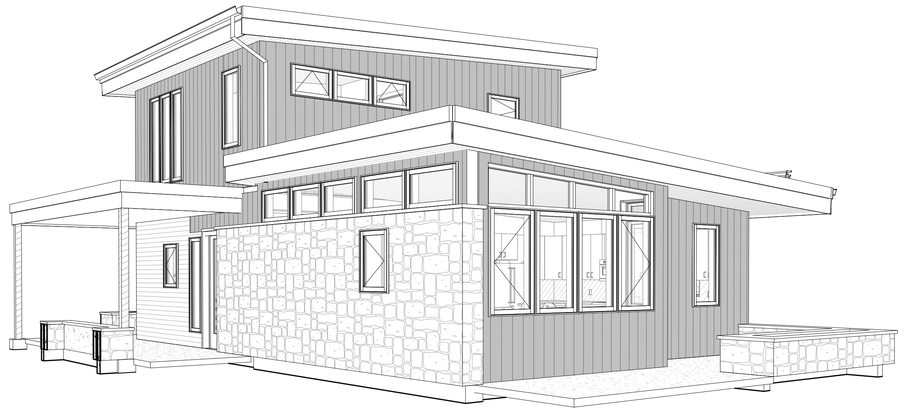
08.29.2025

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS



FOR VISUALIZATION PURPOSES ONLY

PROJECT ADDRESS
1064 Zimovia Hwy
Wrangell, AK 99929

VICINITY MAP: *Locator*

OWNER
SEARHC
3100 Channel Dr, Ste 300
Juneau, AK 99801
907.463.4000

ARCHITECT
Cushing Terrell
800 W Main St, Ste 800
Boise, ID 83702
208.577.5696
Contact: Bradley Dunbar

STRUCTURAL
Cushing Terrell
1201 Western Ave, Ste 700
Seattle, WA 98101
406.500.3544
Contact: Asrade Mengstu

PLUMBING
Cushing Terrell
13 N 23rd St
Billings, MT 59101
406.896.6152
Contact: Shawn Murray

MECHANICAL
Cushing Terrell
219 2nd Ave S
Great Falls, MT 59405
406.403.7205
Contact: Cory Jassen

ELECTRICAL
Cushing Terrell
13 N 23rd St
Billings, MT 59101
406.896.6169
Contact: Jeff Haidle

SHEET INDEX

Cushing Terrell
cushingterrell.com
800.757.9522

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929
SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR

REVISIONS

COVER SHEET, GENERAL INFORMATION

G001

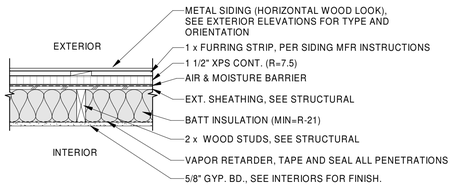
WALL ASSEMBLIES LEGEND

SCALE: 1" = 1'-0"

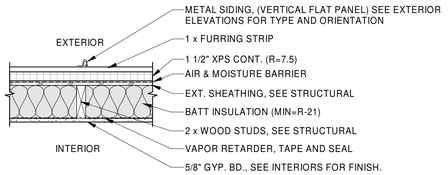
◇ # ← WALL TYPE
← WALL TYPE MODIFIER

GENERAL WALL ASSEMBLY NOTES:
A. SEE INTERIOR ELEVATIONS AND INTERIOR FINISH PLANS FOR WALL FINISHES.
B. PROVIDE BLOCKING AS REQUIRED TO SECURE WALL HUNG COMPONENTS.
C. EXTEND ALL COMPONENTS TO UNDERSIDE OF DECK, UNLESS NOTED OTHERWISE.
D. SEE EXT. FINISH SCHEDULE FOR EXTERIOR FINISH SPECIFICATIONS.
E. SET EXT. WALL FRAMING ON SILL PLATE GASKET - WOOD FRAMED.
F. PROVIDE CEMENTITIOUS TILE BACK BOARD IN LIEU OF GYP. BD. @ TILE LOCATIONS. SEE INTERIORS FOR TILE LOCATIONS.
G. PROVIDE MOISTURE RESISTANT GYP. BD. @ WET OR DAMP LOCATIONS.
H. SEE EXTERIOR ELEVATIONS FOR MATERIAL TRANSITIONS
I. OMIT GYP. BD. @ INTERIOR OF CONCEALED WALL SPACE. UNLESS NOTED OTHERWISE
J. PROVIDE TYPE "X" GYP. BD. IN LIEU OF REGULAR GYP. BD. AT SEPARATION WALL.

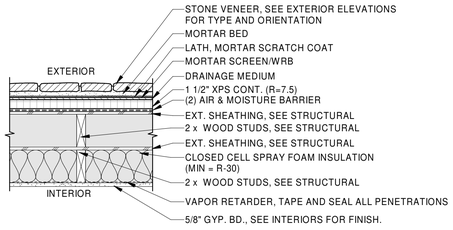
WALL ASSEMBLY MODIFIERS:
1. 1 HR RATED WALL



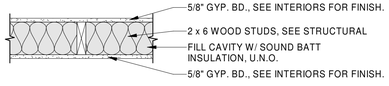
W1 EXTERIOR WALL - METAL SIDING (HORIZ) (SEE ELEVATIONS FOR ORIENTATION)



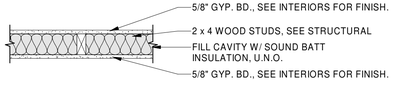
W2 EXTERIOR WALL - METAL SIDING (VERT) (SEE ELEVATIONS FOR ORIENTATION)



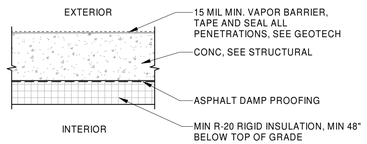
W3 EXTERIOR WALL - DOUBLE WALL AT STONE VENEER (SEE ELEVATIONS FOR ORIENTATION)



W4 INTERIOR WALL - 2 x 6 WOOD STUD WALL



W5 INTERIOR WALL - 2 x 4 WOOD STUD WALL



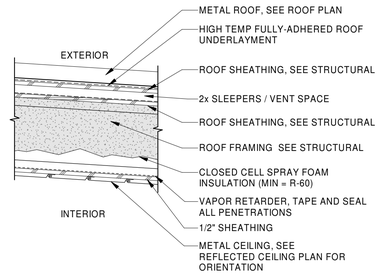
W6 EXTERIOR FOUNDATION WALL - BELOW GRADE

ROOF ASSEMBLIES LEGEND

SCALE: 1" = 1'-0"

◇ # ← ROOF TYPE MODIFIER

GENERAL ROOF ASSEMBLY NOTES:
A. INSTALL SELF-ADHERED GRACE ICE AND WATER SHIELD OR SIMILAR BELOW 2 LAYERS OF ASPHALT FELT (15 LB. MIN.) AT EAVES, UP ROOF 3'-0" MIN. FROM FACE OF EXTERIOR WALL, RAKES, VALLEYS AND RIDGES.
B. PROVIDE STEP FLASHING, BASE FLASHING AND COUNTER-FLASHING AT ROOF-TO-WALL CONDITIONS.
C. SEAL CAP AND PIPE FLASHING W/ FULL BED OF ROOF SEALANT.
D. PROVIDE HIGH-TEMP FULLY ADHERED UNDERLAYMENT (GRACE ULTRA OR SIMILAR) AT METAL ROOF.
E. CONTRACTOR TO ENSURE ROOF INSULATION IS MAINTAINED AS SHOWN IN ROOF ASSEMBLIES.
F. CONTRACTOR TO ENSURE ROOF VENTILATION MEETS REQUIREMENTS PER IRC IN CONCEALED SPACES. SEE ROOFING DETAILS.
G. THE FOLLOWING REFERENCES HAVE BEEN USED AS A BASIS FOR ROOF DESIGN & SHALL BE USED BY THE CONTRACTOR WHERE INSTALLATION DETAILS & SPECIFICATIONS ARE NOT INCLUDED IN THE CONSTRUCTION DOCUMENTS:
   a. NATIONAL ROOFING CONTRACTORS ASSOCIATION "ROOFING AND WATERPROOFING MANUAL"
   b. SHEET METAL AND AIR CONDITIONING NATIONAL CONTRACTORS ASSOCIATION "ARCHITECTURAL SHEET METAL MANUAL"
   c. 2021 INTERNATIONAL RESIDENTIAL CODE
   d. MANUF. GUIDELINES



R1 METAL ROOFING OVER WOOD FRAME SHED ROOF

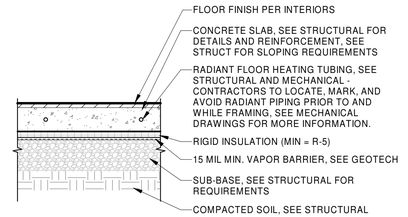
FLOOR ASSEMBLIES LEGEND

SCALE: 1" = 1'-0"

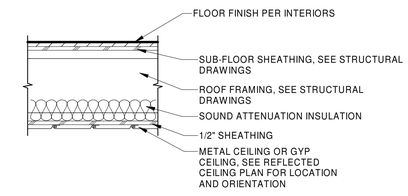
◇ # ← FLOOR TYPE
← FLOOR TYPE MODIFIER

GENERAL FLOOR ASSEMBLY NOTES:
A. SEE INTERIOR FINISH PLANS AND REFLECTED CEILING PLANS FOR FINISH SPECIFICATIONS.
B. PROVIDE BLOCKING AS REQUIRED TO SECURE CEILING HUNG COMPONENTS.

FLOOR ASSEMBLY MODIFIERS:
1. NA



F1 SLAB-ON-GRADE (IN FLOOR RADIANT FLOOR HEATING)



F2 FLOOR ASSEMBLY

Cushing Terrell.
cushingterrell.com
800.757.9522

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SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA 49TH
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT
9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | KOEL
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR

REVISIONS

ASSEMBLIES

G200

STRUCTURAL GENERAL NOTES

STRUCTURAL GENERAL NOTES ARE INTENDED TO HIGHLIGHT OR IN SOME CASES SUPPLEMENT PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR COMPLETE WORK COVERAGE.

A. GOVERNING CODES

1) INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION.
2) MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-16.
3) BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318-19.
4) NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSI/AWC NDS-2018.
5) TIMBER CONSTRUCTION MANUAL, AITC 6TH EDITION.

B. DESIGN LOADS AND CRITERIA

1) GRAVITY LOADS:
   a) ROOF LOADS:
      1. ROOF DEAD LOAD: 18 psf
      2. ROOF LIVE LOAD: 20 psf
   b) FLOOR LOADS:
      1. FLOOR DEAD LOAD: 15 psf
      2. FLOOR LIVE LOAD: 40 psf (RESIDENTIAL — ONE- AND TWO- FAMILY DWELLINGS — ALL OTHER AREAS EXCEPT STAIRS)
      3. FLOOR LIVE LOAD: 60 psf (BALCONIES AND DECKS)
   c) SLABS ON GRADE:
      1. SLABS ON GRADE LIVE LOAD: 40 psf
2) HANDRAIL AND GUARDRAIL SYSTEM LOADS:
   a) CONCENTRATED LOAD: 200 lb (HANDRAIL OR TOP RAIL)
   b) CONCENTRATED LOAD: 50 lb (INTERMEDIATE RAIL)
   c) LINEAR LOAD: 50 lb/ft (HANDRAIL OR TOP RAIL)
3) SNOW LOADS:
   a) GROUND SNOW LOAD: Pg = 60 psf, Is = 1.00, Ce = 1.0, Ct = 1.0, Cs = 1.0
   b) FLAT ROOF SNOW LOAD: Pf = 42 psf UNIFORM + DRIFT
4) WIND CRITERIA:
   a) 3-SEC PEAK GUST WIND SPEED = 139 mph
   b) RISK CATEGORY = II
   c) Iw = 1.00
   d) EXPOSURE = D
   e) INTERNAL PRESSURE COEFFICIENT (GCpi): ±0.18
   f) EXTERNAL ROOF COMPONENTS & CLADDING: 75 psf MINIMUM (ULTIMATE)
   g) EXTERNAL WALL COMPONENTS & CLADDING: 80 psf MINIMUM (ULTIMATE)
   h) STEEL ROOF JOIST NET UPLIFT - PERIMETER 20 FT: 50 psf MINIMUM (ULTIMATE)
   i) INTERSTORY DRIFT LIMIT = 1/400
5) SEISMIC CRITERIA:
   a) SS = 0.249 g / S1 = 0.254 g MAPPED MCER VALUES
   b) RISK CATEGORY = II
   c) PROJECT SITE CLASS = B
   d) Ie = 1.00
   e) SDS = 0.149 g / SD1 = 0.136 g DESIGN RESPONSE COEFFICIENT
   f) SEISMIC DESIGN CATEGORY = C
   g) ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   h) SEISMIC FORCE-RESISTING SYSTEM: BEARING WALL SYSTEMS: LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE, R = 6.5
   i) REDUNDANCY FACTOR: PLAN N-S RHO = 1.3 / PLAN E-W RHO = 1.3
   j) SEISMIC RESPONSE COEFFICIENT Cs = 0.03
   k) SEISMIC BASE SHEAR V = 1.9 kips (ULTIMATE)
   l) ALLOWABLE STORY DRIFT ▲ = 0.020hsx
6) FOOTING BEARING PRESSURE: 3000 psf ON APPROVED SUBGRADE, SEE SECTION FOUNDATIONS
7) SOIL FRICTION COEFFICIENT: 0.4
8) LATERAL SOIL PRESSURE:
   a) ACTIVE EQUIVALENT FLUID PRESSURE: 35 pcf
   b) AT-REST EQUIVALENT FLUID PRESSURE: 55 pcf
   c) PASSIVE EQUIVALENT FLUID PRESSURE: 400 pcf
9) FROST DEPTH: 32 INCHES TOP OF FOOTING

C. MATERIALS SECTION

1) CONCRETE MIXTURE: ALL STRUCTURAL ELEMENTS, UNLESS NOTED OTHERWISE
PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
FLY ASH ASTM C618, CLASS F, 10% - 25% BY WEIGHT
WATER / CEMENT + FLY ASH = 0.45 MAXIMUM
f'c = 4500 psi BASED ON 28-DAY TEST
EXPOSURE CATEGORY F, EXPOSURE CLASS F2
TOTAL AIR CONTENT = 6% +/- 1.5%
3/4" NORMAL WEIGHT AGGREGATE ASTM C33
2) CONCRETE MIXTURE: FOOTINGS
PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
FLY ASH ASTM C618, CLASS F, 10% - 25% BY WEIGHT
WATER / CEMENT + FLY ASH = 0.45 MAXIMUM
f'c = 4500 psi BASED ON 28-DAY TEST
EXPOSURE CATEGORY F, EXPOSURE CLASS F2
TOTAL AIR CONTENT = 6% +/- 1.5%
3/4" OR 1" NORMAL WEIGHT AGGREGATE ASTM C33
3) CONCRETE MIXTURE: INTERIOR SLABS ON GRADE
PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
WATER / CEMENT= 0.45 MAXIMUM
f'c = 3000 psi BASED ON 28-DAY TEST
EXPOSURE CATEGORY F, EXPOSURE CLASS F0
3/4" OR 1" NORMAL WEIGHT AGGREGATE ASTM C33
BALANCE CEMENTITIOUS RATIOS TO ACHIEVE FLOORING FINISH SCHEDULES AND CONCRETE WORKABILITY WITHOUT ADVERSELY AFFECTING CONCRETE SHRINKAGE
4) FLOWABLE FILL: PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
CEMENTITIOUS MATERIALS CONTENT OF 75 POUNDS PER CUBIC YARD, MINIMUM.
SELECT WATER CONTENT AS NECESSARY TO PRODUCE A CONSISTENCY THAT WILL RESULT IN A FLOWABLE, SELF-LEVELING PRODUCT AT THE TIME OF PLACEMENT.
f'c = 300 psi AT 28 DAYS
TOTAL AIR CONTENT 5.0% - 12.0%
NORMAL WEIGHT FINE AGGREGATE CONFORMING TO ASTM C33 WITH 100% PASSING A 3/8 SIEVE AND NO MORE THAN 15% PASSING A NO. 200 SIEVE MAY BE USED.
MAXIMUM SLUMP PER ACI 229 SECTION 4.2.1 = 7" +/- 1"
5) REINFORCING BARS: ASTM A615, GRADE 60
ASTM A706, GRADE 60 WHERE INDICATED TO BE WELDED
6) EPOXY-COATED STEEL REINFORCING BARS: ASTM A775
7) MECHANICAL REBAR SPLICES: LENTON TAPER THREADED SPLICES AS MFD BY NVENT OR APPROVED EQUAL
8) WELDED WIRE FABRIC (WWF): ASTM A1064, PLAIN WIRE REINFORCEMENT, Fy = 65 ksi
9) ANCHOR RODS: ASTM F1554 GRADE 36 W/ ASTM A563 GRADE A PLAIN HEAVY HEX NUTS
10) HIGH-STRENGTH BOLTS: ASTM F3125 GRADE A325 TYPE 1 THREAD CONDITION N; STEEL TO STEEL CONNECTIONS
11) NUTS: ASTM A563 GRADE DH PLAIN; STEEL TO STEEL CONNECTIONS
12) COUPLER NUTS: ASTM A563 GRADE DH PLAIN; STEEL TO STEEL CONNECTIONS
13) WASHERS: ASTM F436 TYPE 1 PLAIN; STEEL TO STEEL CONNECTIONS
14) BOLTS: ASTM A307 GRADE A; WOOD OR WOOD TO STEEL CONNECTIONS OR ERECTION ONLY
15) EXPANSION ANCHORS: CARBON STEEL STUD, MIN Fy = 84 ksi W/ EXPANSION ELEMENTS (WEDGES) SUCH AS (HILTI KWIK BOLT TZ2) ICC-ES REPORT ESR-4266 OR APPROVED EQUAL
16) ADHESIVE ANCHORS:
   a) CONCRETE: ASTM F1554 GRADE 36 THREADED ROD W/ CHISEL POINT & INJECTABLE ADHESIVE SUCH AS (HILTI HIT-RE 500 V3) ICC-ES REPORT ESR-3814 OR APPROVED EQUAL
   b) ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION. FOR INSTALLATIONS SOONER THAN 21 DAYS, CONSULT ADHESIVE MANUFACTURER FOR REQUIREMENTS.
   c) IF TEMPERATURE OF BASE MATERIAL AT TIME OF ADHESIVE INSTALLATION IS 45 F OR LESS AN ACRYLIC ADHESIVE IS REQUIRED.
17) SCREW ANCHORS:
   a) CONCRETE: ASTM B633, CLASS SC1, TYPE III SUCH AS (SIMPSON STRONG-TIE TITEN HD) ICC-ES REPORT ESR-2713 OR APPROVED EQUAL
18) POWDER DRIVEN FASTENERS: (HILTI X-U FASTENER) ICC-ES REPORT ESR-2269 OR APPROVED EQUAL
19) VAPOR BARRIER: ASTM E1745, CLASS A, 0.01 PERMS
20) GLUED LAMINATED TIMBER: ANSI A190.1
   a) CONTINUOUS OR CANTILEVER MEMBERS: COMBINATION SYMBOL 24F-V8-DF/DF
   b) SIMPLE SPAN MEMBERS: COMBINATION SYMBOL 24F-V4-DF/DF
   c) COLUMNS MEMBERS: COMBINATION SYMBOL 5-DF-L1
21) TIMBERSTRAND LSL BEAM / COLUMN / STUD: ICC-ES REPORT ESR-1387 (1-3/4" & 3-1/2" THICK)
Fb = 2325 psi, Fv = 310 psi
Fc = 2170 psi, E = 1.55E6 psi
22) TIMBERSTRAND LSL RIM BOARD: ICC-ES REPORT ESR-1387
Fb = 1700 psi, Fv = 425 psi
Fc = 1835 psi, E = 1.3E6 psi
23) PARALLAM PSL: ICC-ES REPORT ESR-1387
Fb = 2900 psi, Fv = 290 psi
Fc = 2900 psi, E = 2.0E6 psi
24) MICROLLAM LVL: ICC-ES REPORT ESR-1387
Fb = 2600 psi, Fv = 285 psi
Fc = 2510 psi, E = 2.0E6 psi
25) PREFABRICATED WOOD JOISTS:
(TJI) ICC-ES REPORT ESR-1153
(REDBUILT) ICC-ES REPORT ESR-2994
(BOISE CASCADE) ICC-ES REPORT ESR-1336
26) DIMENSION LUMBER: GRADED BY WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
<=4X NOMINAL: DOUGLAS FIR-LARCH #2, UNO
<=4X NOMINAL: DOUGLAS FIR-LARCH #2 PLATES AND BLOCKING
>4X NOMINAL: DOUGLAS FIR-LARCH #1, UNO
27) WOOD SHEATHING / PANELS: APA — THE ENGINEERED WOOD ASSOCIATION (APA) RATED "STRUCTURAL I" AS DESIGNATED BELOW SUITED FOR SPAN & USE

WALL SHEATHING:

   a) PLYWOOD 15/32" NOMINAL PANEL THICKNESS - 32/16 SHEATHING EXPOSURE 1, STRUCTURAL I

ROOF SHEATHING:

   a) PLYWOOD 19/32" NOMINAL PANEL THICKNESS - 40/20 SHEATHING EXPOSURE 1, STRUCTURAL I

FLOOR SHEATHING:

   a) PLYWOOD 23/32" NOMINAL PANEL THICKNESS - 24 OC STURD I-FLOOR T&G OR 48/24 T&G SHEATHING (GLUE & NAIL) EXPOSURE 1, STRUCTURAL I
28) TIMBERS: GRADED BY NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA) AS THEY PERTAIN TO STRUCTURAL TIMBER DOUGLAS FIR-LARCH #1
29) WOOD PANEL DIAPHRAGM SCREWS: (SIMPSON STRONG-TIE WSNTL) ICC-ES REPORT ESR-1472

D. FOUNDATIONS

1) FOUNDATIONS HAVE BEEN DESIGNED BASED ON INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT ENTITLED "GEOTECHNICAL REPORT — SEARHC WRANGELL EMPLOYEE HOUSING" BY RESPEC OF ANCHORAGE, ALASKA, PROJECT NUMBER I1300.25003, DATED APRIL, 2025. THE GEOTECHNICAL REPORT SHALL BE CONSIDERED A SUPPLEMENTAL REFERENCE DOCUMENT TO THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW AND FOLLOW ALL RECOMMENDATIONS PROVIDED THEREIN INCLUDING, BUT NOT LIMITED TO, SUBGRADE PREPARATION, GROUNDWATER MITIGATION AND SLOPE STABILITY. IN THE CASE OF DISCREPANCIES BETWEEN THE GEOTECHNICAL REPORT AND THE CONTRACT DOCUMENTS, THE ENGINEER SHALL BE NOTIFIED AND THE MOST STRINGENT CRITERIA SHALL BE APPLIED. REFER TO THE GEOTECHNICAL INVESTIGATION REPORT FOR BORING LOGS AND LABORATORY TEST RESULTS.
2) PLACE FOOTINGS ON UNDISTURBED NATIVE SOILS OR ENGINEERED FILL PLACED OVER UNDISTURBED NATIVE SOILS. ENGINEERED FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. PLACE ENGINEERED FILL IN UNIFORM LIFTS AND COMPACT TO MAXIMUM DRY UNIT WEIGHT OF 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698. PLAN LIMITS OF ENGINEERED FILL MUST EXTEND AT LEAST 2'-0" BEYOND ALL FOOTING EDGES, UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT. IF ENCOUNTERED, EXISTING FILL SHALL BE REMOVED TO AN APPROVED DEPTH AND REPLACED WITH ENGINEERED FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.
3) DO NOT BACKFILL WALLS WITH UNBALANCED SOIL LEVELS UNLESS ADEQUATELY SHORED OR HAVING PERMANENT FLOOR DIAPHRAGMS INSTALLED WITH CONNECTIONS COMPLETE. WALLS SPECIFICALLY DETAILED AS RETAINING WALLS SHALL HAVE FOOTING TOE SOIL COVERAGE AS DETAILED PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING DESIGN AND INSTALLATION, WHICH SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL.
4) BACKFILL AND COMPACT BURIED WALLS OR GRADE BEAMS EVENLY ON EACH SIDE TO AVOID UNBALANCED LOADS.
5) BACKFILL SHALL NOT BE PLACED PRIOR TO CONCRETE ELEMENTS REACHING A TESTED COMPRESSIVE DESIGN STRENGTH OF 4500 psi. CONTACT ENGINEER AND COORDINATE REVIEW OF COMPRESSIVE STRENGTH TEST RESULTS TO CONFIRM BACKFILL WORK MAY PROCEED.
6) ALWAYS PROVIDE POSITIVE SURFACE WATER DRAINAGE AWAY FROM THE STRUCTURE.
7) FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.
8) CONCRETE SHALL NOT BE PLACED IN EXCAVATIONS CONTAINING FROZEN SOIL OR WATER.
9) SHOULD SITE CONDITIONS ENCOUNTERED VARY FROM THOSE INDICATED IN THE CONSTRUCTION DOCUMENTS, CONTACT THE ENGINEER FOR FURTHER GUIDANCE.

E. SLABS ON GRADE

1) PLACE INTERIOR SLABS ON GRADE DIRECTLY ON AN APPROVED VAPOR BARRIER OVER A 6" BASE OF CRUSHED, 3/4" MINUS DRAINAGE COURSE, GRADED FOR COMPACTION WITH LESS THAN 5% PASSING THE NO. 200 SIEVE. PLACE DRAINAGE COURSE ON NATIVE SOILS OR ENGINEERED FILL PLACED OVER UNDISTURBED NATIVE SOILS. WHERE REQUIRED, PLACE ENGINEERED FILL IN UNIFORM LIFTS UNDER SLABS (ABOVE FOOTINGS) AND COMPACT TO MAXIMUM DRY UNIT WEIGHT OF 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698.
2) VAPOR BARRIER SYSTEM SHALL BE POLYOLEFIN SHEET AND SHALL INCLUDE MANUFACTURER'S ADHESIVE SEAM TAPE AND PENETRATION SLEEVES. INSTALL AND SEAL VAPOR BARRIER ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
   a) VAPOR BARRIER INSTALLATION SHALL UTILIZE MATERIALS LISTED WHERE REQUIRED OR SUBMIT EQUIVALENT MATERIALS FOR ENGINEER APPROVAL:
      1. VAPOR BARRIER: STEGO INDUSTRIES, LLC "STEGO WRAP" 15-MILS.
      2. VAPOR BARRIER SEAM TAPE: STEGO INDUSTRIES, LLC "STEGO TAPE".
      3. CHANNEL BAR (TERMINATION BAR): OMG ROOFING PRODUCTS "CHANNEL BAR" PRE PUNCHED AT 12-IN. ON CENTER.
      4. CHANNEL BAR ANCHORS: OMG ROOFING PRODUCTS "MASONRY ANCHOR" 1/4" PIN DIAMETER, 1-1/4" PIN LENGTH.
      5. VAPOR RETARDANT MEMBRANE: STEGO INDUSTRIES, LLC "STEGO MASTIC".
   b) ENGINEER OF RECORD SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR TO ALLOW FOR INSPECTION OF VAPOR BARRIER PRIOR TO PLACEMENT OF CONCRETE.
3) SLAB ON GRADE CONSTRUCTION JOINT AND CONTRACTION JOINT PLACEMENT SHALL BE APPROVED BY THE ENGINEER IF DIFFERENT THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS. CONTRACTION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 24 TIMES THE THICKNESS OF THE SLAB AND IN NO CASE SHALL JOINT SPACING EXCEED 15'-0', UNLESS NOTED OTHERWISE. WHERE SLAB ON GRADE CONTRACTION JOINTS ARE SHOWN, CONSTRUCTION JOINTS MAY BE SUBSTITUTED TO ACCOMMODATE THE CONTRACTOR'S PLACEMENT STRATEGY.
4) SLABS ON GRADE SAW-CUT CONTRACTION JOINTS SHALL BE RUN WITHIN 4 TO 12 HOURS AFTER THE CONCRETE HAS BEEN FINISHED.
5) USE PREMOLDED JOINT FILLER 1/2" THICK FOR ISOLATION JOINTS TO SEPARATE SLABS ON GRADE FROM BUILDING WALLS, COLUMNS AND FOOTINGS.
6) WHERE TOP SURFACES OF CONCRETE SLABS ON GRADE ARE SHOWN TO BE RECESSED MORE THAN 1/2", THICKEN SLAB TO MAINTAIN INDICATED SLAB THICKNESS.
7) PROVIDE REBAR SUPPORTS, SPACERS, AND TIE BARS ADEQUATELY TO ENSURE ALL REINFORCEMENT REMAINS AT PROPER DEPTH AND LOCATION WHEN CONCRETE SLABS ON GRADE ARE PLACED. REBAR SUPPORTS AND SPACERS EXPOSED TO EARTH SHALL BE HOT-DIP GALVANIZED G90 OR OTHER APPROVED NON-CORROSIVE MATERIAL.
8) FOLLOW FLOORING MANUFACTURER'S RECOMMENDATIONS FOR SLAB ON GRADE FINISHING WHICH MAY INCLUDE EITHER A BROOM FINISH OR STEEL TROWELLED FINISH. IN AREAS WHERE NO FLOORING OR COATING IS SPECIFIED, FLOAT THE CONCRETE WITH SINGLE PASS FLAT TROWEL AND TEXTURE WITH BROOM FINISH.
9) CURE CONCRETE BY APPLYING POLYETHYLENE SHEETING MATERIAL TO THE TOP SURFACE AFTER FINAL FINISHING FOR A PERIOD OF 3 DAYS. REMOVE POLYETHYLENE SHEETING AFTER NOTED CURING PERIOD. CONTINUE COLD WEATHER PROTECTION OF SLAB ON GRADE AS REQUIRED.
10) THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING DRYING METHODS FOR CONCRETE SLABS WITH APPLIED COATINGS AND FLOORING MATERIALS TO ACHIEVE THE COATING OR FLOORING MANUFACTURER'S CONCRETE SLAB MOISTURE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MOISTURE MITIGATION PROCEDURES IN THE CASE THE SLAB MOISTURE LEVELS ARE ANTICIPATED TO NOT BE WITHIN THE MANUFACTURER'S REQUIREMENTS IN ORDER TO MEET THE PROJECT CONSTRUCTION SCHEDULE. CONTRACTOR SHALL TEST MOISTURE CONTENT OF THE CONCRETE SLABS ON GRADE 10 DAYS PRIOR TO FLOORING INSTALLATIONS TO DETERMINE IF REMEDIAL METHODS NEED TO BE TAKEN TO ENSURE MOISTURE CONTENT IN SLABS IS AT AN ACCEPTABLE LEVEL. REFERENCE FLOORING MANUFACTURER'S SPECIFICATIONS FOR REQUIRED TESTS.
11) ELECTRICAL AND MECHANICAL CONDUITS, RACEWAYS OR OTHER NON-STRUCTURAL ITEMS SHALL NOT BE PLACED WITHIN SLABS ON GRADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER. REFER TO MECHANICAL DRAWINGS FOR FLOOR HEATING TUBE INSTALLATION REQUIREMENTS.
12) SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING FLOOR FLATNESS (FF) AND FLOOR LEVELNESS (FL) REQUIREMENTS FOR EACH CLASSIFICATION TYPE LISTED AS DEFINED IN THE LATEST EDITION OF ACI 117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY". FLOOR SURFACE CLASSIFICATION TYPE SHALL BE MODERATELY FLAT, UNLESS NOTED OTHERWISE.
   a) CONVENTIONAL
   OVERALL: FF = 20, FL = 15, LOCAL MIN: FF = 12, FL = 9
   b) MODERATELY FLAT
   OVERALL: FF = 25, FL = 20, LOCAL MIN: FF = 15, FL = 12
   c) FLAT

STRUCTURAL SHEET INDEX

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN
REVISIONS

STRUCTURAL GENERAL NOTES

S001

OVERALL: FF = 35, FL = 25, LOCAL MIN: FF = 21, FL = 15

d) VERY FLAT
OVERALL: FF = 45, FL = 35, LOCAL MIN: FF = 27, FL = 21

e) SUPER FLAT
OVERALL: FF = 60, FL = 40, LOCAL MIN: FF = 36, FL = 24

F. CONCRETE

1) PERFORM CONCRETE WORK INCLUDING HANDLING, PLACING, AND CONSTRUCTING IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" INCLUDING THE REFERENCED LATEST EDITION OF ACI 117 “SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY" UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.

2) CAST-IN-PLACE CONCRETE SPECIFIED COVER FOR REINFORCEMENT SHALL NOT BE LESS THAN THE FOLLOWING:

a) 3" AT CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH

b) 2" AT CONCRETE EXPOSED TO EARTH OR WEATHER FOR #6 AND LARGER BARS

c) 1 1/2" AT CONCRETE EXPOSED TO EARTH OR WEATHER FOR # 5 AND SMALLER BARS

d) 1 1/2" AT CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND FOR REINFORCEMENT OF BEAMS OR COLUMNS

e) 3/4" AT CONCRETE SLABS, WALLS OR JOISTS NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND

3) SPLICE REINFORCING BARS ACCORDING TO THE REINFORCING BAR LAP SCHEDULE. SPLICE WWF SHEETS BY LAPPING AT LEAST ONE PANEL WIDTH (TWO LONGITUDINAL BARS IN CONTACT) OR 10 INCHES MINIMUM. STAGGER ALTERNATING SPLICES A MINIMUM OF ONE LAP LENGTH. PLACE MECHANICAL REBAR SPLICE CONNECTORS WHERE SHOWN.

4) PLACE CORNER REINFORCING BARS AT ALL WALLS AND GRADE BEAMS WITH SIZE & SPACING TO MATCH HORIZONTAL REINFORCMENT UNLESS SHOWN OTHERWISE.

5) ADD #5X6'-0" DIAGONAL REBAR EACH FACE AT ALL WALL OPENING CORNERS AND #5X6'-0" DIAGONAL REBAR MID-DEPTH AT ALL RE-ENTRANT SLAB CORNERS, UNLESS SHOWN OTHERWISE.

6) PROVIDE REBAR SUPPORTS, SPACERS, AND TIE BARS ADEQUATELY TO ENSURE ALL REINFORCEMENT REMAINS AT PROPER DEPTH AND LOCATION WHEN CONCRETE ELEMENTS ARE PLACED. REBAR SUPPORTS AND SPACERS EXPOSED TO EARTH SHALL BE HOT-DIP GALVANIZED G90 OR OTHER APPROVED NON-CORROSIVE MATERIAL.

7) VERTICAL DOWELS SHALL BE SECURED AND SUPPORTED IN PLACE BEFORE PLACING CONCRETE. DO NOT STAB OR "WET-SET" VERTICAL DOWELS.

8) INSTALL AND SECURE EMBEDMENTS SUCH AS ANCHOR RODS AND EMBEDMENT PLATES WITHIN SPECIFIED TOLERANCES PRIOR TO CONCRETE PLACEMENT.

9) CONCRETE SHALL BE PROPERLY CONSOLIDATED PER THE LATEST EDITION OF ACI 309 USING INTERIOR MECHANICAL VIBRATION, EXCEPT CONCRETE SLABS ON GRADE LESS THAN 5" THICK. DO NOT OVER-VIBRATE CONCRETE.

10) PROTECT AND CURE ALL CONCRETE SURFACES WITH CURING COMPOUND CONFORMING TO ASTM C309, TYPE 2, CLASS B, UNLESS NOTED OTHERWISE. BEGIN CURING WALLS IMMEDIATELY AFTER STRIPPING FORMS.

11) CONCRETE SURFACES TO RECEIVE GROUT UNDER COLUMN BASE PLATES MUST BE PREPARED BY LIGHT BUSH HAMMERING (1/4" AMPLITUDE) THE GROUTED AREA AND PRE-SOAKING. MINIMUM GROUT THICKNESS SHALL BE 1”.

12) CONCRETE WALLS INTERSECTING CONCRETE PILASTERS SHALL BE CAST MONOLITHICALLY WITH PILASTERS, UNLESS NOTED OTHERWISE.

13) CHAMFER EXPOSED EDGES OF CONCRETE BEAMS AND COLUMNS 3/4", UNLESS NOTED OTHERWISE.

14) IN ACCORDANCE WITH THE LATEST EDITION OF ACI 347.3R, PROVIDE FORMED CONCRETE SURFACE CATEGORIES (CSC) AS FOLLOWS PER TABLE 3.1A, UNLESS NOTED OTHERWISE:

a) CONCRETE SURFACES IN AREAS WITH LOW VISIBILITY USED OR COVERED WITH SUBSEQUENT FINISH MATERIALS INCLUDING BUT NOT LIMITED TO BASEMENT WALLS COVERED BY GRADE: CSC1

b) CONCRETE SURFACES WHERE VISUAL APPEARANCE IS OF MODERATE IMPORTANCE INCLUDING BUT NOT LIMITED TO INTERIOR SPACES OF ELECTRICAL AND MECHANICAL ROOMS: CSC2

c) CONCRETE SURFACES THAT ARE IN PUBLIC VIEW OR WHERE APPEARANCE IS SPECIFICALLY DESIGNATED IMPORTANT INCLUDING BUT NOT LIMITED TO INTERIOR AND EXTERIOR ELEMENTS: CSC3

d) CONCRETE SURFACES WHERE THE EXPOSED CONCRETE IS A PROMINENT FEATURE OF THE COMPLETED STRUCTURE OR VISUAL APPEARANCE IS SPECIFICALLY DESIGNATED IMPORTANT INCLUDING BUT NOT LIMITED TO MONUMENTAL STRUCTURES: CSC4

15) WHEN THE AMBIENT AIR TEMPERATURE HAS FALLEN TO, OR IS EXPECTED TO FALL BELOW 40 F DURING THE PROTECTION PERIOD, IMPLEMENT COLD WEATHER PROCEDURES AND COMPLY WITH COLD WEATHER CONCRETING PROVISIONS OF THE ADOPTED ACI 306R “GUIDE TO COLD WEATHER CONCRETING”. CONTRACTOR SHALL PROVIDE A COLD WEATHER CONCRETE PLACEMENT AND PROTECTION PLAN AS A PROJECT SUBMITTAL IF JOB SITE TEMPERATURES ARE EXPECTED TO DROP BELOW NOTED THRESHOLD VALUE AT ANY TIME DURING THE CONCRETE PLACEMENT. CONTRACTOR IS RESPONSIBLE FOR ALL HEATING AND PROTECTION MATERIALS AND ASSOCIATED LABOR AS REQUIRED IN MAINTAINING COMPLIANCE WITH COLD WEATHER CONCRETING PROCEDURES.

16) WHEN THE AMBIENT AIR TEMPERATURE EXCEEDS 80 F OR THE RATE OF EVAPORATION IS GREATER THAN 0.2 PSF PER HOUR, IMPLEMENT HOT WEATHER PROCEDURES AND COMPLY WITH HOT WEATHER CONCRETING PROVISIONS OF THE ADOPTED ACI 305R “GUIDE TO HOT WEATHER CONCRETING”. CONTRACTOR SHALL PROVIDE A HOT WEATHER CONCRETE PLACEMENT AND PROTECTION PLAN AS A PROJECT SUBMITTAL IF JOB SITE TEMPERATURES ARE EXPECTED TO EXCEED NOTED THRESHOLD VALUES AT ANY TIME DURING THE CONCRETE PLACEMENT.

17) SHOULD SULFATES BE FOUND IN THE SOIL ACCORDING TO THE GEOTECHNICAL REPORT, DO NOT USE CONCRETE CONTAINING CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.

18) CONCRETE TESTING AND ACCEPTANCE:

a) CONCRETE PRODUCTION FACILITY SHALL SUBMIT FOR ENGINEER APPROVAL CONCRETE MIX DESIGN A MINIMUM OF FIVE WORKING DAYS PRIOR TO PLACEMENT WHICH INCLUDES STRENGTH TEST RECORDS NOT MORE THAN 24 MONTHS OLD AND CONSISTING OF AT LEAST 30 CONSECUTIVE TESTS OR TWO GROUPS OF CONSECUTIVE TESTS TOTALING AT LEAST 30 TESTS.

b) OBTAIN SAMPLES IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 “SPECIFICATIONS FOR STRUCTURAL CONCRETE” SECTION 1.6.4.2. OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CUBIC YARDS, OR FRACTION THEREOF, OF EACH CONCRETE MIXTURE PLACED IN ANY ONE DAY.

c) MOLD AND CURE A MINIMUM OF FIVE CYLINDERS FROM EACH SAMPLE IN ACCORDANCE WITH ASTM C31. TEST ONE CYLINDER AT 7 DAYS, TEST THREE CYLINDERS AT 28 DAYS, AND TEST ONE CYLINDER AT 56 DAYS.

d) A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST THREE 4 BY 8 IN CYLINDERS MADE FROM THE SAME SAMPLE OF CONCRETE AND TESTED AT TEST AGE DESIGNATED.

e) STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE SHALL BE CONSIDERED SATISFACTORY IF BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:

1. EVERY ARITHMETIC AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS EQUALS OR EXCEEDS f'c.

2. NO STRENGTH TEST FALLS BELOW f'c BY MORE THAN 500 PSI.

G. FLOWABLE FILL

1) FLOWABLE MAY BE USED AS A REPLACEMENT FOR STRUCTURAL FILL ONLY WHEN APPROVED BY THE PROJECT ENGINEER. FLOWABLE FILL (CONTROLLED LOW-STRENGTH MATERIAL) PROPERTIES SHALL BE DETERMINED PER THE LATEST EDITION OF ACI 229, UNLESS NOTED OTHERWISE.

