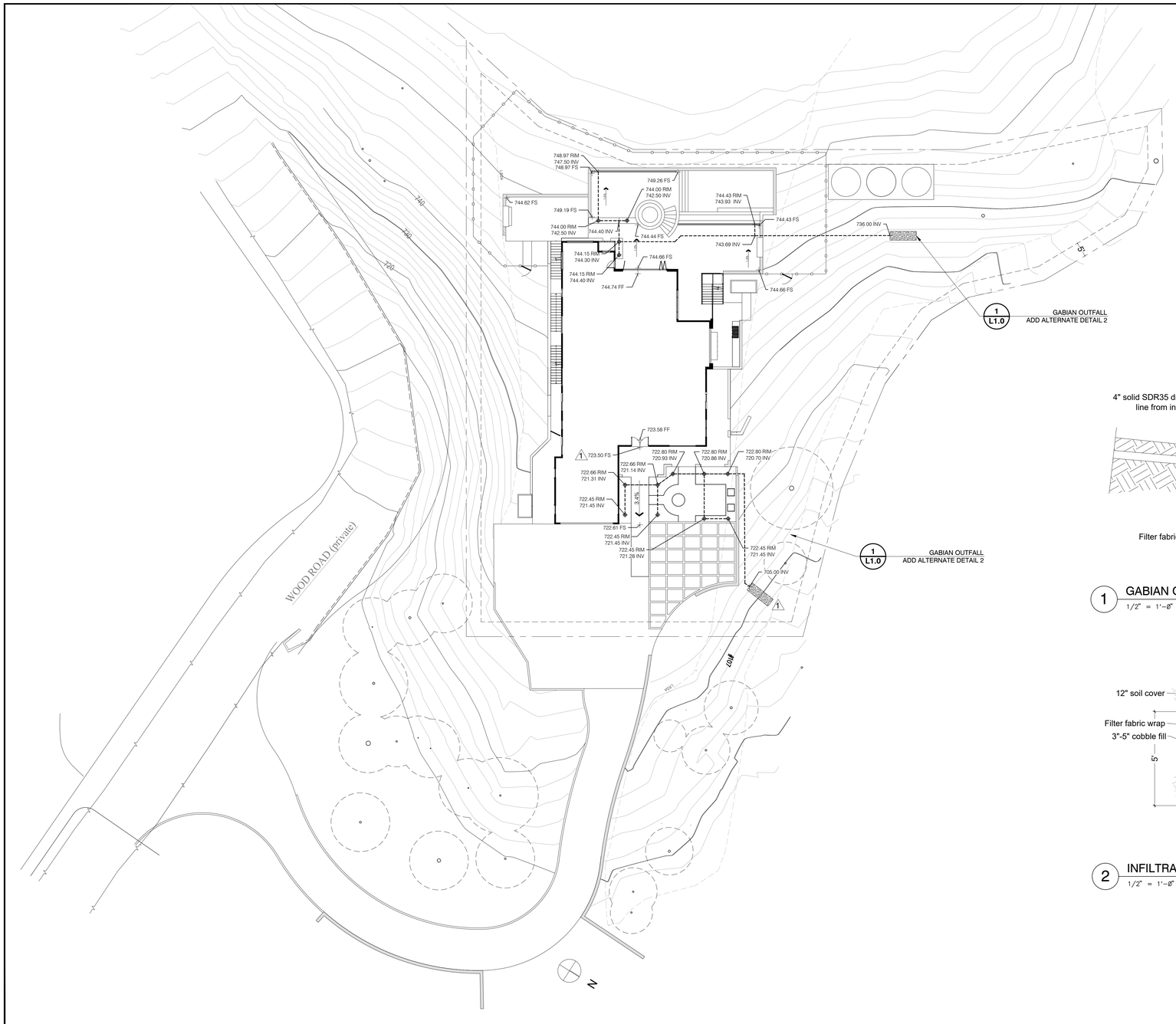
REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. GUSTITUS — No. C69901 EXP. 06/30/22 — CIVIL — STATE OF CALIFORNIA

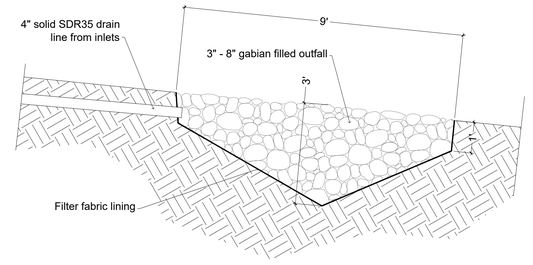
SIMPSON Strong-Tie Co. Inc.
• 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
• Tel: (800) 999-5099
• Website: www.strongtie.com

SIMPSON Strong-Tie® THERE IS NO EQUAL

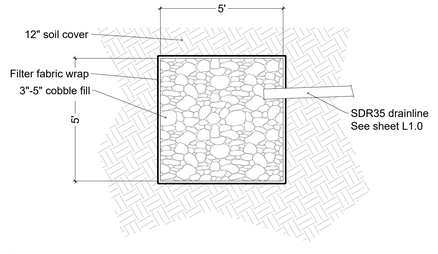
STRONG-WALL® WSWH
FRAMING DETAILS
ENGINEERED DESIGNS

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	WSWH2
OF	SHEETS
JOB NO.	





1 GABIAN OUTFALL
1/2" = 1'-0" BOUK-DRAIN-Ø5



2 INFILTRATION PIT
1/2" = 1'-0" BOUK-DRAIN-Ø4

REVISIONS	BY
5-17-22 Per plan check comments 1	DRF

David R. Fox & Company-Landscape Architecture
1188 Kotobuki Avenue 95125
San Jose david@foxla.net
408-761-0212 phone

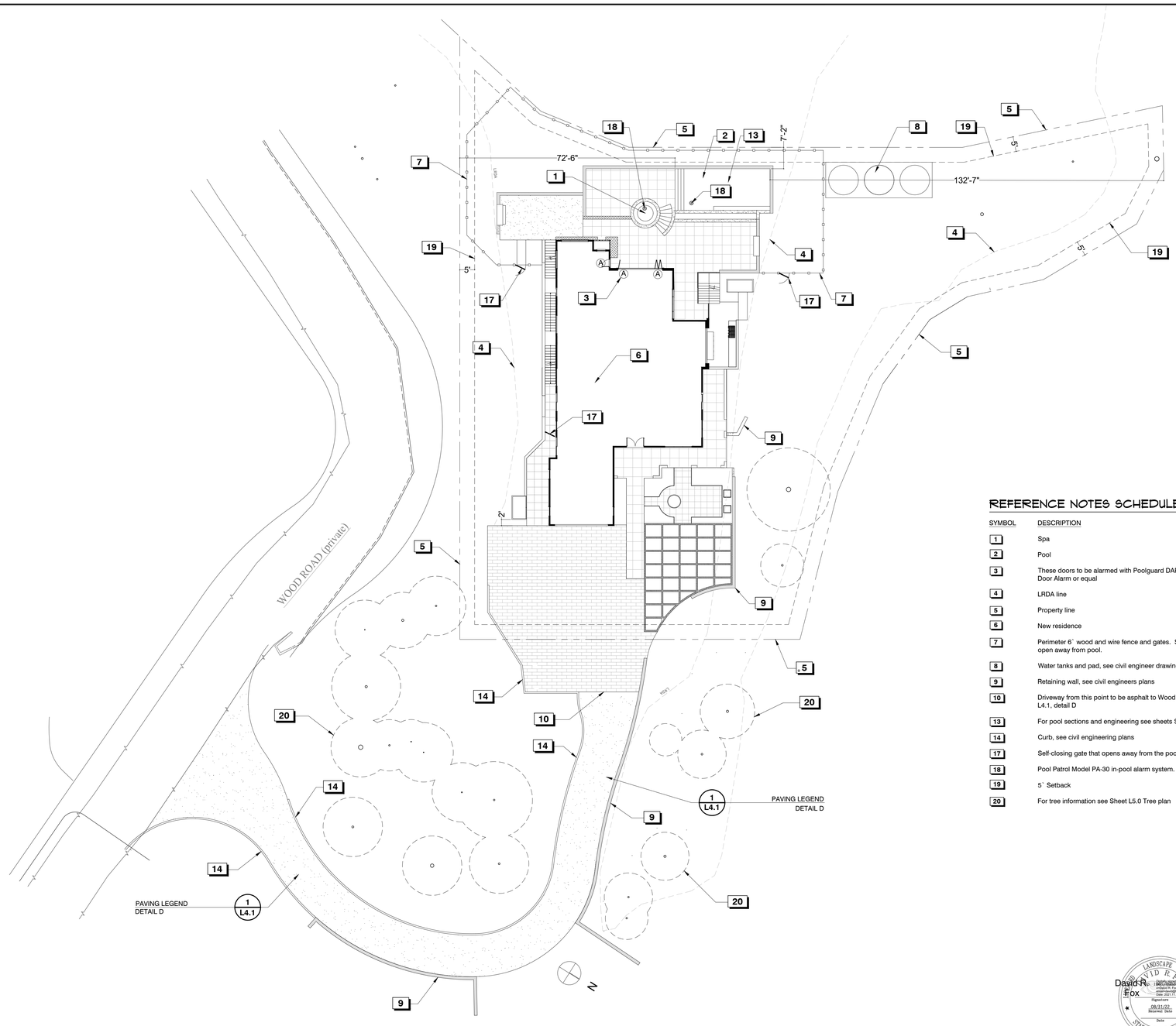
Drainge Plan

The Bouknight Residence
144 Wood Road
Los Gatos California

1

Date 11-18-21
Scale 1"=16'-0"
Drawn DRF/ MCF
Job Bouknight
Sheet L1.0
Of . Sheets

LANDSCAPE ARCHITECT
DAVID R. FOX
STATE OF CALIFORNIA
David R. Fox
Date: 2021.11.19 10:46:38 -08'00'
Signature
06/21/22
Renewal Date
Date



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	Spa
2	Pool
3	These doors to be alarmed with Poolguard DAPT-2 Water Hazard Pool Door Alarm or equal
4	LRDA line
5	Property line
6	New residence
7	Perimeter 6` wood and wire fence and gates. Self-closing gates that open away from pool.
8	Water tanks and pad, see civil engineer drawings
9	Retaining wall, see civil engineers plans
10	Driveway from this point to be asphalt to Wood Rd, see Detail 1, sheet L4.1, detail D
13	For pool sections and engineering see sheets S1, S2 and D1 this set
14	Curb, see civil engineering plans
17	Self-closing gate that opens away from the pool
18	Pool Patrol Model PA-30 in-pool alarm system. Meets ASTM F2208
19	5` Setback
20	For tree information see Sheet L5.0 Tree plan

