

FOR OFFICIAL CITY USE ONLY

PROJECT CONTACTS

PROJECT SITE/OWNER:  
GARY & SUSAN KAPLAN  
460 APRICOT LANE  
MOUNTAIN VIEW, CA 94040

ARCHITECT:  
AMATO ARCHITECTURE  
REBECCA IVANS AMATO, AIA  
1396 PARK AVENUE  
EMERYVILLE, CA 94608  
LICENSE #: C-25700  
EXP: 08/31/21

CONTRACTOR:  
JK CONSTRUCTION  
JOSEPH KWONG  
607 APPIAN WAY  
UNION CITY, CA 94587  
LICENSE #: 903134  
EXP: 09/30/21

STRUCTURAL ENGINEER:  
B&H STRUCTURAL ENGINEERS  
BRIAN HO  
210 S. ELLSWORTH AVE. #1615  
SAN MATEO, CA 94401  
LICENSE #: S5807  
EXP: 12/31/20

SCOPE OF WORK

1. INTERIOR REMODEL OF LIVING ROOM AND FAMILY ROOM.
2. ADD NEW DOOR AT REAR OF HOUSE LEADING TO DECK.
3. REPLACE WINDOWS AT LIVING ROOM BAY.
4. UPDATE FINISHES AND MATERIALS THROUGHOUT.
5. REPLACE GARAGE DOORS.
6. REPLACE ROOF, FASCIA AND GUTTERS.

1396 PARK AVENUE  
EMERYVILLE CA, 94608

TELE 510.420.0210  
CELL 510.499.2080

PROJECT PROGRESSION:	DATE:
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

# RESIDENTIAL REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

## COVER SHEET / SITE PLAN

SCALE: 3/16" = 1'-0"

DRAWN BY: RA/MM

JOB #: 2019-52

PLOT PLAN

SHEET NO.:

# A-0.0

PROJECT INFORMATION

- PROPERTY DATA:
- ASSESSOR'S PARCEL NUMBER: 197-21-022
  - LOT AREA: 7858 SF
  - ZONE: R1 SINGLE-FAMILY
- BUILDING DATA:
- BUILDING OCCUPANCY GROUP: R-3/NO CHANGE
  - CONSTRUCTION TYPE: VB/NO CHANGE
  - FIRE SPRINKLERS (EXIST/PROP): NO/NO CHANGE
  - BUILDING HEIGHT (ALLOW/PROP): 24'/NO CHANGE
  - BUILDING STORIES (ALLOW/PROP): 2/NO CHANGE
  - BUILDING FAR: 0.50 - (0.00001 X 7858) = 0.42
  - BUILDING AREA (ALLOW/PROP): 3312/NO CHANGE
  - BUILDING COVERAGE: 3012/NO CHANGE
  - PARKING (REQUIRED/PROP): 2/NO CHANGE
- APPLICABLE CODE EDITIONS:
- CBC: 2019 CALIFORNIA BUILDING CODE
  - CMC: 2019 CALIFORNIA MECHANICAL CODE
  - CEC: 2019 CALIFORNIA ELECTRICAL CODE
  - CPC: 2019 CALIFORNIA PLUMBING CODE
  - CENC: 2019 CALIFORNIA ENERGY CODE
  - CGBC: 2019 CALIFORNIA GREEN BUILDING CODE
  - CFC: 2019 CALIFORNIA FIRE CODE
  - CRC: 2019 CALIFORNIA RESIDENTIAL CODE
- HABITABLE AREA (EX/PROP): 2123/NO CHANGE
- NONHABITABLE AREA (EX/PROP): 656/NO CHANGE
- BEDROOMS (EX/PROP): 4/NO CHANGE
- BATHROOMS (EX/PROP): 2.5/NO CHANGE

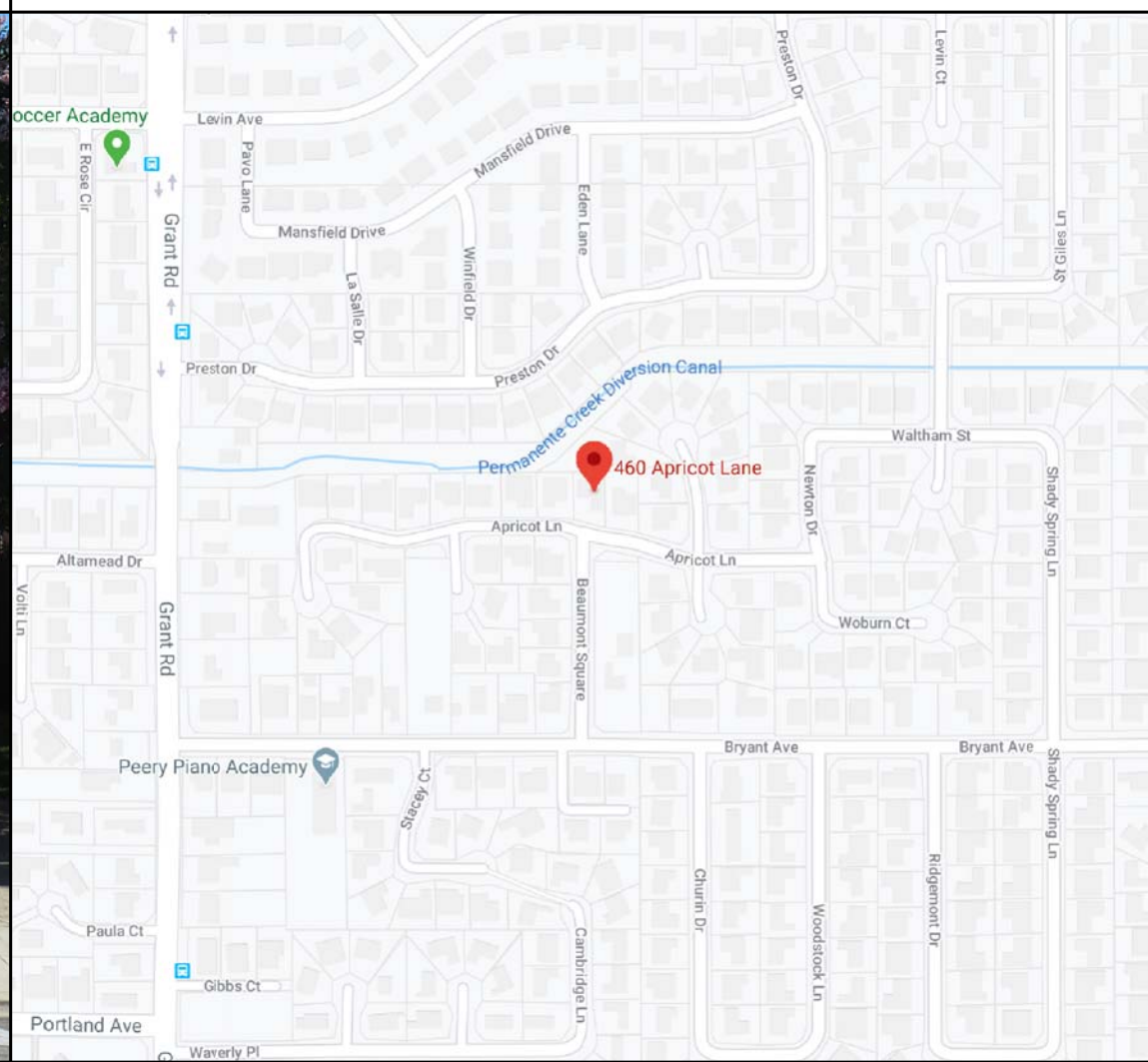
INDEX OF DRAWINGS

- ARCHITECTURAL:
- A-0.0 COVER SHEET / SITE PLAN
  - A-0.1 GENERAL NOTES
  - A-0.2 GENERAL NOTES
  - A-0.3 BLUEPRINT FOR A CLEAN BAY
  - A-1.0 DEMOLITION AND CONSTRUCTION PLANS
  - A-2.0 CEILING & ELECTRICAL/EQUIPMENT PLANS
  - A-3.0 PROPOSED INTERIOR ELEVATIONS
  - A-4.0 EXISTING & PROPOSED EXTERIOR ELEVATIONS
  - A-5.0 PROPOSED EXTERIOR COLOR RENDERING
  - A-6.0 CONSTRUCTION DETAILS
  - T-24.1 TITLE 24 CERTIFICATES OF COMPLIANCE
  - T-24.2 TITLE 24 CERTIFICATES OF COMPLIANCE
  - T-24.3 TITLE 24 CERTIFICATES OF COMPLIANCE
  - T-24.4 TITLE 24 CERTIFICATES OF COMPLIANCE
- STRUCTURAL:
- S0.1 GENERAL NOTES
  - S1.1 FOUNDATION & FLOOR & ROOF FRAMING PLANS
  - S2.1 STRUCTURAL DETAILS

PHOTOS



AREA LOCATION PLAN





RESIDENTIAL GENERAL NOTES (CODE RELATED):

MECHANICAL NOTES:

- ALL ENVIRONMENTAL AIR DUCT EXHAUSTS SHALL TERMINATE OUTSIDE THE BUILDING NO LESS THAN 3’ FROM PROPERTY LINES AND OPENINGS INTO THE BUILDING AS PER CMC 504.5.
- ALL NON–CONTINUOUSLY RUNNING EXHAUST FANS TO BE INSTALLED WITH A BACK DRAFT DAMPER AS PER CMC 504.1.
- LOCAL EXHAUST AT KITCHEN TO HAVE MINIMUM EXHAUST CAPACITY OF 100 CFM, BE RATED AT 3 SONE OR LESS FOR NOISE, AND BE BASED ON A WATER COLUMN OF 0.25 OR GREATER. IF FAN EXHAUSTS MORE THAN 400 CFM, 3 SONE RESTRICTION MAY BE LIFTED.
- ALL FANS IN BATHROOMS CONTAINING A TUB OR SHOWER TO HAVE MINIMUM INTERMITTENT EXHAUST CAPACITY OF 50 CFM OR CONTINUOUS EXHAUST CAPACITY OF 20 CFM PER CENC 150.0(o), BE RATED AT 3 SONE OR LESS FOR NOISE, BE BASED ON A WATER COLUMN OF 0.25 OR GREATER, BE CONTROLLED BY A HUMIDISTAT, BE SWITCHED SEPARATELY FROM LIGHTING, AND BE ENERGY STAR RATED IN COMPLIANCE WITH CGBC 4.506.
- INSTALL NOT LESS THAN A 4 INCH DIAMETER MOISTURE EXHAUST DUCT OF RIGID METAL WITH A SMOOTH INTERIOR SURFACE FROM ANY NEW DOMESTIC CLOTHES DRYER SPACE. DRYER EXHAUST SHALL BE EQUIPPED WITH A BACKDRAFT DAMPER WITH NO SCREEN. THE DUCT LENGTH SHALL BE LIMITED TO 14 FEET IN LENGTH WITH TWO 90–DEGREE ELBOWS FROM THE CLOTHES DRYER TO THE POINT OF TERMINATION. ALLOWABLE DUCT LENGTH SHALL BE REDUCED BY 2 FEET FOR EACH ELBOW IN EXCESS OF TWO.
- PROVIDE CONFORMING WHOLE–BUILDING VENTILATION SYSTEM PER CENC §150.0(o) AND ASHRAE STANDARD 62.2 TABLE 4.1A. PROVIDE A SINGLE FAN OR MULTIPLE FANS THAT COMPLY WITH THE INDOOR AIR QUALITY FAN REQUIREMENTS WITHIN THE T–24 CERTIFICATES OF COMPLIANCE.
- WHERE OUTDOOR COMBUSTION AIR SHALL BE PROVIDED FOR APPLIANCES, OPENINGS SHALL BE PROVIDED THAT FREELY COMMUNICATE EITHER DIRECTLY, OR BY DUCTS, WITH THE OUTDOORS ACCORDING TO ONE OF THE FOLLOWING METHODS:
  - TWO PERMANENT OPENINGS, ONE COMMENCING WITHIN 12” OF THE TOP AND ONE COMMENCING WITHIN 12” OF THE BOTTOM OF THE ENCLOSURE. WHEN COMMUNICATING DIRECTLY OR THROUGH VERTICAL DUCTS THE OPENINGS SHALL HAVE A FREE AREA NOT LESS THAN ONE SQUARE INCH PER 4000 BTU/HR OF THE TOTAL INPUT RATING OF APPLIANCES IN THE SPACE. WHEN COMMUNICATING THROUGH HORIZONTAL DUCTS THE OPENINGS SHALL HAVE A FREE AREA NOT LESS THAN ONE SQUARE INCH PER 2000 BTU/HR OF THE TOTAL INPUT RATING OF APPLIANCES IN THE SPACE, PER CMC 701.6.1.
  - ONE PERMANENT OPENING, COMMENCING WITHIN 12” OF THE TOP OF THE ENCLOSURE. THE APPLIANCE SHALL HAVE CLEARANCES OF NOT LESS THAN 1” FROM THE SIDES AND BACK, AND 6” FROM THE FRONT OF THE APPLIANCE. THE OPENING SHALL HAVE A FREE AREA NOT LESS THAN ONE SQUARE INCH PER 3000 BTU/HR OF THE TOTAL INPUT RATING OF APPLIANCES IN THE SPACE AND NOT LESS THAN THE SUM OF THE AREAS OF VENT CONNECTORS IN THE SPACE, PER CMC 701.6.2.

ELECTRICAL NOTES:

- ALL 12–VOLT, 15– AND 20–AMPERE RECEPTACLES TO BE TAMPER–RESISTANT AS PER CEC 406.12(A).
- PROVIDE TWO DEDICATED 120–VOLT 20–AMP BRANCH CIRCUITS FOR KITCHEN EQUIPMENT RECEPTACLE OUTLETS.
- PROVIDE A DEDICATED 120–VOLT 20–AMP BRANCH CIRCUIT FOR LAUNDRY EQUIPMENT RECEPTACLE OUTLET.
- PROVIDE A DEDICATED 20–AMP CIRCUIT TO SPECIFICALLY SERVE ALL BATHROOM OUTLETS OR PROVIDE A DEDICATED 20–AMP CIRCUIT FOR EACH BATHROOM.
- PROVIDE A DEDICATED CIRCUIT FOR CENTRAL HEATING EQUIPMENT AND A PERMANENT 120–VOLT CONVENIENCE RECEPTACLE OUTLET NEAR APPLIANCES IN UTILITY SPACE.
- ALL 12–VOLT, SINGLE PHASE, 15– AND 20–AMPERE RECEPTACLES INSTALLED IN DWELLING UNIT BATHROOMS, GARAGES, NON–HABITABLE ACCESSORY BUILDINGS, OUTDOORS, CRAWL SPACES, UNFINISHED BASEMENTS, KITCHENS, LAUNDRY AREAS, AND WITHIN 6 FEET OF THE OUTSIDE EDGE OF SINKS, BATHTUBS OR SHOWER STALLS SHALL HAVE GROUND FAULT CIRCUIT–INTERRUPTION (GFCI) PROTECTION. THE GFCI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.
- BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY ROOMS OR SIMILAR SPACES SHALL BE PROTECTED BY A LISTED ARC–FAULT CIRCUIT INTERRUPTER (AFCI).
- RECEPTACLE OUTLETS SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6 FEET FROM A RECEPTACLE OUTLET. WALL SPACE 2 FEET OR MORE IN WIDTH, INCLUDING SPACE MEASURED AROUND CORNERS, AND UNBROKEN ALONG THE FLOOR LINE BY DOORWAYS AND SIMILAR OPENINGS, FIREPLACES, OR FIXED CABINETS SHALL BE PROVIDED WITH A RECEPTACLE OUTLET.
- SERVICE DISCONNECTING MEANS FOR ONE–FAMILY DWELLINGS SHALL HAVE A MINIMUM RATING OF 100 AMPERES, 3–WIRE, PER CEC 230.79.

LIGHTING NOTES:

- ALL LIGHT FIXTURES, LED, FLUORESCENT, ETC. TO BE ON EITHER DIMMER SWITCHES OR VACANCY SENSORS AND BE ABLE TO BE MANUALLY SWITCHED ON OR OFF.
- ALL INSTALLED LUMINAIRES SHALL BE HIGH–EFFICACY IN ACCORDANCE

- WITH TABLE 150.0–A. AT LEAST (1) LUMINAIRE IN EACH BATHROOM, GARAGE, LAUNDRY ROOM, AND UTILITY ROOM SHALL BE CONTROLLED BY A VACANCY SENSOR. DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8.
- ALL EXTERIOR LIGHT FIXTURES TO HAVE PHOTOELECTRIC AND MOTION SENSOR CONTROLS.
  - EXHAUST FAN/LIGHT COMBINATION FIXTURES SHALL BE SWITCHED SEPARATELY ALLOWING THE LIGHTING TO BE SWITCHED OFF WHILE ALLOWING THE FAN TO CONTINUE TO OPERATE FOR AN EXTENDED PERIOD OF TIME PER CEC 150.0(k)(2)(B).
  - EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE TOP LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTDOOR GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE BOTTOM LANDING OF THE STAIRWAY PER CRC R303.8.

PLUMBING NOTES:

- PLUMBING FIXTURE MAXIMUM FLOW RATES SHALL BE: KITCHEN SINK FAUCETS MAX 1.8 GPM @ 60 PSI; LAVATORY SINK FAUCETS MAX 1.2 GPM @ 60PSI – MIN .8 GPM @ 20 PSI; TOILETS MAX 1.28 GPM; SHOWER FAUCETS MAX 1.8 GPM @ 80 PSI.
- SHOWERS AND TUB–SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION TYPE.
- ANY SHOWER DAM OR THRESHOLD SHALL BE 2– TO 9–INCHES ABOVE THE TOP OF THE DRAIN. THE FINISHED FLOOR OF THE SHOWER SHALL SLOPE NOT LESS THAN 1/4–INCH PER FOOT NOR MORE THAN 1/2–INCH PER FOOT. SHOWER DOORS SHALL OPEN SO AS TO MAINTAIN NOT LESS THAN A 22–INCH UNOBSTRUCTED OPENING FOR EGRESS PER CPC 408.5.
- SHOWER COMPARTMENTS SHALL HAVE A MINIMUM FINISHED INTERIOR OF 1024 SQUARE INCHES AND SHALL BE CAPABLE OF ENCOMPASSING A 30–INCH CIRCLE PER CPC 408.6
- WATER HEATERS SHALL BE PROVIDED WITH TEMPERATURE, PRESSURE, AND VACUUM RELIEF DEVICES OR A COMBINATION THEREOF WITH A DRAIN TO THE OUTSIDE PER CPC 504.6.
- WATER HEATERS SHALL BE PROVIDED WITH SEISMIC ANCHORS OR STRAPS WITHIN THE UPPER AND LOWER ONE–THIRD OF ITS VERTICAL DIMENSION. THE LOWER ANCHOR/STRAP SHALL BE LOCATED TO MAINTAIN A MINIMUM DISTANCE OF 4 INCHES ABOVE THE CONTROLS PER CPC 507.2.
- ALL NEW OR EXPOSED HOT WATER SUPPLY PIPING EITHER 3/4” AND GREATER OR DIRECTLY FROM THE HEATING SOURCE TO THE KITCHEN FIXTURES SHALL BE INSULATED PER CENC 150.0.
- NO UNDER–FLOOR CLEANOUT SHALL BE LOCATED MORE THAN 5 FEET FROM AN ACCESS DOOR, TRAP DOOR, OR CRAWL HOLE, PER CPC 707.9.
- APPROVED AUTOMATIC GAS SHUT–OFF VALVE SHALL BE INSTALLED DOWNSTREAM OF GAS UTILITY METER IF ONE DOES NOT ALREADY EXIST PER CPC §1209.4.2.

FIRE PREVENTION NOTES:

- ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER–STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2” GYPSUM BOARD PER CRC R302.7.
- GARAGES SHALL BE SEPARATED FROM HABITABLE SPACES AS FOLLOWS PER CRC R302.6:
  - WITH NOT LESS THAN ONE LAYER OF 1/2” GYPSUM BOARD OR EQUIVALENT APPLIED TO THE GARAGE SIDE OF ANY ASSEMBLY SEPARATING THE GARAGE FROM A RESIDENCE OR ATTIC.
  - WITH NOT LESS THAN ONE LAYER OF 5/8” TYPE–X GYPSUM BOARD OR EQUIVALENT APPLIED TO THE UNDERSIDE OF FRAMING SEPARATING THE GARAGE FROM HABITABLE ROOMS ABOVE THE GARAGE.
  - WITH NOT LESS THAN ONE LAYER OF 1/2” GYPSUM BOARD OR EQUIVALENT APPLIED TO ANY STRUCTURES SUPPORTING FLOOR/CEILING ASSEMBLIES REQUIRED TO BE FIRE–RESISTANCE RATED SEPARATIONS.
  - WITH NOT LESS THAN ONE LAYER OF 1/2” GYPSUM BOARD OR EQUIVALENT APPLIED TO THE INTERIOR SIDE OF GARAGE EXTERIOR WALLS WHEN A GARAGE IS LOCATED LESS THAN 3 FEET FROM A DWELLING UNIT ON THE SAME LOT.
- SMOKE/CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING’S ELECTRICAL SYSTEM AND SHALL HAVE A BATTERY BACKUP POWER SUPPLY AND SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS PER CRC R314.4 & CRC R317.5. ALARMS TO BE LISTED IN ACCORDANCE WITH UL 2034 (CARBON MONOXIDE) AND UL 217 (SMOKE) AND CALIFORNIA STATE FIRE MARSHAL APPROVED FOR SMOKE ALARMS.
- SMOKE ALARMS SHALL BE INSTALLED A MINIMUM OF 20 FEET HORIZONTAL DISTANCE FROM A PERMANENTLY INSTALLED COOKING APPLIANCE, EXCEPT:
  - PHOTOELECTRIC OR IONIZATION SMOKE ALARMS WITH SILENCING SWITCH SHALL BE PERMITTED TO BE INSTALLED 10 FEET OR GREATER FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
  - PHOTOELECTRIC SMOKE ALARMS SHALL BE PERMITTED TO BE INSTALLED GREATER THAN 6 FEET FROM A PERMANENTLY INSTALLED COOKING APPLIANCE WHERE THE COOKING AREA AND ADJACENT SPACES HAVE NO CLEAR INTERIOR PARTITIONS AND THE 10 FOOT DISTANCE WOULD PROHIBIT THE PLACEMENT OF A SMOKE ALARM REQUIRED BY OTHER SECTIONS OF THE CODE.SMOKE

- SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 3 FEET HORIZONTALLY FROM A DOOR OR OPENING OF A ROOM CONTAINING A BATHTUB OR SHOWER.

ATTIC/CRAWL SPACE VENTILATION NOTES:

- PER CRC R806 ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF 1/16” MINIMUM AND 1/4” MAXIMUM, OR SHALL BE PROVIDED WITH CORROSION–RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, OR SIMILAR MATERIAL WITH OPENINGS 1/16” MINIMUM AND 1/4” MAXIMUM. THE MINIMUM ATTIC NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE, EXCEPT PER CRC R806.2 EXCEPTION 2, THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE IF BETWEEN 40% – 50% OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE, NO MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, WITH THE REMAINDER BEING PROVIDED BY EAVE OR CORNICE VENTS.
- PER CRC R408.1 THE MINIMUM NET AREA OF UNDER–FLOOR VENTILATION OPENINGS SHALL NOT BE LESS THAN 1/150 OF THE UNDER–FLOOR AREA, UNLESS THE GROUND SURFACE IS COVERED BY A CLASS 1 VAPOR RETARDER MATERIAL AND OPENINGS ARE PLACED TO PROVIDE CROSS VENTILATION OF THE SPACE, THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1/1500 OF THE UNDER–FLOOR AREA. ONE VENTILATION OPENING SHALL BE WITHIN 3’ OF EACH BUILDING CORNER. VENTILATION OPENINGS SHALL BE FULLY COVERED WITH AN APPROVED MATERIAL WITH A LEAST DIMENSION OF 1/4”.

GREEN BUILDING NOTES:

- BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING:
  - MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE–TYPE OR CONTACT–TYPE MOISTURE METER. EQUIVALENT MOISTURE VERIFICATION METHODS MAY BE APPROVED BY THE CITY OF BERKELEY AND SHALL SATISFY REQUIREMENTS FOUND IN CALGREEN SECTION 101.8.
  - MOISTURE READINGS SHALL BE TAKEN AT A POINT 2 FT TO 4 FT FROM THE GRADE STAMPED END OF EACH PIECE TO BE VERIFIED.
  - AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION PROVIDED AT THE TIME OF APPROVAL TO ENCLOSE THE WALL AND FLOOR FRAMING.
- INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE A HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES. WET–APPLIED INSULATION PRODUCTS SHALL FOLLOW THE MANUFACTURES’ DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.

SITE NOTES:

- THE SLOPE OF GRADE AWAY FROM NEW EXTERIOR FOUNDATIONS IS TO BE 6” MINIMUM WITHIN 10’ (5% MINIMUM, 2% IS PERMITTED AT IMPERVIOUS SURFACES). WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT A 5% SLOPE, DRAINS OR SWALES SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE PER CRC R401.3.
- SLOPE SITE AND PROVIDE SWALES AS NECESSARY TO ENSURE ALL STORM DRAINAGE DISCHARGED ON SITE SHALL FLOW AWAY FROM THE BUILDINGS, ADJOINING PROPERTIES, AND SHALL NOT CREATE A NUISANCE. ALL EXTERIOR DRAINS AND ROOF DRAINAGE, AS WELL AS ANY STORM WATER DIRECTED OFF OF THE PROPERTY SHALL DISCHARGE INTO THE PUBLIC STORMWATER SYSTEM IF NOT CONTAINED WITHIN A RETENTION BASIN OR STORAGE TANKS OF SUFFICIENT SIZE ON SITE.
- FRENCH DRAINS, IF PROVIDED AT PERIMETER FOUNDATIONS, MUST BE INSTALLED LOWER THAN THE INTERIOR FLOOR LEVEL.
- EXTERIOR LANDINGS AT OUT–SWINGING EXTERIOR DOORS TO BE NO MORE THAN 1½” BELOW THE TOP OF THE THRESHOLD. EXTERIOR LANDINGS AT IN–SWINGING EXTERIOR DOORS TO BE NO MORE THAN 7¾” BELOW THE TOP OF THE THRESHOLD. PER CRC R311.3.1.
- BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION PER CRC R319.1, PLACED IN SUCH A POSITION AS TO BE CLEARLY VISIBLE AND LEGIBLE FROM THE STREET OR ROADWAY FRONTING THE PROPERTY. LETTERS OR NUMBERS SHALL BE A MINIMUM 4 INCHES IN HEIGHT AND STROKE OF MINIMUM 0.5 INCH OF A CONTRASTING COLOR TO THE BACKGROUND ITSELF.

