

NAME OF OWNER / NAME OF ADU

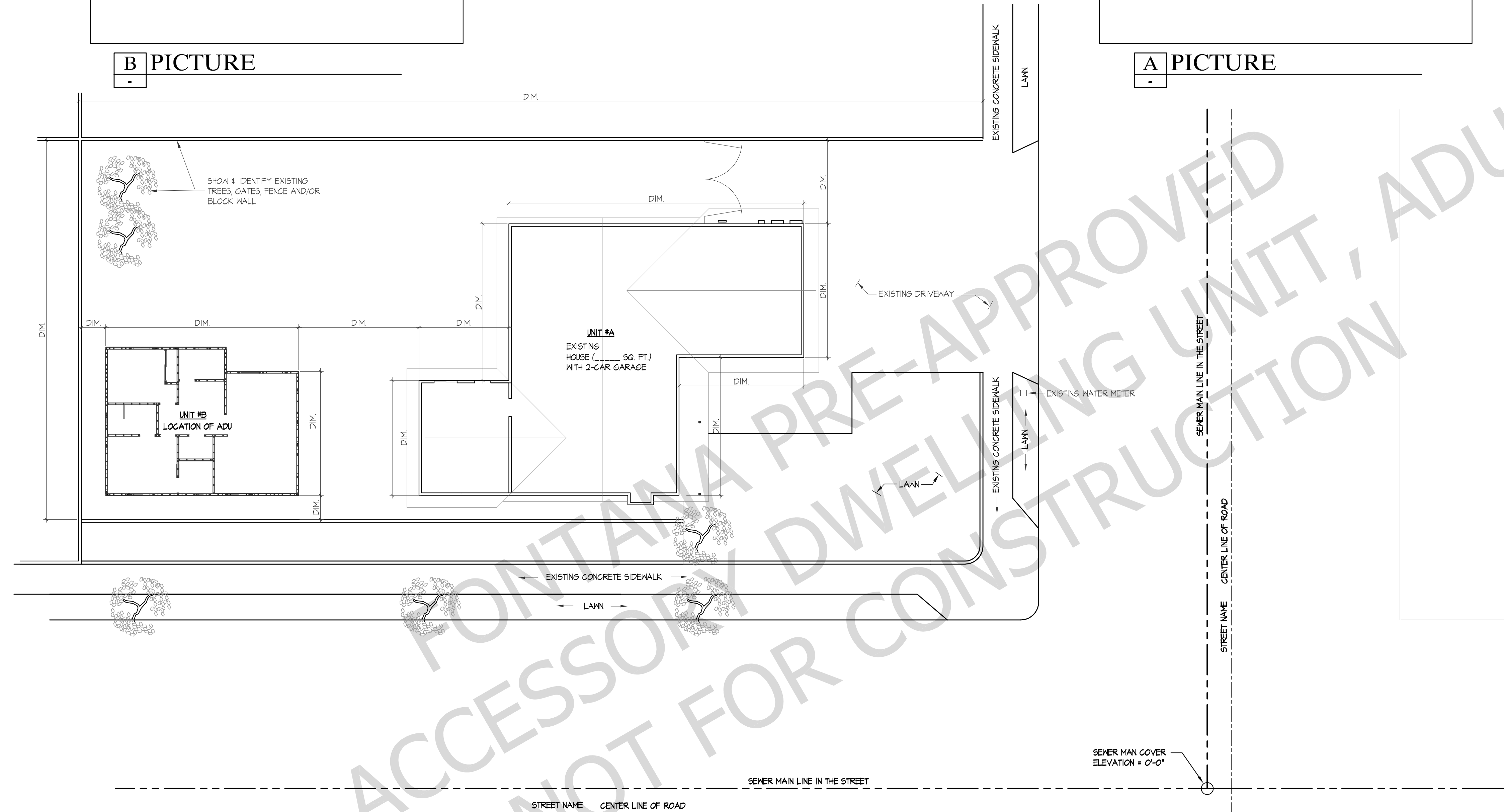
ADDRESS
CITY & STATE

PICTURE OF EXISTING HOUSE

PICTURE OF EXISTING HOUSE

B PICTURE

A PICTURE



SITE PLAN

SCALE: 3/32" = 1'-0"



DEFER SUBMITTAL:

1. FIRE SPRINKLER IS A DEFERRED SUBMITTAL, IF IT IS REQUIRED.
2. SOLAR PHOTOVOLTAIC A DEFERRED SUBMITTAL, IF IT IS REQUIRED.

NOTE:

DEFERRED SUBMITTAL SHOP DRAWINGS, DETAILS AND CALCULATIONS SHALL BE SEALED AND SIGNED BY A LICENSED CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA. THE DESIGN PACKAGE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO SUBMITTING TO BUILDING OFFICIAL FOR APPROVAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATION AND INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

VICINITY MAP

VICINITY MAP
WITH LABEL SITE LOCATION

AERIAL VIEW

AERIAL VIEW OF THE PARCEL

AREA CALCULATION

SITE AREA (LOT SIZE):	1,181 SQ. FT.
EXISTING HOUSE:	
LIVING AREA:	1,481 SQ. FT.
GARAGE:	400 SQ. FT.
TOTAL AREA:	1,881 SQ. FT.
PROPOSED ADU:	738 SQ. FT.
TOTAL PROPOSED LIVING AREA:	2,219 SQ. FT.
PROPOSED SITE COVERAGE:	26.19 SQ. FT. OR 36.44%

OWNERS:

NAME:
ADDRESS:
PHONE:
EMAIL:

APPLICANT:

NAME:
ADDRESS:
PHONE:
EMAIL:

ENGINEER:

TANG STRUCTURAL ENGINEERS, INC.
1950 CHERRY AVE. SUITE 114
FONTANA, CA 92336
PHONE: 909-424-0450
EMAIL: CHE@TANG-SE.COM

PROJECT DATA & SCOPE:

SITE ADDRESS: _____
APN: _____
ZONE: _____
CONSTRUCTION TYPE: V-B
PROPOSED:
☐ MORNING GLORY ADU: 462 SQ. FT. WITH 1 BEDROOM & 1 BATH.
☒ CARNATION ADU: 738 SQ. FT. WITH 2 BEDROOMS & 2 BATHS.
☐ SUNFLOWER ADU: 1,143 SQ. FT. ADU WITH 3 BEDROOMS & 2 BATHS
☐ OTHERS: _____

PLANNING:

EXTERIOR ELEVATION FINISHES, ROOFING MATERIALS AND COLORS ARE TO MATCH EXISTING HOUSE, SEE EXTERIOR ELEVATION AND ROOFING & WEATHERPROOFING NOTES ON SHEET CSI. PLACE A "X" WHERE APPLY.

SIDING	ROOFING	DOOR & WINDOW FRAME	PAINT
<input type="checkbox"/> STUCCO <input type="checkbox"/> FIBER CEMENT <input type="checkbox"/> BRICK VENEER <input type="checkbox"/> STONE VENEER <input type="checkbox"/> WOOD SIDING <input type="checkbox"/> OTHERS	<input type="checkbox"/> TILE ROOF <input type="checkbox"/> SHINGLES <input type="checkbox"/> METAL ROOF <input type="checkbox"/> OTHERS	<input type="checkbox"/> WHITE <input checked="" type="checkbox"/> PAINT TO MATCH <input type="checkbox"/> OTHERS	<input type="checkbox"/> WHITE <input type="checkbox"/> BROWN <input type="checkbox"/> GRAY <input type="checkbox"/> BROWN <input checked="" type="checkbox"/> MATCH EXISTING <input type="checkbox"/> OTHERS

ENGINEERING:

IF ANY FOLLOWING ITEM IS APPLICABLE, A PERMITTED BY ENGINEERING DEPARTMENT IS REQUIRED.

- A. NEW APPROACH (YES OR NO)
- B. NEW CITY SIDEWALK (YES OR NO)
- C. NEW SEWER CONNECTION TO CITY MAIN SEWER (YES OR NO)

FIRE:

- A. EXISTING HOUSE: FIRE SPRINKLERS (YES OR NO)
IF YES, FIRE SPRINKLER INSTALLATION IS REQUIRED FOR THE NEW ADU.
- B. FIRE HAZARD ZONE (YES OR NO)
- FIRE TEST IS REQUIRED FOR ALL ADU. CONTACT FONTANA BUILDING FIRE DEPARTMENT (909) 824-4441 FOR SCHEDULE TEST.

BUILDING:

- A. EXISTING HOME ON SEPTIC SYSTEMS (YES OR NO)
IF YES, AN APPROVAL FROM STATE WATER BOARD IS REQUIRED
- B. ADU FLOOD ZONE (YES OR NO)
- C. FULL SITE PLAN SHALL INCLUDE:
 1. WALKWAYS LEADING TO THE NEW ADU
 2. LOCATION OF ALL UTILITIES (WATER, SEWER & ELECTRICAL PANEL)
 3. LOCATION OF ALL STRUCTURES ON THE PROPERTY
 4. DIMENSION SITE PLAN INCLUDE DIMENSION FROM ADU TO OTHER STRUCTURES AND PROPERTY LINE.
 5. CALL OUT EXISTING LAWN, PLANTER, POOL, ETC.
 6. EXISTING TREES, GATES, FENCE AND/OR BLOCK WALL
 7. EXISTING DRIVEWAY, WALKWAY AND CONCRETE SLAB
 8. UTILITY CONNECTIONS TO NEW ADU (ELECTRIC, WATER, SEWER, AND GAS)
- D. ALL NEW ELECTRICAL PANELS SHALL BE RATED FOR MINIMUM 225 AMP AND SHALL BE PROVIDED WITH A SURGE PROTECTOR.
- E. A SEPARATED GAS AND ELECTRIC METER IS REQUIRED FOR ADU LARGER THAN 800 SQ. FT.
- F. ADU PAD BE ELEVATED WITH 5% SLOPE IN THE FIRST 10 FEET. FROM FACE OF WALL OR PROVIDE 5% SURFACE SLOPE TO DRAIN.
- G. EASEMENT CONSIDERATION. ADU STRUCTURE SHOULD NOT BE WITHIN THE EASEMENT.
- H. SHOW IMAGINARY LINE BETWEEN ADU AND EXISTING STRUCTURE. MINIMUM 5 FT. FROM FACE OF EXISTING HOUSE. IF ADU IS LESS THAN 5 FT. FROM THE IMAGINARY LINE THE EXTERIOR WALL SHALL BE 1 HOUR RATED WALL CONSTRUCTION.

GENERAL CODES:

1. THIS PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND GLE GLENDORA MUNICIPAL BUILDING CODE.
 - 2022 CALIFORNIA RESIDENTIAL CODE
 - 2022 CALIFORNIA BUILDING CODE
 - 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
 - 2022 CALIFORNIA ELECTRICAL CODE
 - 2022 CALIFORNIA MECHANICAL CODE
 - 2022 CALIFORNIA PLUMBING CODE
 - 2022 CALIFORNIA FIRE CODE
 - 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS
2. DURING ALL CONSTRUCTION ACTIVITIES, THE APPLICANT MUST IMPLEMENT ADEQUATE DUST CONTROL MEASURES AS REQUIRED BY THE UNIFORM BUILDING CODE, SCAGMD, AND CITY REGULATIONS TO MINIMIZE THE DISPERSION OF DUST.
3. THE INDIVIDUAL RESPONSIBLE FOR SUPERVISING THE CONSTRUCTION MUST ENSURE THAT THE WORK COMPLIES WITH CODE REQUIREMENTS BEFORE REQUESTING AN INSPECTION.
4. DISPOSAL OF EXCESS OR WASTE CONCRETE INTO PUBLIC ROADWAYS OR DRAINAGE SYSTEMS IS STRICTLY PROHIBITED. ARRANGEMENTS MUST BE MADE TO STORE CONCRETE WASTE ON-SITE UNTIL IT CAN BE DISPOSED OF AS SOLID WASTE.
5. PRIOR TO PLACING ANY CONSTRUCTION MATERIALS OR EQUIPMENT IN PUBLIC ROADWAYS, A SEPARATE PERMIT MUST BE OBTAINED FROM THE CITY PUBLIC WORKS DEPARTMENT.
6. CONSTRUCTION WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ANY CHANGES MADE DURING CONSTRUCTION THAT ARE NOT IN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE RESUBMITTED FOR APPROVAL AS AN AMENDED SET OF CONSTRUCTION DOCUMENT.

SHEET INDEX:

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A2	ADU ELECTRICAL, MECHANICAL, PLUMBING & GAS AND WATER LINE PLAN
S1	ADU FOUNDATION, FRAMING PLAN & BUILDING SECTIONS
D1	FOUNDATION AND FRAMING DETAILS
CSI	CONSTRUCTION SPECIFICATION
CS2	GENERAL NOTES & DETAILS
CS3	CONSTRUCTION NOTES, SCHEDULES & LEGENDS
TRI	TRUSS CALCULATIONS

Sheet Title:
SAMPLE SITE PLAN

Scale: 3/32" = 1'-0"

Drawn By: CT

Check By: CT

Print Date: 3/1/25

Sheet

Drawing Date: 3/1/25

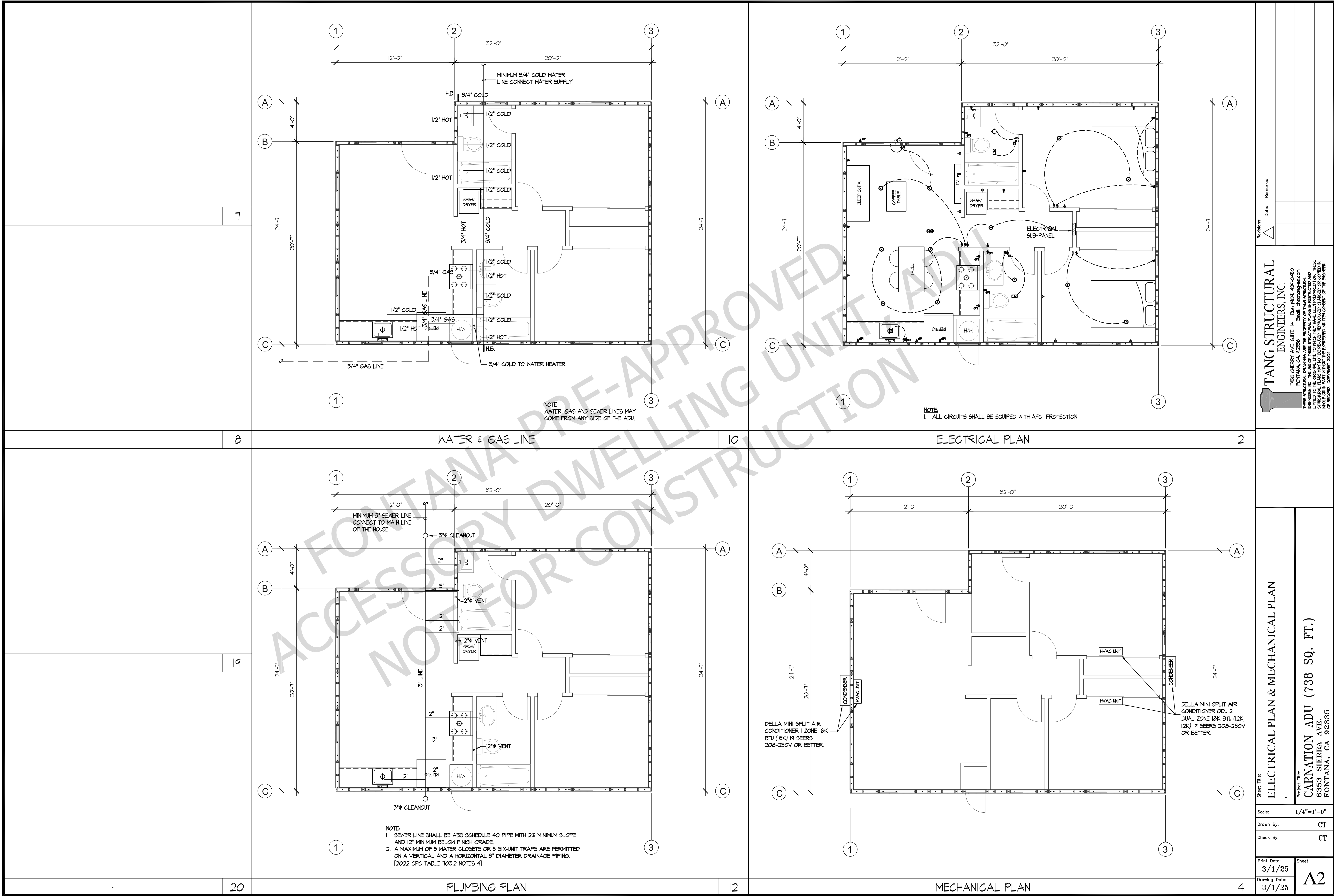
T1

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Project Title:
CARNATION ADU (738 SQ. FT.)
8863 SIERRA AVE.
FONTANA, CA 92335

A1



REVISIONS

DATE

REMARKS

TANG STRUCTURAL
ENGINEERS, INC.