David R Fox

DAVID R. FOX LANDSCAPE ARCHITECT No. 2772 REGISTERED LANDSCAPE ARCHITECT 08/31/22 Date STATE OF CALIFORNIA

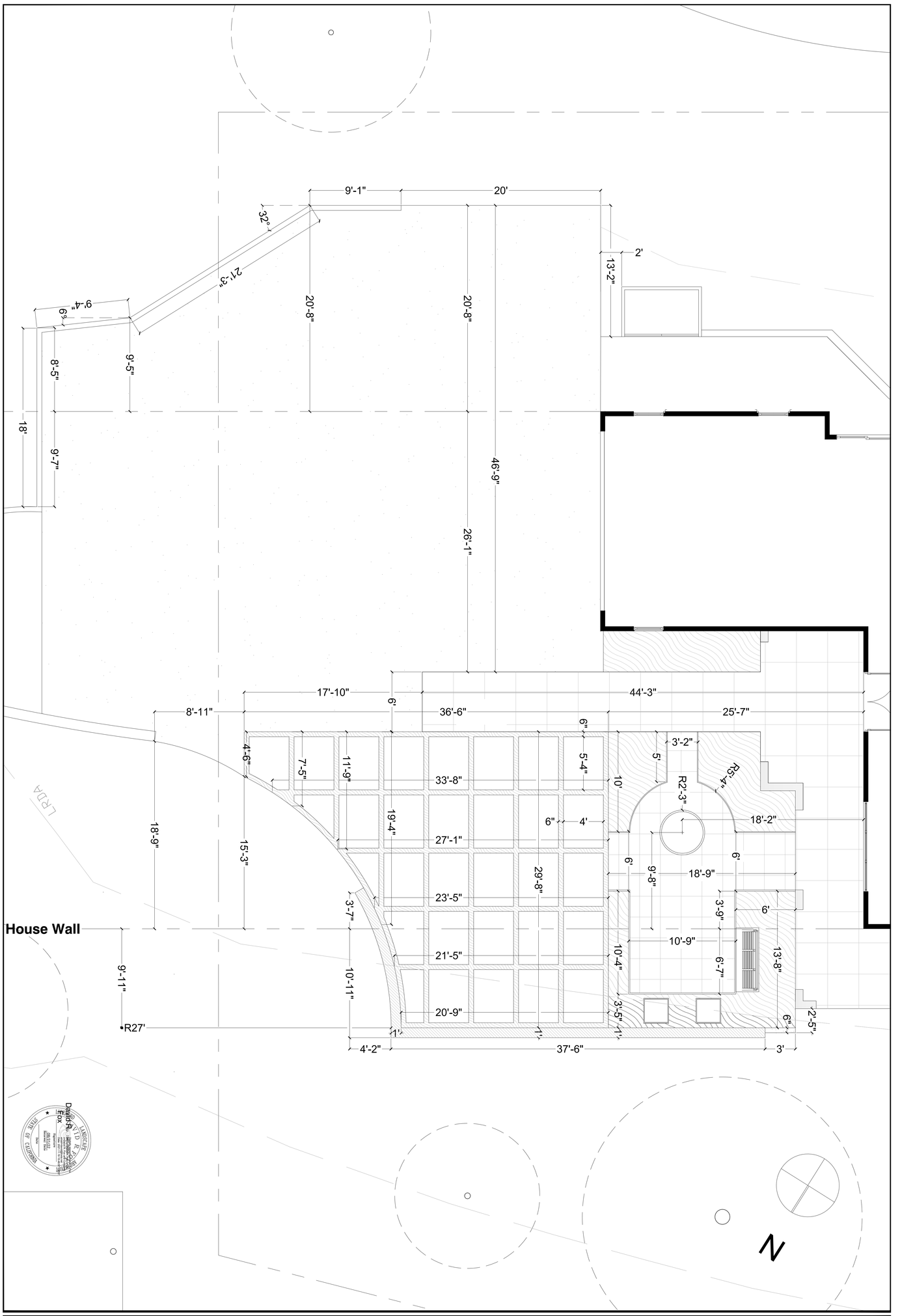
REVISIONS	BY
5-17-22 Per plan check comments 1	DRF

David R. Fox & Company+Landscape Architecture
1193 Koblenberg Avenue san jose 95125
408-761-0212 phone
davidf@dfoka.net

Site Plan

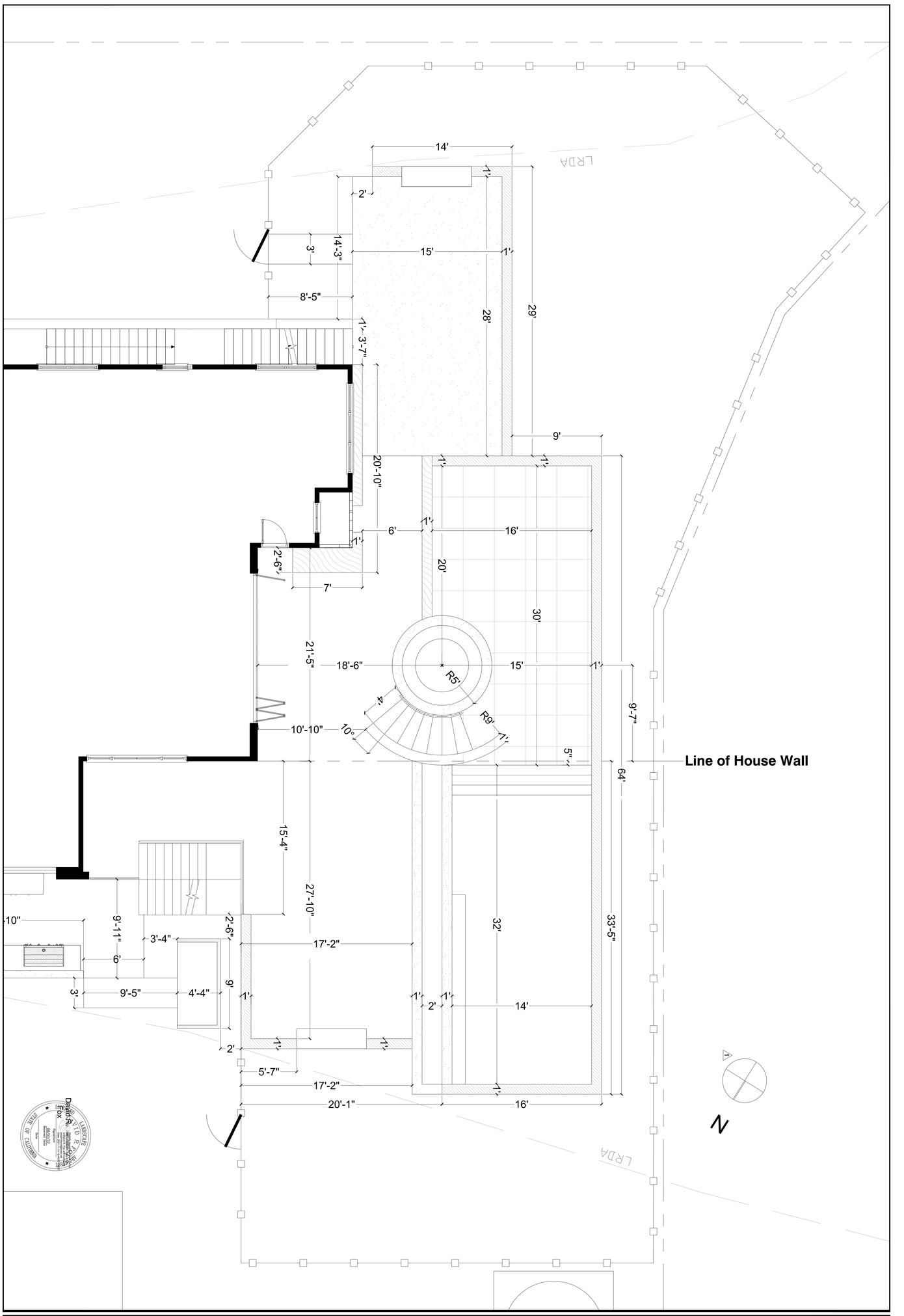
The Bouknight Residence
144 Wood Road
Los Gatos California

Date 11-18-21
Scale 1"=16'-0"
Drawn DRF/ MCF
Job Bouknight
Sheet L2.0
Of . Sheets

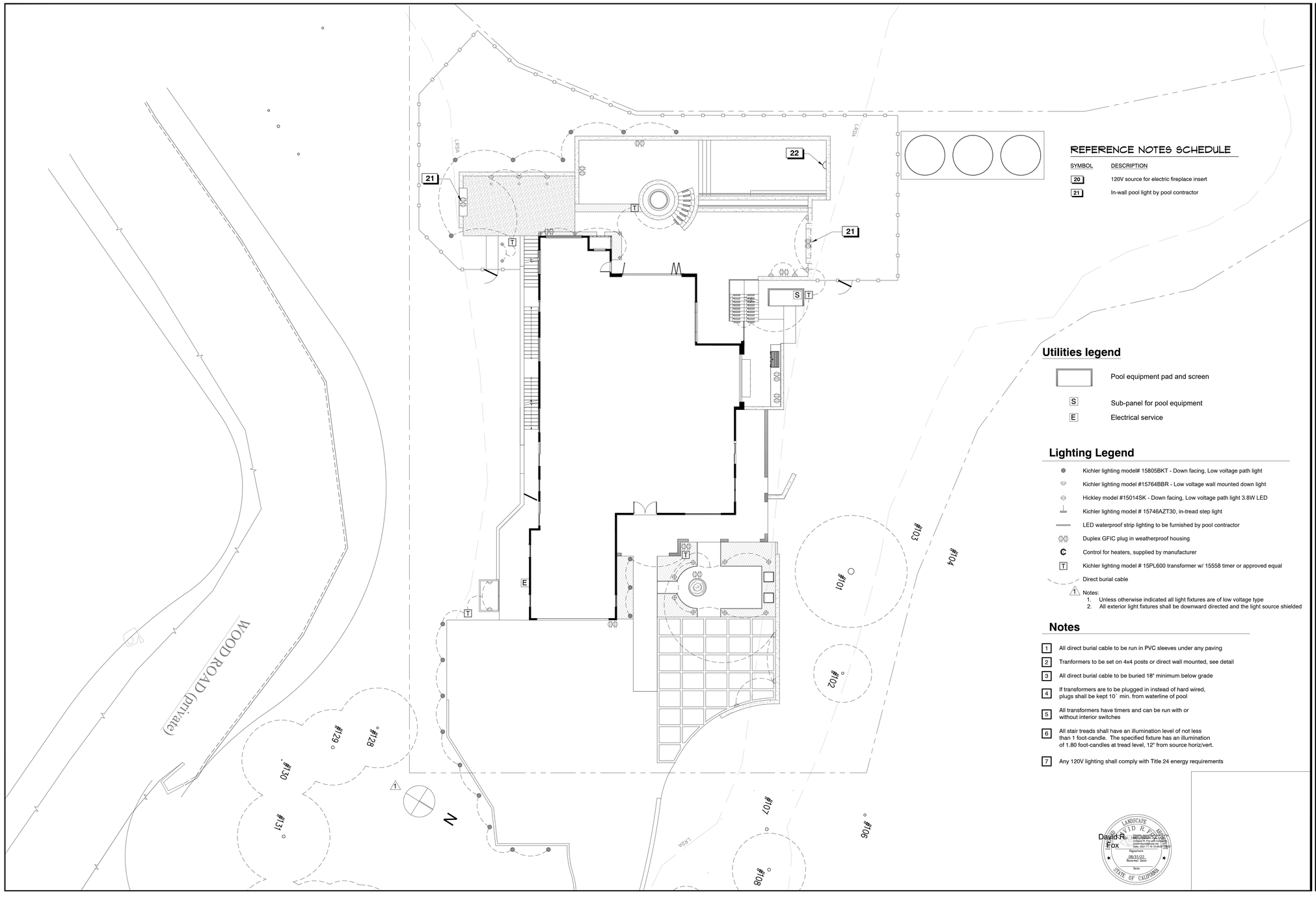


Sheet L2.1 Of Sheets	Date 11-18-21	The Bouknight Residence 144 Wood Road Los Gatos California	Front Layout Plan	David R. Fox & Company•Landscape Architecture 1188 kotenberg Avenue san jose 95125 408-761-0212 phone david@foxla.net
	Scale 1"=4'-0"			
	Drawn DRF/ MCF			
	Job Bouknight			

REVISIONS	BY
5-17-22 Per plan check comments 1	DRF



Sheet L2.2 Of Sheets	The Bouknight Residence 144 Wood Road Los Gatos California	Rear Layout Plan	David R. Fox & Company • Landscape Architecture 1188 kotenberg Avenue san jose 95125 408-761-0212 phone david@foxla.net	Job Bouknight Drawn DRF MCF Scale 1"=4'-0" Date 11-18-21	REVISIONS 5-17-22 per plan check comments 1 BY DRF



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
20	120V source for electric fireplace insert
21	In-wall pool light by pool contractor

Utilities legend

- Pool equipment pad and screen
- S — Sub-panel for pool equipment
- E — Electrical service

Lighting Legend

- Kichler lighting model# 15805BKT - Down facing, Low voltage path light
- Kichler lighting model #15764BBR - Low voltage wall mounted down light
- Hickley model #15014SK - Down facing, Low voltage path light 3.8W LED
- Kichler lighting model # 15746AZT30, in-tread step light
- LED waterproof strip lighting to be furnished by pool contractor
- Duplex GFIC plug in weatherproof housing
- C — Control for heaters, supplied by manufacturer
- T — Kichler lighting model # 15PL600 transformer w/ 15558 timer or approved equal
- Direct burial cable

