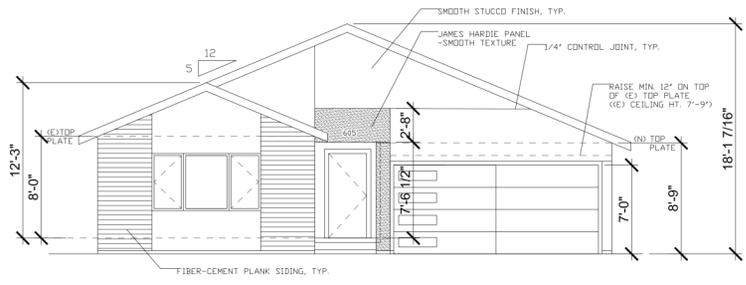






City of Campbell
 70 North First Street
 Campbell, CA 95008 -1423

Project Image



PROPOSED FRONT ELEVATION
SCALE: 1/4"=1'-0"

Courtesy Notice

Dear Campbell Resident,

September 13, 2024

We are notifying you that the Planning Division of the Community Development Department of the City of Campbell has received an application for the following project:

Project Address: 605 Weston Drive

Zoning | Area Plan: R-1-6 | STANP

Neighborhood Association(s): N/A

Council District: 5

File No.: PLN-2024-138

APN: 403-53-026

Applicant: John Wang Architect

Property Owner: Jasper Liu

Application Type: Administrative Site & Architectural Review

Project Planner: Larissa Lomen, Assistant Planner

Email Contact: larissal@campbellca.gov

Phone Contact: (408) 866-2144

Project Description:

To allow the addition of approximately 978 square feet to an existing single-story, single-family dwelling.

If you would like to find out more information regarding the proposed project, please view the project plans using the QR code below or contact the Project Planner. The City will send you another notice before the City makes a decision regarding approval of the project.

Before a decision is reached you will receive a formal notice providing another opportunity for public comment.



- City of Campbell -
Community Development Department
70 N. First Street, Campbell CA 95008
(408)866-2140 | planning@campbellca.gov

Note: Applications may change after initial application submittal. To view the project plans, please scan the QR code.

**Asistencia en Español disponible,
Simplemente marque (408) 866-2140 y pida traducción en Español



LIU RESIDENCE HOUSE ADDITION

605 WESTON DRIVE

CAMPBELL, CA 95008

GENERAL NOTES

IT IS THE RESPONSIBILITY OF THE CONTRACTORS AND SUBCONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS INDICATED ON THESE DRAWINGS AND MAKE KNOWN ANY DISCREPANCIES PRIOR TO COMMENCING THEIR WORKS.

THESE DRAWINGS ARE INTENDED FOR USE IN A NEGOTIATED CONSTRUCTION CONTRACT AND, THEREFORE, MAY NOT SPECIFICALLY DETAIL OR SPECIFY MATERIAL AND/OR MANUFACTURERS. THE CONTRACTORS SHALL PROVIDE ALL SAMPLES AND OR SPECIFICATION SHEETS AS REQUIRED TO ASSIST OWNERS OR THEIR AGENT IN MAKING MATERIAL SELECTIONS. FOR THE PURPOSE OF ESTIMATING, THE CONTRACTORS SHALL USE THE MATERIALS SELECTED BY THE OWNERS, OR IN ABSENCE OF SAME, THEY SHALL PROVIDE AN ALLOWANCE AMOUNT WITH CONDITION OF ANY COST ESTIMATE. ALL MATERIALS SPECIFIED IN THESE DRAWINGS SHALL BE INCLUDED IN SUCH ESTIMATE.

NO GUARANTEE OF QUALITY OF CONSTRUCTION IS IMPLIED OR INTENDED BY THE ARCHITECTURAL DOCUMENT, AND THE CONTRACTORS SHALL ASSUME FULL RESPONSIBILITY FOR ANY OR ALL CONSTRUCTION DEFICIENCIES.

THE GENERAL CONTRACTOR SHALL HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGNER FROM ANY ACTION INITIATED BY THE INITIAL OWNER OR ANY SUBSEQUENT OWNERS FOR CONSTRUCTION DEFICIENCIES, MODIFICATIONS OR SUCH CONDITIONS WHICH MAY BE BEYOND THE CONTROL OF THE DESIGNER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK, INCLUDING BUT NOT LIMITED TO: CALIFORNIA BUILDING CODE (CBC), CALIFORNIA MECHANICAL CODE (CMC), CALIFORNIA ELECTRICAL CODE (CEC), CALIFORNIA PLUMBING CODE (CPC), AND ALL APPLICABLE LOCAL CODES AND LEGISLATION.

THE CONTRACTORS SHALL REVIEW AND RECORD THE CONDITIONS OF ALL EXISTING SITE IMPROVEMENTS INCLUDING PAVED AREAS. THEY SHALL MAKE KNOWN ALL EXISTING DAMAGED OR DISREPAIRED ITEMS AND CONDITIONS THAT MAY WORSEN DUE TO THE CONSTRUCTION. ALL ITEMS IN GOOD CONDITION SHALL BE MAINTAIN IN THEIR PRESENT CONDITION AND ANY REPAIR OR DAMAGE WHICH OCCURS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.

CONTRACTORS SHALL FIELD MEASURE EXISTING AND NEW WINDOW / DOOR OPENING BEFORE PURCHASE OF WINDOWS AND DOORS.

CONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND SATISFY THEMSELVES AS OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTORS SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING THEIR WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTORS FOR THE EXPENSES DUE TO THEIR NEGLECT TO EXAMINE OR FAILURE TO DISCOVER CONDITIONS WHICH MAY AFFECT THEIR WORK.

ALL NEW INTERIOR PAINT COLOR, FLOOR, WALLS AND CEILING FINISHES SHALL BE SELECTED BY OWNER AT THE TIME WHEN IT IS NECESSARY FOR THE COMPLETION OF THE PROJECT.

ALL PUBLIC IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST ADOPTED CITY STANDARDS. THE STORING OF GOODS AND MATERIALS ON SIDEWALK AND/OR STREET WALL NOT BE ALLOWED UNLESS THE CONTRACTOR HAS APPLIED AND SECURED A SPECIAL PERMIT WHICH ALLOWS SUCH STORAGE TO BE PLACED.

PROJECT TEAM

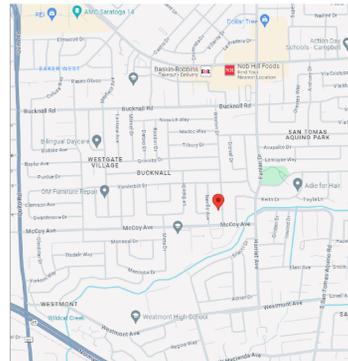
OWNER:
JASPER LIU
EMAIL: CHIJASPER@GMAIL.COM
TEL: 562-739-3361

ARCHITECT:
JOHN WANG ARCHITECT
EMAIL: JOHN0321@GMAIL.COM
TEL: 408-382-1111

STRUCTURAL ENGINEER:
BEAMABLE ENGINEERING INC.
EMAIL: BO@BEAM-ABLE.COM
TEL: 408-752-2777

ENERGY CONSULTANT:
FRI ENERGY CONSULTANTS, LLC
EMAIL: NICK@FRICONSULTING.COM

VICINITY MAP



PROJECT DATA

SCOPE: 978 S.F. HOUSE ADDITION ON THE FRONT AND BACK OF THE EXISTING HOUSE.

PROJECT ADDRESS: 605 WESTON DRIVE, CAMPBELL, CA
ASSESSOR'S PARCEL NO.: 403-53-026

ZONE: R-1-6
FLOOD ZONE: NONE
HISTORIC STATUS: NONE
OCCUPANCY GROUPS: R-3/U
CONSTRUCTION: TYPE VB
STORIES: ONE
SPRINKLERS: NONE
LOT SIZE: 52.5' X 126.08'
LOT AREA: 6,619 S.F.

ALLOWABLE LOT COVERAGE:
6,619 X 0.40 = 2,648 S.F.

EXISTING LOT COVERAGE:
HOUSE = 1,091 S.F.
NON-ENCLOSED PORCH = 0 S.F.
GARAGE = 375 S.F.
TOTAL = 1,466 S.F.

PROPOSED LOT COVERAGE:
(E) HOUSE FOOTPRINT = 1,466 S.F.
(N) ADDITION = 978 S.F.
TOTAL = 2,444 S.F.

ALLOWABLE F.A.R.:
6,619 S.F. X 0.45 = 2,979 S.F.

EXISTING F.A.R.:
FIRST FLOOR = 1,091 S.F.
GARAGE = 375 S.F.
TOTAL = 1,466 S.F.

PROPOSED FLOOR AREA:
(E) FIRST FLOOR = 1,091 S.F.
(E) GARAGE = 375 S.F.
(N) ADDITION = 978 S.F.
TOTAL = 2,444 S.F.

**((N) ADDITION / ((E) LIVING + (E) GARAGE)) = 978 / 1,466
= 66.7% > 50%. SEE SHEET A-2 FOR DETERMINATION OF A NEW HOUSE ANALYSIS

SETBACKS:
FRONT: 20' AT HOUSE, 25' AT GARAGE
SIDE: 5'
REAR: 5' & 750 S.F. MIN. USABLE OPEN SPACE

HEIGHT LIMIT: 35 FT.
PROPOSED HEIGHT: ~16'-4"

PARKING REQ'D: 2 SPACES, 1 MUST BE COVERED.
PARKING PROVIDED: 2 COVERED

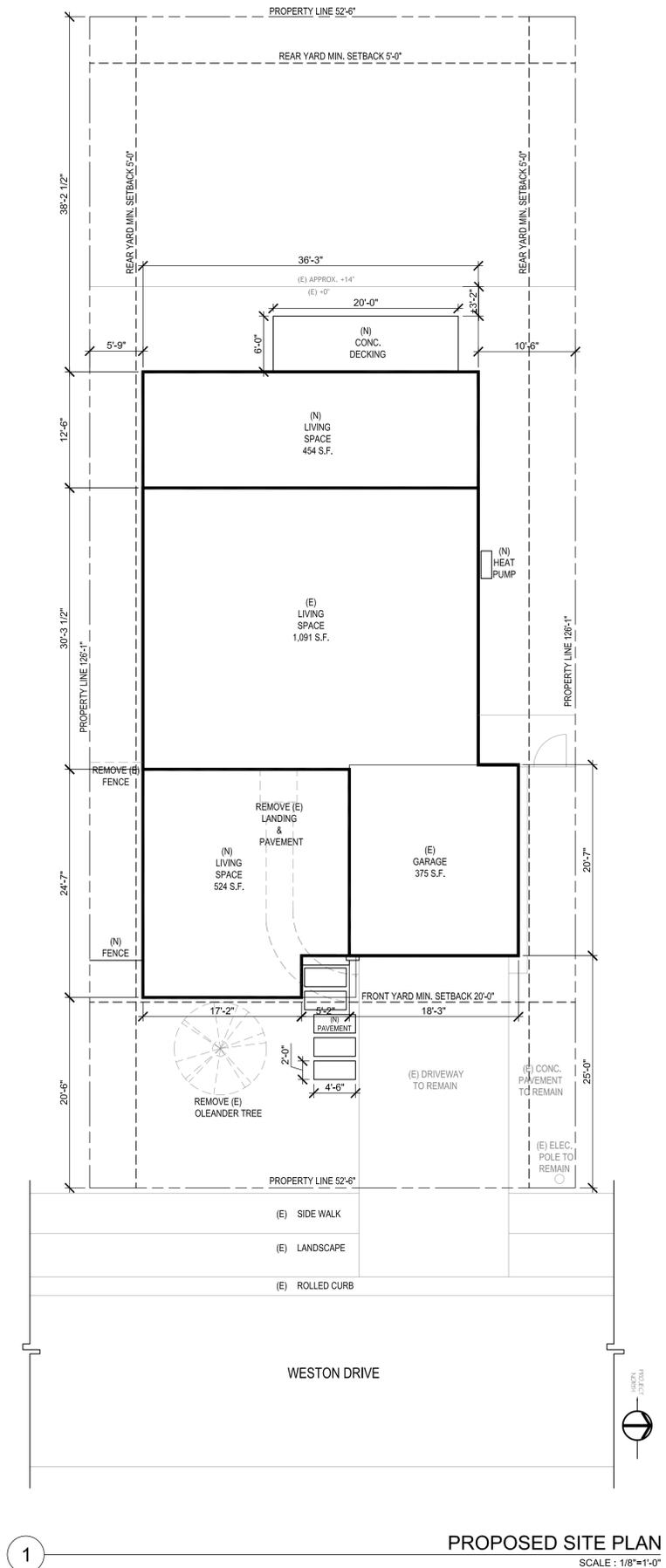
APPLICABLE CODES:
2022 CRC/CBC, 2022 CFC, 2022 CPC, 2022 CMC, 2022 CEC PART 3,
2022 CENC PART 6 & 2022 CGBSC AS AMENDED BY LOCAL JURISDICTION.

SPECIAL INSPECTION REQUIRED
NONE

DEFERRED SUBMITTALS:
NONE

SHEET INDEX

A0.0	TITLE SHEET, SITE PLAN
A1.0	DEMOLITION & PROPOSED FLOOR PLANS
A2	NEW BUILD DETERMINATION ANALYSIS
A2.0	PROPOSED ROOF PLAN
A3.0	ELEVATIONS
A3.1	ELEVATIONS
A3.2	SECTIONS
A4.0	ARCHITECTURAL DETAILS
T24-1	ENERGY COMPLIANCE REPORT
T24-2	ENERGY COMPLIANCE REPORT
S-0	GENERAL STRUCTURAL NOTES
S-1	FOUNDATION PLAN & NOTES
S-2	CEILING FRAMING PLANS & NOTES
S-3	ROOF FRAMING PLAN & NOTES
SD-1	STRUCTURAL CONSTRUCTION DETAILS
SD-2	STRUCTURAL CONSTRUCTION DETAILS
SD-3	STRUCTURAL CONSTRUCTION DETAILS
E1	ELECTRICAL PLAN



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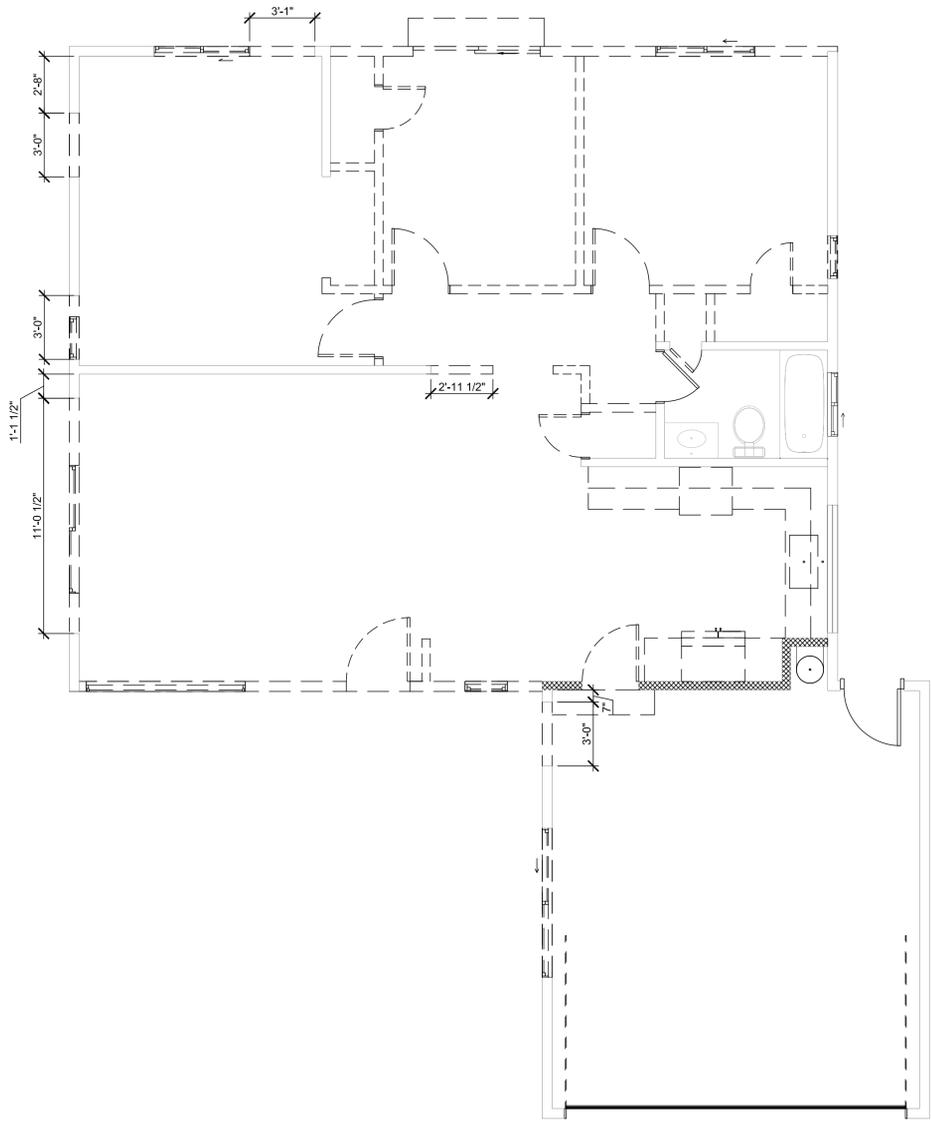
LIU RESIDENCE
HOUSE ADDITION AT
605 WESTON DRIVE
CAMPBELL, CA 95008

REVISIONS:

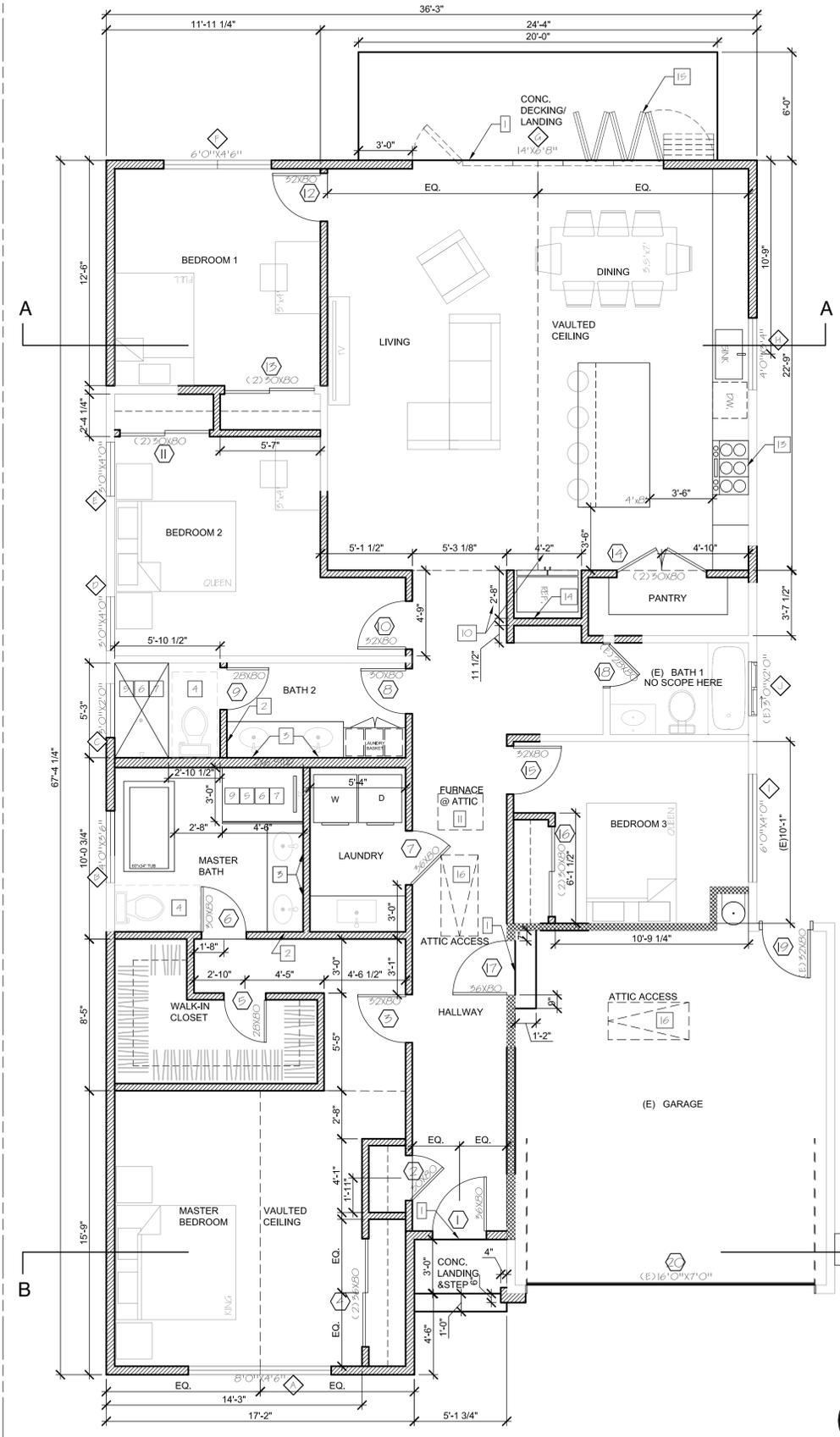
SHEET TITLE:
SITE PLAN &
PROPOSED ROOF PLAN

DATE	PROJECT NO.
08/28/2024	148
SCALE	DRAWN
	JW
SHEET	
	A0.0
OF	SHEETS

1 PROPOSED SITE PLAN
SCALE: 1/8"=1'-0"



2 DEMO PLAN
SCALE: 1/4"=1'-0"



1 PROPOSED FLOOR PLAN
SCALE: 1/4"=1'-0"

LEGEND

- ===== WINDOW
- EXISTING WALLS TO REMAIN REMOVE EXTERIOR FINISHES WHERE EXISTING EXTERIOR WALLS BECOME INTERIOR
- NEW WALL @ INTERIOR - 2X4 WOOD STUD @ 16" O.C. WITH 1/2" THK. GYP. BD. ON BOTH SIDES. USE W/FR GREEN GYP. BD. @ WET WALLS (CDX PLYWOOD OVER STUD@ SHEAR WALLS)
- NEW WALL @ EXTERIOR - 2X4 WOOD STUD @ 16" O.C. INTERIOR SIDE WITH 1/2" THK. GYP., & EXTERIOR SIDE WITH 3-COAT CEMENT PLASTER OVER PAPER BACKED LATH OVER PLYWOOD, S.S.D.
- ===== NEW INTERIOR 1-HR RATED WALL - 2X4 WOOD STUD @ 16" O.C. WITH TYPE X 5/8" THK. GYP. BD. ON BOTH SIDES

KEYNOTES

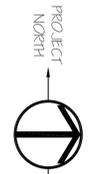
1. THE EXTERIOR LANDING AT AN EXTERIOR DOORWAY SHALL NOT BE MORE THAN 7 3/4" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOESNT SWING OVER THE LANDING.
2. RECESSED MEDICINE CABINET
3. BATH MIRROR
4. TOILET ACCESS AREA SHALL BE 24"(D) X 30"(W)
5. PROVIDE "DUROCK" OR "WONDER BOARD" WALL LINING AROUND SHOWER/BATH TUB AREA.
6. SHATTERPROOF GLASS SHOWER ENCLOSURE
7. SHOWER STALLS SHALL BE A MINIMUM FINISHED INTERIOR OF 1,024 SQUARE INCHES. BE CAPABLE OF ENCOMPASSING A 30 INCH DIAMETER CIRCLE. ANY DOORS SHALL SWING OUT OF THE ENCLOSURE HAVE A CLEAR OPENING OF 22 INCHES MINIMUM
8. REPLACE ALL (E) WINDOWS TO DUAL PAN LOW E GLAZING, SEE ENERGY REPORT. FIELD MEASURE (E) OPENING BEFORE ORDER. CURBLESS SHOWER
9. CONFIRM FRIDGE WIDTH & DEPTH WITH OWNER
11. FURNACE IN ATTIC
12. (N) ELECTRICAL MAIN PANEL- 200 AMP.
13. CONTRACTOR TO COORDINATE GAS SUPPLY LOCATION.
14. PROVIDE WATER SUPPLY FOR REFRIGERATOR.
15. NANA (OR APPROVED EQUAL) FOLDING TEMPERED GLASS DOOR
16. (N) ATTIC SPACE ACCESS DOOR (@ GARAGE TO BE 1-HOUR RATED), SIZE MIN. 22" X 30", WITH MIN. 30" CLEAR UNOBSTRUCTED HEADROOM ABOVE THE CEILING PER CRC R807

WHOLE HOUSE KEYNOTES

1. REPAINT WHOLE HOUSE.
2. REPLACE ALL PLUMBING PIPES WITH COPPER PIPES.
3. REPLACE ALL ELECTRICAL WIRING.
4. INSTALL NEW BASEBOARD.
5. CLARIFY WITH OWNER - REPLACE THE FLOOR OF THE WHOLE HOUSE WITH LUXURY VINYL PLANKS & BATHROOMS WITH TILES

GENERAL NOTES

- DIMENSION DENOTES TO FACE OF FINISH, UNLESS OTHERWISE NOTED.
- ALL WALLS TO BE SMOOTH FINISH
- CONTRACTOR TO INCLUDE ALL FINISH AND COLOR SPECIFIED BY OWNER AND INTERIOR DESIGNER
- CONTRACTOR TO VERIFY ALL OWNER'S APPLIANCE MANUAL SPEC. PRIOR TO CONSTRUCTION
- DESIGN BUILT CABINET TO FIT
- CONTRACTOR TO VERIFY W/ OWNER'S INTERIOR DESIGNER FOR MATERIAL SELECTION AND COLOR PRIOR TO FINAL PRICING AND CONSTRUCTION
- ALL INTERIOR, DOOR, WINDOW SIDE, HEAD AND SILL TO MATCH EXISTING
- FIELD MEASURE EXISTING AND NEW WEINDOW / DOOR OPENING BEFORE PURCHASE OF WINDOWS AND DOORS
- ALL ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET. THE MINIMUM NET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24". THE MINIMUM NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20". WHEN WINDOWS ARE PROVIDED AS A MEANS OF ESCAPE OR RESCUE, THEY SHALL HAVE A FINISHED SILL HEIGHT NOT MORE THAN 44" ABOVE THE FLOOR
- REGARDING PENETRATIONS THROUGH WALLS AT THE KITCHEN, SEPARATING THE DWELLINGS FROM THE GARAGE (CRC R302.5):
- A. DUCTS IN THE GARAGE OR PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE. CRC R302.5.2
- B. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL, TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E136 REQUIREMENTS. CRC R302.5.3



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LIU RESIDENCE
HOUSE ADDITION AT
605 WESTON DRIVE
CAMPBELL, CA 95008

REVISIONS:

