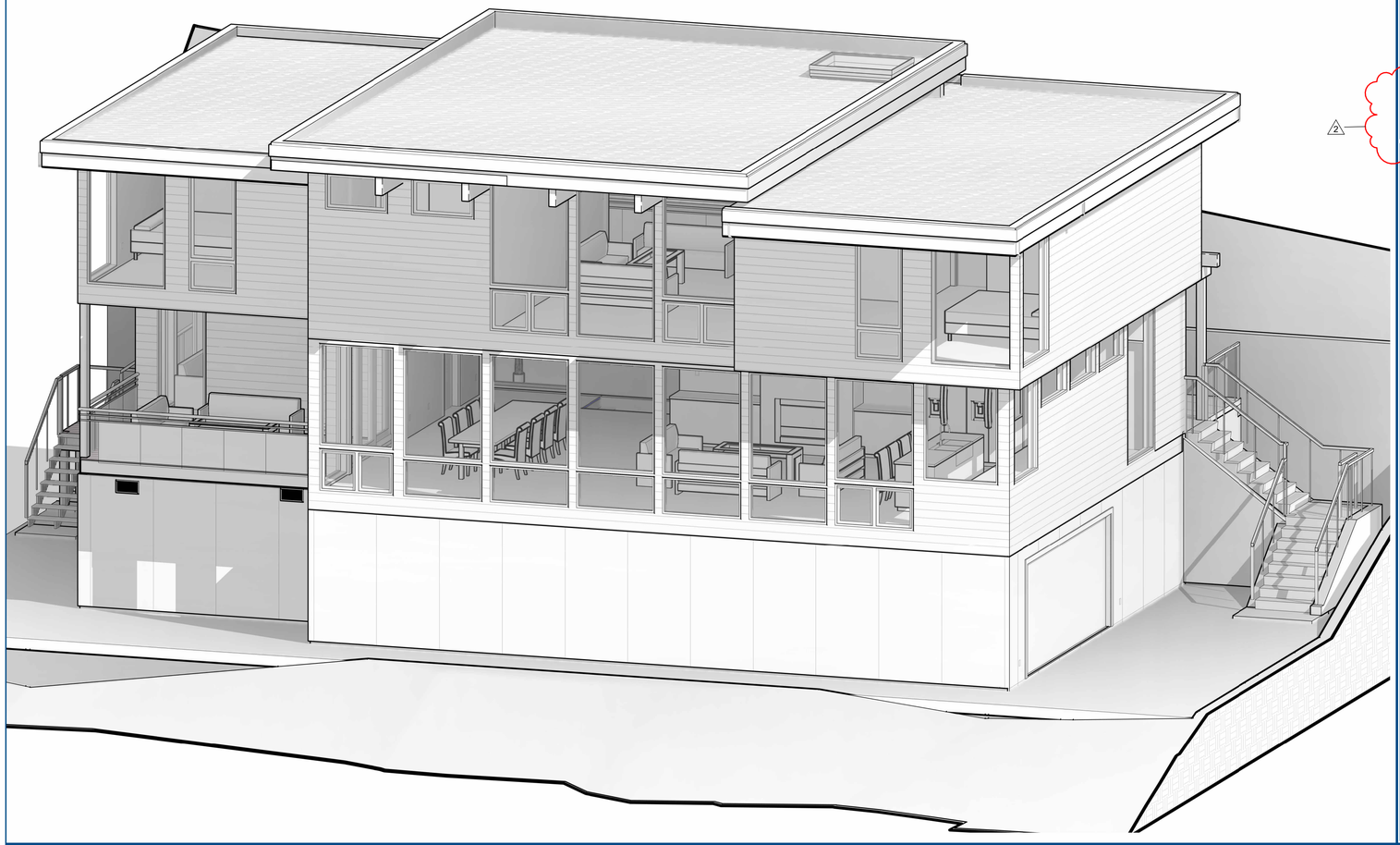
INTRACHAT HOANG RESIDENCE

7929 EAST MERCER WAY MERCER ISLAND WA 98040



CONSTRUCTION DOCUMENT

PERMIT PLAN
NOT FOR CONSTRUCTION

1. BUILDER SHALL CHECK AND VERIFY ALL DIMENSIONS AND DETAILS.
2. BUILDER MUST REVIEW AND UNDERSTAND DRAWINGS AND DETAILS PRIOR TO PACKAGE SHIPMENT, TO ALLOW FOR RESOLUTION OF ANY QUESTIONS.
3. IF REQUIRED, ADDITIONAL DETAILS CAN BE PREPARED TO CLARIFY ANY AREAS RELATED TO THE CONSTRUCTION OF THE PACKAGE MATERALS.
4. IF A PROBLEM ARISES WITHIN THE DRAWINGS OR PACKAGE MATERIALS AFTER THE START OF CONSTRUCTION, CONTACT YOUR LINDAL DEALER IMMEDIATELY SO THAT WE MAY PARTICIPATE IN THE SOLUTION TO THE PROBLEM.
5. LINDAL CEDAR HOMES WILL NOT ASSUME RESPONSIBILITY FOR FIELD CORRECTIONS IF YOU DO NOT FOLLOW THIS PROCEDURE.
6. DEPTH OF FOUNDATION BELOW GRADE AND FOOTING DIMENSIONS TO CONFORM WITH LOCAL CODES AND REGULATIONS. SIZE, NUMBER AND LOCATION OF FOUNDATION VENTS AND ACCESS TO CRAWL SPACE IS TO BE DETERMINED BY CONTRACTOR OR OWNER. VENT CALCULATIONS REFER TO SHEET MT03

2

SHEET INDEX

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

2

NO.	DESCRIPTION	ISSUED BY:	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

LINDAL IMAGINE SERIES

MODEL

CUSTOM ELEMENT HOME

COVER SHEET

G000

SET NOT FOR CONSTRUCTION

PROJECT ADDRESS & KEYMAP:

CTY / PROV:	KING COUNTY
COUNTRY:	USA
TAX PARCEL #:	3024059176

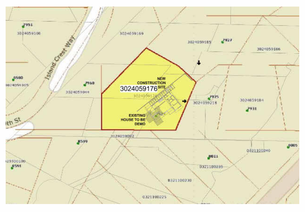


IMAGE SOURCE: GOOGLE MAPS

ADDRESS:	7929 EAST MERCER WAY MERCER ISLAND WA 98040

CLIENT INFORMATION:

HOANG INTRACHAT
7929 EASTE MERCER WAY
MERCER ISLAND WA 98040

BY INITIALING THE BLOCKS BELOW, YOU ARE CONFIRMING THAT THE INFORMATION CONTAINED ON THIS SET HAS BEEN REVIEWED AND APPROVED

DEALER APPROVED:	DATE:
CLIENT APPROVED:	DATE:

PLEASE SIGN THE PLANS STAMP LOCATE ON THIS SHEET, SO THAT WE MAY PROCEED TO THE NEXT PHASE OF YOUR PROJECT.

SCOPE OF WORK: NEW CONSTRUCTION

CONSTRUCTION TYPE	V-B
OCCUPANCY CLASSIFICATION ONE AND TWO FAMILY DWELLING	R-3

SQUARE FOOTAGE

DESCRIPTION OF AREA	AREA IN ft2
Area	Not Placed
	0 SF
BASEMENT STAIRS	360 SF
FIRST FLOOR	1759 SF
DECK	189 SF
COVERED PATIO	30 SF
SECOND FLOOR	2020 SF
CONDITION	4358 SF
BASEMENT / GARAGE	992 SF
MECH ROOM	123 SF
EXTERIOR PATIO	681 SF
UNCODITION	1796 SF
GROSS AREA: 9	6154 SF

DESIGN CRITERIA: 2 STORY

GROUND SNOW LOAD	40 PSF
ROOF DEAD LOAD	16 PSF
1ST FLOOR LIVE LOAD	40 PSF
1ST FLOOR DEAD LOAD	12 PSF
2ND FLOOR LIVE LOAD	40 PSF
2ND FLOOR DEAD LOAD	12 PSF
DECK LIVE LOAD	60 PSF
DECK DEAD LOAD	10 PSF
BASIC WIND SPEED (FASTEST MILE)	98 MPH
EXPOSURE CATEGORY	B
SEISMIC ZONE	D
CLIMATE ZONE	8A
SITE ELEVATION	>5000 FT.

GENERAL NOTES:

1. ALL MATERIALS ORDERED FROM LINDAL CEDAR HOMES (LCH) ARE OUTLINED IN THE DESIGN SPECIFICATION SHEET (DSS).
2. THESE PLANS MAY CONTAIN PART NUMBERS AND/OR REFERENCES TO MATERIALS THAT MAY NOT BE INCLUDED IN THIS HOME PACKAGE.
3. THE DSS OVERRIDES THE PLANS IN DETERMINING WHAT MATERIALS ARE PROVIDED BY LCH.
4. FRAMING NAILS ARE NOT INCLUDED IN THE LINDAL PACKAGE UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE BEFORE AUTHORIZATION TO SHIP HAS BEEN GIVEN.
5. NAIL CALLOUTS AND PART NUMBERS ARE FOR REFERENCE ONLY.
   ANY DISCREPANCIES BETWEEN THE ARCHITECTURAL (LINDAL) DRAWINGS AND THE STRUCTURAL DRAWINGS BY AN ENGINEERING CONTRACTOR, IN REGARDS TO THE STRUCTURAL ELEMENTS, THE STRUCTURAL DRAWINGS WILL SUPERCEDE.

CITY STAMP

JOB CAPTAIN

LINDAL CEDAR HOMES

MARLON NERIO

ADDRESS:	6840 FORT DENT WAY SUITE 220 SEATTLE, WA 98188
PHONE:	206-657-6834
EMAIL:	marlonn@lindal.com

LINDAL INDEPENDENT DEALER

WARM MODERN LIVING

TANYA NACHIA & MICHAEL HARRIS

ADDRESS:	688 110TH AVE NE UNIT #S613 BELLEVUE WA 98004
PHONE:	206 214 51 90
EMAIL:	TANYA@WAMMODERNLIVING.COM

STRUCTURAL ENGINEER

QUANTUM CONSULTING ENGINEERS, LLC

SANDRO KODAMA

ADDRESS:	1511 3RD AVE, SUITE 323 SEATTLE, WA 98101
PHONE:	206-957-3907
EMAIL:	skodama@quatumce.com

CODE INFORMATION

ALL CONSTRUCTION SHALL COMPLY WITH:

2018 IRC
2018 CODE FOR ONE AND TWO FAMILY DWELLINGS
STATE BUILDING CODE
INTERNATIONAL ENERGY CODE
ALL SUBSEQUENT AMENDMENTS

PERMIT DEFERRED SUBMITTAL

MECHANICAL
PLUMBING
CIVIL
LANDSCAPING
ELECTRICAL

LAST PLOT DATE: 4/10/2024 12:20:19 PM

ARCH D 24" x 36"

1 - GENERAL NOTES:

A. DETAILS AND NOTES SHOWN ON THIS SHEET ARE TYPICAL AND SHALL APPLY UNLESS OTHERWISE SHOWN OR NOTED ON PLANS. DETAILS ON CONSTRUCTION PLANS NOT FULLY SHOWN SHALL BE OF THE SAME NATURE AS THOSE SHOWN FOR SIMILAR CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES AND OTHER RELATED ITEMS ON THIS JOB.
B. ALL CONSTRUCTION SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
C. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL PERTINENT SECTIONS, AS THEY APPLY TO THE PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE JURISDICTION IN WHICH CONSTRUCTION IS TAKING PLACE, INCLUDING ALL OSHA REQUIREMENTS. LINDAL CEDAR HOMES DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTORS FAILURE TO COMPLY WITH THESE REQUIREMENTS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS, BRACING AND SHORING REQUIRED. THE CONTRACTOR SHALL PROVIDE ADEQUATE STAYS AND BRACING OF ALL FRAMING UNTIL ALL ELEMENTS OF THE DESIGN HAVE BEEN INCORPORATED INTO THE PROJECT.
E. IN CRAWL SPACES, MAINTAIN A MINIMUM OF 18" (457MM) CLEARANCE UNDER FLOOR JOISTS AND 12" (305MM) UNDER BEAMS AND GIRDERS.
F. INDIVIDUAL CONCRETE PIERS SHALL PROJECT AT LEAST 8" (203MM) ABOVE EXPOSED GROUND UNLESS THE POST IS TREATED OR OF WOOD WHICH IS NATURALLY RESISTANT TO DECAY.
G. ALL WOOD, INCLUDING POSTS WITHIN 6" (152MM) OF THE GROUND SHALL BE PRESSURE TREATED OR FOUNDATIONS GRADE CEDAR OR REDWOOD.
H. STAIRWAYS - RISE, 4" (102MM) MIN. AND 7 3/4" (197MM) MAX.; RUN 10"(254MM) MIN.; HEADROOM 6'-8" (2032MM) MIN. MEASURED VERTICALLY FROM THE PLANE ADJOINING THE TREAD NOSING; WIDTH 36" (914MM) MIN. CLEAR ABOVE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT.
I. ENCLOSED SPACE UNDER STAIRS SHALL BE ONE HOUR FIRE-RATED CONSTRUCTION.
J. STAIRWAYS WITH FOUR OR MORE RISERS REQUIRE A HANDRAIL ON AT LEAST ONE SIDE, WHICH SHALL BE 34" TO 38" (864MM TO 965MM), MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING. HANDRAIL SUPPLIED BY OTHERS UNLESS NOTED OTHERWISE.
K. COMMON WALLS AND CEILING BETWEEN GARAGE AND DWELLING AND ANY OTHER GARAGE WALL IF SUPPORTING A FLOOR OVER THE GARAGE SHALL HAVE 5/8" (16MM) TYPE "X" GYPSUM WALL BOARD ON THE GARAGE SIDE. A MIN. 1 3/8" (35MM) TIGHT FITTING SOLID CORE DOOR WITH SELF CLOSER IS REQUIRED BETWEEN THE GARAGE AND THE DWELLING.
L. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENING (VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
M. COLUMNS, POSTS AND BEAMS SUPPORTING A SECOND STORY OVER A GARAGE SHALL BE PROTECTED WITH ONE HOUR FIRE-RATED CONSTRUCTION.
N. APPLIANCES INSTALLED IN GARAGE WHICH GENERATE A SPARK, GLOW OR FLAME SHALL BE LOCATED 18" (457MM) ABOVE THE FLOOR.
O. BATH AND LAUNDRY ROOMS REQUIRE OPERABLE WINDOWS EQUAL TO 1/20TH OF THE FLOOR AREA WITH A MIN. 1.5 SF (0.14 SM) OR MECHANICAL VENTILATION.
P. TEMPERED GLASS SHALL BE PROVIDED AT ALL HAZARDOUS LOCATIONS.
Q. RECEPTACLE OUTLETS SHALL BE INSTALLED 6'-0" (1829MM) FROM CORNERS, 12'-0" (3658MM) O.C. MAX. AND ON ANY WALL 24" (610MM) OR WIDER. IN KITCHEN AND DINING AREAS, COUNTERS WIDER THAN 12" (305MM) REQUIRE A RECEPTACLE OUTLET.
R. ALL RECEPTACLE OUTLETS INSTALLED OUTDOORS SHALL BE IN A WEATHERPROOF ENCLOSURE AND HAVE APPROVED GROUND FAULT INTERRUPTER CIRCUIT (GFI) PROTECTION. ONE SUCH EXTERIOR OUTLET IS REQUIRED.
S. PROVIDE GFI PROTECTION FOR RECEPTACLES IN BATHROOMS AND GARAGES. GFI PROTECTION IS ALSO REQUIRED FOR NON DEDICATED COUNTER RECEPTACLES WITHIN 6'-0" (1829MM) OF THE KITCHEN SINK.

2 - LUMBER:

A. 2X FRAMING LUMBER IS KD #2 OR BETTER SPF (SPRUCE, PINE, FIR).
B. 4X FRAMING LUMBER IS #2 OR BETTER DF (DOUGLAS FIR).
C. FLOOR SHEATHING OPTIONS (SEE PLANS FOR TYPE):
   1) 3/4" (19MM) T&G, O.S.B. APA RATED STURD-I-FLOOR UNDERLAYMENT GRADE SHEATHING.
   2) 23/32" (18MM) T&G, O.S.B. APA RATED STURD-FLOOR UNDERLAYMENT GRADE SHEATHING.
   3) SELECT GRADE SPF 2X6 DOUBLE T&G DECKIN WITH 1/2" (13MM) CCX PLYWOOD UNDERLAYMENT, APA INDEX 24/0.
D. WALL SHEATHING OPTIONS (SEE PLANS FOR TYPE):
   1) 1/2" (13MM) CDX PLYWOOD, APA INDEX 32/16.
   2) 15/32" (12MM) O.S.B., APA INDEX 32/16.
E. ROOF SHEATHING OPTIONS (SEE PLANS FOR TYPE):
   1) 1/2" (13MM) CDX PLYWOOD, APA INDEX 32/16.
   2) 15/32" (12MM) O.S.B., APA INDEX 32/16.
   3) 5/8" (16MM) CDX PLYWOOD, INDEX 40/20.
   4) 3/4" (19MM) CDX PLYWOOD, INDEX 48/24.
F. SIDING OPTIONS (SEE PLANS FOR TYPE):
   1) KD 1X6 T&G, TK CEDAR, VERTICAL SIDING
   2) KD 1X8, TK CEDAR, ROUGH SAWN, HORIZONTAL BEVEL SIDING
   3) EMBOSSED COMPOSITE, HORIZONTAL LAP SIDING
   4) KD 1X8 T&G, TK CEDAR, HORIZONTAL SIDING
   5) KD 1X8 T&G, TK CEDAR, LOG LOOK HORIZONTAL SIDING
G. ROOF AND LOFT FLOOR BEAMS ARE DF/WESTERN LARCH HORIZONTAL GLUE LAMINATED, COMBINATION SYMBOL 24F-V8 (FB=2400). BEAM SCHEDULE PER PLAN WITH STANDARD DEAD LOAD CAMBER.
H. BUILT-UP BEAMS ARE KD #2 OR BETTER SPF. SCHEDULE PER PLAN. #4"19 = 2X10, #481 = 2X12.
I. EXTERIOR DECK FRAMING IS #2 OR BETTER CEDAR FOR 2X8, LARGER SIZES ARE BROWNTONE (PRESSURE TREATED) #2 OR BETTER, HEM/FIR.
J. CONCEALED POSTS ARE ENGINEERED WOOD, SPF #2
K. EXPOSED POSTS ARE DF GLUE LAMINATED, COMBINATION SYMBOL #2.
L. SPECIFICATIONS SHOWN MAY VARY DUE TO AVAILABILITY OR OPTIONS PURCHASED. PLANS TAKE PRECEDENCE. EQUIVALENT OR HIGHER SPECIFICATIONS MAY BE SUBSTITUTED AS NECESSARY.

3 - CONCRETE:

A. CONCRETE SHALL ATTAIN A 28 DAY STRESS OF FC-2000 PSI (13793 KN/SM) MIN. MIX SHALL CONTAIN NOT LESS THAN 5 SACKS CEMENT PER CUBIC YARD AND NOT MORE THAN 7 1/2 GAL. (28.4 LT) OF WATER PER SACK OF CEMENT. MAX. SLUMP SHALL BE 4" (102MM), AGGREGATE SIZE SHALL BE COMPATIBLE WITH POURING, PLACING AND FINISHING CONDITIONS.
B. ALL CONCRETE SHALL CONFORM WITH REQUIREMENTS OF THE LATEST EDITION OF THE ACI CODE.
C. REMOVE ALL DEBRIS FROM FORMS BEFORE POURING CONCRETE. NO WOOD SPREADERS OR WOOD STAKES SHALL BE USED IN AREAS TO BE CONCRETED.
D. CONSTRUCTION JOINTS SHALL BE ROUGHENED AND ALL LAITANCE REMOVED FROM SURFACE. CONCRETE MAY BE ROUGHENED BY CHIPPING THE ENTIRE SURFACE, SAND BLASTING OR HOSING THE ENTIRE SURFACE 4 TO 6 HOURS AFTER THE POUR WITH A FINE WATER SPRAY.
E. CONCRETE WALLS, PIERS OR COLUMNS SHALL SET AT LEAST 2 DAYS BEFORE PLACING BEAMS, SPANDRELS OR SLABS SUPPORTED THEREON.
F. ALL FRAMEWORK SHALL REMAIN IN PLACE FOR THE PERIODS OF TIME SPECIFIED IN THE ACI CODE AS A MIN.
G. ALL CONCRETE SHALL BE CURED BY AN APPROVED METHOD.
H. FOLLOW ALL ACI RECOMMENDATIONS FOR PLACING AND CURING CONCRETE DURING HOT OR COLD WEATHER CONDITIONS.

4 - BUILDER TIPS:

A. PLYWOOD AND OSB SHOULD BE INSTALLED WITH 1/8" (3MM) SPACING AT ALL END AND EDGE JOINTS UNLESS OTHERWISE INDICATED BY PANEL MANUFACTURER.
B. ALWAYS STAGGER END JOINTS WHEN INSTALLING PLYWOOD OR OSB PANELS.
C. PROVIDE ADEQUATE VENTILATION AND USE GROUND CONTROL VAPOR RETARDER IN CRAWL SPACE. PANELS MUST BE DRY BEFORE INSTALLING FINISHED FLOOR.
D. WHEN USING A GLUED FLOOR SYSTEM, SPREAD ENOUGH GLUE TO LAY ONLY 1 OR 2 PANELS AT A TIME. TO INSURE THE PANELS WILL BE FIRMLY AND PERMANENTLY SECURED TO JOISTS, WIPE AWAY WATER, DUST AND DEBRIS BEFORE APPLYING GLUE.
E. APPLY GLUE (ABOUT 1/4" (6MM) DIAMETER BEAD) TO FRAMING MEMBERS IN A CONTINUOUS LINE, OR IN A SERPENTINE PATTERN IN WIDE AREAS. BE CERTAIN TO GLUE ALL T&G JOINTS. SPREAD GLUE IN JOINTS. AVOID SQUEEZE-OUT BY APPLYING A THINNER LINE (ABOUT 1/8" (3MM)) ON JOISTS.
F. COMPLETE ALL NAILING OF EACH PANEL BEFORE THE GLUE SETS OR SKINS OVER. CHECK GLUE MANUFACTURERS RECOMMENDATIONS FOR ALLOWABLE TIME. REMEMBER, WARM WEATHER ACCELERATES GLUE SETTING.
G. CATHEDRAL CEILINGS CAN BE PRONE TO MOISTURE PROBLEMS IF NOT CONSTRUCTED PROPERLY. DURING CONSTRUCTION, A VAPOR RETARDER MUST BE APPLIED TO THE WARM-IN-WINTER SIDE OF THE INSULATION. PROPER INSTALLATION OF THE INSULATION LEAVES A 2" (51MM) AIRSPACE BETWEEN THE INSULATION AND THE ROOF DECK FOR VENTILATION. TO BE OF VALUE, THIS AIRSPACE MUST HAVE VENT OPENINGS AT BOTH THE RIDGE AND THE EAVES.
H. CATHEDRAL CEILING INSULATION BATTS FIT SNUGLY BETWEEN THE CEILING RAFTERS. CARE MUST BE TAKEN WHEN INSTALLING SO THE BATTS REMAIN FLUSH WITH THE LOWER FACE OF THE RAFTERS TO MAINTAIN A PROPER 2" (51MM) AIRSPACE.
I. CEDAR SIDING MUST BE ALLOWED TO ACCLIMATE TO ITS ENVIRONMENTAL SURROUNDINGS BEFORE INSTALLING. SEE PRODUCT END CAPS FOR INSTRUCTIONS.
J. WITH CAREFUL PLANNING, JOINTS IN THE SIDING CAN BE MINIMIZED. WHERE JOINTS OCCUR, CUT A 30 DEGREE SCARF JOINT.
K. ALL CEDAR SIDING SHOULD BE BACK COATED AND ALL END GRAIN SHOULD BE THOROUGHLY COATED WITH FINISH.
L. ALL WOOD WINDOWS MUST RECEIVE A THOROUGH COAT OF FINISH BEFORE INSTALLATION.

5 - ACQ FASTENER REQUIREMENTS:

A. ALL TREATED LUMBER INCLUDED IN YOUR HOME IS TREATED WITH ACQ (ALKALINE, COPPER, QUAT). ACQ IS A CORROSIVE MATERIAL AND THEREFORE THE TYPE AND QUALITY OF CONNECTORS, FASTENERS, WASHERS, FLASHING AND OTHER METALS THAT COME INTO CONTACT WITH THE TREATED LUMBER IS VERY IMPORTANT. TO PREVENT ELECTROLYSIS, ALWAYS MATCH METAL COMPONENTS WITH FASTENERS THAT ARE COMPATIBLE.
B. ALL CONNECTORS THAT COME INTO CONTACT WITH TREATED MATERIALS ARE TO BE SIMPSON STRONG-TIE G185 Z-MAX, HDG (HOT DIP GALVANIZED) OR SST300 (STAINLESS STEEL) OR EQUIVALENT.
C. HOT DIPPED GALVANIZED FASTENERS ARE TO BE USED WITH G185 Z-MAX AND HDG CONNECTORS AND STAINLESS STEEL FASTENERS ARE TO BE USED WITH SST300 STAINLESS STEEL CONNECTORS. DO NOT USE STAINLESS STEEL FASTENERS WITH G185 Z-MAX OR HDG CONNECTORS. LIKEWISE, DO NOT USE HOT DIPPED FASTENERS WITH SST300 STAINLESS STEEL CONNECTORS.
D. ALL ANCHOR BOLTS, WASHERS AND NUTS ARE TO BE HOT DIPPED GALVANIZED.
E. HOT DIPPED GALVANIZED OR STAINLESS STEEL NAILS OR STAPLES MUST BE USED WHEN FASTENING THE SHEATHING INTO THE TREATED MUD SILL. MECHANICALLY GALVANIZED OR ELECTROPLATED GUN NAILS ARE NOT APPROPRIATE IN THIS SITUATION.
F. FLASHING THAT COMES INTO CONTACT WITH TREATED MATERIALS MUST BE COPPER OR STAINLESS STEEL. USE THE APPROPRIATE FASTENERS FOR THE FLASHING MATERIAL CHOSEN.
G. USE HOT DIPPED GALVANIZED OR STAINLESS STEEL FASTENERS WHEN FASTENING DECKING TO TREATED MATERIAL.

6 - FLASHING:

APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENETS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS.
3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.
5. WHERE EXTERIOR PORCHES, DECKS,OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
6. AT WALL AND ROOF INTERSECTIONS.
7. AT BUILT-IN GUTTERS.

7 - WINDOWS:

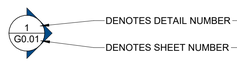
A. DIMENSIONS ARE ACTUAL OUTSIDE UNIT DIMENSIONS.
B. ROUGH OPENING ALLOWS FOR 1/2" GAP AT EACH SIDE OF WINDOW.
C. SHIM BOTH SIDES AND BOTTOM. DO NOT SHIM TOP OF WINDOW.
D. NAIL FLANGE ON BOTH SIDES AND BOTTOM. DO NOT NAIL FLANGE ON TOP OF WINDOW.
E. A PERIODIC APPLICATION OF A SILICON SPRAY IS REQUIRED FOR ALL MOVING PARTS AND VINYL FOR WEATHER PROTECTION.
F. A WOODLIFE PRESERVATIVE OR STAIN IS TO BE APPLIED TO WOOD WINDOWS PRIOR TO INSTALLATION.
G. ALL WINDOWS AS VIEWED FROM EXTERIOR.
H. WINDOWS LABELED "EGRESS" MEET I.R.C. EGRESS REQUIREMENTS
I. FOR WINDOW R.F.O. HEIGHT SEE SCHEDULE.
J. NOTCH SIDING SO FLASHING ABOVE WINDOWS CAN EXTEND A MIN. OF 1/2" BEYOND FRAME EDGES.
K. WINDOWS COME WITH FOAM SEALER (754-A), CAULKING (754-U) AND WINDOW FLASHING (SEE DETAILS).

8 - ABBREVIATIONS:

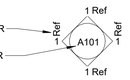
ABV	ABOVE
AVB	AIR / VAPOUR BARRIER
ALUM	ALUMINUM
BO	BY OTHERS
BU	BUILD UP
C/W	COMPLETE WITH
CONC	CONCRETE
DF	DOUGLAS FIR
DTP	DOUBLE TOP PLATE
EQ	EQUAL
FO	FACE OF
FD	FLOOR DRAIN
FIN	FINISH
FLR	FLOOR
FRR	FIRE RESISTANCE RATING
GLB	GLUE LAMINATED BEAM
GALV	GALVANIZED
HGL	HORIZONTAL GLUE LAMINATED
ID	IDENTIFICATION
KD	KILN DRIED
LCH	LINDAL CEDAR HOMES
LSL	LAMINATED STRAND LUMBER (TIMBER STRAND)
LVL	LAMINATED VENEER LUMBER (MICROLLAM)
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
o.c.	ON CENTER
OS	OUTSIDE
OSB	ORIENTED STRAND BOARD
PA	POST ABOVE
PET	PRECISION END TRIM
PSL	PARALLEL STRAND LUMBER (PARALLAM)
PT	PRESSURE TREATED
QTY	QUANTITY
RC	RECUT
RD	ROOF DRAIN
RO	ROUGH OPENING
REQ'D	REQUIRED
RM	ROOM
SPF	SPRUCE, PINE, FIR
SIM	SIMILAR
SPEC	SPECIFICATION
STOR	STORAGE
T&G	TONGUE AND GROOVE
TJI	TRUSS JOIST INTERNATIONAL
T/O	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE OF
VB	VAPOUR BARRIER
W/	WITH
W/O	WITHOUT
WD	WOOD

9 - LCH STANDARD MARKS & SYMBOLS:

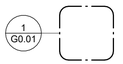
EXTERIOR ELEVATION



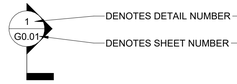
INTERIOR ELEVATION



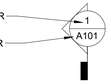
DETAIL CALLOUT



BUILDING SECTION



WALL SECTION



FLOOR / FRAMING / CEILING SYMBOLS

SD	SMOKE DEDECTOR
CM	CARBON MONOXIDE
HD	HEAT DETECTOR
	LIGHT FIXTURE
	LIGHT EXHAUST FAN
	EXHAUST FAN
FD	FLOOR DRAIN
	DECK TENSION TIE
	CONCEALED CONNECTOR
	JOIST / BEAM HANGER
L	FRAMING ANGLE
	CENTERLINE
	SPAN DIRECTION

LEVEL DATUM

NAME ELEVATION

GRID HEADS

0

STANDARDS TAGS

D# — DOOR TAG
W# — WINDOW TAG
1 — REVISION TAG
W1 — EXTERIOR WALL TAG
P1 — INTERIOR WALL TAG
F#### — FLOOR TAG
R#### — ROOF TAG
C#### — CEILING TAG
F-XXX # — EXTERIOR MATERIAL FINISH
XXX##.# — KEYNOTES
X.X##.# — KEYNOTES

AREA & FRAMING TAGS

ROOM NAME
ROOM #
SQUARE FOOT

ROOM NAME
ROOM #
CEILING LINER

LCH POST PART #-HEIGHT COMMENT
POINT LOAD lb

EXAMPLE OF STRUCTURAL MEMBER TAG:
(2)-419-8, MEANING:
(# OF PLY)-LCH PART#-PRE CUT LENGTH

LCH STRUCTURAL CONNECTION PART #CODE1 COMMENT

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

GENERAL NOTES

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

G001

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:17 PM

CONSTRUCTION ASSEMBLIES:

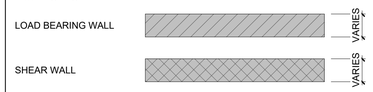
WALL SYSTEMS:

GENERAL NOTES FOR ELEMENTS DESIGN HOMES:

- THE DSS OVERRIDES THE PLANS IN DETERMINING WHAT MATERIALS ARE PROVIDED BY LCH.
- FOR FIRST FLOOR AND GARAGE SPACES, TYPICAL FINISHED FLOOR TO CEILING HEIGHT ARE 9' - 6".
- EAVE WALL HEIGHT AT WINGS ARE 9' - 6".
- EXTERIOR WALL CONSTRUCTION SHALL BE FRAMED WITH 2x6 STUDS @ 16" o.c. PROVIDED WITH DOUBLE TOP PLATE.
- *INSULATION ARE PROVIDED BY OTHERS AND DESIGNED PER CLIMATE ZONE.*
- SHEATHING WILL BE AS DESCRIBED AS PER WALL ASSEMBLY.
- RAINSCREEN WILL NOT BE PROVIDED UNLESS NOTED OTHERWISE.
- EXTERIOR FINISH AS PER DESIGN SHEET SPECIFICATIONS.
- INTERIOR PARTITIONS SHALL BE FRAMED WITH 2x4 / 2x6 @ 24" o.c. UNLESS NOTED OTHERWISE.

WALL LEGEND:

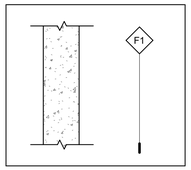
NOTE:
BELOW FILL PATTERN REPRESENT A LOADBEARING / SHEAR WALL ON PLANS AND SECTIONS VIEWS. REFER TO LEGEND FOR WALL TYPES AND FRAME SIZES



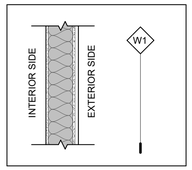
PLAN LEGEND:

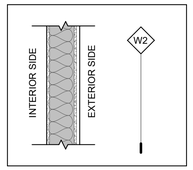
NOTE:
BELOW FILL PATTERN REPRESENT AN EXPOSED GLULAM BEAM

FOUNDATION:

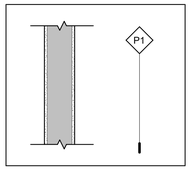


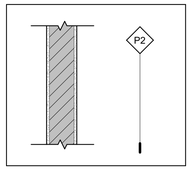
EXTERIOR:

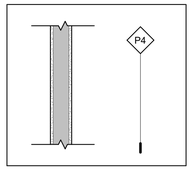


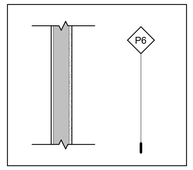


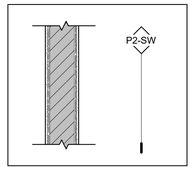
INTERIOR:



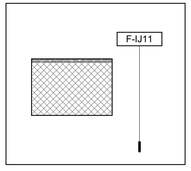




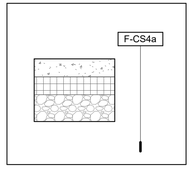


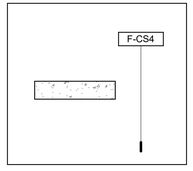


FLOOR SYSTEMS:

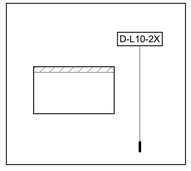


SLAB ON GRADE:

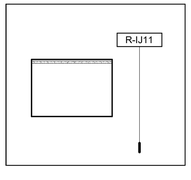


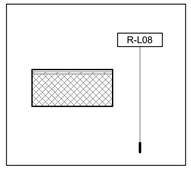


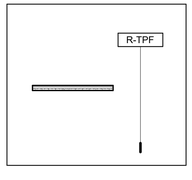
AT DECK AND PORCH:



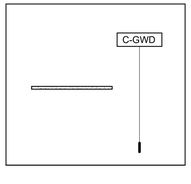
ROOF SYSTEMS:







CEILING FINISHES:



ASSEMBLY SCHEDULES:

FOUNDATION WALL ASSEMBLIES

TYPE	CONSTRUCTION SYSTEM
F1	• 8" CONCRETE FOUNDATION WALL THICKNESS AS PER STRUCTURAL DESIGN

EXTERIOR WALL ASSEMBLIES

TYPE	CONSTRUCTION SYSTEM
W2	• SIDING 11/6 X 6- BEVEL T.K ROUGH CEDAR • 1/2" PLYWOOD SHEATING • 2x6 STUD @ 16" o.c. W/ DOUBLE TOP PLATE • INSULATION BY OTHERS R-21 MIN • 5/8" GYPSUM WALL BOARD, BY OTHERS
W2-CP	• COMPOSITE SMOOTH PANEL W/ EZ TRIM 4X10 • 1/2" PLYWOOD SHEATING • 2x6 STUD @ 16" o.c. W/ DOUBLE TOP PLATE • INSULATION BY OTHERS MIN R-21 • GYPSUM WALL BOARD, BY OTHERS
W2-SW	• SIDING 11/6 X 6- BEVEL T.K ROUGH CEDAR • 1/2" PLYWOOD SHEATING • 2x6 STUD @ 16" o.c. W/ DOUBLE TOP PLATE • INSULATION BY OTHERS R-21 MIN • 15/32" OSB SHEAR WALL • 5/8" GYPSUM WALL BOARD, BY OTHERS

INTERIOR WALL ASSEMBLIES

TYPE	CONSTRUCTION SYSTEM
P1	• 5/8" GYPSUM WALL BOARD, BY OTHERS • 2x6 SPF OR DF STUD @ 24" o.c. W/ SINGLE TOP PLATE • 5/8" GYPSUM WALL BOARD, BY OTHERS
P2	BEARING WALL • 5/8" GYPSUM WALL BOARD, BY OTHERS • 2x6 SPF OR DF STUD @ 16" o.c. W/ DOUBLE TOP PLATE • 5/8" GYPSUM WALL BOARD, BY OTHERS
P2-SW	BEARING WALL • 1/2" GYPSUM WALL BOARD, BY OTHERS • 15/32" OSB SHEATING (SW) • 2x6 SPF OR DF STUD @ 16" o.c. W/ DOUBLE TOP PLATE • 15/32" OSB SHEATING (SW) • 1/2" GYPSUM WALL BOARD, BY OTHERS
P4	• 5/8" GYPSUM WALL BOARD, BY OTHERS • 2x4 SPF OR DF STUD @ 24" o.c. W/ SINGLE TOP PLATE • 5/8" GYPSUM WALL BOARD, BY OTHERS
P6	• 5/8" GYPSUM TYPE X WALL BOARD, BY OTHERS • 2x4 SPF OR DF STUD @ 24" o.c. W/ SINGLE TOP PLATE • 1/2" AIR SPACE

FLOOR ASSEMBLIES

TYPE	CONSTRUCTION SYSTEM
D-L10-2x	• AZEK MAHOGANY 5.5" COMPOSITE • SUBFLOOR, 23/32" T&G OSB, SHEATHING • 2x10 P.T SPF @ 16" o.c. • TAPERED TO DRAIN
D-L12-2x	• FINISH FLOOR BY OTHERS • SUBFLOOR, 23/32" T&G OSB, SHEATHING • 2x12 P.T SPF @ 16" o.c.
F ij11 - .125	• FLOOR FINISH MATERIAL AS PER DSS • SUBFLOOR, 1 1/8" PLYWOOD • 11 7/8" WOOD "I" JOIST @ 16" o.c. • INSULATION MIN R-30, BY OTHERS
F-CS4	• CONCRETE FINISHED SURFACE • 4" CONCRETE SLAB, REINFORCEMENT PER ENGINEERING • R-10 INSULATION
F-CS4T	• CONRETE FINISHED SURFACE • 4" CONCRETE SLAB, REINFORCEMENT PER ENGINEERING • THICKENED SLAB EDGE PER ENGINEER
F-IJ11	• FLOOR FINISH MATERIAL AS PER DSS • SUBFLOOR, 3/4" PLYWOOD • 11 7/8" WOOD "I" JOIST @ 16" o.c • INSULATION, MIN R-30 BY OTHERS

ROOF ASSEMBLIES

TYPE	CONSTRUCTION SYSTEM
R-IJ11	• ROOFING MEMBRANE, BY OTHERS • MOISTURE CONTROL LAYER, BY OTHERS • 15/32" PLYWOOD SHEATHING • 11 7/8" WOOD "I" JOIST/RAFTER @ 16" o.c. • INSULATION MIN R-49, BY OTHERS
R-L8	• ROOFING MEMBRANE, BY OTHERS • 15/32" PLYWOOD SHEATING • 2x8 SPF @ 16" o.c. • INSULATION MIN R-49, BY OTHERS
R-L08	• ROOFING MEMBRANE, BY OTHERS • 15/32" OLYWOOD SHEATHING • 2X8 SPF @16" • INSULATION MIN R-49, BY OTHERS
R-TPF	• ROOFING MEMBRANE, BY OTHERS • TAPERED FOAM BY OTHERS - EDPM (N.I.C) •1/4:12 SLOPE FOR DRAINAGE PLANE

CEILING FINISHES

TYPE	CONSTRUCTION SYSTEM
C-GWB	• 1HR- FIRE RATED CEILING 5/8" GYPSUM BOARD TYPE "X" BY OTHERS

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

CONSTRUCTION ASSEMBLIES

Scale: 3/4" = 1'-0"

G002

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:19 PM

1 - 2018 IRC - TABLE R602.3(1) FASTENING SCHEDULE:

EXTERIOR WALL OF WOOD-FRAMED CONSTRUCTION SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 6 OF THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AND FIGURE R602.3(1) AND R602.3(2), OR IN ACCORDANCE WITH AWC NDS.

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
ROOF			
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8d (2 1/2" x 0.113"); or 3-8d COMMON (2 1/2" x 0.113"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS	TOE NAIL
2	CEILING JOIST TO PLATE	4-8d (2 1/2" x 0.113"); or 3-8d COMMON (2 1/2" x 0.113"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS	PER JOIST, TOE NAIL
3	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (SEE SECTION R802.5.2 AND TABLE R802.5.2)	4-10d BOX (3" x 0.128"); or 3-16d COMMON (3 1/2" x 0.162"); or 4-3" x 0.131" NAILS	FACE NAIL
4	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION R802.5.2 AND TABLE R802.5.2)	TABLE R802.5.2	FACE NAIL
5	COLLAR TIE TO RAFTER, FACE NAIL, OR 1 1/4" x 20ga. RIDGE STRAP TO RAFTER	4-10d BOX (3" x 0.128"); or 3-10d COMMON (3" x 0.148"); or 4-3" x 0.131" NAILS	FACE NAIL EACH RAFTER
6	RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS (3 1/2" x 0.135"); or 3-10d COMMON (3" x 0.148"); or 3-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS[i]
7	ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d (3 1/2" x 0.135"); or 3-10d COMMON (3" x 0.148"); or 3-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS	TOE NAIL
		3-16d BOX(3 1/2" x 0.135"); or 2-16d COMMON (3 1/2" x 0.162"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS	END NAIL

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
FLOOR			
21	JOIST TO SILL, TOP PLATE OR GIRDER	4-8d BOX (2 1/2" x 0.113"); or 3-8d COMMON (2 1/2" x 0.131"); or 3-10d BOX (3" x 0.128"); or 3-3" X 0.131" NAILS	TOE NAIL
22	RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 1/2" x 0.113")	4" o.c. TOE NAIL
		8d COMMON (2 1/2" x 0.131"); or 10d BOX (3" x 0.128"); or 3" x 0.131" NAILS	6" o.c. TOE NAIL
23	1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 1/2" x 0.113"); or 2-8d COMMON (2 1/2" x 0.131"); or 3-10d BOX (3" x 0.128"); or 2 STAPLES, 1" CROWN, 16ga., 1 3/4" LONG	FACE NAIL
24	2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 1/2" x 0.135"); or 2-16d COMMON (3 1/2" x 0.162")	BLIND AND FACE NAIL
25	2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	3-16d BOX (3 1/2" x 0.135"); or 2-16d COMMON (3 1/2" x 0.162")	AT EACH BEARING, FACE NAIL
26	BAND OR RIM JOIST TO JOIST	3-16d COMMON (3 1/2" x 0.162"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14ga. STAPLES, 7/16" CROWN	END NAIL
27	BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYER	20d COMMON (4" x 0.192"); or	NAIL EACH LAYER AS FOLLOWS: 32" o.c. AT TOP AND BOTTOM AND STAGGERED.
		10d BOX (3" x 0.128"); or 3" x 0.131" NAILS	24" o.c. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
		AND: 2-20d COMMON (4" x 0.192"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS	FACE NAIL AT ENDS AND AT EACH SPLICE
28	LEDGER STRIP SUPPORTING JOIST OR RAFTERS	4-16d BOX (3 1/2" x 0.135"); or 3-16d COMMON (3 1/2" x 0.162"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS	AT EACH JOIST OR RAFTER, FACE NAIL
29	BRIDGING OR BLOCKING TO JOIST	2-10d BOX (3" x 0.128"); or 2-8d COMM. (2 1/2" x 0.131"); or 2-3" x 0.131"; NAILS	EACH END, TOE NAIL

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
WALL			
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162")	24" o.c. FACE NAIL
		10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS	16" o.c. FACE NAIL
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS	12" o.c. FACE NAIL
		16d COMMON (3 1/2" x 0.162")	16" o.c. FACE NAIL
10	BUILT-UP HEADER, (2" TO 2" HEADER WITH 1/2" SPACER	16d COMMON (3 1/2" x 0.162")	16" o.c. EACH EDGE FACE NAIL
		16d BOX (3 1/2" x 0.135")	12" o.c. EACH EDGE FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8d BOX (2 1/2" x 0.113"); or 4-8d COMMON (2 1/2" x 0.131"); or 4-10d" BOX (3" x 0.128")	TOE NAIL
12	TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162")	16" o.c. FACE NAIL
		10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS	12" o.c. FACE NAIL
13	DOUBLE TOP PLATE SPLICE	8-16d COMMON (3 1/2" x 0.162"); or 12-16d BOX (3 1/2" x 0.135"); or 12-10d BOX (3" x 0.128"); or 12-3" x 0.131" NAILS	FACE NAILS ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162")	16" o.c. FACE NAIL
		16d BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS	12" o.c. FACE NAIL
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (AT BRACED WALL PANELS)	3-16d BOX (3 1/2" x 0.135"); or 2-16d COMMON (3 1/2" x 0.162"); or 4-3" x 0.131" NAILS	3 EACH 16" o.c. FACE NAIL 2 EACH 16" o.c. FACE NAIL 4 EACH 16" o.c. FACE NAIL
16	TOP OR BOTTOM PLATE TO STUD	4-8d BOX (2 1/2" x 0.113"); or 3-16d BOX (3 1/2" x 0.135"); or 4-8d COMMON (2 1/2" x 0.131"); or 4-10d BOX (3" x 0.128); or 4-3" x 0.131" NAILS	TOE NAIL
		3-16d BOX(3 1/2" x 0.135"); or 2-16d COMMON (3 1/2" x 0.162"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3" x 0.128"); or 2-16d COMMON (3 1/2" x 0.162"); or 3-3" x 0.131" NAILS	FACE NAIL
18	RAFTER OR ROOF TRUSS TO PLATE	3-8d BOX (2 1/2" x 0.113"); or 2-8d COMMON (2 1/2" x 0.131"); or 2-10d BOX (3" x 0.128"); or 2 STAPLES 1 3/4"	FACE NAIL
19	1" x 6" SHEATHING TO EACH BEARING	3-8d BOX (2 1/2" x 0.113"); or 2-8d COMMON (2 1/2" x 0.131"); or 2-10d BOX (3" x 0.128"); or 2 STAPLES, 1" CROWN, 16ga., 1 3/4" LONG	FACE NAIL
20	1" x 8" AND WIDER SHEATHING TO EACH BEARING	3-8d BOX (2 1/2" x 0.113"); or 2-8d COMMON (2 1/2" x 0.131"); or 3-10d BOX (3" x 0.128"); or 3 STAPLES, 1" CROWN, 16ga., 1 3/4" LONG	FACE NAIL
		WIDER THAN 1" x 8" 4-8d BOX (2 1/2" x 0.113"); or 3-8d COMMON (2 1/2" x 0.135"); or 3-10d BOX (3" x 0.128"); or 4 STAPLES, 1" CROWN, 16ga., 1 3/4" LONG	

ITEM	DESCRIPTION OF BUILDING ELEMENTS	DESCRIPTION OF FASTENER[a,b,c]	SPACING OF FASTENERS: EDGES[h]	SPACING OF FASTENERS: INTERMEDIATE SUPPORTS[c,e]
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING, AND PARTICLE BOARD WALL SHEATHING TO FRAMING [SEE TABLE R602.3(3) FOR WOOD STRUCTURAL PANEL EXTERIOR WALL SHEATHING TO WALL FRAMING]				
30	3/8" - 1/2"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL)[f] 8d COMMON (2 1/2" x 0.131") NAIL (ROOF); or RSRS-O1 (2 3/8" x 0.113") NAIL (ROOF)	6"	12"[f]
31	19/32" - 1"	8d COMMON NAIL (2 1/2" x 0.131"); or RSPS-01; (2 3/8" x 0.113") NAIL (ROOF)[j]	6"	12"[f]
32	1 1/8" - 1 1/4"	10d COMMON (3" x 0.148") NAIL or 8d (2 1/2" x 0.131") DEFORMED NAIL	6"	12"
OTHER WALL SHEATHING[g]				
33	1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL, 7/16"Ø HEAD, or 1 1/4" LONG 16ga. STAPLE WITH 7/16" or 1" CROWN	3"	6"
34	25/32" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 3/4" GALVANIZED ROOFING NAIL, 7/16"Ø HEAD, or 1 1/2" LONG 16ga. STAPLE WITH 7/16" or 1" CROWN	3"	6"
35	1/2" GYPSUM SHEATHING[d]	1 1/2" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1 1/2" LONG 1 1/4" SCREWS, TYPE W or S	7"	7"
36	5/8" GYPSUM SHEATHING[d]	1 3/4" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1 5/8" LONG 1 5/8" SCREWS, TYPE W or S	7"	7"
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING				
37	3/4" AND LESS	6d DEFORMED (2" x 0.120") NAIL or 8d COMMON (2 1/2" x 0.131") NAIL	6"	12"
38	7/8" - 1"	8d COMMON (2 1/2" x 0.131") NAIL or 8d DEFORMED (2 1/2" x 0.120") NAIL	6"	12"
39	1 1/8" - 1 1/4"	10d COMMON (3" x 0.148") NAIL or 8d DEFORMED (2 1/2" x 0.120") NAIL	6"	12"

a. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH (20d COMMON NAIL), 90 KSI FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.1777 INCH, AND 100 KSI FOR SHANK DIAMETER OF 0.142 INCH OR LESS.
b. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH ON DIAMETER CROWN WIDTH.
c. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.
d. FOUR-FOOT BY 8-FOOT OR 4-FOOT BY 9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
e. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).
f. FOR WOOD STRUCTRUAL PANEL ROOF SHEATHING ATTACHED TO GABLE END ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48 INCHES OF ROOF EDGES AND RIDGES, NAILS SHALL BE SPACED AT 6 INCHES ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN 130 mph AND SHALL BE SPACED 4 INCHES ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS 130 mph OR GREATER BUT LESS THAN 140 mph.
g. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C 208.
h. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING AND AT FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS NEED NOT BE PROVIDED EXCEPT AS REQUIRED BY OTHER PROVISIONS OF THIS CODE. FLOOR PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.
i. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE, PROVIDE TWO TOE NAILS ON ONE SIDE OF THE RAFTER AND TOE NAILS FROM THE CEILING JOIST TO TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE. THE TOE NAIL ON THE OPPOSITE SIDEOF THE RAFTER SHALL NOT BE REQUIRED.
j. RSRS-01 IS A ROOF SHEATHING RING SHANK NAIL MEETING THE SPECIFICATIONS IN ASTM F1667.

ENERGY CODE R402.1.1

Table R402.1.1—Insulation and fenestration requirements by component.

TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

Climate Zone	Fenestration *U*-Factor[b]	Skylight[b] *U*-Factor	Ceiling *R*-Value[g]	Wood Frame Wall[h] *R*-Value	Floor *R*-Value	Below-Grade[c, h] Wall *R*-Value	Slab[d, f] *R*-Value & Depth
5 and Marine 4	0.30	0.50	49	21 int	30	10/15/ 21int+5TB	10, 2 ft

For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.
[a] *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed *R*-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.
[b] The fenestration *U*-factor column excludes skylights.
[c] "10/15/21+5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21+5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "TB" means R-5 thermal break between floor slab and basement wall.
[d] R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
[e] For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R38 if the full insulation depth extends over the top plate of the exterior wall.
[f] R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
[g] For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for *climate zone* 5 of ICC 400.
[h] Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

2

2

SHEAR WALL STRUCTURAL NAILING TABLE PER CODE IRC 602.

COMPLETE INFORMATION FOR SHEAR WALL NAILING AND DETAILS REFER TO STRCUTURAL DRAWING SHEET S4.0

SHEAR WALL SCHEDULE

SHEAR WALL TYPE	SHEAR WALL SHEATHING (1)	PANEL EDGE FRAMING (2)(7)	PANEL EDGE NAILING (3)	BOTTOM PLATE ATTACHMENT: 2x BOTTOM PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW	BOTTOM PLATE ATTACHMENT: ANCHOR BOLTING OF SILL PLATE TO CONCRETE BELOW (4)(5) 3x PLATE	BOTTOM PLATE ATTACHMENT: ANCHOR BOLTING OF SILL PLATE TO CONCRETE BELOW (4)(5) 2x PLATE	TOP PLATE ATTACHMENT: RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE (6) INTERIOR WALL	TOP PLATE ATTACHMENT: RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE (6) EXTERIOR WALL
SW-6	15/32" APA ONE-SIDE SHTG.	2x	0.131"Ø x 2½" @ 6" O.C.	0.148"Ø x 3¼" @ 6" O.C. (4)	⅝"Ø @ 48" O.C.	⅝"Ø @ 48" O.C.	A35 (TBD-35) @ 16" O.C.	LTP4 (TBD-37) @ 16" O.C.
SW-4	15/32" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.131"Ø x 2½" @ 4" O.C. (5)	0.148"Ø x 3¼" @ 4" O.C. (4)	⅝"Ø @ 48" O.C.	⅝"Ø @ 32" O.C.	A35 (TBD-35) @ 16" O.C.	LTP4 (TBD-37) @ 16" O.C.
SW-2	15/32" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.131"Ø x 2½" @ 2" O.C. (8)	(2) ROWS 0.148"Ø x 3¼" @ 4" O.C. STAGGERED (10)	⅝"Ø @ 24" O.C.	⅝"Ø @ 16" O.C.	A35 (TBD-35) @ 8" O.C.	LTP4 (TBD-37) @ 8" O.C.
2SW-2	15/32" APA TWO-SIDES SHTG. (1)	3x	0.148"Ø x 3¼" @ 2" O.C. (8)	(2) ROWS 0.148"Ø x 3¼" @ 2" O.C. (12)	⅝"Ø @ 16" O.C. (12)	N/A	A35 (TBD-35) @ 8" O.C.	LTP4 (TBD-37) @ 8" O.C.

NOTES:
(1) INSTALL PANEL SHEATHING EITHER HORIZONTALLY OR VERTICALLY FOR THE ENTIRE LENGTH OF THE WALL PER PLAN. WALL STUD SPACING SHALL BE 16" O.C. MAXIMUM.
(2) ALL INTERMEDIATE WALL STUDS SHALL BE PER PLAN. PROVIDE BACKING FRAMING AT ALL PANEL EDGES INCLUDING HORIZONTAL BLOCKING PER THE SCHEDULE.
(3) PROVIDE NAILING TO ALL PANEL EDGES, TOP & BOTTOM PLATES AND HORIZONTAL BLOCKING. PROVIDE THE SAME NAILING PATTERN TO EACH MULTIPLE STUD OF THE BUILT-UP HOLD DOWN POST. NAIL PANEL TO INTERMEDIATE FRAMING MEMBERS w/ 0.131"Ø x 2½" @ 12" O.C.
(4) EMBED CAST-IN-PLACE 5/8"Ø ANCHOR BOLTS 7" MIN. (OR EMBED ADHESIVE ANCHOR BOLTS 5 1/2" IN (E) CONCRETE- SEE STRUCTURAL NOTES). PROVIDE PLATE WASHER 3" x 3" x 1/4" AT EACH ANCHOR BOLT. SILL PLATES SHALL BE TREATED PER GENERAL NOTES, AND SHALL BE 2x OR 3x PER THE SCHEDULE. SEE DETAIL 1/S4.0 FOR OTHER REQUIREMENTS.
(5) PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.
(6) PROVIDE 0.131"Ø x 1-1/2" LONG NAILS FOR CLIPS DIRECTLY ATTACHED TO FRAMING MEMBERS. PROVIDE 0.131"Ø x 2-1/2" LONG NAILS FOR CLIPS INSTALLED OVER FLOOR OR WALL SHEATHING ON FRAMING MEMBERS. SEE 6/S4.1 FOR TOP PLATE SPLICE.
(7) ALTERNATIVE TO 3x STUDS AND 3x HORIZ. BLOCKING IS (2) 2x STUDS/BLKG. NAILED TOGETHER WITH 0.148"Ø x 3" LONG NAILS WITH THE SAME SPACING AS THE PANEL EDGE NAILING PER THE SCHEDULE (STAGGER).
(8) STAGGER NAILS PER 2/S4.0.
(9) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1½". STAGGER NAILS PER 2/S4.0 WHERE SPACING IS LESS THAN 6" O.C.
(10) RIM JOIST/BLOCKING MINIMUM WIDTH OF 3". STAGGER NAILS PER 2/S4.0.
(11) STAGGER PANEL EDGE JOINTS AT DOUBLE-SIDED SHEAR WALLS SO THAT JOINTS ON OPPOSITE SIDES ARE NOT AT THE SAME STUD.
(12) STAGGER ANCHOR BOLTS ON EITHER SIDE OF SILL PLATE AS NOTED ON 1/S4.0.