1750 CHERRY AVE. SUITE 114
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TEL: (909) 424-0450
EMAIL: info@tang-se.com

PROJECT

CARNATION ADU (738 SQ. FT.)

8363 SIERRA AVE.
FONTANA, CA 92335

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SHEET TITLE

ELECTRICAL PLAN & MECHANICAL PLAN

PROJECT TITLE

CARNATION ADU (738 SQ. FT.)

8363 SIERRA AVE.
FONTANA, CA 92335

SCALE

1/4"=1'-0"

DRAWN BY

CT

CHECK BY

CT

PRINT DATE

3/1/25

DRAWING DATE

3/1/25

SHEET

A2

			9
17	BUILDING SECTION		

CONSTRUCTION SPECIFICATION

WATER HEATER:

EFFECTIVE JAN 1, 2022, NEW INSTALLATION GAS OR PROPANE WATER HEATERS SHALL DESIGNATE A SPACE AT LEAST 25" X 25" WIDE AND 7' TALL FOR THE FUTURE INSTALLATION OF A HEAT PUMP WATER HEATER (HPWH) BY MEETING EITHER A OR B BELOW [PER 2022 CALIFORNIA ENERGY CODE SECTION 150.0(N)].

- IF THE DESIGNATED SPACE IS WITHIN 3' FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE:
 - A DEDICATED 125V, 20-AMP ELECTRICAL RECEPTACLE CONNECTED TO THE ELECTRICAL PANEL WITH A 120/240-VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE WITH NO OBSTRUCTIONS; AND
 - BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED "SPARE" AND BE ELECTRICALLY ISOLATED; AND
 - A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT ABOVE AND LABELED "FUTURE 240V USE"; AND
 - A CONDENSATE DRAIN NO MORE THAN 2 INCHES HIGHER THAN THE BASE ON WATER HEATER FOR NATURAL DRAINING WITHOUT PUMP ASSISTANCE.
- IF THE DESIGNATED SPACE IS MORE THAN 3' FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE:
 - A DEDICATED 240V BRANCH CIRCUIT SHALL BE INSTALLED WITHIN 3' FROM THE DESIGNATED SPACE, RATED 30-AMP MINIMUM, THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY"; AND
 - THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE HPWH INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE"; AND
 - EITHER A DEDICATED COLD WATER SUPPLY, OR THE COLD WATER SUPPLY SHALL PASS THROUGH THE DESIGNATED HPWH LOCATION JUST BEFORE REACHING THE GAS OR PROPANE WATER HEATER; AND
 - THE HOT WATER SUPPLY PIPE COMING OUT OF THE GAS OR PROPANE WATER HEATER SHALL BE ROUTED FIRST THROUGH THE DESIGNATED HPWH LOCATION BEFORE SERVING ANY FIXTURES; AND
 - THE HOT AND COLD WATER PIPING AT THE DESIGNATED HPWH LOCATION SHALL BE EXPOSED AND READILY ACCESSIBLE FOR FUTURE INSTALLATION OF AN HPWH; AND
 - A CONDENSATE DRAIN NO MORE THAN 2 INCHES HIGHER THAN THE BASE ON WATER HEATER FOR NATURAL DRAINING WITHOUT PUMP ASSISTANCE.

UTILITY

- PRIOR TO CONSTRUCTION CONTACT UTILITIES COMPANY FOR INSTALLATION REQUIREMENTS FOR REPLACEMENT, UPGRADE, OR NEW UTILITY SERVICE (E.G., NUMBER & LOCATION OF METERS).
- THE PROPOSED LOCATION OF ELECTRICAL SERVICE REPLACEMENT, UPGRADE OR NEW TO BE APPROVED BY S.C.E.
- SEWER LINE SHALL BE ABS SCHEDULE 40 PIPE WITH 2% MINIMUM SLOPE AND 12" MINIMUM BELOW FINISH GRADE.
- A MAXIMUM OF 3 WATER CLOSETS OR 5 SINK/INT TRAPS ARE PERMITTED ON A VERTICAL AND A HORIZONTAL 3" DIAMETER DRAINAGE PIPING. [2022 CFC TABLE T03.2 NOTES 4]
- ALL HOSE BIBS MUST HAVE AN APPROVED ANTI-SIPHON DEVICE. [CFC 6035.1]
- LOCAL EXHAUST FANS MUST PROVIDE A MINIMUM OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION AND EXHAUST TO THE EXTERIOR.
- SMOKE DETECTORS MUST BE INTER-CONNECTED AND HARD-WIRED WITH BATTERY BACKUP AS PER CFC R314.4 AND CFC R314.6 RESPECTIVELY.
- CARBON MONOXIDE ALARMS MUST BE INTER-CONNECTED AND HARD-WIRED WITH BATTERY BACKUP AS PER CFC R315.1 AND CFC R315.5 RESPECTIVELY.
- THE DRYER VENT MUST BE 4 INCHES IN DIAMETER AND HAVE A MAXIMUM COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14 FEET WITH TWO 90-DEGREE ELBOWS.
- A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF MUST BE INSTALLED IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION, TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR.
- AN INTERMITTENT OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST VENTILATION SYSTEM MUST BE INSTALLED IN EACH BATHROOM WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN EACH KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. THE INTERMITTENT LOCAL EXHAUST VENTILATION AIRFLOW RATES MUST BE 50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS, WHILE THE CONTINUOUS LOCAL EXHAUST VENTILATION AIRFLOW RATES MUST BE 20 CFM IN BATHROOMS AND 5 AIR CHANGES PER HOUR IN KITCHENS BASED ON KITCHEN VOLUME.
- THE WATER HEATER OR FURNACE MUST BE A DIRECT-VENT APPLIANCE.
- A LISTED GASKETED SELF-CLOSING DOOR IS REQUIRED FOR A GAS FAU.

PIPING:

- BUILDING WATER SUPPLY YARD PIPING SHALL HAVE 12" MIN. COVER BELOW FINISH GRADE. [CFC 604.1]
- BUILDING SEWER PIPING SHALL BE NOT LESS THAN 1 FOOT BELOW THE SURFACE OF GROUND. [CFC T10.3]
- UNDERGROUND GAS PIPING SYSTEMS SHALL BE INSTALLED WITH A MINIMUM OF 12" OF COVER. THE MINIMUM COVER SHALL BE INCREASED TO 18" IF EXTERNAL DAMAGE TO THE PIPE OR TUBING FROM EXTERNAL FORCES IS LIKELY TO RESULT. WHERE A MINIMUM OF 12" OF COVER CANNOT BE PROVIDED, THE PIPE SHALL BE INSTALLED IN A CONDUIT OR BRIDGED (SHIELDED). [CFC 1210.1.1]
- POLYETHYLENE PLASTIC PIPE, TUBING, AND FITTINGS USED TO SUPPLY FUEL GAS SHALL CONFORM TO ASTM D2515, PIPE TO BE USED SHALL BE MARKED "GAS" AND "ASTM D2515." [CFC 1208.6.5]
- POLYAMIDE PIPE, TUBING, AND FITTINGS SHALL BE IDENTIFIED IN AND CONFORM TO ASTM F2445, PIPE TO BE USED SHALL BE MARKED "GAS" AND "ASTM F2445."
- POLYVINYL CHLORIDE (PVC) AND CHLORINATED POLYVINYL CHLORIDE (CPVC) PLASTIC PIPE, TUBING, AND FITTINGS SHALL NOT BE USED TO SUPPLY FUEL GAS. [NFPA 54-5.6.4.1.1 - 5.6.4.1.3]
- PLASTICS MATERIALS FOR BUILDING SUPPLY PIPING OUTSIDE UNDERGROUND SHALL HAVE AN ELECTRICAL CONTINUOUS-CORROSION RESISTANT BLUE INSULATED 14 AWG MIN. COPPER TRACER WIRE. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT EACH END OF THE NONMETALLIC PIPING. [CFC 604.10.1]

GRADING AND SOIL

- LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM THE FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10 FT (3% SLOPE), WHERE LOT LINES, WALLS, SLOPES, OR OTHER PHYSICAL BARRIER PROHIBIT 6' OF FALL WITHIN 10 FT, DRAINING OR SHALES SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE. [CFC R401.3]
- IMPERVIOUS SURFACES WITHIN 10 FT OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM THE BUILDING. [CFC R401.3 EXCEPTION]
- A GRADING PERMIT IS REQUIRED IF THE AMOUNT OF EARTH BEING MOVED EXCEEDS 200 CUBIC YARDS, OR IF CUTS OR FILLS EXCEED A HEIGHT OR DEPTH OF 8 FEET.
- EROSION CONTROL DEVICES MUST BE INSTALLED AT ALL PERIMETER OPENINGS AND SLOPES, NO SEDIMENTS IS TO LEAVE THE JOB SITE.
- FOR ANY FILL MATERIAL, 12 INCHES OR MORE IN DEPTH, A COMPACTION REPORT IS REQUIRED, IN ACCORDANCE WITH CEC 18035.8, OR INSPECTED AND APPROVED BY ENGINEER OF RECORD.
- TREES SHALL BE PROTECTED, SEE TREES PROTECTION NOTES, SHEET CSI.

FLOOR PLAN

- ADU PLAN SHALL MEET THE ZONING REQUIREMENTS FOR THE AREA OF CONSTRUCTION.
- FOR EXTERIOR WALLS WITHIN 3 FEET OF A PROPERTY LINE, FIRE SPRINKLERS IS REQUIRED. FOR EXTERIOR WALLS 5 FEET OF A PROPERTY LINE, 1-HOUR FIRE RATING IS REQUIRED FOR EXPOSURE TO BOTH SIDES.
- PROJECTIONS ARE PROHIBITED WITHIN 2 FEET OF A PROPERTY LINE. FOR PROJECTIONS WITHIN 3 FEET OF A PROPERTY LINE (WITH SPRINKLERS) OR 5 FEET OF A PROPERTY LINE (WITHOUT SPRINKLERS), A 1-HOUR FIRE RATING IS REQUIRED ON THE UNDERSIDE.
- OPENINGS ARE PROHIBITED WITHIN 3 FEET OF A PROPERTY LINE. FOR WALLS WITHIN 5 FEET OF A PROPERTY LINE (WITHOUT SPRINKLERS), THE MAXIMUM ALLOWABLE OPENING IS 25% OF THE WALL AREA.
- FOR PENETRATIONS, A 1-HOUR FIRE-RATED PENETRATION OF WALLS IS REQUIRED WITHIN 3 FEET OF A PROPERTY LINE (WITH SPRINKLERS) OR 5 FEET OF A PROPERTY LINE (WITHOUT SPRINKLERS).
- THE CONCRETE LANDINGS MUST HAVE A MINIMUM DEPTH OF 36 INCHES AND A MAXIMUM HEIGHT OF 1-1/2 INCHES LOWER THAN THE TOP OF THE DOOR THRESHOLD.
- NEW APPROACH AND CITY SIDEWALKS WILL NEED TO BE PERMITTED WITH THE ENGINEERING DEPARTMENT.
- NEW SEWER CONNECTION TO THE CITY MAIN SEWER WILL NEED TO BE PERMITTED WITH ENGINEER OF RECORD.
- FIRE SPRINKLER IS REQUIRED FOR NEW ADU HOME IF THE EXISTING HOUSE HAS FIRE SPRINKLERS.

EXTERIOR ELEVATION:

- EXTERIOR ELEVATIONS ARE TO MATCH EXISTING HOUSE SUCH AS STUCCO, BRICK AND STONE VENEER, MOOD SIDING, WINDOW FRAME, DOOR STYLES, FINISH COLOR, ETC. ALL EXTERIOR WALL FINISH MUST BE A NON-COMBUSTIBLE MATERIAL (SUCH AS STUCCO, CEMENT FIBER BOARD, FIRE-RETARDANT TREATED MOOD SIDING, ETC.)
- STUCCO AND CEMENT PLASTER USED AS AN EXTERIOR WALL COVERING SHOULD BE 7/8-INCH THICK.
 - NONCOMBUSTIBLE OR FIRE-RETARDANT-TREATED WOOD SHAKE USED AS AN EXTERIOR WALL COVERING SHOULD HAVE AN UNDERLAYMENT OF MINIMUM 1/2-INCH FIRE-RATED GYPSUM SHEATHING THAT IS TIGHTLY BUTTED, OR TAPED AND MUDDER, OR AN UNDERLAYMENT OF OTHER IGNITION-RESISTANT MATERIAL APPROVED BY THE BUILDING OFFICIAL. B. IGNITION-RESISTANT MATERIAL.
 - EXTERIOR DOOR MUST BE SOLID CORE WOOD COMPLYING WITH THE FOLLOWING:
 - STILES AND RAILS MINIMUM 1-3/8 INCHES THICK
 - RAISED PANELS MINIMUM 1-1/4 INCHES THICK

ROOFING & WEATHERPROOFING:

