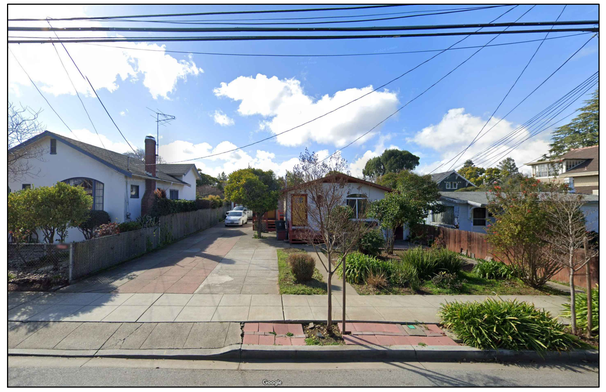
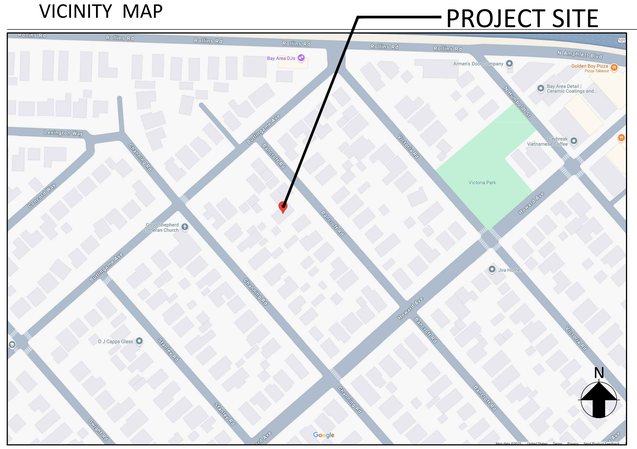
229 Bancroft Rd, Burlingame, CA 94010 --- HOUSE REBUILD

STREET VIEW



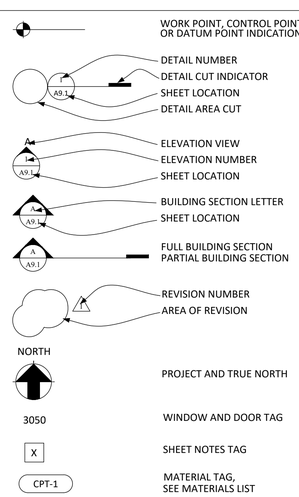
VICINITY MAP



ABBREVIATIONS

&:	AND
@:	AT
ABV:	ABOVE
AC:	AIR CONDITIONING, ACOUSTICAL
ADH:	ADHESIVE
ADJ:	ADJUST, ADJUSTABLE, ADJACENT
AFF:	ABOVE FINISHED FLOOR
AGA:	AMERICAN GAS ASSOCIATION
ALT:	ALTERNATE, ALTERATION; ALTITUDE
BR:	BEDROOM
CLG:	CEILING
CSMT:	CASEMENT
DTL.	DETAIL
E:	EXISTING
ELEC.	ELECTRICAL
GA:	GAUGE, GAGE
GAL:	GALLON
GC:	GENERAL CONTRACTOR
GFCI:	GROUND FAULT CIRCUIT INTERRUPTED
GLZ:	GLAZE
GPH:	GALLONS PER HOUR
GVL:	GRAVEL
GYP:	GYPSUM
GYP BD:	GYPSUM BOARD
INSTL.:	INSTALL
N:	NEW
SH:	SINGLE HUNG
U.O.N.:	UNLESS OTHERWISE NOTED
V.C.T.	VINYL COMPOSITION TILE
VERT.	VERTICAL
VYL.	VINYL
WD.	WOOD
WDW.	WINDOW
W.P.M	WATER PROOFING MEMBRANE
WT.	WEIGHT
YD.	YARD

GRAPHIC SYMBOL LEGEND



SCOPE OF WORK

DEMOLITION OF THE EXISTING HOUSE AND RECONSTRUCTION OF A TWO-STORY SINGLE-FAMILY RESIDENCE ON A 2,345 SQ. FT. LOT (2,531 SQ. FT. OF LIVING SPACE AND 352 SQ. FT. OF GARAGE) WITH A 50% FLOOR-AREA RATIO.

SOLAR PV DEFERRED SUBMITTALS:

OWNER OF THE PROPERTY NEEDS OBTAIN SOLAR PV PERMIT SEPARATELY.

FIRE SPRINKLER DEFERRED SUBMITTALS:

OWNER OF THE PROPERTY NEEDS OBTAIN SEIPARATE FIRE SPRINKLER SYSTEM PERMIT FROM FIRE DEPARTMENT.

APPLICABLE BUILDING CODES

THIS PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND ASSOCIATED CITY OF BURLINGAME AMENDMENTS:

-2022 CALIFORNIA RESIDENTIAL CODE
-2022 CALIFORNIA BUILDING CODE
-2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
-2022 CALIFORNIA ELECTRICAL CODE
-2022 CALIFORNIA MECHANICAL CODE
-2022 CALIFORNIA PLUMBING CODE
-2022 CALIFORNIA FIRE CODE
-2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

DRAWING DIRECTORY

PROJECT INFORMATION

OWNER: HONGZHI LIANG			
ADDRESS: 229 Bancroft Rd, Burlingame, CA 94010			
PARCEL NUMBER:	029263060	FLOOD ZONE:	X
ZONING DISRICT:	R1	NUMBER OF PARKING SPACES:	TWO
OCCUPANCY:	R3	MAIN HOUSE HEIGHT	24'-2"
CONSTRUCTION TYPE:	TYPE V - B/U	LOT AREA:	5,750 SF
NUMBER OF STORIES:	TWO	LIVING AREA:	2,883 SF
NUMBER OF UNITS:	ONE	1UNIT. 4 BEDROOMS 4.5 BATHS	
FIRE SPRINKLER:	YES		

		PROPOSED	REQUIRED
NUMBER OF PARKING SPACES:		2/(1 covered)	2/(1 covered)
HEIGHT OF BUILDINGS:		24'-10"	30'-0"(Maximum)
PLATE HEIGHT :		1ST Story:9'-0", 2ND Stories:8'-0"	1ST Story:9'-0", Upper Stories:8'-0"(Maximum)
GARAGE AREA:		352 SF	
MAIN HOUSE LIVING AREA:		2,531 SF	
	1ST FLOOR LIVING AREA:	1,511 SF	
	2ND FLOOR LIVING AREA:	1,020 SF	
UNIT./BEDROOMS/BATH		1UNIT. 4 BEDROOMS 4.5 BATHS	
FAR:		0.50	Lot Area × 32% + 1,100 = 2,940 = 0.51
PERCENT LOT COVERAGE:		36%	40%
FRONT SETBACK IMPERVIOUS SURFACES:		16.41%	40%
LANDSCAPING AREA:		2,056 SF	
SETBACKS:			
FRONT (1ST-STORY):		26 ft.	15 ft.
FRONT (2ST-STORY):		34'-7 1/2" ft.	20 ft.
SIDES (1ST-STORY):		4 ft.	Lots wider than 42 ft., but less than 51 ft.: 4 ft.
SIDES (2ST-STORY):			
REAR (1ST-STORY):		37'-11" ft.	15 ft.
REAR (2ST-STORY):		37'-11" ft.	20 ft.

NOTE:
THAT IF A NEW A/C UNIT OR MECHANICAL EQUIPMENT IS GOING TO BE INSTALLED ON THE EXTERIOR OF THE BUILDING, THE NEW EQUIPMENT CANNOT EXCEED A MAXIMUM OUTDOOR NOISE LEVEL (DBA) OF SIXTY (60) DBA DAYTIME (7:00 A.M. – 10:00 P.M.) OR FIFTY (50) DBA NIGHTTIME (10:00 P.M. – 7:00 A.M.) AS MEASURED FROM THE PROPERTY LINE. BMC 25.31.080

E5

NOTE:
"CONSTRUCTION HOURS"
WEEKDAYS: 8:00 A.M. – 7:00 P.M.
SATURDAYS: 9:00 A.M. – 6:00 P.M.
SUNDAYS AND HOLIDAYS: NO WORK ALLOWED
(SEE CITY OF BURLINGAME MUNICIPAL CODE, SECTION 18.07.110 FOR DETAILS.)
(SEE CITY OF BURLINGAME MUNICIPAL CODE, SECTION 13.04.100 FOR DETAILS.)
CONSTRUCTION HOURS IN THE CITY PUBLIC RIGHT-OF-WAY ARE LIMITED TO WEEKDAYS AND NON-CITY HOLIDAYS BETWEEN 8:00 A.M. AND 5:00 P.M.

E1

RECEIVED
6.23.25
CITY OF BURLINGAME
CDD-PLANNING DIVISION

REVISION	BY
1 PLANNING	ZL.Y. 05-013-2025

J & S CONSULTANT INC
131 Sequoia Ave.
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

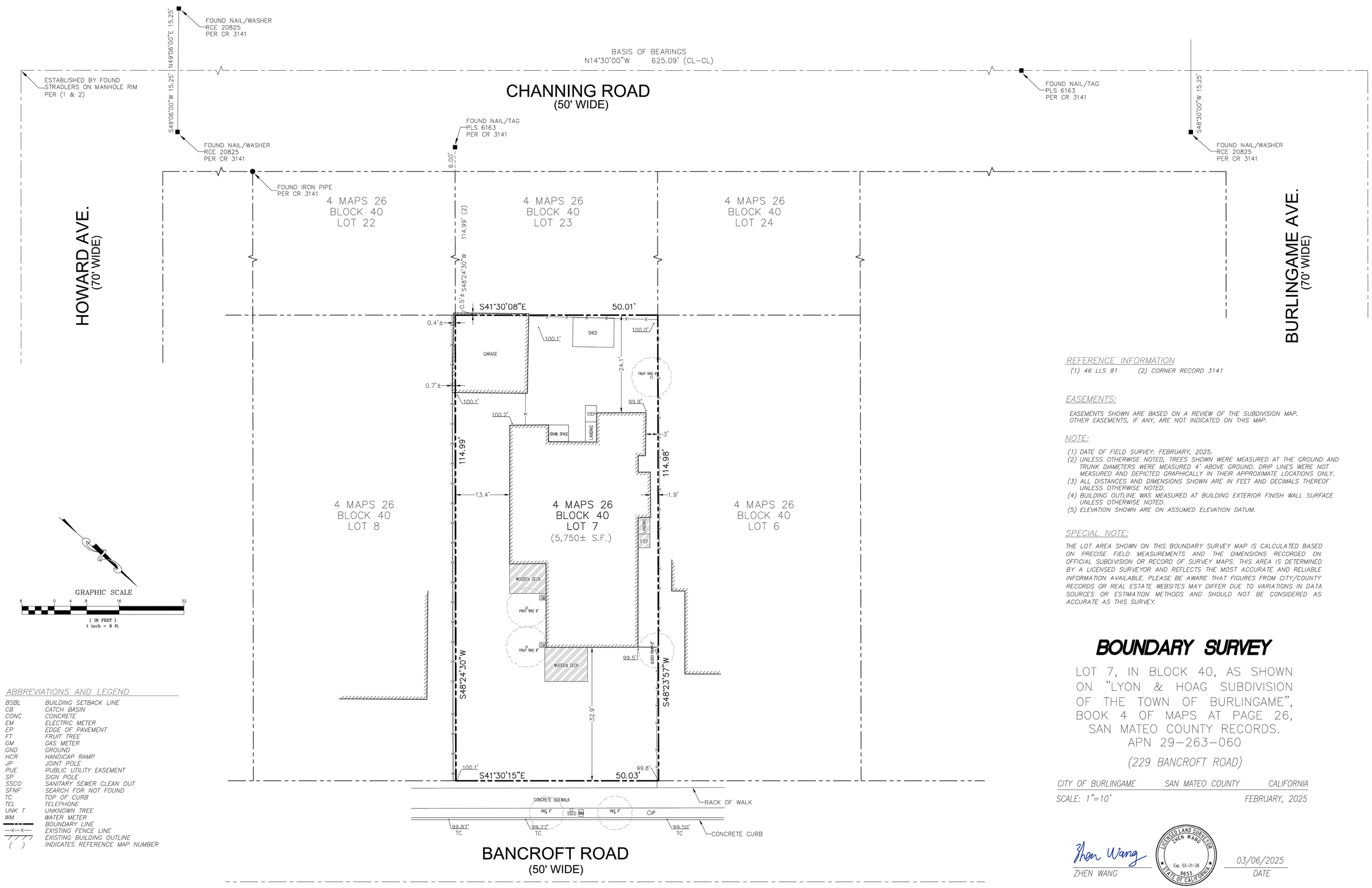
NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

GENERAL INFO.

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIAN GING
NO. C 37 EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.0
	Of Sheets



ABBREVIATIONS AND LEGEND

BSBL	BUILDING SETBACK LINE
CB	CATCH BASIN
CONC	CONCRETE
EM	ELECTRIC METER
EP	EDGE OF PAVEMENT
FT	FRUIT TREE
GM	GAS METER
GND	GROUND
HCR	HANDICAP RAMP
JP	JOINT POLE
PUE	PUBLIC UTILITY EASEMENT
SP	SIGN POLE
SSCO	SANITARY SEWER CLEAN OUT
SFNF	SEARCH FOR NOT FOUND
TC	TOP OF CURB
TEL	TELEPHONE
UNK T	UNKNOWN TREE
WM	WATER METER
———	BOUNDARY LINE
—x—x—	EXISTING FENCE LINE
/ / / / /	EXISTING BUILDING OUTLINE
( )	INDICATES REFERENCE MAP NUMBER

REFERENCE INFORMATION

(1) 46 LLS 81 (2) CORNER RECORD 3141

EASEMENTS:

EASEMENTS SHOWN ARE BASED ON A REVIEW OF THE SUBDIVISION MAP. OTHER EASEMENTS, IF ANY, ARE NOT INDICATED ON THIS MAP.

NOTE:

(1) DATE OF FIELD SURVEY: FEBRUARY, 2025.
(2) UNLESS OTHERWISE NOTED, TREES SHOWN WERE MEASURED AT THE GROUND AND TRUNK DIAMETERS WERE MEASURED 4' ABOVE GROUND. DRIP LINES WERE NOT MEASURED AND DEPICTED GRAPHICALLY IN THEIR APPROXIMATE LOCATIONS ONLY.
(3) ALL DISTANCES AND DIMENSIONS SHOWN ARE IN FEET AND DECIMALS THEREOF UNLESS OTHERWISE NOTED.
(4) BUILDING OUTLINE WAS MEASURED AT BUILDING EXTERIOR FINISH WALL SURFACE UNLESS OTHERWISE NOTED.
(5) ELEVATION SHOWN ARE ON ASSUMED ELEVATION DATUM.

SPECIAL NOTE:

THE LOT AREA SHOWN ON THIS BOUNDARY SURVEY MAP IS CALCULATED BASED ON PRECISE FIELD MEASUREMENTS AND THE DIMENSIONS RECORDED ON OFFICIAL SUBDIVISION OR RECORD OF SURVEY MAPS. THIS AREA IS DETERMINED BY A LICENSED SURVEYOR AND REFLECTS THE MOST ACCURATE AND RELIABLE INFORMATION AVAILABLE. PLEASE BE AWARE THAT FIGURES FROM CITY/COUNTY RECORDS OR REAL ESTATE WEBSITES MAY DIFFER DUE TO VARIATIONS IN DATA SOURCES OR ESTIMATION METHODS AND SHOULD NOT BE CONSIDERED AS ACCURATE AS THIS SURVEY.

BOUNDARY SURVEY

LOT 7, IN BLOCK 40, AS SHOWN ON "LYON & HOAG SUBDIVISION OF THE TOWN OF BURLINGAME", BOOK 4 OF MAPS AT PAGE 26, SAN MATEO COUNTY RECORDS.
APN 29-263-060

(229 BANCROFT ROAD)

CITY OF BURLINGAME SAN MATEO COUNTY CALIFORNIA

SCALE: 1"=10' FEBRUARY, 2025

Zhen Wang
ZHEN WANG

LICENSED LAND SURVEYOR ZHEN WANG Exp. 03-31-26 9653 STATE OF CALIFORNIA

03/06/2025
DATE

ZHEN'S LAND SURVEYING CORP.
WALNUT CREEK, CALIFORNIA
TEL: (415)802-9945 | INFO@ZHENSLANDSURVEYING.COM

SHEET 1 OF 1 SHEET

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

J & S CONSULTANT INC
131 Sequoia Ave.
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

LOT SURVEY

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER ZHONG QING YU NO. C 37 EXP. DEC. 31, 2025 CIVIL STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/8"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.1
	Of Sheets

(P) COLORED RENDERINGS

(P) COLORED RENDERINGS

(P) COLORED RENDERINGS

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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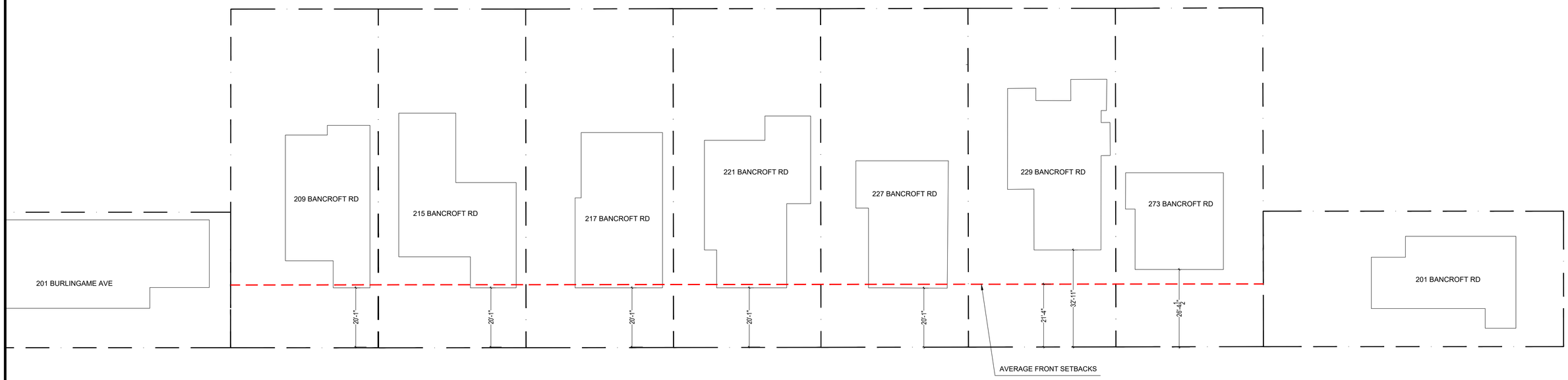
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

COLORED RENDERINGS AND PERSPECTIVES

Owner:
HONGZHI LIANG
Tel: 650-888-1083

Date	01-10-2025
Scale	1/16"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.1a
	Of Sheets



(E) AVERAGE SETBACKS

SCALE: 1/8"=1'-0"

TOTAL PROPERTIES ON BLOCK: 9
EXCLUDED:
CORNER LOTS: 201 BURLINGAME AVE, 201 BANCROFT RD
MINIMUM SETBACK: 209 BANCROFT RD – 20'-1"
MAXIMUM SETBACK: 229 BANCROFT RD – 32'-11"

INCLUDED PROPERTIES:
215 BANCROFT RD – 20'-1"
217 BANCROFT RD – 20'-1"
221 BANCROFT RD – 20'-1"
227 BANCROFT RD – 20'-1"
231 BANCROFT RD – 26'-4½"

BLOCK AVERAGE SETBACK: 21'-4"

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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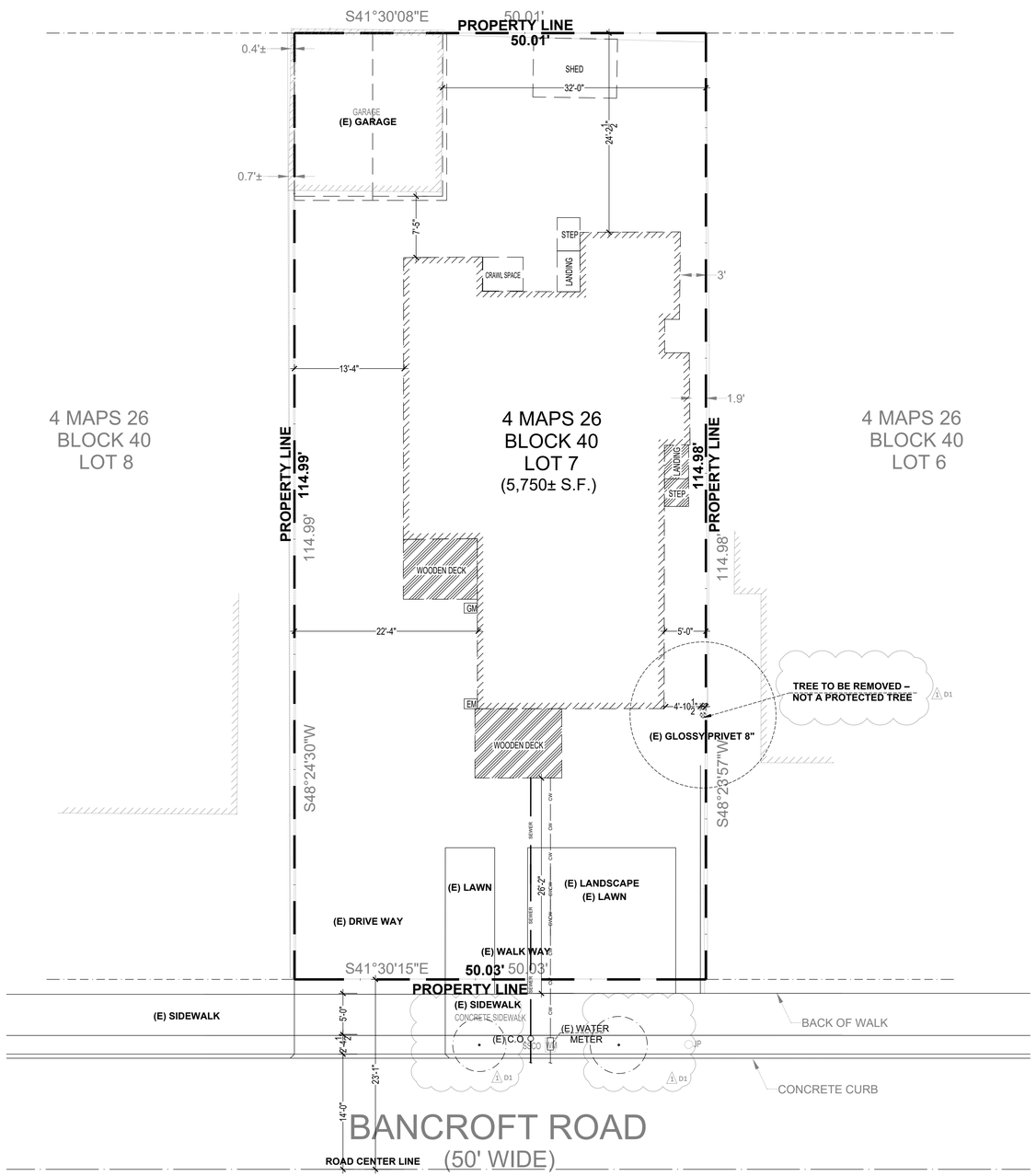
NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

AVERAGE SETBACKS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

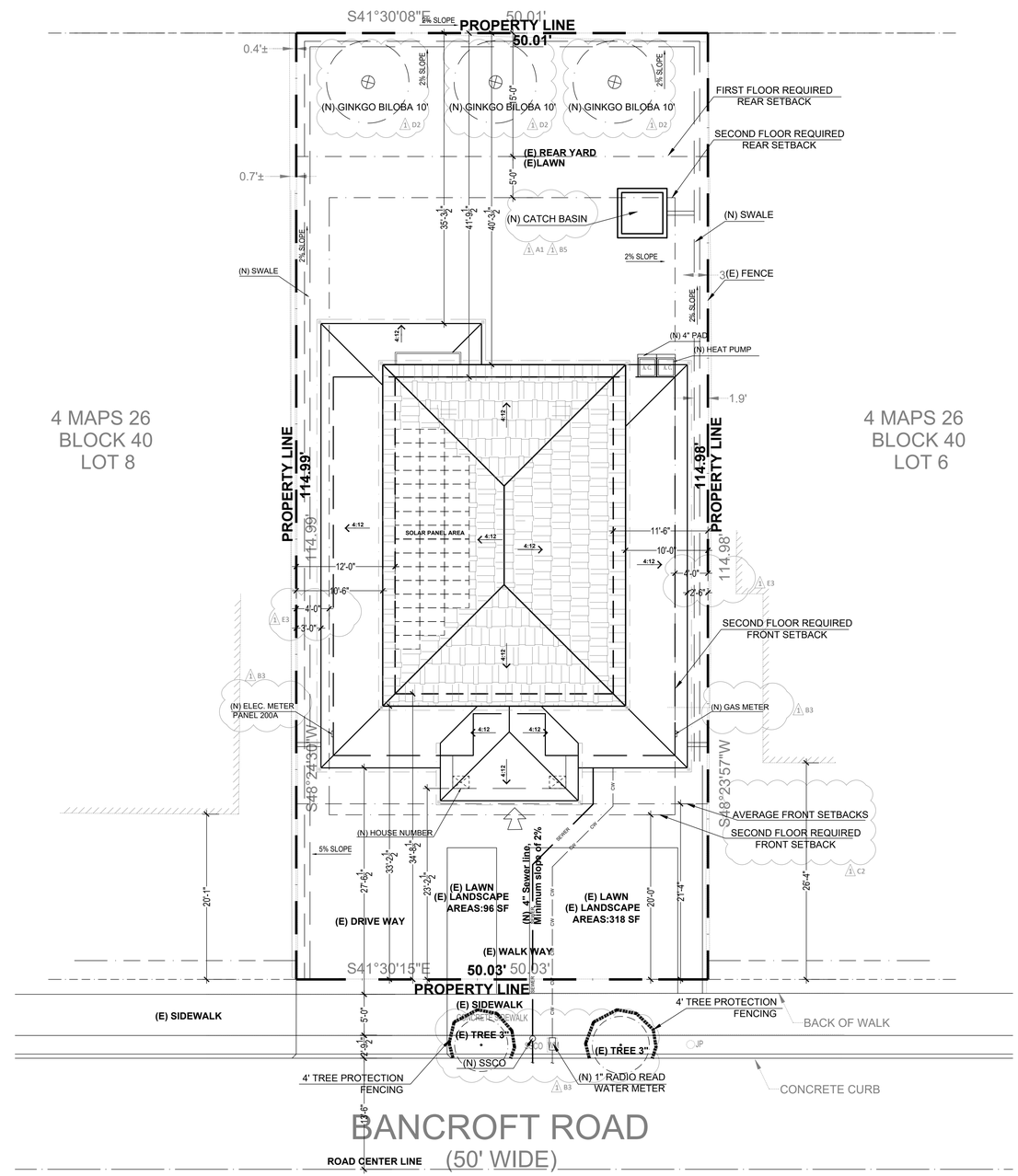
REGISTERED PROFESSIONAL ENGINEER
ZHONGLV YANG
NO. C 79[illegible]
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/16"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.1b
	Of Sheets



(E) SITE PLAN

SCALE: 1/8"=1'-0"



(P) SITE PLAN

SCALE: 1/8"=1'-0"

NOTE:
THERE ARE NO PROTECTED TREES ON THIS PROJECT.†

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

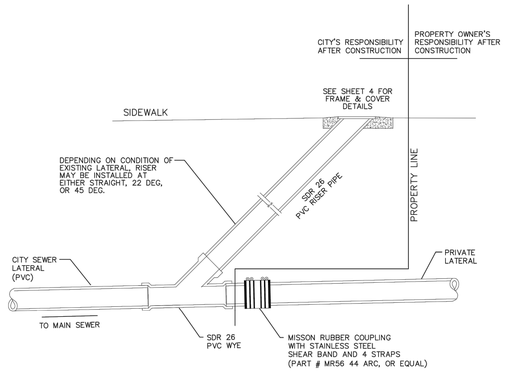
NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

(E) & (P) SITE PLAN

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIAN DING
NO. C 79[illegible]
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/8"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.2
	Of Sheets



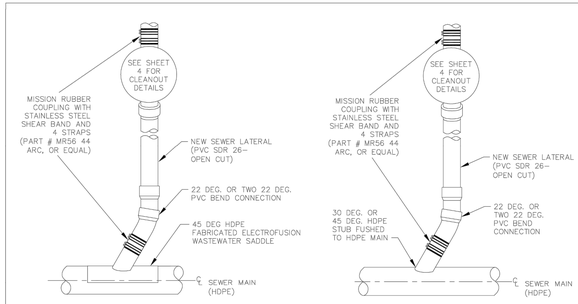
PROFILE VIEW
N.T.S

SUPPLIER:

CALSTEAM, BURLINGAME
ROBERTS & BRUNE, REDWOOD CITY
GROENIGER & CO., HAYWARD

S:\A Public Works Directory\STANDARDS\Drawings\Sanitary Sewer\SS1_Lateral Connection_2013-08-19.dwg

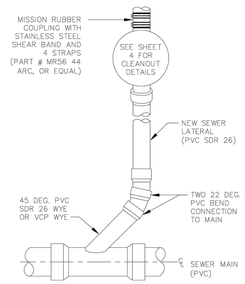
	SANITARY SEWER CLEANOUT LATERAL CONNECTION	APPROVED BY	DRAWING NO.
		DATE 10/03/2006	**SS-1** (1 of 6)
	DEPARTMENT OF PUBLIC WORKS		



NEW PVC LATERAL*
INTO HDPE MAIN
PLAN VIEW

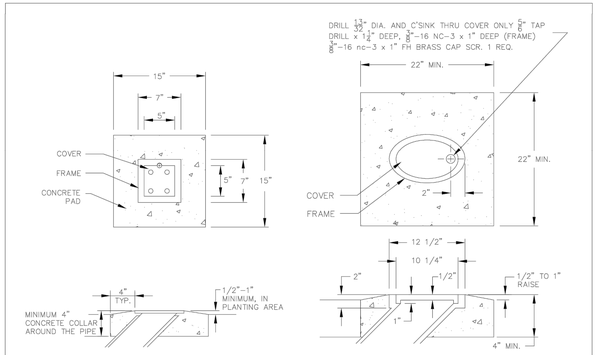
NEW PVC LATERAL
INTO HDPE MAIN
PLAN VIEW

* IF APPROVED BY THE CITY IN WRITING



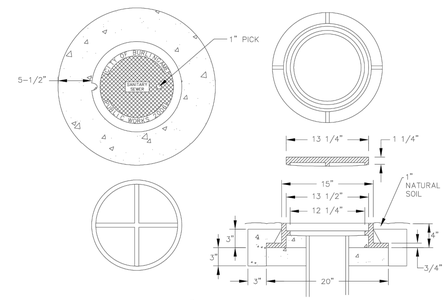
NEW PVC LATERAL
INTO VCP/PVC MAIN
PLAN VIEW

	4" OR 6" PVC SANITARY SEWER LATERAL CONNECTION INTO SANITARY SEWER MAIN	APPROVED BY	DRAWING NO.
		DATE 5/12/2011	**SS-1** (2 of 6)
	DEPARTMENT OF PUBLIC WORKS		



4" FRAME & COVER
LATERAL CONNECTION AT 45°
N.T.S.