PN
PROJECT NORTH

LINDAL DEALER
WARM MODERN LIVING

CLIENT
HOANG INTRACHAT

PROJECT ADDRESS
7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER
42255

SERIES

MODEL
CUSTOM ELEMENT HOME

BUILDING CODE NOTES

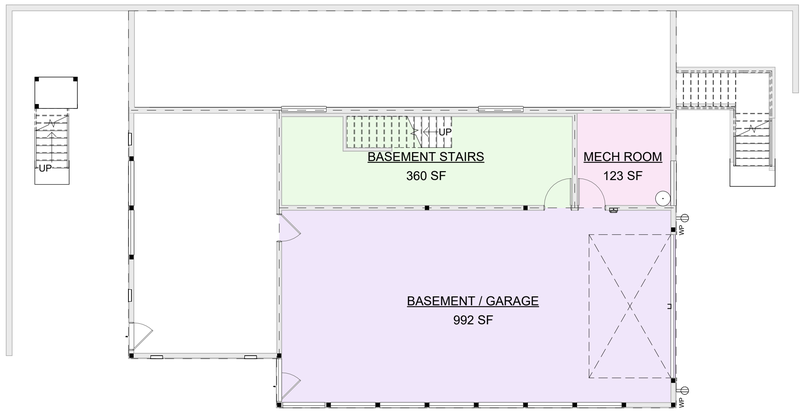
Scale:

G003

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:20 PM

FIRE RESISTANCE RATING LEGEND:

	20 MIN. FRR
	45 MIN. FRR
	60 MIN. FRR
	90 MIN. FRR
	120 MIN. FRR



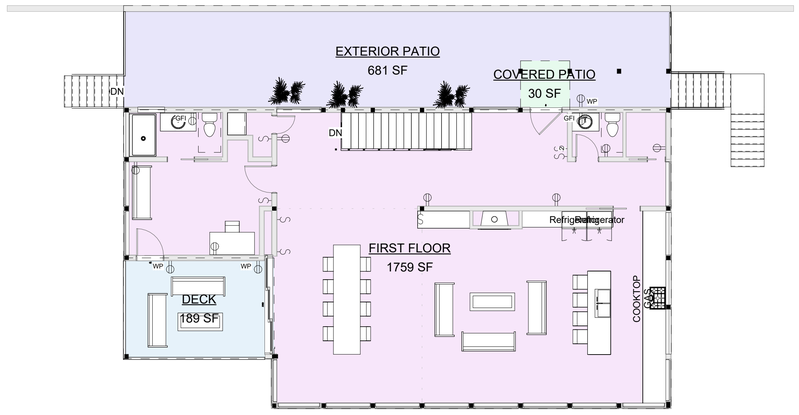
AREA COLOR LEGEND

- BASEMENT / GARAGE
- BASEMENT STAIRS
- MECH ROOM

2 G004 — 00 - BASEMENT AREA PLAN
1/8" = 1'-0"

AREA COLOR LEGEND

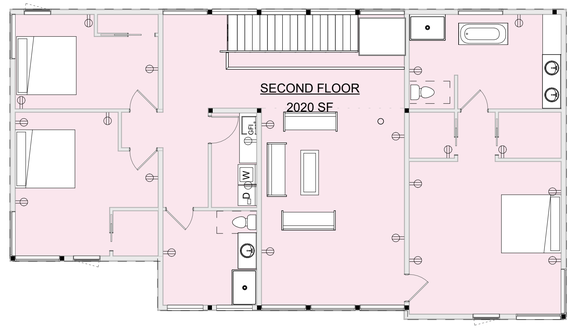
- COVERED PATIO
- DECK
- EXTERIOR PATIO
- FIRST FLOOR



1 G004 — FIRST FLOOR AREA PLAN
1/8" = 1'-0"

AREA COLOR LEGEND

- SECOND FLOOR



3 G004 — 02 - SECOND FLOOR AREA PLAN
1/8" = 1'-0"

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

AREA PLANS

Scale: 1/8" = 1'-0"

G004

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:24 PM

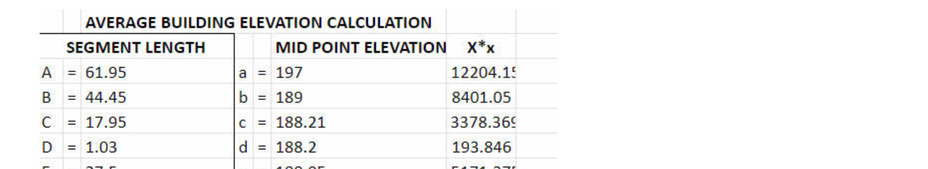
AVERAGE BUILDING ELEVATION CALCULATION						
SEGMENT LENGTH					MID POINT ELEVATION	X*x
A	=	61.95	a	=	197	12204.15
B	=	44.45	b	=	189	8401.05
C	=	17.95	c	=	188.21	3378.369
D	=	1.03	d	=	188.2	193.846
E	=	27.5	e	=	188.05	5171.375
F	=	5.46	f	=	188	1026.48
G	=	16.5	g	=	188	3102
H	=	37.95	h	=	189	7172.55
		212.79				40649.82

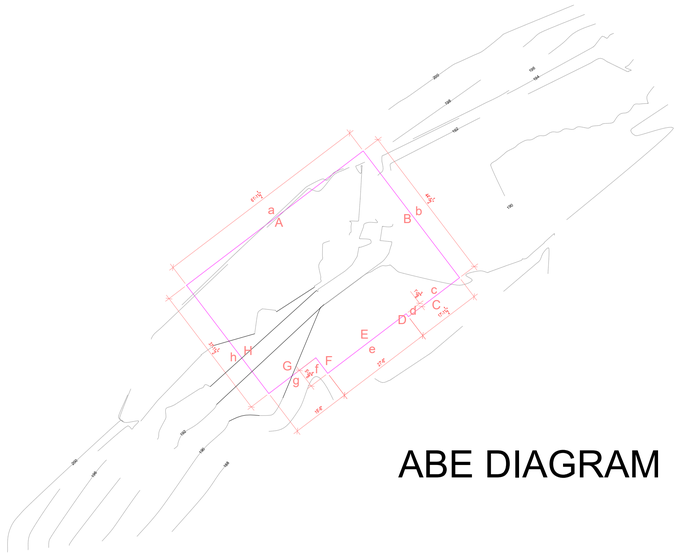
Formula 1:

$$\frac{40649.8205}{212.79} = \mathbf{191.03}$$

Allowable Building Height = 221.03

GFA DIAGRAMS





ABE DIAGRAM

1 G005 AVERAGE BUILDING HEIGHT
1" = 20'-0"

SITE PLAN LEGEND:

	PROPERTY LINE
	DWELLING SETBACK
	PROPOSED NEW ENTRANCE / EXIT DOOR
	GARAGE OVERHEAD DOOR

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
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ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

AVERAGE BUILDING HEIGHT

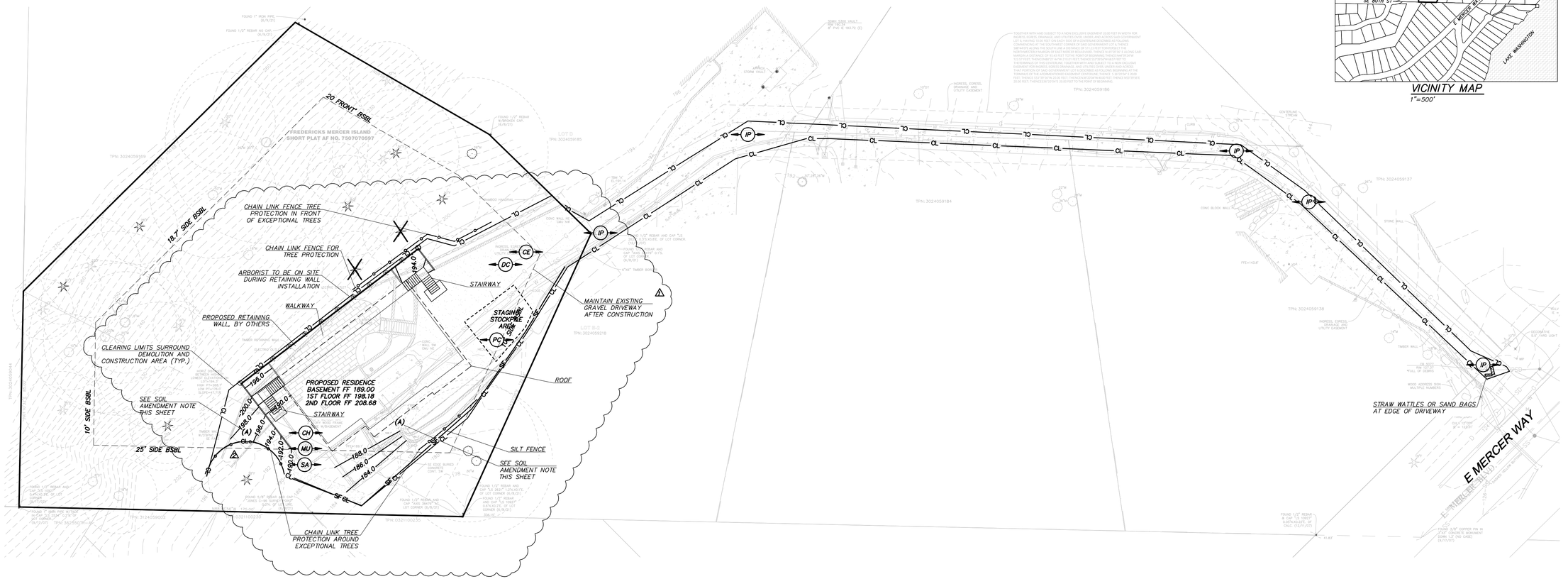
Scale: 1" = 20'-0"

G005

ARCH D 24" x 36" LAST PLOT DATE: 4/1/2024 12:20:24 PM

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



GENERAL EROSION CONTROL NOTES:

ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.

AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD.

SITE VOLUME CALCULATIONS

CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
493	56	437 CUT

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES.
THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL OR VAULT EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

GRADING NOTE:

TOTAL AREA TO BE DISTURBED ON-SITE.....9,763 S.F.
TOTAL AREA TO BE DISTURBED OFF-SITE.....1,535 S.F.
TOTAL AREA TO BE DISTURBED FOR PROJECT.. 11,298 S.F.
FILL SHALL CONSIST OF SUITABLE MATERIAL ORIGINATING FROM THE SITE OR FROM AN APPROVED SUPPLIER. ⚠

SOIL AMENDMENT NOTE:

AREA (A): STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 15 C.Y. OF AMENDMENT OVER AN AREA OF 600 S.F.

ON-SITE SOILS:

THE ENTIRE SITE CONTAINS KITSAP SILT LOAM (KpD) SOILS PER THE NRCS SOIL MAP

P.E. CERTIFICATION FOR SECTION B:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR 7929 E. MERCER WAY HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY FOR PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILITY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.

LEGAL DESCRIPTION: (BY SURVEYOR)

NO EASEMENTS, RESTRICTIONS, OR RESERVATIONS OF RECORD WHICH WOULD BE DISCLOSED BY TITLE REPORT ARE SHOWN.

THAT PORTION OF GOVERNMENT LOT 6, SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 6;
THENCE N 1°12'23" E ALONG THE WEST LINE OF SAID GOVERNMENT LOT 6 A DISTANCE OF 85.02 FEET;
THENCE N 45°20'36" E ALONG THE NORTHWESTERLY LINE OF THAT CERTAIN TRACT OF LAND RECORDED UNDER AUDITOR'S FILE NO. 4076342, RECORDS OF SAID COUNTY, A DISTANCE OF 150.69 FEET;
THENCE S 59°58'04" E 88.14 FEET;
THENCE S 45°48'09" E 56.15 FEET;
THENCE S 24°24'15" W 122.46 FEET TO INTERSECT THE SOUTH LINE OF SAID GOVERNMENT LOT 6;
THENCE N 88°44'07" W ALONG SAID SOUTH LINE A DISTANCE OF 175.00 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AND SUBJECT TO A NON EXCLUSIVE EASEMENT 20.00 FEET IN WIDTH FOR INGRESS, EGRESS, DRAINAGE, AND UTILITIES OVER, UNDER AND ACROSS SAID GOVERNMENT LOT 6, HAVING 10.00 FEET ON EACH SIDE OF A CENTERLINE DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 6;
THENCE S 88°44'07" E ALONG THE SOUTH LINE A DISTANCE OF 511.23 FEET TO INTERSECT THE NORTHWESTERLY MARGIN OF EAST MERCER BOULEVARD;
THENCE N 45°20'36" E ALONG SAID MARGIN A DISTANCE OF 93.43 FEET TO THE POINT OF BEGINNING;
THENCE N 44°39'24" W 123.57 FEET;
THENCE N 88°21'44" W 210.01 FEET;
THENCE S 53°39'56" W 68.57 FEET TO THE TERMINUS OF THIS CENTERLINE.

TOGETHER WITH AND SUBJECT TO A NON EXCLUSIVE EASEMENT FOR INGRESS, EGRESS DRAINAGE, AND UTILITIES OVER, UNDER AND ACROSS THAT PORTION OF SAID GOVERNMENT LOT 6 DESCRIBED AS FOLLOWS:

BEGINNING AT THE TERMINUS OF THE AFOREMENTIONED EASEMENT CENTERLINE;
THENCE S 36°20'04" E 20.00 FEET;
THENCE S 53°39'56" W 20.00 FEET;
THENCE N 36°20'04" W 40.00 FEET;
THENCE N 53°39'56" E 20.00 FEET;
THENCE S 36°20'04" E 20.00 FEET TO THE POINT OF BEGINNING.

SURVEY NOTES:

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONCLUDED ON MAY 11, 2022 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

THIS SURVEYOR HAS MADE NO INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, COVENANTS, OWNERSHIP TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

PARCEL BOUNDARY LEGAL DESCRIPTION AND EASEMENT SHOWN IS BASED ON SHORT PLAT RECORDED UNDER AUDITOR'S FILE NO. 7507070597.

UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS, ETC.). THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

2' CONTOUR INTERVAL DERIVED FROM DIRECT FIELD OBSERVATION.

THIS SURVEY MEETS UNITED STATES NATIONAL MAP ACCURACY STANDARDS FOR VERTICAL ACCURACY OF ONE HALF THE CONTOUR INTERVAL.

CONSTRUCTION SEQUENCE

1. ARRANGE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTOR.
2. FLAG OR FENCE CLEARING LIMITS.
3. CALL ONE-CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK.
4. GRADE ACCESS ROAD & CONSTRUCT/INSTALL ROCK CONSTRUCTION ENTRANCE IF NECESSARY.
5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
6. INSTALL SHORING WALL.
7. CONSTRUCT RESIDENCE AND OTHER SITE IMPROVEMENTS.
8. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OR COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
9. MAINTAIN ACCESS TO OFF-SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT.
10. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
11. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
12. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
13. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
14. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE AFTER ACCEPTANCE BY INSPECTOR.

BENCHMARK: (BY SURVEYOR)

ORIGINATING BENCHMARK: CITY OF MERCER ISLAND CONTROL POINT 4315, FOUND 3/8" PIN IN CONCRETE MONUMENT DOWN 0.8' IN CASE.
ELEVATION: 100.38
TEMPORARY BENCHMARKS:
TBM 'A'
SET CHISELED SQUARE ±19.6' NORTHEASTERLY OF EASTERNMOST LOT CORNER.
ELEVATION: 191.14

BASIS OF BEARINGS: (BY SURVEYOR)

HELD A BEARING OF NORTH 38°04'48" EAST BETWEEN CITY OF MERCER ISLAND CONTROL POINTS 1693 & 4315.

REFERENCES: (BY SURVEYOR)

1. PLAT OF AVALON PARK RECORDED IN VOLUME 49 OF PLATS PAGES 64-65.
2. RECORD OF SURVEY RECORDED IN VOLUME 19 OF SURVEYS PAGE 38.
3. SHORT PLAT NO. 85-03-04 RECORDED UNDER RECORDING NUMBER 2003101390001.
4. RECORD OF SURVEY RECORDED IN VOLUME 60 OF SURVEYS PAGE 18.
5. SHORT PLAT NO. 87-04-01 RECORDED UNDER RECORDING NUMBER 8705219006.
6. BOUNDARY LINE ADJUSTMENT RECORDED IN VOLUME 30 OF SURVEYS PAGE 140-140A.

TESC LEGEND:

FOR ADDITIONAL TESC DETAILS REFER TO DOE 2012 SWMMWW

- CL — CONSTRUCTION LIMITS, TO BE FLAGGED OR FENCED WHEN NO SILT FENCE IS PROPOSED (BMP C103)
- SF — SILT FENCE IS PROPOSED (BMP C233)
- STRAW WATTLES (BMP C235)
- CE — STABILIZED CONSTRUCTION ENTRANCE (BMP C105)
- IP — INLET PROTECTION (BMP C220)
- DC — DUST CONTROL (BMP C140)
- MU — MULCHING, MATTING, & COMPOST BLANKETS (BMP C121, BMP C125)
- PS — PERMANENT SEEDING AND PLANTING (BMP C120)
- SA — POST-CONSTRUCTION SOIL AMENDMENT QUALITY & DEPTH (BMP C120)
- CH — CONCRETE HANDLING (BMP C151)
- PC — PLASTIC COVERING (BMP C123)
- TREE TO BE REMOVED
- TREE TO BE SAVED. PROVIDE TREE PROTECTION FENCING PER ARBORIST RECOMMENDATIONS
- EXCEPTIONAL TREES

SHEET INDEX:

PROJECT CONTACTS:

OWNER	HOA HOANG 7929 E MERCER WAY MERCER ISLAND WA 98040 HOAHOANG1@GMAIL.COM
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CIVIL ENGINEER	D.R. STRONG CONSULTING ENGINEERS, INC. 620 7TH AVE NE KIRKLAND, WASHINGTON 98033 425.827.3063 CONTACT: YOSHIO L. PIEDISCALZI, P.E. YOSHIO.PIEDISCALZI@DRSTRONG.COM
SURVEYOR	HANSEN SURVEYING & CONSULTING 4227 S. MERIDIAN, SUITE C-445 PUYALLUP, WASHINGTON 98373 425.235.8440 CONTACT: CHRIS FOX

NORTH
GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FT.

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

TESC PLAN

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

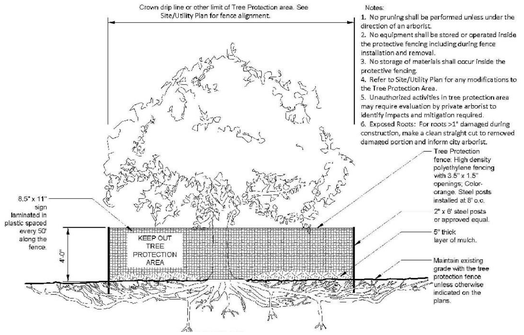
DATE	REVISION	APR
11.20.23	CITY COMMENTS ⚠	YLP
3.28.24	CITY COMMENTS ⚠	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: C1
SHEET: 1 OF 7

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

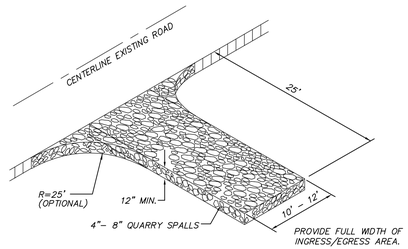
7929 E. MERCER WAY



Notes:
1. No pruning shall be performed unless under the direction of an arborist.
2. No equipment shall be stored or operated inside the protective fencing including during fence installation and removal.
3. No storage of materials shall occur inside the protective fencing.
4. Refer to Site/Utility Plan for any modifications to the Tree Protection Area.
5. Unauthorized activities in tree protection area may require evaluation by private arborist to identify impacts and mitigation required.
6. Exposed Roots: For roots >1" damaged during construction, make a clean straight cut to removed damaged portion and inform city arborist.

TREE PROTECTION FENCING

NTS

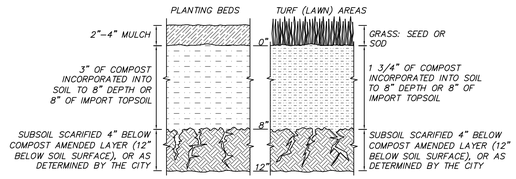


DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R–O–W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY

IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD

GRAVEL CONSTRUCTION ENTRANCE

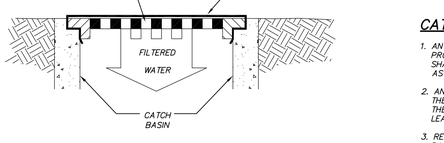
NTS



SOIL AMENDMENT

PER BMP T5.13

NTS



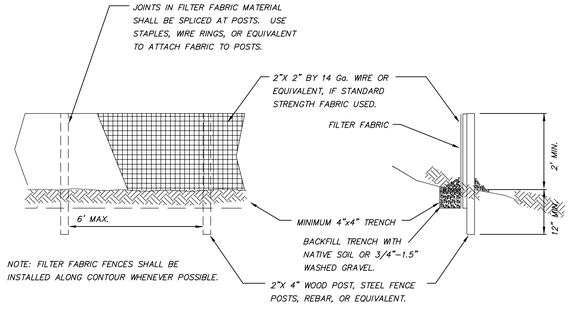
NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOR RESULT IN EROSION OF SLOPES.

CATCH BASIN INSERT MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE–THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

CATCH BASIN INLET FILTER

NTS



NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE DETAIL

NTS

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
10. ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES.
11. ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP. STABILIZE DENUDED AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
12. ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
13. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF–SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE–ERODED.
14. ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.

SOIL AMENDMENT NOTES

•SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

•SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2–4 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
   A. THE ORGANIC CONTENT FOR "PRE–APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP T7.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65% AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
   B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220–B, TESTING PARAMETERS, IN WAC 173–350–220.

THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

•IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE–APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE–APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
•ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.
•PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.
•LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.
•REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

TESC DETAILS

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

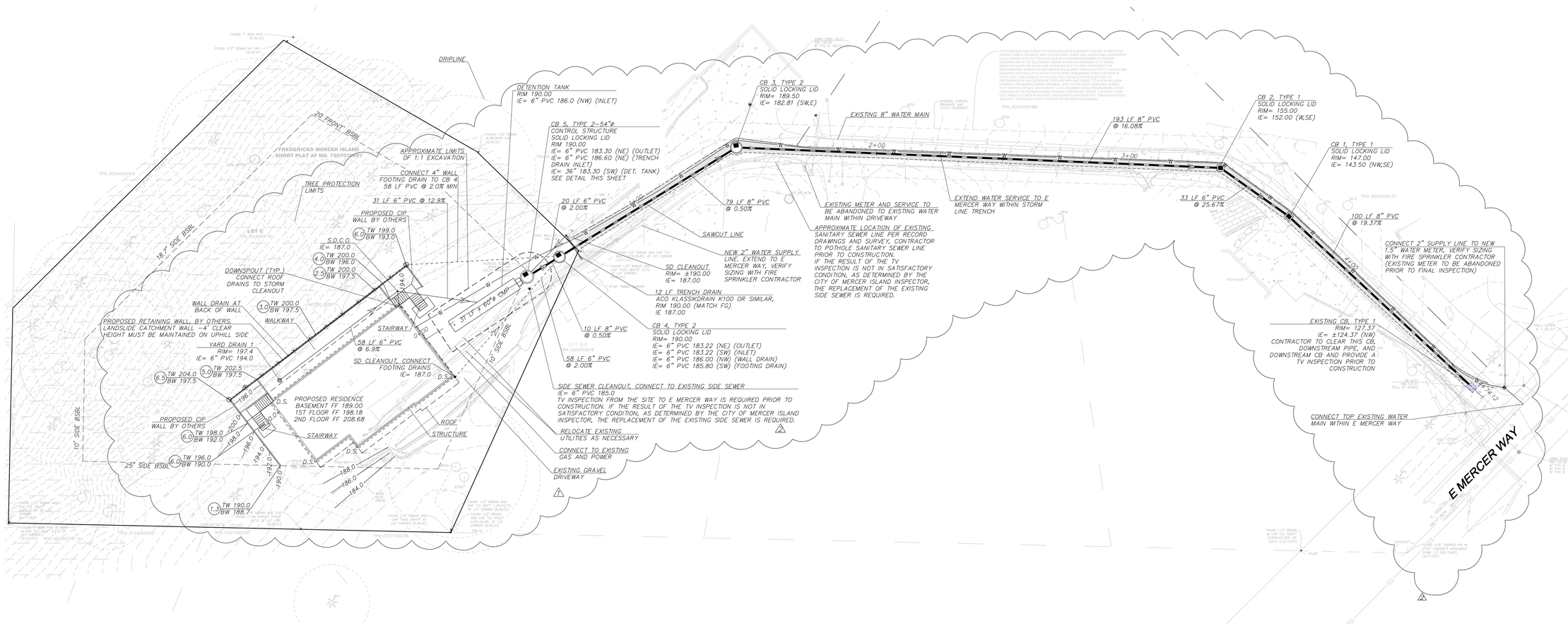
DATE	REVISION	APR
11.20.23	CITY COMMENTS	YLP
3.28.24	CITY COMMENTS	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: C2
SHEET: 2 OF 7

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



RESTRICTOR CATCH BASIN NOTES:

1. USE A MINIMUM OF A 72 IN. DIAM. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCPE. A 54 IN. DIAM. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
   A. CLEANOUT GATE IS VISIBLE FROM TOP;
   B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   C. FRAME IS CLEAR OF CURB.
5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'–0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION). IT MAY BE SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FEET.

STANDARD DETENTION SYSTEM NOTES:

1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
2. RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36). CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.
4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

STORMWATER CALCULATION AREAS NOTE:

LOT AREA: 30,583 S.F. (±0.771 ACRES)
PROJECT AREA: 10,673 S.F. (0.245 ACRES)

EX. IMPERVIOUS AREAS ON LOT:	
DRIVEWAY	3,226 S.F.
ROOF AREA	1,071 S.F.
COVERED PATIOS	72 S.F.
TOTAL EX.	4,369 S.F.
EX. DRIVEWAY TO REMAIN:	828 S.F.

NEW & REPLACED IMPERVIOUS AREAS ON LOT:	
DRIVEWAY	1,604 S.F.
WALKS	639 S.F.
ROOF AREA	2,609 S.F.
TOTAL PROP.	4,852 S.F.
NEW/REPLACED P.G.I.S.	1,604 S.F.

GENERAL NOTES:

1. SITE PLAN AS PROVIDED BY ARCHITECT ON SEPTEMBER 13, 2022.
2. GRADING PLAN AS PROVIDED BY ARCHITECT AND SHOWN HERE FOR REFERENCE.
3. CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
4. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
5. ALWAYS CALL 811 BEFORE YOU DIG.

LAWN AND LANDSCAPE AREA NOTE:

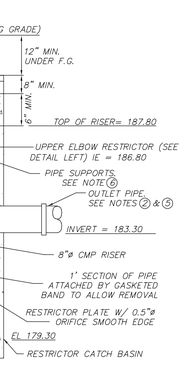
THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

WALL LEGEND:

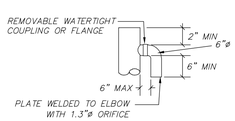
TW TOP OF WALL
BW BOTTOM OF WALL
EP EDGE OF PAVEMENT
(E) EXISTING
(P) PROPOSED

BUILDING HEIGHT CALCS:

A. AVERAGE BUILDING ELEVATION (ABE) CALCULATIONS LOCATED ON SHEET:	#G000
B. ALLOWABLE BUILDING HEIGHT (ABE+30)	221.03 FT
C. PROPOSED BUILDING HEIGHT	220.13 FT
D. BENCHMARK ELEVATION	191.14 FT
E. DESCRIBE BENCHMARK LOCATION	TBM 'A'
F. SLOPING LOT-MAX HEIGHT OF TOP EXTERIOR WALL FACADE ABOVE LOWEST EXISTING GRADE (30-FT MAX):	29'-8.75"



DETENTION TANK & RESTRICTOR CB — NTS



ELBOW RESTRICTOR DETAIL — NTS

Table 1

ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in)[3]		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	31	0.5	0.5	4.6	3.5	1.6	1.3

STORM DRAINAGE NOTES:

1. ROOF DRAINS SHALL BE 6" PVC SDR 35 TIGHTLINE WITH A MINIMUM SLOPE OF 2.00%
2. FOOTING/WALL DRAINS SHALL BE 4" PERFORATED PVC WRAPPED IN FILTER FABRIC PER CITY STANDARDS.
3. FOOTING/WALL DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE BUILDING FOUNDATION.
4. USE SAND COLLARS AT CB CONNECTIONS TO PVC PIPE.
5. PROVIDE TRAFFIC RATED GRATES IN ALL PARKING AREAS.
6. PROVIDE SLEEVES THROUGH ALL WALLS/ ROCKERIES.
7. SEE ARCHITECTURAL PLAN SET FOR VEGETATED ROOF SPECIFICATIONS.
8. ALL DRAIN LIDS SHALL HAVE DECORATIVE GRATE COVERS. IRON AGE OR EQUAL PER ARCHITECTURAL SPECIFICATION.

SHORING WALL NOTE:

1. FOR THE LANDSCAPE CATCHMENT WALL – 4' CLEAR HEIGHT MUST BE MAINTAINED ON UPHILL SIDE

NORTH

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FT.

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O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

STORM DRAINAGE PLAN

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
23232
YLP
3-28-24

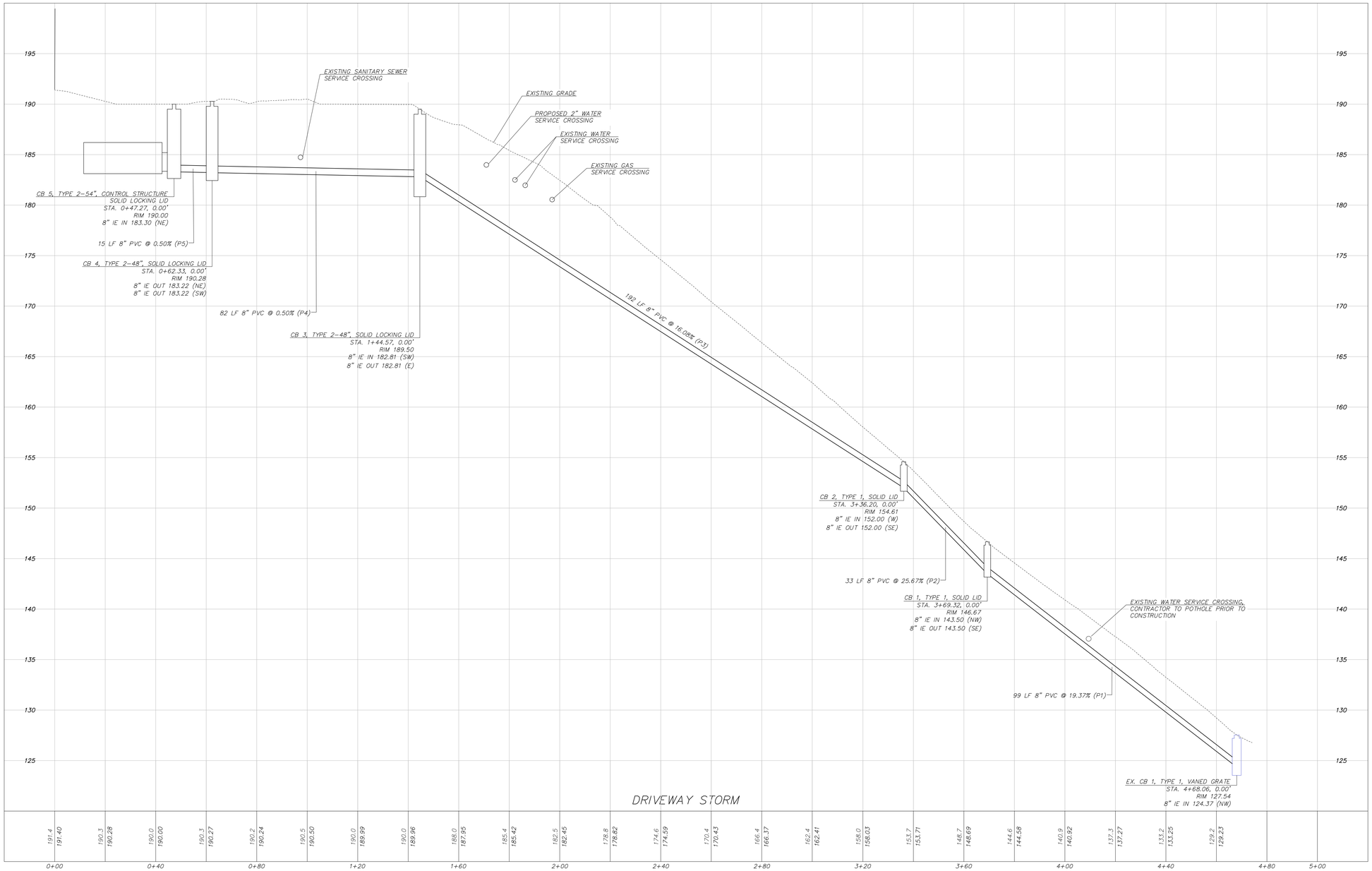
DATE	REVISION	APR
11.20.23	CITY COMMENTS 1	YLP
3.28.24	CITY COMMENTS 2	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: C3
SHEET: 3 OF 7

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



1 INCH = 20 FT. HORIZONTAL

1 INCH = 5 FT. VERTICAL

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620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

STORM DRAINAGE PROFILE

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
3-28-24

DATE	REVISION	APR
11.20.23	CITY COMMENTS 1	YLP
3.28.24	CITY COMMENTS 2	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

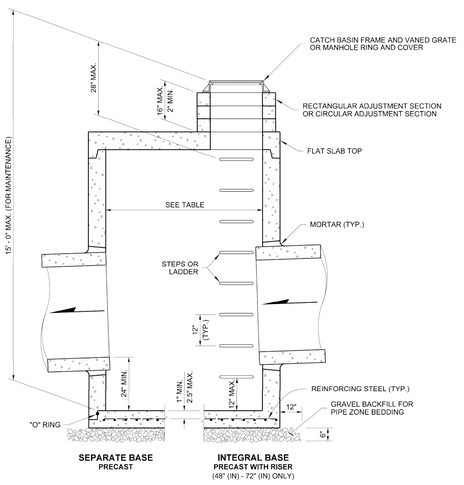
DRAWING: C4
SHEET: 4 OF 7

R:\2021\1\21125\3\Drawings\Plots\Engineering\03_04-3UTL21125.dwg 3/28/2024 2:20:40 PM

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY

DRAWN BY: FERN LUDELL



NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3.**

CATCH BASIN DIMENSIONS

CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES

CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ① PP ④	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

① Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
② (See **Standard Specification Section 9-05.12(1)**)
③ (See **Standard Specification Section 9-05.12(2)**)
④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)

Julie Heilman STATE OF WASHINGTON 41019 REGISTERED PROFESSIONAL ENGINEER
Heilman, Julie
Feb 20 2018 12:49 PM
COMP

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-02

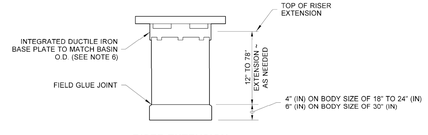
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Mar 2 2018 10:01 AM
comp
STATE DESIGN ENGINEER
Washington State Department of Transportation

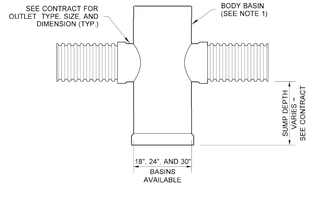
DRAWN BY: FERN LUDELL

PLAN VIEW
FRAME AND VANED GRATE

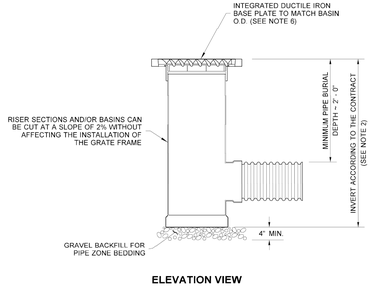
NOTE: ALL DRAIN LIDS SHALL HAVE DECORATIVE GRATE COVERS. IRON AGE OR EQUAL PER ARCHITECTURAL SPECIFICATION.



RISER EXTENSION



BASIN BODY



ELEVATION VIEW

NOTES

1. Drain basin to be custom manufactured according to plan details. Risers are needed for basins over 84" (in) due to shipping restrictions. The maximum depth from finished grade to the lowest invert shall be 8' (ft).
2. Drainage connections shall utilize flexable elastometric seals conforming to **ASTM F477** and shall meet the requirements of **ASTM D3212**.
3. Risers can be trimmed down to 3" (in) extension without interfering with the installation of the frame.
4. These structures can be used for Type 1, Type 1L, and Type 2 structures. usage for the Type 2 structures shall be limited to pipe size use only.
5. Basins shall be manufactured from PVC pipe stock meeting the requirements of **ASTM D1784**, cell classification **12454**.
6. Ductile iron castings for PVC catch basins shall conform to the requirements of **ASTM A536**, **grade 70-50-05**, and shall meet the proof load testing requirements of **AASHTO M 306**.
7. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

Julie Heilman STATE OF WASHINGTON 41019 REGISTERED PROFESSIONAL ENGINEER
Heilman, Julie
Jan 25 2017 2:57 PM
COMP

CATCH BASIN - PVC

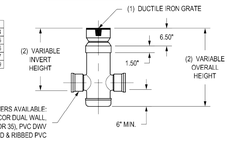
STANDARD PLAN B-10.70-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jan 26 2017 6:50 AM
comp
STATE DESIGN ENGINEER
Washington State Department of Transportation

2808AG_ _X 8" CUSTOM DRAIN BASIN

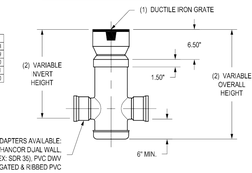
GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	0899CGS	7001-110-194
SOLID COVER	LIGHT DUTY	0899CGC	7001-110-195
BRONZE	N/A	0899CGB	7001-110-196
DOME	N/A	0899CGD	7001-110-197
DROP IN GRATE	LIGHT DUTY	0801DI	7001-110-019



(3,4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 8" FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL). PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

2810AG_ _X 10" CUSTOM DRAIN BASIN

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	1099CGS	7001-110-198
SOLID COVER	LIGHT DUTY	1099CGC	7001-110-199
BRONZE	N/A	1099CGB	7001-110-200
DOME	N/A	1099CGD	7001-110-201
DROP IN GRATE	LIGHT DUTY	1001DI	7001-110-020



(3,4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 10" FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL). PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & I-NHANCOR DUAL WALL) & SDR 35 PVC
4 - STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
5 - DIMENSIONS ARE FOR REFERENCE ONLY ACTUAL DIMENSIONS MAY VARY

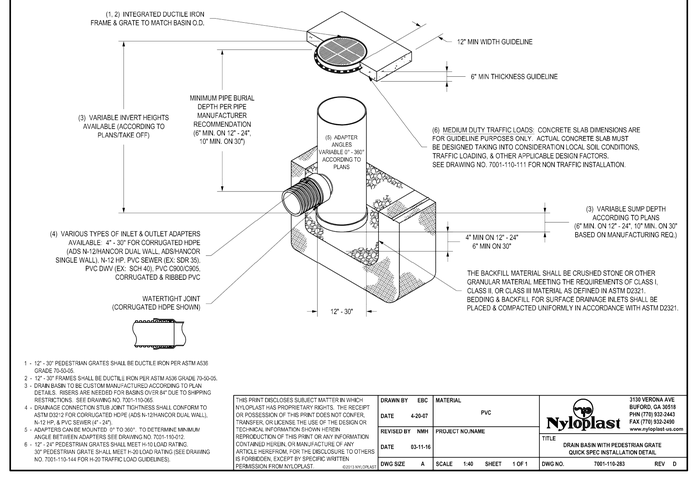
DRAWN BY	AWA	MATERIAL	
DATE	8-11-00		
REVISED BY	EBC	PROJECT NO./NAME	
DATE	3-18-10		
DWG SIZE	A	SCALE NTS SHEET 1 OF 1	

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-3443
FAX (770) 932-3490
www.nyloplast-us.com

TITLE: 8 IN & 10 IN DRAIN BASIN DESIGN DETAILS

DWG NO. 7001-110-045 REV G

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



1 - 12" - 30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 24" PEDESTRIAN GRATES SHALL MEET H-10 LOAD RATING. 30" PEDESTRIAN GRATE SHALL MEET H-20 LOAD RATING (SEE DRAWING NO. 7001-110-144 FOR H-20 TRAFFIC LOAD GUIDELINES).

DRAWN BY	EBC	MATERIAL	PVC
DATE	4-20-07		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-11-16		
DWG SIZE	A	SCALE 1:40 SHEET 1 OF 1	

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BUFORD, GA 30518
PHN (770) 932-3443
FAX (770) 932-3490
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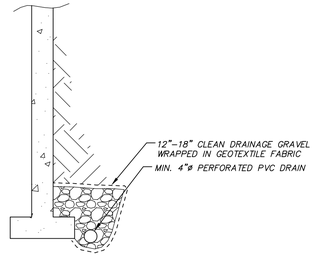
TITLE: DRAIN BASIN WITH PEDESTRIAN GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-283 REV D

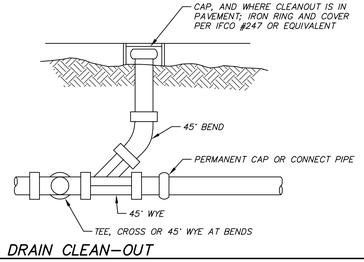


WALL DRAINS

NTS

WALL DRAIN NOTES:

1. GRADE DRAIN PIPE TO DIRECT WATER TO PROPOSED COLLECTION SYSTEM AS SHOWN ON PLAN SHEETS.
2. FOOTING/WALL DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE FOOTING/WALL.



STORM DRAIN CLEAN–OUT

NTS

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O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

NOTES & DETAILS

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

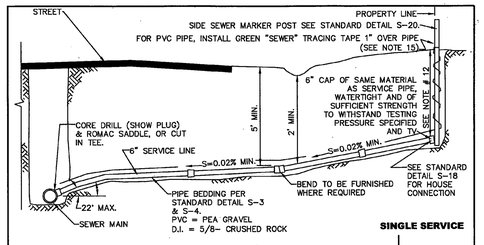
DATE	REVISION	APR
11.20.23	CITY COMMENTS	YLP
3.28.24	CITY COMMENTS	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

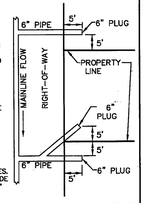
DRAWING: C5
SHEET: 5 OF 7

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



SINGLE SERVICE



DOUBLE SERVICE

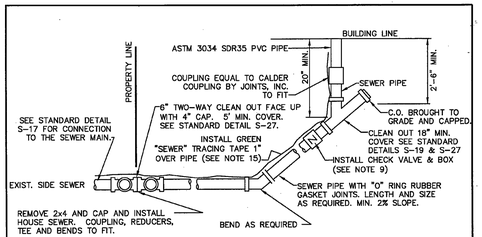
NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
4. ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-03.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-3).
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), 50% MAXIMUM.
7. ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-20075 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
8. CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
10. WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18" ABOVE INVERT OF MAIN SEWER.
11. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6' DEEP AT PROPERTY LINE, OR 5' LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
12. ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
13. IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES INVOLVED SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A 6" INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
14. THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
15. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CONNECTION AND STUB

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-17**



BUILDING CONNECTION

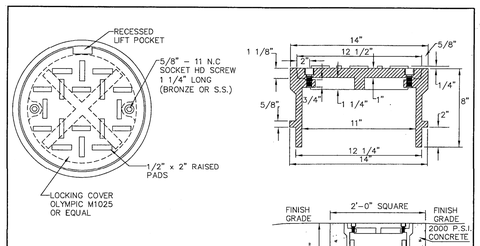
NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
4. 18" MINIMUM COVERAGE OVER PIPE.
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH ⅛ BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
8. ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
9. BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
   A. IF CONNECTED TO A SHARED SIDE SEWER.
   B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
   C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
10. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
11. THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
    6" – WITHIN THE PUBLIC RIGHT-OF-WAY.
    4" – SINGLE FAMILY RESIDENCES.
    6" – 2 TO 6 SINGLE FAMILY RESIDENCES.
    6" – BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
12. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
HOUSE SEWER CONNECTION

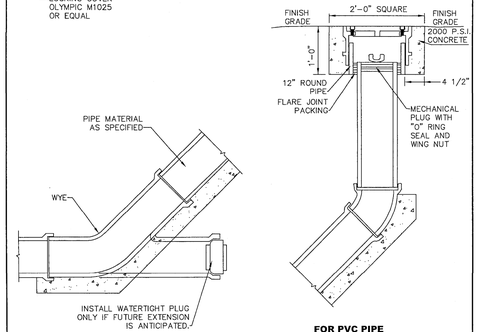
REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-18**



NOTES

1. SEE S-27 FOR INSTALLATION DETAILS.

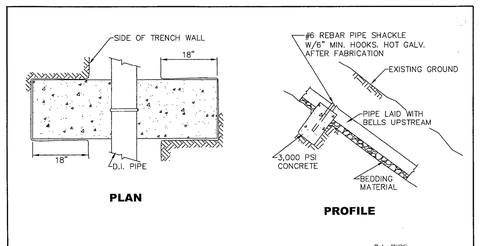


FOR PVC PIPE

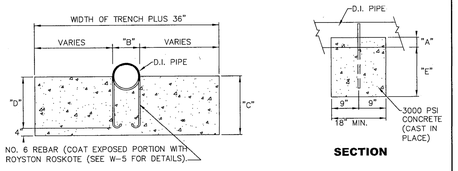
CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
CLEAN OUT DETAIL

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-19**



PLAN **PROFILE**



ELEVATION **SECTION**

PIPE SIZE	DIMENSIONS INCHES				
	A	B	C	D	E
4"	2.4	4.8	17	13	14.6
6"	3.5	6.9	18	14	14.5
8"	4.5	9.1	19	15	14.5
10"	5.6	11.1	20	16	14.4
12"	6.6	13.2	21	17	14.4
12"	7.7	15.3	22	18	14.3
14"	8.7	17.4	23	19	14.3
16"	9.8	19.5	24	20	14.2
18"					

NOTES

1. PIPE ANCHORS TO BE USED ONLY AS APPROVED BY THE ENGINEER.
2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
3. TIE ROD ASSEMBLIES SHALL BE COATED WITH ROYSTON ROSKOTE #612SM OR APPROVED EQUAL.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
PIPE ANCHOR DETAIL

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-21**

DISCONNECTION

WHEN ABANDONING A SIDE SEWER IT SHALL BE DISCONNECTED AT THE MAIN PRIOR TO REMOVAL OF BUILDING FOUNDATIONS. THE CONTRACTOR SHALL PLUG THE CONNECTION AT THE MAIN WITH A MECHANICAL PLUG AND NON-SHRINK GROUT. DISCONNECTION'S SHALL BE PERFORMED IN THE PRESENCE OF THE CITY'S UTILITY INSPECTOR. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT DRAWING DEPICTING THE DISCONNECTED SIDE SEWER UPON COMPLETION OF THE WORK.

RECONNECTION

WHEN RECONNECTING TO AN EXISTING SIDE SEWER, THE POINT OF RECONNECTION WILL BE DETERMINED BASED ON THE MAGNITUDE OF THE CONSTRUCTION ON THE PROPERTY.

1. PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH NO ADDITIONAL PLUMBING FIXTURES – NO SIDE SEWER REPLACEMENT REQUIRED UNLESS A KNOWN PROBLEM EXISTS IN THE SIDE SEWER.
2. PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH ADDITIONAL PLUMBING FIXTURES– ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO PROPERTY LINE AND REPLACE AS NEEDED.
3. COMPLETE INTERIOR REMODEL – ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO SEWER MAIN AND REPLACE AS NEEDED. IF EXISTING SIDE SEWER IS ASBESTOS CEMENT OR CONCRETE, SIDE SEWER SHALL BE REPLACED FROM BUILDING TO PROPERTY LINE.*
4. COMPLETE INTERIOR REMODEL AND BUILDING ADDITION – NEW SIDE SEWER FROM BUILDING AT LEAST TO PROPERTY LINE.*
5. CONSTRUCTION OF A NEW BUILDING – NEW SIDE SEWER FROM BUILDING AT LEAST TO MAIN.*

BACK WATER VALVE INSTALLATION PER CITY ENGINEER, IF SCENARIO 2, 3, 4, OR 5 IS DIRECTLY ATTACHED TO THE LAKE LINE OR THE ELEVATION OF THE LOWEST DRAIN IN THE RESIDENCE IS LOWER THAN THE RIM ELEVATION OF THE UPSTREAM SEWER MANHOLE ON THE MAIN.

VIDEO INSPECTION OF THE EXISTING SIDE SEWER, BETWEEN THE PROPERTY LINE AND THE SEWER MAIN SHALL BE PERFORMED FOR SCENARIO NUMBER 4.

PROVIDE A COPY OF THE VIDEO DOCUMENTATION (VIDEO AND HARDCOPY REPORT) TO THE CITY ENGINEER.

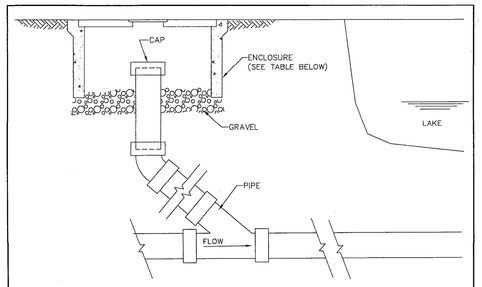
REPLACEMENT OR REPAIR OF THAT PORTION OF THE SIDE SEWER BETWEEN THE PROPERTY LINE AND THE SEWER MAIN, WILL BE DETERMINED BY THE CITY ENGINEER, BASED ON THE VIDEO INSPECTION.

*IF THE EXISTING SIDE SEWER IS PVC AND IS LESS THAN TEN YEARS OLD, THE SIDE SEWER DOES NOT HAVE TO BE REPLACED IF A VIDEO INSPECTION AND HYDROSTATIC PRESSURE TEST CONFIRMS THAT THE SIDE SEWER IS IN PROPER WORKING CONDITION. THESE TESTS SHALL BE PERFORMED AFTER ALL HEAVY EQUIPMENT THAT COULD DAMAGE THE SIDE SEWER IS OFF OF THE SITE.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
COMMERCIAL/MULTI FAMILY SIDE SEWER DISCONNECTION & RECONNECTION

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-22A**



LAKE LINE CLEANOUT

PIPE SIZE	MATERIAL	CAP	ENCLOSURE	COMMENTS
6"	PVC	SIDU MECHANICAL SEWER PLUG	CONC. METER BOX, FOGTITE 1–D	INSTALLATION BELOW HYDRAULIC GRADIENT
6"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE 1–D	INSTALLATION ABOVE HYDRAULIC GRADIENT
6"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE 1–D	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT

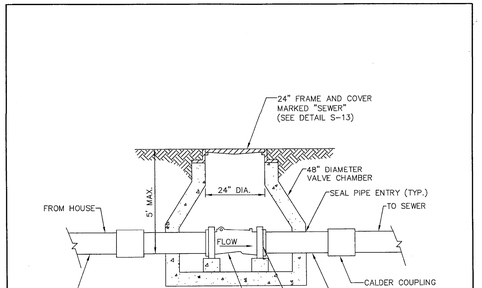
NOTES

1. IF POSSIBLE, CLEANOUT TO BE LOCATED JUST ABOVE HYDRAULIC GRADIENT OF LAKE LINE. CLEANOUT SHOULD ALSO BE LOCATED TO PROVIDE EASY ACCESS FOR INSPECTION AND MAINTENANCE BY THE HOME OWNER.
2. SEE S-23 & S-24 FOR BACK WATER VALVE LOCATION.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CLEANOUT FOR LAKE LINE CONNECTIONS

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-25**



CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
BACK WATER VALVE ASSEMBLY FOR JOINT USE SIDE SEWER (4" OR 6" DIAMETER)

REV	DATE									APPROVED

6-5-2009 | NO SCALE | **S-26**

SIDE SEWER NOTES:

1. *FOUR-INCH (4") PIPE MUST BE LAID AT A MINIMUM 2% GRADE. SIX-INCH (6") PIPE MUST BE LAID AT A MINIMUM 1.2% GRADE.*
2. *SIDE SEWERS MUST NOT BE CLOSER THAN 30" TO ANY FOUNDATION WALL OR OUTER LINE OF ANY FOOTINGS, PILINGS, OR BUILDING SUPPORTS. A CLEAN-OUT MUST BE INSTALLED AT THE CONNECTION, AND MUST BE 36" FROM THE FOUNDATION.*
3. *MINIMUM COVER MUST BE 42" IN THE PUBLIC RIGHT-OF-WAY, 30" IN PRIVATE ROADWAYS AND UNDER DITCHES, AND 18" ON PRIVATE PROPERTY.*
4. *SEWER MAINS MAY BE CORED OR A "T" INSTALLED IN THE MAIN LINE WHERE NO SEWER STUB EXISTS.*
5. *SIDE SEWERS WHEN USING OPEN CUT CONSTRUCTION METHODS MUST BE BEDDED WITH IMPORTED MATERIAL TO 4" BELOW AND 6" ABOVE THE INSTALLED PIPE. THE BROAD, "BELL" ENDS OF PIPE MUST BE LAID UPHILL.*
6. *IMPORTED BACKFILL MATERIAL WILL BE REQUIRED IN ALL PAVED AREAS AND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 1 FT. LIFTS. IN PUBLIC RIGHT OF WAY, ONLY SELECT MATERIAL (5/8" MINUS C.R.) WILL BE ALLOWED FOR BEDDING AND BACKFILL.*
7. *PARALLEL SEWER AND WATER SERVICE LINES MUST BE AT LEAST 4 FEET APART WHEN LAID HORIZONTALLY, AND AT LEAST 2 FEET APART WHEN LAID VERTICALLY, WITH THE SEWER THE DEEPER OF THE TWO LINES. IF THE LINES MUST CROSS, THEY MUST CROSS AT 90 DEGREES TO ONE ANOTHER AND HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE.*
8. *ALL CHANGES IN DIRECTION MUST BE MADE WITH 1/8 BENDS (45 DEGREES), 1/16 BENDS (22 ½ DEGREES), OR "Y" BRANCHES WITH THE STRAIGHT-THROUGH OPENING PLUGGED FOR CLEAN-OUT. NO MORE THAN TWO BENDS ARE PERMITTED BETWEEN CLEAN-OUTS, WHICH MUST BE PLACED AT LEAST EVERY 100 FEET. CLEAN-OUTS MUST EXTEND TO WITHIN 12" OF THE FINISHED GRADE AND CAPPED WITH A WATER-TIGHT PLUG. CLEAN-OUTS IN PAVED AREAS, PATIOS, OR SIDEWALKS MUST HAVE CAST IRON FRAMES AND COVERS WITH LOCKING LIDS SET TO FINISHED PAVED GRADE.*
9. *PIPE MATERIALS: ASTM 3034 SDR 35 PVC PIPE, FUSED SOLID WALL HDPE, SCHEDULE 40 ABS, DIP OR CIP (UP TO 8 FT. DEPTH). OVER 8 FT. DEPTH AND SLOPES MORE THAN 20% DIP, CIP, OR FUSED SOLID WALL HDPE ARE REQUIRED.*
10. *BEDDING MATERIAL FOR OPEN CUT CONSTRUCTION MUST BE PEA GRAVEL, SAND, CONTROL DENSITY FILL (CDF), OR 5/8" MINUS C.R.*
11. *SELECT BACKFILL MATERIAL SHALL BE 5/8" MINUS C.R. OR CONTROL DENSITY FILL (CDF).*
12. *IMPORTED BACKFILL MATERIAL SHALL BE BANK RUN GRAVEL OR PIT RUN GRAVEL FROM AN APPROVED SUPPLIER MEETING APWA/WSDOT GRADATION SPECIFICATIONS. NOT ALLOWED IN RIGHT-OF-WAY.*
13. *RUBBER GASKETS MUST BE USED WHEN APPROPRIATE.*
14. *RIGID COUPLINGS MUST BE USED FOR CONNECTIONS TO EXISTING STUBS IN RIGHT-OF-WAY.*
15. *A STAINLESS STEEL STRAP AND SADDLE (ROMAC) MUST BE USED FOR CORING.*
16. *TESTING: THE RATE OF LEAKAGE MUST NOT EXCEED THE FOLLOWING AMOUNTS PER 100 FT. OF PIPE:*
    4" PIPE 1.6 GAL/HR 6" PIPE 2.4 GAL/HR
17. *INSPECTION IS REQUIRED PRIOR TO BACKFILLING. THE CITY REQUIRES AT LEAST 24 HOURS NOTICE PRIOR TO INSPECTIONS.*

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

NOTES & DETAILS

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

DATE	REVISION	APR
11.20.23	CITY COMMENTS	YLP
3.28.24	CITY COMMENTS	YLP

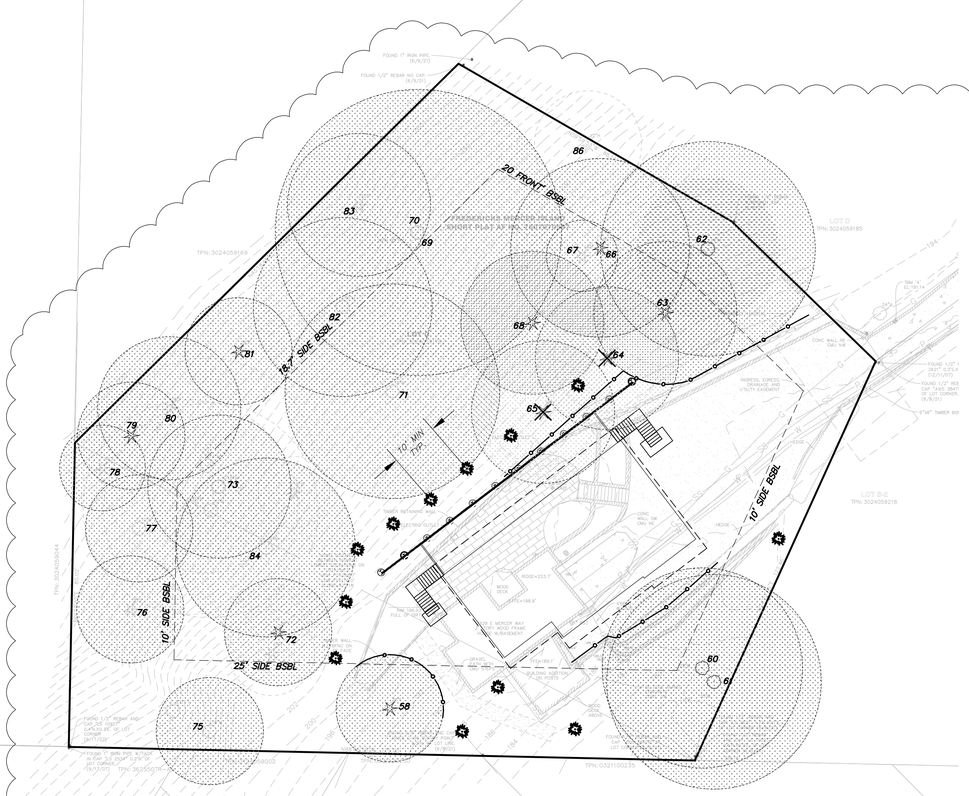
DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: C6
SHEET: 6 OF 7

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



LEGEND

- VIABLE TREE
- NON VIABLE TREE
- TREE TO BE REMOVED
- DRIPLINE OF VIABLE TREE TO BE RETAINED
- DRIPLINE OF VIABLE TREE TO BE REMOVED
- TREE PROTECTION FENCING (SEE SHEET C2 FOR DETAIL)
- REPLACEMENT TREE PER ARBORIST REPORT AND RECOMMENDATIONS. TREES PLACED MINIMUM OF 10' ON CENTER FROM EACH OTHER.