2) FLOWABLE FILL SHALL BE READY MIXED IN ACCORDANCE WITH ACI 304.

3) FLOWABLE FILL TESTING AND ACCEPTANCE:

a) FLOWABLE FILL PRODUCTION FACILITY SHALL SUBMIT FOR ENGINEER APPROVAL FLOWABLE FILL MIX DESIGN A MINIMUM OF FIVE WORKING DAYS PRIOR TO PLACEMENT WHICH INCLUDES STRENGTH TEST RECORDS NOT MORE THAN 24 MONTHS OLD AND CONSISTING OF AT LEAST 30 CONSECUTIVE TESTS OR TWO GROUPS OF CONSECUTIVE TESTS TOTALING AT LEAST 30 TESTS.

b) OBTAIN SAMPLES IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 “SPECIFICATIONS FOR STRUCTURAL CONCRETE” SECTION 1.6.4.2. OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CUBIC YARDS, OR FRACTION THEREOF, OF EACH FLOWABLE FILL MIXTURE PLACED IN ANY ONE DAY.

c) MOLD AND CURE A MINIMUM OF FOUR CYLINDERS FROM EACH SAMPLE IN ACCORDANCE WITH ASTM C31. TEST ONE CYLINDER AT 7 DAYS AND TEST TWO CYLINDERS AT 28 DAYS. HOLD ONE CYLINDER IN RESERVE FOR TESTING AS DIRECTED BY THE ENGINEER.

d) A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST TWO 6 BY 12 IN CYLINDERS MADE FROM THE SAME SAMPLE OF FLOWABLE FILL AND TESTED AT TEST AGE DESIGNATED.

e) STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF FLOWABLE FILL SHALL BE CONSIDERED SATISFACTORY IF BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:

1. EVERY ARITHMETIC AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS EQUALS OR EXCEEDS f'c.

2. NO STRENGTH TEST FALLS BELOW f'c BY MORE THAN 100 PSI.

H. WOOD FRAMING

1) FRAMING CONNECTORS, ANCHORS, AND HANGERS SHOWN ON THE DRAWINGS ARE THE PRODUCTS OF SIMPSON STRONG-TIE COMPANY, PLEASANTON, CALIFORNIA AND ARE DESIGNATED BY THE MANUFACTURER'S STANDARD PRODUCT NUMBERS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND USE. PRODUCTS WITH EQUIVALENT CAPACITY AND QUALITY MAY BE SUBSTITUTED AFTER A SUBMITTAL HAS BEEN PROVIDED BY THE GENERAL CONTRACTOR AND FINAL APPROVAL BY STRUCTURAL ENGINEER. NOTE: "USP" LUMBER CONNECTORS ARE PRIOR APPROVED FOR DIRECT SUBSTITUTION OF SIMPSON PRODUCTS USING THE "USP" REFERENCE NUMBER INDEX. WHERE DIRECT SUBSTITUTION IS NOT AVAILABLE IN THE INDEX, PROVIDE A SUBSTITUTION SUBMITTAL FOR PROPOSED PRODUCT SUBSTITUTION.

2) SAWN LUMBER:

a) SAWN LUMBER SHALL BE NEW OR RECYCLED STABLED WOOD WITH MAXIMUM MOISTURE CONTENT OF 19%.

b) PROVIDE HEADERS FOR ALL OPENINGS PER SCHEDULE. WHERE NOT INDICATED, INSTALL 2-2X6 WITH PLATES TOP AND BOTTOM MATCHING STUD WIDTH. INSULATE ALL BOX HEADERS AS INDICATED BY ARCHITECTURAL.

c) DOUBLE TOP PLATES SHALL HAVE A MINIMUM LAP LENGTH OF 4 FEET. FASTEN WITH 1 ROW OF 0.135”Ø NAILS @ 6" UNLESS NOTED OTHERWISE.

d) ALL FRAMING ABOVE NON-BEARING WALLS SHALL UTILIZE SLIP CONNECTIONS ENSURING PREVENTION OF UNINTENDED LOAD TRANSFER.

e) WOOD STUD WALL SHALL BE 2X6 @ 16" OC, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. SILL PLATES SHALL UTILIZE A MINIMUM OF 2 ANCHOR RODS WHICH SHALL BE 5/8" DIAMETER X 8" EMBED WITH 3"X3"X1/4" PLATE WASHERS SPACED A MAXIMUM OF 4'-0" OC, UNLESS NOTED OTHERWISE. SILL PLATE SHALL NOT BE NOTCHED FOR FASTENING AND ANCHOR ROD THREADS SHALL EXTEND A MINIMUM OF 2 THREADS ABOVE NUT. ANCHOR RODS ARE REQUIRED WITHIN 1'-0" OF ALL JAMBS, CORNERS, WALL INTERSECTIONS AND WALL ENDS.

f) PROVIDE SOLID STRUCTURAL BLOCKING BELOW ALL WOOD COLUMNS DIRECTLY TO FRAMING BELOW.

g) STRUCTURAL MEMBERS NOT SPECIFICALLY DETAILED FOR PENETRATIONS SHALL NOT BE CUT FOR MECHANICAL PIPES, DUCTS ETC UNLESS APPROVED BY THE ENGINEER.

h) WOOD MEMBERS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESERVATIVE TREATED WOOD IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS.

i) ALL LAG SCREWS SHALL HAVE LEAD HOLES DRILLED THE SAME DIAMETER FOR THE SHANK AND 50% OF THE SHANK DIAMETER FOR THE THREADED PORTION. LUBRICATE THREADS BEFORE INSTALLATION.

j) NAILING REQUIREMENTS NOT SPECIFIED ON THE CONSTRUCTION DOCUMENTS SHALL BE IN ACCORDANCE WITH IBC FASTENING SCHEDULE, TABLE 2304.9.1.

k) ALL STEEL PLATE, FASTENERS, ANCHORS AND CONNECTORS IN DIRECT CONTACT WITH WOOD THAT HAS ALKALINE COPPER QUATERNARY (ACQ) WITHOUT AMMONIA PRESERVATIVE TREATMENT SHALL BE ASTM A153, CLASS B HOT-DIP GALVANIZED COATING G185 OR BE STAINLESS STEEL TYPE SS316L. ALL STEEL PLATE, FASTENERS, ANCHORS AND CONNECTORS IN DIRECT CONTACT WITH WOOD THAT HAS ALKALINE COPPER QUATERNARY (ACQ) WITH AMMONIA PRESERVATIVE TREATMENT SHALL BE STAINLESS STEEL TYPE SS316L.

3) WOOD SHEATHING:

a) INSTALL FLOOR & ROOF PLYWOOD PANELS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER ALL END JOINTS 48" MINIMUM AND PLACE AS INDICATED IN "CASE 1" OF THE LATEST EDITION OF AWC SDPWS TABLE 4.2A FOR ROOF AND FLOOR SHEATHING, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING AS INDICATED ON CONSTRUCTION DOCUMENTS.

b) INSTALL WALL STRUCTURAL PANELS WITH FACE GRAIN EITHER PARALLEL TO OR PERPENDICULAR TO SUPPORTS. IN HORIZONTAL INSTALLATIONS, STAGGER ALL END JOINTS A MINIMUM OF ONE STUD SPACE AND IN VERTICAL INSTALLATIONS, STAGGER ALL END JOINTS A MINIMUM OF THE TYPICAL STUD SPACING, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING AS INDICATED ON CONSTRUCTION DOCUMENTS.

c) PANELS LESS THAN 12 INCHES WIDE SHALL NOT BE USED.

d) FASTENERS ALONG SHEAR PANEL EDGES SHALL NOT BE LESS THAN 3/8" FROM PANEL EDGE.

e) NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING.

f) WOOD SHEATHING FASTENING FRAMING ATTACHMENT, UNLESS NOTED OTHERWISE:

1. WALL SHEATHING:

a. 0.131”Ø NAIL @ 6" AT PANEL EDGES, UNO — ALL PANEL EDGES SHALL BE BLOCKED

b. 0.131”Ø NAIL @ 12" AT PANEL FIELD, UNO

2. ROOF SHEATHING:

a. 0.131”Ø NAIL @ 6" AT PANEL EDGES, UNO

b. 0.131”Ø NAIL @ 12" AT PANEL FIELD, UNO

3. FLOOR SHEATHING:

a. 0.131”Ø NAIL @ 6" AT PANEL EDGES, UNO

b. 0.131”Ø NAIL @ 12" AT PANEL FIELD, UNO

g) ALL SHEATHING SHALL BEAR THE VISIBLE GRADING STAMP OF THE APA — THE ENGINEERED WOOD ASSOCIATION (APA) OR OTHER APPROVED AGENCY.

h) SCREWS SHALL BE FULLY DRIVEN AND SHALL BE OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 1-1/4 INCHES IN FRAMING.

4) TIMBER FRAME CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF TIMBER FRAME ENGINEERING COUNCIL (TFEC) “CODE OF STANDARD PRACTICE FOR TIMBER FRAME STRUCTURES” (TFEC 2).

a) TIMBER SHALL BE NEW OR RECYCLED STABLED TIMBER WITH MAXIMUM MOISTURE CONTENT OF 16%.

b) SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER AND SHALL INCLUDE: TIMBER FRAME SYSTEM LAYOUT, DIMENSIONS, NOMINAL LUMBER SIZE AND GRADE, EDGE TREATMENT, SURFACE TREATMENT, FINISHES AND DETAILS FOR TIMBER FRAME CONNECTION JOINERY AND OTHER ACCESSORIES. SUBMIT SHOP DRAWINGS AND ERECTION PLANS FOR APPROVAL PRIOR TO FABRICATION.

c) TIMBER CONNECTION JOINERY SHALL ADHERE TO THE LATEST EDITION OF TIMBER FRAME ENGINEERING COUNCIL (TFEC) “STANDARD FOR DESIGN OF TIMBER FRAME STRUCTURES AND COMMENTARY” (TFEC-1). CONNECTION JOINERY SHALL UTILIZE MORTISE AND TENON JOINTS WITH OAK DOWELS UNLESS NOTED OTHERWISE. CONNECTION JOINERY SHALL BE DESIGNED ACCORDING TO DESIGN LOAD REQUIREMENTS AS INDICATED BY THE ENGINEER AND SHALL MINIMIZE JOINT SEPARATION DUE TO TIMBER SHRINKAGE.

d) TIMBER FRAME FABRICATION AND ERECTION SHALL BE UNDER DIRECT SUPERVISION OF THE PROJECT FOREMAN WITH EXPERIENCE IN 5 PREVIOUS PROJECTS OF SIMILAR SIZE AND SCOPE.

e) TIMBER FRAME MANUFACTURER SHALL COORDINATE TIMBER FRAME INSTALLATION WITH CONTRACTOR INCLUDING BRACING REQUIREMENTS, ERECTION PLANS, SCHEDULE AND OTHER RELEVANT ITEMS PRIOR TO INSTALLATION. WHEN LATERAL LOADS ARE RESISTED BY A SYSTEM OTHER THAN THE TIMBER FRAME, LEAVE TEMPORARY BRACING IN PLACED UNTIL LATERAL SYSTEM IS COMPLETED.

5) STORAGE, HANDLING, AND CONDITIONING OF TIMBER FRAMING: STRUCTURAL MASS TIMBER FRAMING IS INTENDED TO BE THE EXPOSED ARCHITECTURAL FINISH MATERIAL. ALL HANDLING AND STORAGE IS TO BE COORDINATED AND PROVIDED BY CONTRACTOR. THE FOLLOWING BEST PRACTICES ARE RECOMMENDED FOR INTEGRITY AND QUALITY OF INSTALLED, FINISHED FRAMING. THESE RECOMMENDATIONS ARE TO BE USED IN ADDITION TO MANUFACTURER AND SUPPLIER RECOMMENDATIONS.

a) PROTECT WOOD FRAMING FROM WEATHER AND OTHER SOURCES OF WATER AND DIRT TO PREVENT STAINING OF ARCHITECTURAL SURFACES DURING TRANSPORATION, HANDLING, STORAGE, AND ERECTION UNTIL THE BUILDING ENVELOPE IS CONSTRUCTED.

b) STORE ALL MATERALS ON LEVEL SURFACE RASIED OFF THE GROUND A MINIMUM OF 8 INCHES. PROVIDE CONTINUOUS, WATERPROOF COVER WITH SLOTS OR PERFORATIONS ON HORIZONTAL SURFACES TO PROVIDE ADEQUATE AIRFLOW. REMOVE WATER, SNOW, AND ICE ACCUMULATION FROM STORED MATERIALS.

c) PROVIDE CORNER GUARDS ON FRAMING MEMBERS TO PREVENT CRUSHING, MARKING, OR OTHER DEFORMATION OF CUT ENDS DURING TRANSPORTATION, HANDLING, STORAGE, AND ERECTION.

d) MOVE AND ERECT MEMBERS USING FABRIC, NYLON, OR OTHER SOFT, NON-STAINING SLING TO PREVENT SURFACE DEFORMATIONS.

e) ANY ERECTION AIDES OR BOLTS SHOULD BE GALVANIZED AND FREE OF OIL OR OTHER MATERIAL THAT MAY CAUSE STAINING.

f) PROVIDE COVERING ON INSTALLED CONSTRUCTION UNTIL ENVELOPE CONSTRUCTION IS COMPLETE.

g) REMOVE SOURCES OF WATER AND EXCESS HUMIDITY FROM CONSTRUCTED FRAMING.

h) IT IS RECOMMENDED TO APPLY ARCHITECTURAL TREATMENTS AND STAINS PRIOR TO HEATING OR CONDITIONING OF STRUCTURE ENVIRONMENT AFTER ENVELOPE CONSTRUCTION.

i) WOOD CONSTRUCTION WILL SHRINK AS BUILDING HEAT IS APPLIED AND MOISTURE CONTENT REDUCES. CARE SHOULD BE TAKEN TO GRADUALLY RAISE HEAT, OR OTHER CONDITIONED AIR, OVER THE COURSE OF SEVERAL WEEKS TO REDUCE THE RISK OF EXCESSIVE SHRINKING OR CHECKING.

j) MECAHINCAL, ELECTRICAL, AND PLUMBING WORK SHALL BE ATTACHED TO THE STRUCTURE TO ACCOMMODATE EXPECTED WOOD CONSTRUCTION VERTICAL SHRINKAGE OF ¼ INCH MAXIMUM PER FLOOR.

I. PRE-INSTALLATION CONFERENCES

1) SCHEDULING AND CONDUCTING PRE-INSTALLATION CONFERENCES ARE THE RESPONSIBILITY OF THE CONTRACTOR. MEETING ATTENDEES AND FORMAT ARE OUTLINED IN THE PROJECT SPECIFICATIONS. COORDINATE LOCATION, TIME AND AGENDA ITEMS WITH THE ENGINEER. CONDUCT PRE-INSTALLATION CONFERENCES FOR THE FOLLOWING ACTIVITIES RELATED TO STRUCTURAL SYSTEMS:

a) CAST-IN-PLACE CONCRETE

b) ROUGH CARPENTRY (WOOD FRAMING)

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

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REVIEWED BY | FELDMAN

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STRUCTURAL GENERAL NOTES

S002

c) SLAB ON GRADE VAPOR BARRIERS

d) SPECIAL INSPECTION REQUIREMENTS

J. SPECIAL INSPECTIONS AND TESTS

1) SPECIAL INSPECTIONS DESCRIBED BELOW ARE REQUIRED BY SECTION 1705 OF THE IBC AND SHALL BE PERFORMED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ENGINEER APPRISED OF WORK PROGRESS AS IT PERTAINS TO SPECIAL INSPECTIONS AND ENSURING THAT NO WORK REQUIRING SPECIAL INSPECTIONS IS CONCEALED BEFORE SPECIAL INSPECTIONS OCCUR. REFER TO THE PROJECT SPECIFICATIONS FOR OTHER INSPECTIONS AND MATERIALS TESTING REQUIREMENTS.

2) EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT PER SECTION 1704 OF THE IBC.

3) THE OWNER SHALL EMPLOY QUALIFIED SPECIAL INSPECTORS DURING CONSTRUCTION TO PERFORM STRUCTURAL OBSERVATIONS FOR THE ELEMENTS NOTED BELOW.

a) CONCRETE CONSTRUCTION: THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 AND TABLE 1705.3 OF THE IBC. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF VAPOR BARRIERS, MECHANICAL COUPLERS, REINFORCING STEEL AND PRESTRESSING TENDONS, PERIODIC INSPECTION OF ANCHORS CAST IN CONCRETE PRIOR TO CONCRETE PLACEMENT, PERIODIC INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS, CONTINUOUS INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES EXCEPT PERIODIC INSPECTION FOR SLABS ON GRADE AND ELEVATED COMPOSITE SLABS. VERIFY USE OF REQUIRED MIX DESIGN AND INSPECT CONCRETE FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. MATERIAL TESTING SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318 “BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE” CHAPTERS 3 AND 5.

b) WOOD CONSTRUCTION: THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE IBC. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF PREFABRICATED WOOD STRUCTURAL ELEMENTS, HIGH-LOAD DIAPHRAGMS.

c) SOILS: SPECIAL INSPECTIONS FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTION 1705.6 AND TABLE 1705.6 OF THE IBC. THE APPROVED GEOTECHNICAL REPORT AND THE CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONALS SHALL BE USED TO DETERMINE COMPLIANCE. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF MATERIALS BELOW SHALLOW FOUNDATIONS AND EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.

K. DEFERRED SUBMITTALS

1) DOCUMENTATION SUCH AS SHOP DRAWINGS, ERECTION DRAWINGS AND CALCULATIONS FOR DEFERRED SUBMITTAL ITEMS WILL BE REVIEWED BY THE ENGINEER WHEN AVAILABLE AND FORWARDED TO THE BUILDING OFFICIAL. CONTRACTOR SHALL ALLOW FOR A MINIMUM OF FIVE WORKING DAYS FOR ENGINEER REVIEW OF ALL DEFERRED SUBMITTALS.

2) SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS REQUIRED BY THE PROJECT SPECIFICATIONS FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION. SHOP DRAWINGS FOR PROPRIETARY PRODUCTS DESIGNED BY THE MANUFACTURER SHALL INCLUDE DESIGN CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

3) THE CONTRACTOR SHALL REVIEW AND STAMP ALL DEFERRED SUBMITTALS TO ENSURE CONFORMANCE WITH CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING FOR ARCHITECTURAL AND ENGINEERING REVIEW. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND DETAILS WITH SUBCONTRACTORS. SHOP DRAWINGS OR PRODUCT DATA NOT STAMPED BY THE CONTRACTOR WILL NOT BE REVIEWED.

4) SHOP DRAWINGS SHALL NOT REPLACE THE CONTRACT DRAWINGS. ITEMS OMITTED OR SHOWN INCORRECTLY ARE NOT CONSIDERED AS CHANGES TO THE CONTRACT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECTNESS AND COMPLETENESS OF ALL DEFERRED SUBMITTALS.

5) DEFERRED SUBMITTALS SHALL CLOUD AND NOTE ANY DEVIATIONS OR SUBSTITUTIONS FROM THE CONTRACT DRAWINGS IN ALL INSTANCES. DEVIATIONS NOT CLOUDED ARE CONSIDERED NOT APPROVED, UNLESS NOTED SPECIFICALLY OTHERWISE BY THE ENGINEER.

L. MISCELLANEOUS

1) REFERENCE CIVIL DRAWINGS FOR BUILDING LOCATION AND ORIENTATION ON THE SITE. DRAWING ELEVATION REFERENCE 100'-0" = XXXX.XX FT CIVIL DATUM.

2) CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS SHOWN ON THE CONSTRUCTION DOCUMENTS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION.

3) USE ONLY WRITTEN DIMENSIONS FOR CONSTRUCTION. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ENGINEER FOR CLARIFICATION PRIOR TO CONSTRUCTION.

4) DETAIL MARKS ANNOTATED ON PLANS ARE INTENDED TO INDICATE SPECIFIC CONFIGURATION(S) AND INFORMATION. FOR PLAN CLARITY, NOT EVERY LOCATION WHERE A SPECIFIC DETAIL MAY APPLY IS ANNOTATED. CONTACT THE ENGINEER IF CLARIFICATION IS NEEDED.

5) COORDINATE OPENINGS AND EMBEDDED ITEMS IN CONCRETE AND MASONRY WORK WITH ALL TRADES.

6) NOTIFY ENGINEER OF ANY DISCREPANCIES DISCOVERED WITH OTHER TRADES.

7) CONSTRUCTION LOADS SHALL NOT BE GREATER THAN THE DESIGN LOADS INDICATED IN DESIGN LOADS AND CRITERIA SECTION B.1, UNLESS REVIEWED AND APPROVED BY THE ENGINEER.

8) EQUIPMENT OPENINGS INDICATED ARE FOR REFERENCE ONLY. COORDINATE EXACT LOCATIONS, DIMENSIONS AND DETAILS WITH EQUIPMENT MANUFACTURERS AND TRADES. ALL OPENINGS IN FLOORS, ROOFS OR OTHER STRUCTURAL MEMBERS THAT ARE NOT SPECIFICALLY DETAILED IN THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF AND REVIEWED BY THE ENGINEER.

9) TEMPORARILY BRACE THE STRUCTURE TO RESIST ALL LOADS OR COMBINATIONS OF LOADS UNTIL ALL PERMANENT ELEMENTS ARE IN PLACE AND ALL CONNECTIONS ARE COMPLETE AS SHOWN. THE DESIGN AND SAFETY OF ALL ERECTION BRACING, SHORING AND TEMPORARY SUPPORTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10) COSTS ASSOCIATED WITH STRUCTURAL DRAWING CHANGES RESULTING FROM USE OF ALTERNATES OR SUBSTITUTIONS, INCLUDING MECHANICAL EQUIPMENT, IS THE CONTRACTOR'S RESPONSIBILITY.

11) CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND STABILIZING ALL ADJACENT STRUCTURES AND UTILITIES THROUGH ALL PHASES OF CONSTRUCTION.

12) STRUCTURAL GENERAL NOTES SHALL NOT BE A SUBSTITUTE FOR THE PROJECT SPECIFICATIONS. CONFLICTS BETWEEN THE STRUCTURAL GENERAL NOTES AND PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR THE STRICTER OF THE TWO CRITERIA SHALL BE USED.

M. ABBREVIATIONS LIST (SOME OF THE LISTED ABBREVIATIONS MAY NOT APPEAR ON THE DRAWINGS)

1) & AND
2) @ AT
3) AB ANCHOR BOLT
4) ACI AMERICAN CONCRETE INSTITUTE
5) AFF ABOVE FINISH FLOOR
6) AITC AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
7) ALT ALTERNATE
8) ANC ANCHOR
9) ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
10) APPR APPROXIMATE
11) ARCH ARCHITECTURE OR ARCHITECTURAL
12) ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS
13) ASD ALLOWABLE STRESS DESIGN
14) ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
15) AWC AMERICAN WOOD COUNCIL
16) BF BRACED FRAME
17) BLDG BUILDING
18) BLK BLOCK
19) BM BEAM
20) BOF BOTTOM OF FOOTING
21) BOSH BOTTOM OF SHEATHING
22) BOT BOTTOM
23) BRG BEARING
24) BTWN BETWEEN
25) CIP CAST-IN-PLACE
26) CJ CONTROL JOINT
27) CL CENTER LINE
28) CLR CLEAR
29) CNJT CONTRACTION JOINT
30) COL COLUMN
31) CONC CONCRETE
32) CONN CONNECTION OR CONNECTOR
33) CONST JT CONSTRUCTION JOINT
34) CONT CONTINUE OR CONTINUOUS
35) CRSI CONCRETE REINFORCING STEEL INSTITUTE
36) DBL DOUBLE
37) DEPR DEPRESSION
38) DET DETAIL
39) DIA DIAMETER
40) DIM DIMENSION OR DIMENSIONS
41) DIR DIRECTION
42) DL DEVELOPMENT LENGTH
43) DWLS DOWELS
44) EA EACH
45) EE EACH END
46) EF EACH FACE
47) EJ EXPANSION JOINT
48) EL ELEVATION
49) ELEC ELECTRIC OR ELECTRICAL
50) EQ EQUAL
51) EQPM EQUIPMENT
52) ES EACH SIDE
53) EW EACH WAY
54) EXIST OR (E) EXISTING
55) EXP EXPANSION
56) EXP BOLT EXPANSION BOLT
57) EXP JT EXPANSION JOINT
58) FF FAR FACE
59) FIN FINISH
60) FL FLOOR
61) FDN FOUNDATION
62) FT FOOT OR FEET
63) FTG FOOTING
64) FT-LB FOOT POUND
65) GA GAUGE OR GAGE
66) GALV GALVANIZED OR GALVANIZE
67) GB GRADE BEAM
68) GC GENERAL CONTRACTOR
69) GL GLUED LAMINATED TIMBER
70) GR GRADE
71) HAS HEADED ANCHOR STUD
72) HEF HORIZONTAL EACH FACE
73) HIF HORIZONTAL INSIDE FACE
74) HOF HORIZONTAL OUTSIDE FACE
75) HORZ HORIZONTAL
76) HP HIGH POINT
77) HS HIGH STRENGTH
78) HT HEIGHT
79) IBC INTERNATIONAL BUILDING CODE
80) ICBO INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
81) ID INSIDE DIAMETER
82) IN INCH OR INCHES
83) INV INVERT
84) ISJT ISOLATION JOINT
85) JB JOIST BEARING
86) JST JOIST
87) JT JOINT
88) K KIP (1000 POUNDS)
89) KSI KIPS PER SQUARE INCH
90) LB(S) POUND OR POUNDS
91) LF LINEAR FEET OR LINEAL FEET
92) LLH LONG LEG HORIZONTAL
93) LLV LONG LEG VERTICAL
94) LONG LONGITUDINAL
95) LP LOW POINT
96) LRFD LOAD AND RESISTANCE FACTOR DESIGN
97) LW LIGHT WEIGHT
98) LWC LIGHT WEIGHT CONCRETE
99) MAX MAXIMUM
100) MC MECHANICAL CONTRACTOR
101) MFG MANUFACTURING
102) MFR MANUFACTURER
103) MECH MECHANICAL
104) MIN MINIMUM
105) MTL METAL
106) (N) NEW
107) N/A NOT APPLICABLE
108) NF NEAR FACE
109) NIC NOT IN CONTRACT
110) NO OR # NUMBER
111) NOM NOMINAL
112) NTS NOT TO SCALE
113) NWC NORMAL WEIGHT CONCRETE
114) OC ON CENTER
115) OD OUTSIDE DIAMETER
116) OPNG OPENING
117) % PERCENT
118) PERP PERPENDICULAR
119) PL PLATE
120) PLMB PLUMBING OR PLUMB
121) PROJ PROJECTION
122) PSF POUNDS PER SQUARE FOOT
123) PSI POUNDS PER SQUARE INCH
124) PVC POLYVINYL CHLORIDE
125) QTY QUANTITY
126) (R) RELOCATE OR RELOCATED
127) R RADIUS
128) RE RIGHT END
129) REINF REINFORCE, REINFORCED, REINFORCEMENT OR REINFORCING
130) REQD REQUIRED
131) RET RETURN
132) RETG RETAINING
133) REV REVISION
134) SC SHEAR CONNECTOR
135) SCHED SCHEDULE
136) SECT SECTION
137) SF STEP FOOTING
138) SF SQUARE FOOT OR SQUARE FEET
139) SFRS SEISMIC FORCE-RESISTING SYSTEM
140) SHT SHEET
141) SIM SIMILAR
142) SL SPLICE LENGTH
143) SLV SHORT LEG VERTICAL
144) SOG SLAB ON GRADE
145) SPA SPACE OR SPACES
146) SPEC SPECIFIED OR SPECIFICATION
147) SQ SQUARE
148) STD STANDARD
149) STIFF STIFFENER
150) STL STEEL
151) STIR STIRRUP
152) STRUCT STRUCTURAL OR STRUCTURE
153) SUP SUPPORT
154) SYM SYMMETRICAL
155) T&B TOP AND BOTTOM
156) TB TRUSS BEARING
157) THK THICK OR THICKNESS
158) THRD THREAD OR THREADED
159) TMS THE MASONRY SOCIETY
160) TOB TOP OF WOOD BEAM/GLUED LAMINATED TIMBER
161) TOCS TOP OF CONCRETE SLAB
162) TOCW TOP OF CONCRETE WALL
163) TOF TOP OF FOOTING
164) TOSH TOP OF SHEATHING
165) TOW TOP OF WOOD
166) TOWL TOP OF WOOD LEDGER
167) TRANS TRANSVERSE
168) TYP TYPICAL
169) UNO UNLESS NOTED OTHERWISE
170) US UNDERSIDE
171) VEF VERTICAL EACH FACE
172) VERT VERTICAL
173) VIF VERIFY IN FIELD OR VERTICAL INSIDE FACE
174) VOF VERTICAL OUTSIDE FACE
175) W/ WITH
176) W/O WITHOUT

WWF WELDED WIRE FABRIC

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SEARHC WORKFORCE HOUSING
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SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
49TH
KEVIN JOHN FELDMAN
No. CE 11795
REGISTERED PROFESSIONAL ENGINEER
9/2/22

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

STRUCTURAL GENERAL NOTES

S003

WOOD SHEATHING SHEAR WALL SCHEDULE

WALL TYPE	SHEATHING TYPE & THICKNESS	LOCATION	BLOCKING (ALL JOINTS)	BLOCKING MIN SIZE	MIN STUD SIZE	PANEL FASTENING		SOLE PLATE ATTACHMENT	RIM JOIST ATTACHMENT AT TOP OF DOUBLE TOP PLATE FOR SHEAR WALL INDICATED	SILL PLATE ANCHORAGE (8)	END WALL POST	REMARKS
						PANEL EDGE	INTERMEDIATE (FIELD)					
SW-A	PLYWOOD 15/32"	1- SIDE	YES	2X4	2X	0.131"Ø @ 6"	0.131"Ø @ 12"	0.148"Ø @ 6"	SIMPSON A35 @ 24"	5/8"Ø ANC ROD @ 48"	2- 2X MATCHING WALL WIDTH	280 PLF
SW-B	PLYWOOD 15/32"	1- SIDE	YES	2X4	2X	0.131"Ø @ 4"	0.131"Ø @ 12"	0.148"Ø @ 4"	SIMPSON A35 @ 16"	5/8"Ø ANC ROD @ 24"	2- 2X MATCHING WALL WIDTH	430 PLF
SW-C	PLYWOOD 15/32"	1- SIDE	YES	2X4	2X	0.148"Ø @ 3"	0.148"Ø @ 12"	0.162"Ø @ 3"	SIMPSON A35 @ 12"	5/8"Ø ANC ROD @ 12"	2- 2X MATCHING WALL WIDTH	665 PLF
SW-D	PLYWOOD 15/32"	2- SIDES	YES	2X4	2X	0.148"Ø @ 3"	0.148"Ø @ 12"	0.162"Ø @ 3"	SIMPSON A35 @ 6"	5/8"Ø ANC ROD @ 6"	2- 2X MATCHING WALL WIDTH	1329 PLF

NOTES:

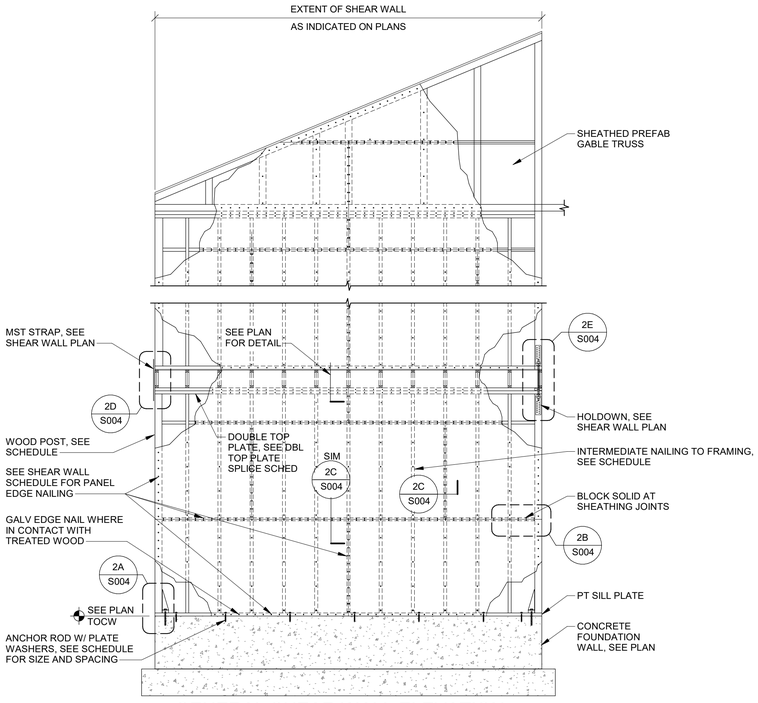
1. ALL EXTERIOR WALLS SHALL BE SHEATHED W/ 15/32" SHEATHING, BLOCKED AT JOINTS, 0.131"Ø @ 6" AT ALL PANEL EDGES & 12" AT INTERMEDIATE SUPPORTS, UNLESS INDICATED OTHERWISE.
2. NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING AND SHALL HAVE 3/8" MIN EDGE DISTANCE.
3. SEE PLANS FOR SHEAR WALL MARK LOCATIONS AND LIMITS.
4. INSTALL WALL PANEL WOOD SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER ALL END PANEL JOINTS 32", MINIMUM. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING IN ACCORDANCE WITH SHEAR WALL SCHEDULE AND DETAILS FOR CRITICAL NAILING.
5. NO PANELS LESS THAN 12 INCHES WIDE SHALL BE USED.
6. WHERE BOTH FACES ARE SCHEDULE TO BE SHEATHED, STAGGER VERTICAL PANEL EDGES BY AT LEAST ONE STUD SPACE.
7. IF MULTI-STORY SHEAR WALLS ARE SPECIFIED, PROVIDE SOLID BLOCKING BELOW END POSTS AND ALL BEARING STUDS.
8. ALL SILL PLATES REQUIRE PLATE WASHER 3"X3"X1/4" AT ANCHOR BOLTS.

HOLDOWN SCHEDULE

MARK	TYPE	MINIMUM EMBEDMENT DEPTH FOR INSTALLED ANCHORS	ANCHOR DIA REQD	MINIMUM THICKENED SLAB REQUIRED AT INTERIOR HOLDOWN LOCATIONS (WxLxD) UNO	REMARKS
(4)	HDU4-SDS2.5	8" AT INTERIOR WALL, 3" MIN FROM EDGE	5/8"Ø	N/A	SIMPSON PAB5H-18 CAST-IN ANCHOR BOLT
(8)	HDU8-SDS2.5	18" AT INTERIOR WALL, 3" MIN FROM EDGE (4)	7/8"Ø	6'-0"X6'-0"X1'-9" W/ 6- #5 EA WAY, TOP & BOT	PAB7H-24 CAST-IN ANCHOR BOLTS W/ CONC REINF PER MFR W/ 2- TENSION TIES, SEE 2A/S004
(37)	MST37	N/A	N/A	N/A	10- 0.162"ØX2 1/2" NAILS AT WALL FRAMING ABOVE AND BELOW WALL PLATES
(48)	MST48	N/A	N/A	N/A	16- 0.162"ØX2 1/2" NAILS AT WALL FRAMING ABOVE AND BELOW WALL PLATES

NOTES:

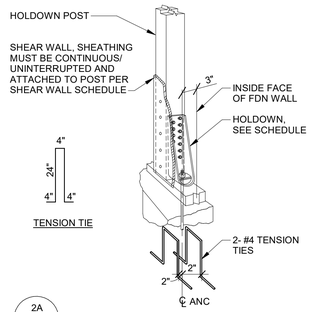
1. EXPANSION ANCHORS ARE NOT ACCEPTABLE FOR USE AT HOLDOWNS AT CONCRETE INTERFACES.
2. WHERE ADHESIVE ANCHORS ARE SPECIFIED CONFIRM THAT REINFORCING STEEL DOES NOT CONFLICT W/ DRILLING HOLDOWN ANCHOR.
3. SEE PLAN FOR HOLDOWN LOCATIONS.
4. POST INSTALLED ANCHORS ARE NOT PERMITTED AT CONCRETE EXTERIOR WALL OR INTERIOR WALLS WITH 12" WIDE STEM WALL OR LESS IN WIDTH. ANCHORS SHALL BE CAST-IN-PLACE ONLY.



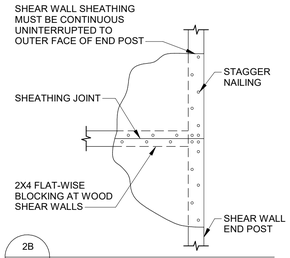
GENERAL SHEAR WALL ELEVATION

NTS

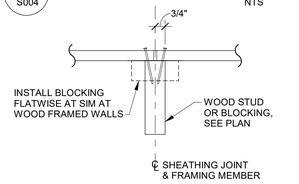
(ILLUSTRATION ABOVE INTENDED TO COVER BASIC FRAMING CRITERIA REQUIRED AT SHEAR WALLS - SEE PLANS AND DETAILS FOR SPECIFIC CONDITIONS.)



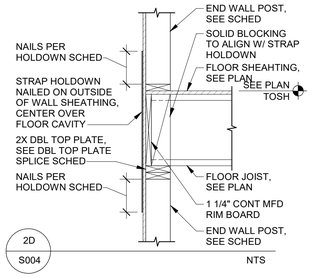
2A / S004 — NTS



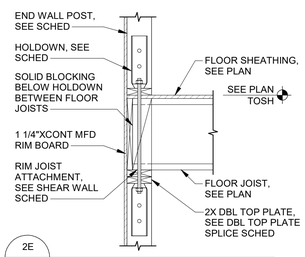
2B / S004 — NTS



2C / S004 — NTS



2D / S004 — NTS



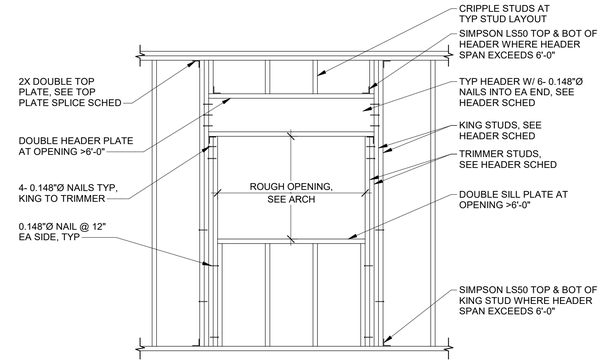
2E / S004 — NTS

HEADER SCHEDULE

MARK	HEADER SIZE	TRIMMER STUDS	# OF KING STUDS REQD (SILL PLATE TO DBL TOP PLATE) [UNLESS NOTED OTHERWISE ON PLAN SHEETS]
H1	4X6	2	2- EXT WALLS 1- INT WALLS
H2	4X10	2	2- EXT WALLS 1- INT WALLS

NOTES:

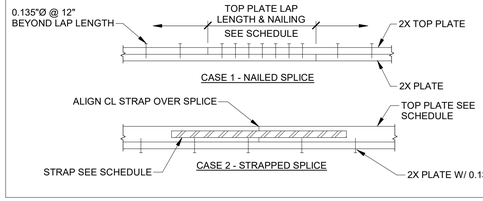
1. SEE STRUCTURAL PLAN NOTATION & PLAN LEVEL WHERE STUDS BEGIN FOR NUMBER OF STUDS REQUIRED WHICH VARY FROM SCHEDULE ABOVE.
2. ALL HEADERS SHALL BE 'H1', UNO.