SHEET TITLE:
PROPOSED FLOOR PLAN & DEMO PLAN

DATE	PROJECT NO.
08/28/2024	148
SCALE	DRAWN
	JW

SHEET
A1.0
OF SHEETS

Existing interior walls to be removed:
 02'-11"
 02'-01"
 14'-06"
 10'-09"
 23'-06"
 02'-03"
 02'-03"
 01'-04"
 04'-05"
 03'-01"
 02'-00"
 69'-01"

Existing interior walls to be remained:
 16'-07"
 11'-02"
 08'-01"
 05'-06"
 11'-08"
 02'-02"
 02'-00"
 11'-04"
 68'-06"

Existing interior walls removed ratio:
 $\frac{69'-11"}{[(69'-11")+(68'-6")]} = 50.2\%$

Existing exterior walls to be removed:
 32'-03"
 03'-04"
 21'-10"
 15'-06"
 03'-00"
 75'-11"

Existing exterior walls to be remained:
 04'-00"
 29'-06"
 04'-04"
 20'-07"
 18'-03"
 16'-09"
 05'-07"
 03'-02"
 102'-2"

Existing exterior walls removed ratio:
 $\frac{75'-11"}{[(75'-11")+(102'-2")]} = 42.7\%$

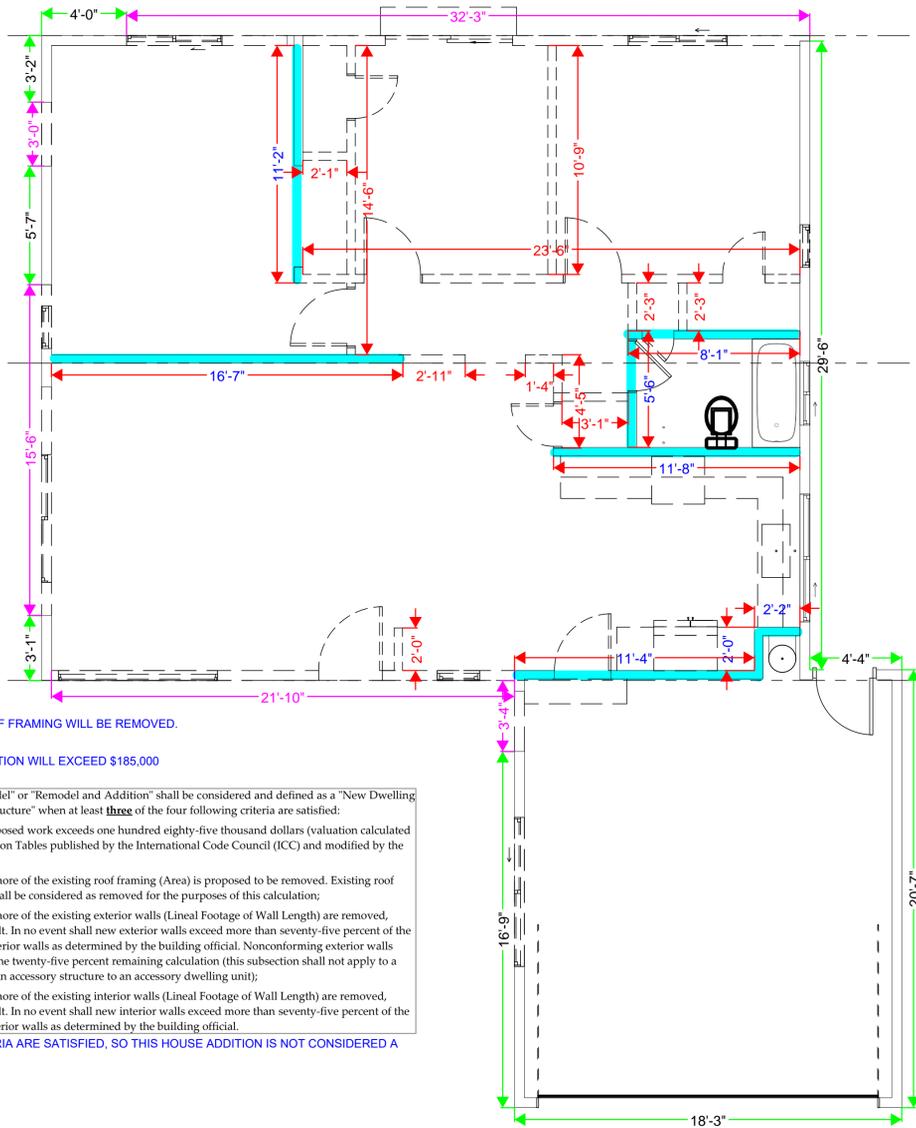
100% OF EXISTING ROOF FRAMING WILL BE REMOVED.

CONSTRUCTION VALUATION WILL EXCEED \$185,000

A project submitted as a "Remodel" or "Remodel and Addition" shall be considered and defined as a "New Dwelling using portions of the original structure" when at least **three** of the four following criteria are satisfied:

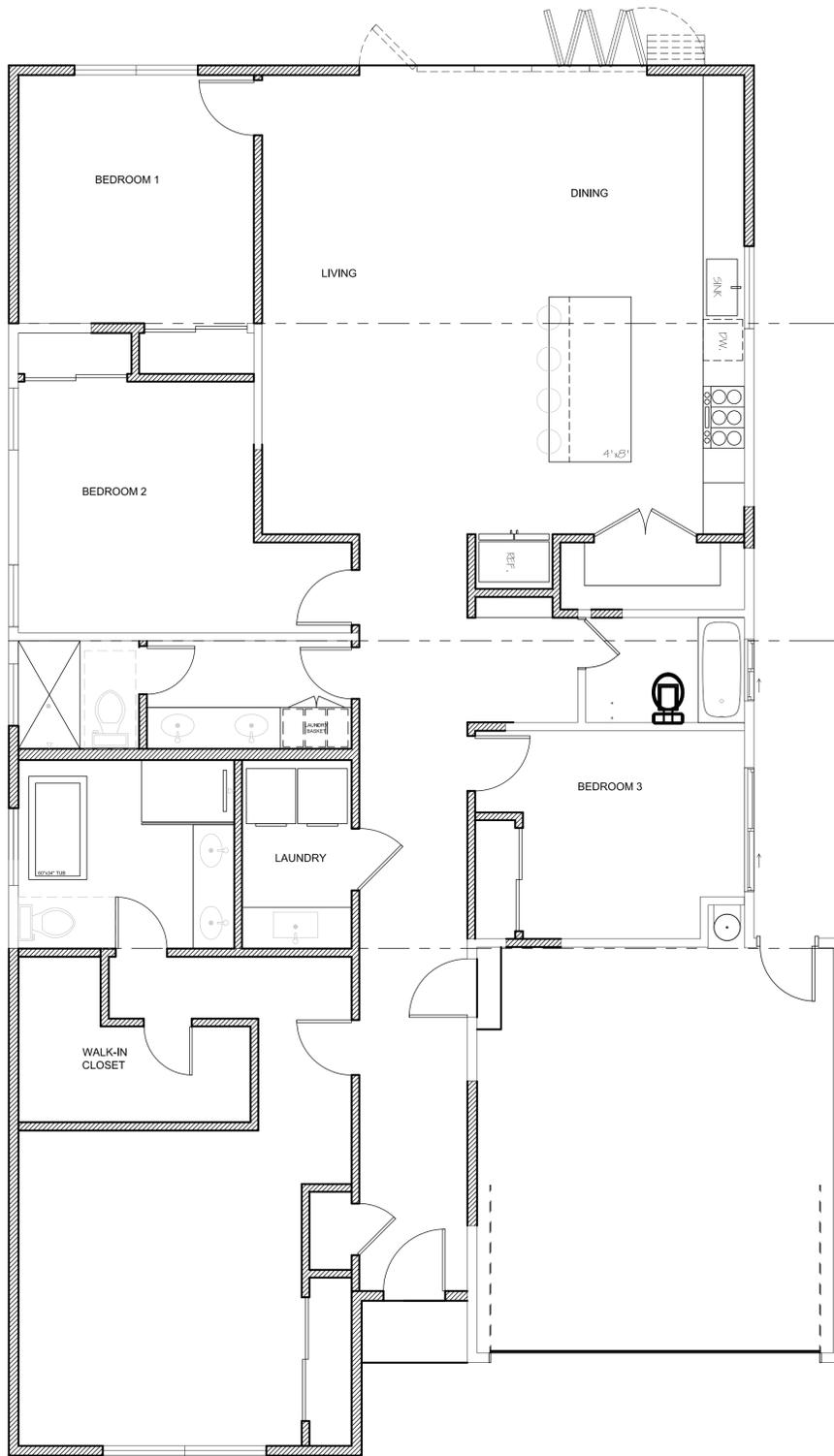
- The valuation of the proposed work exceeds one hundred eighty-five thousand dollars (valuation calculated using established Valuation Tables published by the International Code Council (ICC) and modified by the Building Division);
- Seventy-five percent or more of the existing roof framing (Area) is proposed to be removed. Existing roof covered by a new roof shall be considered as removed for the purposes of this calculation;
- Seventy-five percent or more of the existing exterior walls (Lineal Footage of Wall Length) are removed, altered, filled in, or rebuilt. In no event shall new exterior walls exceed more than seventy-five percent of the length of the existing exterior walls as determined by the building official. Nonconforming exterior walls shall not be included in the twenty-five percent remaining calculation (this subsection shall not apply to a proposed conversion of an accessory structure to an accessory dwelling unit);
- Seventy-five percent or more of the existing interior walls (Lineal Footage of Wall Length) are removed, altered, filled in, or rebuilt. In no event shall new interior walls exceed more than seventy-five percent of the length of the existing interior walls as determined by the building official.

>> ONLY 2 OF THE 4 CRITERIA ARE SATISFIED, SO THIS HOUSE ADDITION IS NOT CONSIDERED A NEW DWELLING.



2

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



1

PROPOSED FLOOR PLAN
 SCALE : 1/4"=1'-0"

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 HOUSE ADDITION AT
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 CAMPBELL, CA 95008

REVISIONS:

NO.	DATE	DESCRIPTION

SHEET TITLE:

EXISTING INTERIOR &
 EXTERIOR WALLS
 REMAIN/DEMO ANALYSIS

DATE	PROJECT NO.
06/20/2024	148
SCALE	DRAWN
	JW

SHEET

A-2

OF SHEETS



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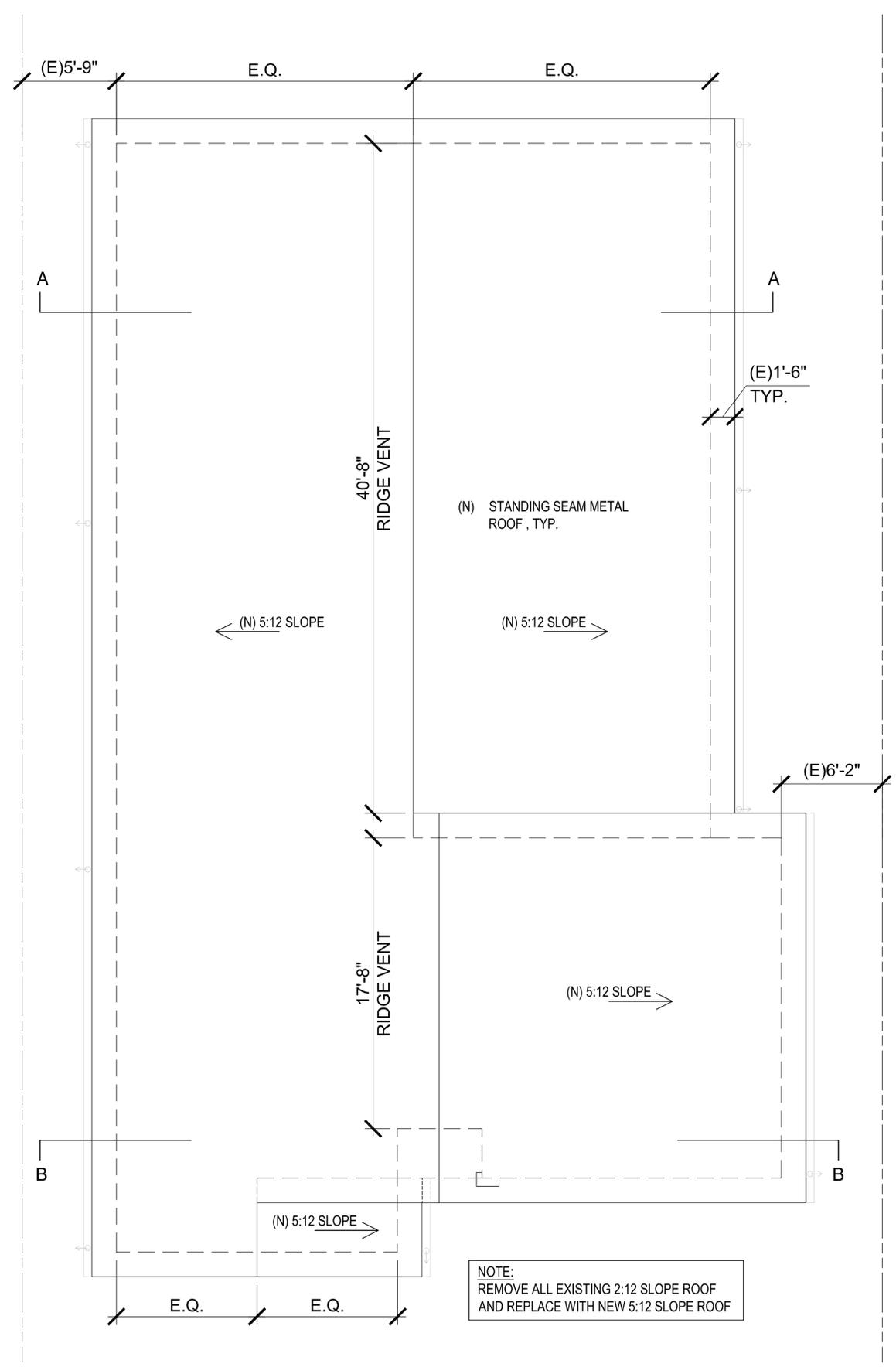
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REVISIONS:

SHEET TITLE:
PROPOSED FLOOR PLAN
& DEMO PLAN

DATE	PROJECT NO.
08/28/2024	148
SCALE	DRAWN
	JW
SHEET	
	A2.0
OF	SHEETS



ROOF VENT CALCULATION AT NEW ROOF:
 TOTAL ROOF VENT AREA: 2,069 S.F. (TOTAL LIVING SPACE)
 TOTAL ROOF VENT AREA REQUIRED:
 2,069/150=13.80 S.F.
 ROOF VENT AREA REQ'D (HIGH)
 13.80/2=6.90 S.F.
 ROOF VENT AREA REQ'D (LOW)
 13.80/2=6.90 S.F.
 EAVE VENT USED- LOW SECTION:
 16"x6" EAVE VENT BETWEEN RAFTERS: 0.67 S.F.
 EAVE VENT USED- HIGH SECTION:
 RIDGE VENT (PER FT) 0.125 S.F.
 EAVE VENT PROVIDED- LOW SECTION:
 6.90/0.67=10.3 --> 11 MIN.
 EAVE VENT PROVIDED- HIGH SECTION:
 RIDGE VENT: 6.90/0.125=55.2 --> 53 FT MIN.

FOUNDATION VENT CALCULATION:
 TOTAL CRAWL SPACE AREA: 2,069 S.F.
 TOTAL CRAWL VENT REQUIRED:
 2,069/150 = 13.80 S.F.
 FOUNDATION VENT USED:
 6"x14" WITH INSECT SCREEN 0.58 S.F.
 NUMBER OF VENT PROVIDED:
 13.80/0.58 = 23.78 --> 24 MIN.

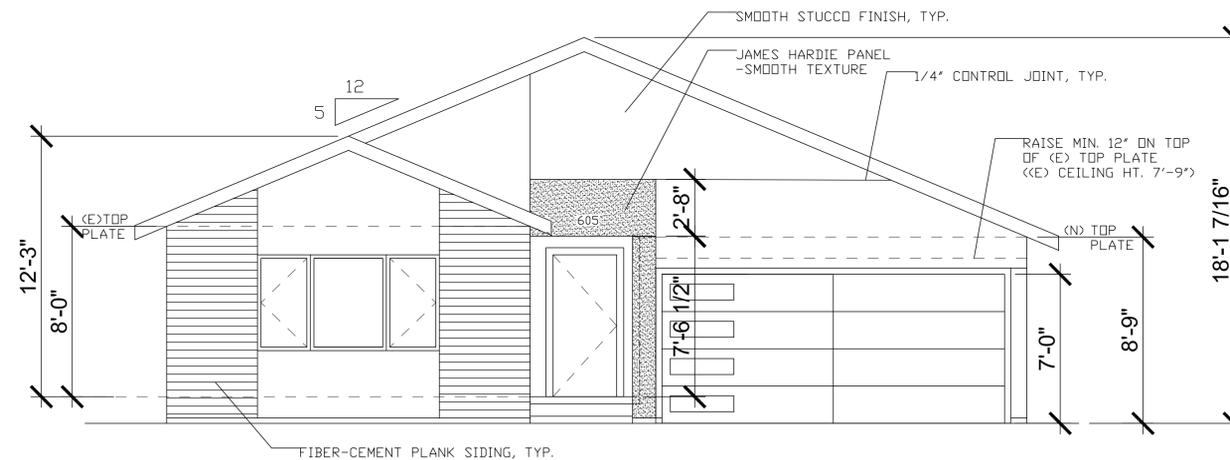
NOTE:
 REMOVE ALL EXISTING 2:12 SLOPE ROOF
 AND REPLACE WITH NEW 5:12 SLOPE ROOF

PROPOSED FLOOR PLAN
 SCALE: 1/4"=1'-0"

1



EXISTING FRONT ELEVATION

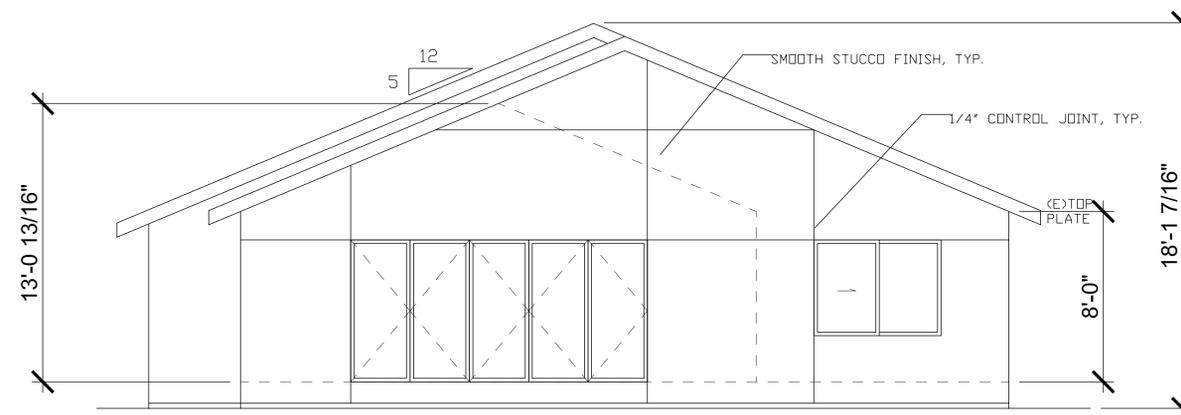


PROPOSED FRONT ELEVATION

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



EXISTING SIDE/REAR ELEVATION



PROPOSED REAR ELEVATION

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



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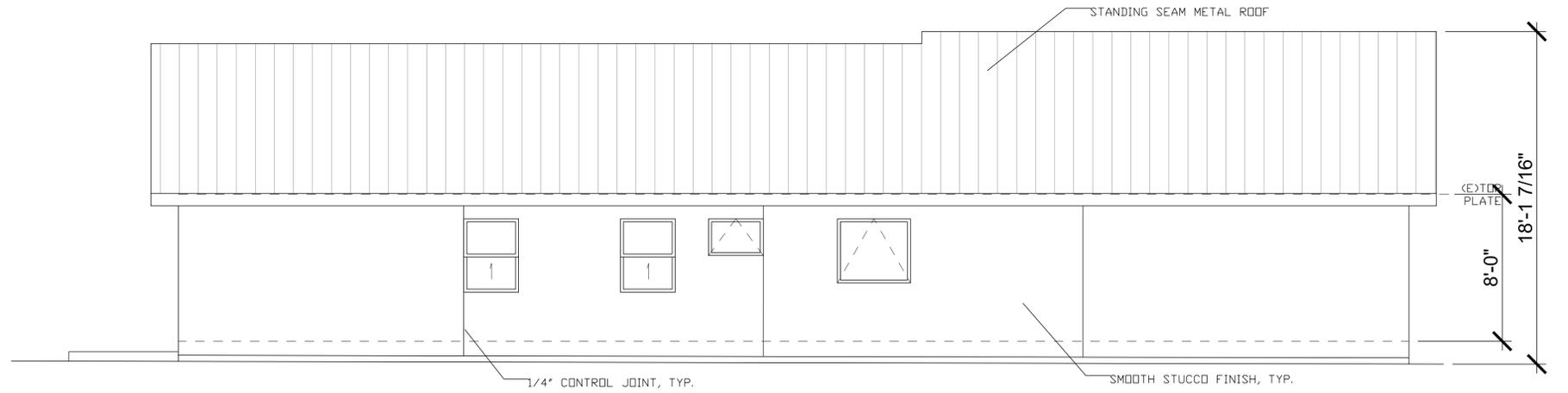
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REVISIONS:

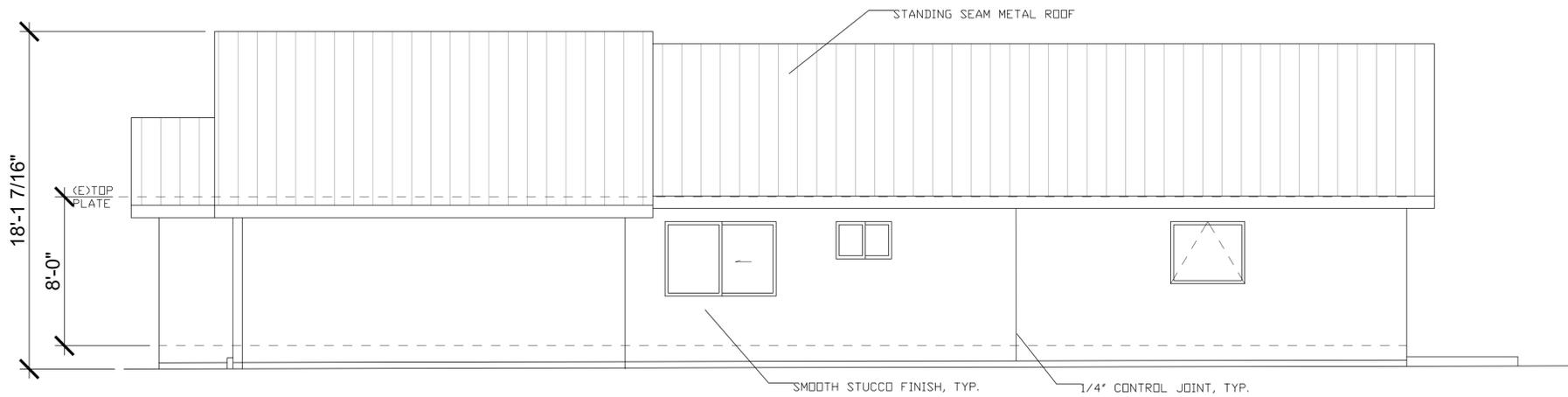
SHEET TITLE:
PROPOSED ELEVATIONS

DATE	PROJECT NO.
08/28/2024	148
SCALE	DRAWN
	JW

SHEET
A3.0
OF SHEETS



1 PROPOSED LEFT ELEVATION
SCALE: 1/4"=1'-0"



2 PROPOSED RIGHT ELEVATION
SCALE: 1/4"=1'-0"



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REVISIONS:

SHEET TITLE:
PROPOSED ELEVATIONS

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SCALE	DRAWN
	JW

SHEET
A3.1
OF SHEETS



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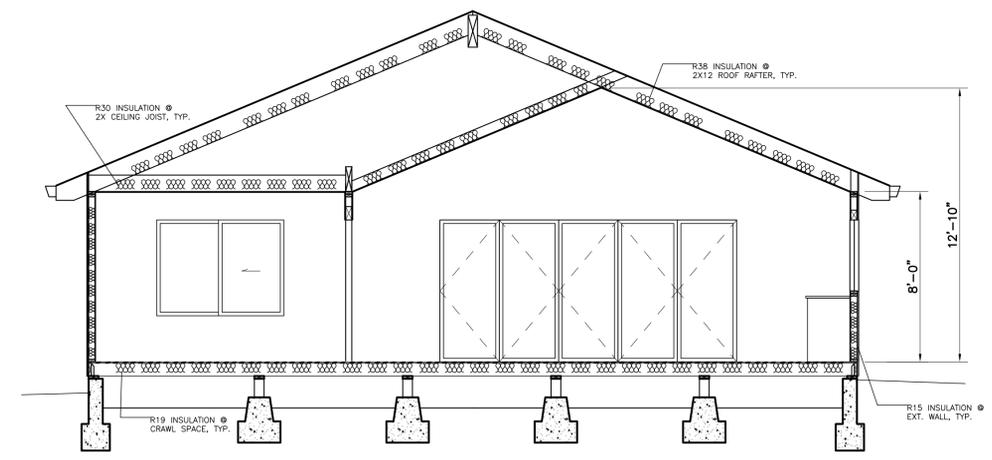
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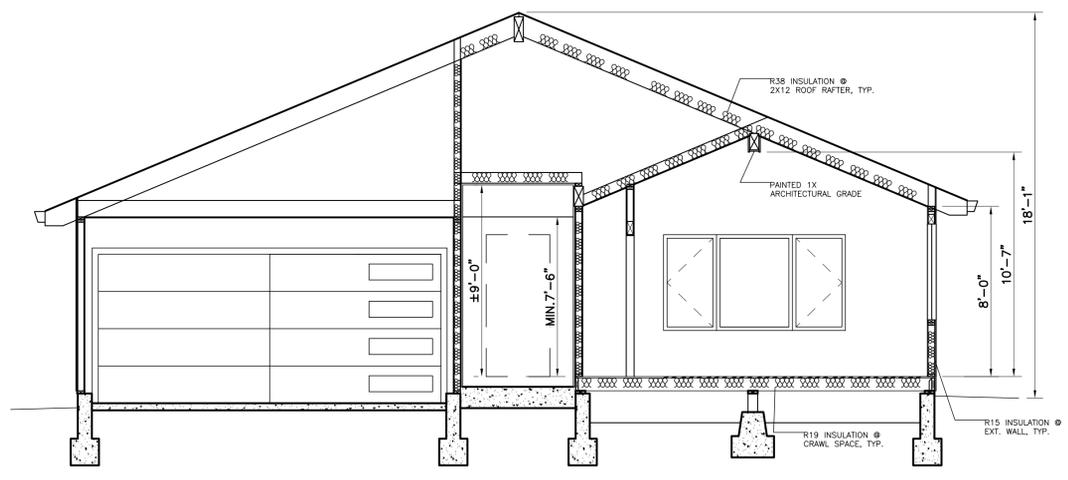
REVISIONS:

SHEET TITLE:
 PROPOSED SECTIONS

DATE	PROJECT NO.
08/28/2024	148
SCALE	DRAWN
	JW
SHEET	
	A3.2
OF	SHEETS

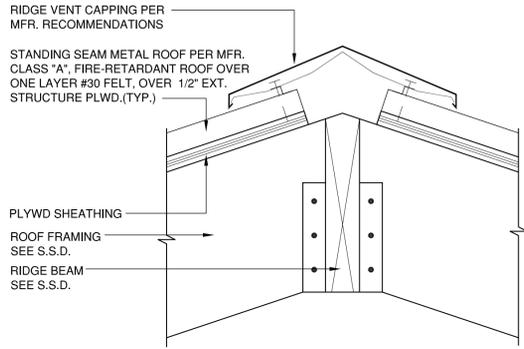


1 ————— **A-A SECTION**
 SCALE: 1/4"=1'-0"



2 ————— **B-B SECTION**
 SCALE: 1/4"=1'-0"

NOTE:
THESE ROOF DETAILS ARE FOR INDICATING METAL FLASHING AND UNDERLAYMENT BUILDING PAPER ONLY. ROOFING MATERIAL MAY BE ALTERNATED, AND CONTRACTOR SHALL INCLUDE AND COMPLY TO ALL THE ROOF MANUFACTURER'S RECOMMENDATIONS IN TERMS OF INSTALLATION AND REQUIRED ADDITIONAL FLASHING. CONTRACTOR TO COMPLY ALL C.B.C REQUIREMENTS



STUCCO & WEEP SCREED DETAIL

1" 9

NOT USED

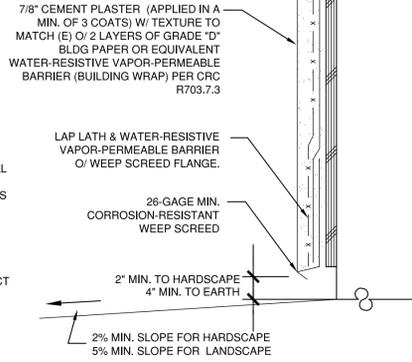
5

NOT USED

1

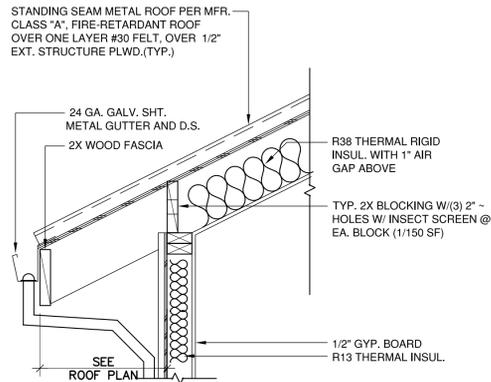
WATERPROOFING NOTE:
1. WATERPROOFING SHOWN IN DETAIL OF THIS SHEET ARE FOR REFERENCE ONLY.
2. GENERAL CONTRACTOR SHALL CONTACT MANUFACTURER SPECIALIST FOR ANY QUESTIONS REGARDING INSTALLATION GUIDELINE AND WARRANTY INFORMATION.