TREE RETENTION CALCULATION

TOTAL NUMBER OF EXCEPTIONAL TREES:	4
TOTAL LARGE TREES:	22
TOTAL VIABLE ONSITE TREES:	26
REQUIRED: 30% VIABLE TREES:	8
PROPOSED VIABLE TREES RETAINED:	24

REPLACEMENT TREE NOTE

AT LEAST HALF THE TREES NEED TO BE PACIFIC NORTHWEST NATIVES. RECOMMENDED NATIVE CONIFERS INCLUDE DOUGLAS FIR, WESTERN REDCEDAR, AND SITKA SPRUCE, OR THE GENERALLY SMALLER AND SLOW GROWING SHORE PINE AND MOUNTAIN HEMLOCK. NATIVE SMALL DECIDUOUS TREES COULD INCLUDE OREGON CRABAPPLE, VINE MAPLE, CASCARA, PACIFIC DOGWOOD.

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed
69	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	23	25'	13'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
70	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	31	60'	30'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
71	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	22	60'	30'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
72	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	47	40'	20'	Exceptional	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
73	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	55	60'	30'	Exceptional	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed
75	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	18	40'	20'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
76	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
77	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	10	40'	20'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
78	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	14	20'	10'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
79	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	30	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								

TREE PROTECTION NOTES

PRIOR TO CONSTRUCTION, THE FOLLOWING MEASURES SHOULD BE TAKEN TO ENSURE THAT TREES ARE NOT DAMAGED.

1) PROJECT MANAGERS SHOULD REVIEW THE CONTENTS OF THIS REPORT, INCLUDING THE INTERNATIONAL SOCIETY OF ARBORICULTURE'S RECOMMENDED TREE PROTECTION MEASURES FOUND BELOW UNDER SECTIONS 7 AND 8 OF THIS REPORT. INFORMATION CONTAINED HEREIN SHOULD BE RELAYED TO WORKERS AND SUBCONTRACTORS.

2) TO MINIMIZE SOIL COMPACTION, 6 INCHES OF MEDIUM FINE MULCH SHOULD BE APPLIED WITHIN THE RECOMMENDED TREE PROTECTION ZONES OF TREES 58, 60, AND 61 OF THIS REPORT. IT SHOULD BE KEPT AT A MINIMUM OF 12 INCHES FROM THE PROTECTED TREE'S TRUNK.

3) ONCE THE MULCH HAS BEEN APPLIED, TREE PROTECTION FENCING SHOULD BE INSTALLED PER THE ISA RECOMMENDED TREE PROTECTION FENCING DETAIL BELOW.

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Category	Overall Condition	Overall Risk Rating	Retained or Remove
59	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	27	30'	15'	Large	Good	Low	Retain
Recommendation		Requires tree protection measures outlined in sections 8, 10, and 11.								
60	3024059176	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation		Requires tree protection measures outlined in sections 8, 10, and 11.								
61	3024059176	English Laurel *Prunus laurocerasus*	Evergreen	12	30'	15'	Large	Good	Low	Retain
Recommendation		Requires tree protection measures outlined in sections 8, 10, and 11.								
62	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	29	60'	30'	Large	Good	Moderate	Retain
Recommendation		Requires tree protection measures outlined in sections 8, 10, and 11.								
63	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	30'	15'	Large	Good	Moderate	Retain
Recommendation		Requires tree protection measures outlined in sections 8, 10, and 11.								

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed
64	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	14'	7'	Large	Good	Low	Remove
Recommendation		Unlikely to survive the construction process and could potentially become hazardous.								
65	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	16'	8'	Large	Good	Low	Remove
Recommendation		Unlikely to survive the construction process and could potentially become hazardous.								
66	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	39	18'	9'	Exceptional	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
67	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	13	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
68	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	38	30'	15'	Exceptional	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed
80	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
81	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	28	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
82	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	10	40'	20'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
83	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
84	3024059176	Bigleaf Maple *Aceer macrophyllum*	Deciduous	16	40'	20'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								
85	3024059176	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	12	20'	10'	Large	Good	Low	Retain
Recommendation		Will not be impacted by construction activities.								

NORTH

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FT.

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D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
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O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

TREE RETENTION AND PLANTING PLAN

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
53232
4-8-24

DATE	REVISION	APP
11.20.23	CITY COMMENTS	YLP
4.8.24	CITY COMMENTS	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: C7
SHEET: 7 OF 1

GENERAL SHORING NOTES

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION.

2. SOILS REPORT REFERENCE: GEOTECHNICAL ENGINEERING EVALUATION INTRACHAT-HOANG RESIDENCE DEVELOPMENT 7929 EAST MERCER WAY MERCER ISLAND, WASHINGTON PREPARED BY NELSON GEOTECHNICAL ASSOCIATES, INC. ON JANUARY 14, 2022 AND MEMORANDUM PREPARED ON MARCH 15, 2024. NGA FILE NO. 1276521

3. THE SOIL PRESSURES INDICATED ON THE SOIL PRESSURE DIAGRAM WERE USED FOR DESIGN, IN ADDITION TO THE DEAD AND LIVE LOADS.

4. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING: STRUCTURAL STEEL, MISCELLANEOUS METAL, TENDONS, ANCHORS, REINFORCING STEEL, GROUTS, AND CONCRETES. PROPOSED DEMOLITION AND SHORING SEQUENCE SHALL ALSO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

5. SHOP DRAWING REVIEW OF DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND (1)COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN (2)WEEKS OF RECEIPT. ONCE THE DRAWINGS HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS THEY WILL BE MARKED WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN INTENT.

6. INSPECTION BY THE SOILS ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT AND TIEBACK PLACING AND STRESSING. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF PILE. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING AGENCY.

7. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110, 1704, AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION SHALL BE PROVIDED ON THE FOLLOWING TYPES OF CONSTRUCTION:

   CONCRETE CONSTRUCTION
   STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING)
   AUGERCAST, CAISSON, DRILLED, OR DRIVEN PILE INSTALLATION

8. THE SHORING CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRILLING PILE HOLES, TIEBACK ANCHORS, OR CUTTING OR DIGGING IN STREETS OR ALLEYS. THE UTILITIES INFORMATION SHOWN ON THE PLANS MAY BE NOT ACCURATE OR COMPLETE.

9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING STRUCTURES IN THE FIELD AND SHALL NOTIFY THE ENGINEER OF ALL FIELD CHANGES PRIOR TO FABRICATION AND INSTALLATION.

10. SEE SOILS REPORT FOR MORE COMPLETE INFORMATION, INCLUDING RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING, AND DRAINAGE.

11. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF CHAPTER 19 OF THE INTERNATIONAL BUILDING CODE. REQUIRED ULTIMATE COMPRESSIVE STRENGTH OF STRUCTURAL GROUT SHALL BE REACHED BY 28-DAY.

	(f'c)	MINIMUM CEMENT PER CUBIC YARD
PILE LEAN CONCRETE	100 PSI	1-1/2 SACKS

12. ALL LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH W.C.L.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

4x12 TIMBER LAGGING	DOUGLAS FIR-LARCH NO 2	Fb = 900 PSI
6x TIMBER LAGGING	DOUGLAS FIR-LARCH NO 2	Fb = 875 PSI

TIMBER LAGGING SHALL BE TREATED PER AWPA STANDARDS TO A MINIMUM RETENTION OF 0.40 PCF. LAGGING SHALL BE 4x12, UNO.

13. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:

   A. AISC 360 AND CHAPTER 22 OF THE INTERNATIONAL BUILDING CODE.

   B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, AMENDED AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.

   C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

14. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	Fy
A. WIDE FLANGE SHAPES	A992	50 KSI
B. OTHER SHAPES, PLATES, AND RODS	A36	36 KSI
C. HP-SHAPES	A572 (GRADE 50)	50 KSI
D. STRUCTURAL PIPE	A53 (GRADE B)	35 KSI
E. HOLLOW STRUCTURAL SECTIONS		
SQUARE OR RECTANGULAR	A500 (GRADE B)	46 KSI
ROUND	A500 (GRADE B)	42 KSI
F. CONVENTIONAL HIGH-STRENGTH BOLTS (3/4" ROUND, UNO)	A325	
G. COMMON BOLTS (WOOD APPLICATIONS)	A307	
H. ANCHOR BOLTS	F1554, GRADE 36	
I. HEADED SHEAR STUDS	A108	

15. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES(F) AND 40 FT-LBS AT 70 DEGREES(F), AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

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SHORING MONITORING

16. SURVEY MONITORING OF THE SHORING WALLS SHALL BE PERFORMED TO DETERMINE THE VERTICAL AND HORIZONTAL MOVEMENT OF THE MONITORING POINTS. THE MEASURING SYSTEM SHALL HAVE AN ACCURACY OF AT LEAST 0.01 FEET. THE MONITORING PROGRAM SHALL BE DETERMINED BY THE GEOTECHNICAL SPECIAL INSPECTOR BUT AT A MINIMUM SHALL INCLUDE THE FOLLOWING:

   ESTABLISH SURVEY LINES NEAR THE TOP OF THE WALL ON ADJACENT CRITICAL STRUCTURES OR BUILDINGS WITHIN A DISTANCE EQUAL TO TWO TIMES THE HEIGHT OF THE WALL, AND ALONG THE CURB LINE AND CENTERLINE OF ADJACENT ROADWAYS OR ALLEYS. SURVEY POINTS SHOULD BE SPACED NO MORE THAN EVERY 20'-0" ALONG THE WALL. AT SOLDIER PILES, PLACE MONITORING POINTS AT THE TOP OF AT LEAST EVERY OTHER SOLDIER PILE. ESTABLISH A BASELINE READING OF MONITORING POINTS ON THE GROUND SURFACE AND SETTLEMENT-SENSITIVE STRUCTURES BEHIND THE SHORING WALL PRIOR TO DEWATERING, EXCAVATION, AND INSTALLATION OF THE SHORING SYSTEM. THE GEOTECHNICAL ENGINEER, CONTRACTOR, AND SURVEYOR SHALL COORDINATE LOCATIONS OF THESE MONITORING POINTS PRIOR TO THE BEGINNING OF EXCAVATION.

   A LICENSED SURVEYOR THAT IS NOT THE CONTRACTOR MUST PERFORM THE SURVEYING AT LEAST ONCE A WEEK. MONITORING POINTS ESTABLISHED ALONG THE CURB LINE AND CENTERLINE OF ADJACENT ROADWAYS NEED TO BE MONITORED WHEN TOTAL WALL MOVEMENTS REACH 0.5". THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE AND THE SURVEY DATA TO THE STRUCTURAL ENGINEER, SHORING DESIGNER, AND BUILDING DEPARTMENT ON AT LEAST A WEEKLY BASIS. THIS WEEKLY REVIEW MUST CONTAIN A GRAPHICAL PRESENTATION OF THE WALL MOVEMENT VERSUS TIME.

   IMMEDIATELY AND DIRECTLY NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEER, SHORING DESIGNER, AND BUILDING DEPARTMENT IF UNUSUAL OR SIGNIFICANTLY INCREASED MOVEMENT OCCURS, IF 0.5" OF MOVEMENT OCCURS BETWEEN (2)CONSECUTIVE READINGS AND WHEN TOTAL MOVEMENT REACHES 0.5". IF MOVEMENT EXCEEDS 0.5", THE ENGINEERS AND SHORING DESIGNER SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP REMEDIAL MEASURES SUFFICIENT TO LIMIT TOTAL WALL MOVEMENT TO 1". ALL EARTHWORK AND CONSTRUCTION ACTIVITIES MUST BE DIRECTED TOWARD IMMEDIATE IMPLEMENTATION OF REMEDIAL MEASURES NECESSARY TO LIMIT TOTAL WALL MOVEMENT TO WHAT IS CONSIDERED AS ACCEPTABLE BY THE DESIGN TEAM, AND BUILDING DEPARTMENT (1" MAXIMUM).

   SURVEY FREQUENCY CAN BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND THE EXCAVATION IS COMPLETE IF THE DATA INDICATES LITTLE OR NO ADDITIONAL MOVEMENT. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AND BRACES) IS COMPLETED UP TO FINAL AND STREET GRADES. THE SURVEY FREQUENCY SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER, AFTER REVIEW AND APPROVAL BY BUILDING DEPARTMENT, AND SHALL BE BASED ON THE SHORING PERFORMANCE.

   CONTRACTOR SHALL COMPLETE A PHOTO SURVEY OF ALL STRUCTURES WITHIN A DISTANCE EQUAL TO TWO TIMES THE HEIGHT OF THE WALL PRIOR TO DEWATERING, EXCAVATION, AND INSTALLATION OF THE SHORING SYSTEM. THE PHOTO SURVEY SHALL INCLUDE BUT IS NOT LIMITED TO DOCUMENTING THE NEIGHBORING BUILDINGS, FOUNDATION WALLS, RETAINING WALLS, FREESTANDING WALLS, SIDEWALKS, DRIVE SURFACES, AND THE ENTIRE FAÇADE OF MASONRY STRUCTURES. ALL EXISTING CRACKS SHOULD BE MEASURED AND DOCUMENTED. PROVIDE VIBRATION MONITORING PER GEOTECHNICAL RECOMMENDATIONS AS REQUIRED.

PILE AND LAGGING CONSTRUCTION

17. SHORING AND SOIL EXCAVATION SHALL BE DONE SIMULTANEOUSLY.

18. DIMENSIONS AND LOCATION OF EXISTING STRUCTURES SHALL BE VERIFIED PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATION.

19. PILE AND ANCHOR HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES AND ANCHORS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDED HOLE DIGGING PROCEDURE.

20. STEEL PILE PLACEMENT TOLERANCES:

   1" INSIDE PERPENDICULAR TO SHORING WALL
   1" OUTSIDE PERPENDICULAR TO SHORING WALL
   3" LATERALLY

21. TIMBER LAGGING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. IF CDF BACKFILL IS USED LIMIT LIFTS TO A MAXIMUM HEIGHT OF 2'-0". DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4'-0" IS RECOMMENDED. SPECIAL CARE SHOULD BE TAKEN TO AVOID GROUND LOSS DURING EXCAVATION.

SHORING

22. PRESTRESSING STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

   A. DYWIDAG THREADED BARS SHALL CONFORM TO ASTM SPECIFICATION A-722 FOR HOT ROLLED, PROOF STRESSED ALLOY STEEL, pfu = 150 KSI.

   B. UNCOATED (7)WIRE STRESS RELIEVED STRAND SHALL CONFORM TO ASTM A416, GRADE 270.

23. TIEBACK INSTALLATION AND PRESTRESSING SHALL BE COMPLETED PRIOR TO EXCAVATING MORE THAN 2'-0" BELOW TIEBACK LEVEL.

24. TIEBACKS SHALL REMAIN STRESSED UNTIL ALL PERMANENT STRUCTURES ARE IN PLACE.

25. VERIFICATION TESTS SHALL BE PROVIDED AS FOLLOWS:

   A. 200% VERIFICATION TESTS SHALL BE CONDUCTED ON AT LEAST (2)ANCHORS IN EACH PARTICULAR SOIL TYPE. A MINIMUM OF (4)ANCHORS SHALL BE SELECTED BY THE GEOTECHNICAL ENGINEER FOR TESTING DURING THE COURSE OF CONSTRUCTION.

   B. THE MAXIMUM STRESS IN PRESTRESSING STEEL SHALL NOT EXCEED 80% OF THE ULTIMATE TENSILE STRENGTH DURING PERFORMANCE TESTING. PILES AND TIEBACKS MAY REQUIRE EXTRA REINFORCEMENT TO PERMIT STRESSING TO 200% OF DESIGN LOAD AS REQUIRED BY THE VERIFICATION TEST.

   C. THE VERIFICATION TESTS SHALL MEASURE ANCHOR STRESS AND DISPLACEMENT INCREMENTALLY TO VALUES OF UNIT SKIN FRICTION EQUAL TO 200% OF THE DESIGN STRESS. THE ANCHOR SHALL BE LOADED IN 10% INCREMENTS WITH EACH INCREMENT HELD FOR AT LEAST (5)MINUTES. THE FINAL FINAL MAXIMUM TEST LOAD SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST (30)MINUTES. MEASUREMENTS OF MOVEMENT SHALL BE OBTAINED WITH A MEASURING SYSTEM WITH AN ACCURACY OF AT LEAST 0.01 FEET. TEST ANCHORS SHALL HOLD THE MAXIMUM TEST UNIT STRESS WITHOUT NOTICEABLE CREEP AND EXHIBIT A LINEAR OR NEAR LINEAR RELATIONSHIP BETWEEN UNIT ANCHOR STRESS AND MOVEMENT OVER THE ENTIRE 200% STRESS RANGE. NOTICEABLE CREEP SHALL BE DEFINED AS A RATE OF MOVEMENT OF APPROXIMATELY 0.08"/LOG CYCLE OF TIME. TESTS SHALL BE PERFORMED WITHOUT THE BACKFILL AHEAD OF THE ANCHOR TO AVOID ANY CONTRIBUTORY RESISTANCE BY THE BACKFILL, UNLESS APPROVAL TO THE CONTRARY IS GRANTED BY THE GEOTECHNICAL ENGINEER.

3

26. PRODUCTION ANCHORS:

   A. EACH PRODUCTION ANCHOR SHALL BE PROOF-LOADED TO 130% OF THE DESIGN LOAD AND SHALL SUSTAIN THE PROOF LOAD WITHOUT NOTICEABLE CREEP OR EXCESSIVE ANCHOR MOVEMENT FOR (5)MINUTES. THE ANCHOR SHALL BE LOADED IN INCREMENTS OF 25% OF THE DESIGN LOAD, WITH EACH LOAD HELD FOR AT LEAST (5)MINUTES, IN ORDER TO OBTAIN A STABLE DISPLACEMENT MEASUREMENT.

   B. MOVEMENT OF THE ANCHOR IN EXCESS OF 3" SHALL BE CONSIDERED INDICATIVE OF DEFICIENCIES IN THE INSTALLATION. TOTAL MOVEMENT OF AN ANCHOR IN EXCESS OF 6" SHALL BE CONSIDERED A FAILURE REQUIRING A REPLACEMENT ANCHOR. TOTAL MOVEMENT OF AN ANCHOR BETWEEN 3" AND 6" SHALL BE REVIEWED BY THE GEOTECHNICAL AND STRUCTURAL ENGINEER TO DETERMINE IF A REPLACEMENT ANCHOR IS REQUIRED.

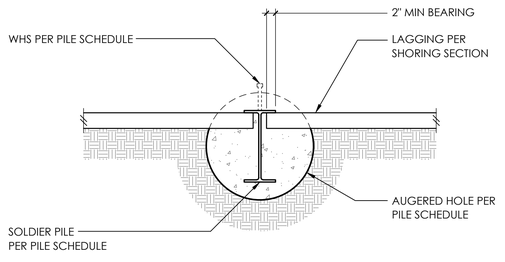
   C. FOLLOWING PROOF LOADING, EACH ANCHOR SHALL BE LOCKED OFF AT 100% OF DESIGN LOADING.

FOR ABBREVIATIONS SEE 2/SH1.0

ABBREVIATIONS

±	PLUS OR MINUS	EMBED	EMBEDMENT	oc	ON CENTER
Ø	DIAMETER	ENGR	ENGINEER	OPP	OPPOSITE
ABV	ABOVE	EQ	EQUAL	PERP	PERPENDICULAR
ADDL	ADDITIONAL	EXT	EXTERIOR	PL	PLATE
APPROX	APPROXIMATE	FDN	FOUNDATION	PL	PROPERTY LINE
ARCH	ARCHITECT, ARCHITECTURAL	FF	FINISHED FLOOR	PSF	POUNDS PER SQUARE FOOT
		FT	FEET	PSI	POUNDS PER SQUARE INCH
BLDG	BUILDING	FTG	FOOTING	PT	PRESSURE TREATED LUMBER
BLW	BELOW	GALV	GALVANIZED		
BOE	BOTTOM OF EXCAVATION	GR	GRADE	REQD	REQUIRED
		HF	HEM FIR	SCHED	SCHEDULE
BOT	BOTTOM	HORIZ	HORIZONTAL	SIM	SIMILAR
BTWN	BETWEEN	HSS	HOLLOW STRUCTURAL SECTION	STRUCT	STRUCTURAL
℄	CENTERLINE			TEMP	TEMPORARY
CLR	CLEAR	HT	HEIGHT	THRU	THROUGH
CONC	CONCRETE	IBC	INTERNATIONAL BUILDING CODE	TOW	TOP OF WALL
CONT	CONTINUOUS			TYP	TYPICAL
CS	CRAWLSPACE	IN	INCH	UNO	UNLESS NOTED OTHERWISE
DEMO	DEMOLISH	K	KIPS (1000 POUNDS)		
DF	DOUGLAS FIR	KSF	KIPS PER SQ FT	VIF	VERIFY IN FIELD
DIA	DIAMETER	L	ANGLE	W	WIDE OR WIDTH
DIAG	DIAGONAL	L	LENGTH	w/	WITH
DIM	DIMENSION	LBS	POUNDS	w/o	WITHOUT
DO	DITTO	MAX	MAXIMUM	WHS	WELDED HEADED STUD
DP	DEEP/DEPTH	MB	MACHINE BOLT		
DWGS	DRAWINGS	MFR	MANUFACTURER		
(E)	EXISTING	MIN	MINIMUM		
EA	EACH	MISC	MISCELLANEOUS		
EL	ELEVATION	NTS	NOT TO SCALE		

2



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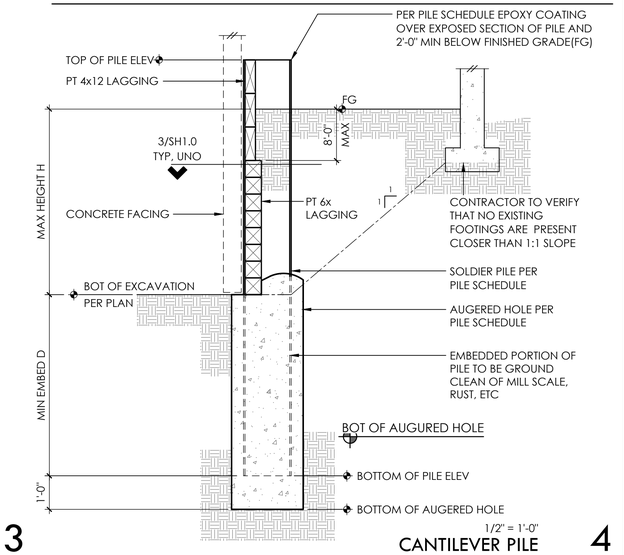
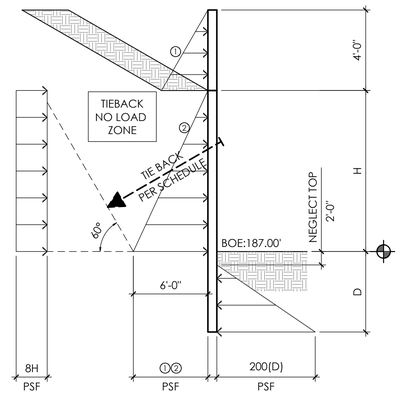
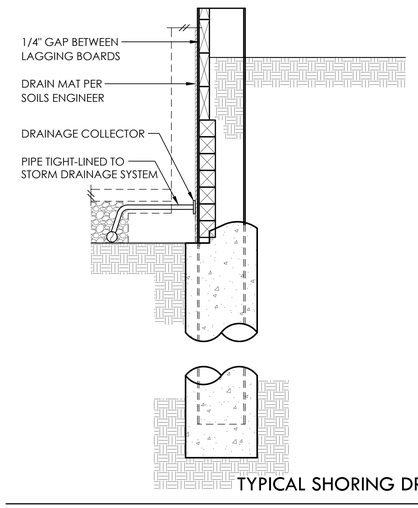


1/2" = 1'-0"
CANTILEVER PILE 4



① CATCHMENT SURCHARGE - 100 PSF
② ACTIVE PRESSURE - 65H PSF
③ PASSIVE PRESURE INCLUDE A FS = 2.0

PILE LOADING DIAGRAM 5



1/2" = 1'-0"
TYPICAL SHORING DRAINAGE 6

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MARC J. MALSAM — STATE OF WASHINGTON — 41206 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT NO	5438-2022-01-02
PROJECT MANAGER	WAC
DRAWN	KT
ENGINEER	BLAKE RASSILYER
	206.602.5452
	BLAKER@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	6.10.22
1	SHORING REVISIONS	11.14.23
2	PERMIT CORRECTIONS	3.22.24
3	PERMIT CORRECTIONS	4.23.24

ARCH WARMMODERN LIVING 206.214.5190

SHORING GENERAL NOTES AND DETAILS

SH1.0
SCALE - 3/4" = 1'-0"

SHORING NOTES

1. REFER TO GENERAL SHORING NOTES SHEET SH1.0 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO SOILS REPORT FOR ADDITIONAL SHORING INSTALLATION REQUIREMENTS.
3. REFER TO SHEET SH1.0 FOR TYPICAL SHORING DETAILS.
4. CONTRACTOR TO VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS, SURVEY DRAWINGS, AND EXISTING SITE CONDITIONS.
5. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

LEGEND

	DRILLED PILE
P__	PILE MARK
BOE	BOTTOM OF EXCAVATION
TOW	TOP OF WALL
FF	FINISH FLOOR
FG	FINISH GRADE
	SLOPING EXCAVATION (1.0H: 1.0V MAX)
	TIEBACK SHORING PER 12/SH3.0 w/ REQUIRED ALLOWABLE TENSION LOAD PER SHORING SCHEDULE
0.0'	SPOT ELEVATION

SEE SH2.1 FOR PILE SCHEDULE

SHORING AND EXCAVATION PLAN

N

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SHORING AND EXCAVATION PLAN

SH2.0

SCALE - 1/8" = 1'-0"

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SHORING PILE SCHEDULE①②

PILE MARK	AUGER DIA	PILE SIZE	BOT OF PILE ELEV	BOT OF EXCAV	TOP OF PILE ELEV	TIEBACK ELEV	TIEBACK FORCE (KIPS)	TIEBACK ANGLE (DEG)	TIEBACK MIN BOND LENGTH	TIEBACK MIN TOTAL LENGTH	MAX HEIGHT 'H'	MIN DEPTH 'D'	EPOXY COATING	WELDED STUDS ③	CONDITION	TYPE	LOADING DIAGRAM	DETAIL
P101	24"	W14x68	177.0'	196.0'	208.0'	-	-	-	-	-	12.0'	19.0'	YES	YES	PERMANENT	CANTILEVER	5/SH1.0	4/SH1.0, 4/SH3.0
P102	24"	W14x53	172.0'	187.0'	208.0'	196.0'	71.1	15°	31.0'	41.0'	21.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P103	24"	W14x53	172.0'	187.0'	208.0'	196.0'	71.1	15°	31.0'	41.0'	21.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P104	24"	W14x53	172.0'	187.0'	208.0'	196.0'	71.1	15°	31.0'	41.0'	21.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P105	24"	W12x40	172.0'	187.0'	206.0'	196.0'	54.1	15°	23.0'	32.0'	19.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P106	24"	W12x40	172.0'	187.0'	206.0'	196.0'	54.1	15°	23.0'	32.0'	19.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P107	24"	W12x40	172.0'	187.0'	206.0'	196.0'	54.1	15°	23.0'	32.0'	19.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P108	24"	W12x40	172.0'	187.0'	206.0'	196.0'	54.1	15°	23.0'	32.0'	19.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P109	24"	W10x39	172.0'	187.0'	204.0'	196.0'	40.0	15°	17.0'	26.0'	17.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P110	24"	W10x39	172.0'	187.0'	204.0'	196.0'	40.0	15°	17.0'	26.0'	17.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P111	24"	W10x39	172.0'	187.0'	204.0'	196.0'	40.0	15°	17.0'	26.0'	17.0'	15.0'	YES	YES	PERMANENT	TIEBACK	5/SH1.0	4/SH1.0, 4/SH3.0, 12/SH3.0
P112	24"	W14x68	177.5'	196.0'	204.0'	-	-	-	-	-	10.0'	18.5'	YES	YES	PERMANENT	CANTILEVER	5/SH1.0	4/SH1.0, 4/SH3.0

① CONTRACTOR SHALL REFERENCE TOP OF PILE AND BOTTOM OF PILE ELEVATIONS FOR DETERMINING TOTAL LENGTH OF PILE

② HEIGHT 'H' AND DEPTH 'D' LENGTH IS FOR ENGINEERING REFERENCE PURPOSES ONLY

③ 3/4"Ø x 6" WELDED HEADED STUDS (WHS) AT 16"oc

PILE SCHEDULE

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ARCH WARMMODERN LIVING
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PILE SCHEDULE

SH2.1

SCALE - 1/8" = 1'-0"

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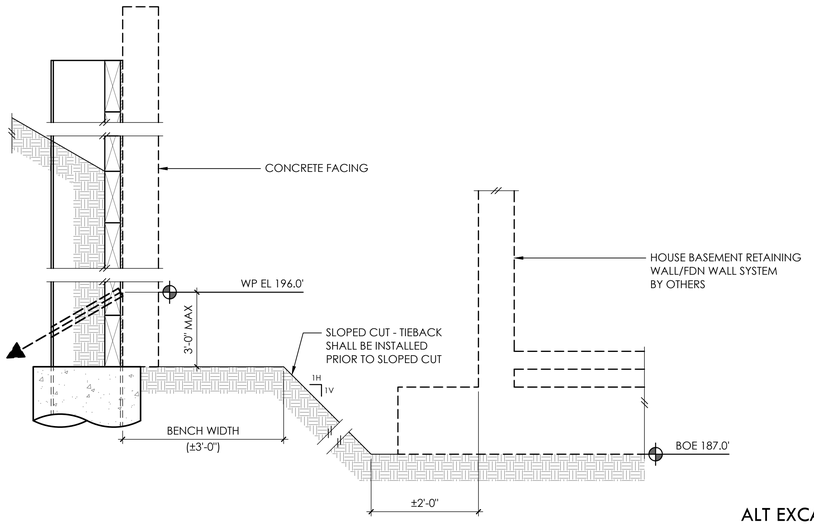


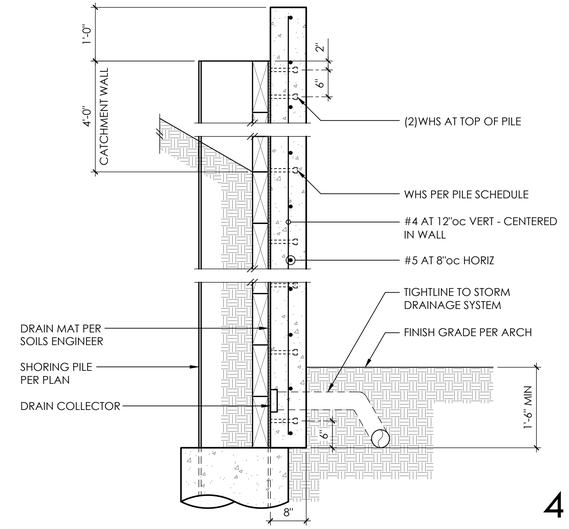
FOR CALLOUTS IN COMMON REFER 4/SH3.0

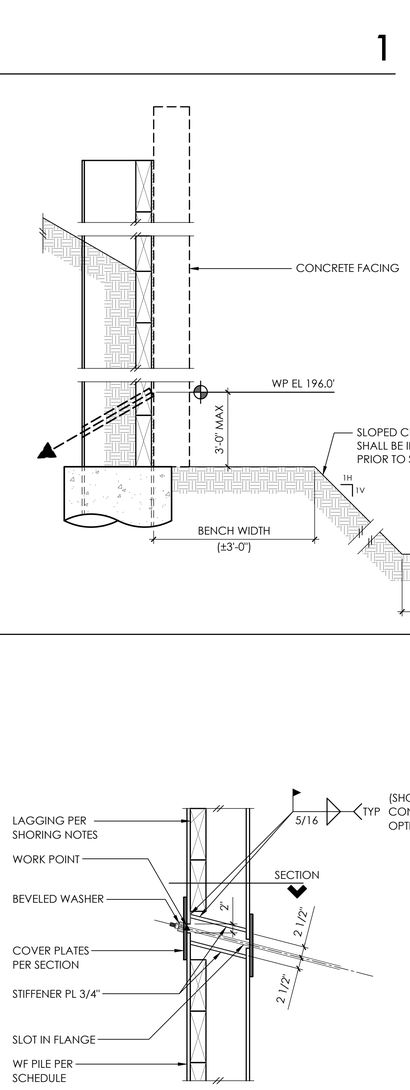
ALT EXCAVATION 6

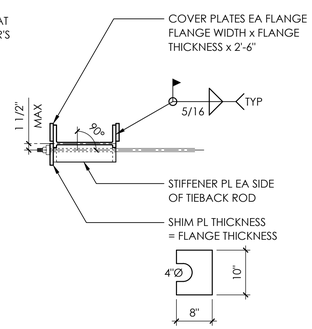
2

3

4

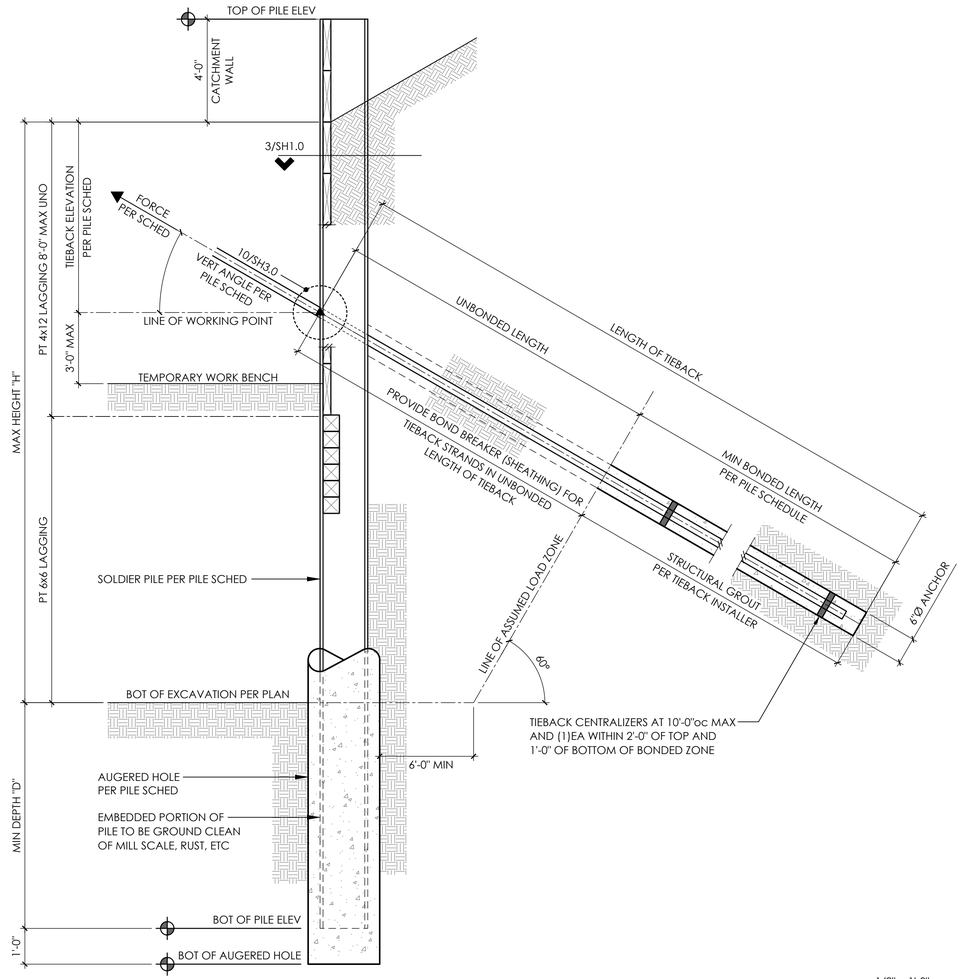






SECTION

TIEBACK TO PILE CONNECTION 10



1/2" = 1'-0"
TIEBACK PILE 12

MARC J. MALSAM
STATE OF WASHINGTON
41206
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT NO	5438-2022-01-02
PROJECT MANAGER	WAC
DRAWN	KT
ENGINEER	BLAKE RASSILYER
	206.602.5452
	BLAKER@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	6.10.22
1	SHORING REVISIONS	11.14.23
2	PERMIT CORRECTIONS	3.22.24
3	PERMIT CORRECTIONS	4.23.24

ARCH WARMMODERN LIVING 206.214.5190

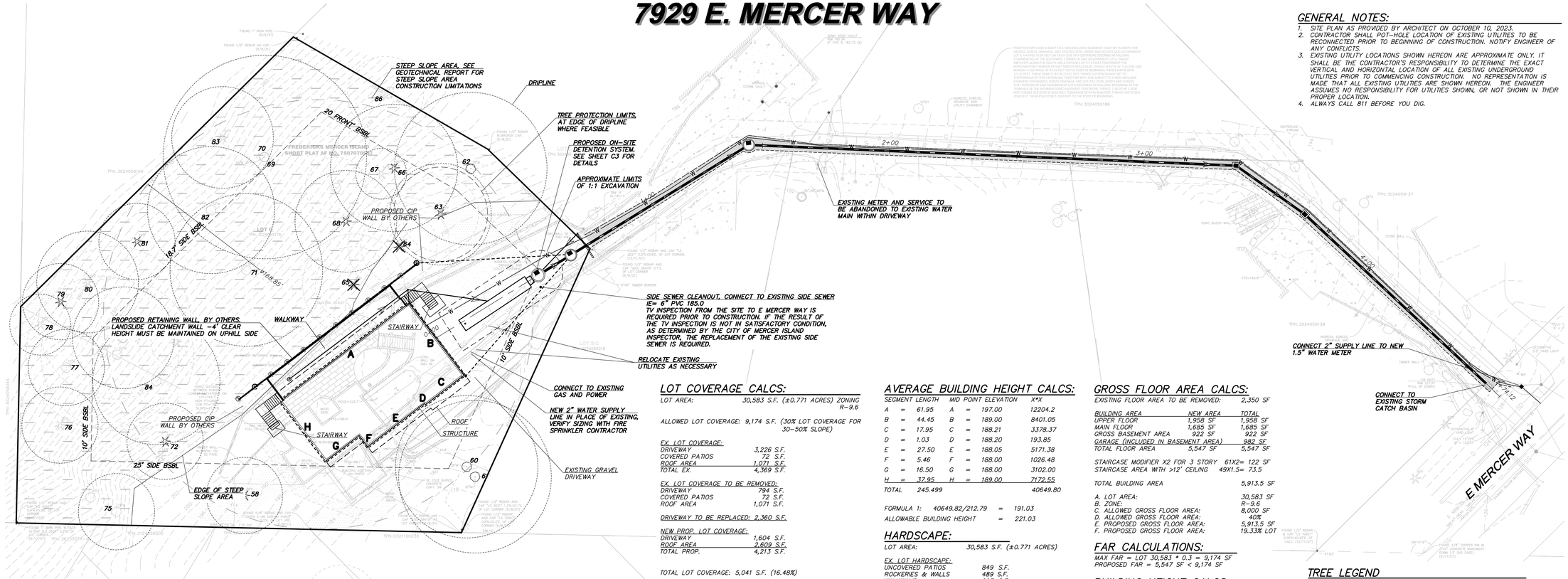
TYPICAL TIEBACK DETAILS

SH3.0
SCALE - 3/4" = 1'-0"

Plotted by: blake
Plotted Date: Apr 23, 2024 - 11:22am

SW 1/4 SECTION 30, TOWNSHIP 24 N, RANGE 4 E, W.M.

7929 E. MERCER WAY



GENERAL NOTES:

1. SITE PLAN AS PROVIDED BY ARCHITECT ON OCTOBER 10, 2023.
2. CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
3. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
4. ALWAYS CALL 811 BEFORE YOU DIG.

LOT COVERAGE CALCS:

LOT AREA: 30,583 S.F. (±0.771 ACRES) ZONING R-9.6

ALLOWED LOT COVERAGE: 9,174 S.F. (30% LOT COVERAGE FOR 30-50% SLOPE)

EX. LOT COVERAGE:

DRIVEWAY	3,226 S.F.
COVERED PATIOS	72 S.F.
ROOF AREA	1,071 S.F.
TOTAL EX.	4,369 S.F.

EX. LOT COVERAGE TO BE REMOVED:

DRIVEWAY	794 S.F.
COVERED PATIOS	72 S.F.
ROOF AREA	1,071 S.F.

DRIVEWAY TO BE REPLACED: 2,360 S.F.

NEW PROP. LOT COVERAGE:

DRIVEWAY	1,604 S.F.
ROOF AREA	2,609 S.F.
TOTAL PROP.	4,213 S.F.

TOTAL LOT COVERAGE: 5,041 S.F. (16.48%)

AVERAGE BUILDING HEIGHT CALCS:

SEGMENT	LENGTH	MID POINT	ELEVATION	X*X
A	61.95	A	197.00	12204.2
B	44.45	B	189.00	8401.05
C	17.95	C	188.21	3378.37
D	1.03	D	188.20	193.85
E	27.50	E	188.05	5171.38
F	5.46	F	188.00	1026.48
G	16.50	G	188.00	3102.00
H	37.95	H	189.00	7172.55
TOTAL	245.499			40649.80

FORMULA 1: 40649.82/212.79 = 191.03

ALLOWABLE BUILDING HEIGHT = 221.03

HARDSCAPE:

LOT AREA: 30,583 S.F. (±0.771 ACRES)

EX. LOT HARDSCAPE:

UNCOVERED PATIOS	849 S.F.
ROCKERIES & WALLS	489 S.F.
WALKWAYS	203 S.F.
TOTAL EX.	1,541 S.F.

LOT HARDSCAPE TO BE REMOVED:

UNCOVERED PATIOS	849 S.F.
ROCKERIES & WALLS	489 S.F.
WALKWAYS	203 S.F.

PROP. LOT HARDSCAPE:

UNCOVERED PATIOS	357 S.F.
STAIRS	118 S.F.
SITE WALLS	164 S.F.
TOTAL PROP.	639 S.F.

PROJECT HARDSCAPE AREA 2.09% OF LOT

YARD SETBACKS:

FRONT YARD SETBACK:	20 FT
REAR YARD SETBACK:	25 FT
SIDE YARD SETBACKS:	28.7 FT COMBINED (168.85' DIAMETER LOT CIRCLE OUTSIDE OF ACCESS EASEMENT)

GROSS FLOOR AREA CALCS:

EXISTING FLOOR AREA TO BE REMOVED: 2,350 SF

BUILDING AREA	NEW AREA	TOTAL
UPPER FLOOR	1,958 SF	1,958 SF
MAIN FLOOR	1,685 SF	1,685 SF
GROSS BASEMENT AREA	922 SF	922 SF
GARAGE (INCLUDED IN BASEMENT AREA)		982 SF
TOTAL FLOOR AREA	5,547 SF	5,547 SF

STAIRCASE MODIFIER X2 FOR 3 STORY 61X2= 122 SF
STAIRCASE AREA WITH >12' CEILING 49X1.5= 73.5

TOTAL BUILDING AREA 5,913.5 SF

A. LOT AREA: 30,583 SF
B. ZONE: R-9.6
C. ALLOWED GROSS FLOOR AREA: 8,000 SF
D. ALLOWED GROSS FLOOR AREA: 40%
E. PROPOSED GROSS FLOOR AREA: 5,913.5 SF
F. PROPOSED GROSS FLOOR AREA: 19.33% LOT

FAR CALCULATIONS:

MAX FAR = LOT 30,583 * 0.3 = 9,174 SF
PROPOSED FAR = 5,547 SF < 9,174 SF

BUILDING HEIGHT CALCS:

A. AVERAGE BUILDING ELEVATION (ABE) CALCULATIONS LOCATED ON SHEET:	#G006, SP1
B. ALLOWABLE BUILDING HEIGHT (ABE+30)	221.03 FT
C. PROPOSED BUILDING HEIGHT	220.13 FT
D. BENCHMARK ELEVATION	191.14 FT
E. DESCRIBE BENCHMARK LOCATION	TBM 'A'
F. SLOPING LOT–MAX HEIGHT OF TOP EXTERIOR WALL FACADE ABOVE LOWEST EXISTING GRADE (30–FT MAX):	29'–9.375"

SITE SLOPE CALCS:

HIGHEST ELEVATION POINT OF LOT:	268.7'
LOWEST ELEVATION POINT OF LOT:	176'
ELEVATION DIFFERENCE:	92.7'
HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS:	194'
LOT SLOPE:	47.7%

TREE LEGEND

- VIABLE TREE
- NON VIABLE TREE
- TREE TO BE REMOVED
- DRIPLINE OF VIABLE TREE TO BE RETAINED
- DRIPLINE OF VIABLE TREE TO BE REMOVED
- TREE PROTECTION FENCING (SEE SHEET C2 FOR DETAIL)

TREE RETENTION CALCULATION

TOTAL NUMBER OF EXCEPTIONAL TREES:	4
TOTAL LARGE TREES:	22
TOTAL VIABLE ONSITE TREES:	26
REQUIRED: 30% VIABLE TREES:	8
PROPOSED VIABLE TREES RETAINED:	24

SEE SHEET C7 AND ARBORIST REPORT FOR TREE RETENTION PLAN

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Category	Overall Condition	Overall Risk Rating	Retained or Remove
59	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	27	30'	15'	Large	Good	Low	Retain
Recommendation	Requires tree protection measures outlined in sections 8, 10, and 11.									
60	3024059176	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation	Requires tree protection measures outlined in sections 8, 10, and 11.									
61	3024059176	English Laurel *Prunus laurocerasus*	Evergreen	12	30'	15'	Large	Good	Low	Retain
Recommendation	Requires tree protection measures outlined in sections 8, 10, and 11.									
62	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	29	60'	30'	Large	Good	Moderate	Retain
Recommendation	Requires tree protection measures outlined in sections 8, 10, and 11.									
63	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	30'	15'	Large	Good	Moderate	Retain
Recommendation	Requires tree protection measures outlined in sections 8, 10, and 11.									
64	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	30'	7'	Large	Good	Moderate	~~Retain~~ Remove
Recommendation	Remove tree to remediate risk to hillside trees.									
65	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	30'	8'	Large	Good	Low	~~Retain~~ Remove
Recommendation	Remove tree to remediate risk to hillside trees.									
66	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	39	18'	9'	Exceptional	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
67	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	13	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
68	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	38	30'	15'	Exceptional	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
69	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	23	25'	13'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
70	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	31	60'	30'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
71	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	22	60'	30'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
72	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	47	40'	20'	Exceptional	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
73	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	55	60'	30'	Exceptional	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
75	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	18	40'	20'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
76	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
77	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	10	40'	20'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
78	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	14	20'	10'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
79	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	30	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
80	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
81	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	28	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
82	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	10	40'	20'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
83	3024059176	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30'	15'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
84	3024059176	Bigleaf Maple *Acer macrophyllum*	Deciduous	16	40'	20'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									
85	3024059176	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	12	20'	10'	Large	Good	Low	Retain
Recommendation	Will not be impacted by construction activities.									

NORTH

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FT.

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

7929 EAST MERCER WAY
MERCER ISLAND RESIDENCE

SITE PLAN

PARCEL NO. 3024059176
7929 EAST MERCER WAY
MERCER ISLAND, WA 98040

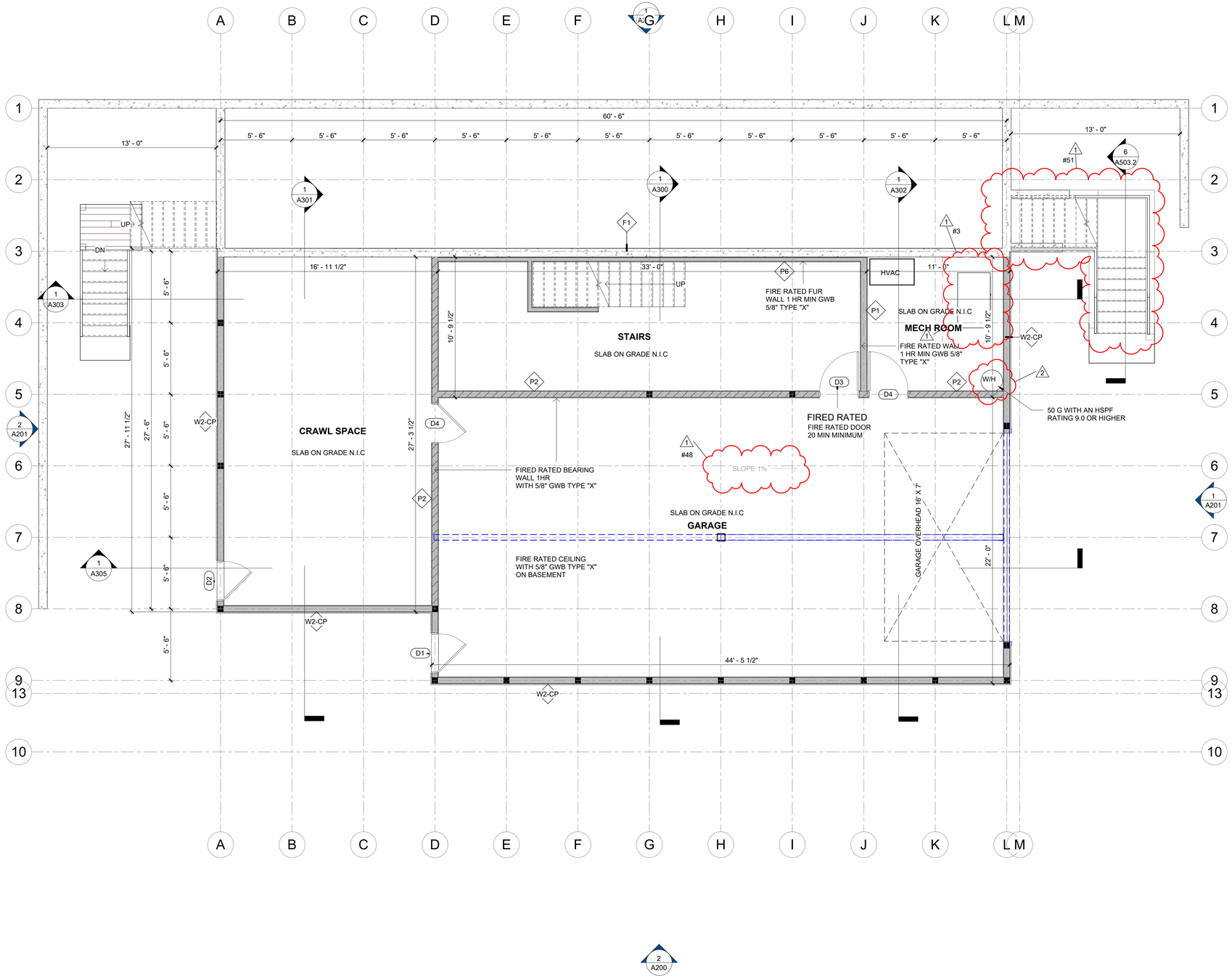
HOA HOANG

7929 E MERCER WAY
MERCER ISLAND WA 98040

DATE	REVISION	APR
11.20.23	CITY COMMENTS	YLP
4.8.24	CITY COMMENTS	YLP

DRAFTED BY: RMF
DESIGNED BY: RMF
PROJECT ENGINEER: YLP
DATE: 12.29.22
PROJECT NO.: 21125

DRAWING: SP1
SHEET: 1 OF 1



1 A101 LOWER LEVEL
1/4" = 1'-0"

LOWER LEVEL NOTES

SCALE 1/4" = 1'-0"

1. SEE FIRST FLOOR FRAMING PLAN FOR FIRST FLOOR BEAM and HANGER SIZES.
2. L.C.H. IS NOT RESPONSIBLE FOR ANY DESIGN and/or MATERIALS CALLED OUT AS N.I.C. (NOT IN CONTRACT) or BY OTHERS.
3. ALL ELECTRICAL WIRING and FIXTURES, PLUMBING FIXTURES, APPLIANCES, and CABINETS ARE N.I.C. and ARE SHOWN FOR REFERENCE ONLY.
4. REFER TO DOOR and WINDOW INSTALLATION PAGES FOR DETAILS.
5. INTERIOR WALL LINER IS 1/2" GYPSUM WALLBOARD (N.I.C.), TYPICAL.
6. CEMENT BOARD (N.I.C.) IS USED BEHIND PLUMBING FIXTURES FROM FLOOR LEVEL TO 4' ABOVE FLOOR LEVEL. THROUGHOUT TUB and SHOWER ENCLOSURES USE CODE APPROVED BACKER BOARD (BY OTHERS)
7. CEILING LINER BELOW MAIN FLOOR JOISTS IS 5/8" GYPSUM WALLBOARD (N.I.C.), UNLESS NOTED OTHERWISE.
8. DO NOT DRILL HOLES THROUGH POSTS or BEAMS.
9. CLOSET SHELVING and RODS ARE BY OTHERS.
10. AT CONTRACTORS DISCRETION, RAISE WINDOWS TO ALLOW CLEARANCE FOR PRE-FORMED COUNTER/BACKSPLASH ASSEMBLY.
11. LINDAL CEDAR HOMES INC. DOES NOT RECOMMEND THE USE OF ANY FORM OF HUMIDIFIER IN CONDITIONED LIVING SPACES. HUMIDIFIERS ADD MOISTURE THAT MAY PROMOTE MOLD GROWTH, CONDENSATION AND OTHER MOISTURE RELATED PROBLEMS.
12. GARAGE FLOOR SURFACE SHALL BE APPROVED NON-COMBUSTIBLE MATERIAL, SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOORWAY COMPLY WITH R309.1
13. WHEN PLANS ARE ON 12" X 18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

Lindal CEDAR HOMES

PN
PROJECT NORTH

LINDAL DEALER
WARM MODERN LIVING

CLIENT
HOANG INTRACHAT

PROJECT ADDRESS
7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER
42255

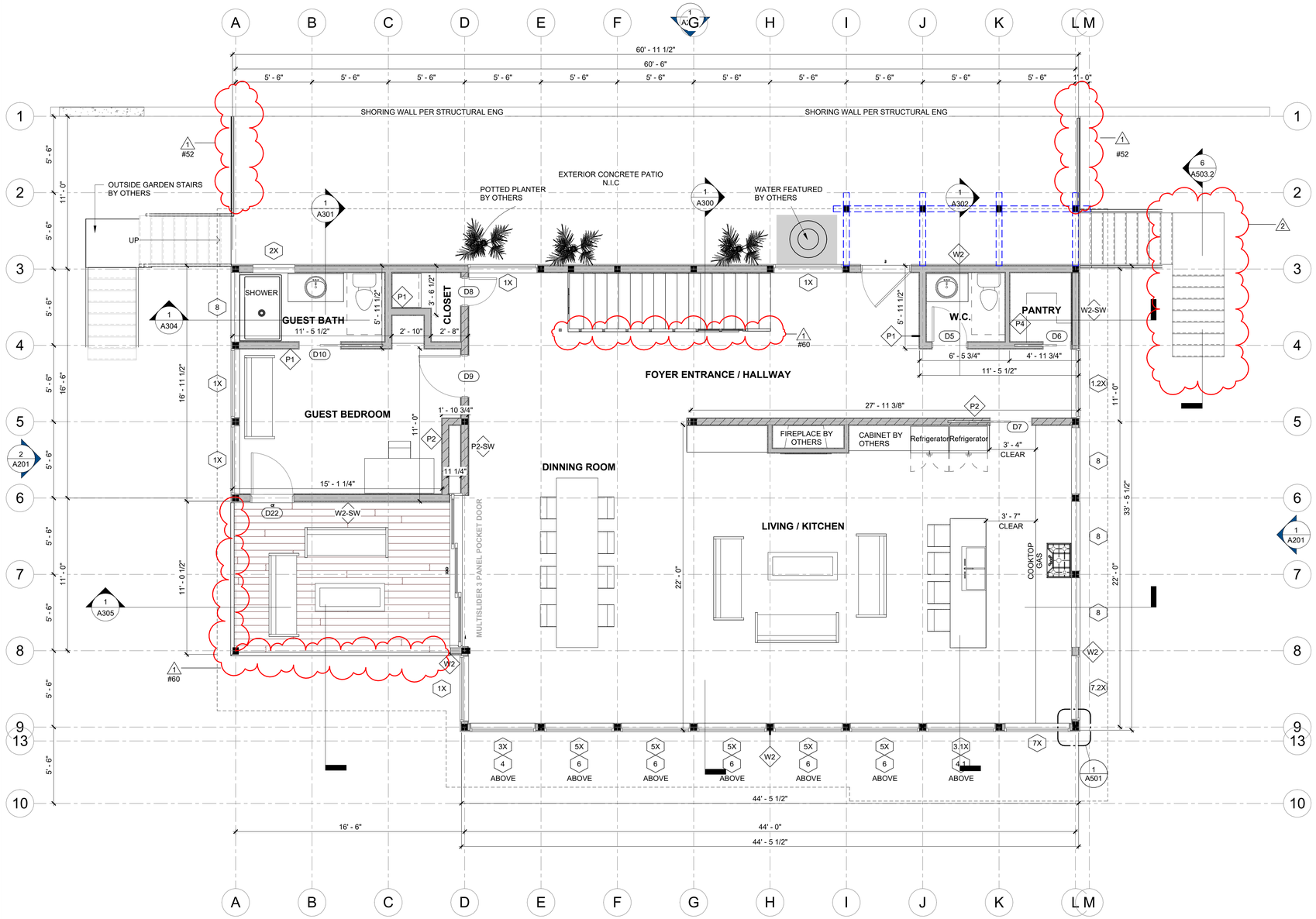
SERIES

MODEL
CUSTOM ELEMENT HOME

LOWER LEVEL PLAN
Scale: 1/4" = 1'-0"

A101

ARCH D 24" x 36" LAST PLOT DATE: 4/26/2024 4:05:40 PM



FIRST FLOOR NOTES

SCALE 1/4" = 1'-0"

1. SEE SECOND FLOOR FRAMING PLAN FOR SECOND FLOOR BEAM and HANGER SIZES.
2. L.C.H. IS NOT RESPONSIBLE FOR ANY DESIGN and/or MATERIALS CALLED OUT AS N.I.C. (NOT IN CONTRACT) or BY OTHERS.
3. ALL ELECTRICAL WIRING and FIXTURES, PLUMBING FIXTURES, APPLIANCES, and CABINETS ARE N.I.C. and ARE SHOWN FOR REFERENCE ONLY.
4. REFER TO DOOR and WINDOW INSTALLATION PAGES FOR DETAILS.
5. INTERIOR WALL LINER IS 1/2" GYPSUM WALLBOARD (N.I.C.), TYPICAL. CEMENT BOARD (N.I.C.) IS USED BEHIND PLUMBING FIXTURES FROM FLOOR LEVEL TO 4' ABOVE FLOOR LEVEL. THROUGHOUT TUB and SHOWER ENCLOSURES USE CODE APPROVED BACKER BOARD (N.I.C.)
6. INTERIOR ROOF LINER IS 5/8" GYPSUM WALLBOARD (N.I.C.), UNLESS NOTED OTHERWISE.
7. CEILING LINER BELOW SECOND FLOOR JOISTS IS 5/8" GYPSUM WALLBOARD (N.I.C.), UNLESS NOTED OTHERWISE.
8. DO NOT DRILL HOLES THROUGH POSTS or BEAMS.
9. CLOSET SHELVING and RODS ARE BY OTHERS.
10. AT CONTRACTORS DISCRETION, RAISE WINDOWS TO ALLOW CLEARANCE FOR PRE-FORMED COUNTER/BACKSPLASH ASSEMBLY.
11. LINDAL CEDAR HOMES INC. DOES NOT RECOMMEND THE USE OF ANY FORM OF HUMIDIFIER IN CONDITIONED LIVING SPACES. HUMIDIFIERS ADD MOISTURE THAT MAY PROMOTE MOLD GROWTH, CONDENSATION AND OTHER MOISTURE RELATED PROBLEMS.
12. RECESSED CANISTER LIGHTING IS NOT TO BE INSTALLED IN ANY INSULATED
13. CATHEDRAL CEILING. THE USE OF RECESSED, CANISTER LIGHTING REDUCES THE ROOF'S ABILITY TO PERFORM PROPERLY BY INTRODUCING A HEAT SOURCE DIRECTLY INTO THE ROOF CAVITY.
14. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