DBL TOP PLATE SPLICE SCHEDULE

MARK	SPLICE	REMARK
(1)	1 ROW 8- 0.135"Ø OVER 4'-0" MIN LAP	SEE CASE 1

NOTE TO ENGINEER ASD TENSION VALUES
CAPACITY (LB)
1,139



FOOTING SCHEDULE

MARK	TYPE (WxLxD)	REINFORCING
A	STRIP FOOTING:1'-4"XCONTX1'-0"	2- #5 LONG, BOT
B	STRIP FOOTING:2'-0"XCONTX1'-0"	2- #5 LONG, BOT
C	SPREAD FOOTING:2'-0"X2'-0"X1'-0"	3- #5 EA WAY, BOT

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

STRUCTURAL SCHEDULES

S004

WOOD STRUCTURAL PANEL DIAPHRAGM SCHEDULE

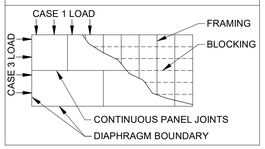
MARK	SHEATHING TYPE & THICKNESS	SPAN RATING	BLOCKING (ALL JOINTS)	MIN BLOCKING SIZE	NAILING		REMARKS
					PANEL EDGE SUPPORTS	INTERMEDIATE SUPPORTS	
WD-1	19/32" T&G SHEATHING	40/20, MIN	NONE	N/A	0.148"Ø @ 6"	0.148"Ø @ 12"	N/A
WD-2	23/32" T&G SHEATHING	48/24, MIN	NONE	N/A	0.148"Ø @ 6"	0.148"Ø @ 12"	GLUE AT ALL SHEATHING SUPPORTED EDGES, BOUNDARIES AND HANGERS

NOTES:
1. LAY PANELS WITH LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS. STAGGER ALL END JOINTS AND PLACE AS INDICATED IN "CASE 1" AS SHOWN IN DIAGRAM, UNLESS NOTED OTHERWISE ON PLAN SHEETS.
2. NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING.
3. FASTENER ATTACHMENT SHALL MAINTAIN 3/8" MINIMUM EDGE DISTANCE. SEE JOINT NAILING DETAIL SHOWN ON WOOD SHEAR WALL SCHEDULE FOR RECOMMENDED JOINT NAILING INSTALLATION.
4. SEE PLANS FOR WOOD SHEATHING MARK LOCATIONS AND LIMITS.
5. STAGGER ALL END JOINTS 32" MINIMUM.
6. MINIMUM PANEL DIMENSION SHALL BE 24" UNLESS ALL EDGES OF THE UNDERSIZED PANELS ARE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
7. SHEATHING GRADE REQUIREMENTS SHALL BE PER THE PROJECT SPECIFICATIONS.

ALLOWABLE UNIT SHEAR CAPACITY (PLF)

MARK	SEISMIC	WIND
WD-1	180	253
WD-2	214	300

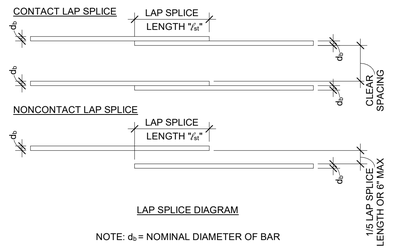
LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS



LAP SPLICE LENGTH OF DEFORMED BARS SCHEDULE

SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE	f'c = 3000 PSI	
SPLICE TYPE	CLASS B	
CASTING POSITION / BAR SIZE #	OTHER BARS ℓ_{st}"	>12" FRESH CONCRETE PLACED BELOW HORZ BAR ℓ_{st}"
#3	1'-10"	2'-4"
#4	2'-5"	3'-2"
#5	3'-0"	3'-11"
#6	3'-7"	4'-8"
#7	5'-3"	6'-9"
#8	6'-0"	7'-9"
#9	6'-9"	8'-9"
#10	7'-7"	9'-10"
#11	8'-5"	10'-11"

SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE	f'c = 4500 PSI	
SPLICE TYPE	CLASS B	
CASTING POSITION / BAR SIZE #	OTHER BARS ℓ_{st}"	>12" FRESH CONCRETE PLACED BELOW HORZ BAR ℓ_{st}"
#3	1'-6"	1'-11"
#4	2'-0"	2'-7"
#5	2'-6"	3'-2"
#6	2'-11"	3'-10"
#7	4'-3"	5'-7"
#8	4'-11"	6'-4"
#9	5'-6"	7'-2"
#10	6'-2"	8'-0"
#11	6'-10"	8'-11"



LAP SPLICE DIAGRAM

NOTE: d_b = NOMINAL DIAMETER OF BAR

SCHEDULE NOTES:

1. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR NORMALWEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE DEVELOPMENT LENGTH BY 33%.
2. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT. WHERE EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED REINFORCEMENT IS USED WITH CLEAR COVER LESS THAN $3d_b$ OR CLEAR SPACING LESS THAN $6d_b$, INCREASE DEVELOPMENT LENGTH BY 50%.
3. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT. WHERE EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED REINFORCEMENT IS USED FOR ALL OTHER CONDITIONS, INCREASE DEVELOPMENT LENGTH BY 20%.
4. DEVELOPMENT LENGTH INCREASES FOR ITEMS 1-3 ARE CUMULATIVE WHERE MULTIPLE INCREASES ARE REQUIRED.
5. IF BARS OF DIFFERENT SIZE ARE LAP SPLICED IN TENSION, ℓ_{st} SHALL BE THE GREATER OF ℓ_d OF THE LARGER BAR AND ℓ_d OF THE SMALLER BAR.
6. d_b = NOMINAL DIAMETER OF BAR.
7. ℓ_{st} = TENSION LAP SPLICE LENGTH.
8. ℓ_d = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR.

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SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929
SINGLE FAMILY TWO STORY (SHED ROOF)

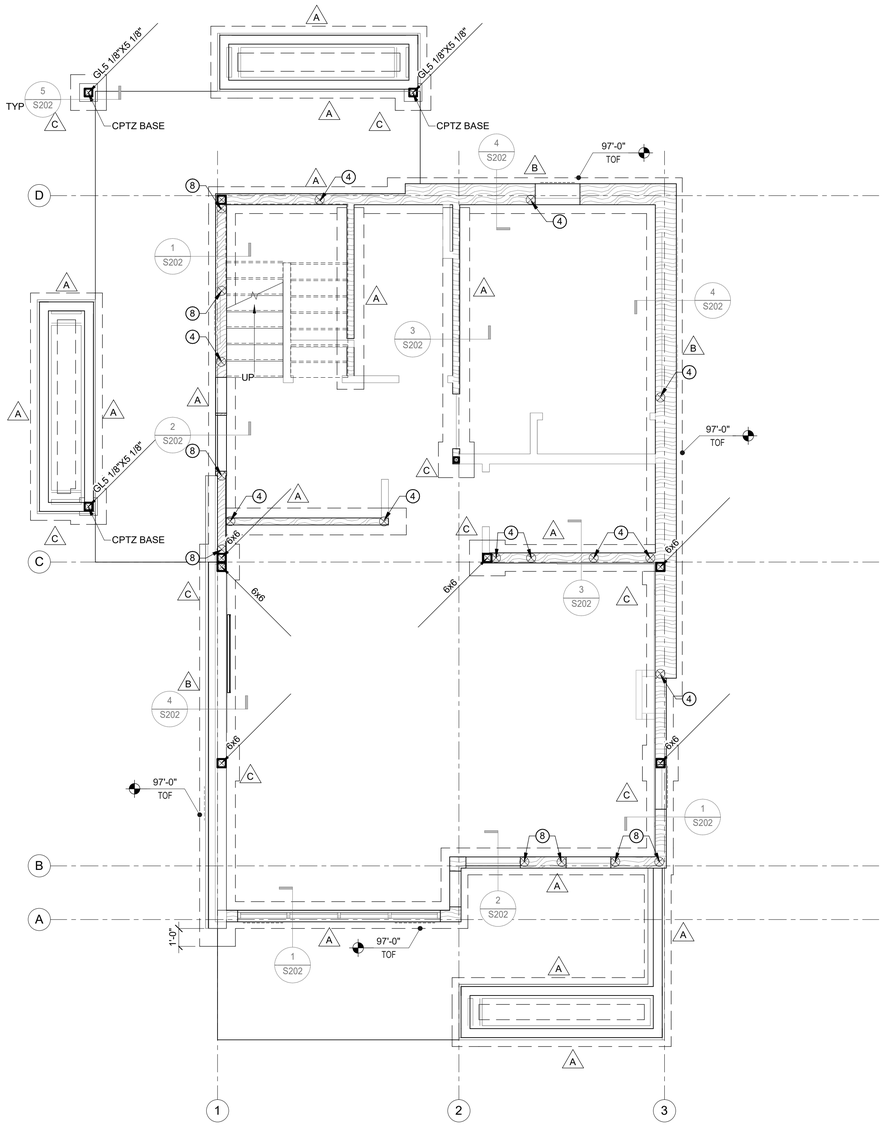
CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

STRUCTURAL SCHEDULES

S005



1 S101 FOUNDATION PLAN

1/4" = 1'-0"

NORTH REF

FOUNDATION PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/SLAB LEVEL.
3. COORDINATE FOUNDATION WALL PENETRATION SIZE AND LOCATIONS WITH OTHER TRADE(S).
4. COORDINATE ALL REQUIRED SLEEVES FOR WATER, SEWER, STORM, ELECTRICAL, CABLE, AND IRRIGATION.
5. SEE 1/S201 FOR UNDER FOOTING PIPE OR CONDUIT PASSAGE.
6. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR PERIMETER FOUNDATION DRAIN.
7. BLOCK OUT TOP OF FOUNDATION WALL AT ALL EXTERIOR DOORWAYS FOR SLAB POUR IN ACCORDANCE WITH DETAIL 2/S202 . COORDINATE LOCATION OF DOORWAYS WITH ARCHITECTURAL PLANS.
8. REFERENCE ARCHITECTURAL/PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS AND SLOPED SLAB LIMITS.
9. TOP OF INTERIOR CONCRETE FOOTING ELEVATION = 100'-0", UNO.
10. UNDER SLAB VAPOR RETARDER:
    A. IF SLAB SUBGRADE PROTECTED FROM WEATHER, LOCATE VAPOR RETARDER UNDER DRAINAGE COURSE - PREFERRED.
    B. IF SLAB SUBGRADE IS NOT PROTECTED FROM WEATHER, LOCATE VAPOR RETARDER ON TOP OF DRAINAGE COURSE (DIRECTLY BENEATH SLAB), AND SUBSEQUENT PRE-CONSTRUCTION MEETING SHOULD TAKE PLACE TO DISCUSS LIKELY SLAB CURLING ISSUE.
11. REFER TO ARCH FOR RIGID INSULATION UNDER SLAB-ON-GRADE.
12. REFER TO MECHANICAL DRAWINGS FOR VERTICAL LOCATION OF RADIANT FLOOR TUBES IN RELATION TO SLAB REINFORCING.

STRUCTURAL PLAN NOTATION

XXX'-X" TOCP	INDICATES TOP OF CONCRETE PIER/PILASTER ELEVATION.
XXX'-X" TOCS	INDICATES TOP OF CONCRETE SLAB ELEVATION.
XXX'-X" TOCW	INDICATES TOP OF CONCRETE WALL ELEVATION.
XXX'-X" TOF	INDICATES TOP OF FOOTING ELEVATION.
X	INDICATES FOOTING TYPE, SEE SCHEDULE ON SHEET S004.
?X?	INDICATES STRUCTURAL WOOD COLUMN.
	INDICATES ELEVATION STEP.
FTG STEP	INDICATES STEP IN FOOTING ELEVATION, FTG STEP SEE DETAIL 9/S201 .
WX	INDICATES WOOD STRUCTURAL STUD WALL, SEE SCHEDULE.
	INDICATES DECKING SPAN DIRECTION.
	INDICATES DOWN SLOPING DIRECTION.
	INDICATES DECKING PENETRATION.

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STATE OF ALASKA 49TH
KEVIN JOHN FELDMAN
No. CE 11735
9/2/22
REGISTERED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.29.2025
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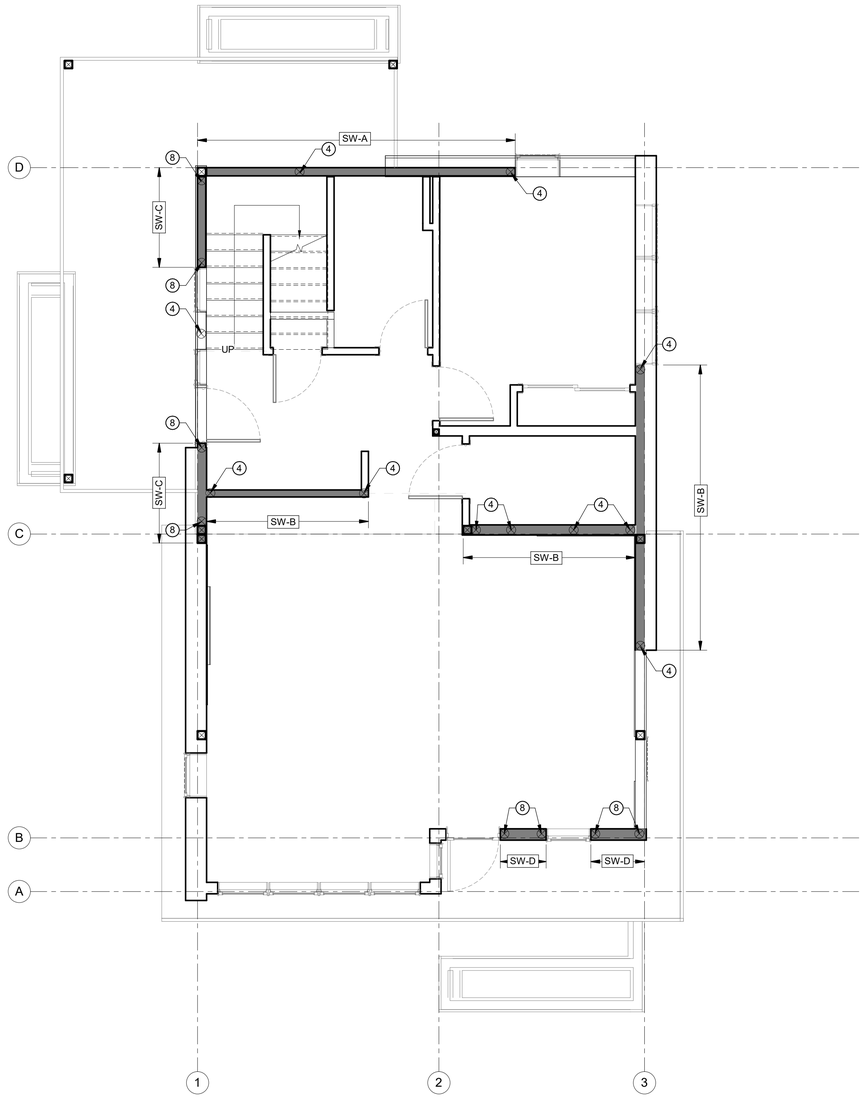
REVIEWED BY | FELDMAN

REVISIONS

FOUNDATION PLAN

S101



1 SL101 MAIN LEVEL LATERAL PLAN

1/4" = 1'-0"

NORTH REF

LATERAL PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/SLAB LEVEL.

STRUCTURAL PLAN NOTATION

INDICATES WOOD STRUCTURAL STUD WALL.

SW-X — INDICATES SHEAR WALL, SEE SCHEDULE ON SHEET S004.

⊗ INDICATES HOLD-DOWN CONNECTION LOCATION.

(7) INDICATES HOLD-DOWN TYPE REQD. SEE SCHEDULE SHEET S004.

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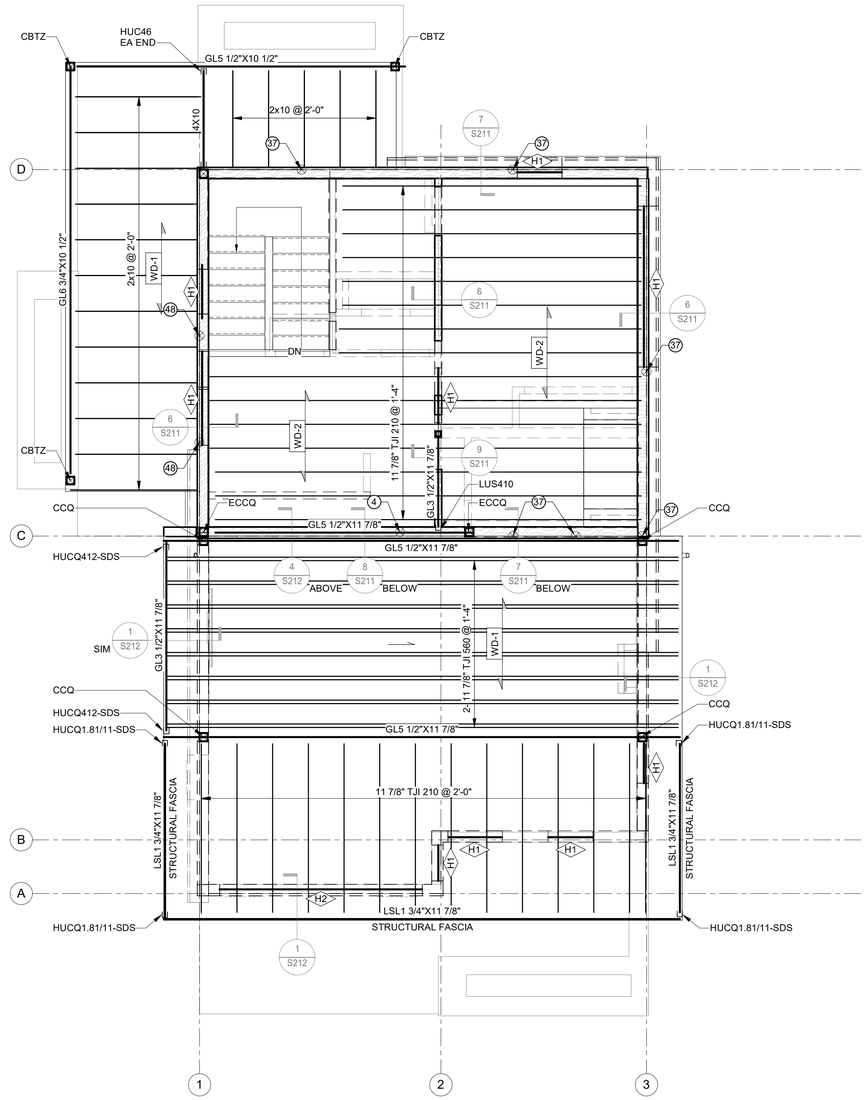
REVISIONS

MAIN LEVEL LATERAL PLAN

SL101



NORTH REF

1 / S102 SECOND LEVEL AND LOW ROOF FRAMING PLAN

1/4" = 1'-0"

FRAMING PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/ROOF LEVEL.
3. BEAMS ARE EQUALLY SPACED BETWEEN COLUMNS UNLESS DIMENSIONED.
4. SEE STRUCTURAL GENERAL NOTES SECTION "B" FOR DESIGN LOADS REQUIRED.
5. REFERENCE OTHER DISCIPLINES INDICATING SUSPENDED EQUIPMENT FOR SPECIFIC PLAN LOCATION, LOADING AND CONNECTION DETAILS TO PRIMARY STRUCTURAL FRAMING.
6. SEE SHEET S005 SCHEDULE FOR DIAPHRAGM ATTACHMENT REQUIRED AND DECKING/SHEATHING PROPERTIES.

STRUCTURAL PLAN NOTATION

XXX'-X" / TOSH — INDICATES TOP OF SHEATHING ELEVATION.

?X? — INDICATES STRUCTURAL WOOD COLUMN.

HX — INDICATES HEADER TYPE, SEE SCHEDULE ON SHEET ---- .

INDICATES ELEVATION STEP.

WX — INDICATES WOOD STRUCTURAL STUD WALL, SEE SCHEDULE.

INDICATES DOWN SLOPING DIRECTION.

MD-X — INDICATES DECKING (SHEATHING) REQUIRED AND SPAN DIRECTION. SEE SCHEDULE ON SHEET ---- .

INDICATES BEARING WALL BELOW.

INDICATES DECKING PENETRATION.

BEAM NOTES: HSS?X?X? OR W?X? [XX] C=? / (XXX'-X")

[XX]	INDICATES NUMBER OF 3/4"DIAX3 1/2" HAS REQD ON BEAM. SEE ADJACENT DETAIL & NOTES FOR INSTALLATION REQUIREMENTS.
C=?	INDICATES MIDSPAN CAMBER, AS REQD.
(XXX'-X")	INDICATES TOP OF BEAM ELEVATION. (XXX'-X"), UNLESS NOTED OTHERWISE.

BEAM NOTES: GL?X? C=? / (XXX'-X")

GL?X?	INDICATES GLUED-LAMINATED BEAM SIZE.
PSL?X?	INDICATES PARALLEL STRAND LUMBER SIZE.
LVL?X?	INDICATES LAMINATED VENEER LUMBER SIZE.
C=?	INDICATES CAMBER REQUIRED IN BEAM. (SEE SPEC'S)
(XXX'-X")	INDICATES TOP OF BEAM ELEVATION.

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SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA 49TH — KEVIN JON FELDMAN — No. CE 11735 — 9/2/25 — REGISTERED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

SECOND LEVEL AND LOW ROOF FRAMING PLAN

S102

LATERAL PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/SLAB LEVEL.

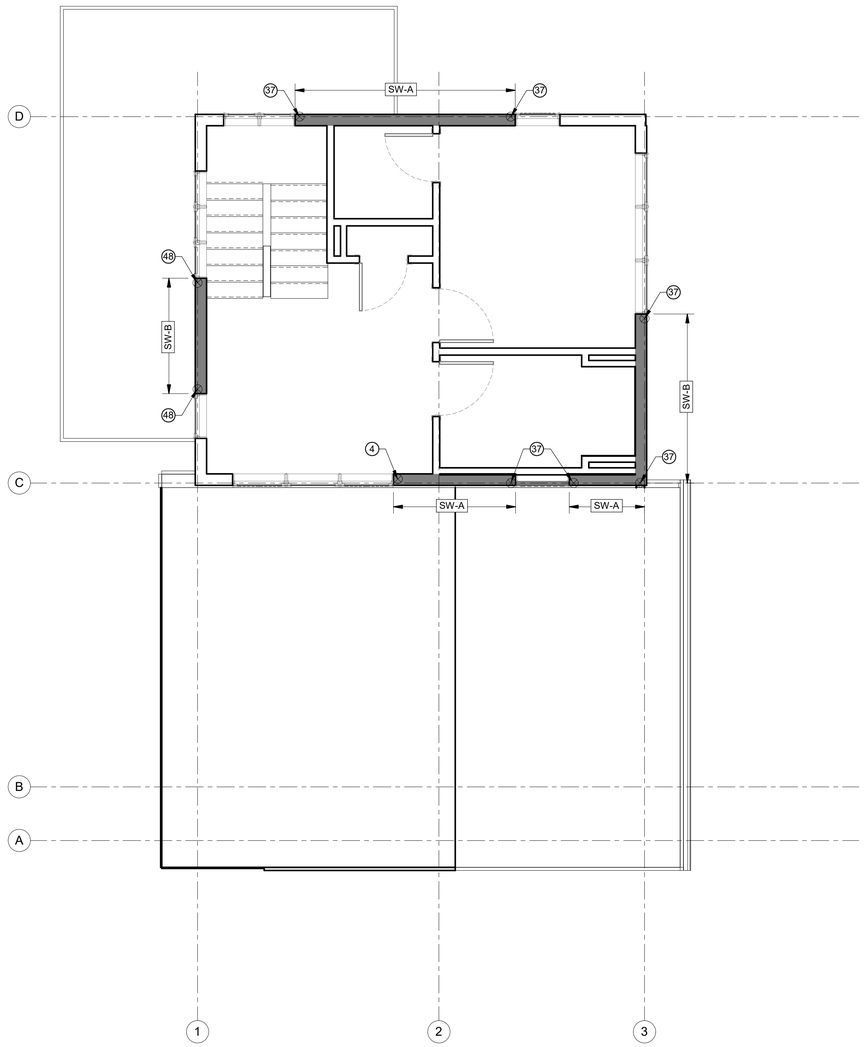
STRUCTURAL PLAN NOTATION

INDICATES WOOD STRUCTURAL STUD WALL.

SW-X — INDICATES SHEAR WALL, SEE SCHEDULE ON SHEET S004.

INDICATES HOLD-DOWN CONNECTION LOCATION.

(7) — INDICATES HOLD-DOWN TYPE REQD. SEE SCHEDULE SHEET S004.



1 / SL102 SECOND LEVEL LATERAL PLAN

1/4" = 1'-0"

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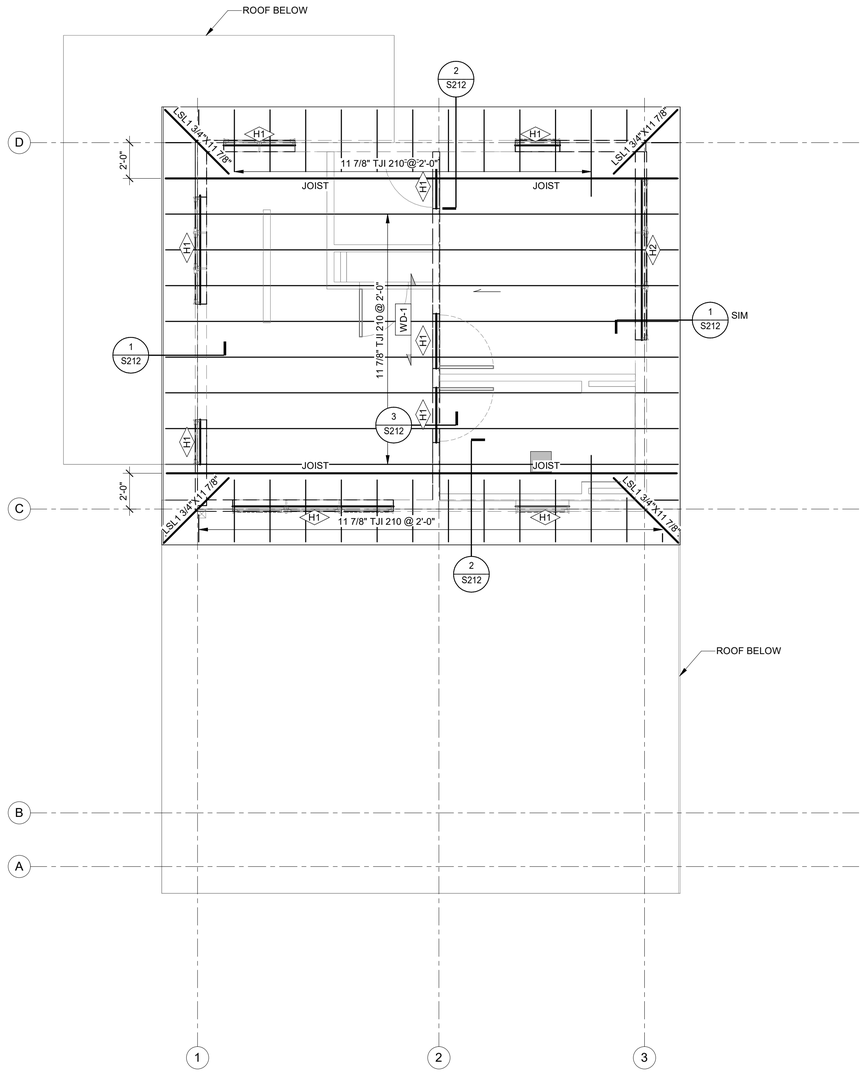
REVISIONS

MAIN LEVEL LATERAL PLAN

SL102



1 S103 UPPER ROOF FRAMING PLAN

1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/ROOF LEVEL.
3. BEAMS ARE EQUALLY SPACED BETWEEN COLUMNS UNLESS DIMENSIONED.
4. SEE STRUCTURAL GENERAL NOTES SECTION "B" FOR DESIGN LOADS REQUIRED.
5. REFERENCE OTHER DISCIPLINES INDICATING SUSPENDED EQUIPMENT FOR SPECIFIC PLAN LOCATION, LOADING AND CONNECTION DETAILS TO PRIMARY STRUCTURAL FRAMING.
6. SEE SHEET S004 FOR WOOD HEADER SCHEDULE.
7. SEE SHEET S005 SCHEDULE FOR DIAPHRAGM ATTACHMENT REQUIRED AND DECKING/SHEATHING PROPERTIES.
8. USE SIMPSON SDPW DEFLECTOR SCREWS TO ATTACH TOP OF INTERIOR NON-LOAD BEARING WALLS TO UNDERSIDE OF ROOF RAFTERS.

STRUCTURAL PLAN NOTATION

XXX'-X" JB	INDICATES JOIST BEARING ELEVATION.
XXX'-X" TOB	INDICATES TOP OF WOOD BEAM/GLUED LAMINATED TIMBER ELEVATION.
XXX'-X" TOW	INDICATES TOP OF WOOD/LIGHT GAGE WALL ELEVATION.
?X?	INDICATES STRUCTURAL WOOD COLUMN.
HX	INDICATES HEADER TYPE, SEE SCHEDULE ON SHEETS004.
	INDICATES ELEVATION STEP.
WX	INDICATES WOOD STRUCTURAL STUD WALL, SEE SCHEDULE.
	INDICATES DOWN SLOPING DIRECTION.
WD-X	INDICATES DECKING (SHEATHING) REQUIRED AND SPAN DIRECTION. SEE SCHEDULE ON SHEETS005.
	INDICATES BEARING WALL BELOW.
	INDICATES DECKING PENETRATION.

BEAM NOTES:	GL?X? C=? / (XXX'-X")
GL?X?	INDICATES GLUED-LAMINATED BEAM SIZE.
PSL?X?	INDICATES PARALLEL STRAND LUMBER SIZE.
LVL?X?	INDICATES LAMINATED VENEER LUMBER SIZE.
C=?	INDICATES CAMBER REQUIRED IN BEAM. (SEE SPEC'S)
(XXX'-X")	INDICATES TOP OF BEAM ELEVATION.

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STATE OF ALASKA 49TH
KEVIN JOHN FELDMAN
No. CE-11735
9/2/25
REGISTERED PROFESSIONAL ENGINEER

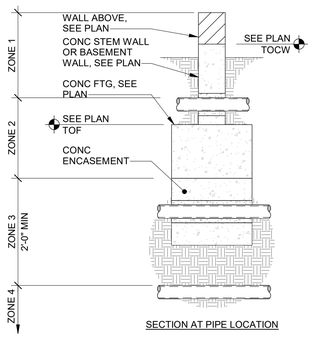
CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

UPPER ROOF FRAMING PLAN

S103



SECTION AT PIPE LOCATION

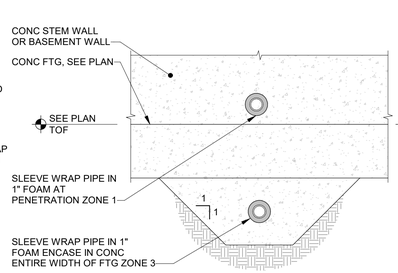
ZONE 1: SLEEVE WRAP PIPE AT PENETRATION THRU STEM WALL AS SHOWN IN ELEVATION.

ZONE 2: IF PIPE OCCURS AT FOOTING DEPTH, STEP FOOTING DOWN AS REQD PER FTG STEP DETAIL 9/S201 AND PENETRATE THRU WALL. DO NOT PENETRATE FOOTING.

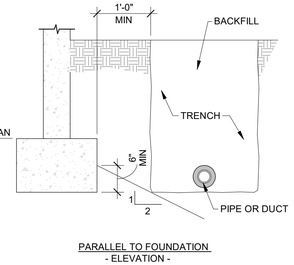
ZONE 3: PIPE OCCURS AT SHALLOW DEPTH BELOW FOOTING. SLEEVE WRAP & ENCASE IN CONCRETE AS SHOWN IN ELEVATION.

ZONE 4: PIPE PASSES FREELY WHEN MORE THAN 2'-0" BELOW BOTTOM OF FOOTING.

NOTE: UNDER NO CIRCUMSTANCES SHALL A PIPE PENETRATE THRU OR UNDER A COLUMN, PILASTER, PIER, PEDESTAL OR SPREAD FTG.



CONCRETE ENCASEMENT
- ELEVATION -

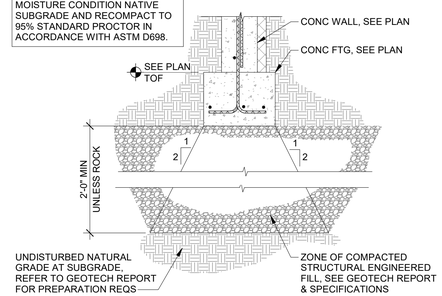


PARALLEL TO FOUNDATION
- ELEVATION -

1 S201 PIPE PENETRATION GUIDE AT FOUNDATIONS

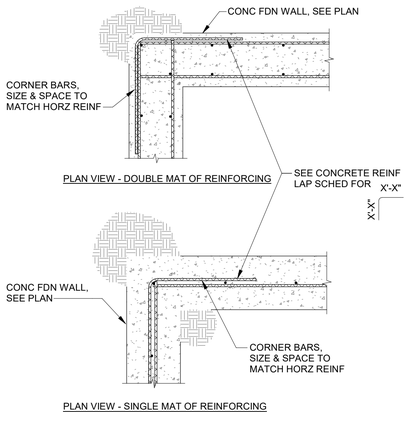
3/4" = 1'-0"

NOTE: IN THE CASE OF DISTURBED NATURAL GRADES, SCARIFY & MOISTURE CONDITION NATIVE SUBGRADE AND RECOMPACT TO 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698.



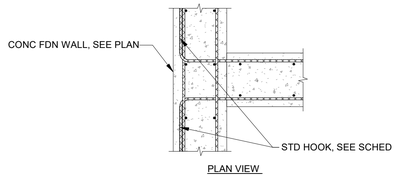
2 S201 FOOTING SUB-BASE & SUBGRADE DETAIL

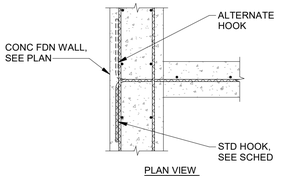
3/4" = 1'-0"

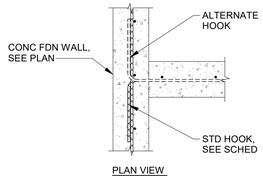


3 S201 REINFORCING IN FDN WALL CORNER

3/4" = 1'-0"



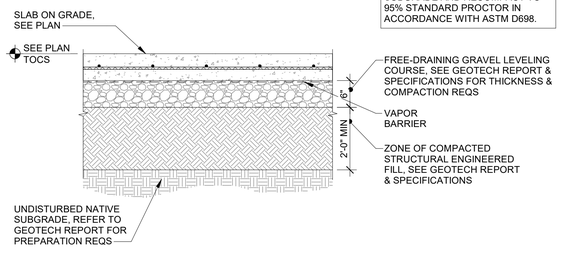




4 S201 REINFORCING IN FDN WALL INTERSECTION

3/4" = 1'-0"

NOTE: IN THE CASE OF DISTURBED NATURAL GRADES, SCARIFY & MOISTURE CONDITION NATIVE SUBGRADE AND RECOMPACT TO 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698.



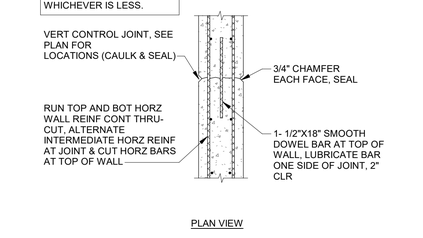
5 S201 SLAB ON GRADE SUB-BASE & SUBGRADE DETAIL

3/4" = 1'-0"

NOTE: CHAMFER ONLY REQUIRED AT EXPOSED CONCRETE FACES.

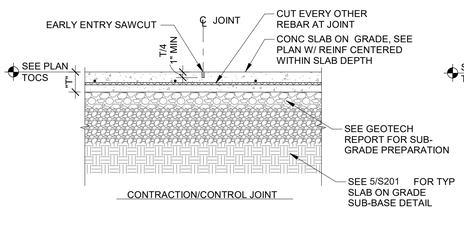
NOTE: MAXIMUM CONTROL JOINT SPACING IS 3X WALL HEIGHT OR 24'-0" WHICHEVER IS LESS.

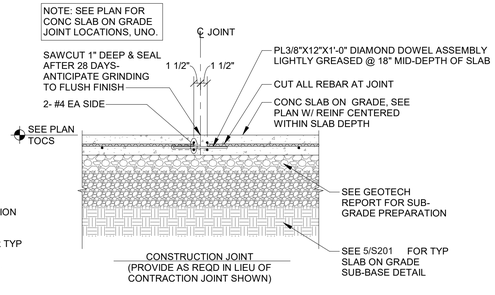
NOTE: ALL CONTROL JOINT LOC TO BE APPROVED BY ARCHITECT: ALIGN W/ OPENINGS WHERE POSSIBLE.



