SUBJECT	SECTION	KEQUIKED	FROF O3ED
LOT SIZE LOT WIDTH	210.06 210.06	6,000 S.F. 60'-0''	6,000 S.F. 60'-0''
MIN. FRONT S.B. MIN. SIDE S.B. MIN. REAR S.B. MIN. GARAGE S.B.	210.06 210.06 210.06 210.06	15'-0'' 5'-0'' 10'-0'' 20'-0''	25'-8" 5'-0" 10'-8" 25'-8"
MAXIMUM HEIGHT	210.06	35'-0''	27'-7"
LOT COVERAGE	210.06	50%	49.8%
LANDSCAPE COV. (FRONT YARD)	210.06	40%	50.2%

THE CIRKS RESIDENCE 3542 VENTURE DRIVE HUNTINGTON BEACH, CA RESIDENCE REMODEL AND ADDITION

HUNTINGTON BEACH SECURITY ORDINANCE

. SLIDING GLASS DOORS AND WINDOWS LOCATED LESS THAN 16 FEET ABOVE ANY SURFACE AVAILABLE FOR USE BY THE PUBLIC SHALL BE CAPABLE OF BEING LOCKED SECURELY. MOVEABLE PANELS SHALL NOT BE EASILY REMOVED FROM THE FRAME.

2. ALL MAIN OR FRONT ENTRY TO DWELLINGS SHALL BE ARANGED SO THAT THE OCCUPANT HAS A VIEW OF THE AREA IMMEDIATELY OUTSIDE WITHOUT OPENING DOOR. SUCH VIEW MAY BE PROVIDED BY A DOOR VIEW, A VIEW PORT, WINDOW OR OTHER OPENING.

3. EXTERIOR WOODEN DOORS SHALL BE OF SOLID CORE CONSTRUCTION OR SHALL BE COVERED ON THE INSIDE FACE WITH 16 GUAGE SHEET METAL ATTACHED WITH SCREWS AT 6 INCH ON CENTERS AROUND THE PERIMETER.

4. ALL SWINGING DOORS SHALL BE EQUIPPED WITH A DEAD BOLT WITH A MINIMUM THROW OF 1" AND AN EMBEDMENT OF NOT LESS THAN 5/8". 5. THE INACTIVE LEAF OF A PAIR OF DOORS AND THE UPPER LEAF OF

DUTCH DOORS SHALL BE EQUIPPED WITH A DEAD BOLT. 6. NON-REMOVABLE PINS SHALL BE USED INPIN TYPE HINGES WHICH ARE

ACCESSIBLE FROM THE OUTSIDE WHEN THE DOOR IS CLOSED. 7. UNFRAMED GLASS DOORS SHALL BE FULLY TEMPERED GLASS NOT LESS THAN 1/2" THICK.

8. NARROW-FRAMED GLASS DOORS SHALL BE FULLY TEMPERED GLASS NOT LESS THAN 1/4" THICK.

9. ANY GLASS WHICH IS LOCATED WITHIN 40" OF THE LOCKING DEVICE ON A DOOR SHALL BE FULLY TEMPERED, OR HAVE APPROVED METAL BARS, SCREENS OR GRILLS

10. SOLID WOODEN HATCHWAYS LESS THAN 1-3/4" THICK SHALL BE COVERED ON THE INSIDE WITH 16 GUAGE SHEET METAL ATTACHED WITH SCREWS AT 6" ON-CENTER AROUND THE PERIMETER AND SHALL BE SECURED FROM THE INSIDE WITH A SLIDE BAR, SLIDE BOLTS, AND/OR PADLOCK WITH HARDENED STEEL SHACKLE. ALL OTHER OPENINGS LARGER THAN 96 SQUARE INCHES WITH A DIMENSION IN EXCESS OF 8' SHALL BE SECURED BY METAL BARS SCREENS, OR GRILLS. (EXCEPTION: NON-OPENING SKYLIGHTS).

11. A DEVELOPMENT WHICH INCLUDES 3 OR MORE DWELLING UNITS SHALL BE PROVIDED WITH FULLY-ENCLOSED GARAGES. GARAGE SPACE FOR EACH TENANT SHALL BE SEPARATED BY PARTITIONS OF 3/8" PLYWOOD OR EQUIVALENT WITH STUDS SET NO MORE THAN 24" O.C.

12. ALL DORS AND WINDOWS SHALL MEET HUNTINGTON BEACH SECURITY ORDINANCE.

CITY OF HUNTINGTON BEACH GENERAL NOTES

1. APPLICATIONS FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF APPLICATION SHALL AUTOMATICALLY EXPIRE (R105.3.2)

2. EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS WORK AUTHOR-IZED IS COMMENCED WITHIN 180 DAYS OR IF THE WORK AUTHORIZED IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS. A SUCCESS-FUL INSPECTION MUST BE OBTAINED WITHIN 180 DAYS. A PERMIT MAY BE EXTENDED IF A WRITTEN REQUEST STATING JUSTIFICATION FOR EXTENSION AND AN EXTENSION FEE IS RECEIVED PRIOR TO EXPIRATION OF THE PERMIT AND GRANTED BY THE BUILDING OFFICIAL. NO MORE THAN ONE (1) EXTIENSION MAY BE GRANTED. PERMITS WHICH HAVE BECOME IN-VALID SHALL PAY A REACTIVATION FEE OF APPROXIMATELY 50% OF THE ORIGINAL PERMIT FEE AMOUNT WHEN THE PERMIT HAS BEEN EXPIRED FOR UP TO SIX(6) MONTHS. WHEN A PERMIT HAS BEEN EXPIRED FOR A PERIOD IN EXCESS OF ONE (1) YEAR, THE REACTIVATION FEE SHALL BE APPROXIMATELY 100% OF THE ORIGINAL PERMIT FEE (R105.5)

3. FIRE SPRINKLER PLANS STAMPED APPROVED BY THE CITY OF HUNTING-BEACH FIRE DEPARTMENT SHALL BE PROVIDED AT THE SITE AT TIME OF FRAMING INSPECTION

4. CONCRETE SLAB AND UNDER-FLOOR INSPECTIONS SHALL BE MADE AFTER IN-SLAB OR UNDER-FLOOR REINFORCING STEEL AND BUILDING SERVICE EQUIPMENT, CONDUITS, PIPING OR OTHER ANCILLARY BUILDING TRADE PRODUCTS OR EQUIPMENT ARE INSTALLED, BUT BEFORE ANY CONCRETE IS PLACED OR FLOOR SHEATHING IS INSTALLED, INCLUDING THE SUBFLOOR. (R109.1.1.1)

5. ROUGH INSPECTION OF PLUMBING, MECHANICAL, GAS AND ELEC-TRICAL SYSTEMS SHALL BE MADE PRIOR TO COVERING OR CONCEAL MENT, BEFORE FIXTURES OR APPLIANCES ARE SET OR INSTALLED, AND PRIOR TO FRAMING INSPECTION. (109.1.2)

6. WATER CLOSETS SHALL HAVE AN AVERAGE WATER CONSUMPTION OF NOT MORE THAN 1.28 GALLONS OF WATER PER FLUSH (402.1.2)

7. SHOWER HEADS SHALL HAVE A WATER FLOW NOT TO EXCEED 2.0 GAL-LONS PER MINUTE (402.1.1 CPC)

8. FAUCETS IN KITCHENS, WET BARS, LAVATORIES, LAUNDRY, ETC. SHALL HAVE A WATER FLOW NOT TO EXCEED 1.8 GALLONS PER MINUTE. (402.1.2.CPC)

NOTE REGARDING CF-6R & CF-4R

ALL APPLICABLE INSTALLATION CERTIFICATE FORMS (CF-6R) & ALL APPLICABLE CERTIFICATE OF FIELD VERIFICATION AND DIAG-NOSTIC TESTING FORMS (CF-4R) MUST BE COMPLETED & PRESENTED TO THE CITY FIELD INSPECTOR PRIOR TO FINAL INSPECTION SIGN-OFF.

9. WATER PIPING MATERIALS WITHIN A BUILDING SHALL BE IN ACCORD ANCE WITH SEC 604.1 OF THE CALIFORNIA PLUMING CODE. PEX, CPVC AND OTHER PLASTIC WATER PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SEC 604 OF THE CPC, IN-STALLATION STANDARDS OF APPENDIX I OF THE CPC AND MANUFAC-TURERS RECOMMENDED INSTALLATION STANDARDS. CPVC WATER PIP ING REQUIRES A CERTIFICATION OF COMPLANCE AS SPECIFIED IN SEC 604.1.1 OF THE CPC PRIOR TO PERMIT ISSUANCE.

10. THE RECOMMENDATIONS OF THE SOILS INVESTIGATION REPORT SHALL BE INCORPORATED ON THE ARCHITECTURAL AND GRADING PLANS.

FIRE DEPARTMENT NOTES

- 1. MAINTAIN JOBSITE SAFETY DURING CONSTRUCTION AS PER CHAPTER 33 OF THE 2013 CALIFORNIA FIRE CODE
- 2. A 13D RESIDENTIAL FIRE SPRINKLER SYSTEM IS REQUIRED. A DEFERRED SUBMITTAL FOR FIRE SPRINKLERS ()COMPLYING WITH NFPA 13D) IS REQUIRED

NOTE: FIRE FLOW INFORMATION FROM THE CITY OF HUNTINTON BEACH IS REQUIRED TO BE INCLUDED WITH ANY SPRINKLER PLAN SUBMITTALS. TO OBTAIN THE FIRE FLOW INFORMATION, HAVE THE SPRINKLER CONTRACTOR COMPLETE THE "FIRE FLOW INFORMATION FORM" IN WORD FORMAT AVAILABLE AT THE FOLLOWING LINK:

https://www.huntingtonbeachca.gov/government/departments/fire/fire_prevention_code_ enforcement/plan-check-services.cfm

SEND THIS FIRE FLOW INFORMATION REQUEST TO Jacob.Worthy@surfcity-hb.org. ONCE SUBMITYTED, THE HBFD WILL FORWARD THE REQUEST TO THE PUBLIC WORKS DEPARTMENT. THE

OF A NEARBY OIL WELL AND THE YEAR THE HOME WAS BUILT. IF AT ANYTIME DURING CONSTRUCTION A SUB-SLAB METHANE BARRIER IS LOCATED, ALL WORK SHALL STOP. THE EXISTING SUB-SLAB BARRIER MUST BE REPAIRED AFTER A DEFERRED SUBMITTAL TO HBFD IS REVIEWED AND APPROVED.

. ADDRESS NUMBERS MUST BE PLACED OVER THE EXTERIOR OF THE MAIN ENTRANCE AS PER CITY SPECIFICATION #428. MINIMUM SIZE OF NUMBERS IS 4", AND THEY MUST CONTRAST WITH THE BACKGROUND.

5. FOR FIRE DEPARTMENT INSPECTIONS CALL (714) 536-5411 AT LEAST 3 DAYS IN ADVANCE TO SCHEDULE INSPECTIONS.

REGARDING FLOOD HAZARD DISTRICT

PER THE PLANNING DEPARTMENT, A SMALL CORNER OF THE LOT IS IN FLOOD ZONE 'AE'.

DEFERRED SUBMITTALS

DEFERRED SUBMITTAL FOR FIRE SPRINKLERS. PLEASE SEE NOTE #2 ON 'FIRE DEPARTMENT NOTES' ABOVE.

CONSULTANTS

DESIGN:

SLIB IECT

MARK WHEELER RESIDENTIAL DESIGN 325 ROYCROFT AVENUE LONG BEACH, CA. 90814 OFFICE: 562-856-5665 FAX: 562-684-0570 CONTACT: MARK WHEELER

STRUCTURAL:

SCOTT ARMSTRONG ENGINEERING 25068 VIA LAS LOMAS MURRIETA, CA (714) 225-7056 CONTACT: SCOTT ARMSTRONG

CONTRACTOR:

IIM HASKETT CONSTRUCTION PO BOX 512 SURFSIDE COLONY, CA 90743 (714) 894-4800 CONTACT: JIM HASKETT

BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACTICES NOTE:

AS THE DESIGNER/ENGINEER OF RECORD, I HAVE SELECTED APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO EFFECTIVELY MINIMIZE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE PROJECT OWNER AND CONTRACTOR ARE AWARE THAT SELECTED BMPS MUST BE INSTALLED, MONITORED AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS. THE BMPS NOT SELECTED FOR IMPLEMENTATION ARE REDUNDANT OR DEEMED NOT APPLICABLE TO THE PROPOSED CONSTRUCTION ACTIVI CONSTRUCTION BMPS THAT APPLY:

(CA-10, 11, 12, 20, 21, 23, 30, 31, 32, CD-4(2), ECS-1 THRU 56)

LICENSE NO.

EXP.

NAME

PROJECT DATA

FIRST FLOOR: 142 S.F. FAMILY ROOM ADDITION. REBUILD EXISTING OUTDOOR COVERED PATIO AREA. ADD NEW OUTDOOR KITCHEN SPACE. SECOND FLOOR: ADD 504 S.F. MASTER SUITE & BEDROOM 4 ADDITION. CREATE NEW FAMILY ROOM FROM EXISTING BEDROOMS AND OPEN UP STAIRWELL. REBUILD EXISTING BALCONY & ADD ROOF TO CREATE COVERED BALCONY.

BUILDING AREA:

SCOPE OF WORK:

LOT AREA: 6,000 SQUARE FEET LOT COVERAGE: RESIDENCE: 1,767 s.f. 29.5% GARAGE: 570 s.f. 9.5% COVERED: 652 s.f. 10.8% 2,989 s.f. 49.8% F.A.R.: .49

GROSS FLOOR AREA--FIRST FLOOR (SQ. FT.)-

	LIVING	GARAGE	COV. PATIO	TOTAL
EXISTING:	1625	570	396	2591
NEW:	142	0	256	398
TOTAL:	1767	570	652	2989

GROSS FLOOR AREA--SECOND FLOOR (SQ. FT.)-

	LIVING	BALCONY	TOTAL
EXISTING:	1661	453	2114
NEW:	504	196	700
TOTAL:	2165	649	2814

GROSS FLOOR AREA--TOTAL (SQ. FT.)-

	LIVING	BALCONY	COV. PATIO	GARAGE	TOTAL
EXISTING:	3286	453	396	570	4705
NEW:	646	196	256	0	1098
TOTAL:	3932	649	652	570	5803

SHEET INDEX

T-2 CALGREEN

T-3 CALGREEN

T-4 CONSTRUCTION & DEMOLITION DEBRIS REUSE & RECYCLING

T-24.1 TITLE 24

T-24.2 TITLE 24

.3 TITLE 24

A-1.0 SITE PLAN

A-1.1 Photos of adjacent properties

A-2.0 PROPOSED PAINT AND MATERIALS

A-3.0 FIRST FLOOR PLAN

A-3.1 SECOND FLOOR PLAN & TECHNICAL DETAILS

A-4() ELECTRICAL & REFLECTED CEILING PLAN A-5.0 PROPOSED ELEVATIONS

A-5.1 PROPOSED ELEVATIONS

A-5.2 EXISTING ELEVATIONS

A-6.0 ROOF PLAN

A-7.0 MATERIALS & DETAILS

SOILS DETAILS

SGN STRUCTURAL GENERAL NOTES S-1 FOUNDATION PLAN

S-2 FIRST FLOOR FRAMING PLAN

S-3 SECOND FLOOR FRAMING PLAN S-4 STRUCTURAL DETAILS

S-5 STRUCTURAL DETAILS

S-6 STRUCTURAL DETAILS

SSW-1| STEEL STRONG-WALL ANCHORAGE DETAILS

SSW-2 STEEL STRONG-WALL FRAMING DETAILS

PROJECT LEGEND

CLIENT & PROJECT ADDRESS: THE CIRKS RESIDENCE

3542 VENTURE DRIVE HUNTINGTON BEACH, CA 92648

THIS PROJECT SHALL COMPLY WITH:

2022 EDITION OF THE CALIFORNIA RESIDENTIAL CODE 2022 EDITION OF THE CALIFORNIA BUILDING CODE

2022 EDITION OF THE CALGREEN CODE 2022 EDITION OF THE CALIFORNIA MECHANICAL CODE 2022 EDITION OF THE CALIFORNIA PLUMBING CODE

2022 EDITION OF THE CALIFORNIA ELECTRICAL CODE

2022 CALIFORNIA ENERGY CODE

ZONING INFORMATION

LEGAL DESCRIPTION: APN: 178-713-04

N TR 9335 BLK LOT 43 OCCUPANCY: R-3/U_ CONSTRUCTION TYPE: TYPE \overline{V} -B SPRINKLERS: NO

NOTES

FLOOR PLAN NOTES

. ALL DIMENSIONS ARE TO FACE OF FINISH (F.O.F.) UNLESS OTHERWISE NOTED.

2. VERIFY EXISTING DIMENSIONS FROM EXISTING RESIDENCE

3. SLEEP ROOMS: AT LEAST ONE WINDOW WITH CLEAR OPENING SHALL BE AT LEAST 5.75 SQ.FT.(24" HIGH X 20" WIDE) AND FIN. SILL HEIGHT SHALL NOT EXCEED 44" FROM FIN. FLOOR

4. SAFETY GLASS FOR GLAZING IN HAZARDOUS LOCATIONS SUCH AS GLASS DOORS, GLASS WINDOWS ADJACENT TO DOORS AND WALKING SURFACES SHALL BE PROVIDED.

5. PROVIDE SHATTERPROOF GLASS ENCLOSURE AT SHOWER AND TUB AREAS

MarkM. Wheeler

6. ALL INTERIOR WALLS SHALL HAVE 5/8" GYP. BD.-MINIMUM (U.N.O.)

April 1, 2024

REVISIONS

Resi

325 ROYCROF LONG BEACH, 562-856-5665 562-619-3990 562-684-0570

DATE: 4-1-24

SCALE: AS NOTED DRAWN:MMW

JOB: A-789 SHEET:

OF - SHEETS

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E Project Name: 3542 Venture addition Calculation Date/Time: 2024-03-29T13:05:52-07:00 (Page 1 of 17) Calculation Date/Time: 2024-03-29T13:05:52-07:00 **Calculation Date/Time:** 2024-03-29T13:05:52-07:00 Project Name: 3542 Venture addition (Page 2 of 17) Project Name: 3542 Venture addition (Page 3 of 17) Input File Name: 3542 Venture addition v30.ribd22 Input File Name: 3542 Venture addition v30.ribd22 Calculation Description: Title 24 Analysis Calculation Description: Title 24 Analysis Calculation Description: Title 24 Analysis Input File Name: 3542 Venture addition v30.ribd22 ENERGY USE INTENSITY ENERGY USE SUMMARY GENERAL INFORMATION Standard Design Source Project Name | 3542 Venture addition Standard Design TDV Energy Proposed Design Source Proposed Design TDV Energy Compliance Standard Design (kBtu/ft² - yr) Proposed Design (kBtu/ft² - yr) Margin Percentage Compliance Margin (kBtu/ft² - yr) Energy Use (EDR2) (kTDV/ft² -yr) Margin (EDR1) Margin (EDR2 Energy (EDR1) (kBtu/ft² -yr (EDR2) (kTDV/ft² -yr) nergy (EDR1) (kBtu/ft² -yr) Run Title Title 24 Analysis 19.84 18.85 0.99 4.99 Gross EUI¹ Project Location | 3542 Venture Dr **Space Heating** 33.11 25.56 7.55 City Huntington Beach, CA Standards Version | 2022 0.99 4.99 19.84 18.85 Net EUI² 37.49 0 48.39 -10.9 Space Cooling Software Version | CBECC-Res 2022.3.0 **Zip code** 92649 Climate Zone 6 Front Orientation (deg/ Cardinal) 3 IAQ Ventilation 6.7 3.16 3.54 0 1. Gross EUI is Energy Use Total (not including PV) / Total Building Area. Number of Dwelling Units Net EUI is Energy Use Total (including PV) / Total Building Area. Building Type | Single family 10.52 10.52 Water Heating 0 Project Scope | Addition and/or Alteration Number of Bedrooms REQUIRED SPECIAL FEATURES Number of Stories Addition Cond. Floor Area (ft²) 646 Itilization/Flexibilit The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis Fenestration Average U-factor 0.35 Credit Existing Cond. Floor Area (ft²) 330 Indoor air quality, balanced fan Glazing Percentage (%) 20.89% Total Cond. Floor Area (ft²) 3950 fficiency Compliand IAQ Ventilation System: as low as 0.3 W/CFM 87.82 87.63 0.19 IAQ Ventilation System Heat Recovery: minimum 75 SRE and 80 ASRE Total 20 ADU Conditioned Floor Area In/a ADU Bedroom Count n/a IAQ Ventilation System: supply outside air inlet, filter, and H/ERV cores accessible per RACM Reference Manual Fuel Type | Natural gas No Dwelling Unit: No Exposed slab floor in conditioned zone Photovoltaics 0 COMPLIANCE RESULTS Battery HERS FEATURE SUMMARY 01 Building Complies with Computer Performance 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 Flexibility detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider. 6.67 0 6.67 Indoor Lighting This building incorporates one or more Special Features shown below 11.7 Appl. & Cooking 11.64 0 BUILDING - FEATURES INFORMATION 16.95 16.95 Plug Loads 0 05 Number of Water mber of Dwellir Number of Ventilation Outdoor Lighting 1.67 1.67 Project Name tioned Floor Area (ft² lumber of Bedroo Number of Zones Cooling Systems **Heating Systems TOTAL COMPLIANCE** 0 124.75 124.62 3950 3542 Venture addition Registration Number: 424-P010055169A-000-000-0000000-0000 Registration Date/Time: 03/29/2024 13:33 Registration Number: 424-P010055169A-000-000-0000000-0000 Registration Date/Time: 03/29/2024 13:33 Registration Date/Time: 03/29/2024 13:33 HERS Provider: CHEERS Registration Number: 424-P010055169A-000-000-0000000-0000 HERS Provider: CHEERS E: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. 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E: This document has been generated by California Home Energy Efficiency Rating Services anot guarantee, the accuracy or completeness of the information contained in this documen Report Generated: 2024-03-29 13:06:37 Report Generated: 2024-03-29 13:06:37 Report Generated: 2024-03-29 13:06:37 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Schema Version: rev 20220901 Schema Version: rev 20220901 CF1R-PRF-01-E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E **CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD** CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E Project Name: 3542 Venture addition Calculation Date/Time: 2024-03-29T13:05:52-07:00 (Page 4 of 17) Project Name: 3542 Venture addition Calculation Date/Time: 2024-03-29T13:05:52-07:00 (Page 5 of 17) Project Name: 3542 Venture addition **Calculation Date/Time:** 2024-03-29T13:05:52-07:00 (Page 6 of 17) Input File Name: 3542 Venture addition v30.ribd22 Calculation Description: Title 24 Analysis Calculation Description: Title 24 Analysis Input File Name: 3542 Venture addition v30.ribd22 Calculation Description: Title 24 Analysis Input File Name: 3542_Venture_addition_v30.ribd22 PAQUE SURFACES OPAQUE SURFACES ZONE INFORMATION 02 05 06 07 10 Verified Existing Window and Window and Verified Existii Tilt (deg) Tilt (deg) Wall Exceptions Construction Gross Area (ft Construction Gross Area (ft Zone Name Zone Type HVAC System Name Zone Floor Area (ft²) Avg. Ceiling Height Water Heating System : Status Door Area (ft2) Condition Door Area (ft2) Condition Addition 2nd Interior Floor House 1st floor Conditioned HVAC ex 1643 Existing Unchanged Wall-n-L 2 127 23.345 Wall new n/a Addition 2nd none Floor Int RO floor over Addition 100 New 1st floor 2 House 2nd floor Conditioned HVAC ex 8.2 1661 DHW ex **Existing Unchanged** Addition 2nd Wall-n-B 2 Back 155 80.04 New none floor Interior Floor ddition 2nd Addition 1st floor Conditioned HVAC ex 142 8.1 DHW ex New over House 1s Floor Int RO Addition 2nd Wall-n-R 2 Wall new Right 156 none New n/a floor 2 floor 504 New Addition 2nd floor Conditioned HVAC ex 8.1 DHW ex GWall-ex-F Garage Front 168 90 none Existing iterior Wall-ex 16.7 n/a Wall Int ex 301 n/a Existing No to Garage floor>>Garage GWall-ex-L 120 Wall Gar Left 92 90 Garage 0 none Existing OPAQUE SURFACES erior Wall to GWall-ex-R 300 Right Garage 11 Addition 1st r>>Additio Wall Int RO 1st floor erified Existing Window and OPAQUE SURFACES - CATHEDRAL CEILINGS Condition Door Area (ft2) terior Wall-ex House 2nd Wall Int ex Existing 05 07 to Attic-ex 117.352 Wall-ex-F 1 House 1st floor Wall ex Front 233 Existing No 30 90 none Skylight Roof Rise (x Roof Roof House 2nd floor Ceiling attic ex n/a 1623 n/a n/a Existing Status Existing Existing Area (ft²) in 12) Reflectance Emittance Roof Condition Addition 2nd 116 75 504 eiling attic new floor Cathedral- | House 1st Wall-ex-R 1 House 1st floor Wall ex 300 Right 37.8 280 Existing No 90 none Ceiling cath ex Left 0.85 Existing erior Floor-ex House 2nd floor Floor Raised ex n/a 100 Existing floor n/a n/a n/a Wall-ex-F 2 House 2nd floor 30 Front 90 none Existing No Addition 2nd SkylightArea | House 2nd xterior Floor-n loor Raised new n/a 25 n/a n/a New n/a Right 0.1 0.85 Altered Skylight area alt 300 120 0 No Wall-a-L House 2nd floo Wall alt Left none Altered floor 1 floor Wall-ex-L 2 House 2nd floor 30.35 Existing No Wall ex 120 Left 231 90 none nterior Floor-ex ouse 2nd floor n/a 213 n/a Existing Floor Int ex n/a Skylight area alt 120 Left 0.85 Altered over Garage floor Wall-ex-B 2 House 2nd floor Wall ex 210 Back 255 126.73 90 none Existing No nterior Floor Addition 1st Wall-ex-R 2 House 2nd floo 300 Wall ex Right 296 none Existing No Back 0.25 New Cathedral-n 0.85 n/a n/a n/a No Floor Int RO Existing over Addition use 2nd floor n/a floor Addition 1st 1st floor 1 120 65 48 n/a Wall-n-L 1 Wall new Left none New Garage Ceiling cath Gar nterior Floo Addition 1st Floor Int RO 1314 n/a House 2nd floor n/a Existing No 210 173 133.5 over House 1st n/a Wall-n-B 1 Back n/a Wall new none New floor floor 1 Addition 1st Interior Floor-n Addition 2nd Wall-n-R 1 Wall new 300 Right 65 10 none New n/a Floor Int new n/a 258 n/a New n/a floor over Garage floor Addition 2nd Wall-n-F Wall new Front 283 67.275 none n/a floor Registration Number: 424-P010055169A-000-000-0000000-0000 Registration Number: 424-P010055169A-000-000-0000000-0000 Registration Date/Time: 03/29/2024 13:33 Registration Date/Time: 03/29/2024 13:33 HERS Provider: CHEERS Registration Number: 424-P010055169A-000-000-000000-0000 Registration Date/Time: 03/29/2024 13:33 HERS Provider: CHEERS HERS Provider: CHEERS ormation uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, OTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) and cannot quarantee, the accuracy or completeness of the information contained in this document. mation uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using i and cannot guarantee, the accuracy or completeness of the information contained in this document. IOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) of the cannot guarantee, the accuracy or completeness of the information contained in this document. Report Generated: 2024-03-29 13:06:37 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Generated: 2024-03-29 13:06:37 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Report Generated: 2024-03-29 13:06:37 Schema Version: rev 20220901 Schema Version: rev 20220901 Schema Version: rev 20220901 CF1R-PRF-01-E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E (Page 8 of 17) Calculation Date/Time: 2024-03-29T13:05:52-07:00 (Page 7 of 17) Calculation Date/Time: 2024-03-29T13:05:52-07:00 Calculation Date/Time: 2024-03-29T13:05:52-07:00 (Page 9 of 17) **Project Name:** 3542 Venture addition Project Name: 3542 Venture addition **Project Name:** 3542 Venture addition Calculation Description: Title 24 Analysis Input File Name: 3542_Venture_addition_v30.ribd22 Calculation Description: Title 24 Analysis Input File Name: 3542 Venture addition v30.ribd22 Calculation Description: Title 24 Analysis Input File Name: 3542 Venture addition v30.ribd22 FENESTRATION / GLAZING FENESTRATION / GLAZING 11 16 03 10 16 03 04 05 06 07 08 01 Verified Verified Roof Rise Roof Radiant erified Existing/ Width Heigh J-factor U-factor Exterior Exterior **Cool Roof** Construction Status SHGC Existing **U-factor** SHGC Source Existing (x in 12) Reflectance Emittance Barrier Condition Shading (ft) | t (ft) | (ft²) Source Shading Source Condition Attic-ex Roof ex 0.1 0.85 No No Existing Ventilated 5.5 Wind-a-L Window Wall-ex-L 2 Left 120 0.34 NFRC 0.28 NFRC Bug Screen No SkylightArea 0.43 NFRC NA 0.1 0.85 Yes Right NFRC Ventilated 5.5 Skylights-n-P Skylight Attic-new Roof new No New n/a GlDoor-a-17 Window Wall-ex-B 2 NFRC Bug Screen FENESTRATION / GLAZING Skylights-n-SkylightArea 120 0.43 NFRC NA NFRC 0.35 NFRC Wall-ex-B 2 New NA Bug Screen GIDoor-n-18 Verified OPAQUE DOORS Surface Existing NFRC 0.28 Source Wind-a-N Wall-ex-R 2 NFRC Bug Screen No 04 Condition Side of Building U-factor erified Existing Condition Name Area (ft²) Status Wind-n-C Wall-n-L 1 Left 120 0.34 NFRC 0.28 NFRC Bug Screen New NA Wall-ex-F 1 NFRC Bug Screen Altered Wind-a-A Window 17.8 0.5 Door-ex-7 Wall-ex-R 1 Existing Wind-n-E Bug Screen nterior Wall-ex to Garage 16.7 0.5 Existing Wall-ex-F 1 Bug Screen Existing 0.35 GIDoor-n-9 Wall-n-B 1 NFRC NFRC Bug Screen NA GarDoor-ex-4 GWall-ex-F 112 1 Existing No No Wind-n-F 3 GarDoor-ex-3 GWall-ex-F 56 -----Existing Bug Screen GlDoor-a-1 Window Wall-ex-F 1 Front 1 28 0.35 NFRC 0.35 NFRC Bug Screen Altered 0.28 NFRC Wind-n-O 1 Wall-n-F 0.34 NFRC New NA Bug Screen SLAB FLOORS GlDoor-a-2 | Window | Wall-ex-F 1 NFRC NFRC Bug Screen Altered 03 06 09 10 01 04 07 Wind-n-O 2 Wall-n-F Front 0.34 NFRC 0.28 NFRC Bug Screen New NA NFRC Altered Wind-a-B Wall-ex-B 1 Bug Screen Edge Insul. Edge Insul. Wind-n-O 3 Bug Screen Verified Existing Zone Area (ft²) R-value and Heated R-value and Condition