ROOF NOTES:

- SKYLIGHTS INSTALLED IN A ROOF WITH A PITCH FLATTER THAN THREE UNITS VERTICAL IN 12 UNITS HORIZONTAL SHALL BE MOUNTED ON A CURB EXTENDING NOT LESS THAN 4 INCHES ABOVE THE PLANE OF THE ROOF UNLESS OTHERWISE SPECIFIED IN THE MANUFACTURER’S INSTALLATION INSTRUCTIONS.
- THE MINIMUM ROOF SLOPE FOR AN ASPHALT SHINGLE APPLICATION SHALL BE 2 INCHES PER FOOT. FOR A ROOF SLOPE 4 INCHES PER FOOT OR LESS, DOUBLE UNDERLAYMENT SHALL BE USED.
- THE MINIMUM ROOF SLOPE SHALL BE 1/4 INCH PER FOOT, EXCEPT THAT A BUILT–UP ROOF, PER CRC R905.9.2, SHALL HAVE A MINIMUM


ROOF SLOPE OF 1/8 INCH PER FOOT.

GLAZING NOTES:

- SAFETY GLAZING SHALL BE USED IN THE FOLLOWING HAZARDOUS LOCATIONS PER CRC R308.4:
  - GLAZING IN DOORS.
  - GLAZING ADJACENT TO DOORS, WHERE THE BOTTOM OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR IF EITHER OF THE FOLLOWING OCCURS:
    - THE GLAZING IS WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION.
    - THE GLAZING IS ON A WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES OF THE HINGE SIDE OF AN IN–SWINGING DOOR.
  - GLAZING IN WINDOWS IF ALL OF THE FOLLOWING OCCURS:
    - AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET.
    - THE BOTTOM OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR.
    - THE TOP OF THE GLAZING IS MORE THAN 36 INCHES ABOVE THE FLOOR.
    - A WALKING SURFACE IS WITHIN 36 INCHES OF THE GLAZING.
  - GLAZING IN GUARDRAILS.
  - GLAZING IN WALLS, ENCLOSURES, OR FENCES CONTAINING OR FACING, AND WITHIN 60 INCHES, MEASURED HORIZONTALLY, OF WET SURFACES (BATHTUB, SHOWER, HOT TUB, SWIMMING POOL, ETC.) WHERE THE BOTTOM OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR.
  - GLAZING WITHIN 36 INCHES, MEASURED HORIZONTALLY, OF STAIRS, RAMPS, OR LANDINGS WHERE THE BOTTOM OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE FLOOR.
  - GLAZING WITHIN 60 INCHES, MEASURED HORIZONTALLY, OF A STAIR BOTTOM TREAD NOSING WHERE THE BOTTOM OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE FLOOR.

HABITABILITY NOTES:

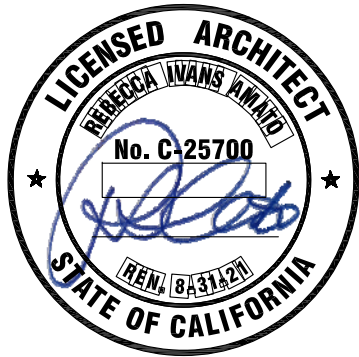
- ALL HABITABLE ROOMS TO HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8% OF THE ROOM’S FLOOR AREA AND AN AGGREGATE OPENABLE AREA NOT LESS THAN 4% OF THE ROOM’S FLOOR AREA TO ACHIEVE REQUIRED NATURAL LIGHTING AND VENTILATION PER CRC R303.
- THE MINIMUM CEILING HEIGHT TO BE 7’ A.F.F. AT ALL HABITABLE AREAS AND HALLWAYS, INCLUDING PORTIONS OF BASEMENTS CONTAINING THESE SPACES. AT BATHROOMS, TOILET ROOMS AND LAUNDRY ROOMS THE MINIMUM CEILING HEIGHT TO BE 6’–8” A.F.F.. WITHIN BASEMENTS BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS CONTAINING HABITABLE SPACE MAY PROJECT TO WITHIN 6’–4” A.F.F. PER CRC R305.1.
- EGRESS WINDOWS TO HAVE MAXIMUM SILL HEIGHT OF 44”, WITH NET CLEAR OPENING HEIGHT OF 24” AND WIDTH OF 20”, AND MINIMUM NET CLEAR OPENING OF 5.7 SF AT FLOORS ABOVE GRADE, 5.0 SF AT GRADE OR BELOW.




**AMATO**  
ARCHITECTURE

1396 PARK AVENUE  
EMERYVILLE CA, 94608

TELE 510.420.0210  
CELL 510.499.2080



PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE 	09.10.20

RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

GENERAL NOTES

SCALE: N/A  
DRAWN BY: RA/MM  
JOB #: 2019–52  
PLOT PLAN

A-0.1

SHEET NO.:



GENERAL NOTES (PERFORMANCE & QUALITY STANDARDS):

DEMOLITION NOTES:

- REMOVE ALL EXISTING FLOOR FINISHES WHERE NEW IS INDICATED. INCLUDING BUT NOT LIMITED TO WOOD FLOORING, CARPET TILE, BROADLOOM CARPET, CERAMIC TILE, SHEET VINYL AND VCT. ALL MATERIAL TO BE REMOVED AND DISPOSED OF.
- PROTECT EXISTING FLOORING TO REMAIN DURING DEMOLITION OF FLOORING MATERIALS AND OTHER CONSTRUCTION. WOOD FLOORING TO BE REFINISHED WHERE REUSED OR TO REMAIN.
- REMOVE ALL ABANDONED TELEPHONE, DATA & ELECTRICAL BOXES, CABLING, CONDUIT, & DEVICES AND DISPOSE. PATCH SURFACE AS NEEDED.
- REMOVE ANY ABANDONED FLOOR MONUMENTS, AND ASSOCIATED WIRING. CAP AND FILL FLOOR FLUSH TO MATCH ADJACENT SURFACES.
- PATCH & REPAIR ALL WALLS INDICATED AS REMAINING AFFECTED BY DEMOLITION AND CONSTRUCTION. PREP AS REQUIRED TO RECEIVE NEW FINISHES.
- REMOVE ALL WALL COVERING AND PATCH AS REQUIRED AT LOCATIONS TO RECEIVE NEW WALL FINISHES.
- WHERE CEILING IS TO BE MODIFIED REMOVE ALL EXISTING CEILING MATERIALS, GRID SYSTEMS, AND ASSOCIATED LIGHTING, LIFE SAFETY AND ELECTRICAL COMPONENTS. SPRINKLER SYSTEM, IF EXISTS, TO REMAIN.
- CONTRACTOR TO PROTECT ALL EXISTING AREAS FROM DUST AND DEBRIS CAUSED BY DEMOLITION WORK AND VERIFY THAT THE JOB SITE IS KEPT CLEAN, WITH CONSTANT REMOVAL OF DEBRIS, AS REQUIRED.

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL VERIFY LAYOUT OF ALL WALLS AND PARTITIONS IN FIELD WITH DESIGNER AND OWNER PRIOR TO CONSTRUCTING ANY WALLS.
- ALL GYPSUM BOARD PARTITIONS SHALL BE TAPED AND SANDED SMOOTH WITH NO VISIBLE JOINTS. THE CONTRACTOR SHALL PATCH AND REPAIR SURFACES TO MATCH ADJACENT OR ADJOINING SURFACES WHEREVER REQUIRED. THESE SURFACES SHALL BE ALIGNED AND SANDED SMOOTH, MINIMUM LEVEL 4, U.O.N..
- CONTRACTOR TO SUBMIT THE FINAL DOOR & WINDOW ORDER TO THE ARCHITECT FOR APPROVAL PRIOR TO ORDERING. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR PURCHASING ADDITIONAL DOORS OR WINDOWS AT HIS/HER OWN EXPENSE.
- ALL PARTITIONS ARE DIMENSIONED FINISH FACE TO FINISH FACE OF GYPSUM BOARD (U.O.N). ALL VERTICAL DIMENSIONS ARE ABOVE FINISH FLOOR.
- ALL DIMENSIONS TO EXTERIOR WINDOW WALL ARE TO INSIDE EDGE OF SILL (U.O.N).
- ALL WORK SHALL BE INSTALLED PLUMB, LEVEL, SQUARE AND TRUE, AND IN PROPER ALIGNMENT. THE CONTRACTOR SHALL PROVIDE LINE AND GRADE MARKINGS ON THE FINISH FLOOR FOR RECTIFYING UNLEVEL FLOOR CONDITIONS WHERE CALLED FOR.
- DIMENSIONS NOTED "CLEAR" OR "CLR" ARE MINIMUM REQUIRED. DIMENSIONS AND CLEARANCE MUST BE ACCURATELY MAINTAINED.
- BRACING FOR DOOR FRAME IS NOT REQUIRED AT DOOR JAMBS LOCATED 6" OR LESS FROM 90° DEGREE PARTITION INTERSECTION.
- THE CONTRACTOR SHALL UNDERCUT INTERIOR DOORS AS REQUIRED TO CLEAR FINISH FLOOR AND/OR THRESHOLD WITH SEAL ¼" MAX. ALL RATED DOORS, IF ANY, SHALL BE ORDERED SO AS TO CLEAR FINISH FLOOR BY ¼" MAX.
- THE CONTRACTOR SHALL PROVIDE WOOD BLOCKING AND/OR HEAVY GAUGE SHEET METAL BACKING AS REQUIRED IN THE WALLS BEHIND WALL HUNG SHELVEING, CABINETS AND EQUIPMENT ETC..
- GLASS AND GLAZING SHALL BE INSTALLED PER PUBLISHED SPECIFICATIONS, STANDARDS, TESTS AND RECOMMENDED METHODS OF THE TRADE, INDUSTRY OR GOVERNMENTAL ORGANIZATIONS APPLYING WORK IN THIS PROJECT. GLAZING SHALL BE INSTALLED TO COMPLY WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE FGMA "GLAZING SEALING SYSTEMS MANUAL" AND "GLAZING MANUAL".
- INSTALLATION OF WINDOW & DOOR FRAMES SHALL BE SECURED RIGIDLY TO ADJACENT SURFACES. NO GAPS WILL BE ACCEPTED. ALL SCRATCH MARKS SHALL BE REMOVED AND THE INTENDED FINISH RESTORED.
- CONTRACTOR TO SUBMIT PROPOSED THERMOSTAT LOCATIONS, WHERE NOT CALLED OUT, TO DESIGNER AND BUILDING ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

FINISH NOTES:

PAINTING:

- NO PAINTING OR INTERIOR FINISHING SHALL BE DONE UNDER CONDITIONS WHICH JEOPARDIZE THE QUALITY OR APPEARANCE OF SUCH WORK.
- CONTRACTOR SHALL PROVIDE THREE 8"x10" BRUSH-OUT CARDS OF EACH OPAQUE FINISH COLOR AND OBTAIN DESIGNER'S APPROVAL OF SAMPLES PRIOR TO APPLICATION. FOR TRANSPARENT FINISHES, PROVIDE THREE 8"x10" SAMPLES OF EACH FINISH ON THE SPECIES OF WOOD SPECIFIED AND OBTAIN DESIGNER'S APPROVAL OF SAMPLES PRIOR TO COMMENCING WORK.
- EXAMINE ALL SURFACES TO BE FINISHED UNDER THIS CONTRACT AND SEE THAT THE WORK OF OTHER TRADES HAS BEEN LEFT OR INSTALLED IN SATISFACTORY CONDITION TO RECEIVE PAINT, STAIN OR SPECIFIED FINISH. THE APPLICATION OF THE FIRST COAT SHALL INDICATE ACCEPTANCE OF THE EXISTING SURFACES.
- ALL SURFACES SHALL BE IN PROPER CONDITION TO RECEIVE THE SPECIFIED FINISH. WOODWORK, SHALL BE HAND-SANDED AND DUSTED CLEAN. ALL KNOT HOLES, PITCH POCKETS OR SAPPY PORTION SHALL

- BE SCRAPED AND SHELLACKED OR SEALED WITH KNOT SEALER. NAIL HOLES, CRACKS OR DEFECTS CAREFULLY PUTTIED AFTER FIRST COAT, WITH PUTTY MATCHING COLOR OF STAIN OR PAINT FINISH. REMOVE ANY OIL OR GREASE WITH MINERAL SPIRITS.
- INTERIOR WOODWORK FINISHES SHALL BE SANDED BETWEEN COATS. CRACKS, HOLES OR IMPERFECTIONS IN PLASTER OR WALLBOARD SHALL BE FILLED WITH PROPER PATCHING COMPOUND FOR THAT MATERIAL.
  - INTERIOR GYPSUM WALLBOARD SURFACES SHALL BE WIPED WITH DAMP CLOTH JUST PRIOR TO APPLICATION OF THE FIRST COAT IN ORDER TO LAY FLAT ANY NAP WHICH MAY HAVE FORMED DURING THE SANDING PROCESS.
  - CLEANING AND RETOUCHING:
    - AT COMPLETION OF PAINTING, ALL PAINT MATERIALS AND EQUIPMENT SHALL BE REMOVED, ALL PAINT SPOTS REMOVED AND ALL AREAS THOROUGHLY CLEANED. ANY DIRT OR DEBRIS CAUSED BY WORK SHALL BE CLEANED UP AS WORK PROGRESSES.
    - RETOUCH OR REFINISH PAINTED SURFACES DAMAGED BY SUBSEQUENT WORK AS DIRECTED BY GENERAL CONTRACTOR. THE COST OF SUCH WORK SHALL BE BORNE BY THE TRADE RESPONSIBLE FOR THE DAMAGE.

FLOOR AND BASE FINISHES:

- VERIFY THAT SUB-SURFACE IS SMOOTH, LEVEL AND FREE FROM DEFECTS WHICH WOULD AFFECT THE INSTALLATION. DO NOT PROCEED WITH WORK UNTIL DEFECTS HAVE BEEN CORRECTED. THOROUGHLY CLEAN SUB-FLOOR PRIOR TO APPLICATION OF ADHESIVE.
- PAINTED OR OTHERWISE FINISHED SURFACES SHALL BE PROTECTED FROM DAMAGE DURING FLOORING INSTALLATION.
- CARPET SHALL BE PROTECTED FROM DAMAGE AFTER INSTALLATION.
- TREAT CARPET SEAMS WITH SEALER, USING METHODS RECOMMENDED BY CARPET MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- PROVIDE SEAMING DIAGRAM FOR APPROVAL.

MILLWORK NOTES:

- ALL MILLWORK IS TO BE CONSTRUCTED TO THE STANDARDS FOR PREMIUM GRADE ESTABLISHED BY THE AMERICAN WOODWORK INSTITUTE (AWI).
- THE GENERAL CONTRACTOR SHALL SUBMIT ONE REPRODUCIBLE SET OF SHOP DRAWINGS FOR ALL MILLWORK TO THE PROJECT DESIGNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- TRANSPARENT FINISH WOOD VENEERS AND SOLIDS SHALL BE AWI PREMIUM GRADE WITH AWI FINISH SYSTEM #2, CATALYZED LACQUER TRANSPARENT FINISH FOR CLOSED PORE GRAIN, UNLESS OTHERWISE NOTED.
- OPAQUE FINISH WOODS, SHALL BE AWI PREMIUM GRADE, PAINT FINISH, SEMI-GLOSS ACRYLIC ENAMEL.

REFLECTED CEILING NOTES:

- THE REFLECTED CEILING PLAN INDICATES THE LOCATION OF CEILING TYPES, CEILING FIXTURES, SWITCHING AND ASSOCIATED ITEMS. REFER TO THE ELECTRICAL ENGINEERING DRAWINGS (WHERE EXISTS) FOR CIRCUITING, WIRING LAYOUT, APPROXIMATE SWITCH LOCATIONS AND ADDITIONAL INFORMATION.
- IN THE EVENT OF DISCREPANCIES BETWEEN THE ARCHITECTURAL AND THE ENGINEERING DRAWINGS, THE ENGINEERING DRAWINGS SHALL TAKE PRECEDENCE WITH RESPECT TO QUANTITY OF FIXTURES AND NUMBER/WATTS OF LAMPS FOR COMPLIANCE WITH ENERGY CONSERVATION STANDARDS. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE WITH RESPECT TO LOCATION AND FIXTURE TYPE. CONTRACTOR SHALL NOTIFY DESIGNER IMMEDIATELY OF ALL SUCH DISCREPANCIES.
- ELECTRICAL ENGINEER TO DETERMINE NUMBERS AND SPECIFY LOCATIONS OF ALL CODE-REQUIRED EMERGENCY LIGHT FIXTURES, SMOKE DETECTORS, STROBE LIGHTS, AND LIFE SAFETY SPEAKERS.
- QUANTITY AND LOCATION OF LIGHT CONTROL DEVICES TO BE DETERMINED BY THE ELECTRICAL ENGINEER.
- ALL LIGHT SWITCHING TO CONFORM TO TITLE 24 AND TO ALL APPLICABLE CODES.
- EXHAUST FANS TO BE PROVIDED AS NOTED ON REFLECTED CEILING PLAN. SIZE AND CIRCUITRY TO BE CONFIRMED BY MECHANICAL DESIGN-BUILD CONTRACTOR OR BY MECH. ENGINEER.
- CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCES FOR FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEM, ETC. NECESSARY TO MAINTAIN THE FINISHED CEILING HEIGHT.
- FINISHED CEILING SHALL BE LEVEL WITHIN THE TOLERANCE OF 1/8" IN 12'-0".
- LIGHT FIXTURES, EXIT SIGNS, SPRINKLERS AND OTHER CEILING ELEMENTS SHALL BE LOCATED IN THE CENTER OF INDIVIDUAL CEILING TILES, WHERE APPLICABLE (U.O.N.).
- VERIFY LOCATION OF ALL VENTS, FIXTURES, MOUNTING PLATES, OR OPENINGS, IN GYPSUM BOARD CEILINGS WITH DESIGNER PRIOR TO FRAMING AND INSTALLATION.
- REFER TO APPLICABLE DETAILS FOR SEISMIC BRACING AT ACOUSTICAL CEILING, AND CEILING GRID SUSPENSION REQUIREMENTS.
- ELECTRICIAN TO VERIFY THAT FIXTURES ARE ORDERED WITH APPROPRIATE CONTROLS AND ARE WIRED ACCORDINGLY.

POWER & SIGNAL NOTES:


- CONTRACTOR TO VERIFY EXISTING ELECTRICAL PANEL AMPERAGE SIZE & CONFIRM THAT ELECTRICAL SERVICE IS SUFFICIENT.

- ALL TELEPHONE AND COMMUNICATION WORK SHALL BE COORDINATED BY THE CONTRACTOR WITH THE DESIGNER, AND THE TELE-COMMUNICATIONS CONTRACTOR.
- CONTRACTOR TO COORDINATE ALL WORK RELATED TO SPECIAL EQUIPMENT WITH THE DESIGNER, OWNER AND TENANT SO AS TO CONFORM WITH THE MANUFACTURER'S SPECIFICATIONS.
- THE CONTRACTOR SHALL LOCATE ALL TELEPHONE, ELECTRICAL AND COMMUNICATION OUTLETS, AND ONLY ADD NEW WHERE REQUIRED BY CODE OR REQUESTED BY OWNER OR DESIGNER. EXACT LOCATION TO BE CONFIRMED ON SITE WITH THE OWNER OR DESIGNER BEFORE PROCEEDING WITH INSTALLATION.
- IN THE EVENT OF DISCREPANCIES BETWEEN THE INSTALLATION, ARCHITECTURAL AND THE ENGINEERING DRAWINGS, THE ENGINEERING DRAWINGS SHALL TAKE PRECEDENCE WITH RESPECT TO MANUFACTURERS, TYPES, DETAILS AND SPECIFICATIONS OF PANEL BOXES, FIXTURE RISERS, CIRCUITING, ETC.; THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE WITH RESPECT TO LOCATION. CONTRACTOR SHALL NOTIFY DESIGNER IMMEDIATELY OF ALL SUCH DISCREPANCIES.
- ALL ELECTRICAL EQUIPMENT SHALL HAVE AFFIXED THERETO THE LABEL OF A RECOGNIZED TESTING AGENCY (UL, FM, CSA, ETL, LA). ANY OTHER LISTING AGENCY SHALL HAVE PRIOR APPROVAL BEFORE INSTALLATION.
- ALL TELEPHONE CABLE IS TO BE TEFLON-COATED WIRE OR MUST BE IN CONDUIT HIDDEN BEHIND EXPOSED FINISHES.
- ALL DIMENSIONS ARE TO BE CENTERLINE OF OUTLET OR GROUP OF OUTLETS, U.O.N.
- WHERE NO DIMENSION IS INDICATED, LOCATE DEVICE AT NEAREST STUD TO SCALED LOCATION ON PLAN.
- PAIRS OF FLOOR OUTLETS, WHERE THEY OCCUR, ARE DIMENSIONED TO THE CENTERLINE OF MONUMENT, U.O.N.
- DIMENSIONS BETWEEN PAIRED DEVICES SHALL BE 6" CENTERLINE TO CENTERLINE (U.O.N.).
- MULTIPLE OUTLETS AND SWITCHES SHALL BE GANGED IN ONE JUNCTION BOX WITH A SINGLE COVERPLATE.
- TYPICAL HT. OF ALL WALL MOUNTED OUTLETS SHALL MATCH EXISTING OR BE +15" A.F.F, U.O.N.. TYPICAL SWITCH HT. SHALL MATCH EXISTING OR BE +48" A.F.F, U.O.N..
- TYPICAL THERMOSTAT HEIGHT IS +48" A.F.F. TO HIGHEST OPERABLE PART (U.O.N.). CONTRACTOR TO SUBMIT PROPOSED THERMOSTAT LOCATIONS TO DESIGNER AND BUILDING ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- ALL DUPLEX OUTLETS ABOVE COUNTERTOPS TO BE MOUNTED HORIZONTALLY (U.O.N).
- ALL OUTLETS SHOWN BACK TO BACK SHALL BE OFFSET THE MINIMUM DIMENSION REQUIRED TO AVOID BACK-TO-BACK INSTALLATION.
- NEW TELEPHONE AND COMMUNICATION OUTLETS SHALL BE AT A MINIMUM FURNISHED WITH JUNCTION BOX, 3/4" CONDUIT TO 3" ABOVE CEILING AND A PULL STRING THROUGH THE WALL TO THE CEILING PLENUM OR THE NEAREST READILY ACCESSIBLE LOCATION. ONE PULL STRING PER CONNECTION PORT. WHEN APPLICABLE, TENANT'S VENDOR TO PROVIDE AND INSTALL RECEPTACLE AND COVER PLATE.
- WHERE FEASIBLE, RE-USE EXISTING TEL/DATA OUTLETS, CABLES AND DEVICES. COORDINATE SALVAGE ITEMS WITH OWNER AND PROJECT DESIGNER.
- PROVIDE LAYOUT OF FLOOR-MOUNTED OUTLETS AT SYSTEMS FURNITURE. FIELD VERIFY WITH PROJECT DESIGNER AND FURNITURE VENDOR PRIOR TO INSTALLATION.
- WHERE FLOOR MONUMENTS HAVE BEEN DEMOLISHED, REMOVE CABLING AND CAP PENETRATION.
- ALL WALL OUTLETS REMOVED ARE TO HAVE CIRCUITS PULLED BACK TO PANEL. WALL TO BE FINISHED FLUSH FOR SMOOTH PAINT.

ABBREVIATIONS

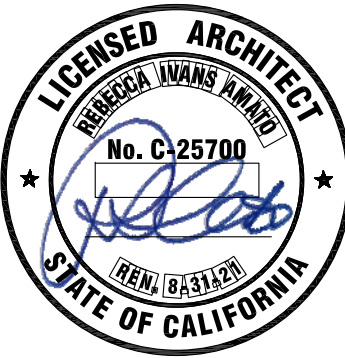
ADU	ACCESSORY DWELLING UNIT
AFF	ABOVE FINISHED FLOOR
APN	ASSESSOR'S PARCEL NUMBER
BATH	BATHROOM
BD	BOARD
BED	BEDROOM
BLDG	BUILDING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BSMT	BASEMENT
BTWN	BETWEEN
CAB	CABINET
CFM	CUBIC FEET PER MINUTE
CL	CENTER LINE
CLG	CEILING
CLOS	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNT	COUNTER
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
D	CLOTHES DRYER
DIA	DIAMETER
DEMO	DEMOLISH OR DEMOLITION
DIM	DIMENSION
DIMS	DIMENSIONS
DN	DOWN
DR	DOOR
DTL	DETAIL
DWG	DRAWING
E	EXISTING
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EQ	EQUAL
ETC	ET CETERA
EXIST	EXISTING
EXT	EXTERIOR
FAU	FORCED AIR UNIT
FD	FLOOR DRAIN OR FIRE DEPARTMENT
FIN	FINISH
FIXT	FIXTURE
FLR	FLOOR
FND	FOUNDATION
FT	FOOT OR FEET
FTG	FOOTING
FURN	FURNACE
GA	GAUGE
GPM	GALLONS PER MINUTE
GYP	GYPSUM
HDR	HEADER
HD	HEAVY DUTY
HI	HIGH
HR	HOUR
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
IN	INCH OR INCHES
INSUL	INSULATION
INT	INTERIOR
JST	JOIST
LAM	LAMINATE
LED	LIGHT EMITTING DIODE
LF	LIGHT FIXTURE
LO	LOW
LVT	LUXURY VINYL TILE
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDICINE
MIN	MINIMUM
MTL	METAL
N	NEW
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NEC	NECESSARY
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
OA	OVERALL
OC	ON CENTER
OCC	OCCUPANCY
OH	OVERHANG OR OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PL	PROPERTY LINE OR PLATE
PLAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTN	PARTITION
PWD	PLYWOOD
QTY	QUANTITY
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN

REC	RECESSED OR RECYCLE
REF	REFERENCE OR REFRIGERATOR
REQD	REQUIRED
RM	ROOM
SIM	SIMILAR
SPEC	SPECIFIED OR SPECIFICATION
SED	SEE ELECTRICAL DRAWINGS
SF	SQUARE FOOT OR SQUARE FEET
SHLVS	SHELVES
SHT	SHEET
SL	SKYLIGHT
SMD	SEE MECHANICAL DRAWINGS
SPD	SEE PLUMBING DRAWINGS
SS	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE OR STRUCTURAL
T&G	TONGUE AND GROOVE
TELE	TELEPHONE
THK	THICK
TO	TOP OF
TOC	TOP OF CONCRETE
TR	TRASH
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	CLOTHES WASHING MACHINE
W/	WITH
WC	WALL COVERING
WD	WOOD
WN	WINDOW
WT	WALL TILE




1396 PARK AVENUE  
EMERYVILLE CA, 94608

TELE 510.420.0210  
CELL 510.499.2080



PROJECT PROGRESSION :

ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE 	09.10.20

RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

GENERAL NOTES

SCALE: N/A

DRAWN BY: RA/MM

JOB #: 2019-52

PLOT PLAN

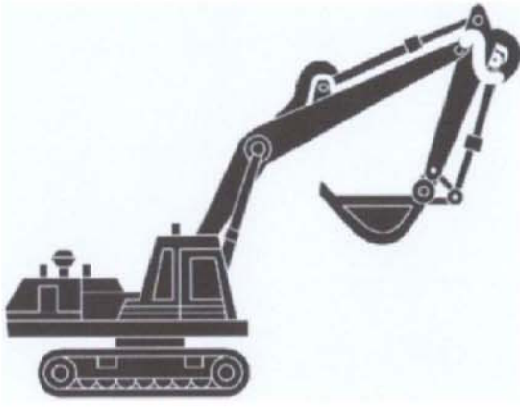
A-0.2

SHEET NO.:



## Heavy Equipment Operation

Best Management Practices for the Construction Industry



### Who should use this information?

- Vehicle and Equipment Operators
- Site Supervisors
- General Contractors
- Home Builders
- Developers

### Doing the Job Right

#### Site Planning and Preventive Vehicle Maintenance

- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for repair leaks.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site where cleanup is easier.
- ❑ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- ❑ Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.