1 Notes:
1. Unless otherwise indicated all light fixtures are of low voltage type
2. All exterior light fixtures shall be downward directed and the light source shielded

Notes

1. All direct burial cable to be run in PVC sleeves under any paving
2. Tranformers to be set on 4x4 posts or direct wall mounted, see detail
3. All direct burial cable to be buried 18" minimum below grade
4. If transformers are to be plugged in instead of hard wired, plugs shall be kept 10` min. from waterline of pool
5. All transformers have timers and can be run with or without interior switches
6. All stair treads shall have an illumination level of not less than 1 foot-candle. The specified fixture has an illumination of 1.80 foot-candles at tread level, 12" from source horiz/vert.
7. Any 120V lighting shall comply with Title 24 energy requirements

David R. Fox — LANDSCAPE ARCHITECT — Date: 2021.11.18 14:48:13 -08'00' — Signature — 06/31/22 — Date

REVISIONS	BY
5-17-22 Per plan check comments 1	DRF

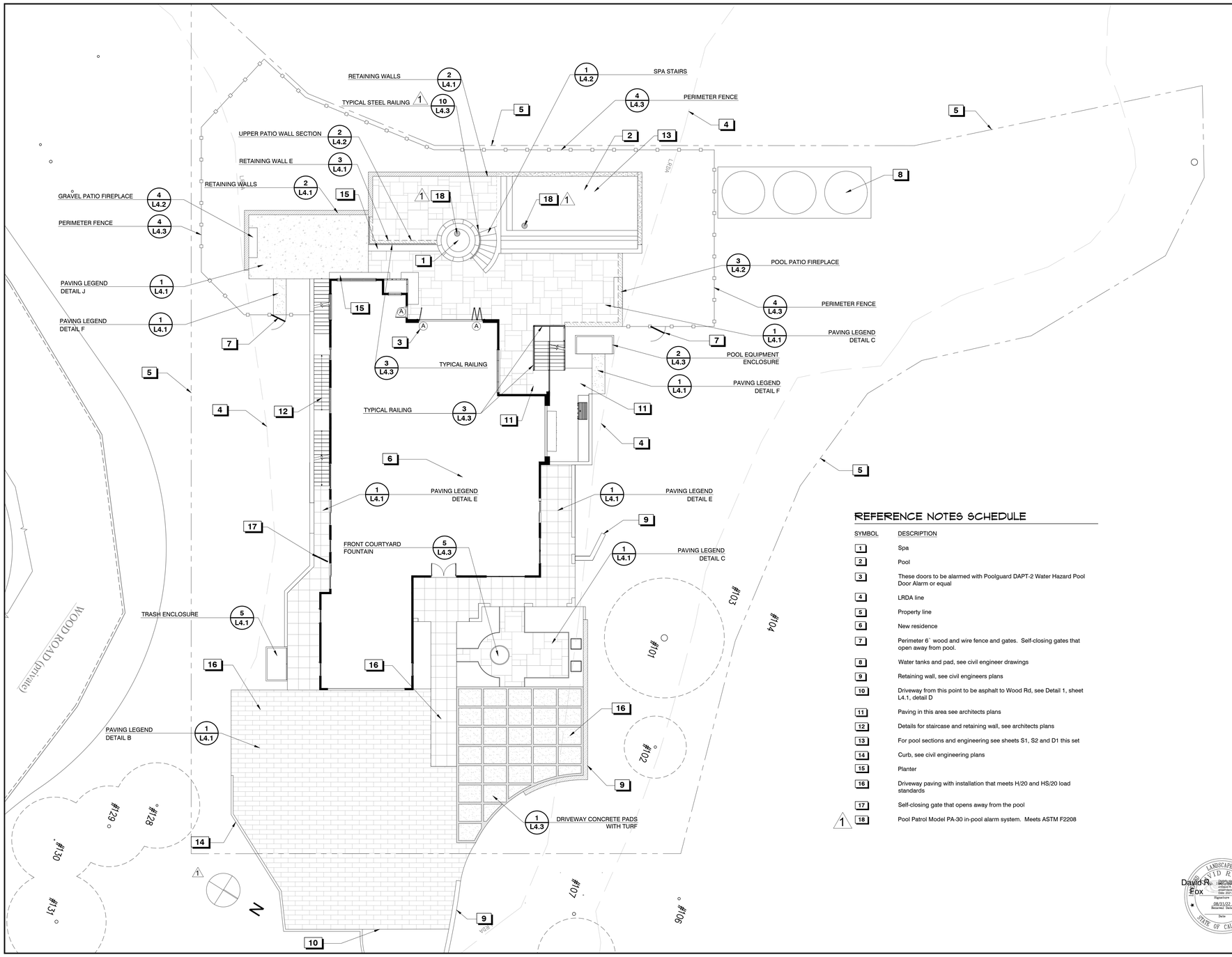
David R. Fox & Company+Landscape Architecture
1188 Kotenberg Avenue san jose 95125
408-781-0212 phone
davidf@lvoka.net

Utilities Plan

The Bouknight Residence
144 Wood Road Los Gatos California

1

Date 11-18-21
Scale 1"=10'-0"
Drawn DRF/ MCF
Job Booknight
Sheet L3.0
Of . Sheets



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	Spa
2	Pool
3	These doors to be alarmed with Poolguard DAPT-2 Water Hazard Pool Door Alarm or equal
4	LRDA line
5	Property line
6	New residence
7	Perimeter 6` wood and wire fence and gates. Self-closing gates that open away from pool.
8	Water tanks and pad, see civil engineer drawings
9	Retaining wall, see civil engineers plans
10	Driveway from this point to be asphalt to Wood Rd, see Detail 1, sheet L4.1, detail D
11	Paving in this area see architects plans
12	Details for staircase and retaining wall, see architects plans
13	For pool sections and engineering see sheets S1, S2 and D1 this set
14	Curb, see civil engineering plans
15	Planter
16	Driveway paving with installation that meets H/20 and HS/20 load standards
17	Self-closing gate that opens away from the pool
1 18	Pool Patrol Model PA-30 in-pool alarm system. Meets ASTM F2208

REVISIONS	BY
5-17-22 Per plan check comments 1	DRF

David R. Fox & Company-Landscape Architecture
1188 Koetteberg Avenue san jose 95125
408-761-0212 phone
davidf@foxla.net

Detail Callouts

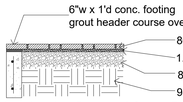
The Bouknight Residence
144 Wood Road Los Gatos California

1

Date 11-18-21
Scale 1"=10'-0"
Drawn DRF/ MCF
Job Bouknight
Sheet L4.0
Of . Sheets

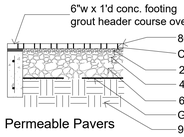
David R. Fox
LANDSCAPE ARCHITECT
STATE OF CALIFORNIA
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08/31/22
Renewal Date

A



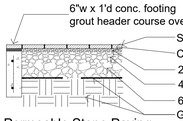
Interlocking Paver w/ Conc. Footing

B



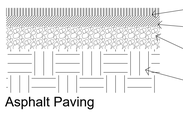
Permeable Pavers

C



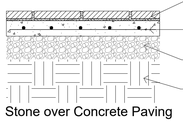
Permeable Stone Paving

D



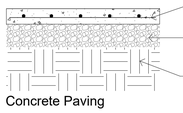
Asphalt Paving

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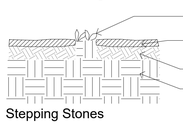
Stone over Concrete Paving

F



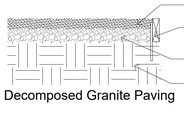
Concrete Paving

G



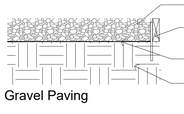
Stepping Stones

H



Decomposed Granite Paving

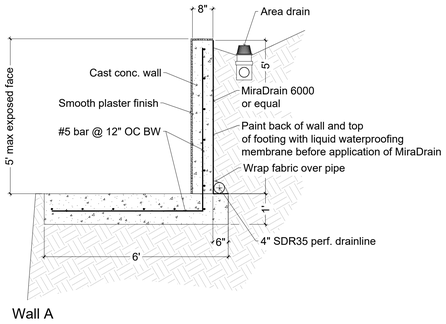
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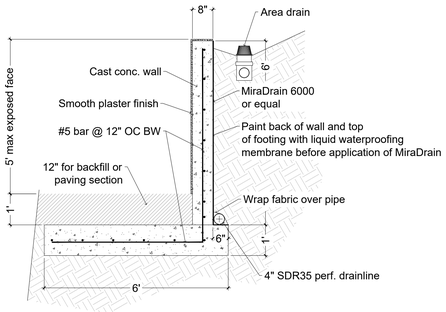
Gravel Paving

1 PAVING LEGEND

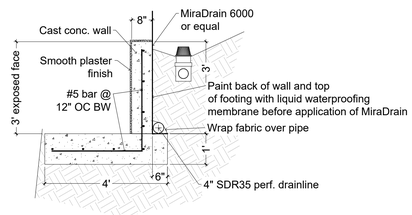
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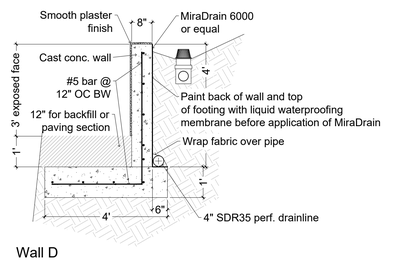
Wall A



Wall B



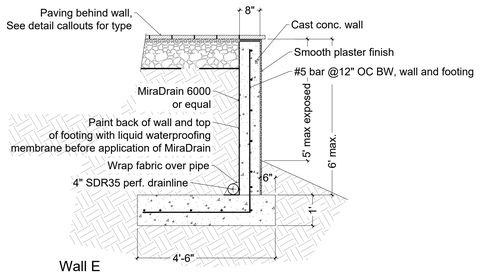
Wall C



Wall D

2 RETAINING WALLS

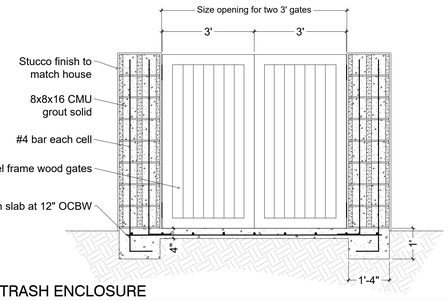
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Wall E

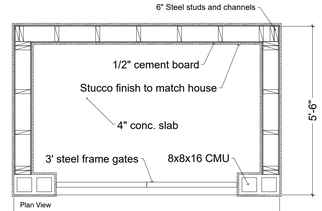
3 RETAINING WALL E

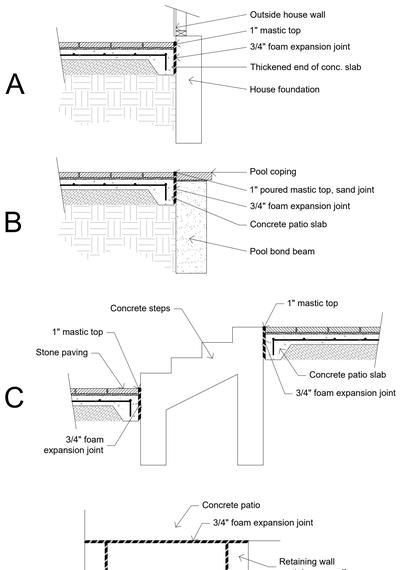
1/2" = 1'-0" BOUK-CONC-03



5 TRASH ENCLOSURE

1/2" = 1'-0" BOUK-MASON-03





4 JOINT LEGEND

1/2" = 1'-0" BOUK-PAVE-02

REGISTERED PROFESSIONAL ENGINEER
CHARLES W. WILLIAMS
No. C 44268
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA
11-19-21