NFRC

NFRC

NFRC

NFRC

0.35

Report Version: 2022.0.000

Schema Version: rev 20220901

Registration Date/Time: 03/29/2024 13:33

0.28

0.28

0.28

0.35

NFRC

NFRC

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Bug Screen

Bug Screen

Bug Screen

Bug Screen

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New

NA

NA

Slab On

Grade-ex

Slab On Grade-r

GSlab On

Grade-ex

1643

142

568

130

ouse 1st floo

Addition 1st

floor

Garage

Registration Number: 424-P010055169A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

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0.34

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Schema Version: rev 20220901

Registration Date/Time: 03/29/2024 13:33

NFRC

Bug Screen

Bug Screen

Bug Screen

Bug Screen

Bug Screen

HERS Provider: CHEERS

Altered

New

Altered

Report Generated: 2024-03-29 13:06:37

NA

Wind-n-H

Wind-n-G

Wind-n-M

SIDoor-n-19

Vindow

Vindow

Wall-n-F

Wall-n-L 2

Wall-n-B 2

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Number: 424-P010055169A-000-000-0000000-0000

Back

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GlDoor-a-8 | Window | Wall-ex-B 1

Wind-n-F1 | Window | Wall-ex-R1

Wind-a-J | Window | Wall-ex-F 2

Window

Wind-a-K

Wall-ex-R 1

Wall-ex-L 2

Registration Number: 424-P010055169A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Right

Left

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300

120

SHEET

Depth

none

Depth

Registration Date/Time: 03/29/2024 13:33

Report Version: 2022.0.000

Schema Version: rev 20220901

0%

0%

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Existing

New

Existing

Report Generated: 2024-03-29 13:06:37

HERS Provider: CHEERS

No

n/a

Wall e	ex							R-value	R	-value					
Wall a		Exterio	or Walls	Wood Frame	d Wall	2x4 @ 10	in. O. C.	R-0	Non	e / None	0.387		nish: Gypsı rame: no ir		
	alt	Exterio	or Walls	Wood Frame	d Wall	2x4 @ 1	6 in. O. C.	R-13	Non	e / None	0.093	Cavity / Sheathing Siding/s	Inside Finish: Gypsum Cavity / Frame: R-13 Sheathing / Insulation: Siding/sheathing/ded Exterior Finish: 3 Coat		
Wall no	ew	Exterio	or Walls	Wood Frame	d Wall	2x4 @ 10	5 in. O. C.	R-13	Non	e / None	0.093	Inside Finish: Gypsur Cavity / Frame: R-1. Sheathing / Insulatio Siding/sheathing/d Exterior Finish: 3 Coa		me: R-13 / 2x4 nsulation: Wood athing/decking	
Wall G	Gar	Exterio	or Walls	Wood Frame	d Wall	2x4 @ 10	in. O. C.	R-0	Non	e / None	0.387		nish: Gypsu rame: no ir		
Ceiling ca	ath ex	Cathedra	al Ceilings	Wood Fran Ceiling		2x10 @ 2	4 in. O. C.	R-O	Non	e / None	0.332	Roofing: 10 PSF (RoofTi Tile Gap: presei		ent ood decking sul. / 2x10	
Ceiling cat	th new	Cathedra	al Ceilings	Wood Fran Ceiling		2x10 @ 2	4 in. O. C.	R-30	Non	e / None	0.034	Roo Siding/s Cavity /	PSF (Roof Gap: pres of Deck: Wo sheathing/ Frame: R-3 nish: Gypsu	ent ood decking 60 / 2x10	
ERTIFICATE (PERFORMAN	CE COMPI	IANCE MET		lation Date	/Time: 202	4-03-29T13	:05:52-07:0	0			
	e: 3542 Ver	nture addit : Title 24 A	ion nalysis	PERFORMAN	CE COMPI	IANCE MET	Calcu		•	:4-03-29T13 ture_additio					
oject Name	e: 3542 Ver Pescription: VELOPE - HEF 01	nture addit : Title 24 A	ion nalysis ITION				Calcu Input	File Name	•	ture_additio				Page 13 of 1	
oject Name alculation De JILDING ENV	e: 3542 Ver Pescription: VELOPE - HEF 01	nture addit : Title 24 A	ion nalysis ITION	02			Calcu Input 03	File Name	•	ture_additio			05	Page 13 of 1	
oject Name Iculation Do JILDING ENV Quality Insula No ATER HEATIN	e: 3542 Ver rescription: /ELOPE - HEI 01 ation Install: ot Required	nture addit : Title 24 A RS VERIFICA ation (QII)	ion nalysis ITION High R-va	02 Blue Spray Foam Not Required	Insulation	Buildin	Calcu Input 03 g Envelope Air N/A	File Name:	: 3542_Ven	04 CFM50	on_v30.ribd	22	05 CFM50 n/a	(Page 13 of 1	
oject Name Iculation Do JILDING ENV Quality Insula	e: 3542 Ver rescription: /ELOPE - HEI 01 ation Install: ot Required	ation (QII)	ion nalysis TION High R-va 03	02 Blue Spray Foam Not Required 04 Water Heater	Insulation 05 Number of	Buildin 06 06 Solar Hea	Calculinput 03 g Envelope Air N/A 0 onting Com	File Name: Leakage 7	08 HERS	04 CFM50 n/a 09 Water Hear	on_v30.ribd	0 V	05 CFM50 n/a 11 erified	(Page 13 of 1	
oject Name Iculation Do JILDING ENV Quality Insula No ATER HEATIN 01	e: 3542 Ver rescription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1	riture addit Title 24 A RS VERIFICA ation (QII) Dis Hot	ion nalysis ITION High R-va	02 Blue Spray Foam Not Required 04	Insulation 05	Buildin 06	Calculinput 03 g Envelope Air N/A 0 onting Com	Leakage 7 pact bution Vi	.: 3542_Ven	04 CFM50 n/a 09 Water Hear Name (#	on_v30.ribd	0 Vitus Ex	05 CFM50 n/a	(Page 13 of 1	
oject Name Iculation De Iculati	e: 3542 Ven escription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D	riture addit Title 24 A RS VERIFICA ation (QII) Dis Hot	on nalysis TION High R-va 03 stribution Type	02 Alue Spray Foam Not Required 04 Water Heater Name	05 Number of Units	Buildin 06 of Solar Hea	Calculinput 03 g Envelope Air N/A 0 nting Com Distrib	Leakage 7 pact bution Vi	08 HERS erification	04 CFM50 n/a 09 Water Hear Name (#	n_v30.ribd	0 Vitus Ex	05 CFM50 n/a 11 erified kisting ndition	Page 13 of 1 12 Existing Wat Heating	
oject Name Ilculation De JILDING ENV Quality Insula No ATER HEATIN 01 Name DHW ex	e: 3542 Ven escription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D	riture addit Title 24 A RS VERIFICA ation (QII) Dis Hot	on nalysis TION High R-va 03 stribution Type	02 Ralue Spray Foam Not Required 04 Water Heater Name Ex Tankless	05 Number of Units	Buildin 06 of Solar Hea	Calculinput 03 g Envelope Air N/A 0 nting Com Distrib	Leakage 7 pact bution Vi	08 HERS erification	04 CFM50 n/a 09 Water Hear Name (#	n_v30.ribd	0 Vitus Ex	05 CFM50 n/a 11 erified kisting ndition	Page 13 of 1 12 Existing Wate Heating	
Oject Name Ilculation Do JILDING ENV Quality Insula No ATER HEATIN 01 Name DHW ex ATER HEATER 01	e: 3542 Veriescription: VELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D	Type Dis	on nalysis TION High R-va 03 stribution Type tandard	02 alue Spray Foam Not Required 04 Water Heater Name Ex Tankless 05 Tank Vol.	O5 Number o Units	Buildin 06 Of Solar Hee System n/a 07	Calculinput 03 g Envelope Air N/A 0 nting Com Distrik	File Name: Leakage 7 pact velocities veloci	08 HERS erification	04 CFM50 n/a 09 Water Hear Name (#	an_v30.ribd	0 Votus Ex	05 CFM50 n/a 11 erified kisting ndition No	12 Existing Water Heating System 15 Verified	
DHW ex	e: 3542 Ven escription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D RS 02 Heating Element	Type Dis	on nalysis TION High R-va 03 stribution Type tandard 4 C Uni	O2 Alue Spray Foam Not Required O4 Water Heater Name Ex Tankless O5 of Tank Vol. (gal)	O5 Number of Units 1 O6 Heating Efficiency	Buildin 06 of Solar Hear System n/a 07	Calculation of the companies of the comp	File Name: Leakage 7 pact pution Volume 09 Input Rating or	08 HERS erification n/a 10 Tank Insulation R-value	04 CFM50 n/a 09 Water Hear Name (# Ex Tankles (1) 11 Standby Loss or Recovery	ter Star	0 Votus Co	05 CFM50 n/a 11 erified kisting ndition No	12 Existing Water Heating System 15 Verified Existing Condition	
DHW ex ATER HEATER O1 Name Ex ankless	e: 3542 Ven escription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D RS 02 Heating Element Type Gas	Tank Typ Small Instantance	on nalysis TION High R-va 03 Stribution Type tandard 04 Le # c Uni ous 1	O2 Alue Spray Foam Not Required O4 Water Heater Name Ex Tankless O5 of Tank Vol. (gal)	Insulation 05 Number of Units 1 06 Heating Efficiency Type EF	Buildin 06 Solar Hea System n/a 07	Calculinput 03 g Envelope Air N/A 00 ating Com Distrik No 08 Rated Input Type Btu/Hr	Pile Name: Leakage 7 pact pution Vinne 09 Input Rating or Pilot	08 HERS erification n/a 10 Tank Insulation R-value (Int/Ext)	04 CFM50 n/a 09 Water Hear Name (# Ex Tankles (1) 11 Standby Loss or Recovery Eff	ter Star 12 1st Hr. Rating or Flow Rate	0 Votus Co ting 13 Tank Location	05 CFM50 n/a 11 erified kisting ndition No 14 n Statu	12 Existing Wat Heating System 15 Verified Existing Condition	
DHW ex ATER HEATER O1 Name Ex ankless	e: 3542 Ven escription: /ELOPE - HEI 01 ation Install: ot Required NG SYSTEMS 02 System 1 Domestic Water (D RS 02 Heating Element Type Gas NG - HERS Vi	Title 24 A RS VERIFICA ation (QII) Dis Hot Hot HW) Small Instantance ERIFICATION	on nalysis TION High R-va 03 stribution Type tandard 04 e # c Uni	02 slue Spray Foam Not Required 04 Water Heater Name Ex Tankless 1 05 of Tank Vol. (gal) 0	05 Number of Units 1 06 Heating Efficiency Type	Buildin 06 Solar Hea System 10 07 Cefficiency 0.82	Calculation of the companies of the comp	File Name: Leakage 7 pact Sution Vivine Viv	08 HERS erification n/a 10 Tank Insulation R-value (Int/Ext)	04 CFM50 n/a 09 Water Hear Name (# Ex Tankles (1) 11 Standby Loss or Recovery Eff 70	ter Star 12 1st Hr. Rating or Flow Rate	0 Vitus Co ting 13 Tank Location	05 CFM50 n/a 11 erified kisting ndition No 14 Existin	12 Existing Water Heating System 15 Verified Existing Condition	

CF1R-PRF-01-E

(Page 10 of 17)

Calculation Date/Time: 2024-03-29T13:05:52-07:00

Input File Name: 3542_Venture_addition_v30.ribd22

05 06 07

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

02

Project Name: 3542 Venture addition

OPAQUE SURFACE CONSTRUCTIONS

Calculation Description: Title 24 Analysis

lation Description:	ture addition Title 24 Analysis				ime: 2024-03-29T1 542_Venture_addit			Project Name: 3542 Calculation Descripti				-	i e: 2024-03-29T1 2_Venture_addit			(Page 12 d
UE SURFACE CONSTR	UCTIONS 02	03	04	05	06	07	08	OPAQUE SURFACE CON	ISTRUCTIONS 02	03	04	05	06	07	J 08	8
nstruction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	_	Assembly Layers	Construction Name		Construction Type		Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly	
Skylight area alt	Cathedral Ceilings	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-19	None / None	0.053	Roofing: 10 PSF (RoofTileAirGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking	Ceiling attic new	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joist Cavity / Frame Inside Finish: G	e: R-9.1 / 2x4
		Celling	24 III. O. C.				Cavity / Frame: R-19 / 2x4 Top Chrd Inside Finish: Gypsum Board Roofing: Light Roof (Asphalt Shingle)	Floor Raised ex	Exterior Floors	Wood Framed Floo	r 2x6 @ 16 in. O. C.	R-O	None / None	0.244	Floor Surface Floor Decl Siding/sheath Cavity / Frame:	k: Wood ning/decking
Ceiling cath Gar	Cathedral Ceilings	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-O	None / None	0.494	Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd Inside Finish: Gypsum Board Inside Finish: Gypsum Board	Floor Raised new	Exterior Floors	Wood Framed Floo	r 2x6 @ 16 in. O. C.	R-19	None / None	0.048	Floor Surface Floor Decl Siding/sheath Cavity / Frame	ck: Wood ning/decking e: R-19 / 2x6
Wall Int RO	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-O	None / None	0.277	Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board								Sheathing / Insu Siding/sheath Floor Surface Floor Decl	ning/decking e: Carpeted
Wall Int ex	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board Roofing: 10 PSF (RoofTileAirGap)	Floor Int RO	Interior Floors	Wood Framed Floo	2x6 @ 16 in. O. C.	R-0	None / None	0.199	Siding/sheath Cavity / Frame: Ceiling Below Finisl	ning/decking no insul. / 2x6 sh: Gypsum Bo
Roof ex	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-O	None / None	0.4	Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd Roofing: 10 PSF (RoofTileAirGap)	Floor int ex	Interior Floors	Wood Framed Floo	2x6 @ 16 in. O. C.	R-O	None / None	0.199	Floor Surface Floor Decl Siding/sheath Cavity / Frame: Ceiling Below Finisl	ck: Wood ning/decking no insul. / 2x6
Roof new	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.4	ROOTING: 10 PSF (ROOTINEAIrGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd	Floor Int new	Interior Floors	Wood Framed Floo	r 2x6 @ 16 in. O. C.	R-19	None / None	0.048	Floor Surface Floor Decl Siding/sheath Cavity / Frame Ceiling Below Finisl	ck: Wood ning/decking e: R-19 / 2x6
Ceiling attic ex	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board								Celling Below Fillish	
ct Name: 3542 Ven	ture addition Title 24 Analysis	. PERFORMANCE CON	Calcu	•	ime: 2024-03-29T1 542_Venture_addit		, ,	Project Name: 3542 Calculation Descripti	on: Title 24 Analysis	AL PERFORMANCE CO	Calcu		ie: 2024-03-29T1 2_Venture_addit			CF1R-PF (Page 15
CONDITIONING SYS	03	04 0	05 06	07	08 09		10 11 12	HVAC DISTRIBUTION - 01	02	03	04 05	06		07	08	09
ame System Ty	/pe Heating Unit Name	Heating Coolin	ng Unit Cooling	Name I	tribution Requi Thermo	ostat	Status Verified Existing HVAC Condition System	Name		Duct Leakage Ve	rified Duct Verified Duct Location Design		ICTS	y Buried ucts	Low-leakage Air Handler	Low Leaka Ducts Entire Condition
Heating a cooling system ot	g Ex Furnace	1 Ex Co	poling 1 Fa	an ex D	ucts ex n/a	e E	ixisting No	Ducts ex-hers-dist	Yes	10.0 No	nt Required Not Required	Not Requ	ired Credit	not taken	Not Required	No No
- HEATING UNIT TYP 01	ES	02	03		04		05	HVAC - FAN SYSTEMS	01		02		03			04
Name		System Type	Number of Uni	ts	Heating Effic	ciency	Heating Unit Brand		Name Fan ex		Type HVAC Fan		Fan Power (Watts 0.58	/CFM)		Name ex-hers-fan
Ex Furnace	C	Central gas furnace	1		AFUE - 7	75	n/a	HVAC FAN SYSTEMS - F	IERS VERIFICATION							
- COOLING UNIT TYP	02 ES	03	04 05		6	07	08 09		01 Name		02 Verified Fan Watt	Draw		Require	03 red Fan Efficacy (Watts/	/CFM)
Name S	ystem Type Nun	nber of Units Efficie	ency Metric Efficiency EER/EER2/CEE	Effici R SEER/		Controlled	Mulit-speed HERS Verification		Fan ex-hers-fan		Not Required			•	0	•
x Cooling Ce	ntral split AC	1 EE	ER/SEER 7.06	8	3 Not	t Zonal	Single Speed Ex Cooling-hers-cool	INDOOR AIR QUALITY	IAQ) FANS	03	04 05	06		07	08	09
DISTRIBUTION SYST	TEMS 03 04	05 06 07	08 09 10	11	12	13	14 15 16	Dwelling Unit		Fan Efficacy	Includes Q Fan Type Heat/Energy Recovery?	IAQ Reco Effective SRE/AS	iess - Indicate	les Fault r Display?	HERS Verification	Status
me Type	Design Type	uct Ins. Duct I-value Location	Surface Area Bypass Duct	Duct Leakage	HEDS	Status	Verified Existing New Ducts Existing Distribution >= 25 ft	SFam IAQVentRpt 1-1	160	0.3	Balanced Yes	75 / 8		No	No	
tts ex Uncondition ned attic	Non-	pl Retur Suppl Retur y n	y n	Sealed and Tested	Ducts E	xisting + New	Condition system No Yes	HERS RATER VERIFICA	TION OF EXISTING COND	DITIONS						
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2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.

Building Envelope:

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§ 110.6(a)1:	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WDMA/CSA 101/I.S.2/A440-2011. *
§ 110.6(a)5:	Labeling. Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped. *
§ 110.7:	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	Roof Deck, Ceiling and Rafter Roof Insulation. Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling; or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. 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 roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.
§ 150.0(b):	Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. 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):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	Slab Edge Insulation . Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 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).

Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II

vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation. Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45.

Fireplaces, Decorative Gas Appliances, and Gas Log:

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

Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

Space Conditioning	ng, Water Heating, and Plumbing System:
§ 110.0-§ 110.3:	Certification . Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission. *
§ 110.2(a):	HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N.*
§ 110.2(b):	Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating. *
§ 110.2(c):	Thermostats . All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *
§ 110.3(c)3:	Insulation . Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
\$ 110 2(a)6:	Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with

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2022 Single-Family Residential Mandatory Requirements Summary

hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

§ 150.0(k)1G:	Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1H:	Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	Light Sources in Drawers, Cabinets, and Linen Closets . Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, 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:	Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems. *
§ 150.0(k)2A:	Accessible Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.0(k)2B:	Multiple Controls . Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.0(k)2C:	Mandatory Requirements. Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2D:	Energy Management Control Systems. An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.0(k)2E:	Automatic Shutoff Controls. In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(k)2F:	Dimmers . Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2K:	Independent controls. Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.0(k)3A:	Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets al applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	Internally illuminated address signs. Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(k)5:	Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
Solar Readiness	
	Single-family Residences. Single-family residences located in subdivisions with 10 or more single-family residences and where the

110.10(a)1:	application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
	Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with
	access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than
110.10(b)1A:	feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 16 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be
	located on the roof or overhang of the building and have a total area no less than 250 square feet. *

§ 110.10(b)2: Azimuth. All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north. Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the § 110.10(b)3B:

solar zone, measured in the vertical plane.* Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.

Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be

provided to the occupant. Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps. Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole

circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."

Electric and Energy Storage Ready:

2022 Single-Family Residential Mandatory Requirements Summary

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§ 110.5:	Pilot Lights. 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:	Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.
§ 150.0(h)3A:	Clearances. 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:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment' maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2" higher than the base of the water heater
§ 150.0(n)3:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

§ 110.8(d)3:	Ducts . 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:	CMC Compliance. All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 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 R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8) do not require insulation. 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 UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼", If mastic or tape is used. Building cavities, air handler support platforms, 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 these spaces must not be compressed. *
§ 150.0(m)2:	Factory-Fabricated Duct Systems. Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive
3 100.0(11)2.	components, and discarde, jointe and doubt of date of components macrine by dealed with deal back rabber and

duct tapes unless such tape is used in combination with mastic and draw bands. Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.

Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic § 150.0(m)7: Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, § 150.0(m)8: manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents. Protection of Insulation. Insulation must be protected from damage due tosunlight, moisture, equipment maintenance, and wind.

Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating. § 150.0(m)10: Porous Inner Core Flex Duct. Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an

occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1. Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 § 150.0(m)12: 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.

Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the

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2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(s)	Energy Storage System (ESS) Ready. All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, <u>or</u> a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s); at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(t)	Heat Pump Space Heater Ready. Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(u)	Electric Cooktop Ready. Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(v)	Electric Clothes Dryer Ready. Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."

*Exceptions may apply.



2022 Single-Family Residential Mandatory Requirements Summary

	Space Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that use ducts to supply cooling must have
	a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must
§ 150.0(m)13:	be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air
	handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal
	cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with
	Reference Residential Appendix RA3.3. *

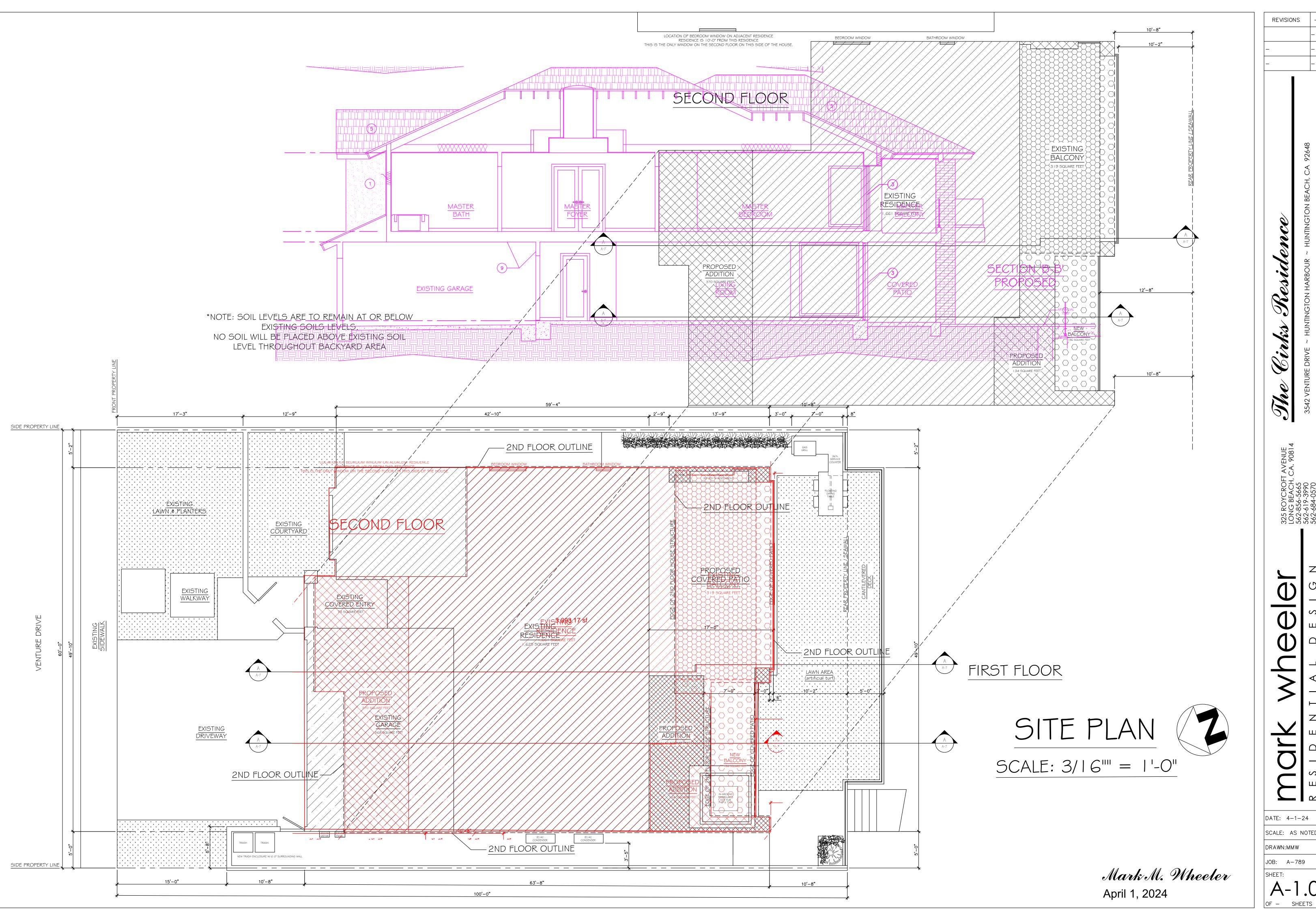
entilation	and	Indoor	Air	Quality	·:	
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entilation and In	door Air Quality:
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1. *
§ 150.0(o)1B:	Central Fan Integrated (CFI) Ventilation Systems. Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents all airflow through the space conditioning duct system when the damper(s) is closed and controlled per §150.0(o)1Biii&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.
§ 150.0(o)1C:	Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses. 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 specified in § 150.0(o)1Ci-iii.
§ 150.0(o)1G:	Local Mechanical Exhaust . Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Giii,enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.0(o)1Gv, and rated for sound per §150.0(o)1Gvi. *
§ 150.0(o)1H&I:	Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems. The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.
§ 150.0(o)2:	Field Verification and Diagnostic Testing. Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.0(o)1G
ool and Spa Sys	tems and Equipment:
	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: compliance

4(a):	with the Appliance Efficiency Regulations and listing in MAEDbS; 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. *
4(b)1:	Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
4(b)3:	Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
0(p):	Pool Systems and Equipment Installation . Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*

Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. *

§ 150.0(k)1B: § 150.0(k)1C: § 150.0(k)1D: § 150.0(k)1E:	Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and line closets with an efficacy of at least 45 lumens per watt. Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1C: § 150.0(k)1D: § 150.0(k)1E:	Screw hased luminaires. Screw hased luminaires must contain lamns that comply with Reference, Joint Annendiy, IA8.*
§ 150.0(k)1D: § 150.0(k)1D: § 150.0(k)1E:	derew based familiaries. Solow based familiaries must contain famps that somply with Noteronice solit. Appendix 67 to.
§ 150.0(k)1D: § 150.0(k)1E:	Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must not contain screw based sockets, must be airtight and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(k)1E:	Light Sources in Enclosed or Recessed Luminaires . Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
	Blank Electrical Boxes. The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(k)1F:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust



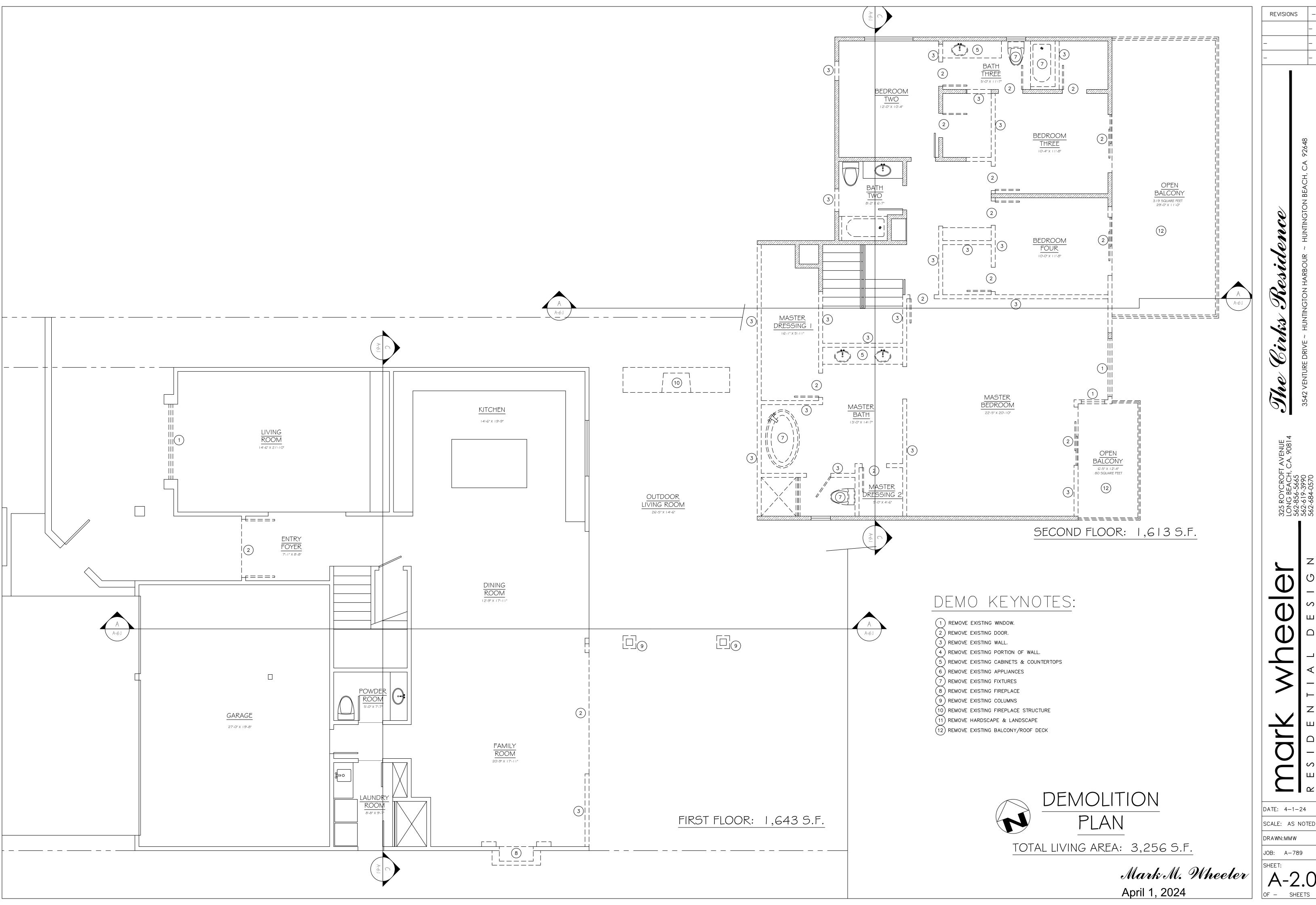
REVISIONS

DATE: 4-1-24 SCALE: AS NOTED

DRAWN:MMW JOB: A-789

A-1.0





GENERAL NOTES

- A. EXTERIOR WINDOW/DOOR GLAZING SHALL BE DUAL GLAZED, LOW-E, CLEAR GLASS, AT ALL LOCATIONS, OWNER TO CHOSE COLOR AND MANUFACTURER. - WINDOW U-FACTOR 0.34
- WINDOW SHGC 0.28 - RADIANT BARRIER NOT REQUIRED
- B. TEMPERED GLASS AT GLAZED DOORS, SHOWER DOORS, SIDE LITES, & WITHIN 18" OF FIN. FLR. & 40" OF A LOCKING DEVICE IN CONFORMANCE TO CRC R308.4
- C. R-30 FOR ROOF INSULATION R-13 FOR WALLS SLAB FOUNDATION

GENERAL NOTES

EXCEPTION USE 5" DRYER VENT DUCT MAX LENGHT = 21'-0'

DOOR SIZE

D. REPAIR ALL TRANSITIONAL AREAS BETWEEN EXISTING AND NEW WORK DUE TO DEMOLITION.

FINISH GARAGE WALL AND CEILING W/GYPSUM BOARD REFERENCE PLANS AND SECTIONS

DOOR

gara**(**nazood (P-) wd

GARAIGNEOOD (P-

 $\sqrt{\frac{2'-2''}{SCI}}$ 6'-8" | 3/4 | WD | SC | P- | WD | P- | -

SKYLIGHT

2'-6" (E) FIRE 6'-8" 1 3/4 WD SC P-

6'-8" 1 3/4 | WD | SC

FRAME

2. GLASS SHOWER ENCLOSURES AND GLASS ENCLSURES IN ALL BATHROOMS SHALL

E. DIMENSIONS TO FACE OF FINISH WALL AT ALL WALLS.

- F. ALL NEW EXTERIOR WALL/CEILING SURFACES SHALL BE PAINTED WITH SCHEME PER OWNER'S INSTRUCTION. SCRAPE AND REMOVE ALL EXISTING (NEXT TO NEW WORK) LOOSE PAINT PER MANUFACTURER'S SPEC. AND PREPARE SURFACES FOR NEW PRIMER & PAINT.
- G. CABINETRY: ALL BUILT-IN CABINETRY TO BE DONE BY CABINET SUB-CONTRACTORS, OWNER TO CHOSE WHO DOES WORK.
- H. THERE IS NO SOIL REPORT FOR THIS PROJECT, USE 1000 PSF SOIL BEARING.
- I. ALL DOORS AND WINDOWS WILL BE NEW WHERE INDICATED ON THE DWGS.