#### Spill Cleanup

- ❑ Clean up spills immediately when they happen.
- ❑ Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible and properly dispose of absorbent materials.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ❑ Use as little water as possible for dust control. Ensure water doesn't leave silt or discharge to storm drains.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately: Police (non-emergency): 650-903-6350. Fire & Environmental Safety: 650-903-6378.
- ❑ If the spill poses a significant hazard to human health and safety, property or the environment, you must also report it to the State Office of Emergency Services.

#### Storm Water Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm water pollution. Prevent leaks by properly maintaining equipment and utilizing drip pans to place under any leaking equipment. Remove any leaking or malfunctioning equipment from the site as soon as possible.

## Landscaping, Gardening, and Pool Maintenance

Best Management Practices for the Construction Industry



### Who should use this information?

- Landscapers
- Gardeners
- Swimming Pool/Spa Service and Repair Workers
- General Contractors
- Home Builders
- Developers

### Doing the Right Job

#### General Business Practices

- ❑ Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- ❑ Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- ❑ Schedule grading and excavation projects during dry weather.
- ❑ Use temporary check dams or ditches to divert runoff away from storm drains.
- ❑ Protect storm drains with sandbags or other sediment controls.
- ❑ Re-vegetation is an excellent form of erosion control for any site.
- ❑ Landscaping/Garden Maintenance
  - ❑ Use pesticides sparingly, according to instructions on the label. Rinse empty containers, and use rinse water as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
  - ❑ Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.

#### Storm Water Pollution From Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains. Swimming pool water containing chlorine and copper-based algicides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

- ❑ Curbside pickup of yard waste is provided for Mountain View residents. Place yard waste in approved containers at curbside for pickup on recycling collection days. Commercial entities may take yard waste directly to the SMART Station® in Sunnyvale (fees apply). Contact the SMART Station® at: 408-752-8530 for further information.
- ❑ Cover loads with a tarp when transporting to a facility.
- ❑ Do not blow or rake leaves, etc. into the street, or place yard waste in gutters or on dirt shoulders. Sweep up any leaves, litter or residue in gutters or on street.

#### Pool/Fountain/Spa Maintenance

##### Draining Pools or Spas

- ❑ When it's time to drain a pool, spa, or fountain, please be sure to call the City of Mountain View Fire and Environmental Protection Division at: 650-903-6378 before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as add wash). Discharge fluids shall not exceed 100 gallons per minute.
- ❑ Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.
- ❑ If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by draining it gradually onto a landscaped area.
- ❑ Do not use copper-based algicides. Control algae with chlorine or other alternatives, such as sodium bromide.

##### Filter Cleaning

- ❑ Never clean a filter in the street or near a storm drain. Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- ❑ If there is no suitable dirt area, call your local wastewater treatment plant for instructions on discharging filter backwash or rinse water to the sanitary sewer.

- ❑ site to minimize litter.
- ❑ Clean up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean out a dumpster by hosing it down on the construction site.
- ❑ Set portable toilets away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

#### Materials/Waste Handling

- ❑ Practice Source Reduction—minimize waste when you order materials. Order only the amount you need to finish the job.
- ❑ Use recyclable materials whenever possible. Arrange for pick-up of recyclable materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.
- ❑ Dispose of all wastes properly. Many construction materials and wastes, including lead solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed. Contact the Solid Waste staff for information about recycling and disposal requirements at: 650-903-6311.

- ❑ Disposal of all wastes properly. Many construction materials and wastes, including lead solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed. Contact the Solid Waste staff for information about recycling and disposal requirements at: 650-903-6311.

- ❑ Permits
  - ❑ In addition to local building permits, you will need to obtain coverage under the State's General Construction Activity Storm water Permit if your construction site disturbs one acre or more. Obtain information from the Regional Water Quality Control Board.

- ❑ Good Housekeeping Practices
  - ❑ Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
  - ❑ Keep materials out of the rain—prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
  - ❑ Keep pollutants off exposed surfaces. Place trashcans and recycling receptacles around the

## Roadwork and Paving

Best Management Practices for the Construction Industry



### Who should use this information?

- Road Crews
- Driveway/Sidewalk/Parking Lot Construction Crews
- Seal Coat Contractors
- Operators of grading Equipment, Paving Machines, Dump Trucks, Concrete Mixers
- Construction Inspectors
- General Contractors
- Home Builders
- Developers

### Doing the Job Right

#### General Business Practices

- ❑ Develop and implement erosion/sediment control plans for roadway embankments.
- ❑ Schedule excavation and grading work during dry weather.
- ❑ Check for and repair leaking equipment.
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- ❑ When refueling or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- ❑ Do not use diesel oil to lubricate equipment parts of clean equipment.
- ❑ Recycle used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly.

#### During Construction

- ❑ Avoid paving and seal coating in wet weather, or when rain is forecast, to prevent fresh materials from contacting storm water runoff.
- ❑ Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ Protect drainage ways by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.

#### Storm Water Pollution from Roadwork

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

### Doing the Job Right

#### Handling Paint Products

- ❑ Keep all liquid paint products and wastes away from the gutter, street, and storm drains. Liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes and must be disposed of at a hazardous waste collection facility. Contact the Santa Clara County Hazardous Waste Program at 408-299-7300.
- ❑ When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be disposed of as garbage in a sanitary landfill. Empty, dry paint cans also may be recycled as metal.
- ❑ Wash water from painted buildings constructed before 1978 can contain high amounts of lead, even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory.
- ❑ If there is loose paint on the building, or if the paint tests positive for lead, block storm drains. Check with the wastewater treatment plant to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

#### Painting Cleanup

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, French drain, or stream.

#### Storm Water Pollution from Paints, Solvents and Adhesives

All paints, solvents and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

### Who should use this information?

- Homeowners
- Painters
- Paperhangers
- Plasterers
- Graphic Artists
- Dry Wall Crews
- Floor Covering Installers
- General Contractors
- Home Builders
- Developers

## Earth-Moving and Dewatering Activities

Best Management Practices for the Construction Industry



### Who should use this information?

- Bulldozer, Back Hoe, and Grading Machine Operators
- Dump Truck Drivers
- Site Supervisors
- General Contractors
- Home Builders
- Developers

### Doing the Job Right

#### General Business Practices

- ❑ Schedule excavation and grading work during dry weather.
- ❑ Perform major equipment repairs away from the job site.
- ❑ When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- ❑ Do not use diesel oil to lubricate equipment parts or clean equipment.
- ❑ Practices During Construction
  - ❑ Remove existing vegetation only when absolutely necessary. Plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
  - ❑ Protect down slope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's Erosion and Sediment Control Field Manual for proper erosion and sediment control measures.

#### Storm Water Pollution From Earth-Moving Activities And Dewatering

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site and slow the flow of pollutants over roughened ground surfaces. Contaminated groundwater is a common problem in the Santa Clara Valley. Depending on soil types and site history, groundwater pumped from construction sites may be contaminated with toxics (such as oil or solvents) or laden with sediments. Any of these pollutants can harm wildlife in creeks or the Bay, or interfere with wastewater treatment plant operation. Discharging sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

- ❑ Never wash excess material from exposed-aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- ❑ Cover stockpiles (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- ❑ Park paving machines over drip pans to catch drips when not in use. Store oily rags in a fire-rated container.
- ❑ Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- ❑ Avoid over-application by water trucks for dust control.

#### Asphalt/Concrete Removal

- ❑ Avoid creating excess dust when breaking asphalt or concrete.
- ❑ After breaking up old pavement, be sure to remove all chunks and pieces. Make sure broken pavement does not come in contact with rainfall or runoff.

- ❑ When making saw cuts, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.

- ❑ Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump wastewater liquor in storm drains.

- ❑ 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 and residue as hazardous waste.

- ❑ For more information about proper paint disposal, refer to PaintCare California at: [www.paintcare.org/california](http://www.paintcare.org/california)

#### Paint Removal

- ❑ 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 tributyl tin must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.

- ❑ When stripping or cleaning building exteriors with a high-pressure water, block storm drains. Direct wash water onto a dirt area and spade into soil. Or, check Palo Alto Regional Water Quality Control Plant at: 650-329-2598 to find out if you can collect (mop or vacuum) building cleaning water and dispose to the sanitary sewer. Sampling of the water may be required to assist the wastewater treatment authority in making its decision.

#### Recycle/Reuse Leftover Paints Whenever Possible

- ❑ Recycle or donate excess water-based (latex) paint, or return to supplier.
- ❑ Reuse leftover oil-based paint. Dispose of non-recyclable thinners, sludge and unwanted paint as hazardous waste.

- ❑ Unopened cans of paint may be able to be returned to the paint vendor. Check with the vendor regarding its "buy-back" policy.

## Fresh Concrete and Mortar Application

Best Management Practices for the Construction Industry



### Who should use this information?

- Masons and Bricklayers
- Sidewalk Construction Crews
- Patio Construction Workers
- Construction Inspectors
- General Contractors
- Home Builders
- Developers
- Concrete Delivery/Pumping Workers

### Doing the Job Right

#### General Business Practices

- ❑ Wash out concrete mixers only in designated wash-out areas in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- ❑ Wash out chutes onto dirt areas at site that do not flow to streets or storm drains.

- ❑ Always store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.

- ❑ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall and runoff.

- ❑ Do not use diesel fuel as a lubricant on concrete forms, tools or trailers.

#### Storm Drain Pollution from Fresh Concrete and Mortar Applications

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

### During Construction

- ❑ Don't mix up more fresh concrete or cement than you will use in a two-hour period.
- ❑ Set up and operate small mixers on tarps or heavy plastic drop cloths.
- ❑ When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- ❑ Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.
- ❑ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ❑ When breaking up pavement, be sure to pick up all the pieces and dispose of properly. Recycle large chunks of broken concrete at a landfill.
- ❑ Never bury waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- ❑ Never dispose of washout into the street, storm drains, drainage ditches or streams.

### Preventing Pollution:

#### It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay without treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or bay lands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street storm drain. Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight storm water pollution. To comply with this program, contractors must comply with the practices described in this blueprint.

#### Small Business Hazardous Waste Disposal Program

Santa Clara County businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call: 408-299-7300 for a quote, more information or guidance on disposal.

#### Spill Response Agencies

DIAL 9-1-1

State Office of Emergency Services Warning Center (24 hours): 800-852-7550

Santa Clara County Environmental Health Services: 408-299-6930

#### Local Pollution Control Agencies

County of Santa Clara Pollution Prevention Program: 408-441-1195

County of Santa Clara Integrated Waste Management Program: 408-441-1198

County of Santa Clara District Attorney Environmental Crimes Hotline: 408-299-TIPS

Santa Clara County Recycling Hotline: 800-533-8414

Santa Clara Valley Water District: 408-265-2600

Santa Clara Valley Water District Pollution Hotline: 888-510-5151

Regional Water Quality Control Board San Francisco Bay Region: 510-622-2300

Palo Alto Regional Water Quality Control Plant: 650-329-2598  
Serving East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford

#### City of Mountain View

Building Division: 650-903-6313

Fire & Environmental Protection Division: 650-903-6378

Solid Waste Division: 650-903-6311

#### Local Accredited Laboratories List

<http://www.cdph.ca.gov/certific/labs/Documents/ELAPList.xls>

## General Construction and Site Supervision

Best Management Practices for the Construction Industry



### Who should use this information?

- General Contractors
- Site Supervisors
- Inspectors
- Home Builders
- Developers

#### Storm Water Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.

As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

### Doing the Job Right

#### General Principles

- ❑ Keep an orderly site and ensure good housekeeping practices are used.
- ❑ Maintain equipment properly.
- ❑ Cover materials when they are not in use.
- ❑ Keep materials away from streets, storm drains and drainage channels.
- ❑ Ensure dust control water doesn't leave site or discharge storm drains.

#### Advance Planning to Prevent Pollution

- ❑ Schedule excavation and grading activities for dry weather periods. To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the Erosion and Sediment Control Manual, available from the Regional Water Quality Control Board, as a reference.
- ❑ Control the amount of runoff crossing your site (especially during excavation) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce storm runoff velocities by constructing temporary check dams or berms where appropriate.
- ❑ Train your employees and subcontractors. Make these best management practices available to everyone who works on the construction site. Inform subcontractors about the storm water requirements and their own responsibilities.

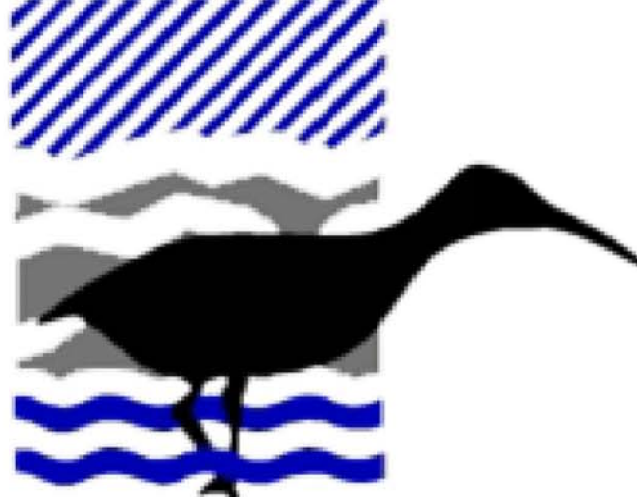
#### Good Housekeeping Practices

- ❑ Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- ❑ Keep materials out of the rain—prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- ❑ Keep pollutants off exposed surfaces. Place trashcans and recycling receptacles around the

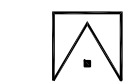
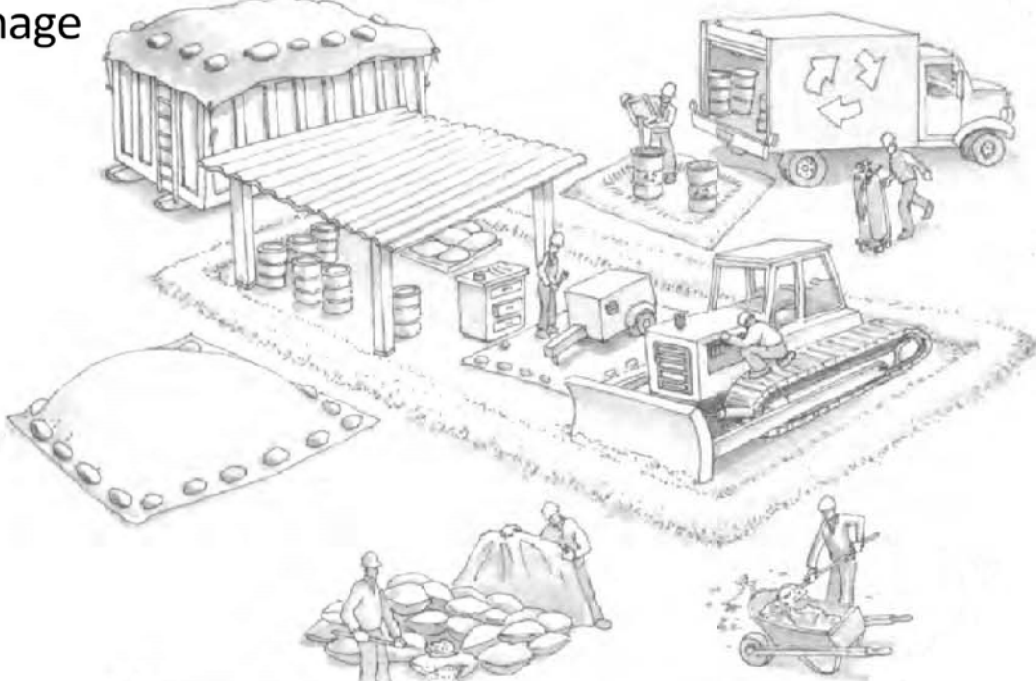
# Blueprint for a Clean Bay

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

## Best Management Practices for the Construction Industry



## Santa Clara Valley Urban Runoff Pollution Prevention Program



A M A T O  
ARCHITECTURE

1396 PARK AVENUE

EMERYVILLE CA, 94608

TELE 510.420.0210

CELL 510.499.2080



PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

## RESIDENTIAL REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

BLUEPRINT FOR A  
CLEAN BAY

SCALE: N/A

DRAWN BY: RA/MM

JOB #: 2019-52

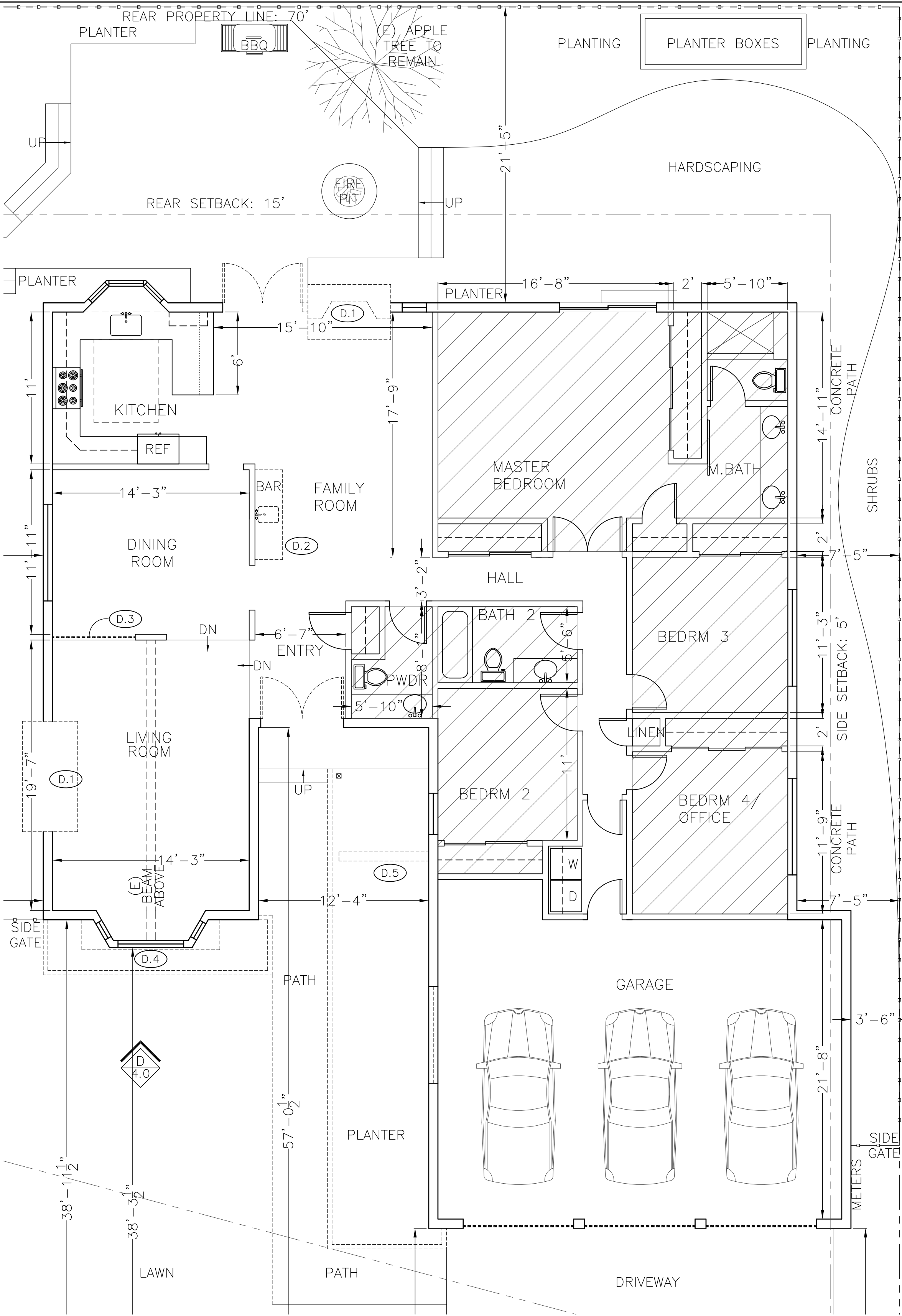
PLOT PLAN

SHEET NO.:

A-0.3



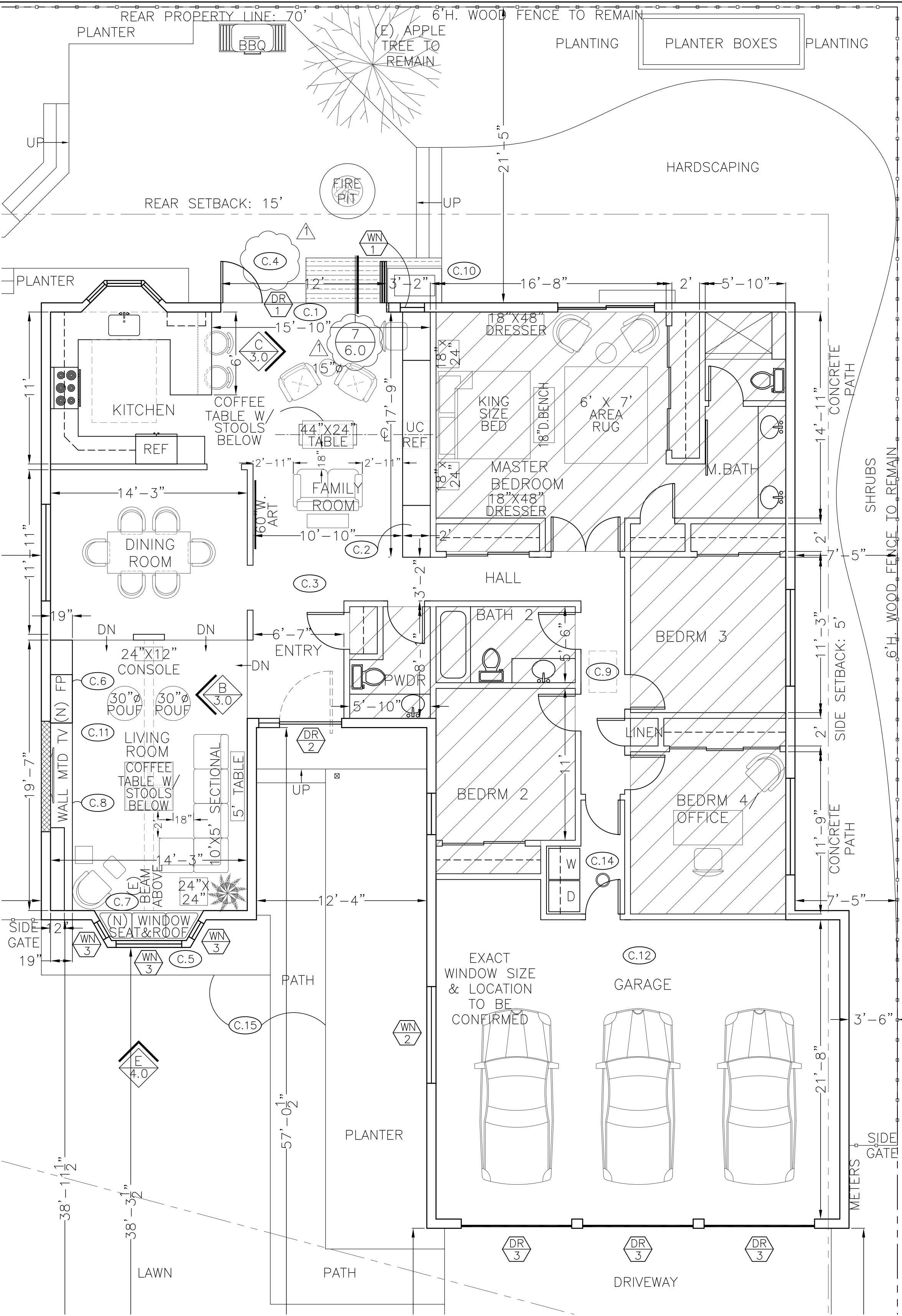
DEMOLITION PLAN



DEMOLITION NOTES

- NOTE: CONTRACTOR TO PROTECT ALL EXISTING AREAS FROM DUST AND DEBRIS CAUSED BY DEMOLITION WORK AND VERIFY THAT THE JOB SITE IS KEPT CLEAN, WITH CONSTANT REMOVAL OF DEBRIS, AS REQUIRED.
- D.1 REMOVE EXISTING FIREPLACES AND ASSOCIATED CHIMNEYS AT FAMILY ROOM AND LIVING ROOM. PATCH FLOOR.
  - D.2 REMOVE BAR, ALL ASSOCIATED PLUMBING & WALL MIRROR. PATCH FLOOR.
  - D.3 REMOVE LOW WOOD RAILING. PATCH FLOOR AS NECESSARY.
  - D.4 REMOVE PLANTER AT FRONT BAY WINDOW. REMOVE STUCCO SOFFIT ABOVE WINDOW AT EXTERIOR. INCREASE WINDOW HEIGHT FOR NEW TRANSOM. PREP FOR NEW LANDSCAPING.
  - D.5 REMOVE LOW WALL AND PLANTER BORDERS.