1 A102 — 1ST FLOOR PLAN
1/4" = 1'-0"

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

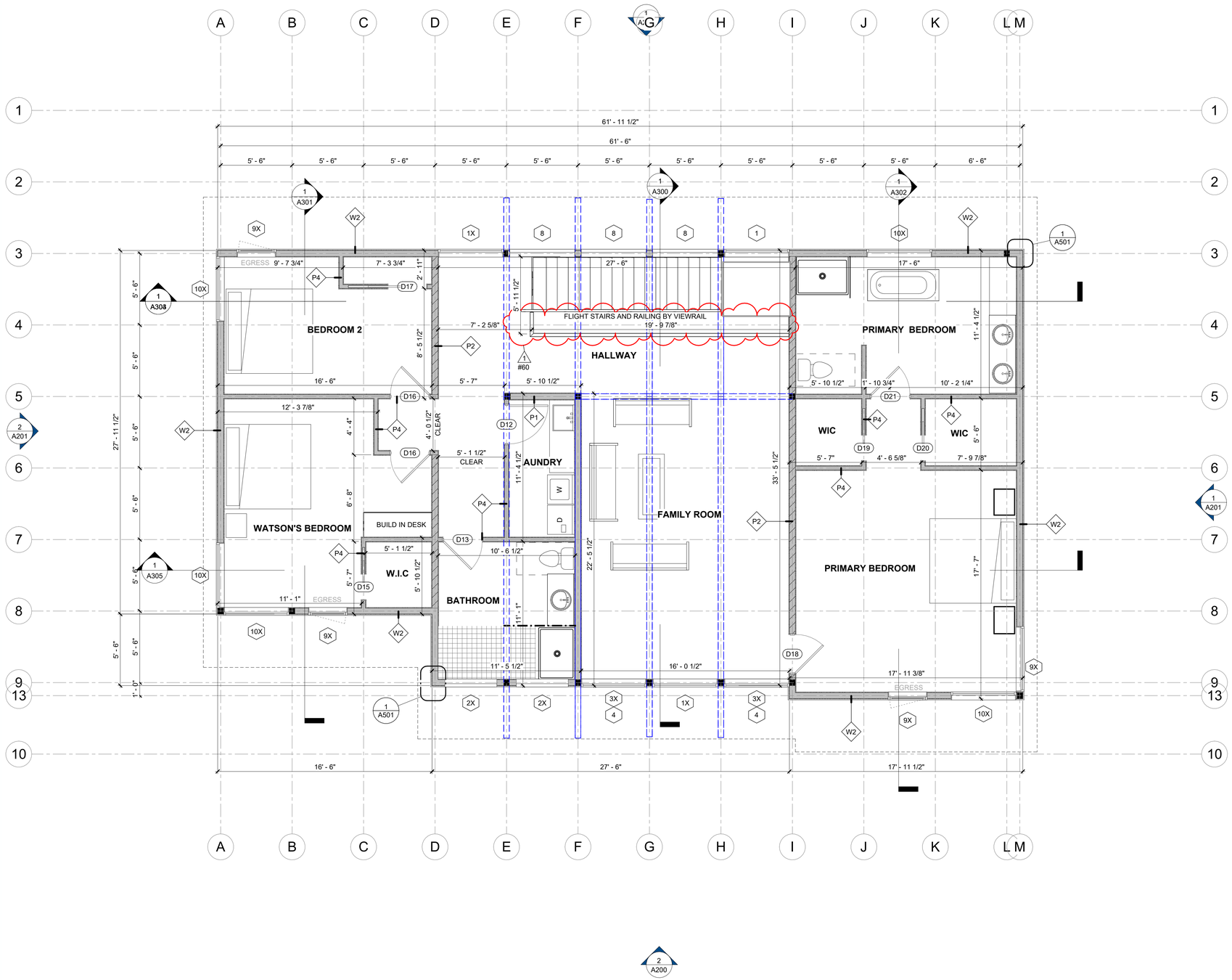
CUSTOM ELEMENT HOME

FIRST FLOOR PLAN

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

A102

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:39 PM



1 A103 02 - SECOND FLOOR PLAN

1/4" = 1'-0"

SECOND FLOOR NOTES

SCALE 1/4" = 1'-0"

1. SEE ROOF FRAMING PLAN FOR BEAM, GIRDER and HANGER SIZES.
2. L.C.H. IS NOT RESPONSIBLE FOR ANY DESIGN and/or MATERIALS CALLED OUT AS N.I.C. (NOT IN CONTRACT) or BY OTHERS.
3. ALL ELECTRICAL WIRING and FIXTURES, PLUMBING FIXTURES, APPLIANCES and CABINETS ARE N.I.C. and ARE SHOWN FOR REFERENCE ONLY.
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6. INTERIOR ROOF LINER IS 5/8" GYPSUM WALLBOARD (N.I.C.), UNLESS NOTED OTHERWISE.
7. DO NOT DRILL HOLES THROUGH POSTS or BEAMS.
8. CLOSET SHELVING and RODS ARE BY OTHERS.
9. AT CONTRACTORS DISCRETION, RAISE WINDOWS TO ALLOW CLEARANCE FOR PRE-FORMED COUNTER/BACKSPLASH ASSEMBLY.
10. LINDAL CEDAR HOMES INC. DOES NOT RECOMMEND THE USE OF ANY FORM OF HUMIDIFIER IN CONDITIONED LIVING SPACES. HUMIDIFIERS ADD MOISTURE THAT MAY PROMOTE MOLD GROWTH, CONDENSATION AND OTHER MOISTURE RELATED PROBLEMS.
11. RECESSED CANISTER LIGHTING IS NOT TO BE INSTALLED IN ANY INSULATED CATHEDRAL CEILING. THE USE OF RECESSED, CANISTER LIGHTING REDUCES THE ROOF'S ABILITY TO PERFORM PROPERLY BY INTRODUCING A HEAT SOURCE DIRECTLY INTO THE ROOF CAVITY.
12. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

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MERCER ISLAND WA 98040

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2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

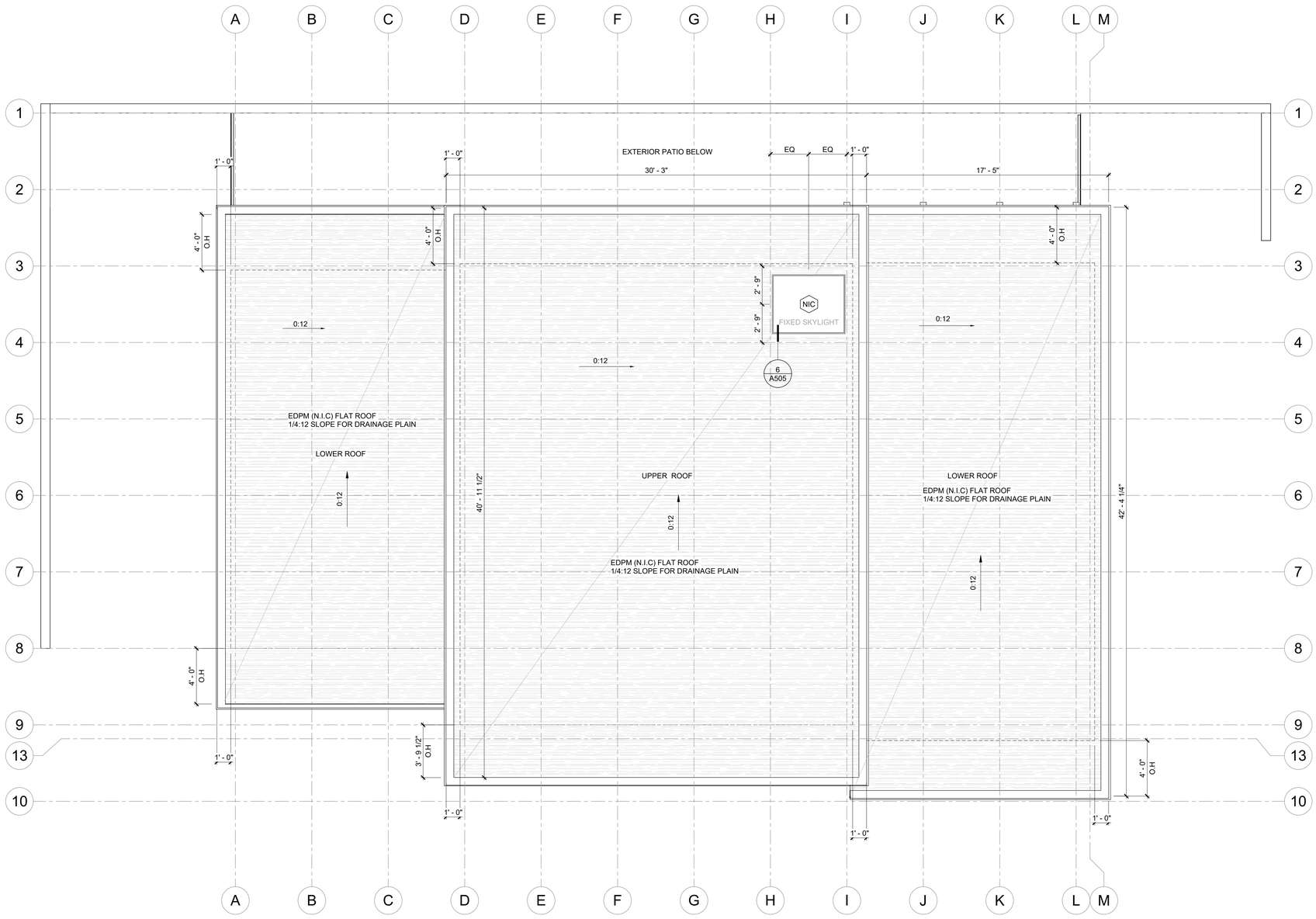
CUSTOM ELEMENT HOME

SECOND FLOOR PLAN

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

A103

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:23:31 PM



1 A104 04 -ROOF PLAN

1/4" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:33 PM

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

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ISSUANCES

WARRANTY NUMBER

42255

SERIES

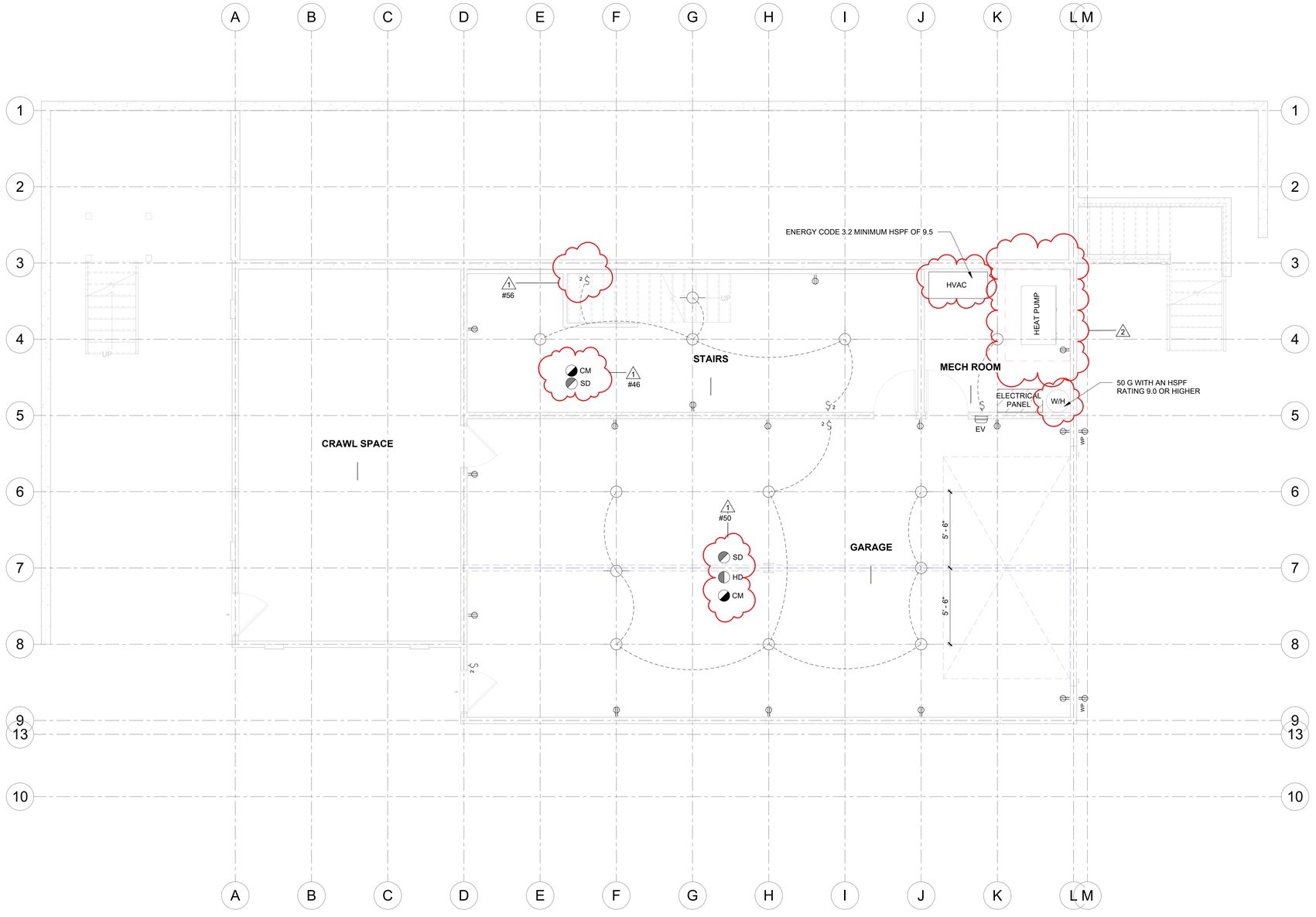
MODEL

CUSTOM ELEMENT HOME

ROOF PLAN

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

A104



ELECTRICAL PLAN LEGEND:

	DUPLEX RECEPTACLE
FL	DUPLEX RECEPTACLE FLOOR MOUNTED
GFI	GROUND FAULT CIRCUIT INTERRUPTER RATED RECEPTACLE
WP	WEATHER PROOF IN USE COVER RECEPTACLE
D	DRYER RECEPTACLE
R	RANGE RECEPTACLE
	DIRECT CONNECTION
S	SINGLE POLE SWITCH
S 2	2-WAY SWITCH
S 3	3-WAY SWITCH

ELECTRICAL SYMBOL KEY

	LIGHT FIXTURE
	LIGHT/EXHAUST FAN FIXTURE
SD	SMOKE DETECTOR
CM	CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR
	DUPLEX OUTLET
	220V OUTLET
FL	DUPLEX OUTLET MOUNTED IN FLOOR
GFI	GROUND FAULT INTERRUPTER OUTLET
WP	WEATHER PROOF OUTLET
EV	ELECTRIC VEHICLE OUTLET
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY SWITCH
V	VACANCY SENSOR

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

LOWER LEVEL ELECTRICAL

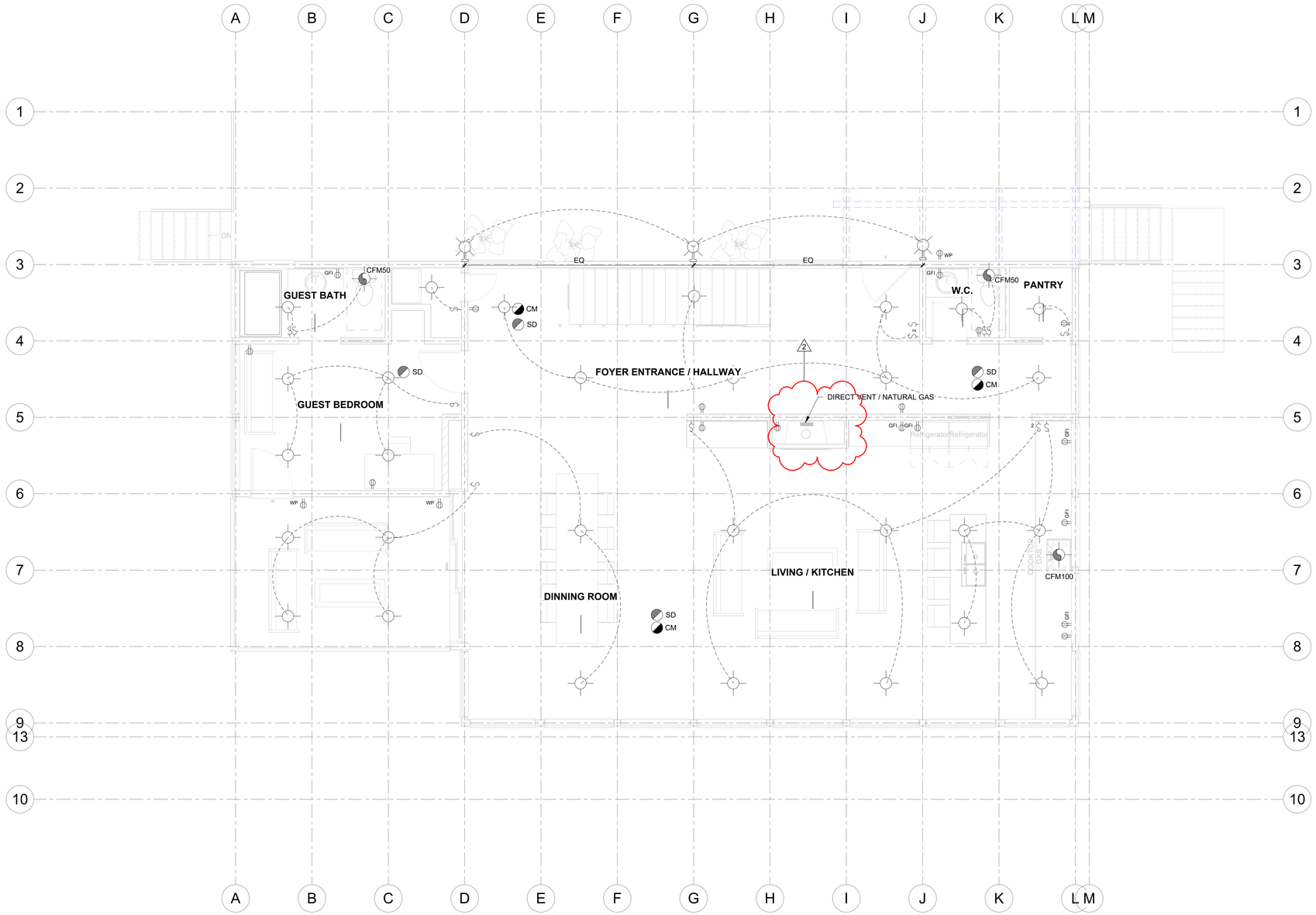
Scale: 1/4" = 1'-0"

A106

1 / A106 00 - LOWER LEVEL ELECTRICAL

1/4" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:03:33 PM



1 A107 FIRST FLOOR ELECTRICAL

1/4" = 1'-0"

ELECTRICAL PLAN LEGEND:

	DUPLEX RECEPTACLE
FL	DUPLEX RECEPTACLE FLOOR MOUNTED
GFI	GROUND FAULT CIRCUIT INTERRUPTER RATED RECEPTACLE
WP	WEATHER PROOF IN USE COVER RECEPTACLE
D	DRYER RECEPTACLE
R	RANGE RECEPTACLE
	DIRECT CONNECTION
S	SINGLE POLE SWITCH
2	2-WAY SWITCH
3	3-WAY SWITCH

ELECTRICAL SYMBOL KEY

	LIGHT FIXTURE
	LIGHT/EXHAUST FAN FIXTURE
SD	SMOKE DETECTOR
CM	CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR
	DUPLEX OUTLET
	220V OUTLET
FL	DUPLEX OUTLET MOUNTED IN FLOOR
GFI	GROUND FAULT INTERRUPTER OUTLET
WP	WEATHER PROOF OUTLET
EV	ELECTRIC VEHICLE OUTLET
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY SWITCH
V	VACANCY SENSOR

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
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	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

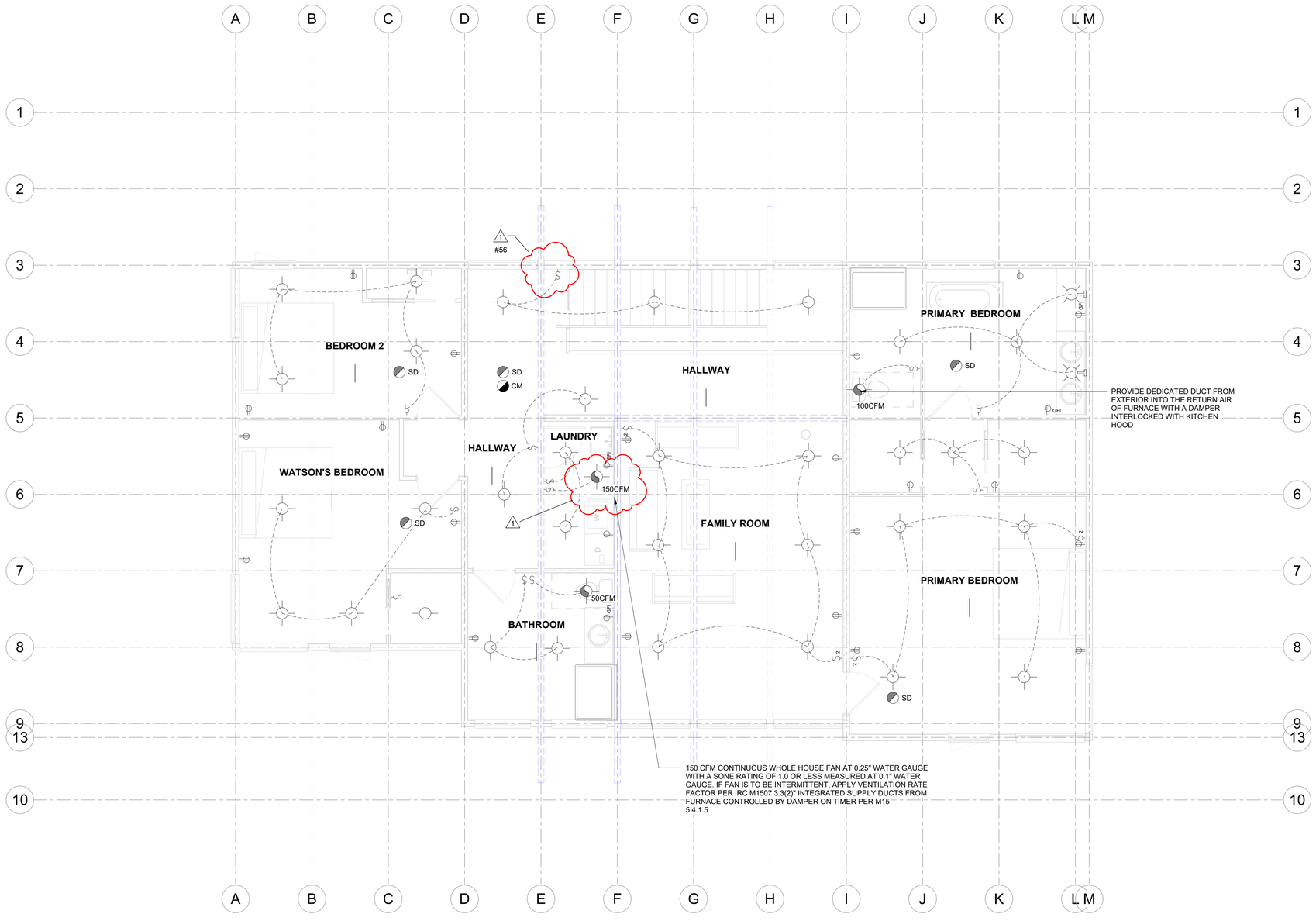
CUSTOM ELEMENT HOME

FIRST FLOOR ELECTRICAL

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

A107

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:34 PM



1 / A108 SECOND FLOOR ELECTRICAL
1/4" = 1'-0"

ELECTRICAL PLAN LEGEND:

	DUPLEX RECEPTACLE
FL	DUPLEX RECEPTACLE FLOOR MOUNTED
GFI	GROUND FAULT CIRCUIT INTERRUPTER RATED RECEPTACLE
WP	WEATHER PROOF IN USE COVER RECEPTACLE
D	DRYER RECEPTACLE
R	RANGE RECEPTACLE
	DIRECT CONNECTION
S	SINGLE POLE SWITCH
S 2	2-WAY SWITCH
S 3	3-WAY SWITCH

ELECTRICAL SYMBOL KEY

	LIGHT FIXTURE
	LIGHT/EXHAUST FAN FIXTURE
SD	SMOKE DETECTOR
CM	CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR
	DUPLEX OUTLET
	220V OUTLET
FL	DUPLEX OUTLET MOUNTED IN FLOOR
GFI	GROUND FAULT INTERRUPTER OUTLET
WP	WEATHER PROOF OUTLET
EV	ELECTRIC VEHICLE OUTLET
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY SWITCH
V	VACANCY SENSOR

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

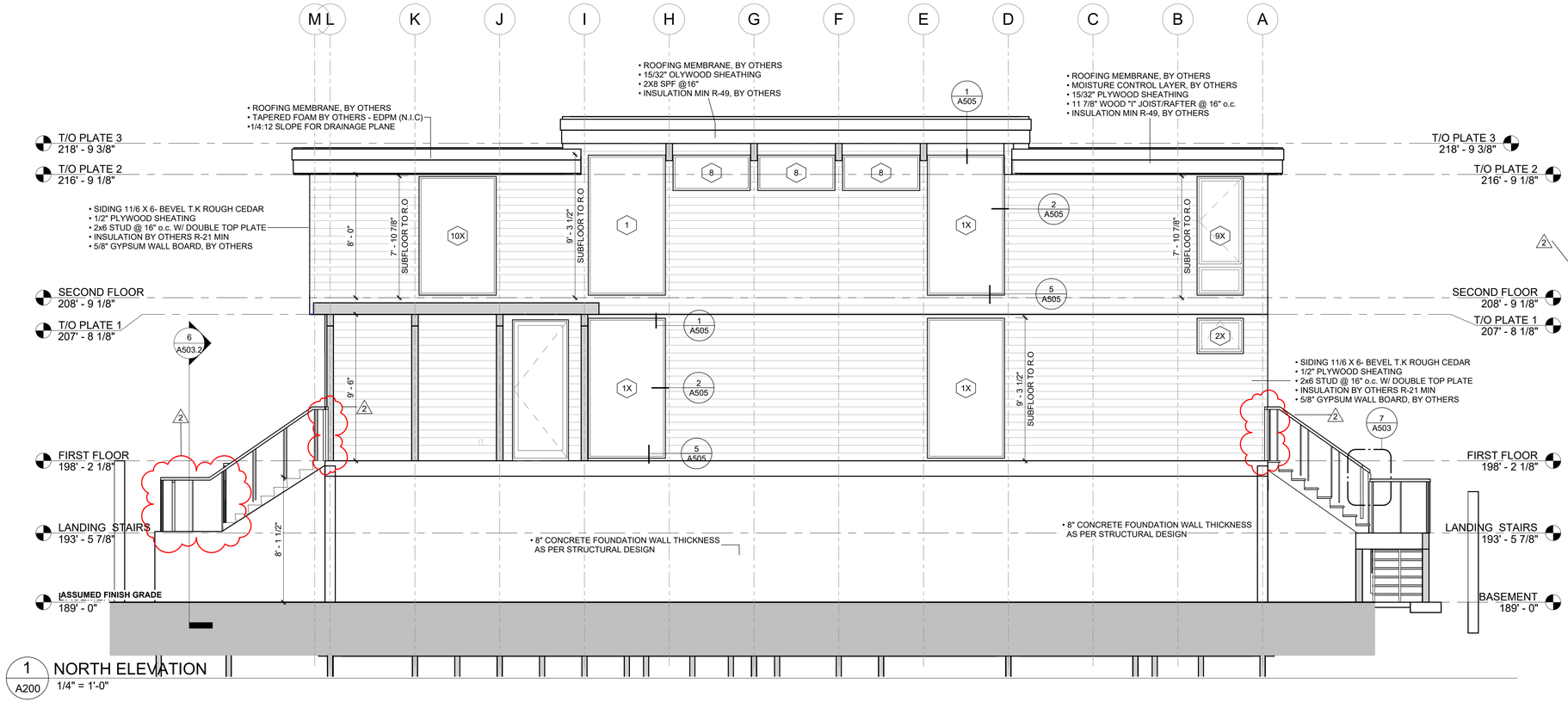
CUSTOM ELEMENT HOME

SECOND FLOOR ELECTRICAL

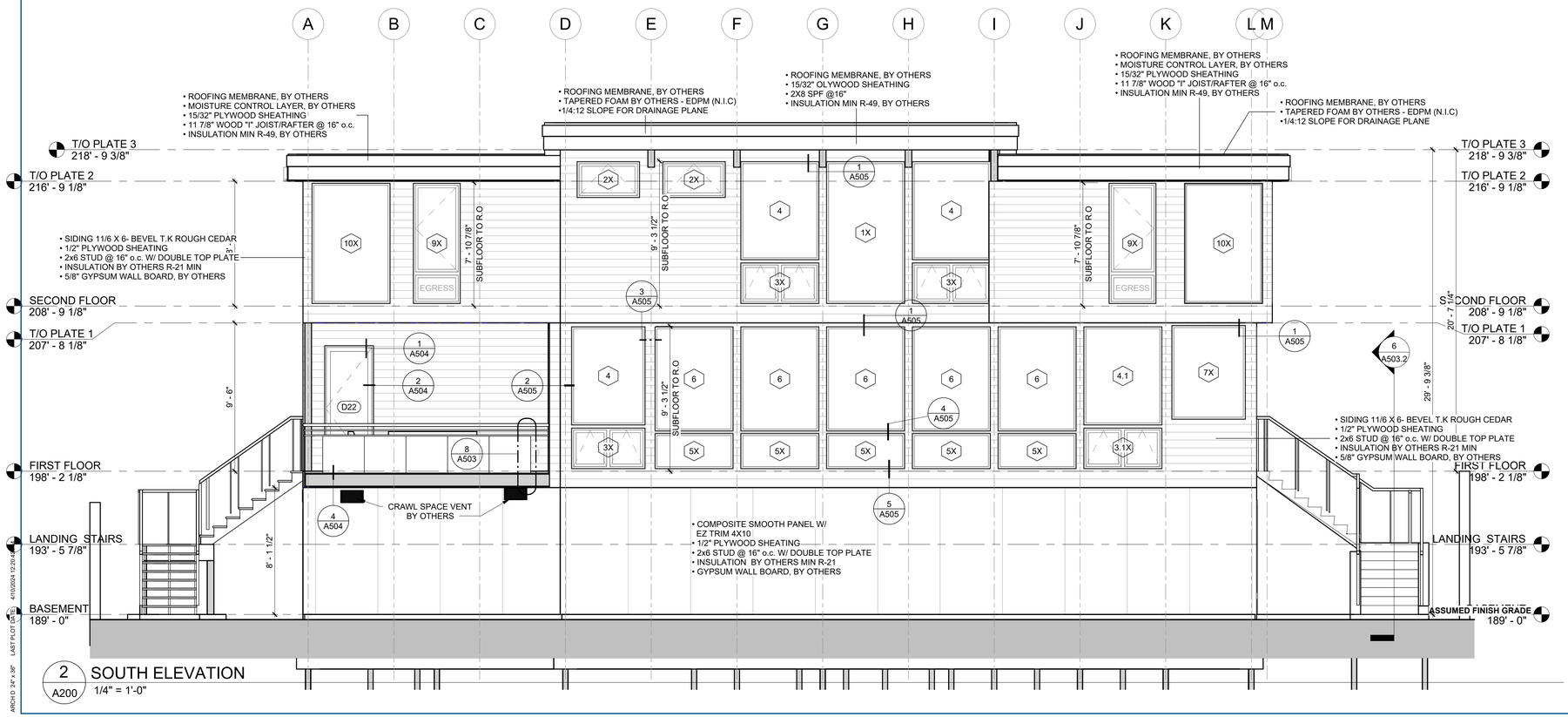
Scale: 1/4" = 1'-0"

A108

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:35 PM



1 A200 NORTH ELEVATION
1/4" = 1'-0"



2 A200 SOUTH ELEVATION
1/4" = 1'-0"

ELEVATION NOTES

SCALE 1/4" = 1'-0"

1. CAULK ALL JOINTS SUBJECT TO AIR and/or WATER INFILTRATION SUCH AS AROUND DOORS, WINDOWS, and BEAMS PROTRUDING THROUGH EXTERIOR WALLS OF BUILDING.
2. EXTERIOR SIDING SHALL BE
   - 1" T&G RANDOM LENGTH ROUGH CEDAR. USE 30 SCARF JOINTS and FACE NAIL PER EXTERIOR WALL DETAILS.
   - 11/16"x6" BEVEL TIGHT KNOT CEDAR. FACE NAIL PER EXTERIOR WALL DETAILS.
   - COMPOSITE SMOOTH PANEL W/ EZ TRIM 4X10.
3. ROOFING IS BY OTHERS.
4. WINDOWS ARE
   - CEDAR FRAME, LOW-E / ARGON GLAZING.
   - MARVIN ELEVATE AND ULTIMATE (BLACK).
5. ALL OPENING WINDOWS WHERE THE SILL IS WITHIN 24" OF THE FLOOR AND AND THE EXTERIOR WALKING OR ROOF SURFACE IS 72" OR MORE BELOW THE WINDOW WILL REQUIRE A 4" MAXIMUM WINDOW LIMITER.
6. SWINGING EXTERIOR DOORS IN EXPOSED LOCATIONS MAY REQUIRE THE ADDITION OF CUSTOMER SUPPLIED STORM DOORS TO ASSIST WITH PREVENTING AIR AND WATER INFILTRATION.
7. EXPOSED GLU-LAM BEAM ENDS ARE TO BE CAPPED WITH FASCIA MATERIAL. SEE ROOF DETAILS FOR INFORMATION.
8. GRADE MUST SLOPE AWAY FROM BUILDING.
9. CONTRACTOR TO VERIFY GRADE LOCATION.
10. CONTRACTOR SHALL VERIFY TO INSPECTOR ALL GUARDS AND RAILINGS SHALL BE CAPABLE OF RESISTING 200 LB LOAD ON TOP RAIL ACTING IN ANY DIRECTION, 7/8/C TABLE R301.5.
11. WHEREVER POSSIBLE, LINDAL CEDAR HOMES INC. RECOMMENDS THE USE OF FUTTER AND DOWNSPOUT SYSTEMS. THE DOWNSPOUTS SHOULD DRAIN A MINIMUM OF 5'-0" AWAY FROM THE FOUNDATION OR TO AN APPROVED DRAINAGE SYSTEM.
12. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSION.

NOTE:
COLORS & PATTERNS ASSOCIATED WITH FINISH MATERIAL MUST BE COORDINATED WITH DSS AND A SUBMITTED COLOUR APPROVAL FORM SIGNED AND APPROVED BY THE CLIENT AND OR DEALER.

F-XXX-# FINISH MARK TYPE AS PER LEGEND AND SCHEDULE, DENOTES ONLY EXTERIOR MATERIAL FINISH.

MATERIAL FINISH LEGEND:

F-DRT #	DOOR TRIM	F-SDG #	SIDING
F-WNT #	WINDOW TRIM	F-FAS #	FASCIA
F-WLT #	EXT. WALL TRIM	F-SOF #	SOFFIT

MATERIAL FINISH

MARK	PRE FINISH	COMMENTS
F-DRT 1	DOOR TRIM FINISH AS PER DSS	
F-FAS 1	FASCIA FINISH AS PER DSS	
F-SDG 1	SIDING FINISH AS PER DSS	
F-SOF 1	SOFFIT FINISH AS PER DSS	
F-WLT 1	WALL TRIM FINISH AS PER DSS	
F-WNT 1	WINDOW TRIM FINISH AS PER DSS	

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

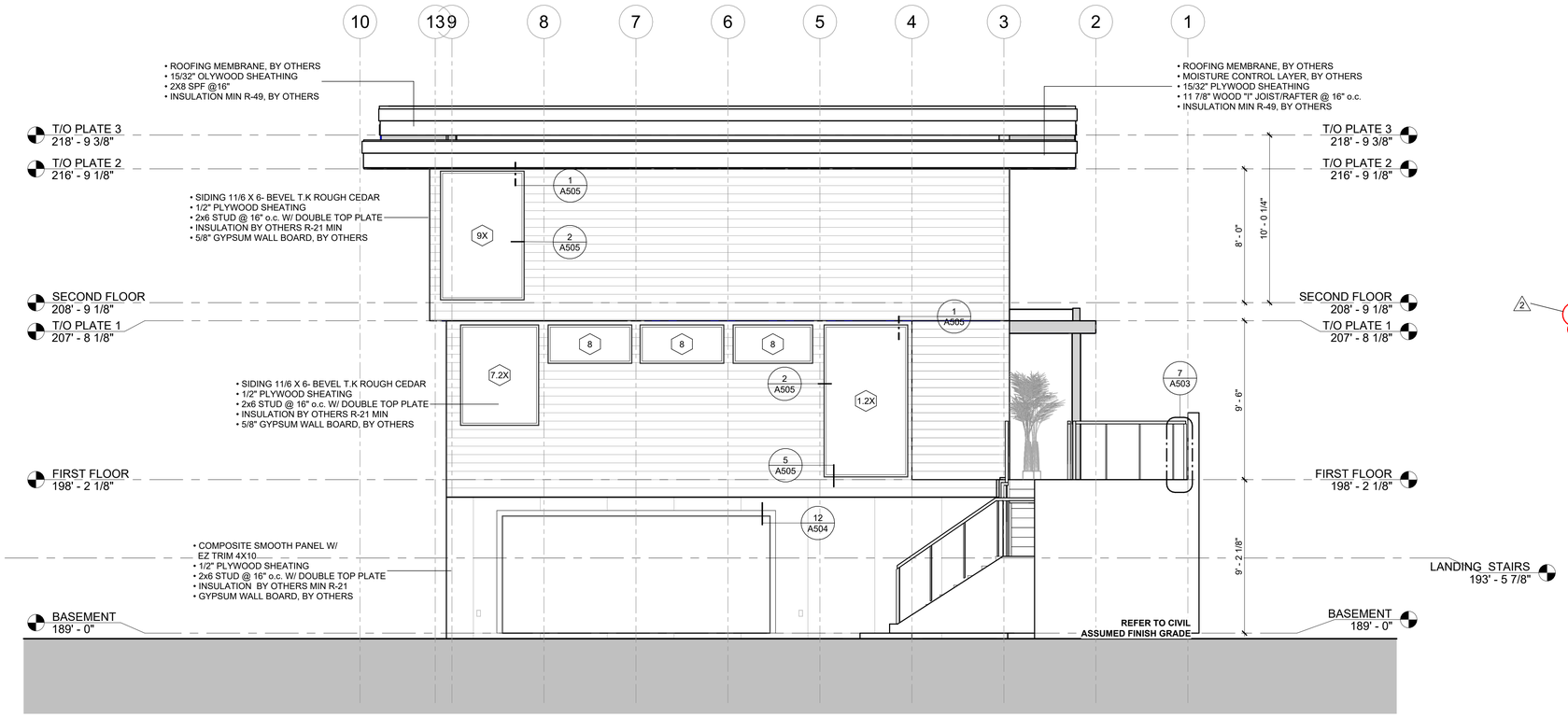
CUSTOM ELEMENT HOME

NORTH & SOUTH ELEVATIONS

Scale: As indicated

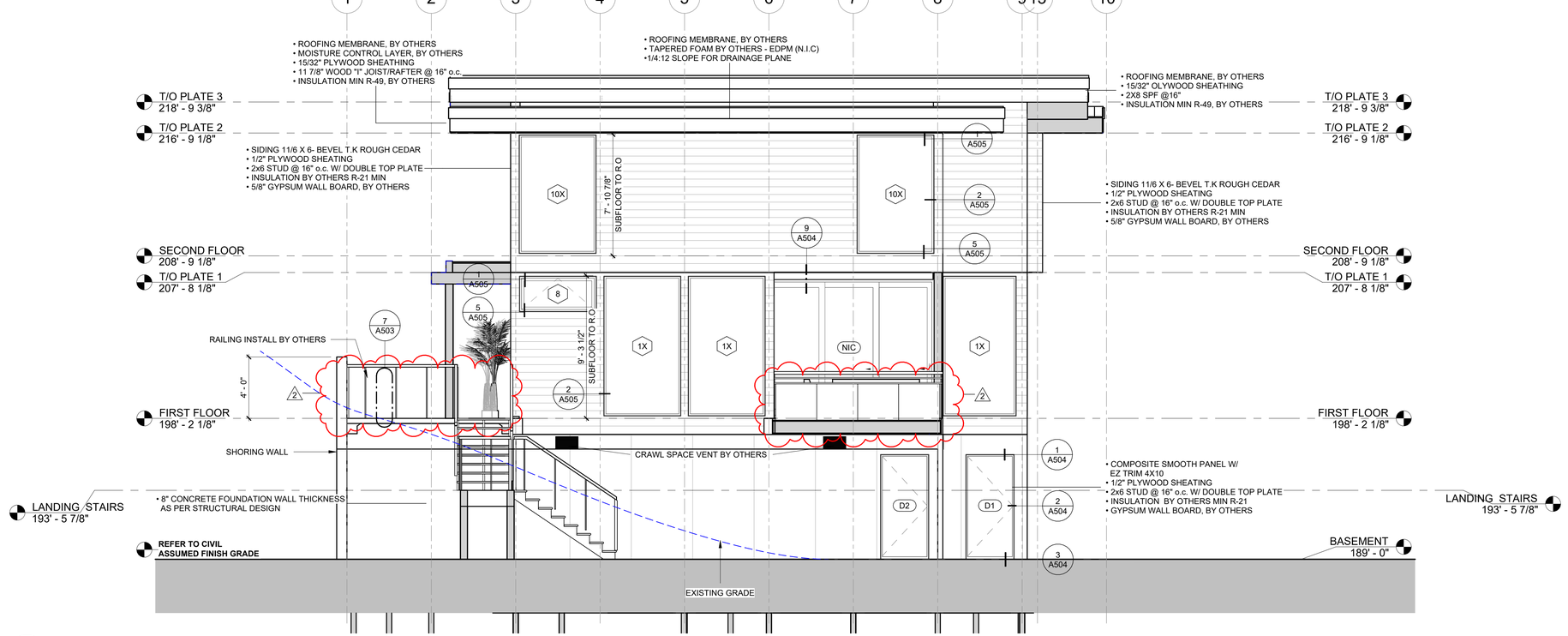
A200

ARCH D 24" x 36" LAST PLOT DATE: 4/1/2024 12:20:43 PM



1 A201 EAST ELEVATION

1/4" = 1'-0"



2 A201 WEST ELEVATION

1/4" = 1'-0"

ELEVATION NOTES

SCALE 1/4" = 1'-0"

1. CAULK ALL JOINTS SUBJECT TO AIR and/or WATER INFILTRATION SUCH AS AROUND DOORS, WINDOWS, and BEAMS PROTRUDING THROUGH EXTERIOR WALLS OF BUILDING.
2. EXTERIOR SIDING SHALL BE
   - 1" T&G RANDOM LENGTH ROUGH CEDAR. USE 30 SCARF JOINTS and FACE NAIL PER EXTERIOR WALL DETAILS.
   - 11/16"x6" BEVEL TIGHT KNOT CEDAR. FACE NAIL PER EXTERIOR WALL DETAILS.
   - COMPOSITE SMOOTH PANEL W/ EZ TRIM 4X10.
3. ROOFING IS BY OTHERS.
4. WINDOWS ARE
   - CEDAR FRAME, LOW-E / ARGON GLAZING.
   - MARVIN ELEVATE AND ULTIMATE (BLACK).
5. ALL OPENING WINDOWS WHERE THE SILL IS WITHIN 24" OF THE FLOOR AND AND THE EXTERIOR WALKING OR ROOF SURFACE IS 72" OR MORE BELOW THE WINDOW WILL REQUIRE A 4" MAXIMUM WINDOW LIMITER.
6. SWINGING EXTERIOR DOORS IN EXPOSED LOCATIONS MAY REQUIRE THE ADDITION OF CUSTOMER SUPPLIED STORM DOORS TO ASSIST WITH PREVENTING AIR AND WATER INFILTRATION.
7. EXPOSED GLU-LAM BEAM ENDS ARE TO BE CAPPED WITH FASCIA MATERIAL. SEE ROOF DETAILS FOR INFORMATION.
8. GRADE MUST SLOPE AWAY FROM BUILDING.
9. CONTRACTOR TO VERIFY GRADE LOCATION.
10. CONTRACTOR SHALL VERIFY TO INSPECTOR ALL GUARDS AND RAILINGS SHALL BE CAPABLE OF RESISTING 200 LB LOAD ON TOP RAIL ACTING IN ANY DIRECTION, 7/RC TABLE R301.5.
11. WHEREVER POSSIBLE, LINDAL CEDAR HOMES INC. RECOMMENDS THE USE OF GUTTER AND DOWNSPOUT SYSTEMS. THE DOWNSPOUTS SHOULD DRAIN A MINIMUM OF 5'-0" AWAY FROM THE FOUNDATION OR TO AN APPROVED DRAINAGE SYSTEM.
12. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSION.

2

NOTE:
COLORS & PATTERNS ASSOCIATED WITH FINISH MATERIAL MUST BE COORDINATED WITH DSS AND A SUBMITTED COLOUR APPROVAL FORM SIGNED AND APPROVED BY THE CLIENT AND OR DEALER.

F-XXX-# FINISH MARK TYPE AS PER LEGEND AND SCHEDULE, DENOTES ONLY EXTERIOR MATERIAL FINISH.

MATERIAL FINISH LEGEND:

F-DRT #	DOOR TRIM	F-SDG #	SIDING
F-WNT #	WINDOW TRIM	F-FAS #	FASCIA
F-WLT #	EXT. WALL TRIM	F-SOF #	SOFFIT

MATERIAL FINISH

MARK	PRE FINISH	COMMENTS
F-DRT 1	DOOR TRIM FINISH AS PER DSS	
F-FAS 1	FASCIA FINISH AS PER DSS	
F-SDG 1	SIDING FINISH AS PER DSS	
F-SOF 1	SOFFIT FINISH AS PER DSS	
F-WLT 1	WALL TRIM FINISH AS PER DSS	
F-WNT 1	WINDOW TRIM FINISH AS PER DSS	

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

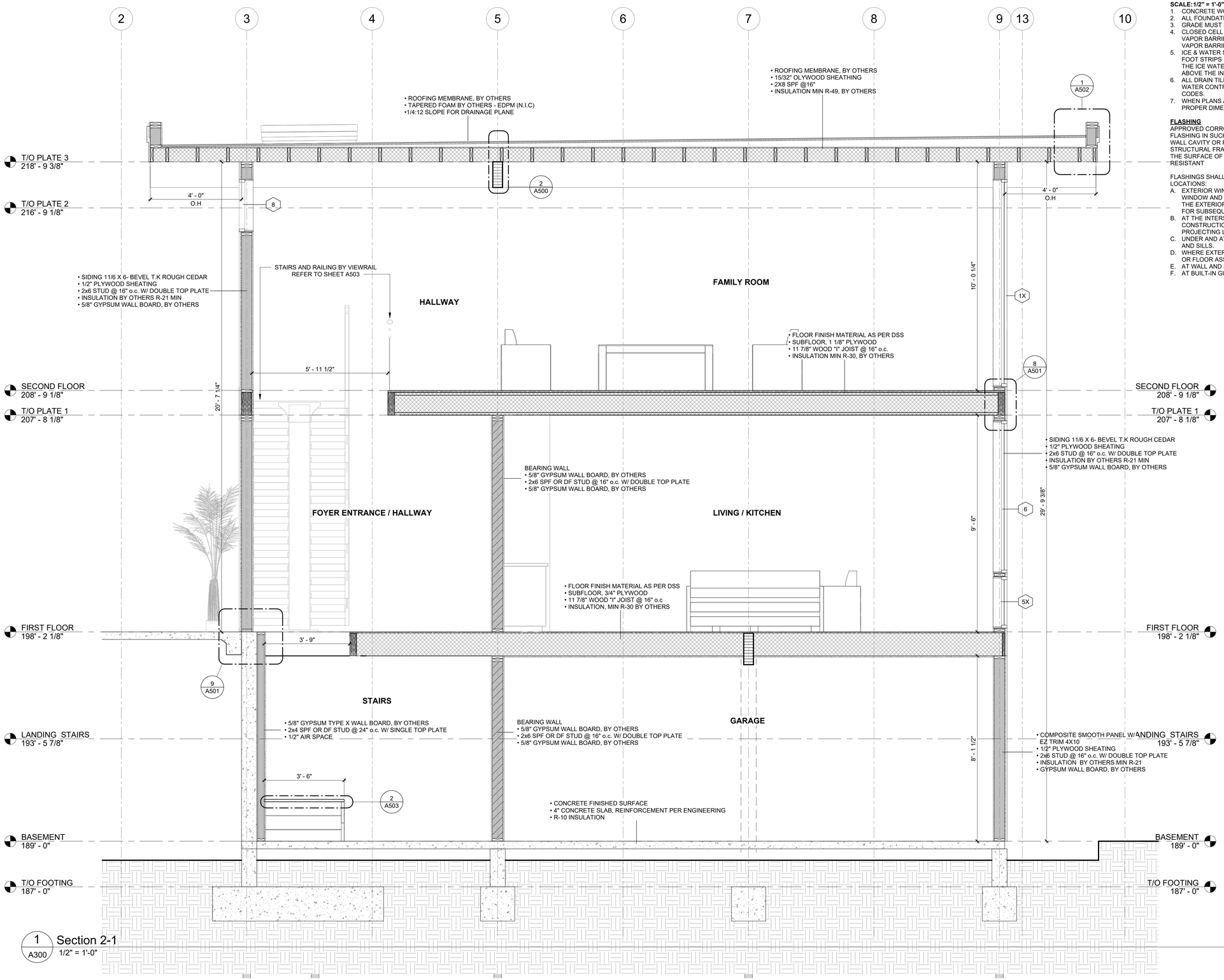
CUSTOM ELEMENT HOME

EAST & WEST ELEVATIONS

Scale: As indicated

A201

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:49 PM



1 A300 Section 2-1
1/2" = 1'-0"

CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
2. ALL FOUNDATION DIMENSIONS TO BE PER LOCAL CODES.
3. GRADE MUST SLOPE AWAY FROM BUILDING.
4. CLOSED CELL SPRAY FOAM AREAS ARE TO BE UNVENTED AND NO VAPOR BARRIER IS TO BE USED, AS CLOSED CELL SPRAY FOAM IS A VAPOR BARRIER IN ITSELF.
5. ICE & WATER SHIELD SHOULD ONLY BE APPLIED AT THE EAVES (6 FOOT STRIPS MAXIMUM) IN CLOSED CELL SPRAY FOAM AREAS AS THE ICE WATER SHIELD CREATES A SECOND VAPOR BARRIER ABOVE THE INSULATION TRAPPING MOISTURE BETWEEN.
6. ALL DRAIN TILES, VAPOR BARRIERS AND OTHER MOISTURE AND WATER CONTROL SYSTEMS ARE TO BE INSTALLED PER LOCAL CODES.
7. WHEN PLANS ARE ON 11"x17" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

FLASHING

APPROVED CORROSION-RESISTANT FLASHING SHALL BE SHINGLE FLASHING IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT

FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

A. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER -RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.
B. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS.
C. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
D. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
E. AT WALL AND ROOF INTERSECTIONS.
F. AT BUILT-IN GUTTERS.

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY:	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

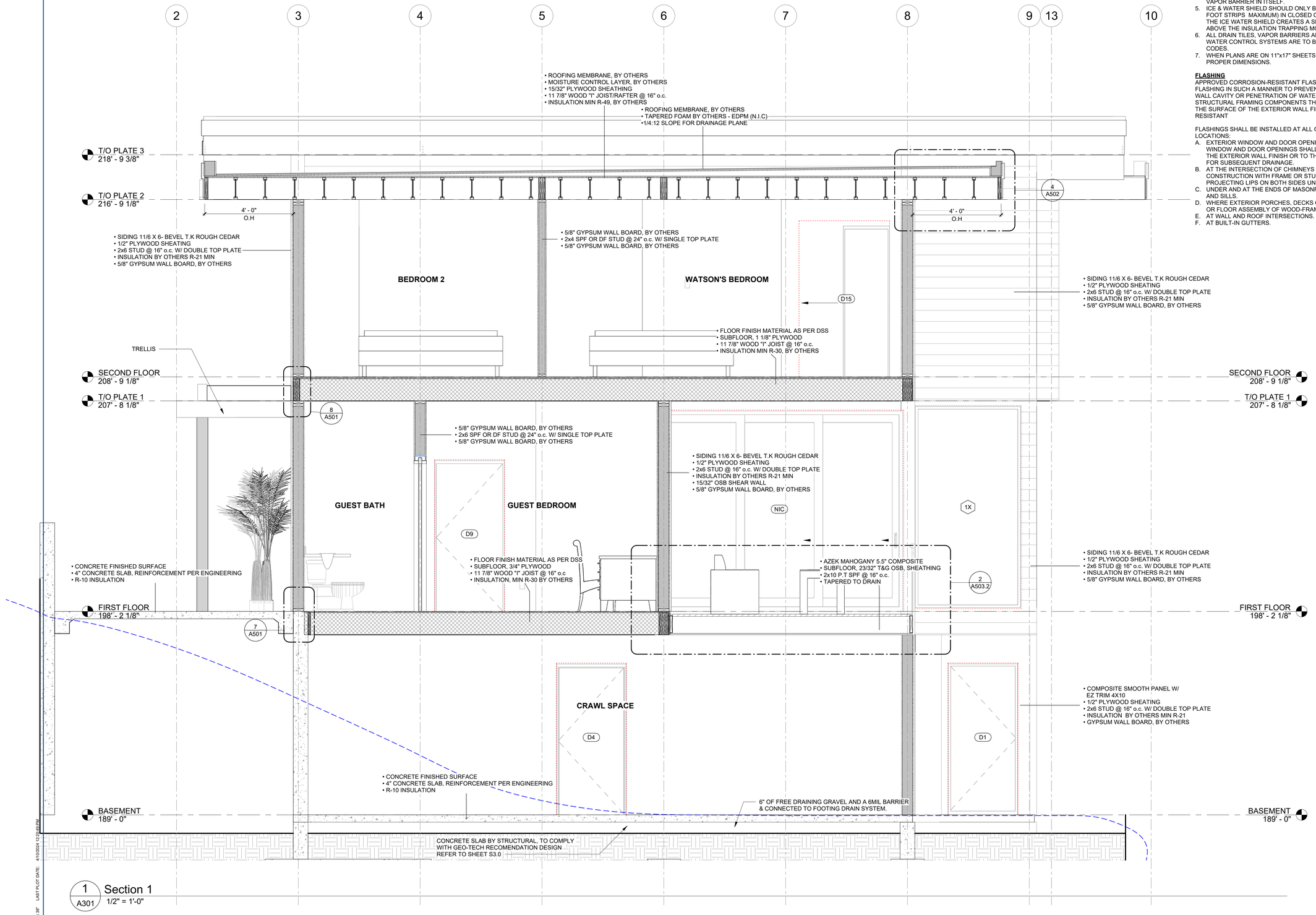
CUSTOM ELEMENT HOME

BUILDING SECTION 1

Scale: 1/2" = 1'-0"

A300

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:47 PM



1 / A301 Section 1
1/2" = 1'-0"

CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
2. ALL FOUNDATION DIMENSIONS TO BE PER LOCAL CODES.
3. GRADE MUST SLOPE AWAY FROM BUILDING.
4. CLOSED CELL SPRAY FOAM AREAS ARE TO BE UNVENTED AND NO VAPOR BARRIER IS TO BE USED, AS CLOSED CELL SPRAY FOAM IS A VAPOR BARRIER IN ITSELF.
5. ICE & WATER SHIELD SHOULD ONLY BE APPLIED AT THE EAVES (6 FOOT STRIPS MAXIMUM) IN CLOSED CELL SPRAY FOAM AREAS AS THE ICE WATER SHIELD CREATES A SECOND VAPOR BARRIER ABOVE THE INSULATION TRAPPING MOISTURE BETWEEN.
6. ALL DRAIN TILES, VAPOR BARRIERS AND OTHER MOISTURE AND WATER CONTROL SYSTEMS ARE TO BE INSTALLED PER LOCAL CODES.
7. WHEN PLANS ARE ON 11"x17" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

FLASHING

APPROVED CORROSION-RESISTANT FLASHING SHALL BE SHINGLE FLASHING IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT

FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

A. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER -RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.
B. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS.
C. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
D. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
E. AT WALL AND ROOF INTERSECTIONS.
F. AT BUILT-IN GUTTERS.