6" FRAME & COVER
LATERAL CONNECTION AT 45°
N.T.S.

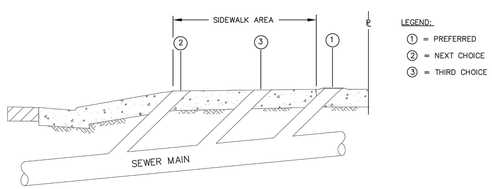


6" FRAME & COVER
VERTICAL RAISER ONLY
N.T.S.

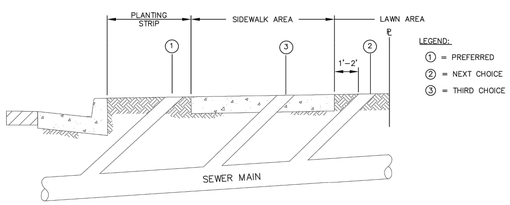
SUPPLIER:

CALSTEAM, BURLINGAME
ROBERTS & BRUNE, REDWOOD CITY
GROENIGER & CO., HAYWARD

	STANDARD 4" OR 6" FRAME AND COVER	APPROVED BY	DRAWING NO.
		DATE 8/17/2006	**SS-1** (4 of 6)
	DEPARTMENT OF PUBLIC WORKS		



CLEAN-OUT LOCATION AT DRIVEWAY AREA
N.T.S.



CLEAN-OUT LOCATION AT SIDEWALK AREA
N.T.S.

SUPPLIER:

CALSTEAM, BURLINGAME
ROBERTS & BRUNE, REDWOOD CITY
GROENIGER & CO., HAYWARD

S:\A Public Works Directory\STANDARDS\Drawings\Sanitary Sewer\SS1_Lateral Connection_2013-08-19.dwg

	CLEANOUT PLACEMENT GUIDELINES	APPROVED BY	DRAWING NO.
		DATE 08/19/2013	**SS-1** (5 of 6)
	DEPARTMENT OF PUBLIC WORKS		

REQUIREMENTS FOR CONSTRUCTION OF BUILDING SEWERS IN PUBLIC RIGHT-OF-WAY

1. ALL NEW RESIDENTIAL, APARTMENT, INDUSTRIAL AND COMMERCIAL BUILDINGS SHALL REQUIRE A NEW SEWER LATERAL. A MINIMUM 4 INCH (4") LATERAL SHALL BE INSTALLED FOR 2 OR LESS APARTMENT UNITS AND A 6 INCH (6") LATERAL FOR MORE THAN 2 APARTMENT UNITS. ACTUAL SIZE DEPENDS ON NUMBER OF CONNECTED "FIXTURE UNITS" IN BUILDINGS. INDUSTRIAL AND COMMERCIAL BUILDINGS SHALL REQUIRE A MINIMUM 6 INCH (6") LATERAL.
2. THE LATERAL, INCLUDING CONNECTION TO THE MAIN, RISER AND WYE, SHALL BE CAST IRON, PLASTIC SDR 26, HIGH DENSITY POLYETHYLENE (HDPE), C-900, OR VITRIFIED CLAY PIPE IN CONFORMANCE WITH UNIFORM PLUMBING CODE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. MINIMUM SLOPE OF LATERAL SHALL BE 1/4 INCH (1/4") PER FOOT. OVER 3/8" IS NOT RECOMMENDED BECAUSE LIQUIDS TEND TO DRAIN AWAY, LEAVING SOLIDS TO CLOG THE PIPE.
4. A WYE CONNECTION MAY BE USED AT ANY DEPTH AND TO ANY SIZE OF MAIN. A SADDLE CONNECTION MAY BE USED ONLY AT A DEPTH OF 6 FEET (6') OR MORE AND TO A MAIN WHICH IS LARGER IN SIZE THAN THE LATERAL ITSELF.
5. A MANUFACTURER'S COUPLING WITH STAINLESS STEEL SHEAR BAND AND FOUR STRIPS SHALL BE USED FOR ALL JOINT CONNECTIONS. NO CONCRETE SHALL BE USED FOR JOINT CONNECTION.
6. REGARDLESS OF THE PIPE MATERIAL USED, THE BUILDING SEWER PIPE SHALL BE LAID ON A CONTINUOUS, FIRM BED THROUGHOUT ITS ENTIRE LENGTH.
7. THE DEPARTMENT OF PUBLIC WORKS SHALL INSPECT ALL SEWER CONNECTIONS BEFORE BACKFILLING. ALL BACKFILL MATERIALS SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPACTED TO A MINIMUM OF 90% IN THE PLANTING STRIP AREAS AND 95% IN THE STREETS. TWENTY FOUR (24) HOURS NOTICE SHALL BE GIVEN FOR AN INSPECTION.
8. THE CLEANOUT SHALL BE LOCATED ADJACENT TO AND APPROXIMATELY 2 FEET TO 4 FEET (2' – 4') BACK FROM THE FACE OF THE CURB OR SHOULDER ALONG STREETS WITHIN EASEMENT LINES ALONG EASEMENTS UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE CLEANOUT IN PLANTING AREA SHALL BE SET 1 INCH TO 2 INCHES (1" – 2") ABOVE THE ADJACENT GRADE OR CURB GRADE. THE PAD AND SIDEWALK SHALL BE RAMPED FROM 6 INCHES (6") TO THE CLEANOUT LEVEL IN SIDEWALK AREA OR FROM 12 INCHES (12") OR MORE TO THE CLEANOUT LEVEL IN PLANTING AREA. PONDING OVER THE CLEANOUT IS PROHIBITED. CLEANOUT IN EASEMENT AREA SHALL BE 18 INCHES TO 24 INCHES (18" – 24") FROM FENCE. SEE STANDARD DRAWING SS-1 (5 OF 6) FOR CLEANOUT PLACEMENT GUIDELINES.
9. ON WORK IN STREETS, PAVEMENT SHALL BE SAW CUT AND REPLACED TO THE REQUIREMENTS OF THE ENGINEER BUT IN NO CASE SHALL BE LESS THAN 3 INCHES (3") A.C. ON 8 INCHES (8") CLASS 2 A.B. EXCAVATION SHALL BE ACCOMPLISHED SO THAT TRENCH EDGES ARE STRAIGHT AND PARALLEL LINES AND NOR JAGGED BEFORE PAVEMENT RESTORATION. PAVEMENT SECTION SHALL BE REPLACED TO AT LEAST 6 INCHES (6") OUTSIDE OF ANY EXCAVATION AREA.
10. ALL TRENCHES OVER 5 FEET (5') IN DEPTH SHALL BE SHORED OR SLOPED IN ACCORDANCE WITH O.S.H.A. REQUIREMENTS. O.S.H.A. PERMIT IS REQUIRED FOR ALL EXCAVATIONS OVER 5 FEET (5') IN DEPTH.
11. LATERAL LINES SHALL HAVE A MINIMUM COVER OF 18 INCHES (18") AND THE MAIN LINES SHALL HAVE A MINIMUM COVER OF 24 INCHES (24") IN PRIVATE PROPERTY. SEWER LATERALS IN STREET RIGHT-OF-WAY SHALL HAVE A 30 INCH (30") MINIMUM COVER.
12. ALL ABANDONED SEWER LATERALS SHALL HAVE THE WYES OR SADDLES REMOVED OFF THE MAIN.
13. ABANDONED BUILDING SEWER PIPE(S) (BUILDING TO STREET CLEANOUT) SHALL BE REMOVED, OR PROPERLY DISCONNECTED FROM THE BUILDING DRAIN AND THE CITY SEWER LATERAL AND PLUGGED AT BOTH ENDS WITH CONCRETE OR OTHER APPROVED MATERIALS/DEVICES. THE PLUG AT THE DOWNSTREAM (STREET) END OF THE BUILDING SEWER PIPE SHALL BE WITHIN 5 FEET OF THE PROPERLY LINE. CONTACT THE BUILDING OFFICIAL FOR LOCATION OF THE UPSTREAM END OF THE BUILDING SEWER. YOU MAY ALSO BE REQUIRED TO CAP THE UPSTREAM END OF THE CITY SEWER LATERAL (FROM THE SEWER MAIN) OR TO ENTIRELY REMOVE THIS LATERAL; CONTACT THE SEWER DEPARTMENT AT (650) 558-7674 FOR DETAILS. REMOVAL OR PLUGGING REQUIRED PERMITS, AND MUST BE INSPECTED AND APPROVED IN WRITING ON THE PERMITS BY THE CITY BUILDING AND PUBLIC WORKS INSPECTOR PRIOR TO BACKFILL.

	REQUIREMENTS FOR CONSTRUCTION OF BUILDING SEWERS IN PUBLIC RIGHT-OF-WAY	APPROVED BY	DRAWING NO.
		DATE 08/19/2013	**SS-1** (6 of 6)
	DEPARTMENT OF PUBLIC WORKS		

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

J & S CONSULTANT INC
131 Sequoia Ave.,
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

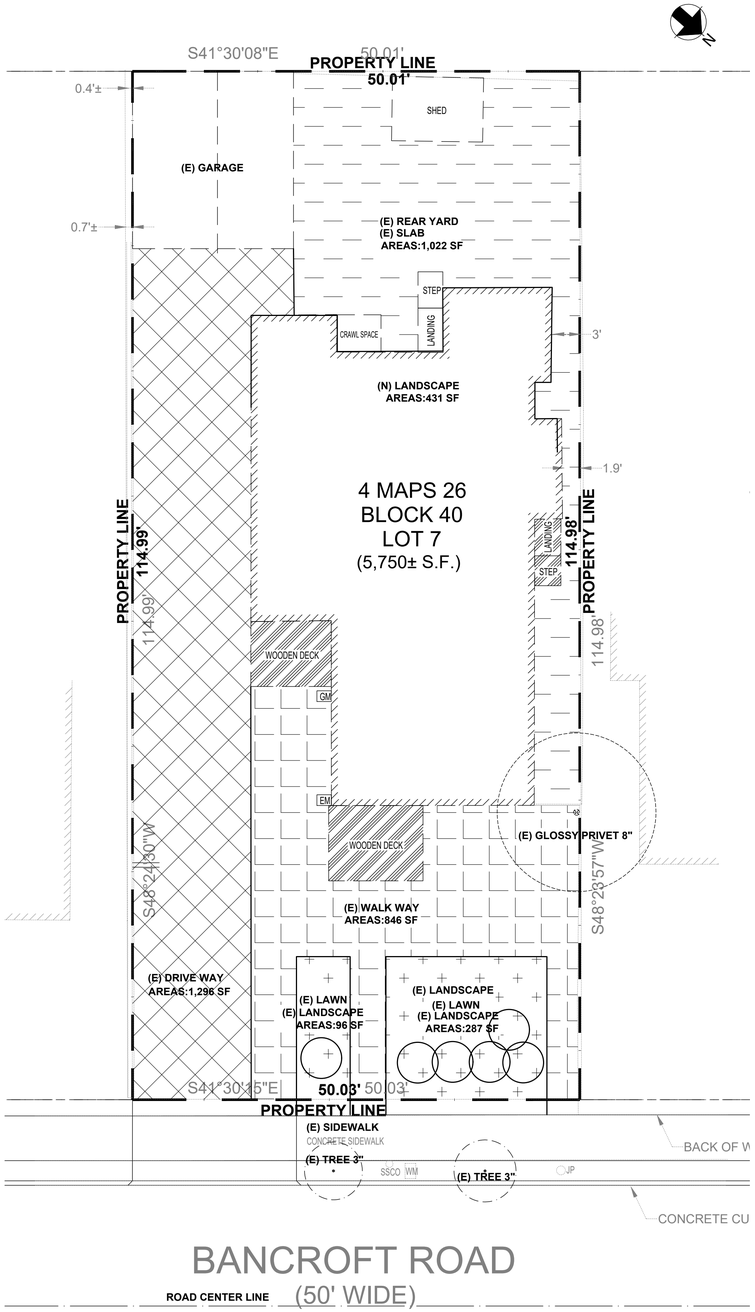
REQUIREMENTS FOR CONSTRUCTION

1 B2

Owner:
HONGZHI LIANG
Tel: 650-888-1083

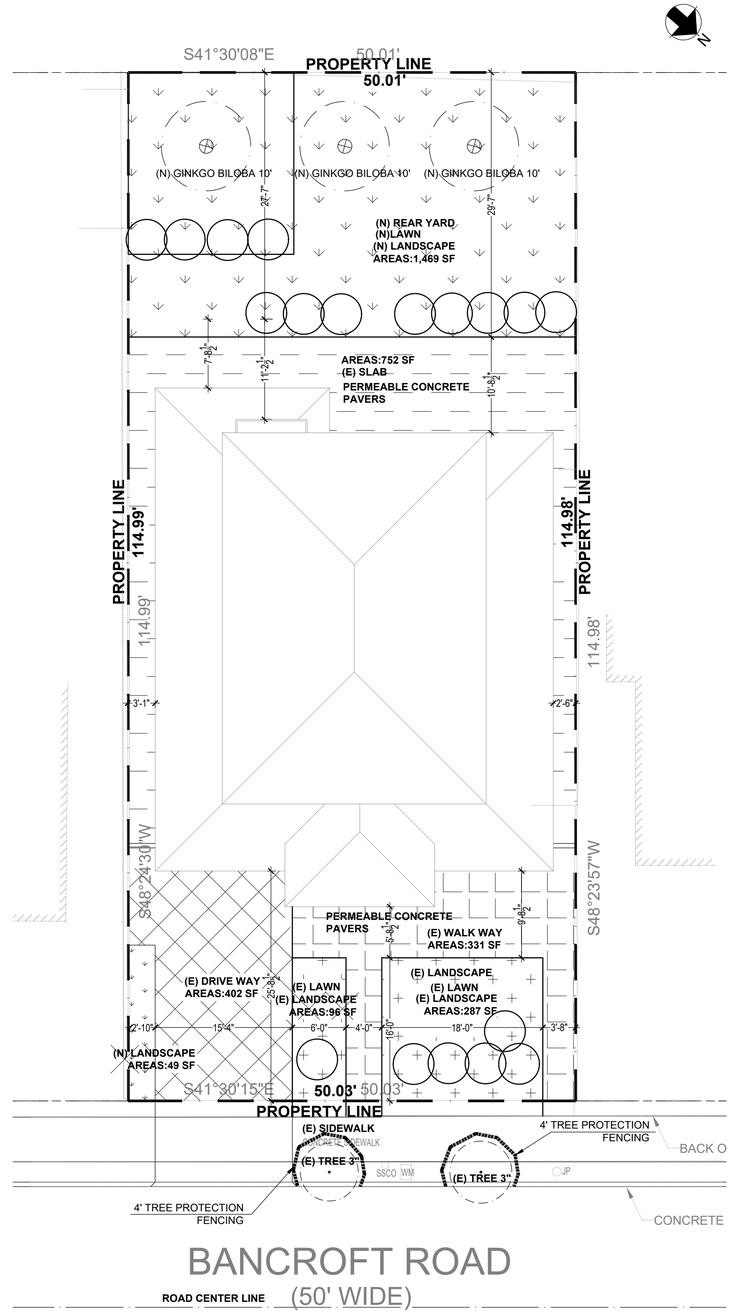
REGISTERED PROFESSIONAL ENGINEER
JIN QING LI
NO. C 39 EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/8"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-1.3
	Of Sheets



(E) LANDSCAPE PLAN

SCALE: 1/8"=1'-0"



(P) LANDSCAPE PLAN

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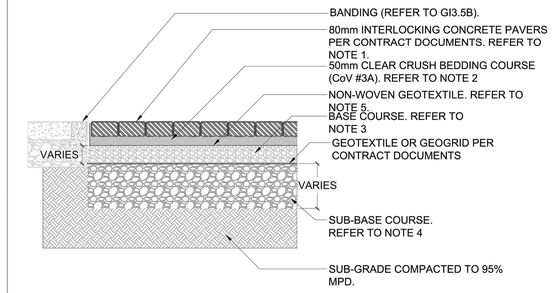

NOTES:

1. PAVERS: PAVERS TO BE ARRANGED IN A HERRINGBONE OR RUNNING BOND PATTERN. MATERIAL AND PLACEMENT PER CONTRACT DOCUMENTS. JOINT WIDTH BETWEEN PAVERS MUST BE GREATER THAN 6mm,
2. BEDDING COURSE: ANGULAR CLEAR CRUSH (COV #3A) COMPACTED TO 95% MODIFIED PROCTOR. MINIMUM THICKNESS OF 50mm. BEDDING COURSE MATERIAL TO BE USED AS JOINT FILLER.
3. BASE MATERIAL: BASE COURSE TO BE ASTM NO. 57 (CSA A23.1 GROUP II 28-14mm) OR 20mm CLEAR CRUSH (COV #15) OR AN APPROVED EQUIVALENT. MINIMUM THICKNESS OF 150mm.
4. SUB-BASE MATERIAL: SUB-BASE RESERVOIR TO BE COV #15, ASTM NO. 2, ASTM NO. 3, ASTM NO. 4, OR AN APPROVED EQUIVALENT. DEPTH TO BE DETERMINED BY GI BRANCH. MINIMUM THICKNESS OF 300mm ON LANEWAYS
5. GEOTEXTILE FABRIC LAYER: A NON-WOVEN GEOTEXTILE MUST BE INSTALLED BENEATH THE BEDDING COURSE. ADDITIONAL NON-WOVEN GEOTEXTILE PER CONTRACT DOCUMENTS.
6. ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE.

PERMEABLE CONCRETE PAVERS

A1

PERVIOUS AREA: 49+96+278+331+752+1,469 =2, 975 / 5,750 =52%

B6

FLOOR PLAN LEGEND

- EXISTING LAWN
- NEW LAWN
- SLAB
- DRIVE WAY
- WALK WAY
- TASMANIAN TREE FERN

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(E) & (P) LANDSCAPE PLAN

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
ZHONGLV YANG
NO. C 79[illegible]
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

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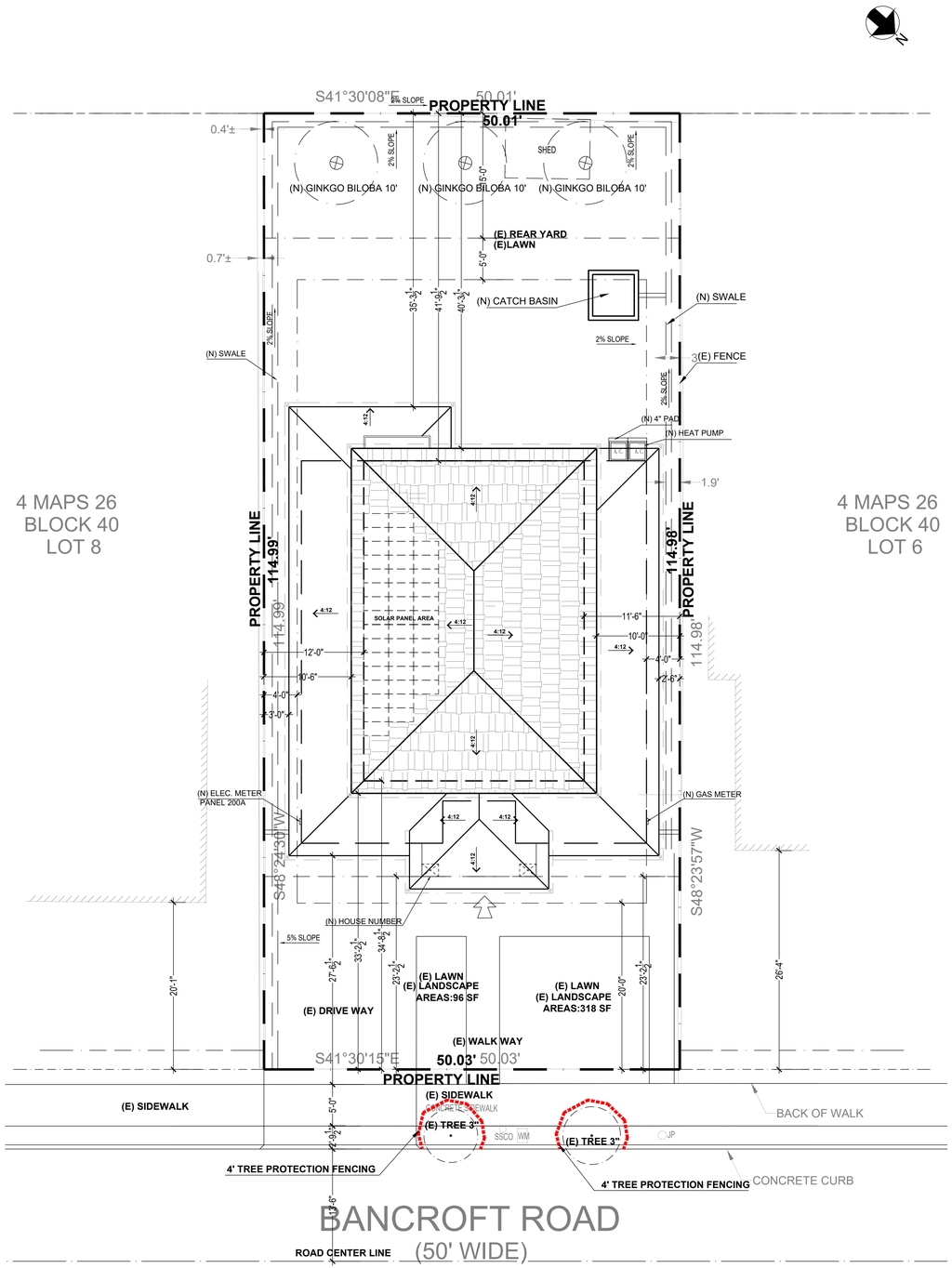


(P) SITE PLAN

SCALE: 1/8"=1'-0"

LEGEND

TREE PROTECTION FENCE

TREE PROTECTION NOTES:

1. TREE PROTECTION FENCE:
PRIOR TO ANY CONSTRUCTION, INSTALL TREE PROTECTION FENCES AT THE LOCATIONS AND DISTANCES SHOWN ON SHEET T-1.
THE AREA WITHIN THE FENCE IS THE TREE PROTECTION ZONE (TPZ).
•FENCE SHALL BE SIX (6)-FOOT-TALL CHAIN LINK.
•FENCE POSTS SHALL BE 1.5 INCHES IN DIAMETER, DRIVEN 2 FEET INTO THE GROUND, AT MOST 10 FEET APART.
•PERMANENT WALLS AND FENCES MAY BE USED INSTEAD OF CHAIN LINK FENCE WHERE THEY ARE OF COMPARABLE HEIGHT AND STURDINESS TO CHAIN LINK.
•MOVABLE BARRIERS OF CHAIN LINK FENCE SECURED TO CEMENT BLOCKS MAY BE SUBSTITUTED FOR FIXED FENCE IN LIMITED CIRCUMSTANCES AND WITH CITY ARBORIST APPROVAL IF THE FENCE WILL HAVE TO BE MOVED TO ACCOMMODATE CERTAIN CONSTRUCTION PHASES.
•MANUALLY SPREAD A 6-INCH LAYER OF COARSE WOODCHIPS THROUGHOUT ENTIRE TPZ PRIOR TO CONSTRUCTION ACTIVITY.
•CUSTOM TPZ WARNING SIGNS (ENGLISH AND SPANISH) SHALL BE PRINTED ON 11"X 17" LAMINATED YELLOW PAPER AND SECURED IN A PROMINENT LOCATION ON EACH PROTECTION FENCE.
•IF CONSTRUCTION ACTIVITIES ARE PLANNED BETWEEN APRIL AND OCTOBER, TEMPORARY SUPPLEMENTAL IRRIGATION (SOAKER HOSE) SHALL BE INSTALLED THROUGHOUT THE TPZ. THE PROJECT ARBORIST WILL DIRECT THE WATERING SCHEDULE BASED ON SITE-SPECIFIC CONSIDERATIONS AND RECENT WEATHERHOWN IN THE CONTRACTOR'S DETAILED REDLINES.THESE REDLINES SHALL BE PROVIDED TO THE ENGINEER OF RECORD FOR THE PREPARATION OF ACCURATE RECORD DRAWINGS.

2.TREE PROTECTION VERIFICATION LETTER:
NOTIFY THE PROJECT ARBORIST AFTER TREE PROTECTION MEASURES HAVE BEEN INSTALLED. THE PROJECT ARBORIST MUST INSPECT THE MEASURES TO VERIFY THEIR COMPLIANCE AND WILL ISSUE A LETTER TO THE CITY WITH THEIR FINDINGS.

3.MEETING WITH PROJECT ARBORIST:
PRIOR TO BEGINNING ANY WORK OR DEMOLITION, ALL CONTRACTORS INVOLVED WITH THE PROJECT SHOULD ATTEND A PRE-CONSTRUCTION MEETING WITH THE PROJECT ARBORIST TO:
•REVIEW THE TREE PROTECTION GUIDELINES. ACCESS ROUTES, STORAGE AREAS, AND WORK PROCEDURES WILL BE DISCUSSED.
•IDENTIFY ANY POTENTIAL CLEARANCE PRUNING THAT MAY BE REQUIRED TO ACCOMMODATE CONSTRUCTION.
•THE GENERAL CONTRACTOR OR PROJECT MANAGER IS RESPONSIBLE ULNG THIS MEETING.

4.ALERT PROJECT ARBORIST WHEN CONSTRUCTION IS SCHEDULED TO BEGIN. THE PROJECT ARBORIST SHALL VISIT THE SITE MONTHLY UNTIL PROJECT COMPLETION TO:
•MONITOR THE EFFECTIVENESS OF THE TREE PRESERVATION PLAN.
•PROVIDE RECOMMENDATIONS FOR ANY NECESSARY ADDITIONAL CARE OR TREATMENT.
•ISSUE A REPORT TO THE CITY WITH THEIR FINDINGS.
•THE FINAL REPORT WILL INCLUDE RECOMMENDATIONS FOR POST-CONSTRUCTION MITIGATION AND TREATMENTS, IF APPROPRIATE.

5.MAINTAIN TREE PROTECTION FENCES AROUND ALL TPZS AND INSPECT DAILY FOR #1 DAMAGE AND PROPER FUNCTION.