6 S201 CONC FDN WALL CONTROL JOINT

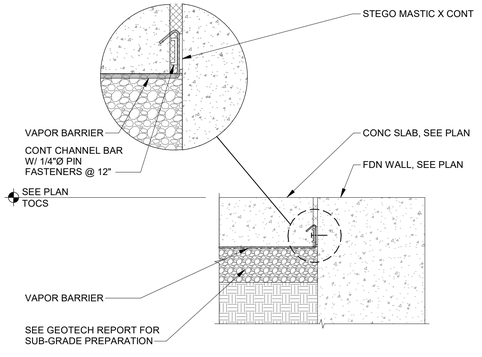
3/4" = 1'-0"





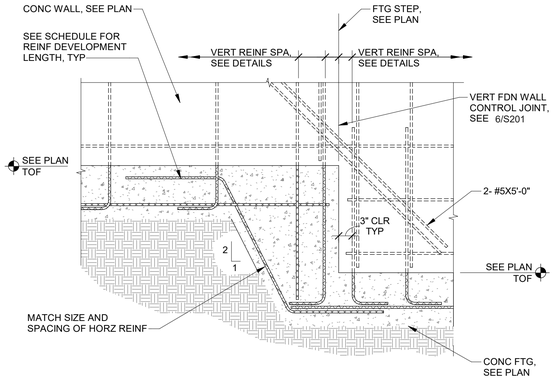
7 S201 TYP CONC SLAB ON GRADE JOINT

3/4" = 1'-0"



8 S201 CONC SLAB VAPOR BARRIER TO CONC WALL

1 1/2" = 1'-0"



9 S201 FOOTING STEP DETAIL

3/4" = 1'-0"

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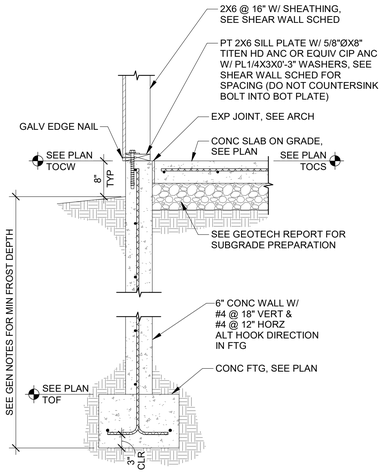
REVISIONS

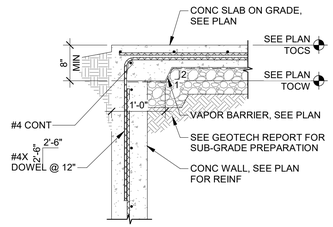
STRUCTURAL FOUNDATION DETAILS

S201



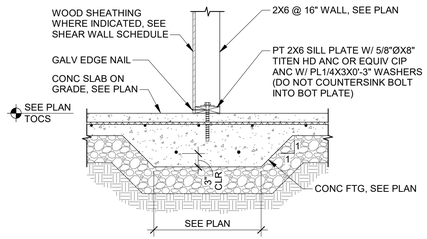
1 S202 SLAB BLOCKOUT AT STEM WALL

3/4" = 1'-0"



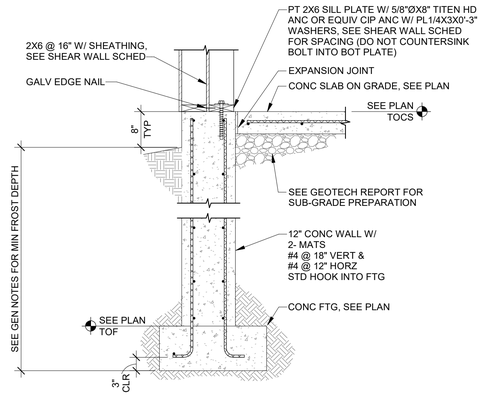
2 S202 CONC SLAB POUR OVER AT WALL OPENING

3/4" = 1'-0"



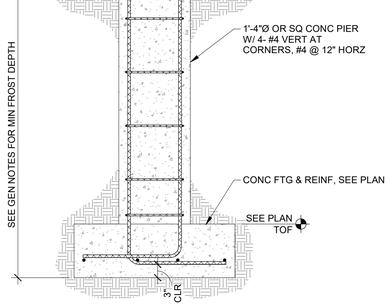
3 S202 THICKENED SLAB FTG

3/4" = 1'-0"



4 S202 DOUBLE WALL AT STEM WALL

3/4" = 1'-0"



5 S202 WOOD POST AT CONCRETE PIER

3/4" = 1'-0"

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800.757.9522

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

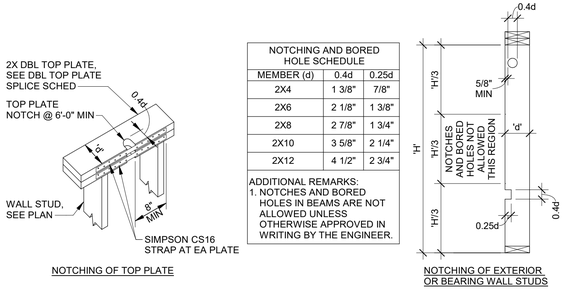
CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

STRUCTURAL FOUNDATION DETAILS

S202



NOTCHING OF TOP PLATE

NOTCHING AND BORED HOLE SCHEDULE		
MEMBER (d)	0.4d	0.25d
2X4	1 3/8"	7/8"
2X6	2 1/8"	1 3/8"
2X8	2 7/8"	1 3/4"
2X10	3 5/8"	2 1/4"
2X12	4 1/2"	2 3/4"

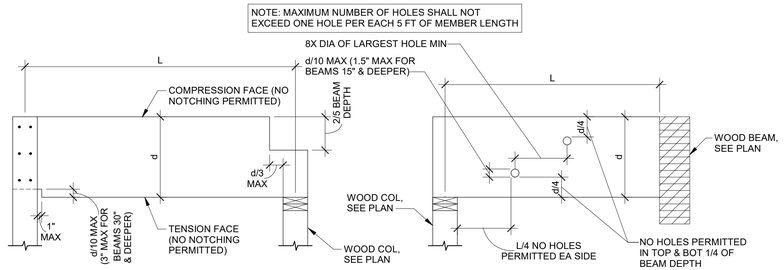
ADDITIONAL REMARKS:
1. NOTCHES AND BORED HOLES IN BEAMS ARE NOT ALLOWED UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

NOTCHING OF EXTERIOR OR BEARING WALL STUDS

1 S211 ALLOWABLE PENETRATIONS IN WOOD STUD FRAMING

3/4" = 1'-0"

NOTE: MAXIMUM NUMBER OF HOLES SHALL NOT EXCEED ONE HOLE PER EACH 5 FT OF MEMBER LENGTH

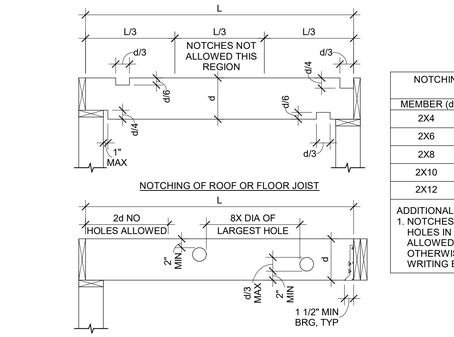


NOTCHING OF GLUE LAMINATED TIMBER BEAMS

HOLE BORING OF GLUE LAMINATED TIMBER BEAMS

2 S211 ALLOWABLE PENETRATIONS IN GLUE LAMINATED TIMBER BEAMS

3/4" = 1'-0"



NOTCHING OF ROOF OR FLOOR JOIST

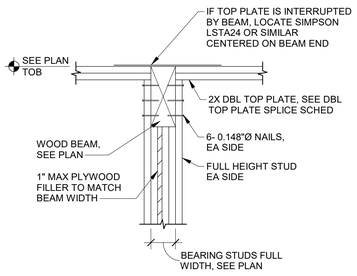
NOTCHING AND BORED HOLE SCHEDULE			
MEMBER (d)	d/3	d/4	d/6
2X4	1 1/8"	7/8"	1/2"
2X6	1 3/4"	1 3/8"	7/8"
2X8	2 3/8"	1 3/4"	1 1/8"
2X10	3"	2 1/4"	1 1/2"
2X12	3 3/4"	2 3/4"	1 7/8"

ADDITIONAL REMARKS:
1. NOTCHES AND BORED HOLES IN BEAMS ARE NOT ALLOWED UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

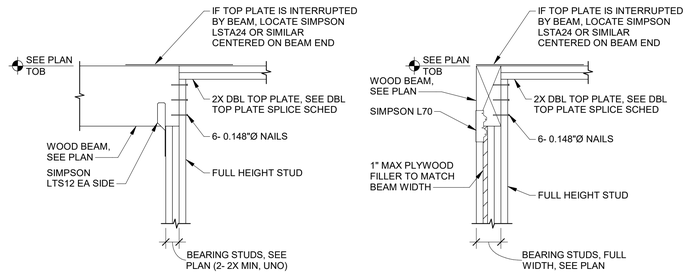
HOLE BORING OF ROOF OR FLOOR JOIST

3 S211 ALLOWABLE PENETRATIONS IN SAWN LUMBER JOISTS

3/4" = 1'-0"



PERPENDICULAR BEAM WITHIN WALL



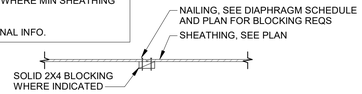
BEAM PARALLEL TO WALL

PERPENDICULAR BEAM AT CORNER

4 S211 TYP BEAM POCKET

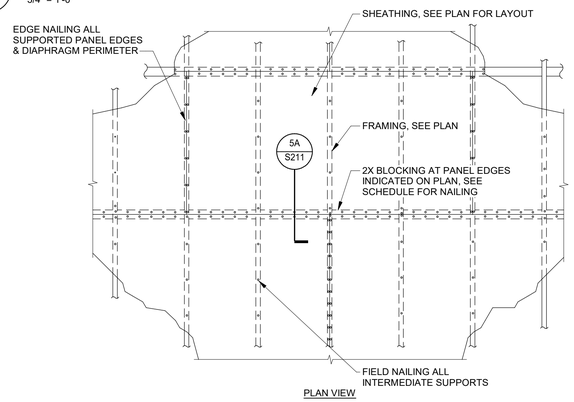
3/4" = 1'-0"

NOTE:
1. MIN EDGE DISTANCE FOR NAILS SHALL BE 3/8".
2. PANELS SHALL NOT BE LESS THAN 4'-0" X 8'-0" EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE MIN SHEATHING SHEET SIZE SHALL BE 2'-0" X 4'-0".
3. NAILS SHALL NOT BE OVERDRIVEN.
4. REFER TO GENERAL NOTES FOR ADDITIONAL INFO.



5A S211 ELEVATION VIEW

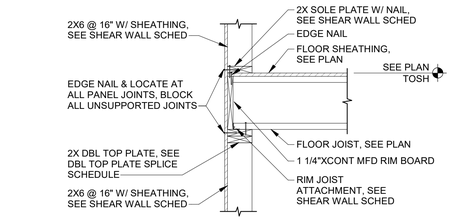
3/4" = 1'-0"



PLAN VIEW

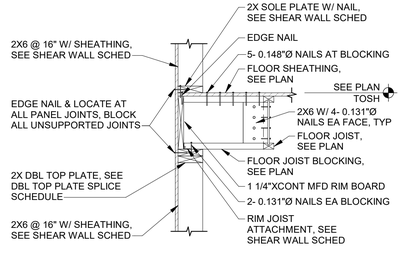
5 S211 DIAPHRAGM SHEATHING ATTACHMENT

3/4" = 1'-0"



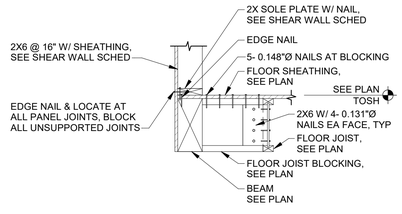
6 S211 FLOOR JOIST BEARING EXT

3/4" = 1'-0"



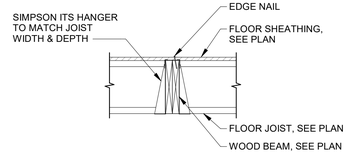
7 S211 FLOOR JOIST PARALLEL EXT

3/4" = 1'-0"



8 S211 FLOOR JOIST PARALLEL EXT

3/4" = 1'-0"



9 S211 FLOOR JOIST AT WOOD BEAM

3/4" = 1'-0"

Cushing Terrell.
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800.757.9522

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
49TH
LAUREN JOHN FELDMAN
No. CE 11735
9/23/22
REGISTERED PROFESSIONAL ENGINEER

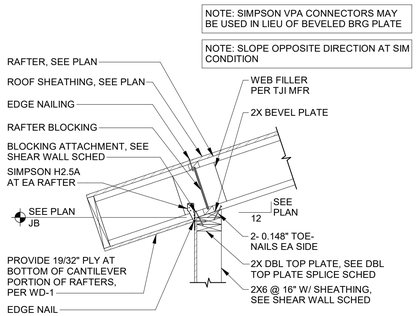
CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

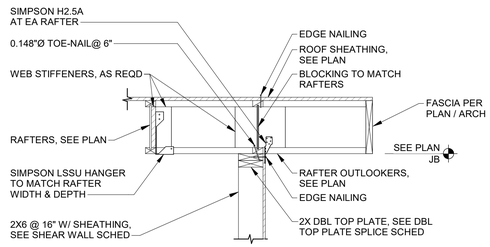
STRUCTURAL FRAMING DETAILS

S211



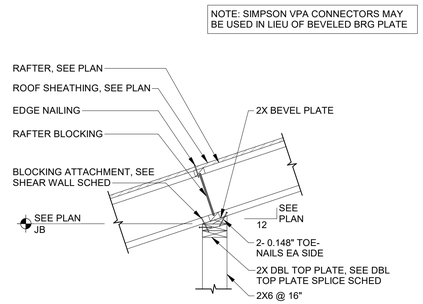
1 S212 RAFTER BEARING AT WOOD EXT STUD WALL

3/4" = 1'-0"



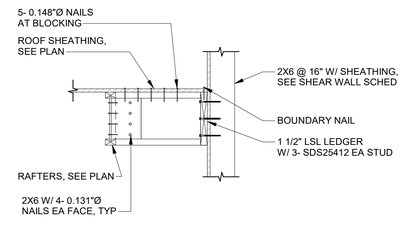
2 S212 RAFTER PARALLEL AT EXT BEARING

3/4" = 1'-0"



3 S212 RAFTER BEARING AT WOOD INTERIOR BEARING WALL

3/4" = 1'-0"



4 S212 RAFTER PARALLEL AT EXT BEARING

3/4" = 1'-0"

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SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | MENGSTU
DRAWN BY | KLONNE
REVIEWED BY | FELDMAN

REVISIONS

STRUCTURAL FRAMING DETAILS

S212

GENERAL NOTES

A. ARCHITECTURAL SITE PLAN IS INTEDED TO PROVIDE CONTEXT FOR COMPLETE PROPERTY.
B. SITE GRADING AND DRAINAGE, UTILITIES, SITE ACCESS, AND LOT DESIGNTATIONS UNDER A SEPARATE PERMIT. CONTRACTOR TO COORDINATE ALL SITE ITEMS WITH CIVIL DRAWINGS AND PERMITS.
C. EACH HOUSING STRUCTURE TO BE PERMITTED UNDER A SEPARATE PERMIT. CONTRACTOR IS RESPONSIBLE FOR REVIEWING FULL SITE SCOPE OF WORK AND COORDINATING BETWEEN CIVIL AND ALL HOUSING STRUCTURE CONSTRUCTION DOCUMENTS.

1 / AS100 ARCHITECTURAL SITE PLAN
1/32" = 1'-0"

NORTH REF

Cushing Terrell

cushingterrell.com
800.757.9522

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

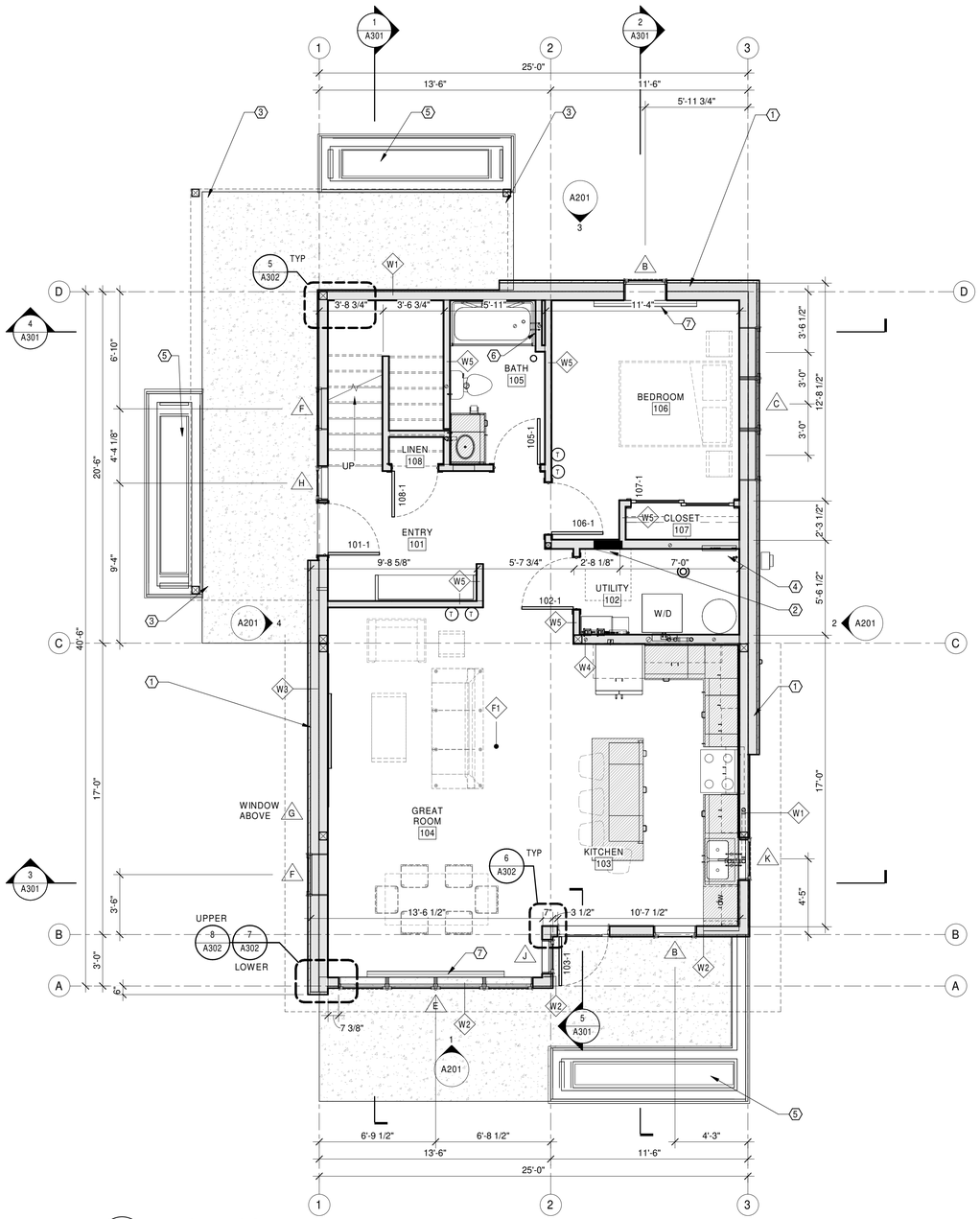
9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | KOEL
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR
REVISIONS

ARCHITECTURAL SITE PLAN & DETAILS

AS100



1 A101 FIRST FLOOR
1/4" = 1'-0"

PLAN LEGEND

- W## — ASSEMBLY TYPE (SEE ASSEMBLIES SHEET)
- 1 — ASSEMBLY MODIFIER, PER TYPE
- NAME 101 — ROOM NAME AND NUMBER
- X — WINDOW TYPE (SEE A600s)
- X — KEYNOTE
- SIM — DIRECTION OF VIEW, IF APPLICABLE
- 1 — DRAWING NUMBER
- X000 — SHEET WHERE DRAWN
- 101-1 — DOOR NUMBER (SEE SHEET A601)
- DIMENSION TO FACE OF FRAMING
- DIMENSION TO GRID LINE
- DIMENSION TO CENTER LINE

GENERAL NOTES:

A. THIS PROJECT SHALL COMPLY WITH THE GOVERNING CODES NOTED ON CODE PLAN. ANY BUILDING OFFICIAL, SUBCONTRACTOR, OR TRADESPERSON NOTING DISCREPANCIES SHALL NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
B. PROPER INSTALLATION OF AIR/MOISTURE BARRIER AND THERMAL INSULATION IS REQUIRED PER MANUFACTURER GUIDELINES AND THESE DOCUMENTS. CONTRACTOR AND SUBCONTRACTORS ARE REQUIRED TO REVIEW SPECIFICATIONS AND DRAWINGS PRIOR TO INSTALLATION. AIR/MOISTURE BARRIER MUST BE FULLY SEALED TO COMPLETELY ENCLOSE THE BUILDING ENVELOPE. FULL THICKNESS OF INSULATION SHALL BE INSTALLED AND VOIDS FILLED WHERE THEY OCCUR.
C. CONTRACTOR SHALL COORDINATE REQUIRED INSPECTIONS BY CITY OR OTHER GOVERNING AUTHORITIES, AS NECESSARY.
D. CONSTRUCTION DEBRIS IS TO BE STOCKPILED NEATLY ON SITE UNTIL DISPOSAL. ON-SITE REFUSE BURNING WILL BE DONE ONLY WITH APPROVAL OF OWNER/LOCAL AUTHORITY.
E. CONTRACTOR SHALL PROVIDE STORAGE FOR BUILDING MATERIALS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
F. COORDINATE WITH BUILDING SECTIONS AND STRUCTURAL DRAWINGS FOR PLATE HEIGHTS & FLOOR ELEVATIONS.
G. FOR REINFORCING OF CONCRETE SLABS, FOOTINGS AND FOUNDATIONS SEE STRUCTURAL.
H. FOR SIZE AND CONNECTION DETAILS OF FRAMING COMPONENTS, BEAMS, DECKING AND OTHER STRUCTURAL SECTIONS - SEE STRUCTURAL FOR COORDINATION AND REQUIREMENTS.
I. CASEWORK, APPLIANCES, AND OTHER FURNITURE, FIXTURES, & EQUIPMENT SHOWN FOR REFERENCE PURPOSES, UNLESS NOTIFIED OTHERWISE. COORDINATE FINAL REQUIREMENTS W/ OWNER OR INTERIOR DESIGNER. FIELD VERIFY CASEWORK AND BUILT IN COMPONENTS PRIOR TO FABRICATION. CASEWORK TO BE BASED ON A.W.I. PREMIUM GRADE STANDARD.
J. PRODUCTS LISTED ARE BASIS-OF-DESIGN. SUBSTITUTIONS SHALL MEET OR EXCEED PERFORMANCE STANDARDS OF THE LISTED PRODUCT AND MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE OWNER/ARCHITECT PRIOR TO ORDERING OR INSTALLATION.
K. UNLESS NOTIFIED OTHERWISE, MATERIALS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS & IN ACCORDANCE w/ WARRANTY GUIDELINES.
L. COORDINATE ALL PLUMBING, ELECTRICAL & MECHANICAL COMPONENTS WITH SUB-CONTRACTORS. UNLESS NOTIFIED OTHERWISE, COMPONENTS ARE SHOWN FOR GENERAL LOCATION AND SCOPE OF WORK. PERMITS ARE TO BE SUPPLIED BY SUB-CONTRACTOR IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS.
M. SEE SITE PLAN FOR BUILDING ORIENTATION.
N. POST INSTALLATION PEX TUBING DAMAGE PREVENTION; FOLLOWING PROCEDURE TO BE USED TO PREVENT DAMAGE OF RADIANT FLOOR HEAT PEX TUBING; AFTER SLAB IS CAST AND CURED THE CONTRACTOR SHALL MEASURE AND MARK ON THE FLOOR ALL WALL PLATES TO BE FASTENED ONTO THE CONCRETE FLOOR SLAB, AS WELL AS OTHER FLOOR ATTACHMENTS (IF ANY). MECHANICAL CONTRACTOR SHALL CONNECT A TEMPORARY WATER HEATER AND CIRCULATE WARMED FLUID THROUGH THE PEX TUBING. CONTRACTOR SHALL USE THERMAL CAMERA TO MARK THE INTERSECTION OF ALL FRAMING TRACKS AND OTHER FLOOR ATTACHMENTS WITH PEX TUBING. MARK WITH PAINT ON THE CONCRETE FLOOR THE PEX TUBING LINES INTERSECTING THE FRAMING LINES. CONTRACTOR PROCEEDS TO FASTEN FLOOR TRACK TO THE FLOOR AVOIDING ALL INTERSECTING PEX TUBE LOCATIONS.

(#) FLOOR PLAN KEYNOTES

1 PARTIAL HEIGHT WALL, SEE ELEVATIONS AND SECTIONS.
2 ELECTRICAL PANEL, SEE ELECTRICAL DRAWINGS.
3 WOOD COLUMN, SEE STRUCTURAL.
4 MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS.
5 PLANTER BED AND BUILT IN BENCH, SEE DETAIL SHEETS.
6 FURR OUT BATHROOM WALL AS NEEDED TO FIT SHOWER.
7 BASE BOARD HEATER, SEE ELECTRICAL AND MECHANICAL DRAWINGS.

Cushing Terrell.
cushingterrell.com
800.757.9522

SINGLE FAMILY TWO STORY (SHED ROOF)

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

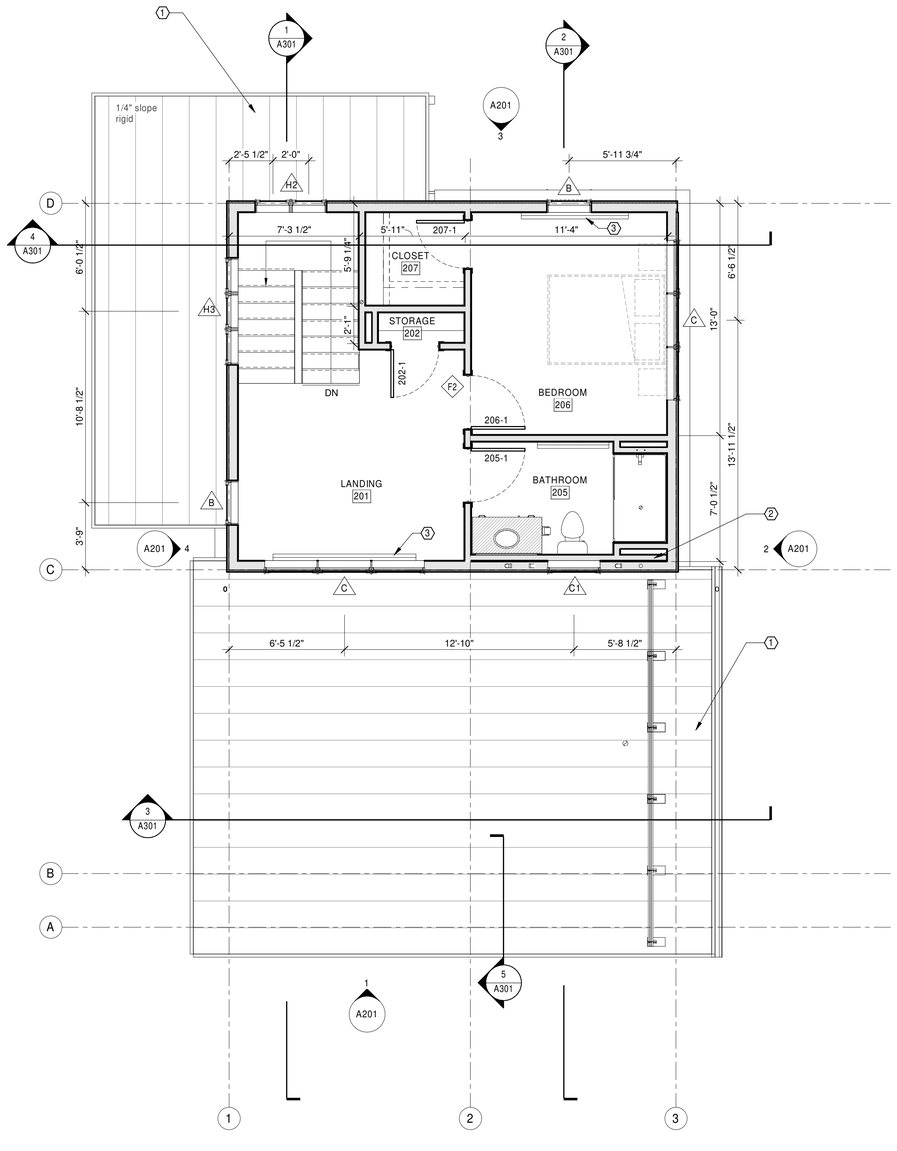
STATE OF ALASKA 49TH THOMAS M. CALLA No. 10226 REGISTERED PROFESSIONAL ARCHITECT
9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | KOEL
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR
REVISIONS

FIRST FLOOR PLAN & PLAN DETAILS

A101



SECOND FLOOR

1/4" = 1'-0"

PLAN LEGEND

- W## — ASSEMBLY TYPE (SEE ASSEMBLIES SHEET)
- # — ASSEMBLY MODIFIER, PER TYPE
- NAME / 101 — ROOM NAME AND NUMBER
- X — WINDOW TYPE (SEE A600s)
- X — KEYNOTE
- SIM — DIRECTION OF VIEW, IF APPLICABLE
- 1 — DRAWING NUMBER
- X000 — SHEET WHERE DRAWN
- 101-1 — DOOR NUMBER (SEE SHEET A601)
- DIMENSION TO FACE OF FRAMING
- DIMENSION TO GRID LINE
- DIMENSION TO CENTER LINE

GENERAL NOTES:

A. THIS PROJECT SHALL COMPLY WITH THE GOVERNING CODES NOTED ON CODE PLAN. ANY BUILDING OFFICIAL, SUBCONTRACTOR, OR TRADESPERSON NOTING DISCREPANCIES SHALL NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
B. PROPER INSTALLATION OF AIR/MOISTURE BARRIER AND THERMAL INSULATION IS REQUIRED PER MANUFACTURER GUIDELINES AND THESE DOCUMENTS. CONTRACTOR AND SUBCONTRACTORS ARE REQUIRED TO REVIEW SPECIFICATIONS AND DRAWINGS PRIOR TO INSTALLATION. AIR/MOISTURE BARRIER MUST BE FULLY SEALED TO COMPLETELY ENCLOSE THE BUILDING ENVELOPE. FULL THICKNESS OF INSULATION SHALL BE INSTALLED AND VOIDS FILLED WHERE THEY OCCUR.
C. CONTRACTOR SHALL COORDINATE REQUIRED INSPECTIONS BY CITY OR OTHER GOVERNING AUTHORITIES, AS NECESSARY.
D. CONSTRUCTION DEBRIS IS TO BE STOCKPILED NEATLY ON SITE UNTIL DISPOSAL. ON-SITE REFUSE BURNING WILL BE DONE ONLY WITH APPROVAL OF OWNER/LOCAL AUTHORITY.
E. CONTRACTOR SHALL PROVIDE STORAGE FOR BUILDING MATERIALS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
F. COORDINATE WITH BUILDING SECTIONS AND STRUCTURAL DRAWINGS FOR PLATE HEIGHTS & FLOOR ELEVATIONS.
G. FOR REINFORCING OF CONCRETE SLABS, FOOTINGS AND FOUNDATIONS SEE STRUCTURAL.
H. FOR SIZE AND CONNECTION DETAILS OF FRAMING COMPONENTS, BEAMS, DECKING AND OTHER STRUCTURAL SECTIONS - SEE STRUCTURAL FOR COORDINATION AND REQUIREMENTS.
I. CASEWORK, APPLIANCES, AND OTHER FURNITURE, FIXTURES, & EQUIPMENT SHOWN FOR REFERENCE PURPOSES, UNLESS NOTIFIED OTHERWISE. COORDINATE FINAL REQUIREMENTS W/ OWNER OR INTERIOR DESIGNER. FIELD VERIFY CASEWORK AND BUILT IN COMPONENTS PRIOR TO FABRICATION. CASEWORK TO BE BASED ON A.W.I. PREMIUM GRADE STANDARD.
J. PRODUCTS LISTED ARE BASIS-OF-DESIGN. SUBSTITUTIONS SHALL MEET OR EXCEED PERFORMANCE STANDARDS OF THE LISTED PRODUCT AND MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE OWNER/ARCHITECT PRIOR TO ORDERING OR INSTALLATION.
K. UNLESS NOTIFIED OTHERWISE, MATERIALS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS & IN ACCORDANCE w/ WARRANTY GUIDELINES.
L. COORDINATE ALL PLUMBING, ELECTRICAL & MECHANICAL COMPONENTS WITH SUB-CONTRACTORS. UNLESS NOTIFIED OTHERWISE, COMPONENTS ARE SHOWN FOR GENERAL LOCATION AND SCOPE OF WORK. PERMITS ARE TO BE SUPPLIED BY SUB-CONTRACTOR IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS.
M. SEE SITE PLAN FOR BUILDING ORIENTATION.
N. POST INSTALLATION PEX TUBING DAMAGE PREVENTION; FOLLOWING PROCEDURE TO BE USED TO PREVENT DAMAGE OF RADIANT FLOOR HEAT PEX TUBING; AFTER SLAB IS CAST AND CURED THE CONTRACTOR SHALL MEASURE AND MARK ON THE FLOOR ALL WALL PLATES TO BE FASTENED ONTO THE CONCRETE FLOOR SLAB, AS WELL AS OTHER FLOOR ATTACHMENTS (IF ANY). MECHANICAL CONTRACTOR SHALL CONNECT A TEMPORARY WATER HEATER AND CIRCULATE WARMED FLUID THROUGH THE PEX TUBING. CONTRACTOR SHALL USE THERMAL CAMERA TO MARK THE INTERSECTION OF ALL FRAMING TRACKS AND OTHER FLOOR ATTACHMENTS WITH PEX TUBING. MARK WITH PAINT ON THE CONCRETE FLOOR THE PEX TUBING LINES INTERSECTING THE FRAMING LINES. CONTRACTOR PROCEEDS TO FASTEN FLOOR TRACK TO THE FLOOR AVOIDING ALL INTERSECTING PEX TUBE LOCATIONS.

FLOOR PLAN KEYNOTES

1 ROOF BELOW.
2 FURR OUT BATHROOM WALLS AS NEEDED TO CENTER SHOWER.
3 BASE BOARD HEATER, SEE ELECTRICAL AND MECHANICAL DRAWINGS.

Cushing Terrell.
cushingterrell.com
800.757.9522

SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

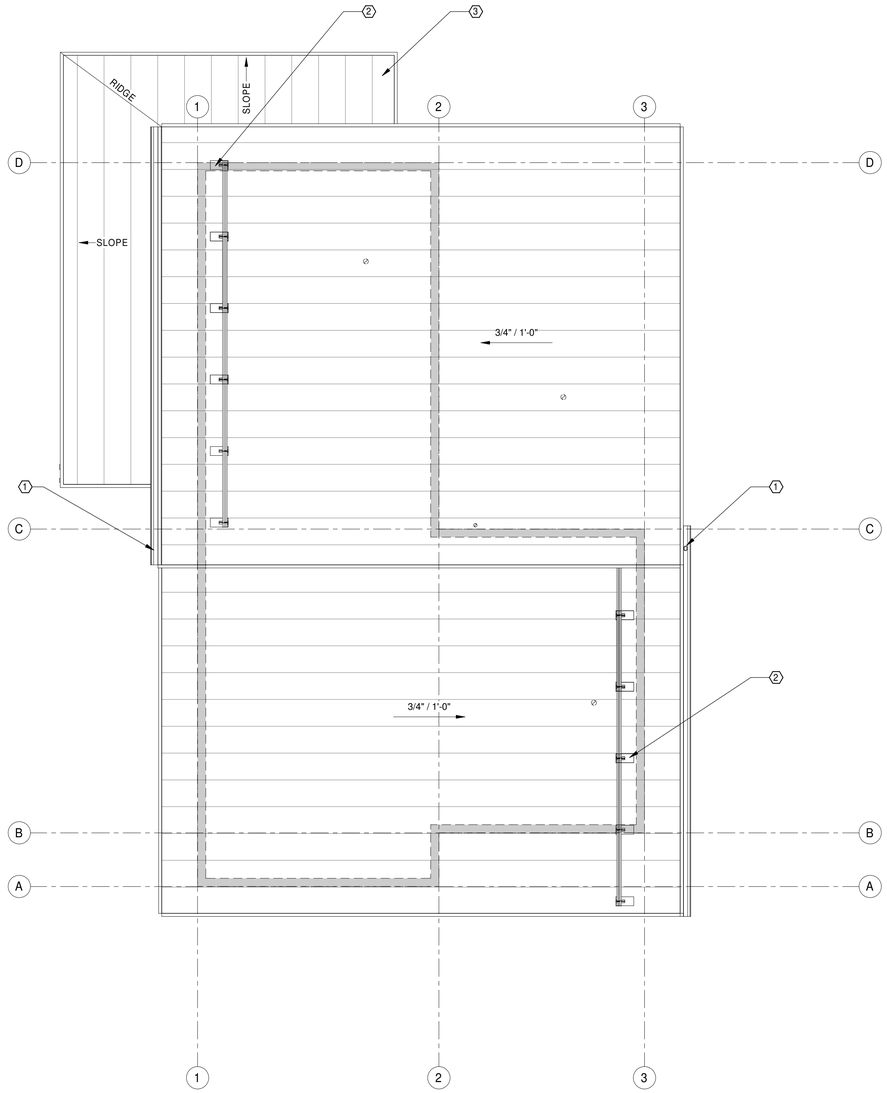
9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | KOEL
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR
REVISIONS

SECOND FLOOR PLAN & PLAN DETAILS

A102



1 A110 ROOF
1/4" = 1'-0"

GENERAL NOTES:

A. THIS PROJECT SHALL COMPLY WITH THE GOVERNING CODES NOTED ON CODE PLAN. ANY BUILDING OFFICIAL, SUBCONTRACTOR, OR TRADESPERSON NOTING DISCREPANCIES SHALL NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
B. PROPER INSTALLATION OF AIR/MOISTURE BARRIER AND THERMAL INSULATION IS REQUIRED PER MANUFACTURER GUIDELINES AND THESE DOCUMENTS. CONTRACTOR AND SUBCONTRACTORS ARE REQUIRED TO REVIEW SPECIFICATIONS AND DRAWINGS PRIOR TO INSTALLATION. AIR/MOISTURE BARRIER MUST BE FULLY SEALED TO COMPLETELY ENCLOSE THE BUILDING ENVELOPE. FULL THICKNESS OF INSULATION SHALL BE INSTALLED AND VOIDS FILLED WHERE THEY OCCUR.
C. CONTRACTOR SHALL COORDINATE REQUIRED INSPECTIONS BY CITY OR OTHER GOVERNING AUTHORITIES, AS NECESSARY.
D. CONSTRUCTION DEBRIS IS TO BE STOCKPILED NEATLY ON SITE UNTIL DISPOSAL. ON-SITE REFUSE BURNING WILL BE DONE ONLY WITH APPROVAL OF OWNER/LOCAL AUTHORITY.
E. CONTRACTOR SHALL PROVIDE STORAGE FOR BUILDING MATERIALS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
F. COORDINATE WITH BUILDING SECTIONS AND STRUCTURAL DRAWINGS FOR PLATE HEIGHTS & FLOOR ELEVATIONS.
G. FOR REINFORCING OF CONCRETE SLABS, FOOTINGS AND FOUNDATIONS SEE STRUCTURAL.
H. FOR SIZE AND CONNECTION DETAILS OF FRAMING COMPONENTS, BEAMS, DECKING AND OTHER STRUCTURAL SECTIONS - SEE STRUCTURAL FOR COORDINATION AND REQUIREMENTS.
I. CASEWORK, APPLIANCES, AND OTHER FURNITURE, FIXTURES, & EQUIPMENT SHOWN FOR REFERENCE PURPOSES, UNLESS NOTIFIED OTHERWISE. COORDINATE FINAL REQUIREMENTS W/ OWNER OR INTERIOR DESIGNER. FIELD VERIFY CASEWORK AND BUILT IN COMPONENTS PRIOR TO FABRICATION. CASEWORK TO BE BASED ON A.W.I. PREMIUM GRADE STANDARD.
J. PRODUCTS LISTED ARE BASIS-OF-DESIGN. SUBSTITUTIONS SHALL MEET OR EXCEED PERFORMANCE STANDARDS OF THE LISTED PRODUCT AND MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE OWNER/ARCHITECT PRIOR TO ORDERING OR INSTALLATION.
K. UNLESS NOTIFIED OTHERWISE, MATERIALS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS & IN ACCORDANCE w/ WARRANTY GUIDELINES.
L. COORDINATE ALL PLUMBING, ELECTRICAL & MECHANICAL COMPONENTS WITH SUB-CONTRACTORS. UNLESS NOTIFIED OTHERWISE, COMPONENTS ARE SHOWN FOR GENERAL LOCATION AND SCOPE OF WORK. PERMITS ARE TO BE SUPPLIED BY SUB-CONTRACTOR IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS.
M. SEE SITE PLAN FOR BUILDING ORIENTATION.
N. POST INSTALLATION PEX TUBING DAMAGE PREVENTION; FOLLOWING PROCEDURE TO BE USED TO PREVENT DAMAGE OF RADIANT FLOOR HEAT PEX TUBING; AFTER SLAB IS CAST AND CURED THE CONTRACTOR SHALL MEASURE AND MARK ON THE FLOOR ALL WALL PLATES TO BE FASTENED ONTO THE CONCRETE FLOOR SLAB, AS WELL AS OTHER FLOOR ATTACHMENTS (IF ANY). MECHANICAL CONTRACTOR SHALL CONNECT A TEMPORARY WATER HEATER AND CIRCULATE WARMED FLUID THROUGH THE PEX TUBING. CONTRACTOR SHALL USE THERMAL CAMERA TO MARK THE INTERSECTION OF ALL FRAMING TRACKS AND OTHER FLOOR ATTACHMENTS WITH PEX TUBING. MARK WITH PAINT ON THE CONCRETE FLOOR THE PEX TUBING LINES INTERSECTING THE FRAMING LINES. CONTRACTOR PROCEEDS TO FASTEN FLOOR TRACK TO THE FLOOR AVOIDING ALL INTERSECTING PEX TUBE LOCATIONS.

(#) ROOF PLAN KEYNOTES

1 GUTTER AND DOWNSPOUT, COLOR: BLACK TO MATCH ROOFING COMPONENTS.
2 SNOW GUARD CLAMP AND RAIL SYSTEM: BASIS OF DESIGN: S-5!; S-5-T CLAMP AND COLORGUARD 2.0 RAIL. COORDINATE INSTALLATION WITH RAIL AND ROOFING MANUNCTURERS.
3 STANDING SEAM METAL ROOF CANOPY BELOW. SLOPED TO DRAIN AT EDGE.