CONSTRUCTION PLAN



DEMOLITION / CONSTRUCTION LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING WALLS TO BE DEMOLISHED
- NO WORK IN THESE AREAS
- DETAIL/SECTION SYM.
- ELEVATION SYMBOL
- SHEET NUMBER
- DOOR/WINDOW TAG - SEE SCHEDULES

DOOR / WINDOW SCHEDULE

#	WT.	HT.	TYPE	LOCATION
DR 1	144"	90"	4-PANEL BIFOLD EXTERIOR DOOR W/ TEMPERED GLASS SPEC: LA CANTINA ALUMINUM (CONFIRM HT)	KITCHEN
DR 2	54"	80"	54" WIDE PIVOT DOOR WITH 18" WIDE TEMPERED GLASS SIDELIGHT SPEC: PIVOT DOOR COMPANY 'SOLACE' IN WALNUT	ENTRY
DR 3	96"	84"	ALUMINUM AND GLASS GARAGE DOORS (QTY: 3) SPEC: MARTIN ALUMINUM ATHENA MODEL #211, DESERT BRONZE	GARAGE
WN 1	18"	48"	REPLACE EXISTING WINDOW W/ SMALLER. CONFIRM SIZE ON SITE. TOP OF WINDOW TO ALIGN WITH TOP OF ADJACENT DR/1.	FAMILY ROOM
WN 2	-	-	REPLACE EXISTING WINDOW. CONFIRM SIZE ON SITE	GARAGE
WN 3	-	54",18"	REPLACE EXISTING BAY WINDOWS WITH TALLER WINDOWS WITH MATCHING TRANSOM WINDOWS ABOVE. CONFIRM SIZES ON SITE.	LIVING ROOM

CONSTRUCTION NOTES

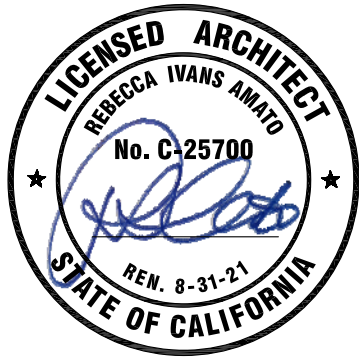
- NOTE: CONTRACTOR TO VERIFY LAYOUT OF ALL WALLS WITH ARCHITECT AND OWNER ON SITE PRIOR TO CONSTRUCTING ANY WALLS.
- C.1 ADD NEW HEADER FOR NEW 4-PANEL BIFOLD DOORS. SEE STRUCTURAL DRAWINGS.
  - C.2 ADD BUILT-IN CABINETS W/ UNDER COUNTER WINE REFRIGERATOR @ FAMILY ROOM. SEE ELEVATION C ON SHEET A-3.0.
  - C.3 REFINISH EXISTING WOOD FLOORS THROUGHOUT. BLEACH LIGHTER AT KITCHEN, FAMILY ROOM, ENTRY AND HALL AFTER PATCHING.
  - C.4 DECK ELEVATION SHALL NOT EXCEED 7.75" BELOW THE TOP OF DOOR THRESHOLD.
  - C.5 REPLACE WINDOWS IN EXISTING BAY WINDOW WITH NEW. ADD TRANSOM WINDOWS ABOVE. SEE WINDOW SCHEDULE BELOW.
  - C.6 ADD NEW DIRECT VENT FIREPLACE IN FRONT OF EXISTING WALL: REGENCY CHICAGO CORNER 40LE. SEE ELEVATION B ON SHEET A-3.0.
  - C.7 BAY WINDOW SEAT TO BE 18" HIGH, WITH HINGED TOP PANEL TO ALLOW ACCESS TO STORAGE.
  - C.8 ADD NEW BUILT-IN FOR TV NEXT TO FIREPLACE. SPEC: HORIZONTAL GRAIN RIFT SAWN WHITE OAK WITH NATURAL FINISH.
  - C.9 REPLACE EXISTING SKYLIGHT IN HALLWAY.
  - C.10 FILL IN DECK AS REQUIRED. MATCH EXISTING/BUILD (N) PLANTER BOX.
  - C.11 STAIN FLOORS DARK @ LIVING ROOM/LOWER LEVEL AFTER PATCHING.
  - C.12 INSULATE GARAGE CEILING AND INSTALL SOLAR VENT.
  - C.13 REPLACE TILE ROOF WITH STANDING SEAM METAL ROOF. SEE ELEVATION E ON A-4.0.
  - C.14 ADD SUN TUNNEL AT LAUNDRY.
  - C.15 ADD NEW METAL BORDERS TO PLANTERS AT FRONT LANDSCAPING.
  - C.16 ADD NEW PAINT GRADE WOOD FASCIA AND NEW GUTTERS THROUGHOUT.

FINISH SCHEDULE:

- FL 1 REFINISHED WOOD FLOORS THROUGHOUT: SPEC: BLEACHED FINISH
- FL 2 REFINISHED WOOD FLOORS @ LIVING ROOM: SPEC: DARK STAINED FINISH
- WT 1 STONE TILE @ LIVING ROOM HEARTH: SPEC:-
- WT 2 STONE TILE @ LIVING ROOM FIREPLACE SURROUND: SPEC:
- CT 1 COUNTERTOP @ FAMILY ROOM CABINETRY: SPEC: LEATHERED GRANITE

AMATO  
ARCHITECTURE

1396 PARK AVENUE  
EMERYVILLE CA, 94608  
TELE 510.420.0210  
CELL 510.499.2080



PROJECT PROGRESSION:	DATE:
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

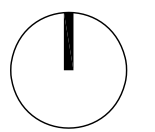
RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:  
DEMOLITION AND  
CONSTRUCTION PLANS

SCALE: 3/16" = 1'-0"  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

TRUE NORTH

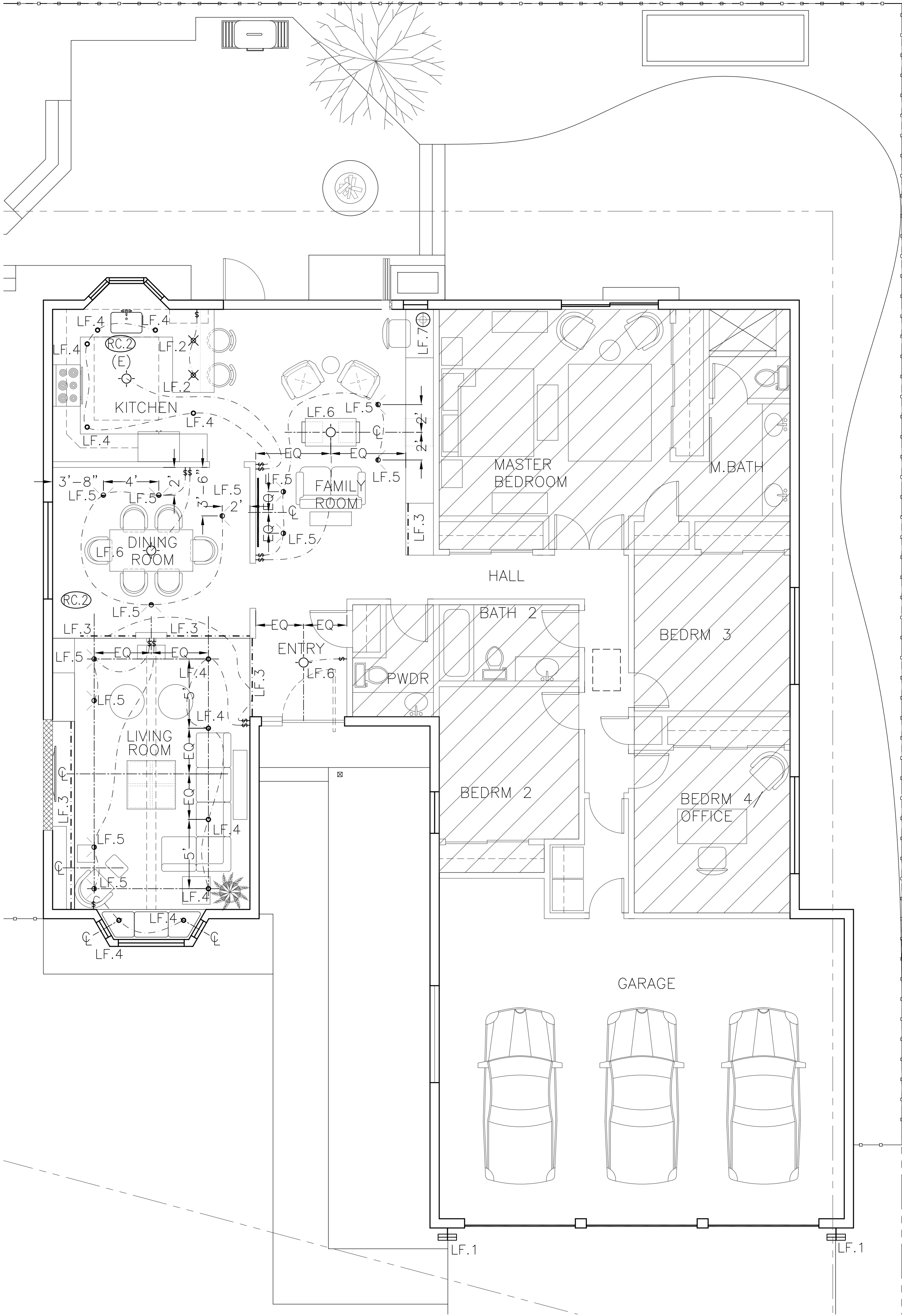


A-1.0

SHEET NO.:



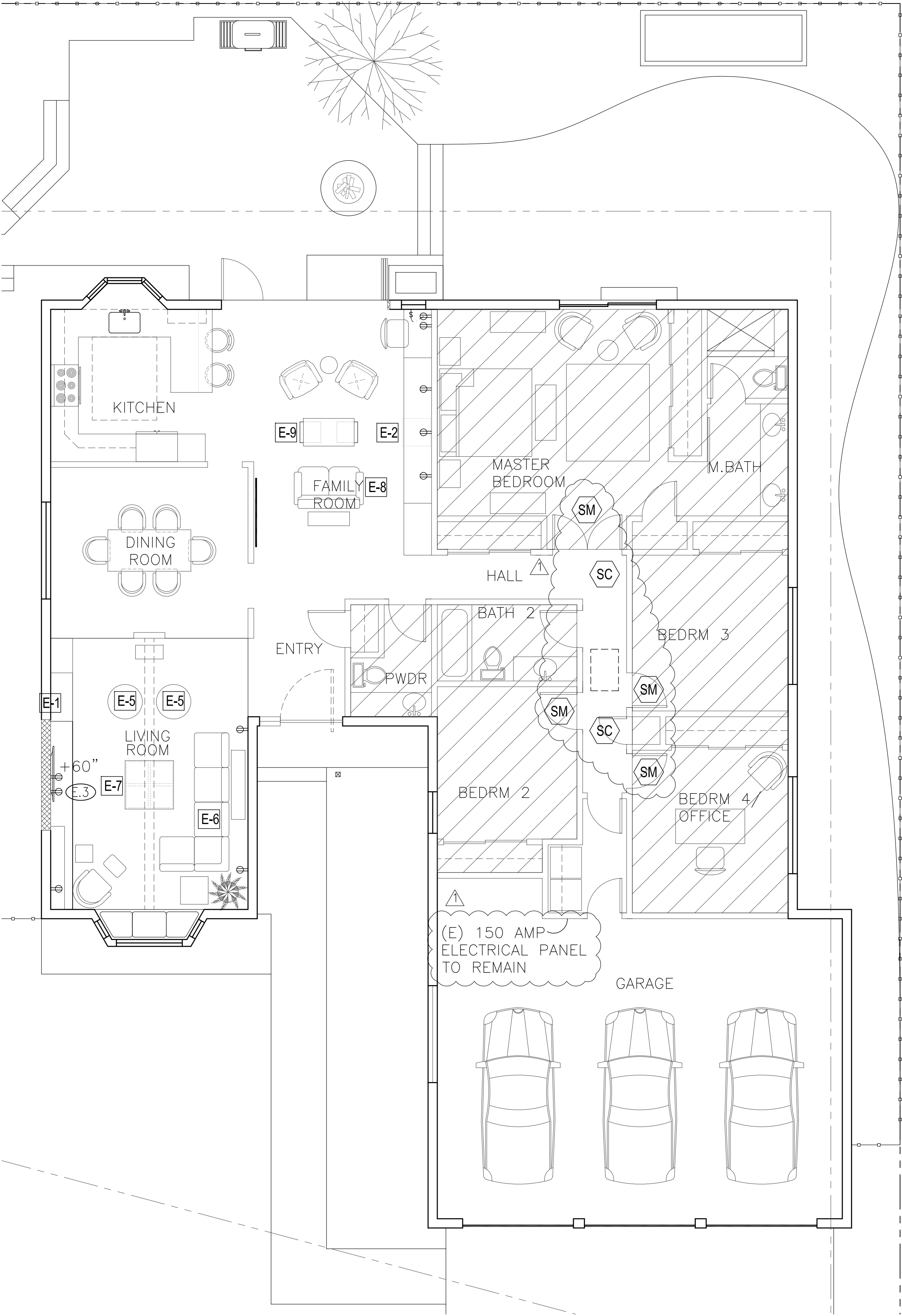
FIRST FLOOR CEILING PLAN



REFLECTED CEILING LEGEND

SYMBOL	ITEM	SPECIFICATION	LOCATION	QTY.
LF.1	WATER RESISTANT/WEATHERPROOF FIXTURE	LED 13 WATTS	EXTERIOR	2
LF.2	PENDANT LIGHTS	LED 7 WATTS	PENINSULA	2
LF.3	MINI-INCH CABINET STRIP	LED 8 WATTS PER FOOT	LIVING/FAMILY	32 LF
LF.4	4" CAN LIGHTS (ADJUSTABLE ANGLE IN LIVING ROOM)	LED 7 WATTS	THROUGHOUT	11
LF.5	WALL WASHERS	LED 13 WATTS	THROUGHOUT	12
LF.6	SURFACE MOUNTED CEILING FIXTURES	LED 26 WATTS	THROUGHOUT	3
LF.7	FLOOR OR DESK LAMP	LED 26 WATTS	FAMILY	1

FIRST FLOOR ELECTRICAL / EQUIPMENT PLAN



ELECTRICAL LEGEND


⊖	WALL DUPLEX OUTLET
⊕	WALL FOURPLEX OUTLET
\$	LIGHT SWITCH LOCATION – PROVIDE LEVITRON (OR EQ.) DIMMERS AT ALL LOCATIONS, UON.
"GFCI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (TYPICAL AT ALL BATHROOM & KITCHEN OUTLETS.)	
"AFCI" INDICATES ARC FAULT CIRCUIT INTERRUPTER PROTECTION (TYPICAL AT ALL BEDROOM OUTLETS.)	

EQUIPMENT / FURNITURE SCHEDULE


#	ITEM	LOCATION	QTY
E-1	GAS INSERT FIREPLACE	LIVING ROOM	1
E-2	65" WALL-MOUNTED TV	LIVING ROOM	1
E-3	UNDERCOUNTER FRIDGE	FAMILY ROOM	1
E-4	RETRACTABLE SHADE TRELLIS	REAR DECK	1
E-5	36" LOW POUF	LIVING ROOM	2
E-6	5' X 10' SECTIONAL	LIVING ROOM	1
E-7	42" X 42" COFFEE TABLE W/ BUILT IN PULL-OUT STOOLS	LIVING ROOM	1
E-8	3' X 5' LOVESEAT	FAMILY ROOM	1
E-9	44" X 24" COFFEE TABLE W/ BUILT IN PULL-OUT STOOLS	FAMILY ROOM	1
SM	SMOKE DETECTOR	THROUGHOUT	4
SC	COMBINATION SMOKE / CARBON MONOXIDE DETECTOR	THROUGHOUT	2

REFLECTED CEILING / MECHANICAL NOTES

- (RC.1) ALL LIGHT FIXTURES, INCANDESCENT, FLUORESCENT, ETC. TO BE ON DIMMER SWITCHES. ELECTRICIAN TO VERIFY THAT FIXTURES ARE ORDERED WITH APPROPRIATE DIMMING BALLASTS AND WIRED ACCORDINGLY. VERIFY ALL OUTLET LOCATIONS ON SITE WITH OWNER OR ARCHITECT PRIOR TO INSTALLING.
- (RC.2) REPLACE EXISTING RECESSED LIGHTS IN EXISTING LOCATIONS WITH NEW LF.4 OR LF.5 LED LIGHTS. PATCH AS REQUIRED.
- (RC.3) REPLACE EXISTING SURFACE MOUNTED LIGHTS AT DINING ROOM AND ENTRY WITH NEW LF.6 LED LIGHTS. ADD NEW SURFACE MOUNTED LIGHT AT FAMILY ROOM. PATCH AS REQUIRED.
- (RC.4) ALL INDOOR AND OUTDOOR LIGHTING TO BE HIGH EFFICACY IN ACCORDANCE WITH CALIFORNIA ENERGY CODE TABLE 150.0-A.



1396 PARK AVENUE  
EMERYVILLE CA, 94608  
TELE 510.420.0210  
CELL 510.499.2080

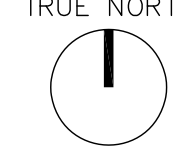


PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:  
CEILING & ELECTRICAL /  
EQUIPMENT PLANS

SCALE: 3/16" = 1'-0"  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN  
TRUE NORTH  


SHEET NO.:  
**A-2.0**





PROJECT PROGRESSION:	DATE:
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

# RESIDENTIAL REMODEL

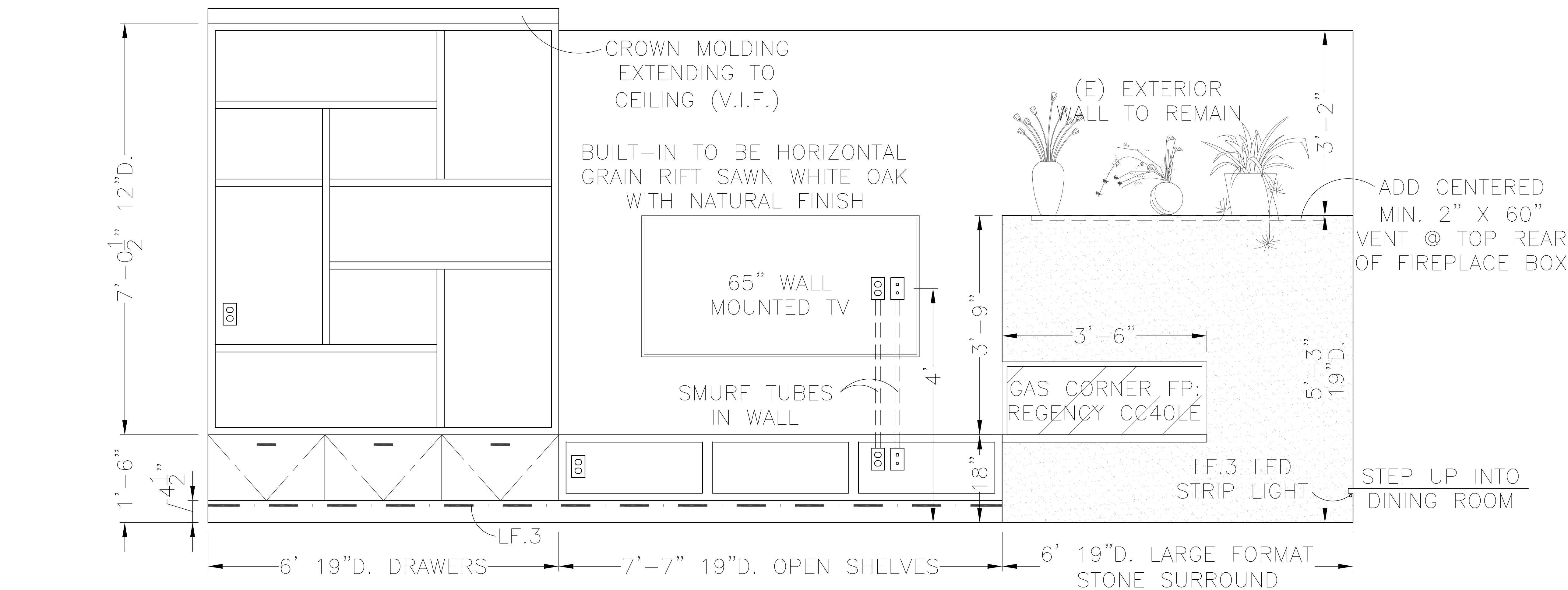
460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:  
PROPOSED INTERIOR  
ELEVATIONS

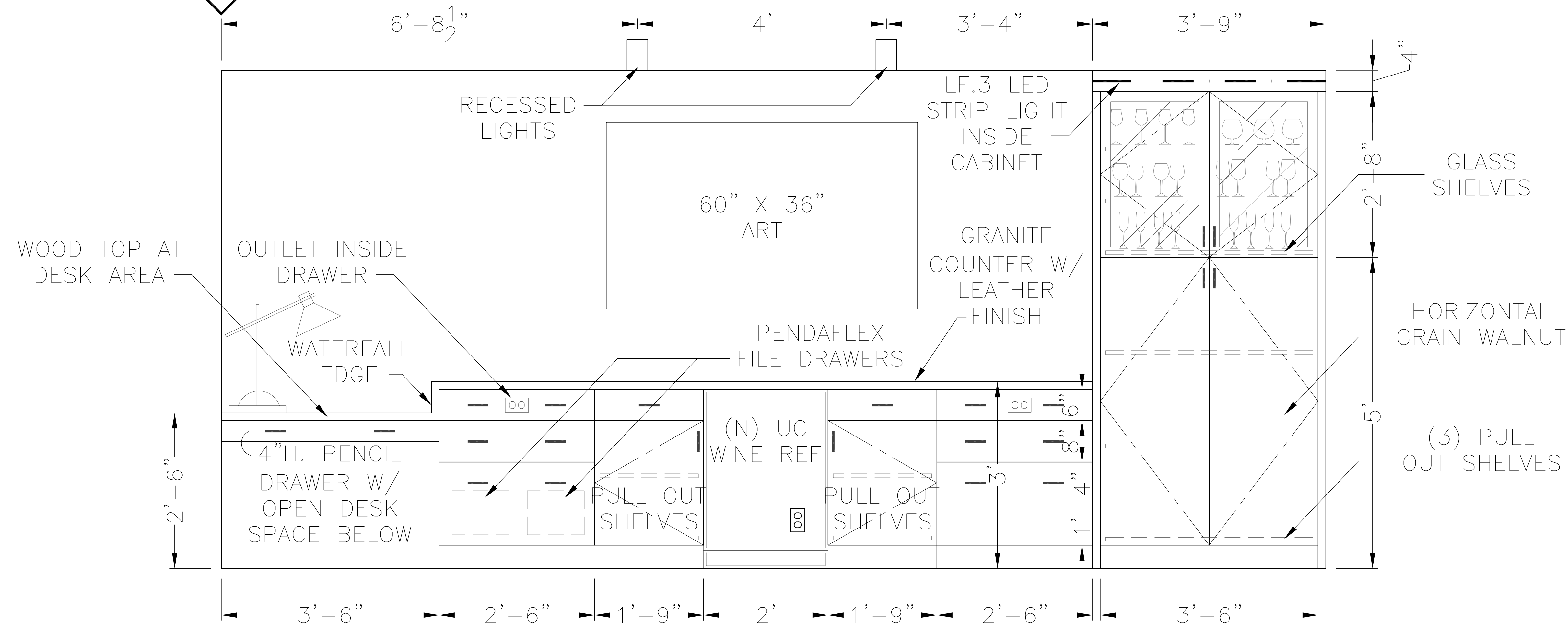
SCALE: 1" = 1'-0"  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

A-3.0

SHEET NO.:




**B** LIVING ROOM WEST WALL



**C** FAMILY ROOM EAST WALL





PROJECT PROGRESSION:	DATE:
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE 	09.10.20

## RESIDENTIAL REMODEL

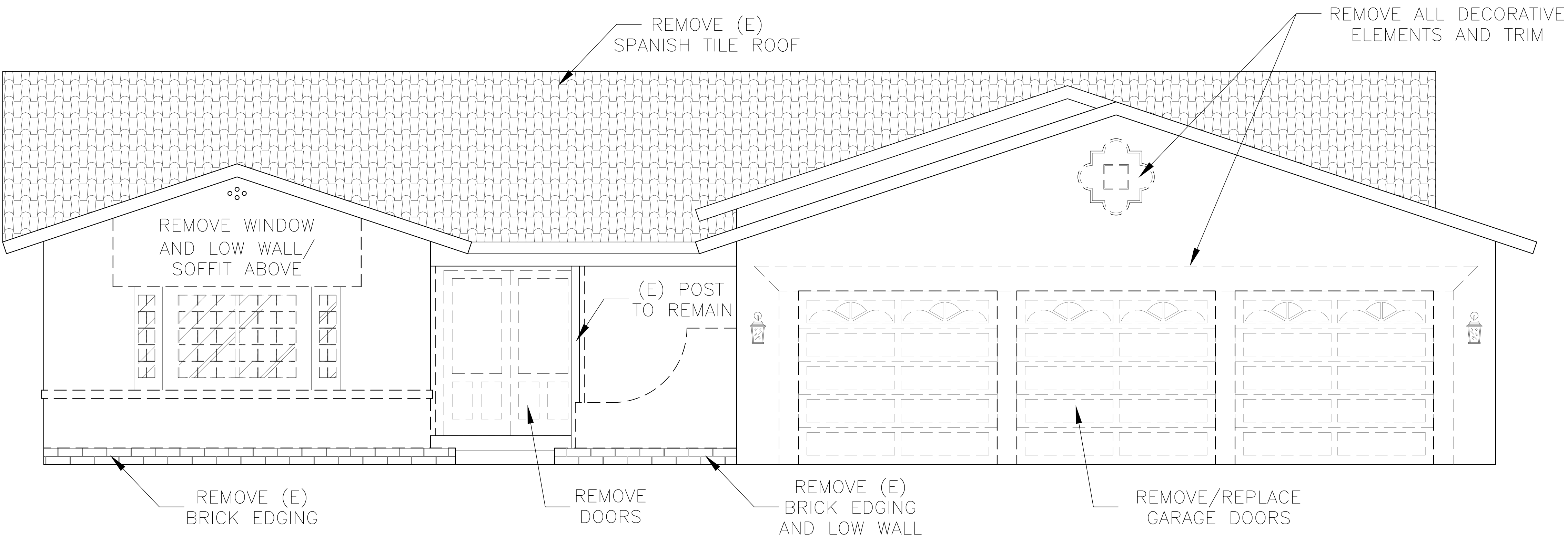
460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:  
EXISTING & PROPOSED  
EXTERIOR ELEVATIONS

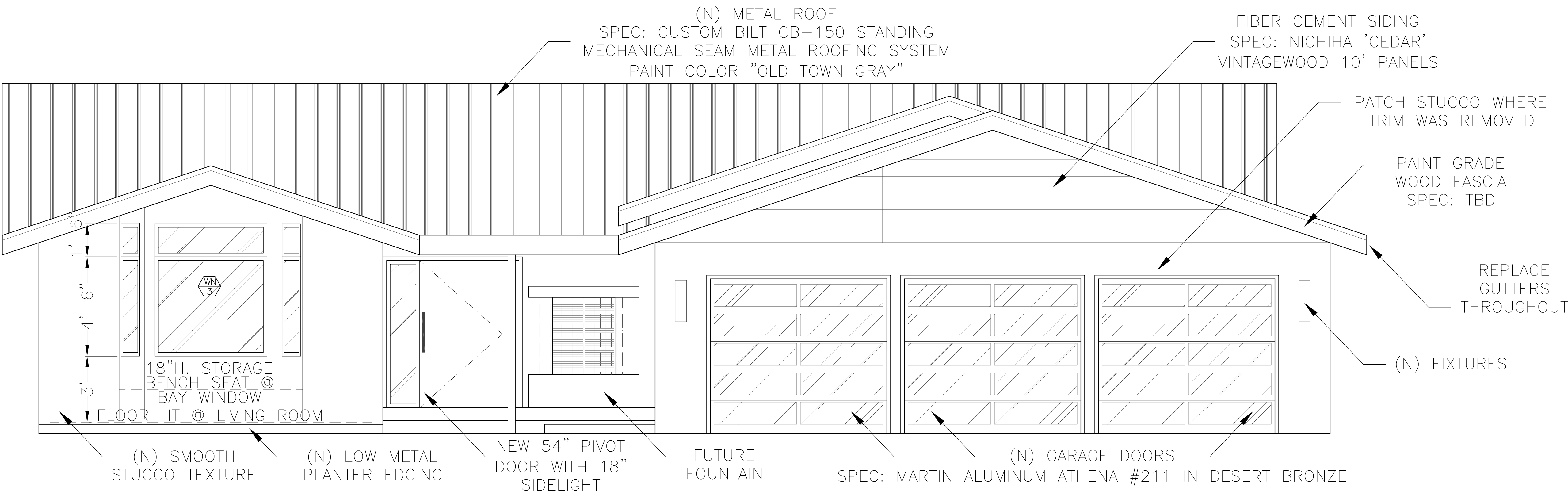
SCALE: 3/8" = 1'-0"  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