NOTE: MAXIMUM FLUSH VALUMES AND FLOW RATES. WATER CLOSET: 1.28 GALLONS PER FLUSH SHOWERHEADS: 2.0 GALLONS PER MINUTE

J. REGARDING DEMOLITION. CAP ALL EXISTING UTILITIES

PLUMBING NOTES

FAUCETS: 1.2 GALLONS (LAV) / 1.8 GALLONS (SINK) PER MINUTE

- & PREPARE FOR NEW WORK AS REQUIRED. K. REMOVE, DEMOLISH AND REROUTE EXISTING LANDSCAPE SPRINKLER SYSTEM THAT OBSTRUCTS NEW WORK. MAINTAIN AN OPERATIONAL LANDSCAPE IRRIGATION SYSTEM.
- L. ALL NEW WOOD DOOR/WINDOW TRIMS SHALL BE MADE OF MDF OR WOOD. PROVIDE WOOD AT ALL INTERIOR LOCATIONS
- N. DRYWALL SHALL BE 5/8" THICK, MOISTURE RESISTANT AT WET LOCATIONS. FINISH SMOOTH TO MATCH EXISTING TEXTURE.

O. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL GOVERNING BLDG. CODES AND CITY ORDINANCES.

- P. PROVIDE ATTIC VENTILATION PER 2016 CRC R608 VIA
- Q. PATCH, RESTORE, AND REFINISH ALL AREAS DAMAGED BY THE CONSTRUCTION WORK AND DEMOLITION.
- R. ALL NEW DOORS TO BE SOLID OR HOLLOW CORE W SOLID WOOD JAMB FRAMES, PER HOMEOWNERS' INSTRUCTION.
- S. ALL FINISHES TO HAVE OWNERS APPROVAL PRIOR TO COMPLETION OF PROJECT.

20'-10"

20'-10"

14'-5"

T. THE MOISTURE CONTENT OF CONSTRUCTION MATERIALS AND INSULATION SHALL BE VERIFIED PRIOR TO APPROVAL TO ENCLOSE WALL AND FLOOR CAVITIES WITH DRYWALL OR OTHER FINISH SURFACES. (4.505.3.CGBSC)

> EXISTING GAME ROOM

TO REMAIN

14'-6" X 21'-10"

6'-5"

(UNLESS OTHERWISE NOTED) STUDS AT 16" O.C. AT BOTH SIDES. AT INTERIOR WALLS & CEILINGS,

4'-4"

WATER-RESISTANT TYPE AT WET LOCATIONS. FINISH SHALL MATCH EXISTING PAINTED AND ALL OUTSIDE CORNERS TO BE METAL 90 DEGREE EDGES. EXTERIOR PLASTER AT EXTERIOR WALLS 7/8" THICK WITH BUILDING PAPER ..

EXISTING WALLS- PATCH AND REPAIR AS NEEDED TO MATCH EXISTING FINISHED

EHHHHHHMA 1-HOUR RATED WALL. 1-LAYERS 5/8" GYP. BD. TYPE 'X' OVER 2x4 (UNLESS OTHERWISE NOTED) STUDS AT 16" O.C. AT BOTH SIDES. AT INTERIOR WALLS & CEILINGS, FINISH SHALL MATCH EXISTING, PAINTED AND ALL OUTSIDE CORNERS TO BE METAL 90 DEGREE EDGES. EXTERIOR PLASTER AT EXTERIOR WALLS 7/8" THICK

EDROO

THREE

WITH BUILDING PAPER.

LOUATIONS, FRANCIS SWICETE TO WALTON EASTING TEATONE.

5'-2"

EXISTING REF

KITCHEN

TO REMAIN

BLDG. DEPT. NOTES

A. OCCUPANCY GROUP: R3-U B. TYPE OF CONSTRUCTION: VB

13'-0"

13'-9"

skylight R

- C. APPLICABLE CODES: 2020 CBC, 2020 CPC, 2020 CMC, 2020 CEC EDITIONS UNDER WHICH THIS PROJECT IS TO BE APPROVED.
- PROVIDE 1" CLEAR AIR SPACE BETWEEN INSULATION & ROOF SHEATHING TO ENSURE FREE AIRFLOW IN THE ATTIC SPACE.
- E ALL NEW LOW-RISE RESIDENTIAL BUILDINGS AND ADDITION OVER 1000 S.F. MUST HAVE A WHOLE HOUSE VENTILATION SYSTEM THAT PROVIDES A CALCULATED MINIMUM AMOUNT OF OUTDOOR AIR BY USING EITHER A CONTINUOUSLY RUNNING BATHROOM FAN OR A SUPPLY OR RETURN AIR VENTILATION THRU A CENTRAL HVAC SYSTEM. THE MINIMUM VENTILATION VOLUME MUST BE A MINIMUM OF 1 C.F.M FOR EACH 100 S.F. OF FLOOR AREA (53 C.F.M.) PLUS 7.5 C.F.M. FOR EACH OCCUPANT. THE NUMBER OF OCCUPANTS IS DETERMINED BY MULTIPLYING THE NUMBER OF BEDROOMS (5) AND THEN

ADDING ONE (TOTAL: 45) (TOTAL C.F.M. REQUIRED: 98) (ASHRAE 62.2)

REFER TO SHEET

3. THE DRYER'S MOISTURE EXHAUST DUCT SHALL NOT EXCEED A TOTAL COMBINED HORIZONTIAL AND VERTICAL LENGTH OF 14'-0" INCLUDING TWO 90-DEGREE ELBOWS PER CMC 504.3.2.2. NOTE: EXISTING PLUMBING FIXTURES SHALL BE REPLACED IN COMPLIANCE WITH SB407. ER 2x4 DOOR SCHEDULE REMARK AS CUSTOM ENTRY DOOR W/GLASS INSET--PER OWNER LA CANTINA OR SIMILAR FOLDING GLASS DOORS--TEMPERED SINGLE WIDE GARAGE DOOR--STYLE TBD DOUBLE WIDE GARAGE DOOR--STYLE TBD (E) 20-MIN FIRE DOOR, SELF-CLOSING, SELF-LATCHING SOLID INTERIOR DOOR EXISTING--SOLID EXTERIOR DOOR LA CANTINA OR SIMILAR FOLDING GLASS DOORS LA CANTINA OR SIMILAR FOLDING GLASS DOORS

SOLID INTERIOR DOOR

DOUBLE INTERIOR DOORS

DOUBLE INTERIOR DOORS

DOUBLE EXTERIOR DOORS

VELUX FCM 4672 FIXED SKYLIGHT

VELUX FCM 1648 FIXED SKYLIGHT

SLIDING GLASS DOOR--TEMPERED

SOLID INTERIOR DOOR

DOUBLE INTERIOR FRENCH DOORS--TEMPERED

SLIDING CLOSET DOORS--TO MATCH INT. DOORS

SLIDING CLOSET DOORS--TO MATCH INT. DOORS

PANEL FOLDING GLASS DOORS--TEMPERED

3 PANEL POCKETING GLASS DOORS--TEMPERED

WINDOW SCHEDULE WINDOW SIZE WINDOW ANDERSON OR KOLBE clad windows or equiv. Color: Black. Ext. finish: TBD. Interior finish TBD by owner. Ext. casing: brickmould w/ projected sill. Int. casing to be completed as a part of interior millwork, per interior FIXED WINDOW——TEMPERED TPL FOLD 3 PANEL FOLDING WINDOWS--TEMPERED FIXED WINDOW--TEMPERED SLIDER--TEMPERED TRIPLE CASEMENT--X-O-X TEMPERED TRIPLE CASEMENT--0-0-0 TEMPERED SINGLE CASEMENT--TEMPERED SGL CASE DOUBLE CASEMENT--TEMPERED--EGRESS SINGLE CASEMENT--TEMPERED FIXED FIXED WINDOW——TEMPERED SGL CASE SINGLE CASEMENT--TEMPERED SINGLE CASEMENT--TEMPERED VELUX FCM 3636 FIXED SKYLIGHT SKYLIGHT

-/-

BALCONY
16'-0" X 29'-0" 3 5 A-8 A-8 DINING ROOM 2'-9" × 17 FAMILY (38) ROOM FOUR 7'-0" 1/ %'=7" 14'-0" 17'-5" EXISTING GARAGE 27'-0" X 19'-8" VING ROOM (64) 25'-10" X 20'-0" 38 12"d. SPA SURROUND (SEATING W 3 5 A-8 A-8 (56)

April 1, 2024

Mark M. Wheeler FLOOR PLAN--FIRST FLOOR (2)



REVISIONS

DATE: 4-1-24 SCALE: AS NOTED

DRAWN:MMW

JOB: A-788

KEYNOTES

- REMOVE EXISTING WINDOW & TRIMS & PATCH.REPAIR/REPLACE BUILDING MATERIALS WITH 2x4 WOOD FRAMING AND NEW FINISHES MATCH EXISTING ADJACENT FINISH.
- WOOD TRIMS FOR WINDOWS, DOORS & CASED OPENINGS AT INTERIOR, AND BASE TRIM TO MATCH EXISTING.
- (3) EXTERIOR WINDOW/DOOR GLAZING SHALL BE DUAL GLAZED $^\prime$ clear at all lócations. Tempered where req. all windows/ SLIDING DOORS SHALL BE BY: ANDERSON 400 & 200 SERIES OR SIMILAR. WINDOWS WITH MUNTIN GRIDS PER EXTERIOR ELEVATION DWG. OPERATION: CASEMENT & DBL HUNG SELECTED PER DWG. COLOR: AND HARDWARE FINISH BY HOMEOWNER. PROVIDE SCREEN AT ALL WINDOWS & FRENCH DOORS.
- 5 LIGHTWEIGHT CONC. TILE ROOF OVER 1/2" CDX PLYWOOD $^\prime$ and roofing paper over 2x roof framing per struct. DWGS. GAF TIMBERLINE ROOFING ULTRA HD OR EQUAL BUILT-UP COMPOSITE ROOFING CLASS-A ICC ESR-3267 (AC438) 2 LAYERS BLDG FELT PER MANUF.
- (6) SMOOTH COAT STUCCO FINISH OVER 1/2" PLYWOOD AND BUILDING PAPER. COLOR TO BE DETERMINED
- (7) WOOD SIDING OVER 1/2" PLYWOOD AND BUILDING PAPER. TO MATCH EXISTING.
- 5/8" GYP. BD. WALLS & CEILING, WATER—RESISTANT TYPE AT WET 8 5/8" GYP. BD. WALLS & CLILING, WALLS & CLILING, WALLS & CALLED AND TYPE 'X' 5/8" GYP BD. WHERE SPECIFIED. FINISH SHALL MATCH EXISTING, PAINTED AND ALL OUTSIDE CORNERS TO BE METAL 90 degree EDGES.
- (28) KOHLER NUMI TOILET--.6/1.28 GAL. LOW VOLUME, PER ANSI std.112.19.2, OR SIMILAR
- (29) 7'-0" VANITY WITH 36" HEIGHT, STONE COUNTERTOP W/ SINK PLUMBING FINISHED FOR 1 SINK PER OWNER SEE INTERIOR ELEVATIONS FOR DETAILS.
- 6'-0" VANITY WITH 36" HEIGHT, STONE COUNTERTOP W/ SINK PLUMBING FINISHED FOR 1 SINK PER OWNER. SEE INTERIOR ELEVATIONS FOR DETAILS.
- , BUILT—IN FLOOR—TO—CEILING STORAGE. 31) BUILT-IN FLOUR- 10-CEILING STORAGE. REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- CLOSET SHELF @ 6'-0" HT. AND CLOTH POLE OR BUILT-IN CLOSET FIXTURES.
- BUILT-IN FLOOR-TO-CEILING DRESSER. DETAILS PER INTE DESIGNER. REFER TO INTERIOR ELEVATIONS FOR DETAILS. BUILT-IN FLOOR-TO-CEILING DRESSER. DETAILS PER INTERIOR
- (34) STONE TUB ENCLOSURE PROVIDE 1/4" ROUND TILE TRIMS AT ALL OUTSIDE CORNERS AND EDGE OF TILE. . HANDHELD, WALL, AND RAIN WALL STONE FROM TUB TO CEILING.
- (35) KOHLER 'SOK' DROP-IN TUB. 74" X 41"
- (36) STONE SHOWER ENCLOSURE ON FULL MORTAR BED. WALL STONE FLOOR TO CEILING.
 PROVIDE 1/4" ROUND TILE TRIMS AT ALL OUTSIDE CORNERS AND EDGE OF TILE. SLOPE TILE TO DRAIN. HANDHELD, WALL, AND RAIN SHOWER HEADS TO BE SUPPLIED. GLASS ENCLÓSURE TO BE TEMPERED, FRAMELESS GLASS. 20" H. SEAT TO MATCH LEVEL OF TUB ENCLOSURE.
- (37) STONE OR TILE FLOORING -- STYLE & COLOR TBD BY INT DESIGNER
- (38) HARDWOOD FLOORING--STYLE & COLOR TBD BY INT. DESIGNER
- (39) WALL-TO-WALL CARPETING--STYLE & COLOR TBD BY DESIGNER
- (40) DECK WALKING SYSTEM. DEX-O-TEX WEATHERWEAR SYSTEM (ICC# ESR-1757) (OR EQUAL)

COLOR: 402--DARK GRAY

- BUILT-IN FLOOR-TO-CEILING IT / AV CLOSET STORAGE. $^\prime$ refer to interior elevations for details.
- BUILT-IN FLOOR-TO-CEILING LINEN CLOSET STORAGE. BUILT-IN FLOOR-TO-CEILING LINEN CLOSET ST REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- (43) NICHE FOR 85" TELEVISION.
- 84" LINEAR GAS OR ELECTRIC FIREPLACE WITH INSET ABOVE FOR 85" LED TELEVISION FOR 85" LED TELEVISION. REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- BUILT-IN FLOOR-TO-CEILING CABINETRY FOR MEDIA OR OTHER PURPOSES. REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- BUILT-IN CABINETRY--DISPLAY SHELVING & CABINETS REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- (54) 18"h. x 12"d. SPA SURROUND / SEATING WALL
- (55)84 X 84 DROP-IN SPA
- (56) LOCATION OF ELECTRICAL PANEL.
- (57) GAS METER
- 96" LINEAR GAS FIREPLACE WITH INSET ABOVE FOR 92" LED TELEVISION FOR 92" LED TELEVISION. REFER TO INTERIOR ELEVATIONS FOR DETAILS.
- 59 18"D. X 84"L. SERVICE COUNTER AT SAME HT. AS KITCHEN COUNTER. AS KITCHEN COUNTER.
- 60 EXISTING TANKLESS WATER HEATER WITH RECIRCULATING SYSTEM.
- (61) EXISTING AIR CONDITIONING CONDENSORS
- (62) 30" X 30"ATTIC ACCESS

- (63) EXISTING ATTIC-MOUNTED FORCED AIR UNIT, WITH ENCLOSURE. 110v RECEPTACLE, FUEL GAS AND A MINIMUM 30" WIDE PLYWOOD WORKING PLATFORM AND PASSAGEWAY. ALSO PROVIDE FOR MINIMUM 726 C.F.M. WHOLE HOUSE VENTILATION SYSTEM VIA HVAC SYSTEM, PER ASHRAE 62.2
- (64) PROVIDE ONE LAYER 5/8" TYPE "X" GYPBOARD AT GARAGE WALLS AND CEILING ADJACENT TO LIVING SPACE (GARAGE SIDE ONLY). AS WELL AS UNDER STAIRS. PER SECTION R302.6 OF THE 2020 CRC.
- (65) WHOLE HOUSE FAN--PANASONIC SELECTCYCLER WHOLE HOUSE VENTILATION SOLUTION -- SACG2K COMPLIES WITH ASHRAE 4.1.1, 4.1.2, & 62.2 REQMTS.

ZHHHHHHHHHA 1-HOUR RATED WALL.

A. OCCUPANCY GROUP: R3-U

B. TYPE OF CONSTRUCTION: VB

TO BE APPROVED.

(UNLESS OTHERWISE NOTED) STUDS AT 16" O.C. AT BOTH SIDES. AT

METAL 90 DEGREE EDGES. EXTERIOR

LOCATIONS. FINISH SHALL MATCH EXISTING, PAINTED AND ALL OUTSIDE CORNERS TO BE

PLASTER AT EXTERIOR WALLS 7/8" THICK

EXISTING WALLS- PATCH AND REPAIR AS

1-LAYERS 5/8" GYP. BD. TYPE 'X' OVER 2x4

PAINTED AND ALL OUTSIDE CORNERS TO BE METAL 90 DEGREE EDGES. EXTERIOR

PLASTER AT EXTERIOR WALLS 7/8" THICK

NEEDED TO MATCH EXISTING FINISHED

STUDS AT 16" O.C. AT BOTH SIDES. AT

INTERIOR WALLS & CEILINGS, WATER-RESISTANT TYPE AT WET

(UNLESS OTHERWISE NOTED)

INTERIOR WALLS & CEILINGS,

FINISH SHALL MATCH EXISTING

WITH BUILDING PAPER.

BLDG. DEPT. NOTES

C. APPLICABLE CODES: 2020 CBC, 2020 CPC, 2020 CMC,

D. PROVIDE 1" CLEAR AIR SPACE BETWEEN INSULATION & ROOF SHEATHING TO ENSURE FREE AIRFLOW IN THE ATTIC SPACE.

2020 CEC EDITIONS UNDER WHICH THIS PROJECT IS

ALL NEW LOW-RISE RESIDENTIAL BUILDINGS AND ADDITION OVER 1000 S.F. MUST HAVE A WHOLE HOUSE

VENTILATION SYSTEM THAT PROVIDES A CALCULATED

MINIMUM AMOUNT OF OUTDOOR AIR BY USING EITHER

THE NUMBER OF OCCUPANTS IS DETERMINED BY

REFER TO SHEET

A-3.0 FOR WINDOW

& DOOR SCHEDULES

FINISH GARAGE WALL AND CEILING W/GYPSUM BOARD REFERENCE PLANS AND SECTIONS

. THE DRYER'S MOISTURE EXHAUST DUCT SHALL NOT EXCEED A TOTAL COMBINED HORIZONTIAL AND VERTICAL LENGTH OF 14'-0" INCLUDING TWO 90-DEGREE ELBOWS PER CMC 504.3.2.2.

2. GLASS SHOWER ENCLOSURES AND GLASS ENCLSURES IN ALL BATHROOMS SHALL

GENERAL NOTES

EXCEPTION USE 5" DRYER VENT DUCT MAX LENGHT = 21'-0'

FAUCETS: 1.2 GALLONS (LAV) / 1.8 GALLONS (SINK) PER MINUTE

NOTE: EXISTING PLUMBING FIXTURES SHALL BE REPLACED IN COMPLIANCE WITH SB407.

NOTE: MAXIMUM FLUSH VALUMES AND FLOW RATES.

WATER CLOSET: 1.28 GALLONS PER FLUSH

SHOWERHEADS: 2.0 GALLONS PER MINUTE.

FOR TYPE AND THICKNESS.

A CONTINUOUSLY RUNNING BATHROOM FAN OR A SUPPLY

OR RETURN AIR VENTILATION THRU A CENTRAL HVAC SYSTEM. THE MINIMUM VENTILATION VOLUME MUST BE A MINIMUM OF 1 C.F.M FOR EACH 100 S.F. OF FLOOR AREA (53 C.F.M.) PLUS 7.5 C.F.M. FOR EACH OCCUPANT.

MULTIPLYING THE NUMBER OF BEDROOMS (5) AND THEN

ADDING ONE (TOTAL: 45) (TOTAL C.F.M. REQUIRED: 98)

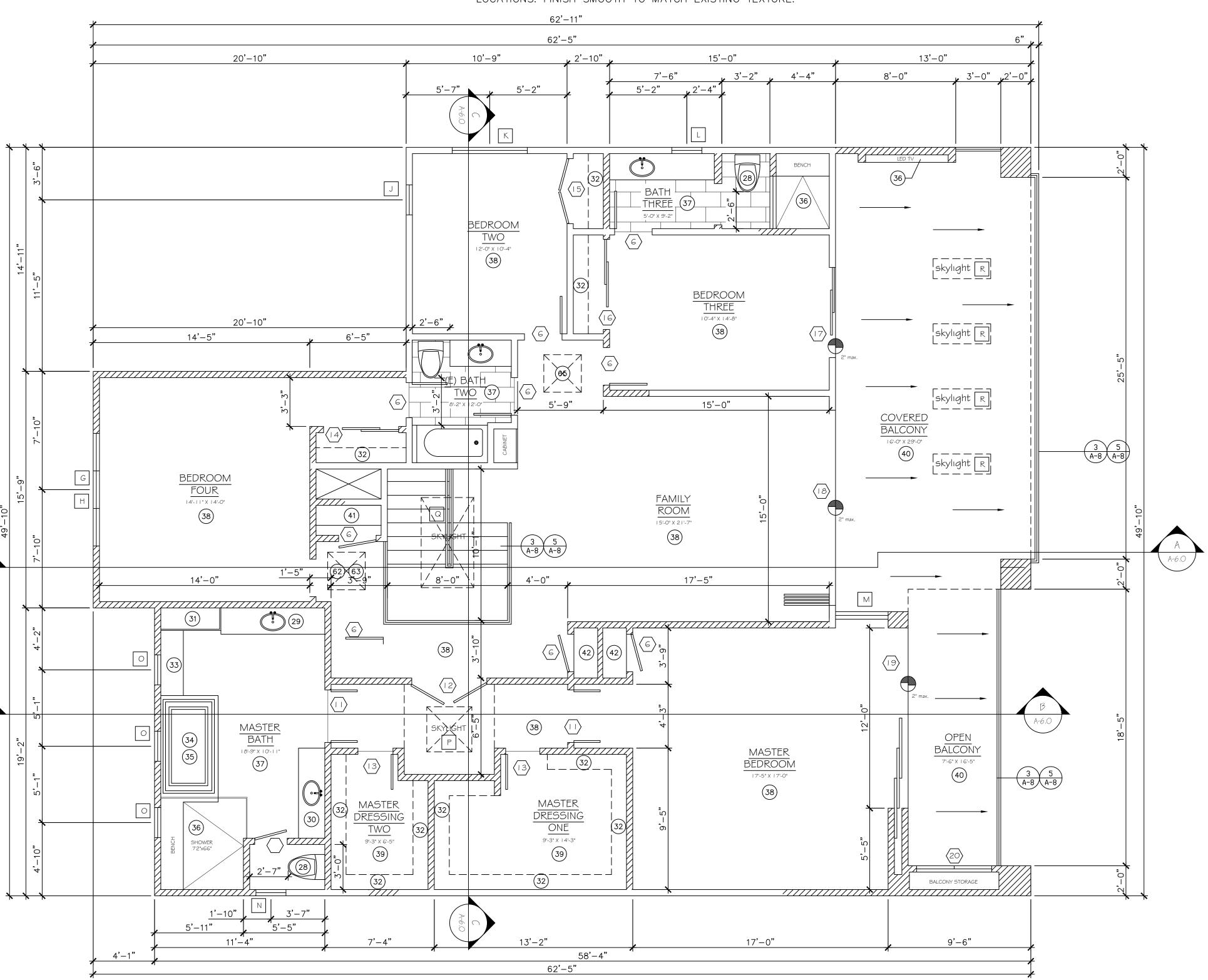
WITH BUILDING PAPER.

GENERAL NOTES

- A. EXTERIOR WINDOW/DOOR GLAZING SHALL BE DUAL GLAZED, LOW-E, CLEAR GLASS, AT ALL LOCATIONS, OWNER TO CHOSE COLOR AND MANUFACTURER. - WINDOW U-FACTOR 0.34
- WINDOW SHGC 0.28 - RADIANT BARRIER NOT REQUIRED
- TEMPERED GLASS AT GLAZED DOORS SHOWER DOORS, SIDE LITES, & WITHIN 18" OF FIN. FLR. & 40" OF A LOCKING DEVICE IN CONFORMANCE TO CRC R308.4
- C. R-30 FOR ROOF INSULATION R-13 FOR WALLS SLAB FOUNDATION
- D. REPAIR ALL TRANSITIONAL AREAS BETWEEN EXISTING AND NEW WORK DUE TO DEMOLITION.
- E. DIMENSIONS TO FACE OF FINISH WALL AT ALL WALLS.

- F. ALL NEW EXTERIOR WALL/CEILING SURFACES SHALL BE PAINTED WITH SCHEME PER OWNER'S INSTRUCTION. SCRAPE AND REMOVE ALL EXISTING (NEXT TO NEW WORK) LOOSE PAINT PER MANUFACTURER'S SPEC. AND PREPARE SURFACES FOR NEW PRIMER & PAINT.
- ALL BUILT-IN CABINETRY TO BE DONE BY CABINET SUB-CONTRACTORS, OWNER TO CHOSE WHO DOES WORK.
- H. THERE IS NO SOIL REPORT FOR THIS PROJECT, USE 1000 PSF SOIL BEARING.
- I. ALL DOORS AND WINDOWS WILL BE NEW WHERE INDICATED ON THE DWGS.
- J. REGARDING DEMOLITION, CAP ALL EXISTING UTILITIES & PREPARE FOR NEW WORK AS REQUIRED
- K. REMOVE, DEMOLISH AND REROUTE EXISTING LANDSCAPE SPRINKLER SYSTEM THAT OBSTRUCTS NEW WORK. MAINTAIN AN OPERATIONAL LANDSCAPE IRRIGATION SYSTEM.
- L. ALL NEW WOOD DOOR/WINDOW TRIMS SHALL BE MADE OF MDF OR WOOD. PROVIDE WOOD AT ALL INTERIOR LOCATIONS
- N. DRYWALL SHALL BE 5/8" THICK, MOISTURE RESISTANT AT WET LOCATIONS. FINISH SMOOTH TO MATCH EXISTING TEXTURE.

- O. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL GOVERNING BLDG. CODES AND CITY ORDINANCES.
- P. PROVIDE ATTIC VENTILATION PER 2016 CRC R608 VIA
- Q. PATCH, RESTORE, AND REFINISH ALL AREAS DAMAGED BY THE CONSTRUCTION WORK AND DEMOLITION.
- R. ALL NEW DOORS TO BE SOLID OR HOLLOW CORE W SOLID WOOD JAMB FRAMES, PER HOMEOWNERS' INSTRUCTION.
- S. ALL FINISHES TO HAVE OWNERS APPROVAL PRIOR TO COMPLETION OF PROJECT
- T. THE MOISTURE CONTENT OF CONSTRUCTION MATERIALS AND INSULATION SHALL BE VERIFIED PRIOR TO APPROVAL TO ENCLOSE WALL AND FLOOR CAVITIES WITH DRYWALL OR OTHER FINISH SURFACES. (4.505.3.CGBSC)



FLOOR PLAN--SECOND FLOOR (2) Mark M. Wheeler



REVISIONS

325 LON 562-562-562-

DATE: 4-1-24 SCALE: AS NOTED

DRAWN:MMW

JOB: A-788

A-3.1OF - SHEETS 1. ALL LIGHTING FIXTURES TO BE SUPPLIED BY OWNER 2. FINISH ELECTRICAL COVER PLATES, SWITCH, ETC. SHALL BE LEVITON DECORA, COLOR PER ARCHITECT.