- ROOF COVERING: ALL ROOFING MATERIALS ARE TO MATCH EXISTING HOUSE AND MUST MEET THE APPLICABLE REQUIREMENTS OF CBC 1507. ROOF COVERINGS MUST BE RATED CLASS A ACCORDING TO ASTM E 108 OR UL T90 STANDARDS, WHICH INCLUDES MATERIALS SUCH AS SLATE, CLAY OR CONCRETE ROOF TILE, EXPOSED CONCRETE ROOF DECK, FERROUS OR COPPER SHINGLES OR SHEETS. (COUNT BUILDING CODE 42.11505.1)
- ROOF FLASHING: FLASHING MUST BE INSTALLED AT WALL AND ROOF INTERSECTIONS, AT GUTTERS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION & AROUND ROOF OPENINGS. IF THE FLASHING IS MADE OF METAL, IT MUST BE CORROSION-RESISTANT AND HAVE A THICKNESS OF AT LEAST 0.019 INCHES (NO. 26 GALVANIZED SHEET). (CFC R403.2.1)
- CRICKETS AND SADDLES: A CRICKET OR SADDLE MUST BE INSTALLED ON THE RIDGE SIDE OF ANY CHIMNEY OR PENETRATION WIDER THAN 30 INCHES AS MEASURED PERPENDICULAR TO THE SLOPE. THE CRICKET OR SADDLE COVERING MUST BE MADE OF SHEET METAL OR THE SAME MATERIAL AS THE ROOF COVERING. (CFC R403.2.2)
- WATER-RESISTIVE BARRIER: A MINIMUM OF ONE LAYER OF NO. 15 ASPHALT FELT MUST BE ATTACHED TO STUDS OR SHEATHING OF ALL EXTERIOR WALLS. THE FELT MUST BE APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER BY AT LEAST 2 INCHES, WHERE JOINTS OCCUR, THE FELT MUST BE LAPPED BY AT LEAST 6 INCHES. THE FELT MUST BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES IN A MANNER THAT MAINTAINS A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. (CFC R103.2)
- WALL FLASHING: APPROVED CORROSION-RESISTANT FLASHING MUST BE APPLIED SHINGLE FASHION AT THE FOLLOWING LOCATIONS TO PREVENT WATER FROM ENTERING THE WALL CAVITY OR PENETRATING TO THE BUILDING'S STRUCTURAL FRAMING COMPONENTS (CFC R103.8). A. EXTERIOR DOOR AND WINDOW OPENINGS, EXTENDING TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE B. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COFININGS C. UNDER AND AT THE ENDS OF MASONRY, WOOD, OR METAL COPINGS AND SILLS D. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM E. WHERE EXTERIOR PORCHES, DECKS, OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION F. AT WALL AND ROOF INTERSECTIONS G. AT BUILT-IN GUTTERS
- DAMP-PROOFING: DAMPROOFING MATERIALS FOR FOUNDATION WALLS ENCLOSING USABLE SPACE BELOW GRADE MUST BE INSTALLED ON THE EXTERIOR SURFACE OF THE WALL AND MUST EXTEND FROM THE TOP OF THE FOOTING TO THE FINISHED GRADE. (CFC R406.1)
- KEEP SCREED, A MINIMUM 0.019-INCH NO. 26 GALVANIZED SHEET GAGE), CORROSION-RESISTANT KEEL SCREED OR PLASTIC KEEL SCREED WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES MUST BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS IN ACCORDANCE WITH ASTM C 42. THE KEEL SCREED MUST BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND MUST ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. (CFC R103.7.2.1)

MECH, VENT, & INDOOR AIR QUALITY

- VENTILATION AIR SHALL BE PROVIDED DIRECTLY FROM THE OUTDOORS AND NOT AS TRANSFER AIR FROM ADJACENT DWELLING UNITS OR OTHER SPACES SUCH AS GARAGES, UNCONDITIONED CRAWLSPACES, OR UNCONDITIONED ATTICS.
- VENTILATION SYSTEM CONTROLS SHALL BE LABELED AND HOMEOWNER SHALL BE PROVIDED WITH INSTRUCTIONS ON HOW TO OPERATE THE SYSTEM.
- COMBUSTION AND SOLID-FUEL BURNING APPLIANCES SHALL BE PROPERLY VENTED, AND AIR SYSTEMS SHALL BE DESIGNED TO PREVENT BACK DRAFTING.
- WALL AND OPENINGS BETWEEN OCCUPIABLE SPACES AND THE GARAGE SHALL BE SEALED.
- HVAC SYSTEMS THAT INCLUDE AIR HANDLERS OR RETURN DUCTS LOCATED IN GARAGES SHALL HAVE TOTAL AIR LEAKAGE OF NO MORE THAN 6% OF TOTAL FAN FLOW WHEN MEASURED AT 0.1 IN. W.G.
- MINIMUM FILTRATION MECHANICAL SYSTEMS SHALL BE PROVIDED WITH A FILTER HAVING A MINIMUM EFFICIENCY OF MERV 6 OR BETTER WHEN SUPPLYING AIR TO OCCUPIABLE SPACE THROUGH DUCTWORK.
- AIR INLETS (NOT EXHAUST) SHALL BE LOCATED AWAY FROM KNOWN CONTAMINANTS.
- AIR MOVING EQUIPMENT USED TO MEET EITHER THE WHOLE-BUILDING VENTILATION REQUIREMENT OR THE LOCAL VENTILATION EXHAUST REQUIREMENT SHALL BE RATED IN TERMS OF AIRFLOW AND SOUND.
- CONTINUOUSLY OPERATING FANS SHALL BE RATED AT A MAXIMUM OF 1.0 SONE.
- INTERMITTENTLY OPERATED WHOLE-BUILDING VENTILATION FANS SHALL BE RATED AT A MAXIMUM OF 1.0 SONE.
- INTERMITTENTLY OPERATED LOCAL EXHAUST FANS SHALL BE RATED AT A MAXIMUM OF 3.0 SONE.
- REMOTELY LOCATED AIR-MOVING EQUIPMENT (MOUNTED OUTSIDE OF HABITABLE SPACES) SHALL HAVE A MINIMUM OF 4 FEET OF DUCTWORK BETWEEN FAN AND INTAKE GRILL.

ELECTRICAL, PLUMBING, AND MECHANICAL

- EXTERIOR LIGHTINGS MUST COMPLY WITH THE COUNTY OF SAN BERNARDINO LIGHTING ORDINANCE.
- GROUND FAULT CIRCUIT INTERRUPTER (GFCI) OUTLETS ARE REQUIRED IN CERTAIN AREAS SUCH AS BATHROOMS, KITCHENS, GARAGES, AND OUTDOORS.
- ELECTRICAL CIRCUITS IN BEDROOMS, LIVING ROOMS, AND SIMILAR ROOMS MUST BE PROTECTED BY ARC FAULT CIRCUIT INTERRUPTERS (AFCI).
- INSTALLED LIGHTS MUST MEET CERTAIN EFFICACY AND FIXTURE REQUIREMENTS.
- SMOKE DETECTORS ARE REQUIRED IN EACH EXISTING SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA, AND ON EACH STORY OF A DWELLING.
- CARBON MONOXIDE DETECTORS ARE REQUIRED OUTSIDE EACH SEPARATE SLEEPING AREA AND ON EACH STORY OF A DWELLING.
- WATER HEATERS MUST BE SECURED WITH TWO STRAPS AND LAG BOLTS ATTACHED DIRECTLY TO FRAMING.
- WATER CLOSETS MUST HAVE A MINIMUM CLEARANCE OF 30 INCHES WIDE BY 24 INCHES DEEP.
- WATER HEATERS AND HEATING/COOLING EQUIPMENT SUBJECT TO VEHICULAR IMPACT MUST BE PROTECTED BY BOLLARDS OR AN EQUIVALENT MEASURE.
- GAS APPLIANCES IN GARAGES MUST BE PLACED ON A MINIMUM 18-INCH-HIGH PLATFORM.
- SHOWER COMPARTMENTS MUST HAVE A MINIMUM AREA OF 1024 SQUARE INCHES AND A MINIMUM 22-INCH UNOBSTRUCTED DOOR WIDTH.
- FIREPLACES WITH GAS APPLIANCES MUST HAVE THE FLUE DAMPER PERMANENTLY FIXED IN THE OPEN POSITION, AND FIREPLACES WITH LPG APPLIANCES MUST HAVE NO "PI" OR "JUMP" CONFIGURATIONS.
- ALL NONLOCKING TYPE 125/250-VOLT, 15- AND 20-AMP RECEPTACLES IN DWELLING UNITS INCLUDING ATTACHED AND DETACHED GARAGES AND ACCESSORY BUILDINGS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLE EXCEPT FOR RECEPTACLES LOCATED MORE THAN 5' ABOVE THE FLOOR. [CEC 406.12]
- ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, KITCHENS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER COMBINATION TYPE [CEC 210.12(A)].

2022 RESIDENTIAL LIGHTING STANDARDS

EFFECTIVE ON JAN 1, 2023, THE NEW 2022 ENERGY STANDARDS REQUIRES THAT ALL LIGHTING IN RESIDENTIAL BUILDINGS INCLUDING SINGLE-FAMILY RESIDENTIAL, DUPLEX, RESIDENTIAL GARAGE, TOWNHOUSE, MULTI-FAMILY DWELLING UNITS, HIGH-RISE RESIDENTIAL DWELLING UNITS BE HIGH EFFICACY. THE FOLLOWING IS SUMMARY FOR RESIDENTIAL BUILDINGS MANDATORY LIGHTING REQUIREMENTS FROM 2022 CALIFORNIA ENERGY CODE SECTIONS 150.0(K) & 160.5 (FOR MORE DETAILS SEE https://www.energy.ca.gov/sites/default/files/2022-08/CEC-400-2022-010_CHFF.pdf).

LIGHTING

- ALL LUMINAIRES USED MUST BE HIGH-EFFICIENCY, ACCORDING TO THE CBEES TABLE 150.0-A.
- ALL LED LUMINAIRES AND LAMPS USED MUST BE MARKED "JAB-2016" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT <https://cecertappliances.energy.ca.gov/pages/appliancesearch.aspx>
- ALL RECESSED DOWNLIGHT AND ENCLOSED LUMINAIRES USED MUST BE MARKED "JAB-2016-E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT <https://cecertappliances.energy.ca.gov/pages/appliancesearch.aspx>
- RECESSED DOWNLIGHT LUMINAIRES IN CEILINGS MUST NOT BE SCREEN-BASED.
- AT LEAST ONE LUMINAIRE IN EACH BATHROOM, GARAGE, LAUNDRY ROOM, AND UTILITY ROOM MUST BE CONTROLLED BY A VACANCY SENSOR.
- ALL LUMINAIRES REQUIRING "JAB-2016" OR "JAB-2016-E" MARKING SHALL BE CONTROLLED BY A DIMMER OR VACANCY SENSOR EXCEPT: CLOSETS LESS THAN 10 SF, & HALLWAYS
- OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDINGS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING:
 - PHOTOCONTROL AND MOTION SENSOR
 - PHOTOCONTROL AND AUTOMATIC TIME-SWITCH CONTROL
 - ASTRONOMICAL TIME CLOCK
 - ENERGY MANAGEMENT CONTROL SYSTEM PER CBEES 150.0(K)3A111C

GREEN BUILDING STANDARDS CODE (CALGREEN)

- ALL NEWLY CONSTRUCTED BUILDINGS OR STRUCTURES, AND ANY ADDITIONS OR ALTERATIONS THAT INCREASE THE BUILDING'S CONDITIONED AREA, VOLUME, OR SIZE, MUST COMPLY WITH CALGREEN RESIDENTIAL MANDATORY MEASURES IN ACCORDANCE WITH CALGREEN 101.3 AND CALGREEN 301.1.1. EXCEPTION: RESIDENTIAL BUILDINGS UNDERGOING PERMITTED ALTERATIONS, ADDITIONS, OR IMPROVEMENTS, SHALL REPLACE NONCOMPLIANT PLUMBING FIXTURES WITH WATER-CONSERVING PLUMBING FIXTURES AS PER CALGREEN 301.1.1 AND CALGREEN 4303.1.
- WATER CONSERVATION FOR PLUMBING FIXTURES AND FITTINGS IN COMPLIANCE WITH CALGREEN 4303:
 - KITCHEN FAUCETS: MAXIMUM 1.8 GALLONS FLOW RATE PER MINUTE AT 60 PSI, WITH A TEMPORARY INCREASE ALLOWED TO A MAXIMUM OF 2.2 GALLONS PER MINUTE AT 60 PSI, PROVIDED THE FAUCET DEFAULTS BACK TO 1.8 GALLONS PER MINUTE AT 60 PSI
 - LAVATORY FAUCETS: MAXIMUM 1.2 GALLONS FLOW RATE PER MINUTE AT 60 PSI AND MINIMUM 0.8 GALLONS FLOW RATE PER MINUTE AT 20 PSI
 - SINGLE SHOWERHEADS: MAXIMUM 2.0 GALLONS FLOW RATE PER MINUTE AT 80 PSI
 - MULTIPLE SHOWERHEADS SERVING ONE SHOWER: MAXIMUM 2.0 GALLONS COMBINED FLOW RATE PER MINUTE AT 80 PSI
 - E. WATER CLOSETS: MAXIMUM 1.28 FLUSH VOLUME PER FLUSH
 - F. URINALS: MAXIMUM 0.5 FLUSH VOLUME PER FLUSH
- IRRIGATION CONTROLS FOR LANDSCAPING, CALGREEN 4304.1:
 - AUTOMATIC IRRIGATION SYSTEM CONTROLLERS SHALL BE WEATHER- OR SOIL MOISTURE-BASED CONTROLLERS THAT ADJUST IRRIGATION BASED ON CHANGES IN PLANTS' NEEDS AND WEATHER CONDITIONS
 - WEATHER-BASED CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEMS THAT ACCOUNT FOR LOCAL RAINFALL MUST HAVE A SEPARATE WIRED OR WIRELESS RAIN SENSOR CONNECTED OR COMMUNICATING WITH THE CONTROLLERS. RAIN SENSOR INPUT CONTROLLER IS NOT REQUIRED FOR SOIL MOISTURE-BASED CONTROL.
- JOINTS AND OPENINGS IN THE BUILDING ENVELOPE, CALGREEN 4406.1. OPENINGS IN THE BUILDING ENVELOPE SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE MUST BE SEALED ACCORDING TO THE CALIFORNIA ENERGY CODE. HOWEVER, ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS, OR OTHER OPENINGS IN FLATES AT EXTERIOR WALLS MUST BE SEALED WITH GROUT OR MORTAR, CONCRETE MASONRY, OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY TO PREVENT RODENT PASSAGE.
- CONSTRUCTION WASTE REDUCTION, DISPOSAL, AND RECYCLING, CALGREEN 4408.1. THE PROJECT MUST AIM TO REDUCE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION DEBRIS, EXCLUDING EXCAVATED SOIL AND LAND-CLEARING DEBRIS. IF DIVERSION OR RECYCLE FACILITIES CAPABLE OF COMPLIANCE WITH THIS REQUIREMENT ARE NOT AVAILABLE REASONABLY CLOSE TO THE JOBSITE, ALTERNATIVE WASTE REDUCTION METHODS CAN BE DEVELOPED IN COLLABORATION WITH LOCAL AGENCIES.
- CONSTRUCTION WASTE MANAGEMENT PLAN, CALGREEN 4408.2. A CONSTRUCTION WASTE MANAGEMENT PLAN MUST BE AVAILABLE ON-SITE DURING CONSTRUCTION. THE PLAN MUST:
 - IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL, BY RECYCLING, REUSE, OR SALVAGE.
 - SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM).
 - IDENTIFY THE CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED.
 - SPECIFY THAT THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE MATERIALS DIVERTED, CALCULATION SHALL BY BY HEIGHT OR VOLUME, BUT NOT BY BOTH.
 - IDENTIFY THE DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE TAKEN.
- OPERATION AND MAINTENANCE MANUAL, CALGREEN 4410.1. A MANUAL, CONTACT DISC, WEB-BASED REFERENCE, OR OTHER ACCEPTABLE MEDIA SHALL BE PROVIDED PRIOR TO FINAL INSPECTION. THE MANUAL SHALL CONTAIN THE FOLLOWING INFORMATION AND REMAIN WITH THE BUILDING THROUGHOUT ITS LIFE CYCLE:
 - DIRECTIONS TO THE OWNER OR OCCUPANT EMPHASIZING THE MANUAL'S IMPORTANCE AND ITS RETENTION WITH THE BUILDING.
 - OPERATION AND MAINTENANCE INSTRUCTIONS FOR:
 - EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEM, WATER-HEATING SYSTEMS, PHOTOVOLTAIC SYSTEMS, AND OTHER MAJOR EQUIPMENT AND APPLIANCES.
 - WATER REUSE SYSTEMS.
 - ROOF DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS.
 - SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS.
 - LANDSCAPE IRRIGATION SYSTEMS.
 - LAND DRAINAGE
 - INFORMATION ON WATER-CONSERVING LANDSCAPE AND IRRIGATION DESIGN AS WELL AS CONTROLLERS THAT PROMOTE WATER CONSERVATION.
 - INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND EMPHASIZING THE IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE BUILDING.
 - INFORMATION FROM LOCAL UTILITY, WATER, AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS.
 - EDUCATIONAL MATERIAL HIGHLIGHTING THE POSITIVE IMPACTS OF MAINTAINING INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 PERCENT AND PROVIDING METHODS FOR OCCUPANTS TO ACHIEVE AND MAINTAIN THIS RANGE.
 - INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING CAULKING, PAINTING, GRADING AROUND THE BUILDING, ETC.
 - DETAILS OF PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA.
- INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE.
- A COPY OF ALL SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR CODE.
- COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION, CALGREEN 4504.1. MINIMIZE DUST OR DEBRIS ACCUMULATION IN THE SYSTEM, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY DURING ROUGH INSTALLATION, STORAGE ON THE CONSTRUCTION SITE, AND UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT.
- CARPET SYSTEMS, CALGREEN 4504.3. ENSURE THAT ALL CARPET INSTALLED IN THE BUILDING INTERIOR COMPLIES WITH THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING OPTIONS:
 - CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM (ALL CARPET CUSHION MUST MEET THE REQUIREMENTS OF THIS PROGRAM).
 - CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARD PRACTICE FOR THE TESTING OF VOCs (SPECIFICATION 01350).
 - NSF/ANSI 140 AT THE GOLD LEVEL.
 - SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD.