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
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2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

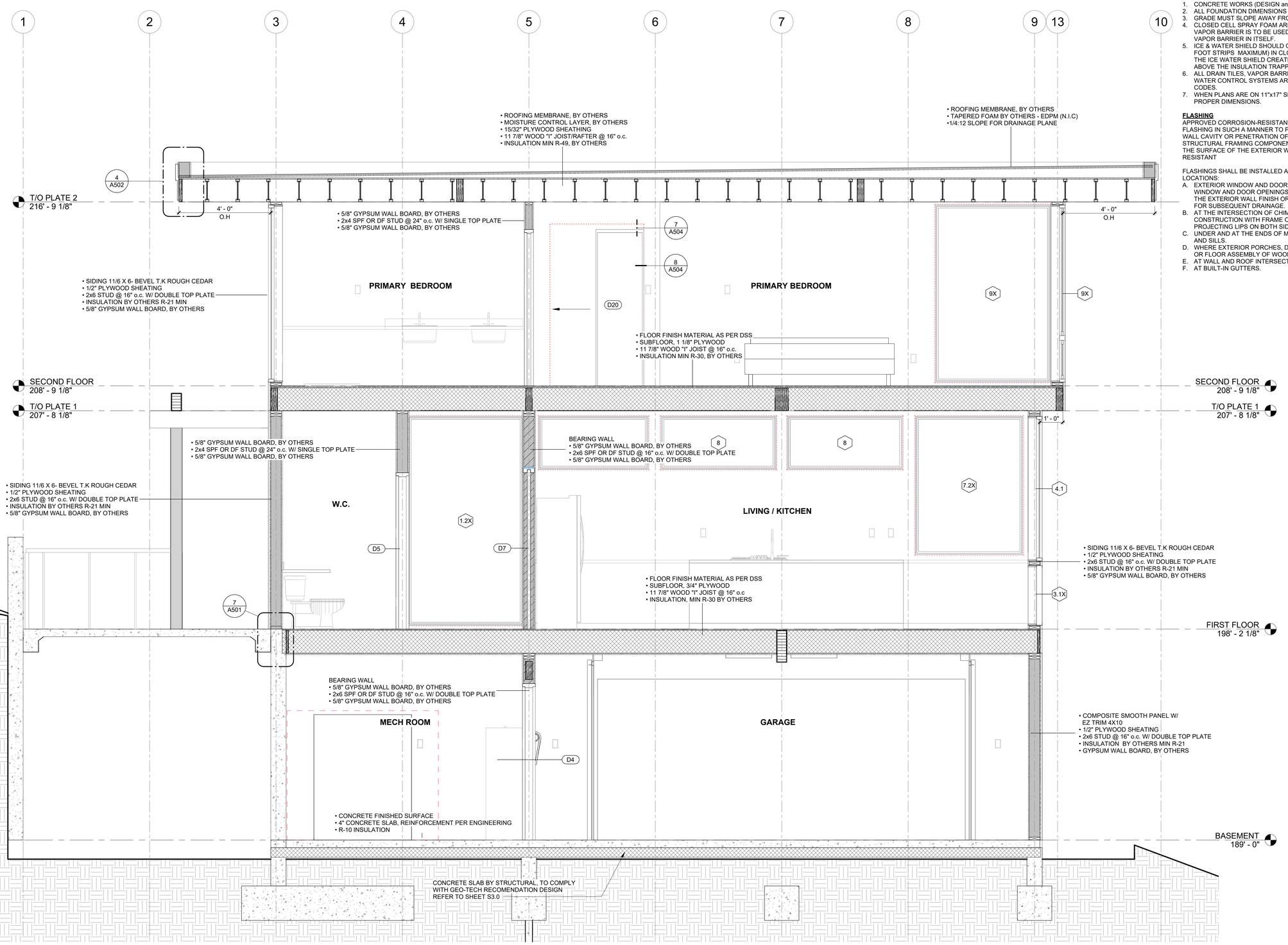
CUSTOM ELEMENT HOME

BUILDING SECTION 2

Scale: 1/2" = 1'-0"

A301

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:29:49 PM



1 / A302 Section 2
1/2" = 1'-0"

CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
2. ALL FOUNDATION DIMENSIONS TO BE PER LOCAL CODES.
3. GRADE MUST SLOPE AWAY FROM BUILDING.
4. CLOSED CELL SPRAY FOAM AREAS ARE TO BE UNVENTED AND NO VAPOR BARRIER IS TO BE USED, AS CLOSED CELL SPRAY FOAM IS A VAPOR BARRIER IN ITSELF.
5. ICE & WATER SHIELD SHOULD ONLY BE APPLIED AT THE EAVES (6 FOOT STRIPS MAXIMUM) IN CLOSED CELL SPRAY FOAM AREAS AS THE ICE WATER SHIELD CREATES A SECOND VAPOR BARRIER ABOVE THE INSULATION TRAPPING MOISTURE BETWEEN.
6. ALL DRAIN TILES, VAPOR BARRIERS AND OTHER MOISTURE AND WATER CONTROL SYSTEMS ARE TO BE INSTALLED PER LOCAL CODES.
7. WHEN PLANS ARE ON 11"x17" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

FLASHING

APPROVED CORROSION-RESISTANT FLASHING SHALL BE SHINGLE FLASHING IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT

FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

A. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER -RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.
B. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS.
C. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
D. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
E. AT WALL AND ROOF INTERSECTIONS.
F. AT BUILT-IN GUTTERS.

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

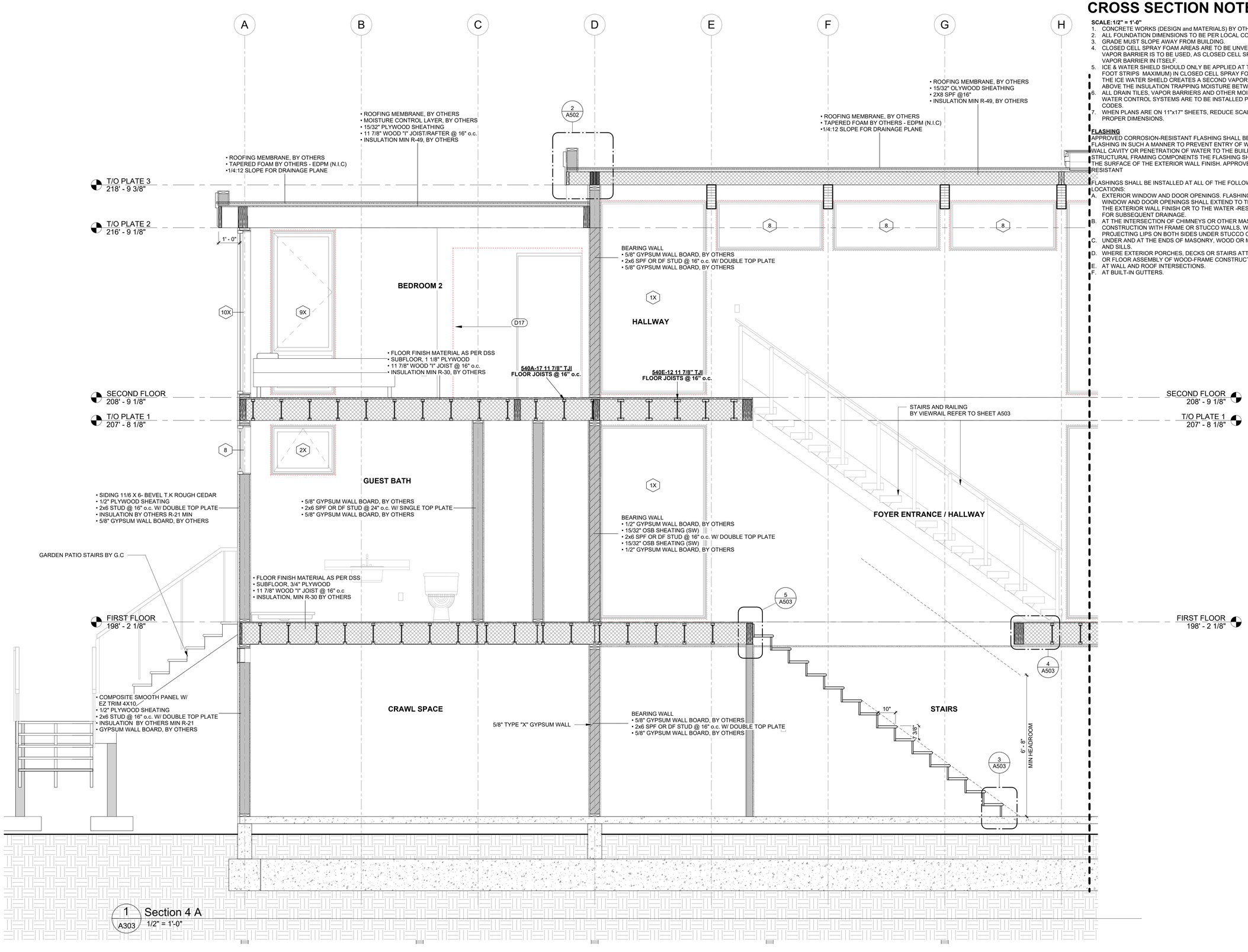
CUSTOM ELEMENT HOME

BUILDING SECTION 3

Scale: 1/2" = 1'-0"

A302

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:51 PM



CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
2. ALL FOUNDATION DIMENSIONS TO BE PER LOCAL CODES.
3. GRADE MUST SLOPE AWAY FROM BUILDING.
4. CLOSED CELL SPRAY FOAM AREAS ARE TO BE UNVENTED AND NO VAPOR BARRIER IS TO BE USED, AS CLOSED CELL SPRAY FOAM IS A VAPOR BARRIER IN ITSELF.
5. ICE & WATER SHIELD SHOULD ONLY BE APPLIED AT THE EAVES (6 FOOT STRIPS MAXIMUM) IN CLOSED CELL SPRAY FOAM AREAS AS THE ICE WATER SHIELD CREATES A SECOND VAPOR BARRIER ABOVE THE INSULATION TRAPPING MOISTURE BETWEEN.
6. ALL DRAIN TILES, VAPOR BARRIERS AND OTHER MOISTURE AND WATER CONTROL SYSTEMS ARE TO BE INSTALLED PER LOCAL CODES.
7. WHEN PLANS ARE ON 11"x17" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

FLASHING

APPROVED CORROSION-RESISTANT FLASHING SHALL BE SHINGLE FLASHING IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT

FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

A. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER -RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.
B. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS.
C. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
D. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
E. AT WALL AND ROOF INTERSECTIONS.
F. AT BUILT-IN GUTTERS.

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

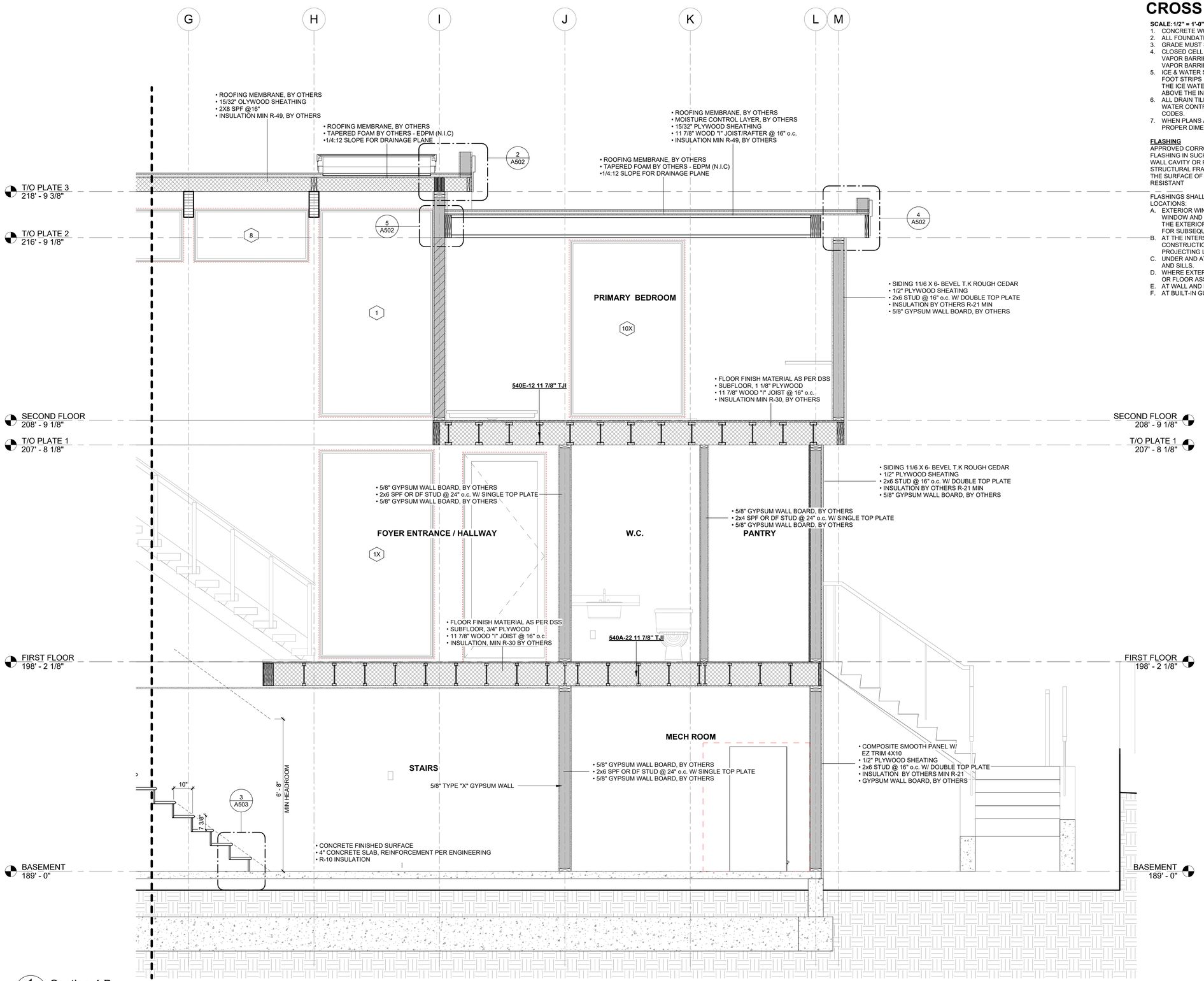
CUSTOM ELEMENT HOME

BUILDING SECTION 4A

Scale: 1/2" = 1'-0"

A303

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:52 PM



1 A304 Section 4 B
1/2" = 1'-0"

CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
2. ALL FOUNDATION DIMENSIONS TO BE PER LOCAL CODES.
3. GRADE MUST SLOPE AWAY FROM BUILDING.
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5. ICE & WATER SHIELD SHOULD ONLY BE APPLIED AT THE EAVES (6 FOOT STRIPS MAXIMUM) IN CLOSED CELL SPRAY FOAM AREAS AS THE ICE WATER SHIELD CREATES A SECOND VAPOR BARRIER ABOVE THE INSULATION TRAPPING MOISTURE BETWEEN.
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MERCER ISLAND WA 98040

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ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

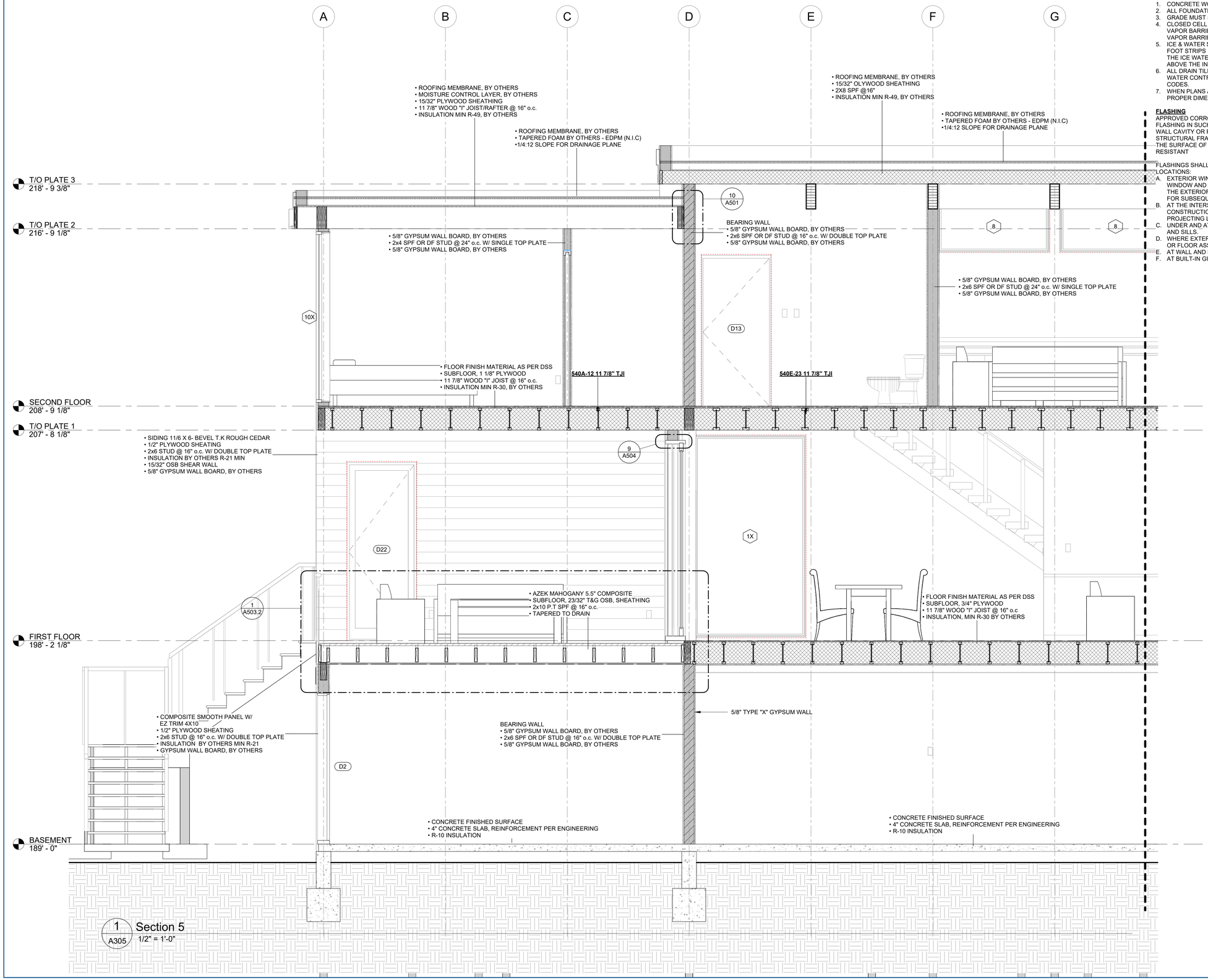
CUSTOM ELEMENT HOME

BUILDING SECTION 4B

Scale: 1/2" = 1'-0"

A304

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:29:54 PM



1 A305 Section 5
1/2" = 1'-0"

CROSS SECTION NOTES

SCALE:1/2" = 1'-0"

1. CONCRETE WORKS (DESIGN and MATERIALS) BY OTHERS.
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7929 EAST MERCER WAY
MERCER ISLAND WA 98040

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1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

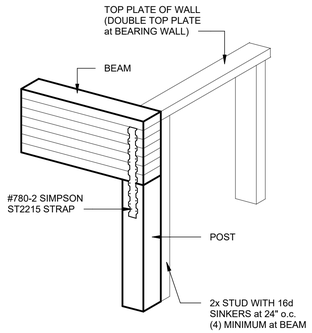
CUSTOM ELEMENT HOME

BUILDING SECTION 5

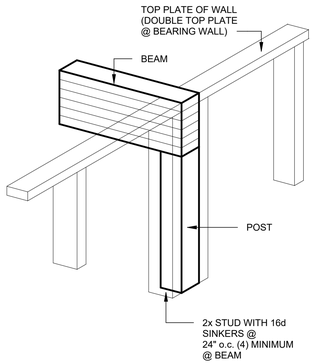
Scale: 1/2" = 1'-0"

A305

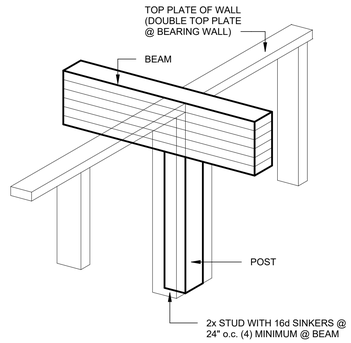
ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:55 PM



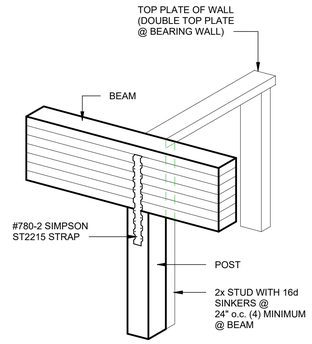
1 A500 BEAM AT PARTITION CORNER
1" = 1'-0"



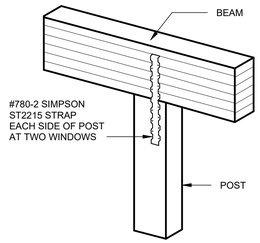
2 A500 BEAM ENDS AT WALL
1" = 1'-0"



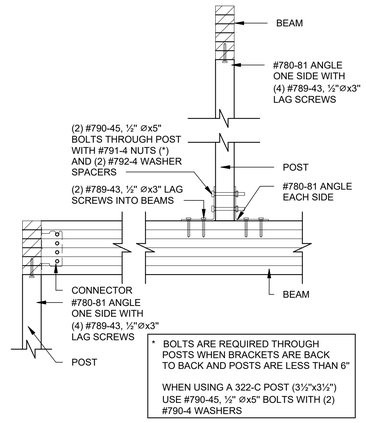
3 A500 CANTILEVER BEAM AT WALL
1" = 1'-0"



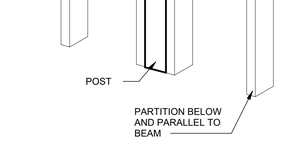
4 **POST BEAM CONNECTION @ ONE WINDOW**
1" = 1'-0"



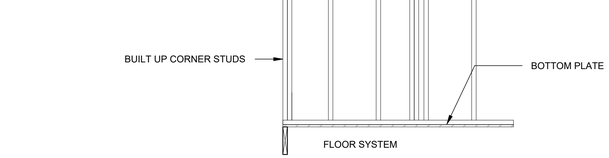
5 **POST BEAM CONNECT AT 2 WINDOWS**
1" = 1'-0"



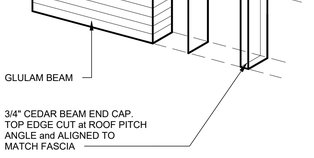
6 A500 POST TO BEAM CONNECTION
1" = 1'-0"



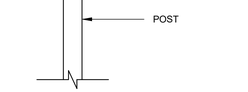
7 A500 PARTITION BELOW BEAM
1" = 1'-0"



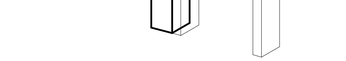
8 A500 OUTLOOKER DETAIL
1/2" = 1'-0"



9 A500 GLUELAM END
1" = 1'-0"



10 A500 EXPOSED POST / BEAM
1" = 1'-0"



11 **P&B CONNECT PARALLEL TO WALL**
1" = 1'-0"

PN

PROJECT NORTH

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7929 EAST MERCER WAY
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ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

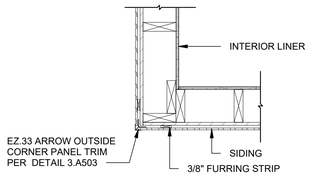
CUSTOM ELEMENT HOME

DETAILS - POST & BEAM CONNECTIONS

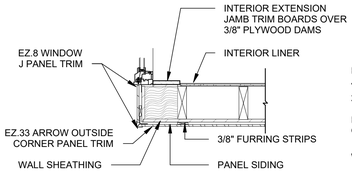
Scale: As indicated

A500

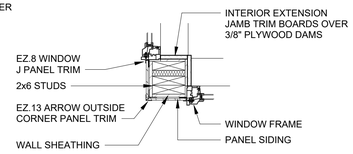
ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:56 PM



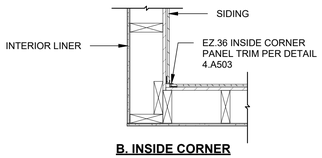
A. OUTSIDE CORNER



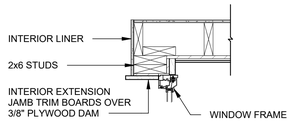
C. OUTSIDE CORNER-ONE WINDOW



OUTSIDE CORNER WITH WINDOWS

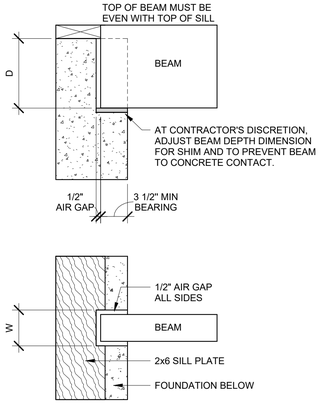


B. INSIDE CORNER



D. INSIDE CORNER-ONE WINDOW

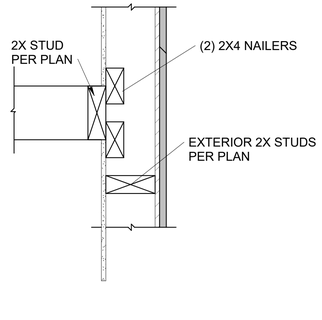
1 A501 CORNER EZ TRIM
1" = 1'-0"



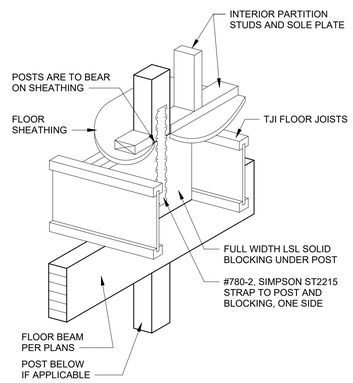
BUILT UP LUMBER	(2) 2x		(3) 2x		(4) 2x	
	W	D	W	D	W	D
2x10	4"	7 3/4"	5 1/2"	7 3/4"	7"	7 3/4"
2x12	4"	9 3/4"	5 1/2"	9 3/4"	7"	9 3/4"

GLULAM BEAM	3 1/8" BEAM		5 1/8" BEAM		6 3/4" BEAM	
	W	D	W	D	W	D
9"	4 1/8"	7 1/2"	6 1/8"	7 1/2"	7 3/4"	7 1/2"
10 1/2"	4 1/8"	9"	6 1/8"	9"	7 3/4"	9"
12"	4 1/8"	10 1/2"	6 1/8"	10 1/2"	7 3/4"	10 1/2"
13 1/2"	4 1/8"	12"	6 1/8"	12"	7 3/4"	12"
15"	4 1/8"	13 1/2"	6 1/8"	13 1/2"	7 3/4"	13 1/2"
16 1/2"	4 1/8"	15"	6 1/8"	15"	7 3/4"	15"
18"			6 1/8"	16 1/2"	7 3/4"	16 1/2"
19 1/2"			6 1/8"	18"	7 3/4"	18"
21"			6 1/8"	19 1/2"	7 3/4"	19 1/2"
22 1/2"			6 1/8"	21"	7 3/4"	21"
24"			6 1/8"	22 1/2"	7 3/4"	22 1/2"

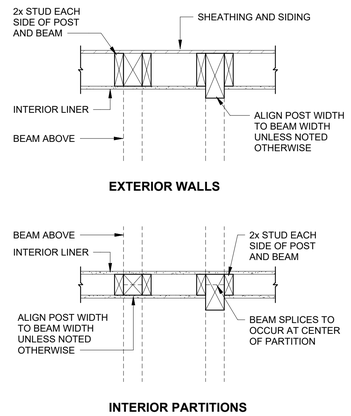
2 A501 BEAM POCKET DETAIL
1 1/2" = 1'-0"



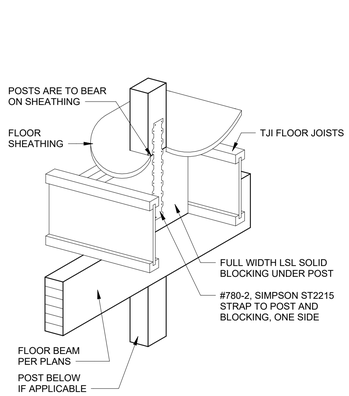
3 A501 2X BY PARTITION TO EXT WALL
1 1/2" = 1'-0"



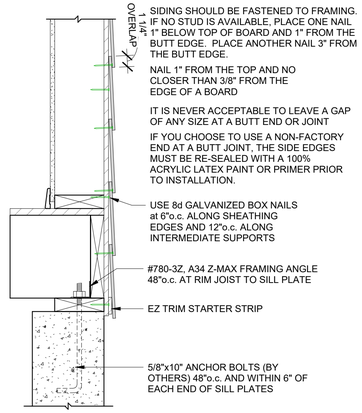
4 A501 PARTITION TO FLOOR
1" = 1'-0"



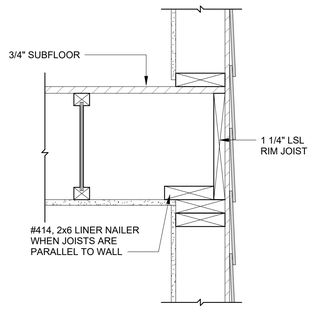
5 A501 POST ORIENTATION
1" = 1'-0"



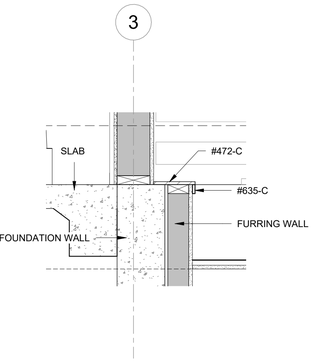
6 A501 WALL POST TO FLOOR JOIST
1" = 1'-0"



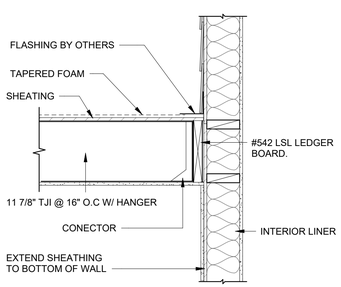
7 A501 COMPOSITE SIDING NAILING
1 1/2" = 1'-0"



8 A501 FLOOR / CEILING
1 1/2" = 1'-0"



9 A501 FLOOR BASE TRIM
1" = 1'-0"



10 A501 FLAT END WALL CONNECTION
1" = 1'-0"

PN

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WARM MODERN LIVING

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1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

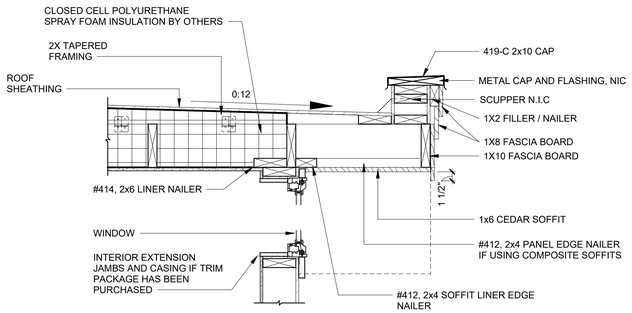
CUSTOM ELEMENT HOME

DETAILS - WALL

Scale: As indicated

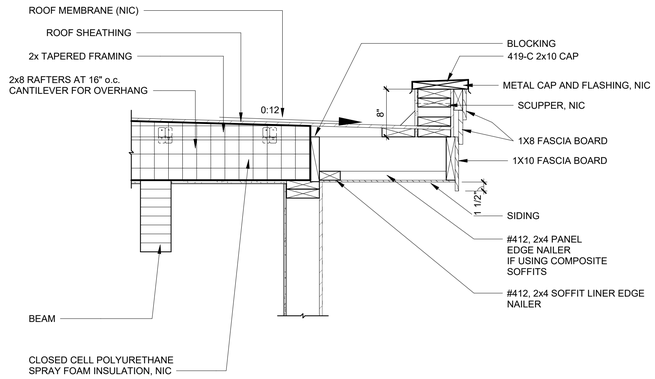
A501

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:58 PM



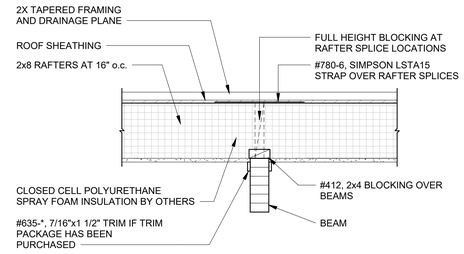
1 A502 2X8 RAFTER PARALLEL TO WALL WINDOW

1" = 1'-0"



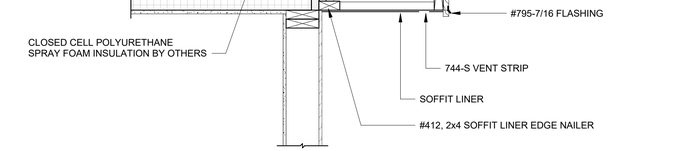
2 A502 2X8 RAFTER PERPENDICULAR TO BEAMS

1" = 1'-0"



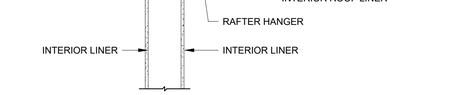
3 A502 2X8 RAFTER TO BEAM

1" = 1'-0"



4 A502 11 7/8" TJI RAFTER CANTILEVER

1" = 1'-0"



5 A502 11 7/8" TJI TO WALL

1" = 1'-0"

6 A502 11 7/8" TJI TO BEAM

1" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:20:59 PM

Lindal CEDAR HOMES

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PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

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PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
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	ISSUED FOR CD	ES	10/19/2023
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1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

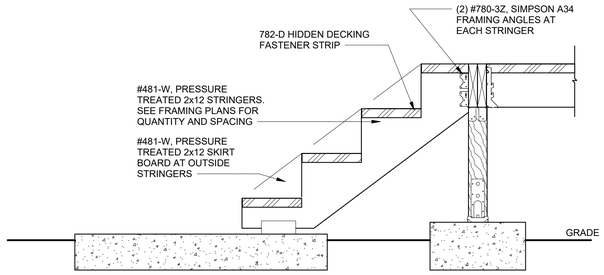
MODEL

CUSTOM ELEMENT HOME

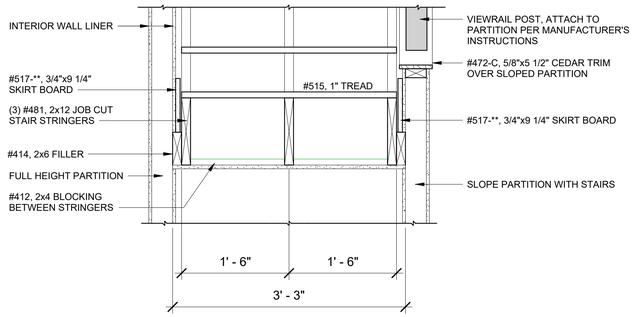
DETAILS - ROOF

Scale: 1" = 1'-0"

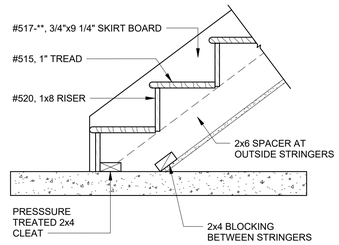
A502



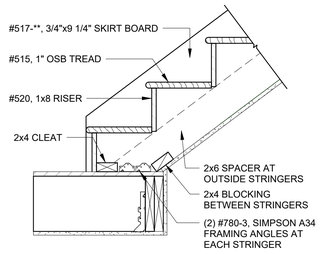
1 A503 EXT PATIO STAIR
1" = 1'-0"



2 A503 STAIR SECTION WALL 1 RAIL TYP BY OTHERS
1" = 1'-0"



3 STAIRS AT BOTTOM TYP CONCRETE
1" = 1'-0"



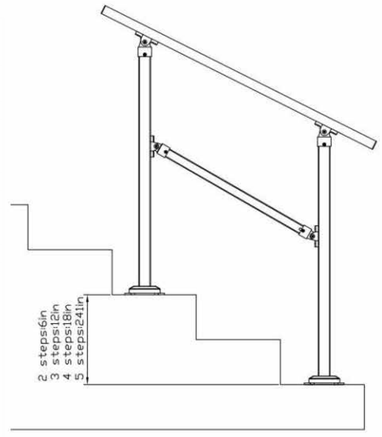
4 STAIRS AT BOTTOM TYP BY OTHERS
1" = 1'-0"

5 STAIRS AT TOP FLOOR TYP BY OTHERS
1" = 1'-0"

2x12 JOB CUT STAIR MATERIAL LIST

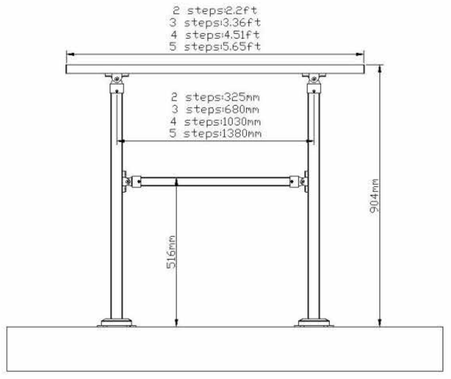
PART #	DESCRIPTION	QTY
481	2x12 STRINGERS	3 at **'-0"
515	1x12 TREADS	** PC
520	1x8 RISERS	** PC
414	2x6 FILLER / BLOCKING	** LF
412	2x4 BLOCKING	** LF
780-3	A34 FRAMING ANGLES	** PC
517	3/4"x9" GLULAM SKIRT BOARD	* at *'-*"
527	1 1/2"x9" GLULAM SKIRT BOARD	* at *'-*"
472-C	5/8"x5 1/2" CEDAR TRIM	** LF

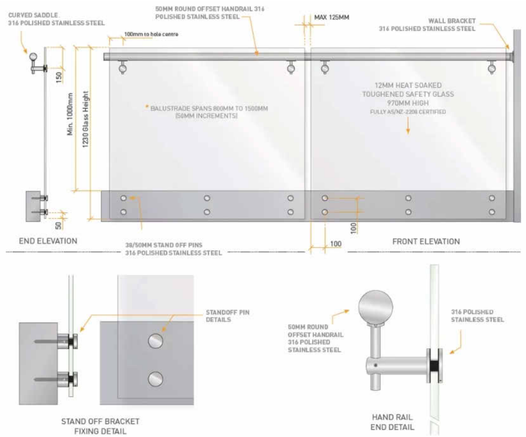
6 A503 2X12 STAIR PARTS LIST
1" = 1'-0"



7 A503 OUTDOOR HANDRAIL RAILING
1" = 1'-0"

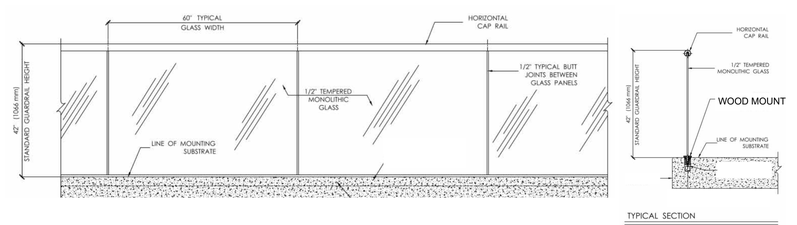
NOTE: INSTALLED BY G.C., FOLLOW INSTALL INSTRUCTIONS BY MANUFACTURE



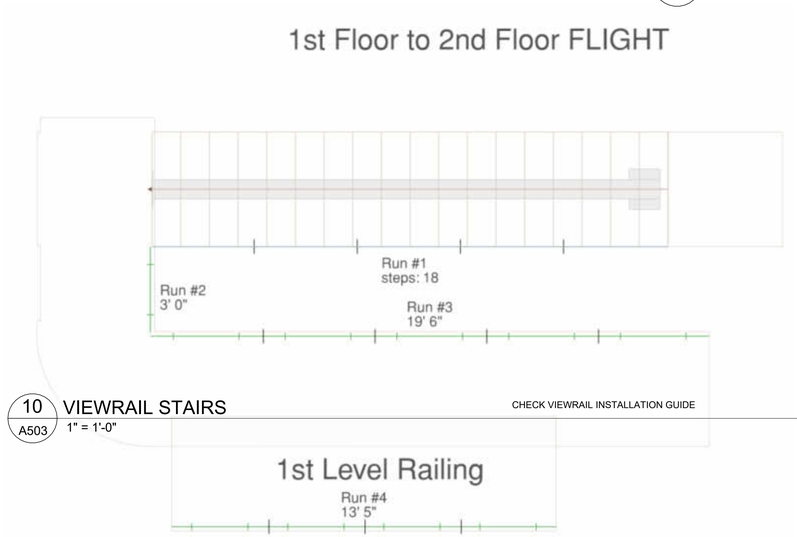


8 A503 DECK RAILING
1" = 1'-0"

NOTE: STANDOFF GLASS RAILIN BY VIEWRAIL, FOLLOW INSTRUCTIONS FOR PROPER INSTALATION



9 A503 INT GLASS RAILING
1" = 1'-0"



10 A503 VIEWRAIL STAIRS
1" = 1'-0"

CHECK VIEWRAIL INSTALLATION GUIDE

PN

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ISSUANCES

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SERIES

MODEL

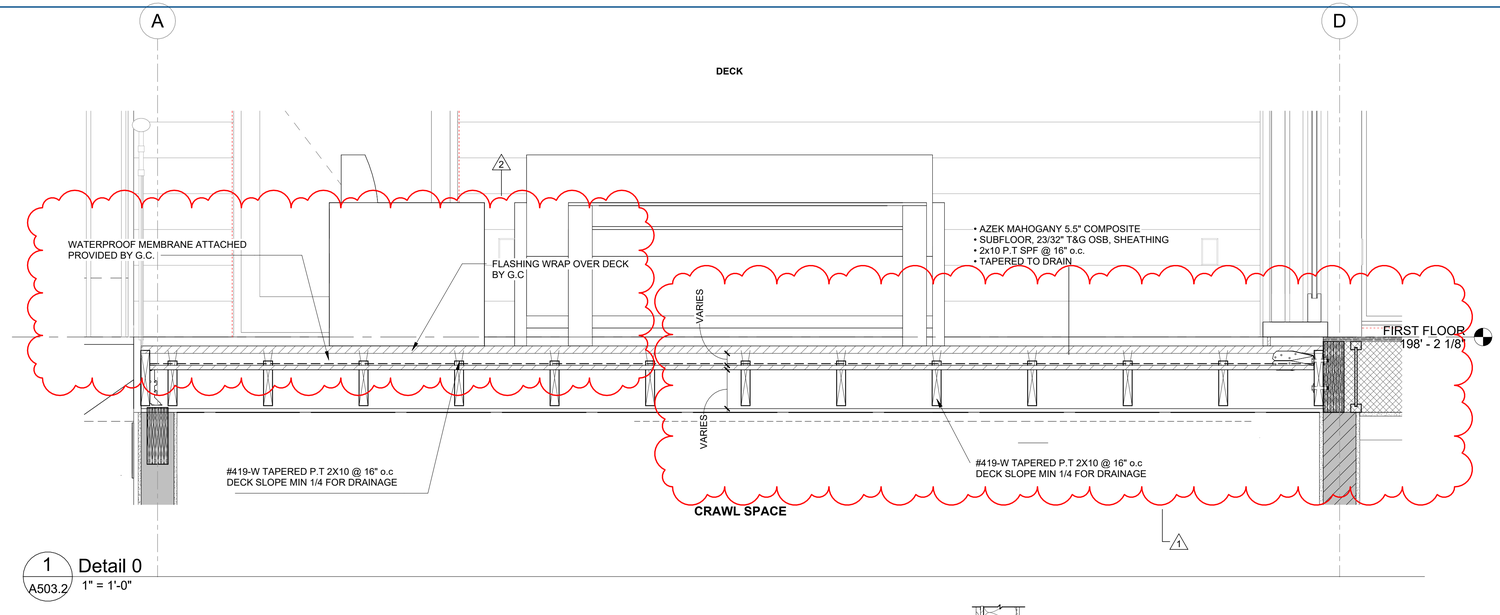
CUSTOM ELEMENT HOME

DETAILS - STAIRS, DECKS & RAILINGS

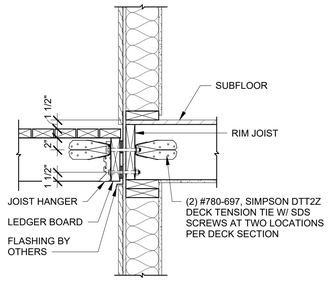
Scale: 1" = 1'-0"

A503

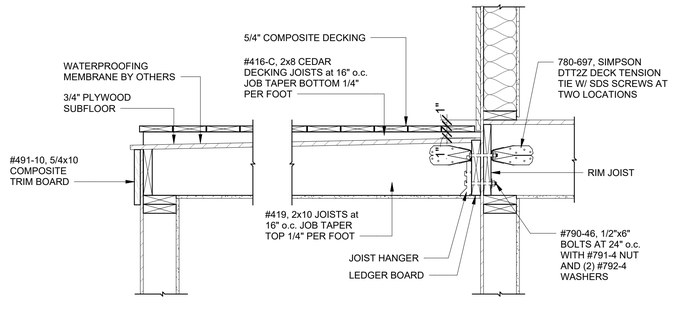
ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:09 PM



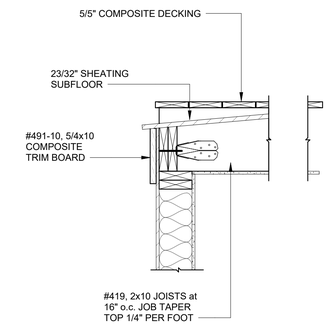
1 A503.2 **Detail 0**
1" = 1'-0"



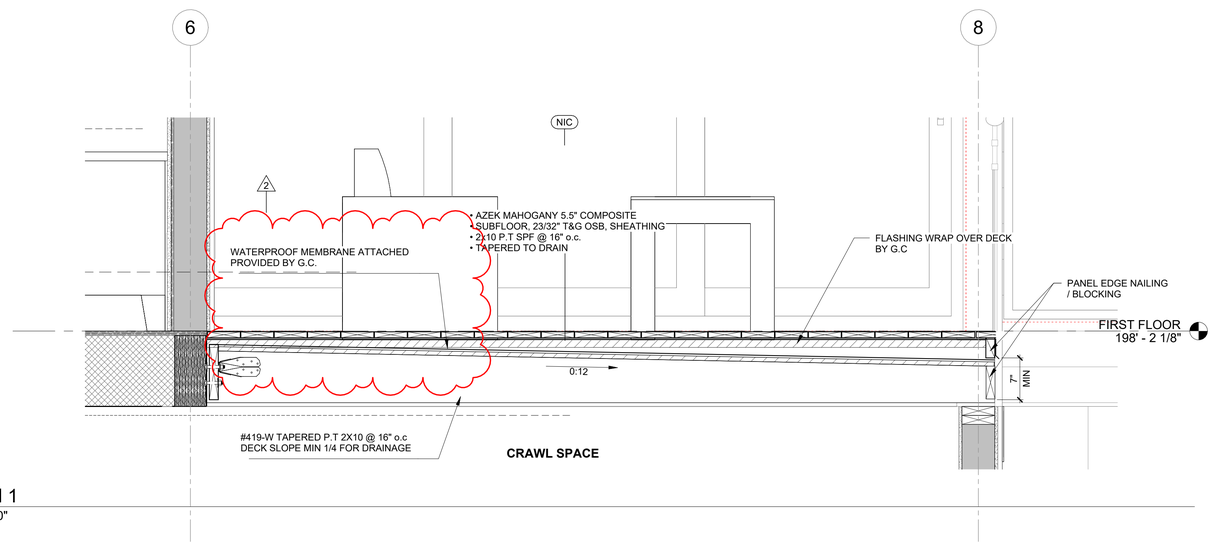
3 A503.2 **DECK CONNECTION TIE**
1" = 1'-0"



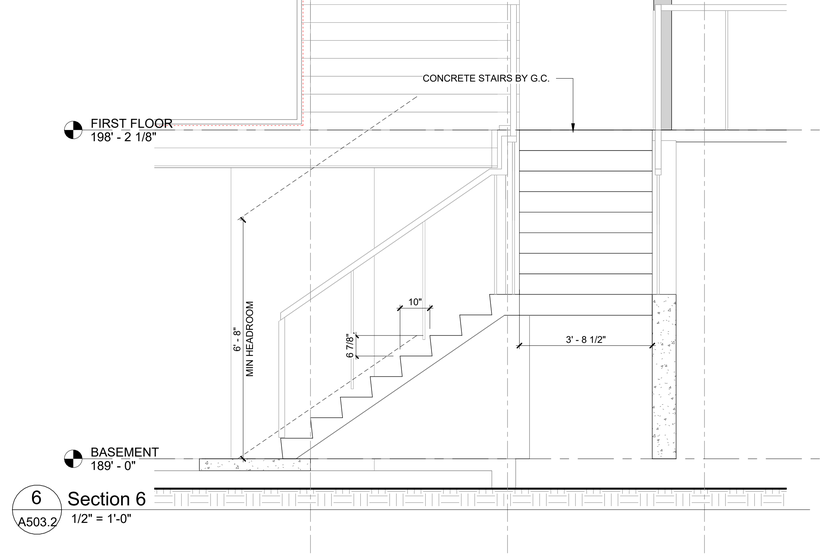
5 A503.2 **DECK WATERPROOF**
1" = 1'-0"



4 A503.2 **DECK CONNECTION WALL**
1" = 1'-0"



2 A503.2 **Detail 1**
1" = 1'-0"



6 A503.2 **Section 6**
1/2" = 1'-0"

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PROJECT NORTH

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MODEL

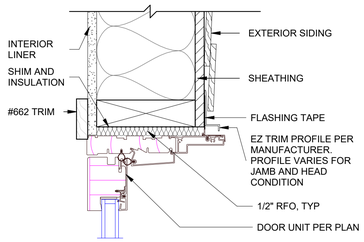
CUSTOM ELEMENT HOME

DETAILS - DECKS & STAIRS

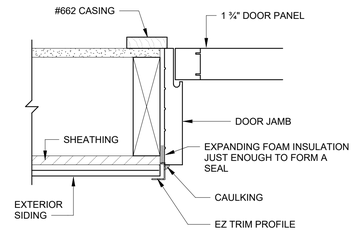
Scale: As indicated

A503.2

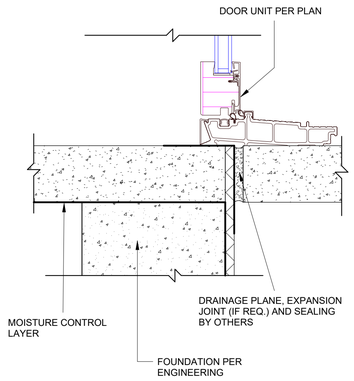
ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:01 PM



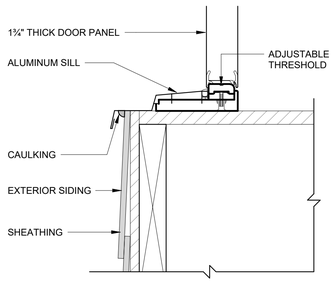
1 A504 EXT DOOR HEAD
3" = 1'-0"



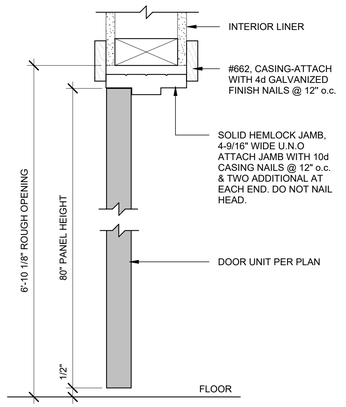
2 A504 EXT DOOR JAMB
3" = 1'-0"



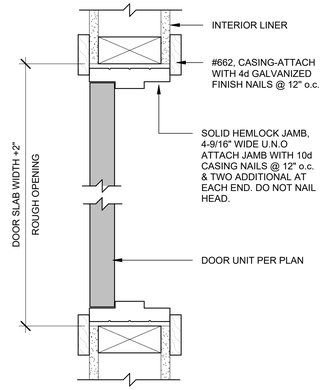
3 A504 EXT DOOR SILL
3" = 1'-0"



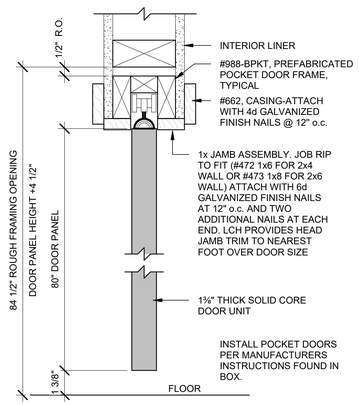
4 A504 EXT DOOR SILL JOIST
3" = 1'-0"



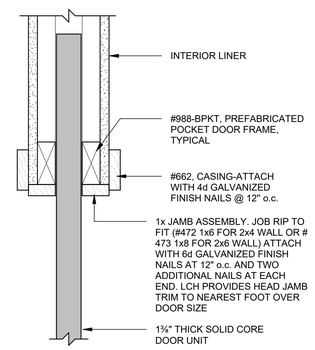
5 A504 INT DOOR HEAD
3" = 1'-0"



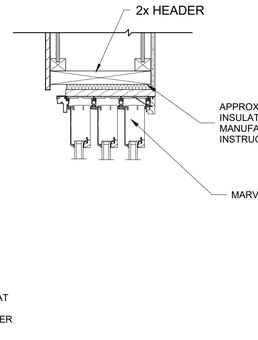
6 A504 INT DOOR JAMB
3" = 1'-0"



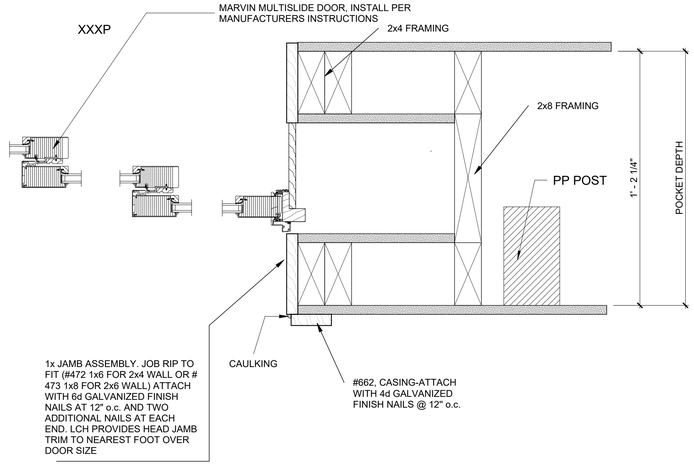
7 A504 POCKET DOOR HEAD
3" = 1'-0"



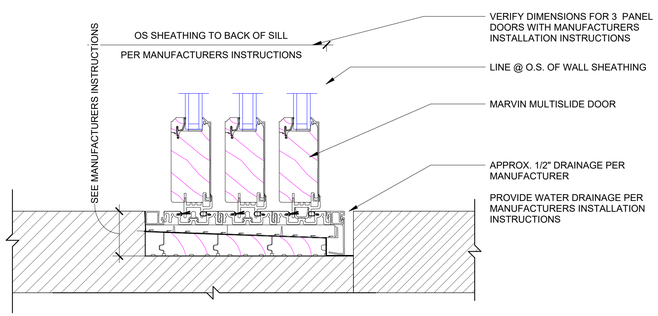
8 A504 POCKET DOOR JAMB
3" = 1'-0"



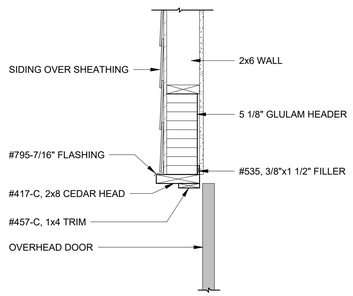
9 A504 MULTI SLIDE HEAD
1 1/2" = 1'-0"



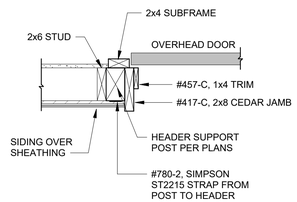
10 A504 MULTI SLIDE JAMB
3" = 1'-0"



11 A504 MARVIN 3 PANEL SILL
3" = 1'-0"



12 OVERHEAD GARAGE DOOR HEADER
1" = 1'-0"



13 OVERHEAD GARAGE DOOR JAMB
1" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:02 PM

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ISSUANCES

WARRANTY NUMBER

42255

SERIES

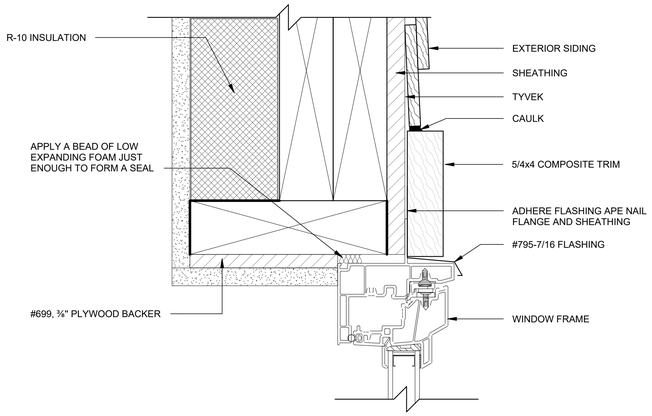
MODEL

CUSTOM ELEMENT HOME

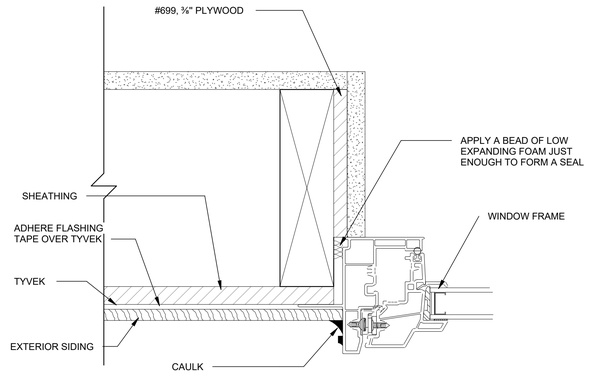
DETAILS - DOORS

Scale: As indicated

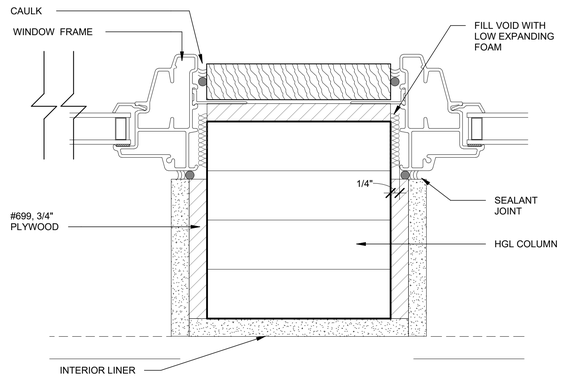
A504



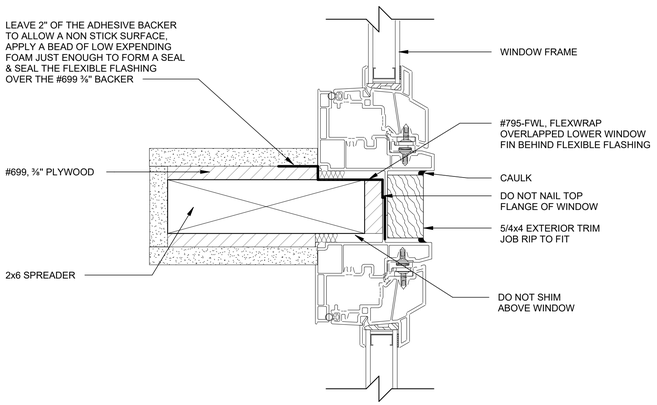
1 A505 WINDOW HEAD TYP
6" = 1'-0"