5. ELEC. CONTRACTOR TO VERIFY POWER REQUIREMENT OF APPLIANCES & LT. FIXTURES BEFORE INSTALL, TO ENSURE APPROPRIATE POWER SUPPLY TO APPLIANCES. 6. GROUND FAULT PROTECTION IS REQUIRED FOR ALL GRADE ACCESS EXT. OUTLETS, OUTLETS IN BATHROOMS, BASEMENT, CRAWL SPACE, GARAGE,

WITHIN 6' OF KITCHEN SINK, AND EXTERIOR OUTLETS.

7. ALL LIGHT FIXTURES RECESSED INTO INSULATED CEILINGS MUST BE APPROVED FOR ZERO CLEARANCE INSULATION COVER (I.C.) BY UNDERWRITERS LAB. OR OTHER TESTING/RATING LAB. RECOGNIZED BY THE ICC AS PER TITLE 24.

8. SPECIFY FLUORESCENT LIGHT FIXTURES RATED AT NO LESS THAN 40/LUMENS PER WATT FOR GENERAL LIGHTING IN KITCHEN & BATHS PER TITLE 24

9. PROVIDE HIGH EFFICACY FIXTURES FOR ALL PERMANENTLY INSTALLED LIGHTING AS REQUIRED BY SECTION 150.0(k)1A IN THE 2020 CEC.

10. PROVIDE AFCI PROTECTED BRANCH CIRCUITS TO ALL ROOMS EXCEPT THEY ARE NOT REQUIRED TO THE BATHROOMS BASED ON ARTICLE 210.12 IN THE 2020 CEC.

11. PROVIDE DEDICATED 20 AMP CIRCUITS TO THE BATHROOMS & LAUNDRY ROOM AS REQUIRED BY ARTICLES 210.11(C)(2&3), 210.52 (B,D&F), & 406.9 IN THE 2020 CEC.

12. PROVIDE AT LEAST TWO 20 AMP SMALL APPLIANCE CIRCUITS TO THE KITCHEN AS REQUIRED BY ARTICLE 210.11(C)(1) IN THE

13. G.C. IS RESPONSIBLE FOR INSTALLATION OF SEWER, ELECTRIC, GAS, WATER AND OTHER UTILITIES SUFFICIENT FOR THE OPERATION OF THE HOUSE.

15. ALL PLUMBING FIXTURES AND FITTINGS ARE NEW IN COMPLIANCE WITH SB407.

16. PROVIDE PRESSURE BALANCE AND/OR THERMOSTATIC MIXING VALVES IN THE SHOWERS AS REQUIRED BY SECTION 408.3 IN THE 2020 CPC.

17. PROVIDE WATER HOSE BIB PER LOCATIONS PER DWGS. 18. PROVIDE SUFFICIENT VENTILATION FOR BATHROOMS & LAUNDRY RM WITHOUT OPENABLE WINDOWS PER

PER 2020 CALGREEN CODE, SEC. 4.506.

19. TITLE-24 ENERGY REQUIREMENTS:

A. A MINIMUM 50% OF THE LUMINARIES IN THE KITCHEN MUST BE FLUORESCENT OR HIGH EFFICACY FIXTURES.

B. ALL LUMINAIRES AREA TO BE HIGH EFFICACY AND AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES MUST BE CONTROLLED BY A VACANCY SENSOR.

C. BEDROOMS, LIVING ROOMS, FAMILY ROOMS AND OTHER ROOMS USED FOR LIVING AND SLEEPING MUST HAVE FLUORESCENT OR HIGH EFFICACY LIGHTING, OR AN OCCUPANT SENSOR, OR DIMMERS MAY BE INSTALLED.

D. EXTERIOR LIGHTING MUST BE FLUORESCENT OR HIGH EFFICACY, OR AN OCCUPANT SENSOR WITH AN INTEGRAL PHOTO CONTROL MAY BE INSTALLED.

ELECTRICAL LEGEND

- SWITCH AT 42" HT. U.O.N.
- 3-WAY OR 4-WAY SWITCH AT 42" HT. U.O.N.
- DIMMER SWITCH AT 42" HT. U.O.N.
- MANUAL-ON OCCUPANT MOTION SENSOR AT 42" HT. U.O.N.
- SURFACE MOUNTED LED FIXTURE (WALL/CEILING)
- SURFACE MOUNTED LED FIXTURE (WALL/CEILING) WITH MOTION SENSOR
- HIGH EFFICACY LED LIGHTS (4" CAN W/WHITE HAZE TRIM)
- WATER & MOISTURE RESISTANT 4" LED CAN LIGHTING (W/WHITE HAZE TRIM)
- LED 2" LIGHT FIXTURES—PENDANTS
- JUNCTION BOX FOR CEILING HUNG FIXTURE
- RECESS CEILING EXHAUST FAN, W/HUMIDITY CONTROL SENSOR HAVING A MINIMUM CAPACITY OF 50 CFM DUCTED TO TERMINATE OUTSIDE THE BUILDING. (CRC R303.3, CAL GREEN 4.506.1, CBC 1202.5.2.1, CMC402.5)
- DUPLEX RECEPTACLE SET IN FLOOR EXACT LOCATION PER INTERIOR DESIGNER
- G.F.I. DUPLEX RECECEPTACLE 12" ABOVE FIN. FLR. or 6" ABOVE COUNTER or SET IN CABINET
- SMOKE DETECTOR, HARDWIRE INTERCONNECTED TO SOUND
- CARBON MONOXIDE DETECTOR, HARDWIRE INTERCONNECTED TO SOUND AT THE SAME TIME WITH BATTERY BACK-UP.

—-—-- PLUG MOLD

LED STRIP LIGHTING

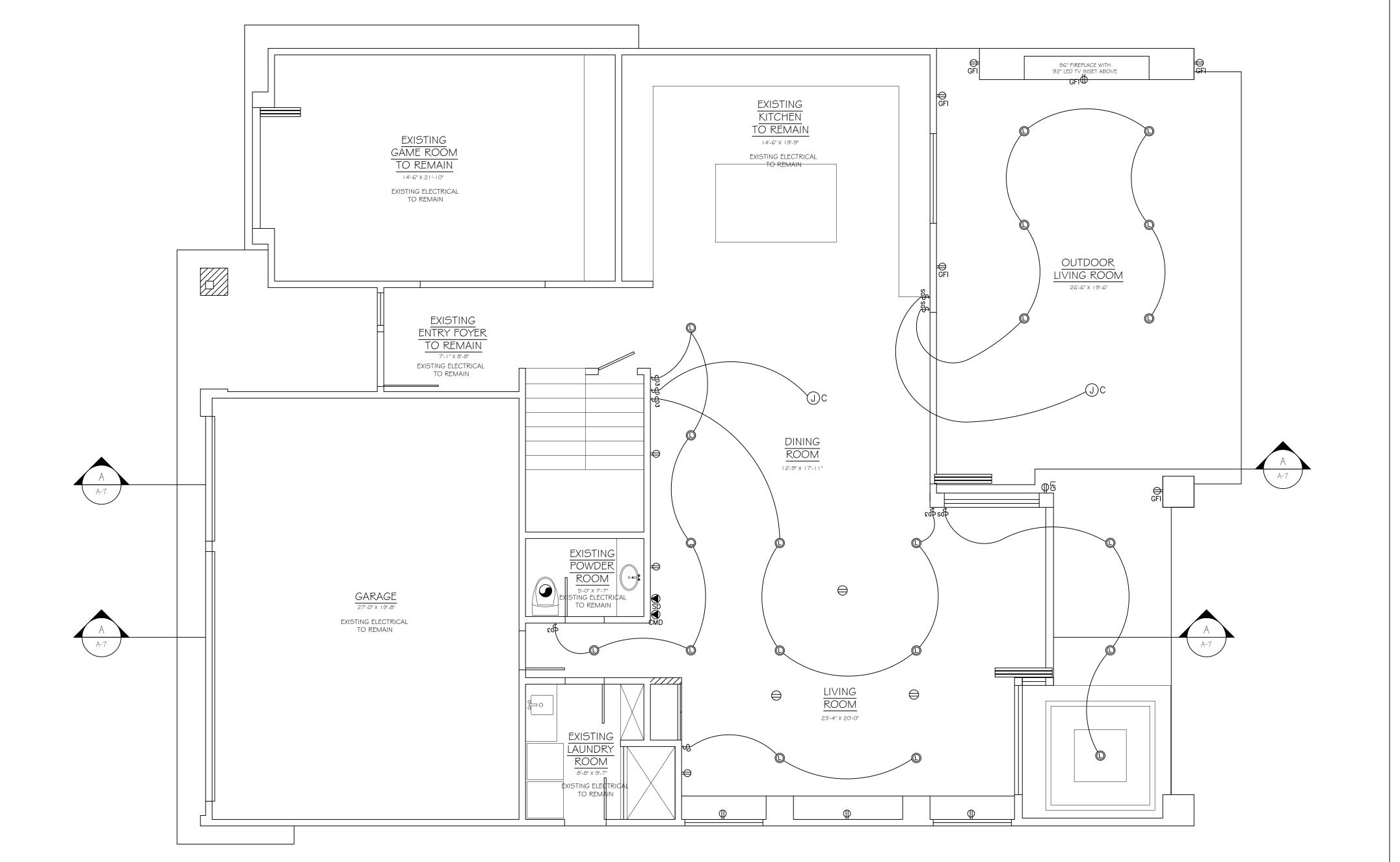
____ 72" CEILING FLOUR. LIGHT FIXTURE.

GENERAL NOTES PROVIDE G.F.C.I. PROTECTION TO ALL 120 VOLTS, 15 AND 20 AMP RECEPTICALS INSTALLED OUTDOORS, IN BATHROOMS, IN BASEMENT AT COUNTERTOP SURFACES, AND GARAGES. PROVIDE SMOKE DETECTORS POWERED BY HOUSE ELEC, WITH BATTERY MONITORED BACKUP, SHALL BE INSTALLED IN EACH SLEEPING ROOM AND IN THE HALL OR IMMEDIATELY OUTSIDE EACH SLEEPING AREA; AND ON THE HIGHEST CEILING POINT OF EACH ADDITIONAL STORY OF THE RESIDENCE. ALL SMOKE DETECTORS SHALL BE INTER—CONNECTED SO THE ACTIVITY OF ANY ONE DEVICE WILL CAUSE ALL TO SOUND. PROVIDE REQ'D CONNECTION FOR GARAGE DOOR OPENER(S) PROVIDE REQD. CONNECTIONS FOR ALL KITCHEN APPLIANCES PROVIDE REQ'D CONNECTIONS FOR MECH. EQUIPMENT. ALL RECESS CANS SHALL BE IC RATED. ALL bath outlets are to be on at least one seperate 20 amp gfi protected circut. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TO ALL 15 AND 20 AMP OUTLETS IN ALL DWELLING ROOMS (RECEPTICALS, SWITCHES, LIGHTS, SMOKE DETECTORS, ETC.) A 20 FOOT #4 UFER GROUNDING ELECTRODE WILL BE PROVIDED FOR GROUNDING THE ELECTRICAL SYSTEM. GAS AND WATER LINES SHALL BE BONDED. GENERAL PURPOSE LIGHTING FIXTURES IN KITCHEN AND BATHROOMS SHALL HAVE LAMPS WITH A EFFICACY OF AT LEAST 40 LUMEN PER WATTS. BATHROOM FLUORSCENTS LIGHTS ARE REQUIRED IN THE AREAS CONTAINING TUB OR SHOWER FACILITIES. LIGHTING INSTALLED IN ATTACHED AND DETACHED GARAGES, LAUNDRY ROOMS AND UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINAIRES AND CONTROLLED BY EITHER DIMMERS OR VACANCY

LIGHTING INSTALLED IN ROOMS OR OTHER AREAS OTHER THAN

EITHER DIMMERS OR VACANCY SENSORS.

KITCHENS, BATHROOMS, GARAGES, LAUNDRY ROOMS AND UTILITY ROOMS SHALL BE HIGH EFFICACY AND SHALL BE CONTROLLED BY



Mark M. Wheeler April 1, 2024

ELECTRICAL / REFLECTED CEILING PLAN--FIRST FLOOR /1



DATE: 4-1-24 SCALE: AS NOTED

REVISIONS

DRAWN:MMW JOB: A-788 SHEET:

OF - SHEETS

1. ALL LIGHTING FIXTURES TO BE SUPPLIED BY OWNER
2. FINISH ELECTRICAL COVER PLATES, SWITCH,
ETC. SHALL BE LEVITON DECORA, COLOR PER ARCHITECT.
3. WITHIN INACCESSABLE CEILINGS, USE
ACCESSABLE TYPE LT. FIXTURES

FUTURE UTILITY (ELEC., WATER, GAS, SHOWER, ETC.)
NEEDS PRIOR TO START OF WORK.

5. ELEC. CONTRACTOR TO VERIFY POWER REQUIREMENT
OF APPLIANCES & LT. FIXTURES BEFORE INSTALL
TO ENSURE APPROPRIATE POWER SUPPLY TO APPLIANCES

OF APPLIANCES & LT. FIXTURES BEFORE INSTALL, TO ENSURE APPROPRIATE POWER SUPPLY TO APPLIANCE.

6. GROUND FAULT PROTECTION IS REQUIRED FOR ALL GRADE ACCESS EXT. OUTLETS, OUTLETS IN BATHROOMS, BASEMENT, CRAWL SPACE, GARAGE, WITHIN 6' OF KITCHEN SINK, AND EXTERIOR OUTLETS.

7. ALL LIGHT FIXTURES
RECESSED INTO INSULATED CEILINGS MUST BE APPROVED
FOR ZERO CLEARANCE INSULATION COVER (I.C.) BY
UNDERWRITERS LAB. OR OTHER TESTING/RATING LAB.
RECOGNIZED BY THE ICC AS PER TITLE 24.

RECOGNIZED BY THE ICC AS PER TITLE 24.

8. SPECIFY FLUORESCENT LIGHT FIXTURES RATED AT NO LESS THAN 40/LUMENS PER WATT FOR GENERAL LIGHTING IN KITCHEN & BATHS PER TITLE 24

9. PROVIDE HIGH EFFICACY FIXTURES FOR ALL PERMANENTLY INSTALLED LIGHTING AS REQUIRED BY SECTION 150.0(k)1A IN THE 2020 CEC.

10. PROVIDE AFCI PROTECTED BRANCH CIRCUITS TO ALL ROOMS EXCEPT THEY ARE NOT REQUIRED TO THE BATHROOMS BASED ON ARTICLE 210.12 IN THE 2020 CEC.

11. PROVIDE DEDICATED 20 AMP CIRCUITS TO THE BATHROOMS & LAUNDRY ROOM AS REQUIRED BY ARTICLES 210.11(C)(2&3), 210.52 (B,D&F), & 406.9 IN THE 2020 CEC.

12. PROVIDE AT LEAST TWO 20 AMP SMALL APPLIANCE CIRCUITS TO THE KITCHEN AS REQUIRED BY ARTICLE 210.11(C)(1) IN THE 2019 CEC.

13. G.C. IS RESPONSIBLE FOR INSTALLATION OF SEWER, ELECTRIC, GAS, WATER AND OTHER UTILITIES SUFFICIENT FOR THE OPERATION OF THE HOUSE.

15. ALL PLUMBING FIXTURES AND FITTINGS ARE NEW IN COMPLIANCE WITH SB407.

16. PROVIDE PRESSURE BALANCE AND/OR THERMOSTATIC MIXING VALVES IN THE SHOWERS AS REQUIRED BY SECTION 408.3 IN THE

2020 CPC.

17. PROVIDE WATER HOSE BIB PER LOCATIONS PER DWGS.

18. PROVIDE SUFFICIENT VENTILATION FOR BATHROOMS & LAUNDRY RM WITHOUT OPENABLE WINDOWS PER PER 2020 CALGREEN CODE, SEC. 4.506.

19. TITLE-24 ENERGY REQUIREMENTS:

A. A MINIMUM 50% OF THE LUMINARIES IN THE KITCHEN MUST

BE FLUORESCENT OR HIGH EFFICACY FIXTURES.

B. ALL LUMINAIRES AREA TO BE HIGH EFFICACY AND AT LEAST ONE

LUMINAIRE IN EACH OF THESE SPACES MUST BE CONTROLLED BY A VACANCY SENSOR.

C. BEDROOMS, LIVING ROOMS, FAMILY ROOMS AND OTHER ROOMS USED

FOR LIVING AND SLEEPING MUST HAVE FLUORESCENT OR HIGH EFFICACY LIGHTING, OR AN OCCUPANT SENSOR, OR DIMMERS MAY BE INSTALLED.

D. EXTERIOR LIGHTING MUST BE FLUORESCENT OR HIGH EFFICACY, OR AN

OCCUPANT SENSOR WITH AN INTEGRAL PHOTO CONTROL MAY BE INSTALLED.

ELECTRICAL LEGEND

\$ SWITCH AT 42" HT. U.O.N.

 $3 3-WAY OR 4-WAY SWITCH AT 42" HT. U.O.N.

\$D DIMMER SWITCH AT 42" HT. U.O.N.

\$ MANUAL-ON OCCUPANT MOTION SENSOR AT 42" HT. U.O.N.

-Q- SURFACE MOUNTED LED FIXTURE (WALL/CEILING)

-\$- SURFACE MOUNTED LED FIXTURE (WALL/CEILING) WITH MOTION SENSOR

HIGH EFFICACY LED LIGHTS (4" CAN W/WHITE HAZE TRIM)

WATER & MOISTURE RESISTANT 4" LED CAN LIGHTING (W/WHITE HAZE TRIM)

O2" LED 2" LIGHT FIXTURES-PENDANTS

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RECESS CEILING EXHAUST FAN, W/HUMIDITY CONTROL SENSOR HAVING A MINIMUM CAPACITY OF 50 CFM DUCTED TO TERMINATE OUTSIDE THE BUILDING. (CRC R303.3, CAL GREEN 4.506.1, CBC 1202.5.2.1, CMC402.5)

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G.F.I. DUPLEX RECECEPTACLE

GFI 12" ABOVE FIN. FLR. or 6" ABOVE COUNTER or SET IN CABINET

SMOKE DETECTOR, HARDWIRE INTERCONNECTED TO SOUND

CARBON MONOXIDE DETECTOR, HARDWIRE INTERCONNECTED TO SOUND AT THE SAME TIME WITH BATTERY BACK-UP.

------ PLUG MOLD

----- LED STRIP LIGHTING

72" CEILING FLOUR. LIGHT FIXTURE.

GENERAL NOTES

PROVIDE G.F.C.I. PROTECTION TO ALL 120 VOLTS, 15 AND 20 AMP RECEPTICALS INSTALLED OUTDOORS, IN BATHROOMS, IN BASEMENT AT COUNTERTOP SURFACES, AND GARAGES.

PROVIDE SMOKE DETECTORS POWERED BY HOUSE ELEC, WITH BATTERY MONITORED BACKUP, SHALL BE INSTALLED IN EACH SLEEPING ROOM AND IN THE HALL OR IMMEDIATELY OUTSIDE EACH SLEEPING AREA; AND ON THE HIGHEST CEILING POINT OF EACH ADDITIONAL STORY OF THE RESIDENCE. ALL SMOKE DETECTORS SHALL BE INTER—CONNECTED SO THE ACTIVITY OF ANY ONE DEVICE WILL CAUSE ALL TO SOUND.

PROVIDE REQ'D CONNECTION FOR GARAGE DOOR OPENER(S)
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ALL RECESS CANS SHALL BE IC RATED.

ALL bath outlets are to be on at least one seperate 20 amp gfi protected circut.

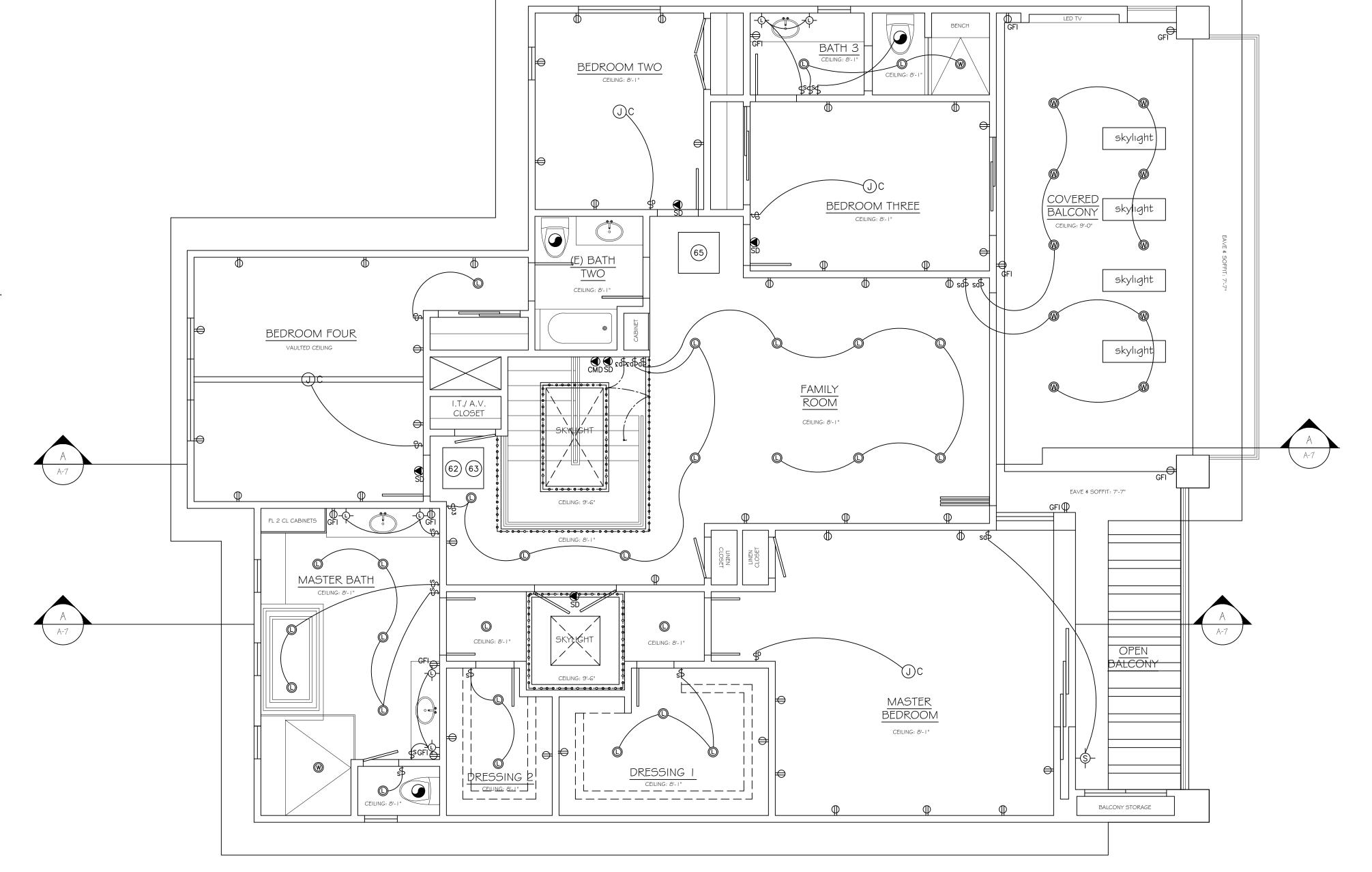
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ELECTRICAL / REFLECTED CEILING PLAN--SECOND FLOOR (



Mark M. Wheeler
April 1, 2024

EAVE \$ SOFFIT: 7'-7"

REVISIONS

CIF ~ THE PENINSIII A ~ HIINTINGTON BEACH CA

325 ROYCROFT AVENUE LONG BEACH, CA. 90814 562-856-5665 562-619-3990 562-684-0570

Wheeler

DATE: 4-1-24

SCALE: AS NOTED

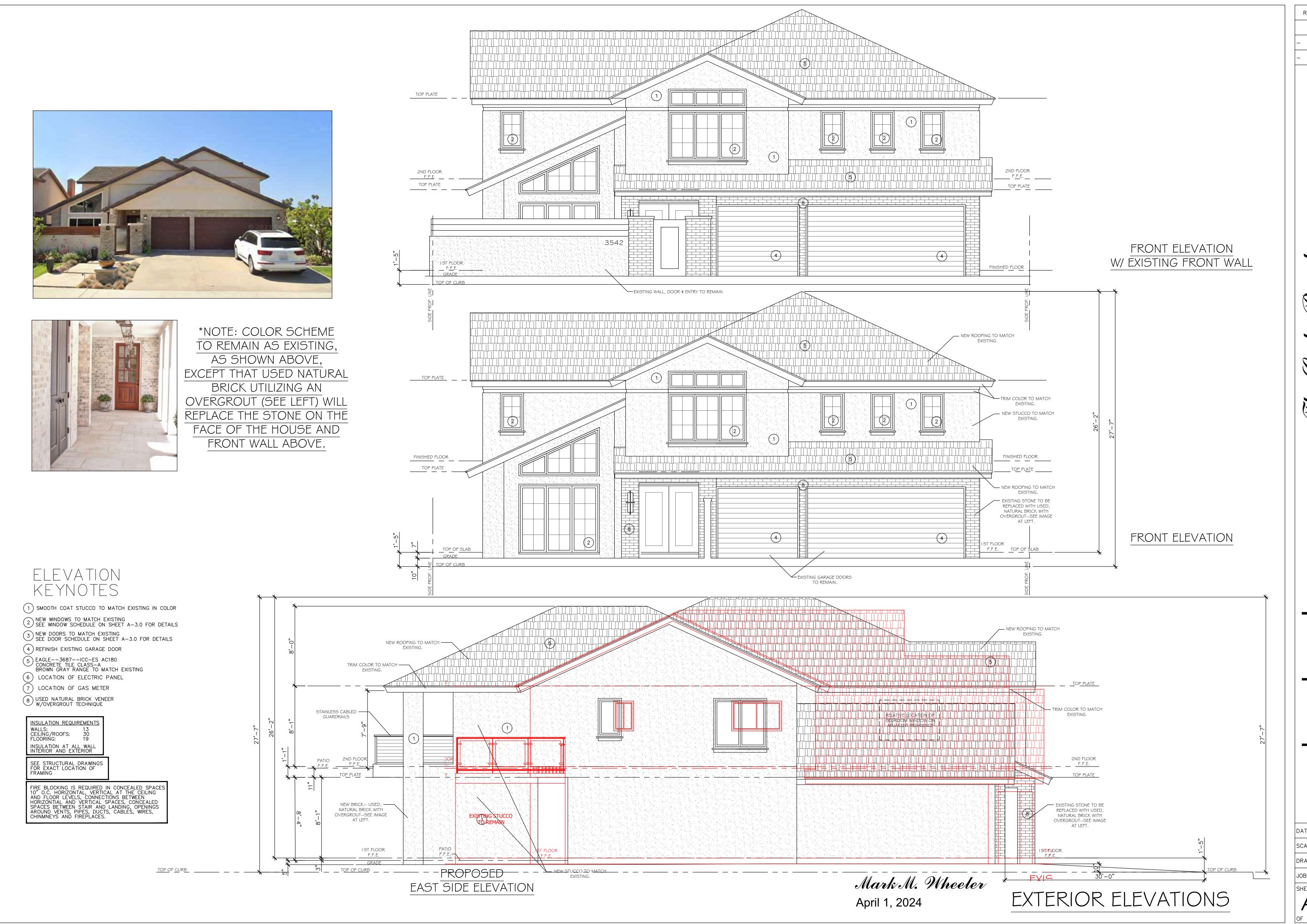
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25 ROYCROFT AVENUE ONG BEACH, CA. 90814 62-856-5665 62-619-3990

DATE: 4-1-24

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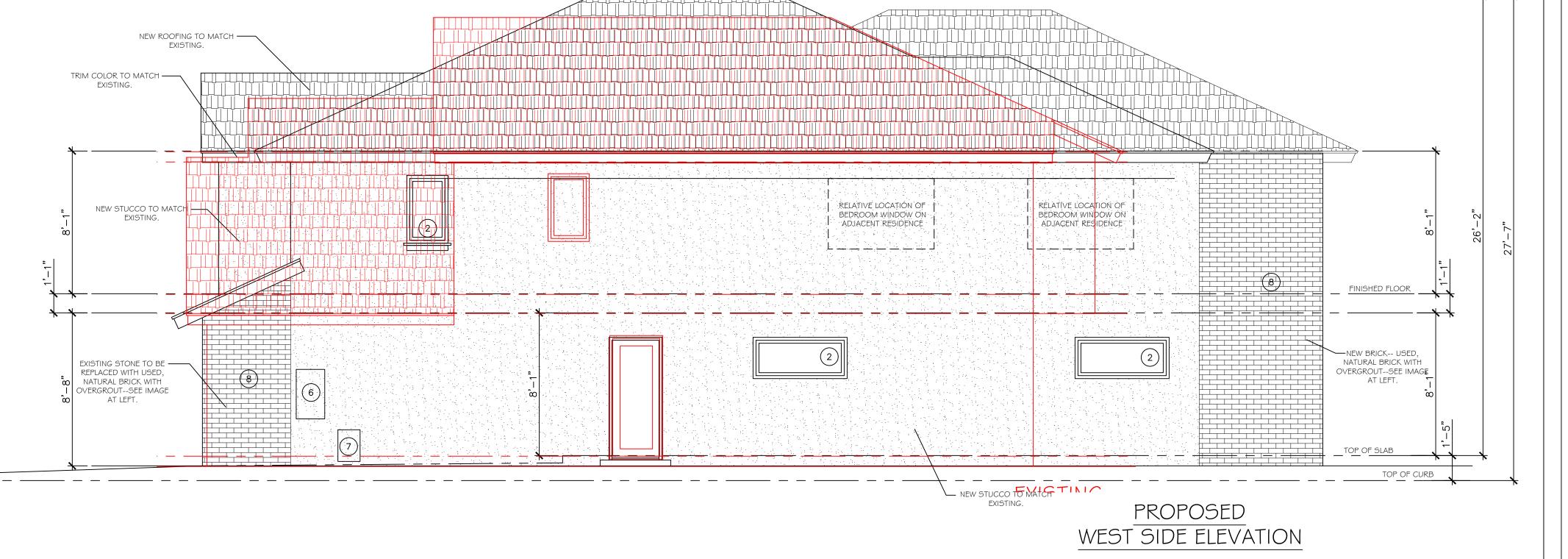


*NOTE: COLOR SCHEME TO REMAIN AS EXISTING, AS SHOWN ABOVE, EXCEPT THAT USED NATURAL BRICK UTILIZING AN OVERGROUT (SEE LEFT) WILL FRONT WALL ABOVE.