- ADHESIVES, SEALANTS, CAULKS, PAINTS, AND COATINGS POLLUTANT CONTROL, CALGREEN 4504.2.1. ADHESIVES (INCLUDING CARPET ADHESIVES), SEALANTS, CAULKS, PAINTS, AND COATINGS SHALL COMPLY WITH VOC (VOLATILE ORGANIC COMPOUND) LIMITS AS SPECIFIED IN CALGREEN 4504.2. VERIFICATION OF COMPLIANCE MUST BE PROVIDED UPON REQUEST BY THE ENFORCING AGENCY.
 - RESILIENT FLOORING SYSTEMS CALGREEN 4504.4. AT LEAST 80 PERCENT OF THE FLOOR AREA RECEIVING RESILIENT FLOORING, COMPLY WITH ONE OR MORE OF THE FOLLOWING CRITERIA:
 - MEET THE VOC EMISSION LIMITS DEFINED IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE.
 - USE PRODUCTS COMPLIANT WITH CHPS CRITERIA CERTIFIED UNDER THE GREENGUARD CHILDREN & SCHOOLS PROGRAM.
 - OBTAIN CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM.
 - MEET THE REQUIREMENTS OF THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH'S "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 11, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).
 - COMPOSITE WOOD PRODUCTS, CALGREEN 4504.5. ENSURE THAT HARDWOOD PLYWOOD, PARTICLEBOARD, AND MEDIUM-DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING MEET THE FORMALDEHYDE REQUIREMENTS SPECIFIED IN ARB'S AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (17 COR 93120 ET SEQ.), AS SHOWN IN CALGREEN TABLE 4504.5. THE FOLLOWING FORMALDEHYDE LIMITS APPLY IN PARTS PER MILLION:
 - HARDWOOD PLYWOOD VENEER CORE: 0.05
 - HARDWOOD PLYWOOD COMPOSITE CORE: 0.05
 - PARTICLE BOARD: 0.04
 - MEDIUM-DENSITY FIBERBOARD (MDF): 0.11
 - THIN MDF (5/16 INCH OR LESS): 0.13
 - MOISTURE CONTENT OF BUILDING MATERIALS, CALGREEN 4505.3. DO NOT INSTALL BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE, ENCLOSE WALL AND FLOOR FRAMING ONLY IF THE MOISTURE CONTENT OF FRAMING MEMBERS DOES NOT EXCEED 19 PERCENT. VERIFY MOISTURE CONTENT COMPLIANCE USING THE FOLLOWING GUIDELINES (I):
 - DETERMINE MOISTURE CONTENT USING EITHER A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER.
 - TAKE MOISTURE READINGS AT A POINT 2 FEET TO 4 FEET FROM THE GRADE-STAMPED END OF EACH PIECE TO BE VERIFIED.
 - PROVIDE DOCUMENTATION OF AT LEAST THREE RANDOM MOISTURE READINGS ON WALL AND FLOOR FRAMING TO THE ENFORCING AGENCY BEFORE APPROVING ENCLOSURE. REPLACE INSULATION PRODUCTS THAT ARE VISIBLY WET OR HAVE HIGH MOISTURE CONTENT, OR ALLOW THEM TO DRY BEFORE ENCLOSING THEM IN WALL OR FLOOR CAVITIES. KET-APPLIED INSULATION PRODUCTS MUST FOLLOW THE MANUFACTURERS' DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.
 - BATHROOMS WITH A BATHTUB AND/OR SHOWER, CALGREEN 4506.1. MECHANICALLY VENTILATE BATHROOMS AS PER THE FOLLOWING REQUIREMENTS:
 - USE ENERGY STAR COMPLIANT FANS THAT ARE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
 - FANS MUST HAVE HUMIDITY CONTROLS CAPABLE OF MANUAL OR AUTOMATIC ADJUSTMENT WITHIN A RELATIVE HUMIDITY RANGE OF 50% TO 80%, UNLESS THEY FUNCTION AS A COMPONENT OF A WHOLE-HOUSE VENTILATION SYSTEM.
 - HEATING AND AIR-CONDITIONING SYSTEM DESIGN, CALGREEN 4507.1. SIZE, DESIGN, AND SELECT HEATING AND AIR-CONDITIONING SYSTEMS USING THE FOLLOWING METHODS:
 - ESTABLISH HEAT LOSS AND HEAT GAIN ACCORDING TO ANSI/ACCA 2 MANUAL, J. ASHRAE HANDBOOKS, OR EQUIVALENT DESIGN SOFTWARE OR METHODS.
 - SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL, D 2009, ASHRAE HANDBOOKS, OR EQUIVALENT DESIGN SOFTWARE OR METHODS.
 - SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ACCA 36-S MANUAL, S OR EQUIVALENT DESIGN SOFTWARE OR METHODS.
 - AIR INFILTRATION, CALGREEN 5408.1. BUILDINGS SHALL BE CONSTRUCTED TO MINIMIZE AIR INFILTRATION AS REQUIRED BY THE CALIFORNIA ENERGY CODE. JOINTS, SEAMS, PENETRATIONS, AND OTHER POTENTIAL AIR LEAKAGE POINTS SHALL BE SEALED WITH MATERIALS COMPLIANT WITH THE CALIFORNIA ENERGY CODE.
 - REFRIGERANT CHARGE VERIFICATION, CALGREEN 5504.1. REFRIGERANT CHARGE LEVELS IN HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEMS SHALL BE VERIFIED IN ACCORDANCE WITH THE CALIFORNIA ENERGY CODE REQUIREMENTS. VERIFICATION OF THE REFRIGERANT CHARGE SHALL BE PROVIDED UPON REQUEST BY THE ENFORCING AGENCY.
 - ENERGY PERFORMANCE COMPLIANCE, CALGREEN 5508.1. BUILDINGS SHALL COMPLY WITH THE ENERGY EFFICIENCY STANDARDS SET FORTH IN THE CALIFORNIA ENERGY CODE. COMPLIANCE SHALL BE DEMONSTRATED THROUGH ENERGY MODELING OR OTHER APPROVED METHODS, AND DOCUMENTATION SHALL BE PROVIDED UPON REQUEST BY THE ENFORCING AGENCY.
 - RENEWABLE ENERGY SYSTEM, CALGREEN 5508.2. BUILDINGS SHALL PROVIDE A RENEWABLE ENERGY SYSTEM THAT MEETS THE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE. THE RENEWABLE ENERGY SYSTEM SHALL BE DESIGNED, INSTALLED, AND VERIFIED IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND DOCUMENTATION SHALL BE PROVIDED UPON REQUEST BY THE ENFORCING AGENCY.
 - COMMISSIONING OF MECHANICAL AND ELECTRICAL SYSTEMS, CALGREEN 5508.3. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE COMMISSIONED IN ACCORDANCE WITH THE CALIFORNIA ENERGY CODE. COMMISSIONING DOCUMENTATION, INCLUDING TEST REPORTS AND VERIFICATION RECORDS, SHALL BE PROVIDED UPON REQUEST BY THE ENFORCING AGENCY.

SOLAR PANEL

- SOLAR ZONE AREA IS REQUIRED. MINIMUM A 25% OF THE FLOOR AREA BUT SHALL NOT BE LESS THAN 144 SQUARE FEET.
- THE DEDICATED SOLAR ZONE AREA MUST BE LOCATED BETWEEN 110 AND 270 DEGREES OF TRUE NORTH.
- THERE MUST BE NO OBSTRUCTIONS, INCLUDING VENTS, CHIMNEYS, SKYLIGHTS, ARCHITECTURAL FEATURES, OR ROOF-MOUNTED EQUIPMENT, LOCATED WITHIN THE SOLAR ZONE.
- A MINIMUM OF 3 INCHES OF FIRE FIGHTER ACCESS IS REQUIRED.
- A 1'-6" SMOKE VENTILATION SETBACK AT RIDGES IS REQUIRED.
- THE MAIN ELECTRICAL SERVICE PANEL MUST NOT HAVE A CENTER-FED MAIN CIRCUIT BREAKER AND MUST INCLUDE RESERVED SPACE FOR THE INSTALLATION OF DOUBLE-POLE CIRCUIT BREAKERS FOR A FUTURE SOLAR PHOTOVOLTAIC SYSTEM. THIS RESERVED SPACE MUST BE LOCATED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER OR MAIN CIRCUIT BREAKER LOCATION AND MUST BE PERMANENTLY AND VISIBLY MARKED AS "FOR FUTURE SOLAR PHOTOVOLTAIC."
- AN APPROVED MINIMUM 4-INCH SQUARE ELECTRICAL JUNCTION BOX MUST BE LOCATED WITHIN 12 INCHES HORIZONTALLY AND 12 INCHES VERTICALLY OF THE MAIN ELECTRICAL SERVICE PANEL.
- A MINIMUM 1-INCH DIAMETER LISTED ELECTRICAL METALLIC RACEWAY MUST ORIGINATE AT A READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY TO THE SOLAR ZONE AREA AND TERMINATE AT THE REQUIRED ELECTRICAL JUNCTION BOX.
- A MINIMUM 1-INCH DIAMETER LISTED ELECTRICAL METALLIC RACEWAY MUST ORIGINATE AT THE REQUIRED ELECTRICAL JUNCTION BOX AND TERMINATE AT THE MAIN ELECTRICAL SERVICE PANEL.
- THE ELECTRICAL JUNCTION BOX AND SEGMENT OF METALLIC RACEWAY IN THE ATTIC MUST BE PERMANENTLY AND VISIBLY MARKED AS "FOR FUTURE SOLAR PHOTOVOLTAIC."

SMOKE & CARBON MONOXIDE REQUIREMENT

- CARBON MONOXIDE ALARM
- CO ALARMS SHALL BE "HARD WIRED" AND SHALL BE EQUIPPED WITH BATTERY BACKUP. [CFC R315.6]
 - CO ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034 [CFC R315.1.1]. CO DETECTOR SHALL BE LISTED IN ACCORDANCE WITH UL 2034 [CFC R315.1.1].
 - CO ALARMS SHALL BE INTERCONNECTED SUCH THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL ALARMS IN THE INDIVIDUAL DWELLING UNIT. [CFC R315.5]
 - IN EXISTING DWELLING UNIT, A CO ALARM IS PERMITTED TO BE BATTERY OPERATED WHERE REPAIR OR ALTERATION DO NOT RESULT IN THE REMOVAL OF WALL OR CEILING FINISHES. [CFC R315.5 EXCEPTIONS 1]
- SMOKE ALARM:
- AN APPROVED SMOKE ALARM SHALL BE INSTALLED FOR NEW CONSTRUCTION AND ALTERATION, REPAIR OR ADDITIONS REQUIRING PERMIT EXCEEDING \$1000. [CFC R314.2.2, R314.2.2.A.1]
 - BATTERY OPERATED SMOKE ALARMS PERMITTED IN EXISTING BUILDINGS WHERE NO CONSTRUCTION IS TAKING PLACE OR IN BUILDING UNDERGOING ALTERATION OR REPAIR THAT DO NOT RESULT IN THE REMOVAL OF INTERIOR WALLS OR CEILING FINISHES, UNLESS THERE IS AN ATTIC, CRAWL SPACE OR BASEMENT WHICH COULD PROVIDE ACCESS FOR WIRING. [CFC R314.6 EXCEPTIONS 1, 3]
 - SMOKE ALARMS SHALL BE INTERCONNECTED SUCH THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL ALARMS IN THE INDIVIDUAL DWELLING UNIT. [CFC R314.4]
 - SMOKE DETECTORS SHALL BE "HARD WIRED" AND SHALL BE EQUIPPED WITH BATTERY BACKUP. [CFC R314.6]

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CONSTRUCTION SPECIFICATION

CARNATION ADU (738 SQ. FT.)

8853 SIERRA AVE.
FONTANA, CA 92335

Sheet Title:

Scale:

N.T.S.