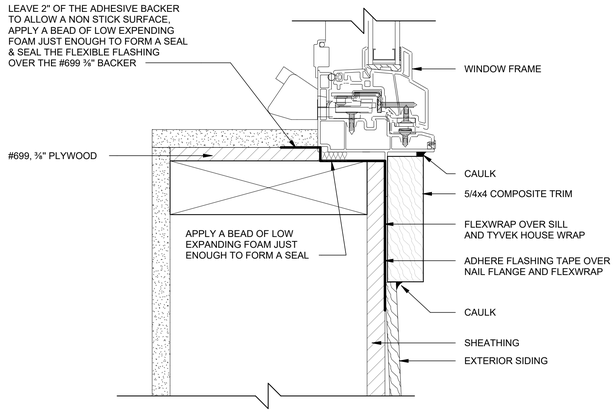
2 A505 WINDOW JAMB
6" = 1'-0"



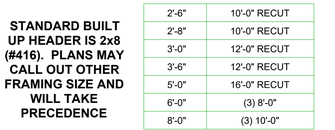
3 A505 WINDOW JAMB @ POST
6" = 1'-0"



4 A505 WINDOW 2X6 SPREADER
6" = 1'-0"



5 A505 WINDOW SILL TYP
6" = 1'-0"



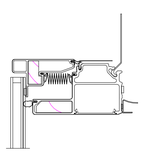
WINDOWS	FRAMING LENGTH
1'-9"	8'-0" RECUT
2'-3"	8'-0" RECUT
2'-6"	10'-0" RECUT
3'-6"	12'-0" RECUT
5'-0"	16'-0" RECUT

DOORS	FRAMING LENGTH
2'-6"	10'-0" RECUT
2'-8"	10'-0" RECUT
3'-0"	12'-0" RECUT
3'-6"	12'-0" RECUT
5'-0"	16'-0" RECUT
6'-0"	(3) 8'-0"
8'-0"	(3) 10'-0"

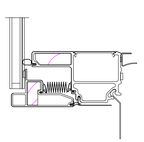
STANDARD BUILT UP HEADER IS 2x8 (#416). PLANS MAY CALL OUT OTHER FRAMING SIZE AND WILL TAKE PRECEDENCE

7 A505 BU HEADER1
3" = 1'-0"

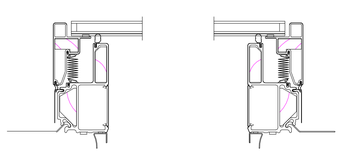
HEAD



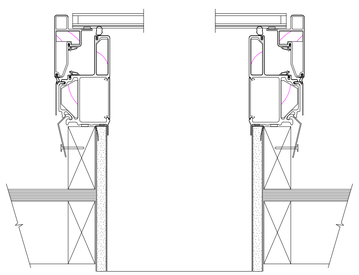
SILL



JAMB



CURB MOUNTED INSTALLATION



6 A505 MARVIN SKYLIGHT
3" = 1'-0"

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MODEL

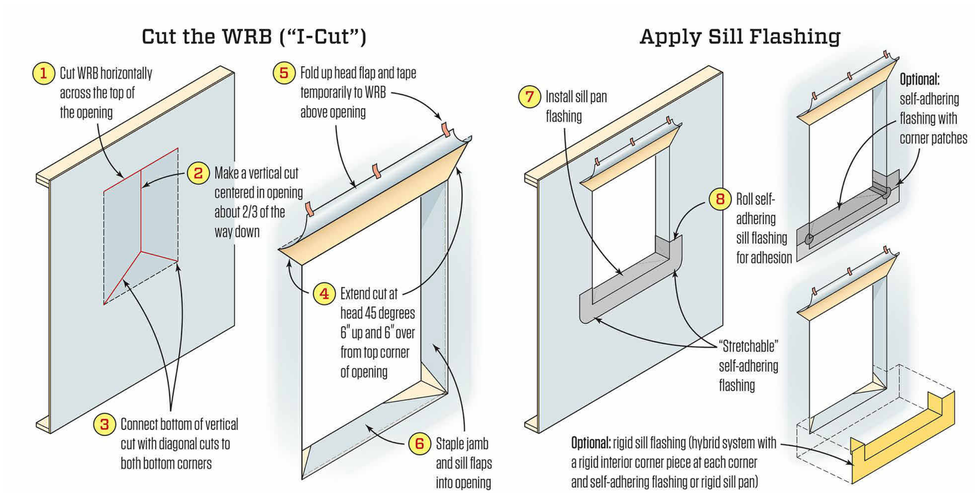
CUSTOM ELEMENT HOME

DETAILS - WINDOWS

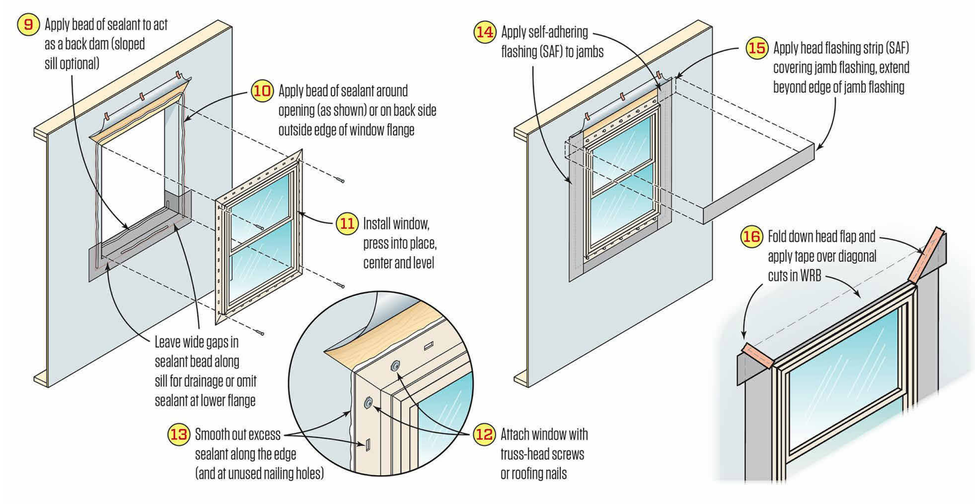
Scale: As indicated

A505

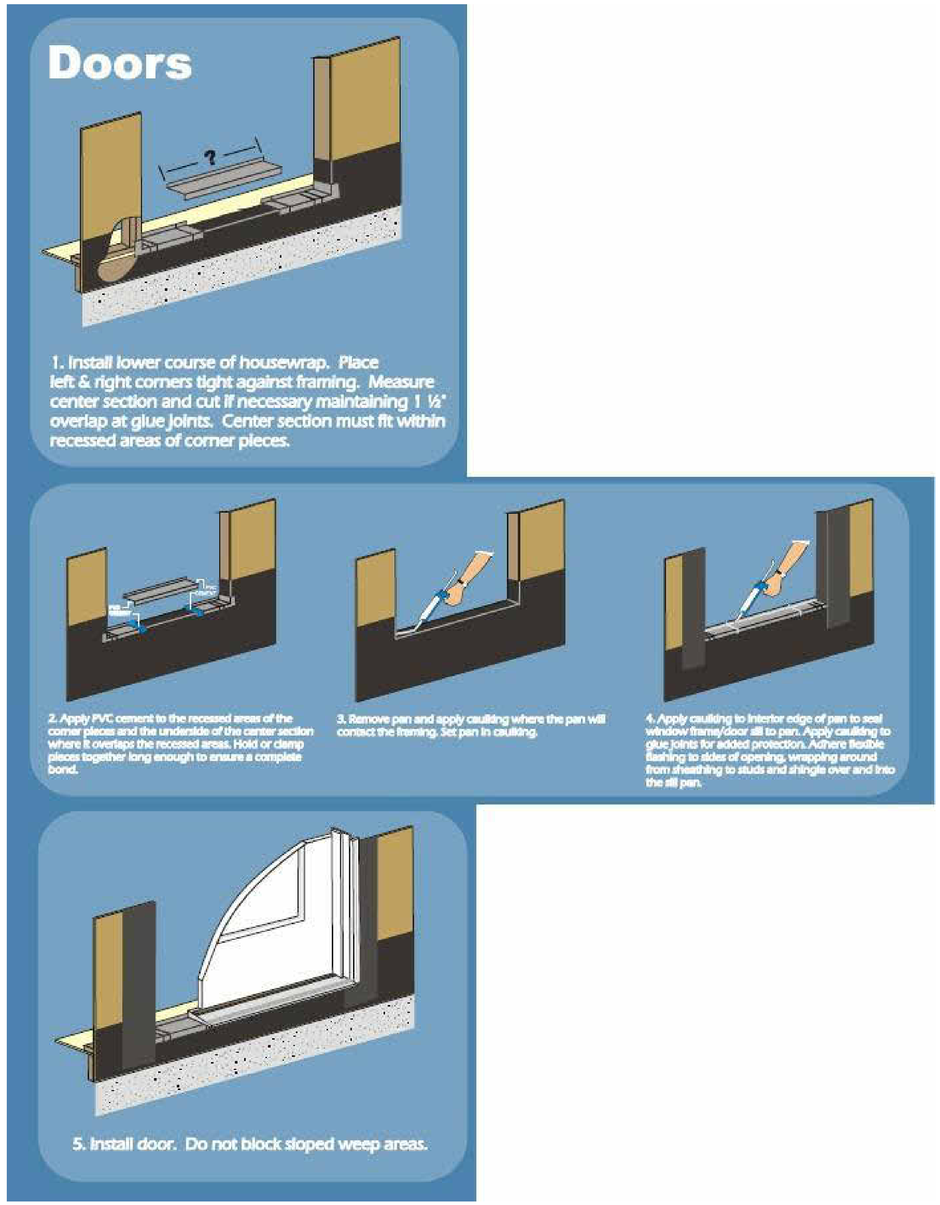
ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:04 PM



Method 1: Flashing Strips Installed Over Nailing Flanges



1 A505.1 WINDOW FLASHING
3/8" = 1'-0"



2 A505.1 DOOR FLASHING
1/2" = 1'-0"

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

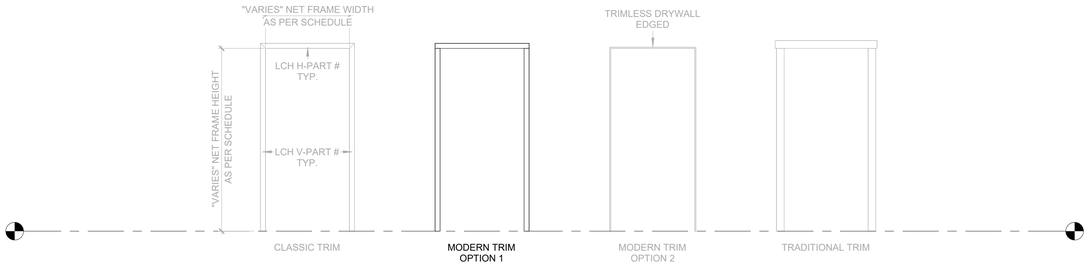
DETAILS - WINDOWS AND DOOR FLASHING

Scale: As indicated

A505.1

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:05 PM

DOOR TRIM OPTIONS:



ABBREVIATIONS, DOOR, TRIM AND HARDWARE LEGEND:

DOOR SCHEDULES:

QTY	QUANTITY
DLGL	DUAL GLAZE
FIN	FINISH
FRR	FIRE RESISTANCE RATING
MAT	MATERIAL
MNF	MANUFACTURER
ML	MODEL LINE
LH	LEFT HINGE
RH	RIGHT HINGE
#P	# OF DOOR SLAB
SL	SIDE LIGHT

MATERIAL AND FINISHES:

ALUM	ALUMINUM
ALUMC	ALUMINUM CLAD
FBG	FIBERGLASS
FBGC	FIBERGLASS CLAD
VNL	VINYL
WB	WOOD / BIRCH
WC	WOOD / CEDAR
WF	WOOD / FIR
WRP	WOOD / REDI-PRIME

TRIM LCH PART # DESCRIPTION:

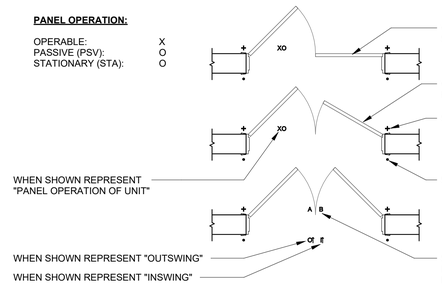
EXAMPLE 1:	491-M4
EXAMPLE 2:	632-MC
TRIM PART #:	632, 491
CEDAR:	C
COMPOSITE DEPTH:	4
FIR:	F
HEMLOCK:	H
PRE STAINED:	M

LCH MANUFACTURER PART #

LYNDEN	24
MARVIN	25
MILGARD	26
SIMPSON	27
WINDSOR	28
PLASTPRO	29

PANEL OPERATION:

OPERABLE:	X
PASSIVE (PSV):	O
STATIONARY (STA):	O



DOOR SCHEDULE

NO.	LCH DOOR DESCRIPTION: LCH PART #	TYPE	LOCATION TO ROOM: NAME	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	NET FRAME DIMENSIONS WIDTH	NET FRAME DIMENSIONS HEIGHT	NET FRAME DIMENSIONS DEPTH	PANEL DIMENSIONS QTY	PANEL DIMENSIONS WIDTH	PANEL DIMENSIONS HEIGHT	SIDE LIGHT QTY	SIDE LIGHT WIDTH	MNF'S DESCRIPTION MNF	MNF ML	MNF PART #	STYLE	MATERIAL FINISHES & ACCESSORIES PANEL MAT	FRAME FIN	REMARKS
EXTERIOR																				
D1	05-241-D1	1P-LH-INSWING	GARAGE	38"	82 1/4"	37 1/2"	81 3/4"	6 9/16"	1	36"	79"			LYNDEN	24	241X LH-	1-PANEL FLUSH			EXT EZ TRIM - COLOR MATCH MODERN L022 - SATIN BLACK
D2	05-241-D2	1P-LH-INSWING	CRAWL SPACE	38"	82 1/4"	37 1/2"	81 3/4"	6 9/16"	1	36"	79"			LYNDEN	24	241X LH-	1-PANEL FLUSH			EXT EZ TRIM - COLOR MATCH MODERN L022 - SATIN BLACK
D22	05-NIC1-D22	1P-RH-OUTSWING	GUEST BEDROOM	38"	97"	37 1/2"	96 1/2"	7 3/16"	1	36"	95"			NIC	24	241X RH-	1P GLASS			EXT EZ TRIM - COLOR MATCH MODERN L022 - SATIN BLACK
NIC	05-254-NIC	3P-MULTISLIDE OXX	DINNING ROOM	134 9/16"	109"	133 9/16"	108 1/2"	10 7/8"	3	47 1/16"	104 1/2"			MARVIN	ULTIMATE	OXX	MULTI-SLIDE DOOR	FBGC		
NIC	05-NIC1-NIC	1P-RH-INSWING	FOYER ENTRANCE / HALLWAY	44"	110 1/4"	43 1/2"	109 3/4"	6 11/16"	1	42"	107"			NIC		X RH-	1P GLASS			ENTRY DOOR NIC
INTERIOR																				
D3	06-241-D3	1P-LH-SINGLE	STAIRS	38"	82 1/8"	37 1/2"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	241LH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 WHITE PAINT TRIM FIRE RATED DOOR
D4	06-241-D4	1P-RH-SINGLE	MECH ROOM	38"	82 1/8"	37 1/2"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK FIRED RATED
D4	06-241-D4	1P-RH-SINGLE	GARAGE	38"	82 1/8"	37 1/2"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			
D5	06-241-D5	1P-RH-SINGLE	W.C.	32"	82 1/8"	31 1/2"	81 5/8"	6 13/16"	1	30"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D6	06-245-D6	1P-POCKET	PANTRY	49"	84 1/2"	25"	81 5/8"	6 13/16"	1	24"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D7	06-245-D7	1P-POCKET	LIVING / KITCHEN	73"	84 1/2"	37"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D8	06-241-D8	1P-RH-SINGLE	FOYER ENTRANCE / HALLWAY	26"	82 1/8"	25 1/2"	81 5/8"	7 1/2"	1	24"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D9	06-241-D9	1P-LH-SINGLE	GUEST BEDROOM	38"	82 1/8"	37 1/2"	81 5/8"	7 1/2"	1	36"	80"			LYNDEN	24	241LH-	1-PANEL FLUSH			
D10	06-245-D10	1P-POCKET	GUEST BEDROOM	73"	84 1/2"	37"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D12	06-241-D12	1P-RH-SINGLE	LAUNDRY	38"	82 1/8"	37 1/2"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D13	06-241-D13	1P-LH-SINGLE	BATHROOM	38"	82 1/8"	37 1/2"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	241LH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D15	06-245-D15	1P-POCKET	WATSON'S BEDROOM	49"	84 1/2"	25"	81 5/8"	4 13/16"	1	24"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D16	06-241-D16	1P-LH-SINGLE	BEDROOM 2	38"	82 1/8"	37 1/2"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	241LH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D16	06-241-D16	1P-RH-SINGLE	WATSON'S BEDROOM	38"	82 1/8"	37 1/2"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			
D17	06-245-D17	1P-POCKET	BEDROOM 2	73"	84 1/2"	37"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D18	06-241-D18	1P-LH-SINGLE	PRIMARY BEDROOM	38"	82 1/8"	37 1/2"	81 5/8"	6 13/16"	1	36"	80"			LYNDEN	24	241LH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D19	06-245-D19	1P-POCKET	PRIMARY BEDROOM	49"	84 1/2"	25"	81 5/8"	4 13/16"	1	24"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D20	06-245-D20	1P-POCKET	PRIMARY BEDROOM	49"	84 1/2"	25"	81 5/8"	4 13/16"	1	24"	80"			LYNDEN	24	245	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK
D21	06-241-D21	1P-RH-SINGLE	PRIMARY BEDROOM	38"	82 1/8"	37 1/2"	81 5/8"	4 13/16"	1	36"	80"			LYNDEN	24	241RH-	1-PANEL FLUSH			INT FIR MODERN OP #1, MODERN L022 SATIN BLACK

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

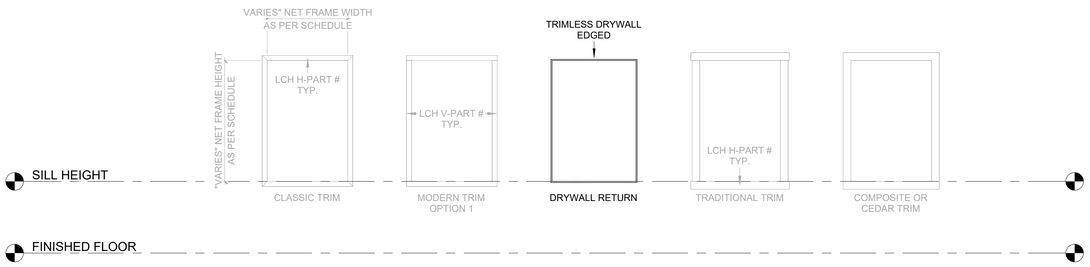
SCHEDULES - DOORS

Scale: 3/8" = 1'-0"

A600

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:09 PM

WINDOW TRIM LEGEND:



WINDOW AND TRIM SCHEDULE ABBREVIATIONS:

LCH MANUFACTURER PART #:

25	MARVIN
26	MILGARD
28	WINDSOR

WINDOW UNIT TYPE CODE:

U	SINGLE
C	COMBINATION
Z	TRAPEZOID
T	TRIANGLE
H	HUNG
S	SLIDER
K	SKYLIGHT
R	SCREEN

TRIM LCH PART # DESCRIPTION:

EXAMPLE 1:	491-M4
EXAMPLE 2:	632-MC
TRIM PART #:	632, 491
CEDAR:	C
COMPOSITE DEPTH:	4
FIR:	F
HEMLOCK:	H
PRE STAINED:	M

PANEL TYPES:

AWN	AWNING
CSMTL	LEFT CASEMENT
CSMTR	RIGHT CASEMENT
FXD	PICTURE / FIXED
FXD-SF	FXD WITH SUB-FRAME
HGD	DOUBLE HUNG
HGS	SINGLE HUNG
SLDL	LEFT SLIDER
SLDR	RIGHT SLIDER

COMBINATION UNIT DESCRIPTION:

#P	# OF PANELS WITHIN UNIT
#PV	ORIENTED VERTICAL
#PH	ORIENTED HORIZONTAL
3PT	2P AT BOTTOM + 1P AT TOP
3PB	2P AT TOP + 1P AT BOTTOM
#P#B	#P WITH # AT BOTTOM
#P#M	#P WITH # AT MIDDLE
#P#T	#P WITH # AT TOP

SCHEDULE ABBREVIATIONS:

QTY	QUANTITY
DLGL	DUAL GLAZE
EXT	EXTERIOR
FIN	FINISH
FR	FRAME
FRR	FIRE RESISTANCE RATING
INT	INTERIOR
MAT	MATERIAL
MNF	MANUFACTURER
ML	MODEL LINE
LH	LEFT HAND
RH	RIGHT HAND

MATERIAL AND FINISHES:

ALUM	ALUMINUM
ALUMC	ALUMINUM CLAD
FBG	FIBERGLASS
FBGC	FIBERGLASS CLAD
HDFBGC	HIGH DENSITY FIBERGLASS CLAD
VNL	VINYL
WF	WOOD / FIR
WUIC	WILDLAND URBAN INTERFACE CODE

WINDOW SCHEDULE

LCH WINDOW DESCRIPTION				LOCATION FROM ROOM:		ROUGH OPENING		ROUGH OPENING		NET FRAME DIMENSIONS						MNF'S DESCRIPTION		MATERIAL FINISHES & ACCESSORIES						ENERGY SPECIFICATION	
NO.	LCH PART #	UNIT TYPE	PANEL TYPES WITHIN UNIT	NAME	NO.	WIDTH 1	HEIGHT 1	WIDTH 2	HEIGHT 2	WIDTH 1	HEIGHT 1	WIDTH 2	HEIGHT 2	DEPTH	ANGLE	MNF	MNF ML	FR MAT	EXT FR FIN	INT FR FIN	GLAZE	GLAZE FIN	REMARKS	COATING	FILL
EXTERIOR																									
1	251-U-1	1P-PICTURE	P1:FIXED,	HALLWAY	136	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
1: 1																									
1.2X	251-U-1.2X	1P-PICTURE	P1:FIXED,	FOYER ENTRANCE / HALLWAY	115	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED		ARGON
1.2X: 1																									
1X	251-U-1X	1P-PICTURE	P1:FIXED,	GUEST BEDROOM	116	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	GUEST BEDROOM	116	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	FOYER ENTRANCE / HALLWAY	115	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 ARE TEMPERED	LOW-E	ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	HALLWAY	136	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	58"	110"			57"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	FAMILY ROOM	137	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED		ARGON
1X	251-U-1X	1P-PICTURE	P1:FIXED,	FOYER ENTRANCE / HALLWAY	115	61"	110"			60"	109"			3"		MARVIN	ELEVATE	FBGC			TEMPERED				ARGON
1X: 7																									
2X	251-U-2X	1P-AWNING		BATHROOM	130	49"	28 1/2"			48"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED				ARGON
2X	251-U-2X	1P-AWNING		BATHROOM	130	49"	28 1/2"			48"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED				ARGON
2X	251-U-2X	1P-AWNING		GUEST BATH	117	37"	28 1/2"			36"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED				ARGON
2X: 3																									
3.1X	251-C-3.1X	2PH-COMBINATION	P1:AWN,P2:AWN,	LIVING / KITCHEN	120	61"	32 1/8"			60"	31 1/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
3.1X: 1																									
3X	251-C-3X	2PH-COMBINATION	P1:AWN,P2:AWN,	DINNING ROOM	119	57 1/2"	32 1/8"			56 1/2"	31 1/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
3X	251-C-3X	2PH-COMBINATION	P1:AWN,P2:AWN,	FAMILY ROOM	137	61"	32 1/8"			60"	31 1/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 IS TEMPERED	LOW-E	ARGON
3X	251-C-3X	2PH-COMBINATION	P1:AWN,P2:AWN,	FAMILY ROOM	137	61"	32 1/8"			60"	31 1/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 IS TEMPERED	LOW-E	ARGON
3X: 3																									
4	251-U-4	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	57 1/2"	76 3/8"			56 1/2"	75 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
4	251-U-4	1P-PICTURE	P1:FIXED,	FAMILY ROOM	137	61"	76 3/8"			60"	75 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
4	251-U-4	1P-PICTURE	P1:FIXED,	FAMILY ROOM	137	61"	76 3/8"			60"	75 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
4: 3																									
4.1	251-U-4.1	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	76 3/8"			60"	75 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
4.1: 1																									
5X	251-U-5X	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	61"	28"			60"	27"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
5X	251-U-5X	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	28"			60"	27"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
5X	251-U-5X	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	28"			60"	27"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
5X	251-U-5X	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	28"			60"	27"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
5X	251-U-5X	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	61"	28"			60"	27"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
5X: 5																									
6	251-U-6	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	61"	81"			60"	80"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
6	251-U-6	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	81"			60"	80"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
6	251-U-6	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	81"			60"	80"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
6	251-U-6	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	61"	81"			60"	80"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
6	251-U-6	1P-PICTURE	P1:FIXED,	DINNING ROOM	119	61"	81"			60"	80"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
6: 5																									
7.2X	251-U-7.2X	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	57"	73"			56"	72"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
7.2X: 1																									
7X	251-U-7X	1P-PICTURE	P1:FIXED,	LIVING / KITCHEN	120	57 1/2"	73"			56 1/2"	72"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED				ARGON
7X: 1																									
8	251-U-8	1P-		LIVING / KITCHEN	120	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-		LIVING / KITCHEN	120	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-		LIVING / KITCHEN	120	58"	28 1/2"			57"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-		HALLWAY	136	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-		HALLWAY	136	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-		HALLWAY	136	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	NON TEMPERED			LOW-E	ARGON
8	251-U-8	1P-AWNING		GUEST BATH	117	61"	28 1/2"			60"	27 1/2"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
8: 7																									
9X	251-C-9X	2PV-COMBINATION	P1:FXD-SF,P2:CSMTL,	WATSON'S BEDROOM	128	37"	93 3/8"			36"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 ARE TEMPERED, EGRESS	LOW-E	ARGON
9X	251-C-9X	2PV-COMBINATION	P1:FXD-SF,P2:CSMTR,	PRIMARY BEDROOM	132	37"	93 3/8"			36"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 IS TEMPERED, EGRESS	LOW-E	ARGON
9X	251-C-9X	2PV-COMBINATION	P1:FXD-SF,P2:CSMTL,	BEDROOM 2	127	37"	93 3/8"			36"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 AND P2 ARE TEMPERED, EGRESS	LOW-E	ARGON
9X	251-U-9X	1P-PICTURE	P1:FIXED,	PRIMARY BEDROOM	132	61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
9X: 4																									
10X	251-U-10X	1P-PICTURE	P1:FIXED,	PRIMARY BEDROOM	135	61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED		P1 IS TEMPERED	LOW-E	ARGON
10X	251-U-10X	1P-PICTURE	P1:FIXED,	WATSON'S BEDROOM	128	61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
10X	251-U-10X	1P-PICTURE	P1:FIXED,	WATSON'S BEDROOM	128	61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
10X	251-U-10X	1P-PICTURE	P1:FIXED,			61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
10X	251-U-10X	1P-PICTURE	P1:FIXED,	BEDROOM 2	127	61"	93 3/8"			60"	92 3/8"			3"		MARVIN	ELEVATE	FBGC	EBONY	DESIGNER BLACK	TEMPERED			LOW-E	ARGON
10X: 5																									
NIC	256-K-NIC	1P-VENTED SKLT CURB MOUNT				46 1/2"	58 1/2"			50 1/4"	62 1/4"					MARVIN	AWAKEN SKYLIGHT	FBG			TEMPERED			IG LOW E II	ARGON
NIC: 1																									

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:08 PM

Lindal
CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023
NO.	DESCRIPTION	ISSUED BY	DATE

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

SCHEDULES - WINDOWS

Scale: 3/8" = 1'-0"

A601

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC)

2. DESIGN LOADING CRITERIA

ROOF SNOW LOAD	30 PSF
ROOF DEAD LOAD ALLOWANCE FOR PV PANELS	4 PSF
FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF
FLOOR LIVE LOAD (RESIDENTIAL EXTERIOR DECKS AND BALCONIES)	60 PSF
GUARDRAILS/BALCONY RAILS (ONE OR TWO UNIT DWELLING)	200 LBS

WIND : ANALYSIS PROCEDURE: ASCE 7-16 CHAPTER 27 "PART 1 - BUILDINGS OF ALL HEIGHTS"
RISK CATEGORY II
98 MPH
EXPOSURE "C"
TOPOGRAPHIC FACTOR Kzt = 1.6
WIND BASE SHEAR, NORTH/SOUTH Vw = 44.1 K
WIND BASE SHEAR, EAST/WEST Vw = 27.9 K

EARTHQUAKE : ANALYSIS PROCEDURE: IBC "EQUIVALENT LATERAL FORCE PROCEDURE"
SEISMIC DESIGN CATEGORY (SDC) = D
RISK CATEGORY = II
SEISMIC SITE CLASS = D
IMPORTANCE FACTOR Ie = 1.0
MAPPED MCE S_S = 1.46; S_1 = 0.50
DESIGN ACCELERATION S_{DS} = 0.97; S_{D1} = 0.60
SEISMIC RESISTING SYSTEM: WOOD PANEL BEARING SHEAR WALL, R = 6.5
SEISMIC RESPONSE COEFFICIENT: Cs = 0.15
SEISMIC BASE SHEAR Vs = 22.3 K

3. LATERAL LOADS ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. FORCES ARE BASED ON THE TRIBUTARY AREA FOR EACH SHEAR WALL AND ARE CARRIED BY THE SHEAR WALLS TO THE FOUNDATION.

4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.

9. ALL STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

10. SHOP DRAWINGS FOR REINFORCING STEEL AND STRUCTURAL STEEL SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.

12. DEFERRED SUBMITTALS OF DESIGN BUILD COMPONENTS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE AND SHALL INCLUDE DESIGN CALCULATIONS WITH THE ENGINEER'S STAMP.

THE FOLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:
STAIRS & RAILINGS

13. SPECIAL INSPECTION: CONCRETE CONSTRUCTION, STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING), EXPANSION BOLTS, SCREW ANCHORS AND EPOXY GROUTED INSTALLATIONS SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

GEOTECHNICAL

14. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE GEOTECHNICAL REPORT.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING VALUES FROM THE REFERENCED GEOTECHNICAL REPORT:

LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	60 PCF/40 PCF
LATERAL EARTH PRESSURE W/ SOIL IMPROVEMENT (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF
SEISMIC SURCHARGE PRESSURE	8H PSF
PASSIVE SOIL PRESSURE	150 PCF
4"Ø PIPE PILE CAPACITY	16 KIPS

GEOTECHNICAL REPORT REFERENCE: #1276521 BY NELSON GEOTECHNICAL ASSOCIATES, INC. DATED JANUARY 14, 2022.

15. PIPE PILES SHALL BE GALVANIZED SCHEDULE-80 (STD) ASTM A53 (TYPE E OR S, GRADE B) 4 INCH NOMINAL PIPE DRIVEN TO REFUSAL PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. THE ALLOWABLE AXIAL COMPRESSION CAPACITY SHALL BE 16 KIPS. SECTIONS OF PIPE SHALL BE CONNECTED TOGETHER WITH COMPRESSION FITTED SLEEVE COUPLERS.

16. PIPE PILING INSPECTION SHALL BE CONTINUOUSLY PERFORMED BY THE GEOTECHNICAL ENGINEER DURING PLACEMENT TO CONFIRM THAT THE PILES ARE INSTALLED IN ACCORDANCE WITH THE PLANS AND GEOTECHNICAL REPORT. AT LEAST 3% OF THE 4 INCH PILES SHALL BE LOAD TESTED IN ACCORDANCE WITH ASTM D1143. THE MAXIMUM TEST LOADS SHALL BE 40 KIPS. MAXIMUM PILE MIS-LOCATION SHALL BE 2" LATERALLY. DRIVE A TEST ELEMENT FOR PLANNING PURPOSES TO DETERMINE REFUSAL DEPTH AND PILE LENGTH PER RECOMMENDATIONS IN GEOTECHNICAL REPORT. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES.

CONCRETE

17. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. EXCEPT FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.3.1. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SLABS-ON-GRADE SHALL OBTAIN A 28-DAY STRENGTH f'c OF 4,500 PSI IN ACCORDANCE WITH ACI 318 TABLE 19.3.2.1 AND IBC SECTION 1904.1. ALL CONCRETE TO RECEIVE A STEEL TROWELED FINISH SHALL NOT BE AIR-ENTRAINED.

18. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI AND SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT 48 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS, LAP 2'-0" MINIMUM. PROVIDE (2) #4 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-0" PAST CORNERS, TYPICAL.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE. PROVIDE A 20' LONG REBAR GROUND (UFER GROUND) PER ELECTRICIAN.

19. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST EARTH	3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER	2"
SLABS AND WALLS (INTERIOR FACE) U.O.N.	1"

20. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

21. NON-SHRINK GROUT SHALL BE NON-METALLIC CONFORMING TO ASTM C1107 AND BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (5000 PSI MINIMUM).

ANCHORAGE

22. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

23. SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2713 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.

24. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "SET-XP" ADHESIVE ANCHOR AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2508, INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

STEEL

25. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C. SPECIFICATIONS AND CODES:

A. AISC - STEEL CONSTRUCTION MANUAL, 15TH EDITION
B. AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
C. 2014 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS.

26. STRUCTURAL STEEL, WIDE FLANGE (W AND WT) SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI; ALL OTHER ROLLED SHAPES SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PLATE SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE C, Fy = 50 KSI. CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 36, Fy = 36 KSI.

27. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

28. ALL A325 CONNECTION BOLTS SHALL BE INSTALLED TO THE SNUG-TIGHT CONDITION PER RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436 OR ASTM F959 TYPE 325. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

29. ALL A307 CONNECTION BOLTS SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF-LOCKING NUTS. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

30. ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.W.S. STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY A.W.S.) SHALL BE USED. ALL WELDING SHALL BE PERFORMED BY WELDERS WITH AWS / W.A.B.O. CERTIFICATION WITH THE MATERIAL AND METHOD REQUIRED.

WOOD

31. FRAMING LUMBER: SHALL BE KILN DRIED OR MC-19 (MOISTURE CONTENT LESS THAN 19%), AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

STANDARD 2X FRAMING (STUDS, PLATES, JOISTS, BUILT-UP BEAMS)	SPRUCE-PINE-FIR NO. 2
TREATED 2X FRAMING (DECK JOISTS, BUILT-UP BEAMS)	HEM-FIR NO. 2
POSTS (BUILT-UP)	SPRUCE-PINE-FIR NO. 2

Lindal
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MERCER ISLAND, WA 98040

BY INITIALING THE BLOCKS BELOW YOU ARE CONFIRMING THAT THE INFORMATION CONTAINED ON THIS PAGE HAS BEEN REVIEWED AND APPROVED.

DATE	PLAN SET	INITIAL
11/27/23	PERMIT SET	
4/3/24	PERMIT RESUBMITTAL	

42255

HOME SERIES
CUSTOM

HOME MODEL
CUSTOM

GENERAL
STRUCTURAL NOTES

Scale: AS NOTED

S1.0

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

32. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM D3737 AND ANSI A190.1. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CONFORMANCE MUST BE MADE AVAILABLE TO BUILDING INSPECTORS. BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2,400 PSI, Fv = 240 PSI, E = 1,800 KSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 5,000' RADIUS UNLESS SHOWN OTHERWISE ON THE PLANS. GLUE LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 2, Fc = 1,900 PSI, Fby = 1,800 PSI, Fbx = 1,700 PSI, E = 1,700 KSI (4 LAMS MINIMUM DEPTH).

33. ALASKAN YELLOW CEDAR (AYC) GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM D3737 AND ANSI A190.1. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CONFORMANCE MUST BE MADE AVAILABLE TO BUILDING INSPECTORS. AYC BEAMS SHALL BE ALASKAN YELLOW CEDAR COMBINATION 20F-V13, Fb = 2,000 PSI, Fv = 240 PSI, E = 1,300 KSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 5,000' RADIUS UNLESS SHOWN OTHERWISE ON THE PLANS. AYC GLUE LAMINATED COLUMNS SHALL BE ALASKAN CEDAR COMBINATION 10, Fc = 1,450 PSI, Fby = 1,400 PSI, Fbx = 1,350 PSI, E = 1,400 KSI (4 LAMS MINIMUM DEPTH).

34. LAMINATED STRAND LUMBER (LSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED STRAND LUMBER SHALL BE MANUFACTURED USING A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    RIM JOISTS AND BLOCKING (1-1/4" MINIMUM THICKNESS AT NON-SHEAR WALLS; SEE SCHEDULE FOR MINIMUM THICKNESS AT SHEAR WALLS):
    Fb = 1700 PSI, E = 1.3 x 10^6 PSI, Fv = 400 PSI

    BEAMS AND HEADERS:
    Fb = 2325 PSI, E = 1.55 x 10^6 PSI, Fv = 310 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

35. PARALLEL STRAND LUMBER (PSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL PARALLEL STRAND LUMBER SHALL BE MANUFACTURED USING DOUGLAS FIR STRANDS GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    Fb = 2900 PSI, E = 2.2x 10^6 PSI, Fv = 290 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

36. WOOD I-JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE I-JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH WOOD JOIST PROVIDED. GLUE FLOOR JOISTS TO SHEATHING AS REQUIRED BY THE JOIST MANUFACTURER.

37. WOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE; EXPOSURE 1, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS-1 OR PS-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

    UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) 10d-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS. WHERE NOT NOTED OTHERWISE, NAIL PANEL EDGES WITH 8d NAILS @ 6" O.C. EDGES, 12" O.C. IN THE FIELD.

38. ALL WOOD EXPOSED TO WEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE-TREATED, U.O.N. PRESSURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE CONFORMING TO AMERICAN WOOD PRESERVERS ASSOCIATION U1 AND M4 AND SHALL BE BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AWPA OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED WOOD SHALL BE PROTECTED WITH A G185 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE.

39. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2021. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SNUG TIGHT.

40. WOOD FASTENERS:

    A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENGTH
"6d"	6d Common	0.113"	2"
"8d Box"	8d Box	0.113"	2-1/2"
"8d"	8d Common	0.131"	2-1/2"
"10d-F"	10d Framer	0.131"	3"
"10d"	10d Shear	0.148"	2-1/4"
"16d"	16d Sinker	0.148"	3-1/4"

    IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

    B. NAILS - SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

    C. SCREWS SHALL BE WOOD SCREWS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREWS.

    D. HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES - ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED.

41. WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

    A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.

    B. WALL FRAMING: ALL BEARING AND SHEAR WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2 x 4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2 x 6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL BEARING AND SHEAR WALLS AND AT EACH SIDE OF ALL OPENINGS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.

    ALL BEARING STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 8" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS WITH 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C., UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 10d-F NAILS @ 8" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES ATTACHED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH SCREWS AT 8" O.C. USE 1-1/4" W #6 SCREWS FOR 1/2" GWB AND 5/8" GWB WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT.

    C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 10d-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.

    D. POSITIVE CONNECTIONS: PROVIDE THE POSITIVE ATTACHMENT FOR ALL FRAMING AS NOTED ON PLAN OR DETAILS. ALL CONNECTORS EXPOSED TO WEATHER OR DIRECT CONTACT WITH PRESSURE TREATED WOOD SHALL BE GALVANIZED.

STRUCTURAL OBSERVATION

AS NOTED IN IBC SECTION 1704.6, STRUCTURAL OBSERVATION IS REQUIRED FOR THIS PROJECT. STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, INCLUDING BUT NOT LIMITED TO, THE ELEMENTS AND CONNECTIONS AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY OF THE INSPECTIONS REQUIRED BY IBC SECTIONS 110 AND 1704.

IN OUR STRUCTURAL OBSERVATION, WE WILL SELECT PORTIONS OF WORK TO REVIEW CLOSELY AS WELL AS OBSERVE THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. SUCH REVIEW PROCEDURES WILL BE CONDUCTED IN ACCORDANCE WITH COMMONLY ACCEPTED STANDARDS OF PRACTICE. THE BUILDING OFFICIAL UNDERSTANDS THAT SUCH PROCEDURES INDICATE ACTUAL CONDITIONS ONLY WHERE THE REVIEW IS PERFORMED AND THAT THE RESULTS WILL BE INFERRED TO EXIST IN OTHER AREAS NOT REVIEWED.

THE BUILDING OFFICIAL ALSO RECOGNIZES THAT STRUCTURAL REVIEW IS A TECHNIQUE EMPLOYED TO MINIMIZE THE RISK OF PROBLEMS ARISING DURING CONSTRUCTION. STRUCTURAL OBSERVATION BY THE DESIGN PROFESSIONAL DOES NOT CONSTITUTE WARRANTY OR GUARANTEE OF ANY TYPE. IN ALL CASES, THE CONTRACTOR SHALL RETAIN RESPONSIBILITY FOR THE QUALITY OF WORK AND FOR ADHERENCE TO THE APPROVED PLANS AND SPECIFICATIONS.

ABBREVIATIONS

@	At	L	Angle
d	Penny (Nails)	LB.	Pound
ϕ	Diameter	LL	Live Load
°	Degrees	LLH	Long Leg Horizontal
...#	Pounds	LLV	Long Leg Vertical
#...	Number	LONGIT.	Longitudinal
		LT. WT.	Lightweight
(A)	Above		
A.B.	Anchor Bolt	MAX.	Maximum
ADD'L	Additional	MECH.	Mechanical
ALT.	Alternate	MEZZ.	Mezzanine
APPROX.	Approximate	MF	Moment Frame
ARCH.	Architect	MFR.	Manufacturer
		MIN.	Minimum
(B)	Below	MISC.	Miscellaneous
B/	Bottom of	MK.	Mark
BF	Braced Frame		
BLKG.	Blocking	(N)	New
BLDG.	Building	N.	North
BM.	Beam	N.S.	Near Side
BOT.	Bottom	NOM.	Nominal
BRG.	Bearing	NTS	Not to Scale
BTWN.	Between		
		O.C.	On Center
℄	Centerline	O.D.	Outside Diameter
C	Camber	O.F.	Outside Face
CIP	Cast In Place	O.H.	Overhang
C.J.	Construction Joint or Control Joint	OPNG.	Opening
CJP	Complete Joint Penetration	OPP.	Opposite
CLG.	Ceiling		
CLR.	Clear	PAF	Powder Actuated Fastener
CMU	Concrete Masonry Unit	PC	Precast
COL.	Column	PERM.	Permanent
CONC.	Concrete	PERP.	Perpendicular
CONN.	Connections	PJP	Partial Joint Penetration
CONST.	Construction	PL or ℗	Plate
CONT.	Continuous	PLF	Pounds per linear Foot
CSK.	Countersink	PLYWD	Plywood
		PREFAB.	Prefabricated
DBA	Deformed Bar Anchor	PSF	Pounds per Square Foot
DBL.	Double	PSI	Pounds per Square Inch
DEG.	Degree	P.T. or PT	Post-Tensioning
DF	Doug Fir-Larch	P/T	Pressure-Treated
DIA.	Diameter		
DIAG.	Diagonal	RAD.	Radius
DIAPH.	Diaphragm	REF.	Reference
DIM.	Dimension	REINF.	Reinforce or Reinforcement
DN.	Down	REQD.	Required
DO	Ditto	REV.	Revise
DTL.	Detail	R.O.	Rough Opening
DWG.	Drawing		
		S.	South
(E)	Existing	SCH. or SCHED.	Schedule
E.	East	SECT.	Section
EA.	Each	SHT.	Sheet
E.F.	Each Face	SIM.	Similar
EL.	Elevation	SOG	Slab On Grade
ELEV.	Elevator	SPEC.	Specification
EMBED.	Embedment Length	SQ.	Square
ENGR.	Engineer	SQ. FT.	Square Feet
EQ.	Equal	SQ. IN.	Square Inch(es)
E.W.	Each Way	SPF	Spruce-Pine-Fir
EXP.	Expansion	S.S.	Stainless Steel
EXT.	Exterior	STD.	Standard
		STIFF.	Stiffener
FDN.	Foundation	STL.	Steel
FIN.	Finish	STR.	Structural
FLR.	Floor	SUB.	Substitute
FRP	Fiber Reinforced Polymer	SYM.	Symmetrical
F.S.	Far Side		
FT.	Foot or Feet	T/	Top of
FTG.	Footing	T&B	Top and Bottom
		T&G	Tongue & Groove
GA.	Gauge	TEMP.	Temporary
GALV.	Galvanized	THRU	Through
GL	Glue Laminated	T.O.C.	Top of Concrete
GWB	Gypsum Wall Board	T.O.S.	Top of Steel
		T.O.W.	Top of Wall
HDG	Hot Dipped Galvanized	TRANS.	Transverse
HDR.	Header	TS	Tube Steel
HF	Hem Fir	TYP.	Typical
HGR.	Hanger		
HORIZ.	Horizontal	U.O.N.	Unless Otherwise Noted
HSS	Hollow Structural Section		
HT.	Height	VERT.	Vertical
		VIF	Verify in Field
I.D.	Inside Diameter		
I.F.	Inside Face	W.	West
IN.	Inch	W/ or w/	With
INFO.	Information	W.H.S.	Welded Headed Stud
INT.	Interior	W/O	Without
		W.P.	Work Point
JT.	Joint	W.T.S.	Welded Threaded Stud
		WWF	Welded Wire Fabric
K	Kips		
KSF	Kips per Square Foot	X SECT.	Cross Section
KSI	Kips per Square Inch	X-STR	Extra Strong
		XX-STR	Double Extra Strong

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HOME SERIES
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GENERAL STRUCTURAL NOTES

Scale: AS NOTED

S1.1

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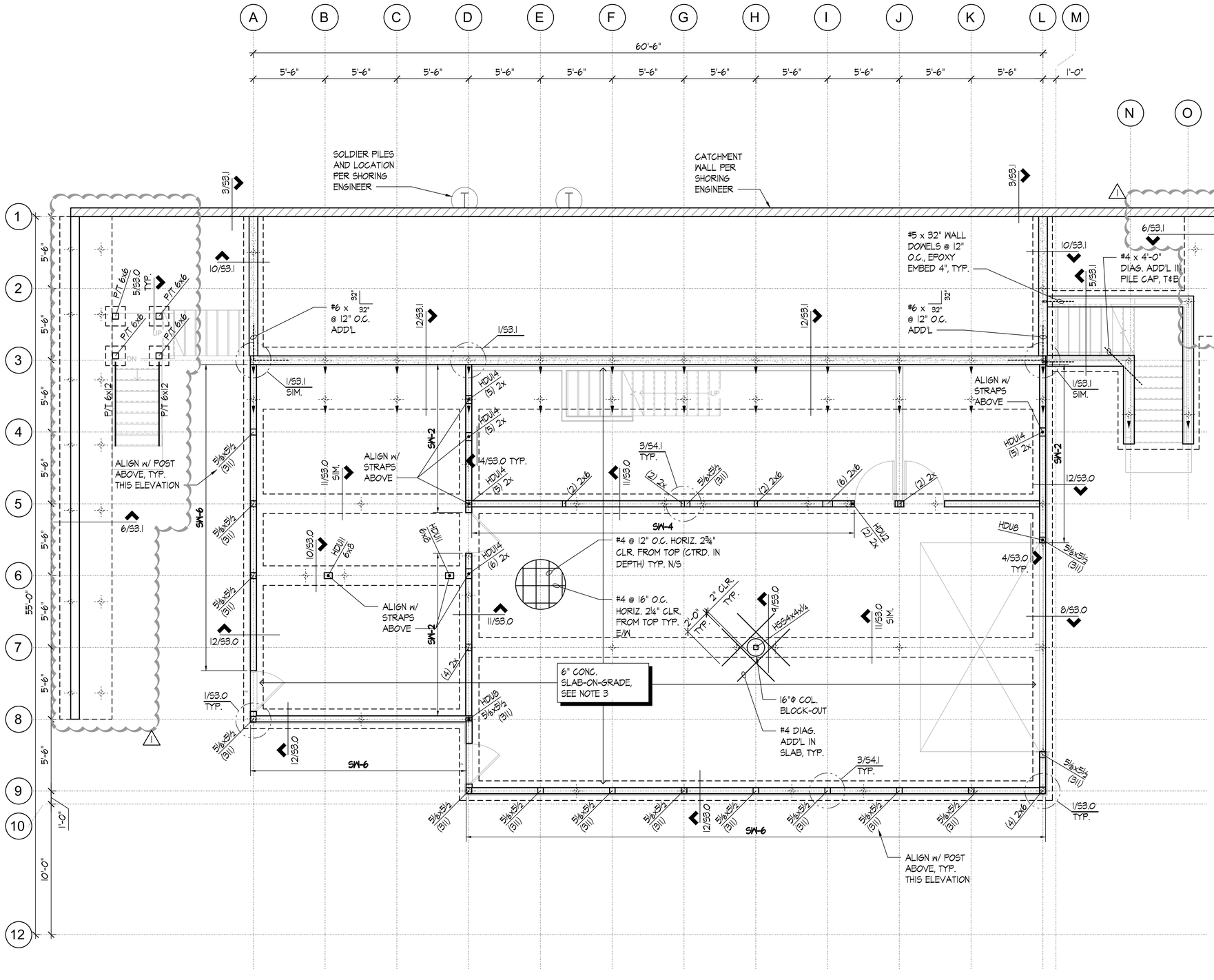

FOUNDATION / BASEMENT PLAN

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

FOUNDATION / BASEMENT PLAN NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH LINDAL CEDAR HOME DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF LINDAL CEDAR HOMES AND ENGINEER IMMEDIATELY.
2. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEET S3.0 FOR TYPICAL CONCRETE AND FOUNDATION DETAILS. SEE SHEET S4.0 FOR TYPICAL WOOD DETAILS.
3. BASEMENT SLAB-ON-GRADE SHALL BE 6" THICK CONCRETE REINFORCED PER PLAN, U.O.N. SEE LINDAL CEDAR HOME DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SUB-GRADE MOISTURE BARRIER AND ELEVATIONS, ETC. SLAB IS DESIGNED TO SPAN BETWEEN GRADE BEAMS (NO CONTROL JOINTS).
4. EXTERIOR SLAB-ON-GRADE SHALL BE 4" THICK CONCRETE REINFORCED WITH #4 @ 16" O.C. EACH WAY AT MID-DEPTH, U.O.N. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SUB-GRADE MOISTURE BARRIER AND ELEVATIONS, ETC.
5. FOR EXTERIOR SLAB-ON-GRADE JOINTS, SEE DETAIL 2/S3.0.
6. ALL WOOD BEARING ON UNPROTECTED CONCRETE, EXPOSED TO WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PRESSURE-TREATED, U.O.N.
7. FOR SILL PLATE ANCHOR BOLT LAYOUT TO CONCRETE FOUNDATION WALLS AND SLABS, SEE DETAIL 1/S4.0.
8. ALL BEARING AND SHEAR WALLS SHALL BE 2x6 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR U.O.N.
9. POSTS INDICATED ARE AT THIS LEVEL. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL FLOOR BEAMS AND ALL POSTS ABOVE FOR FULL BEARING. PROVIDE BLKG. AT JOISTS PER DETAIL 7/S4.1. SEE 3/S4.1 FOR TYPICAL POST BASE CONNECTION.
10. SW-x — INDICATES SHEAR WALL AT THIS LEVEL. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL BE SHEATHED PER SW-6 CRITERIA U.O.N.
11. HDUx — INDICATES HOLDOWN TO CONCRETE FOUNDATION WALLS OR GRADE BEAMS. SEE 12/S4.0 FOR HOLDOWN DETAIL. SEE 4/S3.0 FOR ADDITIONAL HOLDOWN REQUIREMENTS AT GRADE BEAMS. USE MIN. (2) 2x POST U.O.N.

LEGEND:

- INDICATES 4" PIPE PILE PER S2.0b AND GENERAL NOTES
- INDICATES 4" BATTERED PIPE PILE (3V:1H) AND DIRECTION PER S2.0b AND GENERAL NOTES
- INDICATES GRADE BEAM
- INDICATES WOOD BEARING WALL OR SHEAR WALL
- INDICATES GRADE BEAM
- INDICATES CONCRETE FOUNDATION WALL
- SW-x — INDICATES SHEAR WALL TYPE AT THIS LEVEL. SEE PLAN NOTE 10
- HDUx — INDICATES HOLDOWN TYPE AT THIS LEVEL. SEE PLAN NOTE 11

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FOUNDATION BASEMENT PLAN

Scale: AS NOTED

S2.0a

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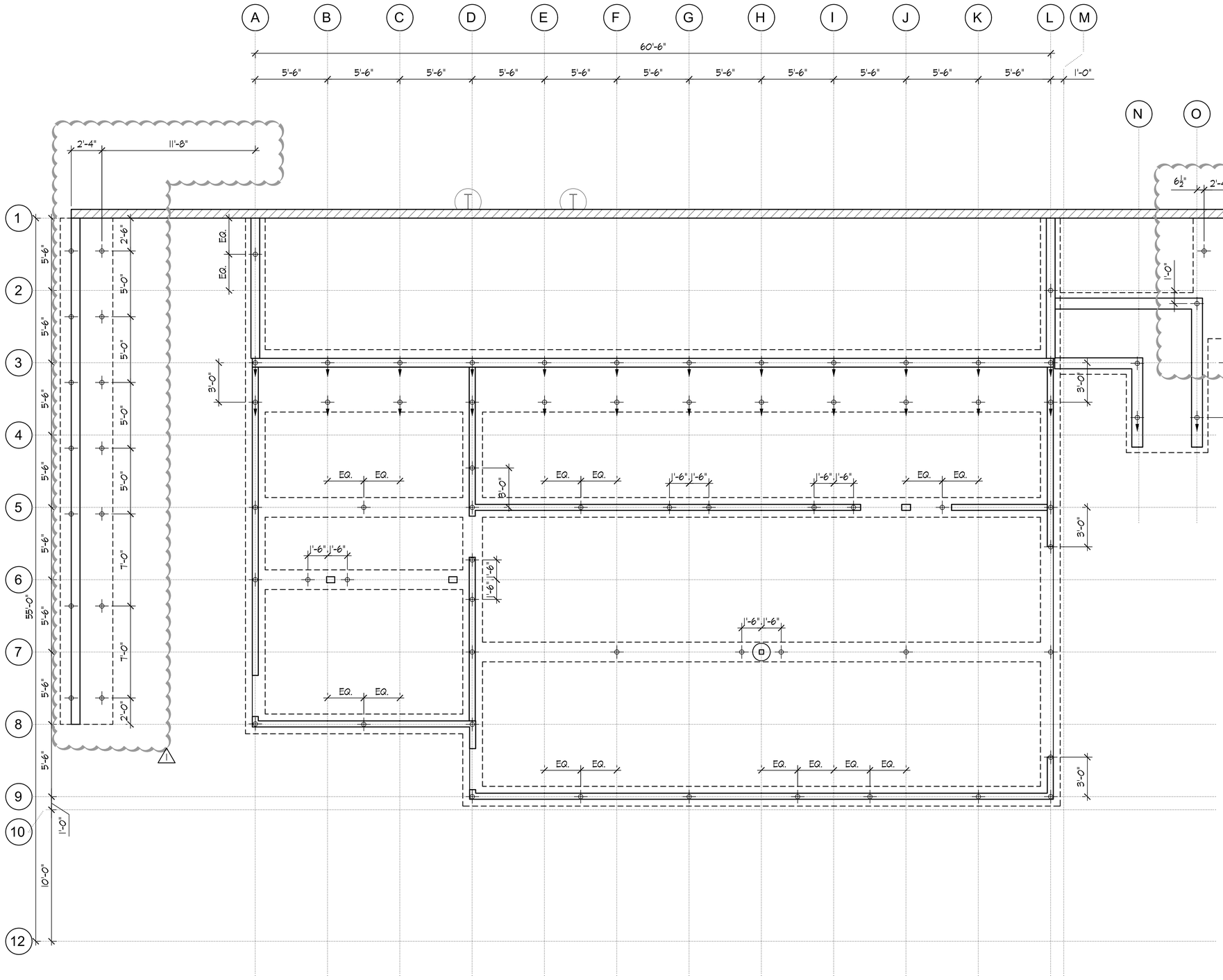

PIN PILE PLAN

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

PIN PILE PLAN NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH LINDAL CEDAR HOME DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF LINDAL CEDAR HOMES AND ENGINEER IMMEDIATELY.
2. PIPE PILES SHALL BE 4"Φ AS NOTED ON THE PLANS, GALVANIZED, SCHEDULE 80 (STD) ASTM A53 (TYPE OR S, GRADE B).
3. PILES SHALL BE DRIVEN TO REFUSAL w/ A MINIMUM 1,100 L. HAMMER. REFER TO GEOTECHNICAL REPORT FOR FINAL DRIVING RATES.
4. PIPE PILE INSTALLATION SHALL BE CONTINUOUSLY INSPECTED BY GEOTECHNICAL ENGINEER.