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SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
10TH
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT
9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
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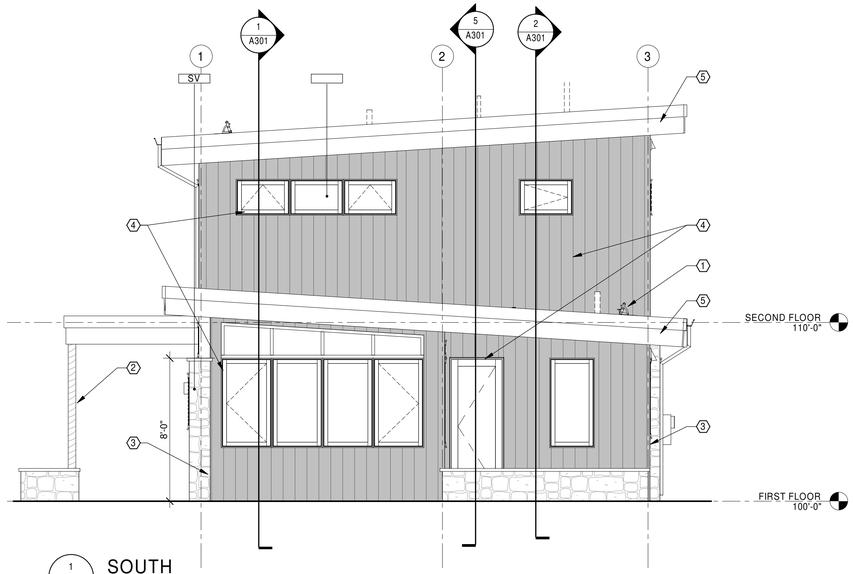
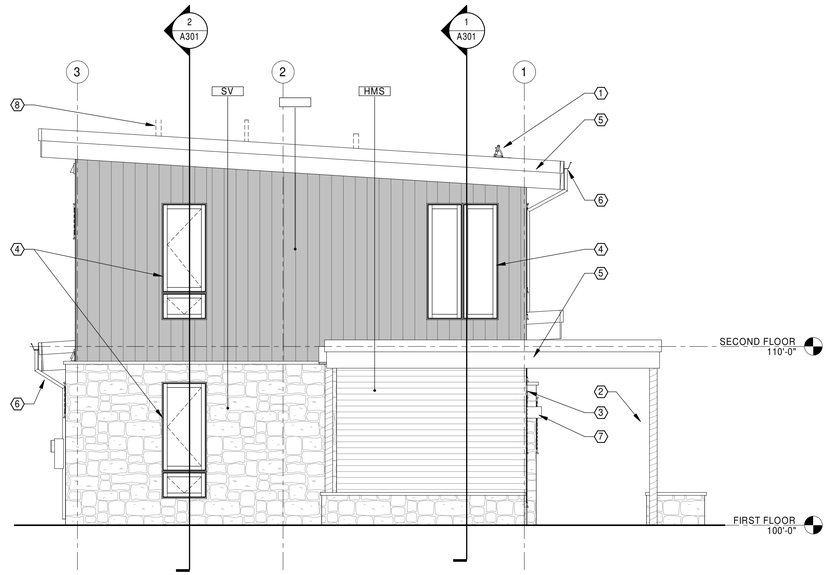
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR
REVISIONS

ROOF PLANS

A110



1 A201 SOUTH
1/4" = 1'-0"



3 A201 NORTH
1/4" = 1'-0"

MATERIALS LEGEND

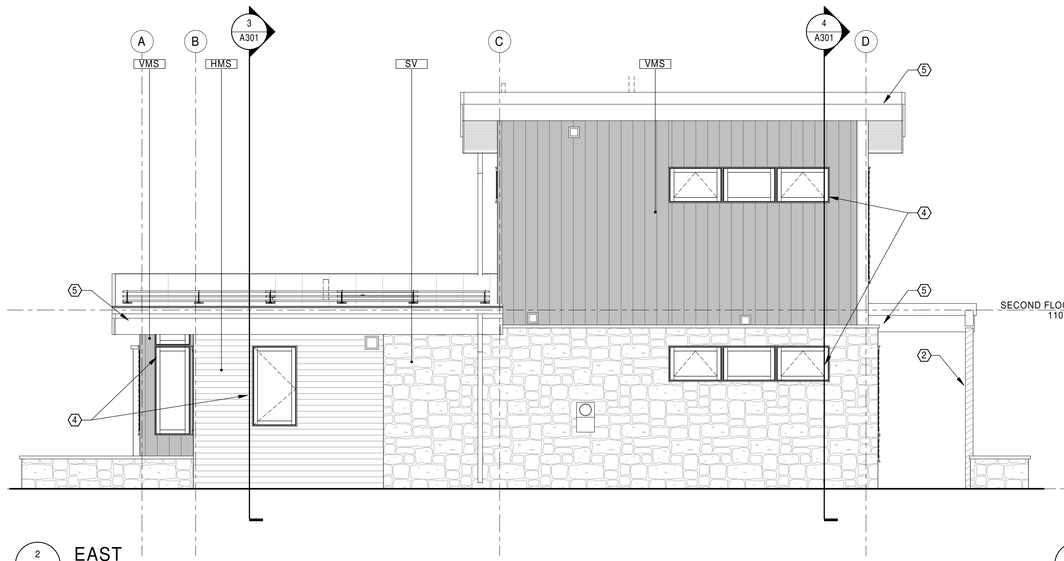
HMS	METAL PANEL SIDING - HORIZONTAL (WOOD LOOK)
SV	STONE VENEER
VMS	METAL PANEL SIDING VERTICAL METAL SIDING

GENERAL NOTES

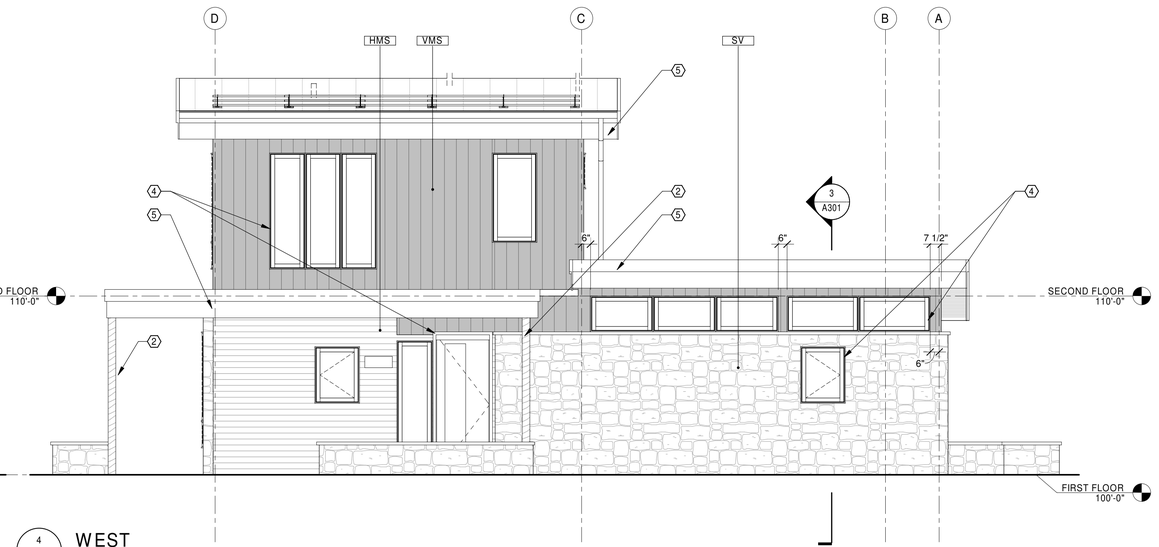
A. NOT USED.

KEYNOTES

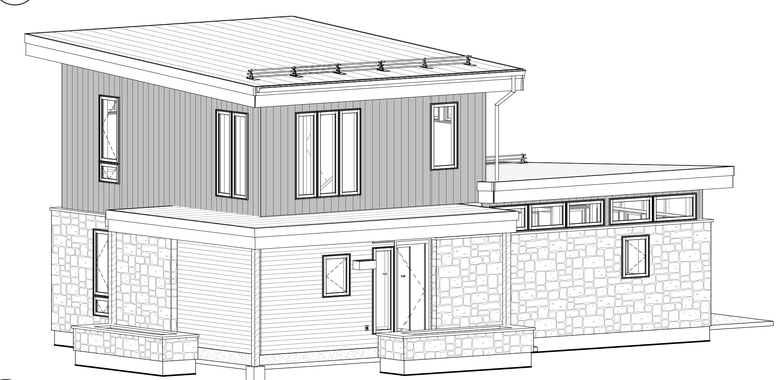
1 SNOW GUARD, SEE ROOF PLAN.
2 WOOD COLUMN, SEE STRUCTURAL DRAWINGS.
3 CORNER TRIM, SEE DETAILS.
4 WINDOW AND DOOR TRIM, SEE DETAILS.
5 METAL FASCIA.
6 GUTTER AND DOWNSPOUT, SEE ROOF PLAN AND DETAILS.
7 BUILDING LIGHT, SEE ELECTRICAL DRAWINGS.
8 THROUGH ROOF VENT PIPING, SEE MECHANICAL / PLUMBING DRAWINGS.



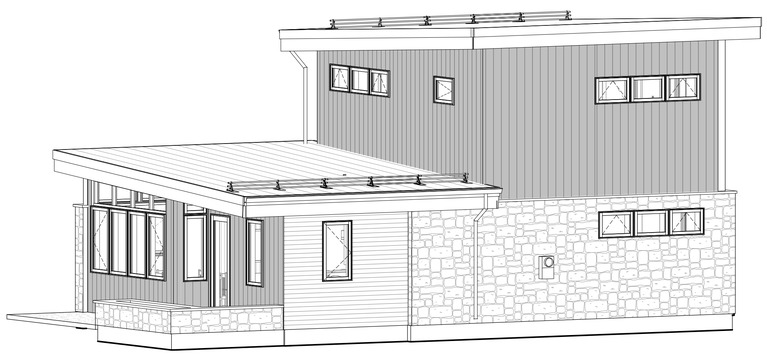
2 A201 EAST
1/4" = 1'-0"



4 A201 WEST
1/4" = 1'-0"



V1 A201 SHEET VIEW 1



V2 A201 SHEET VIEW 2

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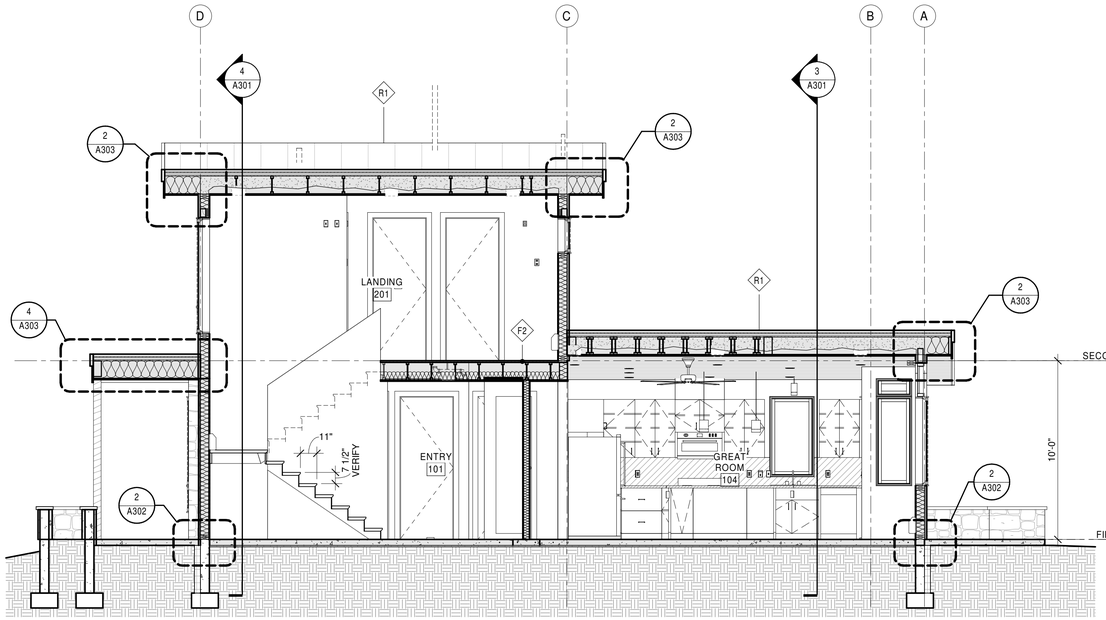
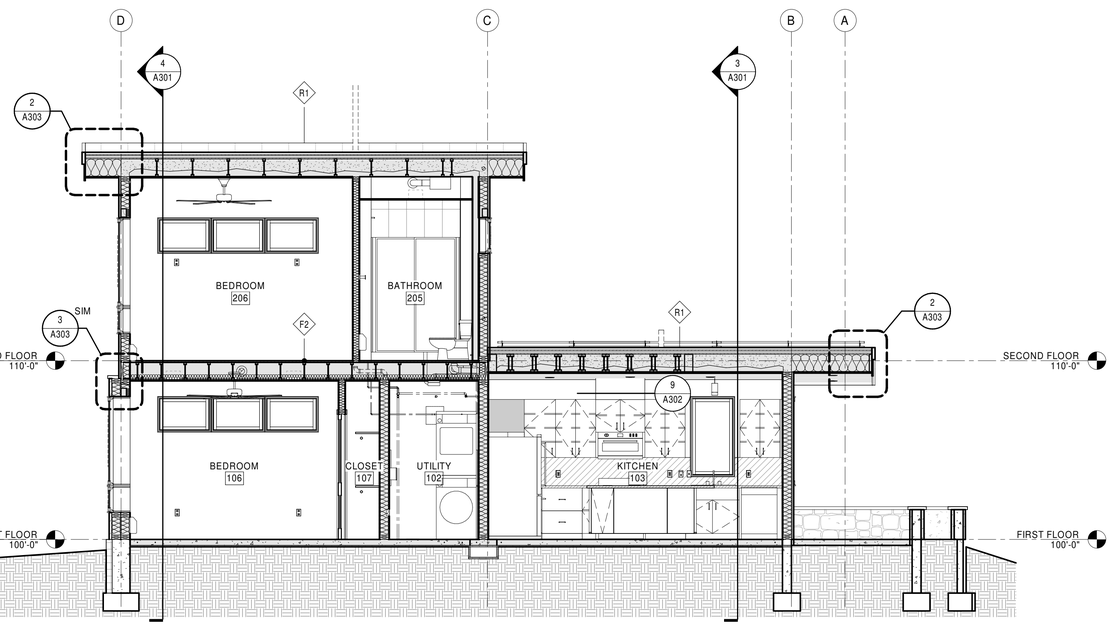
EXTERIOR ELEVATIONS

A201



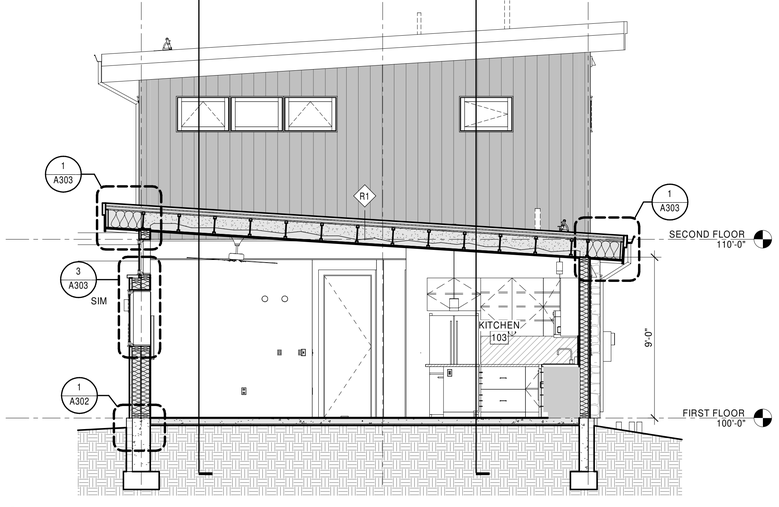
1 A301 BUILDING SECTION 1

1/4" = 1'-0"



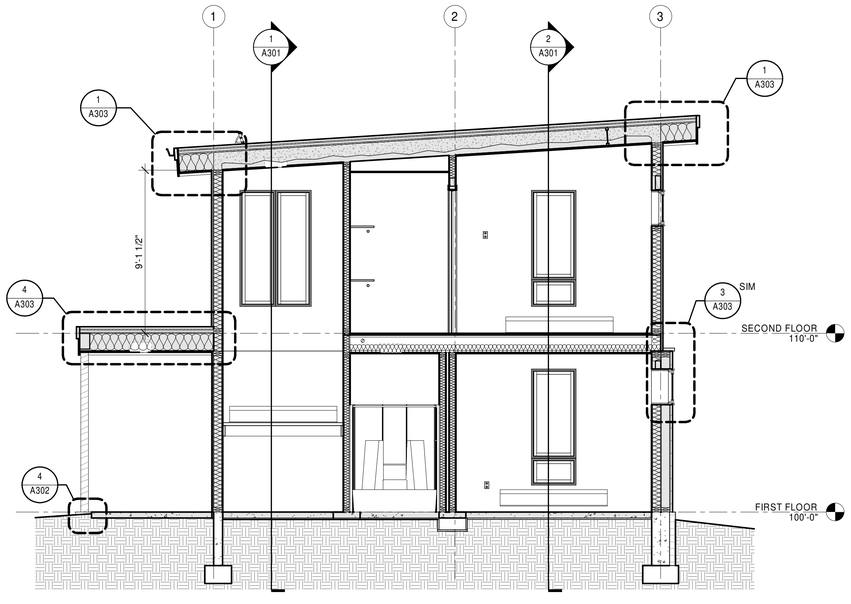
2 A301 BUILDING SECTION 2

1/4" = 1'-0"



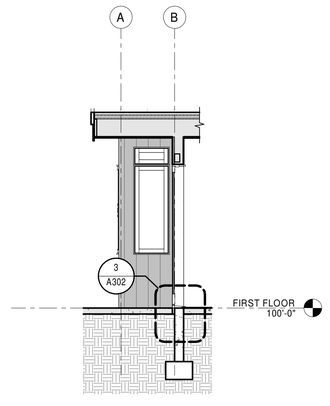
3 A301 BUILDING SECTION 3

1/4" = 1'-0"



4 A301 BUILDING SECTION 4

1/4" = 1'-0"



5 A301 BUILDING SECTION 5

1/4" = 1'-0"

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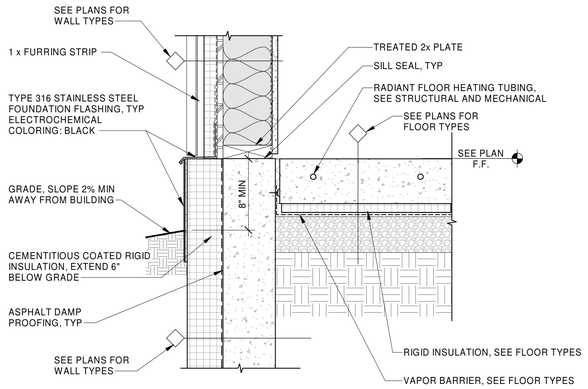
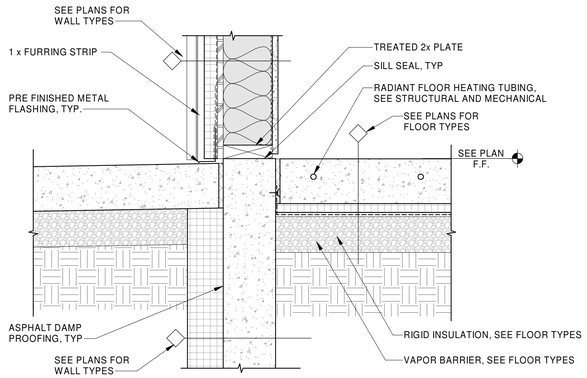
BUILDING SECTIONS

A301



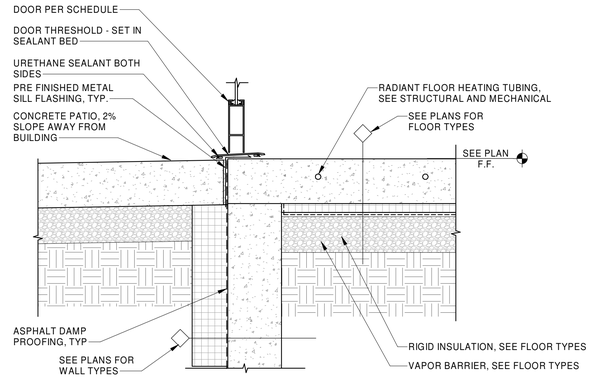
1 A302 CONCRETE FOUNDATION WALL AT SLAB ON GRADE

1 1/2" = 1'-0"



2 A302 CONCRETE FOUNDATION WALL AT SLAB ON GRADE EXTERIOR PATIO

1 1/2" = 1'-0"



3 A302 CONCRETE FOUNDATION WALL AT SLAB ON GRADE EXTERIOR PATIO DOOR

1 1/2" = 1'-0"

4 A302 METAL STAND-OFF KNIFE PLATE COLUMN BASE @ CONC. SLAB

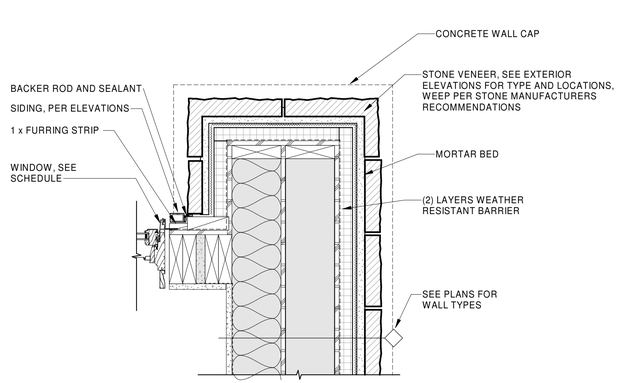
1 1/2" = 1'-0"

5 A302 EXTERIOR METAL (HORIZ) TRIM DETAILS (OUTSIDE AND INSIDE)

1 1/2" = 1'-0"

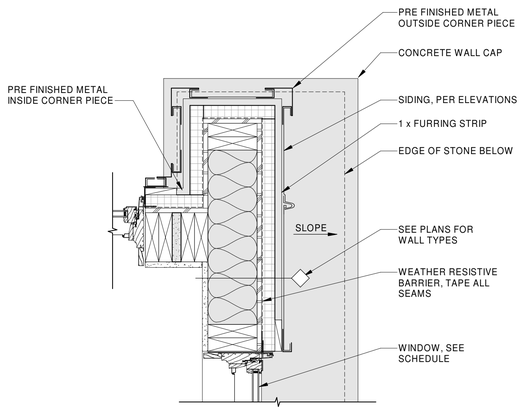
6 A302 EXTERIOR METAL (VERT) TRIM DETAILS (OUTSIDE AND INSIDE)

1 1/2" = 1'-0"



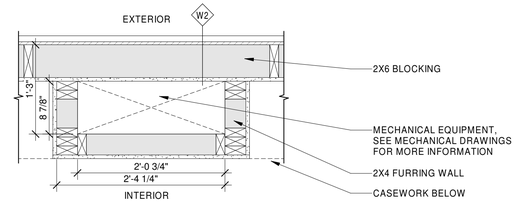
7 A302 LOWER DOUBLE WALL AT WINDOW DETAIL

1 1/2" = 1'-0"



8 A302 UPPER WALL AT WINDOW DETAIL

1 1/2" = 1'-0"



9 A302 CHASE ABOVE STOVE DETAIL

1" = 1'-0"

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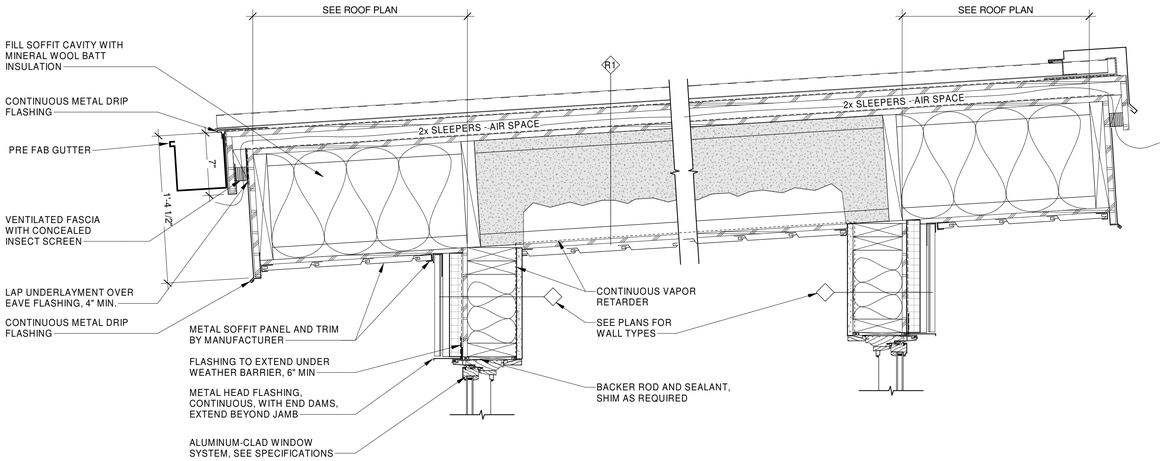
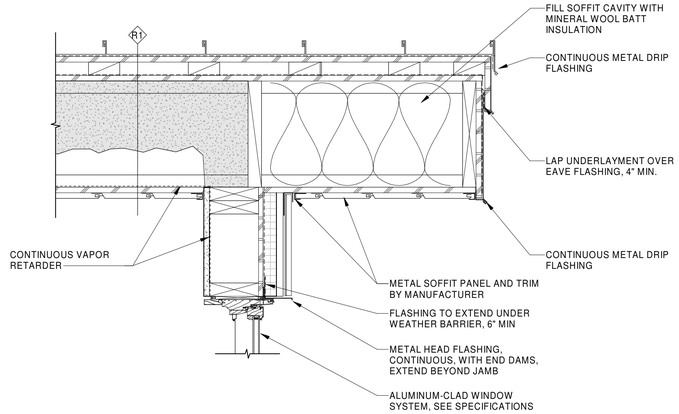
DETAILS

A302



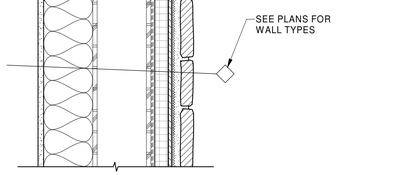
1 A303 VENTED ROOF - ROOF OVERHANG AT UPPER AND LOWER SLOPE

1 1/2" = 1'-0"



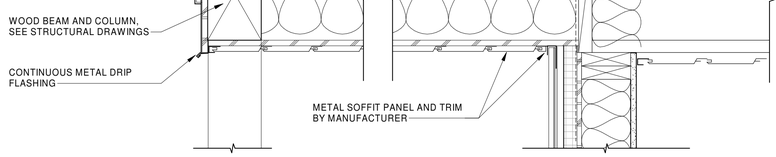
2 A303 VENTED ROOF ROOF - OVERHANG AT RAKE

1 1/2" = 1'-0"



3 A303 DOUBLE WALL AND WALL CAP AT WINDOW

1 1/2" = 1'-0"



4 A303 ENTRY ROOF DETAIL

1 1/2" = 1'-0"

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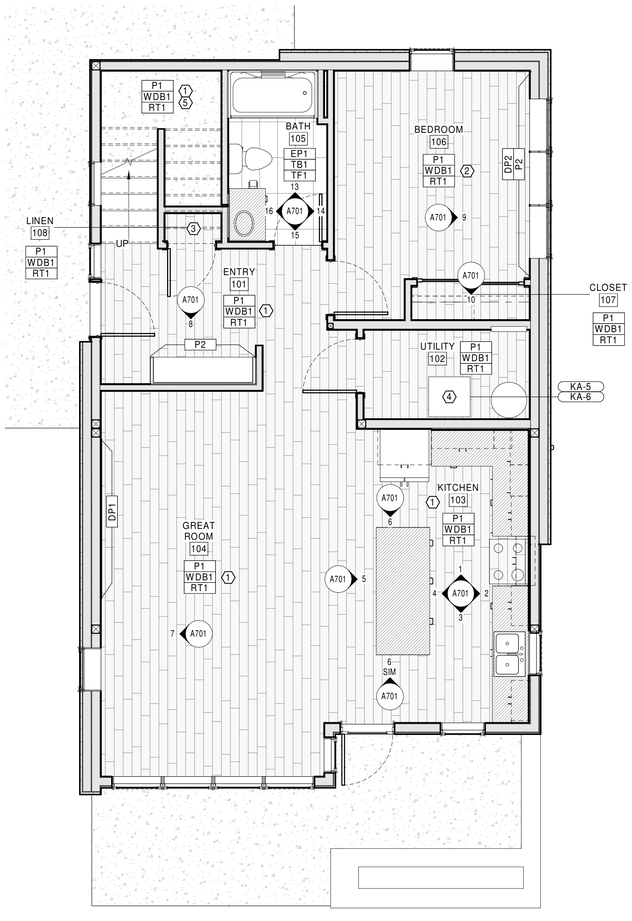
DETAILS

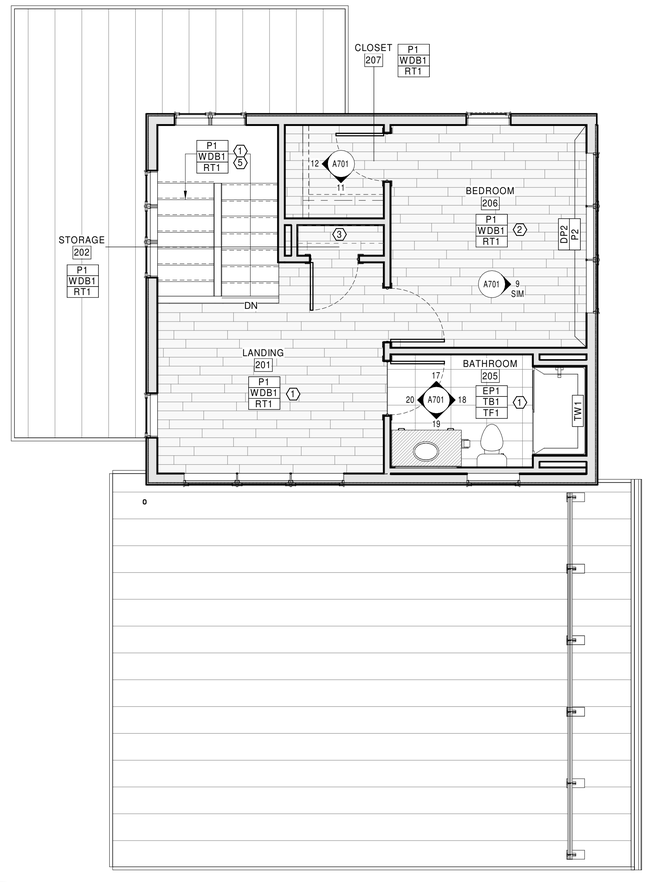
A303

MATERIALS LIST

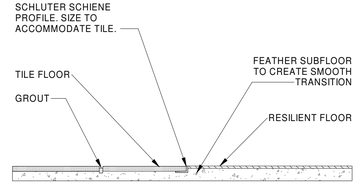
ITEM NO	PRODUCT TYPE	MANUFACTURER	DESCRIPTION	COLOR	SIZE	NOTES
BASE						
TB1	TILE BASE	EMSER	STERLINA II, BULLNOSE	GRAY, MATTE	12" X 6"	INSTALL WITH 'TR1' TOP TRIM
WDB1	WOOD BASE	PROVIDED BY GC	HARDWOOD, EASED TOP EDGE	PAINT TO MATCH WALL COLOR	1/2" THICK X 5-1/2"H	
CEILING						
WDC1	WOOD CEILING	LONGBOARD	EDURA LINEAR DIRECT MOUNT	LIGHT OLIVE	6" GROOVE PLANK	INSTALL WITH MANUFACTURERS STANDARD MOUNT SYSTEM WITH STAGGERED BUTT JOINTS
FLOOR						
RT1	RESILIENT FLOORING	TAS CONTRACT	LEVELS 5MM COLLECTION	HORIZON	9-1/4" X 59-1/4" PLANK	USE MANUFACTURERS ADHESIVE OVER HYDRONIC HEATED FLOOR SYSTEMS
SN1	STAIR NOSING	TAS FLOORING	QNOSE, LV GLUE DOWN	MATCH FLOORING		PROVIDE IN SIZES AND PROFILES NECESSARY FOR COMPLETE INSTALLATION
TF1	TILE FLOOR	EMSER	STERLINA II	GRAY, MATTE	12" X 24"	MONOLITHIC INSTALLATION. GROUT: LATICRETE, COLOR: 78 STERLING SILVER
MILLWORK						
CW1	MANUFACTURED CASEWORK	MERILLAT	CLASSIC VANCE SQ	LAMINATE WHITE		TRADITIONAL OVERLAY, STANDARD CABINETS
CW2	MANUFACTURED CASEWORK	MERILLAT	CLASSIC FUSION	MAPLE DUSK		
CW3	MANUFACTURED CASEWORK	MERILLAT	CLASSIC FUSION	BASALT		
HW1	HARDWARE	RAVINTE HARDWARE	SQUARE KITCHEN CABINET HANDLES	MATTE BLACK	8"	PROVIDE ON ALL UPPER CABINETS
HW2	HARDWARE	PEAHA	DOOR EDGE FINGER PULL FOR KITCHEN CABINETS	BLACK	10"	PROVIDE ON ALL BASE CABINETS
SS1	SOLID SURFACE	LX HAUSYS	HIMACS	CALACATTA FIORE M802L, WHITE		
SS2	SOLID SURFACE	LX HAUSYS	HIMACS	SHADOW CONCRETE M552, GRAY		
WD1	WOOD CASING	PROVIDED BY GC	RIFT CUT WHITE OAK	STAIN TO MATCH ARCHITECTS SAMPLE	1.5"W X 1"D	INSTALL CASING AT ALL INTERIOR DOORS AND WINDOWS
MISC.						
CH1	COAT HOOK	DELTA	TRINSIC ROBE HOOK	MATTE BLACK	1-1/8"W X 3-1/8"H X 3"D	INTALL 4'-6" AFF
CL1	CLOSET STORAGE	EVERBUILT	HEAVY-DUTY SHELF AND ROD BRACKET	MATTE BLACK	8" D	INSTALL WITH ADJUSTABLE MATTE BLACK CLOSET ROD AND 12" DEEP WHITE LAMINATE SHELVES
CL2	PANTRY STORAGE	EVERBUILT	SHELF TRACKS HEAVY-DUTY VERTICAL RAIL SYSTEM	WHITE	14" D SHELF	INSTALL WITH 5 WHITE LAMINATE SHELVES AND WHITE ADJUSTABLE SHELF BRACKETS
HR1	WOOD HAND RAIL	EVERMARK STAIR PARTS	6042 UNFINISHED POPLAR SOLID WALL HANDRAIL	STAIN TO MATCH FLOORING	2-1/4"W X 1-1/4"H	INSTALL USING EVERBUILT MATTE BLACK DECORATIVE HANDRAIL BRACKET
MR1	MIRROR	HOME DEPOT	NIVEAL CLASSIC FRAME COLLECTION	MATTE BLACK	36"H X 30"W X 1.5"D	
MR2	MIRROR	HOME DEPOT	NIVEAL CLASSIC FRAME COLLECTION	MATTE BLACK	36"H X 42"W X 1.5"D	
SH1	SHOWER NICHE	SCHLUTER	DESIGN-NICHE	MATTE BALCK	48" W	RECESSED INSTALLATION METHOD
SH2	SHOWER DOOR	DELTA SHOWER DOORS	ASHMORE 8MM SHOWER DOOR	MATTE BALCK	60"	
WS1	WINDOW SHADES	GRABER	ENDEAVOR	0374-LSC ELEGANT DOVE		BOTTOM UP/TOP DOWN CORDLESS LIFT CONTROL
WS2	WINDOW SHADES	GRABER	DISCOVERY (BLACKOUT)	0191-LSC ELEGANT DOVE		BOTTOM UP/TOP DOWN CORDLESS LIFT CONTROL
TRANSITIONS						
TR1	TRANSITION PROFILE	SCHLUTER	JOLLY	GM METALLIC GREY		INSTALL ON EXPOSED EDGES OF TILE
TR2	TRANSITION PROFILE	SCHLUTER	SCHIENE	GM METALLIC GREY		INSTALL BETWEEN TILE AND RESILIENT FLOORING
WALL						
DP1	DECORATIVE PANEL	PROVIDED BY GC	RIFTCUT WHITE OAK	STAIN TO MATCH ARCHITECTS SAMPLE	3" X 1/2" TUNG AND GROOVE PLANKS	STACKED VERTICAL INSTALLATION - SEE ELEVATION
DP2	DECORATIVE WOOD WALL	PROVIDED BY GC	HARDWOOD TRIM ATTACHED TO GYP.	PAINT 'P2'	SEE ELEVATION	PAINT GYP WALL BETWEEN/BEHIND TRIM TO MATCH TRIM COLOR. SEE ELEVATION
EP1	EPOXY PAINT					
P1	PAINT	SHERWIN WILLIAMS		SNOWBOUND 7004		
P2	PAINT	SHERWIN WILLIAMS		IRON ORE 7069		
TW1	TILE WALL	EMSER	STERLINA II	GRAY, MATTE	12" X 24"	STACKED VERTICAL INSTALLATION. GROUT: LATICRETE, COLOR: 78 STERLING SILVER



1 A501 FIRST FLOOR FINISH PLAN
1/4" = 1'-0"



2 A501 SECOND FLOOR FINISH PLAN
1/4" = 1'-0"



3 A501 'TR2' TRANSITION - TILE TO RESILIENT TILE
6" = 1'-0"

FINISH PLAN LEGEND

NAME 101 — ROOM NAME AND NUMBER

A8## # — INTERIOR ELEVATION CALLOUT AND DIRECTION OF ELEVATION VIEW

XX### — FINISH TAG

XX### — EXTENT OF ACCENT PAINT OR WALL FINISHES

FINISH TAGS DISPLAYED IN GROUPING ON FINISH PLAN REPRESENT MAJORITY ROOM FINISH SELECTIONS. ORDER OF GROUPING DEFINED IN EXAMPLE BELOW:

XX### — MAJORITY WALL FINISH
XX### — MAJORITY BASE FINISH
XX### — MAJORITY FLOOR FINISH

FLOOR FINISH 'RT1'

FLOOR FINISH 'FT1'

GENERAL FINISH NOTES

A. ALL PRODUCTS ARE TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS, USING MANUFACTURER'S ADHESIVES, TOOLS, AND METHODS.
B. REFER TO SPECIFICATIONS FOR ALL FINISH MATERIAL PRODUCT INFORMATION.
C. COORDINATE ALL OWNER FURNISHED EQUIPMENT, ACCESSORIES, AND FURNITURE WITH OWNER AND/OR OWNER'S VENDOR.
D. ALL FLOOR TRANSITIONS ARE TO OCCUR DIRECTLY BENEATH DOORS OR CENTERED IN OPENING UNLESS NOTED OTHERWISE.
E. ALL FLOOR TRANSITIONS ARE TO BE ADA COMPLIANT.
F. IN EACH ROOM OR AREA ESTABLISH LAYOUT OF TILED FINISH PRODUCTS TO BALANCE BORDER WIDTHS AT OPPOSITE EDGES. AVOID USING LESS THAN HALF-WIDTH TILES AT BORDERS UNLESS NOTED OTHERWISE.
G. ALL GYPSUM WALLS TO BE PAINTED 'PT1' UNLESS OTHERWISE NOTED.
H. ALL GYPSUM CEILINGS AND SOFFITS TO BE PAINTED 'P1' UNLESS OTHERWISE NOTED ON REFLECTED CEILING PLAN.
I. ALL METAL ACCESS PANELS, COVER PLATES, VENTS, AND GRILLES TO BE PAINTED TO MATCH THE SURFACE IT IS LOCATED ON.

KEYNOTES

1 INSTALL WINDOW SHADES 'WS1' AT EXTERIOR WINDOWS AND DOORS UNLESS OTHERWISE NOTED ON ELEVATIONS.
2 INSTALL WINDOW SHADES 'WS2' AT EXTERIOR WINDOWS.
3 PANTRY STORAGE 'CL2'. INCLUDE 5 ADJUSTABLE SHELVES/BRACKETS.
4 STACKED WASHER/DRYER. SEE KITCHEN EQUIPMENT SCHEDULE ON A701.
5 INSTALL HANDRAIL 'HR1' AT STAIRS.