TOP OF CURB



PROPOSED REAR ELEVATION



April 1, 2024

Mark M. Wheeler EXTERIOR ELEVATIONS

ELEVATION KEYNOTES

1) SMOOTH COAT STUCCO TO MATCH EXISTING IN COLOR

NEW WINDOWS TO MATCH EXISTING
SEE WINDOW SCHEDULE ON SHEET A-3.0 FOR DETAILS

NEW DOORS SEE DOOR SCHEDULE ON SHEET A-3.0 FOR DETAILS

(4) REFINISH EXISTING GARAGE DOOR

5 EAGLE--3687--ICC-ES AC180 CONCRETE TILE CLASS-A BROWN GRAY RANGE TO MATCH EXISTING

(6) LOCATION OF ELECTRIC PANEL

7 LOCATION OF GAS METER

8 USED NATURAL BRICK VENEER W/OVERGROUT TECHNIQUE

INSULATION REQUIREMENTS WALLS: CEILING/ROOFS: FLOORING: INSULATION AT ALL WALL INTERIOR AND EXTERIOR

SEE STRUCTURAL DRAWINGS FOR EXACT LOCATION OF FRAMING

FIRE BLOCKING IS REQUIRED IN CONCEALED SPACES 10" O.C. HORIZONTAL, VERTICAL AT THE CEILING AND FLOOR LEVELS, CONNECTIONS BETWEEN HORIZONTIAL AND VERTICAL SPACES, CONCEALED SPACES BETWEEN STAIR AND LANDING, OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, WIRES, CHINMNEYS AND FIREPLACES.

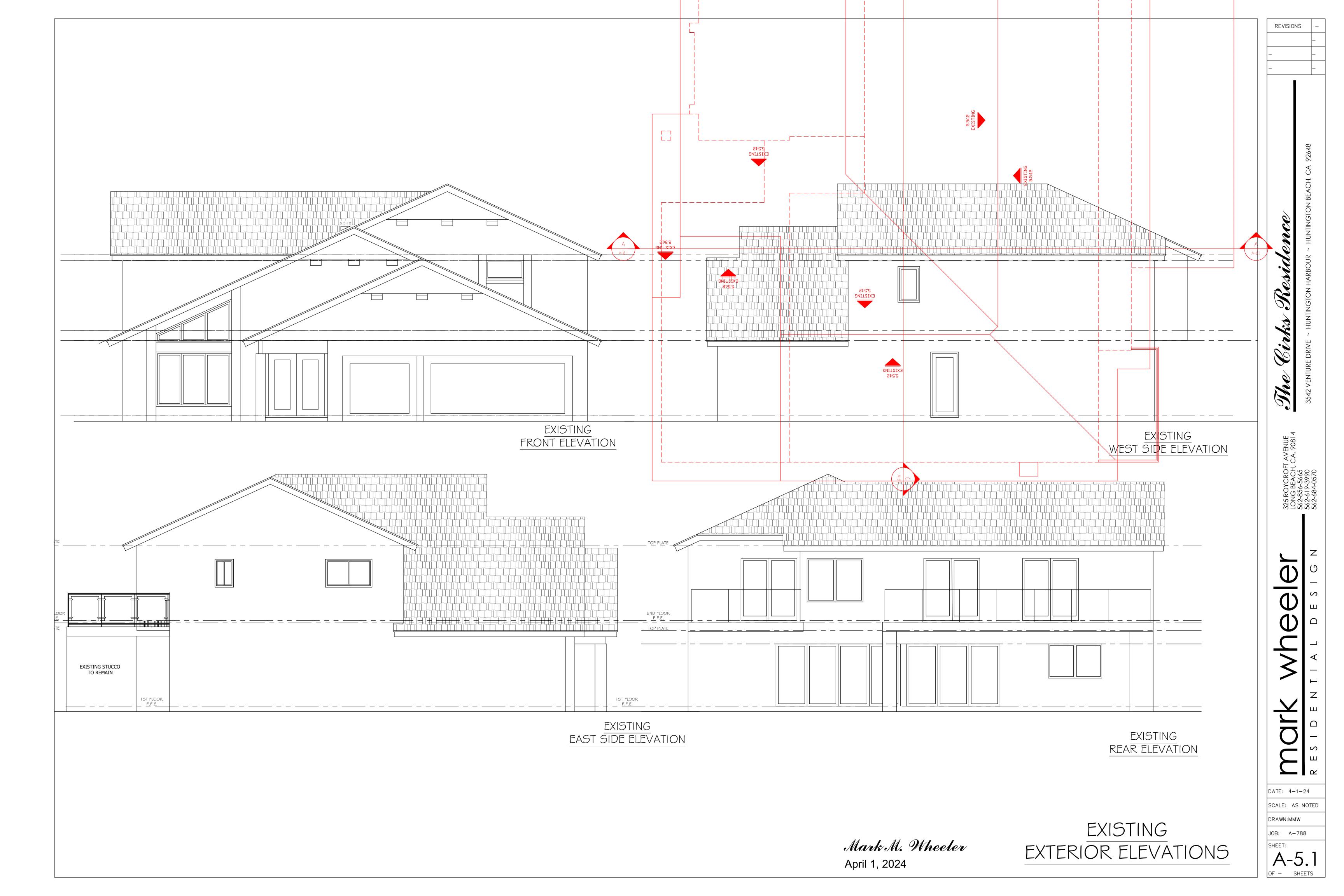
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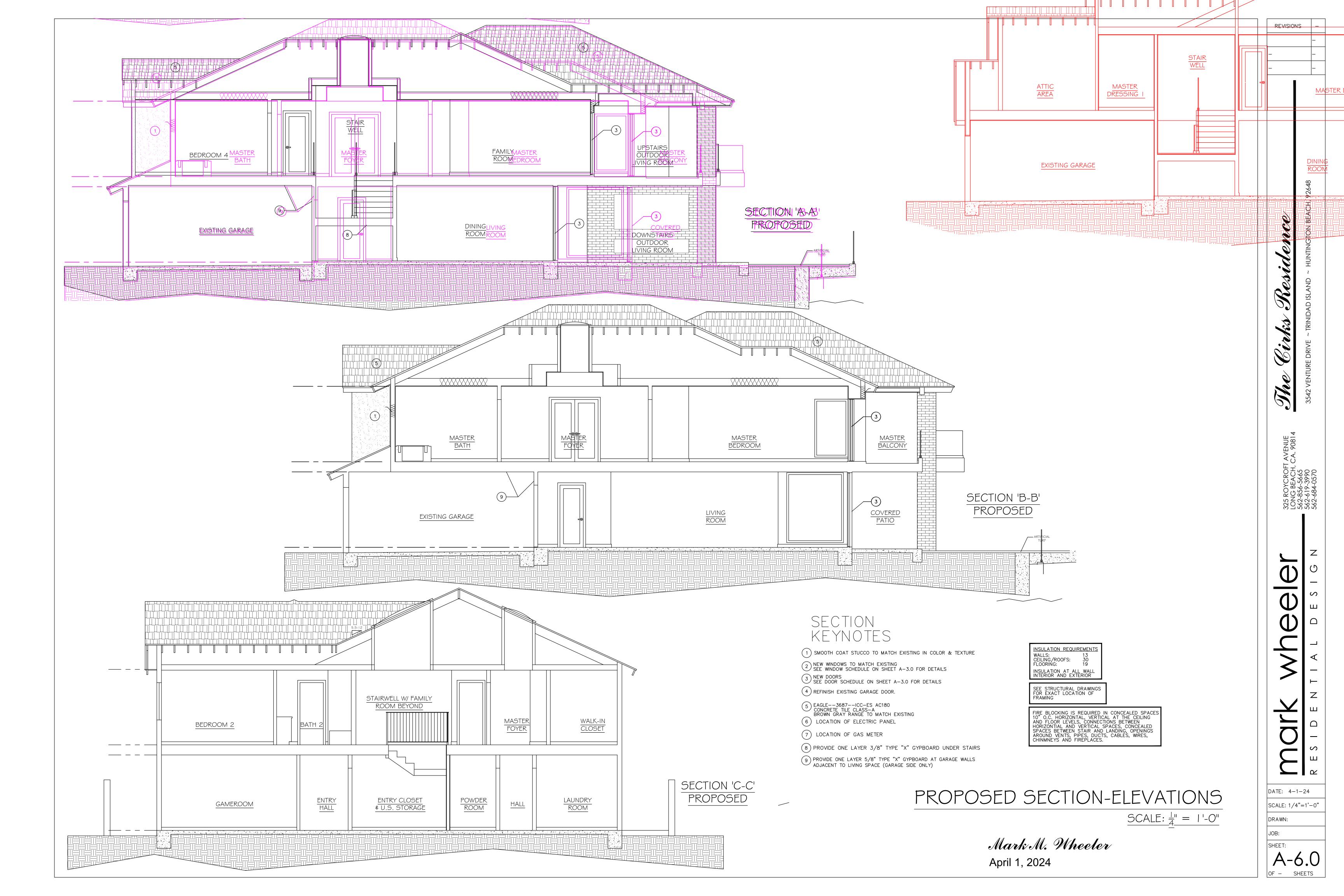
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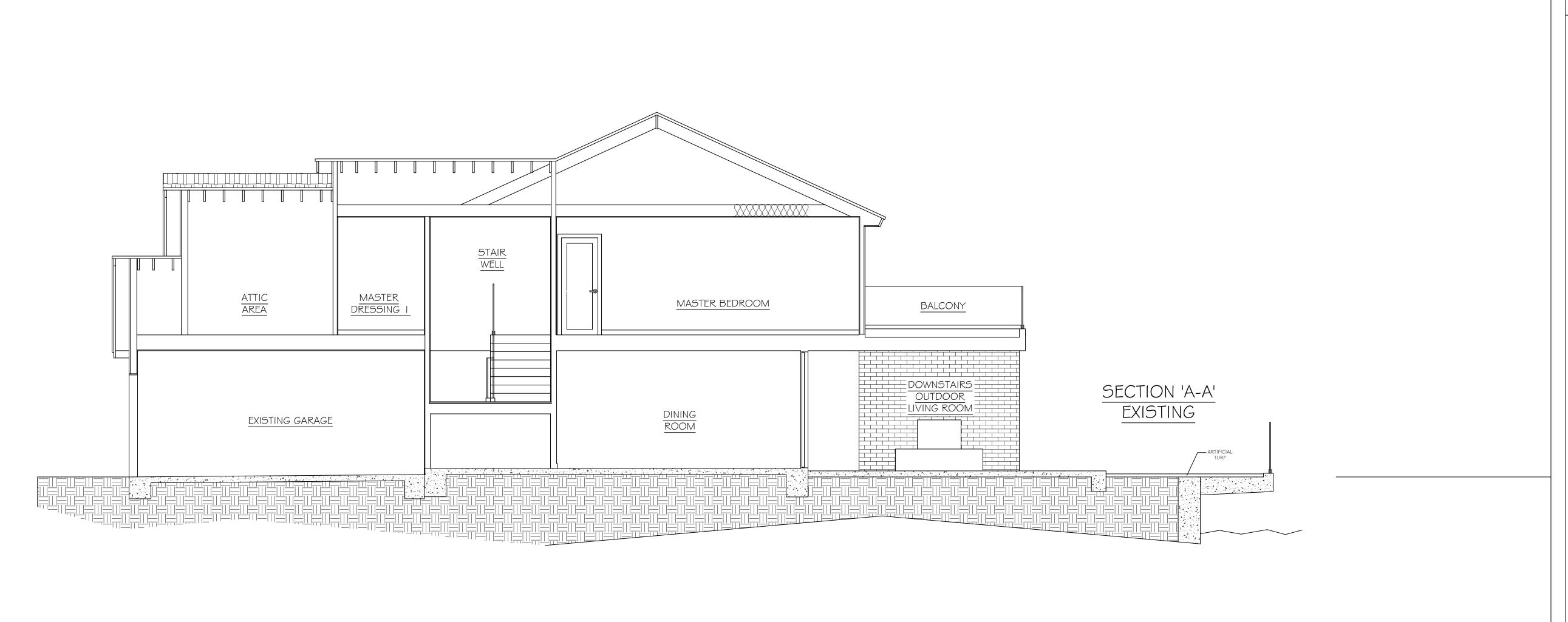
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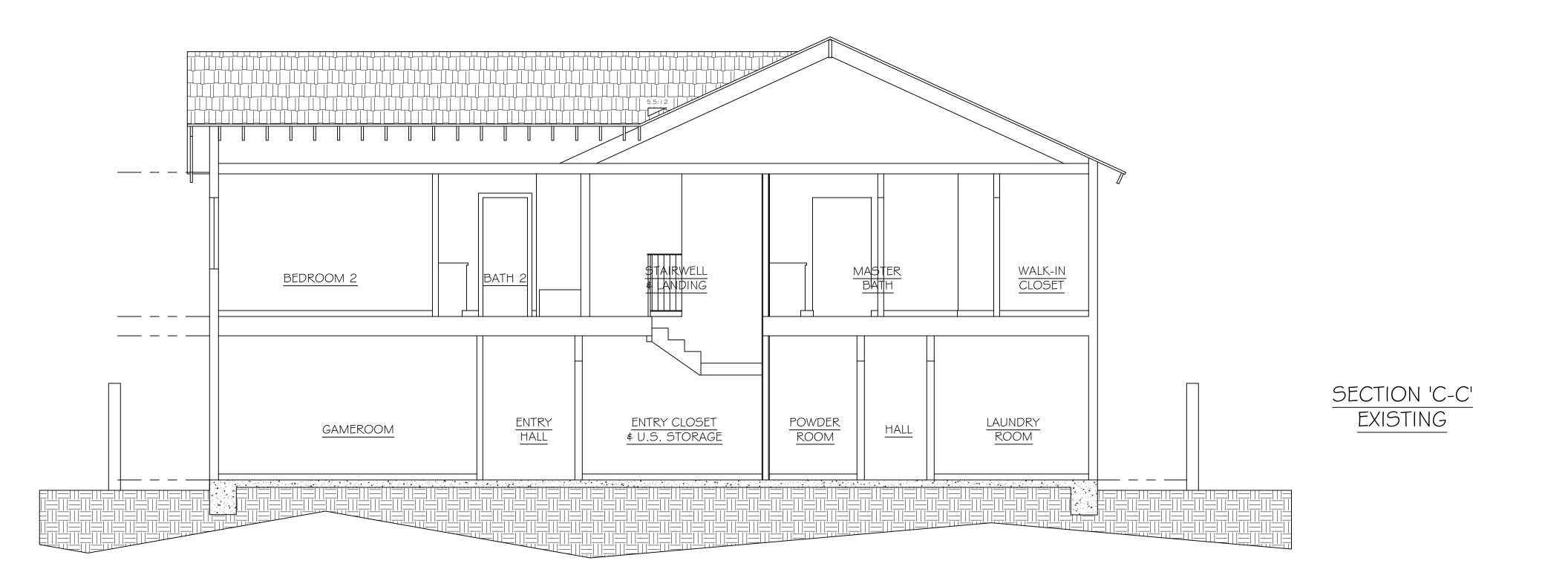
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Mark M. Wheeler
April 1, 2024

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DATE: 4-1-24

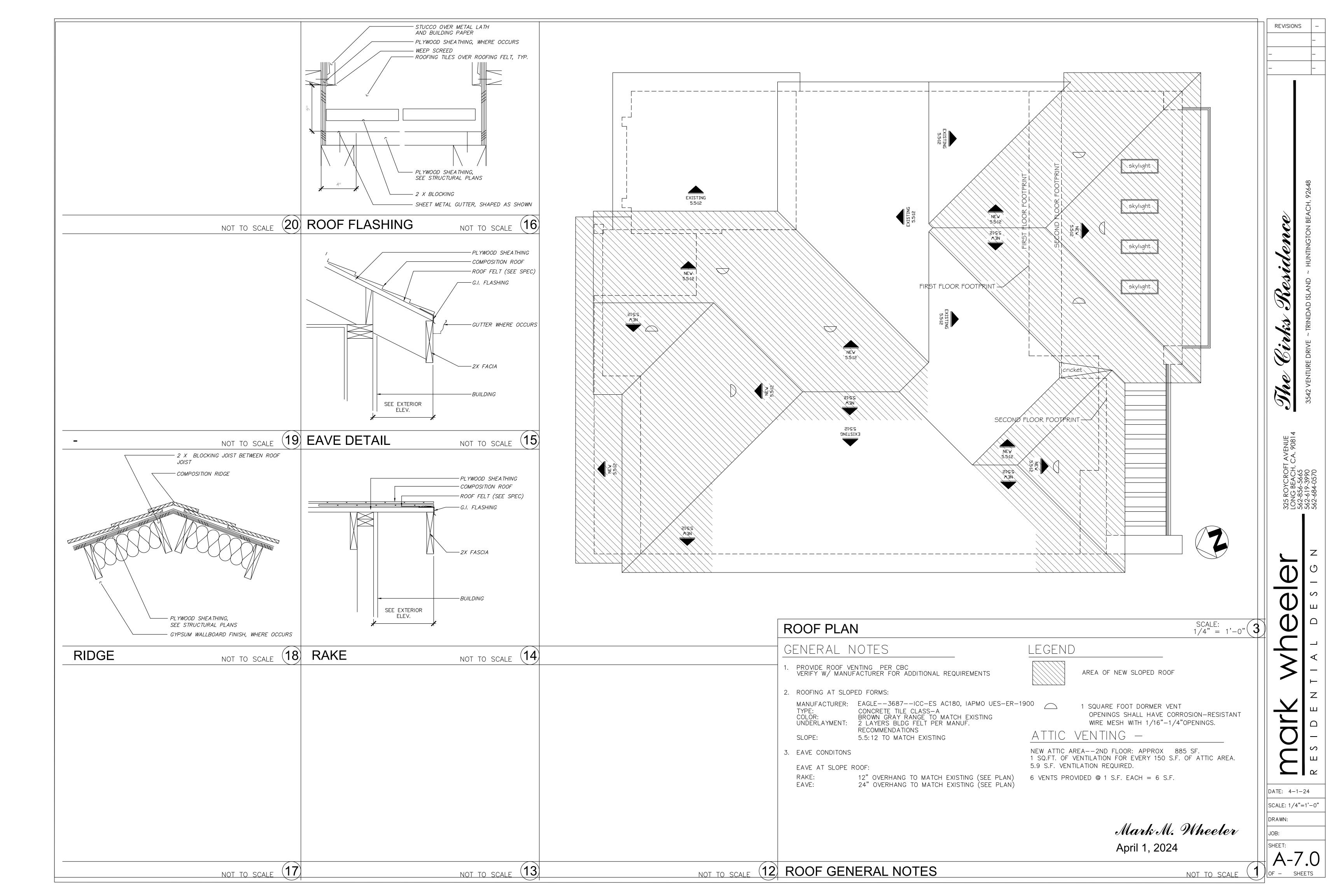
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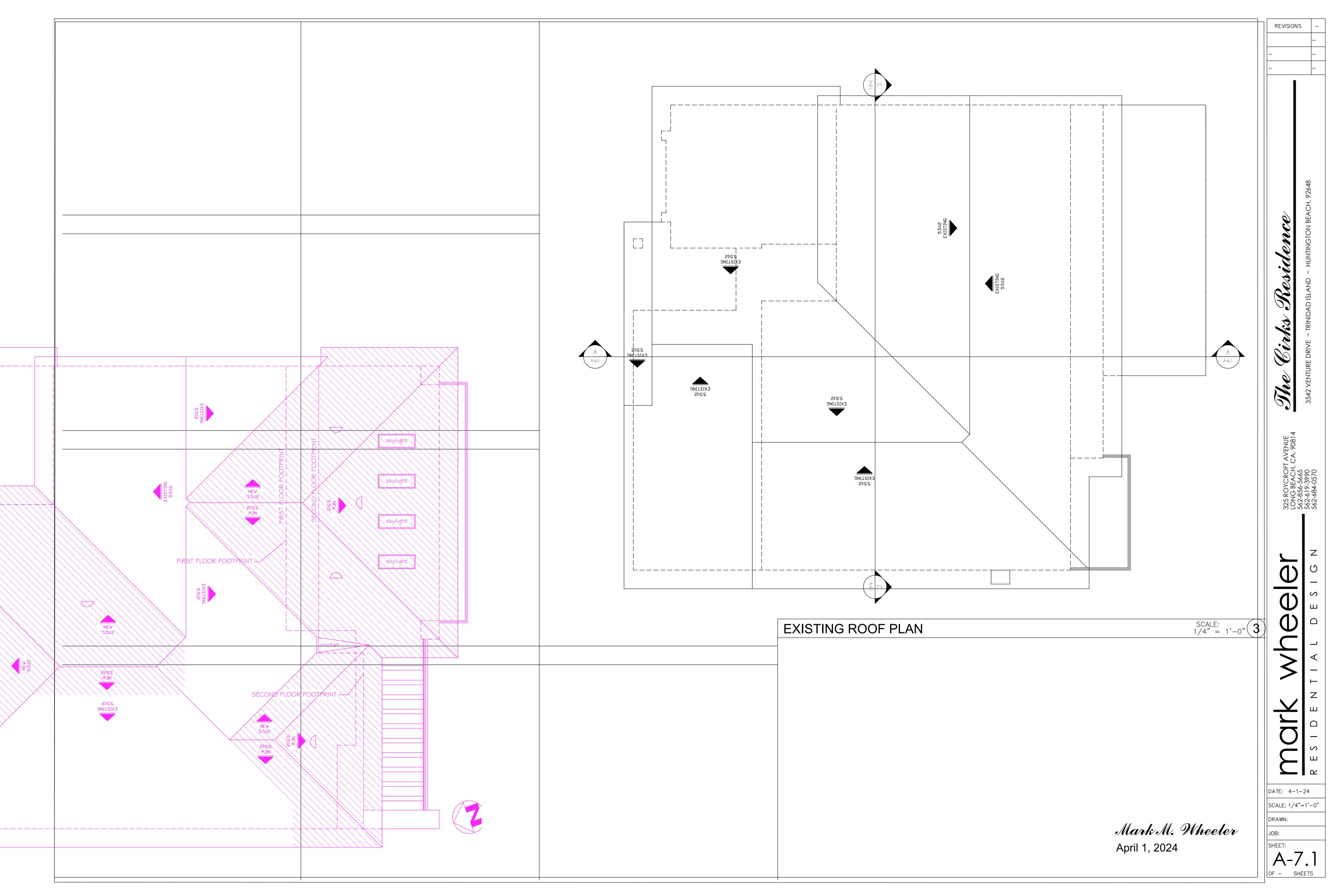
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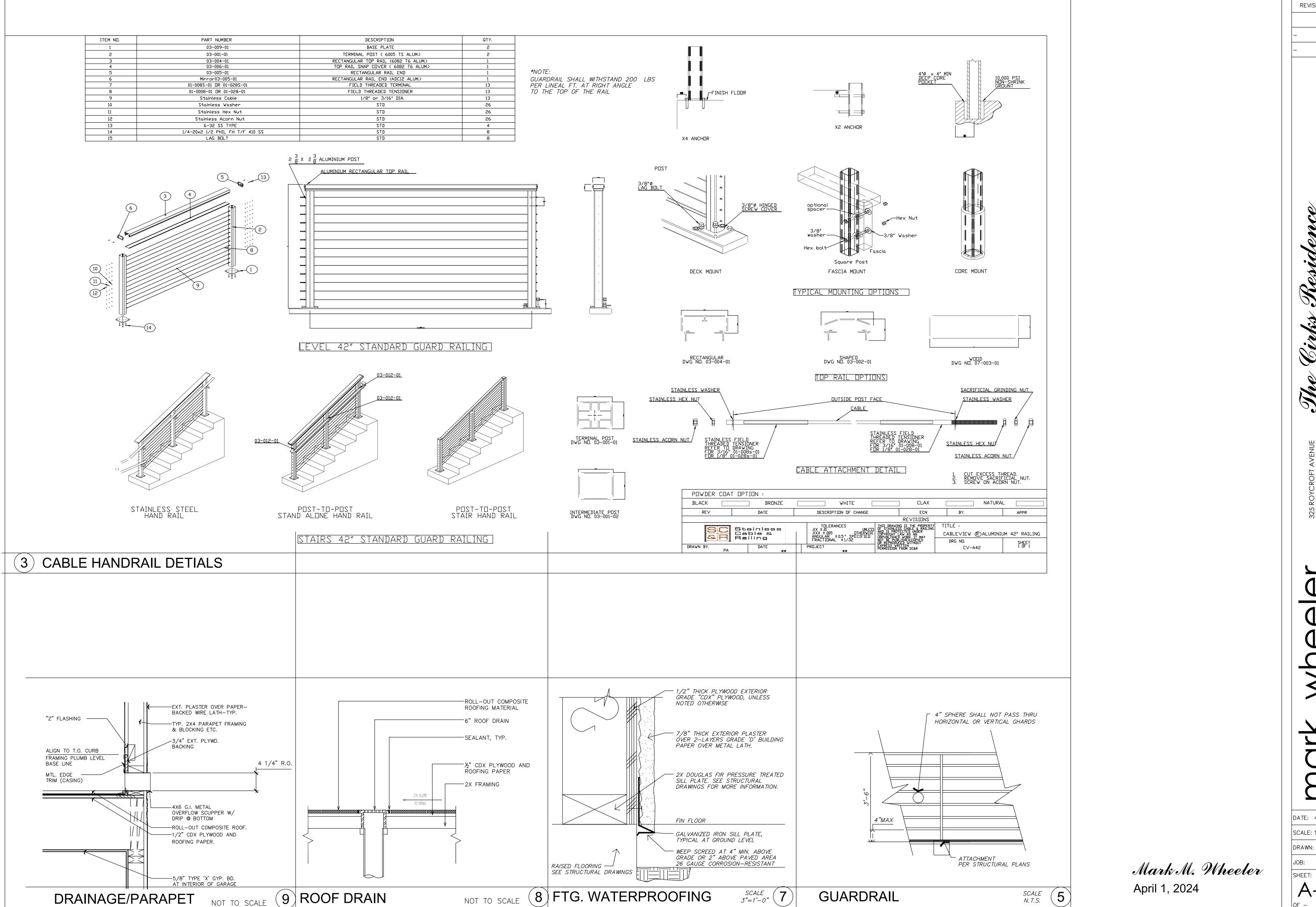
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DATE: 4-1-24

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OF - SHEETS

GENERAL NOTES: . ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE 2022 CBC. NOTE ALL REFERENCES N PLANS TO THE SECTIONS AND TABLES WITHIN THE LATEST BUILDING CODE 2. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER OF RECORD. 3. CONTRACTOR IS RESPONSIBLE TO CHECK DIMENSIONS, FRAMING CONDITIONS, AND SITE CONDITIONS PRIOR TO STARTING WORK. ARCHITECT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES. 4. CONDITIONS NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED AS SPECIFIED IN TYPICAL DETAILS FOR THE RESPECTIVE MATERIALS. 5. DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISH STRUCTURE. ALL BRACING, TEMPORARY SHORING, ETC. ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS BY THE ARCHITECT OR ENGINEER DO NOT INCLUDE INSPECTION OF CONSTRUCTION PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR THE SAFETY AT THE WORKSITE. 6. SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SLAB DEPRESSIONS, ROOF OPENINGS, TRENCHES, SOFFITS, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS. ANY AMBIGUOUS DISCREPANCIES AMONGST THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER 7. CONTRACTOR SHALL INVESTIGATE JOB SITE DURING EARTHWORK OPERATIONS AND NOTIFY ENGINEER OF ANY CESSPOOLS, CISTERNS, BURIED FOUNDATION, ETC. ARE FOUND. 8. TEMPORARY LOADING OF MEMBERS SHALL BE SPREAD OUT UNIFORMLY AS TO NOT EXCEED THE SPECIFIED DESIGN LIVE LOAD PER SOUARE FOOT. 9. DRAWINGS AND CALCULATIONS THAT ARE NOT SEALED WITH A "WET SIGNATURE" SHALL NOT BE USED FOR CONSTRUCTION DOCUMENTS. 10. THE SLAB ON GRADE IS A NON-STRUCTURAL ITEM AND THEREFORE HAS NOT BEEN DESIGNED BY THE STRUCTURAL DESIGN ENGINEER. ISSUES RELATING TO MOISTURE MIGRATION, CRACKING, AND DIFFERENTIAL SETTLEMENT OF THE SLAB ON GRADE HAS NOT BEEN ADDRESSED BY THE ENGINEER. OWNER AND CONTRACTOR ASSUME FULL RESPONSIBILITY FOR ITEMS RELATING TO SLAB ON GRADE. WOOD FRAMING 1. ALL WOOD STRUCTURAL SHEATHING(ROOF SHEATHING) TO BE PER DOC PS1 OR DOC PS2 OR ANSI/APA PRP210. SEE ADDITIONAL NOTES FOR STRUCTURAL SHEATHING UNDER 'LATERAL SHEAR NOTES' ON THIS SHEET. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR-LARCH PER DOC PS20 WITH A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF WRAPPING AND SHALL BE THE FOLLOWING GRADES UNLESS NOTED OTHERWISE PLATES, BLOCKINGSTD GRADE OR BETTER STUDS UP TO 10'-0" IN HEIGHTSTUD GRADE OR BETTEI STUDS OVER 10'-0" IN HEIGHT 2X RAFTERS AND JOISTS 4X12 AND LARGER . 6X AND 8X 4X4 POSTS AND HEADERS ..STD OR BETTER POSTS AND TIMBERS 2X4 #2: Fb = 1350/1552 psi; fv = 180 psi; E = 1.6x10^6 2X6 #2: Fb = 1170/1345 psi 2X8 #2: Fb = 1080/1242 ps 2X10 #2: Fb = 990/1138 ps 2X12 #2: Fb = 900/1150 ps 2X14 #2: Fb = 810/931 ps 4X6.8 #2: Fb = 1170 psi 4X10 #2: Fb = 1080 psi 4X12 #1: Fb = 1265 psi 4X14 #1: Fb = 1150 psi 4X16 #1: Fb = 1150 psi 6X10 #1: Fb = 1350 psi 6X12 #1: Fb = 1350 psi RECOMMEND RAMSET/REDHEAD 1516SD @ 24" o.c. THE ADJACENT EXPOSED EARTH AND AT LEAST 1" ABOVE SLAB ON A METAL POST BASE.(EXCEPTION: POSTS OR COLUMNS

2. ALL WOOD BEARING ON CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR.

3. BOLT HOLES IN WOOD SHALL BE A MAXIMUM OF 1/32" TO 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. 4. ALL EXTERIOR WALLS TO BE SECURED WITH 5/8" DIAMETER X 12" LONG ANCHOR BOLTS @ 72" o.c. U.N.O.