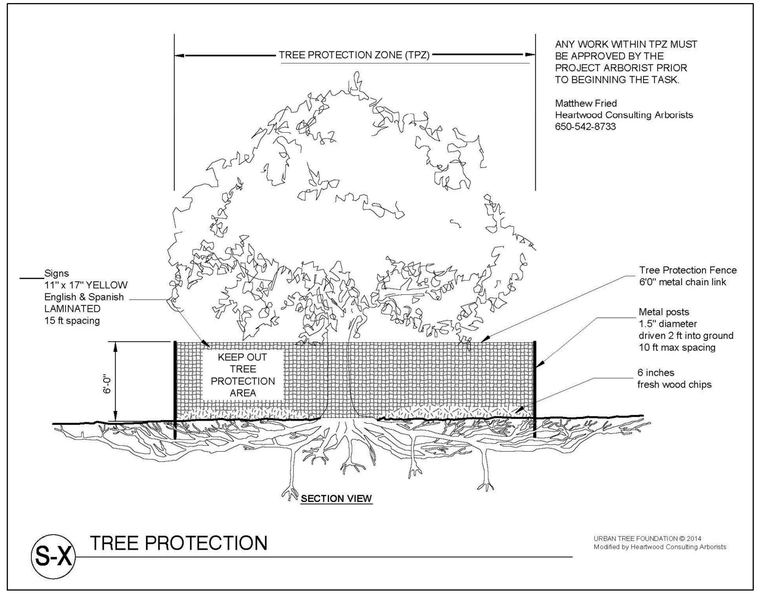
6.DO NOT REMOVE, ADJUST, OR WORK INSIDE ANY TPZ WITHOUT CONSULTING THE PROJECT ARBORIST.

7.TREE PROTECTION ZONE (TPZ) RESTRICTIONS:
•NO OPERATION, STORAGE, OR PARKING OF VEHICLES OR HEAVY EQUIPMENT.
•NO STORAGE OR DISPOSAL OF BUILDING MATERIALS, REFUSE, SOIL, EXCAVATED SPOILS, OR CHEMICALS OF ANY KIND.
•NO CUTTING OF TREE ROOTS BY UTILITY TRENCHING, FOUNDATION DIGGING, OR ANY MISCELLANEOUS EXCAVATION WITHOUT PRIOR APPROVAL OF THE PROJECT ARBORIST.
•NO USE OF TPZ AS A REST/LUNCH/BREAK AREA BY PROJECT STAFF.
•NO GRADE CHANGES OF ANY KIND EXCEPT AS EXPRESSLY DESIGNED OR APPROVED BY THE PROJECT ARBORIST.
•NO ALTERATION OR DISTURBANCE, FOR ANY DURATION, OF THE GROUND INSIDE THE TPZ.

8.ANY WORK WITHIN ANY TPZ MUST BE APPROVED BY THE PROJECT ARBORIST PRIOR TO BEGINNING THE TASK.

9. ROOT MANAGEMENT:
•IF ROOTS 1-2 INCHES IN DIAMETER MUST BE CUT, SEVER THEM CLEAN AND SQUARE AT UNDAMAGED TISSUE USING BYPASS PRUNERS FOR A SHARP SAW.
•IF ROOTS OVER 2" MUST BE CUT, STOP WORK IN THAT AREA AND CONTACT THE PROJECT ARBORIST IMMEDIATELY FOR GUIDANCE.
•THE PROJECT ARBORIST WILL INSPECT THE EXPOSED ROOT(S) TO ASSESS THE IMPACT OF CUTTING AND OVERSEE/DOCUMENT ANY APPROVED ROOT CUTTING.
•EXPOSED ROOTS AND UPPER 3 FEET OF TRENCH WALLS SHALL BE COVERED WITH 3-4 LAYERS OF BURLAP OR ABSORBENT FABRIC AND KEPT MOIST UNTIL BACKFILLED.

10.PRUNING / TRIMMING:
ANY PRUNING OF ANY LIMBS OR ROOTS OVER 2"DIAMETER MUST BE SUPERVISED BY THE PROJECT ARBORIST.



S-X TREE PROTECTION

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TREE PROTECTION PLAN
1 D3

Owner:
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Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
YI QING
NO. C
EXP. DEC. 31, 2025
CIVIL
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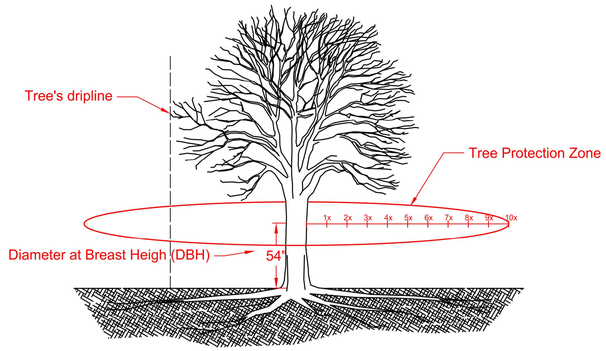
1 TREE PROTECTION ZONE SECTION VIEW



PROTECTED TREES

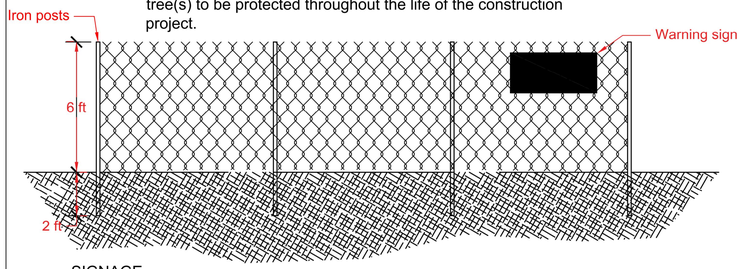
In the City of San Mateo per Chapter 13.40 of the Municipal Code, the following trees are considered protected:

1. Heritage Trees
   - Oak trees with a trunk diameter of 10 inches or more
   - Any other tree species with a trunk diameter of 15 inches or more.
2. Street Trees
   - All trees growing within the public right of way.
3. Existing Trees/Major Vegetation
   - Trees with a trunk diameter of 6 inches or more designated as protected as part of a Planning Application subject to Chapter 27.71.

Tree Protection Zone (TPZ) is the area surrounding a tree with a radius equal to 10 times the diameter of the trunk measured at 54" above grade or as otherwise specified by a Project Arborist and approved by the City Arborist.
Construction activities as defined by the Code are not allowed within the TPZ. It is unlawful for any person to cause damage to a Protected Tree compromising its health or structural integrity according to accepted industry standards, or to cause damage that is severely detrimental to its overall aesthetics. Any violations may result in penalties described in SMMC 13.40.160."

2 TREE PROTECTION FENCING AND SIGN DETAILS SECTION VIEW

Fencing shall consist of chain link fence (6-feet high), mounted on galvanized iron posts with 2 inches in diameter. Each post must be driven into the ground at least two 2 feet deep, no more than 10 feet apart. The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project.



SIGNAGE

Warning signs shall be installed to be displayed on fencing and trunk wraps. Tree signs should be in English, Spanish or any other language if required.

---WARNING---

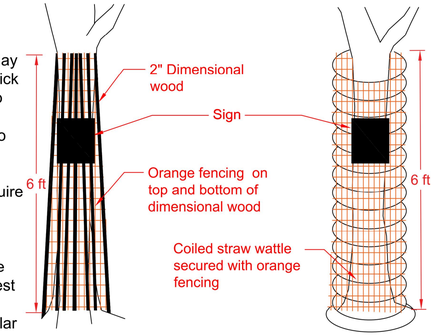
TREE PROTECTION ZONE

Do not move or remove without Arborist approval.
Violations will be subject to penalties according to SMMC 13.40.

3 TRUNK AND ROOT PROTECTION DETAILS TRUNK WRAP

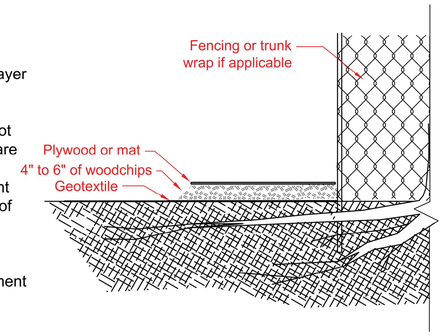
Wrap the trunk with orange plastic fencing for buffering (2" thick). Overlay orange plastic fencing with 2-inch thick wooden slats bound securely by two layers of additional orange fencing (slats shall not be allowed to dig in to the bark). During installation, use caution to avoid damaging any branches. Major limbs may also require wrapping.

Straw wattle can be used as an alternative material. For this purpose coil the straw wattle around the lowest 6' of the trunk and secure it with a double layer of orange fence or similar material.



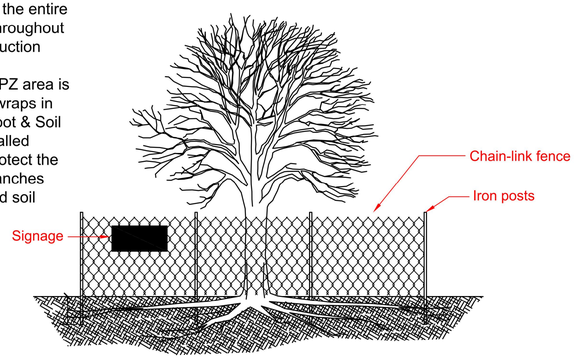
ROOT BUFFER

Root buffers consist of secured geotextile material covered with a layer 4" to 6" of clean wood chips and 3/4-inch plywood sheets securely installed over the wood chips. Do not use geotextile fabric if root buffers are to be left permanently.
The Project Arborist shall be present during the installation and removal of root buffers.
Any root buffer variation must be approved by the City Arborist in accordance with the Best Management Practices (BMPs).

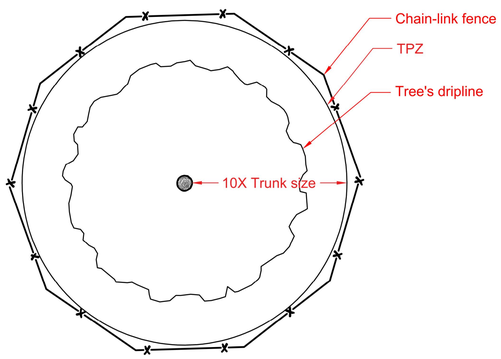


4 TYPE I COMPLETE FENCING SECTION VIEW

The fence encloses the entire TPZ of the tree(s) throughout the life of the construction project.
When fencing the TPZ area is not feasible, Trunk wraps in combination with Root & Soil buffers shall be installed within the TPZ to protect the trunk, roots, and branches from injury and avoid soil compaction.



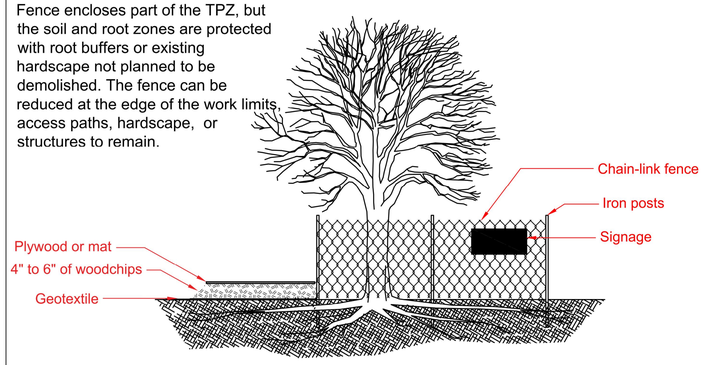
PLAN VIEW



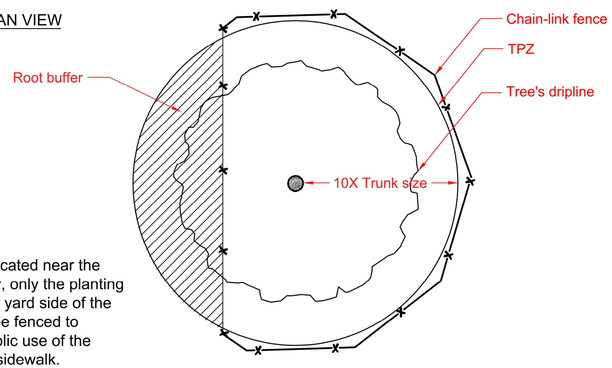
Fencing a group of trees at the TPZ radius of the largest tree is acceptable rather than fencing each tree in the group individually.
Adjustments and/or reparations for protective fencing shall be performed in a timely maner to avoid damages to Protected trees.

5 TYPE II REDUCED FENCING SECTION VIEW

Fence encloses part of the TPZ, but the soil and root zones are protected with root buffers or existing hardscape not planned to be demolished. The fence can be reduced at the edge of the work limits, access paths, hardscape, or structures to remain.



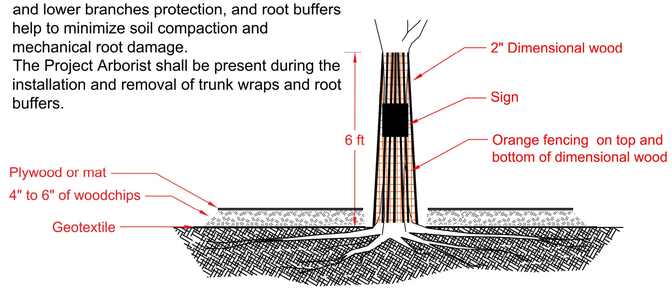
PLAN VIEW



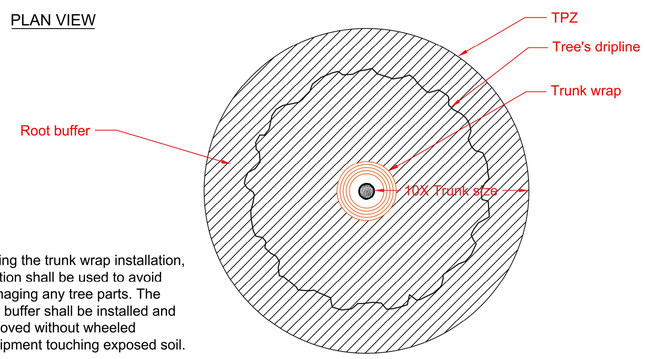
For trees located near the right of way, only the planting strip and/or yard side of the TPZ shall be fenced to provide public use of the street and sidewalk.

6 TYPE III TRUNK WRAP & ROOT BUFFER SECTION VIEW

To be used when construction activities cannot be kept outside of TPZ and/or installing fencing is not feasible. Trunk wraps account for trunk and lower branches protection, and root buffers help to minimize soil compaction and mechanical root damage.
The Project Arborist shall be present during the installation and removal of trunk wraps and root buffers.



PLAN VIEW



During the trunk wrap installation, caution shall be used to avoid damaging any tree parts. The root buffer shall be installed and removed without wheeled equipment touching exposed soil.

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TREE PROTECTION PLAN

Owner:
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Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER JIN QING ZHANG NO. C 74344 EXP. DEC. 31, 2025 CIVIL STATE OF CALIFORNIA

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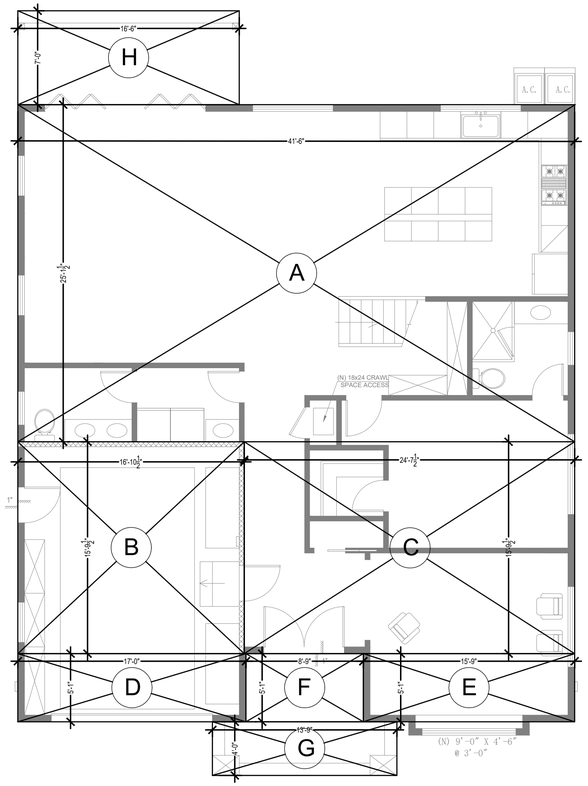
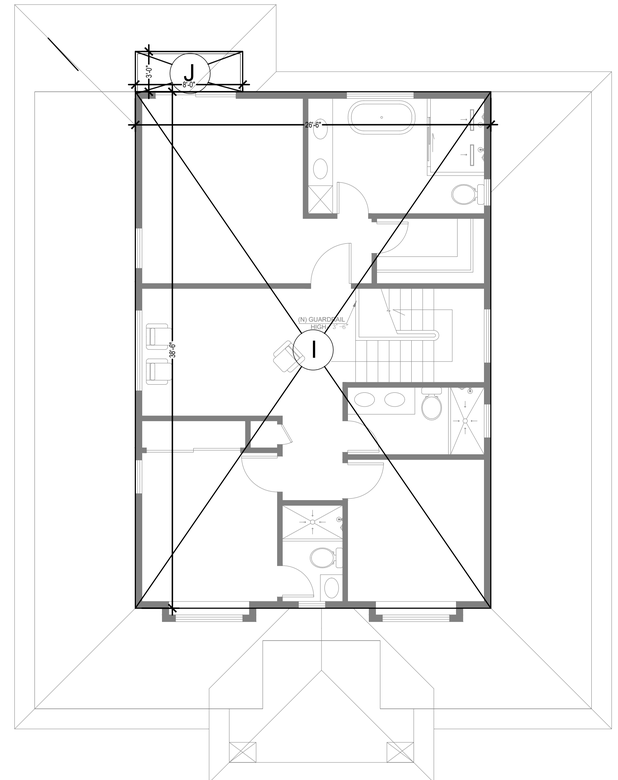


(P) GROUND FLOOR PLAN



(P) 2ND FLOOR PLAN

GROSS AREA CALCULATIONS					
FLOORS	SPACES	SIZE	AREAS (SQF)	TOTAL	
1ST FLOOR	A	41'-6" X 25'-1½"	1,043	1,511	2,883
	C	24'-7½" X 15'-9½"	389		
	E	15'-9" X 5'-1"	80		
2ND FLOOR	I	38'-6" X 26'-6"	1,020	1,020	
GARAGE	B	16'-10½" X 15'-9½"	266	352	
	D	17'-0" X 5'-1"	86		
PORCH	F	8'-9" X 5'-1"	44	99	
	G	13'-9" X 4'-0"	55		
DECK	H	16'-6" X 7'-0"	115	115	
ROOF DECK	J	3'-0" X 8'-0"	24	24	
TOTAL BUILDING AREA			2,883		
LOT AREA			5,750		
FLOOR AREA RATIO (FAR)			2,883 / 5,750 = 0.50		
ALLOWABLE BUILDING AREA(FAR): 5,750 × 32% + 1,100 = 2,940 = 0.51					

LOT COVERAGE	SPACES	SIZE	AREAS (SQF)	TOTAL
ROOF	A	41'-6" X 25'-1½"	1,043	2,078
	B	16'-10½" X 15'-9½"	266	
	C	24'-7½" X 15'-9½"	389	
	D	17'-0" X 5'-1"	86	
	E	15'-9" X 5'-1"	80	
	F	8'-9" X 5'-1"	44	
	G	13'-9" X 4'-0"	55	
	H	16'-6" X 7'-0"	115	
LOT COVERAGE AREA			2,078	
LOT AREA			5,750	
PERCENT LOT COVERAGE			2,078 / 5,750 X100% = 36%	

(P) FLOOR AREA DIAGRAM

C3 C4

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FLOOR AREA DIAGRAM

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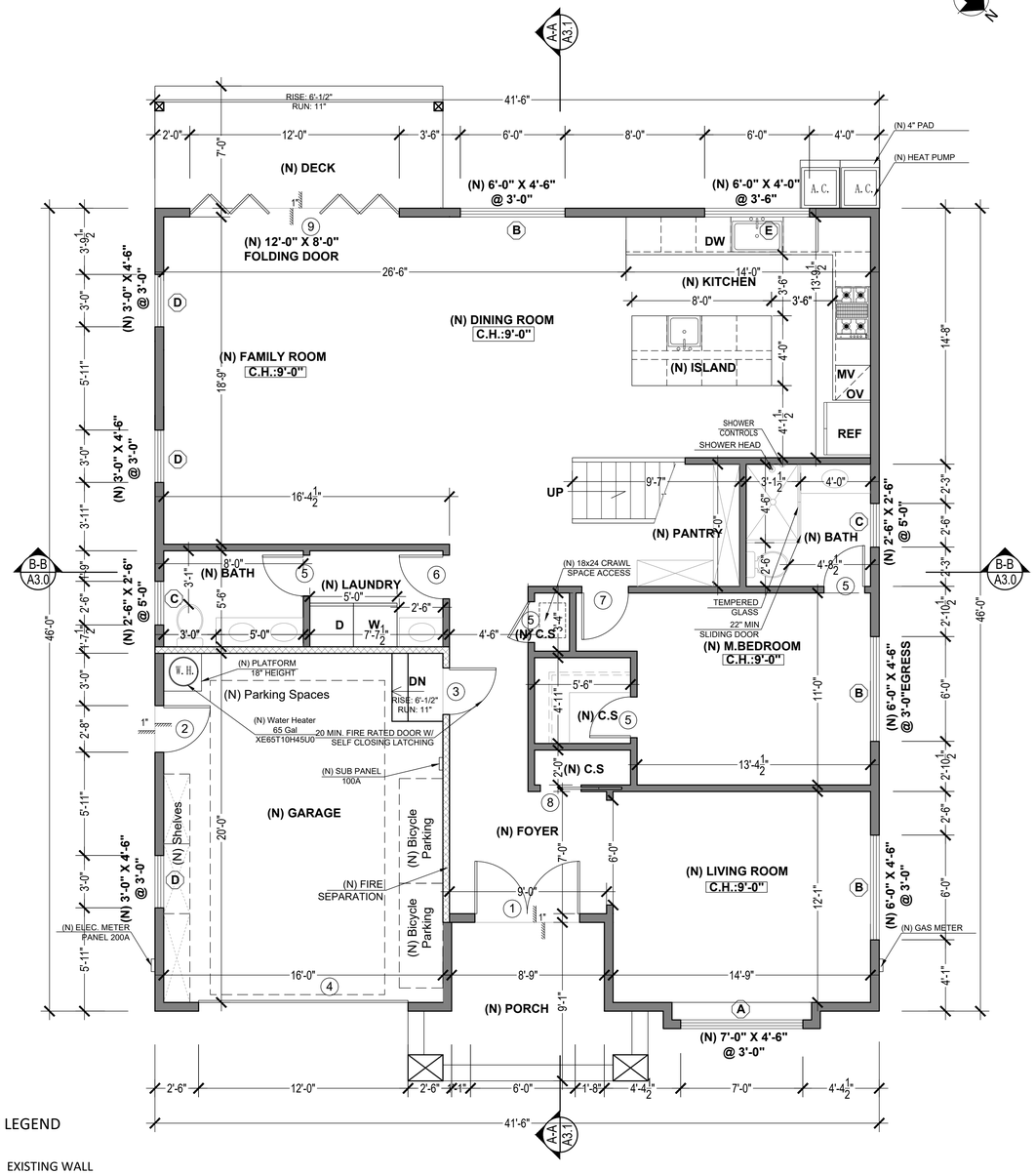
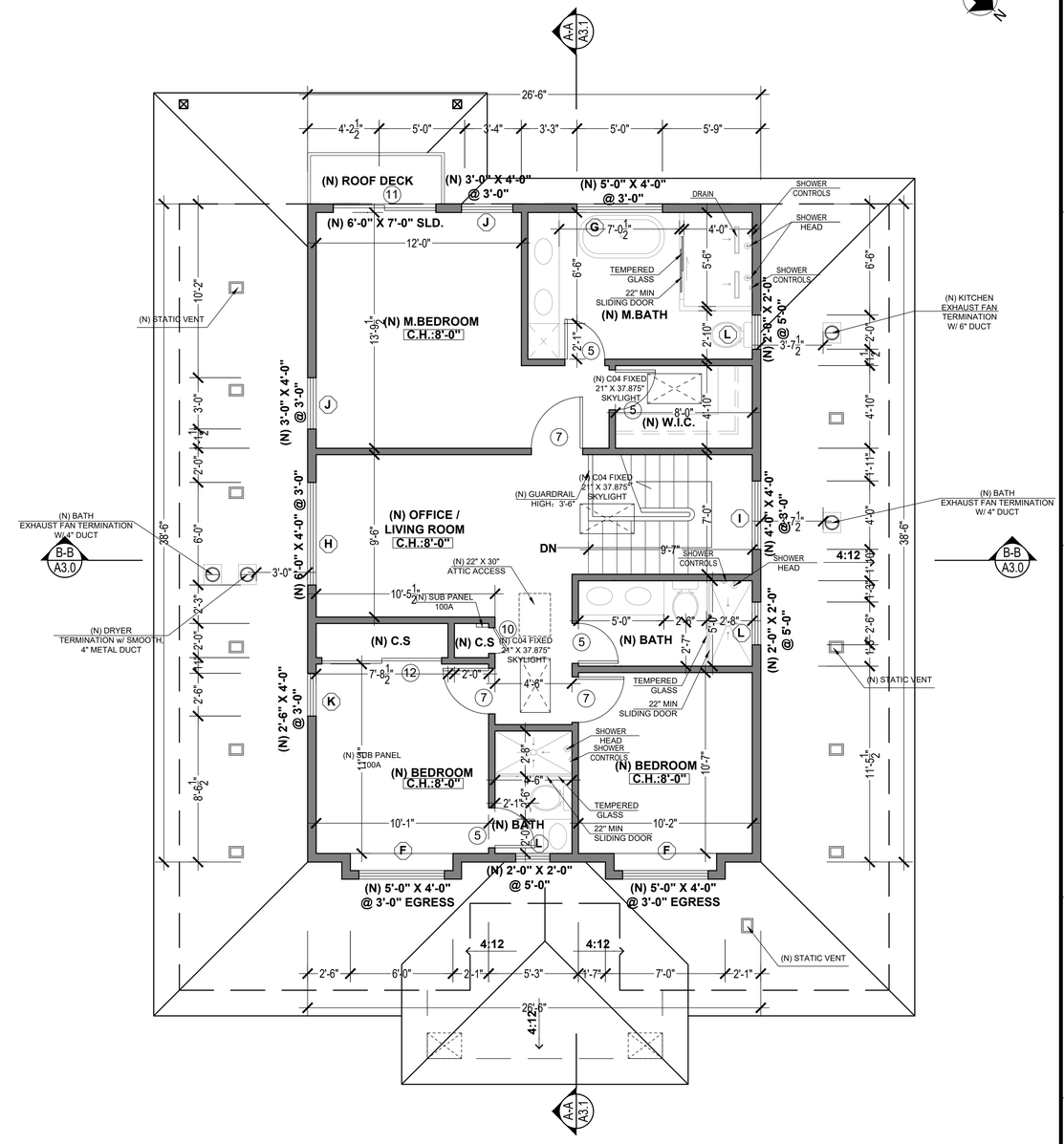


(P) GROUND FLOOR PLAN

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



(P) 2nd FLOOR PLAN

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

FLOOR PLAN LEGEND

- EXISTING WALL
- EXISTING WALL TO BE DEMOLISHED
- NEW WALL:
  2x4 OR 2x6 (PLUMBING WALL) WOOD STUDS @16" O.C. W/ 5/8" THK.
  TYPE X. GYP BD. ON BOTH SIDE. USE W/R GREEN GYP. BD. @ WET WALLS
- 1-HR FIRE RATED WALL:
  5/8" THK. TYPE X. GYP BD. ON BOTH SIDE.
- EXISTING OR NEW DOOR
- XX DOOR TAG
  SEE DOOR SCHEDULE FOR ADDITIONAL INFORMATION

ATTIC VENTILATION REQUIRED

VENT AREA REQ'D = 920 ft^2 / 150 = 6.1 ft^2 x 144 = 878.4 in^2

TOP ROOF STATIC VENT
NFVA = 80 IN^2
QTY = 11 VENTS
VENT AREA PROVIDED = 114 X 80 IN^2 = 880 IN^2

TOTAL VENT AREA PROVIDED
880 in^2 > 878.4 in^2

REVISION	BY

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(P) GROUND FLOOR PLAN
(P) 2ND FLOOR PLAN