NOTE:
IF ANY WOOD IN DIRECT CONTACT WITH FOUNDATION STEM WALL SHALL BE PRESSURE TREATED



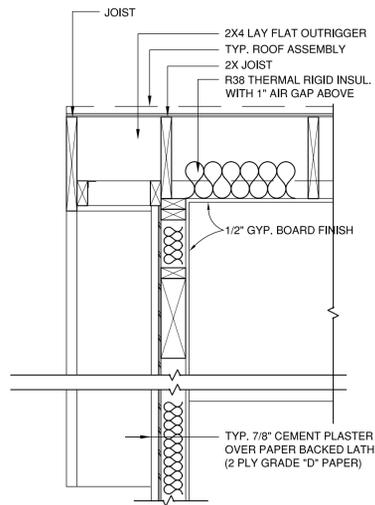
ROOF RIDGE DETAIL

3" 13



TYP. ROOF @ FASCIA

1" 14



RAKE DETAIL

1" 15

TYP. VENT THRU ROOF

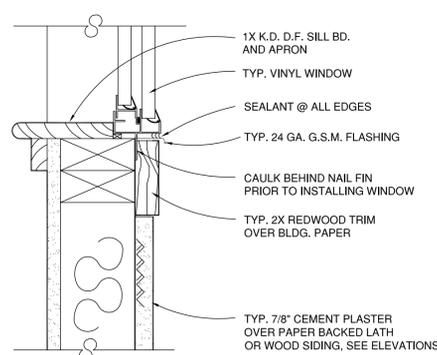
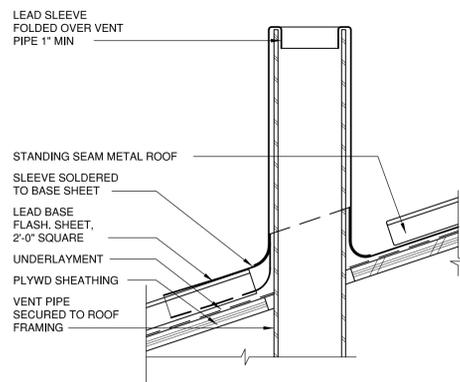
3" 12

VINYL WINDOW SILL

3" 8

INTERIOR DOOR HEAD/JAMB

3" 4



ROOF DETAIL @ EXT. WALL

3" 11

VINYL WINDOW JAMB

3" 7

EXTERIOR DOOR SILL

3" 3

INTERIOR DOOR HEAD/JAMB

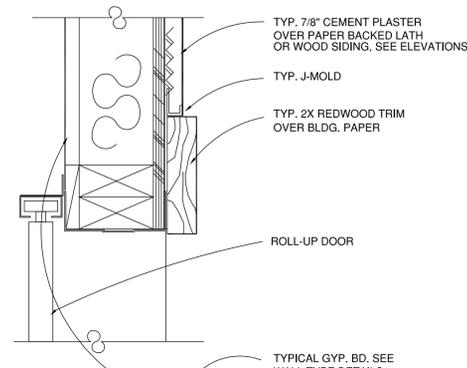
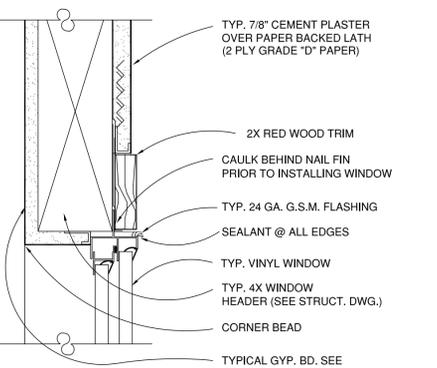
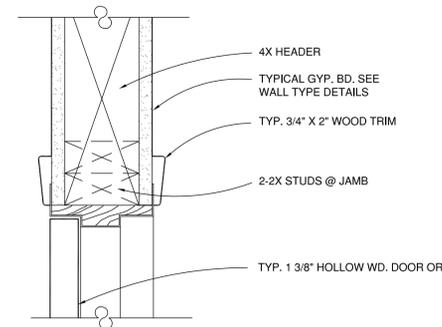
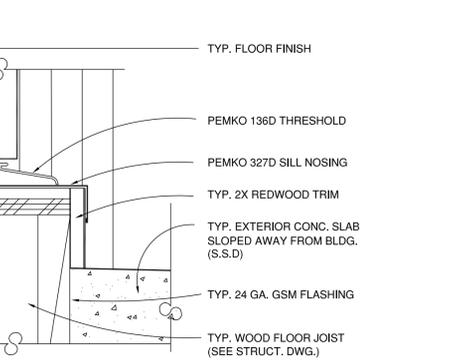
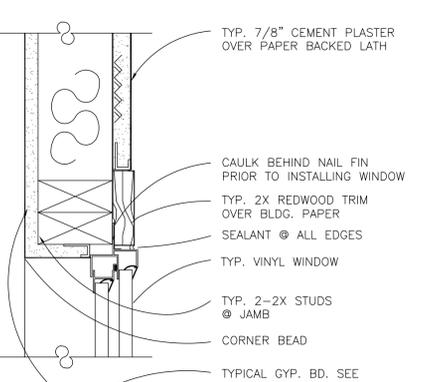
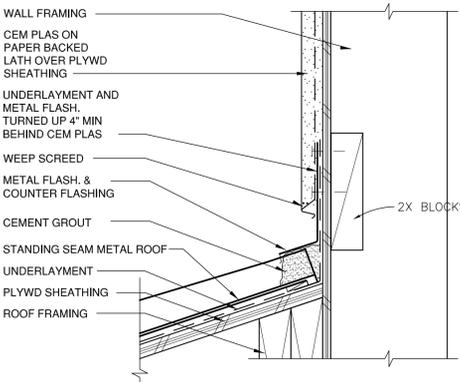
1" 10

VINYL WINDOW HEAD

3" 6

EXTERIOR ROLL-UP DOOR JAMB

3" 2



JOHN WANG ARCHITECT

JOHN WANG
0.408.382.1111
E.JOHN0321@GMAIL.COM

OWNER:
JASPER LIU
605 WESTON DR.
CAMPBELL, CA
chiajasper@gmail.com

LIU RESIDENCE
HOUSE ADDITION AT
605 WESTON DRIVE
CAMPBELL, CA 95008

REVISIONS:

SHEET TITLE:
DETAILS

DATE: 08/28/2024
SCALE: AS SHOWN

PROJECT NO.: 148
DRAWN: JW

SHEET: A4.1

OF SHEETS

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 1 of 10)
GENERAL INFORMATION
01 Project Name: Weston Dr Residence
02 Title: Title 24 Analysis
03 Project Location: 605 Weston Drive
04 City: Campbell
05 Standards Version: 2022
06 Zip code: 95008
07 Software Version: EnergyPro 9.3
08 Climate Zone: 4
09 Front Orientation (deg/ Cardinal): 90
10 Building Type: Single Family
11 Number of Dwelling Units: 1
12 Project Scope: Addition and/or Alteration
13 Number of Bedrooms: 4
14 Addition Cond. Floor Area (ft²): 978
15 Number of Stories: 1
16 Existing Cond. Floor Area (ft²): 1091
17 Fenestration Average U-Factor: 0.4
18 Total Cond. Floor Area (ft²): 2069
19 Glazing Percentage (%): 12.75%
20 ADU Bedroom Count: n/a
21 ADU Conditioned Floor Area: n/a
22 Fuel Type: Natural Gas
23 No Dwelling Units: No
COMPLIANCE RESULTS
01 Building Complies with Computer Performance
02 This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03 This building incorporates one or more Special Features shown below

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 2 of 10)
ENERGY USE SUMMARY
Energy Use Standard Design Source Energy (E01) (kBtu/ft²·yr) Proposed Design Source Energy (E02) (kBtu/ft²·yr) Compliance Margin (E03) Compliance Margin (E04)
Space Heating 0 16.72 0 15.01 0 1.71
Space Cooling 0 26.01 0 22.46 0 3.55
Infiltration 0 0 0 0 0 0
Water Heating 0 27.94 0 27.94 0 0
Self Utilization/Feasibility Credit 0 0 0 0 0 0
Efficiency Compliance Total 0 76.67 0 65.41 0 5.26
Photovoltaics 0 0 0 0 0 0
Battery 0 0 0 0 0 0
Indoor Lighting 0 5.86 0 5.86 0 0
Appl. & Cooling 0 25.48 0 25.49 0 0
Plug Loads 0 32.05 0 32.05 0 0
Outdoor Lighting 0 1.69 0 1.69 0 0
TOTAL COMPLIANCE 0 136.75 0 131.5 0 5.26

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 3 of 10)
ENERGY USE INTENSITY
Gross EUI¹ 18.82 18.63 0.19 1.01
Net EUI² 18.82 18.63 0.19 1.01
REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• Variable capacity heat pump compliance option (verification details from VCHP Staff report, Appendix B, and RAS)
HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CTRs and CTRs are required to be completed in the HERS Register.
• Kitchen range hood
• Verified Refrigerant Charge
• Verified heat pump rated heating capacity
• Wall-mounted thermostat to cover greater than 150 ft² (SC3.4.5)
• Ductless indoor units located entirely in conditioned space (SC3.1.4.18)
BUILDING - FEATURES INFORMATION
01 Project Name: Weston Dr Residence
02 Conditioned Floor Area (ft²): 2069
03 Number of Dwelling Units: 1
04 Number of Bedrooms: 4
05 Number of Zones: 2
06 Number of Ventilation Cooling Systems: 0
07 Number of Water Heating Systems: 1

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 4 of 10)
ZONE INFORMATION
01 Zone Name: Zone 1
02 Zone Type: Conditioned
03 HVAC System Name: HVAC System1
04 Zone Floor Area (ft²): 1091
05 Avg. Ceiling Height: 8.5
06 Water Heating System: DHW Sys 1
07 Status: Existing Unchanged
08 Addition
09 Conditioned
10 HVAC System1
11 Zone Floor Area (ft²): 978
12 Avg. Ceiling Height: 8.5
13 Water Heating System: DHW Sys 1
14 Status: New
OPaque SURFACES
01 Name: Zone 1
02 Zone: Zone 1
03 Construction: R-15 Wall
04 Azimuth: 0
05 Orientation: Right
06 Gross Area (ft²): 224
07 Window and Door Area (ft²): 44
08 U-Factor: 0.90
09 Wall Exceptions: none
10 Status: Existing
11 Verified Existing Condition: No
02 Name: Zone 1
03 Construction: R-15 Wall
04 Azimuth: 90
05 Orientation: Front
06 Gross Area (ft²): 179
07 Window and Door Area (ft²): 56
08 U-Factor: 0.90
09 Wall Exceptions: none
10 Status: Existing
11 Verified Existing Condition: No
03 Name: Zone 1
04 Construction: R-15 Wall
05 Azimuth: 180
06 Orientation: Left
07 Gross Area (ft²): 296
08 Window and Door Area (ft²): 0
09 U-Factor: 0.90
10 Wall Exceptions: Extension
11 Status: New
12 Verified Existing Condition: n/a
04 Name: Zone 1
05 Construction: R-15 Wall
06 Azimuth: 270
07 Orientation: Back
08 Gross Area (ft²): 290
09 Window and Door Area (ft²): 120.4
10 U-Factor: 0.90
11 Wall Exceptions: none
12 Status: New
13 Verified Existing Condition: n/a
Interior Surface
01 Name: Zone 1
02 Construction: R-15 Wall
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 30
06 Window and Door Area (ft²): 0
07 U-Factor: n/a
08 Wall Exceptions: none
09 Status: Existing
10 Verified Existing Condition: No
Attic
01 Name: Zone 1
02 Construction: R-30 Roof Attic
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 224
06 Window and Door Area (ft²): n/a
07 U-Factor: n/a
08 Wall Exceptions: none
09 Status: New
10 Verified Existing Condition: n/a
Basement Floor
01 Name: Zone 1
02 Construction: R-10 Floor Crawlspace
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 978
06 Window and Door Area (ft²): n/a
07 U-Factor: n/a
08 Wall Exceptions: none
09 Status: Existing
10 Verified Existing Condition: No
Rafted Floor 2
01 Name: Zone 1
02 Construction: R-19 Floor Crawlspace
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 978
06 Window and Door Area (ft²): n/a
07 U-Factor: n/a
08 Wall Exceptions: none
09 Status: New
10 Verified Existing Condition: n/a

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 5 of 10)
OPaque SURFACES - CATHEDRAL CEILING
01 Name: Zone 1
02 Construction: R-30 Roof No Attic
03 Azimuth: 90
04 Orientation: Front
05 Gross Area (ft²): 252
06 Window and Door Area (ft²): 0
07 U-Factor: 0.85
08 Wall Exceptions: none
09 Status: No
10 Verified Existing Condition: No
Vault
01 Name: Zone 1
02 Construction: R-30 Roof No Attic
03 Azimuth: 0
04 Orientation: Right
05 Gross Area (ft²): 556
06 Window and Door Area (ft²): 0
07 U-Factor: 0.1
08 Wall Exceptions: none
09 Status: New
10 Verified Existing Condition: n/a
ATTIC
01 Name: Zone 1
02 Construction: Attic Roof/Existing
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 224
06 Window and Door Area (ft²): 0
07 U-Factor: 0.85
08 Wall Exceptions: none
09 Status: No
10 Verified Existing Condition: No
Attic Addition
01 Name: Zone 1
02 Construction: Attic Roof/Addition
03 Azimuth: n/a
04 Orientation: n/a
05 Gross Area (ft²): 5
06 Window and Door Area (ft²): 0
07 U-Factor: 0.1
08 Wall Exceptions: none
09 Status: New
10 Verified Existing Condition: n/a
FENESTRATION / GLAZING
01 Name: Zone 1
02 Surface: Window
03 Orientation: Left Wall
04 Azimuth: 180
05 Height (ft): 1
06 Area (ft²): 14
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No
Window 2
01 Name: Zone 1
02 Surface: Window
03 Orientation: Left Wall
04 Azimuth: 180
05 Height (ft): 1
06 Area (ft²): 6
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No
Window 3
01 Name: Zone 1
02 Surface: Window
03 Orientation: Left Wall
04 Azimuth: 180
05 Height (ft): 1
06 Area (ft²): 12
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No
Window 4
01 Name: Zone 1
02 Surface: Window
03 Orientation: Left Wall
04 Azimuth: 180
05 Height (ft): 1
06 Area (ft²): 12
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No
Window 5
01 Name: Zone 1
02 Surface: Window
03 Orientation: Right Wall
04 Azimuth: 0
05 Height (ft): 1
06 Area (ft²): 13.4
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Existing
12 Verified Existing Condition: No
Window 6
01 Name: Zone 1
02 Surface: Window
03 Orientation: Right Wall
04 Azimuth: 0
05 Height (ft): 1
06 Area (ft²): 6
07 U-Factor: 0.55
08 SHGC: 0.67
09 SHGC Source: Table 110.6-A
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 6 of 10)
FENESTRATION / GLAZING
01 Name: Zone 1
02 Surface: Window
03 Orientation: Right Wall
04 Azimuth: 0
05 Height (ft): 1
06 Area (ft²): 24
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: Altered
12 Verified Existing Condition: No
Glass Door
01 Name: Zone 1
02 Surface: Window
03 Orientation: Front Wall
04 Azimuth: 90
05 Height (ft): 1
06 Area (ft²): 20
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: New
12 Verified Existing Condition: NA
Window 8
01 Name: Zone 1
02 Surface: Window
03 Orientation: Front Wall
04 Azimuth: 90
05 Height (ft): 1
06 Area (ft²): 36
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: New
12 Verified Existing Condition: NA
Window 9
01 Name: Zone 1
02 Surface: Window
03 Orientation: Rear Wall
04 Azimuth: 180
05 Height (ft): 1
06 Area (ft²): 27
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: New
12 Verified Existing Condition: NA
Folding Door
01 Name: Zone 1
02 Surface: Window
03 Orientation: Rear Wall
04 Azimuth: 270
05 Height (ft): 1
06 Area (ft²): 19.4
07 U-Factor: 0.4
08 SHGC: 0.3
09 SHGC Source: NFR
10 Exterior Shading: Bug Screen
11 Status: New
12 Verified Existing Condition: NA
OPaque SURFACES CONSTRUCTIONS
01 Construction Name: R-0 Wall
02 Surface Type: Exterior Walls
03 Construction Type: Wood Framed Wall
04 Framing: 2x4 @ 16 in. O.C.
05 Total Cavity R-value: R-0
06 Exterior / Interior Continuous Insulation: None / None
07 U-Factor: 0.361
08 Assembly Layers: Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
02 Construction Name: R-15 Wall
03 Surface Type: Exterior Walls
04 Construction Type: Wood Framed Wall
05 Framing: 2x4 @ 16 in. O.C.
06 Total Cavity R-value: R-15
07 Exterior / Interior Continuous Insulation: None / None
08 U-Factor: 0.095
09 Assembly Layers: Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
03 Construction Name: R-30 Roof No Attic
04 Surface Type: Cathedral Ceilings
05 Construction Type: Wood Framed Ceiling
06 Framing: 2x12 @ 16 in. O.C.
07 Total Cavity R-value: R-30
08 Exterior / Interior Continuous Insulation: None / None
09 U-Factor: 0.036
10 Assembly Layers: Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-30 / 2x12 Inside Finish: Gypsum Board
04 Construction Name: R-0 Wall
05 Surface Type: Interior Walls
06 Construction Type: Wood Framed Wall
07 Framing: 2x4 @ 16 in. O.C.
08 Total Cavity R-value: R-0
09 Exterior / Interior Continuous Insulation: None / None
10 U-Factor: 0.277
11 Assembly Layers: Inside Finish: Gypsum Board Cavity / Frame: no Insul. / 2x4 Other Side Finish: Gypsum Board

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 7 of 10)
OPaque SURFACE CONSTRUCTIONS
01 Construction Name: Attic Roof/Existing
02 Surface Type: Attic Roof
03 Construction Type: Wood Framed Ceiling
04 Framing: 2x4 @ 24 in. O.C.
05 Total Cavity R-value: R-0
06 Exterior / Interior Continuous Insulation: None / 0
07 U-Factor: 0.644
08 Assembly Layers: Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: no Insul. / 2x4
02 Construction Name: Attic Roof/Addition
03 Surface Type: Attic Roof
04 Construction Type: Wood Framed Ceiling
05 Framing: 2x4 @ 24 in. O.C.
06 Total Cavity R-value: R-0
07 Exterior / Interior Continuous Insulation: None / 0
08 U-Factor: 0.644
09 Assembly Layers: Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: no Insul. / 2x4
03 Construction Name: R-0 Floor Crawlspace
04 Surface Type: Floor Over Crawlspace
05 Construction Type: Wood Framed Floor
06 Framing: 2x12 @ 16 in. O.C.
07 Total Cavity R-value: R-0
08 Exterior / Interior Continuous Insulation: None / None
09 U-Factor: 0.216
10 Assembly Layers: Floor Surface: Carpeted Floor Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-19 / 2x10
04 Construction Name: R-19 Floor Crawlspace
05 Surface Type: Floor Over Crawlspace
06 Construction Type: Wood Framed Floor
07 Framing: 2x10 @ 16 in. O.C.
08 Total Cavity R-value: R-19
09 Exterior / Interior Continuous Insulation: None / None
10 U-Factor: 0.046
11 Assembly Layers: Floor Surface: Carpeted Floor Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-19 / 2x10
05 Construction Name: R-38 Roof Attic
06 Surface Type: Ceilings (below attic)
07 Construction Type: Wood Framed Ceiling
08 Framing: 2x4 @ 24 in. O.C.
09 Total Cavity R-value: R-38
10 Exterior / Interior Continuous Insulation: None / None
11 U-Factor: 0.025
12 Assembly Layers: Over Ceiling Joists: R-28.9 Insul. Cavity / Frame: R-8.1 / 2x4 Inside Finish: Gypsum Board
06 Construction Name: R-30 Roof Attic
07 Surface Type: Ceilings (below attic)
08 Construction Type: Wood Framed Ceiling
09 Framing: 2x4 @ 24 in. O.C.
10 Total Cavity R-value: R-30
11 Exterior / Interior Continuous Insulation: None / None
12 U-Factor: 0.032
13 Assembly Layers: Over Ceiling Joists: R-20.9 Insul. Cavity / Frame: R-8.1 / 2x4 Inside Finish: Gypsum Board
BUILDING ENVELOPE - HERS VERIFICATION
01 Quality Insulation Installation (QI)
02 High R-value Spray Foam Insulation
03 Building Envelope Air Leakage
04 CFM50
05 CFM50
Not Required Not Required N/A n/a n/a

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 8 of 10)
WATER HEATING SYSTEMS
01 Name: Zone 1
02 System Type: Domestic Hot Water (DHW)
03 Distribution Type: Standard
04 Water Heater Name: DHW Heater 1
05 Number of Units: 1
06 Solar Heating System: n/a
07 Compact Distribution: none
08 HERS Verification: n/a
09 Water Heater Name (H): DHW Heater 1 (1)
10 Status: Existing
11 Verified Existing Condition: No
WATER HEATERS
01 Name: DHW Heater 1
02 Heating Element Type: Gas
03 Tank Type: Small Storage
04 # of Units: 1
05 Tank Vol. (gal): 50
06 Heating Efficiency: EF
07 Efficiency: 0.63
08 Rated Input Type: Btu/hr
09 Input Rating or Pilot: 75000
10 Standby Loss or Recovery Eff: 0
11 1st Hc Rating or Flow Rate: n/a
12 Tank Location: n/a
13 Status: Existing
14 Verified Existing Condition: No
WATER HEATING - HERS VERIFICATION
01 Name: DHW Sys 1 - 1/1
02 Pipe Insulation: Not Required
03 Parallel Piping: Not Required
04 Compact Distribution: Not Required
05 Compact Distribution Type: None
06 Recirculation Control: Not Required
07 Shower Drain Water Heat Recovery: Not Required
SPACE CONDITIONING SYSTEMS
01 Name: HVAC System1
02 System Type: Heat pump heating cooling
03 Heating Unit Name: Heat Pump System 1
04 Heating Equipment Count: 1
05 Cooling Unit Name: Heat Pump System 1
06 Cooling Equipment Count: 1
07 Fan Name: n/a
08 Distribution Name: n/a
09 Required Thermostat Type: Setback
10 Status: New
11 Verified Existing Condition: No
12 Existing HVAC System: n/a

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: Weston Dr Residence
Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 9 of 10)
HVAC - HEAT PUMPS
01 Name: Heat Pump System 1
02 System Type: VCHP-Ductless
03 Number of Units: 1
04 Heating Efficiency Type: HSPF
05 HSPF/P1/ COP: 8
06 HSPF/P2/ COP: 8000
07 Cooling Efficiency Type: EER/SEER
08 EER/SEER: 14
09 Zonally Controlled: No
10 Compressor Type: Single Speed
11 HERS Verification: Heat Pump System 1-Hers M3ump
HVAC HEAT PUMPS - HERS VERIFICATION
01 Name: Heat Pump System 1
02 Verified Airflow: Not Required
03 Airflow Target: Not Required
04 Verified EER/SEER: Not Required
05 Verified EER/SEER: Not Required
06 Verified COP: Yes
07 Verified HSPF/P2: No
08 Verified COP 47: Yes
09 Verified Heating COP 17: Yes
VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION - HERS VERIFICATION
01 Name: Heat Pump System 1
02 Certified Low-Static VCHP System: Not required
03 Airflow to Habitables: Required
04 Air Filter Rating: Required
05 Wall Mount Thermostat: Required
06 Air Filter Sizing Sump Pressure Drop Rating: Not required
07 Low Leakage Ducts in Conditioned Space: Not required
08 Minimum Airflow per R4.3.3.4.1: Not required
09 Certified non-continuous Fan Running Continuously: Not required
10 Indoor Fan not Running Continuously: Not required
HERS RATER VERIFICATION OF EXISTING CONDITIONS

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
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Calculation Date/Time: 2024-08-23T12:57:04-07:00
Input File Name: 0240657 Weston Dr Residence.rbd22x
CF18-PRF-01-E (Page 10 of 10)
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I, the undersigned, declare that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Nicholas Bignardi
Signature: [Signature]
Signature Date: 08/23/2024
Company: FRI Energy Consultants, LLC.
Address: 5770 WINFIELD BLVD SPC 15
City/State/Zip: San Jose, CA 95123
Phone: (408) 866-1620
RESPONSIBLE PERSON'S DECLARATION STATEMENT
I, the undersigned, declare that this Certificate of Compliance documentation is accurate and complete.
Responsible Designer Name: Nicholas Bignardi
Signature: [Signature]
Signature Date: 08/23/2024
Company: FRI Energy Consultants, LLC.
Address: 5770 WINFIELD BLVD SPC 15
City/State/Zip: San Jose, CA 95123
Phone: (408) 866-1620
Registration Number: 424-P010186400-000-000-000000-0000
Report Version: 2022.0.000
Schema Version: rev 20220901

FRI Energy Consultants, LLC
5770 Winfield Blvd #15
San Jose, CA 95123
Phone: 408-866-1620
WESTON DR RESIDENCE
605 WESTON DRIVE
CAMPBELL, CA 95008
T24-1

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. (04/02/22)	
Building Envelope:	
§ 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-WQMA/CSA 1011.5 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 110.6-C 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 (BHSG).
§ 110.8(b):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(c):	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(d) and be labeled per § 110-113 when the installation of a cool roof is specified on the CFI.
§ 110.8(d):	Radiant Barrier. When required, radiant barrier 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 R-Value. Roof decks in newly constructed attics in climate zones 4 and 6-16 area-weighted average U-factor not exceeding U-1.94. 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).
§ 150.0(g)1:	Vapor Retarder. In climate zones 1 through 16, the earth floor or unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(g).
§ 150.0(g)2:	Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(i):	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:	
§ 110.5(f):	Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.
§ 150.0(e)3:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioning, Water Heating, and Plumbing System:	
§ 110.4-§ 110.3:	Certification. Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showers/pads, 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-off 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. Unvented service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)6:	Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

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2022 Single-Family Residential Mandatory Requirements Summary	
§ 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(f)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(f)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(f)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(f)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(f)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(f)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 the 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(f)3:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.
Ducts and Fans:	
§ 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 ANSIS/MACNA-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, 4.3.3) 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 other mesh or tapes must be used to seal openings greater than 1/4". 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 duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	Protection of Insulation. Insulation must be protected from damage due to sunlight, moisture, equipment maintenance, and wind. Insulation covering chilled water piping must be protected by a Class I or Class II vapor retarder, 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 outer vapor barrier.
§ 150.0(m)11:	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA.3.1.
§ 150.0(m)12:	Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two-inch depth or can be one inch if 6000 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 filter.*

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2022 Single-Family Residential Mandatory Requirements Summary	
§ 150.0(m)13:	Space Conditioning System Airflow Rate and Fan Efficiency. Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≥ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≥ 0.2 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA.3.3.
Ventilation and Indoor Air Quality:	
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.*
§ 150.0(o)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)1Bii&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)1C-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)1Gii. Enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting § 150.0(o)1Gii-iv. Airflow must be measured by the installer per § 150.0(o)1Giv, 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 RA.3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 § 7.2 at no less than the minimum airflow rates 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 efficiency must be verified in accordance with Reference Residential Appendix RA.3.7. Vented range hoods must be verified per Reference Residential Appendix RA.3.7.4 to confirm it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per § 150.0(o)2.
Pool and Spa Systems and Equipment:	
§ 110.4(a):	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MACDS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions, and must not use electric resistance heating.*
§ 110.4(b)1:	Piping. Any pool or spa heating system or equipment must be installed with at least 3/8 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 scum heating.
§ 110.4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.
Lighting:	
§ 110.9:	Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k)1A:	Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting integral to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1C:	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)1D:	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)1E:	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 hoods) must meet the applicable requirements of § 150.0(k).