Drawn By:

CT

Check By:

CT

Print Date:

3/1/25

Sheet

Drawing Date:

3/1/25

CS1

GENERAL NOTES

TYPICAL ABBREVIATIONS

A.B. = ANCHOR BOLT	K.P. = KING POST
ARCH. = ARCHITECT/ARCHITECTURAL	L.G. = LONG
BLK/G = BLOCKING	MAX. = MAXIMUM
BM. = BEAM	M.B. = MACHINE BOLT
B.N. = BOUNDARY NAILING	MECH. = MECHANICAL
B.S. = BOUNDARY SCREW	MIN. = MINIMUM
B.O.B. = BOTTOM OF BEAM	N.T.S. = NOT TO SCALE
CANT. = CANTILEVER	O.C. = ON CENTER
CF. = CONTINUOUS FOOTING	PF. = PAD FOOTING
C.I.P. = CAST IN PLACE CONCRETE	PLYD = PLYWOOD
C.J. = CEILING JOIST	REINF. = REINFORCING
CL.R. = CLEAR	REQD. = REQUIRED
COL. = COLUMN	R.R. = ROOF RAFTER
CONC. = CONCRETE	S.T.S. = SELF TAPPING SCREW
CONT. = CONTINUOUS	SIMP. = SIMPSON
DP. = DEEP	STL. = STEEL
DIAG. = DIAGONAL	STIFF. = STIFFENER PLATE
EN. = EDGE NAILING	SQ. = SQUARE
EW. = EACH WAYS	THK. = THICK
EXT. = EXTERIOR	THRD. = THREADED
F.F. = FULL PENETRATION	T.O.B. = TOP OF BEAM
F.F. = FINISH FLOOR	T.O.M. = TOP OF MASONRY
F.G. = FINISH GRADE	T.O.P. = TOP OF PARAPET
F.S. = FIELD SCREW	T.O.S. = TOP OF SHEETING
GALV. = GALVANIZED	TYP. = TYPICAL
GLB. = GLUE LAMINATED BEAM	UNO. = UNLESS NOTED OTHERWISE
HORIZ. = HORIZONTAL	VERT. = VERTICAL
HSS. = HOLLOW TUBULAR STEEL	Ø = DIAMETER
INT. = INTERIOR	

WALL / STRUCTURAL SYMBOLS / LEGEND

- DETAIL OR SECTION NUMBER SHEET WHERE DRAWN
- DIRECTION OF STRUT
- ELEVATION FROM DATUM
- MASONRY IN PLAN OR SECTION VIEW
- BEAM REFERENCE NUMBER
- POST, HOLDOWN @ FDN. OR STRAP FLOOR TO FLOOR SYMBOL
- PAD FOOTING OR CONTINUOUS FOOTING SYMBOL
- TRUSS OR WALL ELEVATION NUMBER SHEET WHERE DRAWN
- ELEVATION TO BOTTOM OF FOOTING OR GRADE BEAM
- ROOF DIRECTION AND SLOPE
- WOOD MEMBER IN SECTION
- 2x4 WALL
- 2x4 PONY WALL
- 2x6 WALL
- INDICATES DBL. 2x STUDS UNO.
- INDICATES SHEAR PANEL CONSTRUCTION SEE SHEAR WALL SCHEDULES ON SHEET S2.1.
- INDICATES LENGTH OF SHEAR WALL
- INDICATES POST IN WALLS UNO.
- WINDOW - SEE WINDOW SCHEDULE
- DOOR - SEE DOOR SCHEDULE

DESIGN CRITERIA

- DESIGN LOADS:
 - ROOF SLOPE 4:12
 - A. DEAD LOAD = 21 PSF
 - B. LIVE LOAD = 20 PSF (REDUCIBLE)
- ALL WORK SHALL BE DONE IN CONFORMANCE WITH CALIFORNIA BUILDING CODE (CBC-2022) & CALIFORNIA RESIDENTIAL CODE (CRC-2022)
- ALLOWABLE SOIL PRESSURES: 1500 PSF PER 2022 CBC TABLE 1806.2
- ALL REQUIRED FILL AND BACKFILL SHALL BE COMPACTED TO AT LEAST 10% OF THE MAXIMUM DRY DENSITY OBTAINABLE BY THE A.S.T.M. DESIGNATION D-1557-12 TEST METHOD OF COMPACTION, FLOODING OR JETTING IS NOT PERMITTED.
- SEISMIC DESIGN CRITERIA: 2022 C.B.C. WITH SEISMIC COEFFICIENTS PER SECTION 1613 SEISMIC PROVISIONS
LATITUDE = 34.03445° N
LONGITUDE = -117.643402° W
SITE CLASS = D
MAPPED SPECTRAL ACCELERATION, $S_s = 1.18$ g
MAPPED SPECTRAL ACCELERATION, $S_1 = 0.415$ g
SITE COEFFICIENT, $F_a = 1.2$
SITE COEFFICIENT, $F_v = 1.4$
MAX. SPECTRAL ACCELERATION, $S_{ms} = 1.4$ g
MAX. SPECTRAL ACCELERATION, $S_{m1} = 1.34$ g
DESIGN SPECTRAL ACCELERATION, $S_{ds} = 1.21$ g
DESIGN SPECTRAL ACCELERATION, $S_{d1} = 0.93$ g
- WIND LOAD: 110 MPH, EXPOSURE "C"
- AIRPORT NOISE IMPACT ZONE(PART 150): NO

GENERAL

- THE STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDIARY, STRUCTURAL DAMAGE OR OTHER OBJECTIONABLE CONDITIONS CAUSED BY HIS OPERATIONS.
- ANY CHANGE, MODIFICATION OR ALTERATION OF THESE PLANS SHALL BE AT THE SOLE RISK OF THE PERSON MAKING OR CAUSING THE SAME. ALL CHANGE, MODIFICATION AND/OR ALTERATION TO THE APPROVED CONSTRUCTION DOCUMENT SHALL BE REVIEWED AND APPROVED BY A LICENSED STRUCTURAL ENGINEER, ARCHITECT OF RECORD AND BY BUILDING & SAFETY PRIOR TO FABRICATION AND INSTALLATION.
- THE OWNER AGREES TO HOLD HARMLESS, INDEMNIFY, AND DEFEND THE ARCHITECT, HIS EMPLOYEES, AND ENGINEERS AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND COST OF DEFENSE ARISING OUT OF THE ERRORS OR OMISSIONS, OR NEGLIGENT ACTS CAUSED BY THE MODIFICATIONS TO THE PLANS AND SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO THE 2022 CALIFORNIA BUILDING CODE STANDARDS, AND THE REGULATIONS OF THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES.
- THESE NOTES AND SPECIFICATIONS ON STRUCTURAL DRAWINGS GOVERN IN CASE OF CONFLICT WITH OTHER SPECIFICATIONS. NOTIFY ENGINEER OF CONFLICTS WITH OTHER SPECIFICATIONS IMMEDIATELY.
- NOTES AND DETAILS ON STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, SPECIFICATIONS AND DETAILS CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER/ARCH. IMMEDIATELY.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS. TYPICAL DETAILS AND GENERAL NOTES ARE MINIMUM REQUIREMENTS TO BE USED WHEN CONDITIONS ARE NOT SHOWN OTHERWISE.
- CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERS, FOUNDATIONS ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON ROOF. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING.
- WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.

CONCRETE

- ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28-DAYS, UNLESS NOTED OTHERWISE. THE WATER TO CEMENT RATIO SHALL NOT EXCEED 6 1/2-GAL. PER SACK OF CEMENT. MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD. MAX. SLUMP = 4"
- ALL CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.
- ALL CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE I OR II, LOW ALKALI.
- FINE AND COARSE AGGREGATE SHALL CONFORM TO A.S.T.M. C-33 FOR STANDARD WEIGHT CONCRETE.
- ALL AGGREGATE SHALL BE COMPARABLE TO "SAN GABRIEL VALLEY" AGGREGATE. THE SHRINKAGE SHALL BE AS PER A.S.T.M. C-33 WITH THE AVERAGE DRYING SHRINKAGE AT 28-DAYS OF DRYING NOT EXCEEDING 0.04%.
- DRYPACK SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND.
- CONCRETE SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 10-DAYS OR BY AN APPROVED CURING COMPOUND.
- FURNISH AND INSTALL CONCRETE AS INDICATED IN THE PLANS AND FOLLOWING NOTES AND IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

REINFORCING STEEL

- ALL REINFORCING SHALL BE A.S.T.M. A-615 GRADE 60 UNO.
- ALL REINFORCING TO BE WELDED SHALL BE OF A WELDABLE GRADE SUCH AS A.S.T.M. A706.
- REINFORCING BARS MARKED CONTINUOUS SHALL BE SPLICED WITH A LAP OF 55 BAR DIAMETERS IN MASONRY (24" MIN.) AND 30 BAR DIAMETERS IN CONCRETE (24" MIN.).
- ALL REINFORCING SHALL BE SECURELY TIED AND BRACED IN PLACE PRIOR TO POURING CONCRETE OR PLACING MASONRY.
- USE LOW HYDROGEN ELECTRODES, GRADE E-70 FOR WELDED REINFORCING BARS.
- PROVIDE THE FOLLOWING MINIMUM COVERING OF CONCRETE:
 - BELOW GRADE (UNFORMED).....3" CLR.
 - BELOW GRADE (FORMED).....2" CLR.
- REINFORCING STEEL SHOP DRAWINGS FOR STRUCTURAL CONCRETE SLAB AND BEAMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER THROUGH ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

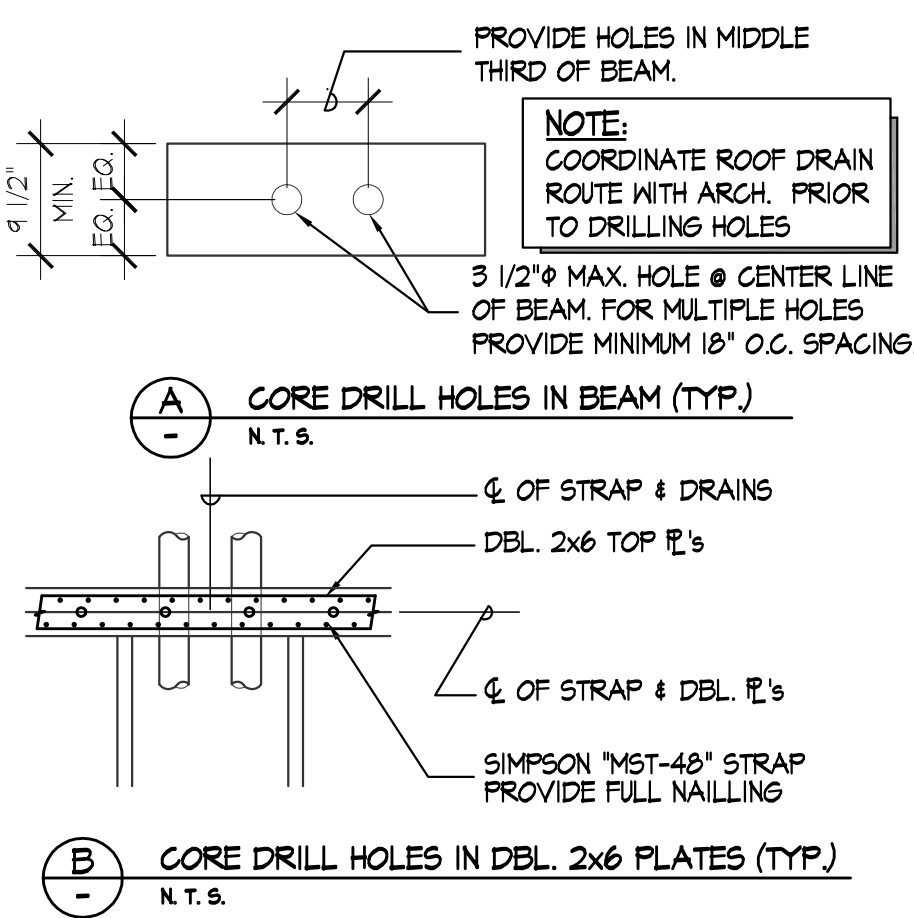
LUMBER

- ALL STRUCTURAL LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE "GRADING AND DRESSING RULES #16 OF THE WEST COAST LUMBER INSPECTION BUREAU."
- ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR-LARCH OF THE FOLLOWING GRADES UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS:
 - STUDS, PLATES, BLOCKING.....DF #2
 - 4x BEAMS, STRINGERS.....DF #1
 - 6x & LARGER MEMBERS.....DF #1
 - POSTS & MULLIONS.....COM. DEK. -1450F
 - JOISTS & PLANKING & RAFTERS.....DF #1
 - BOARDS, SHEATHING & STRIPPING.....CONST. GRADE
 - SILLS, PLATES, SLEEPERS, POSTS OR WOOD IN CONTACT WITH CONCRETE WHICH IS IN CONTACT WITH EARTH.....CONST. GRADE PRESSURE TREATED
- ALL STRUCTURAL PLYWOOD SHALL CONFORM TO PS-1-45, AND SHALL BE IDENTIFIED WITH D.F.P.A. GRADE TRADEMARK.
- ALL LUMBER, PLYWOOD, FIBER SHEATHING, PARTICLE BOARD AND STRUCTURAL GLUE-LAM TIMBER MUST BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY. PROVIDE MATERIAL SPECS. ON PLANS. C.B.C. SECTION 2304
- ALL STRUCTURAL PLYWOOD SHALL BE MANUFACTURED WITH EXTERIOR GLUE AND CONFORM TO PS-1-45. EACH SHEET SHALL BE IDENTIFIED WITH A D.F.P.A. GRADE TRADEMARK. SEE DRAWINGS FOR GRADE AND THICKNESS.
- STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED OR DETAILED.
- 2x SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS.
- ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR.
- ALL BOLTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS UNDER HEAD AND NUT, UNLESS NOTED OTHERWISE.
- HOLES FOR BOLTS SHALL BE BORED WITH A BIT 1/32" TO 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER.
- ALL BOLTS SHALL BE RE-TIGHTENED PRIOR TO APPLICATION OF PLYWOOD, PLASTER, ETC.
- WHERE LAG SCREWS ARE USED, PRE-DRILL HOLE FOR SHANK THE SAME DIAMETER AS THE SHANK, AND 75% SHANK DIAMETER FOR THE THREADED PORTION. SCREWS SHALL BE INSERTED WITH THE TURN OF A WRENCH. DRIVING WITH A HAMMER WILL NOT BE PERMITTED.
- ALL JOIST HANGERS SHALL BE "SIMPSON," OR AN APPROVED EQUAL.

GENERAL NAILING NOTES

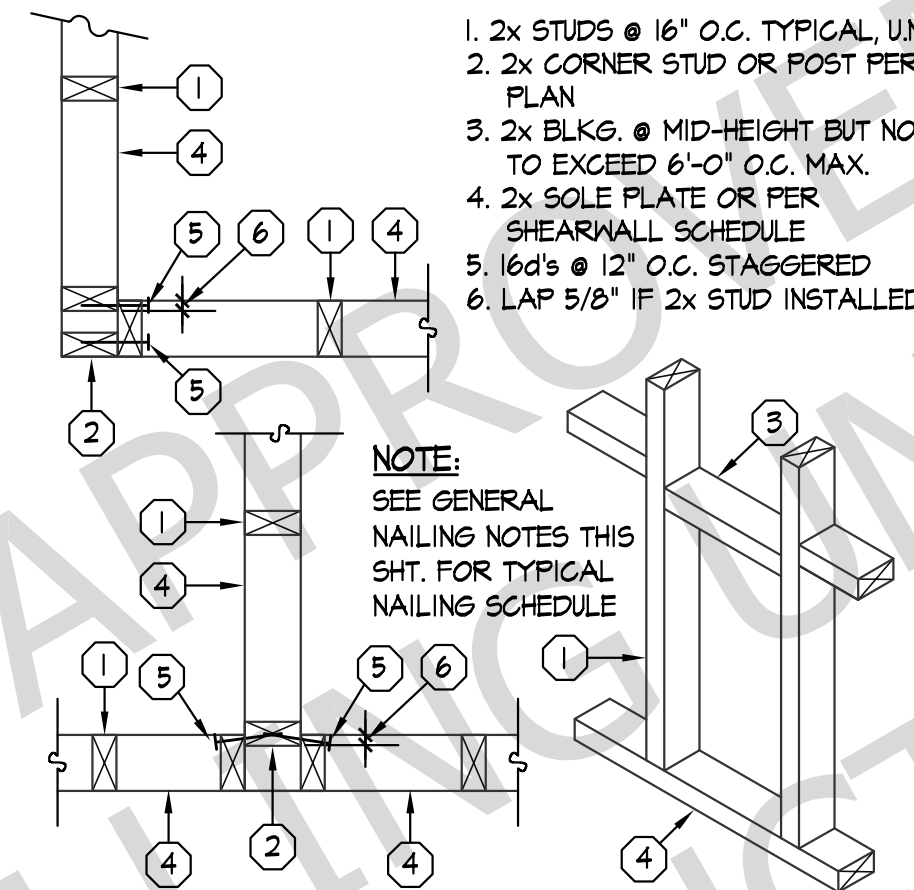
- ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS NOTED OTHERWISE AND SHALL CONFORM TO 2022 CALIFORNIA BUILDING CODE, TABLE NO. 2304.101
- FASTENERS FOR PRESERVATIVE & FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A 153, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- NAILS SHALL BE DRIVEN PERPENDICULAR WHERE POSSIBLE INSTEAD OF TOENAILS.
- PRE-DRILL FOR ALL NAILS 20d OR LARGER.