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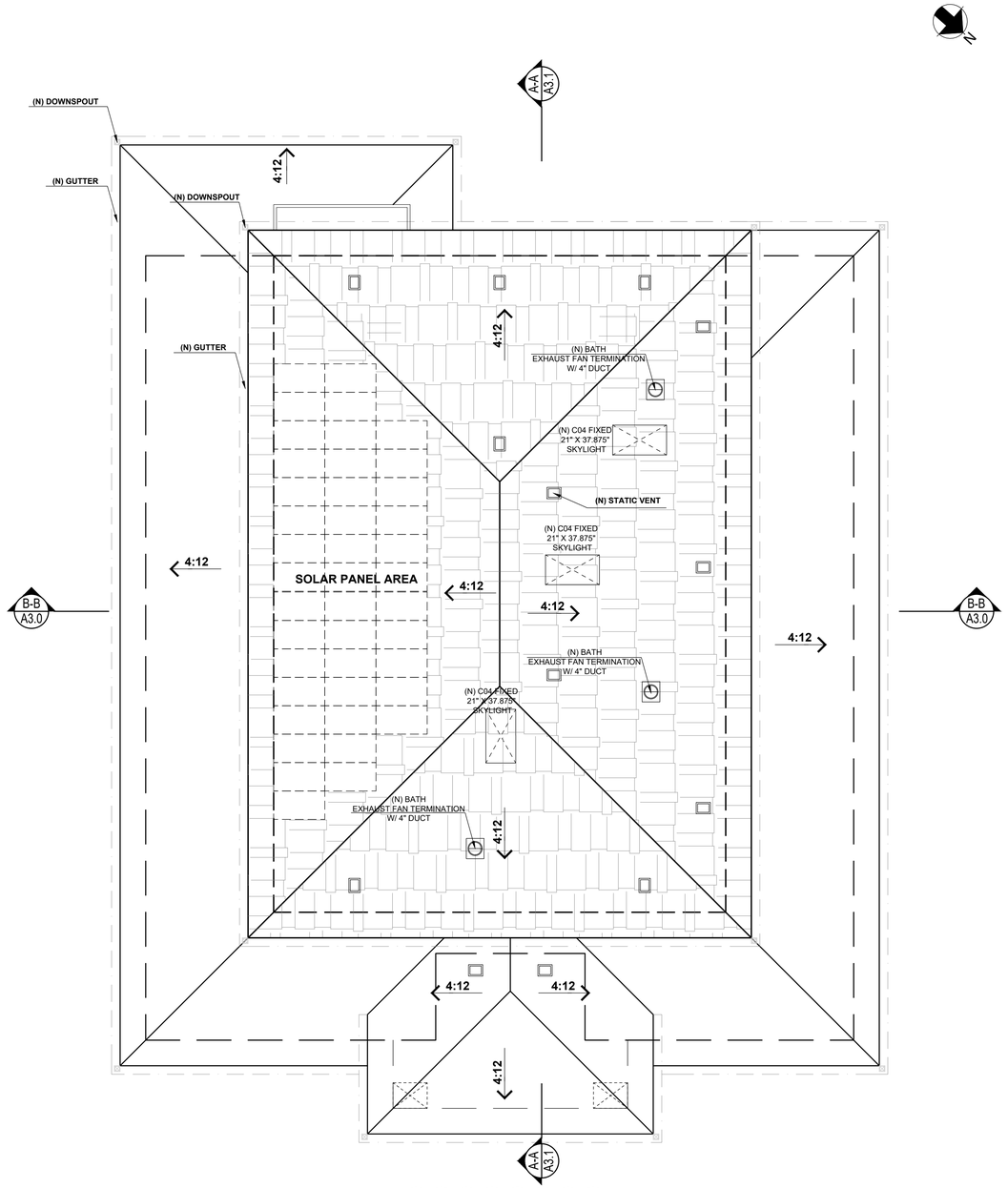
ATTIC VENTILATION REQUIRED

VENT AREA REQ'D = 1,020 ft^2 / 150 = 6.8ft^2 x 144 = 979.2 in^2

TOP ROOF STATIC VENT
NFVA = 80 IN^2
QTY = 13 VENTS
VENT AREA PROVIDED = 13 X 80 IN^2 = 1,040 IN^2

TOTAL VENT AREA PROVIDED
1,040 in^2 > 979.2 in^2



(P) ROOF PLAN
SCALE: 1/4"=1'-0"

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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E-mail: jamesli1616@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

(P) ROOF PLAN

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JING ZHONG LI
NO. C 47 3 7
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-2.1
	Of Sheets

WINDOW SCHEDULE

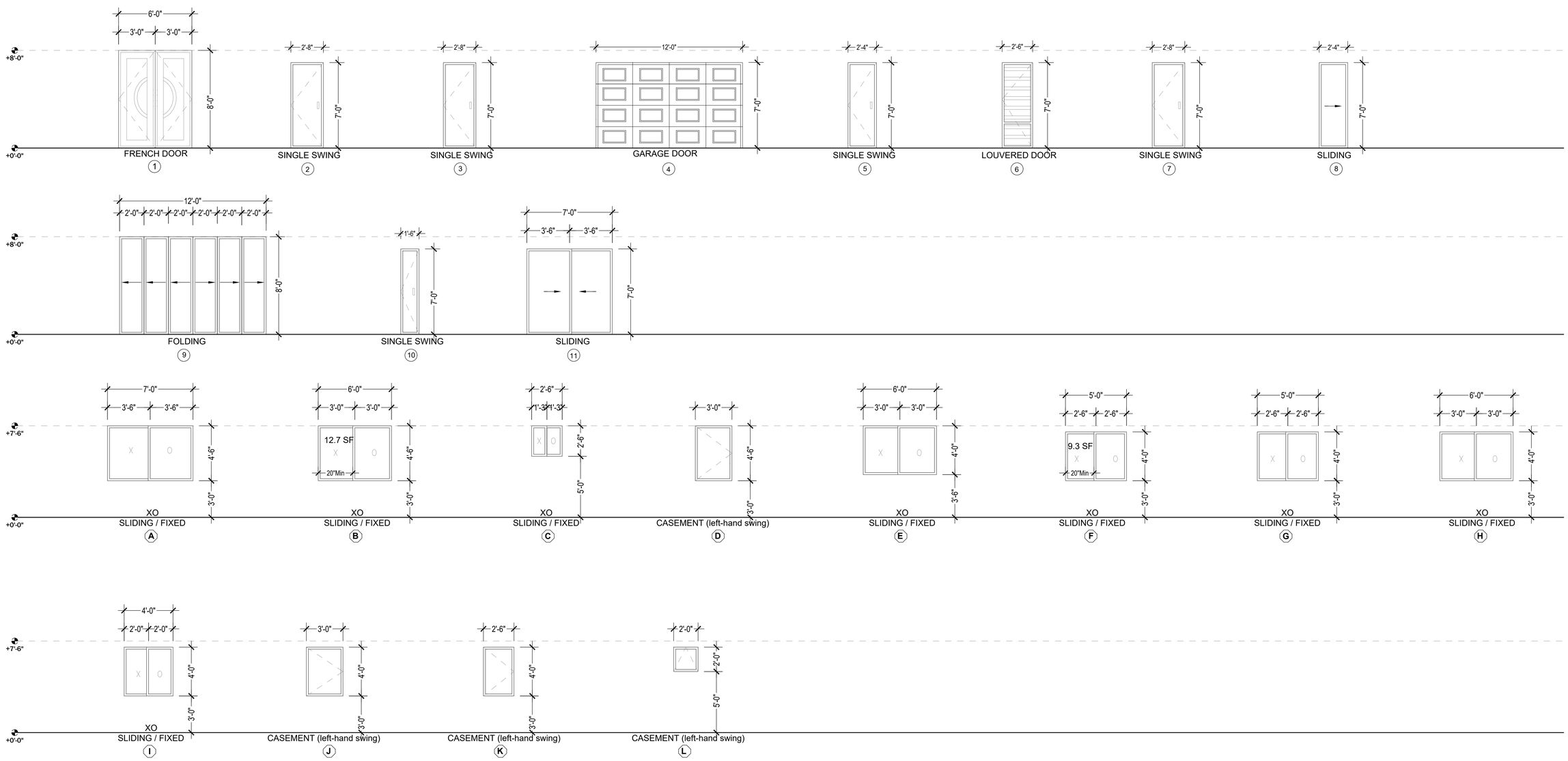
WINDOW NUMBER	LOCATION	WIDTH	HEIGHT	TYPE	U-FACTOR	NOTES
A	(N) LIVING ROOM	7' - 0"	4' - 6"	SLIDING	0.30 max.	
B	(N) BEDROOM	6' - 0"	4' - 6"	SLIDING	0.30 max.	
C	(N) BATH	2' - 6"	2' - 6"	SLIDING	0.30 max.	
D	(N) FAMILY ROOM	3' - 0"	4' - 6"	CASEMENT	0.30 max.	
E	(N) KITCHEN	6' - 0"	4' - 0"	SLIDING	0.30 max.	
F	(N) BEDROOM	5' - 0"	4' - 0"	SLIDING	0.30 max.	
G	(N) M.BATH	5' - 0"	4' - 0"	SLIDING	0.30 max.	
H	(N) OFFICE	6' - 0"	4' - 0"	SLIDING	0.30 max.	
I	(N) LIVING ROOM	4' - 0"	4' - 0"	SLIDING	0.30 max.	
J	(N) M.BEDROOM	3' - 0"	4' - 0"	CASEMENT	0.30 max.	
K	(N) BEDROOM	2' - 6"	4' - 0"	CASEMENT	0.30 max.	
L	(N) BATH	2' - 0"	2' - 0"	CASEMENT	0.30 max.	

NOTE : COORDINATE ALL WINDOW TYPES WITH OWNER PRIOR TO ORDERING.

DOOR SCHEDULE

IDENTIFICATION					
DOOR NUMBER	LOCATION	WIDTH	HEIGHT	TYPE	NOTES
1	(N) FOYER	6' - 0"	8' - 0"	FRENCH DOOR	EXTERIOR DOOR
2	(N) GARAGE	2' - 8"	7' - 0"	SINGLE SWING	EXTERIOR DOOR
3	(N) GARAGE	2' - 8"	7' - 0"	SINGLE SWING	20 MIN FIRE-RATED W/ SELF-CLOSING DEVICE
4	(N) GARAGE	12' - 0"	7' - 0"	GARAGE DOOR	STEEL PANEL INSULATED
5	(N) BATH & (N) CLOSET	2' - 4"	7' - 0"	SINGLE SWING	INTERIOR WOOD DOOR
6	(N) LAUNDRY	2' - 6"	7' - 0"	LOUVERED DOOR	INTERIOR WOOD DOOR
7	(N) BEDROOM	2' - 8"	7' - 0"	SINGLE SWING	INTERIOR WOOD DOOR
8	(N) CLOSET	2' - 4"	7' - 0"	SLIDING	INTERIOR WOOD DOOR
9	(N) DECK	12' - 0"	8' - 0"	FOLDING	EXTERIOR DOOR
10	(N) CLOSET	1' - 6"	7' - 0"	SINGLE SWING	INTERIOR WOOD DOOR
11	(N) CLOSET	7' - 0"	7' - 0"	SLIDING	INTERIOR WOOD DOOR

NOTE : COORDIANTE ALL DOOR TYPES WITH OWNER PRIOR TO ORDERING.



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229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

WINDOW SCHEDULE
WINDOW LEGEND

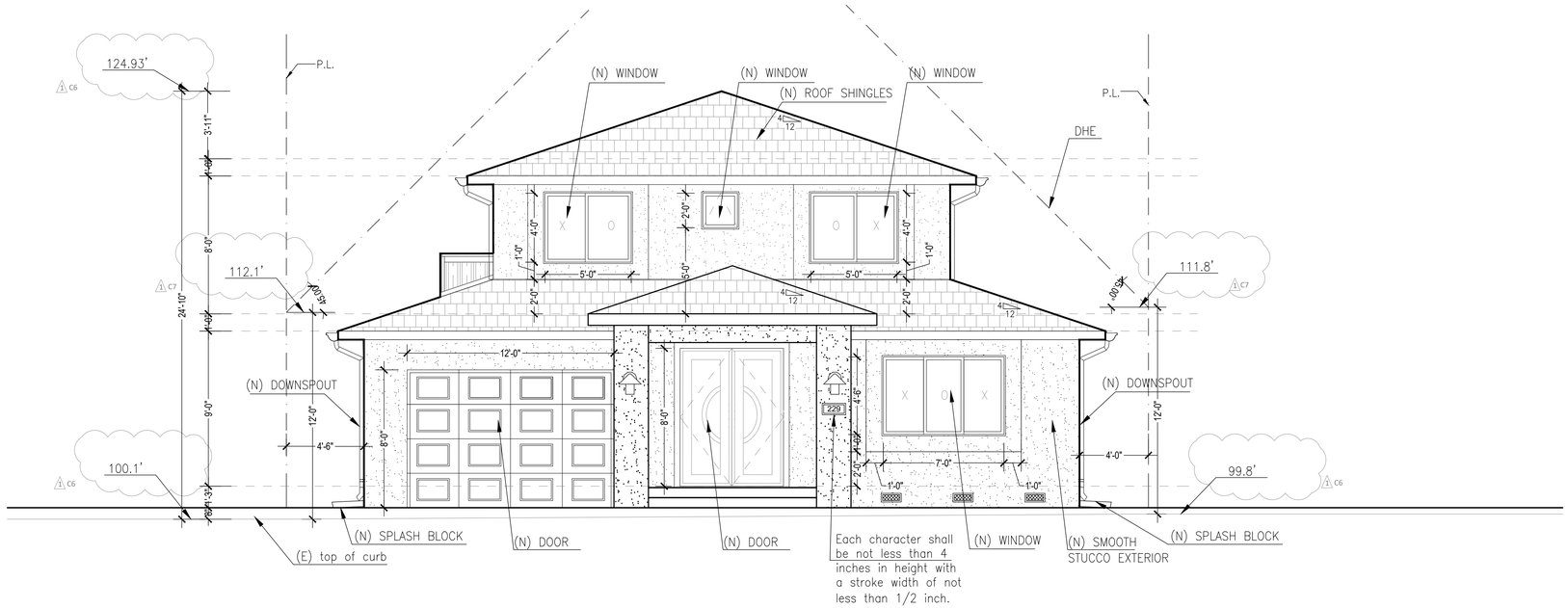
Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
YAN QING ZHANG
NO. C 73755
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-2.2
	Of Sheets

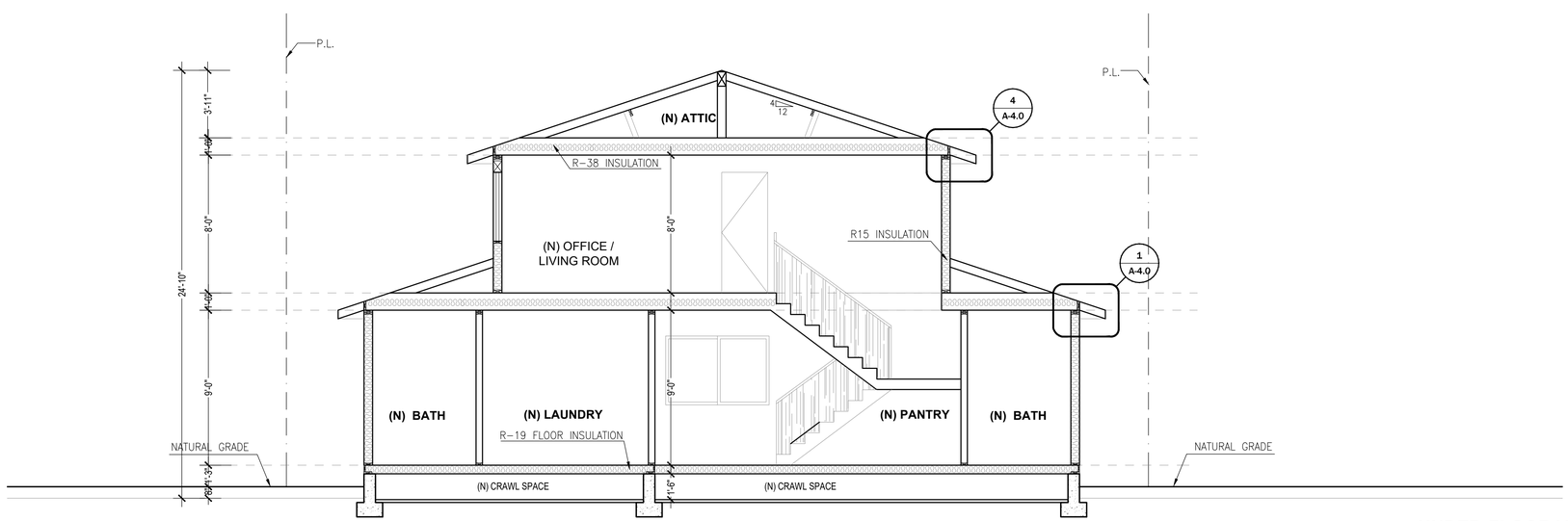
MATERIAL SCHEDULE

#	ITEM	DESCRIPTION
1	FLAT TILE ROOF	CLASS A FIRE-RETARDANT ROOF COVERING COLOR: AS PHOTO SHOWN, CHARCOAL
2	WALL - STUCCO SMOOTH ACRYLIC FINISH	STUCCO PAINT EXTERIOR FINISH 3 COATS, 7/8" MIN. THICK, CRC R703.7.2, AND CBC 2513.4 TWO LAYERS OF GRADE D PAPER UNDER CEMENT PLASTER COVERING WHERE OCCURS OVER PLYWOOD SHEATHING, CRC R703.7.3 COLOR: #415 COCONUT
3	DOWNSPOUT & GUTTER	PAINTED STEEL COLOR: DARK GRAY
4	WINDOW	MILGARD WINDOW: BLACK FIBERGLASS WINDOW WITHOUT ANY GRIDS COLOR: DARK GARY TRIMLESS
5	ENTRANCE DOOR	FROM ALUGUARD, J85 ALUMINUM ENTRANCE DOOR COLOR: GREY TRIMLESS
6	GARAGE DOOR	LASSIC STEEL SHORT PANEL 12 FT X 8 FT INSULATED 6.5 R-VALUE WHITE GARAGE DOOR WITHOUT WINDOWS
7	BALCONY	11.8 IN. X 11.8 IN. SQUARE WOOD PLASTIC COMPOSITE DECK TILES FLOOR



(P) NORTH ELEVATION

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



B-B SECTION

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

UNDER-FLOOR VENTILATION REQUIRED

NET FREE CROSS VENTILATION AREA = $\frac{1}{150}$
VENT AREA REQ'D = 1,689 ft^2 / 150 =11.26 ft^2 x 144 = 1,621.44 in^2

16 in. x 6 in. Galvanized Steel 2-Way Reversible Vent
NFVA: 52 in^2.
QTY = 32 VENTS
VENT AREA PROVIDED = 32 x 52 in^2 =1,664 in^2

TOTAL VENT AREA PROVIDED
1,664 in^2 >= 1,621.44 in^2

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

(P) NORTH ELEVATION
B-B SECTION

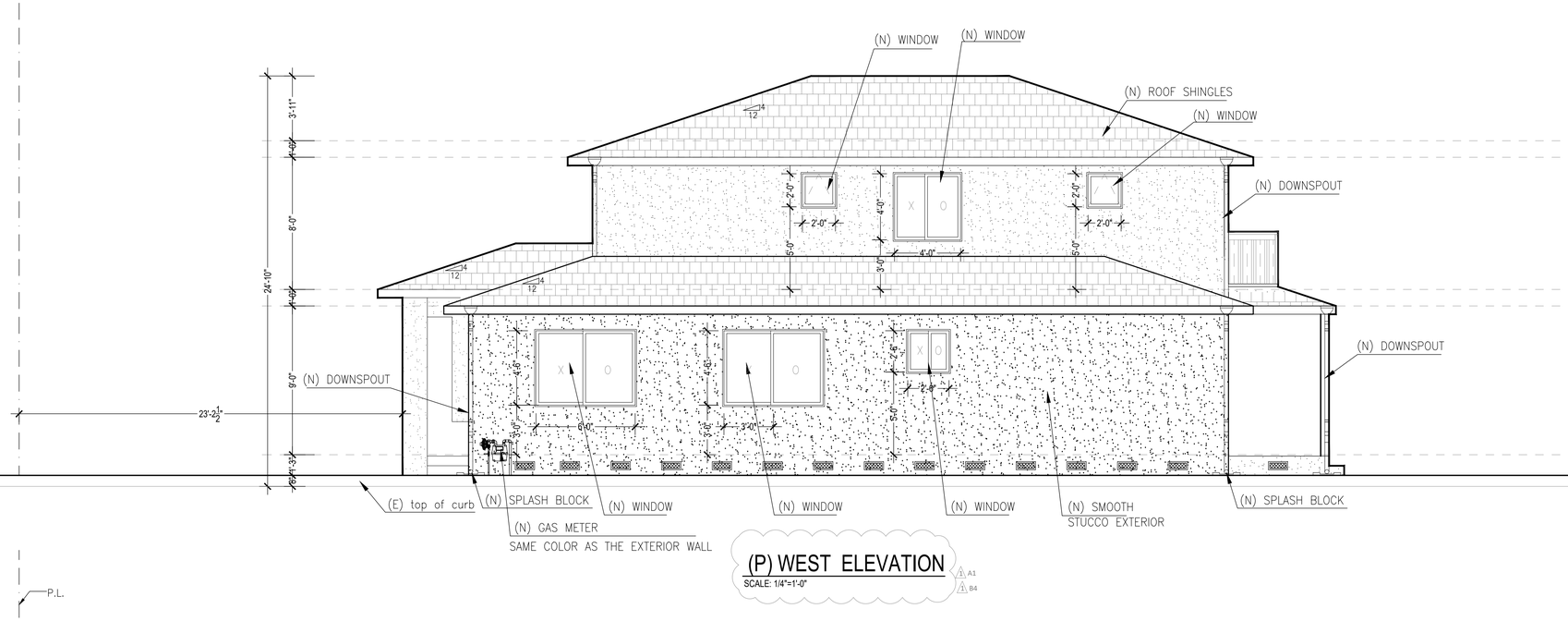
Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER JIN QING ZHANG NO. C 70 EXP. DEC. 31 2025 CIVIL STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-3.0
	Of Sheets

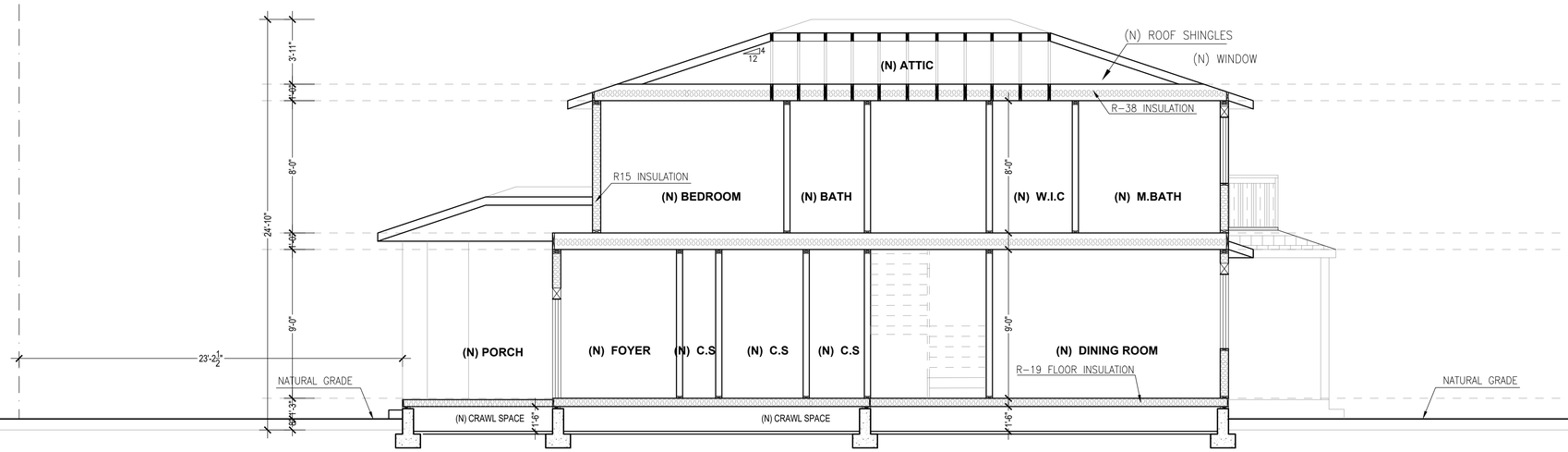
MATERIAL SCHEDULE

#	ITEM	DESCRIPTION
1	FLAT TILE ROOF	CLASS A FIRE-RETARDANT ROOF COVERING COLOR: AS PHOTO SHOWN, CHARCOAL
2	WALL - STUCCO SMOOTH ACRYLIC FINISH	STUCCO PAINT EXTERIOR FINISH 3 COATS, 7/8" MIN. THICK, CRC R703.7.2, AND CBC 2513.4 TWO LAYERS OF GRADE D PAPER UNDER CEMENT PLASTER COVERING WHERE OCCURS OVER PLYWOOD SHEATHING, CRC R703.7.3 COLOR: #415 COCONUT
3	DOWNSPOUT & GUTTER	PAINTED STEEL COLOR: DARK GRAY
4	WINDOW	MILGARD WINDOW: BLACK FIBERGLASS WINDOW WITHOUT ANY GRIDS COLOR: DARK GARY TRIMLESS
5	ENTRANCE DOOR	FROM ALUGUARD, J85 ALUMINUM ENTRANCE DOOR COLOR: GREY TRIMLESS
6	GARAGE DOOR	LASSIC STEEL SHORT PANEL 12 FT X 8 FT INSULATED 6.5 R-VALUE WHITE GARAGE DOOR WITHOUT WINDOWS
7	BALCONY	11.8 IN. X 11.8 IN. SQUARE WOOD PLASTIC COMPOSITE DECK TILES FLOOR



(P) WEST ELEVATION

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



A-A SECTION

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

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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NEW HOUSE
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Burlingame, CA 94010
APN: 029263060

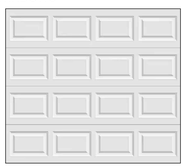
(P) WEST ELEVATION
A-A SECTION

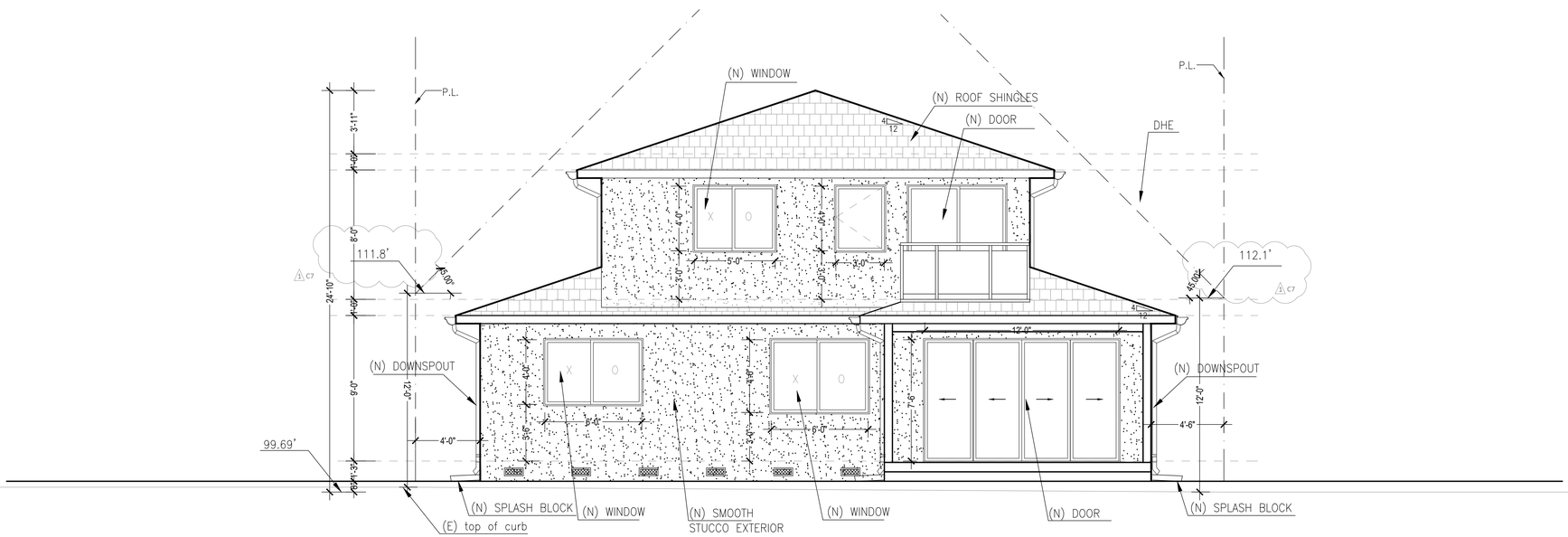
Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIN QING
NO. C 79255
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-3.1
	Of Sheets