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2022 Single-Family Residential Mandatory Requirements Summary	
§ 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 out dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	Accessible Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off.*
§ 150.0(k)2D:	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)2E:	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 bedrooms, 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 out dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2G:	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 all 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:	
§ 110.10(a)1:	Single-family Residences. Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(a)1e.
§ 110.10(a)2:	Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet.*
§ 110.10(a)2:	Azimuth. All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.10(a)3:	Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.
§ 110.10(a)3B:	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 solar zone, measured in the vertical plane.
§ 110.10(a)4:	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.
§ 110.10(a):	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.
§ 110.10(a):	Documentation. A copy of the construction documents or comparable document indicating the information from § 110.10(a)4-c) must be provided to the occupant.
§ 110.10(a)1:	Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(a)2:	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:	

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2022 Single-Family Residential Mandatory Requirements Summary	
§ 150.0(i)6:	Energy Storage System (ESS) Ready. All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backup capacity of 60 amps or more and four or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(i)6, 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(i):	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(i):	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(i):	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."

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HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY					
Project Name: VWeston Dr Residence				Date: 8/23/2024	
System Name: HVAC System				Floor Area: 2,069	
ENGINEERING CHECKS		SYSTEM LOAD			
Number of Systems	1	COIL COOLING PEAK		COIL HTG. PEAK	
Heating System		CFM	Sensible	Latent	CFM
Output per System	60,000	Total Room Loads			
Total Output (Btuh)	60,000	833	17,855	815	731
Output (Btuh/sft)	29.0	Return Vented Lighting			
Cooling System		CFM	Sensible	Latent	CFM
Output per System	36,000	Return Air Ducts			
Total Output (Btuh)	36,000	0	0	0	0
Total Output (Tons)	3.0	Return Fan			
Total Output (Btuh/sqft)	17.4	Supply Air Ducts			
Total Output (sqft/Ton)	68.7	TOTAL SYSTEM LOAD			
Air System		CFM	Sensible	Latent	CFM
CFM per System	0	HVAC EQUIPMENT SELECTION			
Airflow (cfm)	0.00	Ductless Heat Pump			
Airflow (cfm/sqft)	0.0	34,164			
Airflow (cfm/Ton)	0.0	0			
Outside Air (%)	0.0%	Total Adjusted System Output			
Outside Air (cfm/sqft)	0.00	(Adjusted for Peak Design conditions)			
Note: values above given at ARI conditions		TIME OF SYSTEM PEAK			
		Aug 3 PM			
		Jan 1 AM			
HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)					
COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)					

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WESTON DR RESIDENCE
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GENERAL STRUCTURAL NOTES

GENERAL

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUB-CONTRACTORS. STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FROM STRUCTURAL PLANS.
- MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE 2022 CALIFORNIA BUILDING CODE (CBC), TITLE 24, AND APPLICABLE LOCAL CODES AND ORDINANCES.
- ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
- NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- WHERE NO DETAILS SHOWN OR NOTED ON THE DRAWINGS, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- OPENINGS, POCKETS, SLEEVES, ETC., SHALL NOT BE PLACED IN SLABS, BEAMS, WALLS, COLUMNS AND FOOTINGS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOADS SHALL NOT EXCEED DESIGN LIVE LOADS FOR EACH PARTICULAR LEVEL. PROVIDE ADEQUATE SHORING AND BRACING IF LOAD EXCEEDS DESIGN LIVE LOAD OR WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- THIS SET OF DRAWINGS REPRESENT THE FINISHED STRUCTURE. METHOD OF CONSTRUCTION NOT NECESSARY INDICATED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO BRACING, SHORING, SCAFFOLDING, ETC.

FOUNDATION

- NOT USED.
- THE SOILS BEARING PRESSURE = 1,500 PSF
- FOUNDATION DESIGN SHALL BE 15" MIN. DEPTH OF FTG BELOW LOWEST ADJACENT FINAL GRADE, AND 12" MINIMUM WIDTH FOR 1 STORY, 15" MIN. WIDTH FOR 2 STORY, BEAR ON FIRM NATIVE OR PROPERLY COMPACTED SOILS.
- VERIFY ALL HOLDOWN LOCATIONS WITH FRAMING PLANS. CONFIRM LAYOUT BEFORE CONCRETE IS POURED.
- BEFORE ANY CONCRETE IS PLACED, EXCAVATIONS SHALL BE CHECKED AND APPROVED BY A DEPUTY INSPECTOR TO ENSURE COMPLIANCE WITH THE REQUIREMENTS.
- ALL FILL MATERIAL IS TO BE APPROVED BY DEPUTY INSPECTOR AND APPROVED BY A QUALIFIED DEPUTY INSPECTOR TO ENSURE COMPLIANCE W/ THE REQUIREMENTS.
- SUBGRADE UNDER ALL SLABS SHALL CONSIST OF 2" CLEAN SAND OVER 10 MIL. VAPOR BARRIER. SAND SHALL BE PRE MOISTENED PRIOR TO POURING CONCRETE.
- SIDE OF FOUNDATION MAY BE POURED AGAINST STABLE EARTH UNLESS SHOWN OR NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE TEMPORARY AND PERMANENT DEWATERING FOR EITHER SURFACE WATER, GROUND WATER OR SEEPAGE WATER.
- CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATIONS AND BACKFILLING.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL CRIBBING SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANK.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL SHALL BE PROPERLY COMPACTED.
- CONTRACTOR SHALL BRACE OR PROTECT FROM LATERAL LOADS FOR THE PIT AND RETAINING WALLS UNTILL ATTACHING SLABS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH.
- NO VERTICAL EXCAVATIONS 4'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESEND SHALL BE PERMITTED.

STRUCTURAL DESIGN CRITERIA

ROOF LOAD: DL= 15 PSF LL= 20 PSF
 FLOOR LOAD: DL= 15 PSF LL= 40 PSF
 CEILING LOAD: DL= 5 PSF LL= 10 PSF
 WALL LOAD: EXT.= 15 PSF W/ STUCCO 12 PSF W/O STUCCO
 INT.= 8 PSF AVE.= 12 PSF W/O STUCCO

WIND DESIGN DATA:
 BASIC WIND SPEED 91 MPH
 IMPORTANCE FACTOR I 1
 OCCUPANCY CATEGORY II
 WIND EXPOSURE B

EARTHQUAKE DESIGN DATA:
 USE EQUIVALENT LATERAL FORCE PROCEDURE
 IMPORTANCE FACTOR I 1
 SITE CLASS D (DEFAULT)
 Ss 2.119
 S1 0.759
 SDS 1.695
 SD1 0.759
 SEISMIC DESIGN CATEGORY E
 BASIC SEISMIC FORCE-RESISTING SYSTEM ...15 (ASCE 7-16 TABLE 12.2-1)
 BASE SHEAR V=C_s*W
 C_s 0.261
 DESIGN BASE SHEAR 0.7*W=0.183*W (ASD LEVEL)
 R 6.5

MANUFACTURED WOOD MEMBERS

- WHERE PARALLAM 'PSL' MEMBERS ARE INDICATED ON THE PLANS AND SCHEDULES THEY SHALL BE MANUFACTURED BY THE LEVEL TRUSS-JOIST OR BE AN APPROVED EQUAL PRODUCT. "PSL" (ICC ESR-1387), GRADE: 2.0E, E=2000ksi, Fb=2900psi, Fv=290psi

STRUCTURAL OBSERVATION

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE ENGINEER OR ARCHITECT SHALL SUBMIT WRITTEN CERTIFICATION TO THE BUILDING OFFICIAL STATING THAT SITE VISITS HAVE BEEN MADE AND WHETHER OR NOT ANY OBSERVED DEFICIENCIES HAVE BEEN CORRECTED TO CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS OR REVISED DETAILS APPROVED BY THE BUILDING OFFICIAL.

CONCRETE

- CONCRETE WORK SHALL CONFORM TO THE REQUIREMENT OF THE ACI BUILDING CODE (ACI 318-19), 2022 CBC AND TITLE 24. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF STANDARD PRACTICE (ACI-315). ALL CONCRETE SHALL BE NORMAL WEIGHT CONFORMING TO THE FOLLOWING:

LOCATION	28-DAY MIN. COMPRESSIVE STRENGTH	MAXIMUM AGGREGATE SIZE (IN.)	MIX DESIGN SLUMP (INCHES)
A. SLAB ON GRADE	2500 psi*	1	3 (4" MAX)
B. FOOTING	2500 psi*	1	4 (5" MAX)

* W/5.25 SACKS CEMENT (MIN.)
 * WHERE SULFATE EXPOSURE LEVEL IS SEVERE USE 4500 psi WITH W/C RATIO OF 0.45 (MAX) W/5.5 SACKS CEMENT (MIN.) FOR 4500 PSI
- ALL SAW CUTS IN SLAB ON GRADE SHALL BE MADE NOT LATER THAN 24 HOURS AFTER PLACING CONCRETE.
- CEMENT SHALL CONFORM TO ASTM C-150, TYPE II CEMENT.
- COURSE AGGREGATE SHALL BE HARD, DURABLE CRUSHED STONE OR GRAVEL GRADED PER ASTM C-33.
- MIXING WATER SHALL BE CLEAN, FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS, OILS, SALTS AS PER ACI 318.
- CONCRETE SHALL CONFORM TO ASTM C-94. WATER-CEMENT RATIO IS LESS THAN 0.50
- UNLESS SHOWN OR NOTED OTHERWISE, CONCRETE COVERAGE FOR REINFORCING BAR TO FACE OF BAR SHALL BE AS FOLLOWS:

A. CONCRETE IN CONTACT WITH EARTH, UNFORMED	3"
B. CONCRETE IN CONTACT WITH EARTH, FORMED	2"
C. WALLS	1.5"
D. BEAMS, GIRDERS & COLUMNS (TO TIES OR STIRRUPS)	1.5"
- SAND SHALL BE CLEAN, HARD, DURABLE, WASHED FREE FROM SILT, LOAM OR CLAY.
- CONSTRUCTION JOINTS:
 THE SURFACES OF ALL CONSTRUCTION JOINTS SHALL BE CLEAN, FREE FROM LOOSE DEBRIS. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED.
- REMOVE LOOSE SOIL, SAWDUST, AND OTHER DEBRIS FROM THE FORMS PRIOR TO PLACING CONCRETE.

CONCRETE REINFORCEMENT NOTES

- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM DESIGNATION A-615, U.O.N. WITH A SPECIFIED YIELD STRENGTH $f_y = 60, 000$ PSI.
- DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO OR EQUAL THAT SET FORTH IN THE MANUAL OF STANDARD PRACTICE (ACI-315) FOR DETAILING REINFORCED CONCRETE STRUCTURES, AND BETTER WHERE REQUIRED BY THE DRAWINGS.
- STANDARD HOOKS SHALL COMPLY WITH RECOMMENDED SIZES AS SHOWN IN ABOVE MANUAL, UNLESS OTHERWISE NOTED.
- SECURE ALL DOWELS, ANCHOR BOLTS AND OTHER INSERTS IN PLACE PRIOR TO CONCRETE PLACEMENT.
- PROVIDE A SLEEVE AT PIPES AND DUCTS THROUGH CONCRETE. VERIFY OPENINGS WITH PLUMBER AND ELETRICIAN.
- PROVIDE SUITABLE DEVICES TO HOLD THE REINFORCING IN ITS TRUE HORIZONTAL AND VERTICAL POSITIONS. THESE DEVICES SHALL BE SUFFICIENTLY RIGID AND NUMEROUS TO PREVENT DISPLACEMENT OF THE REINFORCING DURING THE PLACING OF THE CONCRETE.
- CHAIRS OR SPACES FOR REINFOCEING SHALL BE PLASTIC OR PLASTIC COATED WHEN RESTING ON EXPOSED SURFACES.
- PROVIDE DOWELS FOR WALLS AND COLUMNS MATCHING VERTICAL REINFORCING SIZE AND SPACING UNLESS OTHERWISE NOTED.
- BEND REINFORCING STEEL COLD UNLESS AUTHORIZED BY ARCHITECT (STRUCTURAL ENGINEER). REINFORCING BARS SHALL NOT BE RE-BENT WITHOUT PRIOR APPROVAL OF ARCHITECT (STRUCTURAL ENGINEER).
- REINFORCING STEEL SHALL BE CLEAN OF MUD, OIL OR OTHER COATING AFFECTING BONDING WITH CONCRETE.
- A CERTIFIED COPY OF MILL TEST ON EACH HEAT OF REINFORCING STEEL DELIVERED SHOWING PHYSICAL AND CHEMICAL ANALYSIS SHALL BE PROVIDED UPON REQUEST AT THE TIME OF SHIPMENT.
- ALL REQUIREMENT OF CONCRETE REINFORCEMENT NOT COVERED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE".

EPOXY ANCHORS

- EPOXY FOR EPOXY ANCHORS SHALL BE SET-XP EPOXY BY "SIMPSON STRONG-TIE" (ICC ESR. #2508)
- ANCHORS USED FOR EPOXY ANCHORS SHALL BE ASTM A-307 THREADED RODS UNO. SIZE AND EMBEDMENT SHALL BE AS INDICATED ON PLANS.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE EPOXY MANUFACTURER'S RECOMMENDATIONS AND THE CURRENT ICC REPORT.
- SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH CBC-2022 SECTION 1704 AND IN ACCORDANCE WITH THE SPECIFIC SPECIAL INSPECTION REQUIREMENTS SET FORTH IN THE CORRESPONDING ICC REPORT.
- DRILLED HOLES SHALL BE CLEANED OF DUST AND ANY DEBRIS USING NYLON BRUSH AND COMPRESSED AIR. OIL, SCALE, AND RUST SHALL BE REMOVED FROM THREADED RODS PRIOR TO INSTALLATION.
- UNLESS NOTED OTHERWISE IN THE PLANS, EPOXY ANCHORS SHALL HAVE THE FOLLOWING MINIMUM EMBEDMENT

BAR SIZE	MINIMUM EMBEDMENT		REMARKS
#3	3 1/2"		
#4 OR 1/2"Ø	4 1/4"	*	
#5 OR 5/8"Ø	5 1/2"		
#6 OR 3/4"Ø	6 3/4"		

* UNLESS NOTED OR DETAILED

WOOD

- ALL LUMBER SHALL BE GRADE MARKED DOUGLAS FIR-LARCH AND DOC PS20 SHALL HAVE THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE:

JOISTS & RAFTERS	GRADE NO. 2 OR BETTER
BEAMS & STRINGERS	GRADE NO. 1 OR BETTER
DOUBLE TOP PLATES	GRADE NO. 1 OR BETTER
2X4 STUDS	CONSTRUCTION GRADE OR BETTER
3X4 & 2X6 STUDS	GRADE NO. 2 OR BETTER
POSTS AND TIMBERS	GRADE NO. 1 OR BETTER
LAGGING	GRADE NO. 2 OR BETTER
- PLYWOOD SHEATHING SHALL BE FULL SIZE SHEET WHERE POSSIBLE WITH 48" X 32" MINIMUM SHEET SIZE AND LAID CONTINUOUSLY OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.

A. FLOOR OR TERRACE SHEATHING SHALL BE GRADE MARKED "D.F.P.A. EXTERIOR SHEATHING C-D GRADE" 1 1/8" THICK WITH EXTERIOR GLUE. PANEL I.D. RATING 32/16 OR BETTER. EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS, NAILED WITH 10d DEFORMED SHANK NAILS AT 6" O.C. AT EDGES AND BOUNDARIES, AT 10" O.C. IN FIELD. U.O.N. FLOOR SHEATHING SHOULD BE GLUE-NAILED TO JOIST, USE T&G 3/4" P.W.
B. ROOF SHEATHING SHALL BE GRADE MARKED "D.F.P.A. EXTERIOR SHEATHING C-D GRADE" 1/2" THICK WITH EXTERIOR GLUE. PANEL SPAN RATING 24/0 OR BETTER. NAILED WITH 8d COMMON NAILS AT 6" O.C. AT EDGES AND BOUNDARIES, AT 12" O.C. IN FIELD UNLESS NOTED OTHERWISE.
C. WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY, SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PS1 AND/OR PS2.
- ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS NOTED OTHERWISE. SEE FRAMING PLANS OR DETAILS FOR NAIL SIZES AND SPACINGS. NAILS THAT NOT DETAILED OR NOTED SHALL BE IN ACCORDANCE WITH 2022 CBC TABLE 2304.10.1 - FASTENING SCHEDULE.
- ALL JOIST HANGERS AND FRAMING CONNECTORS SHALL BE "SIMPSON" OR APPROVED EQUAL.
- NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED.
- BOLT HOLES SHALL BE NOMINAL DIAMETER OF BOLT PLUS 1/16 INCH. PROVIDE WASHERS BETWEEN BOLT HEADS OR NUTS AND WOOD MEMBERS.
- A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH ANCHOR BOLT TO THE PLATE BEFORE CLOSING IN COMPLETION OF JOB.
- ALL SILL PLATES RESTING ON CONCRETE OR MASONRY THAT ARE LESS THAN 8" ABOVE GRADE SHALL BE PRESSURE TREATED DOUGLAS FIR.
- ALL SILL BOLTS SHALL BE PLACED STARTING 9" FROM THE ENDS OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS AS NOTED ON THE PLANS.
- BLOCKING OR BRIDGING SHALL BE PROVIDED AS REQUIRED PER C.B.C.
- PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS THAT ARE PARALLEL TO JOISTS. USE 2-16d NAILS AT 16" O.C. TO NAIL THE DOUBLE JOISTS TOGETHER.
- TOP PLATES FOR ALL STUD WALLS SHALL BE 2-2X. LAP FOR TOP PLATES SHALL BE 48" LONG MINIMUM NAILED WITH 16d AT 4" AT EACH LAP UNLESS NOTED OTHERWISE. SPLICES IN UPPER AND LOWER PLATES SHALL BE STAGGERED 10'-0" MINIMUM.
- PRE-DRILL FOR NAILING AS REQUIRED WHEN NAIL SPACING RESULTS IN WOOD SPLITTING. PRE-DRILL HOLES SHALL BE SMALLER THAN THE DIAMETER OF THE NAILS.
- ALL WOOD STUD WALLS SHALL HAVE 2X4 STUDS AT 16" O.C. WHEN HEIGHT BETWEEN LATERAL SUPPORTS LESS THAN 10'-0". WHEN HEIGHT BETWEEN LATERAL SUPPORTS MORE THAN 10'-0", USE 2X6 STUDS AT 16" O.C. UNLESS NOTICED OTHERWISE.
- THE BOLT HOLES SHALL BE 1/16" (MAX.) OVERSIZED AT THE CONNECTOR OF THE HOLD-DOWN TO THE POST. "INSPECTOR TO VERIFY."
- THE HOLD-DOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- APPROVED PLATE WASHERS, IN-LIEU OF CUT WASHERS, SHALL BE PROVIDED FOR ALL PLYWOOD SHEARWALL SILL PLATE ANCHOR BOLTS.
- THE SILL PLATE ANCHOR BOLTS AND HOLD-DOWN CONNECTOR BOLTS AT ALL PLYWOOD SHEARWALL SHALL HAVE THE PLATE WASHERS AS LISTED IN ITEM 20.
- CUTTING OR NOTCHING OF WOOD STUDS OR PLATES SHALL NOT EXCEED 25% OF THE STUD/PLATE WIDTH WITH THE EXTERIOR AND BEARING WALL AND NOT TO EXCEED 40% OF THE STUD/PLATE WIDTH IN NONBEARING PARTITIONS. BORED HOLES DIAMETER IS LIMITED TO 40% OF THE STUD/PLATE WIDTH IN ANY STUD AND MAY BE 60% IN NONBEARING PARTITIONS OR WHEN THE BORED STUD IS DOUBLED.
- PLATE WASHERS FOR ALL ANCHOR BOLTS TYPICAL:

BOLT SIZE	PLATE SIZE (ASTM A-36)	MIN. EDGE DISTANCE (in)
5/8"Ø	0.229"x3"x3"	1 7/8
3/4"Ø	0.229"x3"x3"	2 1/2
7/8"Ø	5/16"x3"x3"	2 5/8
1 1/4"Ø	3/8"x3 1/2"x3 1/2"	3 3/4

NOTE:

- APPROVE PLATE WASHERS TO BE USED FOR PLYWOOD SHEARWALL SILL PLATE ANCHOR BOLTS AND FOR HOLDOWN CONNECTOR BOLTS AT SHEARWALLS. FOR WOOD TO WOOD OR WOOD TO STEEL CONNECTION.