LANDSCAPE ARCHITECT
DAVID R. FOX
No. 2572
Exp. 08/31/22
STATE OF CALIFORNIA

David R. Fox

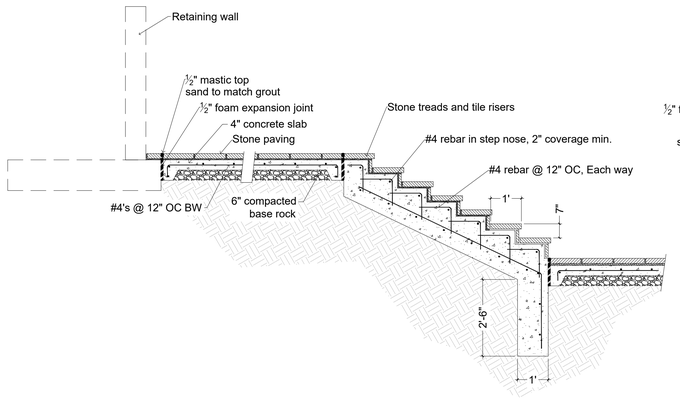
REVISIONS	BY
3-17-22 Per plan check comments 1	DRF

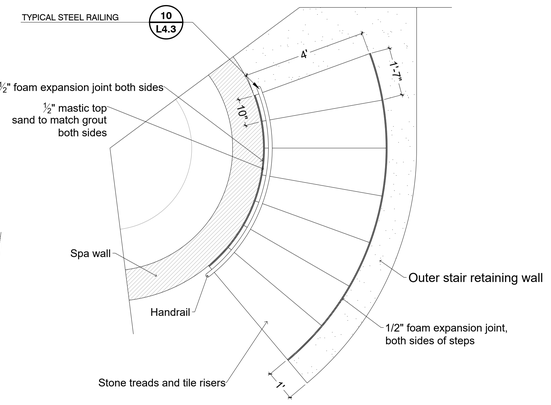
David R. Fox & Company • Landscape Architecture
1188 Koster berg Avenue san jose 95125
408-761-0272 phone
david@foxla.net

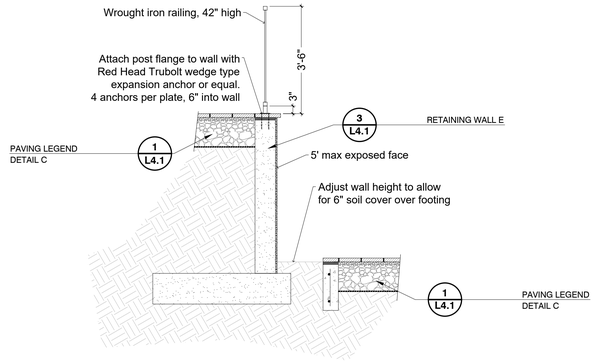
Details

The Bouknight Residence
144 Wood Road
Los Gatos
California

Date 11-18-21
Scale As Shown
Drawn DRF/ MCF
Job Bouknight
Sheet L4.1
Of . Sheets







2 UPPER PATIO WALL SECTION

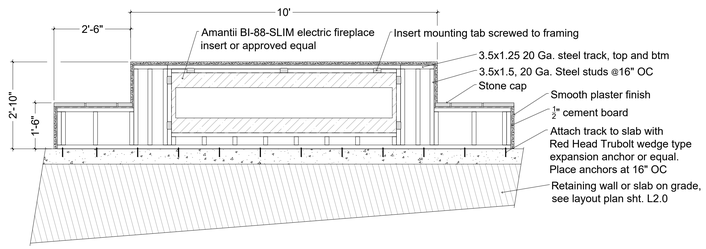
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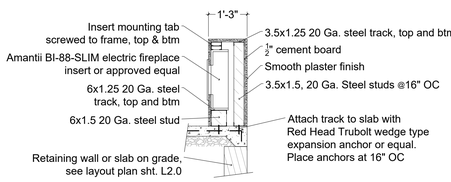
BOUK-CONC-Ø5

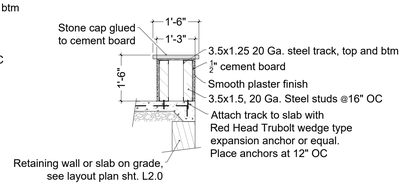
1 SPA STAIRS

1/2" = 1'-0"

BOUK-CONC-Ø2



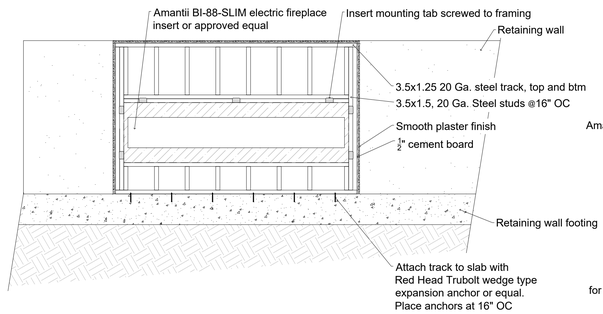


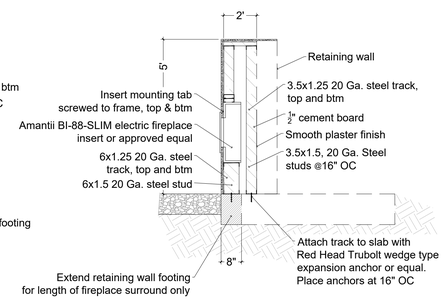


3 POOL PATIO FIREPLACE

1/2" = 1'-0"

BOUK-MASON-Ø1





4 GRAVEL PATIO FIREPLACE

1/2" = 1'-0"

BOUK-MASON-Ø2



David R. Fox



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3-17-22 Per plan check comments 1	DRF

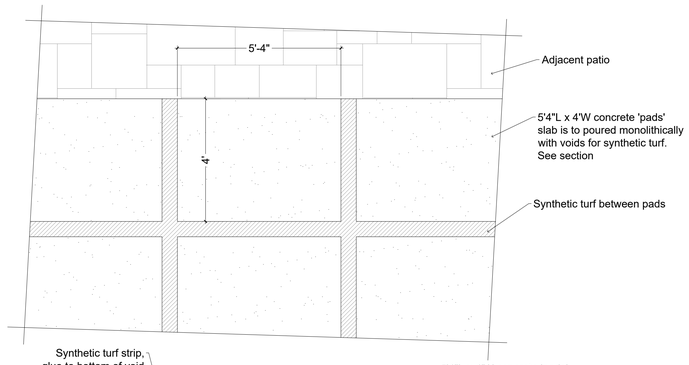
David R. Fox & Company • Landscape Architecture
1189 Kooenberg Avenue san jose 95125
(408) 910-0212 phone dave@dfoxla.net

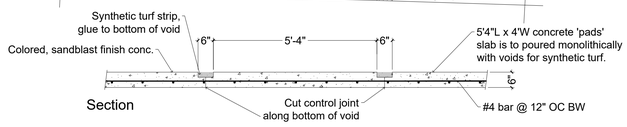
Details

The Bouknight Residence
144 Wood Road
Los Gatos
California

1

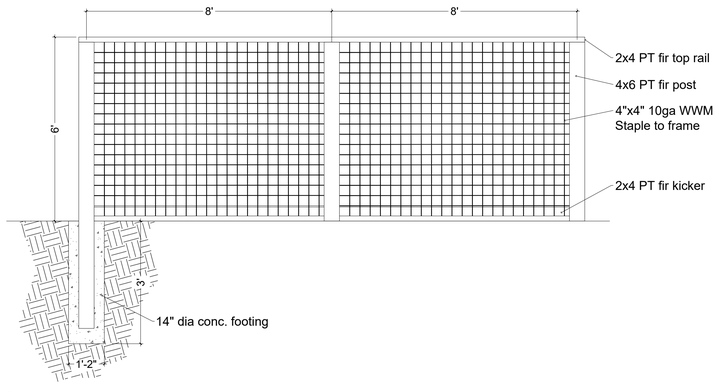
Date 11-18-21
Scale As Shown
Drawn DRF/ MCF
Job Bouknight
Sheet L4.2
Of . Sheets





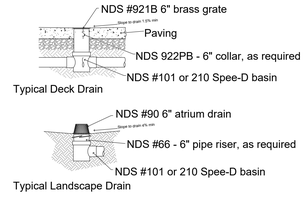
1 DRIVEWAY CONCRETE PADS WITH TURF

1/2" = 1'-0" BOUK-CONC-Ø1



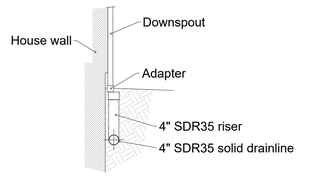
4 PERIMETER FENCE

1/2" = 1'-0" BOUK-WOOD-Ø2



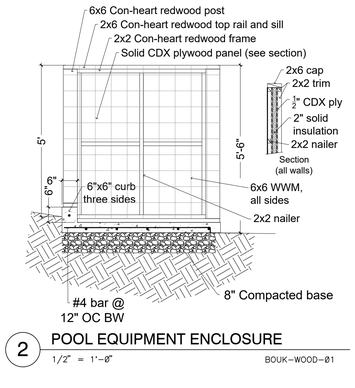
7 TYPICAL DRAINS

1/2" = 1'-0" BOUK-DRAIN-Ø1



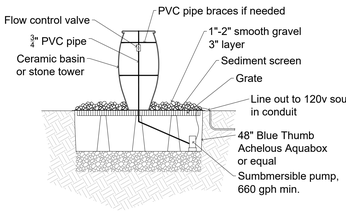
8 DOWNSPOUT ADAPTER

1/2" = 1'-0" BOUK-DRAIN-Ø2



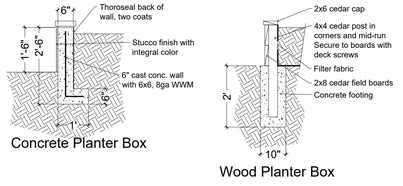
2 POOL EQUIPMENT ENCLOSURE

1/2" = 1'-0" BOUK-WOOD-Ø1



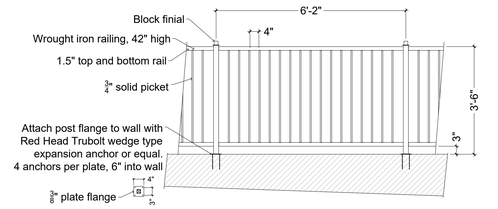
5 FRONT COURTYARD FOUNTAIN

1/2" = 1'-0" BOUK-PLUMB-Ø1



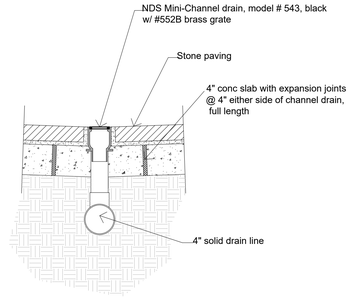
6 GARDEN BOX SECTIONS

1/2" = 1'-0" BOUK-CONST-01



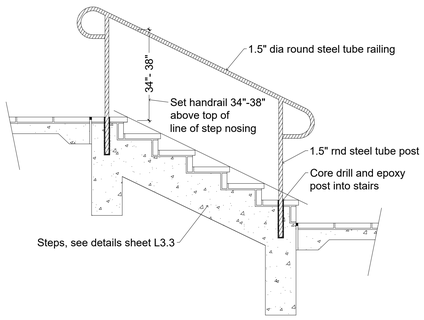
3 TYPICAL RAILING

1/2" = 1'-0" BOUK-METAL-Ø1



9 TRENCH DRAIN

3/4" = 1'-0" BOUK-DRAIN-Ø3



10 TYPICAL STEEL RAILING ⚠1

1/2" = 1'-0" BOUK-METAL-Ø2

REVISIONS	BY
3-17-22 ⚠1 Per plan check comments	DRF

David R. Fox & Company • Landscape Architecture
1188 Koberberg Avenue San Jose 95125
408-781-0272 phone
davidf@botol.net