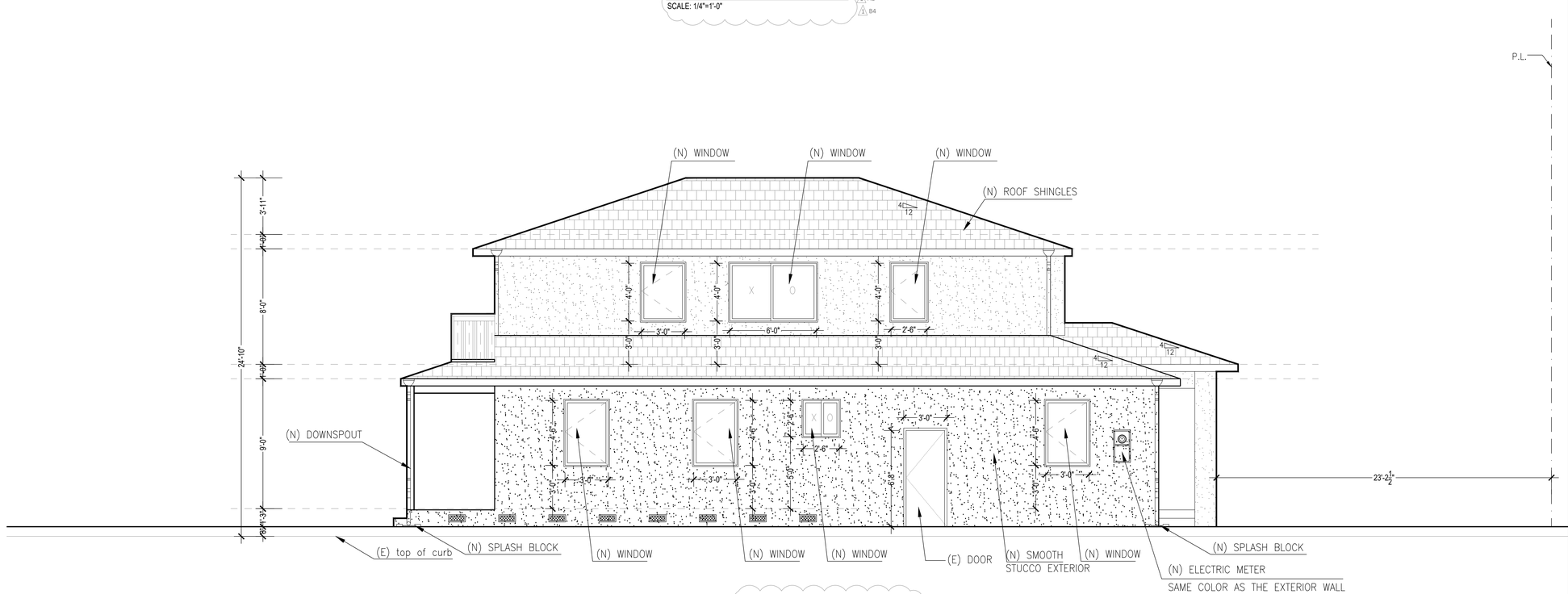
MATERIAL SCHEDULE

#	ITEM	DESCRIPTION
1	FLAT TILE ROOF 	CLASS A FIRE-RETARDANT ROOF COVERING COLOR: AS PHOTO SHOWN, CHARCOAL 
2	WALL - STUCCO SMOOTH ACRYLIC FINISH 	STUCCO PAINT EXTERIOR FINISH 3 COATS, 7/8" MIN. THICK, CRC R703.7.2, AND CBC 2513.4 TWO LAYERS OF GRADE D PAPER UNDER CEMENT PLASTER COVERING WHERE OCCURS OVER PLYWOOD SHEATHING, CRC R703.7.3 COLOR: #415 COCONUT 
3	DOWNSPOUT & GUTTER	PAINTED STEEL COLOR: DARK GRAY
4	WINDOW	MILGARD WINDOW: BLACK FIBERGLASS WINDOW WITHOUT ANY GRIDS COLOR: DARK GARY TRIMLESS 
5	ENTRANCE DOOR	FROM ALUGUARD, J85 ALUMINUM ENTRANCE DOOR COLOR: GREY TRIMLESS 
6	GARAGE DOOR	LASSIC STEEL SHORT PANEL 12 FT X 8 FT INSULATED 6.5 R-VALUE WHITE GARAGE DOOR WITHOUT WINDOWS 
7	BALCONY	11.8 IN. X 11.8 IN. SQUARE WOOD PLASTIC COMPOSITE DECK TILES FLOOR 



(P) SOUTH ELEVATION

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



(P) EAST ELEVATION

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

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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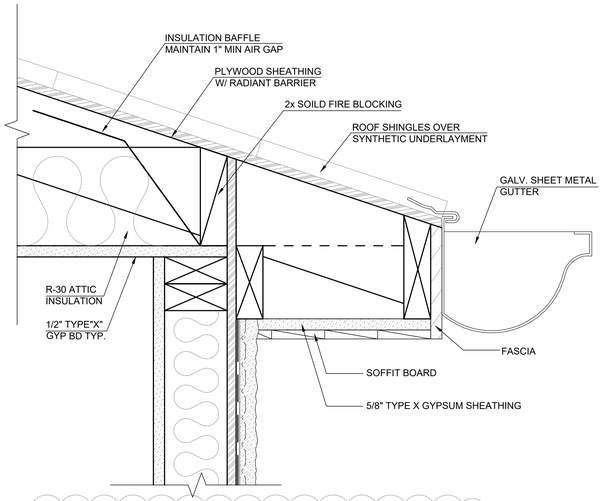
APN: 029263060

(P) SOUTH ELEVATION
(P) EAST ELEVATION

Owner:
HONGZHI LIANG
Tel: 650-888-1083

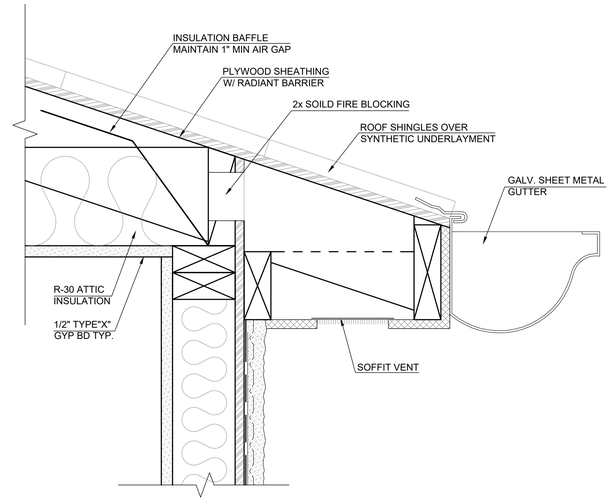
LICENSED PROFESSIONAL ENGINEER
JIN QING
NO. C 70 035
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-3.2
	Of Sheets



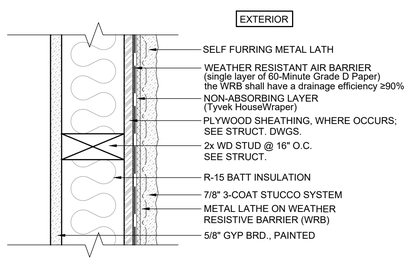
1 TYP. 1-HR FIRE RATED EAVE DETAIL

SCALE: 3"=1'-0"



4 TYP. EAVE DETAIL

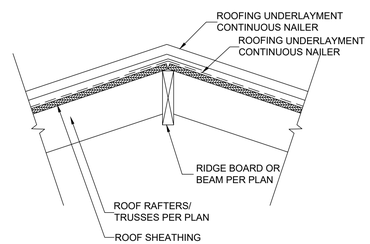
SCALE: 3"=1'-0"



NOTE: GYP BRD. SHALL NOT BE INSTALLED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY. 1 HOUR RATED PER CBC 2022 TABLE 721.1. (2), ITEM 15-1.3 See footnote m for reduction of allowable F'c.

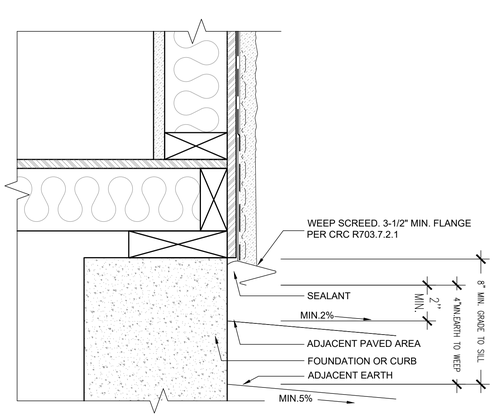
2 TYP. EXTERIOR WALL - STUCCO

SCALE: 3"=1'-0"



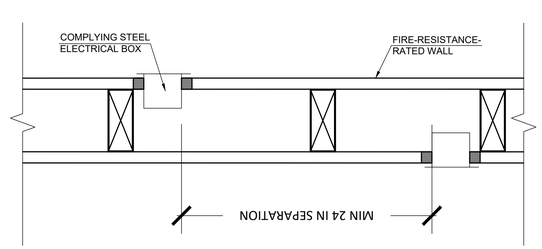
5 ROOF -HIP/RIDGE

SCALE: 3"=1'-0"



3 WEEP SCREED DETAIL

SCALE: 3"=1'-0"



PLAN SECTION OF WALL STEEL ELECTRICAL OUTLET BOX PENETRATION

6 ELECTRICAL BOX PENETRATIONS

SCALE: 3"=1'-0"

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

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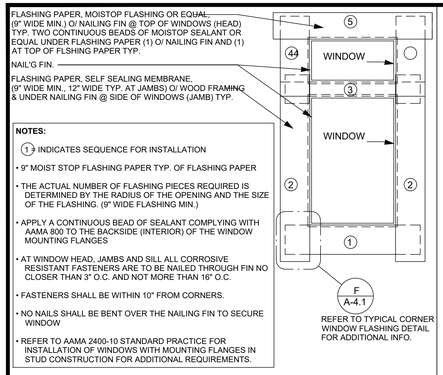
APN: 029263060

DETAILS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
ZHONGLV QINO
NO. C 79[illegible]
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-4.0
	Of Sheets



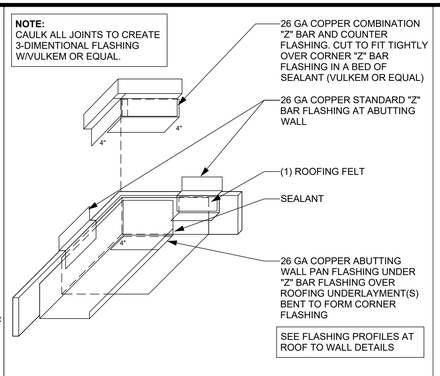
NOTES:

1 INDICATES SEQUENCE FOR INSTALLATION

- 9" MOIST STOP FLASHING PAPER TYP. OF FLASHING PAPER
- THE ACTUAL NUMBER OF FLASHING PIECES REQUIRED IS DETERMINED BY THE RADIUS OF THE OPENING AND THE SIZE OF THE FLASHING. (9" WIDE FLASHING MIN.)
- APPLY A CONTINUOUS BEAD OF SEALANT COMPLYING WITH AAMA 800 TO THE BACKSIDE (INTERIOR) OF THE WINDOW MOUNTING FLANGES
- AT WINDOW HEAD, JAMBS AND SILL ALL CORROSIVE RESISTANT FASTENERS ARE TO BE NAILED THROUGH FIN NO CLOSER THAN 3" O.C. AND NOT MORE THAN 16" O.C.
- FASTENERS SHALL BE WITHIN 10" FROM CORNERS.
- NO NAILS SHALL BE BENT OVER THE NAILING FIN TO SECURE WINDOW
- REFER TO AAMA 2400-10 STANDARD PRACTICE FOR INSTALLATION OF WINDOWS WITH MOUNTING FLANGES IN STUD CONSTRUCTION FOR ADDITIONAL REQUIREMENTS.

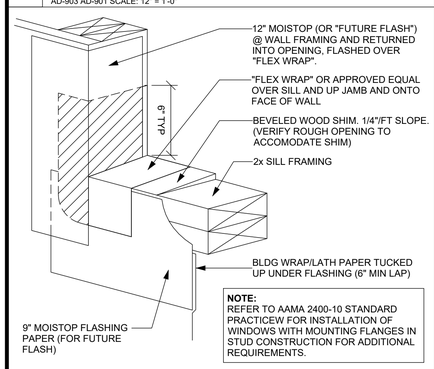
A FLASHING - WINDOW TYP.

AD-903 AD-901 SCALE: 12" = 1'-0"



B ROOF TO WALL TYP. FLASHING 5

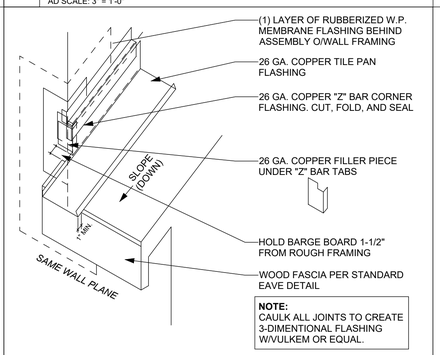
AD SCALE: 3" = 1'-0"



NOTE:
REFER TO AAMA 2400-10 STANDARD PRACTICEW FOR INSTALLATION OF WINDOWS WITH MOUNTING FLANGES IN STUD CONSTRUCTION FOR ADDITIONAL REQUIREMENTS.

C FLASHING - WINDOW CORNER TYP.

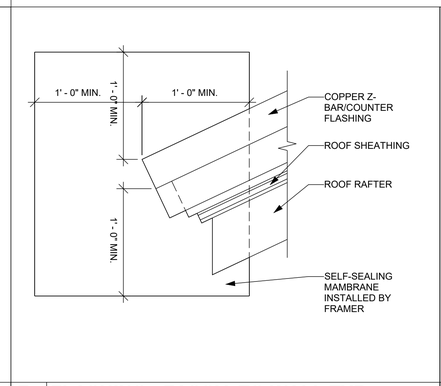
AD-901 AD-901 SCALE: 12" = 1'-0"



NOTE:
CAULK ALL JOINTS TO CREATE 3-DIMENTIONAL FLASHING W/VULKEM OR EQUAL.

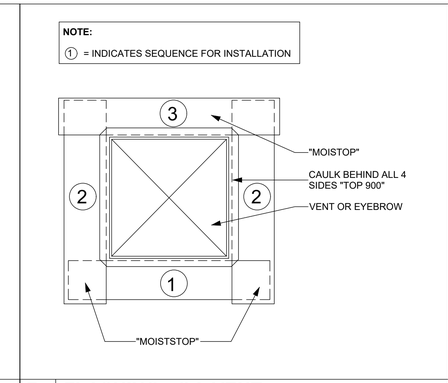
D ROOF TO WALL TYP. FLASHING 2

AD SCALE: 3" = 1'-0"



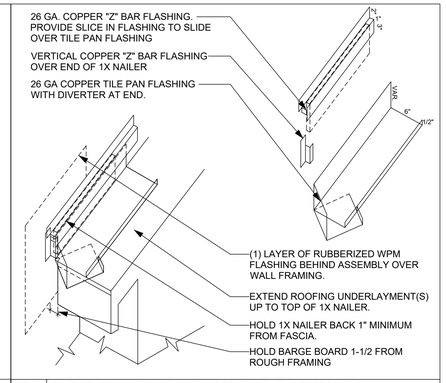
E FLASHING - FASCIA TO WALL TYP.

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



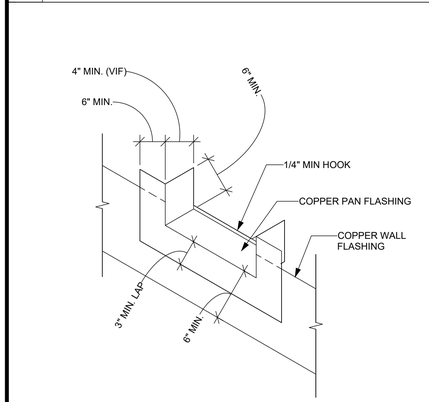
F FLASHING - G.I. VENT

AD SCALE: 1" = 1'-0"



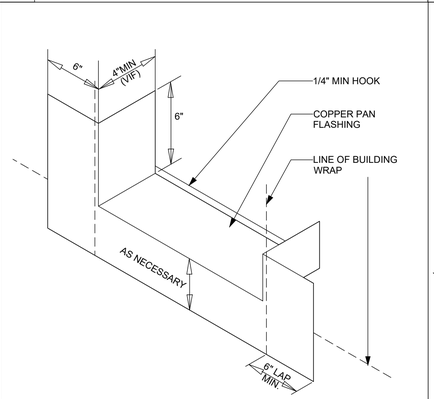
G ROOF TO WALL TYP. FLASHING 1

AD SCALE: 6" = 1'-0"



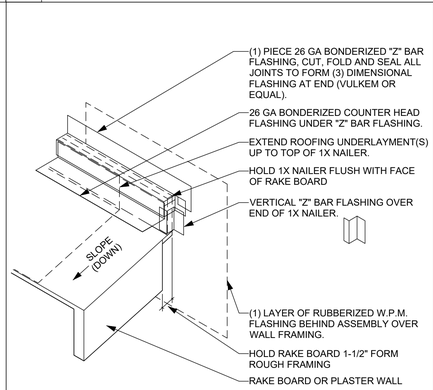
H FLASHING - DOOR AT GRADE

AD SCALE: 3" = 1'-0"



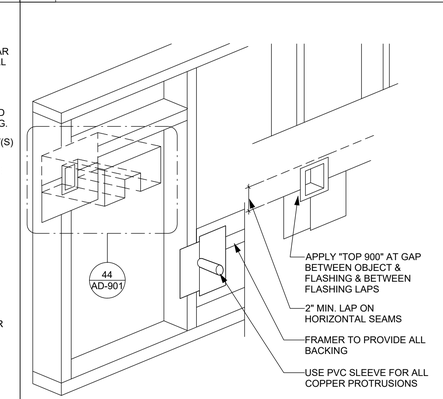
J FLASHING PAN @ DOOR THRESHOLD

AD SCALE: 3" = 1'-0"



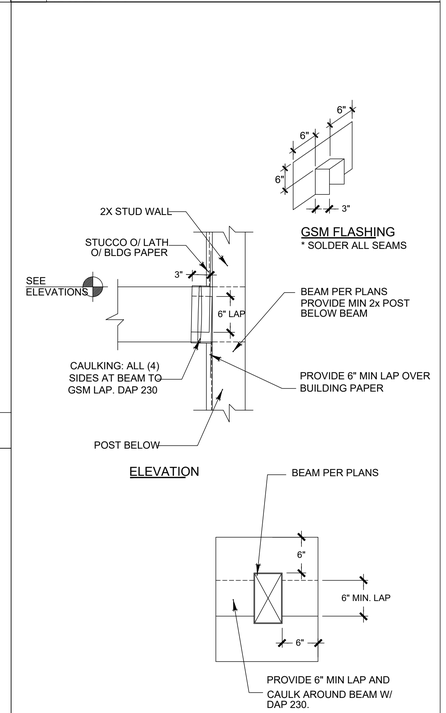
K ROOF TO WALL TYP. FLASHING 3

AD SCALE: 3" = 1'-0"



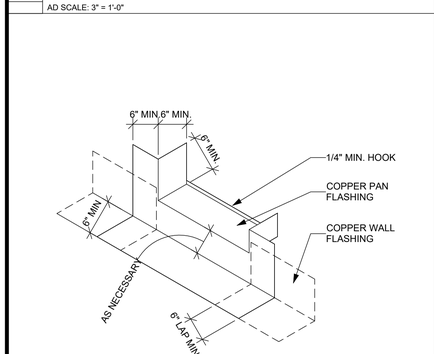
L FLASHING - PROTRUSIONS

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



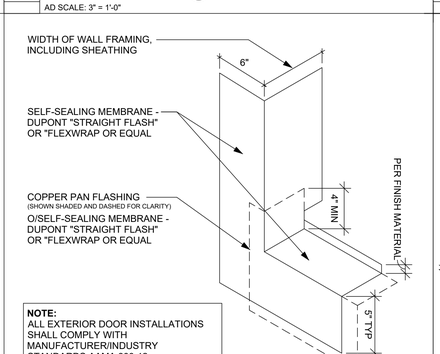
R BEAM TO WALL FLASHING

AD SCALE: 1" = 1'-0"



M FLASHING - DOOR AT W.P. DECK

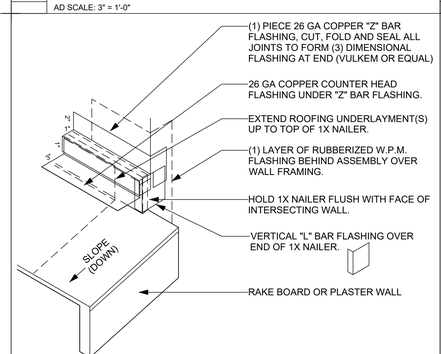
AD SCALE: 3" = 1'-0"



NOTE:
ALL EXTERIOR DOOR INSTALLATIONS SHALL COMPLY WITH MANUFACTURER/INDUSTRY STANDARDS AAMA 300-12

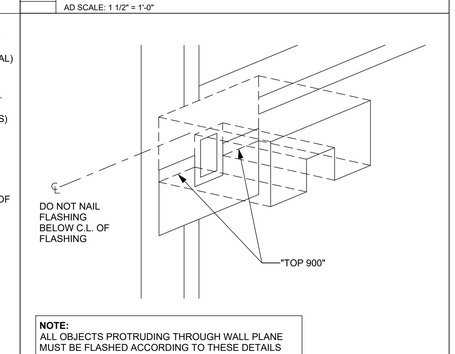
N FLASHING - JAMB TO SILL TYP.

AD SCALE: 3" = 1'-0"



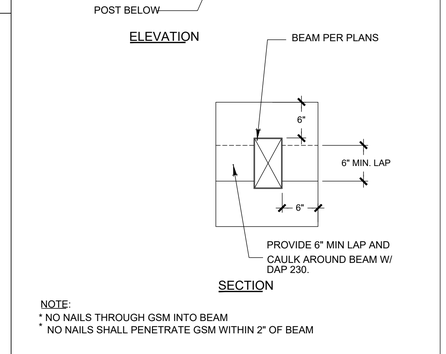
P ROOF TO WALL TYP. FLASHING 4

AD SCALE: 3" = 1'-0"



Q FLASHING - DETAILED PROTRUSION

AD-901 AD-901 SCALE: 1 1/2" = 1'-0"



R BEAM TO WALL FLASHING

AD SCALE: 1" = 1'-0"

REVISION	BY

J & S CONSULTANT INC
131 Sequoia Ave,
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

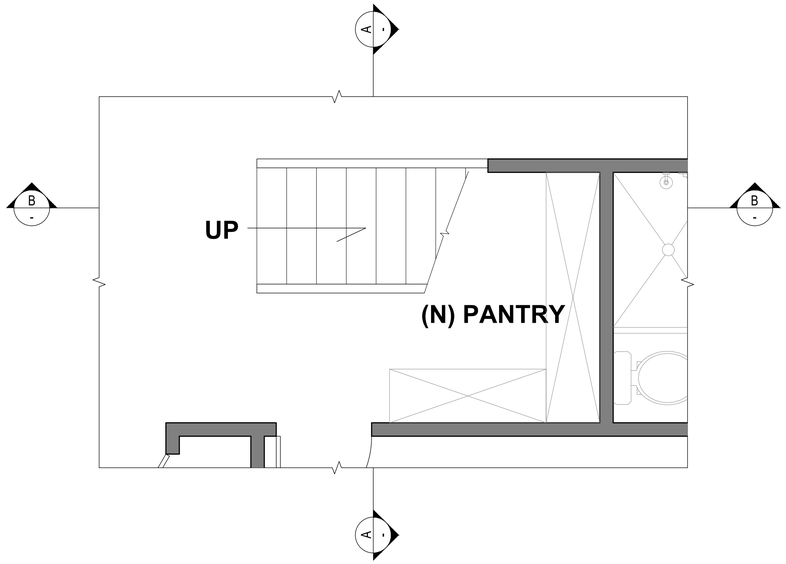
NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

DETAILS

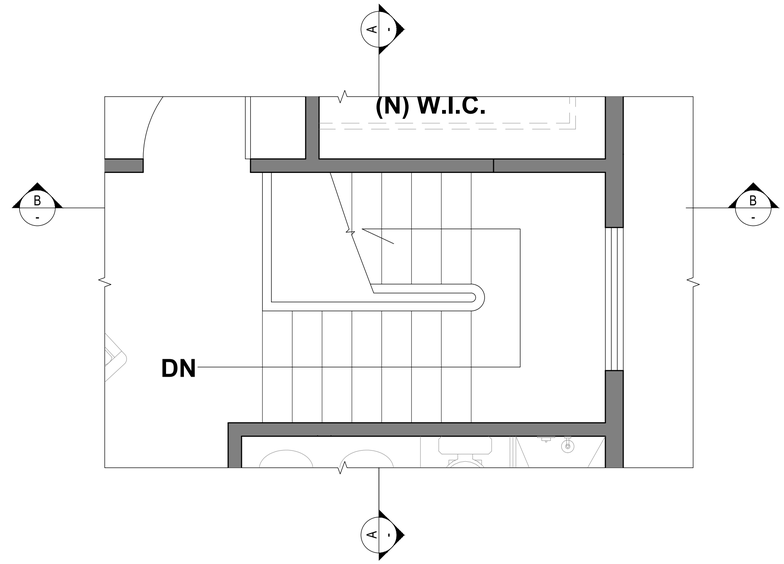
Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIN QING LI
NO. 74777
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

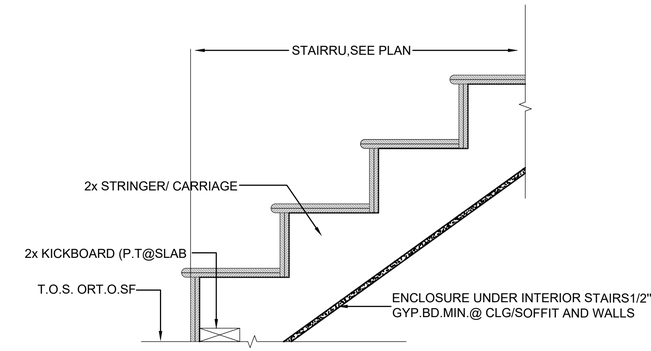
Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-4.1
	Of Sheets



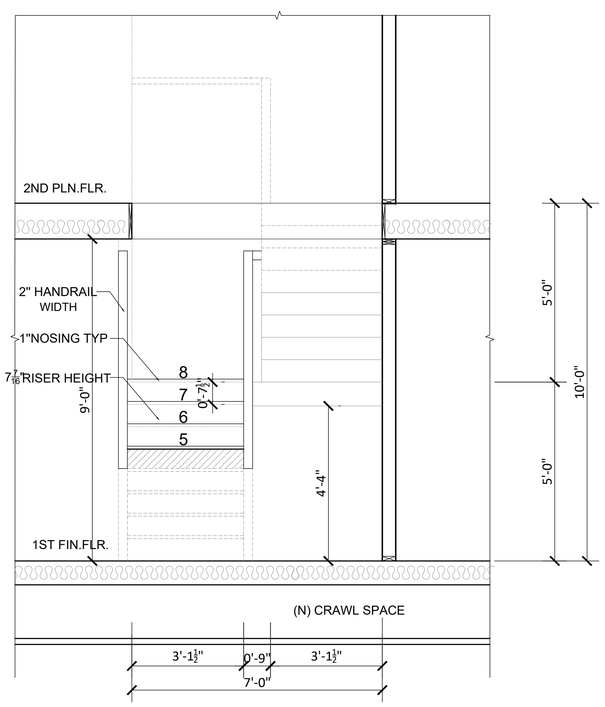
1st FLOOR PLAN
SCALE: 1/2"=1'-0"



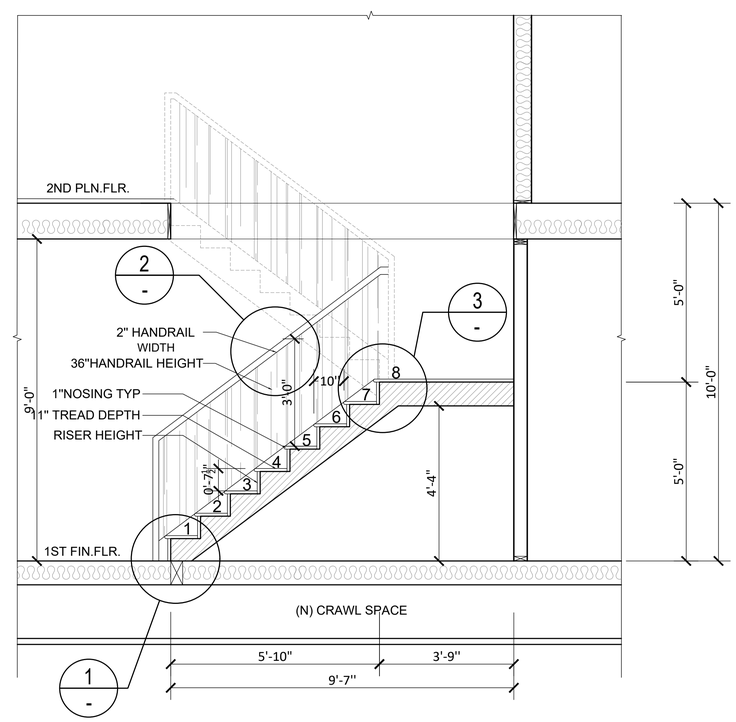
2nd FLOOR PLAN
SCALE: 1/2"=1'-0"