FASTENING/NAILING SCHEDULE

CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8D
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8D
3. 1" X 6" (25 Mm X 152 Mm) SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8D
4. WIDER THAN 1" X 6" (25 Mm X 152 Mm) SUBFLOOR TO EACH JOIST, FACE NAIL	3-8D
5. 2" (51Mm) SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16D
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	16D AT 16" (406 Mm) O.C.
SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	3-16D PER 16" (406 Mm)
7. TOP PLATE TO STUD, END NAIL	2-16D
8. STUD TO SOLE PLATE	4-8D, TOENAIL OR 2-16D, END NAIL
9. DOUBLE STUDS, FACE NAIL	16D AT 24" (610 Mm) O.C.
10. DOUBLED TOP PLATES, TYPICAL FACE NAIL	16D AT 16" (406 Mm) O.C.
SOLE PLATE TO DOUBLE TOP PLATES, LAP SPLICE	8-16D
11. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL	3-8D
12. RIM JOIST TO TOP PLATE, TOENAIL	8D AT 6" (152 Mm) O.C.
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16D
14. CONTINUOUS HEADER, TWO PIECES	16D AT 16" (406 Mm) O.C. ALONG EACH EDGE
15. CEILING JOIST TO PLATE, TOENAIL	3-8D
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8D
17. CEILING JOIST, LAP OVER PARTITIONS, FACE NAIL	3-16D
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16D
19. RAFTER TO PLATE, TOENAIL	3-8D
20. 1" (25 Mm) BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8D
21. 1" X 8" (25 Mm X 203 Mm) SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2-8D
22. WIDER THAN 1" X 8" (25 Mm X 203 Mm) SHEATHING TO EACH BEARING, FACE NAIL	3-8D
23. BUILT-UP CORNER STUDS	16D AT 24" (610 Mm) O.C.
24. BUILT-UP GIRDER AND BEAMS	20D AT 32" (813 Mm) O.C. AT TOP AND BOTTOM AND STAGGERED 2-20D AT ENDS AND AT EACH SPLICE
25. 2" (51Mm) PLANKS	2-16D AT EACH BEARING
26. WOOD STRUCTURAL PANELS AND PARTICLEBOARD: SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING): (1 INCH = 25.4Mm)	
1/2" AND LESS	6D ¹
19/32" - 3/4"	8D ¹ OR 6D ¹
7/8" - 1"	8D ¹
1 1/8" - 1 1/4"	10D ¹ OR 8D ¹
COMBINATION SUBFLOOR-UNDERLAYMENT (TO FRAMING): (1 INCH = 25.4 Mm)	
3/4" AND LESS	6D ¹
7/8" - 1"	8D ¹
1 1/8" - 1 1/4"	10D ¹ OR 8D ¹
1 1/8" - 1 1/4"	
27. PANEL SIDING (TO FRAMING)	
1/2" (13Mm) OR LESS	6D ¹
5/8" (16Mm)	8D ¹
28. FIBERBOARD SHEATHING:	
1/2" (13Mm) OR LESS	NO. 11 GA. ¹
	6D ¹
	NO. 16 GA. ¹
	NO. 11 GA. ¹
	8D ¹
	NO. 16 GA. ¹
29. INTERIOR PANELING	
1/4" (6.4 Mm)	4D ¹
3/8" (9.5 Mm)	6D ¹

- COMMON NAILS MUST BE USED EXCEPT WHERE OTHERWISE STATED.
- NAILS SPACED AT 6 INCHES (152 Mm) ON CENTER AT EDGES, 12 INCHES (305 Mm) AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES (152 Mm) AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES (1219 Mm) OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAMS AND SHEAR WALLS, REFER TO SECTION 2314.3. NAILS FOR WALL SHEATHING MAY BE COMMON, BOX OR CASING.
- COMMON OR DEFORMED SHANK.
- COMMON
- DEFORMED SHANK.
- CORROSION-RESISTANT SIDING OR CASING NAILS CONFORMING TO REQUIREMENTS OF SECTION 2325.1.
- FASTENERS SPACED 3 INCHES (76 Mm) ON CENTER AT EXTERIOR EDGES AND 6 INCHES (152 Mm) ON CENTER AT INTERMEDIATE SUPPORTS.
- CORROSION-RESISTANT ROOFING NAILS WITH 7/16 INCH-DIAMETER (11 Mm) HEAD AND 1 1/2-INCH (38 Mm) LENGTH FOR 1/2-INCH (13 Mm) SHEATHING AND 1 3/4-INCH (44 Mm) LENGTH FOR 25/32-INCH (20 Mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2325.1.
- CORROSION-RESISTANT STAPLES WITH NORMAL 7/16-INCH (11 Mm) CROWN AND 1 1/8-INCH (29 Mm) LENGTH FOR 1/2-INCH (13MM) SHEATHING AND 1 1/2-INCH (38 Mm) LENGTH FOR 25/32-INCH (20 Mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2325.1.
- PANEL SUPPORTS AT 16 INCHES (406 Mm) [20 INCHES (508 Mm) IF STRENGTH AXIS IN LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED], CASING OR FINISH NAILS SPACED 6 INCHES (152 Mm) ON PANEL EDGES, 12 INCHES (305 Mm) AT INTERMEDIATE SUPPORTS.
- PANEL SUPPORTS AT 24 INCHES (610 Mm), CASING OR FINISH NAILS SPACED 6 INCHES (152 Mm) ON PANEL EDGE, 12 INCHES (305 Mm) AT INTERMEDIATE SUPPORTS.

ABBREVIATION

A.B.	ANCHOR BOLT	OMRF	ORDINARY MOMENT RESISTING FRAME
BLK.	BLOCK	MAX.	MAXIMUM
BLK'G	BLOCKING	M.B.	MACHINE BOLT
B' BOT.	BOTTOM	MIN.	MINIMUM
CJP	COMPLETE JOINT PENETRATION	N.I.C.	NOT IN CONTRACT
CONC.	CONCRETE	N.T.S.	NOT TO SCALE
CONN.	CONNECTION	NEW OR (N)	NEW
CONT.	CONTINUOUS	O.C.	ON CENTER
D.J.	DOUBLE JOIST	O.H.	OPPOSITE HAND
DBL	DOUBLE	OPNG.	OPENING
DWG. DRWG	DRAWING	PL.	PLATE
E.F.	EACH FACE	P.T.	PRESSURE TREATED
EL.	ELEVATION	PSF	POUNDS PER SQUARE FOOT
E.N.	EDGE NAILING	PW	PLYWOOD
EXIST. OR (E)	EXISTING	STD.	STANDARD
E.S.	EACH SIDE	S.A.D.	SEE ARCHITECTURAL DRAWING
EXT.	EXTERIOR	SIM.	SIMILAR
E.W.	EACH WAY	STGG'D	STAGGERED
HSB	HIGH STRENGTH BOLT	SYMM.	SYMMETRICAL
		T&B	TOP AND BOTTOM
		TYP.	TYPICAL
		U.O.N.	UNLESS OTHERWISE NOTED
		V.I.F.	VERIFY IN FIELD



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PROJECT:

RESIDENCE
 HOUSE ADDITION & REMODEL

605 WESTON DR, CAMPBELL, CA 95008

REVISION

#	DATE	DESCRIPTION
1	8/20/2024	ORIGINAL ISSUED
2		
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11		

DATE: 08/20/2024

DRAWN: WL

CHECKED BY: B.Z.

PROJECT NO.: S24344

SHEET TITLE:

GENERAL
 STRUCTURAL
 NOTES

SHEET OF:

S-0

SPECIAL INSPECTION PROGRAM AND STRUCTURAL TEST

- THIS SECTION APPLIES TO THE STRUCTURAL PORTIONS OF THE PROJECT REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR'S DUTIES ARE AS DESCRIBED IN CBC 1701.1 AND CBC 1704.4. COPIES OF TEST RESULTS AND FINAL REPORTS SHALL BE FURNISHED TO THE ENGINEER IN ADDITION TO OTHER NORMAL DISTRIBUTIONS WITHIN ONE WEEK OF THE TEST OR INSPECTION.
- ALL TEST AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY EMPLOYED BY THE OWNER OR THE ENGINEER OR THE ARCHITECT AND NOT THE CONTRACTOR PER CBC SECTION 106.3.5. JOB SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE A SPECIAL INSPECTION. (NOTE: FOUNDATIONS INSPECTIONS LISTED BELOW SHALL BE PROVIDED BY THE GEOTECHNICAL ENGINEER).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TEST AND INSPECTION FIRM WITH A SCHEDULE TO FACILITATE THE TEST AND INSPECTION COORDINATION OF WORK.
- IN ADDITION TO THE REQUIRED INSPECTIONS, THE FOLLOWING CHECKED ITEMS WILL REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1704.5 OF THE CALIFORNIA BUILDING CODE.

ITEM	REQ'D. IF CHECKED	REMARKS
GRADING AND SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION SEE FOUNDATION THIS SHEET.		
DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL REINFORCED CONCRETE, WITH THE EXCEPTION OF FOUNDATION CONCRETE WHEN THE STRUCTURAL DESIGN STRENGTH IS NO GREATER THAN FC = 2500 PSI. U.N.O.		
DURING PLACING OF AND STRESSING OF PT TENDONS		
ALL STRUCTURAL FIELD WELDING, INCLUDING WELDING OF STRUCTURAL STEEL, REINFORCING STEEL, AND STEEL DECKING.		
INSTALLATION AND TIGHTENING OPERATIONS FOR ALL HIGH-STRENGTH FRICTION BOLTING (A325F) AND (A490F). INSTALLATION AND TIGHTENING OPERATIONS FOR HIGH-STRENGTH ANCHOR BOLTS.		
DURING INSTALLATION OF EPOXY AND/OR POST-INSTALLED CONCRETE ANCHORS.	●	
DURING THE PLACEMENT OF AND TAKING OF TEST SPECIMENS FOR ALL MASONRY UNLESS SPECIFICALLY INDICATED AS NOT REQUIRING SPECIAL INSPECTION.		
DURING PLACING OF REINFORCING STEEL.		
ANCHOR BOLTS IN CONCRETE AND/OR MASONRY.	●	
DURING THE ALL MASONRY CONSTRUCTION ASSEMBLY		
DURING INSTALLATION OF WOOD SHEAR WALLS, DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS (REQUIRED AT WOOD FASTENERS ARE 4" O.C. OR LESS)	●	

- APPROVED FABRICATORS: (MUST SUBMIT CERTIFICATE OF COMPLIANCE) FOR ALL OFFSITE FABRICATION SUCH AS STRUCTURAL STEEL, GLU-LAMS, PRECAST CONCRETE, ETC.
- ALL STRUCTURAL CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1905.6. RESULTS OF TESTS SHALL BE SUBMITTED BY THE TESTING AGENCY TO THE ENGINEER FOR REVIEW. WHERE STRENGTH TEST RESULTS INDICATE A STRENGTH LOWER THAN THE SPECIFIED COMPRESSIVE STRENGTH, FURTHER INVESTIGATION SHALL BE MADE PER CBC SECTION 1905.6.4 AT THE EXPENSE OF THE CONTRACTOR.
- PER CITY'S BUILDING OFFICIAL REQUIREMENT, SPECIAL INSPECTIONS SHALL BE PERFORMED BY ONE OF CITY PRE-APPROVED SPECIAL INSPECTION AGENCIES. SEE BUILDING DEPARTMENT PAGE ON CITY'S WEB SITE FOR LIST OF PRE-APPROVED AGENCIES. ENGINEER OF RECORD MAY ALSO PERFORM THOSE INSPECTIONS.

FOUNDATION NOTES

- SEE SPECIFICATIONS ON SHEET S-0 FOR ADDITIONAL INFORMATION.
- BUILDING PAD SOIL BEARING VALUE SHOULD BE AT LEAST 1500 P.S.F. (CBC TABLE 1806.2).
- CEMENT USED IN FOUNDATIONS SHALL BE TYPE II UNLESS OTHERWISE REQUIRED BY THE SOIL ENGINEER.
- THE FLOOR SLAB SHALL BE POURED LEVEL TO WITHIN 1/8 INCH IN 10 FEET.
- THE FLOOR SLAB AND FOUNDATION MAY BE POURED HOMOGENEOUSLY (AT THE SAME TIME) OR IN TWO POURS, WITH A COLD JOINT BETWEEN THE SLAB AND FOUNDATION, AT THE CONTRACTOR'S DISCRETION. THE DETAILS DRAWN GENERALLY SHOW TWO POURS.
- ANCHOR BOLTS: AT ALL EXTERIOR WALLS, INSTALL A 5/8" DIA. ANCHOR BOLT @ 48" O.C. WITH MINIMUM EMBEDMENT OF 7 INCHES INTO CONCRETE (U.N.O. ON SHEAR WALL SCHEDULE) INCLUDING AT LEAST ONE WITHIN A MAXIMUM OF 9" FROM EACH END. PLATES SMALLER THAN 24" IN LENGTH, SHALL BE PROVIDED WITH AT LEAST TWO ANCHOR BOLTS UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE ALL EXTERIOR WALLS AS INDICATED ON PLANS. SEE FLOOR FRAMING PLAN FOR REFERENCE IN PROVIDING AN EXTENSION OF ANCHOR BOLTS ABOVE CONCRETE. HARDWARE SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
- ANY PENETRATIONS INTO PRESSURE TREATED WOOD MUST BE GALVANIZED OR STAINLESS.
- FOUNDATION SILL PLATE SHALL BE PRESSURE TREATED LUMBER.
- REFER TO ARCH. DWG. FOR TOP-OF-SLAB ELEVATIONS.
- NEW/EXISTING OR DEMO STUD WALLS NEED TO BE VERIFIED WITH ARCH. DRAWINGS.
- ALL HOLD-DOWNS ANCHOR BOLTS AND STRAPS MUST BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION AND POURING CONCRETE.
- COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- ANY FASTENERS OR HARDWARE IN CONTACT WITH P.T. WOOD OR CONCRETE AS EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED.
- ANY WOOD POSTS EMBEDDED IN CONCRETE PIERS SHALL BE SPECIFIED AS P.T. POSTS.
- "SW-#" ARE REFERENCE FOR SHEAR WALL CALCULATIONS. SEE STRUCTURAL CALCULATION FOR SHEAR WALL ANALYSIS.
- STRUCTURAL OBSERVATION BY THE ENGINEER FOR EPOXY ANCHOR HOLD-DOWN ARE NEEDED.
- THE CONTRACTOR SHALL VERIFY THE TYPE OF EXISTING FOUNDATION SYSTEM PRIOR TO BEGINNING THE WORK. IF THE ACTUAL EXISTING FOUNDATION SYSTEM IS FOUND TO DIFFER FROM THE FOUNDATION SYSTEM SHOWN IN THE DRAWINGS THE EOR SHALL PROVIDE REVISED FOUNDATION REVISED FOUNDATION DESIGN CALCULATIONS, PLAN, AND DETAILS TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH THE WORK

SHEAR WALL SCHEDULE

I.D.	PLF S-SEIS W-WIND	SHEAR MATERIAL	EDGE NAILING	FIELD NAILING (INTERMEDIATE)	SILL NAILING @EA 16" O.C. (FOOTNOTE 2)	BLOCK NAILING @EA 16" O.C. (FOOTNOTE 3)	ANCHOR BOLTS SCHEDULE (FOOTNOTE 3)
P1	260	3/8" CDX (OSB)	8D COMMON OR GALV BOX @ 6" BLOCK ALL EDGES 2X (MUD & SOLE)	8D COMMON OR GALV BOX @ 12"	4-16D	2-8D T.N. + (2)A35 PER RF BLK (1)A35 PER FLR BLK	5/8" Ø BOLTS @ 4'-0" O.C OR PER PLAN, (2)-BOLTS MIN.
P2	350	3/8" CDX (OSB)	8D COMMON OR GALV BOX @ 4" BLOCK ALL EDGES 2X (MUD & SOLE)	8D COMMON OR GALV BOX @ 12"	6-16D IN 2 ROWS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (2)A35 PER RF BLK (1)A35 PER FLR BLK	5/8" Ø BOLTS @ 3'-0" O.C OR PER PLAN, (2)-BOLTS MIN.
P3	490	3/8" CDX (OSB)	8D COMMON OR GALV BOX @ 3" STAGGERED, 3X AT ALL ADJOINING PANEL EDGES & 2X SOLE, 3X MUD	8D COMMON OR GALV BOX @ 12"	8-16D IN 2 ROWS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (3)A35 PER RF BLK (2)A35 PER FLR BLK	5/8" Ø BOLTS @ 2'-0" O.C OR PER PLAN, (2)-BOLTS MIN.
P4	640	3/8" CDX (OSB)	8D COMMON OR GALV BOX @ 2" STAGGERED, 3X AT ALL ADJOINING PANEL EDGES & 2X SOLE, 3X MUD	8D COMMON OR GALV BOX @ 12"	10-16D IN 2 ROWS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (3)A35 PER RF BLK (2)A35 PER FLR BLK	5/8" Ø BOLTS @ 1'-6" O.C OR PER PLAN, (2)-BOLTS MIN.
P8	770	1/2" CDX (OSB)	10D COMMON OR GALV BOX @ 2" STAGGERED, 3X AT ALL ADJOINING PANEL EDGES & 3X (SOLE & MUD)	10D COMMON OR GALV BOX @ 12"	(4) 3/8" X 6" LAG BOLTS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (4)A35 PER RF BLK (3)A35 PER FLR BLK	5/8" Ø BOLTS @ 1'-6" O.C OR PER PLAN, (2)-BOLTS MIN.
P9	870	5/8" CDX (OSB) OR 1/2" STRUCT URAL	10D COMMON OR GALV BOX @ 2" STAGGERED, 3X AT ALL ADJOINING PANEL EDGES & 3X (SOLE & MUD)	10D COMMON OR GALV BOX @ 12"	(4) 3/8" X 6" LAG BOLTS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (4)A35 PER RF BLK (3)A35 PER FLR BLK	5/8" Ø BOLTS @ 1'-0" O.C OR PER PLAN, (2)-BOLTS MIN.

- A) CONTRACTOR SHALL REVIEW ALL TYPICAL SHEAR WALL CONNECTION DETAILS & NOTES BEFORE CONSTRUCTION
- B) U.N.O. CONTRACTOR SHALL ENSURE THAT ALL SHEAR MATERIAL SHALL EXTEND FROM HORIZONTAL DIAPHRAGM (PLYWOOD CDX OR EQUAL) TO HORIZONTAL DIAPHRAGM.
- A) SILL NAILING IS THE FASTENING OF THE SILL (SOLE) PLATE LOCATED AT THE BOTTOM OF SHEAR WALLS TO THE BLOCKINGS, RIM JOISTS, OR BEAMS BENEATH THE HORIZONTAL DIAPHRAGM FLOOR SHEATHING CDX. CARE MUST BE TAKEN TO ENSURE THE PENETRATION OF THESE FASTENERS INTO THE BLOCKING, RIM JOISTS OR BEAM BELOW.
- B) SILL NAILING DOES NOT APPLY WHEN THE ABOVE MENTIONED SILL PLATE IS RESTING DIRECTLY ON CONCRETE SURFACE. IN THIS CASE THE SILL ANCHOR REQUIREMENTS AS INDICATED ON THE FOUNDATION PLAN AND DISCUSSED IN THE ANCHORAGE NOTES ON THIS SHEET SHALL BE FOLLOWED.
- C) SILL NAILING INDICATED ON SHEAR WALL SCHEDULE MAY BE OMITTED AND REPLACED WITH A MINIMUM OF 2-16D AT 16" O.C. FOR THE FOLLOWING CONDITIONS:
 - AT ALL NON-SHEAR WALLS
 - AT PERIMETER SHEAR WALLS WITH THE SHEAR MATERIAL OF UPPER SHEAR WALL OCCURRING AT THE EXTERIOR FACE OF BUILDING AND EXTENDING PAST THE MUD SILL (FOUNDATION CONDITION) OR TOP PLATES (UPPER FLOOR CONDITION). EDGE NAILING MUST BE PROVIDED AT BLOCKING OR RIM JOIST OCCURRING AT FLOOR THICKNESS IN ADDITION TO THE EDGE NAILING AT THE MUD SILL/TOP PLATES.
- A) BLOCK NAILING IS THE FASTENING OF BLOCKINGS, RIM JOISTS OR BEAM DIRECTLY BELOW THE SHEAR WALL TO THE TOP PLATE OR BEAMS IMMEDIATELY BELOW.
- B) ALL THE BLOCKING OTHER THAN THOSE LOCATED UNDERNEATH THE SHEAR WALL SHALL BE HELD IN PLACE BY A35 PER BLOCK OR A35 AT 16" ON CENTER.
- C) BLOCK NAILING INDICATED ON SHEAR SCHEDULE MAY BE OMITTED AND REPLACED WITH 8D TOE NAILS AT 6 INCHES ON CENTER WHERE SHEAR MATERIAL OF LOWER SHEAR WALL IS EXTENDED ABOVE THE TOP PLATES (OR BEAM) AND NAILED INTO BLOCKING OR RIM JOIST. IN ADDITION TO THIS NAILING, EDGE NAILING SHOULD ALSO BE PROVIDED AT THE TOP PLATES (OF LOWER SHEAR WALL). IT SHOULD BE NOTED THAT BLOCK NAILING CAN BE OMITTED FOR STACKED SHEAR WALLS ONLY (LOWER SHEAR WALL IMMEDIATELY BELOW UPPER SHEAR WALL)
- D) LTP4 CLIPS MAY DIRECTLY SUBSTITUTE A35 CLIPS AS INDICATED IN THE TABLE.
- A) WHERE PLYWOOD IS APPLIED ON BOTH FACED OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER ON EITHER SIDE, PANEL JOISTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3-INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- B) WHERE PLYWOOD IS APPLIED ON BOTH FACED OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER ON EITHER SIDE, 3X SILL IS REQUIRED.
- PLYWOOD EDGE AND FIELD NAILING SHALL BE WITH COMMON NAILS OR GALVANIZED BOX NAILS AS INDICATED IN SHEAR WALL SCHEDULE.
- FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COAT GALVANIZED STAINLESS STEEL, SILICON BRONZE OR COPPER.
- 5/8" Ø ANCHOR BOLTS SHALL BE 7" MINIMUM EMBEDMENT WITH 3"X3"XMIN. O.229 THICK STEEL PLATE WASHERS.

PAD FOOTING SCHEDULE

NO.	SIZE	THICKNESS	REINFORCEMENT
PF1	2'-0" x 2'-0"	1'-6" MIN.	(4)-#4 E.W.
PF2	2'-6" x 2'-6"	1'-6" MIN.	(5)-#4 E.W.
PF3	3'-0" x 3'-0"	1'-6" MIN.	(6)-#4 E.W.
PF4	4'-0" x 4'-0"	1'-6" MIN.	(7)-#4 E.W.

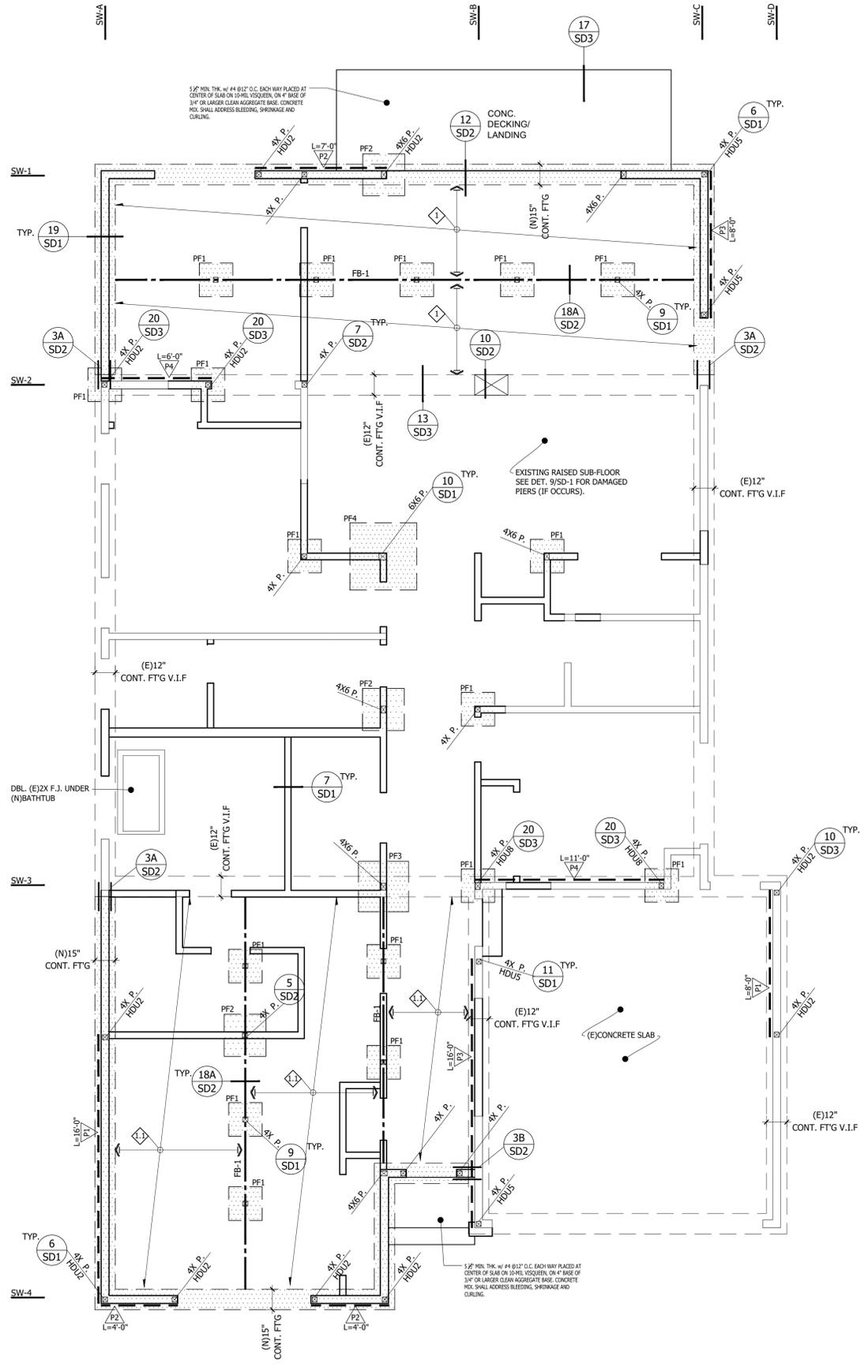
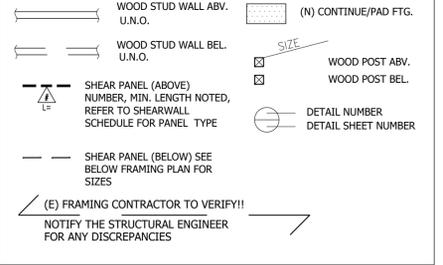
FRAMING MEMBER SCHEDULE

LOCATION	MEMBER #	MIN. MEMBER SIZE	SPACING
F.J.	1	2X6 DF#2	@ 16" O.C.
	1.1	2X6 DF#2	@ 12" O.C.

BEAM SCHEDULE

LOCATION	BEAM #	MIN. SIZE AND MATERIAL
FLOOR BEAM	FB-1	4X8 DF#2

SYMBOLS & LEGENDS



FOUNDATION PLAN

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

FLOOR SHEATHING:
3/4" T&g P/W STR-1 W/ 10d @ 4:6-12" O.C. T&g BOUNDARY P/W NAILING BLOCKED @ ALL PLYWOOD EDGES, SEE TYP. DIAPHRAGM DETAIL 24-16D NAILING FOR TOP PLATE SPLICE. SEE TOP PLATE SPLICE DETAIL.



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REVISION

#	DATE	DESCRIPTION
0	8/20/2024	ORIGINAL ISSUED
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2		
3		
4		

DATE: 08/20/2024

DRAWN: WL

CHECKED BY: B.Z.