Details

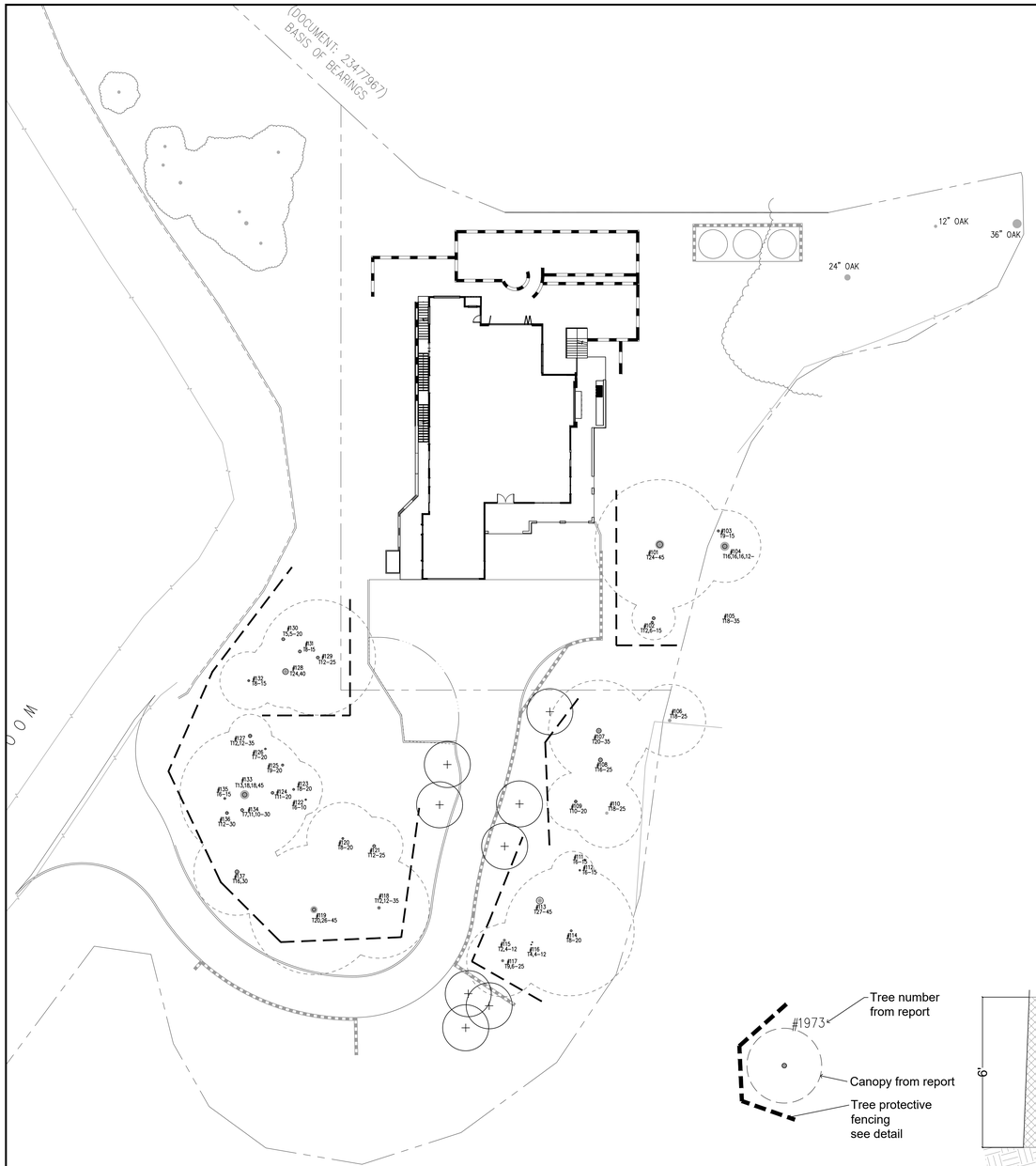
The Bouknight Residence
144 Wood Road
Los Gatos
California

⚠1

Date 11-18-21
Scale As Shown
Drawn DRF/ MCF
Job Bouknight
Sheet L4.3
Of . Sheets

LANDSCAPE ARCHITECT
DAVID R. FOX
Certificate of Completion
I certify that I have prepared or directly supervised the preparation of this document for David R. Fox and Company
Date: 2021.11.18 13:56:41 -08'00'
Signature
08/31/22
Renewal Date
Date
STATE OF CALIFORNIA

David R. Fox



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	Existing tree from arborist report
3	Existing tree to remain (typical)
4	Tree to be removed (typical)
5	Tree canopy from arborist report
8	Fire truck turnaround
10	New residence
11	Proposed pool and spa
12	Proposed play area
14	Stone patios set on permeable base
15	Proposed tree protection fencing Type 1
29	Driveway paving with installation that meets H/20 and HS/20 load standards
30	Driveway to garage
49	This section of path to be deferred until tree fencing can be removed

Tree Protection Zones and Fence Specifications

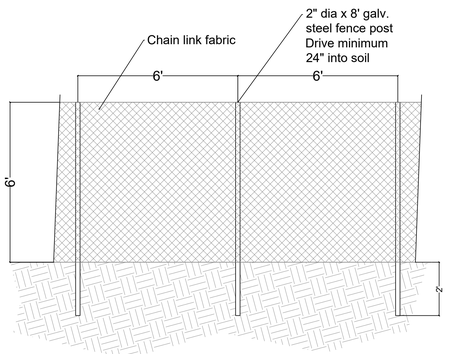
1. Size and materials: Six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than ten-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.
2. Area type to be fenced: Type I: Enclosure with chain link fencing of either the entire dripline area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with two-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.
3. Duration of Type I, II, III fencing: Fencing shall be erected before demolition, grading or construction permits are issued and remain in place until the work is completed. Contractor shall first obtain the approval of the project arborist on record prior to removing a tree protection fence.
4. Warning Sign: Each tree fence shall have prominently displayed an eight and one-half-inch by eleven-inch sign stating: "Warning—Tree Protection Zone—This fence shall not be removed and is subject to penalty according to Town Code 29.10.1025." Text on the signs should be in both English and Spanish (Appendix E).

All persons, shall comply with the following precautions

1. Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials, equipment cleaning, or parking of vehicles within the TPZ. The dripline shall not be altered in any way so as to increase the encroachment of the construction.
2. Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.
3. Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.
4. Prohibit the attachment of wires, signs or ropes to any protected tree.
5. Design utility services and irrigation lines to be located outside of the dripline when feasible.
6. Retain the services of a certified or consulting arborist who shall serve as the project arborist for periodic monitoring of the project site and the health of those trees to be preserved. The project arborist shall be present whenever activities occur which may pose a potential threat to the health of the trees to be preserved and shall document all site visits.
7. The Director and project arborist shall be notified of any damage that occurs to a protected tree during construction so that proper treatment may be administered.

New 60" box Sequoia Sempervirens - Redwood to be planted as shown

Tree Species	I.D. #	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition	Suitability	Expected Impact
valley oak (*Quercus agrifolia*)	101	24	45	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	102	12, 6	15	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	103	9	15	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	104	16, 16, 16, 12		Fair/50%	Fair	Low
coast live oak (*Quercus agrifolia*)	105	18	35	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	106	18	25	Fair/50%	Fair	Low
coast live oak (*Quercus agrifolia*)	107	20	35	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	108	16	25	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	109	10	20	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	110	18	25	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	111	6	15	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	112	6	15	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	113	27	45	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	114	8	20	Good/70%	Good	Low
coast live oak (*Quercus agrifolia*)	115	2, 4	12	Fair/	Fair	Low
bay laurel (*Umbellularia californica*)	116	4, 4 multi	12	Fair/	Fair	Moderate-High
coast live oak (*Quercus agrifolia*)	117	9, 6	25	Fair/	Fair	Moderate-High
coast live oak (*Quercus agrifolia*)	118	12, 12	35	Fair/	Fair	Moderate-High
coast live oak (*Quercus agrifolia*)	119	20, 26	45	Fair/	Fair	Low
coast live oak (*Quercus agrifolia*)	120	8	20	Good/70%	Good	Moderate-High
coast live oak (*Quercus agrifolia*)	121	12	25	Good/70%	Good	Moderate-High
bay laurel (*Umbellularia californica*)	122	6	10	Good/70%	Good	Moderate-High
coast live oak (*Quercus agrifolia*)	123	8	20	Good/70%	Good	Moderate-High
bay laurel (*Umbellularia californica*)	124	11	20	Good/70%	Good	Moderate-High
bay laurel (*Umbellularia californica*)	125	9	20	Good/70%	Good	Moderate-High
coast live oak (*Quercus agrifolia*)	126	7	20	Fair/50%	Fair	Moderate-High
coast live oak (*Quercus agrifolia*)	127	12, 12	35	Fair/50%	Fair	Low
valley oak (*Quercus agrifolia*)	128	24	40	Fair/50%	Fair	Low
coast live oak (*Quercus agrifolia*)	129	12	25	Good/70%	Good	Low
bay laurel (*Umbellularia californica*)	130	5, 5	20	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	131	8	15	Good/70%	Good	Low
bay laurel (*Umbellularia californica*)	132	8	15	Poor/15	Poor	Low
coast live oak (*Quercus agrifolia*)	133	13, 18, 18	45	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	134	7, 11, 10	30	Fair/50%	Fair	Low
bay laurel (*Umbellularia californica*)	135	6	15	Good/70%	Good	Low
bay laurel (*Umbellularia californica*)	136	12	30	Fair/50%	Fair	Low
coast live oak (*Quercus agrifolia*)	137	16	30	Fair/50%	Fair	Low



1 TYPE I TREE PROTECTIVE FENCING
NTS

REVISIONS	BY
5-17-22 Per plan check comments	DRF

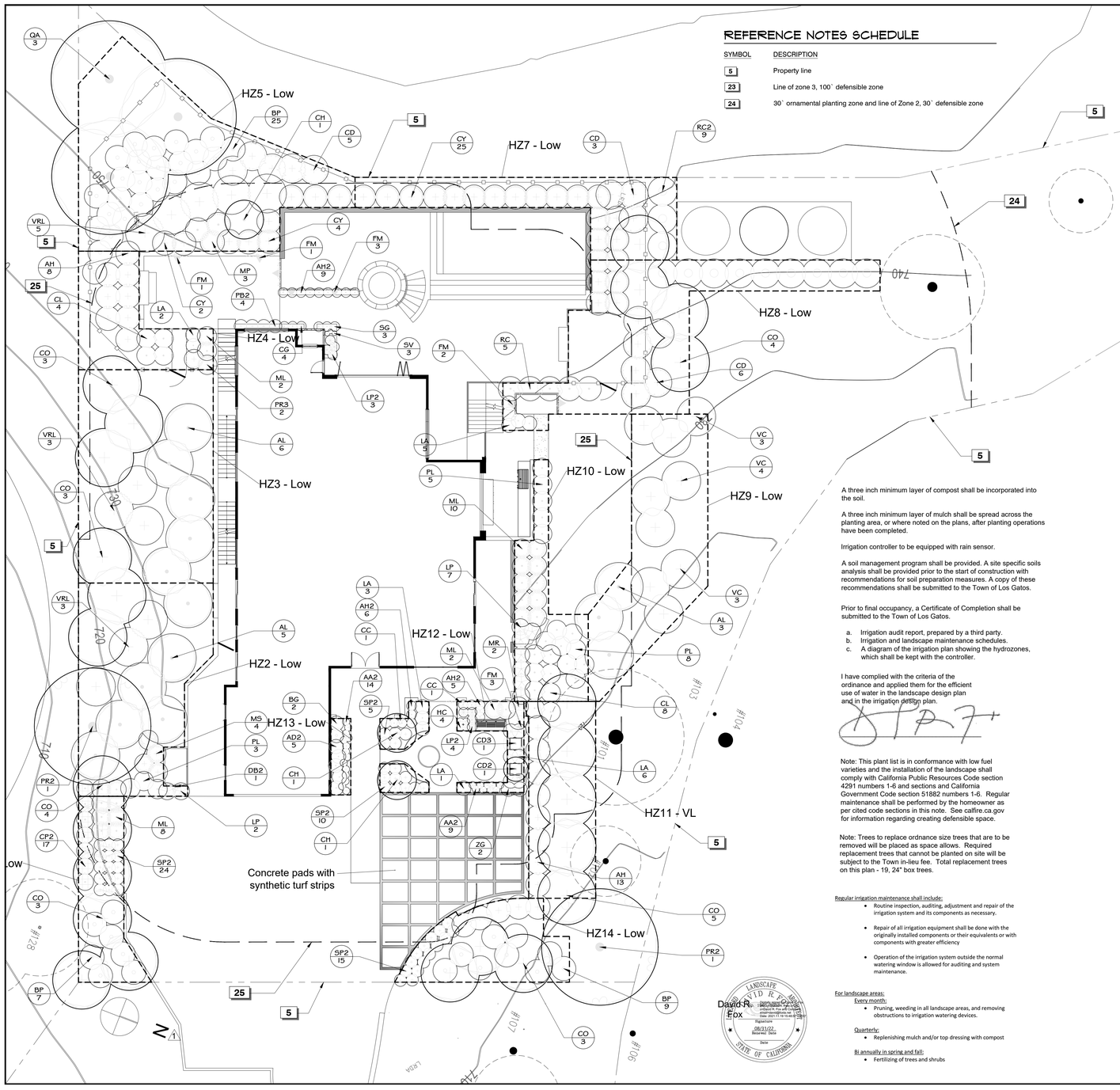
David R. Fox & Company-Landscape Architecture
1188 kotenberg Avenue san jose 95125
408-767-0212 phone
davidf@rocks.net

Tree Plan

The Bouknight Residence
144 Wood Road
Los Gatos California

Date	11/26/20
Scale	1"=20'-0"
Drawn	DRF/ MCF
Job	Bouknight
Sheet	L5.0
Of	Sheets

LANDSCAPE ARCHITECT
DAVID R. FOX
License No. 2772
Date: 2021.11.19 15:48:59 -08'00'
Signature
08/31/22
Date
STATE OF CALIFORNIA



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
5	Property line
23	Line of zone 3, 100` defensible zone
24	30` ornamental planting zone and line of Zone 2, 30`` defensible zone

A three inch minimum layer of compost shall be incorporated into the soil.