TYPICAL NAILING SCHEDULE, UNLESS NOTED OTHERWISE		QUANTITY OR SPACING	PENNY WEIGHT COMMON NAILS	LENGTH (INCHES)	DIAMETER (INCHES)
A. JOIST TO SILL OR GIRDER TOENAIL		3	8d	2 1/2"	0.131"
B. BRIDGING TO JOIST TOENAIL EACH END		2	8d	2 1/2"	0.131"
C. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL		2	8d	2 1/2"	0.131"
D. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL		3	8d	2 1/2"	0.131"
E. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL		2	16d	3 1/2"	0.162"
F. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL		16" O.C.	16d	3 1/2"	0.135"
G. SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL		8" O.C.	16d	3"	0.131"
H. SOLE PLATE TO STUD OR BLOCKING AT BRACED WALL PANEL		16" O.C.	16d	3 1/2"	0.135"
I. STUD TO SOLE PLATE, TOENAIL		4	8d	2 1/2"	0.131"
J. STUD TO SOLE PLATE, END NAIL		2	16d	3 1/2"	0.162"
K. DOUBLE STUD, FACE NAIL UNO.		24" O.C.	16d	3 1/2"	0.162"
L. DOUBLE TOP PLATE, TYP. FACE NAIL		16" O.C.	16d	3 1/2"	0.165"
M. DOUBLE TOP PLATE, TYP. FACE NAIL		8" O.C.	16d	3"	0.131"
N. RIM JOIST TO TOP PLATE, TOENAIL		6" O.C.	8d	2 1/2"	0.131"
O. RIM JOIST TO TOP PLATE, TOENAIL		6" O.C.	8d	3"	0.131"
P. TOP PLATES, LAPS & INTERSECTIONS, FACE NAILS		2	16d	3 1/2"	0.162"
Q. CONTINUOUS HEADER, TWO PIECES, NAIL ALONG EDGE		3	8d	3"	0.131"
R. CEILING JOIST TO PLATE, TOENAIL		3	8d	2 1/2"	0.131"
S. CONTINUOUS HEADER TO STUD, TOENAIL		5	8d	3"	0.131"
T. RAFTER TO PLATE, TOENAIL		3	8d	2 1/2"	0.131"
U. 1" DIAGONAL BRACE TO EACH STUD & PLATE, FACE NAIL		2	8d	2 1/2"	0.131"
V. 1" x 8" OR WIDER SHEATHING TO EACH BEARING, FACE NAIL UNO.		2	8d	2 1/2"	0.131"
W. BUILT-UP CORNER STUDS		12" O.C.	16d	3 1/2"	0.162"
X. BUILT-UP GIRDER & BEAM, FACE NAIL AT TOP & BOTTOM STAGGERED ON OPPOSITE SIDES		8" O.C.	20d	4"	0.192"
Y. 2" PLANKS, AT EACH BEARING		24" O.C.	20d	4"	0.192"
Z. JACK RAFTER TO HIP, TOENAIL		2	16d	3 1/2"	0.162"
AA. JACK RAFTER TO HIP, FACE NAIL		2	16d	3 1/2"	0.162"
AB. JOIST TO BAND JOIST, FACE NAIL		3	16d	3 1/2"	0.162"
AC. LEDGER STRIP, FACE NAIL		3	16d	3 1/2"	0.162"
AD. LEDGER STRIP, FACE NAIL		4	8d	3"	0.131"