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SEARHC WORKFORCE HOUSING
1064 ZIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA 49TH THOMAS M. CALLA No. 10226 REGISTERED PROFESSIONAL ARCHITECT

9.2.2025

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | KOEL
DRAWN BY | MARKUSON
REVIEWED BY | DUNBAR
REVISIONS

FINISH PLANS, SCHEDULES & DETAILS

A501

GENERAL NOTES

A. SCREENS TO BE INSTALLED ON ALL OPERABLE WINDOWS.
B. SEE SPECIFICATIONS FOR BASIS OF DESIGN FOR WINDOWS AND DOORS.

DOOR, FRAME AND HARDWARE SCHEDULE

DOOR NUMBER	ROOM NUMBER	ROOM NAME	DOOR SIZE W	DOOR SIZE H	DOOR MTL	DOOR TYPE	DOOR GLAZE	DOOR NOTES	FRAME MTL	FRAME TYPE	FRAME NOTES	FIRE RATING	HARDWARE NOTES
101-1	101	ENTRY	3'-0"	7'-10"	FB	SL	IN		CMP	1			4
102-1	102	UTILITY	3'-0"	8'-0"	WD	F			WD	1			1,2
103-1	103	KITCHEN	3'-0"	8'-0"	AL	FG	IN		AL	2			4
105-1	105	BATH	2'-8"	8'-0"	WD	F			WD	1			3
106-1	106	BEDROOM	3'-0"	8'-0"	WD	F			WD	1			3
107-1	107	CLOSET	6'-0"	7'-0"	WD	FS		SLIDING	WD	1			2
108-1	108	LINEN	2'-8"	8'-0"	WD	F			WD	1			2
202-1	202	STORAGE	2'-8"	8'-0"	WD	F			WD	1			2
205-1	205	BATHROOM	3'-0"	8'-0"	WD	F			WD	1			3
206-1	206	BEDROOM	3'-0"	8'-0"	WD	F			WD	1			3
207-1	207	CLOSET	2'-8"	8'-0"	WD	F			WD	1			2

DOOR HARDWARE

ABBREVIATIONS

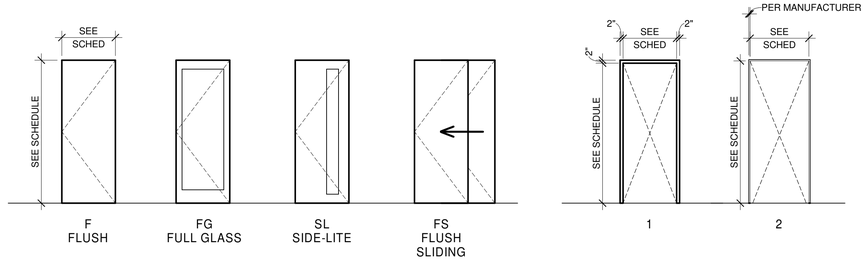
AL	ALUMINUM-CLAD
IN	1" INSULATED TEMPERED GLAZING
T	1/4" TEMPERED GLAZING
WD	WOOD
FB	FIBERGLASS
CMP	COMPOSITE

FRAME NOTES

1. NOT USED

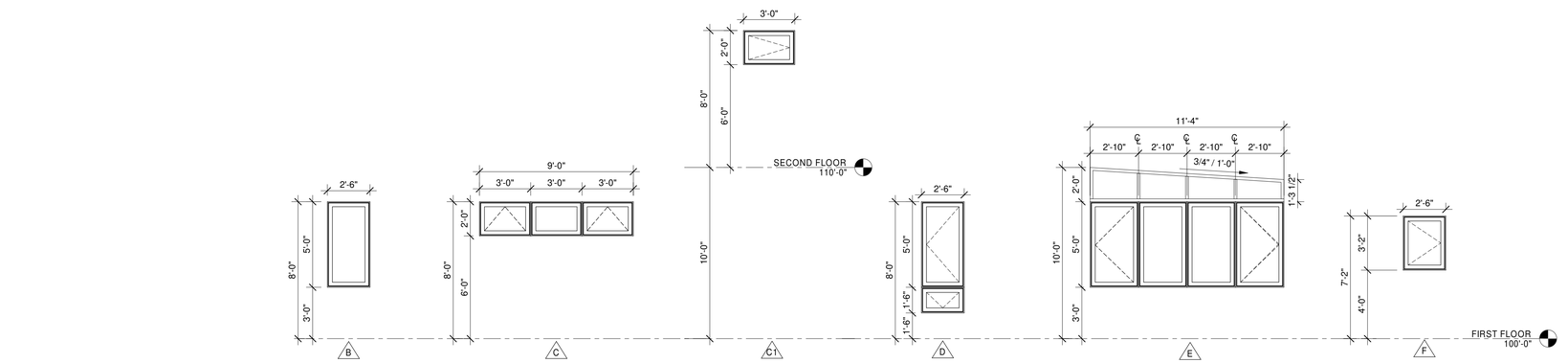
HARDWARE NOTES

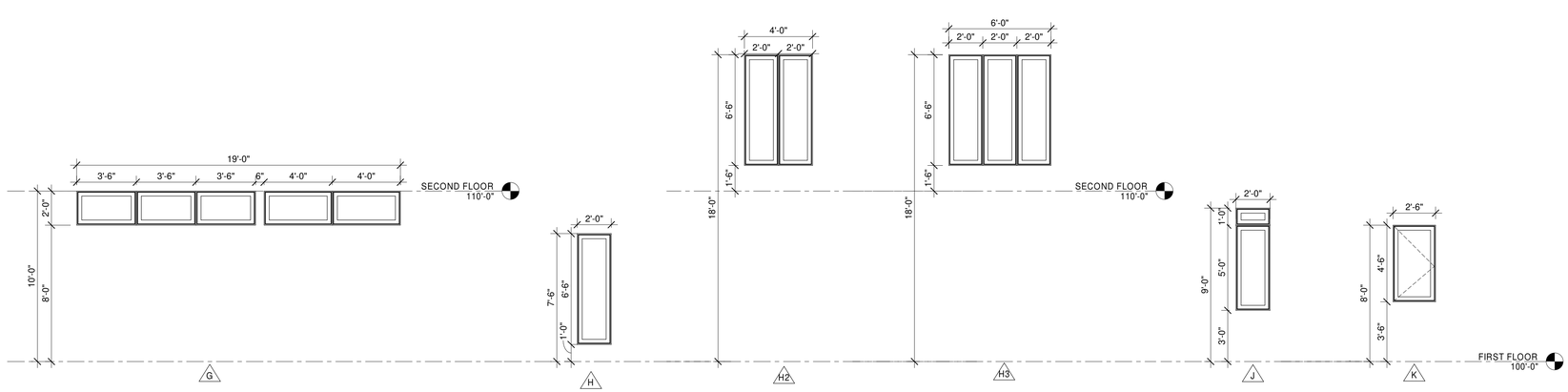
1. HINGE STOPPERS (2)
2. PASSAGE SET
3. PRIVACY LOCKSET
4. ENTRY LOCKSET



DOOR TYPES

FRAME TYPES





WINDOW TYPES

Cushing Terrell.
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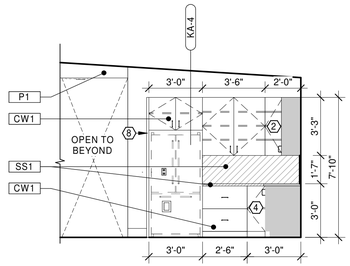
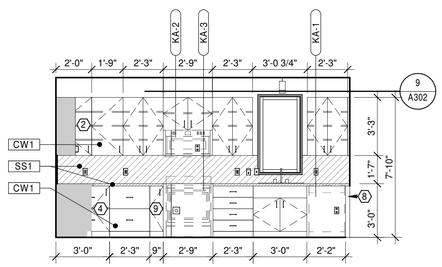
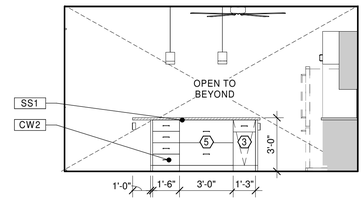


1 A701 KITCHEN - NORTH
1/4" = 1'-0"

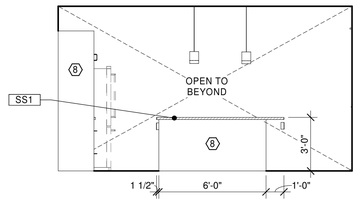


2 A701 KITCHEN - EAST
1/4" = 1'-0"

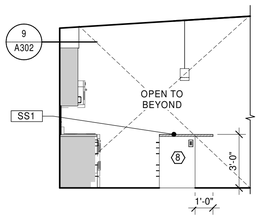
3 A701 KITCHEN/GREAT ROOM - SOUTH
1/4" = 1'-0"



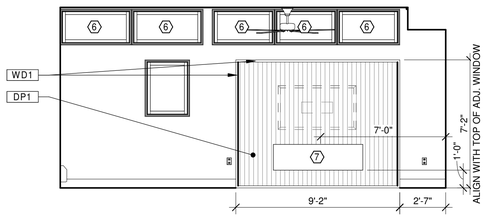
4 A701 KITCHEN ISLAND - WEST
1/4" = 1'-0"



5 A701 KITCHEN ISLAND - EAST
1/4" = 1'-0"



6 A701 KITCHEN ISLAND - SOUTH
1/4" = 1'-0"



7 A701 GREAT ROOM - WEST
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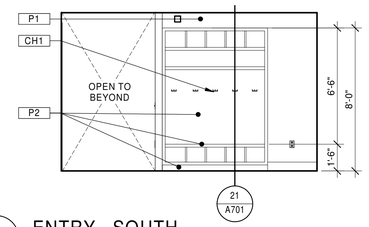

8 A701 ENTRY - SOUTH
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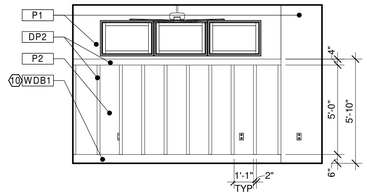
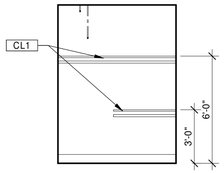
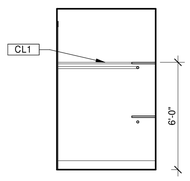


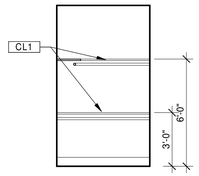
9 A701 BEDROOM 106 - EAST
1/4" = 1'-0"



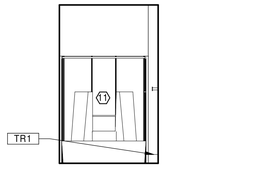
10 A701 CLOSET 107 - SOUTH
1/4" = 1'-0"



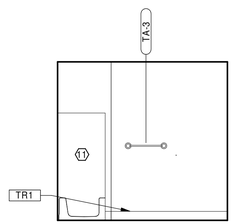
11 A701 CLOSET 207 - SOUTH
1/4" = 1'-0"



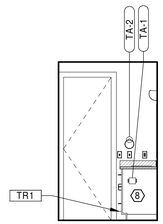
12 A701 CLOSET 207 - WEST
1/4" = 1'-0"



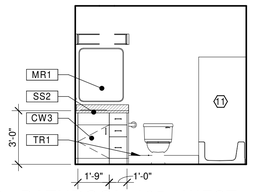
13 A701 BATHROOM 105 - NORTH
1/4" = 1'-0"



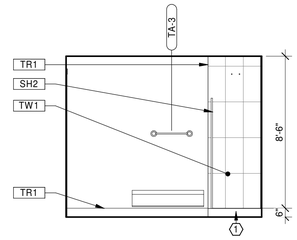
14 A701 BATHROOM 105 - EAST
1/4" = 1'-0"



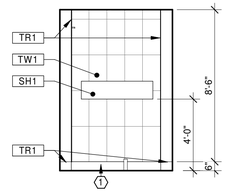
15 A701 BATHROOM 105 - SOUTH
1/4" = 1'-0"



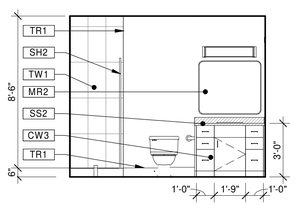
16 A701 BATHROOM 105 - WEST
1/4" = 1'-0"



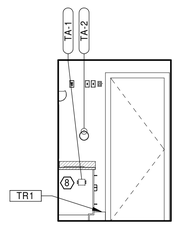
17 A701 BATHROOM 205 - NORTH
1/4" = 1'-0"



18 A701 BATHROOM 205 - EAST
1/4" = 1'-0"



19 A701 BATHROOM 205 - SOUTH
1/4" = 1'-0"



20 A701 BATHROOM 205 - WEST
1/4" = 1'-0"

KITCHEN EQUIPMENT SCHEDULE

EQ #	MODEL	MANUFACTURER	DESCRIPTION	SIZE	FINISH	NOTES
KA-1	GDT226SSLSS	GE APPLIANCES	DISHWASHER WITH SANITIZE CYCLE	23-3/4"W X 31-3/4"H X 23-1/2"D	STAINLESS STEEL	
KA-2	PVM9179SRSS	GE APPLIANCES	1.7 CU. FT. CONVECTION OVER-THE RANGE MICROWAVE OVEN	16-5/16"H X 29-7/8"W X 15-9/16"D	STAINLESS STEEL	
KA-3	JS645SLSS	GE APPLIANCES	30" SLIDE-IN ELECTRIC RANGE	37-1/4"H X 29-7/8"W X 25-7/8"D	STAINLESS STEEL	
KA-4	GNE25JMKFS	GE APPLIANCES	ENERGY STAR 24.8 CU. FT. FRENCH DOOR REFRIGERATOR	69-7/8"H X 32-3/4"W X 35"D	STAINLESS STEEL	
KA-5	GFW550SSN	GE APPLIANCES	4.8 CU. FT. CAPACITY FRONT LOAD ENERGY STAR WASHER WITH ULTRAFRESH VENT SYSTEM WITH ODORBLOCK	39-3/4"H X 28"W X 32"D	WHITE	INCLUDE BRACKETS FOR STACKING DRYER OVER WASHER (GFA28KITN)
KA-6	GFDESSN	GE APPLIANCES	7.8 CU. FT. CAPACITY FRONT LOAD ELECTRIC DRYER	39-3/4"H X 28"W X 32"D	WHITE	INCLUDE BRACKETS FOR STACKING DRYER OVER WASHER (GFA28KITN)

TOILET ACCESSORIES SCHEDULE

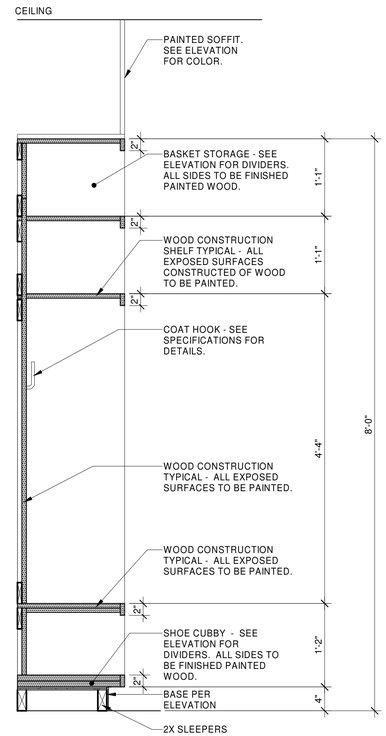
EQ #	MODEL	MANUFACTURER	DESCRIPTION	SIZE	MOUNTING HT	FINISH
TA-1	BC14-42	PAMEX	SURFACE PAPER HOLD	8-3/8" X 2"	48"	MATTE BLACK
TA-2	BC14-30	PAMEX	METAL CIRCLE TOWEL RING	6-3/4" X 8"	26"	MATTE BLACK
TA-3	BC14-15824	PAMEX	ROUND TOWEL BAR	24" X 5/8"	48"	MATTE BLACK

GENERAL NOTES

A. VERIFY ALL CONDITIONS AND DIMENSIONS IN FIELD. IF MEASUREMENTS IN FIELD DEVIATE FROM THE DIMENSIONS SHOWN WITHIN THESE DOCUMENTS BY GREATER THAN 6" OR AFFECT DESIGN INTENT COORDINATE AND NOTIFY THE PROJECT ARCHITECT PRIOR TO CONTINUING WORK.
B. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
C. FOR BUILDING OCCUPANCY PLAN, FIRE-RESISTANCE CONSTRUCTION, AND ALL CODE RELATED INFORMATION, RE: G100'S.
D. FOR INTERIOR WALL/PARTITION ASSEMBLIES AND TYPES, RE: A100'S.
E. FOR ROOM, WALL BASE, AND CASEWORK FINISHES, RE: A500'S.
F. FOR DOOR AND WINDOW FRAME TYPES AND GLAZING TYPES, RE: A600'S.
G. FOR CEILING HEIGHTS AND ADDITIONAL INFORMATION, RE: A900'S.
H. ALL DIMENSIONS ARE TO FACE OF STUD FOR GYPSUM BOARD WALLS OR TO THE FACE OF EXISTING FINISH WALL SURFACE, UNLESS OTHERWISE NOTED.
I. ALL DOORS SET WITH 4" STUD RETURN AT HINGE SIDE OF DOOR FRAME TO PERPENDICULAR WALL, UNLESS OTHERWISE NOTED.
J. ALL WALLS GO TO UNDERSIDE OF DECK UNLESS OTHERWISE NOTED.
K. PROVIDE WOOD BLOCKING IN WALL AS NEEDED FOR ALL MOUNTED EQUIPMENT, CASEWORK, ACCESSORIES, AND HARDWARE PER SPECIFICATION DIVISION 6, SECTION "ROUGH CARPENTRY." COORDINATE WITH WALL TYPES.
L. COORDINATE OWNER FURNISHED EQUIPMENT, ACCESSORIES, AND FURNITURE WITH OWNER AND/OR OWNER'S VENDOR.
M. ALL TOILET ACCESSORIES TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
N. COORDINATE ALL PENETRATIONS WITH RESPECTIVE TRADES AT BOTH RATED AND NON-RATED WALLS, FLOORS, AND CEILINGS.
O. COORDINATE ALL PLUMBING FIXTURES AND FINAL PLUMBING FIXTURE LOCATIONS WITH PLUMBING DRAWINGS AND SPECIFICATIONS.
P. COORDINATE ALL ELECTRICAL FIXTURES AND FINAL ELECTRICAL FIXTURE LOCATIONS WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS, INCLUDING LIGHT FIXTURES, SWITCHES, AND OUTLETS.
Q. PROVIDE 1" FILLER PANEL AT HINGE SIDE OF CASEWORK WHEN ADJACENT TO WALLS.
R. PROVIDE FINISHED END PANEL TO MATCH ADJOINING CABINET ALL LOCATIONS WHERE CABINET END IS EXPOSED TO ROOM OR OPEN KNEE SPACE.

KEYNOTES

1 PREFAB SHOWER PAN. SEE PLUMBING
2 WALL EASY REACH CABINET
3 WASTEBASKET BASE CABINET
4 CORNER BASE CABINET - REVOLVING
5 BASE POTS AND PANS STORAGE
6 NO WINDOW SHADES AT THIS WINDOW
7 ELECTRIC FIREPLACE WITH RECESSED INSTALLATION. SEE ELECTRICAL
8 PROVIDE END PANELS TO MATCH CABINETS
9 BASE FILLER PULL OUT
10 WOOD BASE TO BE PAINTED 'P2' WHEN INSTALLED BELOW DECORATIVE WOOD WALL 'DP2'
11 BATHTUB WITH FIBERGLASS SURROUND. SEE PLUMBING



21 A701 ENTRY WAY CASEWORK
1" = 1'-0"

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A701

GENERAL NOTES

A. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
B. FOR ALL FLOOR PLANS AND ASSEMBLIES, RE: A100'S
C. FOR ALL ROOM FINISH INFORMATION, RE: A500'S.
D. ALL SOFFIT DIMENSIONS ARE SHOWN FROM FACE OF FINISH.
E. COORDINATE WITH THE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE.
F. COORDINATE WITH THE MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THE LOCATION AND PHYSICAL SIZES OF ALL CEILING GRILLS, DIFFUSERS, FIXTURES, CANS, AND RELATED ITEMS.
G. COORDINATE ALL DECORATIVE LIGHT FIXTURE HEIGHTS AND LOCATIONS WITH INTERIOR DESIGNER PRIOR TO INSTALL. PROVIDE 1'-0" OF ADDITIONAL CORD LENGTH TO ALLOW FOR FINE ADJUSTMENTS ON SITE.

REFLECTED CEILING LEGEND

CEILING MATERIAL → VARIES
CEILING HEIGHT → VARIES
ADDITIONAL NOTES → NOTES

WDC1 - LONGBOARD WOODLOOK METAL CEILING

GYP - GYPSUM BOARD CEILING - PAINT 'P1'

LIGHTING - SEE ELECTRICAL

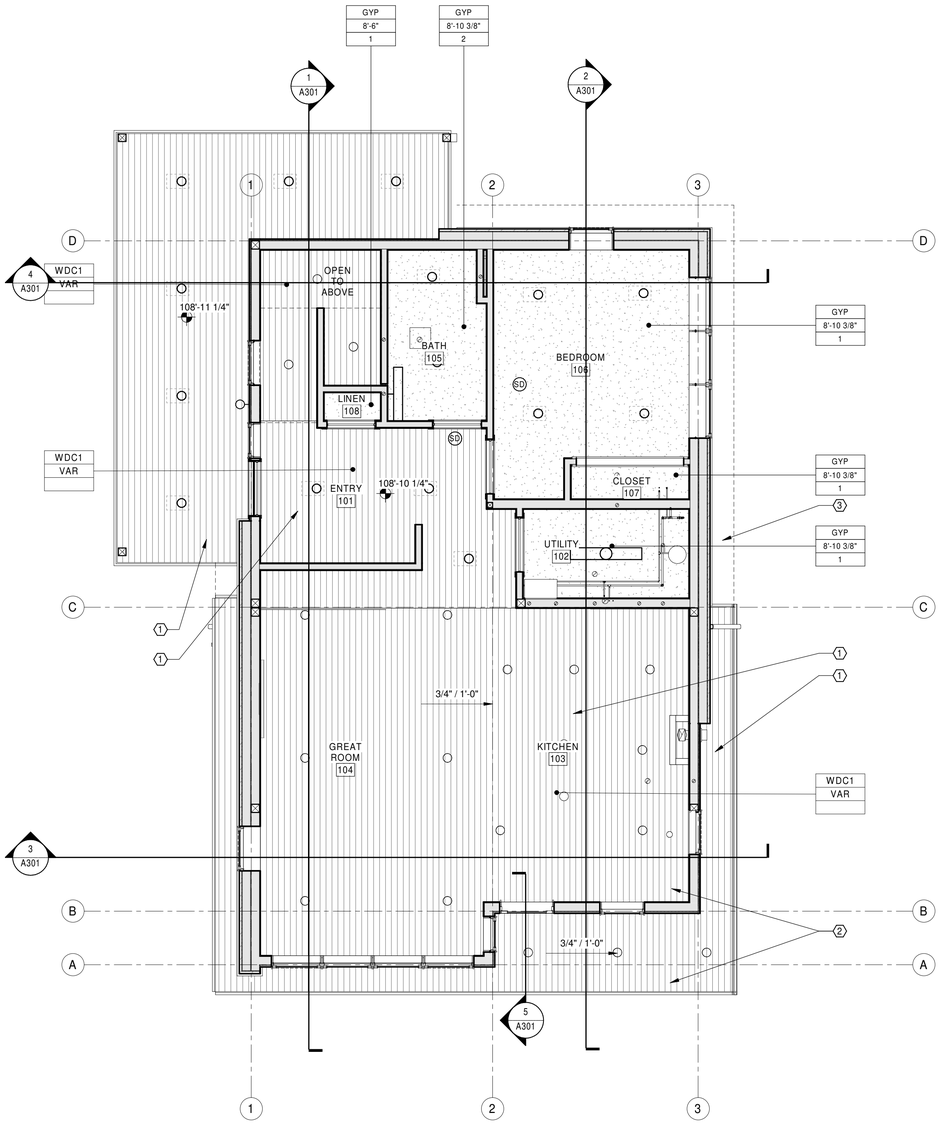
HVAC REGISTERS - SEE MECHANICAL

KEYNOTES

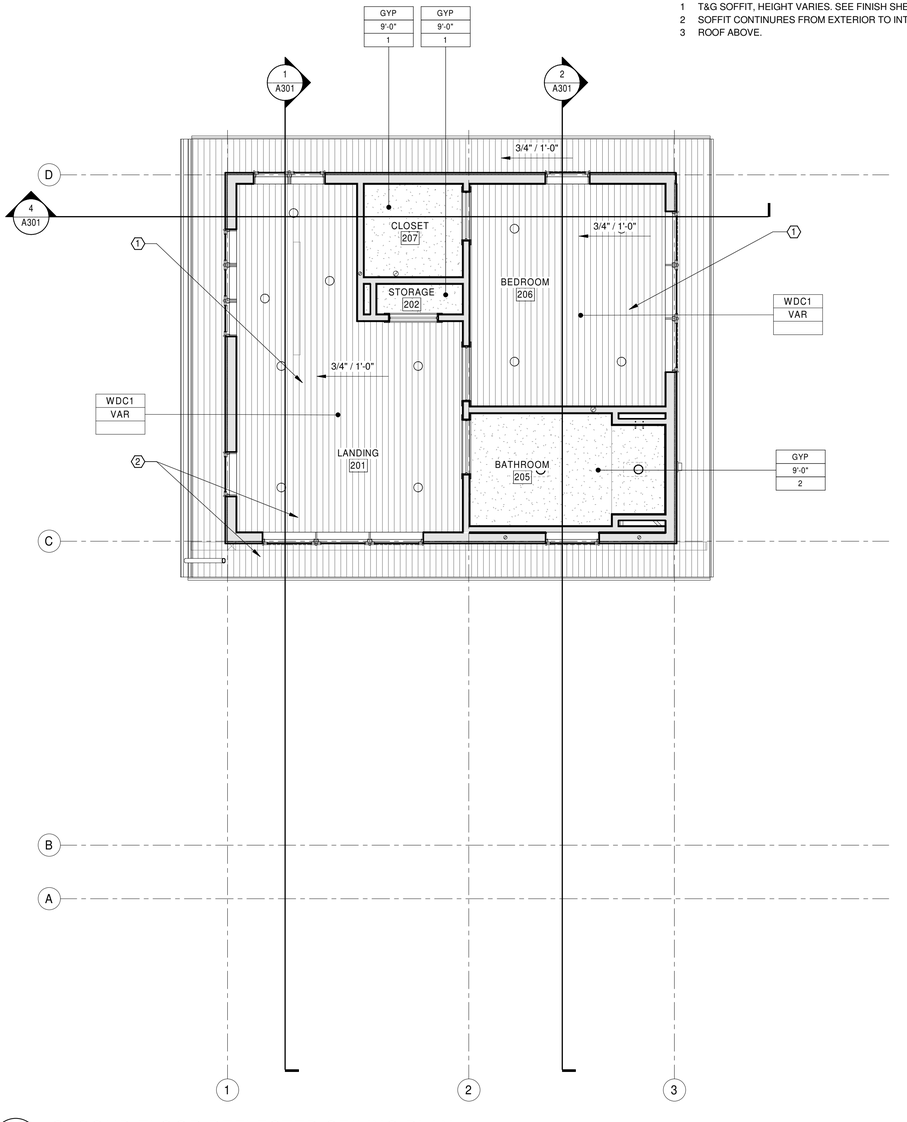
1. PAINT CEILING P1
2. PAINT CEIING P2
3. PAINT CEILING EP1

(#) REFLECTED CEILING PLAN KEYNOTES

1 T&G SOFFIT, HEIGHT VARIES. SEE FINISH SHEETS FOR MATERIALS.
2 SOFFIT CONTINURES FROM EXTERIOR TO INTERIOR.
3 ROOF ABOVE.



1 A901 — FIRST FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"



2 A901 — SECOND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

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PLUMBING FIXTURE & CONNECTION SCHEDULE

ALL PLUMBING EQUIPMENT SHALL BE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND BE OF SIZE AND TYPE INDICATED. EACH SHALL BE OF MAKE AND MODEL LISTED OR EQUAL.

		FIXTURE					TRIM			ACCESSORIES			CONNECTIONS				NOTES	
PLAN CODE	ITEM	MANUFACTURER	MODEL	TYPE	MATERIAL	COLOR	ITEM	MFGR	MODEL	ITEM	MFGR	MODEL	COLD	HOT	WASTE	VENT		PLAN CODE
L-1	LAVATORY	AMERICAN STANDARD	0614.000	UNDERMOUNT	VIT. CHINA	WHITE	FAUCET	DELTA	25749LF	-	-	-	1/2"	1/2"	2"	2"	1, 2, 3, 4, 6	L-1
S-1	KITCHEN SINK	BLANCO	DIAMOND 442913	DROP IN	MOLDED COMPOSITE	COAL BLACK	FAUCET	DELTA	9113-DST	GARBAGE DISPOSAL	INSINKERATOR	BADGER 1	1/2"	1/2"	2"	2"	1, 2, 5, 6, 13, 20, 21	S-1
WC-1	WATER CLOSET	AMERICAN STANDARD	3483.001	FLOOR MOUNTED	VIT. CHINA	WHITE	-	-	-	SEAT	BEMIS	170	1"	-	3"	2"	1, 2, 6	WC-1
WSB-1	WASHER SUPPLY BOX	SIOUX CHIEF	696-G2313-WF	RECESSED - WALL	PLASTIC	WHITE	FACEPLATE	SIOUX CHIEF	-	ARRESTOR	SIOUX CHIEF	-	1/2"	1/2"	2"	2"	14	WSB-1
WB-1	WATER BOX	SIOUX CHIEF	696-G1010WF	RECESSED - WALL	PLASTIC	WHITE	FACEPLATE	SIOUX CHIEF	-	ARRESTOR	SIOUX CHIEF	-	1/2"	-	-	-	9, 10	WB-1
SH-1	SHOWER	MAAX	ICON 6032	-	ACRYLIC	WHITE	SHOWER VALVE	DELTA	SV-1 (SEE SCHEDULE)	DRAIN	SIOUX CHIEF	825-20P	-	-	2"	2"	6, 15	SH-1
SV-1	SHOWER	DELTA	RP101842	P BALANCED	BRASS	MATTE BLACK	VALVE	DELTA	R10000-UNWS	SHOWER HEAD	DELTA	-	1/2"	1/2"	-	-	6, 16	SV-1
T/S-1	TUB/SHOWER	MAAX	TSEA 105674	ONE-PIECE ALCOVE	ACRYLIC	WHITE	TUB/SHOWER VALVE	DELTA	TSV-1 (SEE SCHEDULE)	DRAIN	PRICE PFISTER	119-2100	-	-	2"	2"	6, 18	T/S-1
T/S-2	TUB/SHOWER	MAAX	TSEA 105674	ONE-PIECE ALCOVE	ACRYLIC	WHITE	TUB/SHOWER VALVE	DELTA	TSV-1 (SEE SCHEDULE)	DRAIN	PRICE PFISTER	119-2100	-	-	2"	2"	6, 19	T/S-2
TSV-1	TUB/SHOWER VALVE	DELTA	T14459-BL	P BALANCED	BRASS	MATTE BLACK	VALVE	DELTA	R10000-UNWS	SPOUT/SHOWER HEAD	DELTA	-	1/2"	1/2"	-	-	6, 17	TSV-1
FD-1	FLOOR DRAIN	SIOUX CHIEF	832-3DNRP	FLOOR	CAST IRON	-	STRAINER	SIOUX CHIEF	NICKEL BRONZE	-	-	-	-	-	2"	2"	8, 11, ROUND FACE	FD-1
WCO	WALL CLEAN OUT	SPEARS MFG	P445X	WALL	PVC	-	WALL COVER	J.R.SMITH	6" ROUND\STAINLESS	PLUG	PLASTIC	PVC / ABS	-	-	SEE PLAN	-	CLEANOUT TEE BY PLUMBING CONTRACTOR	WCO
FCO	FLOOR CLEAN OUT	SPEARS MFG	P105	FLOOR	PVC	-	FLOOR COVER	ZURN	CO2521	PLUG	PLASTIC	PVC / ABS	-	-	SEE PLAN	-	ROUND TOP	FCO
GCO	GRADE CLEAN OUT	SPEARS MFG	P105	GRADE	PVC	-	GRADE COVER	ZURN	CO2510	PLUG	PLASTIC	PVC / ABS	-	-	SEE PLAN	-	ROUND TOP	GCO

NOTES:

1) SUPPLY STOPS ARE 1/2" x 3/8", POLISHED CHROME, QUARTER TURN ANGLE BALL STOPS.

2) 3/8" BRAIDED STAINLESS STEEL SUPPLY CONNECTORS.

3) PROVIDE BRUSHED BLACK STAINLESS STEEL FINISH.

4) PART NUMBER INCLUDES POP-UP DRAIN WITH OVERFLOW. PROVIDE DEARBORN BRASS B9702 PLASTIC P-TRAP WITH REDUCING WASHER.

5) PROVIDE DELTA 72020-BL DISHWASHER AIR GAP IN MATTE BLACK FINISH. CONNECT INLET TO DISHWASHER DRAIN HOSE AND OUTLET TO GARBAGE DISPOSAL INLET.

6) SEE ARCHITECTURAL SHEETS FOR FIXTURE ELEVATIONS AND FINISHED MOUNTING HEIGHTS.

7) COORDINATE FAUCET HOLES IN SOLID SURFACE COUNTERTOPS WITH OTHERS.

8) ALL DRAIN FITTINGS SHALL BE NO-HUB.

9) RECESSED PLASTIC OUTLET BOX WITH SINGLE QUARTER-TURN BALL VALVE AND FACEPLATE.

10) MOUNT AT 24" ABOVE FINISHED FLOOR TO CENTERLINE OF BOX.

11) PROVIDE WITH JR SMITH 2692 TRAP GUARD AND TRANSITION TO 2" WASTE.

12) PROVIDE WITH MAAX ICON 6032 SHOWER PAN.

13) PROVIDE WITH BASKET STRAINERS, B&K 131-701.

14) PROVIDE WITH QUARTER-TURN BALL VALVES WITH 3/4" THREADED HOSE CONNECTIONS, WATER HAMMER ARRESTORS, MOUNT CENTERLINE OF BOX AT 3' 0" AFF.

15) SHOWER WALLS BY OTHERS; CONTRACTOR SHALL COORDINATE INSTALLATION OF SHOWER VALVE ASSEMBLY AND SHOWER PAN.

16) SHOWER VALVE ASSEMBLY FOR SHOWERS INCLUDE MAIN VALVE BODY AND FIXED SHOWER HEAD.

17) TUB/SHOWER VALVE ASSEMBLY TO INCLUDE MAIN VALVE BODY, TUB FILLER SPOUT WITH PULL-UP DIVERTER, AND FIXED SHOWER HEAD.

18) TUB DRAIN AND OVERFLOW TO BE MATTE BLACK FINISH. LEFT DRAIN.

19) TUB DRAIN AND OVERFLOW TO BE MATTE BLACK FINISH. RIGHT DRAIN.

20) INSTALL GD-1 IN RIGHT SINK BASIN, INSTALL AIR GAP ON SAME SIDE OF SINK.

21) PROVIDE 1/2" DHW FROM S-1 TO DISHWASHER.

WATER HEATER SCHEDULE

PLAN...	MANUFACTURER	MODEL	CAPACITY...	ELECTRICAL...	KW	RECOVERY...	NOTES
EWH-1	A.O. SMITH	DEL-30	36	240/1/60	9	41	1, 2

NOTES:

1) PROVIDE T&P VALVE, PIPE TO FLOOR DRAIN.

2) RECOVERY SHOWN IS FOR A 90 DEGREE F RISE WITH SIMULTANEOUS ELEMENT OPERATION.

EXPANSION TANK SCHEDULE

PLAN CODE	MANUFACTURER	MODEL NO	TOTAL VOLUME	ACCEPTANCE VOLUME	PRECHARGE PRESSURE	NOTES
DET-1	AMTROL	ST-5	2.0	0.9	55	1, 2

NOTES:

1) SERVES EWH-1.

2) PROVIDE ISOLATION BALL VALVE ON DROP DOWN FOR SERVICE.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
CW	DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER
HWC	DOMESTIC HOT WATER CIRC.
SS	SANITARY SEWER
V	VENT
CO/WCO	CLEANOUT/ WALL CLEANOUT
FCO	FLOOR CLEANOUT
GCO	GRADE CLEANOUT
D	DRAIN
	TEE UP
	TEE DOWN
	ELBOW UP
	ELBOW DOWN

SYMBOL	DESCRIPTION
S= XXX	SLOPE DOWN IN DIRECTION OF FLOW
	BALL VALVE
	SWING CHECK VALVE
	WATER OUTLET (TYPE INDICATED)

PLUMBING ABBREVIATIONS

BG	BELOW GRADE
CD	CONDENSATE DRAIN
CO	CLEANOUT
CW	COLD WATER
DN	PIPE DROP TO NEXT LEVEL
FCO	FLOOR CLEANOUT
GCO	GRADE CLEANOUT
HW	HOT WATER
HWC	HOT WATER CIRCULATION
IDW	INDIRECT WASTE
IE	INVERT ELEVATION
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED (VALVE)
SS	SANITARY SEWER
UP	PIPE RISE TO NEXT LEVEL
V	VENT
VA	VALVE
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT

GENERAL PLUMBING NOTES

A. REVIEW ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, AND ELECTRICAL PLANS THOROUGHLY TO BECOME FAMILIAR WITH THIS PROJECT. ALL PLANS AND ALL SPECIFICATIONS COMPRISE ONE DOCUMENT OF WHICH THESE SHEETS ARE ONLY A PART.

B. PIPING SHOWN IS DIAGRAMMATIC ONLY. ANY MAJOR DEVIATION FROM THESE PLANS SHOULD BE COORDINATED WITH THE ENGINEER OF RECORD BEFORE PROCEEDING.

C. ALL NEW PIPING ON MAIN FLOOR SHALL BE CONCEALED IN WALLS, ABOVE CEILING, OR UNDER GROUND UNLESS OTHERWISE NOTED ON THESE PLANS. COORDINATE ROUTING WITH OTHER DISCIPLINES.

D. ALL WORK SHALL COMPLY WITH THE CURRENT ACCEPTED EDITION OF THE UPC WITH AMENDMENTS AND ALL APPLICABLE CODES OF LOCAL JURISDICTION.

E. SLOPE WASTE PIPE 1/4" PER FOOT IN DIRECTION OF FLOW, UNLESS NOTED OTHERWISE ON PLANS. SLOPE VENT PIPE 1/8" PER FOOT BACK TO FIXTURES.

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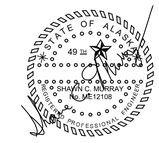
SINGLE FAMILY TWO STORY (SHED ROOF)



CONSTRUCTION DOCUMENTS

08.29.2025
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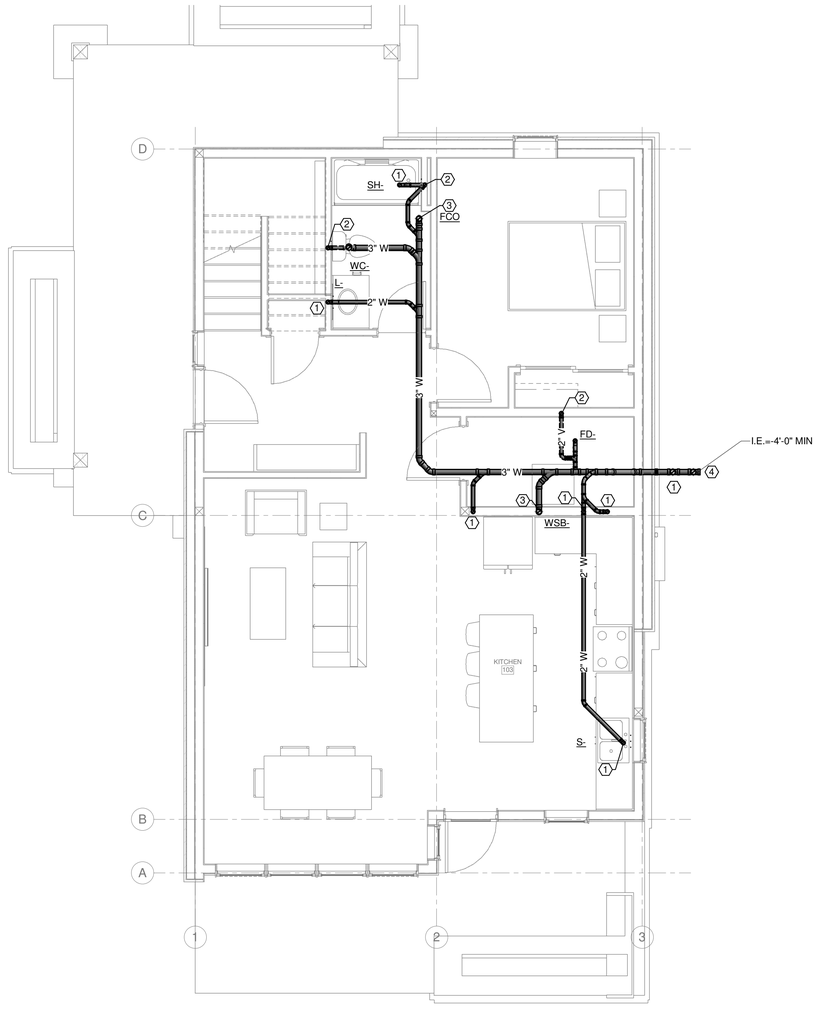
PLUMBING SCHEDULES AND LEGENDS

P001



1 P100 UNDERSLAB DWV PLAN

1/4" = 1'-0"

GENERAL PLUMBING NOTES

A. FOR GENERAL NOTES, REFER TO P001.

KEYNOTES

1. 2" WASTE UP.
2. 2" VENT UP.
3. 3" WASTE UP.
4. 3" WASTE. SEE CIVIL SITE PLAN FOR CONTINUATION.