5. ALL INTERIOR NON-BEARING WALLS TO BE SECURED WITH SHOT PINS PER MANUFACTURER'S SPECIFICATIONS, U.N.O.

6. ALL NUTS AND BOLTS SHALL BE RE-TIGHTENED PRIOR TO APPLYING DRYWALL, SHEATHING, STUCCO, ETC. 7. EXTERIOR ISOLATED WOOD COLUMNS AND POSTS SUPPORTED BY A CONCRETE SLAB SHALL BE A MINIMUM OF 8" ABOVE

OF APPROVED WOOD WITH NATURAL RESISTANCE TO DECAY OR TREATED WOOD). 8. ALL HARDWARE TO BE SIMPSON STRONG-TIE COMPANY. ALTERNATIVES TO HARDWARE MUST BE APPROVED IN WRITING

9. OK TO SUBSTITUTE CC IN LIEU OF CCQ FOR COLUMN CAPS. OK TO SUBSTITUTE CB IN LIEU OF CBQ FOR COLUMN BASES.

10. ALL HOLD DOWNS, POST BASES, AND COLUMN BASES SHALL BE ATTACHED TO A 4X4 POST MINIMUM.

11. ALL ISOLATED POSTS AND BEAMS TO HAVE SIMPSON PB's, PC's and/or BC's MINIMUM, U.N.O.

12. ALL SHOP DRAWINGS ARE TO BE REVIEWED BY THE CONTRACTOR AND THE ARCHITECT PRIOR TO SUBMITTAL FOR THE

13. PLYWOOD FLOOR AND ROOF SHEATHING SHALL BE LAID CONTINUOUS OVER TWO OR MORE JOIST BAYS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER ALL PLYWOOD PANELS 4'.

14. ALL NAILING TO BE PER TABLE 2304.10.2 OF THE 2022 CALIFORNIA BUILDING CODE, U.N.O.

15. ALL EXTERIOR WALLS ADJACENT TO VAULTED CEILINGS SHALL BE BALLOON FRAMED WITH CONTINUOUS STUDS TO THE

BOTTOM CHORD OF TRUSS OR RAFTER.

16. ALL STUD WALLS TO BE FRAMED WITH STUDS @ 16" o.c. MAX., U.N.O. DOUBLE 2X TOP PLATES TO BE USED WITH A MINIMUM LAP SPLICE OF 48". PROVIDE ALL PLATE SPLICES WITH A MINIMUM OF (10)16d NAILS, U.N.O. TOP PLATE BREAKS SHALL OCCUR OVER A STUD.

17. PROVIDE 2X4 FLAT HEADERS AT ALL INTERIOR NON-BEARING OPENINGS UP TO 36" IN WIDTH AND 4X4 HEADERS FOR OPENINGS 3 TO 6 FEET IN WIDTH.

18. INSTALL FIRE BLOCKS TO CUT OFF HORIZONTAL AND VERTICAL DRAFT OPENINGS BETWEEN TWO STORIES AND ROOF ATTIC SPACES. FIRE BLOCKS SHALL BE OF 2" NOMINAL THICKNESS. LOCATION OF FIRE BLOCKS SHALL INCLUDE: A. STUD WALLS WITH DROPPED CEILINGS/SOFFITS. B. AROUND STAIR LANDINGS AND STRINGERS WHERE ADJACENT TO STUD WALL

19. APPLY SHEAR PANEL PRIOR TO BOX-OUTS, PERPENDICULAR WALLS, AND SIMILAR FRAMING THAT MAY INTERRUPT THE CONTINUITY OF THE PLYWOOD. MAXIMUM 6" SQUARE WITHIN A SHEAR WALL IS ALLOWABLE WHILE LARGER OPENINGS WITHIN A SHEAR WALL MUST BE APPROVED WITH PROPER DETAILING FROM THE ENGINEER UNLESS ALREADY DETAILED

20. PROVIDE FULL DEPTH BLOCKING BETWEEN JOISTS AT ALL BEARING LOCATIONS. 21. ALL ROUGH SAWN, HEAVY TIMBER, AND EXPOSED BEAMS TO BE FREE OF HEART CENTER.

22. ALL HANGING 2X JOISTS TO BE SUPPORTED WITH "LUS" HANGERS MINIMUM, U.N.O. ALL HANGING TJI'S TO BE SUPPORTED WITH "ITT" HANGERS MINIMUM, U.N.O.

NAILS/HARDWARE

ENGINEERS REVIEW.

1. ALL NAILING TO BE PER TABLE 2304.10.2 OF THE 2022 CALIFORNIA BUILDING CODE, U.N.O.

2. ALL FLOOR SHEATHING, ROOF SHEATHING, AND SHEAR PANELS SHALL BE CONSTRUCTED WITH COMMON NAILS U.N.O.

3. FLOOR SHEATHING, ROOF SHEATHING, AND SHEAR PANEL SHALL HAVE NAIL HEADS FLUSH WITH OUTER MEMBRANE OF MATERIAL. NAIL GUNS MUST BE EOUIPPED WITH A FLUSH NAILER WHILE FASTENING STRUCTURAL SHEATHING.

4. EDGE NAILING OF STRUCTURAL SHEATHING SHALL BE 3/8" FROM THE EDGE. FIELD NAILING AND BOUNDARY NAILING SHALL BE PLACED WITHIN THE CENTER OF THE MEMBER BELOW THE SHEATHING.

5. ALL HARDWARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

6. FASTENERS FOR PRESERVATIVE TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A 153.

STRUCTURAL STEEL

1. ALL FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.

2. ALL STRUCTURAL STEEL SHALL BE FABRICATED IN THE SHOP OF A LICENSED FABRICATOR AND ALL SHOP DRAWINGS SHALL BE SUBMITTED TO ARMSTRONG ENGINEERING FOR APPROVAL PRIOR TO FABRICATION. FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO THE GENERAL CONTRACTOR AND OWNER FOR REVIEW PRIOR TO FABRICATION. ANY PROPOSED DEVIATION OR CHANGE SHALL BE CLEARLY NOTED ON THE SHOP DRAWINGS. STEEL FABRICATOR SHALL FIELD CHECK ALL DIMENSIONS PRIOR TO ERECTION TO PROVIDE PROPER FIT. ALL FIELD WELDING SHALL BE CONTINUOUSLY INSPECTED BY AN APPROVED WELDING INSPECTOR.

3. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

4. ALL FULL PENETRATION GROOVE WELDS SHALL BE ULTRASONICALLY TESTED FOR THE EXTENT REQUIRED PER THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE.

5. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.

6. ANCHOR BOLTS AND UNFINISHED BOLTS SHALL CONFORM TO ASTM A307. 7. ALL ROUND PIPE SHALL CONFORM TO ASTM A53 GRADE "B" (TYPE E OR S).

8. ALL SQUARE AND RECTANGULAR TUBE SHALL CONFORM TO ASTM A500 OR A501.

9. WHERE FINISH IS ATTACHED TO STRUCTURAL STEEL, PROVIDE 1/2" DIA. BOLT HOLES AT 4'-0" O.C. FOR ATTACHMENT OF NAILER. 1/2" DIA. x 3" CPL NELSON STUDS MAY REPLACE BOLTS.

CONCRETE

. ALL CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.

2. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS UNLESS NOTED OTHERWISE 3. AGGREGATES SHALL BE NATURAL SAND AND ROCK CONFORMING TO ASTM C33.

4. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150, AS REQUIRED TO SATISFY SITE SOIL CONDITIONS AS DETERMINED BY THE PROJECTS SOIL ENGINEER

5. DRY PACK SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND. 6. ALL SLAB-ON-GRADE (NON POST-TENSION) ALL CONTINUOUS FOOTINGS AND PADSF'c = 2500 psi

NOTE: WHEN CONCRETE EXPOSED TO SULFATES, STRUCTURAL CONCRETE TO HAVE F'c = 4500psi WITH WATER/CEMENT RATIO = 0.45 WITH TYPE-V CEMENT.

7. REFER TO ARCHITECTURAL DRAWINGS FOR REVEALS, ITEMS REQUIRED TO BE CAST INTO THE CONCRETE, CURBS

8. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF EXPANSION JOINTS. 9. CONCRETE FOR SLAB ON GRADE SHALL HAVE A MAXIMUM OF 4" OF SLUMP PER ASTM C143. 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, CEMENT ASTM C150 TYPE 1 OR 2,

REINFORCING STEEL

1. REINFORCING STEEL SHALL CONFORM TO ASTMA615 GRADE 40 FOR #4 BARS AND SMALLER. ALL REINFORCING STEE SHALL CONFORM TO ASTMA615 GRADE 60 FOR #5 BARS AND LARGER. WELDED WIRE MESH TO BE ASTM A185, LAP

2. ALL BARS SHALL BE DEFORMED AS PER ASTM A305.

3. ALL BARS IN CONCRETE SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS (2'-0" MIN.) AT ALL SPLICES UNLESS

4. SPLICES OF HORIZONTAL REBAR IN WALLS AND FOOTINGS SHALL BE STAGGERED 4'-0" MINIMUM.

10. ANCHOR BOLTS, HOLD DOWN BOLTS, ETC. SHALL BE TIED IN PLACE PRIOR TO POURING CONCRETE.

5. ALL BARS IN MASONRY SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS (2'-0" MIN.) AT ALL SPLICES UNLESS

6. ALL BENDING OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE. 7. ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED PRIOR TO POURING CONCRETE OR

8. CONCRETE PROTECTION FOR THE REINFORCEMENT SHALL BE AT LEAST EQUAL TO THE DIAMETER OF THE BARS. COVERAGE SHALL BE AS FOLLOWS:

A. POURED AGAINST FARTH . B POLIRED AGAINST FORM BELOW GRADE C. FORMED SLABS .. D. SLABS ON GRADE (FROM TOP OF SLAB) . F COLUMNS AND BEAMS TO MAIN BARS F. WALLS EXPOSED TO WEATHER ..

FOUNDATION / SITEWORK

G. WALLS NOT EXPOSED TO WEATHER

1. FOUNDATION DESIGN IS BASED ON THE CODE MINIMUM WITH NO SOIL REPORT PROVIDED.

2. THE ALLOWABLE SOIL BEARING VALUE IS 1000 PSF FOR CONTINUOUS FOOTINGS.

3. PROVIDE NON-EXPANSIVE SOIL FOR ALL FILL AS REQUIRED TO LEVEL PAD. 4. PROVIDE VAPOR BARRIER UNDER SLAB AS REQUIRED PER SOIL REPORT.

5. THERE SHALL BE NO UTILITY TRENCH NEAR THE BUILDING FOUNDATION WHICH EXTEND DEEPER THAN A 45 DEGREE LINE PROJECTED DOWN AND AWAY FROM THE BOTTOM OUTSIDE CORNER OF ANY FOOTING.

6. SURFACE WATER SHALL DRAIN AWAY FROM THE BUILDING PER ARCHITECTURAL PLANS.

7. PLACE 20'-0" REBAR IN FOUNDATION AT SERVICE LOCATIONS. STUB UP REBAR ABOVE THE FLOOR BY ELECTRIC

MASONRY

1. ALL MASONRY WORK SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.

2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90-86, GRADE N. ALL CMU SHALL BE LIGHT-WEIGHT WITH MAXIMUM LINEAR SHRINKAGE OF 0.06%. f'm = 1500 PSI GROUTED REINFORCED CELLS.

3. ALL VERTICAL REINFORCING IN MASONRY WALLS NOT RETAINING EARTH SHALL BE LOCATED IN THE CENTER OF THE WALL UNLESS NOTED OTHERWISE.

4. ALL CELLS WITH STEEL ARE TO BE SOLID GROUTED. RETAINING WALLS ARE TO BE SOLID GROUTED. 5. MORTAR MIX SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND AND NOT LESS THAN 1/4 PART NOR MORE THAN 1/2 PART LIME PUTTY FOR TYPE 'S' MORTAR. MINIMUM COMPRESSIVE STRENGTH

6. PROVIDE CLEANOUT OPENINGS AT BOTTOM OF ALL VERTICALLY GROUTED CELLS IF GROUT LIFT EXCEEDS 4'-0". 7. GROUT MIX SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT TO 2.1 TO 3.0 MAX PARTS SAND AND NOT LESS THAN TWO PARTS PEA GRAVEL

8. REINFORCING SHALL BE SECURELY HELD AND BRACED IN PLACE TO PREVENT MOVEMENT WHILE PLACING MASONRY UNITS AND GROUTING

9. MASONRY TO HAVE SPECIAL INSPECTION WHEN SPECIFIED PER SECTION 1702 OF THE CALIFORNIA BUILDING CODE.

GLUELAMS / MANUFACTURED WOOD

1. ALL FABRICATION AND WORKMANSHIP SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL LAMINATED DOUGLAS FIR LUMBER BY THE WEST COAST LUMBERMAN'S ASSOCIATION AND THE CURRENT EDITION OF TIMBER CONSTRUCTION.

2. ALL GLUE LAMINATED MEMBERS SHALL BE DOUGLAS FIR, COMBINATION 24-F PER AITC.

TO THE SATISFACTION OF THE BUILDING DEPARTMENT

3. IND. APP. GRADE: Fb = 2400 PSI; Fv = 165 PSI; E = 1.8x10^6 PSI

4. INDUSTRIAL APPEARANCE GRADE SHALL BE USED. MOISTURE CONTENT SHALL BE BETWEEN 7 - 14% 5. A CERTIFICATE OF INSPECTION FOR EACH GLUE LAMINATED MEMBER FROM AN APPROVED TESTING AGENCY SHALL BE SUBMITTED TO AND APPROVED BY THE LOCAL BUILDING DEPARTMENT AND BY THE

6. ALL GLUE LAMINATED MEMBERS WILL HAVE A STANDARD CAMBER BASED ON A RADIUS = 1600' UNLESS

ENGINEER PRIOR TO ERECTION. ALL GLUE LAMINATED MEMBERS SHALL BE PROPERLY IDENTIFIED

7. PARALLAM PSL 2.0E BY TRUSS JOIST MACMILLIAN PER NER 292 fb = 2900 PSI; fv = 290 PSI; E = 2.0

8. TRUSS JOIST MACMILIAN PRODUCTS PER NER 119, NER 126, NER 292, NER 481.

9. REFER TO MANUFACTURER'S REQUIREMENTS FOR ALLOWABLE DRILLING OF HOLES THROUGH TJI WEB.

FRAMING LEGEND:

			_	
A B	6X6 @ 18"o.c. 2X6 @ 16"o.c.	\	\rightarrow	INDICATES SPAN AND DIRECTION OF ROOF RAFTERS
C D	2X8 @ 12"o.c. 2X8 @ 16"o.c.	\	$\bigcirc \longrightarrow$	INDICATES SPAN AND DIRECTION OF ROOF TRUSSES
(E) F G	EXISTING MEMBER TO REMAIN 2X8 @ 24"o.c. 2X10 @ 12"o.c.	\leftarrow	\rightarrow	INDICATES SPAN AND DIRECTION OF FLOOR JOISTS
H J	2X10 @ 16"o.c. 2X10 @ 24"o.c.	« ——(>>	INDICATES SPAN AND DIRECTION OF DECK JOISTS
K L	(2)2X10 @ 16"o.c. 2X12 @ 12"o.c.	\leftarrow	\rightarrow	INDICATES SPAN AND DIRECTION OF CEILING JOISTS
М	2X12 @ 16"o.c.			
N	1.75X11.25 MICROLAM LVL @ 12			
Р	1.75X11.25 MICROLAM LVL @ 16	6"o.c.		
Т	TRUSS @ 24"o.c.			

MIL INDICATES (1) 1-3/4" X DEPTH OF FLOOR JOISTS MICROLLAM LVL 2.0E [PER ICC-ESR 1387 BY WEYERHAEUSER Fb=2600, Fv = 285, Fc = 750]

PSL INDICATES PARALLAM PSL 2.0E [PER ICC-ESR 1387 BY WEYERHAEUSER Fb=2900, Fv=290, Fc=750] TSR INDICATES 1-1/4" X DEPTH OF JOISTS TIMBERSTRAND LSL RIM 1.9E [PER ICC-ESR 1387 BY WEYERHAEUSER Fb=3075, Fv=625, Fc=1090] EN INDICATES EDGE NAILING @ 6"o.c. UNLESS NOTED OTHERWISE

CTM INDICATES CONNECTION BY TRUSS MANUFACTURER # INDICATES HEADERS AND BEAMS AS REFERENCED TO STRUCTURAL CALCULATIONS

INDICATES REVISED WALL PER ARCHITECTURAL PLANS INDICATES SHEAR WALL WITH SCHEDULE AND LENGTH SHOWN

SPN INDICATES SILL PLATE SPACING IN INCHES (USE 0.131 Ø X 3" GUN NAILS FOR SILL PLATE NAILING) x INDICATES DETAIL # / CORRESPONDING PAGE

FRAMING NOTES LEGEND FOUNDATION NOTES LEGEND SPN16: 0.131 x 3" SILL PLATE NAILING @ 16"o.c AB64: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 64" O. SPN12: 0.131 x 3" SILL PLATE NAILING @ 12"o.c. AB56: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 56" O.C SPN10: 0.131 x 3" SILL PLATE NAILING @ 10"o.c. AB48: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 48" O. SPN8: 0.131 x 3" SILL PLATE NAILING @ 8"o.c. AB40: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 40" O.C SPN6: 0.131 x 3" SILL PLATE NAILING @ 6"o.c. AB32: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 32" O.C SPN4: 0.131 x 3" SILL PLATE NAILING @ 4"o.c. AB24: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 24" O. SPN3: 0.131 x 3" SILL PLATE NAILING @ 3"o.c. AB16: 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 16" O.C. SPN2 : 0.131 x 3" SILL PLATE NAILING @ 2"o.c. AB8 : 5/8" DIAMETER X 10" LONG ANCHOR BOLTS @ 8" O.C. SCR3 : 1/4" x 4-1/2" SDS SCREWS IN PLATE @ 3"o.c. | XXAB : NUMBER OF 5/8" DIAMETER X 10" LONG ANCHOR BOLTS

A. WHERE DOUBLE SILO PLATES ARE USED PROVIDE PROGRESSIVE SILL PLATE NAILING AT SPACING INDICATED INTO

B. SILL PLATE NAILING IS BASED ON THE USE OF 3/4" THICK PLYWOOD FLOOR SHEATHING. THICKER SHEATHING REQUIRES THE USE OF LONGER NAILS WHICH ARE INCREASED IN LENGTH WITH THE INCREMENTAL INCREASE IN SHEATHING THICKNESS. NOTIFY ARMSTRONG ENGINEERING IF USE OF FLOOR SHEATHING IS DESIRED TO BE GREATER

4X POSTS MINIMUM TO BE PROVIDED AT ALL HOLD DOWN POSTS UNLESS OTHERWISE NOTED ON PLANS. D. 1-1/2" x DEPTH OF JOISTS RIM TO BE PROVIDED AT ALL EXTERIOR WALLS (TIMBERSTRAND RIM @ TJI FLOOR FRAMING AND FULL DEPTH 2X RIM @ CONVENTIONAL FLOOR FRAMING) UNLESS OTHERWISE NOTED.

LATERAL SHEAR NOTES:

VALUES BASED ON AWC SDPWS TABLE 4.3A (DOUGLAS FIR-LARCH MEMBERS SPACED @ 16"o.c.) ALL WOOD STRUCTURAL PANELS TO BE PER DOC PS1 OR DOC PS2 OR ANSI/APA PRP21(

VERTICAL SHEARWALL SCHEDULE:

10.	1/2 " STRUCTURAL I PANEL WITH 8d COMMON NAILS @ 6"o.c. AT EDGES AND 12" o.c. AT FIELD280 plf
11.	1/2 " STRUCTURAL I PANEL WITH 8d COMMON NAILS @ 4"o.c. AT EDGES AND 12" o.c. AT FIELD430 plf
12.	1/2 " STRUCTURAL I PANEL WITH 8d COMMON NAILS @ 3"o.c. AT EDGES AND 12" o.c. AT FIELD550 plf
13.	1/2 " STRUCTURAL I PANEL WITH 8d COMMON NAILS @ 2"o.c. AT EDGES AND 12" o.c. AT FIELD730 plf
14.	$\frac{1}{2}$ " or $\frac{15}{32}$ " STRUCTURAL I PANEL WITH 10d COMMON NAILS @ 2"o.c. AT EDGES AND 12" o.c. AT FIELD870 plf
(E)	EXISTING SHEAR WALL OR BRACE WALL TO REMAIN

A. 8d COMMON NAILS TO BE 2-1/2" x 0.131" DIA. @ SHEAR WALL TYPES 10-13. 10d COMMON NAILS TO BE 2-1/2" x 0.148" DIA. @ SHEAR WALL TYPE 14.

NATI S SHALL BE LOCATED AT LEAST 3/8" FROM THE PANEL EDGES. B. WOOD STRUCTURAL PANEL INCLUDING OSB SHALL BE MATERIAL APPROVED BY APA, PFS/TECO OR PITTSBURGH TESTING LABORATORIES AND CONFORM TO THE REQUIREMENTS OF ITS TYPE IN DOC PS1 OR PS2. THESE VALUES ARE FOR DOUG-FIR LARCH OR SOUTHERN PINE, OTHER SPECIES MAY DIFFER IN SHEAR CAPACITIES.

ALL TOP PLATE NAILING SHALL BE INTO "UPPER" TOP PLATE ONLY. PROVIDE 2X BLOCKING AT HORIZONTAL WOOD STRUCTURAL PANEL JOINTS, 3X BLOCKING WHEN NAILING IS @ 3"o.c. OR LESS. WHERE PANELS ARE APPLIED TO BOTH FACES OF WALL AND NAIL SPACING IS LESS THAN 6"o.c., PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3X OR WIDER AND NAILS STAGGERED ON

EACH SIDE. PROVIDE 3X FOUNDATION SILL AT ALL DOUBLE SIDED SHEAR WALLS. WHERE NAILS ARE SPACED @ 3"o.c. OR LESS, THEY SHALL BE STAGGERED AND 3X OR WIDER FRAMING MEMBERS SHALL BE USED AT ADJOINING PANEL EDGES INCLUDING HORIZONTAL BLOCKS.

PROVIDE 3"x3"x0.229" THICK STEEL PLATE WASHER ON EACH ANCHOR BOLT. SILL PLATE NAILING(SPN) ON PLANS TO BE 3" x 0.131" DIAMETER. SPN SHALL BE INSTALLED INTO CENTER OF RIM, BEAM, OR BLOCKING BELOW SHEAR WALL.

H. USE 3X MUDSILL PLATE ON SHEAR WALLS 12, 13, & 14 WHERE THEY ARE RESTING ON CONCRETE FOUNDATION. DO NOT USE 3X BOTTOM PLATE WHERE BOTTOM PLATE IS ON PLYWOOD SUBFLOOR UNLESS SPECIFICALLY DETAILED ON PLANS.

HORIZONTAL ROOF AND FLOOR SCHEDULE:

JOIST SPACING EQUAL TO OR LESS THAN 24"o.c.: 15/2" WOOD STRUCTURAL PANEL PII 32/16, WITH 8d COMMON NAILS @

JOIST SPACING EQUAL TO OR LESS THAN 16"o.c.: 19/3" WOOD STRUCTURAL PANEL T&G SHEATHING PII 32/16, WITH 10d NAILS @ 6"o.c. (2-3/8" x 0.148" DIAMETER) AT EDGES AND BOUNDARIES, 12"o.c. AT FIELD

JOIST SPACING EOUAL TO OR LESS THAN 20"o.c.: 19/42" WOOD STRUCTURAL PANEL T&G SHEATHING PII 40/20, WITH 10d NAILS @ 6"o.c. (2-3/8" x 0.148" DIAMETER) AT EDGES AND BOUNDARIES, 12"o.c. AT FIELD. JOIST SPACING EQUAL TO OR LESS THAN 24"o.c. : 2 / $_{32}$ " WOOD STRUCTURAL PANEL T&G SHEATHING PII 48/24, WITH 10d

NAILS @ 6"o.c. (2-3/8" x 0.148" DIAMETER) AT EDGES AND BOUNDARIES, 12"o.c. AT FIELD. A. ALL ROOF AND FLOOR SHEATHING TO BE EXPOSURE I OR EXTERIOR.

FOR FLOOR SHEATHING, WOOD STRUCTURAL PANEL SHALL BE UNDERLAYMENT GRADE. ALL FLOOR SHEATHING SHALL BE GLUED WITH SUBFLOOR ADHESIVE AND NAILED TO FRAMING.

IN LIEU OF 10d COMMON NAILS AT FLOOR SHEATHING #8 x 2-1/2" LONG SCREWS MAY BE USED. FOR ALL FLOOR SHEATHING, PANEL EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH BLOCKING. NOT REQUIRED WHEN LIGHTWEIGHT CONCRETE IS PLACED OVER SUBFLOOR.

1. NOT REQUIRED FOR THIS PROJECT

STRUCTURAL OBSERVATION

SIMPSON HARDWARE TYPE ICC-ESR REPORT NUMBER A35 AND LTP4 CLIPS ESR-3096 ESR-3096 ST STRAPS ESR-3096 LUS HANGERS LS STRAPS ER-112 MST STRAPS ESR-2105 ECCQ CAPS ESR-2604 ESR-2552 **IUS HANGERS**

DESIGN LOADS:

ROOF LOAD: LL = 20 psf DL = 21 psfFLOOR LOAD: LL = 40 psf DL = 15 psfDECK LOAD: LL = 60 psf DL = 15 psfEXTERIOR WALL LOAD: DL = 16 psf**INTERIOR WALL LOAD:** DL = 7 psf

ENGINEERING:

MAPPED SPECTRAL RESPONSE ACCELERATIONS Ss = 1.471

S1 = 0.533SPECTRAL RESPONSE COEFFICIENTS Sds = 1.176

Sd1 = 0.632SEISMIC IMPORTANCE FACTOR = 1 SEISMIC OCCUPANCY TYPE = R

4. SITE CLASS = D

SEISMIC DESIGN CATEGORY = DBASIC SEISMIC-FORCE RESISTING SYSTEM = LIGHT FRAME WALLS

DESIGN BASE SHEAR = $0.1992 \times W$ 8. R = 6.5

RISK CATEGORY = II10. ANALYSIS METHOD = PER ASCE7-16 12.14

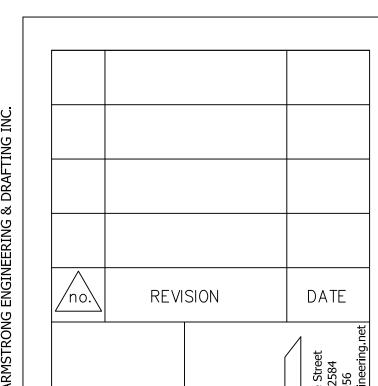
11. FLOOD LOADS DO NOT APPLY 12. WIND LOAD: Vult = 100mph EXPOSURE:C I = 1.013. INTERNAL PRESSURE COEFFICIENT(GCpi) = ± 0.18

14. COMPONENTS AND CLADDING PRESSURE = +2.8psf -6.6psf 15. ASSUMED SOIL BEARING PRESSURE = 1000 PSF

SPECIAL INSPECTIONS:

*PERIODIC SPECIAL INSPECTION IS REQUIRED FOR EPOXY INSTALLATIONS REQUIRED FOR PROJECT PER ICC-ESR 2508.

*CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR ANY FIELD WELDING THAT IS NOT PERFORMED IN A CERTIFIED WELDING FACILITY.