LEGEND:

- INDICATES 4" PIPE PILE PER GENERAL NOTES
- INDICATES 4" BATTERED PIPE PILE (3V:1H) AND DIRECTION

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PIN PILE PLAN

Scale: AS NOTED

S2.0b

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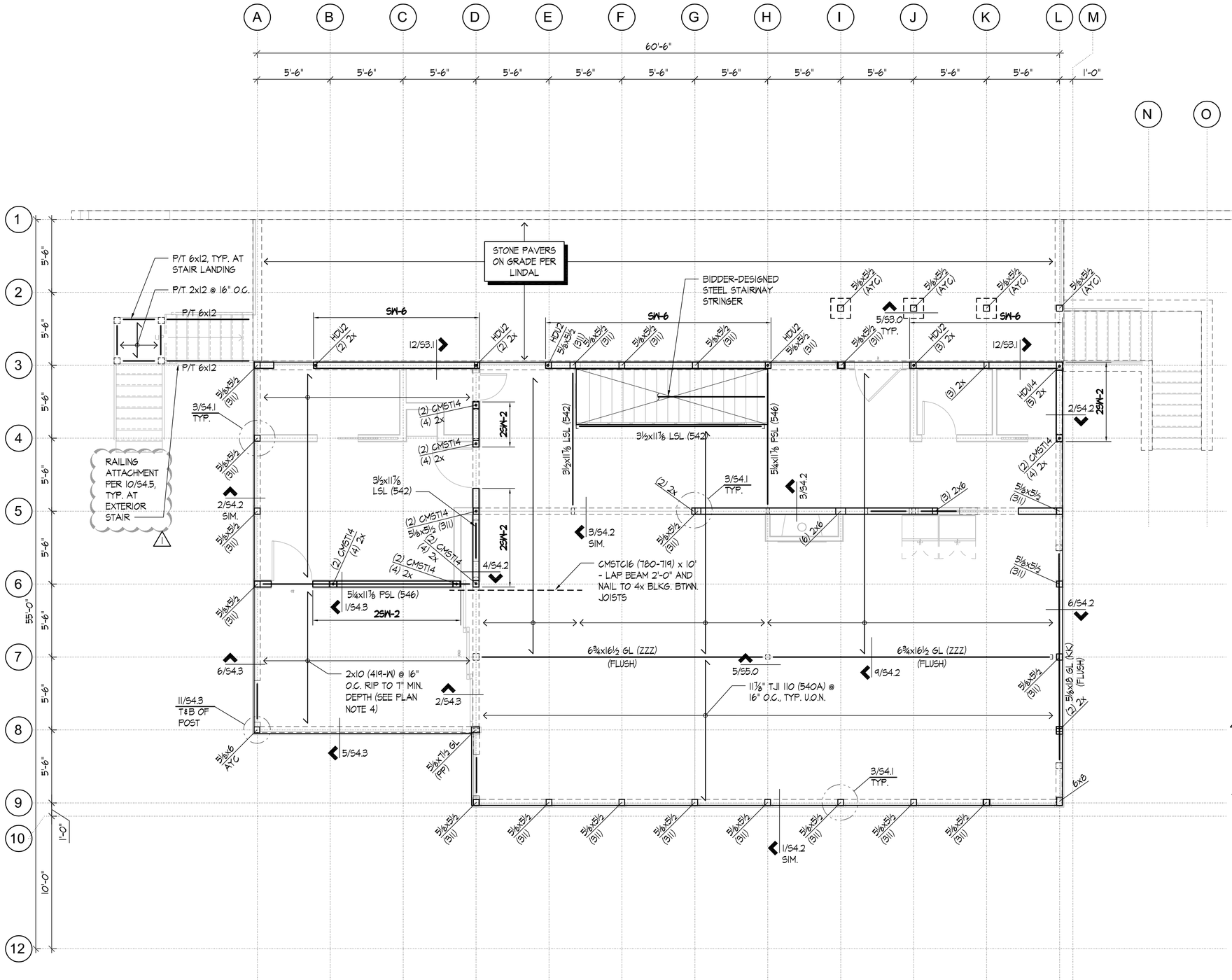

FIRST FLOOR FRAMING PLAN

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

FIRST FLOOR FRAMING PLAN NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH LINDAL CEDAR HOME DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF LINDAL CEDAR HOMES AND ENGINEER IMMEDIATELY.
2. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0 THRU S4.3 FOR TYPICAL WOOD DETAILS.
3. TYPICAL FLOOR FRAMING CONSISTS OF 23/32" APA RATED T&G SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 11-7/8" TJI 110 (540A) JOISTS AT 16" O.C. HANG TJI JOISTS WITH ITS1.81/11.88 (780-270) TOP FLANGE HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
4. TYPICAL DECK FRAMING CONSISTS OF DECK BOARDS PER LINDAL CEDAR HOMES, OVER 23/32" APA RATED T&G SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 2x10 (419-W) JOISTS AT 16" O.C. HANG JOISTS WITH LUS28 (780-209) FACE MOUNT HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
5. NAIL FLOOR SHEATHING TO FRAMING WITH 8d NAILS (0.131"Φ x 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS, BLOCK PANEL EDGES WHERE INDICATED. SEE DETAIL 6/S4.0.
6. ALL BEARING AND SHEAR WALLS SHALL BE 2x6 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR U.O.N.
7. POSTS INDICATED ARE AT THIS LEVEL. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL FLOOR BEAMS AND ALL POSTS ABOVE FOR FULL BEARING. PROVIDE BLKG. AT JOISTS PER DETAIL 7/S4.1. SEE 3/S4.1 FOR TYPICAL POST BASE CONNECTION.
8. ALL HEADERS NOT SHOWN ON PLAN SHALL BE 3½x9¼ LSL (532) FOR EXTERIOR BEARING WALLS AND 3½x9¼ LSL (532) FOR INTERIOR BEARING WALLS. SEE 10/S4.1 FOR HEADER DETAIL. HANG HEADERS W/ HUC410 (780-410) WHERE HANGERS ARE INDICATED ON PLAN.
9. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.
10. ALIGN A JOIST OR JOIST BLOCKING OVER THE FULL LENGTH OF ALL BEARING/SHEAR WALLS. SEE 8/S4.0 FOR SPECIAL SHEAR WALL BLOCKING REQUIREMENTS.
11. SW-x — INDICATES SHEAR WALL AT THIS LEVEL. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL
12. HDUx — INDICATES HOLDOWN TO CONCRETE FOUNDATION WALLS OR FOOTINGS. SEE 12/S4.0 FOR HOLDOWN DETAIL. USE MIN. (2) 2x POST U.O.N.
13. CMSTxx — INDICATES HOLDOWN STRAP TO FRAMING BELOW WALL. SEE 10/S4.0 FOR STRAP HOLDOWN DETAIL AT FLOOR-TO-FLOOR AND BEAM SUPPORTING SHEAR WALL END. USE MIN. (2) 2x POST U.O.N.

LEGEND:

- INDICATES FRAMING DIRECTION
- INDICATES EXTENT OF FRAMING
- SW-x — INDICATES SHEAR WALL TYPE AT THIS LEVEL. SEE PLAN NOTE 11
- INDICATES WOOD BEARING OR SHEAR WALL AT THIS LEVEL. SEE PLAN NOTES 6 & 11
- INDICATES BLOCKED DIAPHRAGM PER 6/S4.0
- INDICATES CONCRETE FOUNDATION, WOOD BEARING WALL, OR SHEAR WALL BELOW
- INDICATES NON-BEARING/ NON-SHEAR WALL AT THIS LEVEL
- INDICATES HEADER MEMBER. SEE PLAN NOTE 8
- INDICATES HANGER PER SCHEDULE

HANGER SCHEDULE

MEMBER	LINDAL PART NO.	HANGER	LINDAL PART NO.
11⅞" TJI 110	540A	ITS1.81/11.88	780-270
2x10	419-W	LUS28	780-209
3½x11⅞ LSL	542	HUC412	780-412
5¼x11⅞ PSL	546	-	-
6¾x16½ GL	ZZZ	MGUT.00	008-01
5⅛x18 GL	KK	-	-

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FIRST FLOOR FRAMING PLAN

Scale: AS NOTED

S2.1

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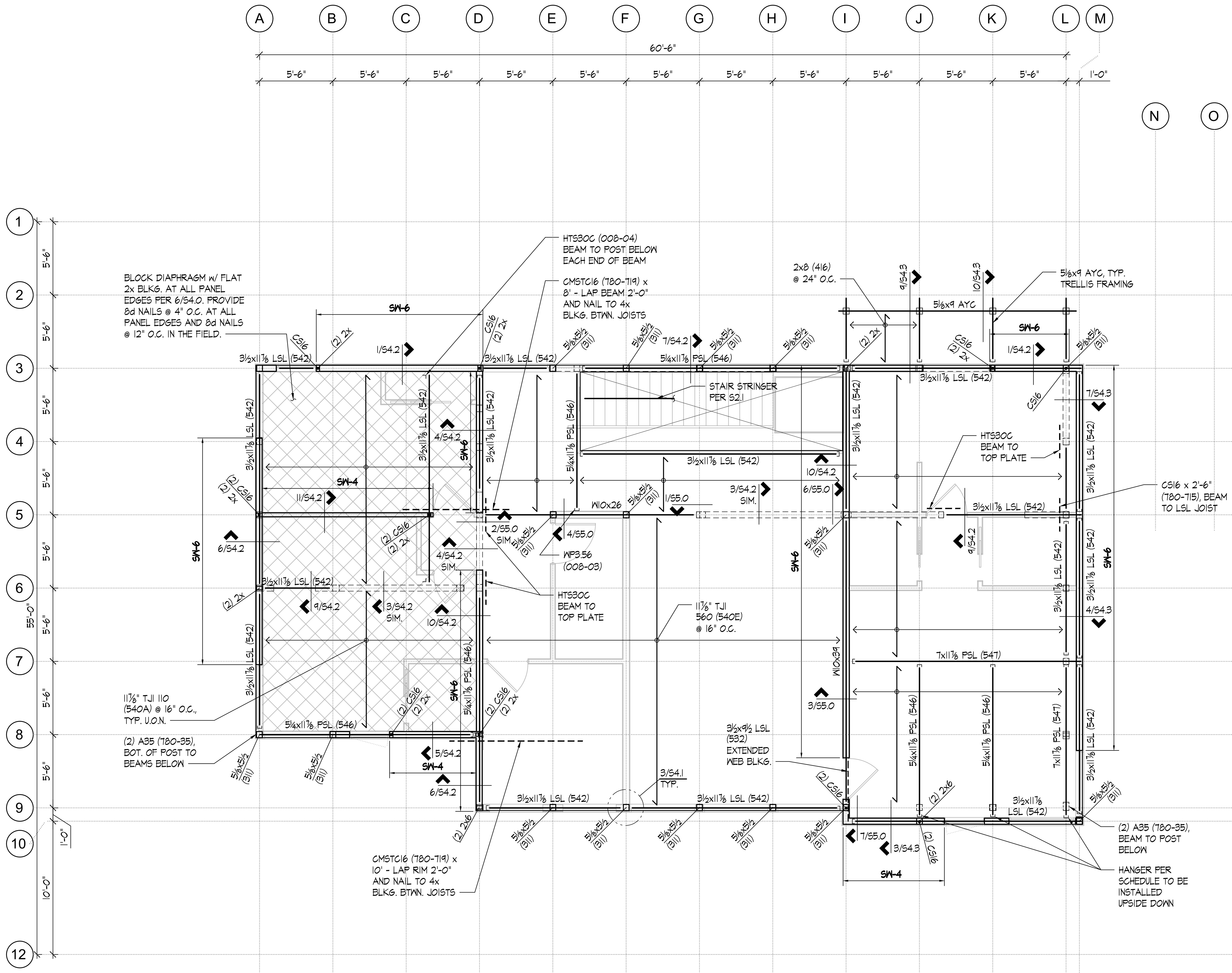

SECOND FLOOR FRAMING PLAN

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

SECOND FLOOR FRAMING PLAN NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH LINDAL CEDAR HOME DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF LINDAL CEDAR HOMES AND ENGINEER IMMEDIATELY.
2. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0 THRU S4.4 FOR TYPICAL WOOD DETAILS. SEE S5.0 FOR TYPICAL WOOD/STEEL DETAILS.
3. TYPICAL FLOOR FRAMING CONSISTS OF 1-1/8" APA RATED T&G SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 11-7/8" TJI 110 (540A) JOISTS AT 16" O.C., U.O.N. HANG TJI JOISTS WITH ITS1.81/11.88 (780-270) TOP FLANGE HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
4. NAIL FLOOR SHEATHING TO FRAMING WITH 8d NAILS (0.131"Φ x 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS, BLOCK PANEL EDGES WHERE INDICATED. SEE DETAIL 6/S4.0.
5. ALL BEARING AND SHEAR WALLS SHALL BE 2x4 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR U.O.N.
6. POSTS INDICATED ARE AT THIS LEVEL. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL FLOOR BEAMS AND ALL POSTS ABOVE FOR FULL BEARING. PROVIDE BLKG. AT JOISTS PER DETAIL 7/S4.1. SEE 3/S4.1 FOR TYPICAL POST BASE CONNECTION.
7. ALL HEADERS NOT SHOWN ON PLAN SHALL BE 3½x9½ LSL (532) FOR EXTERIOR BEARING WALLS AND 3½x9½ LSL (532) FOR INTERIOR BEARING WALLS. SEE 10/S4.1 FOR HEADER DETAIL. HANG HEADERS w/ HUC410 (780-410) WHERE HANGERS ARE INDICATED ON PLAN.
8. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.
9. ALIGN A JOIST OR JOIST BLOCKING OVER THE FULL LENGTH OF ALL BEARING/SHEAR WALLS. SEE 8/S4.0 FOR SPECIAL SHEAR WALL BLOCKING REQUIREMENTS.
10. SW-x INDICATES SHEAR WALL AT THIS LEVEL. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL
11. CS16 INDICATES HOLDOWN STRAP TO FRAMING BELOW WALL. SEE 10/S4.0 FOR STRAP HOLDOWN DETAIL AT FLOOR-TO-FLOOR AND BEAM SUPPORTING SHEAR WALL END. USE MIN. (2) 2x POST U.O.N.

LEGEND:

- INDICATES FRAMING DIRECTION
- INDICATES EXTENT OF FRAMING
- SW-x INDICATES SHEAR WALL TYPE AT THIS LEVEL. SEE PLAN NOTE 10
- INDICATES WOOD BEARING OR SHEAR WALL AT THIS LEVEL. SEE PLAN NOTES 5 & 10
- INDICATES WOOD BEARING WALL, OR SHEAR WALL BELOW
- INDICATES NON-BEARING/ NON-SHEAR WALL AT THIS LEVEL
- INDICATES HEADER MEMBER. SEE PLAN NOTE 7
- INDICATES HANGER PER SCHEDULE
- INDICATES BLOCKED DIAPHRAGM PER 6/S4.0

HANGER SCHEDULE			
MEMBER	LINDAL PART NO.	HANGER	LINDAL PART NO.
11⅞" TJI 110	540A	ITS1.81/11.88	780-270
11⅞" TJI 560	540E	MIT411/11.88	780-271
3½x11⅞ LSL	542	HUC412	780-412
5¼x11⅞ PSL	546	HUCQ612-SDS	760-612
7x11⅞ PSL	547	HGUS7.25/12	008-02

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SECOND FLOOR FRAMING PLAN

Scale: AS NOTED

S2.2

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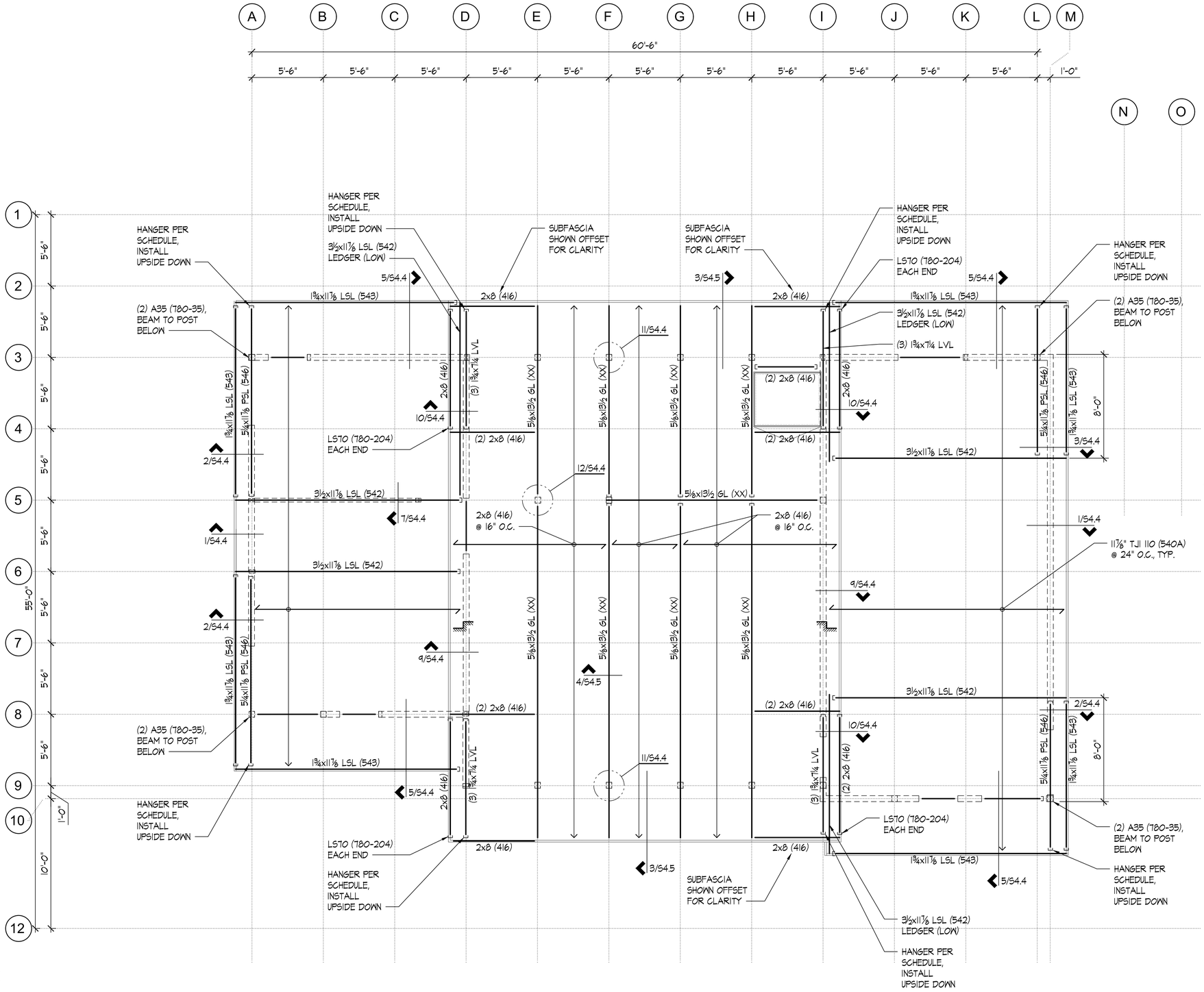

ROOF FRAMING PLAN

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

ROOF FRAMING PLAN NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH LINDAL CEDAR HOME DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF LINDAL CEDAR HOMES AND ENGINEER IMMEDIATELY.
2. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1 AND S4.4 FOR TYPICAL WOOD DETAILS.
3. TYPICAL ROOF FRAMING CONSISTS OF 19/32" APA RATED SHEATHING (INDEX 40/20), LAID FACE GRAIN PERPENDICULAR OVER 11-7/8" I-JOISTS @ 16" O.C., U.O.N.
4. TYPICAL ROOF JOIST SHALL BE 11-7/8" TJI 110 (540A) @ 24" O.C., U.O.N. HANG JOISTS W/ IT51.81/11.88 (180-270) TOP FLANGE HANGERS TYPICAL AT FLUSH BEAMS.
5. NAIL ROOF SHEATHING TO FRAMING WITH 8d NAILS (0.131"Φ x 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS (UNBLOCKED). SEE DETAIL 6/S4.0.
6. PROVIDE SOLID BLOCKING BETWEEN EACH ROOF JOIST AT SUPPORTS. PROVIDE AN H2.5A (180-5) CLIP AT EVERY MEMBER TO TOP PLATE, U.O.N.
7. ALL HEADERS NOT SHOWN ON PLAN SHALL BE 3½x9½ LSL (532) FOR EXTERIOR BEARING WALLS AND 3½x9½ LSL (532) FOR INTERIOR BEARING WALLS. SEE 10/S4.1 FOR HEADER DETAIL. HANG HEADERS W/ HUC410 (180-410) WHERE HANGERS ARE INDICATED ON PLAN.
8. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL ROOF BEAMS FOR FULL BEARING.
9. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.

LEGEND:

- INDICATES FRAMING DIRECTION
- INDICATES EXTENT OF FRAMING
- INDICATES WOOD BEARING WALL OR SHEAR WALL BELOW
- INDICATES HANGER PER SCHEDULE
- INDICATES HEADER MEMBER. SEE PLAN NOTE 7
- INDICATES ROOF FRAMING STEP

HANGER SCHEDULE

MEMBER	LINDAL PART NO.	HANGER, U.O.N.	LINDAL PART NO.
2x8	416	LUS28	180-209
(3) 1¾x7¼ LVL	-	HUC68	180-608
11⅞" TJI 110	540A	IT51.81/11.88	180-270
1¾x11⅞ LSL	543	HUCQ1.81/11-SDS	008-06
3½x11⅞ LSL	542	HUC412	180-412
5¼x11⅞ PSL	546	HUC612	180-612
5⅛x13½ GL	XX	CJT5Z	CJT5Z-L
5⅛x18 GL	KK	MGU5.25	008-05

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ROOF FRAMING PLAN

Scale: AS NOTED

S2.3

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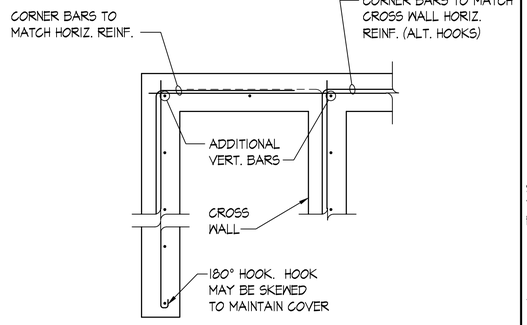
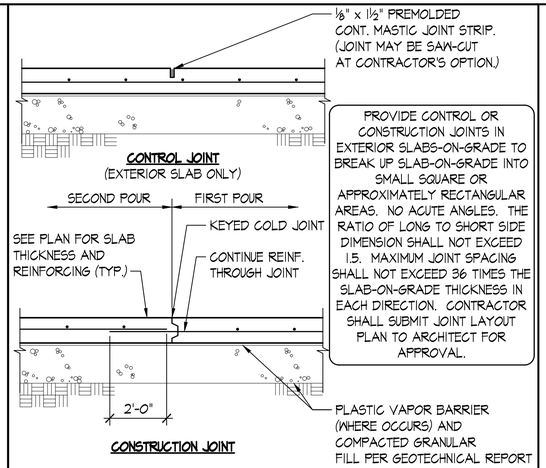


PLAN VIEW

TYPICAL CORNER BAR AND WALL END BAR ARRANGEMENT AT CONCRETE WALLS OR GRADE BEAMS

SCALE: NONE | 1



PROVIDE CONTROL OR CONSTRUCTION JOINTS IN EXTERIOR SLABS-ON-GRADE TO BREAK UP SLAB-ON-GRADE INTO SMALL SQUARE OR APPROXIMATELY RECTANGULAR AREAS. NO ACUTE ANGLES. THE RATIO OF LONG TO SHORT SIDE DIMENSION SHALL NOT EXCEED 1.5. MAXIMUM JOINT SPACING SHALL NOT EXCEED 36 TIMES THE SLAB-ON-GRADE THICKNESS IN EACH DIRECTION. CONTRACTOR SHALL SUBMIT JOINT LAYOUT PLAN TO ARCHITECT FOR APPROVAL.

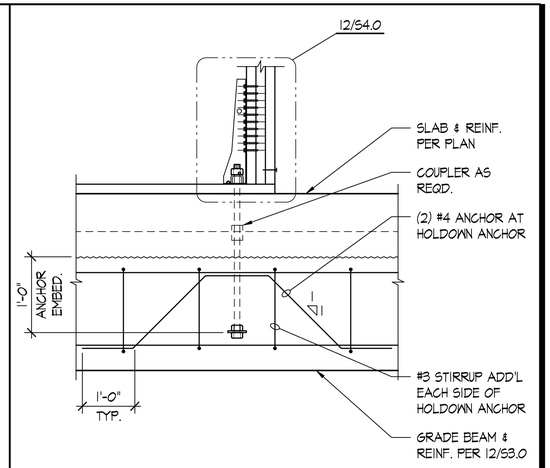
CONSTRUCTION JOINT

TYPICAL SLAB-ON-GRADE JOINTS

SCALE: NONE | 2

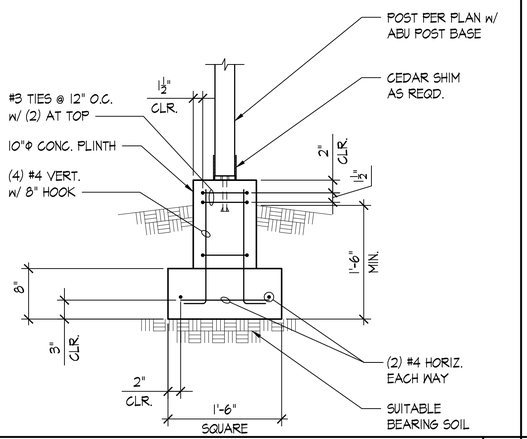
DETAIL

SCALE: NONE | 3



TYPICAL HOLDOWN ANCHOR AT GRADE BEAM

SCALE: NONE | 4



TYPICAL EXTERIOR POST FOOTING

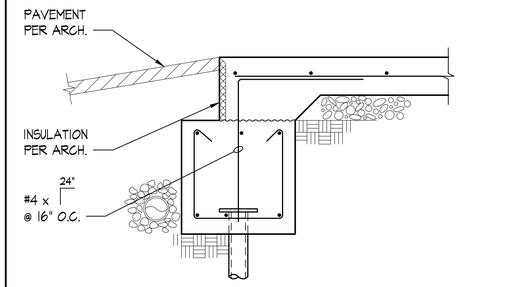
SCALE: NONE | 5

DETAIL

SCALE: NONE | 6

DETAIL

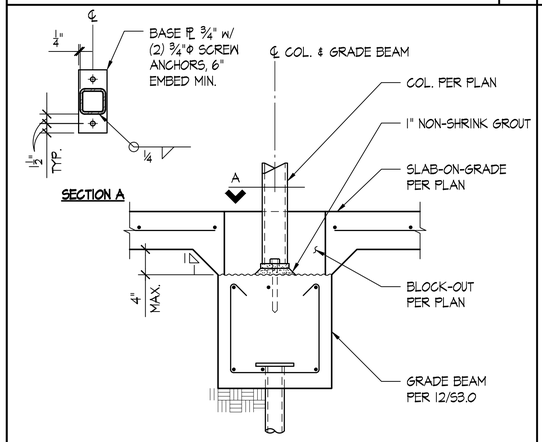
SCALE: NONE | 7



NOTE:
FOR INFORMATION NOT NOTED, SEE 12/S3.0

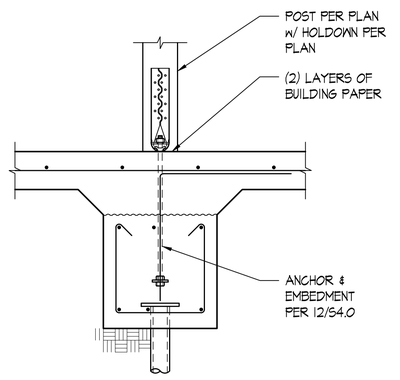
TYPICAL PERIMETER GRADE BEAM FOUNDATION AT OPENING

SCALE: NONE | 8



STEEL COLUMN BASE PLATE AT GRADE BEAM

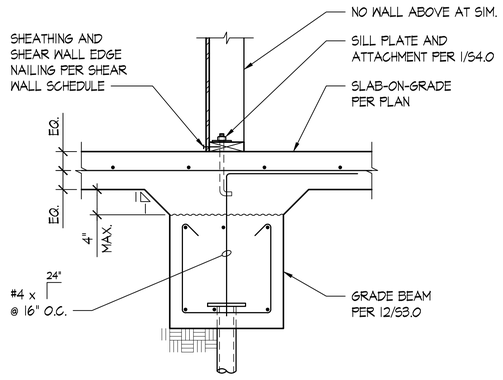
SCALE: NONE | 9



NOTE:
FOR INFORMATION NOT NOTED, SEE 11/S3.0

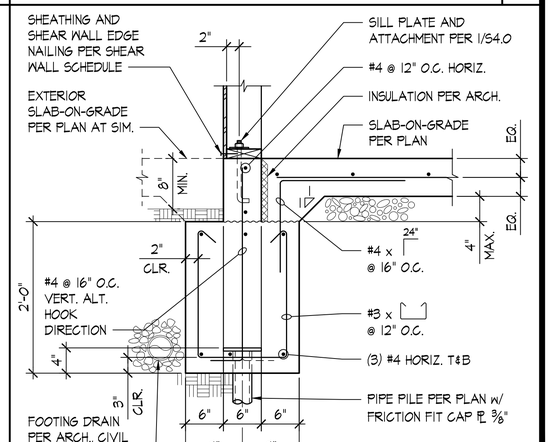
TYPICAL INTERIOR GRADE BEAM w/ POST

SCALE: NONE | 10



TYPICAL INTERIOR GRADE BEAM FOUNDATION

SCALE: NONE | 11



TYPICAL PERIMETER GRADE BEAM FOUNDATION

SCALE: NONE | 12

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FOUNDATION DETAILS

Scale: AS NOTED

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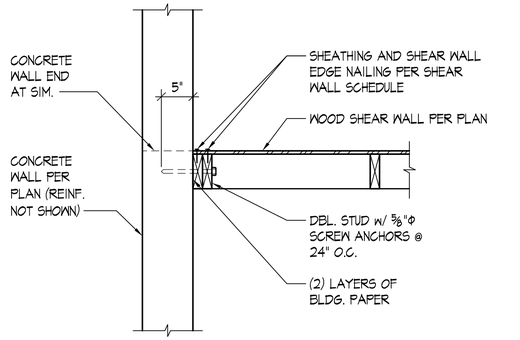
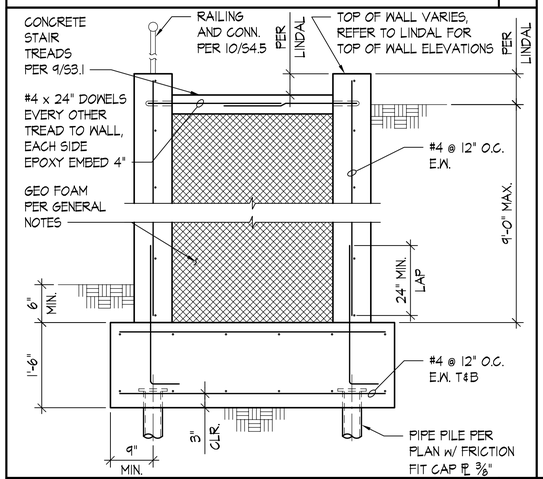


PLAN VIEW

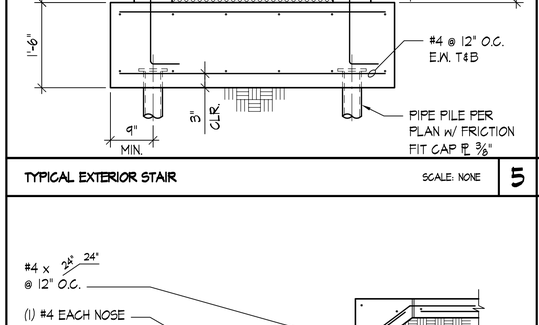
WOOD SHEAR WALL TO CONCRETE WALL

SCALE: NONE | 1



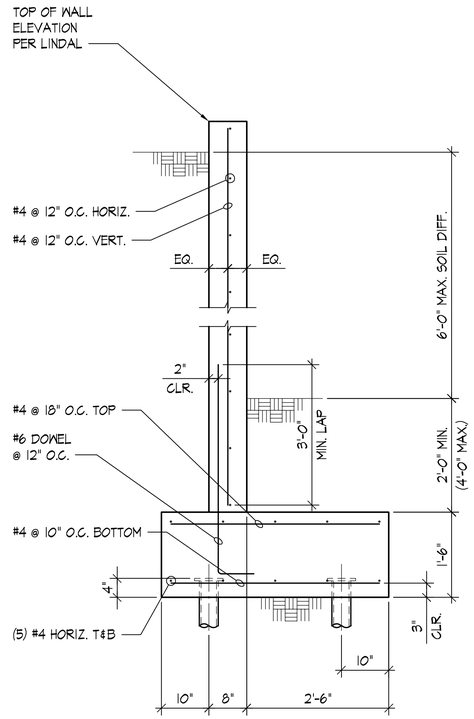
TYPICAL EXTERIOR STAIR

SCALE: NONE | 5



TYPICAL STAIR ON GRADE

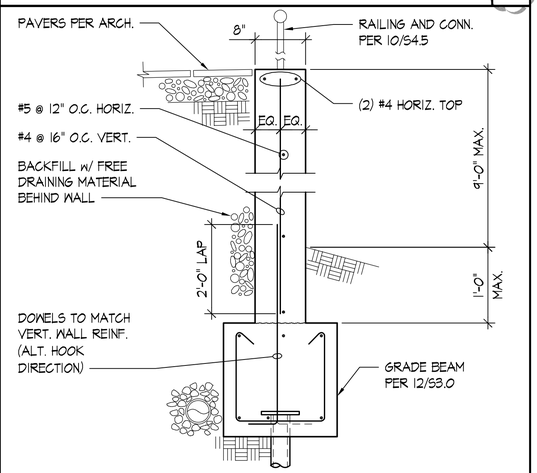
SCALE: NONE | 9



NOTE:
FOR INFORMATION NOT NOTED, SEE 12/S3.1

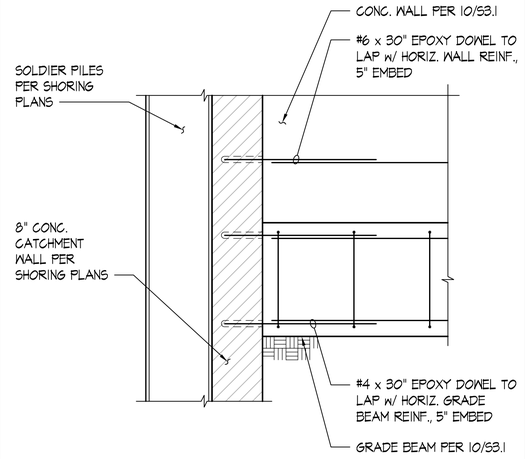
TYPICAL SITE RETAINING WALL

SCALE: NONE | 6



PATIO SITE WALL

SCALE: NONE | 10

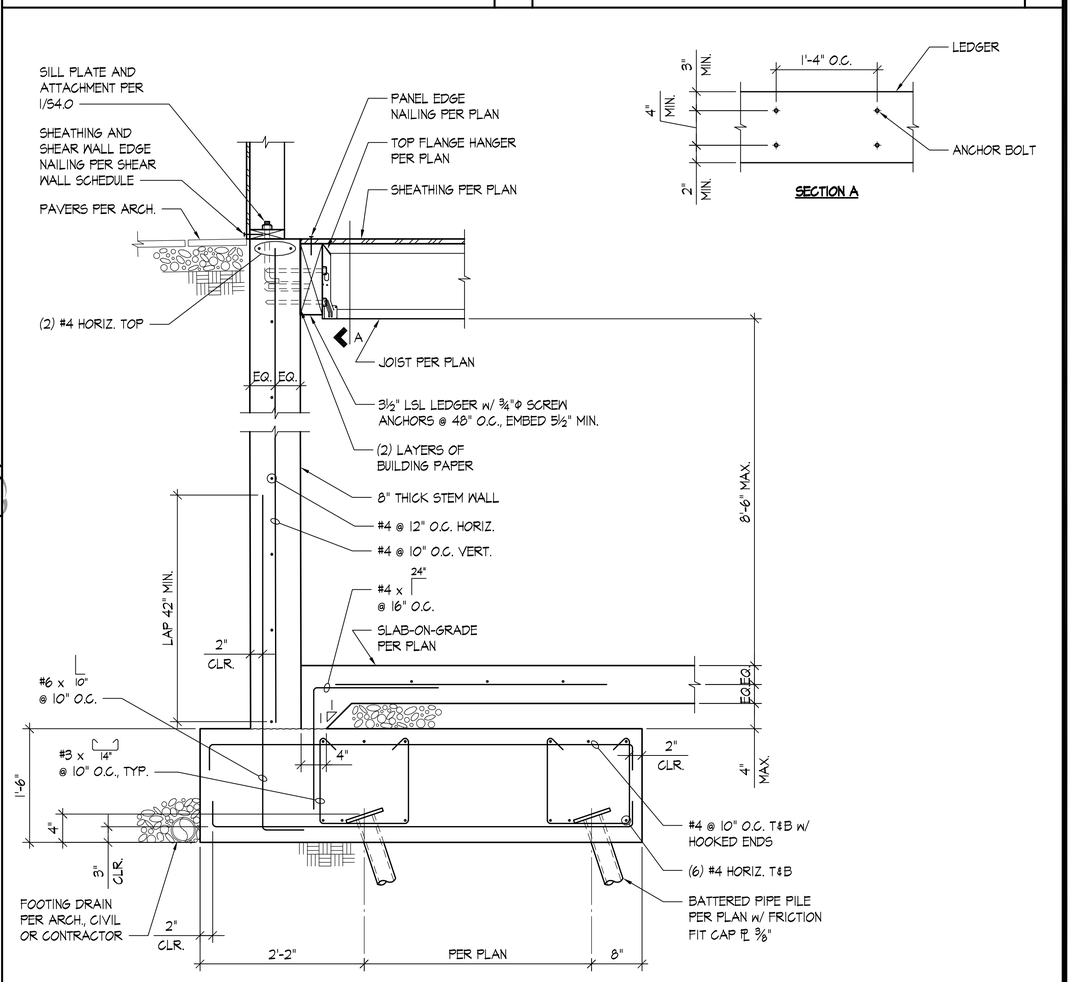


PATIO SITE WALL TO CATCHMENT WALL

SCALE: NONE | 3

DETAIL

SCALE: NONE | 4



TYPICAL BASEMENT WALL - I-JOIST PARALLEL

SCALE: NONE | 12

SECTION A

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FOUNDATION DETAILS

Scale: AS NOTED

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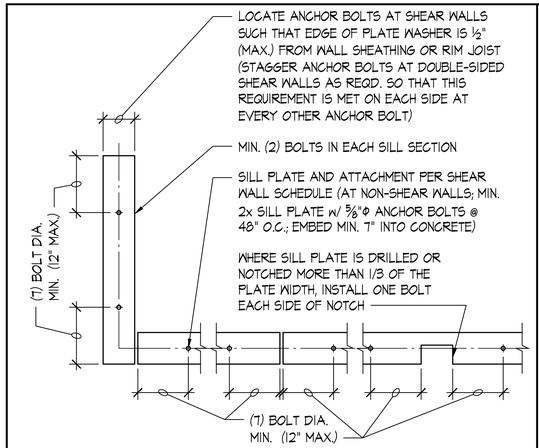
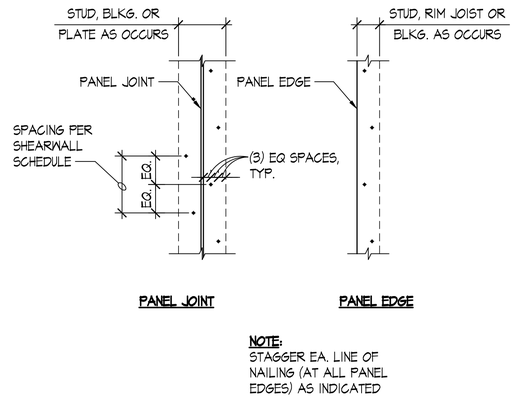
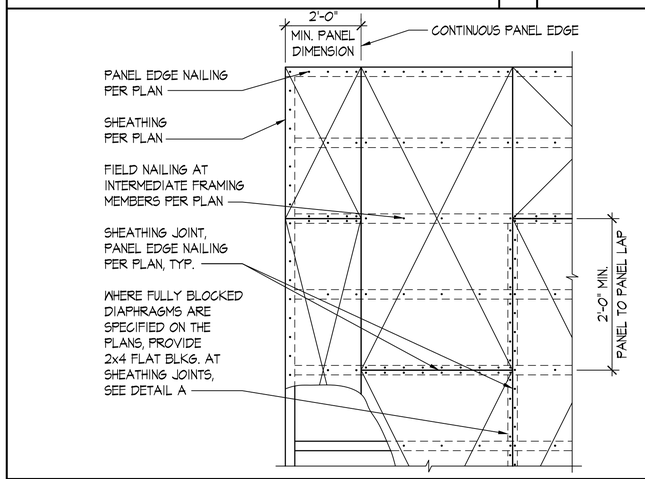


TYPICAL SILL PLATE BOLTING - PLAN VIEW SCALE: NONE

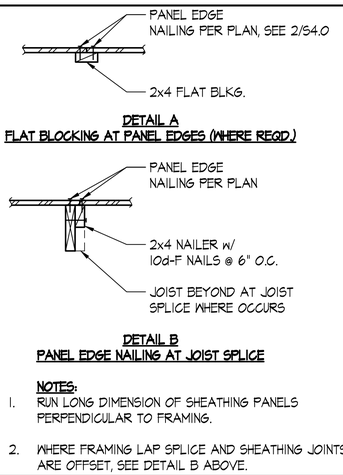


NOTE:
STAGGER EA. LINE OF NAILING (AT ALL PANEL EDGES) AS INDICATED

TYPICAL STAGGERED NAILING SCALE: NONE **2**



TYPICAL ROOF AND FLOOR DIAPHRAGM SHEATHING SCALE: NONE **6**



DETAIL A
FLAT BLOCKING AT PANEL EDGES (WHERE REQD.)

DETAIL B
PANEL EDGE NAILING AT JOIST SPLICE

NOTES:
1. RUN LONG DIMENSION OF SHEATHING PANELS PERPENDICULAR TO FRAMING.
2. WHERE FRAMING LAP SPLICE AND SHEATHING JOINTS ARE OFFSET, SEE DETAIL B ABOVE.

SHEAR WALL SCHEDULE

SHEAR WALL TYPE	SHEAR WALL SHEATHING (1)	PANEL EDGE FRAMING (2)(7)	PANEL EDGE NAILING (3)	BOTTOM PLATE ATTACHMENT			TOP PLATE ATTACHMENT	
				2x BOTTOM PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW	ANCHOR BOLTING OF SILL PLATE TO CONCRETE BELOW (4)(5)		RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE (6)	
					3x PLATE	2x PLATE	INTERIOR WALL	EXTERIOR WALL
SW-6	15/32" APA ONE-SIDE SHTG.	2x	0.131"Φx2½" @ 6" O.C.	0.148"Φx3¼" @ 6" O.C. (9)	⅝"Φ @ 48" O.C.	⅝"Φ @ 48" O.C.	A35 (TBD-35) @ 16" O.C.	LTP4 (TBD-37) @ 16" O.C.
SW-4	15/32" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.131"Φx2½" @ 4" O.C. (8)	0.148"Φx3¼" @ 4" O.C. (9)	⅝"Φ @ 48" O.C.	⅝"Φ @ 32" O.C.	A35 (TBD-35) @ 16" O.C.	LTP4 (TBD-37) @ 16" O.C.
SW-2	15/32" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.131"Φx2½" @ 2" O.C. (8)	(2) ROWS 0.148"Φx3¼" @ 4" O.C. STAGGERED (10)	⅝"Φ @ 24" O.C.	⅝"Φ @ 16" O.C.	A35 (TBD-35) @ 8" O.C.	LTP4 (TBD-37) @ 8" O.C.
2SW-2	15/32" APA (11) TWO-SIDES SHTG.	3x	0.148"Φx3¼" @ 2" O.C. (8)	(2) ROWS 0.148"Φx3¼" @ 2" O.C. (10)	⅝"Φ @ 16" O.C. (12)	N/A	A35 (TBD-35) @ 6" O.C.	LTP4 (TBD-37) @ 6" O.C.

NOTES:

(1) INSTALL PANEL SHEATHING EITHER HORIZONTALLY OR VERTICALLY FOR THE ENTIRE LENGTH OF THE WALL PER PLAN. WALL STUD SPACING SHALL BE 16" O.C. MAXIMUM.

(2) ALL INTERMEDIATE WALL STUDS SHALL BE PER PLAN. PROVIDE BACKING FRAMING AT ALL PANEL EDGES INCLUDING HORIZONTAL BLOCKING PER THE SCHEDULE.

(3) PROVIDE NAILING TO ALL PANEL EDGES, TOP & BOTTOM PLATES AND HORIZONTAL BLOCKING. PROVIDE THE SAME NAILING PATTERN TO EACH MULTIPLE STUD OF THE BUILT-UP HOLD DOWN POST. NAIL PANEL TO INTERMEDIATE FRAMING MEMBERS w/ 0.131"Φ x 2½" @ 12" O.C.

(4) EMBED CAST-IN-PLACE 5/8"Φ ANCHOR BOLTS 7" MIN. (OR EMBED ADHESIVE ANCHOR BOLTS 5 1/2" IN (E) CONCRETE; SEE STRUCTURAL NOTES). PROVIDE PLATE WASHER 3" x 3" x 1/4" AT EACH ANCHOR BOLT. SILL PLATES SHALL BE TREATED PER GENERAL NOTES, AND SHALL BE 2x OR 3x PER THE SCHEDULE. SEE DETAIL 1/S4.0 FOR OTHER REQUIREMENTS.

(5) PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

(6) PROVIDE 0.131"Φ x 1-1/2" LONG NAILS FOR CLIPS DIRECTLY ATTACHED TO FRAMING MEMBERS; PROVIDE 0.131"Φ x 2-1/2" LONG NAILS FOR CLIPS INSTALLED OVER FLOOR OR WALL SHEATHING ON FRAMING MEMBERS. SEE 6/S4.1 FOR TOP PLATE SPLICE.

(7) ALTERNATIVE TO 3x STUDS AND 3x HORIZ. BLOCKING IS (2) 2x STUDS/BLKG. NAILED TOGETHER WITH 0.148"Φ x 3" LONG NAILS WITH THE SAME SPACING AS THE PANEL EDGE NAILING PER THE SCHEDULE (STAGGER).

(8) STAGGER NAILS PER 2/S4.0.

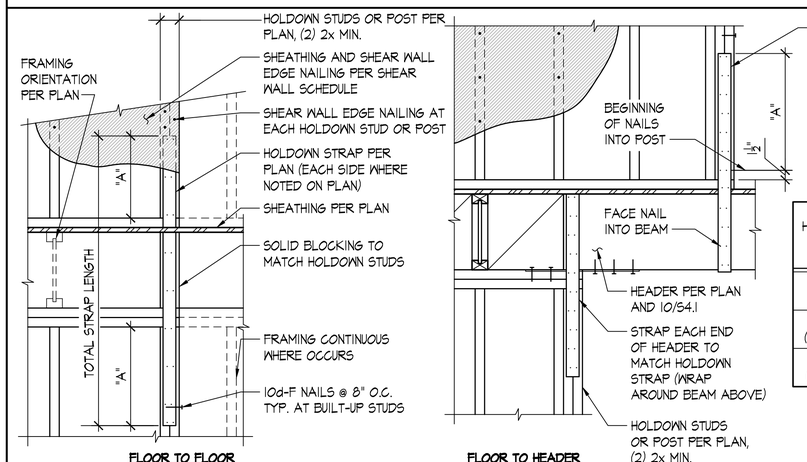
(9) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1½". STAGGER NAILS PER 2/S4.0 WHERE SPACING IS LESS THAN 6" O.C.

(10) RIM JOIST/BLOCKING MINIMUM WIDTH OF 3". STAGGER NAILS PER 2/S4.0.

(11) STAGGER PANEL EDGE JOINTS AT DOUBLE-SIDED SHEAR WALLS SO THAT JOINTS ON OPPOSITE SIDES ARE NOT AT THE SAME STUD.

(12) STAGGER ANCHOR BOLTS ON EITHER SIDE OF SILL PLATE AS NOTED ON 1/S4.0.

SHEAR WALL SCHEDULE - 8d NAILS SCALE: NONE **8**

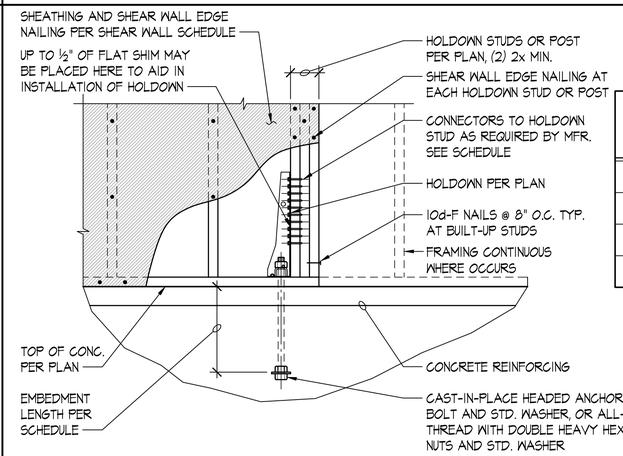


FLOOR TO FLOOR

FLOOR TO HEADER

HOLDOWN STRAP	MIN. NUMBER OF NAILS EACH END	MIN. STRAP END LENGTH "A"
ST2215 (TBD-2)	(10) 16d	0'-6"
CS16 (TBD-715)	(15) 8d	1'-4"
CMST14 (TBD-18)	(38) 16d SINKERS	3'-0"

TYPICAL FLOOR TO FLOOR HOLDOWN STRAP & FLOOR TO HEADER HOLDOWN STRAP SCALE: NONE **10**



HOLDOWN	ANCHOR BOLT Φ	ANCHOR BOLT IN CONCRETE EMBED LENGTH	CONNECTORS TO HOLDOWN STUDS (TBD-10)
HDU2 (TBD-707)	⅝"Φ	13" (1)	(6) SDS ¼"x2½" SCREWS
HDU8 (TBD-706)	⅞"Φ	18" (1)	(20) SDS ¼"x2½" SCREWS
HDU11 (TBD-698)	1"Φ	20" (1)	(30) SDS ¼"x2½" SCREWS
HDU14 (TBD-699)	1"Φ	20" (1)	(36) SDS ¼"x2½" SCREWS

NOTE:
PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

(1) WHERE HDU OCCURS ON GRADE BEAM, SEE DETAIL 4/S3.0 FOR EMBEDMENT AND ADDITIONAL REINFORCING REQUIREMENTS

TYPICAL HOLDOWN TO CONCRETE SCALE: NONE **12**

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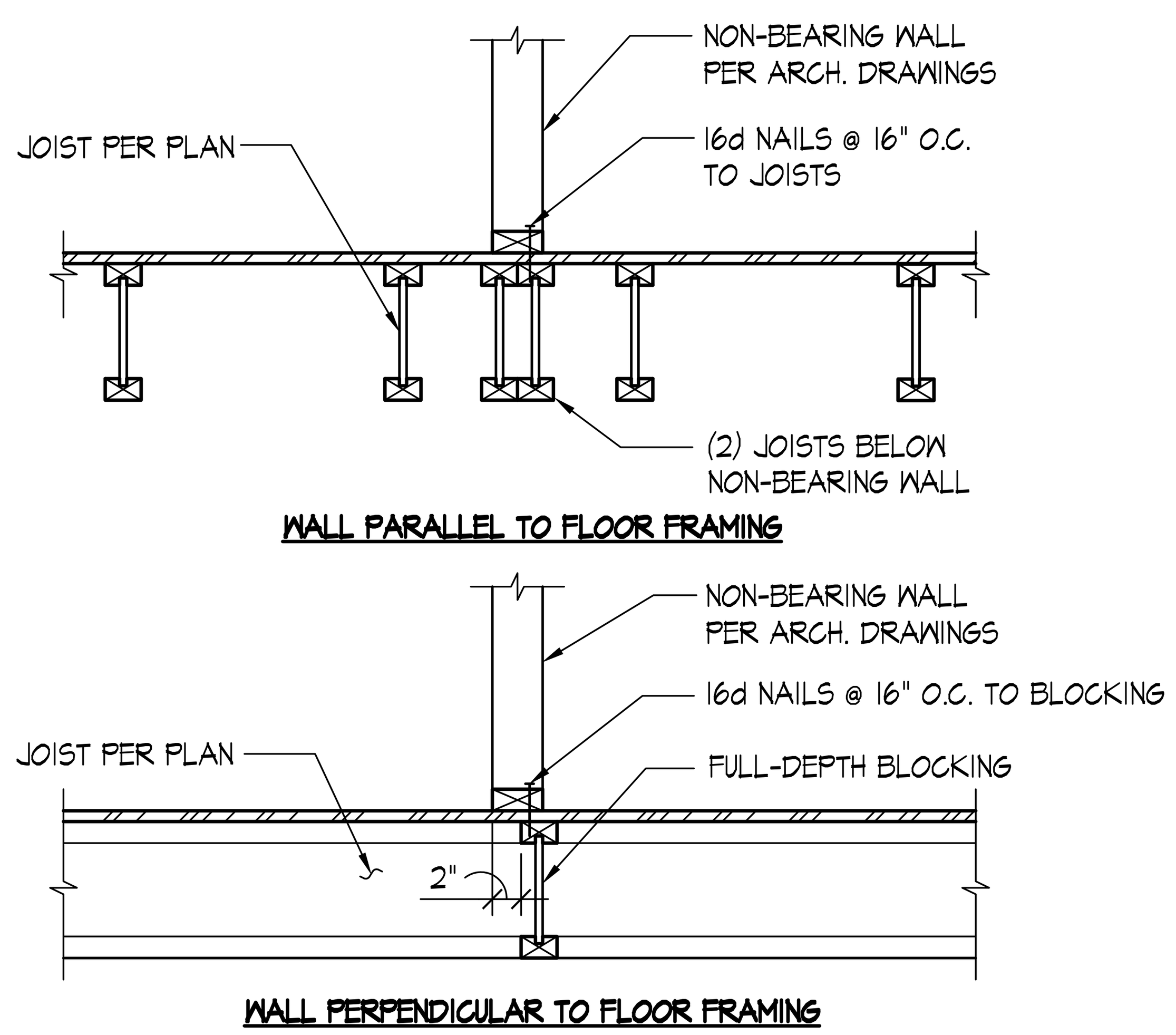
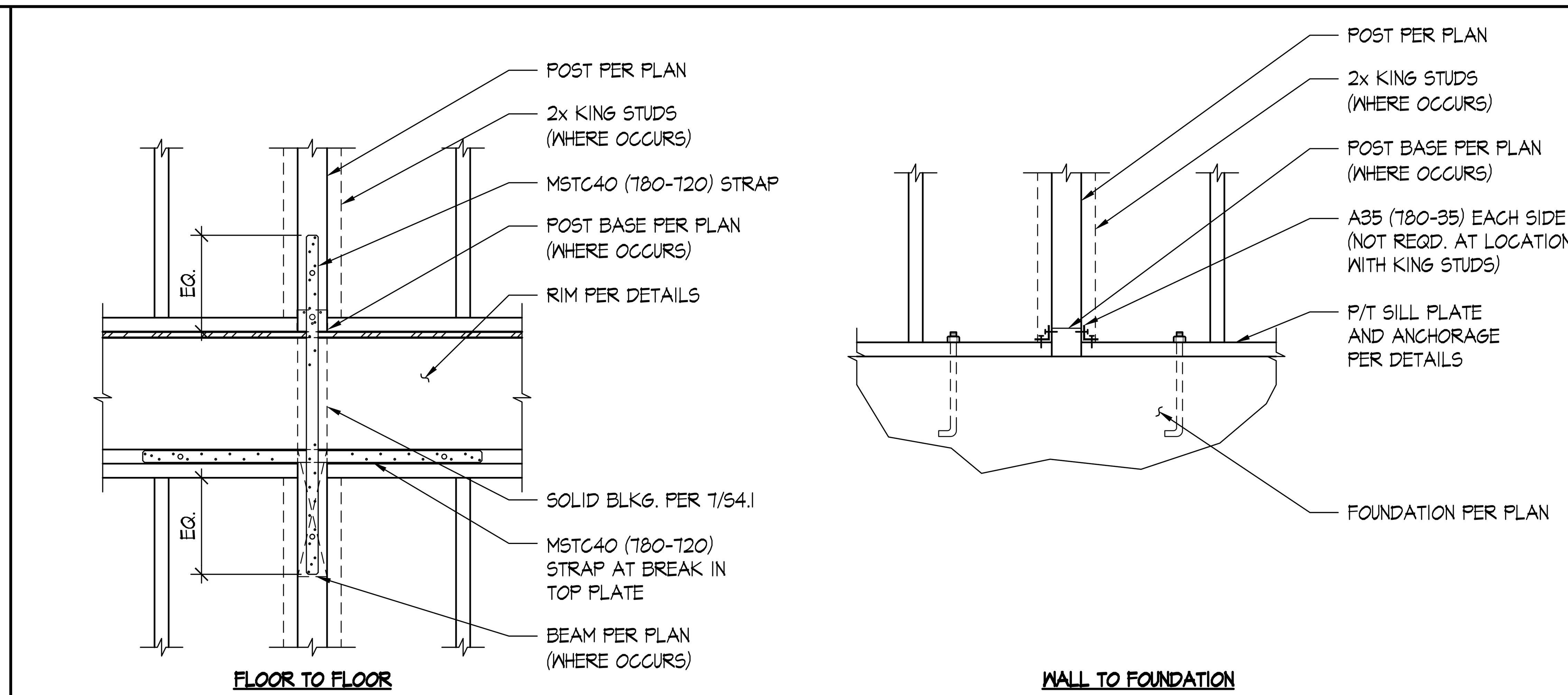


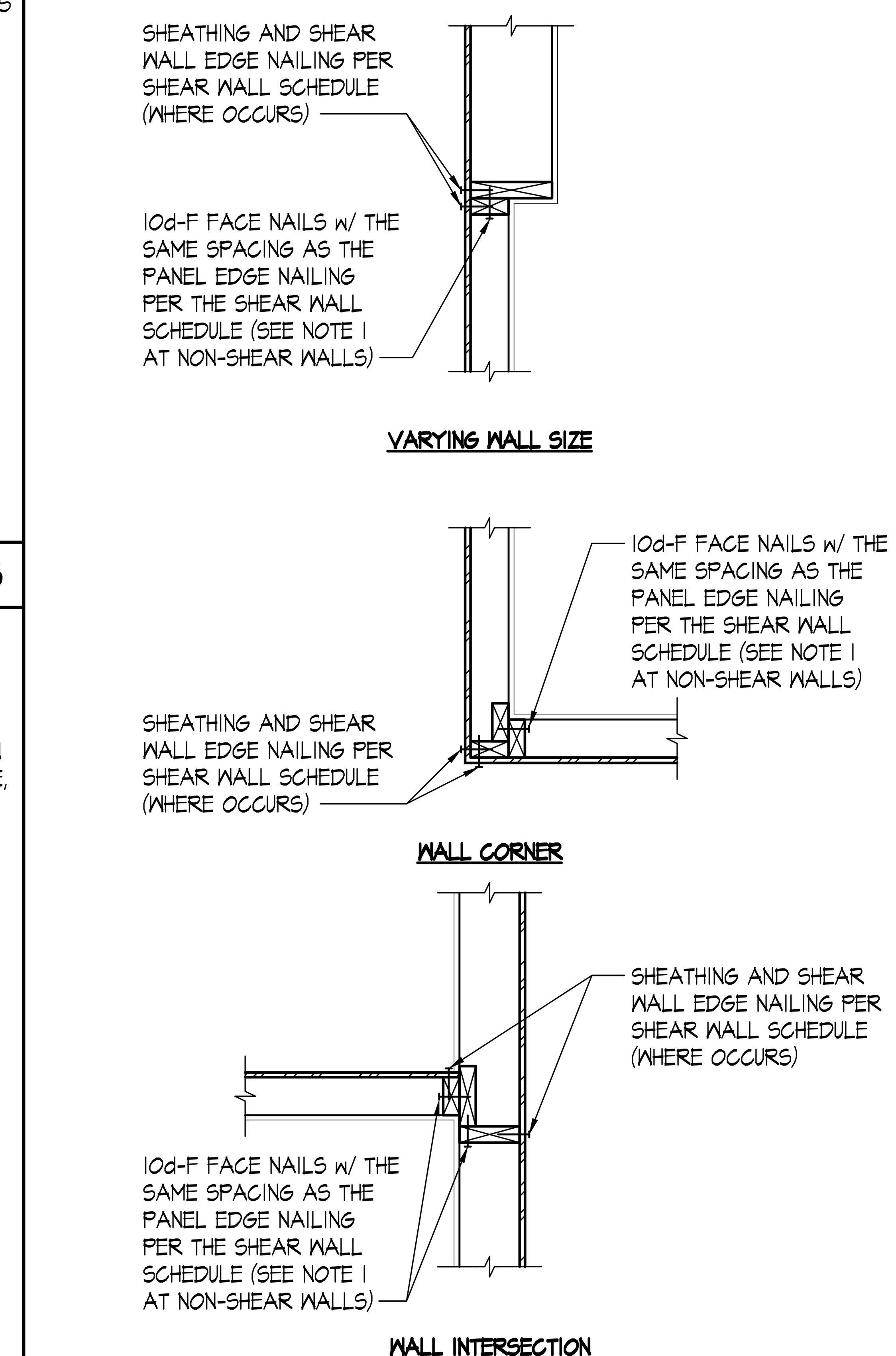
TYPICAL NON-STRUCTURAL WALL SUPPORT (BOTTOM) - I-JOIST SCALE: NONE 1



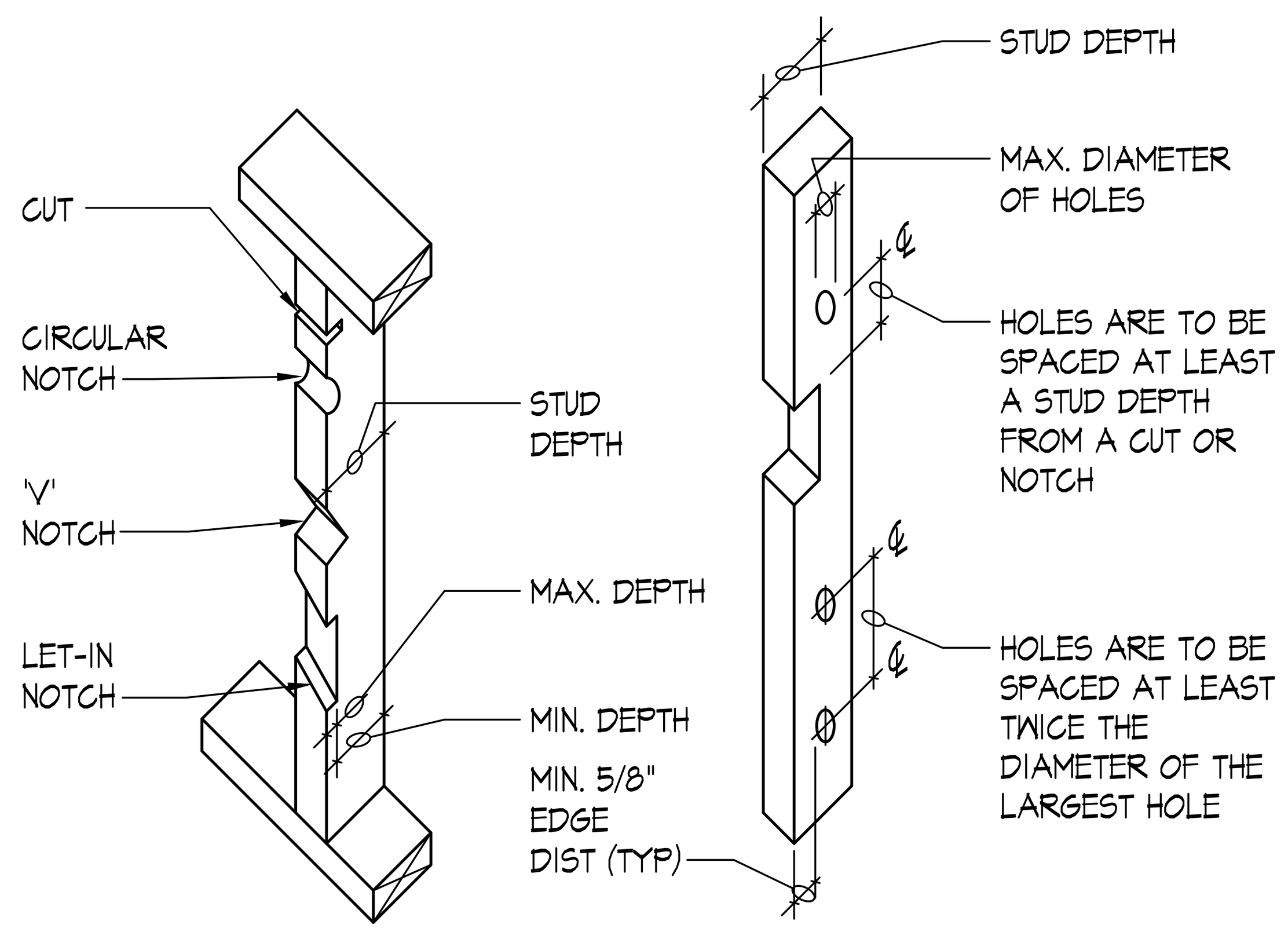
TYPICAL POST BASE CONNECTION SCALE: NONE 3

NOTES:

1. AT NON-SHEAR WALLS, NAIL STUDS TOGETHER WITH 10d-F NAILS @ 8" O.C.
2. ADDITIONAL STUDS REQUIRED AS NAILERS, ETC. ARE NOT SHOWN.