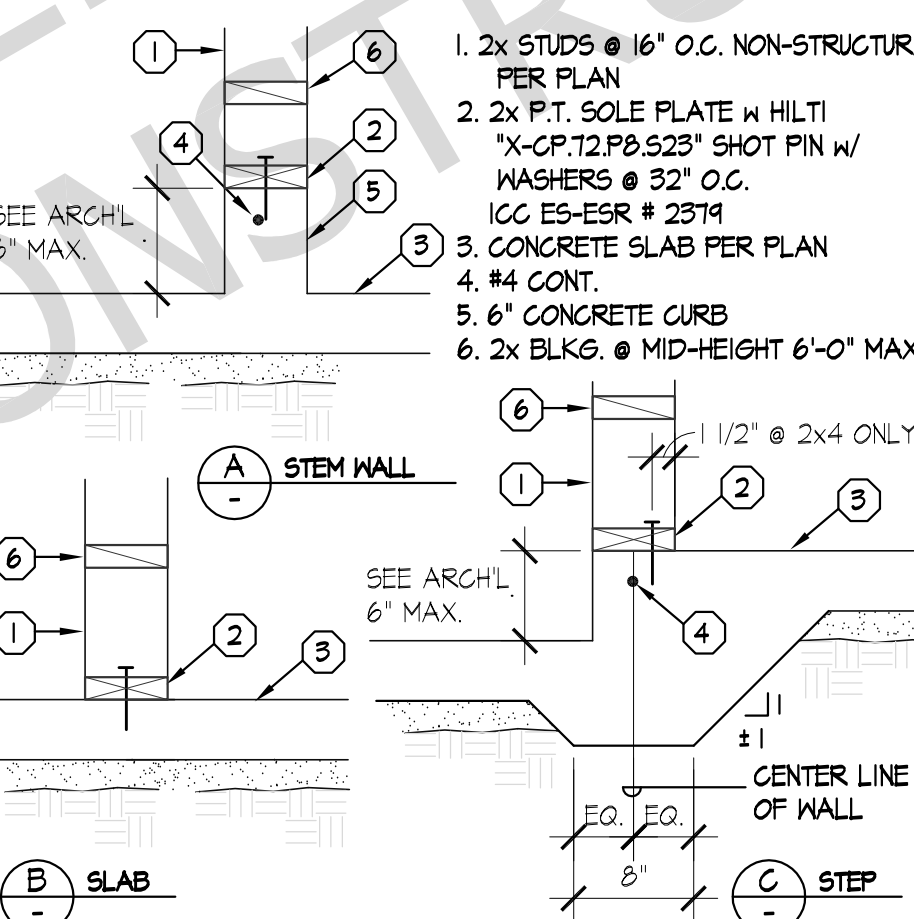
CORE DRILL HOLE

9



PARTITION WALL

10

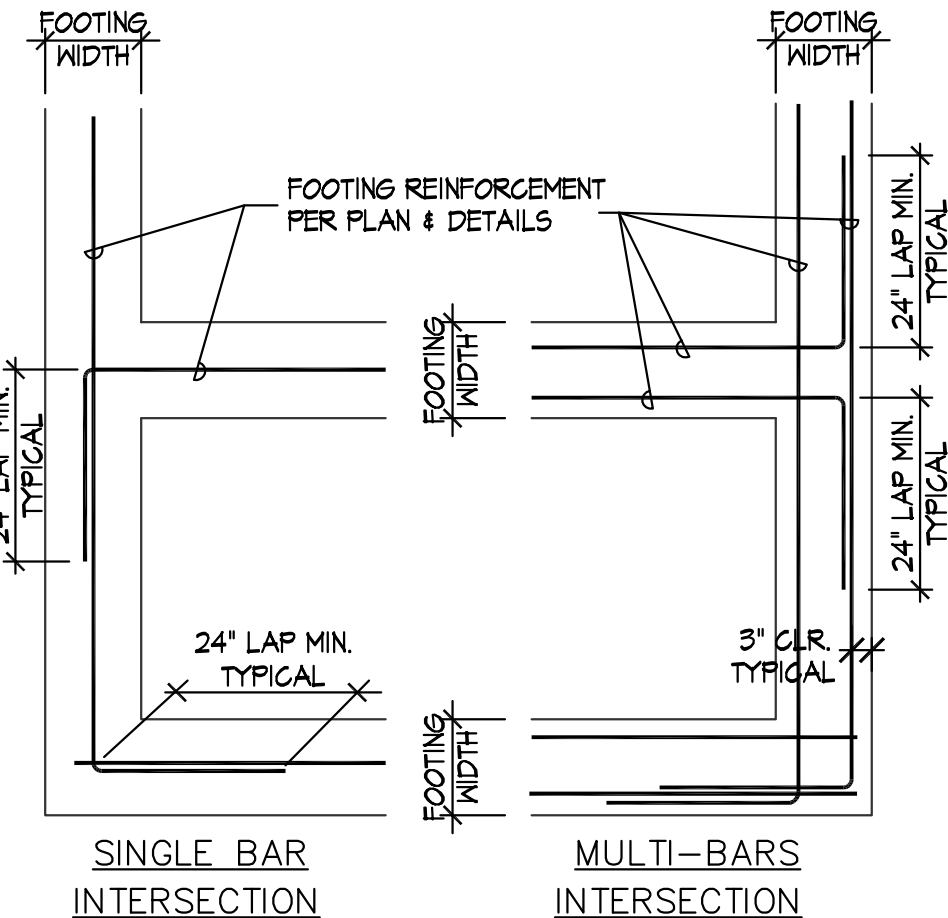


PARTITION WALL TO SLAB

11

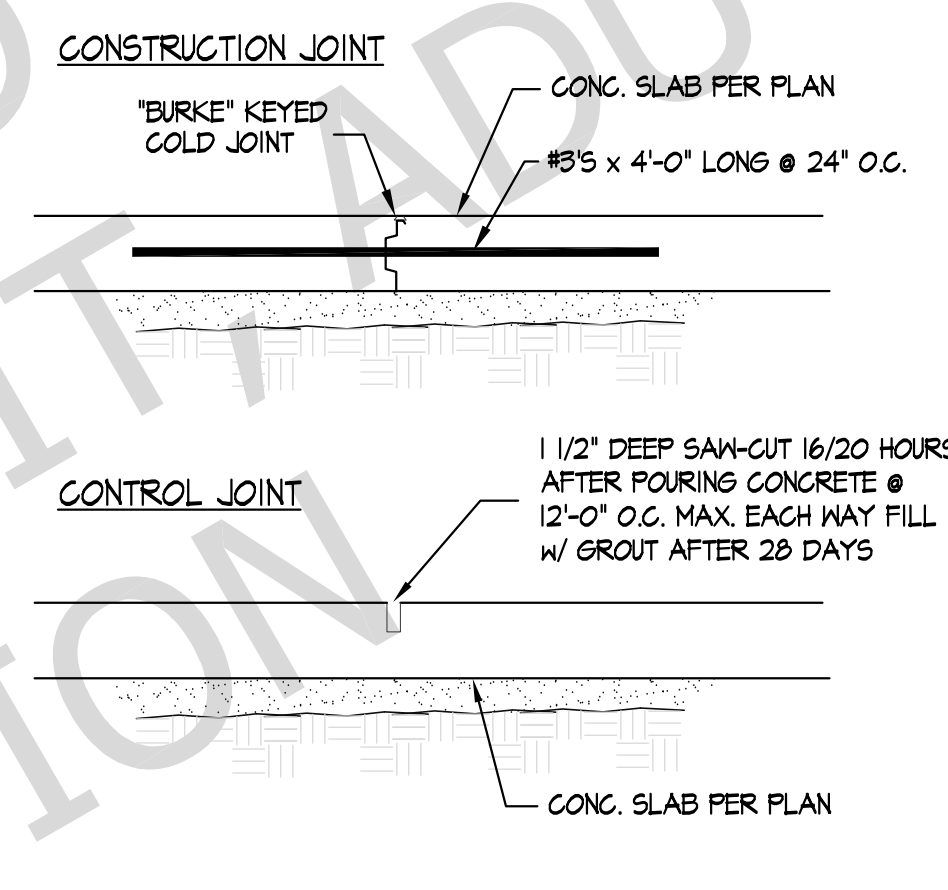


GENERAL DETAILS



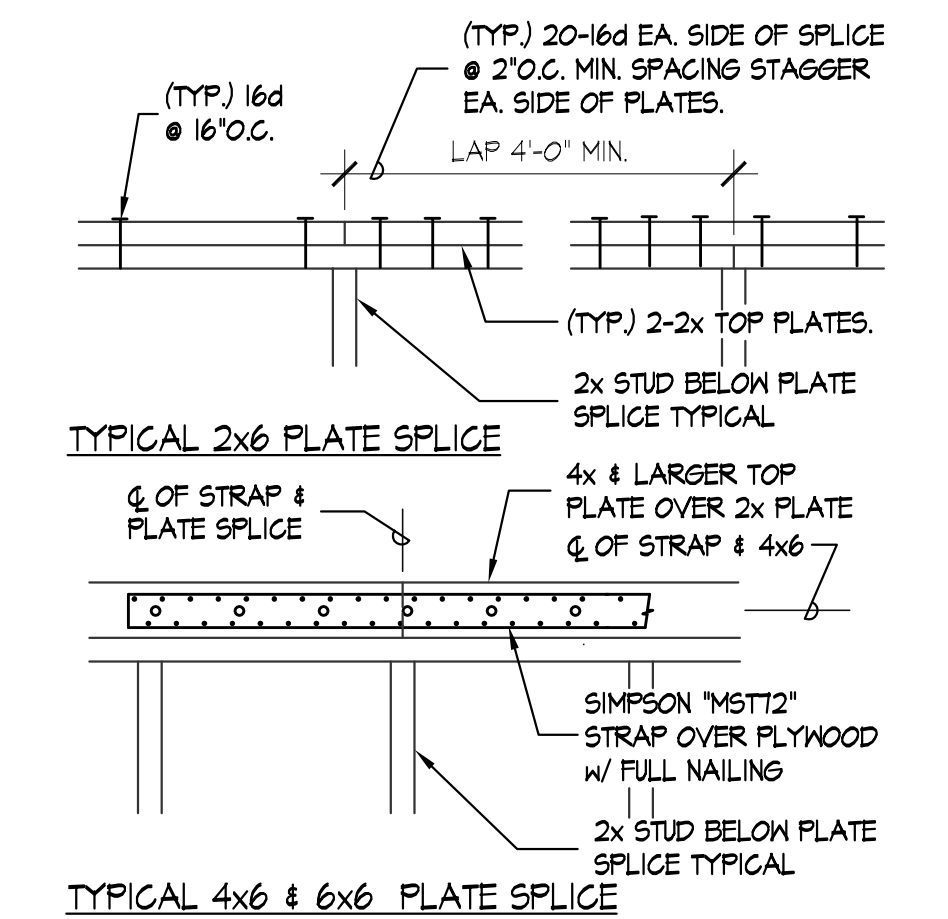
FOOTING INTERSECTION

5



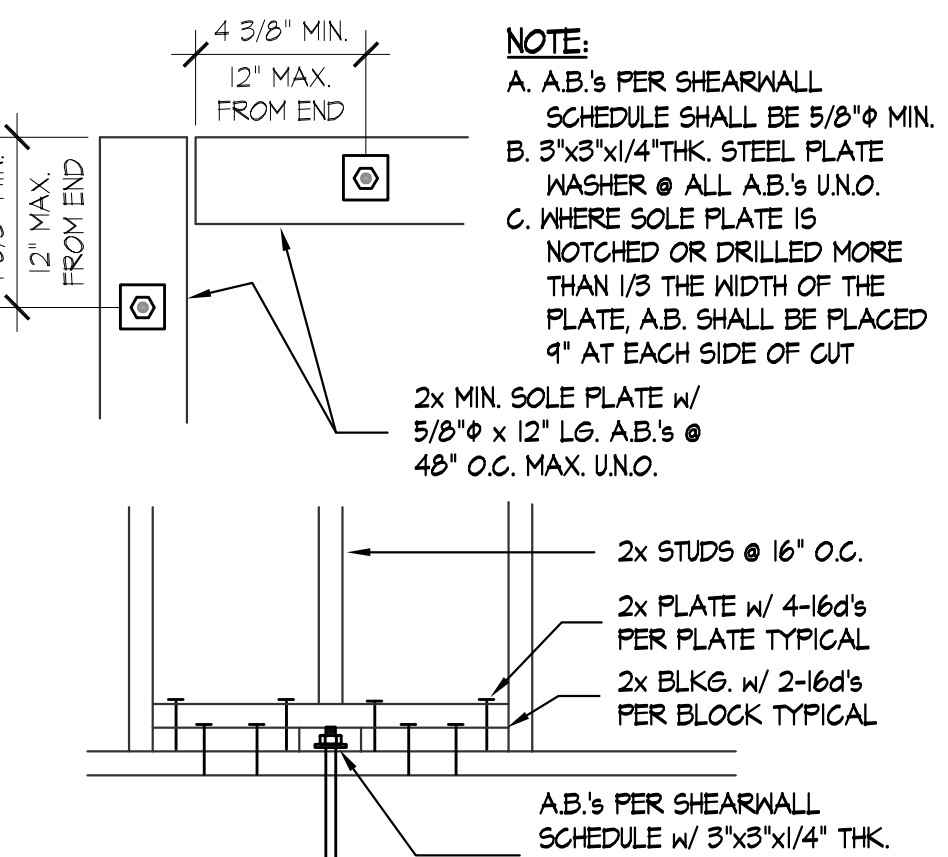
TYPICAL SLAB JOINT

6



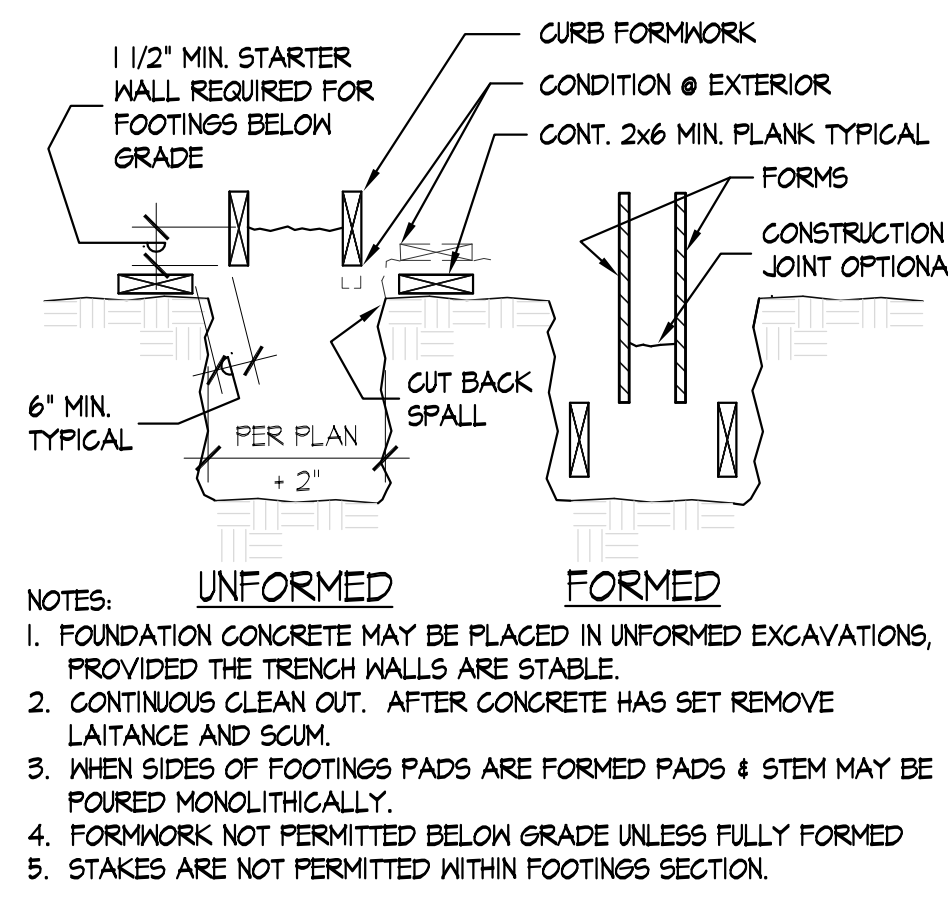
TOP PLATE SPLICE, U.N.O.

7



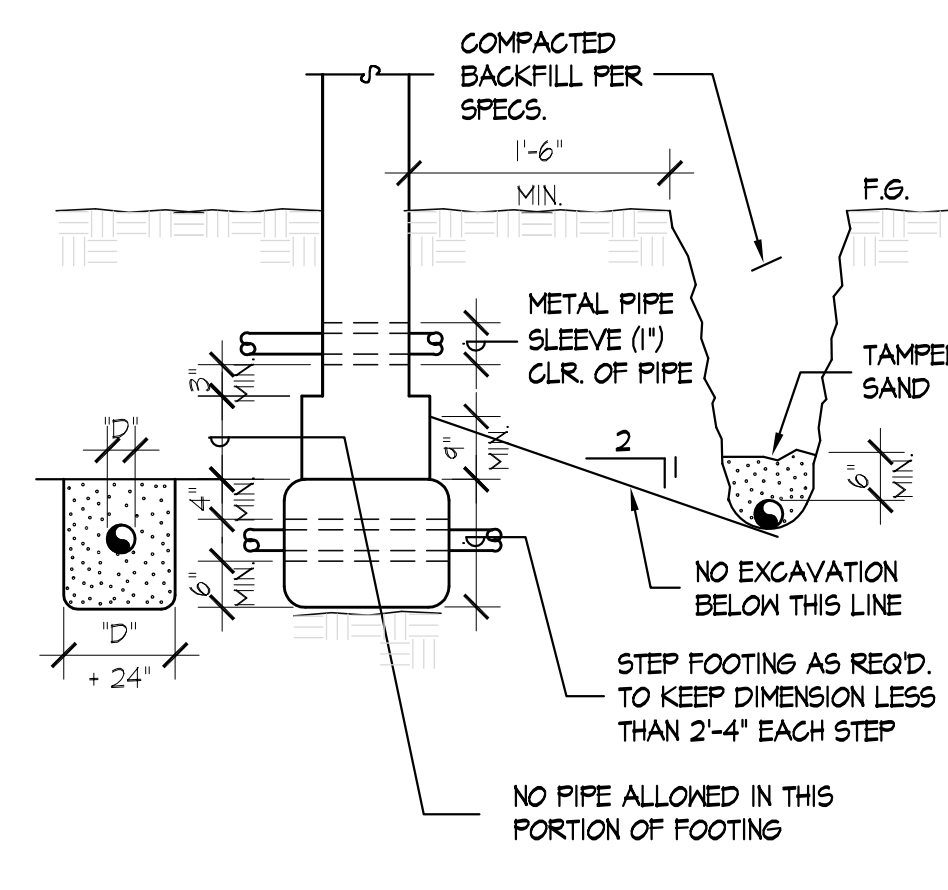
ANCHOR BOLT PLACEMENT

8



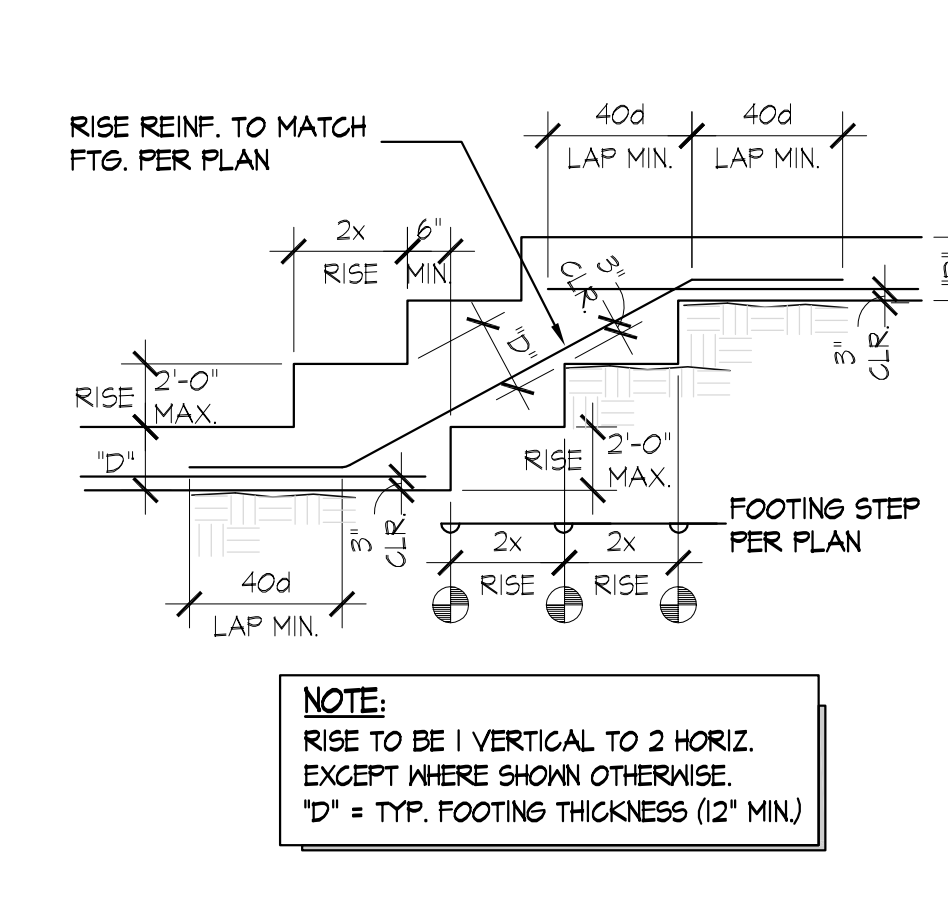
FOUNDATION FORMWORK

1



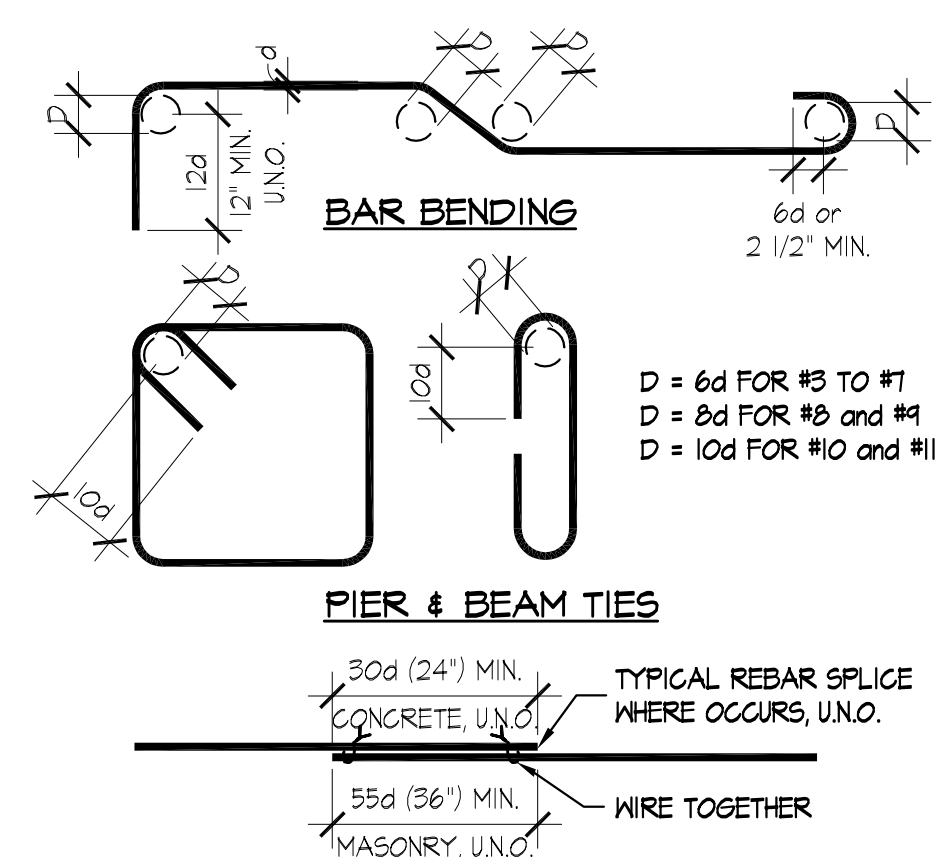
PIPE & TRENCH LOCATION

2



TYPICAL FOOTING STEP

3



TYPICAL REBAR BENDING

4

TANG STRUCTURAL
ENGINEERS, INC.2100 CHERRY AVE. SUITE 114
FONTECA, CA 92336
Tel: (909) 424-0450
Email: dt@tang-inc.com










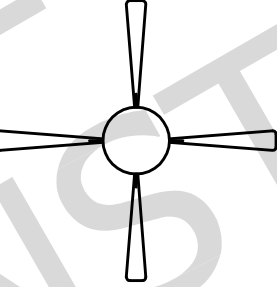



GENERAL NOTES & DETAILS

Project Title:
CARNATION ADU (738 SQ. FT.)
8363 SIERRA AVE.
FONTECA, CA 92335Scale: N.T.S.
Drawn By: CT
Check By: CT
Print Date: 3/1/25
Sheet: CS2
Drawing Date: 3/1/25

ELEVATION & SECTION NOTES:

- 1
- ROOF PITCH: 4:12
- 2
- ROOF: CLASS 'A' FIRE RATINGS TO MATCH EXISTING HOUSE AND SURROUNDING NEIGHBORHOOD, SEE ROOFING AND WEATHERPROOFING SPEC. ON SHEET CSI.
- 3
- RADIANT BARRIER IS REQUIRED
- 4
- EXTERIOR WALL FINISH TO MATCH EXISTING HOUSE AND SURROUNDING NEIGHBORHOOD.
- 5
- ROOF VENT 12" x 24" HALF ROUND GALVANIZED DORMER ATTIC VENTILATION WITH RESISTANT WIRE MESH 1/4 100 = 100 SQ. INCHES EACH (SEE WILDFIRE ZONE NOTE 5 & 6)
- 6
- EAVE VENT (SEE WILDFIRE ZONE NOTE 5 & 6)
- 7
- MANUFACTURED TRUSSES
- 8
- EXTERIOR WALL: 2x4 STUD WALL
- 9
- INTERIOR WALL: 2x4 STUD WALL OR BETTER
- 10
- CEILING INSULATION: R-38
- 11
- WALL INSULATION: R-19
- 12
- INTERIOR FINISH: 1/2" GYPSUM OR BETTER
- 13
- CONCRETE SLAB ON GRADE, SEE FOUNDATION NOTE #2.
- 14
- WINDOW SCHEDULE ON SHEET CS3.
- 15
- SOLID CORE DOOR, SEE DOOR SCHEDULE ON SHEET CS3.
- 16
- EXISTING BUILDING
- 17
- SLIDE DOOR, SEE DOOR SCHEDULE ON SHEET CS3.
- 18
- 3 1/2" x 22 1/2" VENT BETWEEN TRUSS