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SINGLE FAMILY TWO STORY (SHED ROOF)

STATE OF ALASKA
49
SHAWN C. MURRAY
PE 12108
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

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UNDERSLAB PLUMBING DWV PLAN

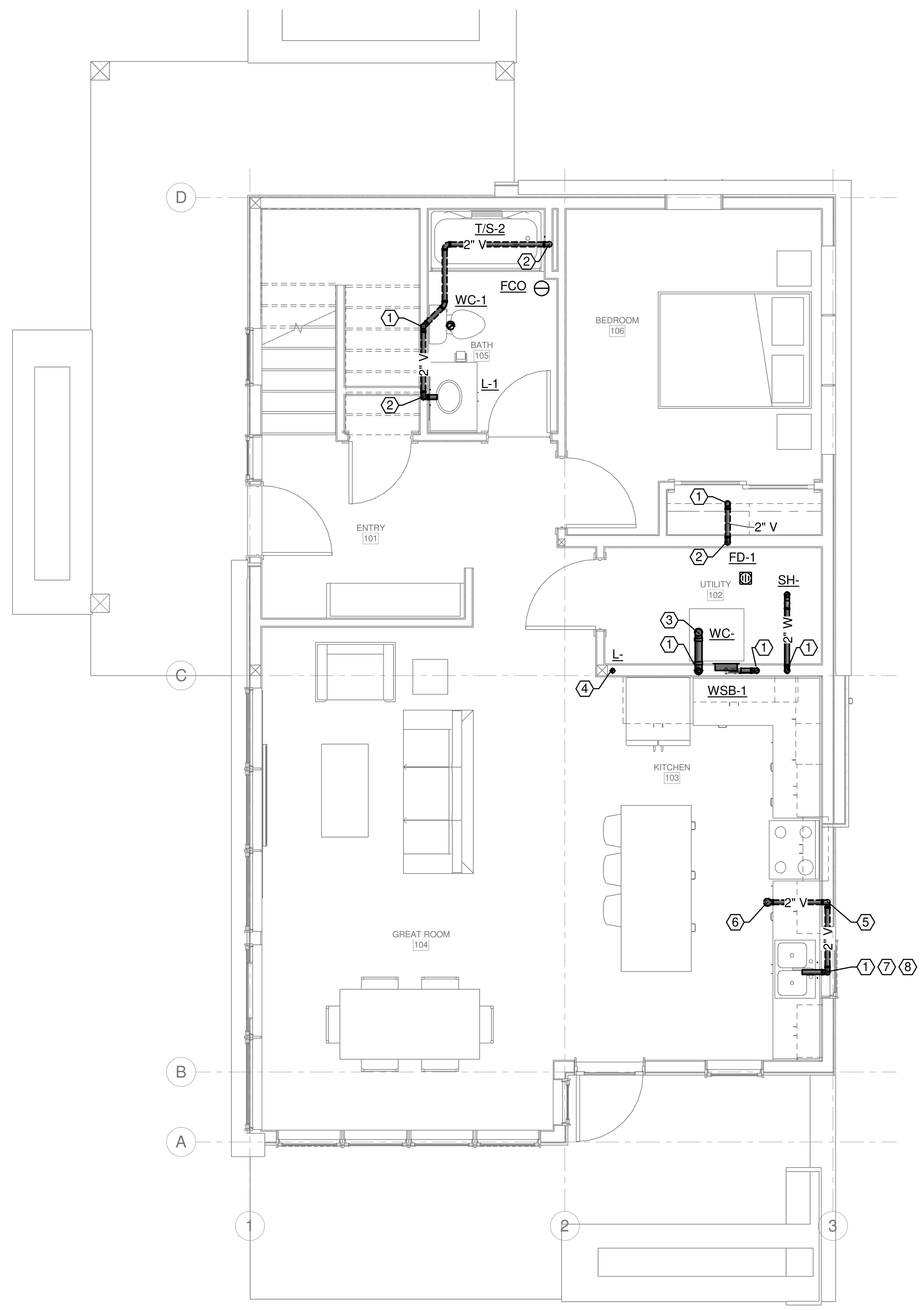
P100

GENERAL PLUMBING NOTES

A. FOR GENERAL NOTES, REFER TO P001.

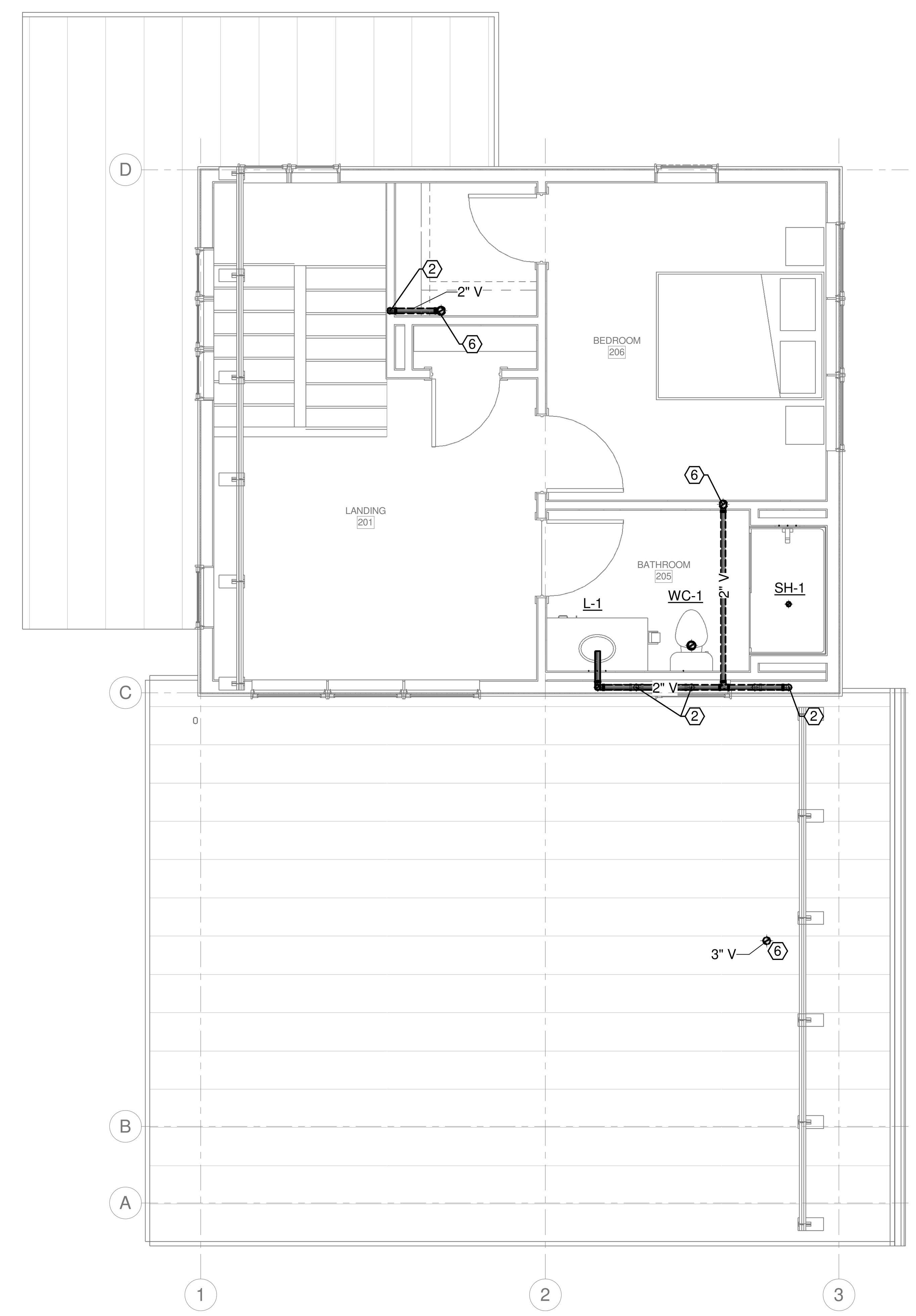
KEYNOTES

1. 2" VENT UP.
2. 2" VENT DOWN.
3. 3" WASTE UP.
4. 2" WASTE UP/DOWN.
5. ROUTE 2" VENT BELOW WINDOW AND RISE WHERE INDICATED.
6. 3" VENT UP, 3" VENT THRU ROOF.
7. 2" WASTE DN. 2" VENT UP. ROUTE 2" WASTE ABOVE FLOOR IN BASE CABINET IN ORDER TO DROP ON OTHER SIDE OF CONCRETE FOOTING. PROVIDE WALL CLEANOUT 12" ABOVE FINISHED FLOOR.
8. INDIRECT DRAIN DISHWASHER TO GARBAGE DISPOSAL INLET WITH AIR GAP FITTING IN COUNTERTOP.



1 P101 MAIN FLOOR DWV PLAN

1/4" = 1'-0"



2 P101 SECOND FLOOR DWV PLAN

1/4" = 1'-0"

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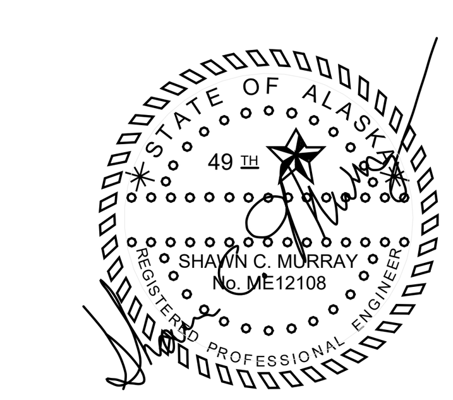
SINGLE FAMILY TWO STORY (SHED ROOF)



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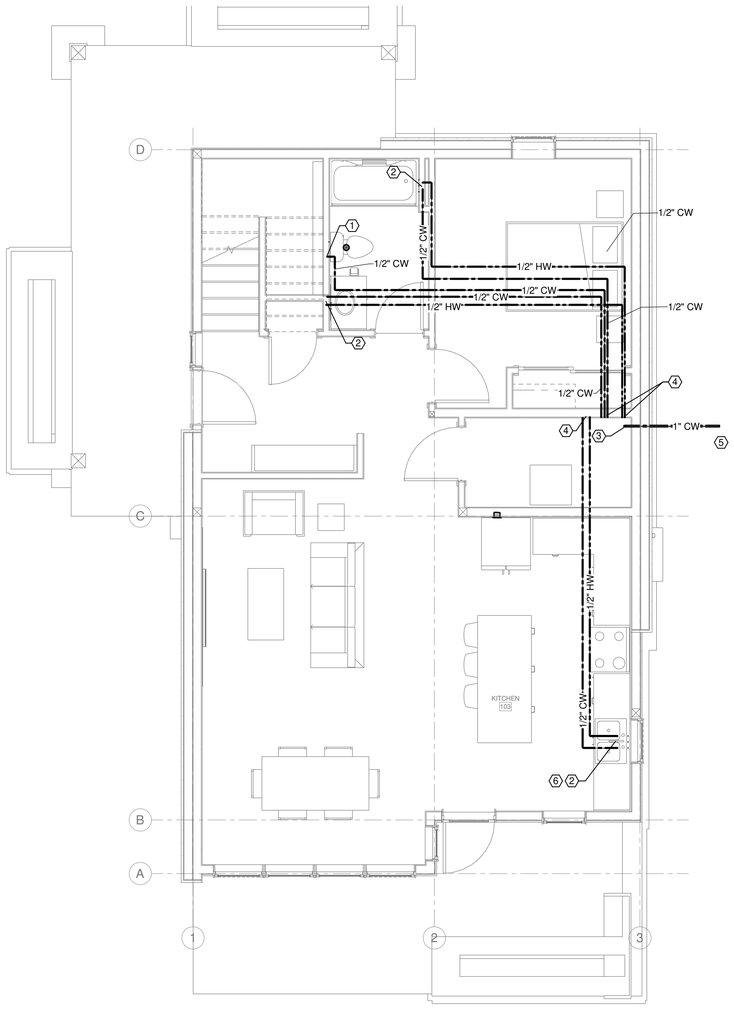
PLUMBING DWV PLANS

P101



1 P200 UNDERSLAB DOMESTIC WATER PLAN

1/4" = 1'-0"

GENERAL PLUMBING NOTES

A. FOR GENERAL NOTES, REFER TO P001.

KEYNOTES

1. 1/2" CW UP. SEE SHEET P201.
2. 1/2" CW, 1/2" HW UP. SEE SHEET P201.
3. 1" CW UP. SEE SHEET P201.
4. 1/2" CW, 1/2" HW SUPPLY LINES UP TO PEX MANIFOLD. SEE SHEET P201.
5. 1" CW CONNECTION. SEE CIVIL SITE PLAN FOR CONTINUATION.
6. PIPING SHALL RISE UP INSIDE THE CABINET BASE, DO NOT INSTALL IN EXTERIOR WALL.

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UNDERSLAB DOMESTIC WATER PLAN

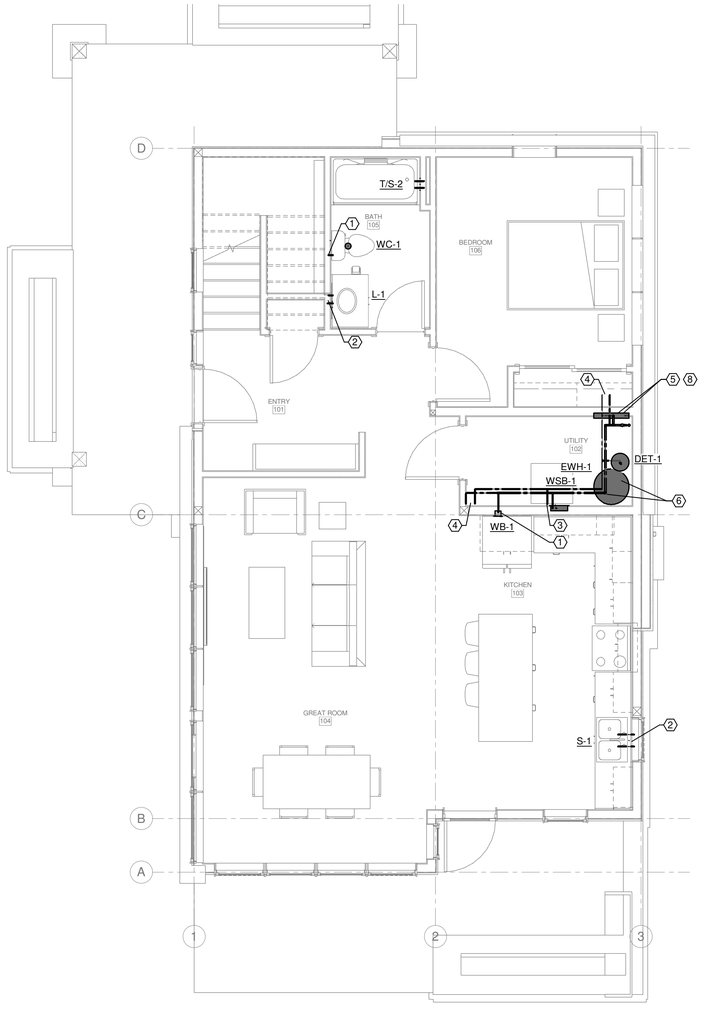
P200

GENERAL PLUMBING NOTES

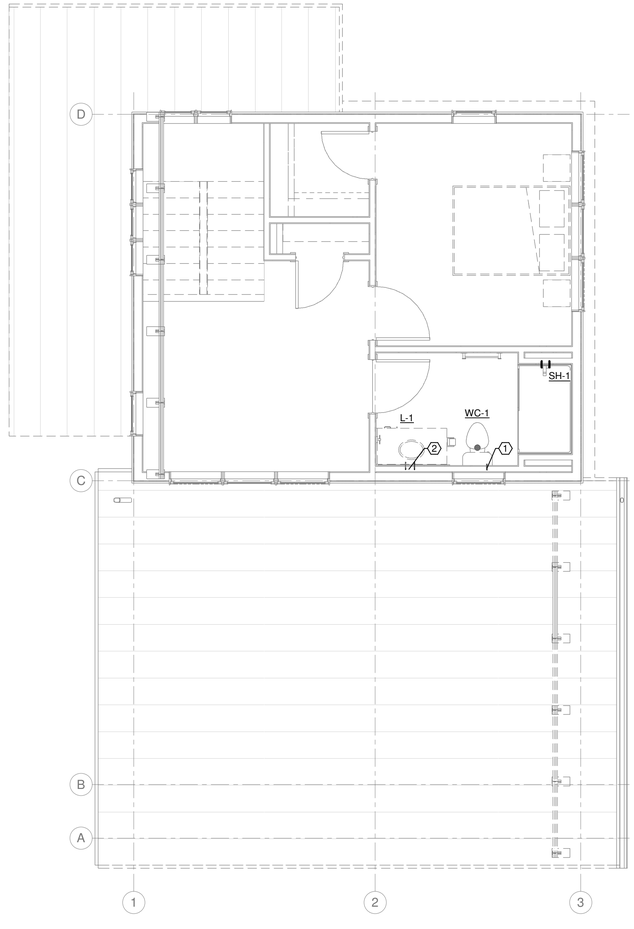
A. FOR GENERAL NOTES, REFER TO P001.

KEYNOTES

1. 1/2" CW DOWN.
2. 1/2" CW, 1/2" HW DOWN.
3. 1/2" CW UP.
4. 1/2" CW, 1/2" HW UP.
5. 1" CW, 1" HW DOWN TO PEX MANIFOLD.
6. 1" CW, 1" HW DOWN TO WATER HEATER.
7. 1" CW DOWN.
8. PROVIDE FULL PORT BALL VALVE AT CW ENTRANCE.



1 P201 MAIN FLOOR DOMESTIC WATER PLAN
1/4" = 1'-0"



2 P201 SECOND FLOOR DOMESTIC WATER PLAN
1/4" = 1'-0"

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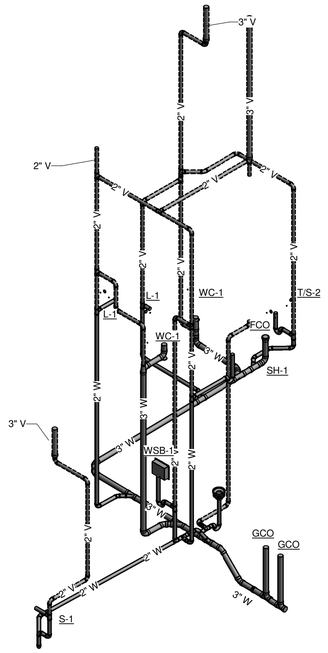
DOMESTIC WATER PLANS

P201



1
P301

DWV RISER

NOT TO SCALE

2
P301

DOMESTIC WATER RISER

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SHAWN C. MURRAY
No. ME12108

CONSTRUCTION
DOCUMENTS

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PLUMBING
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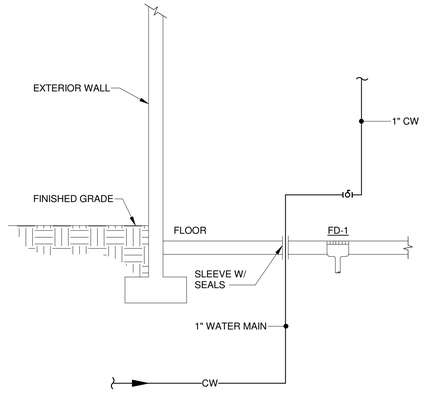
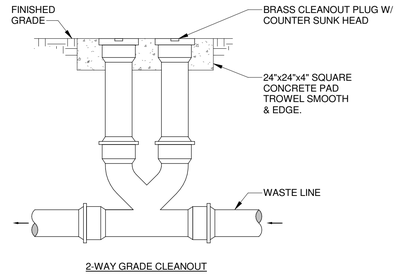
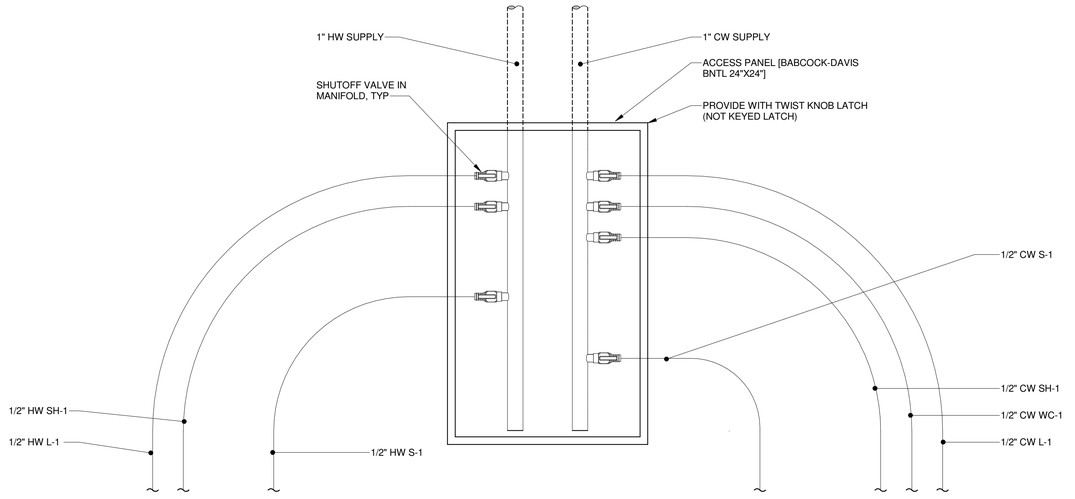
P301



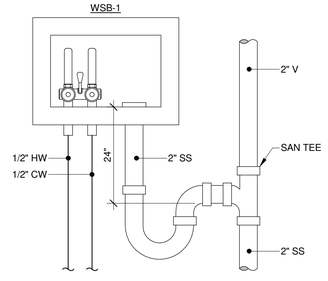
1 P500 WATER SERVICE DETAIL
NOT TO SCALE



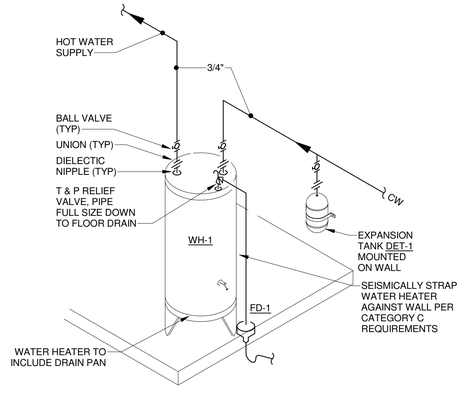
2 P500 CLEANOUT DETAIL
NOT TO SCALE



3 P500 PEX MANIFOLD DETAIL
NOT TO SCALE



4 P500 WASHER BOX DETAIL
NOT TO SCALE



5 P500 WATER HEATER DETAIL
NOT TO SCALE

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PLUMBING DETAILS

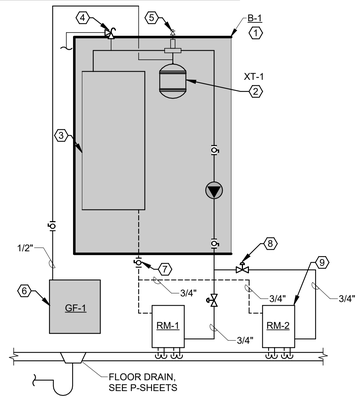
P500

BOILER SYSTEM INSTALL GENERAL NOTE:

GENERAL INTENT IS FOR WALL MOUNTING OF ALL BOILER ACCESSORIES, EQUIPMENT AND PIPING, AND FOR A NEAT, ORDERLY INSTALLATION OF THE HEATING PLANT WITH A MINIMAL AMOUNT OF PIPING. CONTRACTOR TO MAKE ADJUSTMENTS AS REQUIRED TO CREATE A FUNCTIONAL & MAINTAINABLE SYSTEM IN AS COMPACT AND CLEAN AN INSTALLATION AS POSSIBLE.

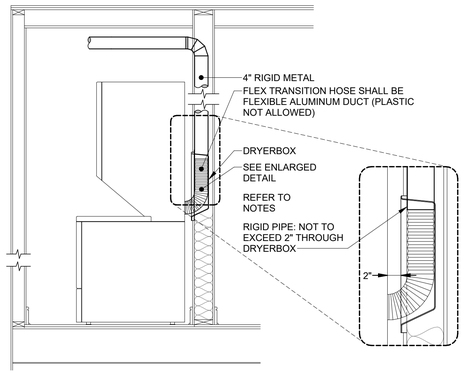
(#) BOILER FLOW DIAGRAM NOTES:

1. WALL MOUNTED ELECTRIC BOILER. ALL ACCESSORIES WITHIN SHADED REGION ARE INCLUDED WITH BOILER.
2. EXPANSION TANK, SHIPPED LOOSE WITH BOILER, VERIFY 12 PSI PRECHARGE PRIOR TO INSTALL.
3. BOILER ELECTRIC HEATING SECTION.
4. SAFETY RELIEF VALVE, FURNISHED WITH BOILER, PIPE FULL SIZE TO GLYCOL FEEDER.
5. AIR ELIMINATOR AND AUTOMATIC AIR VENT FURNISHED WITH BOILER.
6. GLYCOL MINI FEEDER, WALL MOUNT ON SHELF BRACKET.
7. BALL VALVE, TYPICAL.
8. TWO-POSITION ZONE VALVE FURNISHED BY MC, TYP. SEE TC DIARGAM 4/M001
9. RADIANT PEX MANIFOLD PAIR PER SCHEDULE AND DETAIL 3/M001, TYPICAL.



1 M001 BOILER FLOW DIAGRAM

NOT TO SCALE



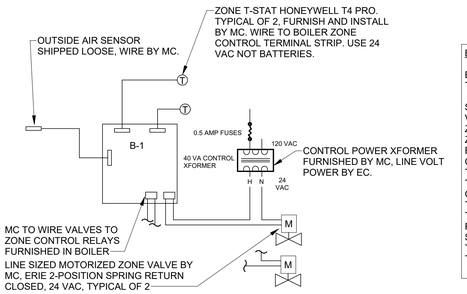
DRYER VENTING: MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RUNNING ALL DUCTWORK FOR THE DRYER EXHAUST SYSTEM. ALL CONCEALED DRYER DUCTING MUST BE RIGID METAL ALUMINUM MINIMUM OF 4" IN DIAMETER. DUCT JOINTS SHALL BE INSTALLED SO THAT THE MALE END OF THE DUCT POINTS IN THE DIRECTION OF THE AIRFLOW. DO NOT USE RIVETS OR SCREWS ANYWHERE IN THE DUCT SYSTEM AS THESE WILL ENCOURAGE LINT COLLECTION.

DRYERBOX RECEPTACLE SHALL BE METAL AND BE INSTALLED TO PERMIT THE PROPER AND SAFE COLLECTION OF THE DRYER TRANSITION HOSE. RIGID DUCT SHOULD PENETRATE DRYERBOX PORT 2 INCHES TO PROVIDE FOR FUTURE CONNECTION AND STORAGE OF TRANSITION HOSE. FOR USAGE IN A ONE-HOUR WALL ASSEMBLY. UL REQUIRES THAT BATT INSULATION BE STUFFED AROUND THE DRYERBOX AND IN THE ENTIRE WALL CAVITY CELL.

LENGTH OF CONCEALED RIGID METAL DUCTING SHALL NOT EXCEED 35 FEET. DEDUCT 5 FEET FROM THE ALLOWABLE LENGTH FOR EVERY 3.5" RADIUS 90 DEGREE ELBOW AND TWO AND A HALF FEET FOR EVERY 45 DEGREE FITTING. DRYER VENTING SHALL BE INDEPENDENT OF ANY OTHER SYSTEMS (CHIMNEYS OR EXHAUST VENTS). TERMINATION OF DRYER VENTING MUST BE TO THE EXTERIOR WITH A PROPER VENT CAP EQUIPPED WITH A BACK-DRAFT DAMPER. SMALL ORIFICE METAL SCREENING SHOULD NOT BE PART OF THE VENT AS THIS WILL ACCELERATE LINT ACCUMULATION AND BLOCKAGE. THE VENT OPENING SHOULD POINT DOWN AND EXHIBIT 12 INCHES OF CLEARANCE BETWEEN THE BOTTOM OF THE VENT AND THE GROUND OR OTHER OBSTRUCTION. VERIFY MANUFACTURER'S RECOMMENDATIONS FOR ANY OTHER FACTORS.

2 M001 DRYER BOX DETAIL

NOT TO SCALE



BOILER / RADIANT FLOOR HEAT CONTROLS:

BOILER SHALL INCLUDE CONTROLS TO ACCOMPLISH THE FOLLOWING OPERATION:

SEE TC DIAGRAM. MC RESPONSIBLE FOR ALL LOW-VOLTAGE CONTROL WIRING. ON CALL FROM EITHER ZONE THERMOSTAT, THE BOILER SHALL CLOSE THE ZONE VALVE RELAY, START THE BOILER PUMP, AND ENABLE THE BOILER HEAT. THE INTEGRAL BOILER CONTROLLER SHALL MODULATE THE ELECTRIC HEAT TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE SETPOINT. THE BOILER MEASURES ITS OWN SUPPLY TEMPERATURE AND THE OUTSIDE AIR TEMPERATURE VIA THE FIELD WIRED OUTDOOR AIR TEMPERATURE SENSOR. BOILER CONTROL SHALL RESET THE HEATING WATER SUPPLY TEMPERATURE SETPOINT FROM 120°F AT 10°F OUTDOOR AIR TEMPERATURE TO 95 °F AT 40°F OUTDOOR AIR TEMPERATURE.

4 M001 TEMPERATURE CONTROL DIAGRAM

NOT TO SCALE

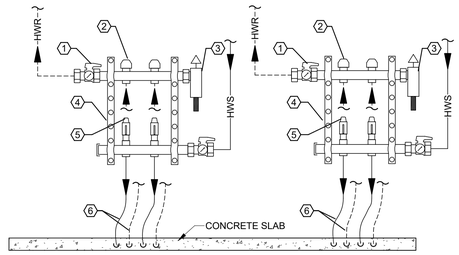
HVAC ABBREVIATIONS

%	PERCENT
ACFM	ACTUAL CFM
AFF	ABOVE FINISHED FLOOR
AMP	AMPERE (AMP, AMPS)
APPROX	APPROXIMATE
BHP	BRAKE HORSEPOWER, BOILER HORSEPOWER
BTU	BRITISH THERMAL UNIT
C	COMMON
CFM	CUBIC FEET PER MINUTE
CU FT	CUBIC FEET
DBT	DRY-BULB TEMPERATURE
DIA	DIAMETER
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EDR	EQUIVALENT DIRECT RADIATION
EWT	ENTERING WATER TEMPERATURE
EXP	EXPANSION
F	FAHRENHEIT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FOOT OR FEET
GA	GAGE OR GUAGE
GAL	GALLONS
GC	GENERAL CONTRACTOR
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HGT	HEIGHT
HP	HORSEPOWER
HZ	FREQUENCY
ID	INSIDE DIAMETER
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MC	MECHANICAL CONTRACTOR
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
PD	PRESSURE DROP
PH	PHASE (ELECTRICAL)
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SCFM	CFM, STANDARD CONDITIONS
SH	SENSIBLE HEAT
SPEC	SPECIFICATION
T STAT	THERMOSTAT
TC	TEMPERATURE CONTROL
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TOD	TOP OF DUCT
TONS	TONS OF REFRIGERATION
V	VOLT
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
WPD	WATER PRESSURE DROP

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
	BALL VALVE
	SWING CHECK VALVE
	STRAINER
	FLEX CONNECTOR
	HOSE END DRAIN VALVE
	PRESSURE REDUCING VALVE
	SAFETY RELIEF VALVE
	UNION
	MOTORIZED TC VALVE / 2-WAY
	VALVE IN RISER
	TEE UP
	TEE DOWN

SYMBOL	DESCRIPTION
	TURNING VANE ELBOW
E-1 (PLAN CODE) 200 (CFM)	EXHAUST GRILLE (W/ RIGID BRANCH DUCT)
T	THERMOSTAT/TEMPERATURE SENSOR
M	MANUAL FLOW BALANCING VALVE (CIRCUIT SETTER)
	AUTOMATIC FLOW BALANCING VALVE
	PRESSURE / TEMP. TEST PLUG
T	DIAL THERMOMETER
P	PRESSURE GAUGE W/ SNUBBER
	PIPE SIZE CHANGE
	DIRECTION OF FLOW
	ELBOW UP
	ELBOW DOWN



(#) DETAIL NOTES

1. ISOLATION BALL VALVE WITH DIAL THERMOMETER, TYP.
2. ADJUSTABLE FLOW BALANCE KNOB.
3. PURGE ASSEMBLY WITH HOSE BARB AND MANUAL AIR VENT.
4. FASTEN MANIFOLD BRACKET TO WALL.
5. VISUAL FLOW INDICATOR, BALANCE TO INDIVIDUAL CIRCUIT GPM (MANIFOLD GPM / NUMBER OF CIRCUTS)
6. CONCRETE FLOOR SLAB WITH PEX TUBING, SEE PEX IN SLAB DETAIL FOR ADDITIONAL REQUIREMENTS.

3 M001 RADIANT HEAT MANIFOLD DETAIL

NOT TO SCALE

EXHAUST FAN SCHEDULE

PLAN CODE	MANUFACTURER	MODEL	TYPE	DRIVE	CFM	RPM	ESP (" H2O)	MOTOR HP (WATTS)	POWER (V/PH/HZ)	NOTES
EF-1	PANASONIC	FV-0511VKS3S	CEILING EXHAUST	DIRECT, ECM	80	1350	0.5	21.7	120/1/60	1, 2, 3

NOTES:

1) WITH INTEGRAL DISCONNECT & BACKDRAFT DAMPER. SINGLE SPEED FAN WITH SELECTABLE CFM SETTING VIA STANDARD MULTI-SPEED MODULE

2) "WHISPER QUIET / ULTRA QUIET" LOW SONE FAN.

3) WITH ARCHITECTURAL NARROW SQUARE PLAQUE CEILING GRILLE.

RADIANT FLOOR HEAT MANIFOLD SCHEDULE

PLAN CODE	DESIGN BASIS	AREA SERVED	AREA (SF)	TOTAL PANEL LOAD (MBH) (NOTE 3)	CAPACITY (BTU/SF)	FLOW RATE (GPM)	WPD (FT)	TUBE SPACING (IN)	CIRCUIT LENGTH (FT)	NUMBER OF CIRCUITS	TUBE DIA. (IN)	MANIFOLD DIA. (IN)	SUPPLY TEMP (°F)	NOTES
RM-1	WATTS D3803002SS	KITCHEN / GREAT RM	465	10.0	21.5	1.7	10.0	12	235	2	1/2	1"	120	1, 2, 3, 4
RM-2	WATTS D3803002SS	REST OF 1st FLR	465	10.0	21.5	1.7	10.0	12	235	2	1/2	1"	120	1, 2, 3, 4

NOTES:

1) SUPPLY & RETUN MANIFOLD PAIR, WITH INTEGRAL FLOW METERS, BALANCE VALVES, MANIFOLD ISOLATION VALEVES, SUPPLY AND RETURN THERMOMETERS

2) HEATING WATER MEDIA IS 30% PROPYLENE GLYCOL

3) PANEL LOAD INCLUDES BACK AND EDGE LOSSES; CAPACITY IS HEAT TO THE ROOM

4) ALL PEX CIRCUITS TO BE EQUAL LENGTH

GLYCOL FEEDER SCHEDULE

PLAN CODE	MANUFACTURER	MODEL	CAPACITY (GAL)	PUMP (GPM)	MOTOR (HP)	PRESSURE MAX (PSI)	POWER (V-PH-HZ)	NOMINAL DIMS (W" x D" x H")	WEIGHT (LBS, EMPTY)	NOTES
GF-1	AXIOM	DMF150	4.6	1	1/6	45	120-1-60	10 x 12 x 19	10	1, 2, 3, 4, 5

NOTES:

1) MINI GLYCOL FEEDER WITH WALL MOUNT BRACKET

2) SET PRESSURE AS REQUIRED FOR 12 PSI EXPANSION TANK PRESSURE FILL

3) HEATING MEDIA IS 30% PROPYLENE GLYCOL

4) WITH 3-PRONG CORDED PLUG POWER CONNECTION

5) WITH LOW TANK LEVEL SHUT OFF

BOILER SCHEDULE

PLAN CODE	MFGR	MODEL	FUEL	INPUT (KW)	OUTPUT (BTU/HR)	CAPACITY CONTROL	POWER (V-PH-HZ)	WEIGHT (LBS)	NOTES
B-1	ELECTRO INDUSTRIES	EZB-M2-09-240-1	ELECTRIC	9.0	30,708	MODULATING	240-1-60	111	1, 2, 3, 4, 5

NOTES:

1) WALL MOUNT BOILER

2) WITH INTEGRAL EXPANSION TANK, AIR ELIMINATOR, AUTOMATIC AIR VENT, 30 PSI RELIEF VALVE, AND 3 SPEED ECM PUMP TACO 0015 E3 OR EQUAL, 3.5 GPM @ 17' HEAD

3) MODULATING CONTROL RATHER THAN STAGED. SEE SEQUENCE OF OPERATION AND TC DIAGRAM FOR ADDITIONAL REQUIREMENTS.

4) WITH AUTO RESET PRIMARY HIGH TEMP LIMIT & MANUAL RESET SECONDARY HIGH TEMP LIMIT

5) HEATING MEDIA IS 30% PROPYLENE GLYCOL

ELECTRIC HEATER SCHEDULE

PLAN CODE	MFGR	MODEL	WATTS	NOMINAL DIMENSIONS (L x H x D)	POWER (V-PH-HZ)	NOTES
BB-1	QMARK	QMKC	2,000	96" x 7" x 3"	240-1-60	1, 3, 6
BB-2	QMARK	QMKC	1,500	72" x 7" x 3"	120-1-60	1, 3, 6
BB-3	QMARK	QMKC	1,000	48" x 7" x 3"	120-1-60	1, 3, 6
WH-1	QMARK	AWH4404F	2,000	16" x 20" x 4"	240-1-60	2, 3, 4, 5, 7

NOTES:

1) ELECTRIC BASEBOARD HEATER

2) WALL MOUNTED ELECTRIC HEATER WITH INTEGRAL FAN

3) WHITE COLOR

4) UNIT MOUNTED THERMOSTAT

5) WITH INTEGRAL DISCONNECT

6) WITH SHIPPED LOOSE LINE VOLTAGE WALL THERMOSTAT MODEL M611W FOR 120 VOLT HEATERS, M612W FOR 240 VOLT HEATERS

7) RECESSED MOUNT OR SEMI-RECESSED DEPENDING ON PLAN NOTES

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SEARHC WORKFORCE HOUSING
1064 SIMOVIA HIGHWAY, WRANGELL, AK 99929

SINGLE FAMILY TWO STORY (SHED ROOF)

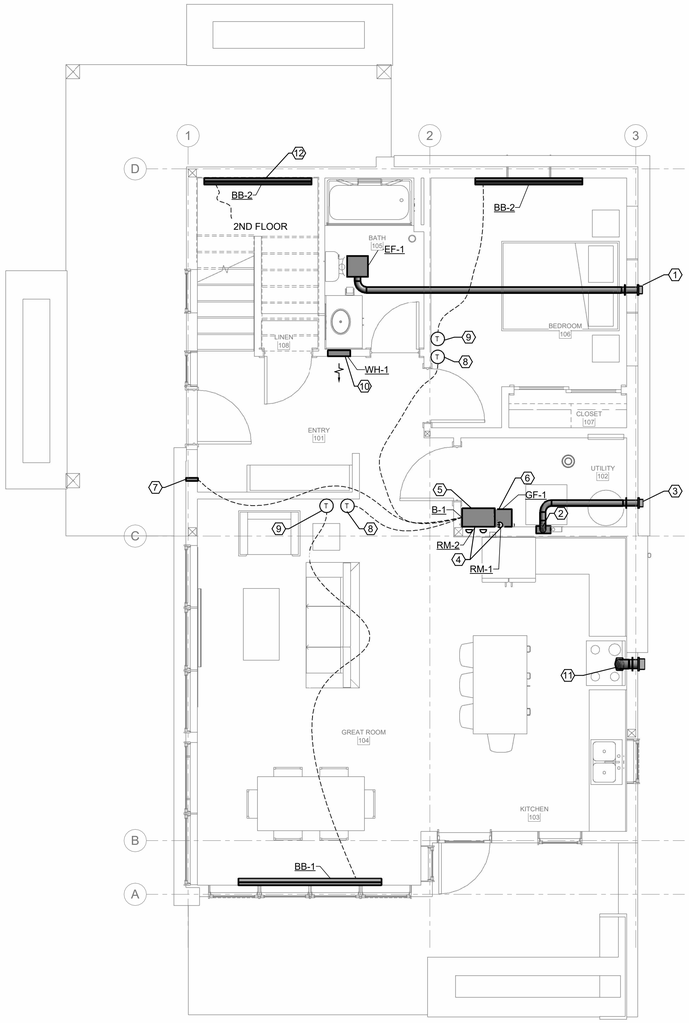
STATE OF ALASKA — SHAWN C. MURRAY — 49 12 — ME12108 — PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | JASSEN
DRAWN BY | MITCHELL
REVIEWED BY | MURRAY
REVISIONS

MECHANICAL SCHEDULES & LEGENDS

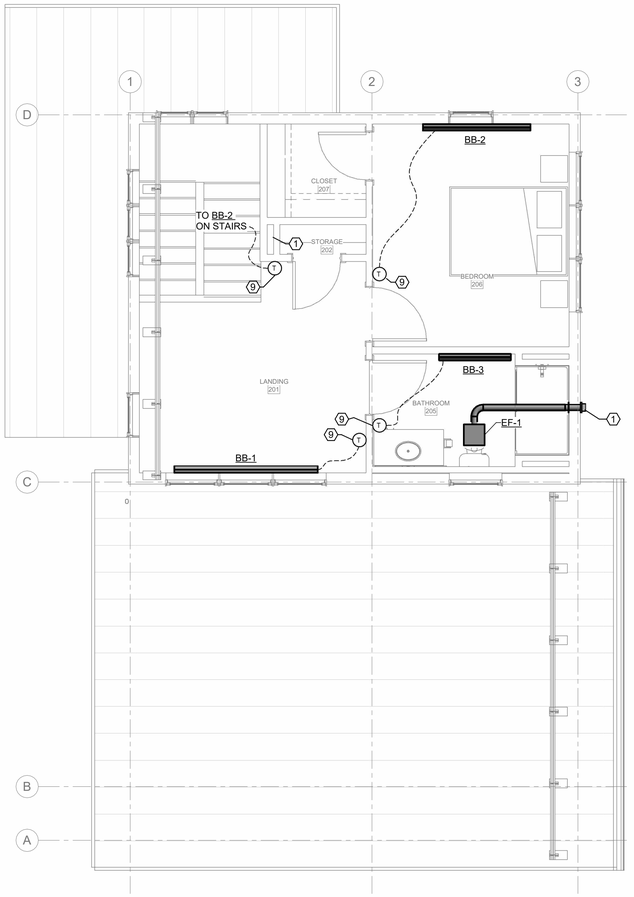
M001



1 M100 HVAC FIRST FLOOR PLAN

1/4" = 1'-0"

NORTH REF



2 M100 HVAC SECOND FLOOR PLAN

1/4" = 1'-0"

NORTH REF

KEYNOTES

1. 4" ALUMINUM EXHAUST WALL CAP SIEHO MODEL SX OR APPROVED EQUAL. COORDINATE EXTERIOR WALL PENETRATION LOCATION WITH GC.
2. EXTEND 4" ALUMINUM DRYER VENT DOWN TO DRYER VENT BOX ROUGHED IN WALL. VENT DRYER BOX SHALL BE EQUAL TO "CONSTRUCTION SOLUTIONS" MODEL DBX1017FR, SEE DETAIL 2/M001. COORDINATE EXTERIOR WALL PENETRATION LOCATION WITH GC.
3. 4" DRYER VENT CAP WITH BACKDRAFT DAMPER SEIHO MODEL SFB OR APPROVED EQUAL. COORDINATE EXTERIOR WALL PENETRATION LOCATION WITH GC.
4. RADIANT FLOOR HEAT PIPING MANIFOLD (BELOW BOILER), SEE DETAIL 3/M001.
5. ELECTRIC BOILER INSTALL ON WALL. SEE PIPING DIAGRAM 1/M001.
6. GLYCOL FEEDER, SHELF MOUNT ON WALL MAINTAINING ALL REQUIRED CLEARANCES.
7. OUTSIDE AIR TEMPERATURE SENSOR FURNISHED WITH BOILER, ROUGH IN BY EC, INSTALLATION BY MC. INSTALL PER ALL MANUFACTURERS WRITTEN INSTRUCTIONS. SEAL PENETRATION WATER TIGHT.
8. RADIANT FLOOR HEAT THERMOSTAT FURNISHED BY MC, ROUGH IN BY EC, INSTALLATION BY MC.
9. LINE VOLTAGE THERMOSTAT FURNISHED BY MC, INSTALLED BY EC.
10. RECESSED ELECTRIC WALL HEATER WITH INTEGRAL THERMOSTAT. INSTALL PER MANUFACTURERS WRITTEN INSTRUCTIONS. INSTALL BOTTOM OF HEATER AT APPROXIMATELY 12" AFF.
11. CONFIGURE MICROWAVE / RANGE HOOD (FURNISHED BY OTHERS) FOR EXHAUST TO OUTDOORS. CONNECT 4"X8" DUCT, TRANSITION TO 6" ROUND WITHIN UPPER CABINETS AND ELBOW OUT TO EXHAUST WALL CAP. 6" EXHAUST WALL CAP SHALL BE ALUMINUM SEIHO MODEL SX OR APPROVED EQUAL.
12. ELECTRIC BASEBOARD HEAT ON STAIR LANDING.