A-4.0

SHEET NO.:

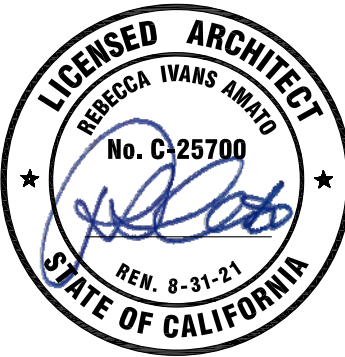
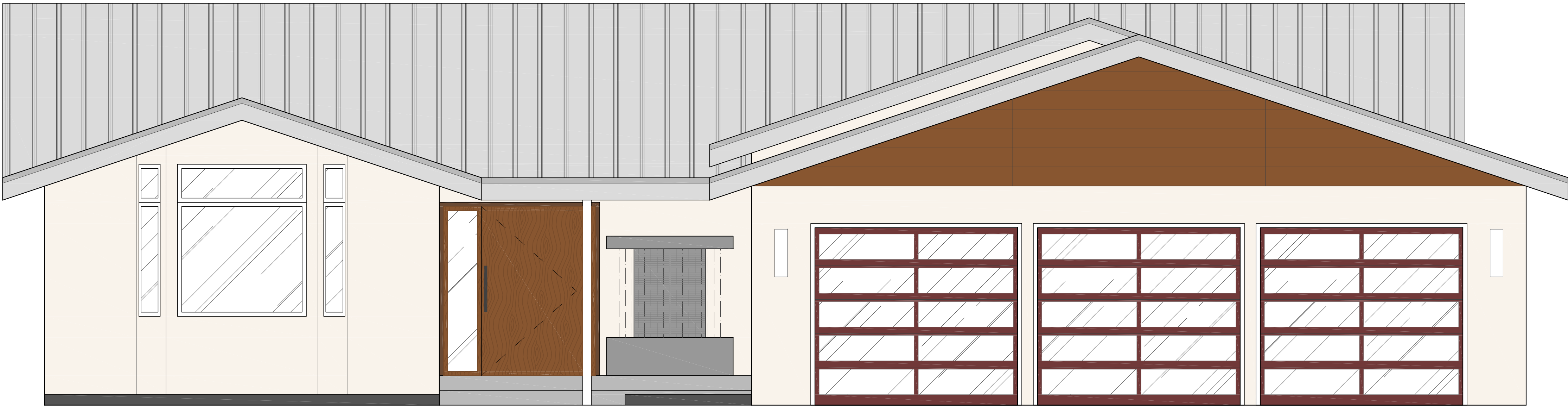



D EXISTING FRONT ELEVATION - FACING NORTH



E PROPOSED FRONT ELEVATION - FACING NORTH





PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE 	09.10.20

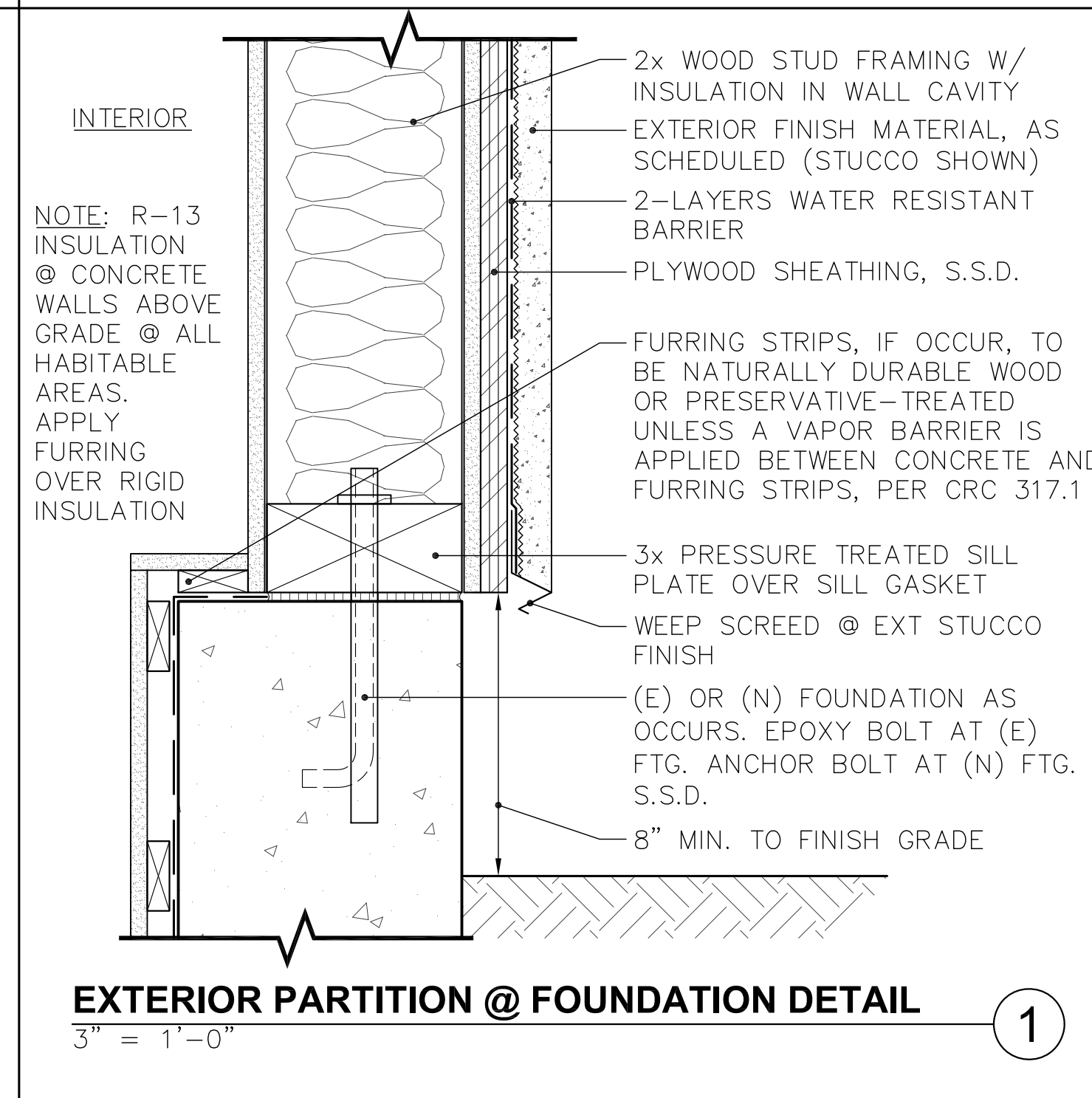
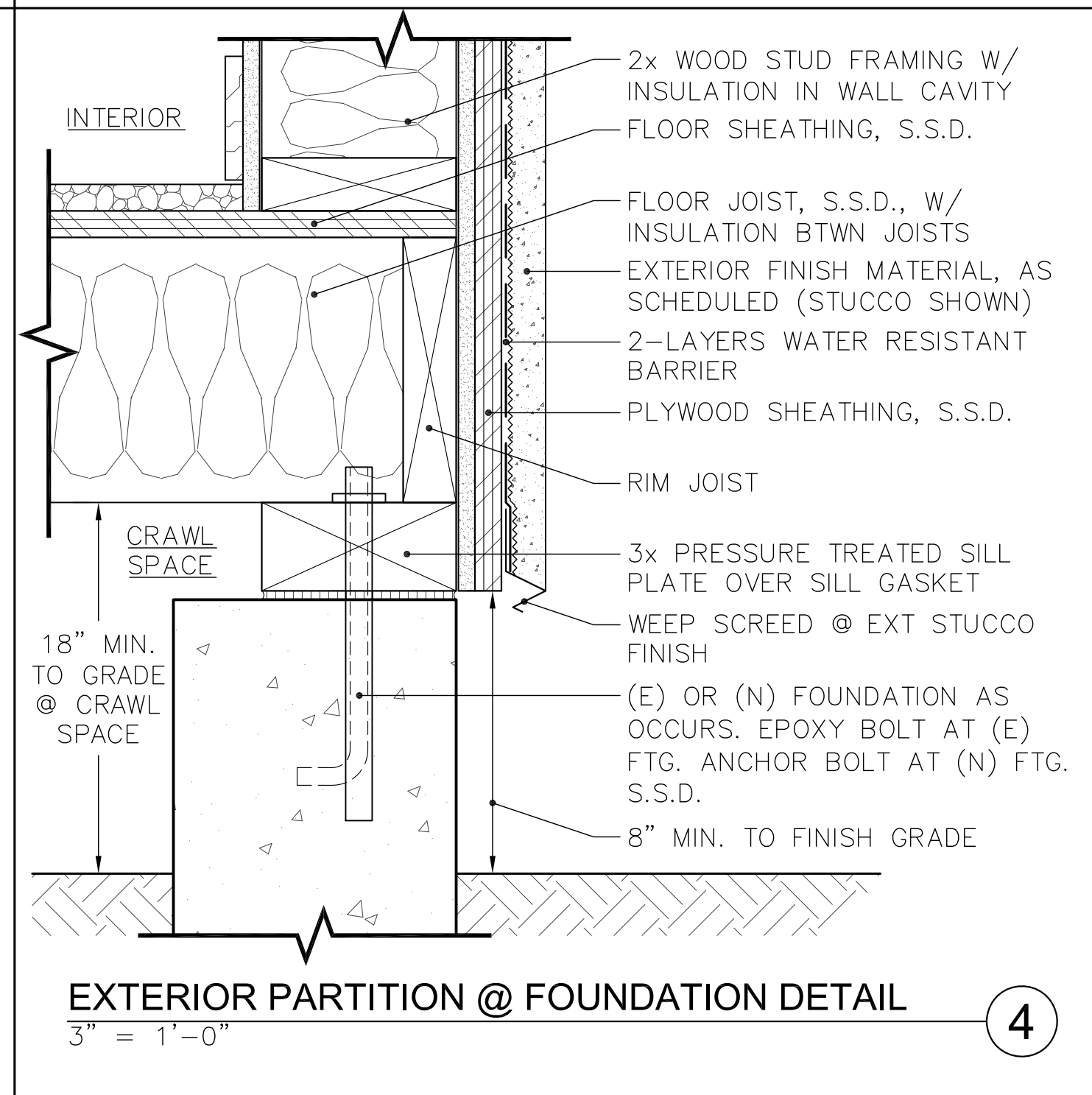
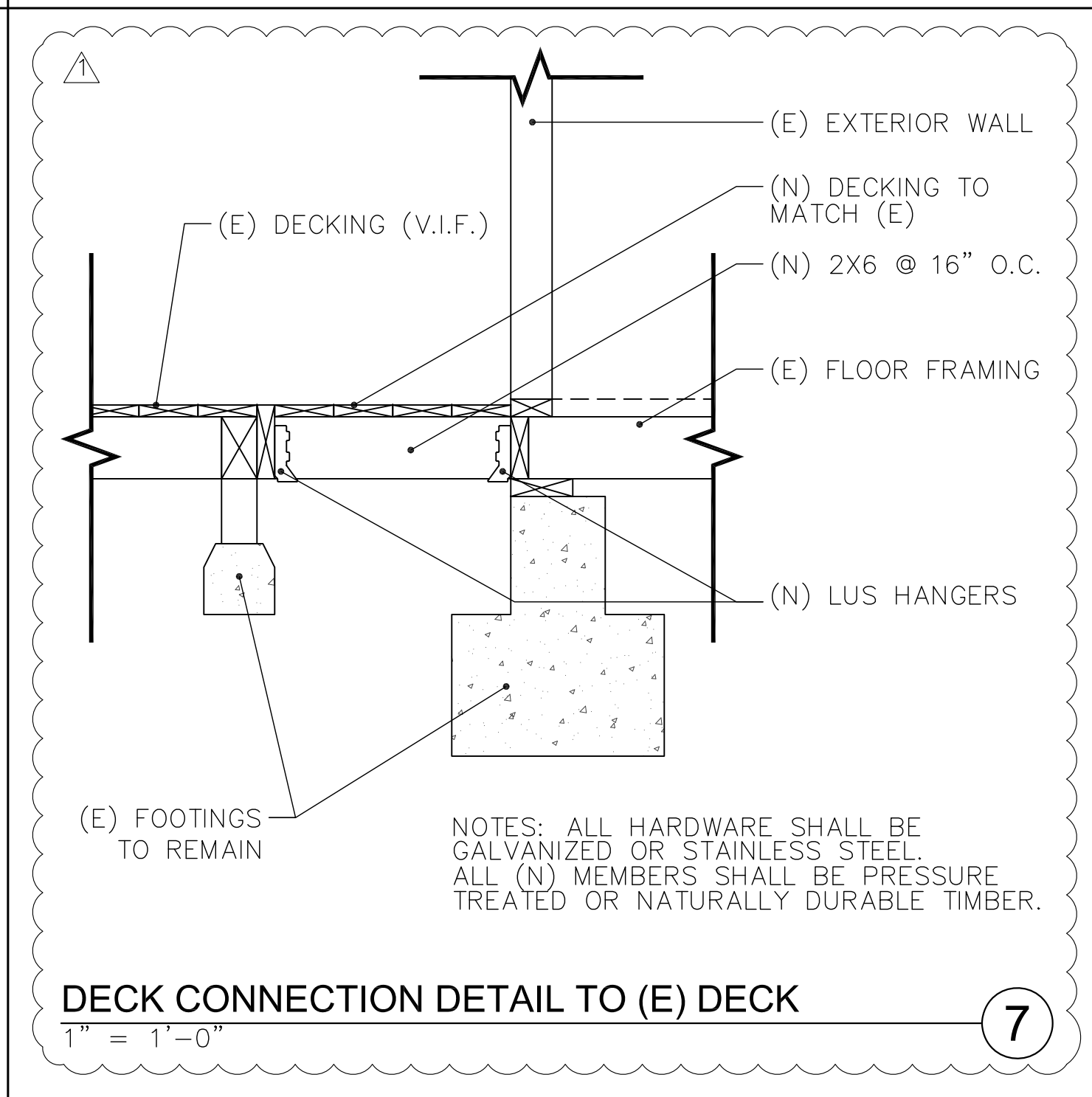
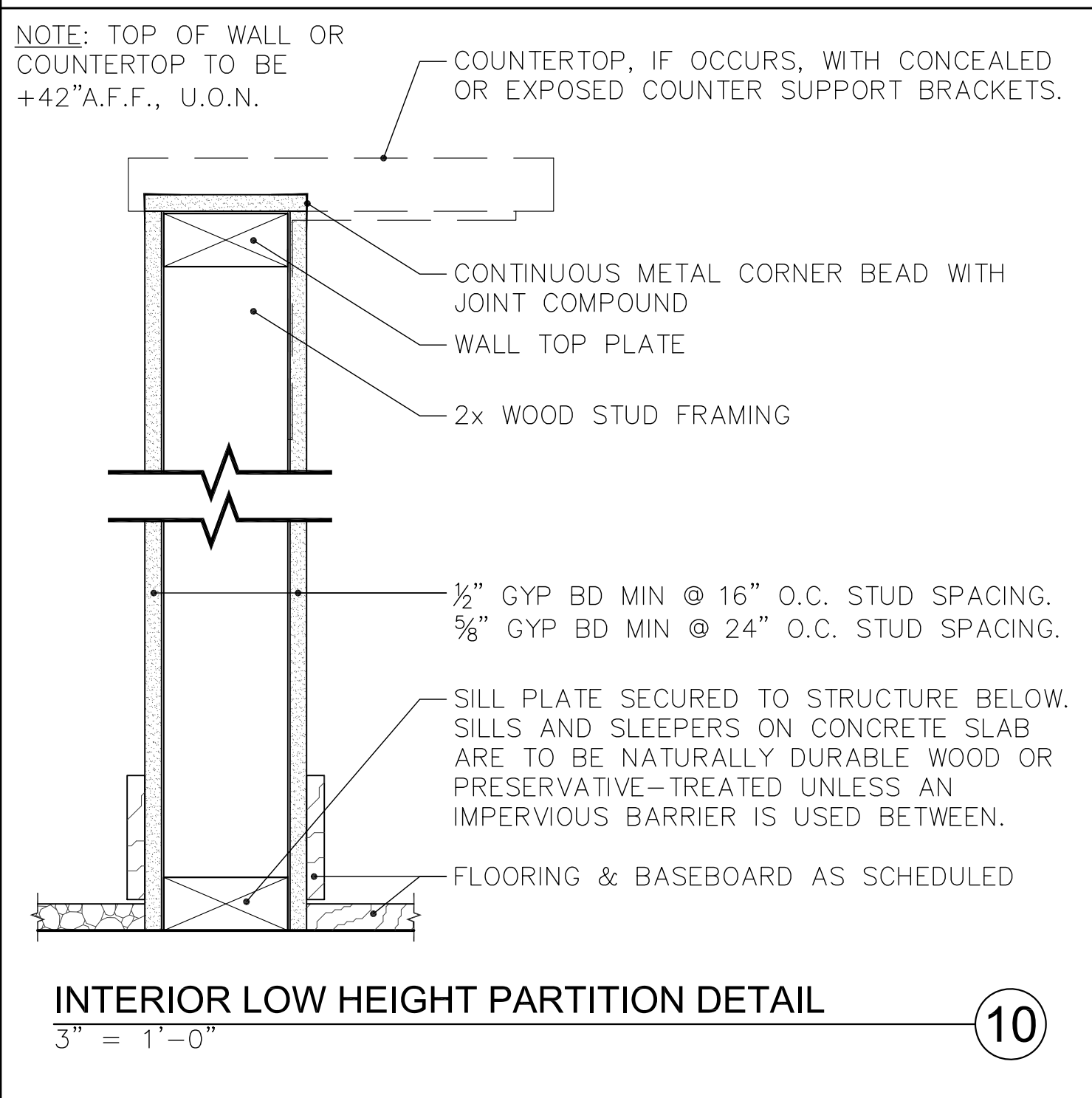