PROJECT NO.: S24344

SHEET TITLE:

FOUNDATION PLAN & NOTES

SHEET OF:

S-1

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FRAMING NOTES

- FOR GENERAL NOTE SEE S-0.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FOR DIMENSIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
- DOUBLE TOP PLATES SHOULD BE CONTINUOUS OVER ALL HEADERS. U.N.O. ON FRAMING PLAN OR DETAILS.
- ALL BEAMS AT SIMPSON STRONG WALL SHEAR LINES SHOULD BE CONTINUED OVER SIMPSON STRONG WALL. (U.N.O. ON FRAMING PLAN OR RELATED DETAILS. SEE DETAIL PER PLAN.)
- ALL BEAM WITH WIDTH OF 5 1/4" OR MORE, OR MARKED AT "DRAG" NEED TO HAVE (2) ROWS OF B.N.
- ALL PLYWOOD OR OBS NAILING FLOOR HAS TO BE GLUE-NAILED.
- FOR LOCATION AND FRAMING OF NON-BEARING WALLS, SEE ARCHITECTURAL DRAWINGS.
- ALL GLU-LAM BEAMS SHALL BE 24F V4 DF/DF U.N.O.
- MULTIPLE ELEMENT MEMBERS (i.e. DBL JOISTS, DBL STUBS, ETC.) SHALL BE NAILED TOGETHER W/ 16D'S @ 16" O.C. STAGGERED. BEAMS COMPOSED OF MULTIPLE PIECES (4X OR LARGER) SHALL BE BOLTED TOGETHER W/ 5/8" M.B.'S @ 12" O.C. STAGD.
- WALL STUDS:
 - EXTERIOR WALLS:
 - 2X6 STUDS AT 16" O.C. U.N.O. ON ARCHITECTURAL PLAN.
 - ALL OUTSIDE WALL OF EXTERIOR WALL ARE BEARING WALL (U.N.O.)
 - INTERIOR WALLS:
 - ALL INTERIOR SHEAR/ BEARING WALLS SHALL BE 2X4 MIN. STUD GRADE OR BETTER STUDS AT 12" O.C. FOR 4" WALLS AND 2X6 MIN. DFL STUD GRADE @ 16" O.C. FOR 6" WALLS.
 - ALL INTERIOR NON-BEARING/NON-SHEAR WALLS SHALL BE 2X4 OR 2X6 STUD GRADE OR BETTER STUDS @ 16" O.C. U.N.O.
- ALL POSTS/MULTIPLE STUDS IN WALLS SHALL RECEIVE EDGE NAILING FROM WALL SHEATHING. ALL BMS, DRAGS GIRDER TRUSSES SHALL RECEIVE BOUNDARY NAILING FROM SHEATHING.
- WHENEVER A DETAIL IS CALLED ON A WALL LINE (FOR EXAMPLE, 2/S1 WITH A35'S AT 24" O.C.), IT NEEDS TO BE APPLIED TO THE FULL LENGTH OF THAT WALL, NOT JUST AT THE SPOTS IT IS KEYED OUT OR JUST AT SHEAR PANEL PORTION OF THE WALL.
- CONTRACTOR SHALL VERIFY EXACT HEIGHT AND LOCATION OF HARDY FRAME.
- FURR CEILING TO CONCEAL VALLEY OR HIP THAT ARE BELOW TOP PLATE LINE.
- FURR ALL WALL AS REQ'D IF SHEAR WALL DOES NOT COVER ENTIRE WALL TO WALL FLUSH.
- SHEAR WALLS ARE TO ROOF SHEATHING.
- WHERE TOP PLATES OR SOLE PLATES ARE CUT FOR WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN 6-16D NAILS.
- ALL WATER HEATED SHALL BE PROVIDED WITH SEISMIC STRAPS.
- SEE ARCH. DWGS FOR FLOOR STEP CURB.

SYMBOLS & LEGENDS

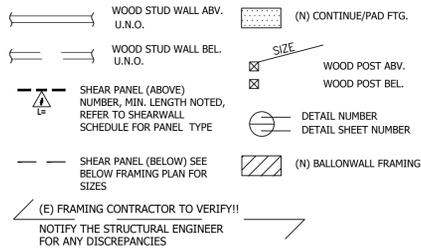


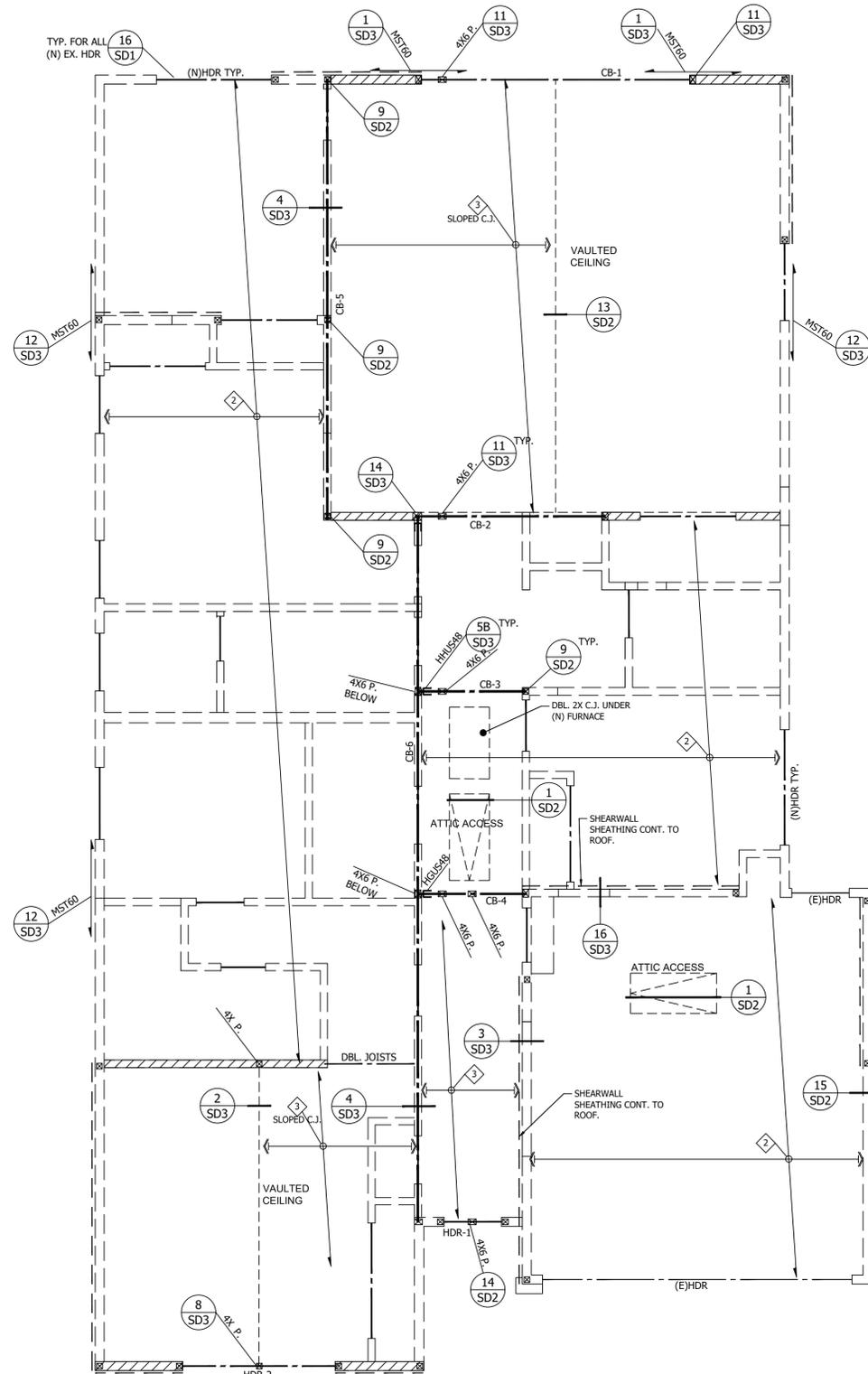
TABLE R602.7.5 MIN. NUMER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS		
MAXIMUM HEADER SPAN (FEET)	<140 mph, EXPOSURE B	≤ 115 mph, EXPOSURE B
	<130 mph, EXPOSURE C	
4	1	1
6	2	1
8	2	1
10	3	2
12	3	2
14	3	2
16	4	2
18	4	2

HEADER SCHEDULE	
HEADER SIZE	WIDTH OF OPENING
4X8	0' TO 3'-0"
4X10	3'-1" TO 6'-0"
4X12	6'-1" TO 10'-0"

BEAM SCHEDULE		
LOCATION	BEAM #	MIN. SIZE AND MATERIAL
CEILING BEAM	CB-1	5 1/4" x 16" 2.0E PSL
	CB-2	5 1/4" x 11 1/4" 2.0E PSL
	CB-3	3 1/2" x 11 1/4" 2.0E PSL
	CB-4	3 1/2" x 11 1/4" 2.0E PSL
	CB-5	3 1/2" x 11 1/4" 2.0E PSL
	CB-6	5 1/4" x 11 1/4" 2.0E PSL
HEADER	HDR-1	3 1/2" x 9 1/4" 2.0E PSL
	HDR-2	3 1/2" x 9 1/4" 2.0E PSL

FRAMING MEMBER SCHEDULE			
LOCATION	MEMBER #	MEMBER SIZE	SPACING
C.J.	2	2X10 DF#2	@ 24" O.C.
	3	2X6 DF#2	@ 24" O.C.

- NOTES:
- INCREASE HEADER WITH TO MATCH STUB WIDTH AS REQ'D.
 - ALL HEADER SIZES INDICATED ABOVE ARE TYP. U.N.O. ON PLAN
 - ALL HEADER BEAM MATERIAL SHALL BE DF#2 OR BETTER.



CEILING FRAMING PLAN

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



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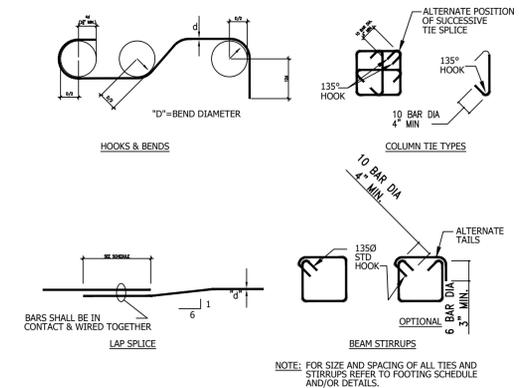
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CEILING FRAMING PLANS & NOTES

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S-2

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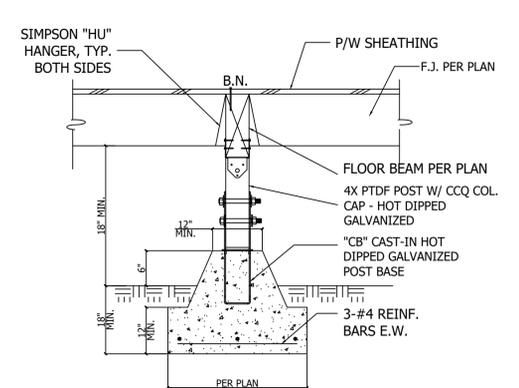


BEND DIAMETER SCHEDULE	
BAR SIZE	BEND DIAMETER
#3 THRU #5	D = 4d
#6 THRU #8	D = 6d
#9 THRU #11	D = 8d
#14 THRU #18	D = 10d

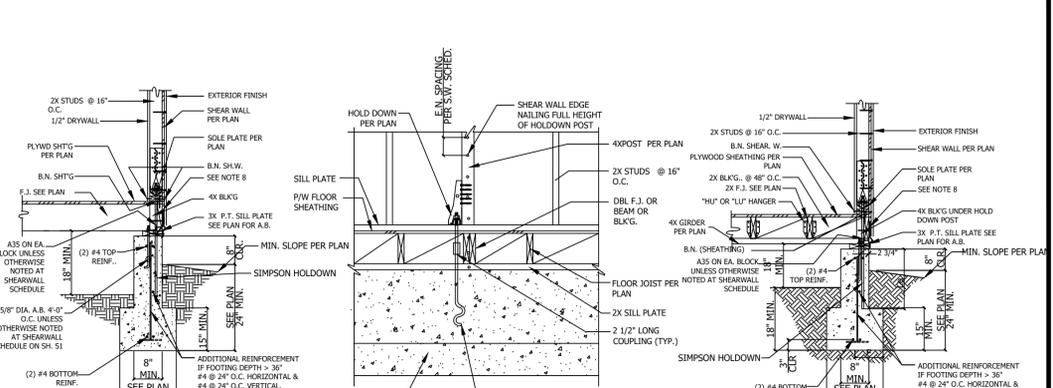
2500 PSI MIN. CONCRETE REINFORCING BAR LAP SPLICE			CONCRETE BLOCK
BAR #	MINIMUM CLEAR BAR SPACING (BAR DIAMETER)	LAP SPLICE LENGTH (INCHES)	BAR LAP IN INCHES
		* TOP BARS	
#4	MORE THAN 2	30	24"
#5	MORE THAN 2	37	30"
#6	MORE THAN 2	44	34"
#7	MORE THAN 2	51	42"
#8	MORE THAN 2	58	48"
#9	MORE THAN 2	65	54"
#10	MORE THAN 2	72	60"
#11	MORE THAN 2	79	66"
		OTHER BARS	
#4	MORE THAN 2	30	24"
#5	MORE THAN 2	37	30"
#6	MORE THAN 2	44	34"
#7	MORE THAN 2	51	42"
#8	MORE THAN 2	58	48"
#9	MORE THAN 2	65	54"
#10	MORE THAN 2	72	60"
#11	MORE THAN 2	79	66"

* HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE

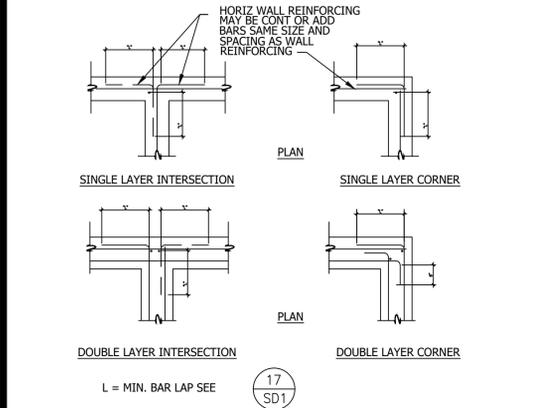
17 TYP. BAR LAP SPLICE DETAIL



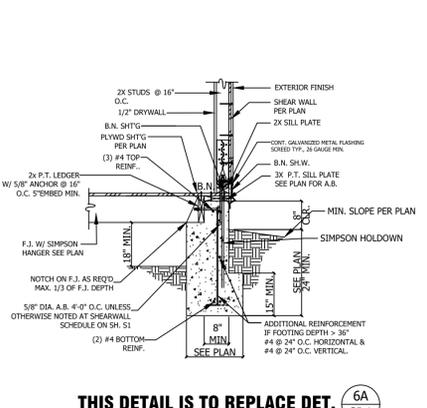
9 PAD FOOTING DETAIL



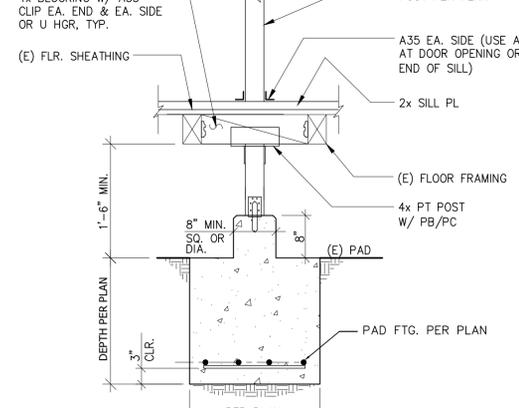
6 TYP. HOLDOWN INTO NEW FOUNDATION



18 TYP. REINFORCING BENDS



15 TYP. NEW FOUNDATION DETAIL



10 (N) PAD FT'G FOR POST IN CRAWL SPACE

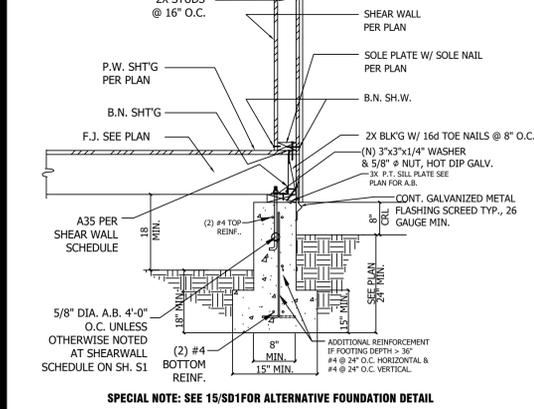
SPECIAL NOTE: SEE 15/SD1 FOR ALTERNATIVE FOUNDATION DETAIL

HOLDOWN AND EMBEDMENT SCHEDULE	HOLDOWN NO.	MIN. POST SIZE	ANCHOR BOLT DIAMETER	WITHOUT CONCRETE CURB ONE-POUR CONDITION			WITH MAX 6" HIGH CONCRETE CURB TWO-POUR CONDITION				
				ANCHOR TYPE	EMBEDMENT	ANCHOR TYPE	EMBEDMENT	ANCHOR TYPE	EMBED. "L"	WIDTH "F"	WASHER PLATE
	HDU2-SDS2.5	2-2x OR 4x @ CORNERS	5/8"	SSTB20	16 5/8"	PAB5	8"	PAB5	8"	20"	3/8" x 1 1/2" x 1 1/2"
	HDU4-SDS2.5	2-2x OR 4x @ CORNERS	5/8"	SSTB24	20 5/8"	PAB5	8"	PAB5	8"	20"	3/8" x 2 1/2" x 2 1/2"
	HDU5-SDS2.5	2-2x OR 4x @ CORNERS	5/8"	SSTB24	20 5/8"	PAB5	8"	PAB5	8"	20"	3/8" x 1 1/2" x 1 1/2"
	HDU8-SDS2.5	4 x 4	7/8"	SSTB28	24 7/8"	SSTB36	24 7/8"	PAB7	11"	32"	3/8" x 2 1/2" x 2 1/2"
	HDU11-SDS2.5	6 x 6 OR 4 x 8	1"	SB1X30	24"	SB1X30	24"	PAB8	12"	36"	3/8" x 2 1/2" x 2 1/2"
	HDU14-SDS2.5	6 x 6	1"	PAB8	SEE TABLE ABOVE	PAB8	SEE TABLE ABOVE	PAB8	12"	36"	3/8" x 2 1/2" x 2 1/2"

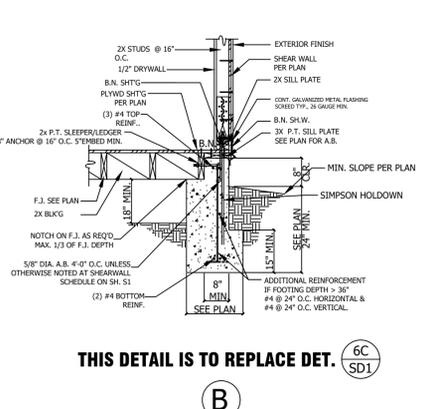
NOTES:

- BOLT HOLD DOWN TO POST PER MFG. PROVIDE STANDARD CUT WASHERS ON OPPOSITE SIDE OF POST FROM HOLD DOWN. POST MAY BE COUNTER SUNK A MAXIMUM OF 1/2 INCH TO RECESS BOLT AND WASHER.
- TO PROPERLY LOCATE HOLD DOWN ANCHOR BOLTS, CONTRACTOR TO CHECK STRUCTURAL AND ARCHITECTURAL DRAWINGS, FOR OPENINGS ETC. BEFORE PLACING BOLTS.
- DEEPEN FOOTING AREA AS REQUIRED AT HOLD DOWN ANCHORS TO INSURE PROPER EMBEDMENT.
- FOR SPECIAL HD LOCATIONS SEE FOUNDATION PLAN.
- MATERIAL OF SSTB & SB IS ASTM F1554 GRADE36 PER ICC ESR-2611
- THE EMBEDMENT DEPTH, L_e, IS MEASURED FROM THE COLD JOINT FOR TWO POUR CONDITION.
- MINIMUM CURB WIDTH SHOULD BE 6"
- CONT. GALVANIZED METAL FLASHING SCREED BETWEEN THE FOUNDATION WALL OR NEW EXTERIOR SLAB AND ANY WOOD FRAMING, 26 GAUGE MIN.

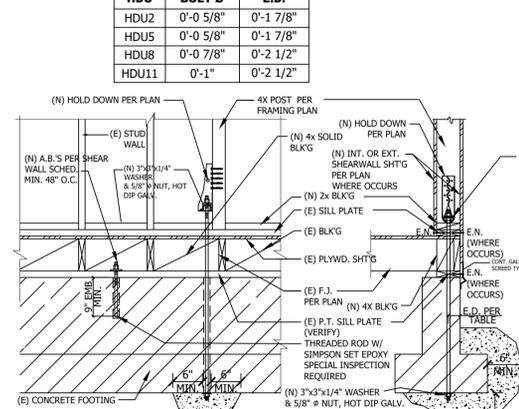
6 TYP. HOLDOWN INTO NEW FOUNDATION



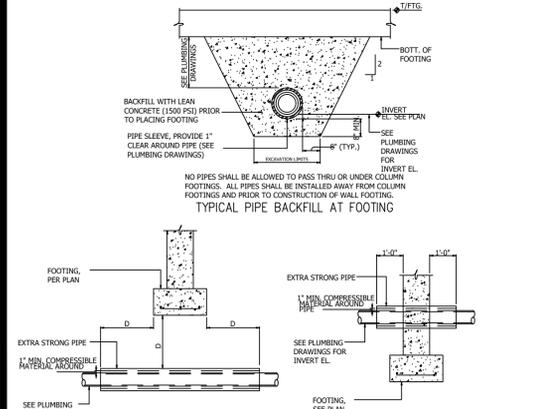
19 EXT WALL TO FOUNDATION DETAIL



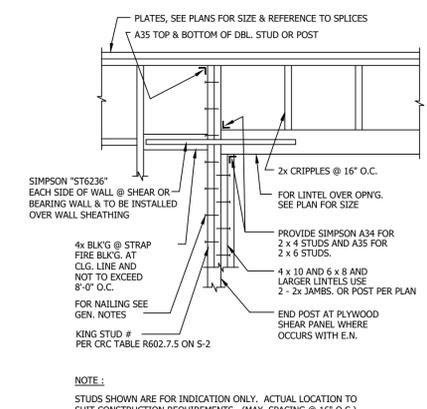
11 (N) HOLD DOWN/ANCHOR ON (E) FOOTING



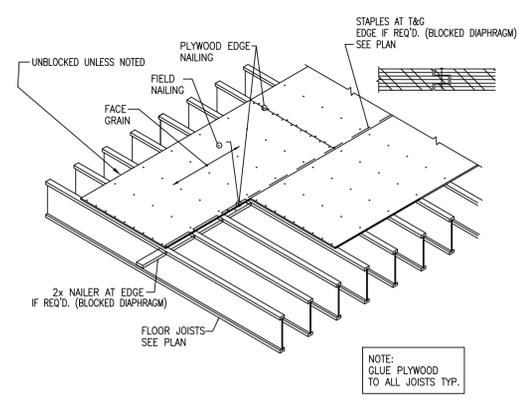
7 INTERIOR NON-BEARING STUD WALL FRAMING



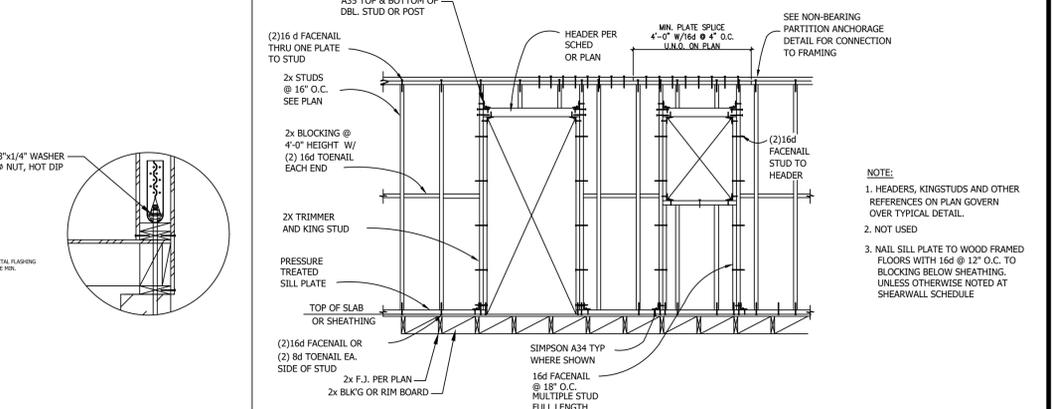
20 PIPE THRU CONC. FOUNDATION



16 TYP. HEADER DETAIL FOR WNDW & DOOR



12 TYP. PLYWOOD DIAPHRAGM



8 EXTERIOR AND INTERIOR BEARING/SHEAR WALL FRAMING

TABLE R602.7.5

MIN. NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

MAXIMUM HEADER SPAN (FEET)	<140 mph EXPOSURE B or <130 mph EXPOSURE C	≥ 115 mph EXPOSURE B
4	1	1
6	2	1
8	3	2
10	3	2
12	3	2
14	3	2
16	4	2
18	4	2

NOTE:

- HEADERS, KINGSTUDS AND OTHER REFERENCES ON PLAN GOVERN OVER TYPICAL DETAIL.
- SEE SHEARWALL PLYWOOD NAILINGS/HOLDOWN DETAIL FOR ADDITIONAL INFORMATION.
- AT WOOD FRAMED WALLS USE SILL CONNECTION PER SHEARWALL SCHEDULE.