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49 III
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PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

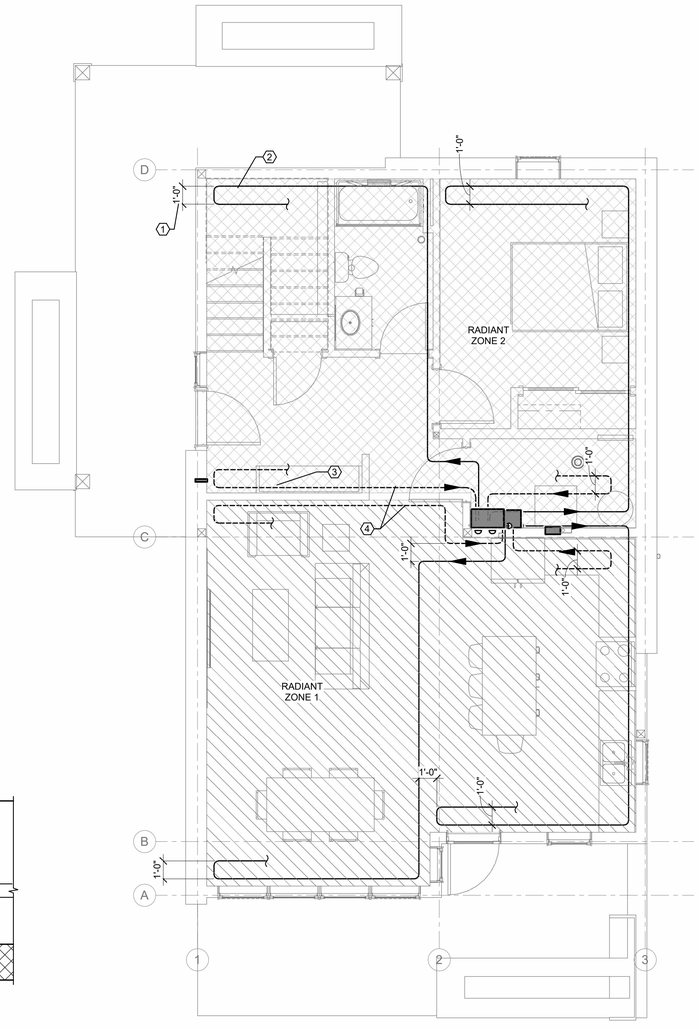
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | JASSEN
DRAWN BY | MITCHELL
REVIEWED BY | MURRAY
REVISIONS

HVAC PLANS

M100

KEYNOTES

1. MAINTAIN THE TUBE SPACING INDICATED IN THE RADIANT MANIFOLD SCHEDULE THROUGHOUT. SEE SLAB DETAIL 2/M101 AND RADIANT INSTALL NOTES FOR ADDITIONAL REQUIREMENTS.
2. ROUTE SUPPLY END OF THE PEX CIRCUIT AT THE EXTERIOR WALLS SUCH THAT HOTTEST WATER IS NEAR AREAS OF MOST HEAT LOSS.
3. DESIGN INCLUDES TWO CIRCUITS PER MANIFOLD PRE-PLAN TO ENSURE EQUAL LENGTH PER CIRCUIT.
4. ENTIRE SLAB TO BE HEATED (NO EXCLUSION AREAS). SEE PEX DAMAGE PREVENTION NOTE AT EDGE OF THIS PLAN FOR ADDITIONAL REQUIREMENTS.



RADIANT FLOOR TUBING INSTALLATION NOTES

A. SECURE TUBING TO REBAR AT MAXIMUM 18" INTERVALS. USE TUBING FASTENERS LISTED FOR PEX RADIANT/ SNOWMELT APPLICATIONS.

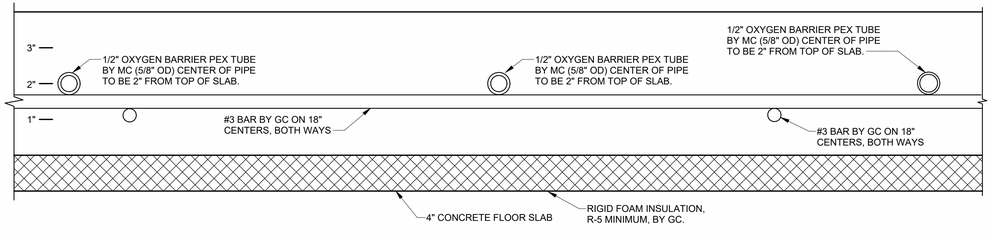
B. ALL CIRCUITS OF A GIVEN MANIFOLD TO BE SAME LENGTH.

C. EACH TUBE CIRCUIT SHALL BE CONTINUOUS WITHIN THE SLAB (NO SPLICES OR FITTINGS ALLOWED IN THE CONCRETE)

D. PEX TUBING SHALL BE OXYGEN BARRIER PEX TUBING.

E. PRESSURE TEST THE TUBING AT 80 PSI PRIOR TO CONCRETE PLACEMENT. MAINTAIN 30 PSI DURING CONCRETE PLACEMENT AND FOR 24 HOURS AFTER.

POST INSTALLATION PEX TUBING DAMAGE PREVENTION:
FOLLOWING PROCEDURE TO BE USED TO PREVENT DAMAGE OF RADIANT FLOOR HEAT PEX TUBING:
AFTER SLAB IS CAST AND CURED THE CONTRACTOR SHALL MEASURE AND MARK ON THE FLOOR ALL WALL PLATES TO BE FASTENED ONTO THE CONCRETE FLOOR SLAB, AS WELL AS OTHER FLOOR ATTACHMENTS (IF ANY). MECHANICAL CONTRACTOR SHALL CONNECT A TEMPORARY WATER HEATER AND CIRCULATE WARMED FLUID THROUGH THE PEX TUBING. CONTRACTOR SHALL USE THERMAL CAMERA TO MARK THE INTERSECTION OF ALL FRAMING TRACKS AND OTHER FLOOR ATTACHMENTS WITH PEX TUBING. MARK WITH PAINT ON THE CONCRETE FLOOR THE PEX TUBING LINES INTERSECTING THE FRAMING LINES.
CONTRACTOR PROCEEDS TO FASTEN FLOOR TRACK TO THE FLOOR AVOIDING ALL INTERSECTING PEX TUBE LOCATIONS.



2 / M101 HEATED FLOOR SLAB DETAIL
NOT TO SCALE

1 / M101 RADIANT HEAT FLOOR PLAN
1/4" = 1'-0"

NORTH REF

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | JASSEN
DRAWN BY | MITCHELL
REVIEWED BY | MURRAY

REVISIONS

RADIANT HEAT PLANS

M101

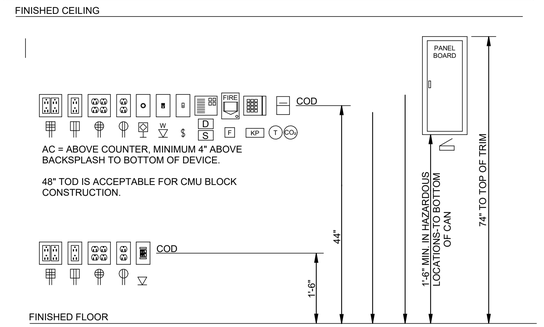
PANEL: A

MOUNTING TYPE: RECESSED
MANUFACTURER: SEE SPECIFICATIONS
MODEL TYPE: LOAD CENTER
FED FROM:
AMPS: 250 A
VOLTAGE: 120/240 Single
TYPE OF MAIN: 250A MCB %100 RATED
MINIMUM AIC RATING: SEE ONE-LINE DIAGRAM
NOTES:

LOAD NAME	CK...	BK...	POLE	A	B	POLE	BK...	CK...	LOAD NAME
APPLIANCE - DISPOSAL	1	20	1			1	20	2	APPLIANCE - DISHWASHER (NOTE 1)
APPLIANCE - KITCHEN RANGE/COOKTOP	3	50	2			1	20	4	APPLIANCE - MICROWAVE (NOTE 1)
--	5	--	--			1	20	6	APPLIANCE - REFRIGERATOR (NOTE 1)
RECEPT - KITCHEN COUNTER, ISLAND (NOTE 2)	7	15	1			1	15	8	RECEPT - KITCHEN COUNTER, ISLAND (NOTE 2)
ELECTRIC HEAT - BB-1 GREAT ROOM (NOTE 2)	9	15	2			1	20	10	RECEPT - GREAT ROOM, KITCHEN, ENTRY (NOTE 2)
--	11	--	--			1	20	12	EQUIP - FIREPLACE GREAT ROOM (NOTE 2)
APPLICANCE - ELECTRIC CLOTHES DRYER (NOTE 3)	13	30	2			1	20	14	APPLIANCE - WASHING MACHINE (NOTE 3)
--	15	--	--			1	20	16	RECEPT - UTILITY, STAIR, EXTERIOR (NOTE 2)
RECEPT - 1ST FLR BEDROOM (NOTE 2)	17	15	1			2	60	18	EQUIP - EWH-1 WATER HEATER (NOTE 3)
ELECTRIC HEAT - BB-2 1ST FLR BEDROOM (NOTE 2)	19	20	1			--	--	20	--
ELECTRIC HEAT - BB-2 STAIR (NOTE 2)	21	20	1			1	20	22	RECEPT/LTG - 1ST FLR BATHROOM (NOTE 1)
EQUIP - B-1 (PUMP) ELECTRIC BOILER PUMP	23	15	1			1	15	24	EQUIP - GLYCOL FEEDER
EQUIP - B-1 ELECTRIC BOILER	25	60	2			2	15	26	ELECTRIC HEAT - EH-3 ENTRY (NOTE 2)
--	27	--	--			--	--	28	--
RECEPT - PRIMARY BEDROOM (NOTE 2)	29	20	1			1	20	30	LTG - 1; ENTRY, GRTRM., KITCH., EXT., UTIL. (NOTE 2)
ELECTRIC HEAT - BB-2 2ND FLR BEDROOM (NOTE 2)	31	20	1			1	20	32	LTG - 1: BDRM, STR, BATH, 2: BDRM, OFFICE (NOTE 2)
SMOKE DETECTORS (NOTE 2)	33	15	1			1	15	34	ELECTRIC HEAT - BB-3 2ND FLR BATH (NOTE 2)
RECEPT/LTG - 2ND FLR BATHROOM (NOTE 1)	35	20	1			1	20	36	RECEPT - OFFICE (NOTE 2)
ELECTRIC HEAT - BB-1 OFFICE (NOTE 2)	37	15	2			1	--	38	SPACE
--	39	--	--			1	--	40	SPACE
SPACE	41	--	1			1	--	42	SPACE

NOTES: 1. PROVIDE GFCI/AFCI CIRCUIT BREAKER.
2. PROVIDE AFCI CIRCUIT BREAKER AS REQUIRED PER NEC REQUIREMENTS.
3. PROVIDE GFCI CIRCUIT BREAKER.

INTERIOR BOX MOUNTING HEIGHTS



TWO STORY TWO BEDROOM FEEDER SIZING

(BASED ON NIT SQ/FT SIZE 1540SQ/FT)

(Lighting loads include all lighting and general use receptacles per NEC 220.14(J)

Lighting Load	3w per sq/ft	1540*3	4620	watts
Appliance Load	1500w per circuit	2*1500	3000	watts
		Total	7620	watts
Adjusted load based off 220.84 (first 3000 w at 100% remainder at 35%)				
Lighting/Appliance Load		3000+(4+620*35%)	4141	watts
Electric Boiler	37.5A @ 240.1ph		9000	watts
Electric Heat	41.7A @ 240.1ph		10000	watts
Water Heater	37.5A @ 240.1ph		9000	watts
Range	one unit @8000 w		6400	watts
Dryer	one unit @5000w		5000	watts
Microwave	one unit @1000w		1000	watts
Refrigerator	one unit @900w		900	watts
Dishwasher	one unit @1000w		1000	watts
Wash Machine	one unit @900w		900	watts
Exhaust Fans	2 unit total of 44w		44	watts
		Total	47385	watts
		Total	228	Amps

ELECTRICAL LEGEND

SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS

LIGHTING

SYMBOL	DESCRIPTION
	WALL MOUNTED FIXTURE, SIZE ON PLANS
	SURFACE MOUNTED FIXTURE, SIZE ON PLANS
	RECESSED DOWNLIGHT FIXTURE; PENDANT FIXTURE
	WALL MOUNTED FIXTURE
	CEILING FAN FIXTURE

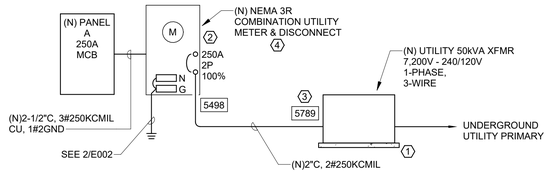
ABBREVIATIONS AND MISCELLANEOUS

SYMBOL	DESCRIPTION
AC	ABOVE COUNTER, 4" BACK SPLASH
AFG	ABOVE FINISHED GRADE
AFF	ABOVE FINISHED FLOOR
BLG	BELOW GRADE
BOD	BOTTOM OF DEVICE
C	CONDUIT
CLG	CEILING
COD	CENTER OF DEVICE
CU	COPPER
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
GC	GENERAL CONTRACTOR
GND	GROUND
MC	MECHANICAL CONTRACTOR
(N)	NEW
QTY	QUANTITY
(R)	RELOCATED
SF	SURFACE
TYP	TYPICAL
UG	UNDERGROUND
U/ON	UNLESS OTHERWISE NOTED
W/	WITH
WP	WEATHER PROOF (WHILE IN USE)
XFMR	TRANSFORMER
a,b,c etc	SWITCH DESIGNATION
BN1L-2,4,6	CIRCUIT DESIGNATION, PANEL BN1L, CIRCUITS 2,4,6
1/E501	INDICATES DETAIL 1 ON SHEET E501
(#)	SHEET WORK NOTE
	HOME RUN TO PANEL
	CONDUIT CONCEALED IN CEILING OR WALL
	CONDUIT CONCEALED UNDER FLOOR
	CIRCUIT, NUMBER OF HASH MARKS INDICATES NUMBER OF CONDUCTORS IN CABLE/RACEWAY. GROUND WIRE IS NOT SHOWN BUT SHALL BE INCLUDED. NO HASH MARKS INDICATES 2 CONDUCTORS PLUS GROUND.

DEVICES AND POWER

SYMBOL	DESCRIPTION
$	SWITCH - SPST 3 THREEWAY 4 FOURWAY WP WEATHERPROOF D DIMMER
	RECEPTACLE - DUPLEX USB DEVICE RECEPTACLE W/ USB-A & USB-C PORTS DC DROP CORD WP WEATHERPROOF COVER & WEATHER RESISTANT RECEPTACLE TR TAMPER RESISTANT S SURGE PROTECTED IG ISOLATED GROUND FILLED CENTER INDICATES HOSPITAL GRADE EMERGENCY RECEPTACLE
	RECEPTACLE - DUPLEX WITH TOP HALF CONTROLLED AND PERMANENTLY MARKED "CONTROLLED" - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	GFI RECEPTACLE - DUPLEX (GROUND FAULT INTERRUPT) - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	RECEPTACLE - DOUBLE DUPLEX GFI RECEPTACLE - DOUBLE DUPLEX - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	RECEPTACLE - DOUBLE DUPLEX WITH TOP HALF CONTROLLED AND PERMANENTLY MARKED "CONTROLLED" - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	RECEPTACLE - 208V R RANGE - NEMA 14-50R D DRYER - NEMA 14-30R W WELDER - NEMA 14-50R * NEMA CONFIGURATION AS NOTED
J J	J-BOX - 4"X4"X2-1/8" DEEP UNLESS OTHERWISE NOTED
T	THERMOSTAT/TEMPERATURE SENSOR BY MC OR TC, J-BOX AND CONDUIT TO CEILING BY EC
$M	MANUAL MOTOR DISCONNECT/STARTER SWITCH
	SPECIAL PURPOSE CONNECTION - BOX INDICATES FLOOR MOUNTING - WORK AS NOTED
	ELECTRIC MOTOR CONNECTION
	COMBINATION STARTER/DISCONNECT SWITCH
	DISCONNECT SWITCH
	CIRCUIT BREAKER
	TIME CLOCK
	EXISTING PANELBOARD, SURFACE MOUNTED
	EXISTING PANELBOARD, FLUSH MOUNTED
	PANELBOARD, SURFACE MOUNTED
	PANELBOARD, FLUSH MOUNTED
or	ELECTRIC METER, BUILDING MOUNTED
	TRANSFORMER, INTERIOR
	TRANSFORMER, EXTERIOR

NOT ALL SYMBOLS MAY APPLY



3 / E001 **POWER RISER**
NOT TO SCALE

LINE LEGEND

——— NEW

KEYNOTES

1. PROVIDE UITILITY TRANSFORMER CONCRETE PAD IN COMPLIANCE WITH WRANGELL MUNICIPAL LIGHT AND POWER (WML&P) REQUIREMENTS. COORDINATE EXACT LOCATION WITH WML&P.
2. WML&P COMBINATION METER SOCKET AND MAIN SERVICE DISCONNECT. COORDINATE LOCATION AND INSTALLATION WITH WML&P.
3. AIC BASED ON 100kVA AND 4% IMPEDANCE (Z%).
4. PROVIDE WITH 25kA 2- POLE WHOLE HOME SURGE PROTECTION DEVICE (SQUARE D MODEL #HOM2175SB OR EQUAL).

LIGHTING FIXTURE SCHEDULE

NOTES:
1) NOT USED

TYPE	FIXTURE			MOUNTING			VOLTAGE	VA	FINISH	LIGHT SOURCE			OPTIONS	NOTES
	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LOCATION	TYPE	HEIGHT				CRI	KELVIN	LUMENS	DIMMABLE	
P1	6" MATTE BLACK LED DIMMABLE CYLINDER PENDANT	GOTHAM	IVO6CYL PC D 07LM 35K 80CRI MD MIN10 MVOLT LZ JBX CAN S4 P BR LD DBL	CEILING	PENDANT	6' 0" AFF	120 V	7.30	MATTE BLACK	80	3500	760 lm	X	
P2	4" MATTE BLACK LED DIMMABLE CYLINDER PENDANT	GOTHAM	IVO4CYL PC D 05LM 35K 80CRI MD MIN10 MVOLT L5 JBX CAN S4 P BR LD DBL	CEILING	PENDANT	8' 0" AFF	120 V	5.10	MATTE BLACK	80	3500	490 lm	X	
R1	6" DIMMABLE LED DOWNLIGHT WITH BLACK TRIM AND UNIVERSAL NEW CONSTRUCTION PAN	LITHONIA	WF6 SWW5 90CRI MB WF8643	CEILING	RECESSED	-	120 V	13.00	MATTE BLACK	90	3500	970 lm	X	
R2	6" WET RATED DIMMABLE LED DOWNLIGHT WITH WHITE TRIM AND UNIVERSAL NEW CONSTRUCTION PAN	LITHONIA	WF6 SWW5 90CRI MW WF8643	CEILING	RECESSED	-	120 V	13.00	MATTE WHITE	90	3500	970 lm	X	
S1	4' LED STRIP LIGHT	LITHONIA	CSS L48 AL03 MVOLT 35K 80CRI	CEILING	SURFACE	-	120 V	27.20	WHITE	80	3500	3710 lm	-	
V1	31.5" BLACK DIMMABLE LED VANITY FIXTURE	JUSHENG	HD 8210 BK 80CM 5500K	WALL	SURFACE	7' 0" AFF	120 V	22.00	BLACK	85	5500	3500 lm	X	
W1	4" LED WALL CYLINDER UP/DOWN LIGHT AND INTEGRAL PHOTOCELL	LITHONIA	WMCL4 P1 SWW2 A45 UVOLT PE DDBXD M4	WALL	SURFACE	8' 0" AFG	120 V	19.00	DARK BRONZE	80	3500	2480 lm	-	

ELECTRICAL SHEET INDEX

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

08.29.2025
PROJ# | SEARHC_WRNGLWFH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

LEGENDS, SCHEDULES AND PANELS

E001

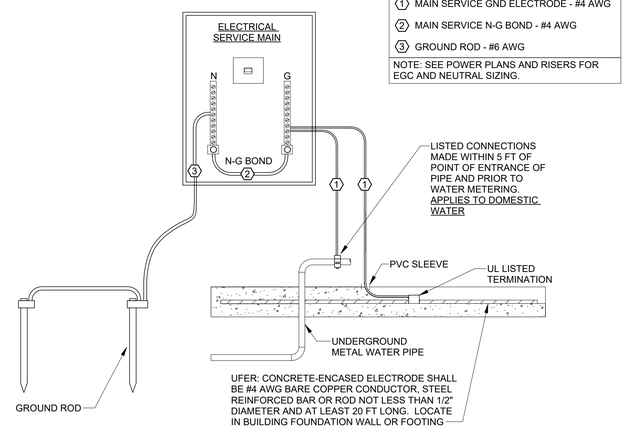
GENERAL NOTES

A. COMPLY WITH LATEST ADOPTED NEC AND APPLICABLE CODES/STANDARDS.
B. SHARED NEUTRALS ARE NOT ALLOWED FOR SINGLE PHASE BRANCH CIRCUITS.

(#) KEYNOTES

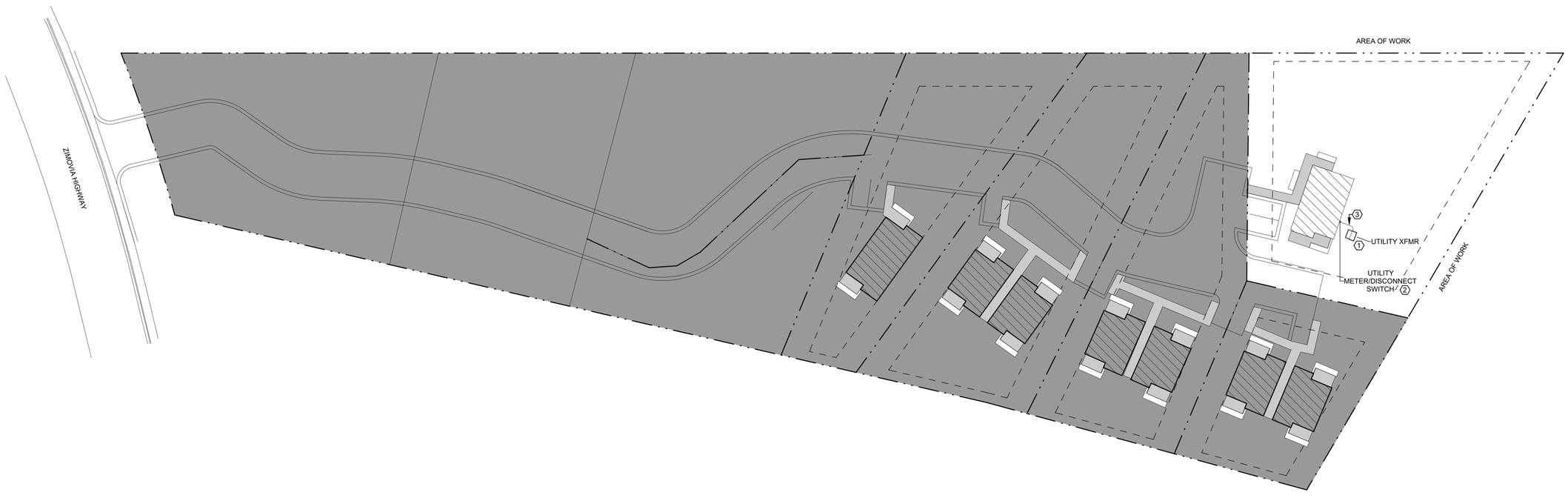
1. UTILITY PROVIDED TRANSFORMER. COORDINATE CONCRETE PAD REQUIREMENTS WITH UTILITY. SEE POWER ONE LINE DIAGRAM (1/E001) FOR ADDITIONAL INFORMATION.
2. PROVIDE COMBINATION NEMA 3R METERSOCKET AND MAIN DISCONNECT IN CONFORMANCE WITH UTILTY COMPANY REQUIREMENTS. SEE ONE-LINE DIAGRAM (1/E001) FOR ADDTIONAL INFORMATION.
3. SECONDARY FEEDER BY EC. SEE ONE-LINE DIAGRAM (1/E001) FOR CONDUIT AND FEEDER SIZING. COORDINATE TRENCHING DEPTH WITH GC.

GROUND SIZE FOR THIS PROJECT:
(1) MAIN SERVICE GND ELECTRODE - #4 AWG
(2) MAIN SERVICE N-G BOND - #4 AWG
(3) GROUND ROD - #6 AWG
NOTE: SEE POWER PLANS AND RISERS FOR EGC AND NEUTRAL SIZING.



2 / E002 BUILDING GROUNDING ELECTRODE SYSTEM DETAIL

NOT TO SCALE



1 / E002 ELECTRICAL SITE PLAN

1/32" = 1'-0"

Cushing Terrell.

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SINGLE FAMILY TWO STORY (SHED ROOF)

CONSTRUCTION DOCUMENTS

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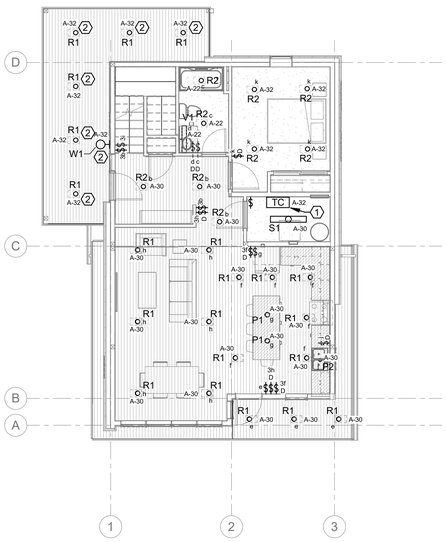
REVISIONS

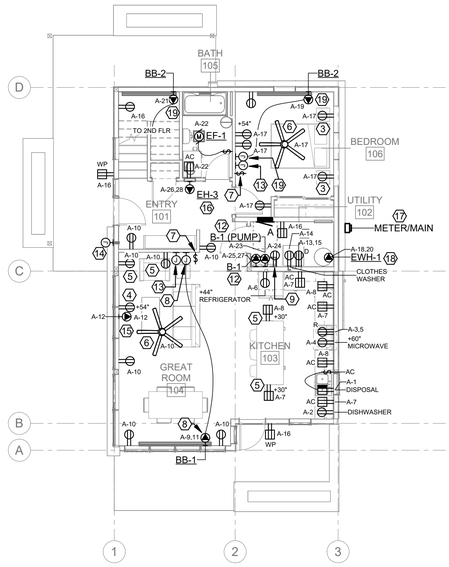
ELECTRICAL SITE PLAN

E002



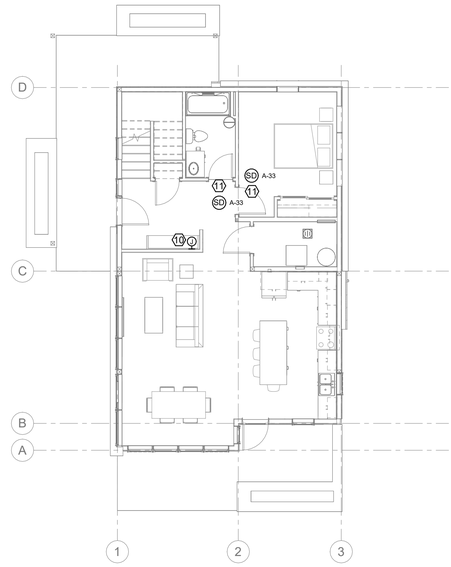
1 E100 **LIGHTING PLAN 1ST FLOOR**

1/8" = 1'-0"



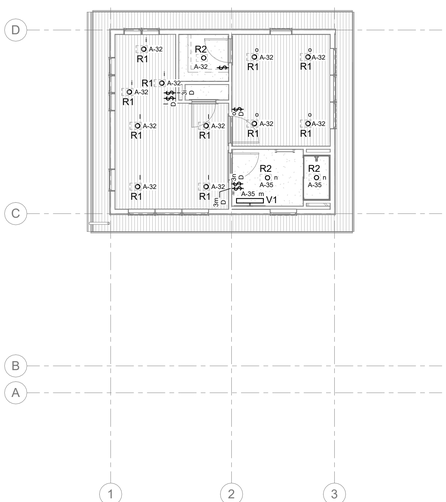
2 E100 **POWER PLAN 1ST FLOOR**

1/8" = 1'-0"



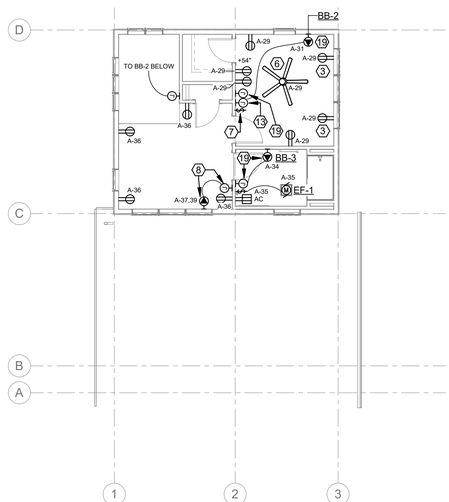
3 E100 **SPECIAL SYSTEMS PLAN 1ST FLOOR**

1/8" = 1'-0"



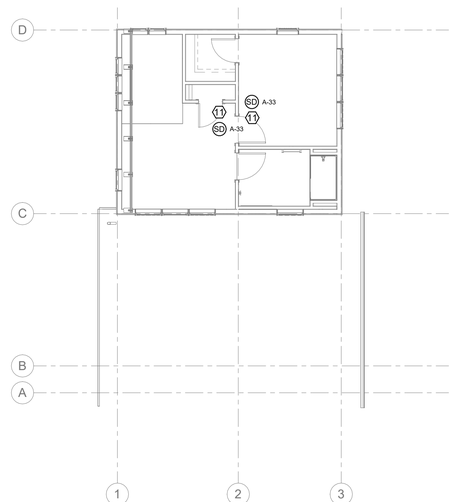
4 E100 **LIGHTING PLAN 2ND FLOOR**

1/8" = 1'-0"



5 E100 **POWER PLAN 2ND FLOOR**

1/8" = 1'-0"



6 E100 **SPECIAL SYSTEMS PLAN 2ND FLOOR**

1/8" = 1'-0"

GENERAL NOTES

A. COMPLY WITH LATEST ADOPTED NEC AND APPLICABLE CODES/STANDARDS.

B. SHARED NEUTRALS ARE NOT ALLOWED FOR SINGLE PHASE BRANCH CIRCUITS.

C. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE: ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE ELECTRICAL CONTRACTOR.

D. ALL CONDUIT AND JUNCTION BOXES IN FINISHED AREAS ARE TO BE CONCEALED IN WALLS, FUR OUTS, AND CEILINGS. ANY USE OF SURFACE MOUNTED RACEWAY IN FINISHED AREAS MUST BE APPROVED BY THE ARCHITECT. WHERE APPROVED, UTILIZE WIREMOLD OR APPROVED EQUAL SURFACE MOUNTED RACEWAYS PAINTED TO MATCH SURROUNDING WALLS.

E. WHERE LIGHTING CIRCUITS ARE INDICATED FOR AUTOMATIC CONTROL BY RELAY PANEL, ROUTE SEPARATE CONDUCTOR DIRECTLY TO RESPECTIVE CIRCUIT BREAKER TO PROVIDE UNSWITCHED CIRCUIT FOR CONNECTION TO EMERGENCY BALLASTS/BATTERY PACKS REFER TO ARCHITECTURAL ELEVATIONS FOR OUTLET HEIGHTS WHERE THE SPECIFIC OUTLET HEIGHT IS NOT INDICATED ON THIS SHEET. REFER TO THE ELECTRICAL LEGEND FOR THE DEFAULT OUTLET HEIGHT WHEN NOT INDICATED ON ELEVATIONS OR ON THIS SHEET.

F. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE CONTRACTOR.

G. ALL 15 AND 20A, 120V NON-LOCKING TYPE RECEPTACLES IN RESIDENTIAL AREAS SHALL BE LISTED 'TAMPER-RESISTANT' RECEPTACLES.

H. WHERE NEW DEVICES ARE SHOWN FOR INSTALLATION ON EXISTING WALLS, ELECTRICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE CUTTING, PATCHING, AND REPAIR OF EXISTING WALL WITH OTHER TRADES AS REQUIRED TO PROVIDE FLUSH MOUNTED INSTALLATION.

I. ALL MULTI-WIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH SEPARATE NEUTRAL CONDUCTORS. LABEL NEUTRAL CONDUCTORS WITH RESPECTIVE CIRCUIT AT ALL PULL BOXES, JUNCTION BOXES, TERMINATIONS, ETC.

KEYNOTES

1. PROVIDE 24 HOUR ELECTRONIC SINGLE CIRCUIT TIME CLOCK (INTERMATIC MODEL #ET1105C OR EQUAL) FOR CONTROL OF EXTERIOR SCONCE AND ENTRY CAN LIGHTING. INSTALL PER MANUFACTURER'S INSTALLTION INSTRUCTIONS. COORDINATE PROGRAMMING ON/OFF TIMES WITH OWNER.
2. ROUTE HOMERUN CIRCUIT THROUGH ASTRONOMICAL TIME CLOCK IN UTILITY ROOM.
3. PROVIDE BLACK TAMPER PROOF RECEPTACLE AND FACEPLATE. RECEPTACLE SHALL BE COMBO RECEPTACLE WITH 30W USBA/C TYPE CHARGING PORTS (LEVITON MODEL# T5G33-E OR EQUAL).
4. PROVIDE BLACK TAMPER PROOF RECEPTACLE AND FACEPLATE.
5. PROVIDE COMBO TYPE TAMPER PROOF RECEPTACLE WITH 30W USBA/C TYPE CHARGING PORTS (LEVITON MODEL# T5G33-E OR EQUAL).
6. PROVIDE CEILING FAN (KICHLER MODEL #330130SBK) WITH INCLUDED WALL CONTROL. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. INSTALL CEILING FAN CONTROL SWITCH FURNISHED WITH CEILING FAN. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
8. PROVIDE CONNECTION TO 240V BASEBOARD HEATER PROVIDED BY MC. PROVIDE WIRING AND CONNECTION OF LINE VOLTAGE THERMOSTAT FURNISHED BY MC FROM BASEBOARD UNIT THIS ROOM. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
9. COORDINATE EXACT LOCATION OF RECEPTACLE FOR GLYCOL FEEDER WITH MC.
10. PROVIDE 4" SQUARE JUNCTION BOX, MUDRING AND 1" EMPTY CONDUIT ROUTED UNDERGROUND TOWARDS THE ACCESS ROAD ON THE PROPERTY. STUB AND MARK THE CONDUIT TO 5' - 0" OUTSIDE OF THE BUILDING FOUNDATION FOR FUTURE INTERNET PROVIDER CABLING AND TERMINATION.
11. PROVIDE LINE-VOLTAGE INTERCONNECTING TYPE SMOKE DETECTOR WITH BATTERY BACKUP (KIDDE MODEL# SM300-AC OR EQUAL). INSTALL PER NFPA 72 REQUIREMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. SMOKE DETECTORS SHALL INTERCONNECT SUCH THAT IF ONE ALARMS, ALL ALARM.
12. PROVIDE CONNECTION TO MECHANICAL EQUIPMENT. ELECTRIC BOILER (B-1) AND ELECTRIC BOLER (PUMP) (B-1 (PUMP)) FURNISHED WITH INTEGRAL DISCONNECTING MEANS. COORDINATE ELECTRICAL CONNECTION WITH MC PRIOR TO ROUGH-IN.
13. PROVIDE JUNCTION BOX FOR LOW-VOLTAGE CONTROL WIRING BY MC.
14. PROVIDE RECESSED JUNCTION BOX WITH COVERPLATE FOR BOILER THERMOSTAT PROVIDED BY MC.
15. PROVIDE ELECTRIC FIREPLACE (SIMPLIFIRE MODEL #SF-ALLS60) WITH. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH GC FOR EXACT LOCATION AND STRUCTURAL FRAMING FOR UNIT.
16. PROVIDE CONNECTION TO ELECTRIC WALL HEATER WITH INTEGRAL DISCONNECT PROVIDED BY MC. COORDINATE EXACT LOCATION OF ELECTRIC WALL HEATER PRIOR TO ROUGH-IN.
17. LOCATION OF COMBINATION METER/SERVICE DISCONNECT. SEE ONE-LINE DIAGRAM 1/E001 FOR ADDITIONAL INFORMATION.
18. PROVIDE CONNECTION TO ELECTRIC WATER HEATER WH-1. COORDIANTE EXACT LOCATION OF UNIT PRIOR TO ROUGH-IN.
19. PROVIDE CONNECTION TO 120V BASEBOARD HEATER PROVIDED BY MC. PROVIDE WIRING AND CONNECTION OF LINE VOLTAGE THERMOSTAT FURNISHED BY MC FROM BASEBOARD UNIT THIS ROOM. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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REVISIONS

LIGHTING, POWER AND SPECIAL SYSTEMS PLANS

E100