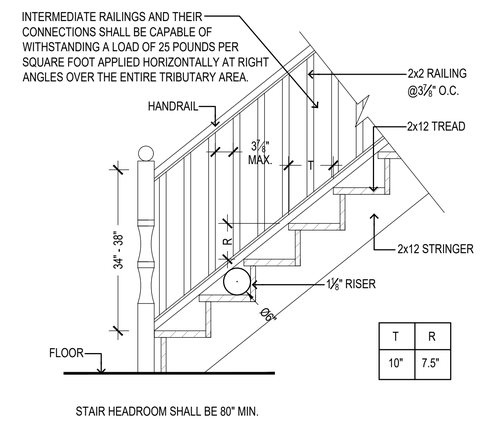
1 UP STRINGER @ WD STAIRS AND LANDINGS
SCALE: 1 1/2"=1'-0"



A-A STAIR DETAIL
SCALE: 1/2"=1'-0"

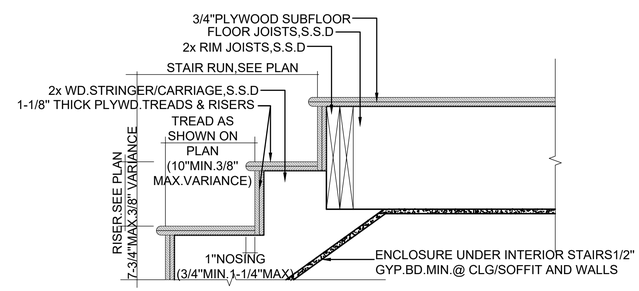


B-B STAIR DETAIL
SCALE: 1/2"=1'-0"



T	R
10"	7.5"

2 INTERIOR STAIR DETAIL
SCALE: 3/4"=1'-0"



3 TOP OF STAIR
SCALE: 1 1/2"=1'-0"

REVISION	BY

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NEW HOUSE
229 Bancroft Rd,
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APN: 029263060

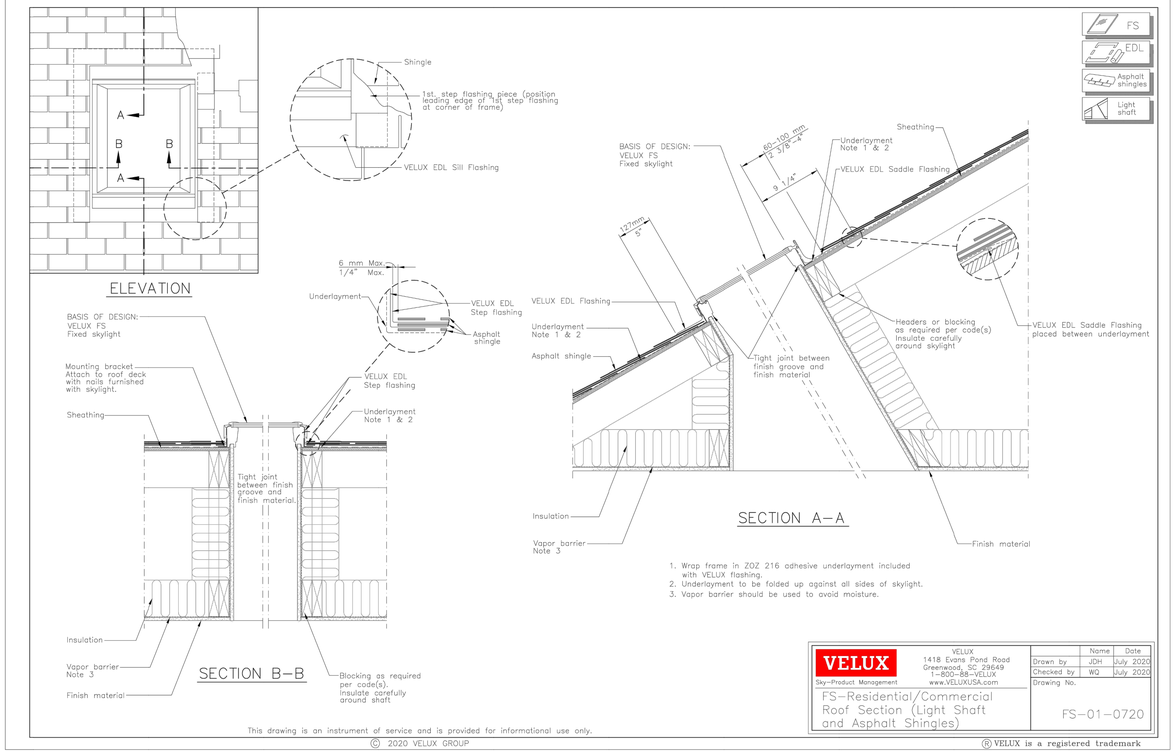
STAIR DETAILS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIN QING YU
NO. 73 EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

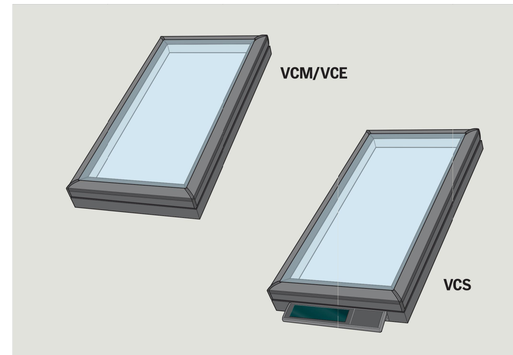
Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-4.2

Of Sheets



VELUX®

VELUX® VCM
VELUX INTEGRA® VCE
VELUX INTEGRA® Solar VCS



ENGLISH: VCM, VCE and VCS Ventilated Curb Mounted Skylight Installation Instructions

ESPAÑOL: Instrucciones de instalación para tragaluz de ventilación VCM, VCE et VCS montado en brocal

FRANÇAIS : Instructions d'installation du puits de lumière ouvrant VCM, VCE y VCS monté sur cadre

0°-60°

VAS 454250-2021-02

ENGLISH: Build curb according to measurements in the chart. Use lumber with an actual thickness of 1½" (38 mm) and a minimum height of 3½" (90 mm). Curb height and attachment should comply with building codes and regulations and be secure enough to transfer the skylight loads to the framing members.

Note: Skylight VCS and VCE cannot be rotated.

The skylight operator has to be installed at the bottom of skylight curb.

ESPAÑOL: Construya el brocal de acuerdo con las mediciones de la tabla. Use madera con un grosor real de 1½" (38 mm) y una altura mínima de 3½" (90 mm). La altura y sujeción del brocal deben respetar los códigos y normas de construcción y estar bien fijados para transferir las cargas del tragaluz a los elementos del armazón.

Nota: El tragaluz VCS y VCE no puede rotarse.

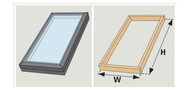
El motor de apertura del tragaluz debe instalarse en la parte inferior del brocal del tragaluz.

FRANÇAIS : Construisez un cadre selon les dimensions indiquées au diagramme. Utilisez du bois de 1½" (38 mm) de largeur réelle et d'une hauteur minimale de 3½" (90 mm).

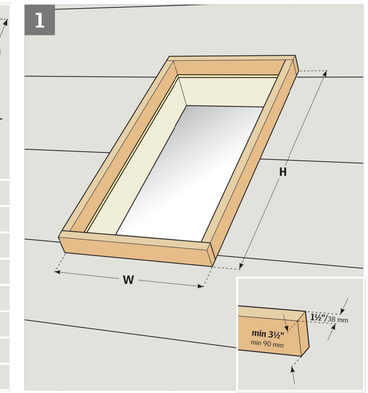
La hauteur du cadre et les raccordements doivent respecter les exigences de la réglementation du Code du bâtiment et être suffisamment sécuritaires pour recevoir le poids de la structure du puits de lumière.

Note : Le puits de lumière VCS et VCE ne peut pas être inversé.

Le moteur d'ouverture doit être installé sur la partie inférieure du cadre.



Skylight size Tamaño del tragaluz Taille du puits de lumière	Outside curb dimensions Dimensiones exteriores del brocal Dimensions extérieures du cadre W x H
2222	25½" x 25½" 648 mm x 648 mm
2234	25½" x 37½" 648 mm x 952 mm
2246	25½" x 49½" 648 mm x 1257 mm
3030	33½" x 33½" 853 mm x 853 mm
3046	33½" x 49½" 853 mm x 1257 mm
3434	37½" x 37½" 952 mm x 952 mm
4622 VCS only	49½" x 25½" 1257 mm x 648 mm
4646	49½" x 49½" 1257 mm x 1257 mm



EVALUATION REPORT

Number: 199

Originally Issued: 10/08/2010 **Revised: 07/12/2024** **Valid Through: 09/30/2025**

TABLE 1 – VELUX FS Skylights – Glass Weight = 5 psf

Skylight Description		NAFS Performance Grades		Other NAFS Designators		
Size Code	Unit size[1] (inches)	Download (PG_{Pos})	Uplift (PG_{Neg})	Primary	Maximum Air Leakage[2]	Max. Pressure with No Water Penetration[2]
A06	14-½ x 45-3/4	+11,491 Pa (+240 psf)	-5,027 Pa (-105 psf)	SKG-PG105 768x1390* (30.25x54.75)	0.05L/s/m² (<0.01 cfm/ft²)	720 Pa (15 psf)
C04	21 x 37-7/8					
C06	21 x 45-3/4					
C08	21 x 54-7/16					
D26	22-½ x 22-15/16					
D06	22-½ x 45-3/4					
M02	30-1/16 x 30					
M04	30-1/16 x 37-7/8					
M06	30-1/16 x 45-3/4					
M08	30-1/16 x 54-7/16					
S01	44-¾ x 26-7/8	+15,8000 Pa (+330 psf)	-3,355Pa (-70 psf)	SKG-PG70 1130x1162 (44.5x45.75)	0.05 L/s/m² (<0.01 cfm/ft²)	720 Pa (15 psf)
S06	44-1/4 x 45-3/4					

[1] Rough opening dimensions
[2] Based on tested size indicated in Primary Designator

TABLE 2 – VELUX VS, VSE and VSS Skylights – Glass Weight = 5 psf

Skylight Description		NAFS Performance Grades		Other NAFS Designators		
Size Code	Unit size[1] (inches)	Downward (PG_{Pos})	Uplift (PG_{Neg})	Primary	Maximum Air Leakage[2]	Max. Pressure with No Water Penetration[2]
C01	21 x 26-7/8	+19,176 Pa (+400 psf)	-5,040 Pa (-105 psf)	SKG-PG105 800x1422* (32x56*)	0.1L/s/m² (<0.01 cfm/ft²)	720 Pa (15 psf)
C04	21 x 37-7/8					
C06	21 x 45-3/4					
C08	21 x 54-7/16					
M02	30-1/16 x 30-1/2					
M04	30-1/16 x 37-7/8					
M06	30-1/16 x 45-3/4					
M08	30-1/16 x 54-7/16					
S01	44-1/4 x 26-7/8	+14,440 Pa (+300 psf)	-3,120 Pa (-65 psf)	SKG-PG65 1194x1238 (47x48)	0.3 L/s/m² (0.05 cfm/ft²)	720 Pa (15 psf)
S06	44-1/4 x 45-3/4					

[1] Rough opening dimensions
[2] Based on tested size indicated in Primary Designator

TABLE 3: Deck Mount Skylights – Energy, Light and Comfort

Model/Glazing	U-Factor (Btu/ft²/°F/hr)	Solar Heat Gain Coefficient (SHGC)	Visible Transmittance (VT)	Condensation Resistance (CR)
FS ...04	0.44	0.26	0.60	51
FS ...06	0.41	0.26	0.60	51
FS ...08	0.44	0.25	0.54	51
FS ...69	0.38	0.25	0.59	43
VS...04	0.43	0.23	0.53	53
VS...06	0.41	0.23	0.53	55
VS...08	0.43	0.23	0.47	53
VS...89	0.38	0.22	0.52	44

[1] U-factors and Solar Heat Gain Coefficient, Visible Transmittance have been determined in accordance with NFRC 100 and NFRC 200, respectively by an accredited, independent laboratory, and labeled and certified by the manufacturer.
[2] Condensation Resistance has been determined in accordance with NFRC 500 by an accredited, independent laboratory, and labeled and certified by the manufacturer.

FS Tested Performance Information

Glass Description (VELUX Glazing Code)	Laminated (04)	Impact (06)	White-Laminated (08)	Snowload (10)	Laminated i89 (89)
Thermal Performance (All listed thermal performance values are NFRC certified)					
U-Factor (Btu/hr·ft²·°F)	0.44	0.42	0.44	0.43	0.38
SHGC	0.26	0.26	0.25	0.26	0.25
VT	0.60	0.60	0.54	0.59	0.59
UV Protection % (300-380 nm)	99.9	99.9	99.9	99.9	99.9
Fading Protection % Krochmann Damage Function (300-600 nm)	83.1	84.6	88.4	83.2	85.1
Accoustical Ratings					
STC (Sound Transmission Class)	32	n.r.	32	n.r.	32
OITC (Outdoor-Indoor Transmission Class)	27	n.r.	27	n.r.	27
Certified Air Infiltration/Exfiltration					
CFM/ft²	0.01	0.02	0.01	0.11	0.01
Certified Water Resistance					
Lbs/ft²	15	15	15	15	15
Certified Structural Performance (lbs/ft²) Performance Grade or DP in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-17					
Tested Size	**Negative Design Pressure - Uplift** (Hurricane)				
S06	70	50	70	65	70
M08	105	90	105	100	105
C06	n.r.	n.r.	n.r.	65	n.r.
Tested Size	**Positive Design Pressure - Download** (Snowload)				
S06	330	180	330	720	330
M08	240	200	240	640	240
C06	n.r.	n.r.	n.r.	1350	n.r.
Fall Protection Testing Results Testing is 200 lb sandbag dropped from indicated height to middle of glass without glass breakage.					
Tested Size					
S06	1200 lbf-ft (6' drop)	1200 lbf-ft* (6' drop)	1200 lbf-ft* (6' drop)	n.r.	1200 lbf-ft* (6' drop)
M08	n.r.	n.r.	n.r.	n.r.	n.r.
Wind-Borne Debris Impact Ratings for Impact (06) Glazing					
Tested Size	**Cycle Pressure** (psf)	**Missile Level**	**Maximum Wind Zone**	**Florida Product Approval**	**High Velocity Hurricane Zone**
S06	+/- 50	C	3	Yes	No
M08	+/- 50	C	3	Yes	No

* Indicates that the Laminated glass (04) test report should also cover this indicated glazing as it is equal to or stronger than the Laminated glazing
n.r. = No report

SKYLIGHT ICC REPORT

REVISION	BY

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NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

MANUFACTURE'S SPECIFICATIONS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIAN QING ZHANG
NO. C 061824
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-5.0
	Of Sheets

PERFORMANCE PLATINUM™

The new degree of comfort!

PERFORMANCE PLATINUM™ Hybrid Electric is the most efficient water heater available

Efficiency
- High 3.75 - 4.07 UEF reduces operating cost
- ENERGY STAR® rated

Performance
- Delivers hot water faster than most standard electric water heaters – 60-87 gallons first-hour delivery, depending on model
- Ambient operating range: 37-145° F is widest in class, offering more days of HP operation annually; designed to meet Northern Climate Spec (Tier 4)

Easy Installation
- Easy access side connections
- Quick access to electrical junction box
- Easily replaces a standard electric water heater

Integration
- Electronic control for easy temperature adjustment and mode management
- Audible alarm for service alerts

EcoNet®

- Integrated EcoNet® WiFi-connected* technology (2.4 GHz only) and free mobile app gives users control over water systems, allowing for customizable temperature, vacation settings, energy savings and system monitoring at home or away. Visit Rheem.com/EcoNetConnect
- Demand Response Ready – CTA-2045 Port easily connects to utility programs

Operation Modes
- Energy Saver
- Heat Pump
- High Demand
- Electric
- Vacation/Away: 2-28 days (or placed on hold indefinitely)

Plus...
- Premium grade anode rod with resistor extends the life of the tank
- 3/4" NPT water inlet and outlet; 3/4" condensate drain connections
- Incoloy stainless steel resistor elements
- Dry-fire protection
- Easy access, top mounted washable air filter
- 2" Non-CFC foam insulation
- Enhanced flow brass drain valve
- Temperature and pressure relief valve installed
- Design certified to NSF/ANSI 372 (Lead Content)

Warranty
- 10-Year limited warranty for tank and parts, 1-year full in-home labor warranty
  See Residential Warranty Certificate for complete information

Units meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE standard 90, IOC Code and all state energy efficiency performance criteria.

* WiFi broadband internet connection required

PERFORMANCE **PLATINUM**
Hybrid
40, 50, 65 and 80-Gallon
Capacities
208-240 Volt / 1 PH
Electric

LEED Points = 3

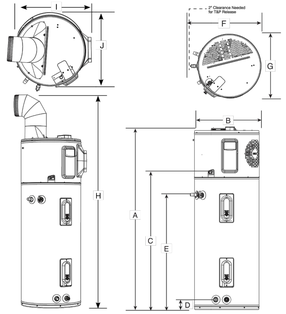
See specifications chart on back.

12/22 FORM NO. THD-PPEHS-30 Rev. 5

The new degree of comfort!

PERFORMANCE PLATINUM™ Hybrid Specifications

Fuel Type	Desc.	Nominal Gallon Cap.	Rated Gallon Cap.	Model Number	Electric Breaker Size	Uniform Energy Factor (UEF)	Estimated Yearly Energy Cost	Element Wattage	Compressor Btu/H	First Hr. Rating (Gallons)	Recovery in G.P.H. 90° F Rise	Tank Height A	Diam. B	Ht. to Cold Inlet & Drain Valve	Ht. to Hot Outlet & T&P	Unit Wt. (LBS.)	Approx. Ship Wt. (LBS.)
30 AMPS																	
Electric	Tall	40	36	XE40T10H45U0	30	3.83	$119	4,500	4200	60	27	63"	20-1/4"	3-5/8"	39-5/8"	157	174
Electric	Tall	50	45	XE50T10H45U0	30	4.05	$126	4,500	4200	75	34	75"	24-1/4"	3-7/8"	47-3/8"	192	215
Electric	Tall	65	59	XE65T10H45U0	30	4.05	$171	4,500	4200	70	27	85"	24-1/4"	3-7/8"	42-3/8"	225	262
Electric	Tall	80	69	XE80T10H45U0	30	4.07	$171	4,500	4200	82	27	85"	24-1/4"	3-7/8"	42-3/8"	241	281



DESCRIPTION		DIMENSIONS (SHOWN IN INCHES)										
NOMINAL GALLON CAPACITY	MODEL NUMBER	A	B	C	D	E	F	G	H	I	J
40	XE40T10H45U0	62-5/16	20-1/4	47	3-5/8	39-5/8	23-3/8	20-1/2	78-7/8	22-3/8	23-1/4
50	XE50T10H45U0	61-3/4	22-1/4	47	3-5/8	39-5/8	25-3/8	22-1/2	79-5/8	24-3/8	25-9/16
65	XE65T10H45U0	64-3/16	24-1/4	49	3-7/8	42-3/8	27-1/2	24-5/8	81-1/8	26-1/2	27-3/8
80	XE80T10H45U0	74-3/16	24-1/4	59	3-7/8	42-3/8	27-1/2	24-5/8	91	26-1/2	27-3/8

WF45T6000AW

SAMSUNG

Samsung 4.5 cu. ft. Front Load Washer with Vibration Reduction Technology+

Signature Features

4.5 cu. ft. Capacity
- Fewer loads, less time in the laundry room, and more time doing the things you love.

Vibration Reduction Technology+
- Reduces noise and vibration for extra quiet washing.

Self Clean+
- Eliminates 99% of bacteria[1] in the drum.


Vibration Reduction Technology+


Self Clean+

Available Color
White

Features
- 4.5 cu. ft. Capacity
- Vibration Reduction Technology+
- Self Clean+[1]
- Smart Care[2]
- Swirl+ Drum Interior
- Closet-Depth Fit[3]
- Stackable
- UL Certified
- 1200 RPM Maximum Spin Speed
- Direct Drive Motor
- 10 Preset Washing Cycles
- 6 Additional Washing Options
- 5 Temperature Levels
- LED Display: Ice Blue
- 24-Hour Delay End

Convenience
- Child Lock
- Delay End
- Dispenser Trays: Main Wash, Softener, Bleach

Rating
ENERGY STAR®-rated
CEE Tier 2
IMEF = 2.95
IWF = 2.9
90 kWh/yr

ADA Compliant[4]

[1] Based on testing by Intertek of the Self Clean+ cycle on the WF6000R.
[2] Requires Samsung Smart Washer/Dryer App. The Samsung Smart Washer/Dryer App supports Android OS 2.3.6 or later and iOS 3 or later for iPhone models. Smart Washer/Dryer app available in App Store and Play Store.
[3] Designed to fit a 40" installation depth.
[4] ADA Compliant when using a Samsung 27" wide riser (WE272NW, WE272NV, WE272NC).

WF45T6000AW

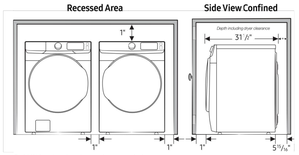
SAMSUNG

Samsung 4.5 cu. ft. Front Load Washer with Vibration Reduction Technology+

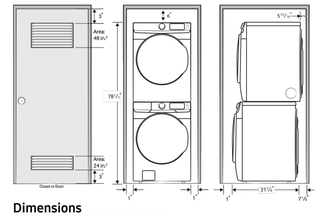
Installation Specifications

If the washer and dryer are installed together or the dryer alone, the closet front must have two unobstructed air openings for a combined minimum total area of 72-inch² (see stacked build below). Your washer alone does not require a specific air opening.
*Required spacing (External exhaust elbow may require additional space.)

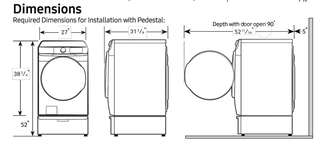
1. Alcove or closet installation
Minimum Clearance for Closet and Alcove Installations:



2. With stacked washer and dryer



Dimensions
Required Dimensions for Installation with Pedestal:



Actual color may vary. Design, specifications, and color availability are subject to change without notice. Non-metric weights and measurements are approximate.

10 Preset Washing Cycles:
Normal, Heavy Duty, Bedding, Quick Wash, Permanent Press, Delicates, Whites, Activewear, Rinse and Spin, Self Clean+

6 Additional Washing Options:
Presoak, Delay End, Smart Care, Sound, Child Lock, Spin Only

5 Temperature Levels:
Hot, Warmer, Warm, Cool, Cold

5 Spin Speeds:
High, Medium High, Medium, Low, No Spin

5 Soil Levels:
Heavy, Medium Heavy, Normal, Medium Low, Light

Dispenser Trays:
Main Wash, Softener, Bleach

Warranty
One (1) Year Parts and Labor
Three (3) Years Stainless Steel Drum (Part Only)
Ten (10) Years Direct Drive Motor (Part Only)

Product Dimensions & Weight (WxHxD)
Dimensions: 27" x 38 3/4" x 31 1/8"
Weight: 200 lbs

Shipping Dimensions & Weight (WxHxD)
Dimensions: 29 3/8" x 42 3/8" x 34 1/8"
Weight: 205 lbs

Color	Model #	UPC Code
White	WF45T6000AW	887276394794
Matching Dryer (Electric/Gas)		
White	DVE45T6000W	887276412634
White	DVG45T6000W	887276412641
Matching Long Vent Dryer (Electric/Gas)		
White	DVE45T6020W	887276438153
White	DVG45T6020W	887276438160
Pedestal		
White	WE402NW	887276310152
Riser		
White	WE272NW	887276197647
Accessories		
Stacking Kit	SKK-8K	887276344034

WATER HEATER

WASHER

HOLDRITE®

QUICK STRAP®

WATER HEATER RESTRAINT BRACKETS

Self-Drilling Lag
It is not necessary to pre-drill a pilot hole for the lag bolt.

INSTALLATION INSTRUCTIONS:

*Caution:
Wall coverings may conceal electrical wiring or pipes, which may cause damage or serious injury if punctured by drills or fasteners. Unless you are confident that there will be no interference from such obstacles, we recommend that you seek qualified help when installing this product.

INSTALLER: WEAR GLOVES & PROTECTIVE EYEWEAR WHEN INSTALLING THIS PRODUCT.

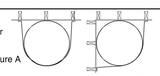
**Caution: Strap coil is under tension.*

Box Contents

BOX CONTENTS:
4 - Straps
4 - J-Clips
4 - Lag bolts 1/4" x 2 1/2" Self-drilling with 1/4" washers
2 - 3/8" bolts, washers, nuts
TOOLS NEEDED:
- 3/8" socket or wrench for tightening at wall
- 9/16" wrench for tightening strap and J-Clips
  Optional: Drill with 1/8" drill bit

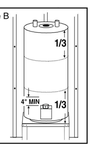
Check the water heater. If the water heater is not a zero clearance unit (as specified on the rating plate), see instructions inside box on how to build a spacer.

Step 1
Select location for water heater.
Figure A



The best place to locate your water heater is directly in front of a 2" x 4" wall stud. *See Figure A.*

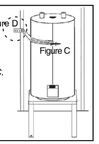
Step 2
Figure B



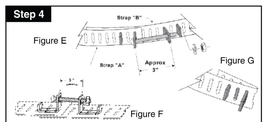
The straps must be installed in the upper and lower 1/3 of the water heater. The lower strap must be at least 4" above the water heater's controls. *See Figure B.*

Mark the wall studs on both sides of the water heater where you will install the straps. Drill 1/8" pilot holes if desired.

Step 3
Select one strap . Install one J-Clip per *Figure E* (Strap "A") Hold strap "A" so that the J-Clip is in the approximate center of the water heater. *See Figure C.* Select a mounting hole that best aligns with the pilot mark on the stud; secure the end of the strap to the stud with a 1/4" x 2 1/2" lag bolt and washer. *See Figure D.*



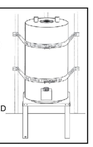
Step 4



Install strap "B" (*See Figure E*) on the opposite side of the heater; select a mounting hole which allows a few inches of strap "B" to pass behind Strap "A", and secure Strap "B" to the wall. Insert a J-Clip into the slots of Strap "B". The longer side of the J-Clip must be towards the end of the strap, so that it is approximately 3" from the J-Clip on Strap "A", when the two J-Clips are pulled together snugly. *See Figure F.* Hint: If Strap "A" is too long, simply re-position the J-Clip then bend the strap behind the J-Clip as shown in *Figure G.*

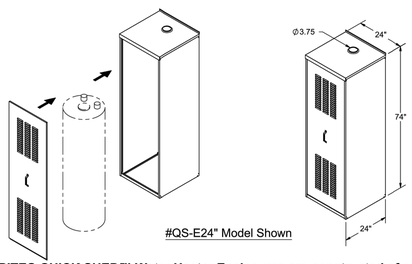
Secure the two J-Clips together with 3/8" carriage bolt, nut and washer, and tighten.

Step 5
Repeat the entire installation process for the second pair of straps using the same hole and slot positions as the first installation. If necessary, trim strap ends at the wall.
Installation Complete



ANCHORAGE DETAIL

PRODUCT SPECIFICATION DRAWING
QUICK SHED™ #QS-E24, QS-E26 & #QS-E30
Water Heater Enclosures (24", 26" & 30" Models)



#QS-E24" Model Shown

The HOLDRITE® QUICK SHED™ Water Heater Enclosures are constructed of galvanized steel and provide protection for water heaters installed in outdoor locations. Anchor points at the rear of the enclosure allows for optional attachment to the adjacent building structure.