8 EXTERIOR AND INTERIOR BEARING/SHEAR WALL FRAMING



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REVISION

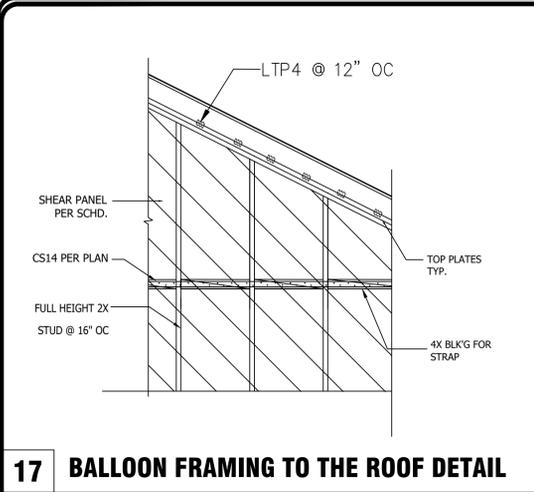
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DATE: 08/20/2024
 DRAWN: WL
 CHECKED BY: B.Z.
 PROJECT NO.: S24344

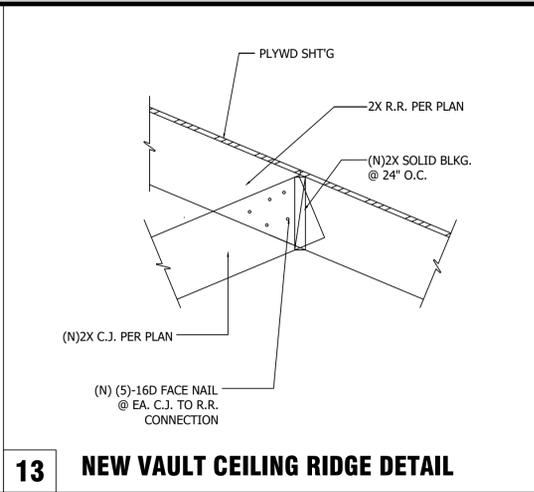
STRUCTURAL CONSTRUCTION DETAILS

SHEET OF:
SD-1

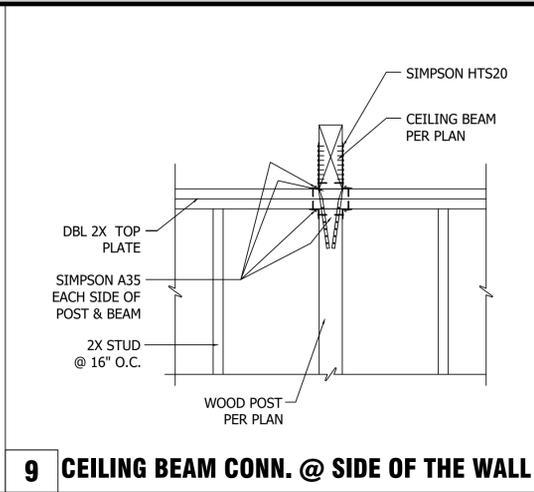
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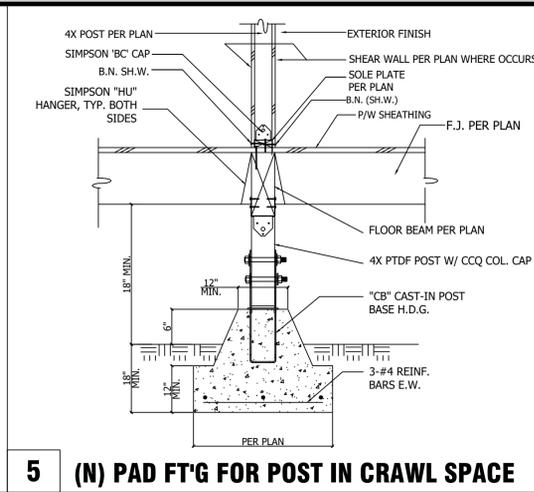
17 BALLOON FRAMING TO THE ROOF DETAIL



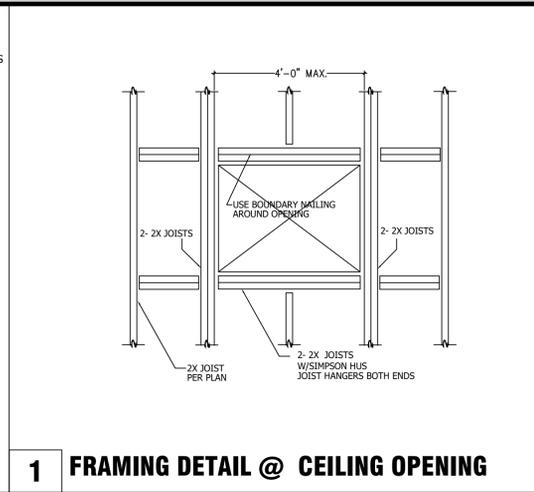
13 NEW VAULT CEILING RIDGE DETAIL



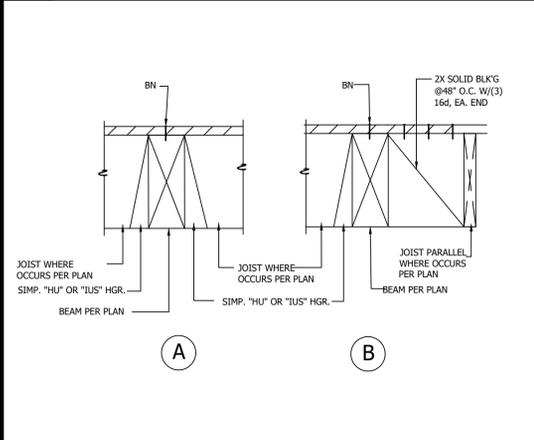
9 CEILING BEAM CONN. @ SIDE OF THE WALL



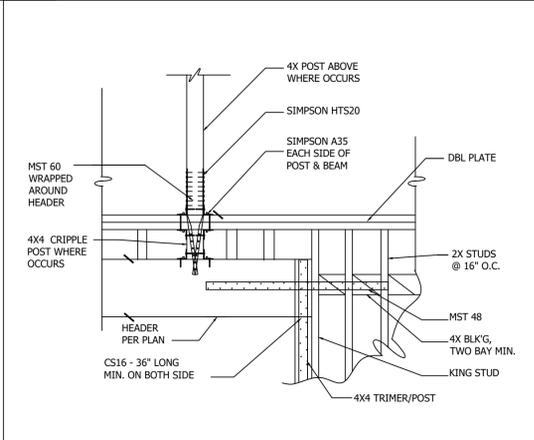
5 (N) PAD FT'G FOR POST IN CRAWL SPACE



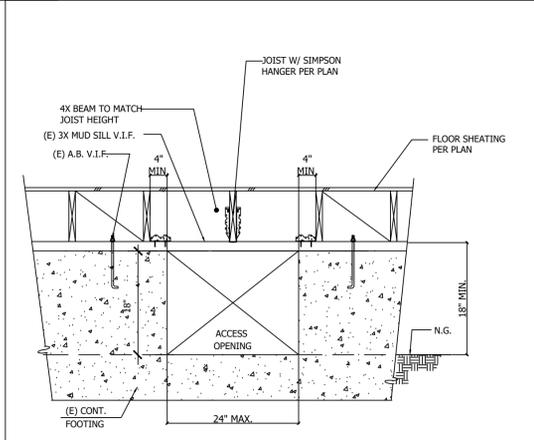
1 FRAMING DETAIL @ CEILING OPENING



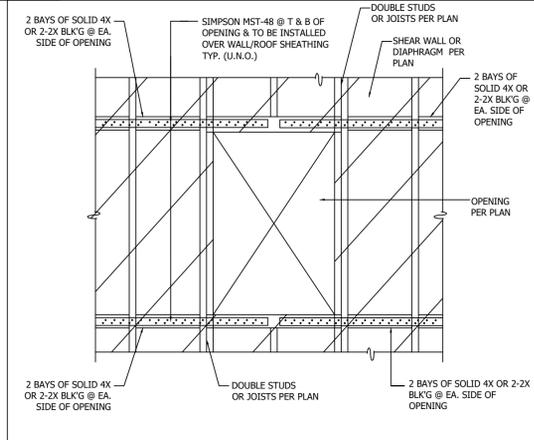
18 FLOOR BEAM TO F.J. CONNECTION



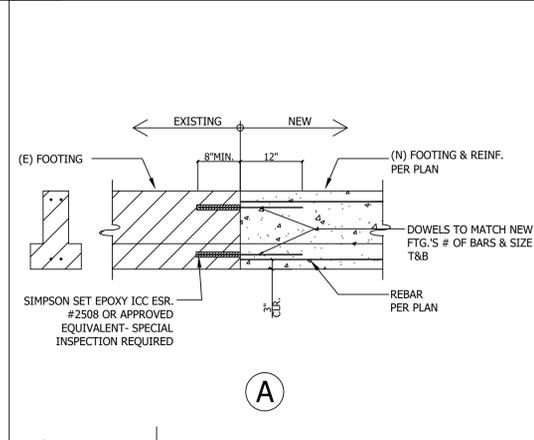
14 HEADER BEAM W/ K. P. CONNCTION



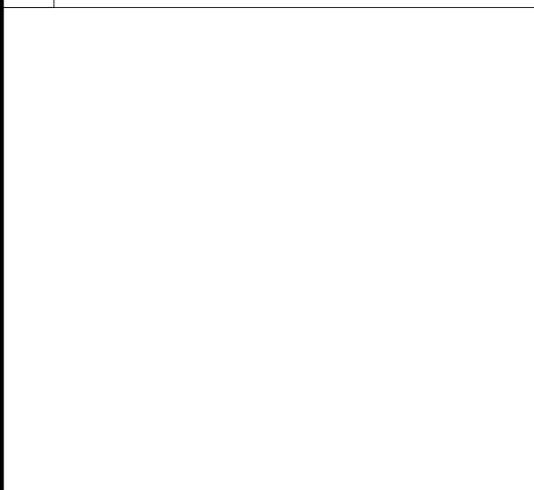
10 ACCESS OPENING ON (E) CONC. FOOTING



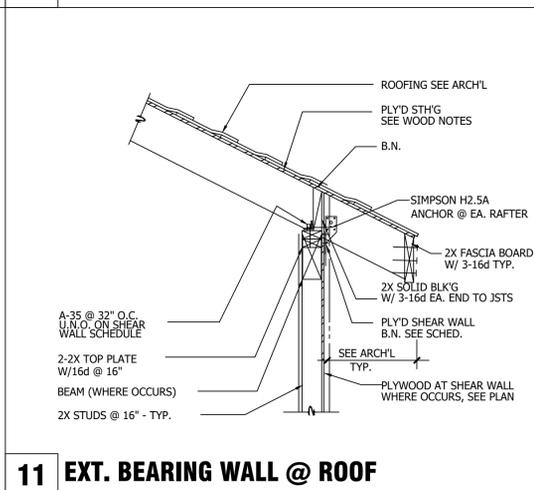
6 OPENING IN SHEAR WALL & DIAPHRAGM



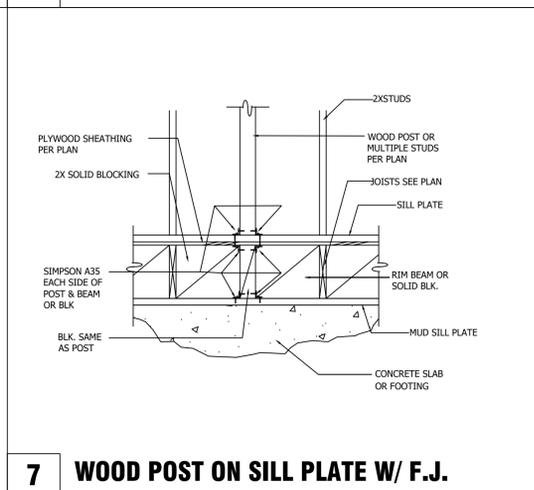
3 (N) TO (E) FOOTING CONNTION



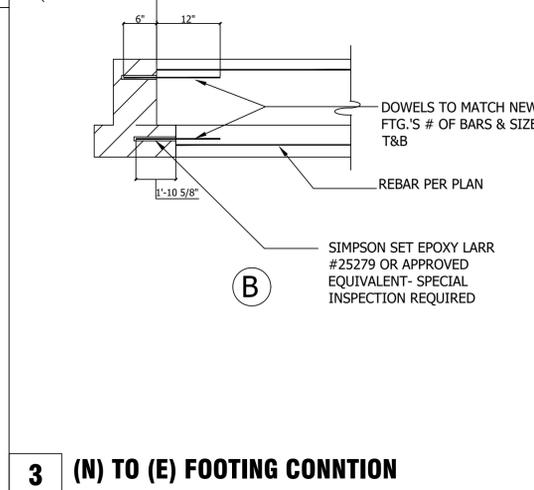
15 RAISE EXISTING WALL DETAIL



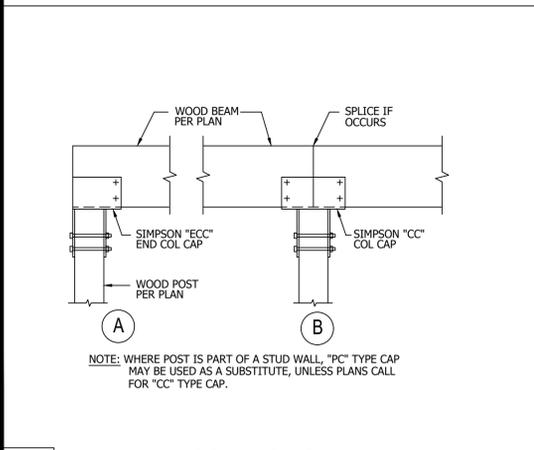
11 EXT. BEARING WALL @ ROOF



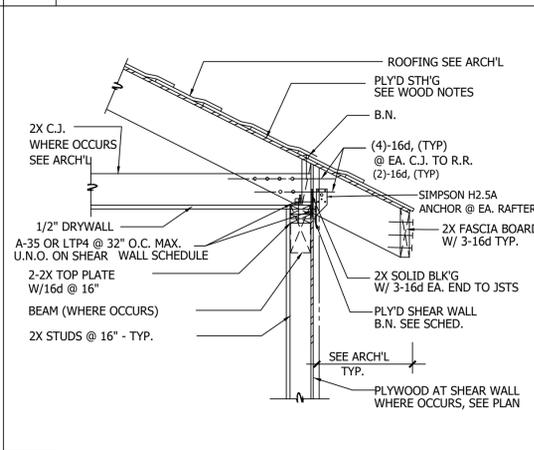
7 WOOD POST ON SILL PLATE W/ F.J.



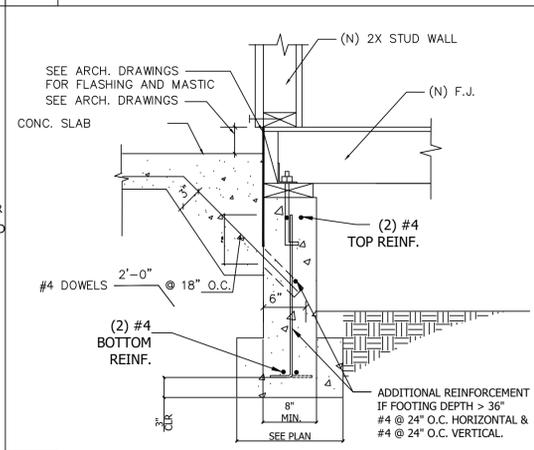
3 (N) TO (E) FOOTING CONNTION



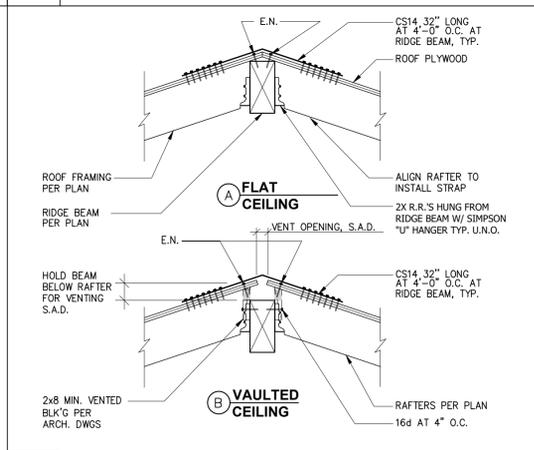
20 TYP. BEAM CONNECTION



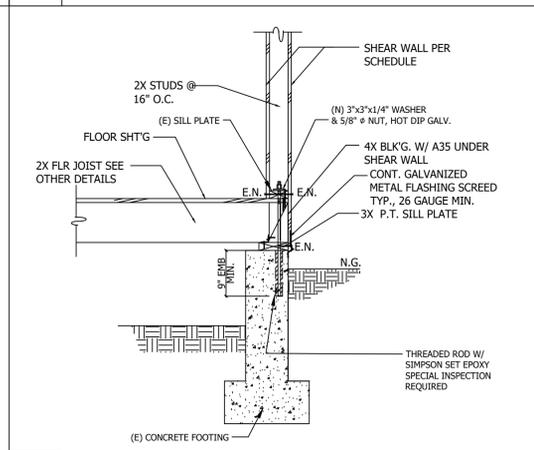
16 EXT. BEARING WALL @ ROOF W/ PAR. C.J.



12 SLAB TO TO RAISED FLOOR



8 RIDGE BEAM CONNECTION DETAIL



4 SHEARWALL A.B. CONNECTION DETAIL



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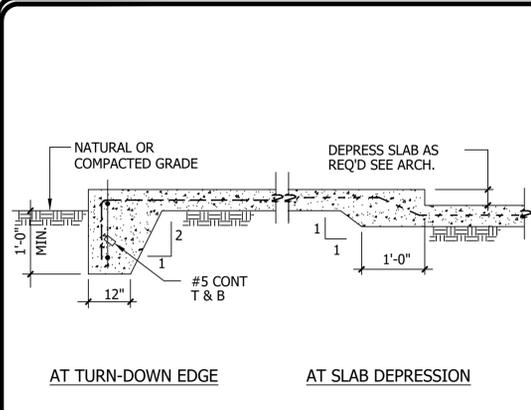
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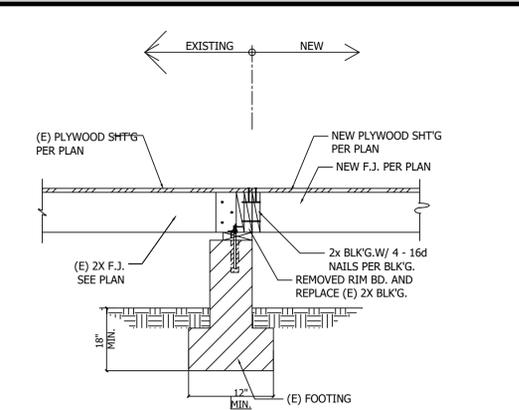
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**STRUCTURAL
CONSTRUCTION
DETAILS**

SHEET OF:
SD-2

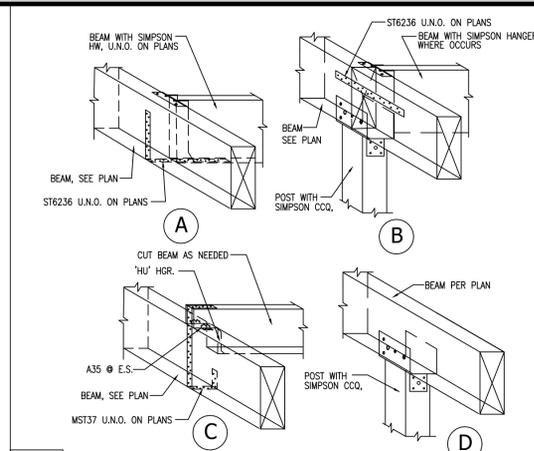
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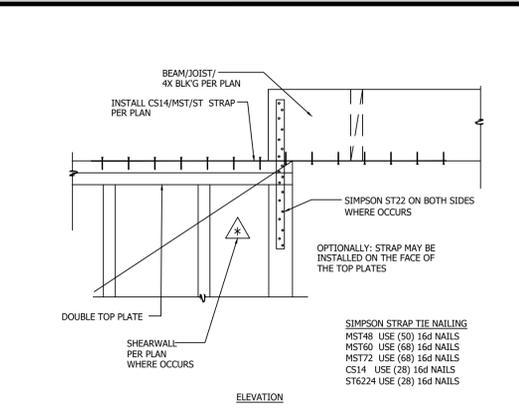
17 TYP. CONCRETE SLAB DETAILS



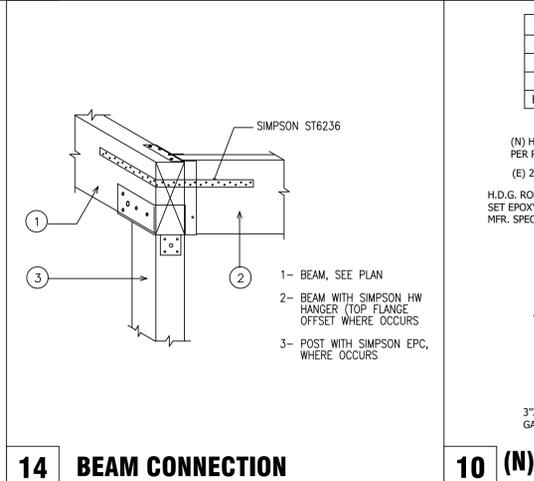
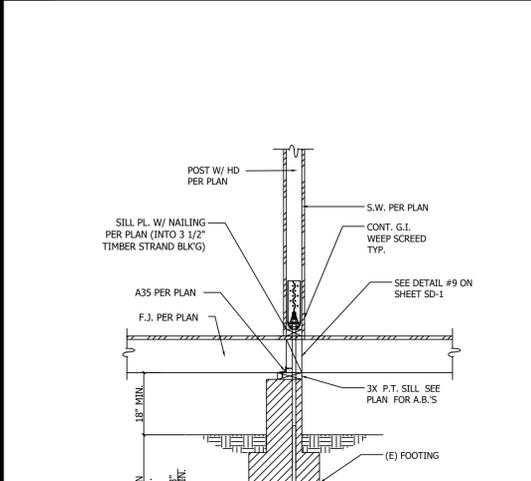
13 NEW TO EXISTING SUB-FLOOR CONNECTION



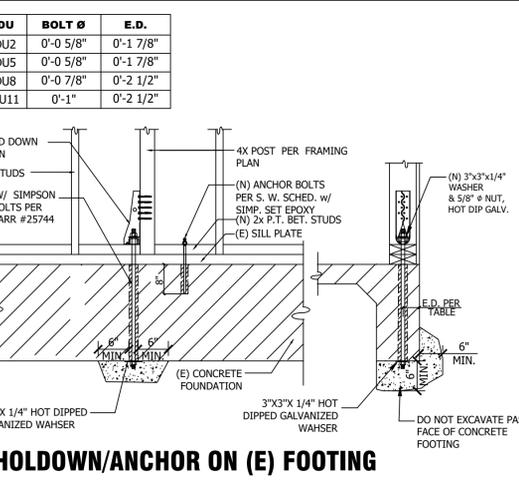
5 TYP. BEAM CONNECTION



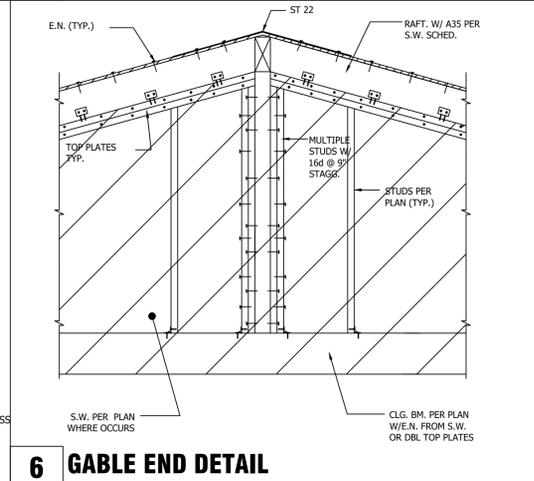
1 CEILING BEAM TO WALL CONNECTION DET.



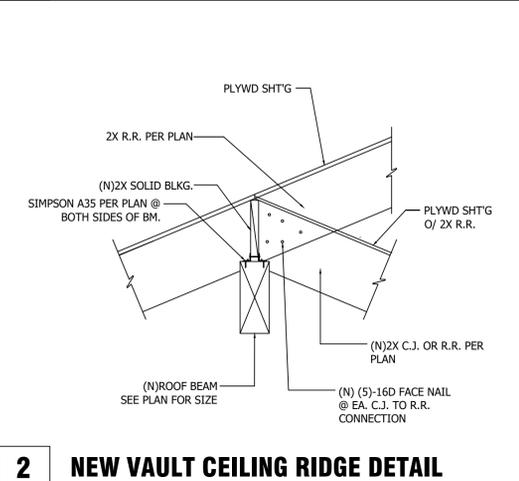
14 BEAM CONNECTION



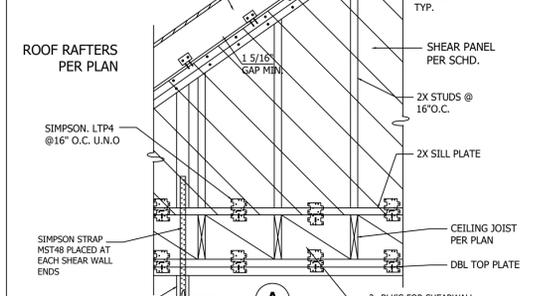
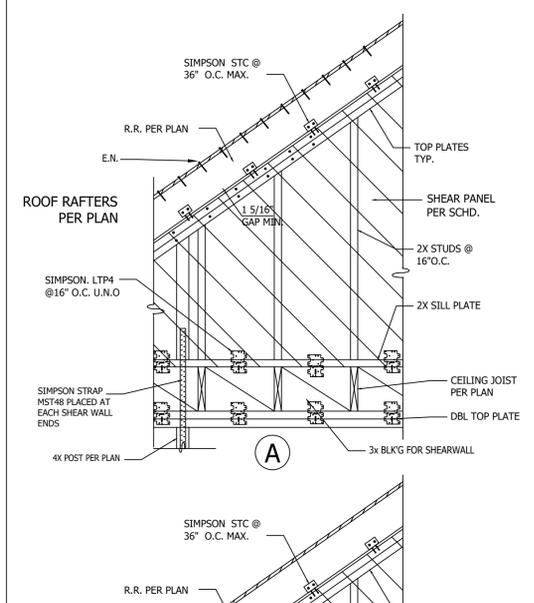
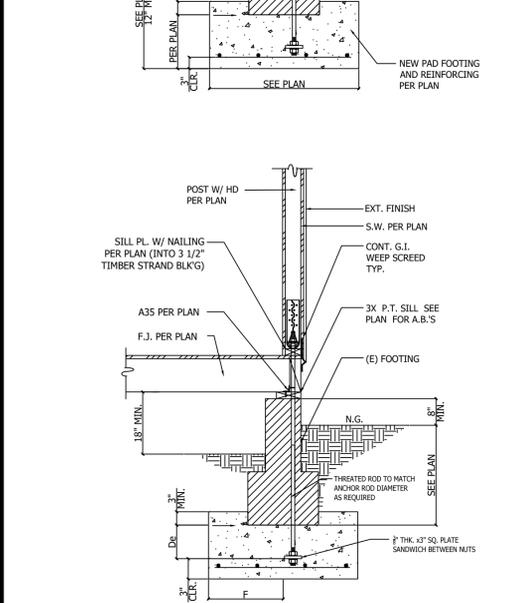
10 (N) HOLDOWN/ANCHOR ON (E) FOOTING