A three inch minimum layer of mulch shall be spread across the planting area, or where noted on the plans, after planting operations have been completed.

Irrigation controller to be equipped with rain sensor.

A soil management program shall be provided. A site specific soils analysis shall be provided prior to the start of construction with recommendations for soil preparation measures. A copy of these recommendations shall be submitted to the Town of Los Gatos.

Prior to final occupancy, a Certificate of Completion shall be submitted to the Town of Los Gatos.

a. Irrigation audit report, prepared by a third party.
b. Irrigation and landscape maintenance schedules.
c. A diagram of the irrigation plan showing the hydrozones, which shall be kept with the controller.

I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan and in the irrigation design plan.

Note: This plant list is in conformance with low fuel varieties and the installation of the landscape shall comply with California Public Resources Code section 4291 numbers 1-6 and sections and California Government Code section 51882 numbers 1-6. Regular maintenance shall be performed by the homeowner as per cited code sections in this note. See calfire.ca.gov for information regarding creating defensible space.

Note: Trees to replace ordnance size trees that are to be removed will be placed as space allows. Required replacement trees that cannot be planted on site will be subject to the Town in-lieu fee. Total replacement trees on this plan - 19, 24" box trees.

Regular irrigation maintenance shall include:

- Routine inspection, auditing, adjustment and repair of the irrigation system and its components as necessary.
- Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency
- Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

For landscape areas:

Every month:

- Pruning, weeding in all landscape areas, and removing obstructions to irrigation watering devices.

Quarterly:

- Replenishing mulch and/or top dressing with compost

Bi annually in spring and fall:

- Fertilizing of trees and shrubs

David R. Fox

LANDSCAPE DESIGNER
DAVID R. FOX
1183 Kooser Rd. #1
San Jose, CA 95125
(408) 781-0212
Date: 2021.11.19 15:46:57 -08'00'
Signature
08/31/22
Reviewed Date
Date
STATE OF CALIFORNIA

PLANT SCHEDULE

SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	WUCOLS
	AD2	Abutilon x hybridum `Dwarf Red`	Dwarf Red Flowering Maple	1 gal	5	M
	AL	Acacia redolens `Low Boy`	Low Boy Bank Catclaw	5 gal	14	VL
	AA2	Anemone x hybrida `Alba`	White Japanese Anemone	1 gal	23	M
	AH2	Anigozanthos x `Big Red`	Big Red Kangaroo Paw	5 gal	20	L
	AH	Arctostaphylos densiflora `Howard McMinn`	Howard McMinn Manzanita	5 gal	21	L
	BP	Baccharis pilularis `Plgeon Point`	Coyote Brush	5 gal	41	L
	BG	Buxus x `Green Mountain`	Boxwood	5 gal	2	M
	CL	Callistemon citrinus `Little John`	Dwarf Bottle Brush	5 gal	12	L
	CY	Ceanothus `Yankee Point`	California Lilac	1 gal	31	L
	CG	Ceanothus gloriosus	Point Reyes Creeper	5 gal	4	L
	CP2	Ceanothus griseus `Point Sal`	Point Sal Carmel Ceanothus	1 gal	7	L
	CD	Ceanothus x `Dark Star`	California Lilac	5 gal	14	L
	CC	Clytostoma callistegioides	Violet Trumpet Vine	5 gal	2	M
	DB2	Distictis buccinatoria	Blood Red Trumpet Vine	5 gal	1	M
	FM	Ficus pumila minima	Creeping Fig	5 gal	10	M
	HC	Heuchera villosa `Citronelle`	Coral Bells	1 gal	4	M
	LP	Lantana montevidensis	Trailing Lantana	1 gal	9	L
	LA	Lantana montevidensis `Alba`	White Trailing Lantana	1 gal	17	L
	LP2	Limonium perezii	Statice	1 gal	7	L
	MS	Miscanthus sinensis `Adagio`	Adagio Eulalia Grass	5 gal	4	M
	ML	Miscanthus sinensis `Little Kitten`	Little Kitten Eulalia Grass	1 gal	22	L
	MP	Miscanthus sinensis `Purpurescens`	Flame Eulalia Grass	5 gal	3	M
	MR	Muhlenbergia rigens	Deer Grass	1 gal	2	L
	PR3	Pennisetum rubrum	Red Fountain Grass	5 gal	2	L
	PL	Perovskia atriplicifolia `Lacey Blue`	Russian Sage	5 gal	16	L
	PB2	Phormium tenax `Bronze Baby`	Bronze Baby New Zealand Flax	1 gal	4	L
	RC2	Rhamnus californica	California Coffee Berry	5 gal	12	L
	VRL	Rosa banksiae `Lutea`	Banksia Rose	5 gal	11	L
	RC	Rosa x `Iceburg`	Iceburg White Rose	5 gal	5	L
	SP2	Salvia `Celestial Blue`	Santa Rosa Island Sage	1 gal	45	L
	SG	Sempervivum x `Green Giant`	Hen-and-Chicks	1 gal	3	L
	SV	Senecio vitalis	Blue Chalk Fingers	1 gal	3	L
	VC	Vitis californica `Roger`s Red`	California Wild Grape	1 gal	9	L
	ZG	Zantedeschia aethiopica `White Giant`	White Giant Calla Lily	1 gal	2	M

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	WUCOLS
	CH	Ceanothus x `Ray Hartman`	Ray Hartman Wild Lilac	24" Box	3	L
	CO	Cercis occidentalis	Western Redbud Multi-trunk	24" Box	24	VL
	CD2	Citrus x aurantiifolia `Dwarf Bearss Seedless`	Dwarf Bearss Seedless Lime	15 gal	1	M
	CD3	Citrus x limon `Dwarf Improved Meyer`	Dwarf Improved Meyer Lemon	15 gal.	1	M
	PR2	Platanus racemosa	California Sycamore	24"box	2	M
	QA	Quercus agrifolia	Coast Live Oak	24" Box	3	VL

REVISIONS		BY
5-17-22 Per plan check comments	1	DRF

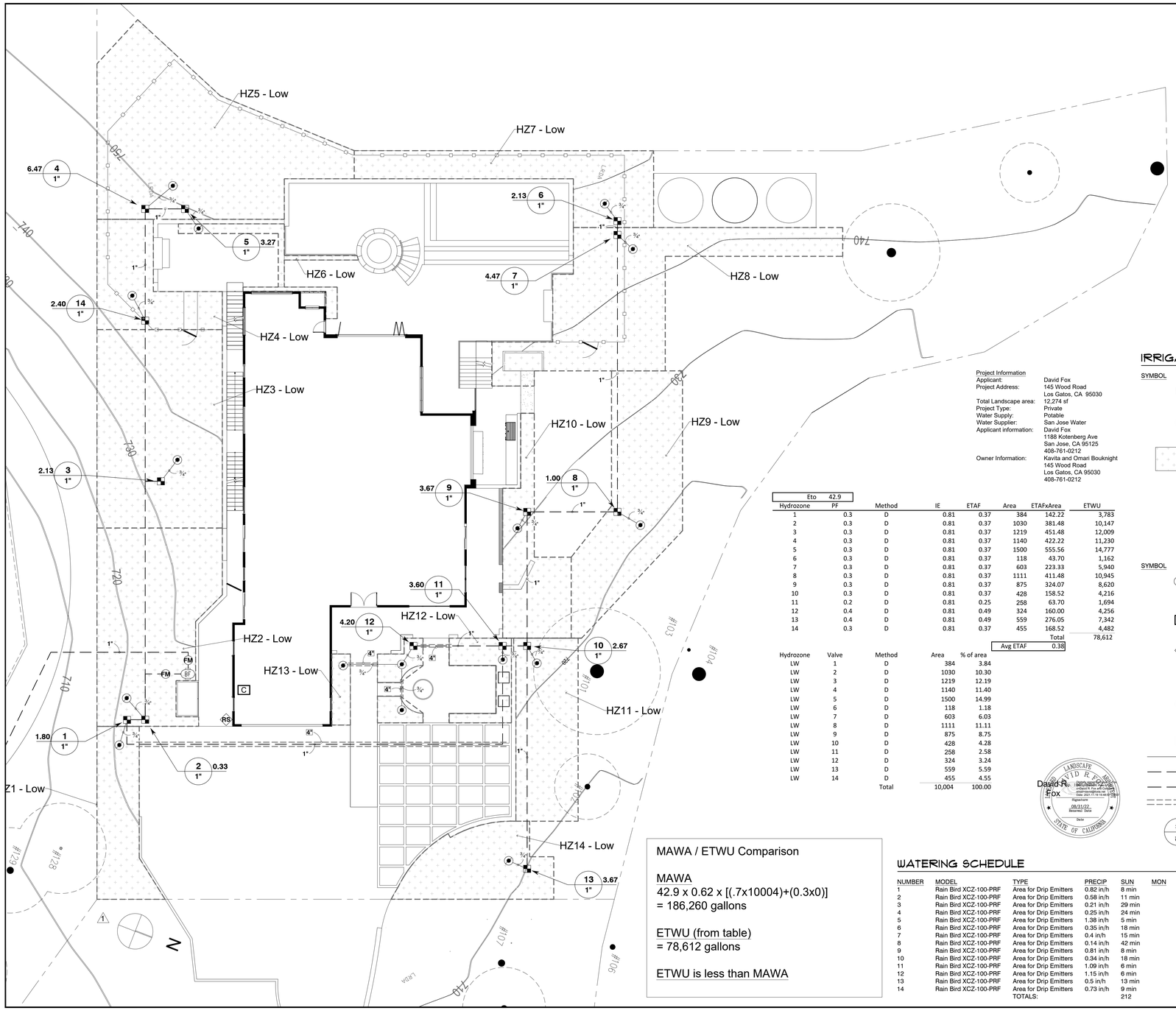
David R. Fox & Company-Landscape Architecture
1183 Kooser Rd. #1 San Jose 95125
408-781-0212 phone david@foxla.net

Planting Plan

The Bouknight Residence
144 Wood Road
Los Gatos California

1

Date 4-12-21
Scale 1"=10'-0"
Drawn DRF/ MCF
Job Bouknight
Sheet L6.0
Of . Sheets



A three inch minimum layer of compost shall be incorporated into the soil.

A three inch minimum layer of mulch shall be spread across the planting area, or where noted on the plans, after planting operations have been completed.

Irrigation controller to be equipped with rain sensor.

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a. Irrigation audit report, prepared by a third party.
b. Irrigation and landscape maintenance schedules.
c. A diagram of the irrigation plan showing the hydrozones, which shall be kept with the controller.

I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan and in the irrigation design plan.

Concept Statement
This irrigation system is designed to be water conserving with the use of drip line irrigation, an irrigation controller equipped with a rain sensor, and pressure compensating low flow spray heads for lawn.