Product Information:

- Material:
  Top, Door, Left & Right Side: .018" - .021" Thick, Galvanized CRS
  Back Brace & Beam: .023" - .026" Thick, Galvanized CRS
  Handle: 16GA, Galvanized CRS
- Weight (without Packaging & Water Heater):
  - Model #QS-E24 = 39 LBS
  - Model #QS-E26 = 42 LBS
  - Model #QS-E30 = 49 LBS
- Outside dimensions:
  - Model #QS-E24 = 24" x 24" x 74"
  - Model #QS-E26 = 26" x 26" x 74"
  - Model #QS-E30 = 30" x 30" x 74"
- Water Heater Dimensions:
  - QS-E24: Up to 40 gallons or 22" diameter by 68" high
  - QS-E26: Up to 40 gallons or 24" diameter by 68" high
  - QS-E30: Up to 80 gallons or 27" diameter by 68" high

Product Submittal	
Job Name:	
Date:	
Part Number:	Qty:
Architect / Owner:	
Contractor:	
Notes:	

HOLDRITE®
CONVERTING MAKESHIFT METHODS INTO ENGINEERED SOLUTIONS℠
800-321-0316 OR 760-744-6944 / FAX: 760-744-0507 / WWW.HOLDRITE.COM
spec_QuickShed_24_26_30_RevE

WATER HEATER ENCLOSURE

DVE45T6000W

SAMSUNG

Samsung 7.5 cu. ft. Front Load Electric Dryer with Sensor Dry

Signature Features

Sensor Dry
- Helps prevent over drying for optimal fabric care.

7.5 cu. ft. Large Capacity
- Fewer loads, less time in the laundry room, and more time doing the things you love.

10 Preset Drying Cycles
- More cycles to cover almost every drying need for your active family.


Sensor Dry


Smart Care

Available Color
White

Features
- Sensor Dry
- 7.5 cu. ft. Large Capacity
- Smart Care[1]
- Interior Drum Light
- Reversible Door
- 10 Preset Drying Cycles
- 9 Additional Drying Options
- 5 Temperature Levels
- 4-Way Venting
- LED Display: Ice Blue

Convenience
- Child Lock
- Lint Filter Indicator

ADA Compliant[2]

Rating
644 kWh/yr

[1] Requires Samsung Smart Washer/Dryer App. The Samsung Smart Washer/Dryer app supports Android OS 2.3.6 or later and iOS 3 or later for iPhone models. Smart Washer/Dryer app available in App Store and Play Store.
[2] ADA Compliant when using a Samsung 27" wide riser (WE272NW, WE272NV, WE272NC).

DVE45T6000W

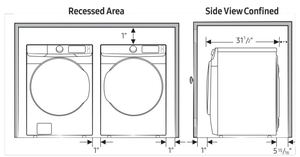
SAMSUNG

Samsung 7.5 cu. ft. Front Load Electric Dryer with Sensor Dry

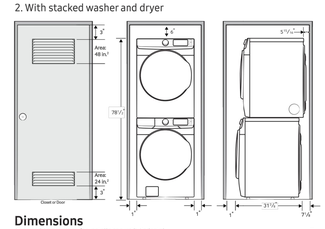
Installation Specifications

If the washer and dryer are installed together or the dryer alone, the closet front must have two unobstructed air openings for a combined minimum total area of 72-inch² (see stacked build below). Your washer alone does not require a specific air opening.
*Required spacing (External exhaust elbow may require additional space.)

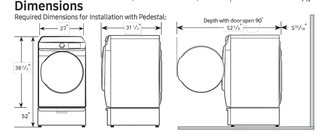
1. Alcove or closet installation
Minimum Clearance for Closet and Alcove Installations:



2. With stacked washer and dryer



Dimensions
Required Dimensions for Installation with Pedestal:



Actual color may vary. Design, specifications, and color availability are subject to change without notice. Non-metric weights and measurements are approximate.

4-Way Venting

10 Preset Drying Cycles:
Normal, Heavy Duty, Permanent Press, Activewear, Bedding, Delicates, Sanitize, Time Dry, Air Fluff, Quick Dry

9 Additional Drying Options:
Mixed Load Bell, Wrinkle Prevent, Adjust Time (Up), Adjust Time (Down), Eco Dry, Child Lock, Smart Care, Sound, Drum Light

5 Temperature Levels:
High, Medium High, Medium, Medium Low, Low

5 Dry Levels:
Very Dry, More Dry, Normal Dry, Less Dry, Damp Dry

Warranty
One (1) Year Parts and Labor

Product Dimensions & Weight (WxHxD)
Dimensions: 27" x 38 3/4" x 31 1/8"
Weight: 123 lbs

Shipping Dimensions & Weight (WxHxD)
Dimensions: 29 3/16" x 42 7/16" x 33 1/2"
Weight: 130 lbs

Electric	Model #	UPC Code
White	DVE45T6000W	887276412634
Gas		
White	DVG45T6000W	887276412641
Long Vent Dryer (Electric/Gas)		
White	DVE45T6020W	887276438153
White	DVG45T6020W	887276438160
Matching Washer		
White	WF45T6000AW	887276394794
Pedestal		
White	WE402NW	887276310152
Riser		
White	WE272NW	887276197647
Accessories		
Stacking Kit	SKK-8K	887276344034
Vent Kit	DV-2A	887276146416

DRYER

REVISION	BY

J & S CONSULTANT INC
131 Sequoia Ave.
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

MANUFACTURE'S SPECIFICATIONS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

LICENSED PROFESSIONAL ENGINEER
JING QING
NO. C 057 053
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

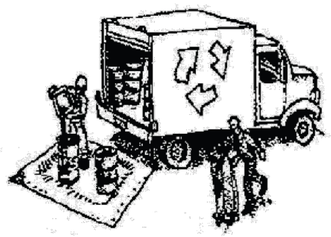
Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-5.1
	Of Sheets

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ 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.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

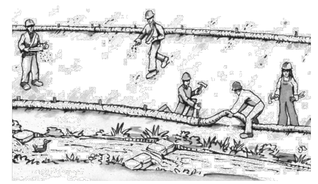
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

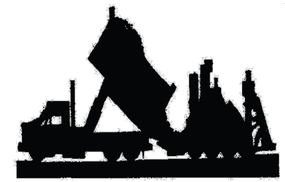


- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work

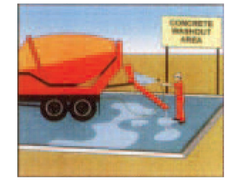


- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application

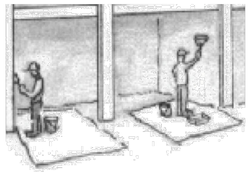


- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality 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 or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

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

REVISION	BY
1 PLANNING	ZLY. 05-013-2025

J & S CONSULTANT INC
131 Sequoia Ave.
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

MANUFACTURE'S SPECIFICATIONS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
ZHONGLV YANG
NO. C 79[illegible]
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	A-5.2
	Of Sheets

ELECTRICAL LEGEND

- LIGHT SWITCH
- 3 THREE WAY LIGHT SWITCH
- D LIGHT SWITCH WITH DIMMER
- T LIGHT SWITCH WITH TIMER
- ELEC DUPLEX AFI OUTLET
- WP WATERPROOF G.F.I. DUPLEX OUTLET
- GFIC G.F.I. DUPLEX OUTLET

MISC. LEGEND

- HVAC REGISTER
- S SMOKE DETECTOR
- C CARBON MONOXIDE ALARM
- VS VACANCY SENSOR PER 150. (K) 2j CEC
- EXHAUST FAN W/ LED
- PS PHOTOELECTRIC SMOKE ALARM

LIGHTING LEGEND

- WALL MOUNT LIGHT
- RECESSED 4" LED LIGHT
- RECESSED 6" LED LIGHT
- SUSPENDED LED LIGHT
- FLUORESENT TUBE FIXTURE
- M.S. SECURITY LIGHT WTIH MOTION SENSOR
- Fluoresent Tube Fixtrue

GENERAL LIGHTING REQUIREMENTS:

A. ALL INSTALLED LUMINAIRES SHALL MEET THE REQUIREMENTS OF CEC TABLE 150.0-A
B. BATHROOMS, GARAGE, LAUNDRY ROOMS, AND UTILITY ROOMS SHALL HAVE AT LEAST ONE LUMINAIRE CONTROLLED BY A VACANCY OR OCCUPANCY SENSOR PROVIDING AUTOMATIC-OFF FUNCTIONALITY [CEC 150.0(K)2I]. IF AN OCCUPANT SENSOR IS INSTALLED, IT SHALL BE INITIALLY CONFIGURED TO MANUAL-ON OPERATION
C. EXTERIOR LUMINAIRES ARE TO HAVE A MANUAL ON/OFF SWITCH AND BE CONTROLLED BY A PHOTOCELL AND MOTION SENSOR OR A PHOTOCELL AND TIME SWITCH [CEC 150.0(K)3A].
D. ALL OTHER LUMINAIRES THAT CONTAIN LIGHT SOURCES THAT MEET REFERENCE JOINT APPENDIX JA8 REQUIREMENTS ARE TO BE CONTROLLED BY A VACANCY/OCCUPANCY SENSOR OR DIMMER [CEC 150.0(K)2J].
E. CLOSETS WITH AN AREA LESS THAN 70 FT2 AND HALLWAY LIGHTING ARE EXEMPT FROM THIS REQUIREMENT

AFCI RECEPTACLES SHOULD BE INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS AND AREAS.

RECESSED DOWN LIGHTING TO MEET THE FOLLOWING REQUIREMENTS [CEC 150.0(K)1.C]:
A. LUMINAIRES SHALL BE HIGH EFFICACY AND MEET THE REQUIREMENTS OF CEC TABLE 150.0A
B. BE LISTED FOR ZERO CLEARANCE INSULATION CONTACT
C. AIRTIGHT WITH AIR LEAKAGE LESS THAN 2.0 CFM AT 75PASCALS
D. BE SEALED WITH A GASKET OR CAULK BETWEEN THE LUMINAIRE HOUSING AND CEILING
E. SHALL NOT CONTAIN SCREW BASED SOCKETS

LIGHTING NOTES:

ALL NEW LIGHT FIXTURES AND COMPONENTS MUST COMPLY WITH CALIFORNIA ENERGY CODE - THE ENERGY EFFICIENCY STANDARDS. ALL INSTALLED LUMINARIES SHALL BE HIGH EFFICACY AND MEET THE REQUIEREMENT OF CEC TABLE 150.0A.

SUCH AS: DIMMER SWITCHES, OCCUPANT SENSORS AND FLUORESCENT LIGHTING AS REQUIRED FOR COMPLIANCE PER LIGHTING MANDATORY MEASURES.

1.ALL ELECTRICAL LIGHT FIXTURES TO BE SELECTED BY OWNER.
2.COORDINATE LIGHT FIXTURE LOCATIONS IN FIELD WITH OWNER.
3.LOCATE OUTLETS / PLUGS ACCORDING TO PLAN. COORDINATE WITH FRAMING.
4.EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION. EXHAUST FANS SHOULD WITH HUMIDITY SENSOR.

ELECTRICAL NOTES:

1. ALL 125-VOLT, 15-AND 20-AMPERE RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
2. ARC-FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTED RECEPTACLES SHALL BE INSTALLED IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS.
3. ALL AC INSTALLED SHALL BE ENFORCE UNDER CHAPTER 7 OF THE SMMC SECTION 07.30.040. MAXIMUM PERMISSIBLE SOUND LEVEL. IF IT IS FOUND TO BE IN VIOLATION OF SMMC WHILE IN USE, THE PROPERTY OWNER WILL NEED TO MAKE ALTERATIONS TO ABATE THE NUISANCE.
4. ELECTRICAL RECEPTACLE OUTLETS, SWITCHES,AND CONTROLS (INCLUDING CONTROLS FOR HEATING, VENTILATION, AND AIR CONDITION)INTENDED TO BE USE BY OCCUPANTS SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISH FLOOR.

   Exceptions:
   1. DEDICATED RECEPTACLE OUTLETS; FLOOR RECEPTACLE OUTLETS; CONTROLS MOUNTED ON CEILING FANS AND CEILING LIGHTS; AND CONTROLS LOCATED ON APPLIANCES.
   2. RECEPTACLE OUTLETS REQUIRED BY THE CALIFORNIA ELECTRICAL CODE ON A WALL SPACE WHERE THE DISTANCE BETWEEN THE FINISHED FLOOR AND A BUILT-IN FEATURE ABOVE THE FINISH FLOOR, SUCH AS A WINDOW, IS LESS THAN 15 INCHES (381 MM).
5. THE NEW MAIN ELECTRICAL PANEL SHALL HAVE A TYPE 2 (LOAD-SIDE) SURGE-PROTECTIVE DEVICE (SPD)
6. ELECTRICAL RECEPTACLE OUTLETS, SWITCHES,AND CONTROLS (INCLUDING CONTROLS FOR HEATING, VENTILATION, AND AIR CONDITION)INTENDED TO BE USE BY OCCUPANTS SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISH FLOOR.

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PLUMBING NOTES:

1. Maximum fixture flows:
   Toilets <1.28 gal/flush
   Lavatory Faucets <1.2 gal/min
   Kitchen Faucets < 1.8 gal/min
   Showerheads <1.8 gal/min
2. Shower compartments and walls above bathtubs with installed shower heads shall be finished with a nonabsorbent surface to a height not less than 72" above the floor.
3. Control valves and shower heads shall be located on the sidewall of shower compartment or otherwise arranged so that the showerhead does not discharge directly at the entrance to the compartment and the bather can adjust the valves prior to stepping into the shower spray.

NOTE:

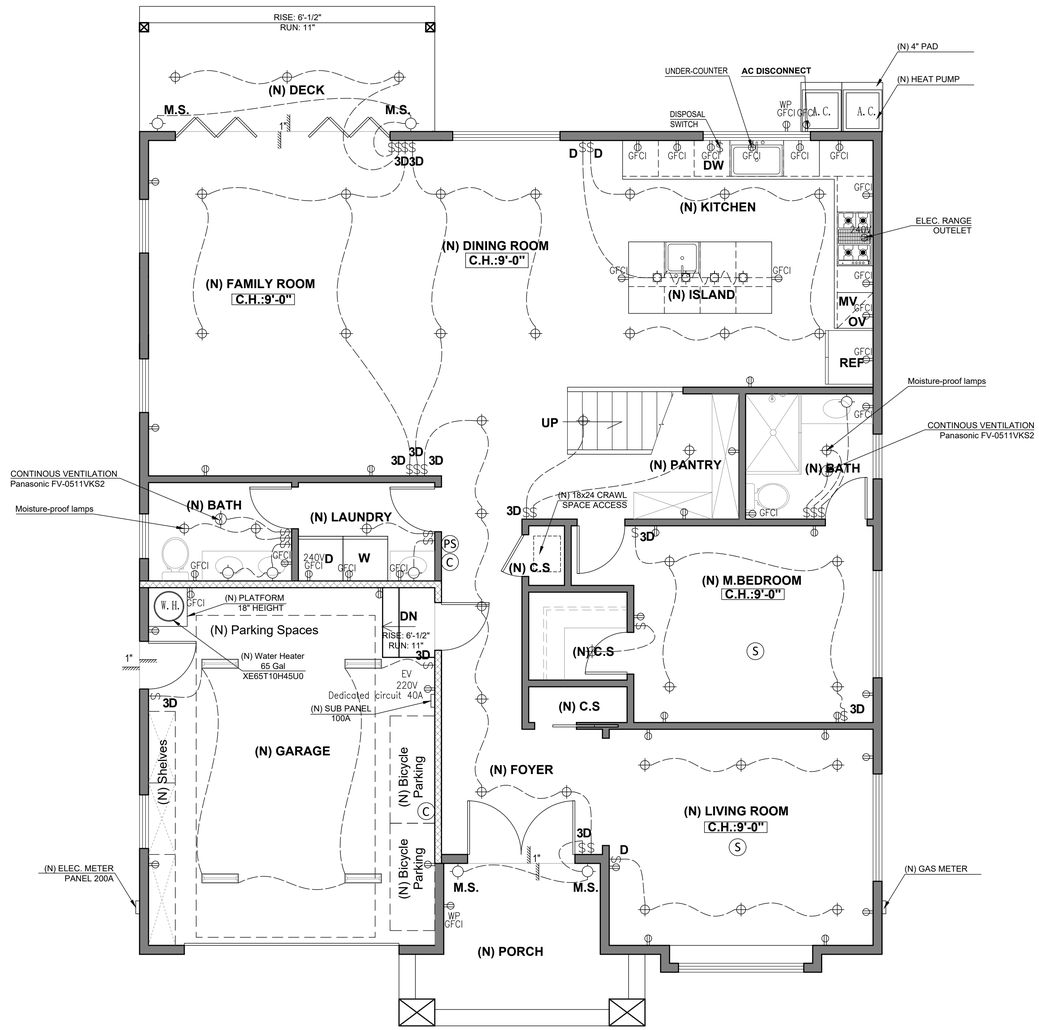
THE REQUIRED SMOKE DETECTORS AND THE CARBON MONOXIDE ALARMS PER CRC R314& R315.

THE SERVICE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE (S) RESERVED FOR EV CHARGING PURPOSES IN ACCORDANCE WITH THE CEC.

RODENT PROOFING. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, ETC. SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS.

NATURAL GAS SHALL NOT BE ALLOWED. THE FOLLOWING LIST OF ITEMS SHALL BE ELECTRIC INSTALLATION: SPACE-CONDITIONED EQUIPMENT, CLOTHES DIYERS, COOKING APPLIANCES AND FIREPLACES AND FIRE PITS.

WATER-HEATING SYSTEMS AND EQUIPMENT SHOULD BE ELECTRIC OR SOLAR.



(P) GROUND FLOOR ELECTRICAL PLAN

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

Water Supply Fixture Units Calculation				
	Fixture Type	Fixture Unit	Qty	Total
Bath	Shower	2.0	5	10.0
	Water Closet	2.5	5	12.5
	Lavatory Sink	1.0	8	8.0
	Bathtub	4.0	1	4.0
Kitchen	Kitchen Sink	1.5	1	1.5
	Dishwasher	1.5	1	1.5
Others	Laundry	4.0	1	4.0
	Hose Bibb	2.5	1	2.5
	Additional hose Bibb	1.0	1	1.0
	Mop sink	1.5	0	0
TOTAL FIXTURE UNIT				45
Meter And Street Service		1"		
EXISTING Water Supply Line		1 1/4"		
PRESSURE RANGE		46 to 60 psi		
Maximum developed length		100'		
Fixture unittable		78 (max. FU) > 45		

Electrical Load Calculation				
General Electrical Load Requirements	**Load**	**Quantity**	**Total Load**	
General Lighting (sqft of the Home)	3	2930	8,790	Volt-Amps
Small Appliances Circuits	1,500	2	3,000	Volt-Amps
Laundry Circuit	1,500	1	1,500	Volt-Amps
Fixed Appliances				
Elec.oven	2,500	1	2,500	Volt-Amps
Elec. Range	1,000	1	1,000	Volt-Amps
Microwave	1,500	1	1,500	Volt-Amps
Dishwasher	600	1	600	Volt-Amps
Disposal	800	1	800	Volt-Amps
Waterheater	4,500	1	4,500	Volt-Amps
		Sub-total	**24,190**	Volt-Amps
First 10,000 VA @100%			10,000	Volt-Amps
Adjustment 40% of Remainder			5,676	Volt-Amps
		Sub-total	**15,676**	Volt-Amps
Heating /Air Conditaioning				
Heat Pump (Heating & Cooling)	3,000	1	3,000	Volt-Amps
			3,000	Volt-Amps
EV charge				
EV charge	7,200	1	7,200	Volt-Amps
			7,200	Volt-Amps
Calculated Total VA Load		Sub-total	**25,876**	Volt-Amps
Calculated Total Amps Load			**108**	Amperes
Electrical Panel Selected			**200**	**Amperes**

REVISION	BY

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Redwood City, CA 94061
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E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

(P) GROUND FLOOR ELECTRICAL PLAN

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIN QING LI
NO. E 18 EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	E-1.0
	Of Sheets

ELECTRICAL LEGEND

- LIGHT SWITCH
- THREE WAY LIGHT SWITCH
- LIGHT SWITCH WITH DIMMER
- LIGHT SWITCH WITH TIMER
- ELEC DUPLEX AFI OUTLET
- WATERPROOF G.F.I. DUPLEX OUTLET
- G.F.I. DUPLEX OUTLET

MISC. LEGEND

- HVAC REGISTER
- SMOKE DETECTOR
- CARBON MONOXIDE ALARM
- VACANCY SENSOR PER 150. (K) 2j CEC
- EXHAUST FAN W/ LED
- PHOTOELECTRIC SMOKE ALARM

LIGHTING LEGEND

- WALL MOUNT LIGHT
- RECESSED 4" LED LIGHT
- RECESSED 6" LED LIGHT
- SUSPENDED LED LIGHT
- FLUORESENT TUBE FIXTURE
- SECURITY LIGHT WTIH MOTION SENSOR
- Fluoresent Tube Fixtrue

GENERAL LIGHTING REQUIREMENTS:

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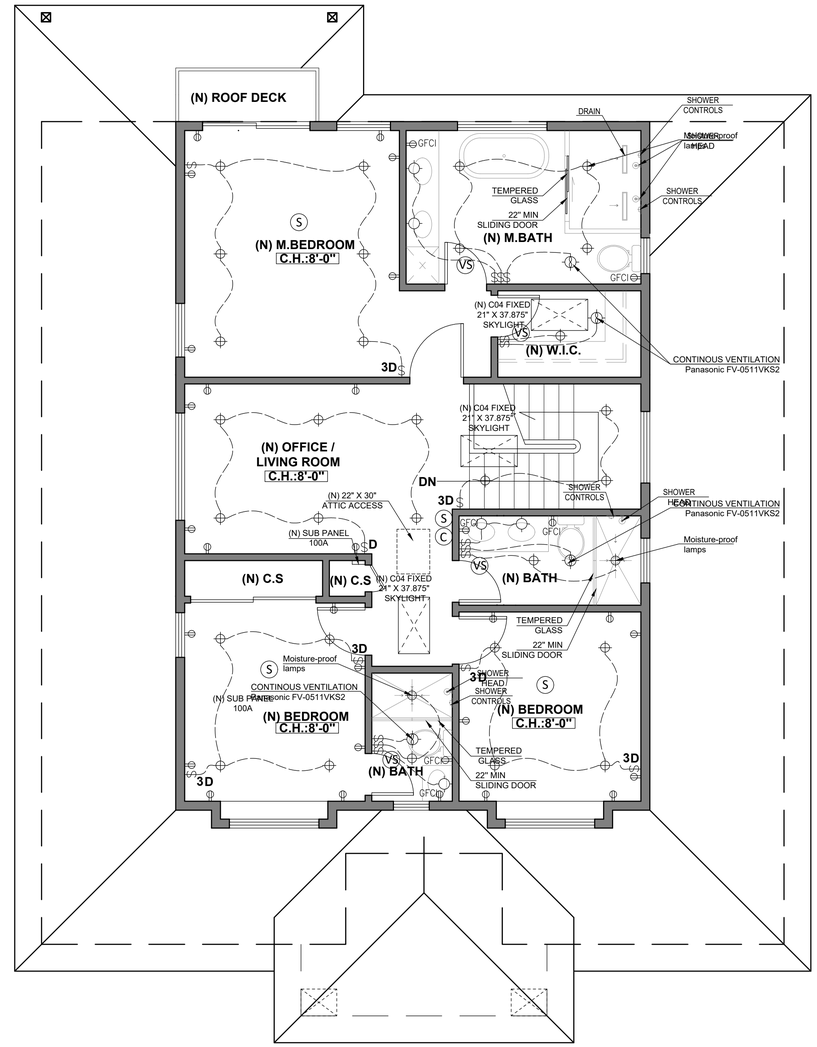

(P) 2nd FLOOR ELECTRICAL PLAN

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

REVISION	BY

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NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

(P) 2nd ELECTRICAL PLAN

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIAN QING ZHONG
NO. C 79809
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	E-1.1
	Of Sheets

THE PROJECT SHALL COMPLY WITH THE 2022 CALIFORNIA ENERGY CODE.

The Compliance Process: 1 - 2 - 3

In concept, the compliance process is quite simple.

Step 1 - Determine what is required

This is done by the energy consultant and/or designer. The insulation requirements are documented on the CF1R-PRF-01, which must be consistent with the plans and specifications. **Step 2 - Install insulation that meets the requirements**

CF2R-ENV-03 - This form is a detailed list of the assemblies and the type of products used.
CF2R-ENV-21 - A declaration by the installer that all applicable framing stage requirements of QII were met.
CF2R-ENV-22 - A declaration by the installer that all applicable insulation stage requirements of QII were met.

Step 3 - Verify what was installed

This is documented on the: CF3R-ENV-21 and 22, which correspond to the like-numbered CF2R forms but are filled out and signed by the HERS Rater.

Certificates

Reference: RA3.5.X.1.3

Insulation Certificates of Installation (CF2R's) signed by the insulation installer shall be completed in the HERS registry and state the installation is consistent with the CF1R, and plans and specifications for which the building permit was issued. The insulation installer shall also attach a product specification or data sheet for every insulation material used.

Certificates and Availability

Reference: RA3.5.X.1.4

The Insulation Certificates of Installation (CF2R's), with insulation material labels or specification/data sheets attached, signed by the insulation installer shall be available on the building site for each of the HERS Rater's verification inspections. The HERS Rater cannot verify compliance credit without these completed forms. This can be done digitally if the information is available in electronic format (PDF or scanned images).

Coordination is Critical

It is very important that the general contractor, the insulation installer and the HERS Rater work very closely together. Everyone needs to know exactly what is expected BEFORE the HERS Rater does the inspections. If there are any strange situations or if any of the requirements are unclear, they should be discussed in advance.

Sometimes unique situations may require the involvement of CalCERTS Field Support or even Energy Commission staff.

The most difficult part of QII is probably the logistics of getting the HERS Rater out during a very small window of opportunity before the insulation gets covered up. **If insulation gets covered up prior to the HERS Rater seeing it, this is an automatic FAIL.** Your choices at that point are to expose the insulation (remove the sheetrock) which can be extremely costly to the builder.

Organization RA3.5

The HERS QII verification protocols defined in Residential Appendix RA3.5 repeat the same code language for each common type of insulation, with material specific details added to each section as applicable. Although the fundamental principles of QII remain unchanged for all insulation types, there are some important variations in the verification process specific to each type of insulation.

Quality Insulation Installation Procedures

Purpose and Scope of these Procedures

Reference: RA3.5.1

RA3.5 is a procedure for verifying the quality of insulation installation and air leakage control used in low rise residential buildings. This procedure is to be followed by the insulation installer via CF2Rs and a qualified Home Energy Rating System (HERS) Rater must verify its conformance for meeting the requirements of Sections 150.1(c), and 110.7 of the Standards via CF3R's. The procedure applies to wood and metal construction of framed and non-framed envelope assemblies.

Framed assemblies include wall stud cavities, roof/ceiling assemblies, and floors typically insulated with:

- Batts of mineral fiber and mineral wool;
- Loose-fill materials of mineral fiber, mineral wool, and cellulose;
- Spray polyurethane foam; and,
- Rigid board sheathing materials.

Non-framed assemblies include wall, roof/ceiling, and floors constructed of

- Structural insulated panels (SIP)* and
- Insulated concrete forms (ICF)*.

Note 1: This procedure applies to the entire thermal envelope of the building. In many instances, residential homes will use several types of insulation material, even in the same framed assembly. Each insulation material and the integrity of air leakage control for the building's entire thermal envelope must be verified by the HERS Rater for the home to comply with the Standards.

Note 2: Structural bracing, tie-downs, and framing of steel or specialized framing used to meet structural requirements of the California Building Code (CBC) are allowed. These areas shall be called out on the building plans with diagrams and/or specific design drawings indicating the R-value amount and fastening method to be used. All structural framing areas shall be insulated in a manner that resists thermal bridging from the outside to the inside of the assembly separating conditioned from unconditioned space. The insulation and air barrier integrity shall be verified by the HERS Rater.

Important Definitions

Reference: RA3.5.2

Continuous Air Barrier

A combination of interconnected materials and assemblies joined and sealed together to provide a continuous barrier to air leakage through the building envelope. The air barrier separates conditioned from unconditioned space, or adjoining conditioned spaces of different occupancies or uses. An air barrier is required in all thermal envelope assemblies to limit air movement between unconditioned/outside spaces and conditioned/inside spaces and must meet some very technical test requirements.

Tip: The continuous air barrier will define the thermal boundary of a house. Designers and architects should decide very early in the design process exactly where the thermal boundary of a house is going to be. This seems trivial, but it really is not. Examples: bump-outs and fireplaces.

If unsure of the materials, the completed building can be tested to demonstrate that the air leakage rate of the building envelope does not exceed 0.40 cfm/ft2 at a pressure differential of 0.3 in w.g. (1.57 psf) (2.0 L/s.m2 at 75 pa) in accordance with ASTM E779 or an equivalent approved method.

Note that this allows non-tested materials to be used as long as the house passes a blower door test with a special target of 0.40 cfm75 for every square foot of conditioned floor area. Example: a 2100 square foot home would have a target of 840 cfm at 75 Pa.