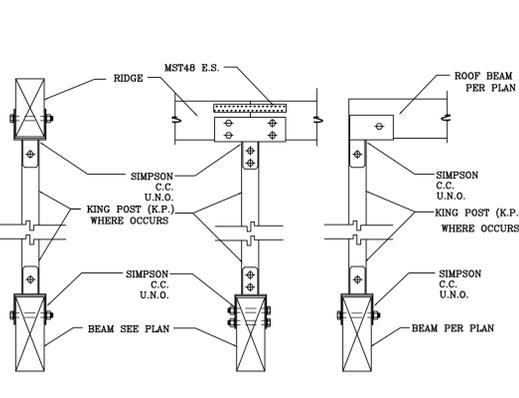
6 GABLE END DETAIL



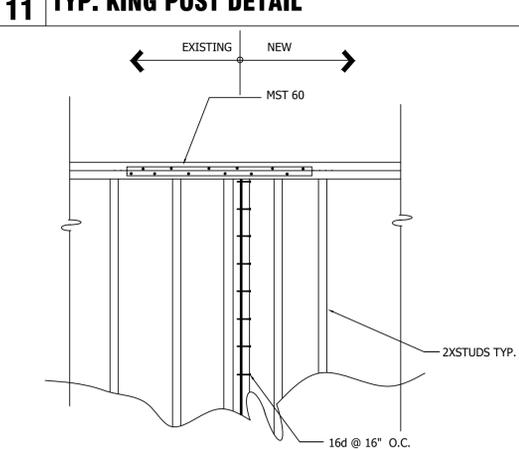
2 NEW VAULT CEILING RIDGE DETAIL



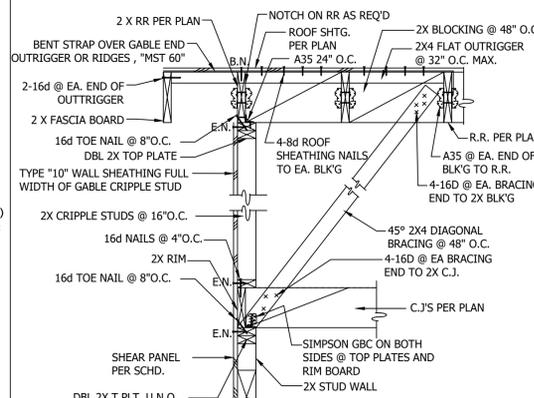
16 SHEAR PANEL @ ATTIC



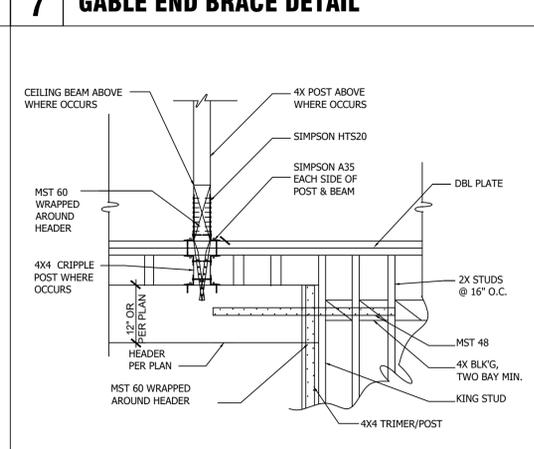
11 TYP. KING POST DETAIL



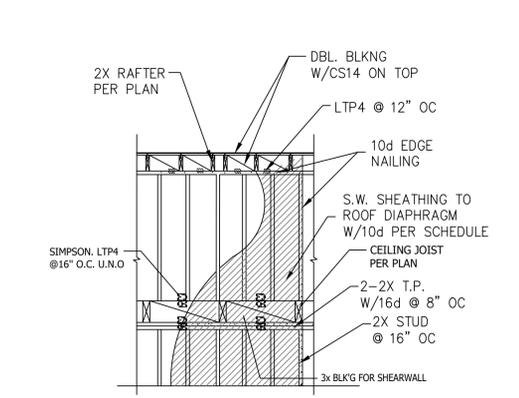
12 (N)-(E) TOP PLATE/WALL CONNECTION



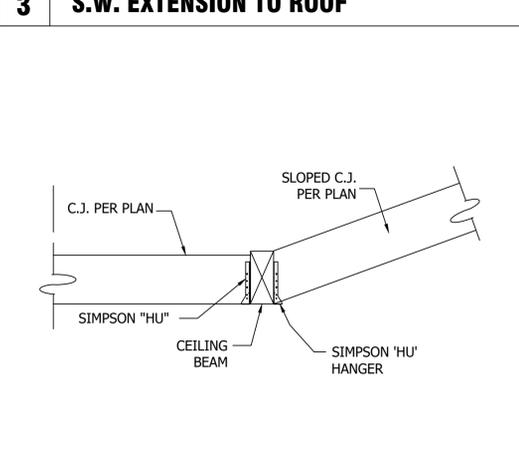
7 GABLE END BRACE DETAIL



8 HEADER BEAM W/ K. P. CONNECTION



3 S.W. EXTENSION TO ROOF



4 CEILING JOISTS CONNECTION

HOLDOWN NO.	ANCHOR BOLT DIMETER	MODEL	De (in.)	F (in.)
HDU2-SDS2.5	5/8"	PABSH	8	7 • 10" 9"
HDU4-SDS2.5	5/8"	PABSH	10	9 • 13" 11"
HDU5-SDS2.5	5/8"	PABSH	12	10 • 15" 12"
HDU8-SDS2.5	7/8"	PAB7H	14	12 • 18" 15"
HDU11-SDS2.5	1"	PAB8H	18	15 • 24" 19"
HDU14-SDS2.5	1"	PAB8H	20	17 • 27" 23"

NOTES: * FOR 4500psi CONCRETE

20 PAD FT'G UNDER (E) CONT. FT'G DET.

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DATE: 08/20/2024
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PROJECT NO.: S24344

SHEET TITLE:
STRUCTURAL CONSTRUCTION DETAILS

SHEET OF:
SD-3

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CALGREEN & ELECTRICAL NOTES

TUB/SHOWER REQUIREMENTS

- THE MIXING VALVE IN A SHOWER (INCLUDING OVER A TUB) SHALL BE PRESSURE BALANCING SET AT A MAXIMUM 120° F. THE WATER-FILLER VALVE IN BATHTUBS/WHIRLPOOLS SHALL HAVE A TEMPERATURE LIMITING DEVICE SET AT A MAXIMUM OF 120° F. THE WATER HEATER THERMOSTAT CANNOT BE USED TO MEET THESE PROVISIONS. (CPC 408.3, 409.4)

- NEW OR RECONFIGURED SHOWER STALLS SHALL BE A MINIMUM FINISHED INTERIOR OF 1,024 SQUARE INCHES, BE CAPABLE OF ENCOMPASSING A 30 INCH DIAMETER CIRCLE. ANY DOORS SHALL SWING OUT OF THE ENCLOSURE HAVE A CLEAR OPENING OF 22 INCHES MINIMUM. (CPC 408.5, 408.6)

- SHOWER STALLS AND BATHTUBS WITH SHOWER HEADS INSTALLED, SHALL HAVE WALLS FINISHED WITH A NON-ABSORBENT SURFACE FOR A MINIMUM OF 6 FEET ABOVE THE FLOOR. (CBC 1210 AND CRC R307.2)

- HYDRO-MASSAGE TUBS (I.E. JACUZZI TUBS) SHALL HAVE ACCESS TO THE MOTOR, BE SUPPLIED BY A GFCI PROTECTED DEDICATED CIRCUIT, AND BE LISTED BY A RECOGNIZED TESTING AGENCY (I.E. UL). ALL METAL CABLES, FITTINGS, PIPING, OR OTHER METAL SURFACES, WITHIN 5 FEET OF THE INSIDE WALL OF THE HYDRO-MASSAGE TUB SHALL BE PROPERLY BONDED. HYDRO-MASSAGE TUBS SHALL BE BONDED WITH A MINIMUM #8 AWG BARE COPPER WIRE AND THE BONDING SHALL BE ACCESSIBLE. (CEC 680.70)

- UNDERLAYMENT MATERIAL USED AS BACKERS FOR WALL TILE OR SOLID SURFACE MATERIAL IN TUB AND SHOWER ENCLOSURES SHALL BE EITHER GLASS MAT/FIBER-REINFORCED GYPSUM BACKING PANELS (I.E. DENS-SHIELD, DENS ARMOR PLUS), NON-ASBESTOS FIBER-CEMENT/FIBER MAT BACK BOARD (I.E. HARDIBACKER, CEMENT BOARD). ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

WATER-RESISTANT GYPSUM BOARD (I.E. PURPLE BOARD) MAY BE USED WHEN ATTACHED DIRECTLY TO STUDS, OVERLAPPED WITH MINIMUM GRADE B BUILDING PAPER AND WIRE LATH. TILE SHALL BE ATTACHED TO THE WIRE LATH. (CBC 2509 AND CRC R702.4)

- SHOWER FLOORS SHALL BE LINED WITH AN APPROVED SHOWER PAN OR AN ON-SITE BUILT WATERTIGHT APPROVED LINING (I.E. HOT MOP). ON-SITE BUILT SHOWER LININGS SHALL EXTEND A MINIMUM OF 3 INCHES VERTICALLY UP THE WALL AND SHALL BE SLOPED 1/4" PER FOOT TO WEEP HOLES. (CPC 408.7)

- WHEN A CURB IS PROVIDED AT A SHOWER, IT SHALL BE A MINIMUM OF 1 INCH ABOVE THE SHOWER FLOOR AND BETWEEN 2 INCHES AND 9 INCHES ABOVE THE TOP OF THE DRAIN. A WATERTIGHT NAILING FLANGE THAT EXTENDS A MINIMUM OF 1 INCH HIGH SHALL BE INSTALLED WHERE THE SHOWER FLOOR MEETS THE VERTICAL SURFACE OF THE SHOWER COMPARTMENT. THE FINISHED FLOOR OF THE SHOWER COMPARTMENT SHALL BE UNIFORMLY SLOPED BETWEEN 1/4" AND 1/2" PER FOOT TOWARDS TO THE DRAIN. (CPC 408.5)

WHERE A CURB IS NOT PROVIDED AT THE SHOWER COMPARTMENT, THE ENTIRE BATHROOM SHALL BE CONSIDERED A WET LOCATION. THE FLOORING IN THE ENTIRE BATHROOM SHALL COMPLY WITH THE WATER PROOFING REQUIREMENTS DESCRIBED ABOVE FOR SHOWER FLOORS (PREVIOUS BULLET) AND ALL LIGHTING FIXTURES SHALL BE APPROVED FOR WET LOCATIONS.

WATER CLOSET REQUIREMENTS

- THE WATER CLOSET SHALL HAVE A CLEARANCE OF 30 INCHES WIDE (15 INCHES ON CENTER) AND 24 INCHES IN FRONT. (CPC 402.5)

- WHERE THE WATER CLOSET (OR OTHER PLUMBING FIXTURE) COMES INTO CONTACT WITH THE WALL OR FLOOR, THE JOINT SHALL BE CAULKED AND SEALED TO BE WATERTIGHT. (CPC 402.2)

TEMPERED GLAZING (CBC 2406.4, 2403.1 AND CRC 308.1, R308.4)

TEMPERED GLAZING SHALL BE INSTALLED IN THE LOCATIONS LISTED BELOW. TEMPERED GLAZING SHALL BE PERMANENTLY IDENTIFIED BY A MANUFACTURER MARKING THAT IS PERMANENTLY APPLIED AND CANNOT BE REMOVED WITHOUT BEING DESTROYED (E.G. SAND BLASTED, ACID ETCHED, CERAMIC FIRED, LASER ETCHED, OR EMBOSSED). WITHIN A PORTION OF WALL ENCLOSING A TUB/SHOWER WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE STANDING SURFACE AND DRAIN INLET.

- WITHIN 60 INCHES OF A TUB/SHOWER WHERE THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.

- GLAZING ON THE HINGE-SIDE OF AN IN-SWINGING DOOR THAT IS INSTALLED PERPENDICULAR TO A DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES OF THE DOOR.

ELECTRICAL AND LIGHTING REQUIREMENTS

- ALL RECEPTACLES SHALL BE GFCI PROTECTED AND TAMPER-RESISTANT (TR). IF ANY NEW/ADDITIONAL OUTLETS ARE INSTALLED, THE BATHROOM SHALL HAVE A DEDICATED 20-AMP CIRCUIT. (CEC 210.8, 210.11, 406.12)

- EXHAUST FANS WITH A MINIMUM VENTILATION RATE OF 50 CFM ARE REQUIRED IN ALL BATHROOMS, EVEN IF AN OPERABLE WINDOW IS INSTALLED. EXHAUST FANS AND LIGHTING SHALL HAVE SEPARATE CONTROL SWITCHES (EVEN IF A COMBINATION UNIT IS INSTALLED). THE EXHAUST FAN MAY NEED TO BE SUPPLIED BY A GFCI PROTECTED CIRCUIT BASED ON THE MANUFACTURER'S REQUIREMENTS. (CEES 150.0(K), 150.0(O))

- LIGHTING FIXTURES LOCATED WITHIN 3 FEET HORIZONTALLY AND 8 FEET VERTICALLY OF THE BATHTUB RIM OR SHOWER STALL THRESHOLD SHALL BE LISTED FOR A DAMP LOCATION, OR LISTED FOR WET LOCATIONS WHERE SUBJECT TO SHOWER SPRAY. (CEC 410.10)

- ALL INSTALLED LIGHTING FIXTURES SHALL BE HIGH EFFICIENCY.

- AT LEAST ONE LIGHT FIXTURE SHALL BE CONTROLLED BY A VACANCY SENSOR SWITCH THAT REQUIRES A MANUAL ON ACTIVATION (DOES NOT AUTOMATICALLY TURN ON) AND AUTOMATICALLY TURNS OFF WITHIN 30 MINUTES AFTER THE ROOM IS VACATED. ALL OTHER LIGHT FIXTURES SHALL BE CONTROLLED BY A VACANCY SENSOR OR DIMMER.

- ALL LIGHT FIXTURES SHALL CONTAIN BULBS THAT ARE LABELED AS JA8-2016 (JA8-2016-E FOR SEALED LENS OR RECESSED FIXTURE). SCREW BASE BULBS ARE PERMITTED, EXCEPT IN RECESSED LIGHTING FIXTURES.

- RECESSED LIGHTING SHALL BE LISTED AS IC (ZERO CLEARANCE TO INSULATION) AND AT (AIR TIGHT). BE SEALED/CAULKED BETWEEN THE FIXTURE HOUSING AND CEILING, SHALL NOT CONTAIN A SCREW BASE SOCKET, AND CONTAIN BULBS MARKED WITH JA8-2016-E EFFICIENCY LABEL. (CEES 150.0(K))

- ALL NEW RECEPTACLES REQUIRING AFCI PROTECTION SHALL BE PROVIDED WITH SUCH. ALL 120-VOLT, SINGLE PHASE, 15 & 20-AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT KITCHENS, DINING ROOMS, FAMILY ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, REC ROOMS, CLOSETS, LAUNDRY AREA, HALLWAYS AND SIMILAR ROOMS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, OR COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. CEC 210.12

WATER EFFICIENT PLUMBING FIXTURES (CALGREEN 301.1.1)

RESIDENTIAL BUILDINGS UNDERGOING PERMITTED ALTERATIONS, ADDITIONS, OR REMODELS ARE REQUIRED TO REPLACE ALL NON-COMPLIANT PLUMBING FIXTURES (BASED ON WATER EFFICIENCY) THROUGHOUT THE HOUSE WITH WATER-CONSERVING PLUMBING FIXTURES. THE FOLLOWING TABLE SHOWS WHAT IS CONSIDERED TO BE A NON-COMPLIANT PLUMBING FIXTURE AND THE CURRENT WATER EFFICIENCY STANDARDS FOR VARIOUS PLUMBING FIXTURES. ALL EXISTING NON-COMPLIANT PLUMBING FIXTURES SHALL BE REPLACED WITH FIXTURES MEETING THE CURRENT STANDARDS. *

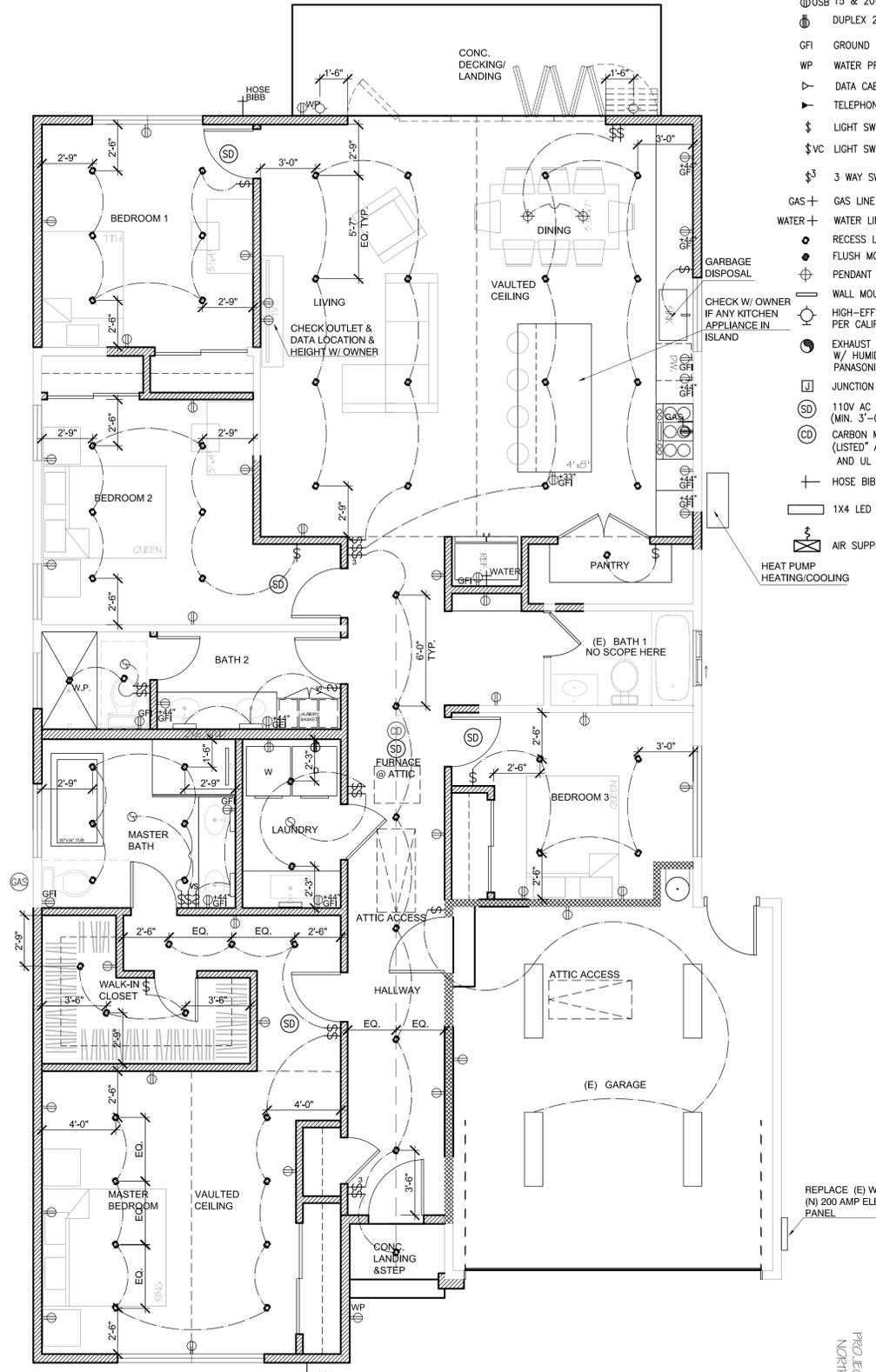
PLUMBING FIXTURE	NON-COMPLIANT PLUMBING FIXTURE	CURRENT STANDARD FOR THE MAXIMUM FLOW RATE OF NEWLY INSTALLED PLUMBING FIXTURES
WATER CLOSET (TOILET)	GREATER THAN 1.6 GALLONS/FLUSH	1.28 GALLONS/FLUSH
SHOWERHEAD	GREATER THAN 2.5 GALLONS/MINUTE	1.8 GALLONS/MINUTE AT 80PSI
FAUCET - BATHROOM	GREATER THAN 2.2 GALLONS/MINUTE	1.2 GALLONS/MINUTE AT 60 PSI
FAUCET - KITCHEN	GREATER THAN 2.2 GALLONS/MINUTE	1.8 GALLONS/MINUTE AT 60 PSI (AVERAGE)
FAUCET - COMMON/PUBLIC USE		0.5 GALLONS/MINUTE AT 60 PSI
METERING FAUCETS		0.2 GALLONS PER CYCLE

* RESIDENTIAL BUILDING CONSTRUCTED AFTER JANUARY 1, 1994 ARE EXEMPT FROM THIS REQUIREMENT.

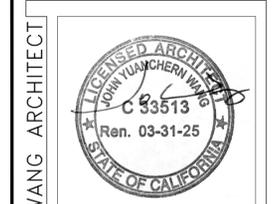
- PLUMBING FIXTURES AND FITTINGS SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CPC PER CGC 4.303.2

ELECTRICAL LEGEND

- ⊕ 15 & 20-AMP 125V DUPLEX 110VAC OUTLET
- ⊕ USB 15 & 20-AMP 125V DUPLEX 110VAC OUTLET W/ USB
- ⊕ DUPLEX 220V OUTLET
- GFI GROUND FAULT CIRCUIT INTERRUPTION
- WP WATER PROOF
- ▷ DATA CABLE JACK
- ▷ TELEPHONE JACK
- ⊕ LIGHT SWITCH WITH DIMMER
- ⊕ VC LIGHT SWITCH WITH VACANCY SENSOR
- ⊕ 3 3-WAY SWITCH WITH DIMMER
- GAS + GAS LINE
- WATER + WATER LINE
- RECESS LIGHT (LED)
- ⊕ FLUSH MOUNTED LIGHT-SMALL (LED)
- ⊕ PENDANT LIGHT (LED)
- ⊕ WALL MOUNTED LIGHT (LED)
- ⊕ HIGH-EFFICIENCY WALL MOUNT LIGHT PER CALIFORNIA ENERGY CODE 150(K)
- ⊕ EXHAUST FAN (ENERGY STAR CERTIFIED) W/ HUMIDISTAT CONTROL PANASONIC FV-05-11VKS1
- ⊕ JUNCTION BOX
- ⊕ 110V AC SMOKE DETECTOR (MIN. 3'-0" FROM BATHROOM OPENING)
- ⊕ CARBON MONOXIDE ALARM (LISTED* AS COMPLYING WITH UL 2034 AND UL 2075 PER CRC R315.3)
- ⊕ HOSE BIBB
- ⊕ 1X4 LED PANEL LIGHT
- ⊕ AIR SUPPLY REGISTER
- ⊕ HEAT PUMP HEATING/COOLING



PROPOSED FLOOR PLAN
SCALE: 1/4"=1'-0"



JOHN WANG ARCHITECT
JOHN WANG
0.408.382.1111
E.JOHN0321@GMAIL.COM

OWNER:
JASPER LIU
605 WESTON DR.
CAMPBELL, CA
chijasper@gmail.com

LIU RESIDENCE
HOUSE ADDITION AT
605 WESTON DRIVE
CAMPBELL, CA 95008

REVISIONS:

SHEET TITLE:
PROPOSED FLOOR PLAN & DEMO PLAN

DATE: 08/28/2024
SCALE: 1/4"=1'-0"

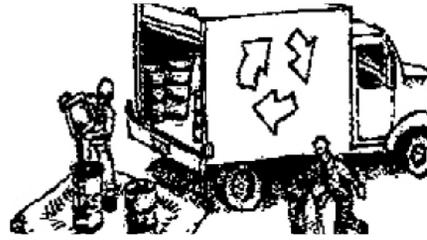
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DRAWN: JW

SHEET: E1
OF SHEETS

Construction Best Management Practices (BMPs)

Construction projects are required to implement year-round stormwater BMPs.

Materials, Waste, and Sediment Management



Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls, and stabilize all construction entrances and exits to sufficiently control erosion, sediment discharges and tracking of sediment offsite.
- Sweep or vacuum immediately any tracking of sediment offsite and secure sediment source to prevent further tracking. Never hose down streets or sidewalks.

Non-Hazardous Materials and Dust Control

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use. Weigh down and secure tarps for wind protection.
- Keep materials off the ground (e.g., store bagged materials on wood pallets, store loose materials on tarps not pavement, etc.).
- Use captured water from other activities (e.g., testing fire lines) for dust control.
- Ensure dust control water doesn't leave site or discharge to storm drains. Only use enough to control dust. Contain and dispose of excess water properly.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday, during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes. Have all pertinent Safety Data Sheets (i.e., SDS/MSDS/PSDS) onsite.

Waste Management

- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Repair/replace any dumpster that is not watertight or leaking.
- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. If the dumpster leaks, place a plastic liner underneath the dumpster to collect leaks. Never clean out a dumpster by hosing it down on the construction site – clean with dry methods, clean offsite or replace dumpster.
- Place portable toilets and hand wash stations away from storm drains. Make sure they are equipped with containment pans (secondary containment) and are in good working order. Check frequently for leaks.
- Dispose of all wastes and demolition debris properly per SDS and applicable regulations. Recycle or compost materials and wastes as feasible and appropriate, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste per SDS.
- Keep site free of litter (e.g., lunch items, water bottles, cigarette butts and plastic packaging).
- Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Equipment Management & Spill Control



Vehicle and Equipment Maintenance

- Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle/equipment washing offsite.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- Always keep spill cleanup materials (e.g., rags, absorbents, and cat litter) available at the construction site.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, report it to the State Office of Emergency Services at (800) 852-7550 (24 hours).

Earthmoving



Grading and Earthwork

- Schedule grading and excavation work during dry weather.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- Stabilize all denuded areas and install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- Keep excavated soil and/or transfer it to dump trucks, onsite, not in the streets. Ensure all subcontractors working onsite are implementing appropriate BMPs.

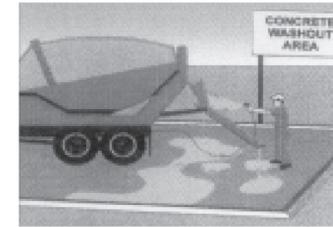
Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the [Regional Water Quality Control Board](#) and the local agency:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells.
 - Buried barrels, debris, or trash.
- If the above conditions are observed, document any signs of potential contamination, clearly mark areas and fence/tape them off so they are not disturbed by construction activities.

Landscaping

- Protect stockpiled landscaping materials from wind and rain by storing them under tarps year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.
- Store materials onsite, not in the street.

Concrete Management & Dewatering



Concrete Management

- Store both dry and wet concrete-related materials under cover, protected from rainfall and runoff and away from storm drains or creeks. Store materials off the ground on pallets. Protect dry materials from wind.
- Avoid pouring concrete in wet weather or when rainfall is imminent to prevent concrete that has not cured from contacting stormwater runoff.
- Wash out concrete equipment/mixers/trucks offsite, or onsite only in designated washout containers/areas where the water will flow into a temporary lined waste pit and in a manner that will prevent leaching into the underlying soils. (See CASQA Construction Stormwater BMP Handbook for temporary concrete washout facility details).
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose properly.
- Make sure that construction waste (e.g., concrete, stucco, cement wastewater, or residual materials) is collected, removed, and disposed of only at authorized disposal areas. Do not dispose of construction waste in storm drains, ditches, streets, creeks, dirt areas, or the sanitary sewer.

Dewatering

- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, obtain permission from the local wastewater treatment plant.
- Divert water originating from offsite away from all onsite disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call the local agency to determine whether the groundwater must be tested. Pumped groundwater may need to be collected and hauled offsite for treatment and proper disposal.
- For additional information, refer to the CASQA's Sheet NS-2 "Dewatering Operations."

Paving/Asphalt Work



Paving

- Avoid paving and seal coating in wet weather or when rain is forecast to prevent materials that have not cured from contacting with stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- When construction is complete, remove all covers from storm drain inlets and manholes.
- Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters, storm drains, streets, dirt areas, or the sanitary sewer.

Sawcutting & Asphalt/Concrete Removal

- Protect storm drain inlets during saw cutting.
- When making saw cuts, use as little water as possible.
- Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device.
- Shovel, absorb, or vacuum saw cut slurry deposits and dispose of all waste properly and as soon as reasonably possible. Sawcutting residue should not be left on pavement surface.
- If saw cut slurry enters a storm drain inlet, clean it up immediately and notify the local municipality.

Copper Architectural Features



Discharges to storm drains generated by installing, cleaning, treating or washing copper architectural features, is a violation of the municipal stormwater ordinance and may be subject to a fine. These BMPs must be implemented to prevent prohibited discharges to storm drains:

During Installation

- If possible, purchase copper materials that have been pre-patinated at the factory.
- If patination done on site, implement one or more of the following BMPs:
 - Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
 - Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
 - Collect the rinse water in a tank and haul off-site for proper disposal.
- Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.

During Maintenance

- Block storm drain inlets as needed to prevent runoff from entering storm drains.
- Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

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