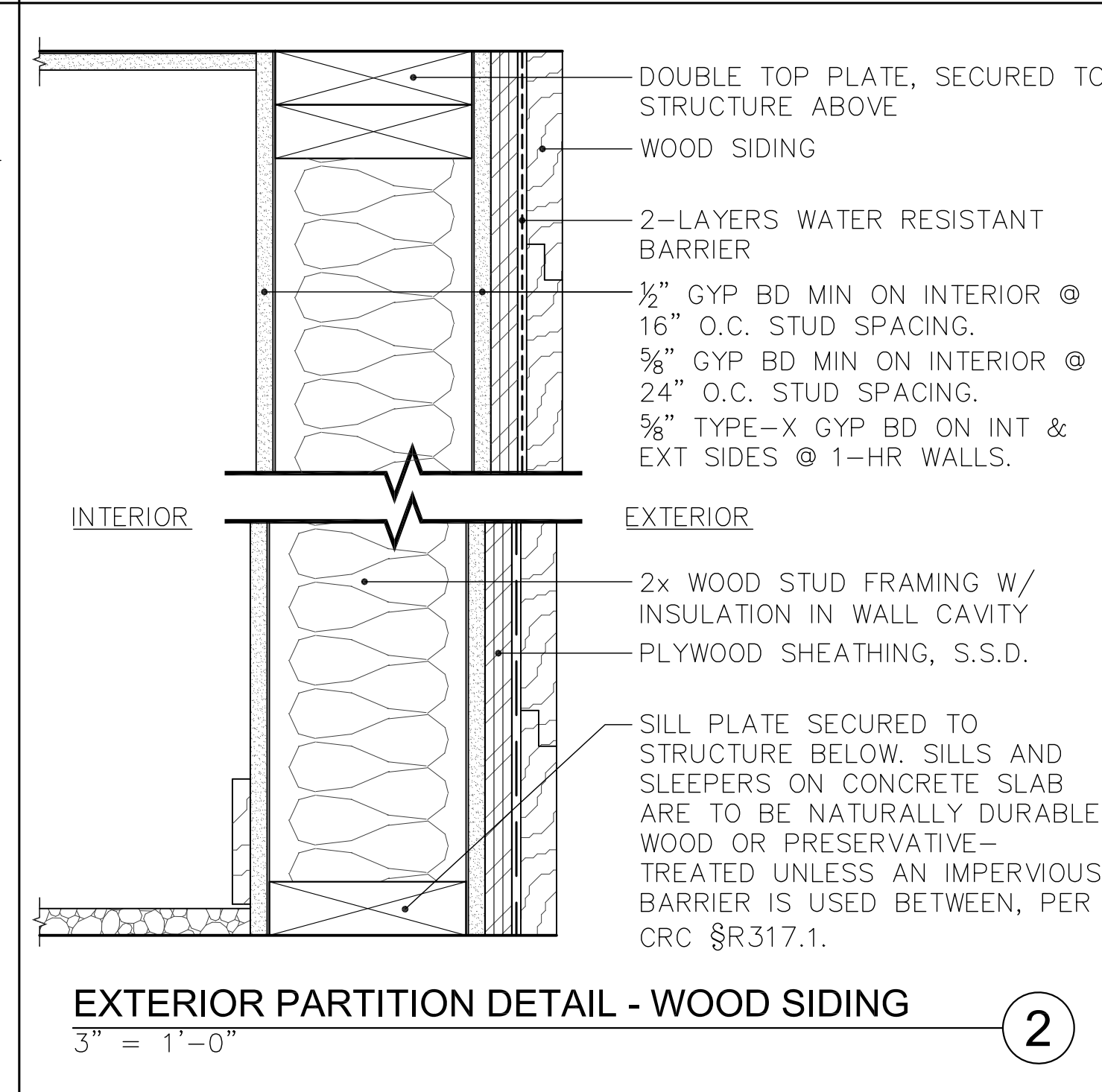
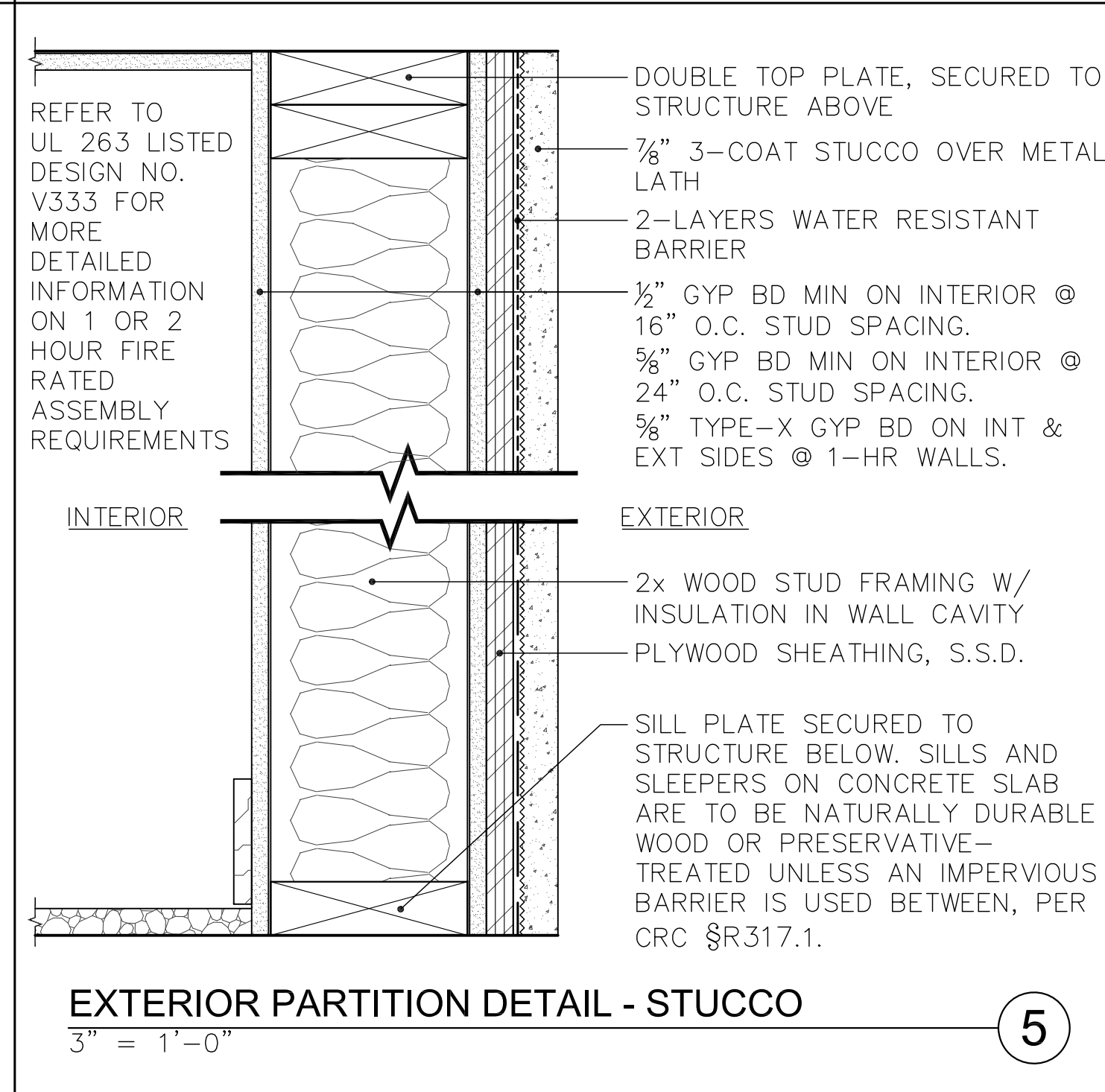
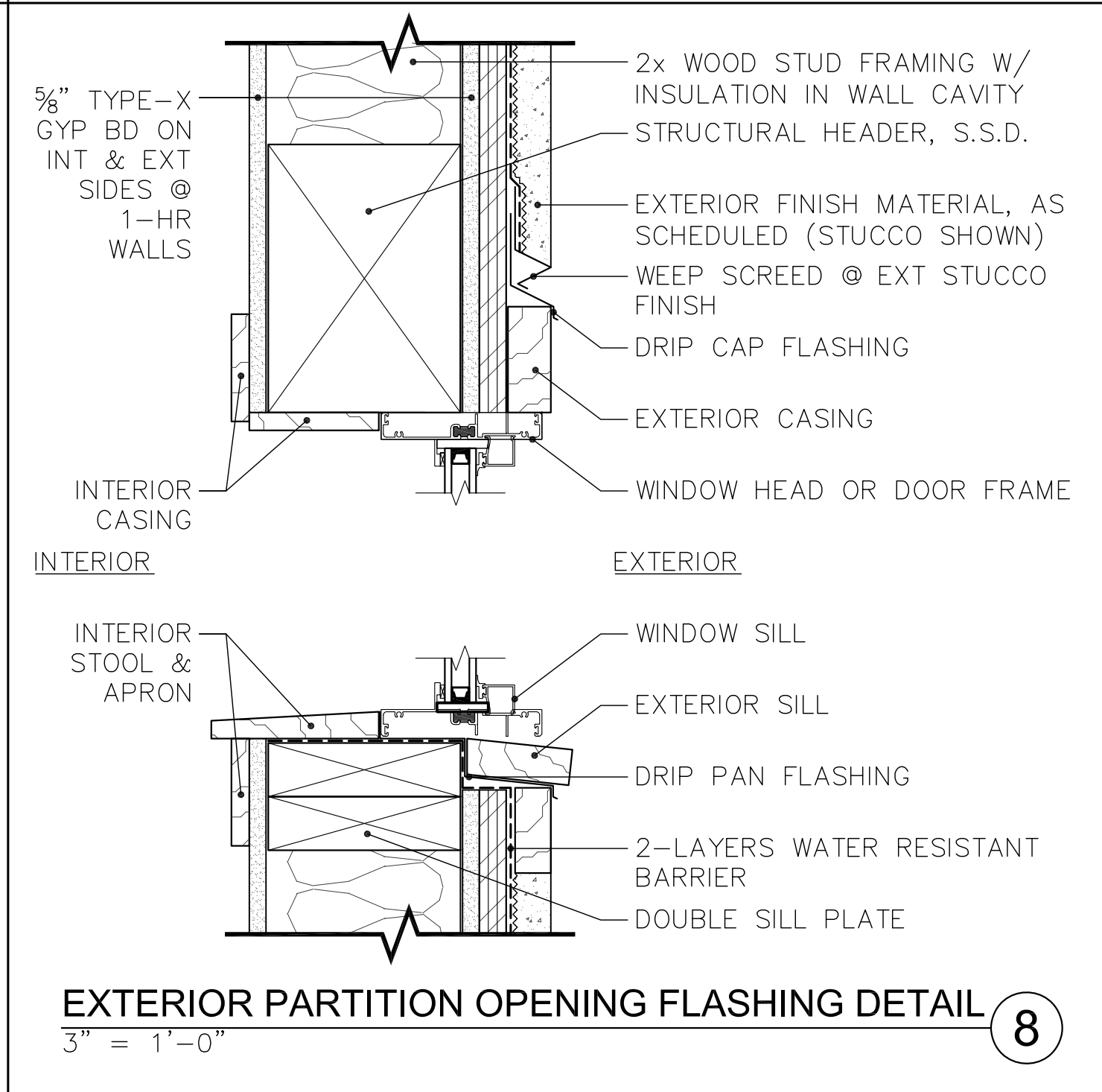
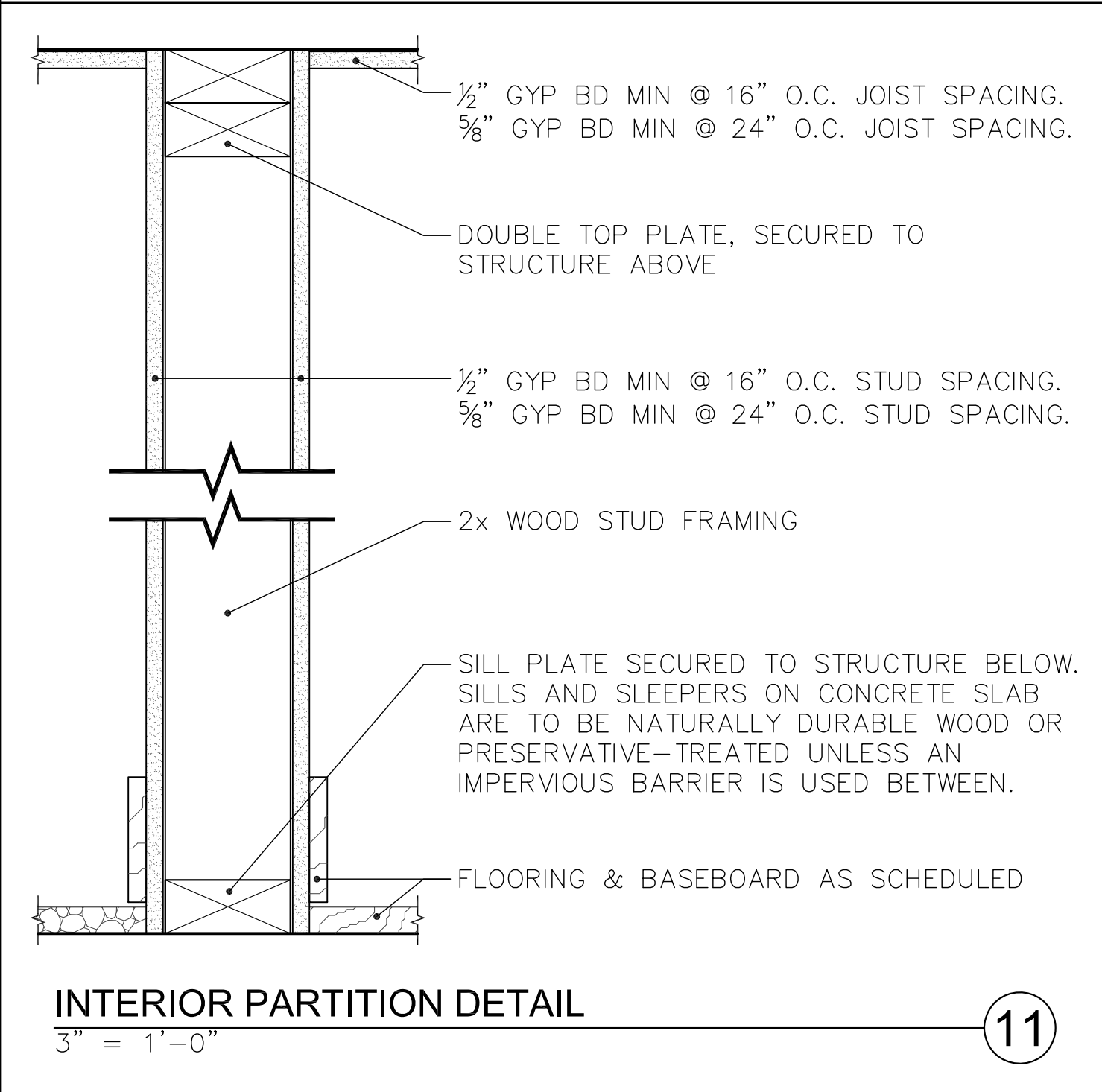
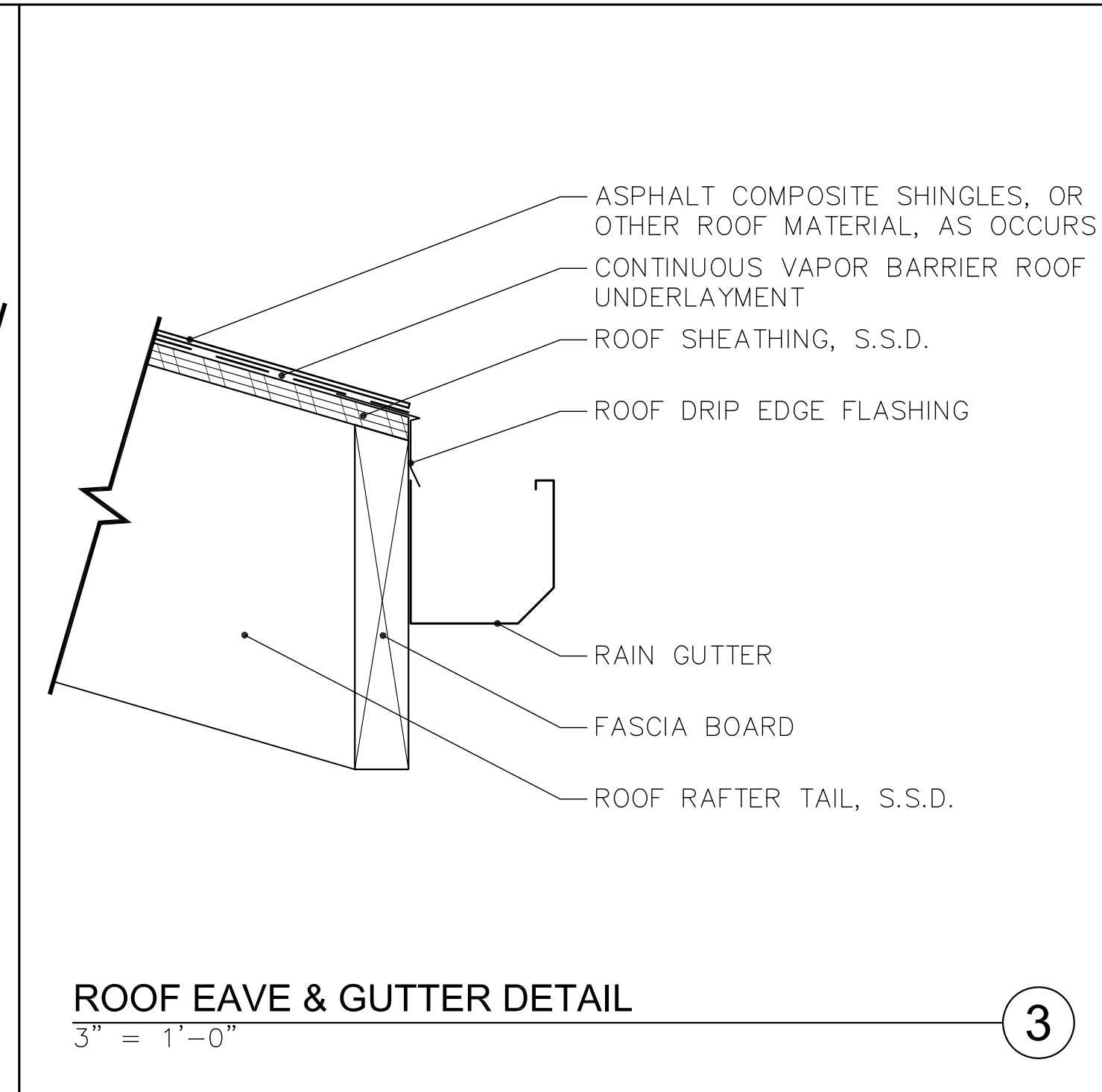
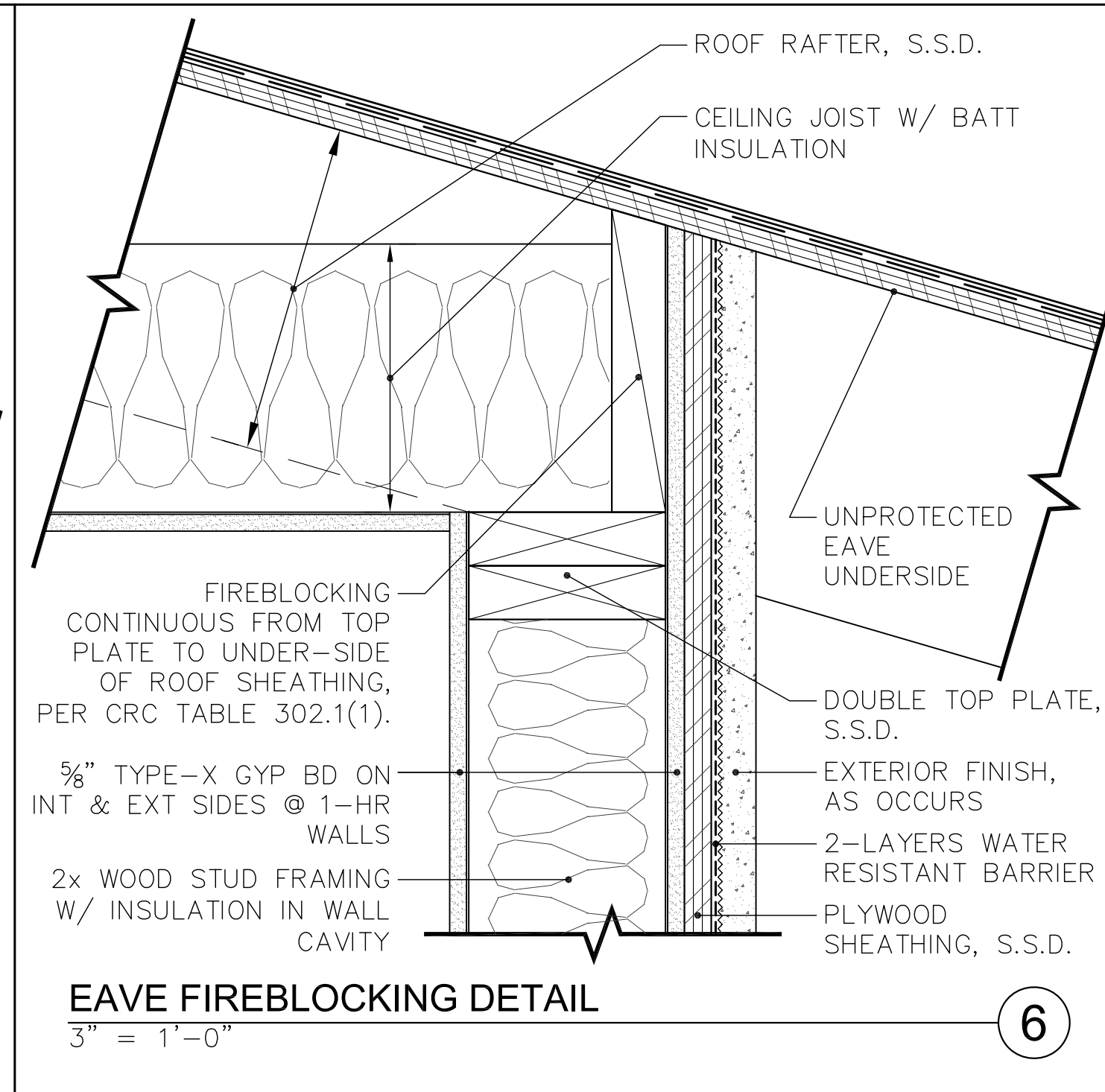
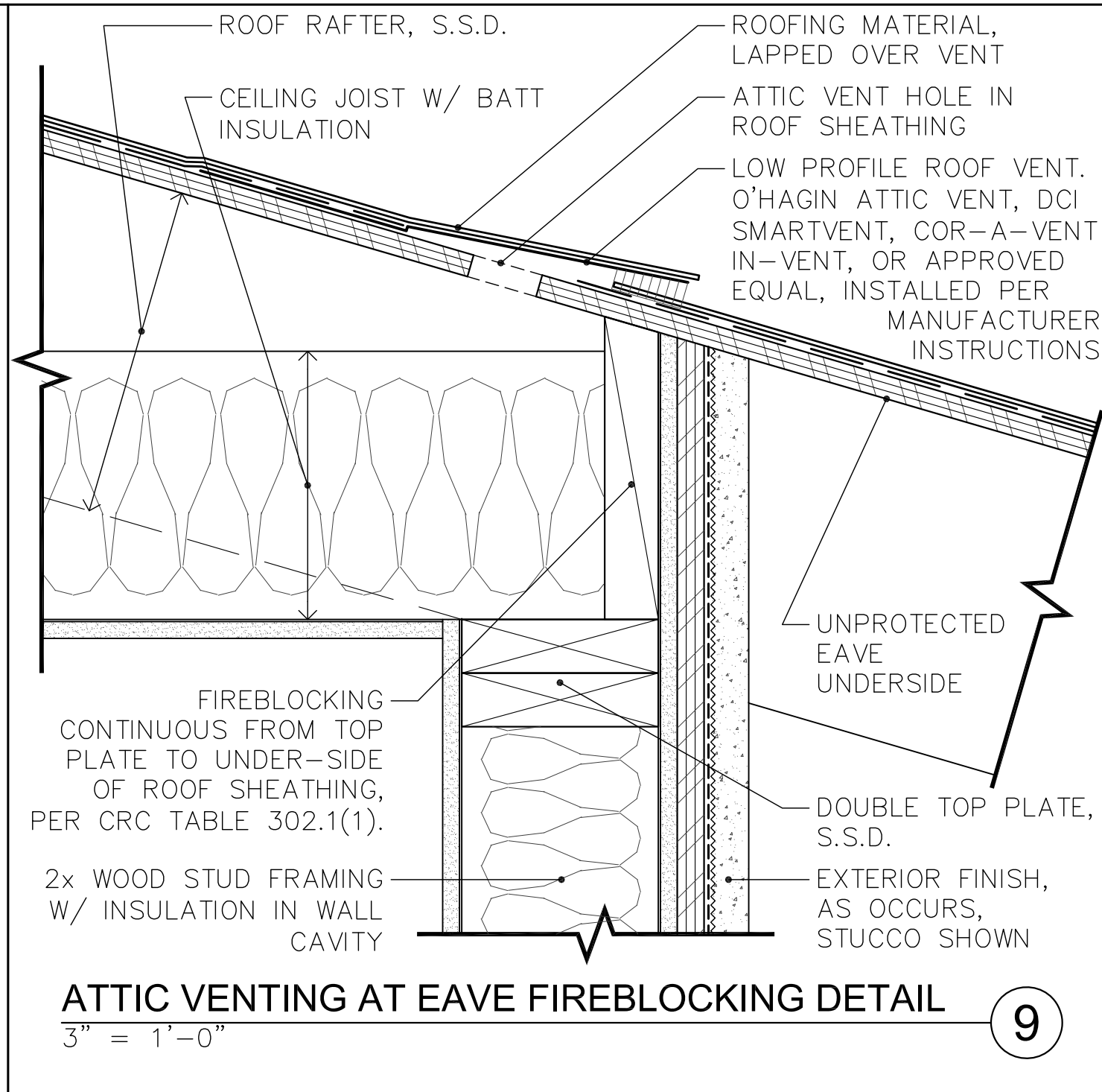
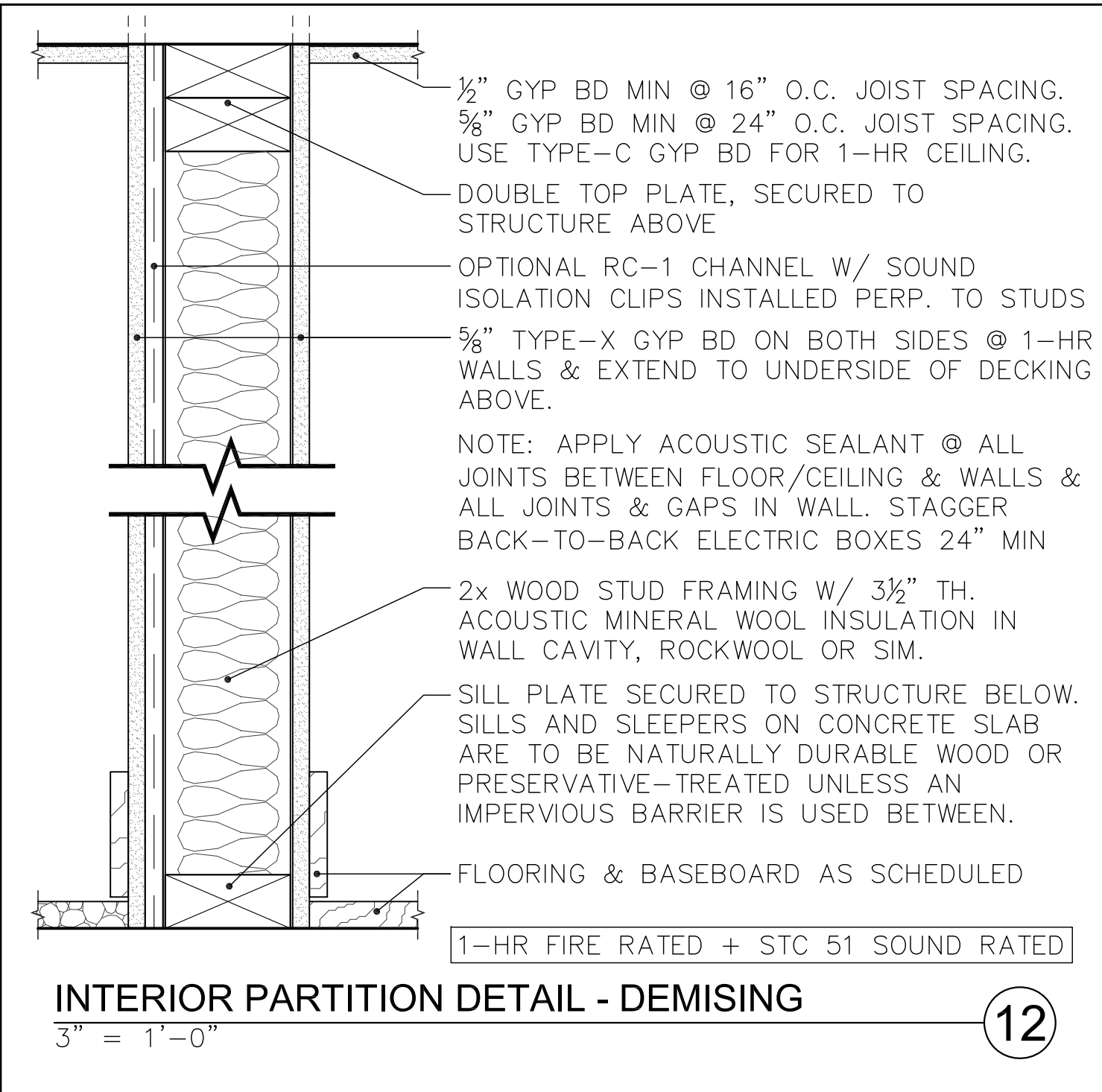
RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:  
PROPOSED EXTERIOR  
COLOR RENDERING