DOOR AND WINDOW SCHEDULE, U.N.O.				
MARK	SIZE	TYPE	TEMPERED	NOTES
(A)	3'-6 1/2" x 4'-4"	SLIDE		
(B)	4'-10 1/2" x 4'-4"	SLIDE	YES	
(C)	2'-0" x 4'-4"	SLIDE	YES	VERTICAL
(D)	3'-0" x 1'-2"	SLIDE		
(E)	3'-6 1/2" x 3'-0"	SLIDE		
A	3'-0" x 6'-8"	SWING		1-3/8" SOLID CORE
B	2'-6" x 6'-8"	SWING		
C	2'-0" x 6'-8"	SWING		1-3/8" SOLID CORE WITH VENT
D	SEE PLAN	SLIDE		MIRROR
E	6'-0" x 6'-8"	SLIDE	YES	
NOTE: EXTERIOR DOORS, EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWINGS: (SELECT ONE) A. EXTERIOR SURFACE OR GLADDING OF NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING: - STILES AND RAILS MINIMUM 1-3/8 INCHES THICK - RAISED PANELS MINIMUM 1-1/4 INCHES THICK EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK C. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/1.5.2/440 D. MINIMUM 20-MIN FIRE-RESISTANCE-RATED. E. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-TA-2				

ELECTRICAL LEGEND	
 DUPLEX OUTLET	 HIGH EFFICACY RECESSED LIGHT
 WALL SWITCH	 GARBAGE DISPOSAL
 GARBAGE DISPOSAL SWITCH	 GFCI DUPLEX OUTLET
 VACANCY SENSOR	
 4" DIA DRYER VENT	
 SMOKE DETECTOR	 <p>FAN & LIGHT COMBO</p>
 CARBON MONOXIDE ALARM	
 EXHAUST FAN, 40 CFM OR BETTER WITH MAX. SOUND RATING OF 1 SONE. FAN IS TO BE CONTINUOUS USE AND OPERATED CONTINUOUSLY WHILE THE HOUSE IS OCCUPIED.	
 HIGH EFFICACY LIGHT FIXTURE	

2'-0" MIN. SHT. LAP

NOTES:

1. EACH SHEET OF PLYWOOD SHALL CONTAIN A MINIMUM OF 8 SQUARE FEET AND SHALL EXTEND TO 3 BEARINGS MINIMUM WITH FACE GRAIN PERPENDICULAR TO JOISTS.
2. ALL JOISTS, & TRUSSES SHALL BE LAID OUT IN A 4'-0" MODULE TO COINCIDE WITH PLYWOOD PATTERN.
3. RUN LONG DIMENSION OF PLYWOOD SHEETS ACROSS (PERPENDICULAR TO) JOIST OR TRUSSES.
4. STAGGER PLYWOOD END JOIST (2'-0" MIN) AS SHOWN.
5. PROVIDE 2 ROWS OF BOUNDARY NAILING TO ALL MEMBERS DESIGNED AS STRUTS, AND AT INTERIOR SHEAR WALLS.
6. ALL NAILS SHALL HAVE A MINIMUM EDGE DISTANCE OF (3/8").
7. NAILING SHALL BE INSPECTED BY ENGINEER OF RECORD & BUILDING OFFICIAL PRIOR TO COVERING.
8. NAILING SHALL BE AS FOLLOWS WITH 10d COMMON NAILS, U.N.O.

AREA	NAIL-10d COMMON NAILS, U.N.O.			ALLOWABLE SHEAR (LB/FT)	COMMENT
D1	6"	6"	12"	215	UNBLOCK DIAHRAGM
D2	6"	6"	12"	320	SOLID BLOCK DIAHR.

BOUNDARY NAILING: PERIMETER PLATE LINES, CHORDS, STRUTS, CONTINUOUS EDGE & AS CALLED FOR ON PLAN & DETAILS

EDGE NAILING: PLYWOOD BEARING ENDS, PLYWOOD EDGES

FIELD NAILING: INTERMEDIATE BEARINGS

PLYWOOD ROOF DIAHRAGM

B

ROOF FRAMING NOTES:

1.
- PROVIDE GANGNAIL TRUSS @ 24" O.C. U.N.O. TRUSS SHALL BE BY INLAND EMPIRE TRUSS 215 WEST RIDAR STREET FERRIS, CALIFORNIA 92571 (951) 300-1758 OR APPROVED EQUAL BY ENGINEER OF RECORD TANG STRUCTURAL ENGINEERS, INC.
2.
- SEE DETAIL T/C62 FOR DBL. OR 4x6 TOP PLATE SPLICE REQUIREMENTS.
3.
- SIZE OF MEMBERS SHALL BE AS INDICATED ON THE PLANS UNLESS APPROVED BY THE ENGINEER IN WRITING.
4.
- PROVIDE 2 ROWS OF BOUNDARY NAILING TO ALL MEMBERS DESIGNED AS STRUT, & AT INTERIOR SHEAR WALLS.
5.
- ALL STRUCTURAL PLYWOOD SHALL CONFORM TO PS-1-OT, AND SHALL BE IDENTIFIED WITH D.F.P.A. GRADE TRADEMARK.
6.
- LAG SCREWS SHALL HAVE LEAD HOLES W/ DIAMETERS EQUAL TO 10% OF THOSE OF LAGS, AND THE SAME LENGTHS AS LAGS.
7.
- PROVIDE DOUBLE JOISTS OR DOUBLE BLOCK AROUND ALL OPENINGS IN ROOF. NO OPENINGS WILL BE PERMITTED IN ROOF OTHER THAN THOSE SHOWN WITHOUT THE ENGINEER'S APPROVAL.
8.
- TRIM OUT ALL MECHANICAL OPENINGS THRU ROOF W/ 2x4 FLAT BLK'G. AND USE SIMPSON "2Z" CLIPS @ EACH END
9.
- PROVIDE SIMPSON "PC" OR "EPG" POST CAPS @ ALL POST TO BEAM CONNECTIONS, U.N.O. ON PLANS AND DETAILS.
10.
- THE BUILDING DEPARTMENT SHALL BE NOTIFIED FOR ROOF DIAHRAGM NAILING INSPECTION.
11.
- HANGER IS TO BE FULLY BOLTED OR NAILED U.N.O.
12.
- ALL STRAPS ARE TO BE FULLY NAILED W/ 10d NAIL U.N.O.
13.
- PROVIDE DOUBLE STUD BELOW MULTI-TRUSS, U.N.O.

STRUCTURAL OBSERVATION, INSPECTIONS & TESTING

1.
- PER CALIFORNIA BUILDING CODES CHAPTER 17A REQUIREMENT, THE FOLLOWING CONSTRUCTION REQUIRES TEST, SPECIAL INSPECTION, AND/OR STRUCTURAL OBSERVATION IF MARKED.
- | TYPE OF CONSTRUCTION | PERIODICAL INSPECTION | CONTINUOUS INSPECTION | INDEPENDENT OBSERVATION | TEST |
|-------------------------------|-----------------------|-----------------------|-------------------------|------|
| FOUNDATION (REBAR PLACEMENT) | | | x | |
| SHEAR WALL NAILING & HARDWARE | | | x | |
| ROOF FRAMINGS | | | x | |
| EPOXY ALL THREAD | | x | | |
| POST INSTALL ANCHOR | x | | x | |
| | | | | |
| | | | | |
2.
- TESTING SHALL BE MADE IN ACCORDANCE WITH THE CURRENT BUILDING CODE BY AN APPROVED SPECIAL TESTING LAB.
3.
- PERIODICAL AND CONTINUOUS SPECIAL INSPECTION SHALL BE PERFORMED BY A SPECIAL DEPUTY INSPECTOR, AND/OR BY A CALIFORNIA LICENSED STRUCTURAL ENGINEER RETAINED BY THE OWNER.
4.
- STRUCTURAL OBSERVATION SHALL BE PERFORMED BY ENGINEER OF RECORD, ONE TANG SE4433 RETAINED BY THE OWNER.
5.
- ALL OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR AND/OR THE BUILDING OFFICIAL WITH A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
6.
- FOOTING EXCAVATION SHALL BE INSPECTED BY THE STRUCTURAL ENGINEER OF RECORD AND/OR SOIL ENGINEER RECORD PRIOR TO THE POURING OF CONCRETE.
7.
- FOR ANY HOLES DRILLED LARGER THAN 1 1/2" Ø OR ANY NOTCHES IN BEAM OR JOIST SHALL BE APPROVED BY THE ENGINEER OF RECORD IN WRITTEN PRIOR TO INSTALLATION.

<p>16" MIN. 2'-0" MIN. SHEET WIDTH WHERE SOLID BLOCK DIAPH. REQUIRE, PROVIDE 2x4 MIN. FLAT BLOCKING WITH SIMPSON "2Z" CLIP, TYP. SEE DIAHRAGM SCHEDULE BELOW TRUSS OR RAFTER PER PLAN EDGE OF PLYWOOD SHEETS INTERMEDIATE BEARING (FIELD). 5/8" PLYWOOD OR 5/8" T4G PLYWOOD AT ROOF WITH SPAN INDEX 32/16</p> <p>NOTES: 1. ALL NAILS SHALL BE FULL HEADED NAIL AND SHALL HAVE A MINIMUM 3/8" EDGE DISTANCE. 2. LONG DIRECTION OF PLYWOOD SHEETS TO RUN PARALLEL TO STUD, UNLESS AN ALTERNATE PROPOSAL IS SUBMITTED TO THE ENGINEER. 3. UNLESS NOTED OTHERWISE, STUD WALL SHALL BE 2x STUD @ 16" O.C. W/ 2x P.T. SILL PLATE & 5/8" x 1/4" LONG ANCHOR BOLT @ 48" O.C. 4. ANCHOR BOLT SHALL BE MINIMUM 14" LONG WITH 8" MINIMUM EMBED INTO CONCRETE FOOTING U.N.O. 5. ALL NAILING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED NAILS. 6. PROVIDE 3"x3"x1/4" THK. STEEL PLATE WASHER AT ALL ANCHOR BOLTS 7. NAILING SHALL BE INSPECTED BY ENGINEER OF RECORD & BUILDING OFFICIAL PRIOR TO COVERING.</p>	
SHEAR WALL SCHEDULE	
A	

FOUNDATION NOTES:

1.
- ALL HEIGHTS SHOWN ON PLAN ARE FROM ENTRY ELEV. 0'-0" DATUM.
2.
- 4" CONC. SLAB W/ # 3's @ 18" O.C. EACH WAY AT CENTER OF SLAB UNDER ALL INTERIOR CONCRETE FLOOR SLABS ON GRADE PROVIDE A 2" LAYER OF MOIST SAND OVER A 10 MIL. VISQUEEN VAPOR BARRIER OVER 2" SAND OVER PROPERLY GRADED SUBGRADE.
3.
- ALL FOOTING AND SLAB SHALL REST ON FIRM NATURAL OR APPROVED COMPACTED FILL.
4.
- FOUNDATION IS TO BE POURED MONOLITHICALLY WITH SLAB. CONTRACTOR SHALL SUBMIT A CONTROL JOINT LAYOUT TO ARCHITECT FOR APPROVAL.
5.
- IF FOUNDATION IS NOT POURED MONOLITHICALLY, PROVIDE #4 SLAB TO FOOTING DOWELS @ 24" O.C., U.N.O.
6.
- CONC. CONTRACTOR SHALL PLACE CONTROL JOINTS PER DETAIL 6/S11 SO AS TO LIMIT SLAB CRACKING.
7.
- PROVIDE CONTROL JOINTS WITH IN FIRST 8 HOURS OF POURING CONCRETE.
8.
- ALL DIMENSIONS ARE TO STUD LINE TYPICAL U.N.O.
9.
- RUN ALL GRADE BEAM REINFORCING THRU PAD FOOTING TYP. U.N.O. ON DETAILS.
10.
- ANCHOR BOLT, HOLDOWN, AND POST BASE SIZES AND LOCATIONS SHALL BE PER STRUCTURAL PLANS. THE PLACEMENT OF THESE ITEMS SHALL BE COORDINATED WITH THE FRAMING CONTRACTOR.
11.
- ALL COLUMN BASES, COLUMN BOLTING, HOLDING STRAPS AND HOLDOWN BOLTS, CRITICAL TO THE STRUCTURAL INTEGRITY OF THIS BUILDING, SHALL BE HELD IN PLACE BY MEANS OF TEMPLATE PRIOR TO FOUNDATION INSPECTION.
12.
- ALL EMBEDDED BOLTS, ANCHOR BOLTS, DOWELS INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE.
13.
- REINFORCING SHALL BE IN PLACE AND SUBJECT TO INSPECTION PRIOR TO POURING THE GRADE BM/ SLAB.
14.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR MISC. ITEMS TO BE CAST INTO CONCRETE AND FOR LOCATIONS OF FLOOR FINISHES, DEPRESSIONS, PITS, ETC.
15.
- PRIOR TO FOUNDATION INSPECTION
A. REINFORCING FOR SLAB AND FOOTING SHALL BE PROPERLY SET.
B. ALL EMBEDDED BOLTS AND ANCHOR BOLTS SHALL BE SECURELY TIED IN PLACE.
16. PROVIDE SIMPSON "PB" FOR ALL ISOLATED (NOT INSTALLED IN WALL) WOOD POST ON FOUNDATION.
17. ALL HOLDOWN CONNECTION BOLTS/NUTS SHALL BE TORQUED 1/2 TURN BEYOND FINGER TIGHT AND/OR AS REQUIRED BY MANUFACTURER.

CONTINUOUS FOOTING SCHEDULE				
MARK	WIDTH	DEPTH	REINFORCING	COMMENT
(2) 12"	12"	18"	(2) #4 TOP & BOTTOM	
NOTE: ALL FOOTINGS SHALL BE 12" BELOW BOTTOM OF ADJACENT SLAB OR GRADE UNLESS DETAILED OR NOTED OTHERWISE.				

POST & HOLDOWN SCHEDULE		
MARK	POST/MULTI KING STUD CONT. TO TOP PLATE, TYP., U.N.O.	HOLDOWN DETAIL/COMMENT
(1)	DBL. KING STUD OR BETTER	NAILED TOGETHER w/ 16d's @ 12" O.C.
(A)	DBL. 2x STUD, MIN. SEE PLAN	H05-S052.5 (2) (D)
NOTES: 1. PROVIDE A 1" GAP AT BOTTOM OF HOLDOWN TO ALLOW FOR TENSION AND TIGHTENED. ANCHOR BOLT NUT SHALL BE FINGER-TIGHT PLUS 1/3 TO 1/2 TURN WITH A HAND WRENCH, WITH CONSIDERATION GIVEN TO POSSIBLE FUTURE WOOD SHRINKAGE. CARE SHOULD BE TAKEN TO NOT OVER-TORQUE THE NUT. IMPACT WRENCHES ARE NOT ALLOWED. 2. HOLDOWN RODS SHALL BE SECURELY FASTENED IN PLACE PRIOR TO POURING CONCRETE FOOTING.		

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CONST. NOTES, SCHEDULES & LEGENDS

CARNATION ADU (738 SQ. FT.)
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