Project Information

Applicant:	David Fox
Project Address:	145 Wood Road Los Gatos, CA 95030
Total Landscape area:	12,274 sf
Project Type:	Private
Water Supply:	Potable
Water Supplier:	San Jose Water
Applicant information:	David Fox 1188 Kotenberg Ave San Jose, CA 95125 408-761-0212
Owner Information:	Kavita and Omari Bouknight 145 Wood Road Los Gatos, CA 95030 408-761-0212

Eto 42.9

Hydrozone	PF	Method	IE	ETAF	Area	ETAFxArea	ETWU
1	0.3	D	0.81	0.37	384	142.22	3,783
2	0.3	D	0.81	0.37	1030	381.48	10,147
3	0.3	D	0.81	0.37	1219	451.48	12,009
4	0.3	D	0.81	0.37	1140	422.22	11,230
5	0.3	D	0.81	0.37	1500	555.56	14,777
6	0.3	D	0.81	0.37	118	43.70	1,162
7	0.3	D	0.81	0.37	603	223.33	5,940
8	0.3	D	0.81	0.37	1111	411.48	10,945
9	0.3	D	0.81	0.37	875	324.07	8,620
10	0.3	D	0.81	0.37	428	158.52	4,216
11	0.2	D	0.81	0.25	258	63.70	1,694
12	0.4	D	0.81	0.49	324	160.00	4,256
13	0.4	D	0.81	0.49	559	276.05	7,342
14	0.3	D	0.81	0.37	455	168.52	4,482
						Total	78,612
						Avg ETAF	0.38

Hydrozone	Valve	Method	Area	% of area
LW	1	D	384	3.84
LW	2	D	1030	10.30
LW	3	D	1219	12.19
LW	4	D	1140	11.40
LW	5	D	1500	14.99
LW	6	D	118	1.18
LW	7	D	603	6.03
LW	8	D	1111	11.11
LW	9	D	875	8.75
LW	10	D	428	4.28
LW	11	D	258	2.58
LW	12	D	324	3.24
LW	13	D	559	5.59
LW	14	D	455	4.55
		Total	10,004	100.00

David R. Fox
LANDSCAPE ARCHITECT
DAVID R. FOX
Date 2021.11.19 10:44:39 -08'00'
Signature
08/31/22
Renewal Date
Date
STATE OF CALIFORNIA

MAWA / ETWU Comparison

MAWA
42.9 x 0.62 x [(.7x10004)+(0.3x0)]
= 186,260 gallons

ETWU (from table)
= 78,612 gallons

ETWU is less than MAWA

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
	Rain Bird XCZ-100-PRF 1" Medium Flow Drip Control Kit, 1" DV valve, 1" pressure regulating filter, 40psi pressure regulator. 3 GPM-15 GPM.	14	
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6" (150mm) drip box.	16	
	Area to Receive Drip Emitters Rain Bird PC Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange. Emitter Notes:	9,053 s.f.	
	PC-05 emitters (1 assigned to each 1 gal plant)	193	
	PC-05 emitters (3 assigned to each 15 gal. plant)	3	
	PC-05 emitters (2 assigned to each 5 gal plant)	388	
	PC-05 emitters (3 assigned to each 15 gal plant)	3	
	PC-05 emitters (4 assigned to each 24" Box plant)	120	
	PC-05 emitters (4 assigned to each 24"box plant)	4	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
BF	Febco 765 1-1/2" Pressure Vacuum Breaker, brass with ball valve SOV. Install 12" above highest downstream outlet and the highest point in the downstream piping.	1	
C	Irritrol TC-18-EX-R (2) Hybrid Controller, 18- Station, Outdoor Model, with Plastic Locking Cabinet. Climate Logic compatible, and Remote-Ready.	1	
RS	Irritrol CL-100-WIRELESS (2) Wireless Weather Sensing System. 100-Receive and Transmitter Kit. Outdoor sensor, and receiver attaches to Irritrol Controller. Compatible with Rain Dial-R, Total Control-R, KD2, and MC-E controllers. Monitors weather data for watering adjustments and provides rain-freeze shut-down.	1	
FM	Irritrol FS-B100 (2) Flow sensor, brass body, pipe connection size is 1", maximum water pressure is 400psi, suggested operating range is 2GPM-40GPM, K value of 109, offset value of 27.	2	
M	Water Meter 1"	1	
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	93.9 l.f.	
	Irrigation Mainline: PVC Class 315 SDR 13.5	91.9 l.f.	
	Irrigation Mainline: PVC Class 315 SDR 13.5 1"	544.7 l.f.	
	Pipe Sleeve: PVC Schedule 80 4"	99.3 l.f.	
	Valve Callout Valve Number Valve Flow Valve Size		

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.82 in/h	8 min			8 min				0.2	15	27.0	13.5
2	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.58 in/h	11 min			11 min				0.2	21	7.0	3.5
3	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.21 in/h	29 min			29 min				0.2	58	123.8	61.9
4	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.25 in/h	24 min			24 min				0.2	48	310.6	155.3
5	Rain Bird XCZ-100-PRF	Area for Drip Emitters	1.38 in/h	5 min			5 min				0.2	9	29.4	14.7
6	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.35 in/h	18 min			18 min				0.2	35	74.7	37.4
7	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.4 in/h	15 min			15 min				0.2	30	134.1	67.0
8	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.14 in/h	42 min			42 min				0.2	84	84.0	42.0
9	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.81 in/h	8 min			8 min				0.2	15	55.0	27.5
10	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.34 in/h	18 min			18 min				0.2	35	93.4	46.7
11	Rain Bird XCZ-100-PRF	Area for Drip Emitters	1.09 in/h	6 min			6 min				0.2	11	39.6	19.8
12	Rain Bird XCZ-100-PRF	Area for Drip Emitters	1.15 in/h	6 min			6 min				0.2	11	46.2	23.1
13	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.5 in/h	13 min			13 min				0.2	25	91.7	45.9
14	Rain Bird XCZ-100-PRF	Area for Drip Emitters	0.73 in/h	9 min			9 min				0.2	17	40.8	20.4
		TOTALS:		212			212					414	1,157	578.7

REVISIONS	BY
5-17-22 Per plan check comments 1	DRF

David R. Fox & Company-Landscape Architecture
95125
1188 Kotenberg Avenue san Jose
david@loxla.net
408-761-0212 phone

Irrigation Plan

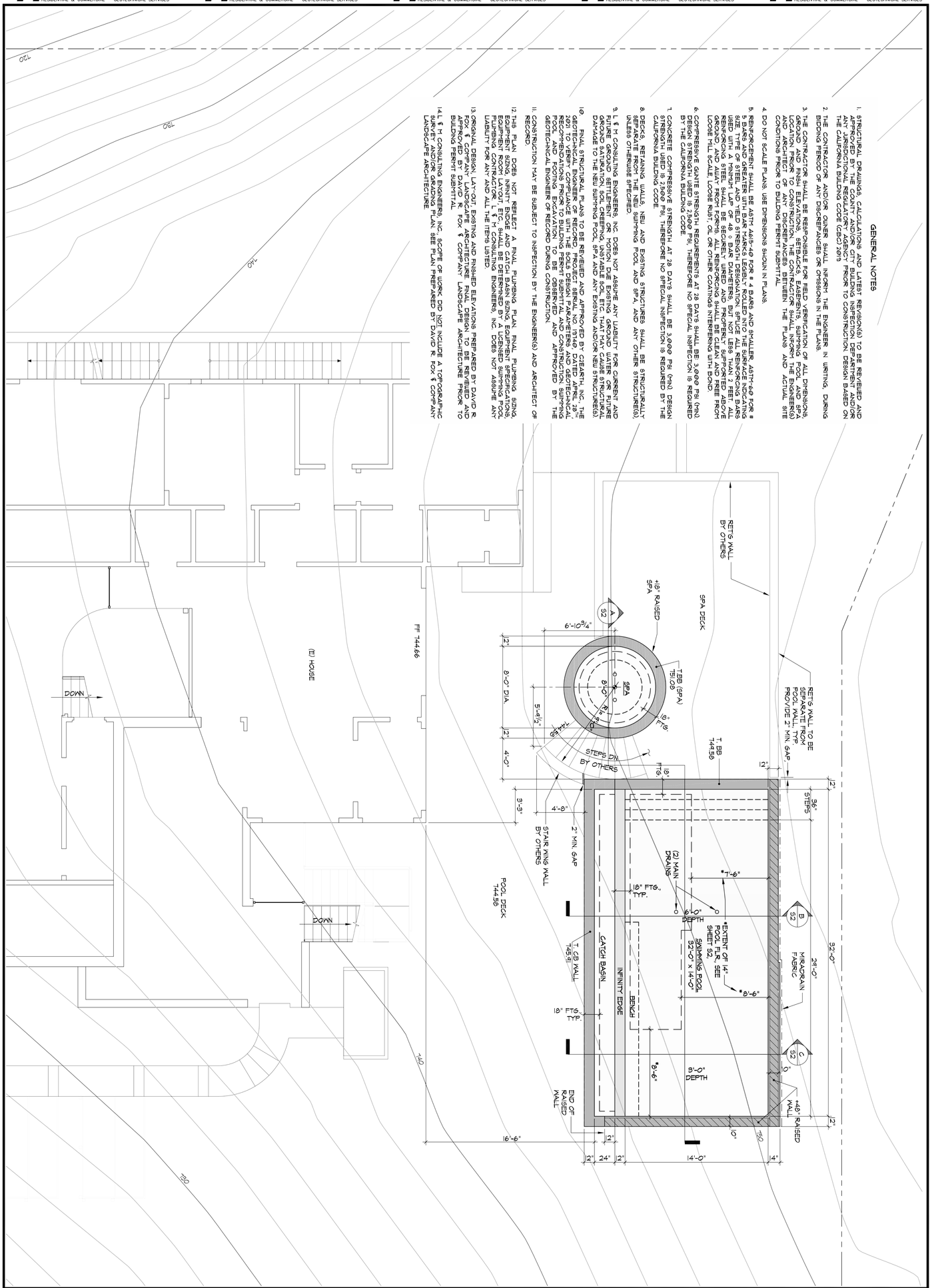
The Bouknight Residence
144 Wood Road
Los Gatos
California