Individual materials and assemblies of materials that can demonstrate compliance with the air barrier testing requirements must be installed according to the manufacturer's instructions and a HERS rater shall verify the integrity of the installation. Below are example materials meeting the air permeance testing performance levels above. Manufacturers of these and other product types must provide a specification or product data sheet showing compliance to the ASTM testing requirements to be considered as an air barrier.

Note:

- Fiberglass and cellulose insulation do not create an effective air barrier.
- Spray foam, when installed to the proper thickness can act as an effective air barrier.
- Rigid foam installed to the proper thickness and sealed per manufacturer's recommendations can act as an effective air barrier.

Qualified Components of an Effective Air Barrier

- Plywood - minimum 3/8 inch
- Oriented Strand Board - minimum 3/8 inches
- Particle Board - minimum 1/2 inch
- Exterior or Interior Gypsum Board (drywall) - minimum 1/2 inch
- Cement Board - minimum 1/2 inch
- Insulation Board (sealed at seams per Mfg. recommendations)
  Extruded Polystyrene - minimum 1/2 inch
  Foil-Back Polyisocyanurate - minimum 1/2 inch
  Foil Backed Urethane Foam Insulation - minimum 1 inch
- Spray Polyurethane Foam (SPF)
  Closed Cell SPF - minimum thickness of 2.0 inches*
  Open Cell SPF - minimum thickness of 5.5 inches*

(*) specific cavity fill requirements apply, see section 6.

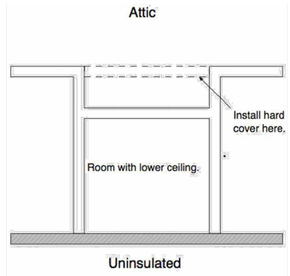
- Built up Roofing Membrane
- Modified Bituminous Roof Membrane
- Fully Adhered Single-ply Roof Membrane
- Portland Cement/Sand Parge, or Gypsum Plaster - minimum 5/8 inch
- Cast-in-Place and Precast Concrete
- Fully Grouted Concrete Block Masonry
- Sheet Steel or Aluminum

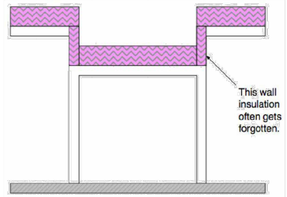
Air-tight

Limiting the passage of air into or out of the building envelope or other assembly.

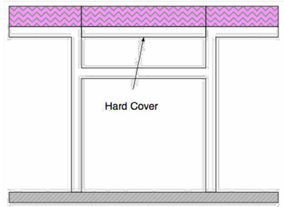
Note: Thermal envelope assemblies (such as wall assemblies) shall be built to minimize air movement. Air movement brings unconditioned air and moisture through or into the assembly. For these procedures, air-tight shall be defined as an assembly or air barrier with all openings caulked, or sealed with minimally expansive foam, or taping/sealing of adjoining surfaces of air barrier materials and assemblies.

Note: In general, the air barrier is formed by the subfloor (or slab), sheathing on exterior walls and the ceiling drywall. Rim joists on raised foundations and multi-story buildings, become a continuation of the adjacent wall assemblies. Additionally, vertical wall cavities (stud bays) should form a "substantially" air-tight cavity consisting of the exterior sheathing, interior drywall, top and bottom plates, and vertical studs.

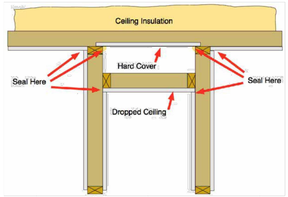




Typical

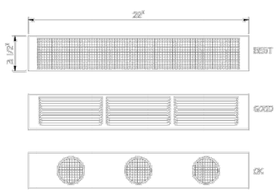


Best Practice



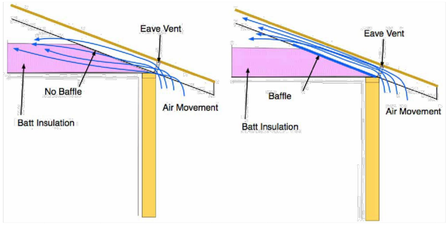
Net Free Area (NFA)

The net free-area of a vent cover is equal to the total vent opening less the interference to air flow caused by a screen or louver used for ventilation. Screened or louvered vent opening covers are typically marked by the manufacturer with the "net free-area." For example, a 22.5 in. by 3.5 in. eave vent screen with a total area of 78.75 square inches may have a net free-area of only 45 square inches.



Baffle, Eave Vent

Material such as cardboard or foam attached to the roof rafters to maintain an air-space against the roof deck to allow attic ventilation air to move up from the eave vents without washing through adjacent insulation.

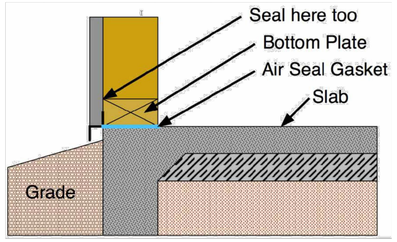


Note: Baffles which maintain the net free area are required at all eave vents to prevent air movement under or into the adjacent insulation. Additionally, insulation must be installed to the outside edge of the exterior top plate. Raters shall verify that the baffles maintain the net free area. The open area created by the baffle should be roughly equivalent to the area of the eave vent.

Floors

The bottom plates of wall assemblies shall be sealed to the stem wall or slab foundation typically with a foam gasket, caulk, or spray foam. If caulk or spray foam is being used, it should be on one side or the other so it can be visually verified. This is typically done with spray foam on the interior of the assembly.

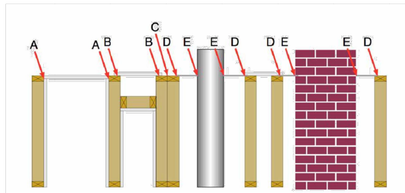
Illustration: Slab on grade



This diagram is a side view of a wall assembly showing the sill plate sealed to the slab foundation. If caulking is used, it must be on one side or the other in order to verify that it is sealed.

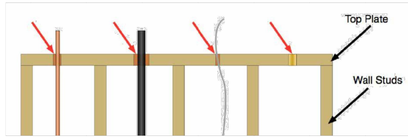
Ceiling

Since drywall can be a major component in the building's air barrier, penetrations through the ceiling drywall and top plates shall be sealed using either spray foam or caulking. Below are some common top plate penetrations that need to be sealed.

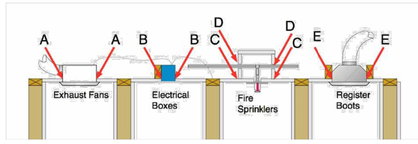


There must be a continuous air barrier at the ceiling level when there is unconditioned space above. Best practice is to also do this when there is a floor above.

A. Seal where the sheet rock on the wall meets the top plate.
B. Seal all hard covers to top plate.
C. Seal any gaps between adjacent top plates of double walls.
D. Seal metal flashing to top plates.
E. Seal metal flashing to flues or chimneys with fire caulking as required by fire code. For flue vents, special clearances to combustibles do apply. Code requires a 1" clearance for double wall "B vent" and 6" clearance for single wall flue pipes. See page 33 for a detail on how flashing is installed around flue pipes so the insulation can be installed to full depth around the flue and still maintain proper clearances.



QII protocols require that the HERS Rater verifies that each ceiling penetration is gasketed, caulked, foamed, taped or otherwise sealed as applicable. The following are typical ceiling penetrations that must be sealed and HERS verified.



Seal all penetrations to the ceiling drywall when there is unconditioned space above. Best practice is to also do this when there is a floor above.

A. Seal exhaust fan housing to drywall.
B. Seal all electrical boxes that penetrate drywall to drywall.
C. Seal all fire sprinklers to drywall.
D. If sprinkler manufacturer does not allow sealing around the sprinkler head, an air tight box can be built over sprinkler. All penetrations in the box must be sealed as well as where box meets drywall.
E. Seal around all HVAC supply and return register boots.

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NEW HOUSE
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Burlingame, CA 94010
APN: 029263060

QII INSTALLATION DETAILS

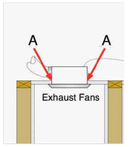
Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
YIN QING ZHANG
NO. C 36 7 5
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

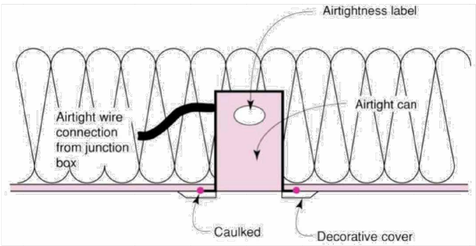
Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	Q-1.0
	Of Sheets

Exhaust Ventilators

Exhaust fan housing shall be sealed to the surrounding drywall to preventleakage.



Recessed Can Lighting

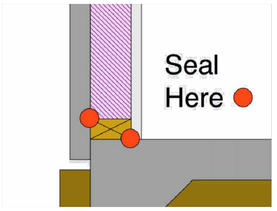


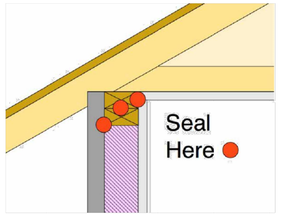
Insulation Contact/ Air Tight (IC/AT) rated can light

Wall Cavities

Wall cavities/stud bays have additional air sealing requirements. To render an airtight cavity, builders must seal all gaps, seams or penetrations in exterior wall cavities with caulk, foam or other applicable sealing products.

This diagram shows the exterior sheathing sealed to the bottom plate and the bottom plate sealed to the slab foundation. The sheathing is typically sealed from the inside of the stud bay after the sheathing is installed (See figure 1 next page). The bottom plate typically has a foam gasket installed between the bottom plate and foundation but caulking is acceptable as well.





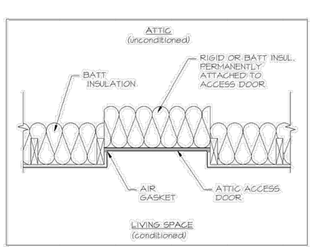
This diagram shows the exterior sheathing sealed to the double top plate. The gap between the double top plates is also sealed to prevent air movement, this is typically done on the interior after framing is completed (See figure 1). The interior drywall is also sealed on all exterior and interior walls. This is typically done using a foam gasket that is stapled to the top plate after framing and before drywall installation. Raters should ensure that the foam gasket is continuous and intact around all top plates (See figure 2).

Special Situations - Attic Access

Reference: RA3.5.X.3.4

- Permanently attach rigid board insulation or batt or blanket insulation with theappropriate R-value to the access door using adhesive or mechanical fastenerThe bottom of the attic access shall be gasketed to prevent air leakage ofconditioned air to the unconditioned attic.A minimum of 3 inches of ccSPF or 5.3 inches of ocSPF insulation shall beapplied to the access door assuring good adhesion to the door surface.The overall assembly R-value shall meet the required values specified in thecompliance documentation.

Note: For loose fill insulation, an insulation dam may be required to keep insulationfrom falling into the access hole and maintaining the minimum insulation depth.Insulation should not be tapered near the access.



Ceiling

In vertical cavities such as stud bays and attic knee walls, the installed insulation shallfill the cavity front to back, side to side and top to bottom. Stud bays must besubstantially airtight with an air barrier on six sides and the installed insulation mustbe in full and secure contact on all six sides.

Insulation in ceilings and floors shall fully fill the joist bays side to side, end to endand be in full and secure contact with the associated air barrier. Mechanicallysupporting insulation between floor joists to maintain its contact with the subfloor airbarrier is always problematic and should receive special attention during verification.Where the insulation installed in a joist bay exceeds the height of the joist, the voidcreated by the absence of the joist shall be uniformly filled with insulation. Gaps,voids or excessive compression are not allowed.

Note: It is virtually impossible to pass OII using batt insulation in an attic due tovoids created by the ceiling joists as insulation exceeds the height of the joist andother obstructions created by truss chords, bracing, electrical wiring, plumbingmechanical systems and flue vents.

Batt and blanket insulation that is thicker than the framing depth shall be installed sothat the insulation expands to touch adjacent insulation over each framing member.

Figure 3

Another option to seal the top plate of all interior or exterior walls, the top plates would need to be sealed after drywall was installed. Air sealing would occur from the attic side typically using spray foam or caulking.

Seal here along all top plates on both interior and exterior walls.
Another option

Another option would be to use spray applied foam on the interior to seal the exterior plywood or OSB. When SPF is used as an air barrier, the walls are typically netted and blown-in insulation is used to fill the cavity. Batt insulation is not as effective as blown-in due to batts not being in full and secure contact to all sides. S PF that is used as an air barrier does have specific fill equirements as outlined in section 6. Again as in the photo on the previous page, vertical studs only need to plywood or OSB seam.

Windows and doors

Gaps between framing and windows or doors shall be sealed with minimally expansive foam.

R-Value Measurement: **Rigid Insulation**

Reference: RA3.5.5.1.1

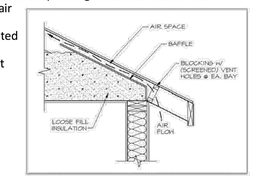
The HERS Raters shall verify the installed thickness of insulation in all assemblies and locations on walls, roof/ceilings, and floors, and to ensure that insulation levels and installation integrity meet the R-value specified on the Certificate of Compliance, and all other required compliance documentation. Different products will have different R-values per inch.

Note: Rigid insulation is sometimes referred to as "sheathing" or "continuous" insulation on the CF1R. Sometimes the surface will be named something like "R-15+4 wall", meaning that there is R-15 in the cavity (between studs) and R-4 continuous insulation, usually on the exterior of the wall. It is important to realize that the name of a surface on the CF1R is just a text field and has no impact on the simulation results. You have to look at the detailed description and U-factor to determine what is actually required. In other words, a surface mis-named "R-13 wall" may have actually been modeled as an R-15+4 wall. This can easily cause a lot of confusion.

General Requirements for Walls, Roof/Ceilings and Floors: All Materials

Reference: RA3.5.X.1.1

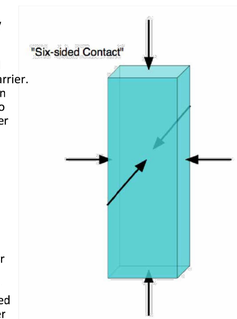
- Materials shall comply with, and be installed in conformance with, all applicable building codes for building.
- Materials shall meet California Quality Standards for Insulating Material, Title 24, Part 12, Chapter 4, Article 3, listed in the California Department of Consumer Affairs Consumer Guide and Directory of Certified Insulating Materials.
- Materials shall comply with flame spread rating and smoke density requirements of Chapter 26 and Section 720 of the Title 24, Part 2: all installations with exposed facings must use fire retardant facings which have been tested and certified not to exceed a flame spread of 25 and a smoke development rating of 450. Insulation facings that do not touch a ceiling, wall, or floor surface, and faced batts on the undersides of roofs with an air space between the ceiling and facing are considered exposed applications.
- Insulation shall be installed in full and secure contact with its associated air barriers.
- Insulation shall be correctly sized to fit snugly at the sides and ends without gaps, voids or excessive compression.
- Materials shall be installed according to manufacturer specifications and instructions.
- Hard covers or draft stops shall be placed over all drop ceiling areas and interior wall cavities to keep insulation in place and stop air movement. If hard covers or draft stops are missing or incomplete, they shall be completed before insulation is installed.
- Eave vent baffles shall be installed to prevent air movement under or into the insulation (wind washing). The net free-ventilation area of the eave vent shall be maintained by the baffles.
- Required eave ventilation shall not be obstructed - the net free-ventilation area of the eave vent shall be maintained.



Walls, Roof/Ceilings and Floors: **Batt and Blanket**

Reference: RA3.5.3.1.1

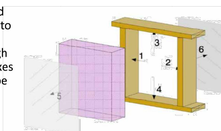
- Batt and blanket insulation shall be correctly sized to fit snugly at the sides and ends. (aka, Six-sided Contact)
- Batt and blanket insulation shall be installed so that they will be in contact with the air barrier.
- Where necessary, batt and blanket insulation shall be cut to fit properly - there shall be no gaps, nor shall the insulation be doubled-over or compressed.
- When batt and blanket insulation are cut to fit a non-standard cavity, they shall be snuggly fitted to fill the cavity without excessive compression.
-
- Batt and blanket insulation shall be cut to butt-fit around wiring and plumbing, or be split (delaminated) so that one layer can fit behind the wiring or plumbing, and one layer fit in front.
- For batts and blanket insulation that is taller than the trusses, full-width batts shall be used so that they expand to touch each other over the trusses.



Specific Requirements for Wall Insulation

Reference: RA3.5.X.2

- Wall stud cavities shall be caulked or foamed to provide a substantially air-tight envelope to the outdoors, attic, garage and crawl space.
- All plumbing and wiring penetrations through the top and bottom plates and electrical boxes that penetrate the exterior sheathing shall be sealed.
- All gaps in the air barrier shall be caulked, taped, or sealed with minimally expansive foam.
- Bottom plates of framed and non-framed assemblies shall be sealed to the ground subfloor or slab, and above ground subfloor.
- Insulation shall uniformly fill the cavity side-to-side, top-to-bottom, and front-to-back.



Wall Insulation: Batt and Blanket

Reference: RA3.5.3.2

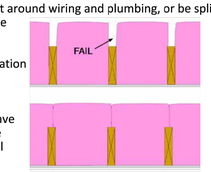
- Batt insulation shall fill the cavity by friction fitting, inset or face stapling of flanges of faced batts, or by other support methods as necessary.
- Batt and blanket insulation shall be installed to fill the cavity and be in contact with the sheathing on the back and the wallboard on the front - no gaps or voids.
- Non-standard-width cavities shall be filled with insulation fitted into the space without excessive compression.
- Batt insulation shall be cut to fit snugly around wiring and plumbing, or be split (delaminated) so that one layer can fit behind the wiring or plumbing, and one layer fit in front.

Specific Requirements for Roof/Ceilings

Roof/Ceilings - Batt and Blanket Insulation

Reference: RA3.5.3.3

- Batt and blanket insulation shall be correctly sized to fit snugly at the sides and ends.
- Batt and blanket insulation shall be installed to be in contact with the air barrier.
- Where necessary, batt and blanket insulation shall be cut to fit properly - there shall be no gaps, nor shall the insulation be doubled-over or compressed.
- When batt and blanket insulation are cut to fit a non-standard cavity, they shall be snuggly fitted to fill the cavity without compression.
- Batt and blanket insulation shall be cut to butt-fit around wiring and plumbing, or be split (delaminated) so that one layer can fit behind the wiring or plumbing, and one layer fit in front.
- Batt and blanket insulation that is thicker than framing depth shall be installed so that the insulation expands to touch adjacent insulation over each framing member.
- Baffles shall be placed at eaves or soffit vents of vented attics to keep insulation from blocking eave ventilation and prevent air movement under the insulation. The required net free-ventilation shall be maintained.

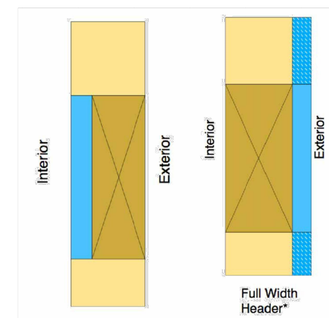


Special Situations - Window and Door Headers

Reference: RA3.5.X.2.9

- All single-member window and door headers shall be insulated to a minimum of R-3 for 2x4 framing or R-5 for other assemblies.
- Insulation is to be placed between the interior face of the header and inside surface of the interior wall finish.
- No header insulation is required for single-member headers that are the same width as the wall, provided that the entire wall has at least R-2 insulation.

Note: The uninsulated header is allowed if exterior insulation is installed on the header alone or if continuous exterior insulation is installed, such is typically the case with an exterior stucco application.



REVISION	BY

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E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

QII INSTALLATION DETAILS

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JIN QING LI
NO. C 87 EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	Q-1.1
	Of Sheets

2022 CALIFORNIA GREEN BUILDING CODE RESIDENTIAL CHECKLIST

New Residential Buildings must be designed to include the Green Building Mandatory Measures specified in this checklist. These Green Building Mandatory Measures also apply to additions or alterations of existing Residential Buildings which increase the building's conditioned area, volume, or size. These requirements only apply to the specific area of addition or alteration. 2022 CGC §301.1.1

Permit Number: _____ Project Address: 229 Bancroft Rd, Burlingame, CA 94010

Specify which sheet includes the Measure, and add specific details listing where the measure is located on that page. Include exact code sections on plans.

Green Building Measure	Plan Sheet, and Details
ENERGY EFFICIENCY(2022 CEC §150.0) (2022 California Building Energy Efficiency Standards)	
2022 Energy Code performance (CF1R) compliance documentation must be provided digitally in 8-1/2" X 11" format, and, must be replicated on the plans. 2022 CEC §150.1	CG-1
SITE DEVELOPMENT (2022 CGC §4.106)	
Plans shall indicate how Grading and Paving will prevent surface water flows from entering buildings. Exception: Projects that do not alter the drainage path. 2022 CGC §4.106.3	A-1.1
Electric Vehicle (EV) Charging, parking spaces: comply with all relevant sections. 2022 CGC §4.106.4	E-1.0
INDOOR WATER USE (2022 CGC §4.303)	
Standards for Plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*. 2022 CGC §4.303.3	A-1.0
OUTDOOR WATER USE (2022 CGC §4.304)	
Residential developments shall submit a California Department of Water Resources' Model Water Use Efficient Landscape (MWELO) checklist. 2022 CGC §4.304.1	N/A
ENHANCED DURABILITY AND REDUCED MAINTENANCE (2022 CGC §4.406)	
Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom 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. . 2022 CGC §4.406.1	A-1.0
CONSTRUCTION WASTE MANAGEMENT (2022 CGC §4.408)	
Recycle and/or salvage a minimum 65% of the non-hazardous construction and demolition waste. This is not applicable to soil and land clearing debris. 2022 CGC §4.408.1	A-1.0

Green Building Measure	Plan Sheet, and Details
BUILDING MAINTENANCE AND OPERATION (2022 CGC §4.410)	
An operation and maintenance manual will be provided at final inspection. 2022 CGC §4.410.1 Where 5 or more multi-family dwelling units are constructed on a building site, provide readily accessible areas that serve all buildings on site and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including paper, corrugated cardboard, glass, plastics, organic waste and metals, or, meet local ordinance, if more restrictive. 2022 CGC §4.410.2	N/A
FIREPLACES (2022 CGC §4.503)	
Any installed gas fireplaces will be direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA NSPS emission limits. 2022 CGC 4.503.1 GAS IS NOT ALLOWED FOR NEW CONSTRUCTION BASED ON BURLINGAME'S REACH CODE.	N/A
POLLUTANT CONTROL (2022 CGC §4.504)	
At the time of rough installation, during storage on the construction site, and until final startup of the HVAC equipment, all duct and other related air distribution component openings will be covered with tape, plastic, sheet metal, or other methods acceptable to the enforcing agency to reduce the amount of water, dust and debris that may enter the system. 2022 CGC §4.504.1	A-1.0
Adhesives, sealants, and caulks used on the project shall follow local and regional air pollution or air quality management district standards. 2022CGC §4.504.2.1	A-1.0
Paints and coatings will comply with VOC limits. 2022CGC §4.504.2.2	A-1.0
Aerosol paints and coatings will meet the Product-weighted MIR limits for ROC, and comply with percent VOC by weight of product limits, Regulation 8, Rule 49. 2022 CGC §4.504.2.3	A-1.0
Documentation shall verify compliance for VOC finish materials. 2022 CGC §4.504.2.4	A-1.0
Carpet systems will meet CALGREEN testing and product requirements. 2022 CGC §4.504.3	N/A
Where resilient flooring is installed, at least 80% of the floor area receiving resilient flooring will comply with the California Green Building Code requirements. 2022 CGC §4.504.4	A-1.0
Hardwood plywood, particleboard, and medium density fiberboard composite wood products shall comply with the low formaldehyde emission standards. 2022 CGC §4.504.5	A-1.0
INTERIOR MOISTURE CONTROL (2022 CGC §4.505)	
A capillary break will be installed if a slab on grade foundation system is used. 2022 CGC §4.505.2.1	A-1.0
Building materials with visible signs of water damage will not be installed. Wall and floor framing will not be enclosed when the framing members exceed 19% moisture content. Moisture content will be verified prior to finish material being applied. Replace wet insulation products, or allow to dry before enclosure. 2022 CGC §4.505.3	A-1.0
INDOOR AIR QUALITY AND EXHAUST (CGC §4.506)	
Exhaust fans that are ENERGY STAR compliant, ducted and that terminate outside the building will be provided in every bathroom (bathtub, shower, or shower/tub combo). 2019 CGC §4.506.1 Unless functioning as a component of a whole-house ventilation system, fans must be controlled by a humidity control. 2022 CGC §4.506.2	E-1.0

Green Building Measure	Plan Sheet, and Details
ENVIRONMENTAL COMFORT (2022 CGC §4.507)	
The heating and air-conditioning system will be sized, designed and have their equipment selected using the following methods: Heat Loss/Heat Gain values in accordance with ANSI/ACCA 2 Manual J-2016 or equal; Duct systems are sized according to ANSI/ACCA 1, Manual D-2016 or equivalent; Select heating and cooling equipment in accordance with ANSI/ACCA 3, Manual S-2014 or equivalent. 2022 CGC §4.507.	A-2.0
VERIFICATION (2022 CGC §703)	
Upon request, verification of compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the Building Division that will show substantial conformance with the 2022 Code requirements. 2022 CGC	A-1.0
Responsible Designer's Declaration Statement	
I hereby certify that this project has been designed to meet the requirements of the 2022 Green Building Code.	
Name: ZhongLv Yuan	
Address: 3115 Otis Dr,	
City/State/Zip Code: Alameda,CA 94501	
Signature: zhonglv yuan Date: 02/28/2025	
Contractor's Declaration Statement	
I hereby certify, as the builder or installer, that this project will be constructed to meet the requirements of the 2022 Green Building Code.	
Name:	
Address:	
City/State/Zip Code:	
Signature: Date:	

2022 BURLINGAME REACH CODE CHECKLIST

SINGLE FAMILY NEW CONSTRUCTION

USE THIS FORM FOR SINGLE FAMILY NEW CONSTRUCTION

PROJECT ADDRESS: 229 Bancroft Rd, Burlingame, CA 94010

APN: 029263060 APPLICANT NAME: Xiaowen Song

1. ELECTRIFICATION

Check all boxes below:

- ☐ All-Electric
  - ☐ No natural gas or propane appliances
  - ☐ No natural gas or propane meters or infrastructure in the building or within the property lines
- ☒ A solar photovoltaic system with a capacity of at least _____ kW(DC). The number of Kilowatts required is calculated by the energy report, the CF1R-PRF-01.

2. ENERGY EFFICIENCY

- ☒ Compliance with energy efficiency standards required under the State Energy Code

3. GREEN BUILDING

- ☒ The permit application includes a completed 2022 Burlingame CALGreen checklist: https://www.burlingame.org/departments/building/calgreen_building_standards.php

4. ELECTRIC VEHICLE (EV) CHARGING

- ☒ At least one parking space per dwelling unit has an EV Level 2 Ready Circuit: a parking space equipped with a raceway, wiring, receptacle, and electrical capacity to the EV charging station. A minimum 208V/240V, 40 Amp circuit with receptacle labeled "EV Vehicle Outlet" or, electrical vehicle supply equipment with a minimum output of 30 Amps
- ☐ If there is a second parking space it is an EV Level 1 Ready Space: a parking space equipped with a raceway, wiring, receptacle, and electrical capacity to the EV charging station. A minimum 110V, 20 Amp circuit with receptacle labeled "EV Vehicle Outlet" or, electrical vehicle supply equipment

5. VERIFICATION

This form has been completed by James Li (name) of _____ (company), the qualified DESIGNER (architect, designer, energy consultant) for the above listed project, who verifies that it accurately represents the project plans.

_____ Signature

02/28/2025 Date

Version 1.0, February 2023

REVISION	BY

J & S CONSULTANT INC
131 Sequoia Ave.
Redwood City, CA 94061
Telephone: (415) 810-0188
E-mail: jamesli1618@yahoo.com

NEW HOUSE
229 Bancroft Rd,
Burlingame, CA 94010
APN: 029263060

2022 CALIFORNIA GREEN BUILDING CODE RESIDENTIAL CHECKLIST

2022 BURLINGAME REACH CODE CHECKLIST

Owner:
HONGZHI LIANG
Tel: 650-888-1083

REGISTERED PROFESSIONAL ENGINEER
JAMES LI
NO. C 71711
EXP. DEC. 31, 2025
CIVIL
STATE OF CALIFORNIA

Date	01-10-2025
Scale	1/4"=1'-0"
Drawn	ZHONGLV Y.
Job	
Sheet	CG-1
	Of Sheets