SCALE: 3/8" = 1'-0"  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN





1396 PARK AVENUE  
EMERYVILLE CA, 94608  
TELE 510.420.0210  
CELL 510.499.2080

PROJECT PROGRESSION:	DATE:
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

# RESIDENTIAL REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

## CONSTRUCTION DETAILS

SCALE: N/A  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

# A-6.0

SHEET NO.:




BUILDING ENERGY ANALYSIS REPORT

PROJECT:

460 Apricot Lane Remodel  
460 Apricot Lane  
Mountain View, CA 94040

Project Designer:  
Amato Architecture  
1396 Park Ave.  
Emeryville, CA 94608  
510.420.0210

Report Prepared by:  
David Hensel, PE  
Hensel Consulting Engineers, Inc.  
5857 Owens Ave., 3rd Floor  
Carlsbad, CA 92008  
(619) 665-3259



Job Number:  
20216

Date:  
7/3/2020

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2019 Building Energy Efficiency Standards.  
This program developed by EnergySoft Software – www.energysoft.com.

TABLE OF CONTENTS	
Cover Page	1
Table of Contents	2
Form CF1R-PRF-01-E Certificate of Compliance	3
Form RMS-1 Residential Measures Summary	14
Form MF-1R Mandatory Measures Summary	16

CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Calculation Description: Title 24 Analysis

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E  
(Page 1 of 11)

GENERAL INFORMATION				
01	Project Name	460 Apricot Lane Remodel		
02	Run Title	Title 24 Analysis		
03	Project Location	460 Apricot Lane		
04	City	Mountain View	05	Standards Version
06	Zip code	94040	07	Software Version
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)
10	Building Type	Single family	11	Number of Dwelling Units
12	Project Scope	AdditionAlteration	13	Number of Bedrooms
14	Addition Cond. Floor Area (ft²)	0	15	Number of Stories
16	Existing Cond. Floor Area (ft²)	2194	17	Fenestration Average U-factor
18	Total Cond. Floor Area (ft²)	2194	19	Glazing Percentage (%)
20	ADU Bedroom Count	0	21	ADU Conditioned Floor Area
22	Is Natural Gas Available?	Yes		

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	Building does not require field testing or HERS verification
03	Building does not incorporate Special Features

ENERGY USE SUMMARY				
Energy Use (kTODV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	27.93	27.91	0.02	0.1
Space Cooling	33.5	32.01	1.49	4.4
IAQ Ventilation	0	0	0	
Water Heating	16.27	16.27	0	0
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	77.7	76.19	1.51	1.9

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24

CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Calculation Description: Title 24 Analysis

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E  
(Page 2 of 11)

REQUIRED SPECIAL FEATURES	
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.	
• NO SPECIAL FEATURES REQUIRED	

HERS FEATURE SUMMARY	
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry	
Building-level Verifications: <ul style="list-style-type: none"><li>-- None --</li></ul> Cooling System Verifications: <ul style="list-style-type: none"><li>-- None --</li></ul> Heating System Verifications: <ul style="list-style-type: none"><li>-- None --</li></ul> HVAC Distribution System Verifications: <ul style="list-style-type: none"><li>-- None --</li></ul> Domestic Hot Water System Verifications: <ul style="list-style-type: none"><li>-- None --</li></ul>	

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
460 Apricot Lane Remodel	2194	1	4	1	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
First Floor-Existing	Conditioned	Existing HVAC1	2194	8	DHW Sys 1	N/A

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24

CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Calculation Description: Title 24 Analysis

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E  
(Page 3 of 11)

OPAQUE SURFACES										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Existing Front Wall	First Floor-Existing	Default Wall 1978 to 1991	180	Front	200	67	90	none	Existing	No
Existing Rear Wall	First Floor-Existing	Default Wall 1978 to 1991	0	Back	414	150.5	90	none	Existing	No
Existing Left Wall	First Floor-Existing	Default Wall 1978 to 1991	270	Left	457	36	90	none	Existing	No
Existing Right Wall	First Floor-Existing	Default Wall 1978 to 1991	90	Right	464	48	90	none	Existing	No
Existing FrontL Wall	First Floor-Existing	Default Wall 1978 to 1991	240	n/a	19	9	90	none	Existing	No
Existing FrontR Wall	First Floor-Existing	Default Wall 1978 to 1991	120	n/a	19	9	90	none	Existing	No
Existing RearL Wall	First Floor-Existing	Default Wall 1978 to 1991	315	n/a	19	4.5	90	none	Existing	No
Existing RearR Wall	First Floor-Existing	Default Wall 1978 to 1991	45	n/a	19	4.5	90	none	Existing	No
Existing Interior Surface	First Floor-Existing>>__Garage__	R-13 Wall	n/a	n/a	224	0	n/a		Existing	No
Existing Roof 2	First Floor-Existing	Default Roof 1978-2013	n/a	n/a	2187	n/a	n/a		Existing	No
Existing Roof 3	__Garage__	Default Roof 1978-2013	n/a	n/a	710	n/a	n/a		Existing	No
Existing Raised Floor	First Floor-Existing	Default Floor Crawlspace	n/a	n/a	2194	n/a	n/a		Existing	No
Existing Front Wall 2	__Garage__	Default Wall 1978 to 1991	225	n/a	245	168	90	none	Existing	No
Existing Rear Wall 2	__Garage__	Default Wall 1978 to 1991	0	Back	32	0	90	none	Existing	No

Registration Number:

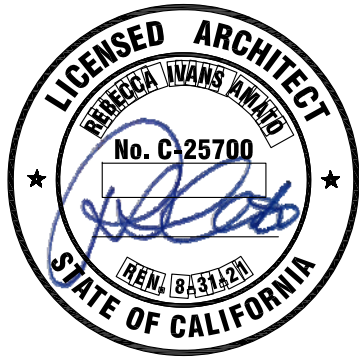
CA Building Energy Efficiency Standards - 2019 Residential Compliance


Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24



PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE 	09.10.20

RESIDENTIAL  
REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

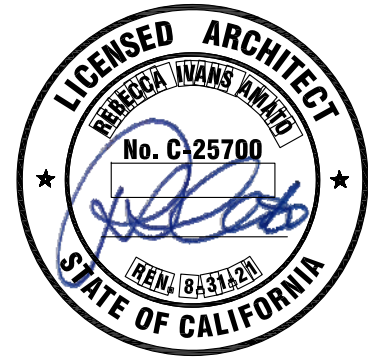
SHEET TITLE:  
TITLE 24  
CALCULATIONS

SCALE: N/A  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

T-24.1

SHEET NO.:





PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

# RESIDENTIAL REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

TITLE 24  
CALCULATIONS

SCALE: N/A

DRAWN BY: RA/MM

JOB #: 2019-52

PLOT PLAN

T-24.2

SHEET NO.:

CERTIFICATE OF COMPLIANCE  
Project Name: 460 Apricot Lane Remodel  
Calculation Description: Title 24 Analysis  
Calculation Date/Time: 2020-07-03T10:32:00-07:00  
Input File Name: 460 Apricot Lane Remodel.rbd19x  
CF1R-PRF-01E  
(Page 4 of 11)

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Existing Left Wall 2	___Garage___	Default Wall 1978 to 1991	270	Left	202	28	90	none	Existing	No
Existing Right Wall 2	___Garage___	Default Wall 1978 to 1991	90	Right	184	0	90	none	Existing	No

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Area (ft <sup>2</sup> )	Skylight Area (ft <sup>2</sup> )	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof	Status	Verified Existing Condition	Existing Construction
Existing Roof	First Floor-Existing	Default Roof 1978-20131	180	Back	7.1	7	3	0.1	0.85	No	Existing	No	

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
Attic ___Garage___	Attic Garage Roof Cons	Ventilated	3	0.1	0.85	No	No	Existing	No
Attic First Floor-Existing	Attic RoofFirst Floor-Existing	Ventilated	3	0.1	0.85	No	No	Existing	No

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
New Window, WN3.1	Window	Existing Front Wall	Front	180			1	27	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
New Swinging Doors, DR2	Window	Existing Front Wall	Front	180			1	40	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.1.108  
Schema Version: rev 20200101  
Registration Date/Time: 2020-07-03 10:32:24  
HERS Provider: Report Generated: 2020-07-03 10:32:24

CERTIFICATE OF COMPLIANCE  
Project Name: 460 Apricot Lane Remodel  
Calculation Description: Title 24 Analysis  
Calculation Date/Time: 2020-07-03T10:32:00-07:00  
Input File Name: 460 Apricot Lane Remodel.rbd19x  
CF1R-PRF-01E  
(Page 6 of 11)

01	02	03	04	05	06
Name	Side of Building	Area (ft <sup>2</sup> )	U-factor	Status	Verified Existing Condition
New Garage Door, DR3	Existing Front Wall 2	56	1	New	n/a
New Garage Door, DR3 2	Existing Front Wall 2	56	1	New	n/a
New Garage Door, DR3 3	Existing Front Wall 2	56	1	New	n/a

01	02	03	04	05	06	07	08	09
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Existing Slab-on-Grade	___Garage___	710	82	None	0%	No	Existing	No

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Default Wall 1978 to 1991	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-11	None / None	0.11	Inside Finish: Gypsum Board Cavity / Frame: R-11 / 2x4 Exterior Finish: 3 Coat Stucco
Default Roof 1978-20131	Cathedral Ceilings	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-19	None / None	0.061	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x4 Inside Finish: Gypsum Board
R-13 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.092	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Other Side Finish: Gypsum Board

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.1.108  
Schema Version: rev 20200101  
Registration Date/Time: 2020-07-03 10:32:24  
HERS Provider: Report Generated: 2020-07-03 10:32:24

CERTIFICATE OF COMPLIANCE  
Project Name: 460 Apricot Lane Remodel  
Calculation Description: Title 24 Analysis  
Calculation Date/Time: 2020-07-03T10:32:00-07:00  
Input File Name: 460 Apricot Lane Remodel.rbd19x  
CF1R-PRF-01E  
(Page 5 of 11)

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Existing Window	Window	Existing Rear Wall	Back	0			1	7.5	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
New Folding Door, DR1	Window	Existing Rear Wall	Back	0			1	90	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
New Window, WN1	Window	Existing Rear Wall	Back	0			1	6	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
Existing Sliding Door	Window	Existing Rear Wall	Back	0			1	47	0.53	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
Existing Window 2	Window	Existing Left Wall	Left	270			1	24	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
Existing Window 3	Window	Existing Left Wall	Left	270			1	12	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
Existing Window 4	Window	Existing Right Wall	Right	90			1	24	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
Existing Window 5	Window	Existing Right Wall	Right	90			1	24	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
New Window, WN3.2	Window	Existing FrontL Wall		240			1	9	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
New Window, WN3.2 2	Window	Existing FrontR Wall		120			1	9	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
Existing Window 6	Window	Existing RearL Wall		315			1	4.5	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
Existing Window 7	Window	Existing RearR Wall		45			1	4.5	0.58	Table 110.6-A	0.65	Table 110.6-B	Bug Screen	Existing	No
New Window, WN2	Window	Existing Left Wall 2	Left	270			1	28	0.32	NFRC	0.25	NFRC	Bug Screen	New	n/a
New Skylight	Skylight	Existing Roof	Back	0			1	1	0.32	NFRC	0.25	NFRC	None	New	n/a
New Skylight 2	Skylight	Existing Roof	Back	0			1	6	0.32	NFRC	0.25	NFRC	None	New	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.1.108  
Schema Version: rev 20200101  
Registration Date/Time: 2020-07-03 10:32:24  
HERS Provider: Report Generated: 2020-07-03 10:32:24

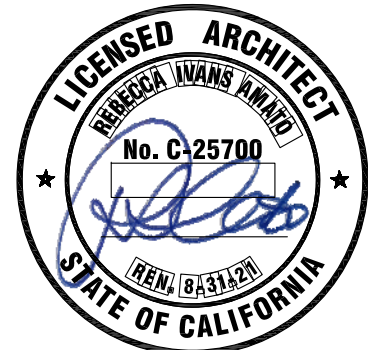
CERTIFICATE OF COMPLIANCE  
Project Name: 460 Apricot Lane Remodel  
Calculation Description: Title 24 Analysis  
Calculation Date/Time: 2020-07-03T10:32:00-07:00  
Input File Name: 460 Apricot Lane Remodel.rbd19x  
CF1R-PRF-01E  
(Page 7 of 11)

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic Garage Roof Cons	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Attic RoofFirst Floor-Existing	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Default Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 24 in. O. C.	R-11	None / None	0.068	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-11 / 2x6
Default Roof 1978-2013	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-19	None / None	0.049	Over Ceiling :oists: R-9.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

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

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.1.108  
Schema Version: rev 20200101  
Registration Date/Time: 2020-07-03 10:32:24  
HERS Provider: Report Generated: 2020-07-03 10:32:24





PROJECT PROGRESSION :	DATE :
ISSUE FOR REVIEW	09.19.19
ISSUE FOR REVIEW	11.08.19
ISSUE FOR PRICING	11.21.19
ISSUE FOR REVIEW	03.12.20
ISSUE FOR REVIEW	04.08.20
ISSUE FOR REVIEW/ENGINEERING	06.29.20
ISSUE FOR PERMIT	07.15.20
PLAN CHECK RESPONSE	09.10.20

# RESIDENTIAL REMODEL

460 APRICOT LANE  
MOUNTAIN VIEW, CA

SHEET TITLE:

TITLE 24  
CALCULATIONS

SCALE: N/A  
DRAWN BY: RA/MM  
JOB #: 2019-52  
PLOT PLAN

T-24.3

SHEET NO.:

## CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E

(Page 8 of 11)

WATER HEATING SYSTEMS									
01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a	Existing	No	

WATER HEATERS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	75	0.6-EF	<= 75 kBTu/hr	0	80	n/a	n/a	n/a	Existing	No

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

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24

## CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E

(Page 9 of 11)

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
Existing HVAC1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	1	1

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Central gas furnace	1	AFUE-80

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC - DISTRIBUTION SYSTEMS															
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
Air Distributi on System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distributi on System	Existing	No	n/a	n/a

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24

## CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E

(Page 10 of 11)

HVAC - DISTRIBUTION SYSTEMS															
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
											1-hers-dist				

HVAC FAN SYSTEMS - HERS VERIFICATION			01	02	03
			Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
			HVAC Fan 1-hers-fan	Not Required	0

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24

## CERTIFICATE OF COMPLIANCE

Project Name: 460 Apricot Lane Remodel

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2020-07-03T10:32:00-07:00

Input File Name: 460 Apricot Lane Remodel.rbd19x

CF1R-PRF-01E

(Page 11 of 11)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: David Hensel, PE	Documentation Author Signature: 
Company: Hensel Consulting Engineers, Inc.	Signature Date: 7/3/2020
Address: 5857 Owens Ave., 3rd Floor	CEA/HERS Certification Identification (if applicable): M32901
City/State/Zip: Carlsbad, CA 92008	Phone: (619) 665-3259
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Rebecca Ivans Amato, AIA	Responsible Designer Signature: 
Company: Amato Architecture	Date Signed: 09.10.20
Address: 1396 Park Ave.	License: C-25700
City/State/Zip: Emeryville, CA 94608	Phone: 510.420.0210

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.108  
Schema Version: rev 20200101

HERS Provider:

Report Generated: 2020-07-03 10:32:24



RESIDENTIAL MEASURES SUMMARY										RMS-1
Project Name 460 Apricot Lane Remodel		Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Multi Family				<input checked="" type="checkbox"/> Addition Alone <input checked="" type="checkbox"/> Existing+ Addition/Alteration		Date 7/3/2020		
Project Address 460 Apricot Lane Mountain View		California Energy Climate Zone CA Climate Zone 04		Total Cond. Floor Area 2,194		Addition 0		# of Units 1		
INSULATION		Area		Special Features		Status				
Construction	Type	Cavity	(ft <sup>2</sup> )							
Roof	Wood Framed Attic	R 19	2,187			Existing				
Floor	Wood Framed w/Crawl Space	R 11	2,194			Existing				
Wall	Wood Framed	R 11	133			Existing				
Wall	Wood Framed	R 11	264			Existing				
Wall	Wood Framed	R 11	421			Existing				
Wall	Wood Framed	R 11	416			Existing				
Wall	Wood Framed	R 11	10			Existing				
Wall	Wood Framed	R 11	10			Existing				
FENESTRATION		Total Area: 336		Glazing Percentage: 15.3%		New/Altered Average U-Factor:		0.32		
Orientation	Area(ft <sup>2</sup> )	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status			
Skylight	7.0	0.320	0.25	none	none	N/A	New			
Front (S)	27.0	0.320	0.25	none	none	N/A	New			
Front (S)	40.0	0.320	0.25	none	none	N/A	New			
Rear (W)	7.5	0.580	0.65	none	none	N/A	Existing			
Rear (W)	90.0	0.320	0.25	none	none	N/A	New			
Rear (W)	6.0	0.320	0.25	none	none	N/A	New			
Rear (W)	47.0	0.530	0.65	none	none	N/A	Existing			
Left (W)	36.0	0.580	0.65	none	none	N/A	Existing			
Right (E)	48.0	0.580	0.65	none	none	N/A	Existing			
Left (SW)	9.0	0.320	0.25	none	none	N/A	New			
Right (SE)	9.0	0.320	0.25	none	none	N/A	New			
Left (NW)	4.5	0.580	0.65	none	none	N/A	Existing			
Rear (NE)	4.5	0.580	0.65	none	none	N/A	Existing			
HVAC SYSTEMS										
Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status				
1	Central Furnace	80% AFUE	Split Air Conditioner	14.0 SEER	Setback	Existing				
HVAC DISTRIBUTION										
Location	Heating	Cooling	Duct Location	Duct R-Value	Status					
Existing HVAC	Ducted	Ducted	Attic	6.0	Existing					
WATER HEATING										
Qty.	Type	Gallons	Min. Eff	Distribution	Status					
EnergyPro 8.1 by EnergySoft User Number: 6160 ID: 20216 Page 14 of 19										



## 2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(h)3A:	<b>Clearances.</b> Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	<b>Liquid Line Drier.</b> Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(i)1:	<b>Storage Tank Insulation.</b> Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(i)2A:	<b>Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.</b> All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures. *
§ 150.0(i)3:	<b>Insulation Protection.</b> Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(i)1:	<b>Gas or Propane Water Heating Systems.</b> Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use," a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(m)2:	<b>Recirculating Loops.</b> Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(m)3:	<b>Solar Water-heating Systems.</b> Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	<b>Ducts.</b> Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	<b>CMC Compliance.</b> All air distribution system ducts and plenums must meet the requirements of the CMC §§ 801.6, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 where ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3, 1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned spaces are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than 1/4 inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area. *
§ 150.0(m)2:	<b>Factory-Fabricated Duct Systems.</b> Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth backer adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	<b>Field-Fabricated Duct Systems.</b> Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	<b>Backdraft Damper.</b> Fan systems that exchanging air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	<b>Gravity Ventilation Dampers.</b> Gravity ventilation systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	<b>Protection of Insulation.</b> Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	<b>Porous Inner Core Flex Duct.</b> Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	<b>Duct System Sealing and Leakage Test.</b> When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	<b>Air Filtration.</b> Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in § 150.0(m)12. Filters must be accessible for regular service. *
§ 150.0(m)13:	<b>Space Conditioning System Airflow Rate and Fan Efficiency.</b> Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be a 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≥ 0.45 watts per CFM for gas furnace air handlers and ≥ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≥ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *



## 2019 Low-Rise Residential Mandatory Measures Summary

Requirements for Ventilation and Indoor Air Quality:	
§ 150.0(i)1:	<b>Requirements for Ventilation and Indoor Air Quality.</b> All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(i)1.
§ 150.0(i)1C:	<b>Single Family Detached Dwelling Units.</b> Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(i)1C.
§ 150.0(i)1E:	<b>Multi-Family Attached Dwelling Units.</b> Multi-family attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.9.
§ 150.0(i)1F:	<b>Multi-Family Building Central Ventilation Systems.</b> Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(i)1G:	<b>Kitchen Range Hoods.</b> Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(i)2:	<b>Field Verification and Diagnostic Testing.</b> Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by IMV to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Systems and Equipment Measures:	
§ 110.4(a):	<b>Certification by Manufacturers.</b> Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating. *
§ 110.4(b)1:	<b>Piping.</b> Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	<b>Covers.</b> Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	<b>Directional Inlets and Time Switches for Pools.</b> Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	<b>Pilot Light.</b> Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	<b>Pool Systems and Equipment Installation.</b> Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves. *
Lighting Measures:	
§ 110.9:	<b>Lighting Controls and Components.</b> All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.
§ 150.0(k)1A:	<b>Luminaire Efficacy.</b> All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	<b>Blank Electrical Boxes.</b> The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	<b>Recessed Downlight Luminaires in Ceilings.</b> Luminaires recessed into ceilings must meet all of the requirements for insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	<b>Electronic Ballasts for Fluorescent Lamps.</b> Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	<b>Night Lights, Step Lights, and Path Lights.</b> Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	<b>Lighting Integral to Exhaust Fans.</b> Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k). *
§ 150.0(k)1G:	<b>Screw based luminaires.</b> Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1H:	<b>Light Sources in Enclosed or Recessed Luminaires.</b> Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	<b>Light Sources in Drawers, Cabinets, and Linen Closets.</b> Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	<b>Interior Switches and Controls.</b> All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	<b>Interior Switches and Controls.</b> Exhaust fans must be controlled separately from lighting systems. *
§ 150.0(k)2C:	<b>Interior Switches and Controls.</b> Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned On and Off. *
§ 150.0(k)2D:	<b>Interior Switches and Controls.</b> Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	<b>Interior Switches and Controls.</b> Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	<b>Interior Switches and Controls.</b> Lighting controls must comply with the applicable requirements of § 110.9.



## 2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. \*Exceptions may apply.  
(01/2020)

Building Envelope Measures:	
§ 110.6(a)1:	<b>Air Leakage.</b> Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 1011.5.2/AA40-2011. *
§ 110.6(a)5:	<b>Labeling.</b> Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	<b>Field fabricated exterior doors and fenestration products</b> must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or J44.5 for exterior doors. They must be caulked and/or weather-stripped. *
§ 110.7:	<b>Air Leakage.</b> All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	<b>Insulation Certification by Manufacturers.</b> Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	<b>Insulation Requirements for Heated Slab Floors.</b> Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(h):	<b>Roofing Products Solar Reflectance and Thermal Emittance.</b> The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(h) and be labeled per §10-113 when the installation of a cool roof is specified on the CFR.
§ 110.8(j):	<b>Radiant Barrier.</b> When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	<b>Ceiling and Rafter Roof Insulation.</b> Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling. *
§ 150.0(b):	<b>Loose-fill Insulation.</b> Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	<b>Wall Insulation.</b> Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B. *
§ 150.0(d):	<b>Raised-floor Insulation.</b> Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. *
§ 150.0(f):	<b>Slab Edge Insulation.</b> Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	<b>Vapor Retarder.</b> In climate zones 1 through 16, the earth floor or unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	<b>Vapor Retarder.</b> In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	<b>Fenestration Products.</b> Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58. *
Fireplaces, Decorative Gas Appliances, and Gas Log Measures:	
§ 110.5(e):	<b>Pilot Light.</b> Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	<b>Closable Doors.</b> Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	<b>Combustion Intake.</b> Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and light-fitting damper or combustion-air control device. *
§ 150.0(e)3:	<b>Flue Damper.</b> Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.5(c) 110.3:	<b>Certification.</b> Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
§ 110.2(a):	<b>HVAC Efficiency.</b> Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K. *
§ 110.2(b):	<b>Controls for Heat Pumps with Supplementary Electric Resistance Heaters.</b> Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone, and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
§ 110.2(c):	<b>Thermostats.</b> All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *
§ 110.3(c)4:	<b>Water Heating Recirculation Loops Serving Multiple Dwelling Units.</b> Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c).
§ 110.3(c)6:	<b>Isolation Valves.</b> Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	<b>Pilot Lights.</b> Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *
§ 150.0(h)1:	<b>Building Cooling and Heating Loads.</b> Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.



## 2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2G:	<b>Interior Switches and Controls.</b> An energy management control system (EMCS) may be used to comply with control requirements if it provides functionality of the specified control according to § 110.9, meets the Installation Certificate requirements of § 130.4, meets the EMCS requirements of § 130.0(e), and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	<b>Interior Switches and Controls.</b> A multisense programmable controller may be used to comply with dimmer requirements in § 150.0(k)1 if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	<b>Interior Switches and Controls.</b> In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	<b>Interior Switches and Controls.</b> Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls. *
§ 150.0(k)2K:	<b>Interior Switches and Controls.</b> Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	<b>Residential Outdoor Lighting.</b> For single-family



LEGEND / SYMBOLS:

	DETAIL NUMBER SHEET NUMBER
	VERTICAL TIE DOWN STRAP.
	SHEAR WALL BELOW ROOF OR FLOOR FRAMING, SEE SHEAR WALL SCHEDULE 4/S2.2 FOR MORE INFO.
	FLUSH / CEILING BEAM OR CEILING JST. SEE PLAN FOR SIZES
	FRAMING MEMBERS: RAFTER & FLOOR JOISTS SEE PLAN FOR SIZES
	HORIZONTAL STRAPS, SEE PLAN FOR SIZES
	STD HGR.
	SKREW HGR.
	HIP TO RIDGE HANGERS, HIRC U.O.N.
	POST ABOVE OR KING POST, SEE PLAN FOR SIZES
	POST BELOW ROOF OR FLOOR FRAMING, SEE PLAN FOR SIZES
	2x TRIMMER UNDER HDR, U.O.N. 2x K.S. BEYOND HDR, U.O.N.
	(E) WALL TO BE REMOVED
	FRAMING MEMBER MID-POINT BEARING WALL BELOW
	FRAMING MEMBER
	DIAGRAMMATIC EXTENT OF FRAMING
	OPENING IN ROOF OR FLOOR DIAPHRAGM, SEE DETAIL 7/S2.1 FOR MORE INFO.

DESIGN CRITERIA:

BUILDING CODE				2019 CBC	
GRAVITY DESIGN LOAD					
ROOF		SLOPE	S.A.D.	DL=15 psf	LL=20 psf
FLOORS		TYPICAL		DL=15 psf	LL=40 psf
LATERAL DESIGN					
LATERAL FORCE RESISTING SYSTEM				LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS	
ANALYSIS PROCEDURE USED				EQUIVALENT LATERAL FORCE PROCEDURE	
WIND DESIGN CRITERIA					
DESIGN WIND SPEED				110 mph	
WIND EXPOSURE				C	
WIND DESIGN IMPORTANCE FACTOR				Iw = 1.0	
SEISMIC DESIGN CRITERIA					
RISK CATEGORY				II	
SEISMIC DESIGN IMPORTANCE FACTOR				I = 1.0	
SITE CLASS				D	
PROJECT LOCATION COORDINATES				LATITUDE= 37.3059°	LONGITUDE= -122.0400°
MAPPED SPECTRAL RESPONSE ACCELERATIONS				Ss = 2.223 g	Si = 0.799 g
SPECTRAL RESPONSE COEFFICIENTS				Sos = 1.482 g	Sot = 0.799 g
SEISMIC DESIGN CATEGORY				E	
RESPONSE MODIFICATION FACTOR				R = 6.5	
SEISMIC RESPONSE COEFFICIENT				Cs = 0.228 [LRFD]	
DESIGN BASE SHEAR COEFFICIENT				V = 0.180 Wbl [ASD]	
FOUNDATION DESIGN CRITERIA BY CBC CHAPTER 18					
SLAB FOUNDATION		ALLOWABLE BEARING (DL+LL)			1500 psf
		ALLOWABLE BEARING (TRANSIENT)			2000 psf
		ALLOWABLE LATERAL BEARING			150 pcf
		COEFFICIENT OF FRICTION			0.15

EPOXY NOTES

- ALL EPOXY DOWELS OR THREADED ROD DOWELS SHALL BE ACCORDING TO THIS SECTION AS WELL AS THE SPECIFIC INSTALLATION PROVISIONS REQUIRED BY THE PRODUCT MANUFACTURER AND APPLICABLE ICC-ES EVALUATION REPORT REQUIREMENTS.
- ACCEPTABLE PRODUCTS (U.O.N. ON PLAN) ARE AS FOLLOWS:
  - SIMPSON SET-XP ADHESIVE ANCHOR SYSTEM (ICC-ESR-2508, CONCRETE APPLICATION)
  - SIMPSON SET ADHESIVE ANCHOR SYSTEM (ICC-ESR-1772, MASONRY APPLICATION)
  - HILTI HIT-RE 500-V3 ADHESIVE ANCHOR SYSTEM (ICC-ESR-3814, CONCRETE APPLICATION)
- PROVIDE DRILLED HOLES OF DIAMETER AND DEPTH SPECIFIED BY THE PRODUCT MANUFACTURER FOR THE DOWEL SIZE SPECIFIED IN THE CONSTRUCTION DOCUMENTS OR OF DIAMETER AND DEPTH SPECIFIED IN THE CONSTRUCTION DOCUMENTS, WHICHEVER IS GREATER WHEN DEPTH OF EMBEDMENT IN CONSIDERED. THOROUGHLY CLEAR HOLE OF CONCRETE DUST WITH BRUSH AND OIL-FREE COMPRESSED AIR. INJECT ADHESIVE PER MANUFACTURER'S SPECIFICATION.
- WHEN ENCOUNTER EXISTING REINFORCING DURING DRILLING – CONTRACTOR SHALL NOT DRILL THROUGH (E) REINFORCEMENT. ADJUST ANGLE OF HOLE OR RELOCATE HOLE ±1" AWAY FROM PREVIOUS LOCATION. CONTACT B&H STRUCTURAL ENGINEERS WHEN THE AFOREMENTIONED REMEDY CANNOT BE UTILIZED.

TIMBER NOTES

- LUMBER GRADE SCHEDULE: (UNLESS OTHERWISE NOTED ON FRAMING PLANS)

USE	SIZE / TYPE	SPECIES & GRADE
STUDS / LIGHT FRAMING	ANY	DF #2
ROOF & CEILING JOISTS	ANY	DF #1
BEAMS / POSTS	ANY	DF #1
SILLS ON CONCRETE	ANY	DF #1
ENGINEERED BEAM & HEADER	PARALAM / MICROLAM / TIMERSTRAND / VERSALAM	MEYERHAEUSER [ESR-1387] BOISE CASCADE [ESR-1336]
ENGINEERED JOISTS	TJI	MEYERHAEUSER [ESR-1387]

- SHEATHING – IN COMPLIANCE WITH U.S. PRODUCT STANDARD PSI, LATEST EDITION. INSTALLATION WORKMANSHIP SHALL CONFORM TO MANUFACTURER'S INSTRUCTION AND TO AMERICAN PLYWOOD ASSOCIATION'S DESIGN/CONSTRUCTION GUIDE. THE MINIMUM INSTALLED SHEET DIMENSION SHALL NOT BE LESS THAN 24".
  - ROOF SHEATHING: 1/2 INCH APA RATED 24/0 EXPOSURE I. (4 PLY MIN.)
  - FLOOR SHEATHING: 3/4 INCH APA RATED 24/0 EXPOSURE I. (5 PLY MIN. WITH TONGUE AND GROOVE EDGES GLUED TO SUPPORT)
  - WALL SHEATHING: 1/2 INCH APA C-D, INTERIOR WITH EXTERIOR GLUE. (4 PLY MIN.)
- MOISTURE CONTENT – ALL SOLID SAWN FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% PRIOR TO FINAL FRAMING INSPECTION. PREFABRICATED GULAM BEAMS OR ENGINEERED LUMBER SHALL BE DRY AND PROPERLY PROTECTED DURING CONSTRUCTION TO MINIMIZE MOISTURE INTRUSION.
- GLUE-LAMINATED BEAMS:
  - 24F-V4 FOR SIMPLE SPANS AND 24F-V8 FOR CANTILEVER AND CONTINUOUS BEAMS
  - INDUSTRIAL GRADE TYP. FABRICATED WITH EXTERIOR GLUE
  - CAMBER TO RADIUS OF 3500' U.O.N.
  - MATERIAL SHALL BE IN ACCORDANCE WITH ANSI/AITC A190.1 & ASTM D3737

- NOTCHING, BORING, AND CUTTING OF WOOD MEMBERS – IS NOT PERMITTED UNLESS APPROVED IN ADVANCE BY B&H STRUCTURAL ENGINEERS.
- NAILS – COMMON WIRE GAGE U.O.N. WITH SIZE AND SPACING IN COMPLIANCE WITH TABLE 2304.10.1 OF THE 2019 CALIFORNIA BUILDING CODE OR AS SPECIFIED ON THE DRAWINGS, WHICHEVER SPECIFICATION IS STRICTER. NAILS SHALL NOT PENETRATE FACE OF PLYWOOD SHEETS MORE THAN FLUSH WITH THE SURFACE.