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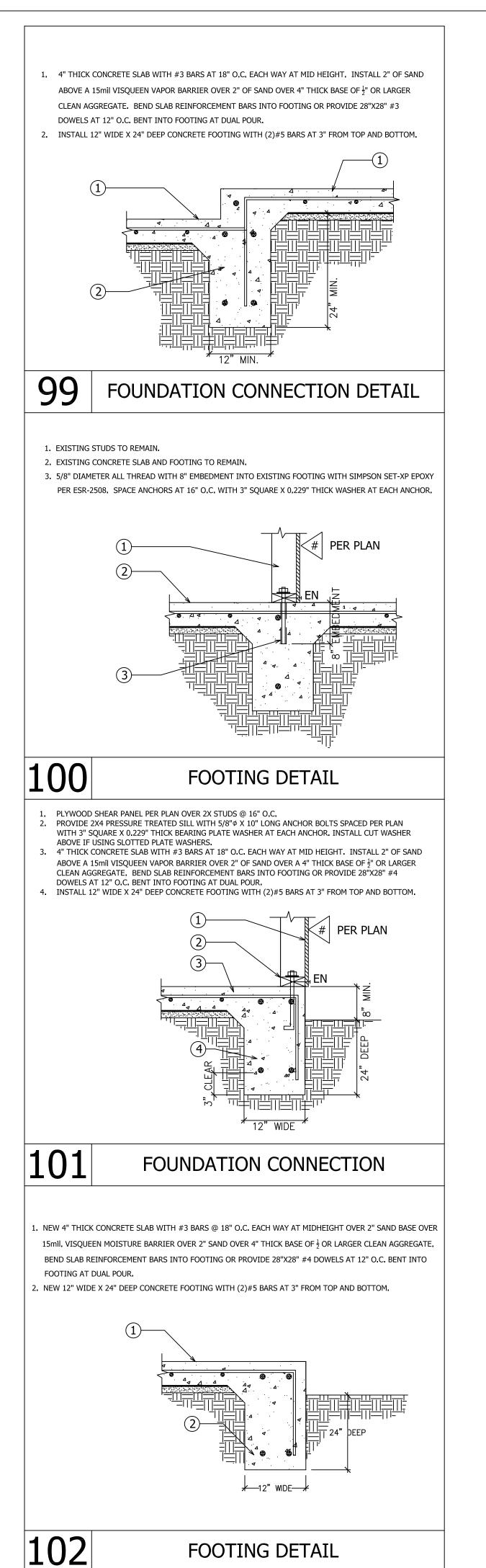
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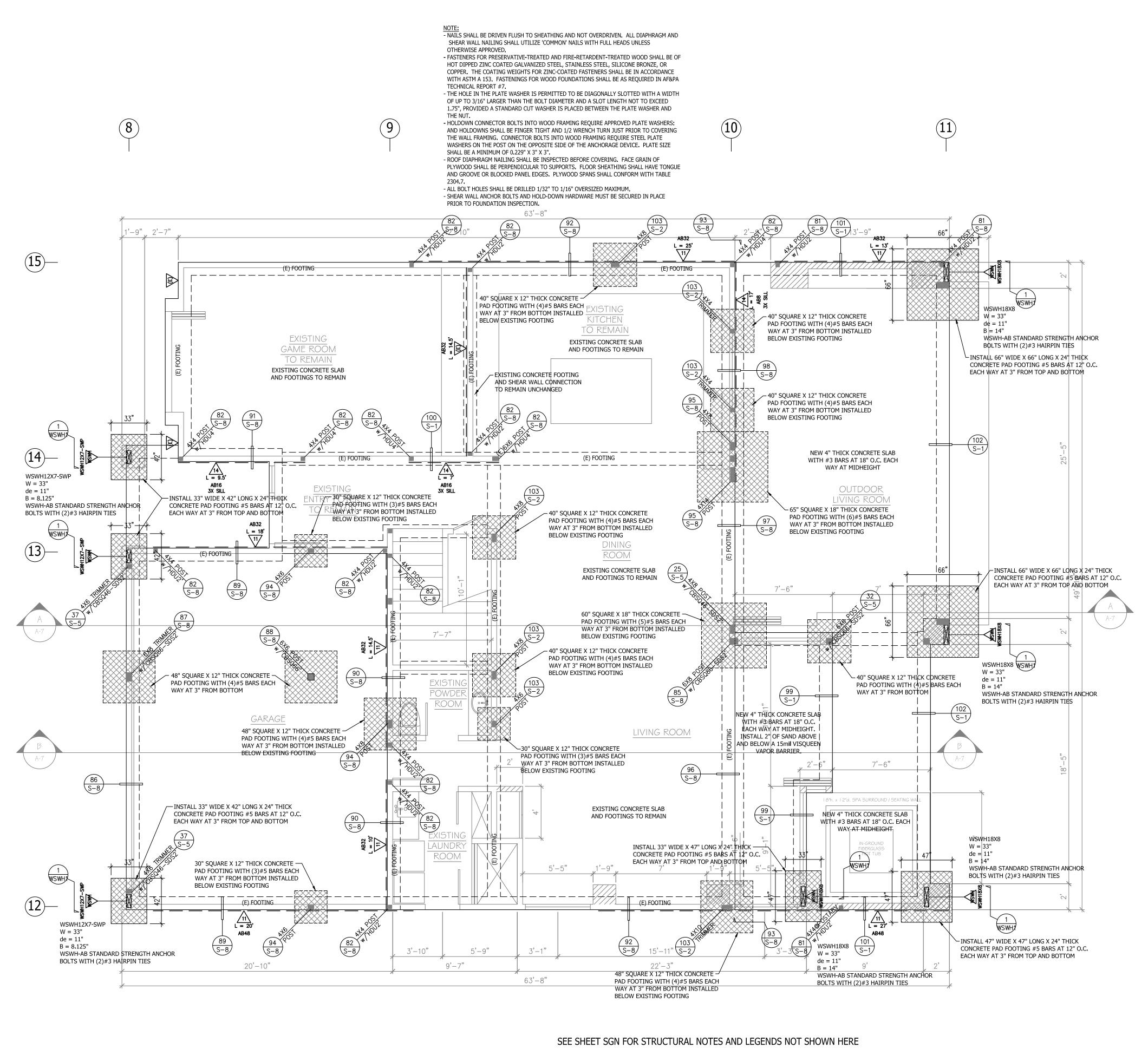


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2024-002

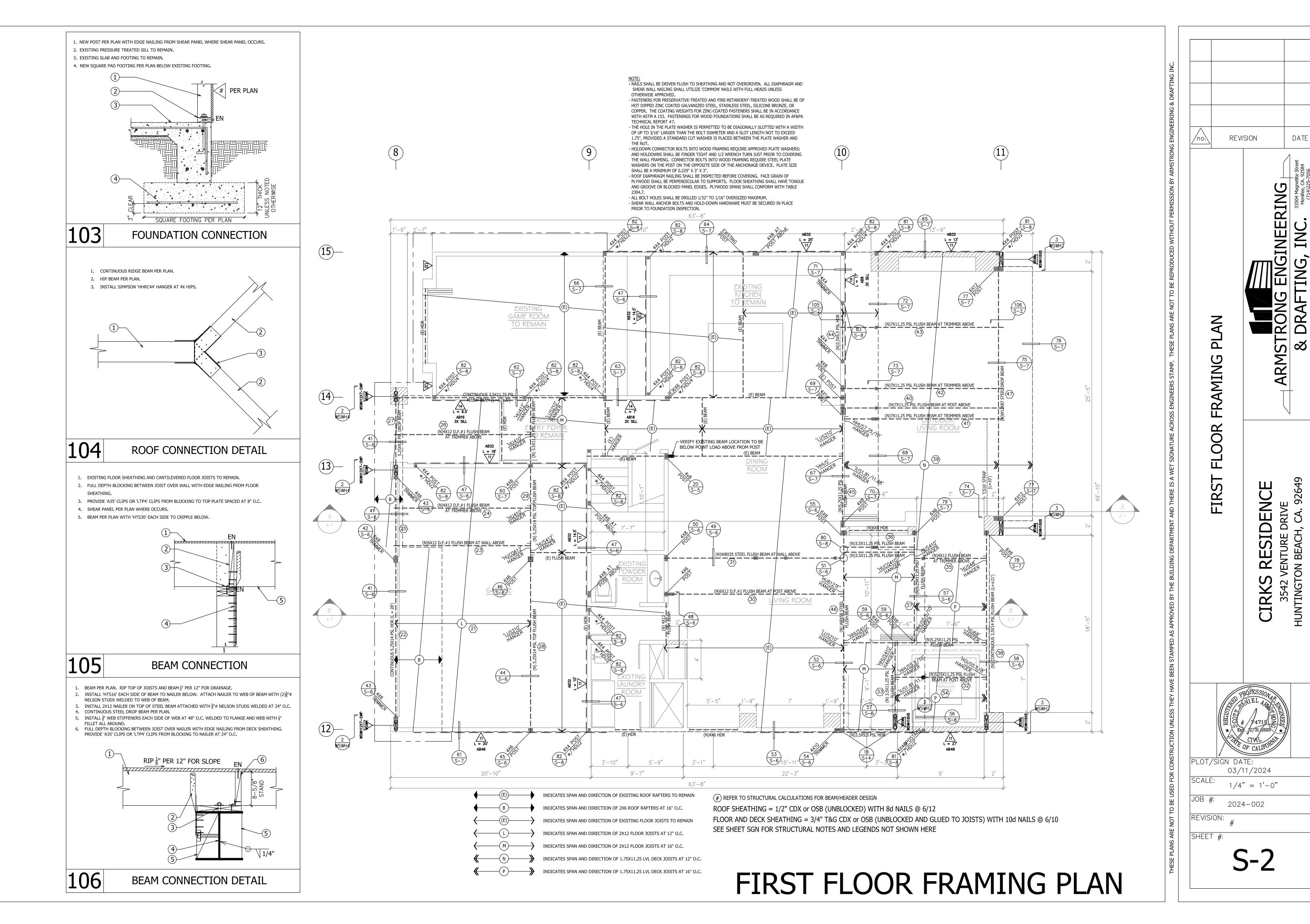
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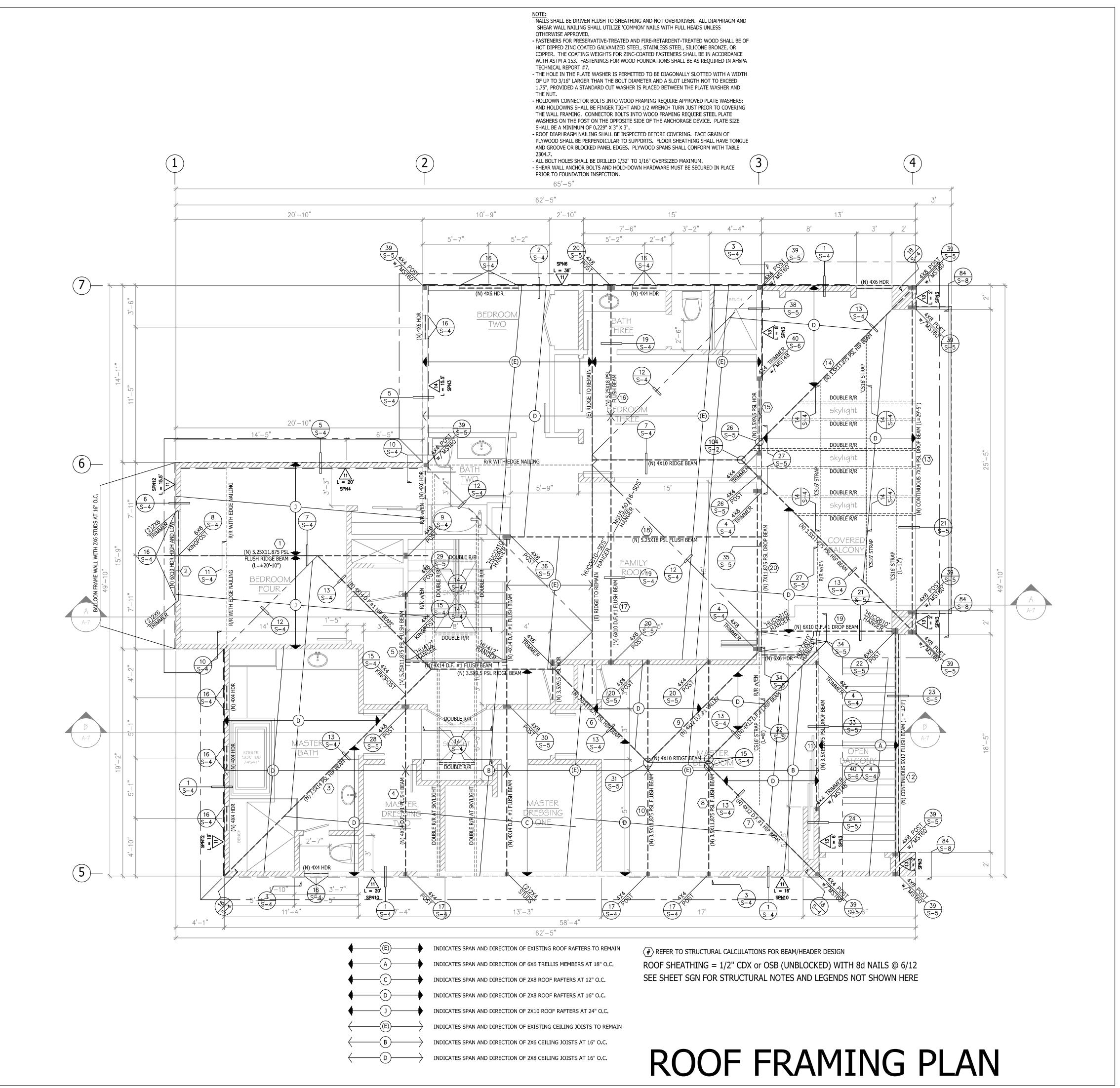


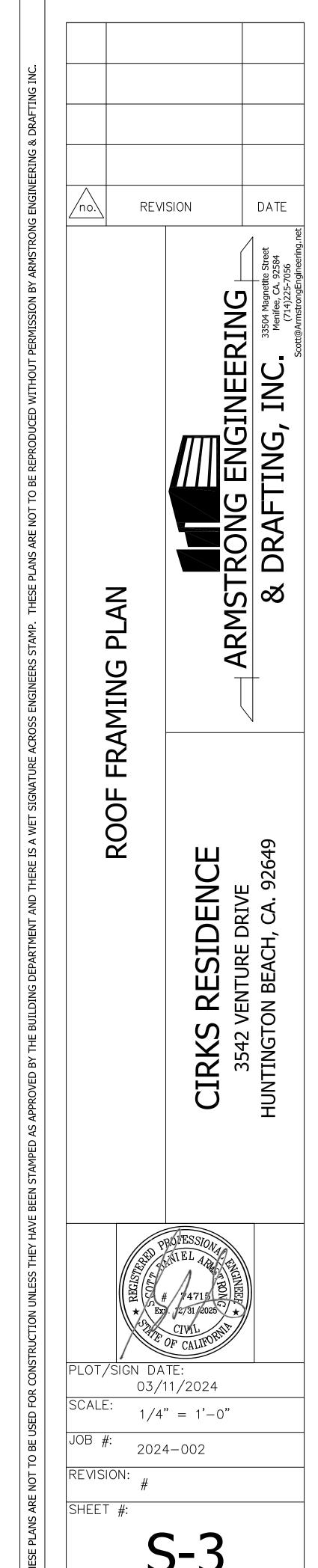


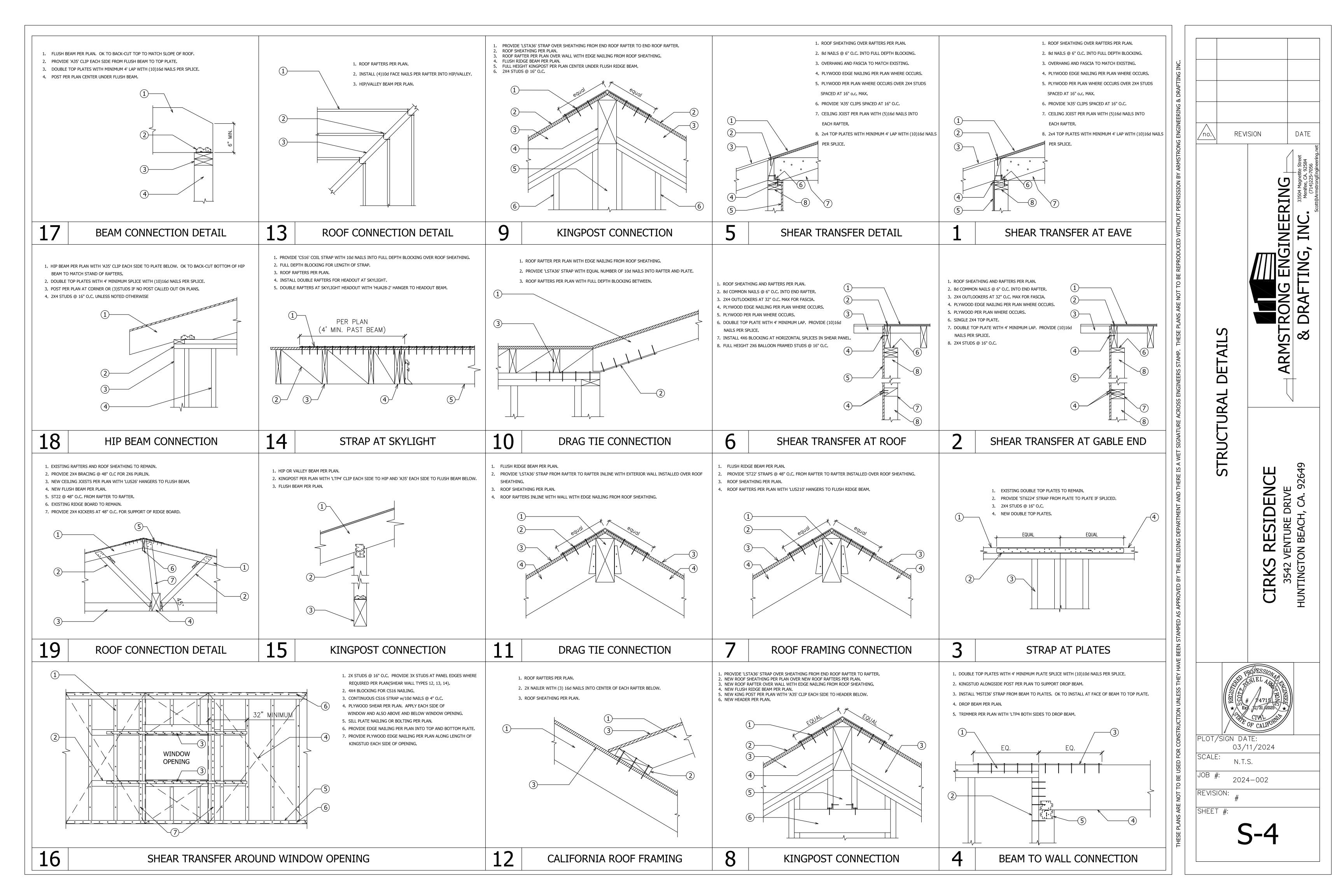
REVISION OUNDATION CIRK |PLOT/SIGN DATE: 03/11/2024 1/4" = 1'-0" 2024-002 REVISION: SHEET #:

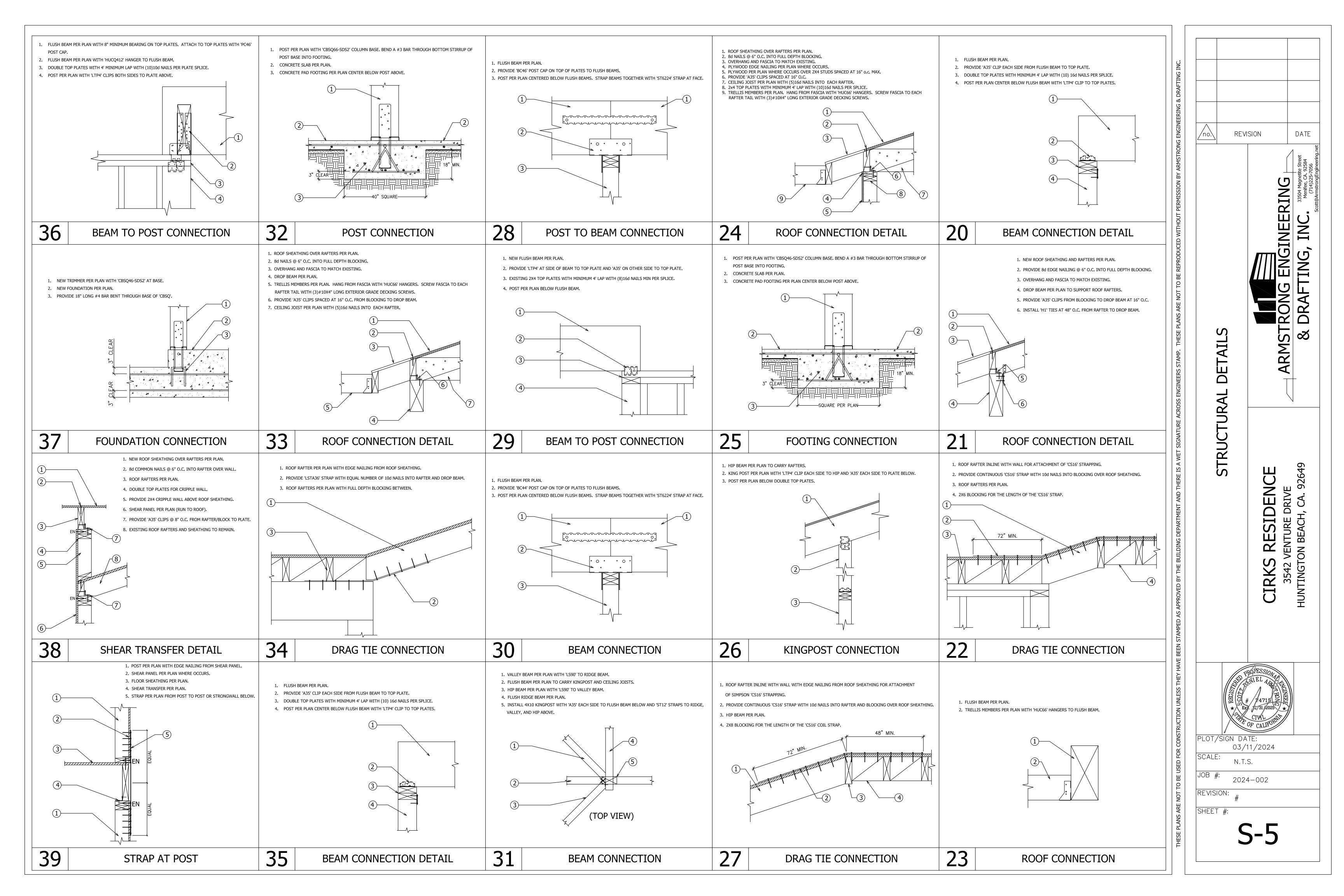
FOUNDATION PLAN

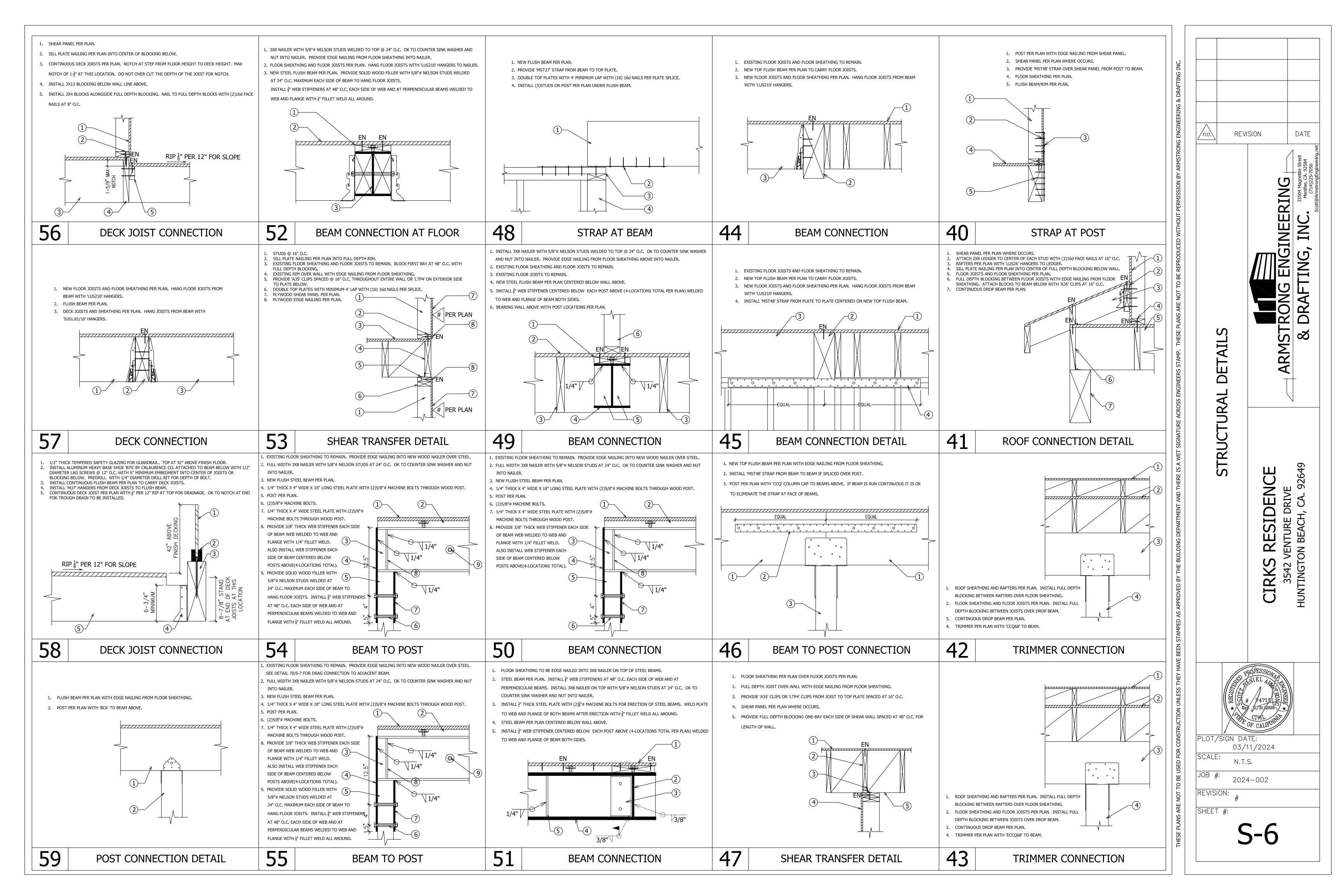


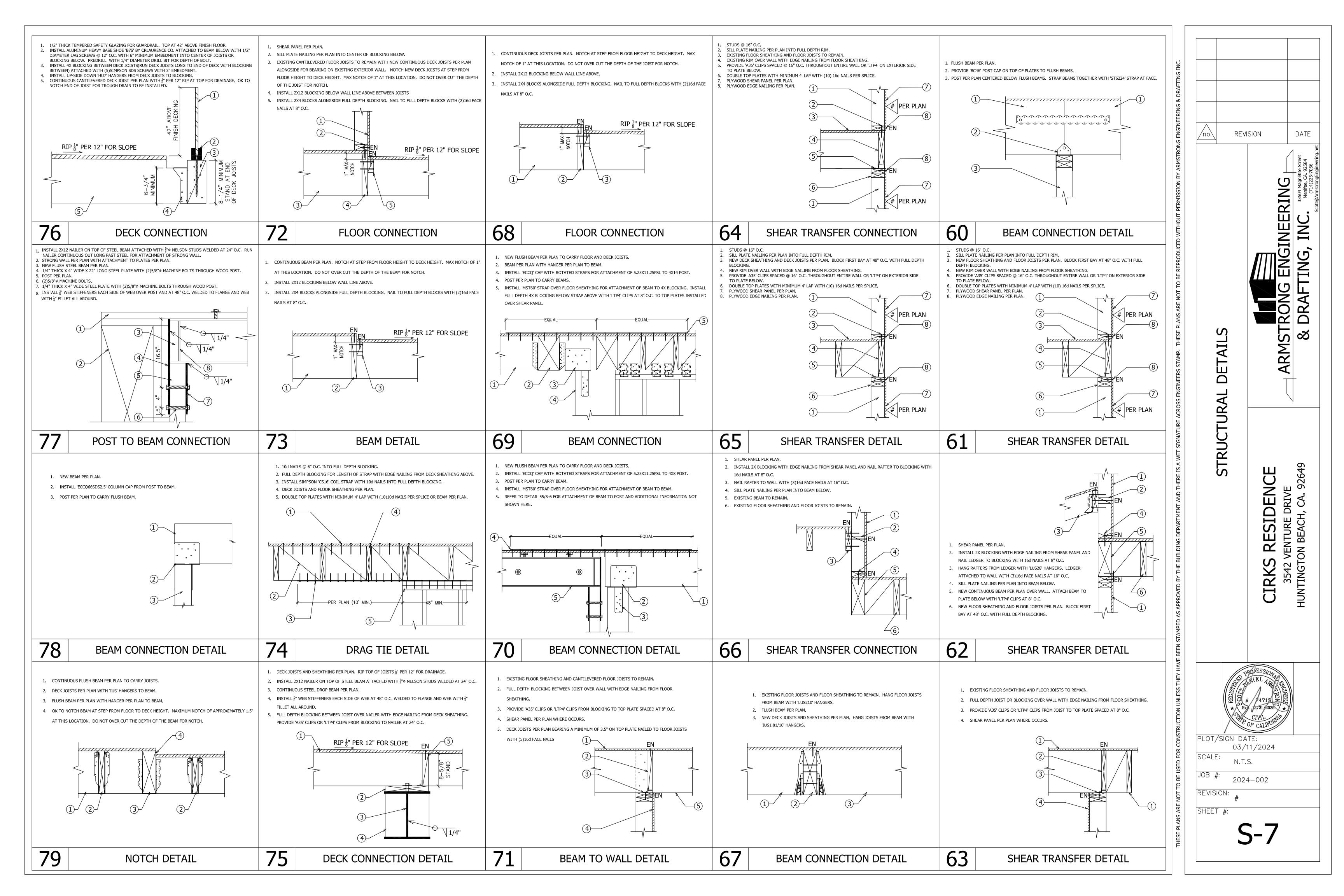


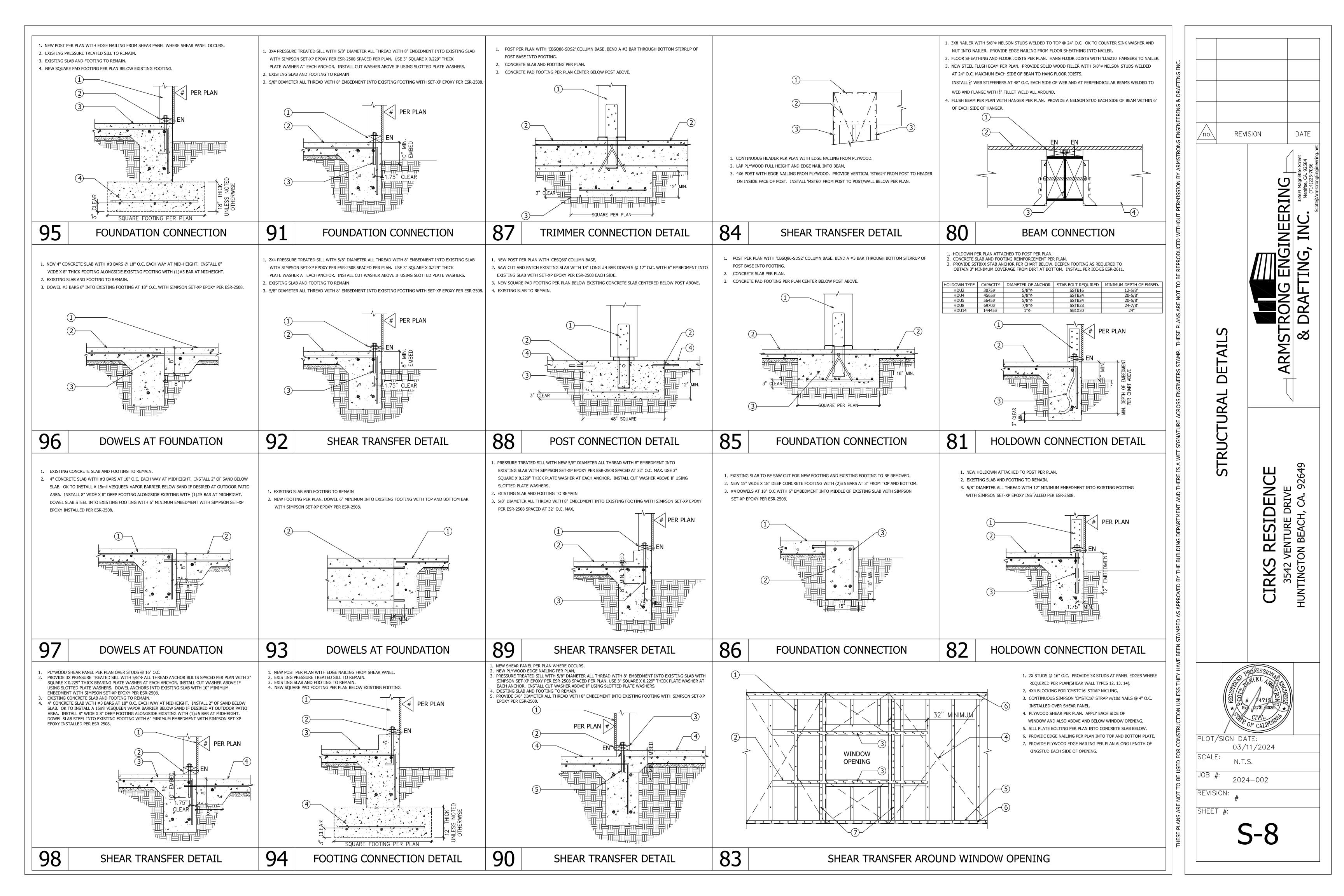


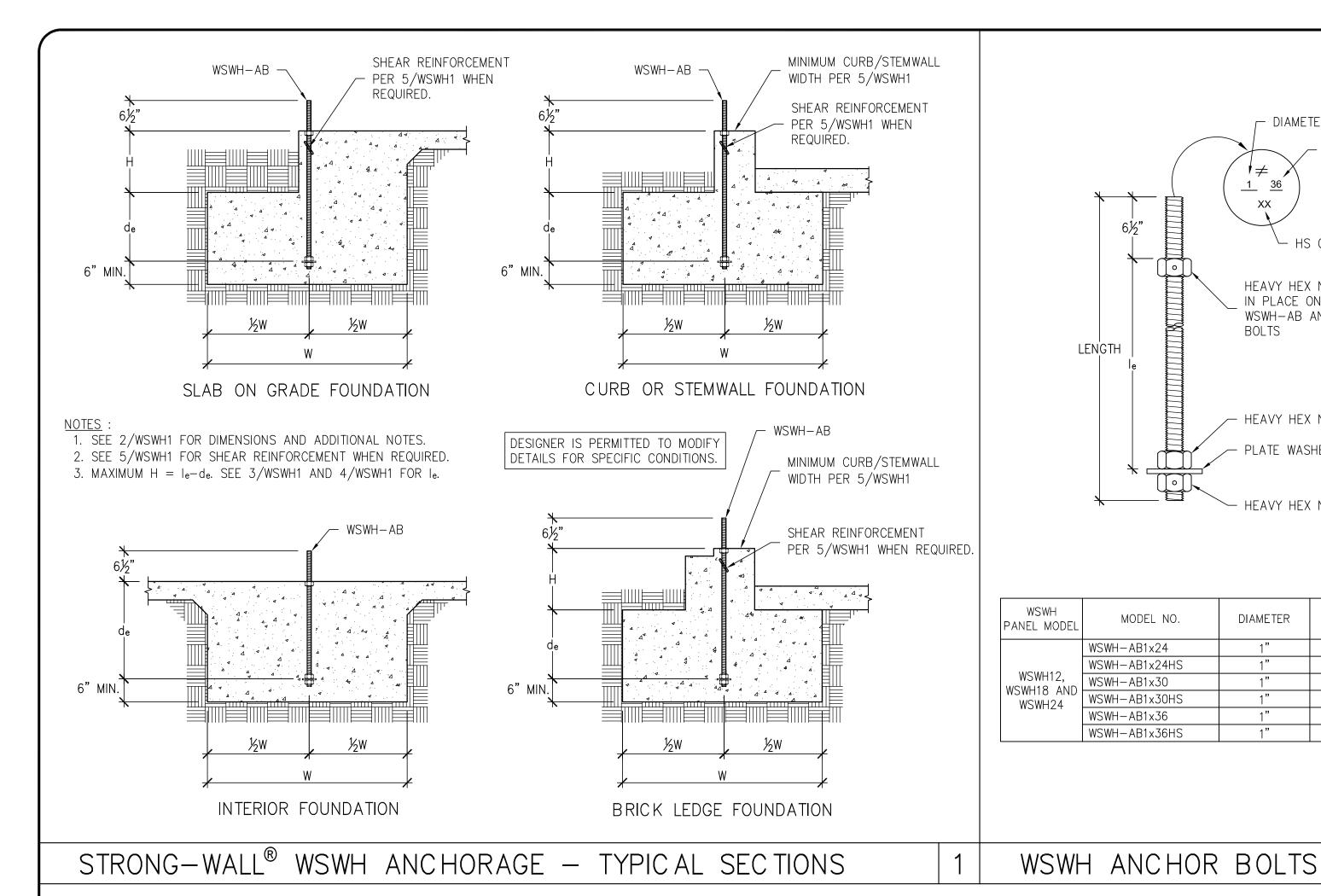


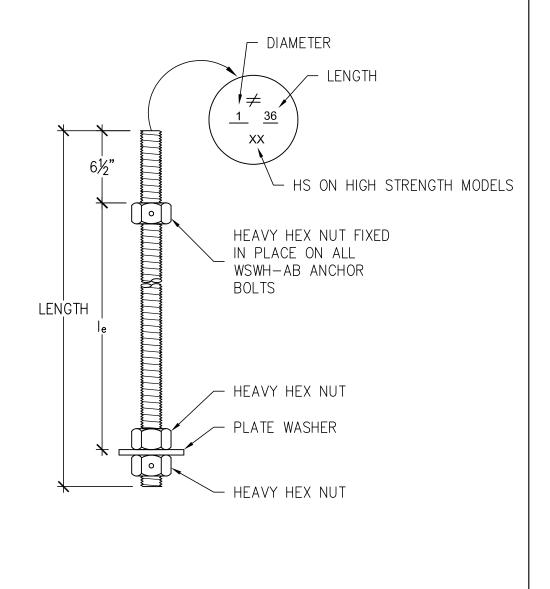












DIAMETER

LENGTH

24"

24"

30"

30"

36"

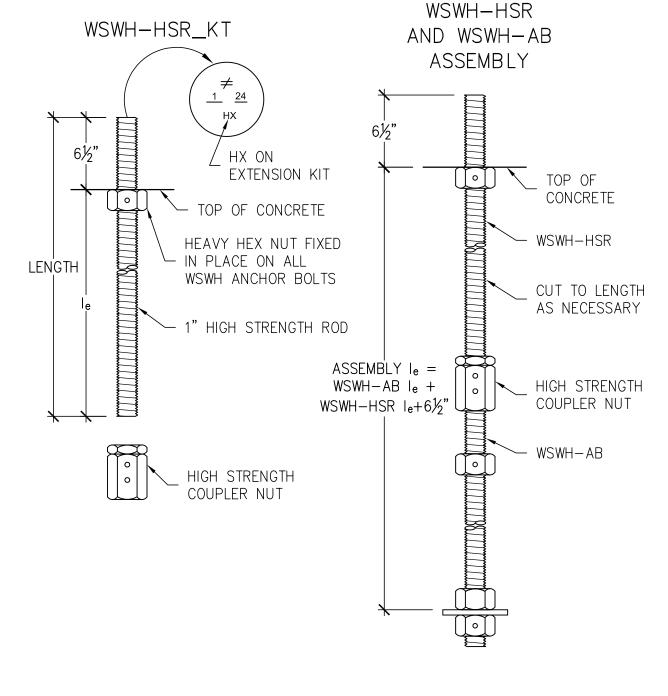
36"

15½" 15½"

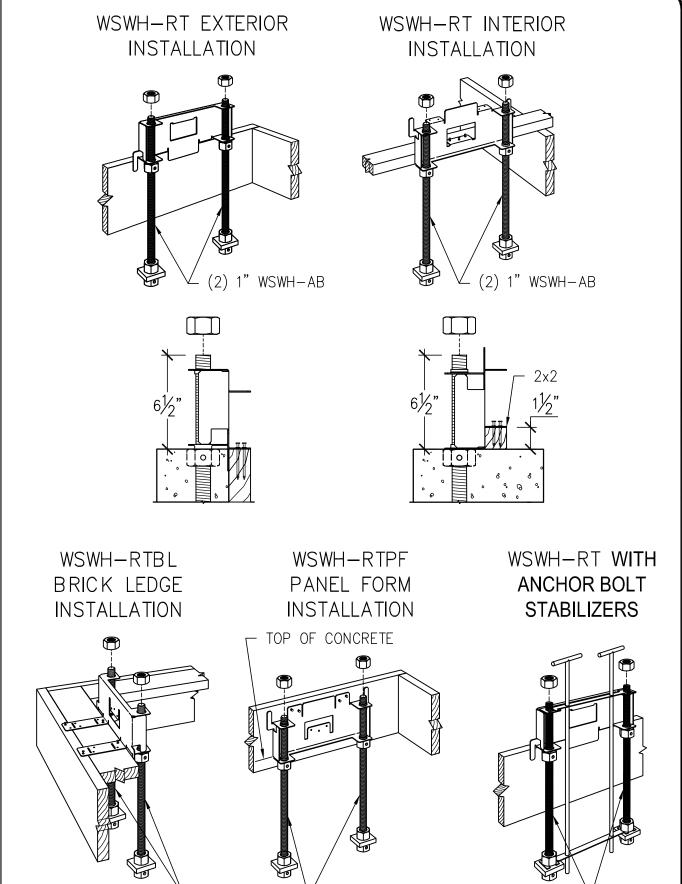
21½"

21½"

27½" 27½"



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l _e
WSWH12, WSWH18 AND	WSWH-HSR1x24KT	1"	24"	17½"
WSWH24	WSWH-HSR1x36KT	1"	36"	29½"



STRONG-WALL® SLAB OR CURB AND HIGH STRENGTH SURROUNDING FOUNDATION NOT SHOWN FOR CLARITY WOOD SHEARWALL <u> 1∕2₩</u>

FOUNDATION PLAN VIEW

- 1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
- 2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).

MODEL NO.

WSWH-AB1x24

WSWH-AB1x30

WSWH-AB1x36

WSWH-AB1x24HS

WSWH-AB1x30HS

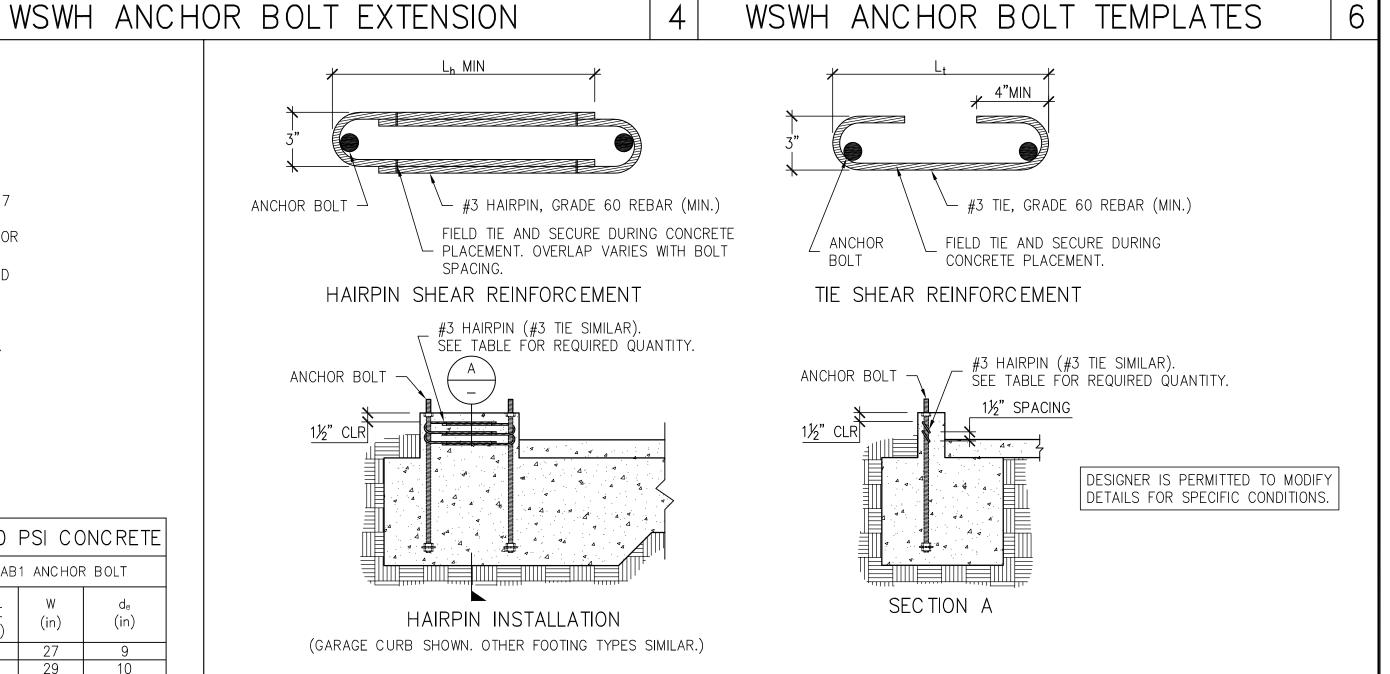
WSWH-AB1x36HS

- 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.
- 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C. 5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS.
- THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
- 6. REFER TO 1/WSWH1 FOR de.

	1		FOR 2500 I	<u> </u>		
		ANC HOR STRENGTH	WSWH-AB1 ANCHOR BOLT			
DESIGN CRITERIA	CONCRETE CONDITION		ASD ALLOWABLE UPLIFT (Ibs)	W (in)	d _e (in)	
		STANDARD	16,000 17,100	33 35	11 12	
	CRACKED	HIGH STRENGTH	34,100 36,800	52 55	18	
SEISMIC	UNCRACKED ·	STANDARD	15,700 17,100	28 30	10	
		HIGH STRENGTH	33,500 36,800	45 48	15 16	
	CRACKED	STANDARD	6,200 11,400 17,100	16 24	6 8 11	
		HIGH STRENGTH	21,100 27,300	32 36 42	12	
WIND			34,100 36,800	48 51	16 17	
		STANDARD	6,400 12,500 17,100	14 22 28	6 8 10	
	UNCRACKED	HIGH STRENGTH	22,900 26,400	33 36	11 12	
			34,200 36,800	42	14	

			WSWH_AR	1 ANCHOR	P ROLT
DESIGN	CONCRETE	ANC HOR	WSWH-AB1 ANCHOR BOLT		
CRITERIA	CONDITION	STRENGTH	ASD ALLOWABLE UPLIFT (Ibs)	W (in)	d _e (in)
		STANDARD	16,000 17,100	31 33	11 11
	CRACKED	HIGH STRENGTH	33,900	49	17
SEISMIC		THIGH STIVENGTH	36,800	52	18
SEISIVIIC		STANDARD	16,300	27	9
	UNCRACKED	STAINDAND	17,100	28	10
		HIGH STRENGTH	34,000	43	15
			36,800	46	16
		STANDARD	5,600	14	6
			10,200	21	7
		HIGH STRENGTH	17,100	30	10
	CRACKED		20,000	33	11
			26,500	39	13
			33,600	45	15
WIND			36,800	48	16
VVIIVO			6,200	13	6
		STANDARD	12,800	21	7
			17,100	26	9
	UNCRACKED		21,800	30	10
		HIGH STRENGTH	28,900	36	12
		IIIOH SHALNGIA	33,100	39	13
			36,800	42	14

WSWH A	NC HORAGE	SOLUTIONS	FOR 4500	PSI CC	NC RE	
			WSWH-AB1 ANCHOR BOLT			
DESIGN CRITERIA	CONCRETE CONDITION	ANC HOR STRENGTH	ASD ALLOWABLE UPLIFT (Ibs)	W (in)	d _e (in)	
SEISMIC	CRACKED	STANDARD	16,000 17,100	27 29	9 10	
		HIGH STRENGTH	34,700 36,800	44 46	15 16	
	UNCRACKED	STANDARD	15,700 17,100	23 25	8	
		HIGH STRENGTH	33,900 36,800	38 40	13 14	
WIND	CRACKED	STANDARD	6,800 11,600	14 20	6	
			17,100 21,400	26 30	9	
		HIGH STRENGTH	28,400 32,400	36 39	12 13	
	UNCRACKED		36,800 6,800	43 12	15 6	
		STANDARD	12,400 17,100	18 23	6 8	
		LUCII CTDENOTU	22,800 26,700	27 30	9	
		HIGH STRENGTH	30,700 36,800	33 37	11 13	



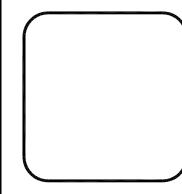
	STRON	IG-WALL [®] HIGH S	STRENGTH W	OOD SHEARWAL	L SHEAR AN	ICHORAGE		
MODEL	SEISMIC ³			WIND ⁴				
	L _t OR L _h (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)		
						UNCRACKED	CRACKED	
WSWH12	101/4	(1) #3 TIE	6	SEE NOTE 7	6	1,080	770	
WSWH18	15	(2) #3 HAIRPINS ^{5,6}	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX ALLOW SHEAR LOAD OF THE WSWH		
WSWH24	19	(2) #3 HAIRPINS ⁵	6	(2) #3 HAIRPINS ⁵	6			

1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-19, ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.

- 2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
- 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318-19, SECTION 17.10.6.3, ACI 318-14, SECTION 17.2.3.5.3
- 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B. 5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.
- 6. USE (1) #3 HAIRPIN FOR WSWH18 WHEN STANDARD STRENGTH ANCHOR IS USED. 7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
- 8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS. 9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-19 SECTION 17.9.2, ACI 318-14 SECTION 17.7.2 AND ACI 318-11 SECTION

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI

STRONG-WALL $^{ ext{ iny B}}$ WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS \mid 5)



SIMPSON (*) 5956 W. Las Pos Pleasanton, CA • Tel: (800) 999-5 • Website: www.strg



WSWH AILS

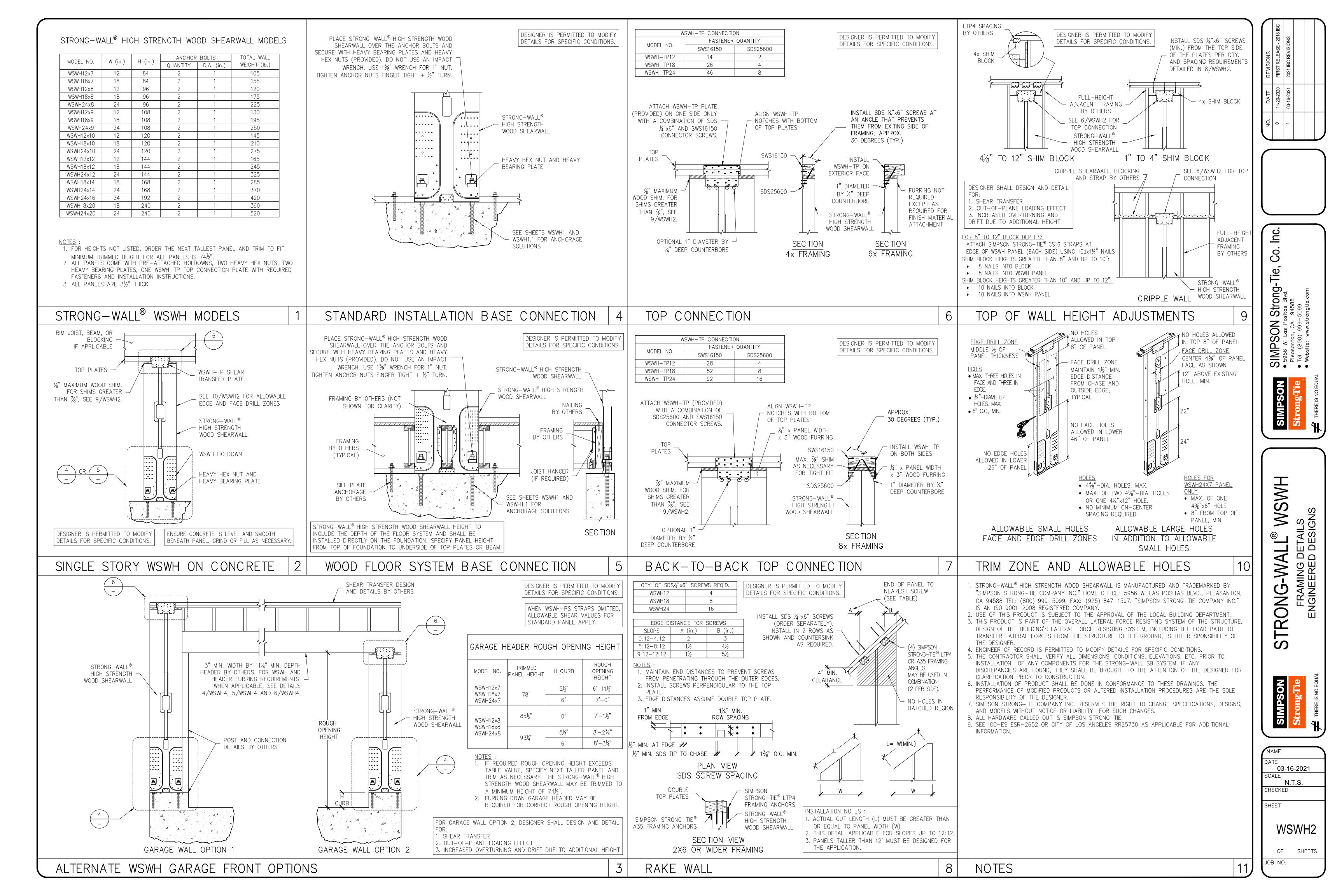
SONG-WALL®
ANCHORAGE DETA
ENGINEERED DESI

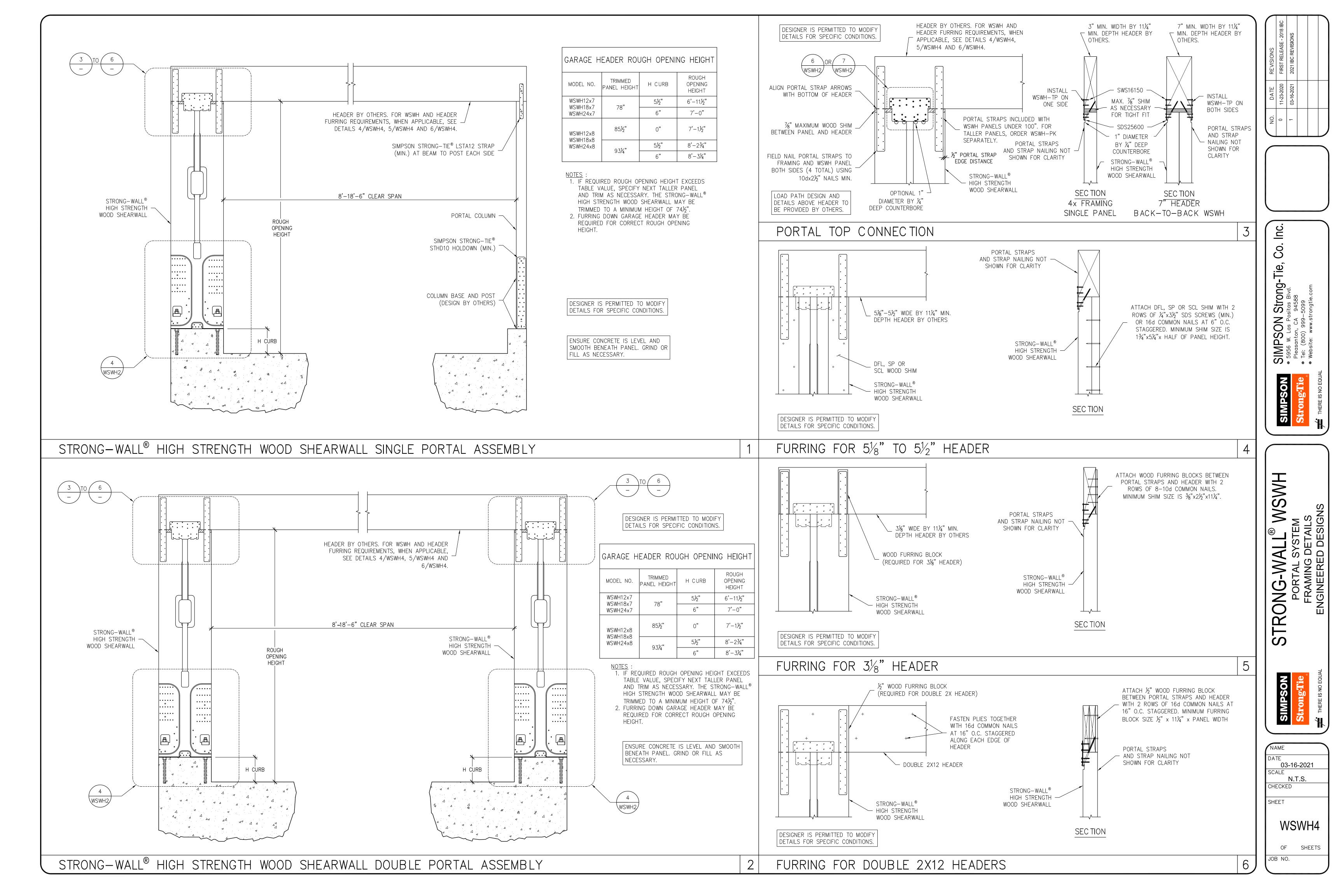
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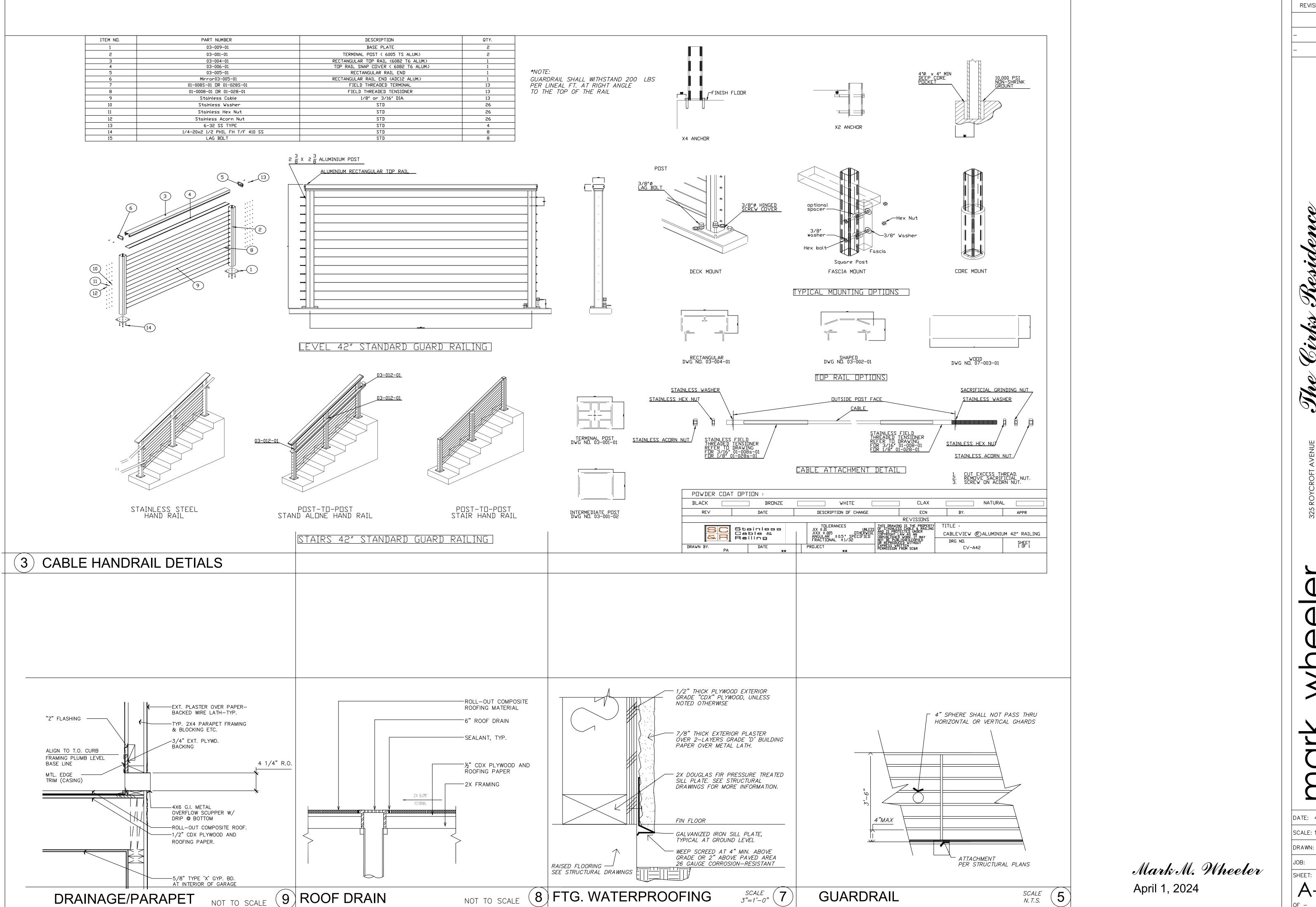
CHECKED SHEET

WSWH1

OF SHEETS







REVISIONS

DATE: 4-1-24

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

A-8.0 OF - SHEETS