1

Date 4-12-21
Scale 1"=10'-0"
Drawn DRF/ MCF
Job Bouknight
Sheet L7.0
Of . Sheets

GENERAL NOTES

1. STRUCTURAL DRAWINGS, CALCULATIONS, AND LATEST REVISION(S) TO BE REVIEWED AND APPROVED BY THE COUNTY AND/OR CITY BUILDING INSPECTION DEPARTMENT AND/OR ANY JURISDICTIONAL REGULATORY AGENCY PRIOR TO CONSTRUCTION. DESIGN BASED ON THE CALIFORNIA BUILDING CODE (CBC) 2019
2. THE CONTRACTOR AND/OR OWNER SHALL INFORM THE ENGINEER IN WRITING, DURING BIDDING PERIOD OF ANY DISCREPANCIES OR OMISSIONS IN THE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS, GROUND AND FINISH ELEVATIONS, SETBACKS, EASEMENTS, SIZING OF POOL AND SPA LOCATION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER(S) IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS PRIOR TO BUILDING PERMIT SUBMITTAL
4. DO NOT SCALE PLANS. USE DIMENSIONS SHOWN IN PLANS.
5. REINFORCEMENT SHALL BE ASTM A615-40 FOR # 4 BARS AND SMALLER, ASTM-60 FOR # 5 BARS AND GREATER WITH BAR MARKS LEGIBLY ROLLED INTO THE SURFACE INDICATING SIZE, TYPE OF STEEL AND FIELD STRENGTH DESIGNATION. SPLICE ALL REINFORCING BARS WITH MINIMUM LAP SPLICE AS SHOWN ON DRAWINGS. REINFORCING STEEL SHALL BE SECURELY WIRED AND PROPERLY SUPPORTED ABOVE GROUND, AND AWAY FROM FORMS. ALL REINFORCING SHALL BE CLEAN AND FREE FROM LOOSE MILL SCALE, LOOSE RUST, OIL OR OTHER COATINGS INTERFERING WITH BOND.
6. COMPRESSIVE GUNITE STRENGTH REQUIREMENTS AT 28 DAYS SHALL BE 3,000 PSI (MIN) DESIGN STRENGTH USED IS 2,500 PSI. THEREFORE NO SPECIAL INSPECTION IS REQUIRED BY THE CALIFORNIA BUILDING CODE.
7. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 3,000 PSI (MIN) DESIGN STRENGTH USED IS 2,500 PSI. THEREFORE NO SPECIAL INSPECTION IS REQUIRED BY THE CALIFORNIA BUILDING CODE.
8. DECKS, RETAINING WALLS, NEW AND EXISTING STRUCTURES SHALL BE STRUCTURALLY SEPARATE FROM NEW SWIMMING POOL AND SPA, AND ANY OTHER STRUCTURE(S), UNLESS OTHERWISE SPECIFIED.
9. L & M CONSULTING ENGINEERS, INC. DOES NOT ASSUME ANY LIABILITY FOR CURRENT AND FUTURE GROUND SATURATION, SOIL CREEPING, UNSTABLE SOIL, ETC. THAT MAY CAUSE STRUCTURAL DAMAGE TO THE NEW SWIMMING POOL, SPA AND ANY EXISTING AND/OR NEW STRUCTURE(S).
10. FINAL STRUCTURAL PLANS TO BE REVIEWED AND APPROVED BY GEARTH, INC. THE GEOTECHNICAL ENGINEER OF RECORD, PROJECT SERIAL NO. 1914.9 DATED APRIL 28TH, 2021 TO VERIFY COMPLIANCE WITH THE SOILS DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS. ALL FOOTING EXCAVATIONS TO BE OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER OF RECORD DURING CONSTRUCTION.
11. CONSTRUCTION MAY BE SUBJECT TO INSPECTION BY THE ENGINEER(S) AND ARCHITECT OF RECORD
12. THE PLAN DOES NOT REFLECT A FINAL PLUMBING PLAN. FINAL PLUMBING SIZING, EQUIPMENT SIZING, INFINITY EDGE AND CATCH BASIN SIZING, EQUIPMENT SPECIFICATIONS, EQUIPMENT ROOM LAYOUT, ETC. SHALL BE DETERMINED BY A LICENSED SWIMMING POOL PLUMBING CONTRACTOR. L & M CONSULTING ENGINEERS, INC. DOES NOT ASSUME ANY LIABILITY FOR ANY AND ALL THE ITEMS LISTED.
13. ORIGINAL DESIGN, LAY-OUT, EXISTING AND FINISHED ELEVATIONS PREPARED BY DAVID R. FOX & COMPANY LANDSCAPE ARCHITECTURE. FINAL DESIGN TO BE REVIEWED AND APPROVED BY DAVID R. FOX & COMPANY LANDSCAPE ARCHITECTURE PRIOR TO BUILDING PERMIT SUBMITTAL
14. L & M CONSULTING ENGINEERS, INC. SCOPE OF WORK DID NOT INCLUDE A TOPOGRAPHIC SURVEY AND/OR GRADING PLAN. SEE PLAN PREPARED BY DAVID R. FOX & COMPANY LANDSCAPE ARCHITECTURE



SHEET	SHEET TITLE		
S1	PLAN		
1 OF 3 SHEETS	DATE: Nov. 30, 2021	DRAWN: KP	
JOB: 2021-49	SCALE: AS NOTED	CHECKED: A. LOBO	

New Swimming Pool for:
Bouknight Residence
144 WOOD ROAD
LOS GATOS, CALIFORNIA

CONSULTING ENGINEERS, INC.
STRUCTURAL ENGINEERING – CIVIL ENGINEERING – RESIDENTIAL & COMMERCIAL – GEOTECHNICAL SERVICES
5100 CLAYTON ROAD, B-1, #222
CONCORD, CALIFORNIA 94521-3161
PHONE (925) 672-6828
FAX (925) 889-4466

REGISTERED PROFESSIONAL ENGINEER BRETT R. MANNING — STATE OF CALIFORNIA — CIVIL — No. C 48427 — EXP. 6/30/2022

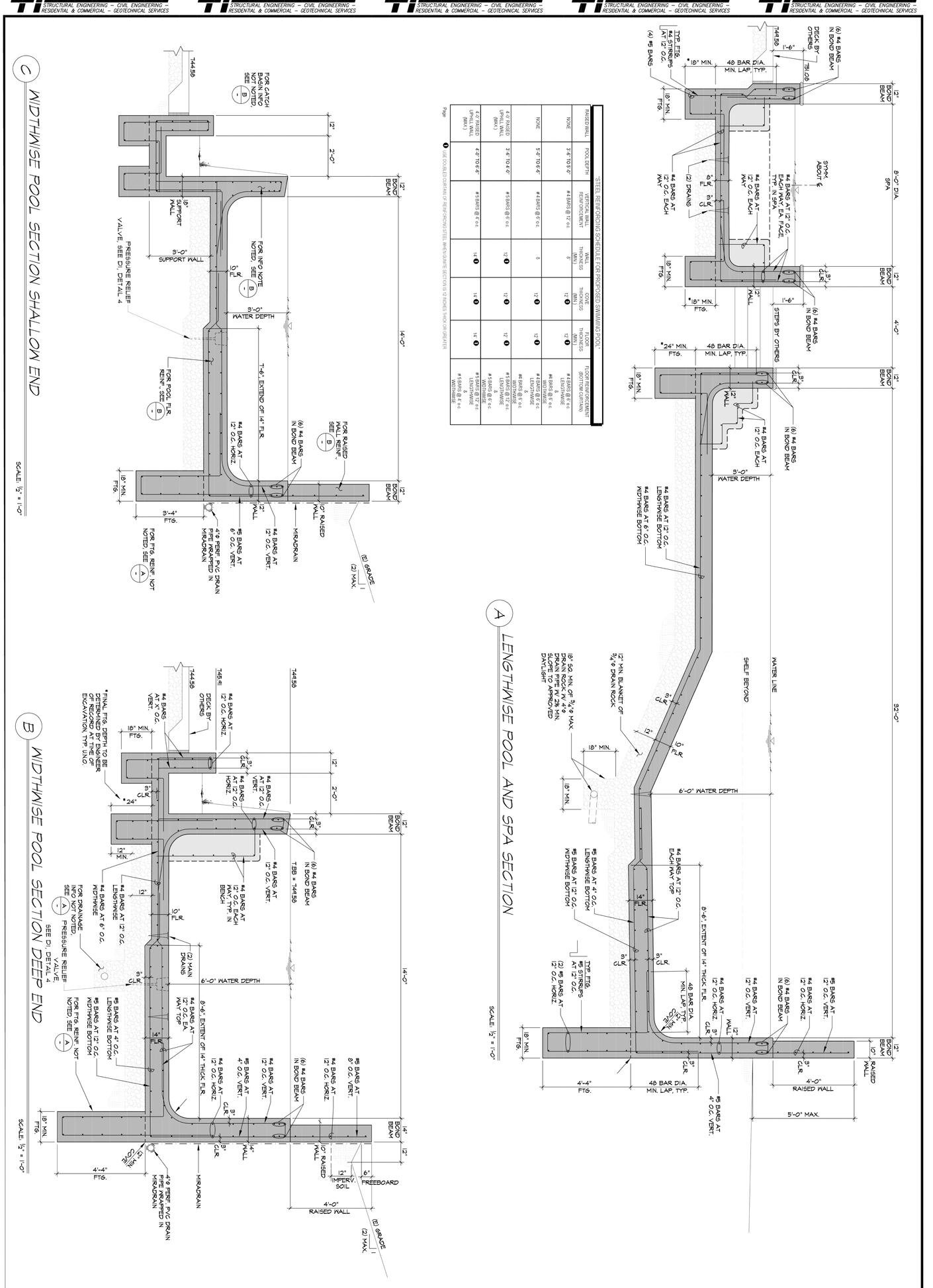
SYM.	DATE	ISSUE/REVISIONS	BY

CONSULTING ENGINEERS, INC.
STRUCTURAL ENGINEERING – CIVIL ENGINEERING –
RESIDENTIAL & COMMERCIAL – GEOTECHNICAL SERVICES

CONSULTING ENGINEERS, INC.
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RESIDENTIAL & COMMERCIAL – GEOTECHNICAL SERVICES

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RESIDENTIAL & COMMERCIAL – GEOTECHNICAL SERVICES



A LENGTHWISE POOL AND SPA SECTION

SCALE: ½" = 1'-0"

C WIDTHWISE POOL SECTION SHALLOW END

SCALE: ½" = 1'-0"

B WIDTHWISE POOL SECTION DEEP END

SCALE: ½" = 1'-0"

STEEL REINFORCING SCHEDULE FOR PROPOSED SWIMMING POOL

RAISED WALL	POOL DEPTH	VERTICAL WALL REINFORCEMENT	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)	FLOOR REINFORCEMENT (BOTTOM ASPHALT)
NONE	3'-6" TO 5'-0"	#4 BARS @ 12" o.c.	12" ❶	12" ❶	#4 BARS @ 6" o.c. LENGTHWISE & #4 BARS @ 6" o.c. WIDTHWISE
NONE	5'-0" TO 6'-6"	#4 BARS @ 9" o.c.	12" ❶	12" ❶	#4 BARS @ 6" o.c. LENGTHWISE & #4 BARS @ 6" o.c. WIDTHWISE
4.0' RAISED UPHILL WALL (MAX.)	3'-6" TO 4'-0"	#5 BARS @ 8" o.c.	12" ❶	12" ❶	#4 BARS @ 6" o.c. LENGTHWISE & #5 BARS @ 8" o.c. WIDTHWISE
4.0' RAISED UPHILL WALL (MAX.)	4'-0" TO 6'-6"	#5 BARS @ 6" o.c.	14" ❶	14" ❶	#5 BARS @ 6" o.c. LENGTHWISE & #5 BARS @ 6" o.c. WIDTHWISE

Page ❶ USE DOUBLE CURTAIN OF REINFORCED STEEL WHEN WALL SECTION IS GREATER THAN 24" DIAMETER

SHEET	SHEET TITLE		
S2	SECTIONS		
2 OF 3 SHEETS	DATE: Nov. 30, 2021	DRAWN: KP	
JOB: 2021-49	SCALE: AS NOTED	CHECKED: A. LOBO	

New Swimming Pool for:
Bouknight Residence
144 WOOD ROAD
LOS GATOS, CALIFORNIA

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5100 CLAYTON ROAD, B-1, #222
CONCORD, CALIFORNIA 94521-3161
PHONE (925) 672-6828
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REGISTERED PROFESSIONAL ENGINEER — BRETT R. KNUDSEN — C 46227 — STATE OF CALIFORNIA — CIVIL

SYM.	DATE	ISSUE/REVISIONS	BY

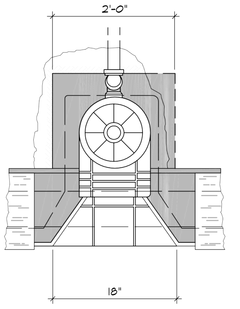
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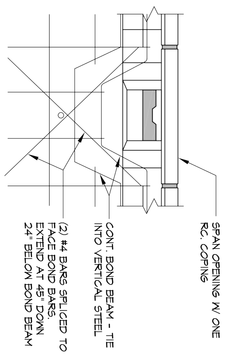
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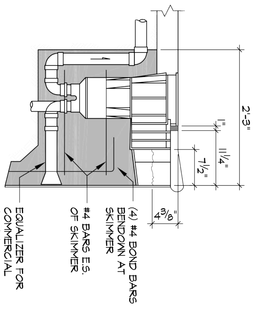
1 SKIMMER
PLAN VIEW



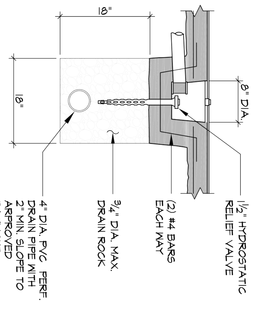
2 FRONT VIEW
ELEVATION



3 SKIMMER
SECTION



4 RELIEF VALVE
SECTION



SHEET: D1 — 3 OF 3 SHEETS
JOB: 2021-49
SHEET TITLE: DETAILS
DATE: Nov. 30, 2021
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