- MACHINE BOLTS – ASTM A307 QUALITY INSTALLED THROUGH HOLES 1/8" LARGER THAN SIZE OF BOLT. USE STANDARD CUT WASHERS UNDER HEAD AND NUT UNLESS OTHERWISE NOTED. COUNTERSINK WHERE SPECIFIED NOT MORE THAN THICKNESS OF HEAD AND WASHER.
- LAG SCREWS – INSTALLATION SAME AS MACHINE BOLTS BUT WITH PILOT HOLES 3/4 OF SHANK DIAMETER. LEAD HOLES SHALL BE UTILIZED EQUAL TO LENGTH AND DIAMETER OF SMOOTH PORTION OF SHANK.
- SHEET METAL FASTENERS – TYPE AS INDICATED ON DRAWINGS BY SIMPSON COMPANY (OR EQUIVALENT) UTILIZING ALL SPECIFIED NAILS OR BOLTS. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS WHERE NOT SHOWN OR NOTED.

- PRESSURE TREATED TIMBER:
  - SHALL BE AMWP STAMPED. AMMONIACAL COPPER QUAT (ACQ), CUPPER BORON AZOLE (CBA), OR BORATE TREATED AWPA STANDARD C2, MINIMUM 0.40 INCH PENETRATION INCISED.
  - ALL PRESERVATIVE TREATED LUMBER SHALL BE FIELD-APPLIED WITH PRESERVATIVE WHERE CUT AND DRILLED ON SITE WITH COPPER NAPHATHENATE (2% COPPER AS METAL)
  - USE HOT DIPPED GALVANIZED HARDWARE, IE. BOLTS, NAIL, ETC. FOR ALL ATTACHMENT TO ACQ OR CBA TREATED MEMBERS
- MIN. ANCHOR BOLT & MUDSILL – MINIMUM ANCHOR BOLTS SHALL BE 5/8", EMBEDDED 7" MINIMUM INTO CONCRETE, AND SHALL BE SPACED NOT MORE THAN 6'-0" O.C. AND WITH AT LEAST 2 BOLTS PER MUDSILL PIECE. THE ANCHOR BOLT NEAR THE END OF MUD SILL PIECE SHALL BE NOT LESS THAN 12 IN. OR LESS THAN 7 BOLT DIAMETERS FROM END. .229"x3" SOR. GALVANIZED STEEL PLATE WASHERS SHALL BE PLACED BETWEEN EA. NUT AND THE TOP OF THE SILL. REFER TO SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS. PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.

EXISTING CONSTRUCTION & CONDITIONS

- SHORING – THE GENERAL CONTRACTOR SHALL PROVIDE SHORING WHEREVER NECESSARY TO ALLOW INSTALLATION OF THE WORK. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF ALL SHORING AND TEMPORARY WORK REQUIRED THROUGHOUT THE PROGRESS OF THE WORK.
- EXISTING CONSTRUCTION – EXISTING CONDITIONS SHOWN ON THE STRUCTURAL DRAWING WAS OBTAINED FROM LIMITED VISUAL OBSERVATIONS. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY B&H STRUCTURAL ENGINEERS OF ALL EXCEPTIONS AND RECEIVE DIRECTION PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
- DEMOLITIONS – THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE AND WITH APPROPRIATE TOOLS IN ORDER TO NOT JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED DEMOLITION.

STRUCTURAL OBSERVATION BY B&H STRUCTURAL ENGINEERS

THE GENERAL CONTRACTOR OR THE PROJECT ARCHITECT OR THE HOMEOWNER IS RESPONSIBLE TO COORDINATE WITH B&H STRUCTURAL ENGINEERS FOR THE FOLLOWING REQUIRED CONSTRUCTION OBSERVATIONS. AT LEAST 3 BUSINESS DAYS NOTICE SHALL BE GIVEN TO B&H STRUCTURAL ENGINEERS PRIOR TO THE TIME OF THE OBSERVATION. IN THE EVENT B&H STRUCTURAL ENGINEERS IS NOT NOTIFIED AT CERTAIN MILESTONE OF THE PROJECT WHERE STRUCTURAL OBSERVATION IS REQUIRED ACCORDING TO THE SCHEDULE BELOW, B&H STRUCTURAL ENGINEERS WILL NOT BE HOLD RESPONSIBLE FOR ANY DAMAGE TO THE STRUCTURE EITHER DURING CONSTRUCTION OR POST CONSTRUCTION. FURTHERMORE, B&H STRUCTURAL ENGINEERS WILL NOT BE ABLE TO PROVIDE CONSTRUCTION CONFORMANCE LETTER.

- CONCRETE STEEL REINFORCEMENT & EMBEDS.
  - EXISTING FOOTING DIMENSIONS – VERIFY IN FIELD EXISTING FOOTING DIMENSION AS PER PLAN.
    - IF FOOTING DIMENSIONS DO NOT MEET MINIMUM DIMENSIONS REQUIRED PER PLAN, PROVIDE RETROFIT / UNDERPIN FOOTING RECOMMENDATIONS AND DETAILS.
- FRAMING OBSERVATION
  - ROUGH FRAMING – ALL FRAMING COMPONENTS & THEIR ASSOCIATED CONNECTION HARDWARE SHALL BE INSTALLED PRIOR TO THE OBSERVATION AND BEING CONCEALED.

GENERAL NOTES

- STRUCTURAL DRAWING – THESE DRAWINGS ARE COPY RIGHTED INSTRUMENTS OF SERVICE OF B&H STRUCTURAL ENGINEERS FOR USE OF THIS PROJECT ONLY.
- NOTES & DETAILS – SHALL APPLY UNLESS NOTED OTHERWISE. DETAILS SHOWN IN DIAGRAMMATIC FORM ARE NOT TO BE SCALED. IF CERTAIN FEATURES ARE NOT FULLY DELINEATED, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE DELINEATED. ALL CONSTRUCTION SHALL COMPLY WITH THE CURRENT ADOPTED CALIFORNIA BUILDING CODE, ALL APPLICABLE REGULATIONS, AND SAFETY REQUIREMENTS.
  - TYPICAL NOTES & DETAILS – PROVIDED TO COVER GENERAL CONSTRUCTION CONDITIONS. THE GENERAL CONTRACTOR SHALL FOLLOW THESE DETAILS AND NOTES WHERE APPLICABLE.
- EXCAVATION, SHORING, BRACING, AND FORMWORK – THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORM WORKS, ETC., AS REQUIRED FOR THE FOLLOWING PRIOR TO THEIR FINAL ASSEMBLY INTO THE COMPLETED STRUCTURE
  - PROTECTION OF LIFE AND PROPERTY
  - SUPPORT ANY CONSTRUCTION LOADS
  - MAINTAIN ALL BUILDING COMPONENTS SAFELY IN PLACE
- INSPECTIONS – ALL INSPECTION AND TESTING SHALL BE PERFORMED ACCORDING TO THE CURRENT ADOPTED CALIFORNIA BUILDING CODE AND/OR LOCAL BUILDING DEPARTMENT REQUIREMENTS.
- SHOP DRAWING – AS AN AID FOR FABRICATION AND INSTALLATION AND SHALL BE SUPERCEDED BY THE STRUCTURAL DRAWINGS. SHOP DRAWING REVIEW BY STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE AND DOES NOT GUARANTEE ACCURACY. THE GENERAL CONTRACTOR IS RESPONSIBLE TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
- OMISSIONS & DISCREPANCIES – . THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE JOB SITE (WHERE APPLICABLE) AS WELL AS THE PROVISIONS OF THE ENTIRE CONSTRUCTION DOCUMENTS. OMISSIONS & DISCREPANCIES BETWEEN VARIOUS ELEMENTS OF THE CONSTRUCTION DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM
  - IN THE EVENT OF A DISCREPANCY IN THE STRUCTURAL CONSTRUCTION DOCUMENTS, THE NOTE OR DETAIL UTILIZING THE STRICTER REQUIREMENT SHALL APPLY.
- COORDINATION – ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND ALL OTHER CONSTRUCTION DOCUMENT FOR DETAILS NOT SHOWN.

CONCRETE NOTES

- CONCRETE STRENGTH – COMPRESSIVE STRENGTH IN PSI WHEN TESTED IN ACCORDANCE WITH ASTM C39:

LOCATION	STRENGTH (PSI @ 28 DAYS)	W/C RATIO (MAX)	SACKS OF CEMENT (MIN)
ALL	3000 *	.45	6%

(\* 2500 PSI USED IN ANALYSIS & CALCULATION, THUS SPECIAL INSPECTION IS NOT REQUIRED)
  - PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II.
  - FLY ASH ALONE OR IN COMBINATION WITH SLAG MAY BE USED FROM MINIMUM OF 20% TO A MAXIMUM OF 30% OF THE MIX CEMENTITIOUS MATERIAL
  - DESIGN MIX SHRINKAGE CHARACTERISTICS MAY NOT EXCEED .045% @ 28 DAYS.
  - AGGREGATE FOR STONE CONCRETE SHALL CONFORM TO ASTM C-33. FOR LOW SHRINKAGE AGGREGATE; USE LIMESTONE OR GRANITE. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C-330.
  - MAX AGGREGATE SIZE SHALL BE 3/4", MIN AGGREGATE SIZE SHALL BE 1/2"
  - MAX SLUMP SHALL BE 4"
  - PROVIDE 4% AIR ENTRAINMENT ADD MIXTURE
- REINFORCING STEEL – ASTM A615 WITH THE FOLLOWING STRENGTHS:

SIZE	STRENGTH
#3 AND SMALLER	GRADE 40 (fy = 40000 psi)
#4 AND LARGER	GRADE 60 (fy = 60000 psi)

ALL CONCRETE TO BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED"
- FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION SP-66, ACI DETAILING MANUAL – LATEST EDITION.
- PLACE CONCRETE – CONCRETE SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH ACI 318, LATEST ADOPTED EDITION, AND SHALL BE MECHANICALLY VIBRATED.
- MINIMUM REINFORCEMENT CONCRETE COVER – FOR CAST-IN-PLACE CONCRETE:
  - CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH 3"
  - CONCRETE FORMED BELOW GRADE OR EXPOSED TO WEATHER:
    - #5 AND SMALLER 1 1/2"
    - #6 AND LARGER 2"
  - SLAB-ON-GRADE 2"
  - CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH GROUND:
    - SLABS, WALLS, AND JOISTS: #11 & SMALLER 1"
    - BEAMS & COL: PRIMARY REINF., TIES, STIRRUPS, SPIRALS 1 1/2"

- REINFORCING STEEL – ASTM A615 WITH THE FOLLOWING STRENGTHS:

SIZE	STRENGTH
#3 AND SMALLER	GRADE 40 (fy = 40000 psi)
#4 AND LARGER	GRADE 60 (fy = 60000 psi)

ALL CONCRETE TO BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED"

- FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION SP-66, ACI DETAILING MANUAL – LATEST EDITION.
- PLACE CONCRETE – CONCRETE SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH ACI 318, LATEST ADOPTED EDITION, AND SHALL BE MECHANICALLY VIBRATED.
- MINIMUM REINFORCEMENT CONCRETE COVER – FOR CAST-IN-PLACE CONCRETE:
  - CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH 3"
  - CONCRETE FORMED BELOW GRADE OR EXPOSED TO WEATHER:
    - #5 AND SMALLER 1 1/2"
    - #6 AND LARGER 2"
  - SLAB-ON-GRADE 2"
  - CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH GROUND:
    - SLABS, WALLS, AND JOISTS: #11 & SMALLER 1"
    - BEAMS & COL: PRIMARY REINF., TIES, STIRRUPS, SPIRALS 1 1/2"
- EMBEDS – ALL ITEMS TO BE CAST INTO CONCRETE SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY AND ACCURATELY POSITIONED INTO THE FORM WORK PRIOR TO PLACING CONCRETE.
- CONSTRUCTION JOINTS – THE CONTRACTOR SHALL OBTAIN THE ENGINEER APPROVAL FOR CONCRETE CONSTRUCTION JOINT THAT ARE NOT SHOWN IN STRUCTURAL DRAWING. STRUCTURAL DETAILS MAY CHANGE AS THE RESULT.
- VAPOR BARRIER – 15 MIL ASTM E-1745 CLASS A, TYP. U.O.N.
- EXTERIOR WALKWAYS ON GRADE – WHERE NOT SPECIFICALLY NOTED ON THE PLAN, SHALL BE 4" MINIMUM IN THICKNESS AND REINFORCED w/ #4 @ 16" O.C. E.W. AT MID-DEPTH. CONTROL JOINTS SHALL BE SPACED AT 8'-0" O.C. MAX. SLAB-ON-GRADE SHALL BE CONSTRUCTED WITH A THICKENED EDGE (8" DEEP BY 8" WIDE MIN.). REFER TO GEOTECHNICAL REPORT FOR SUBGRADE REQUIREMENTS.

SPECIAL INSPECTION BY INDEPENDENT AGENCY

- NO SPECIAL INSPECTIONS REQUIRED

ABBREVIATIONS

6. CENTERLINE	60. DITTO	67. JOINT	PSL. PARALLEL STRAND LUMBER
7. DIAMETER	61. DRAWING	70. KILN DRIED	P.S.F. POUNDS PER SQUARE FOOT
8. PLATE	62. EACH FACE	71. POUND	QTY. QUANTITY
9. POUND OR NUMBER	63. EACH WAY	72. LEDGER	RO. ROUGH OPENING
10. AT	64. ELEVATION	73. LANDSCAPE	REINF. REINFORCE(D) (NG) (MENT)
11. EXISTING	65. LOCATION	74. LINE LOAD	REQ'D. REQUIRED
12. ANCHOR BOLT	66. ENGINEER	75. LOC. LONGITUDINAL	RET. RETAINING
13. ADDL. ADDITIONAL	67. EQ. EQUAL	76. LONG. LONGITUDINAL	RF. ROOF/ROOFING
14. ADJ. ADJACENT	68. EQUIP. EQUIPMENT	77. L. LAG SCREW	RFR. RAFTER
15. APPROX. APPROXIMATE(LY)	69. EXP. EXPANSION	78. L. LAMINATED STRAND LUMBER	RWD. REDWOOD
16. ARCH. ARCHITECTURAL	70. EXT. EXTERIOR	79. L.V.F. LOW-VELOCITY FASTENER	SEE ARCHITECTURAL DRWGS
17. B.O.F. BOT. OF FTG.	71. F.O. FACE OF	80. MECH. MECHANICAL	SCHED. SCHEDULE
18. BLDG. BUILDING	72. F.O.S. FACE OF STUD/STL.	81. MFR. MANUFACTURER	SHT. SHEET
19. BM. BEAM	73. FDN. FOUNDATION	82. MACH. MACHINE BOLT	SHTG. SHEATHING
20. BOT. BOTTOM	74. F.O.S. FACE OF STUD/STL.	83. MECH. MECHANICAL	SM. SIMILAR
21. BRG. BEARING	75. FLR. FLOOR	84. MEZ. MEZZANINE	S.S.D. SLAB ON GRADE
22. BSMT. BASEMENT	76. FRMG. FRAMING	85. MEZZ. MEZZANINE	SPEC. SPECIFICATION
23. BTWN. BETWEEN	77. FT. FOOT OR FEET	86. MFR. MANUFACTURER	SQ. SQUARE
24. CIP. CAST-IN-PLACE	78. FTG. FOOTING	87. MIN. MINIMUM	STAG. STAGGER(ED)
25. CON. CONSTRUCTION JOINT	79. GAL. GALVANIZED	88. MIN. MINIMUM	STD. STANDARD
26. CMU. CONCRETE MASONRY UNIT	80. GLUE-LAMINATED	89. MISCL. MISCELLANEOUS	STL. STRUCTURAL
27. CLG. CEILING	81. GR. GRADE	90. NO. NUMBER	SW. SHEARWALL
28. CLR. CLEAR(ANCE)	82. GYP. GYPSUM BOARD	91. N.S. NOT TO SCALE	T&B. TOP AND BOTTOM
29. COL. COLUMN	83. HDR. HEADER	92. N/A. NOT APPLICABLE	T&G. TONGUE AND GROOVE
30. CONC. CONCRETE	84. HKS. HOOKS	93. ON CENTER	THD. TOP OF
31. CONN. CONNECTION	85. HLDN. HOLDOWN	94. OVER	THK. THICK(NESS)
32. CONTR. CONTINUOUS(ATION)	86. HGR. HANGER	95. DD. OUTSIDE DIAMETER	TYP. TYPICAL
33. CTR. CENTER	87. HORIZ. HORIZONTAL	96. DPP. OPPOSITE	U.O.N. UNLESS OTHERWISE NOTED
34. CTSK. COUNTERSINK	88. HT. HEIGHT	97. EBN. EDGE NAILING	U.O.N. UNLESS OTHERWISE NOTED
35. D.F. DOUBLE	89. HSB. HIGH STRENGTH BOLT	98. P.D.F. POWER DRIVEN FASTENER	CBC. CALIFORNIA BUILDING CODE
36. DEMO. DEMOLITION	90. HVAC. HEAT/BENT/AIR COND.	99. PT. POST TENSION	CBC. CALIFORNIA BUILDING CODE
37. DET. DETAIL	91. INCH	100. P.T.D.F. PRESSURE TREATED D.F.	VERT. VERTICAL
38. DIAG. DIAGONAL	92. INFO. INFORMATION	101. PERP. PERPENDICULAR	VERIFY IN FIELD
39. DISCONT. DISCONTINUED	93. INSUL. INSULATION	102. PLW. PLW. WOOD	WP. WORK POINT
40. DIM. DIMENSION	94. INVERT	103. PREFAB. PREFABRICATED	W/ WITH
41. DL. DEAD LOAD	95. JST. JOIST	104. P.S.F. POUNDS PER SQUARE FOOT	W/O WITHOUT

PROJECT NAME & ADDRESS

460 APRICOT LANE  
MOUNTAIN VIEW  
CALIFORNIA 94040

Project Description:

RESIDENTIAL  
REMODEL

ARCHITECT / DESIGNER:

AMATO ARCHITECTURE

1396 PARK AVENUE  
EMERYVILLE, CA 94608  
Phone: (510) 420-0210  
Cell: (510) 499-2080

STRUCTURAL ENGINEER:

B & H  
STRUCTURAL ENGINEERS

210 S. Ellsworth Ave. #1015  
San Mateo, CA 94401

Phone: (650) 394-7999  
E-Mail: bhistructural@hotmail.com

STAMP:

APPROVED PROFESSIONAL ENGINEER  
BRIAN HO  
Exp. 12-31-20  
STATE OF CALIFORNIA

STAMP

DELTA	DESCRIPTION	DATE
	PERMIT SUBMISSION	07/13/2020

DRAWING ISSUE:

B&H JOB #:

2007

SCALE:

AS NOTED

DRAWN BY:

BH

REVIEWED BY:

BH

SHEET TITLE:

GENERAL  
NOTES

SHEET ID:

S0.1





**PLAN FRAMING NOTES:**

1. TYPICAL ALLOWABLE NOTCHES & HOLES IN SAWN LUMBER, REFER TO DETAIL 9/S2.2
2. TYPICAL CONTINUOUS TOP-PLATE, REFER TO DETAIL 5/S2.2
3. ALL WALL STUD SHALL BE 2x AT 16" O.C., U.O.N.
4. GENERAL LEGEND/SYMBOLS, REFER TO SHEET S0.1

PROJECT NAME & ADDRESS

460 APRICOT LANE  
MOUNTAIN VIEW  
CALIFORNIA 94040

Project Description:

# RESIDENTIAL REMODEL

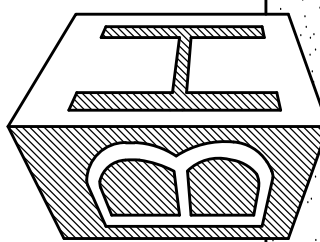
ARCHITECT / DESIGNER

**AMATO ARCHITECTURE**

**1396 PARK AVENUE  
EMERYVILLE, CA 94608  
Phone: (510) 420-0210  
Cell: (510) 499-2080**

## STRUCTURAL ENGINEER:

**B & H**  
**STRUCTURAL ENGINEERS**



Phone: (650) 394-7299  
[structural@hotmail.com](mailto:structural@hotmail.com)

210 S. Ellsworth Ave. #1615  
San Mateo, CA 94401

STAMP



## DRAWING ISSUE

DELTA	DESCRIPTION	DATE
	PERMIT SUBMISSION	07/13/2020

B&amp;H JOB #: 2007

SCALE: AS NOTED

DRAWN BY: BH

REVIEWED BY: BH

SHEET TITLE:

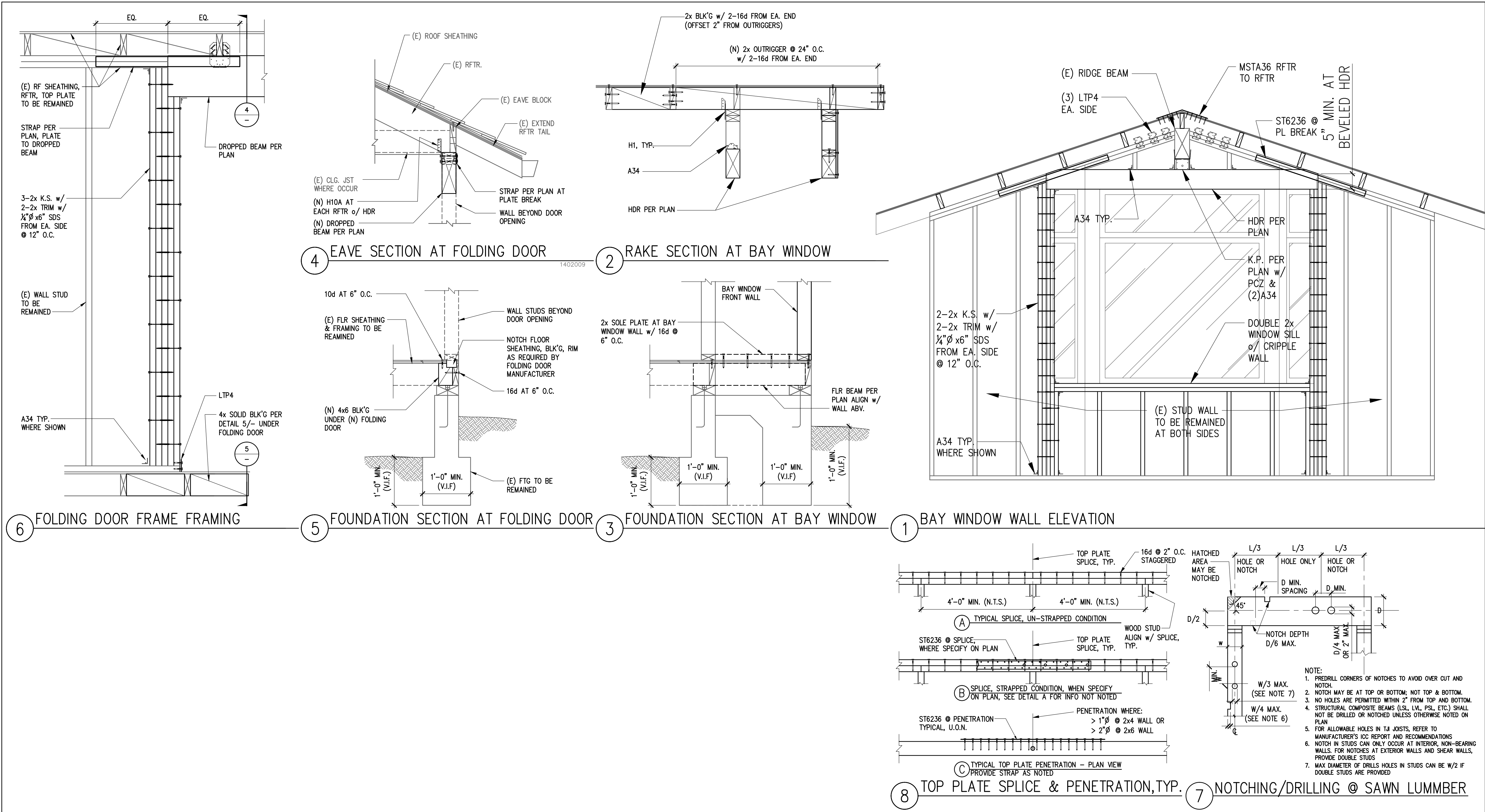
# FOUNDATION & FLOOR & ROOF FRAMING PLANS

SHEET ID

# S1.1

OF 3 SHEETS





PROJECT NAME & ADDRESS		
460 APRICOT LANE MOUNTAIN VIEW CALIFORNIA 94040		
Project Description:		
RESIDENTIAL REMODEL		
ARCHITECT / DESIGNER:		
AMATO ARCHITECTURE 1396 PARK AVENUE EMERYVILLE, CA 94608 Phone: (510) 420-0210 Cell: (510) 499-2080		
STRUCTURAL ENGINEER:	B & H STRUCTURAL ENGINEERS	Phone: (650) 394-7299 E-Mail: bhstructural@hotmail.com
		210 S. Elsworth Ave. #1615 San Mateo, CA 94401
STAMP:		
DRAWING ISSUE:		
DELTA	DESCRIPTION	DATE
	PERMIT SUBMISSION	07/13/2020
B&H JOB #: 2007		
SCALE: AS NOTED		
DRAWN BY: BH		
REVIEWED BY: BH		
SHEET TITLE:		
STRUCTURAL DETAILS		
SHEET ID:		
S2.1 OF 3 SHEETS		