TYPICAL WALL INTERSECTIONS SCALE: NONE 8



A. CUTTING AND NOTCHING WOOD STUDS
(DO NOT NOTCH MORE THAN 3 ADJACENT STUDS w/o REVIEW BY ENGINEER)

BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	7/8"	2-3/8"
2x6	1-3/8"	4-1/8"
2x8	1-7/8"	5-3/8"

NON-BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1-1/2"	2"
2x6	2-3/8"	3-1/8"
2x8	3"	4-1/4"

B. HOLES IN WOOD STUDS

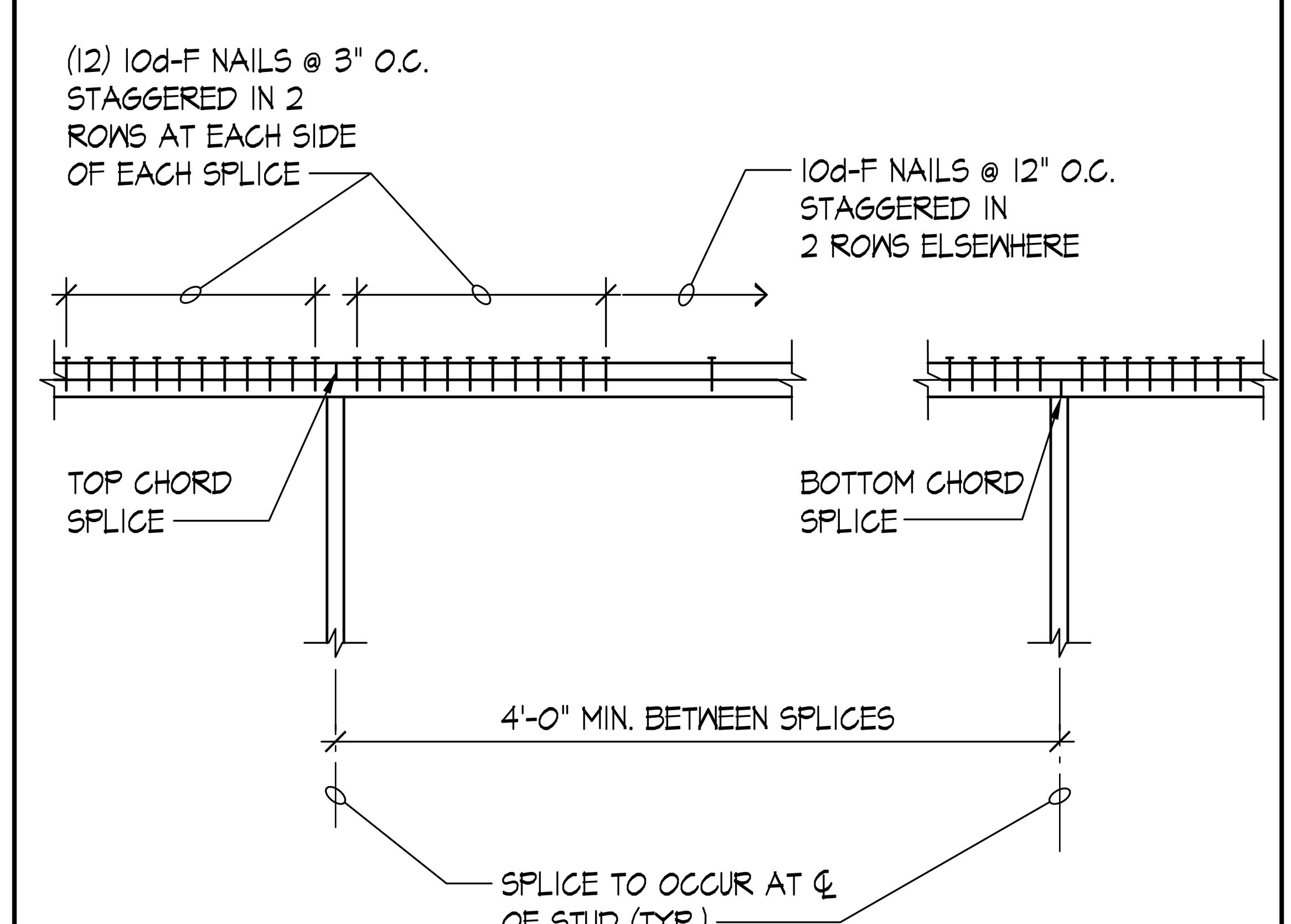
BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	1-1/2"
2x6	2-3/8"
2x8	3"

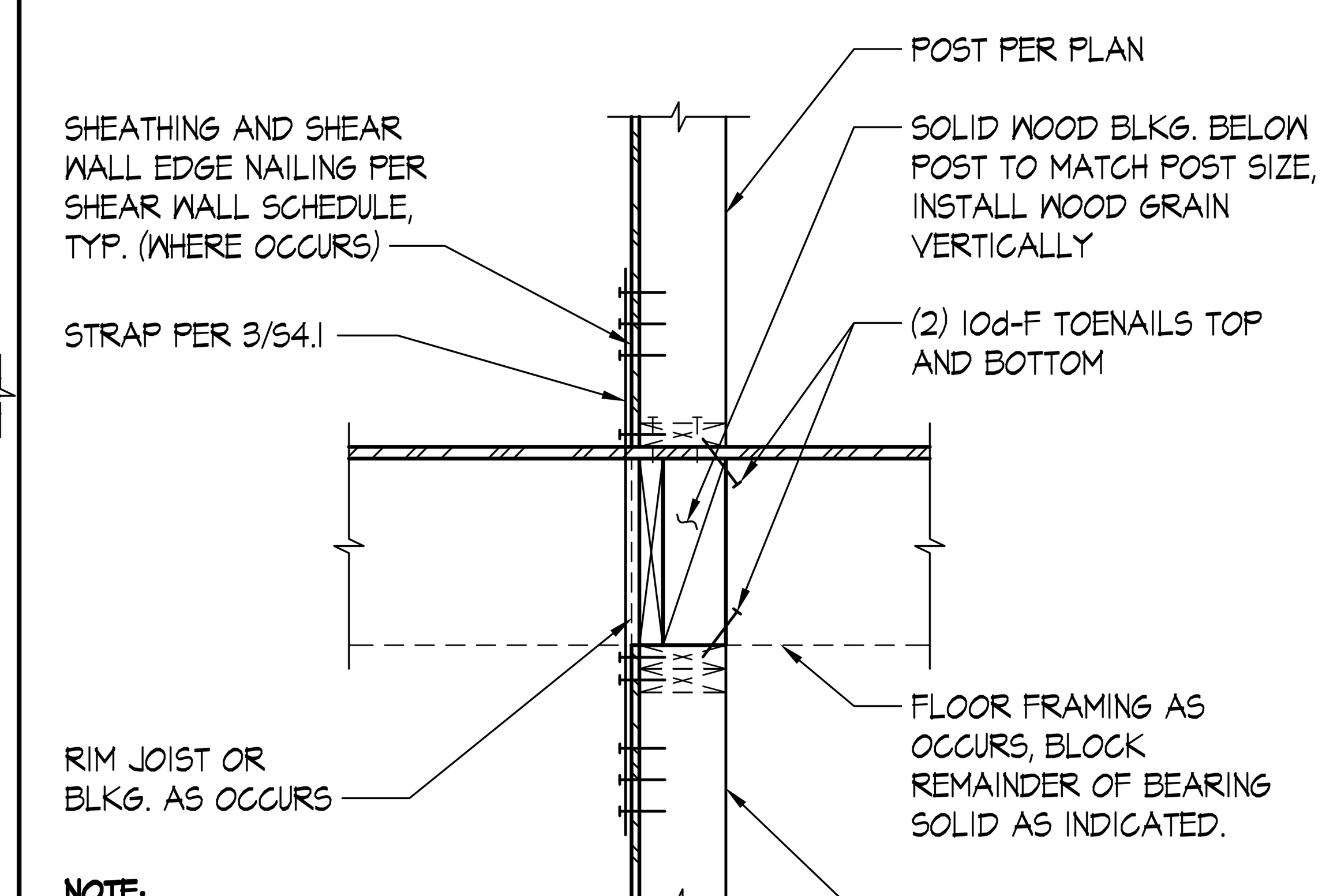
NON-BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	2-1/4"
2x6	3-3/8"
2x8	4-1/2"

TYPICAL ALLOWABLE HOLES AND NOTCHES IN STUDS SCALE: NONE 9

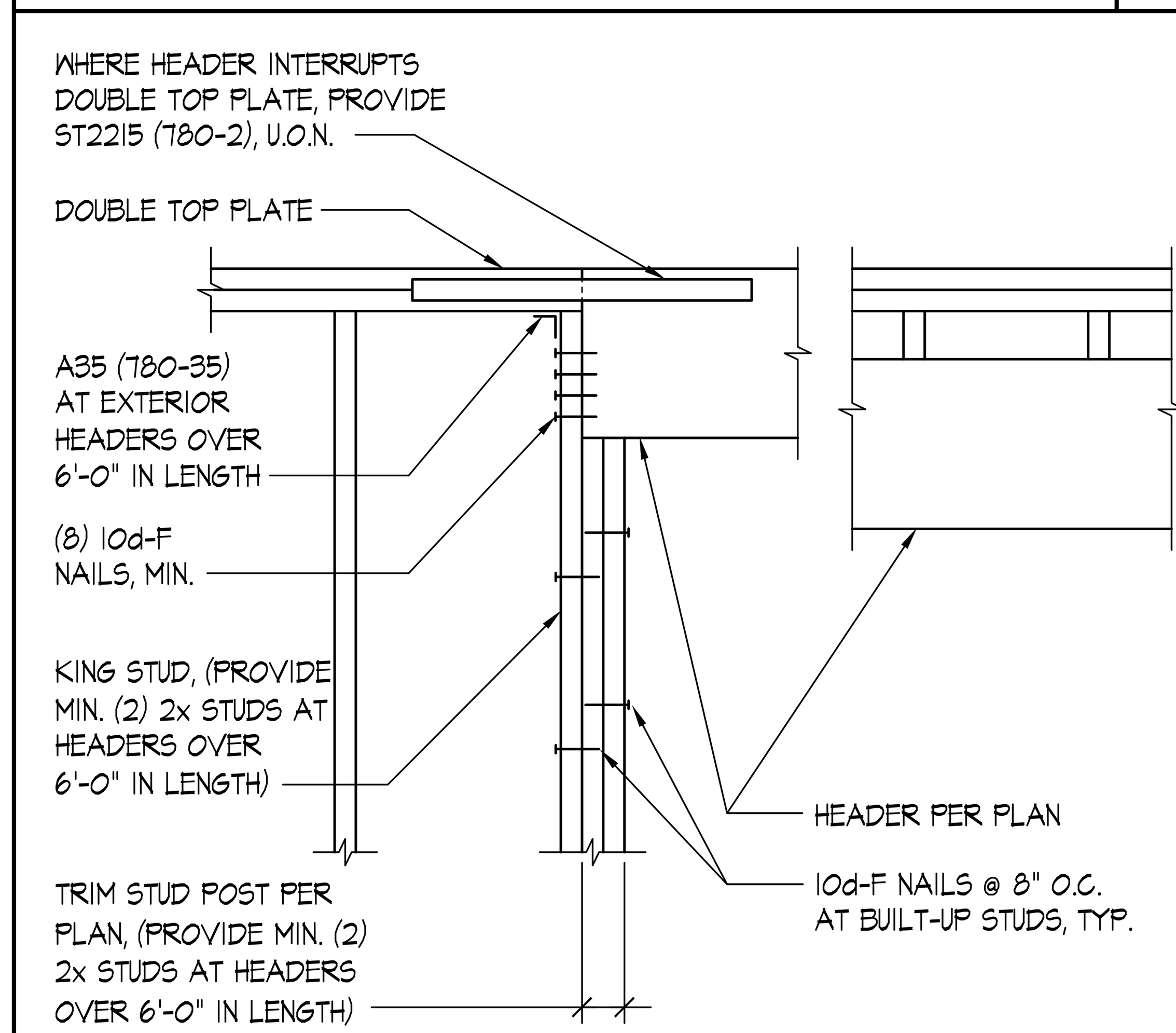


TYPICAL TOP PLATE SPLICE SCALE: NONE 6

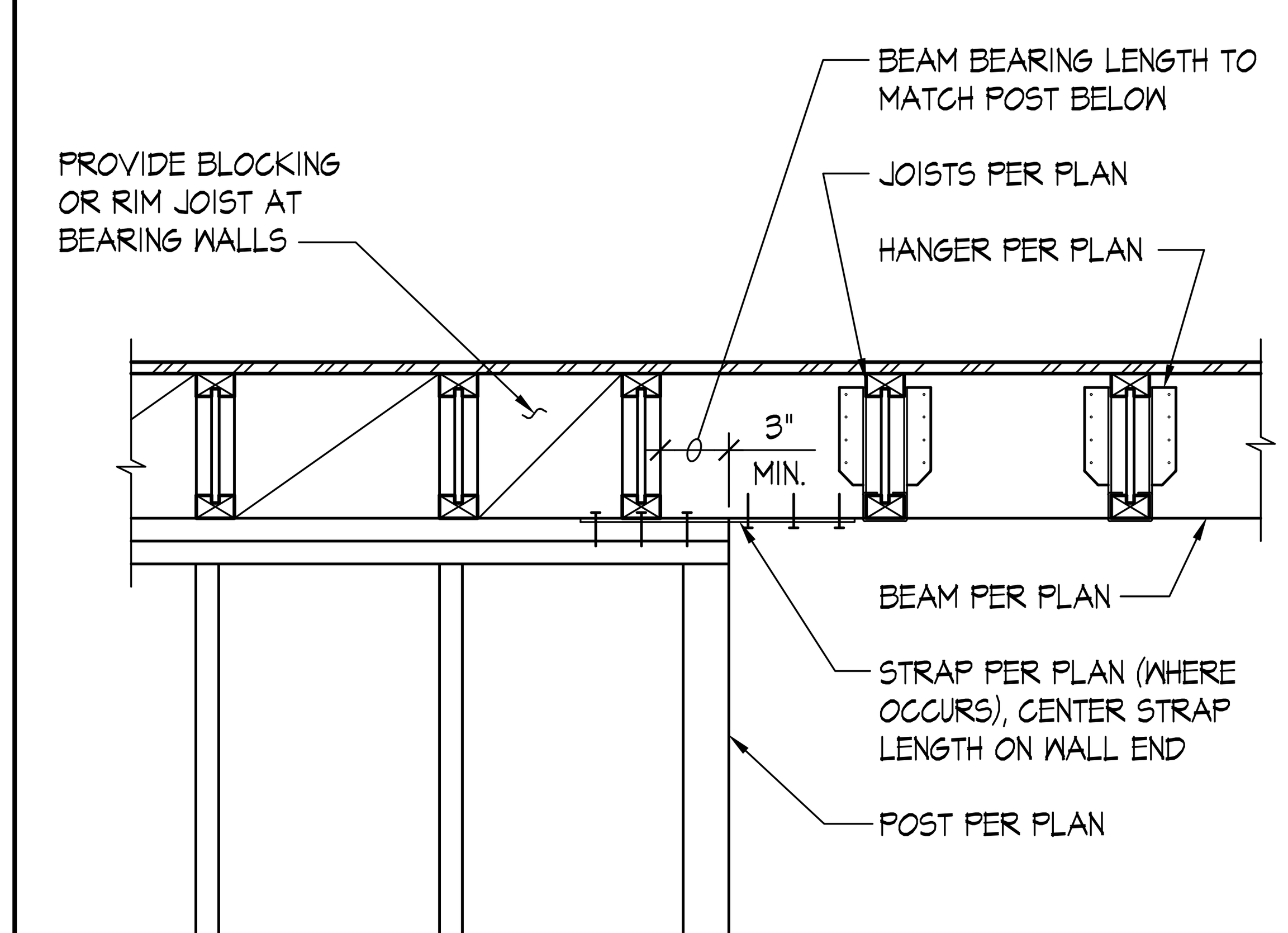


NOTE:
FRAMING CONDITIONS VARY, FOR INFORMATION NOT NOTED SEE PLAN & APPROPRIATE DETAILS

TYPICAL POST AT FLOOR SCALE: NONE 7



TYPICAL HEADER SCALE: NONE 10



TYPICAL FLUSH BEAM SCALE: NONE 11

DETAIL SCALE: NONE 12

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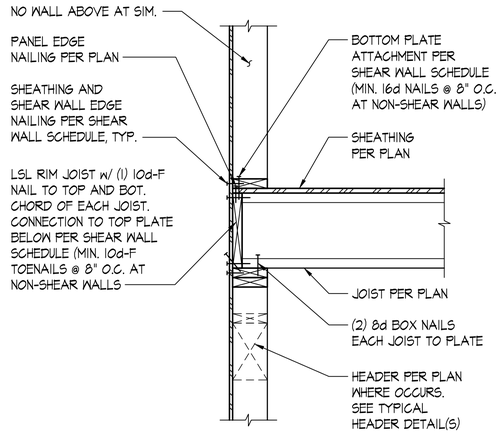
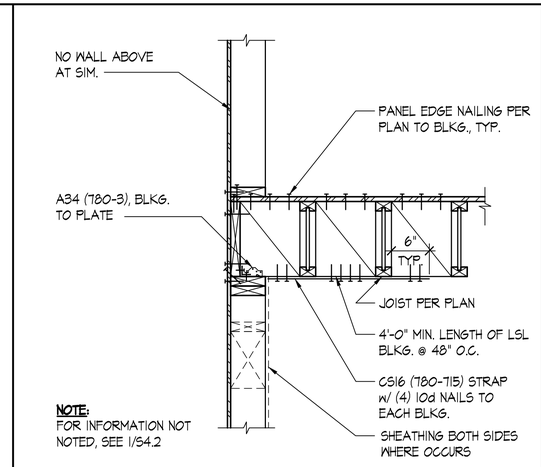
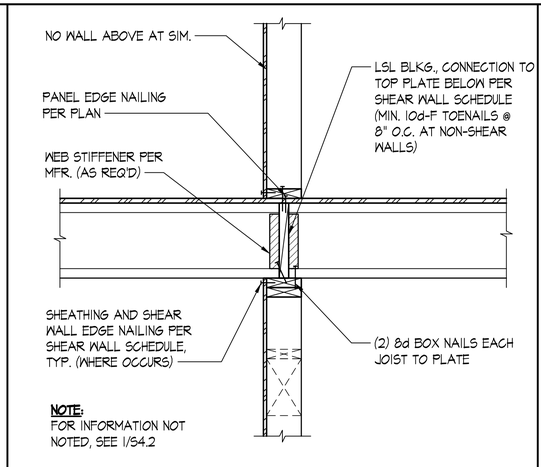


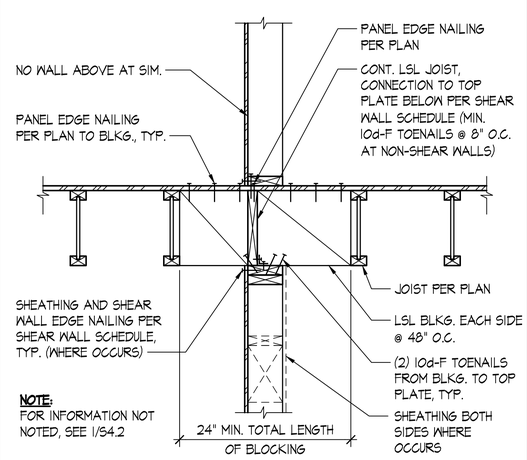
TYPICAL EXTERIOR WALL - I-JOIST PERPENDICULAR SCALE: NONE | 1



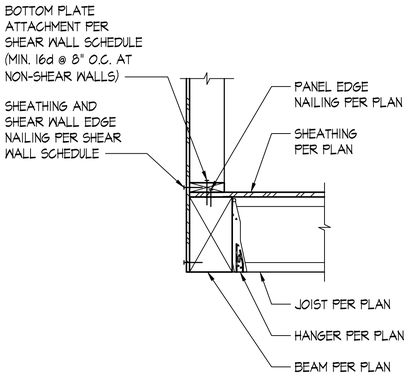
TYPICAL EXTERIOR WALL - I-JOIST PARALLEL SCALE: NONE | 2



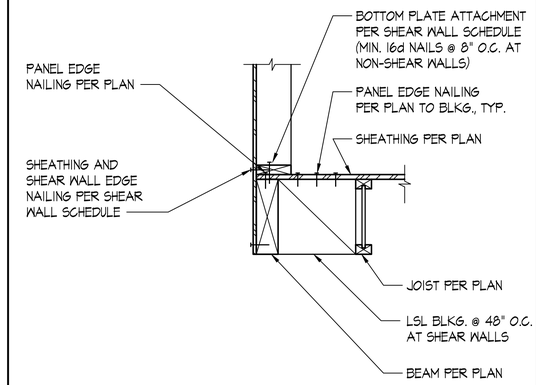
TYPICAL INTERIOR WALL - I-JOIST PERPENDICULAR SCALE: NONE | 3



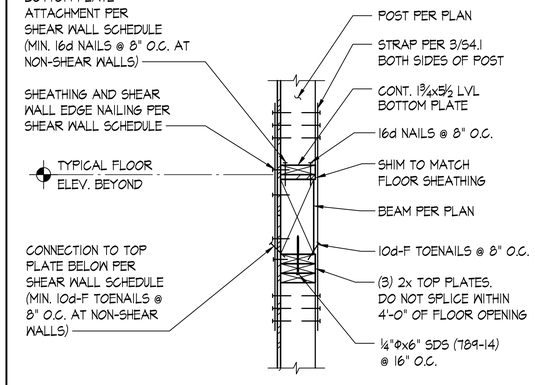
TYPICAL INTERIOR WALL - I-JOIST PARALLEL SCALE: NONE | 4



TYPICAL STRUCTURAL WALL TO PARALLEL PERIMETER BEAM BELOW - I-JOIST PERPENDICULAR SCALE: NONE | 5

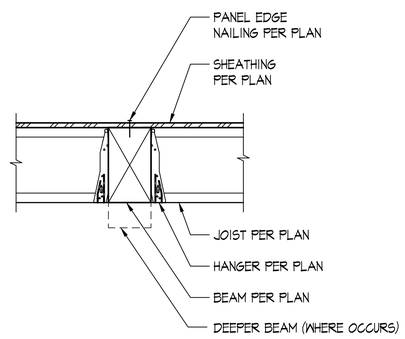


TYPICAL STRUCTURAL WALL TO PARALLEL PERIMETER BEAM BELOW - I-JOIST PARALLEL SCALE: NONE | 6

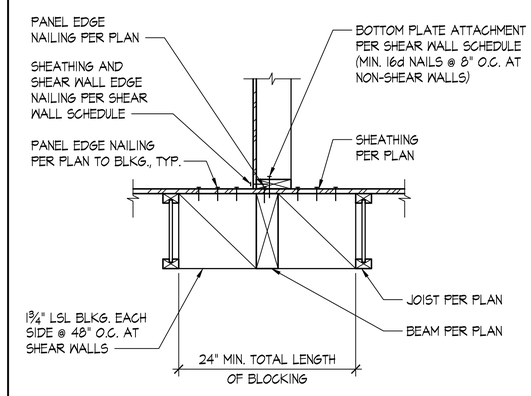


EXTERIOR WALL AT FLOOR OPENING - I-JOIST SCALE: NONE | 7

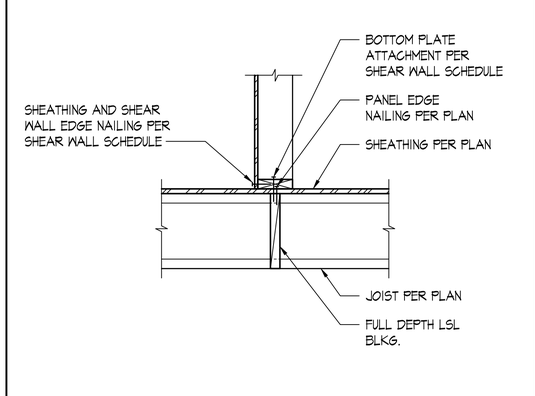
DETAIL SCALE: NONE | 8



TYPICAL I-JOIST TO FLUSH BEAM CONNECTION SCALE: NONE | 9



TYPICAL STRUCTURAL WALL TO PARALLEL BEAM BELOW - I-JOIST PARALLEL SCALE: NONE | 10



TYPICAL STRUCTURAL WALL TO JOIST BELOW - I-JOIST PERPENDICULAR SCALE: NONE | 11

DETAIL SCALE: NONE | 12

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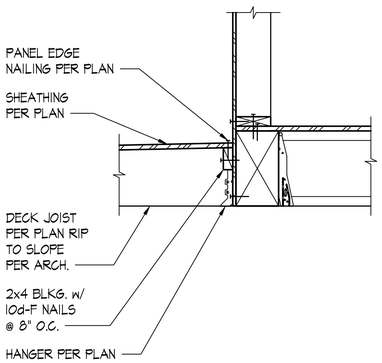

TYPICAL EXTERIOR WALL AT DECK - JOISTS PERPENDICULAR SCALE: 1"=1'-0" | 1

NOTE:
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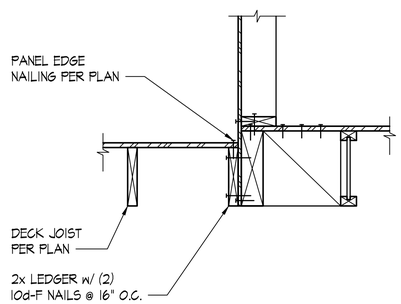
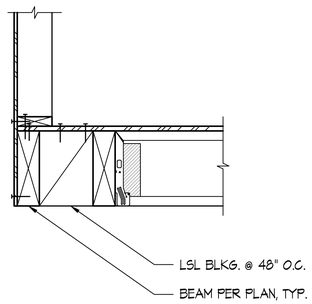


TYPICAL EXTERIOR WALL AT DECK - JOISTS PARALLEL SCALE: 1"=1'-0" | 2



NOTE:
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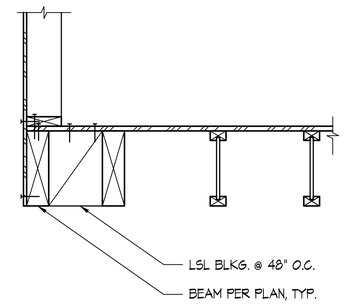
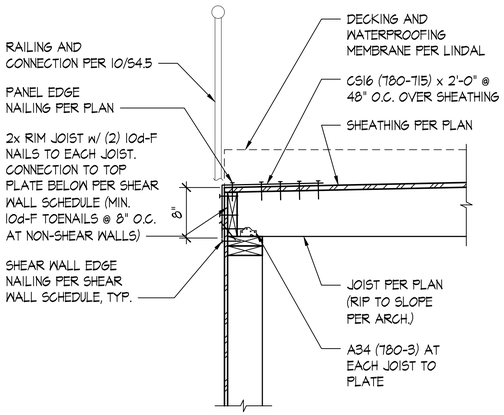
DETAIL SCALE: NONE | 3

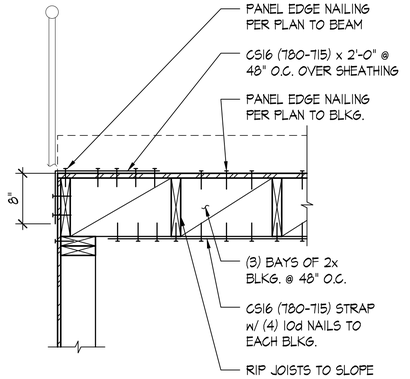


NOTE:
FOR INFORMATION NOT NOTED, SEE 6/S4.2

DETAIL SCALE: NONE | 4

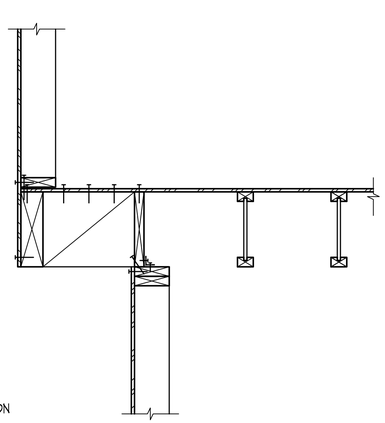


TYPICAL DECK EDGE - JOIST PERPENDICULAR SCALE: NONE | 5



NOTE:
FOR INFORMATION NOT NOTED, SEE 5/S4.3

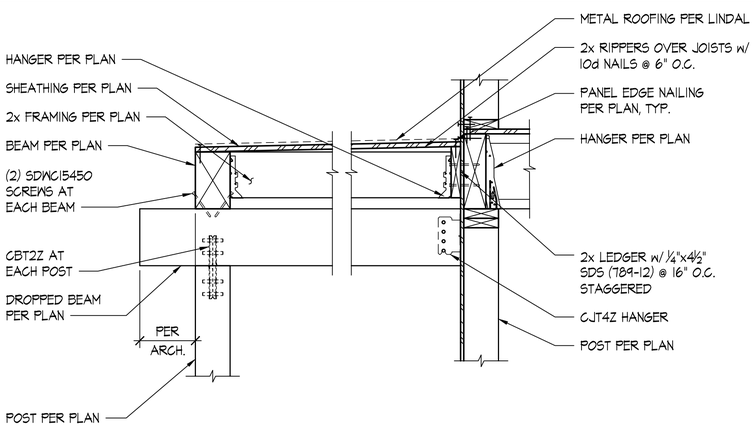
TYPICAL DECK EDGE - JOIST PARALLEL SCALE: NONE | 6



NOTE:
FOR INFORMATION NOT NOTED, SEE 4/S4.2 & 4/S4.3

TYPICAL INTERIOR WALL - I-JOIST PARALLEL SCALE: NONE | 7

DETAIL SCALE: NONE | 8



NOTE:
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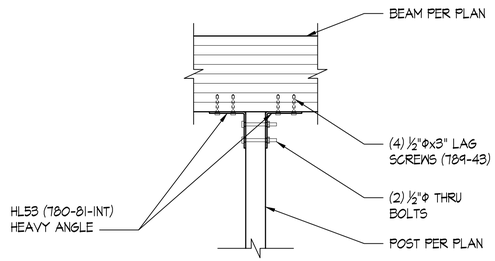
TRELLIS ENTRY ROOF ATTACHMENT SCALE: NONE | 10



TYPICAL EXPOSED POST TO BEAM CONNECTION SCALE: NONE | 11

DETAIL SCALE: NONE | 12

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S4.3

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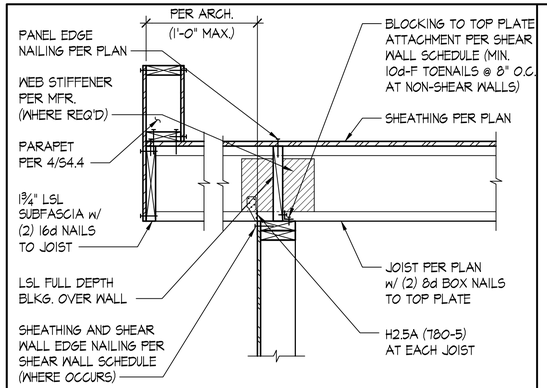
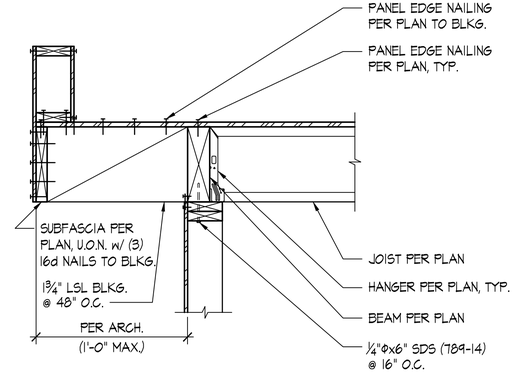


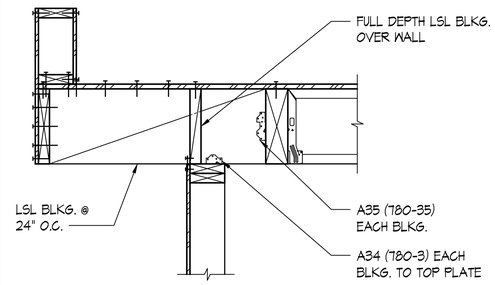
NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

TYPICAL EXTERIOR STRUCTURAL WALL AT ROOF OVERHANG I-JOIST PERPENDICULAR SCALE: NONE | 1



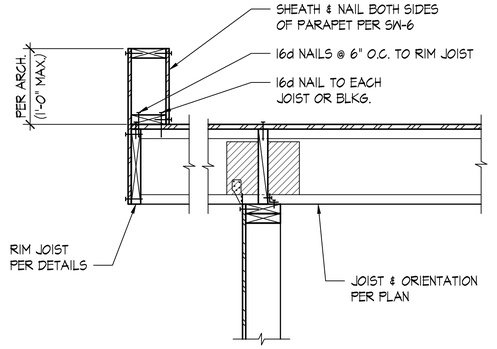
NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

TYPICAL PERIMETER ROOF FLUSH BEAM - I-JOIST PERPENDICULAR SCALE: NONE | 2

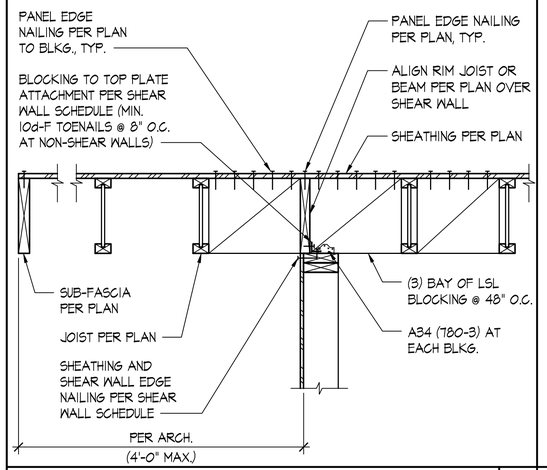


NOTE:
FOR INFORMATION NOT NOTED, SEE 2/S4.4

TYPICAL OFFSET PERIMETER FLUSH BEAM - I-JOIST PERPENDICULAR SCALE: NONE | 3



TYPICAL PARAPET ATTACHMENT SCALE: NONE | 4



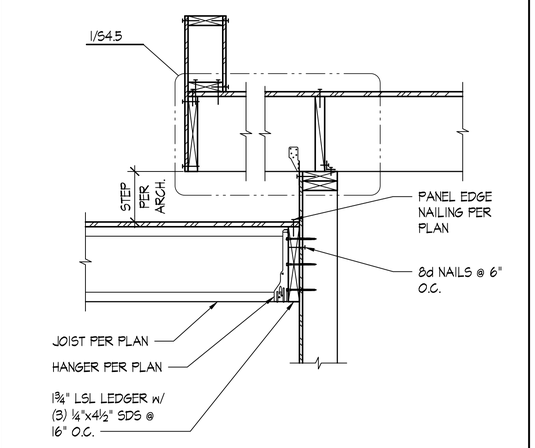
TYPICAL EXTERIOR STRUCTURAL WALL AT ROOF - I-JOIST PARALLEL SCALE: NONE | 5

DETAIL SCALE: NONE | 6

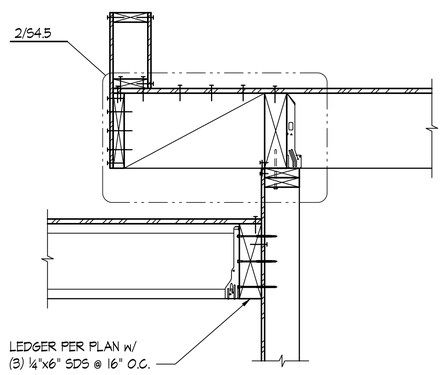
NOTE:
FOR INFORMATION NOT NOTED, SEE 5/S4.4

TYPICAL INTERIOR STRUCTURAL WALL - I-JOIST PARALLEL SCALE: NONE | 7

DETAIL SCALE: NONE | 8

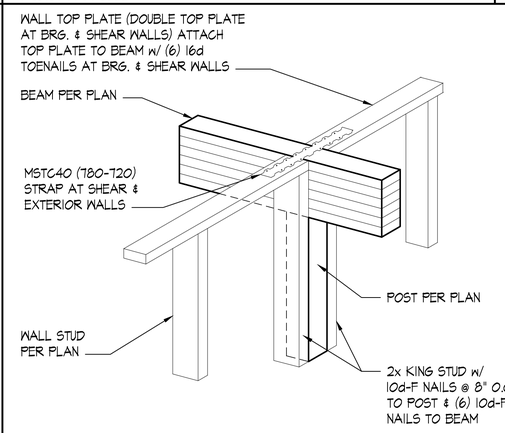


TYPICAL STEP IN ROOF - BALLOON FRAMED WALL w/ LEDGER SCALE: NONE | 9

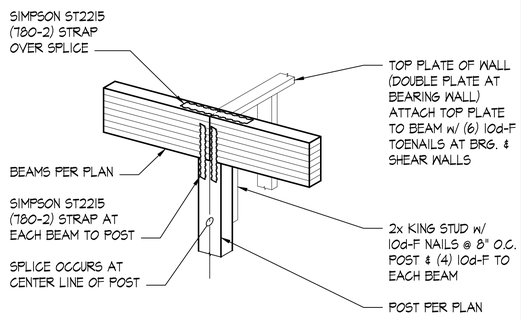


NOTE:
FOR INFORMATION NOT NOTED, SEE 9/S4.4

TYPICAL STEP IN ROOF - BALLOON FRAMED WALL w/ LEDGER PER PLAN SCALE: NONE | 10



TYPICAL BEAM SUPPORTED AT EXTERIOR WALL SCALE: NONE | 11



BEAM SPLICE AT POST PARTITION ONE SIDE SCALE: NONE | 12

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⚠1 4/3/24	PERMIT RESUBMITTAL	

42255

HOME SERIES
CUSTOM

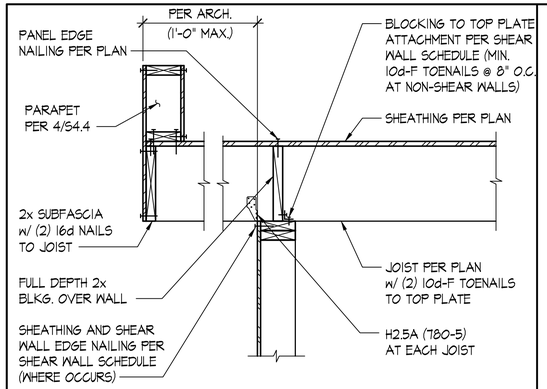
HOME MODEL
CUSTOM

ROOF DETAILS

Scale: AS NOTED

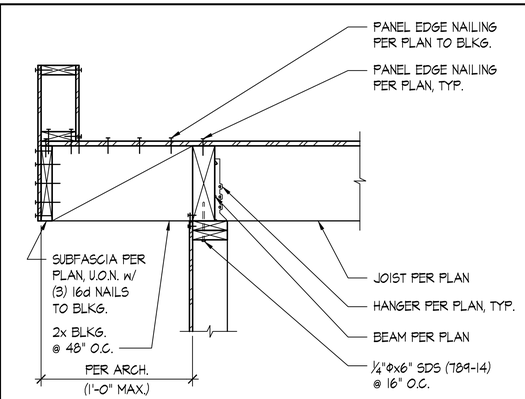
S4.4

File: 252-s404.dwg Plotted: Tue, 04/02/2024 1:24 pm



NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

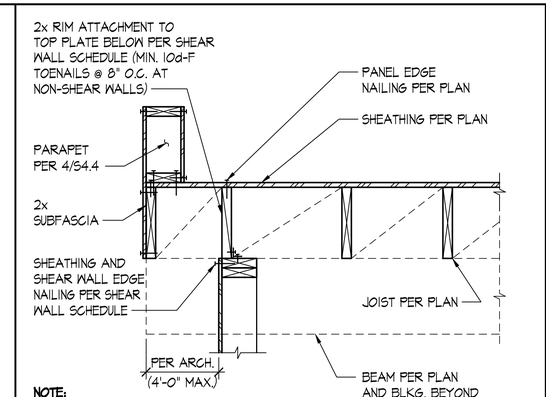
TYPICAL EXTERIOR STRUCTURAL WALL AT ROOF OVERHANG 2x FRAMING PERPENDICULAR SCALE: NONE | 1



NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

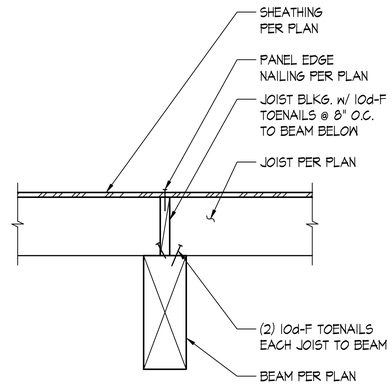
NOTE:
FOR INFORMATION NOT NOTED, SEE 1/S4.5

TYPICAL PERIMETER ROOF FLUSH BEAM - 2x FRAMING PERPENDICULAR SCALE: NONE | 2



NOTE:
SEE LINDAL CEDAR HOMES DRAWINGS FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

TYPICAL EXTERIOR WALL TO 2x OUTLOOKER - JOIST PARALLEL SCALE: NONE | 3



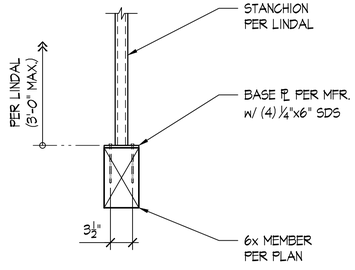
TYPICAL 2x JOIST TO DROP BEAM CONNECTION SCALE: NONE | 4

DETAIL SCALE: NONE | 5

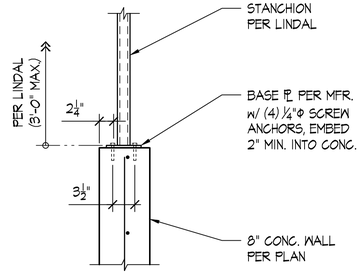
DETAIL SCALE: NONE | 6

DETAIL SCALE: NONE | 7

DETAIL SCALE: NONE | 8



TO WOOD BEAM/STRINGER



TO CONCRETE WALL

TYPICAL RAILING ATTACHMENT SCALE: NONE | 10

DETAIL SCALE: NONE | 11

DETAIL SCALE: NONE | 12

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1 4/3/24	PERMIT RESUBMITTAL	

42255

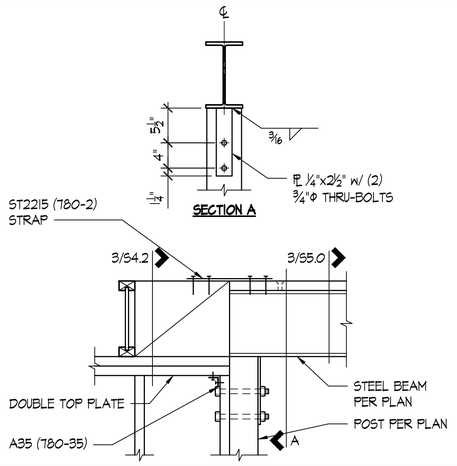
HOME SERIES
CUSTOM

HOME MODEL
CUSTOM

DETAILS

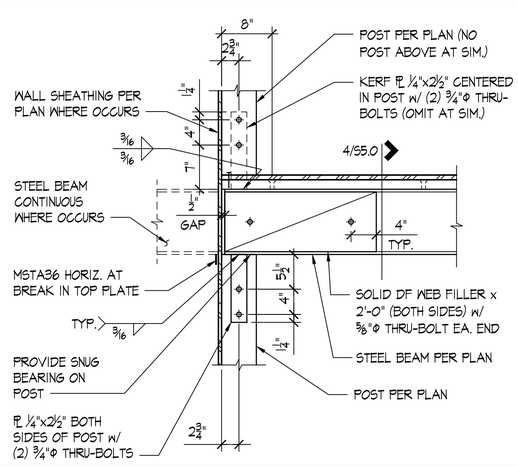
Scale: AS NOTED

S4.5



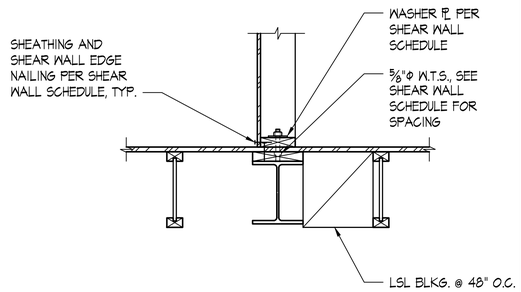
STEEL BEAM HEADER

SCALE: NONE | 1



TYPICAL WOOD POST SUPPORTING STEEL BEAM

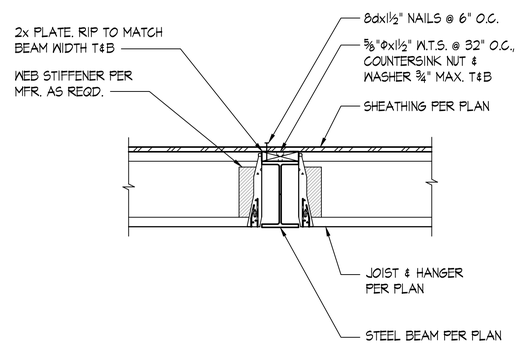
SCALE: NONE | 2



NOTE:
FOR INFORMATION NOT NOTED, SEE 4/S5.0

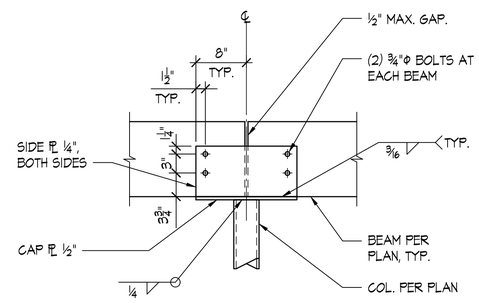
TYPICAL STRUCTURAL WALL TO STEEL BEAM W/ 2x PLATE

SCALE: NONE | 3



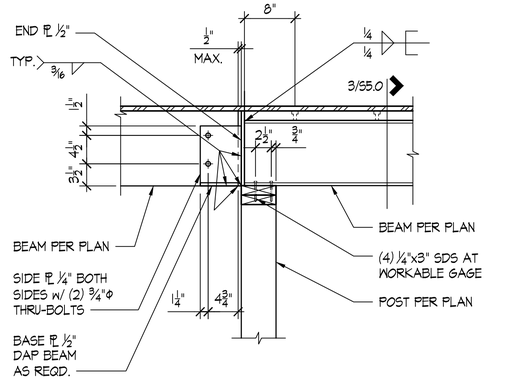
TYPICAL WOOD JOIST TO STEEL BEAM W/ 2x PLATE

SCALE: NONE | 4



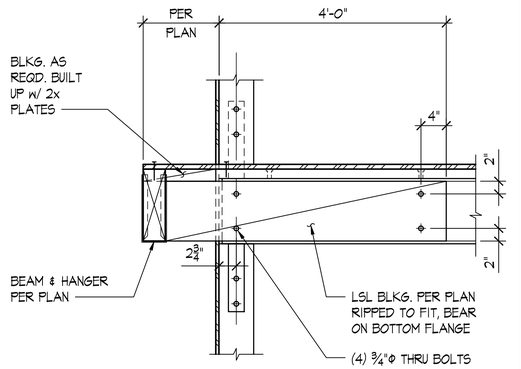
TYPICAL WOOD BEAM BUCKET AT STEEL COLUMN

SCALE: NONE | 5



TYPICAL STEEL COLUMN SUPPORTING BEAM

SCALE: NONE | 6



NOTE:
FOR INFORMATION NOT NOTED, SEE 2/S5.0

CANTILEVER WEB BLKG

SCALE: NONE | 7

DETAIL

SCALE: NONE | 8

DETAIL

SCALE: NONE | 9

DETAIL

SCALE: NONE | 10

DETAIL

SCALE: NONE | 11

DETAIL

SCALE: NONE | 12

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4/3/24	PERMIT RESUBMITTAL	

42255

HOME SERIES
CUSTOM

HOME MODEL
CUSTOM

WOOD/STEEL DETAILS

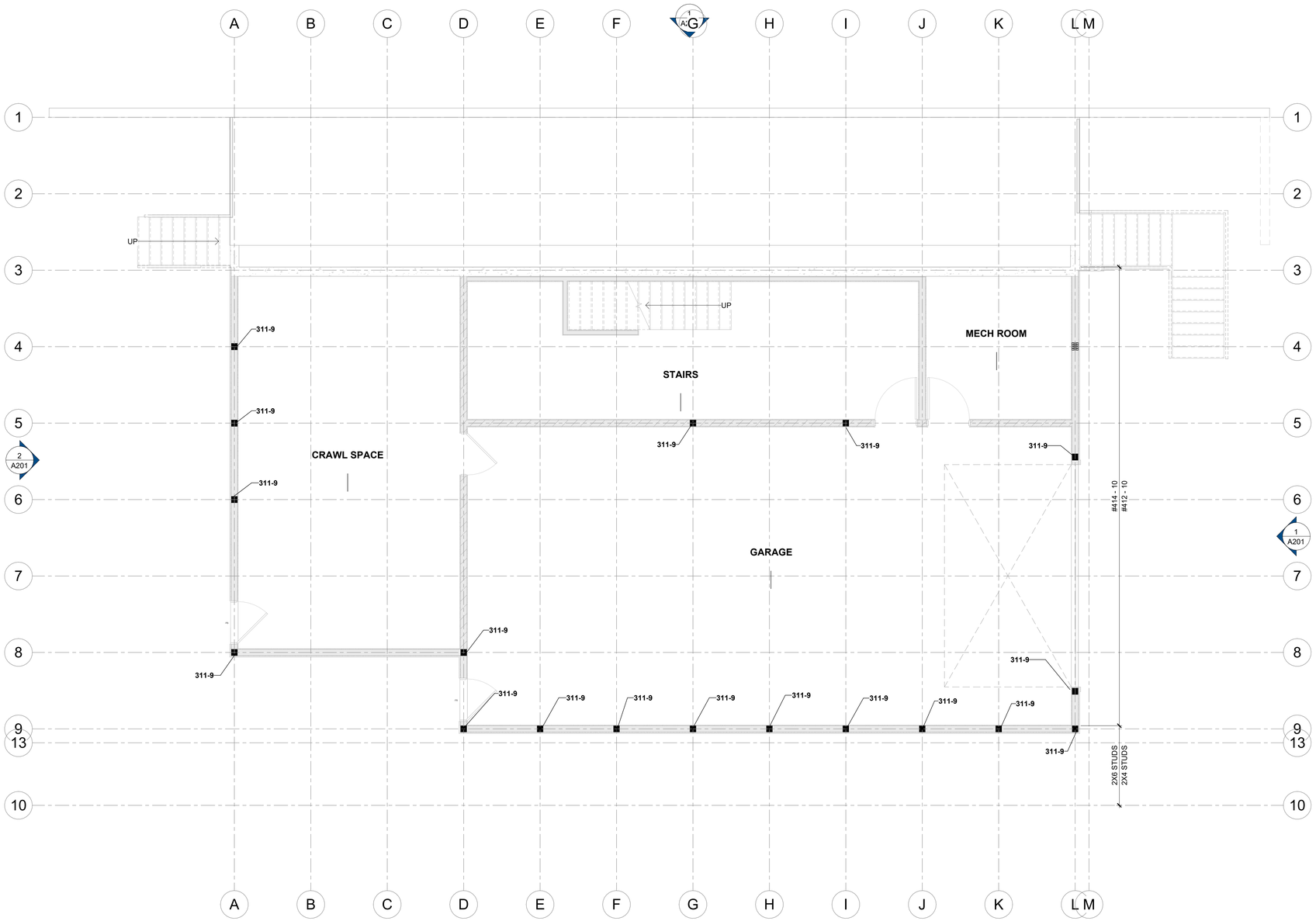
Scale: AS NOTED

S5.0

LOWER LEVEL POST AND PARTITION OVERLAY

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

1. ALL POSTS TO BE JOB CUT TO FIT UNDER BEAMS. POSTS LABELED RECUT ARE JOB CUT FROM A POST with AN INDICATED LENGTH ALSO LABELED RECUT.
2. GLULAM BEAMS VARY IN SIZE, MEASURE BEAM DEPTH at POST LOCATION TO DETERMINE EXACT POST LENGTH BEFORE CUTTING POST.
3. ALL INTERIOR WALL STUDS UNDER FIRST FLOOR ARE #412, 2x4 @ 24" O.C. UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR WALL STUDS at LOWER LEVEL FLOOR ARE #414, 2x6 @ 16" O.C. UNLESS NOTED OTHERWISE.
5. ALL FURRING WALLS STUDS AT THE LOWER LEVEL ARE #412, 2X4 @ 24" O.C. UNLESS NOTED OTHERWISE.
6. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.



2
A200

1
MT00
FIRST FLOOR OVERLAY
1/4" = 1'-0"

LOWER LEVEL POST SCHEDULE

STRUCTURAL MEMBER DESCRIPTION				DESIGN LENGTH	
PART #	APPLICATION	DIMENSIONS	MATERIAL	CUT	PRE-CUT
311-4	NON-EXPOSED	5 1/8" x 5 1/2"	ALASKAN YELLOW CEDAR	3' - 5 3/8"	4' - 0"
311-5	NON-EXPOSED	5 1/8" x 5 1/2"	ALASKAN YELLOW CEDAR	4' - 5 7/8"	5' - 0"
311-9	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	8' - 1 1/2"	9' - 0"

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	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

OVERLAY - LOWER LEVEL

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

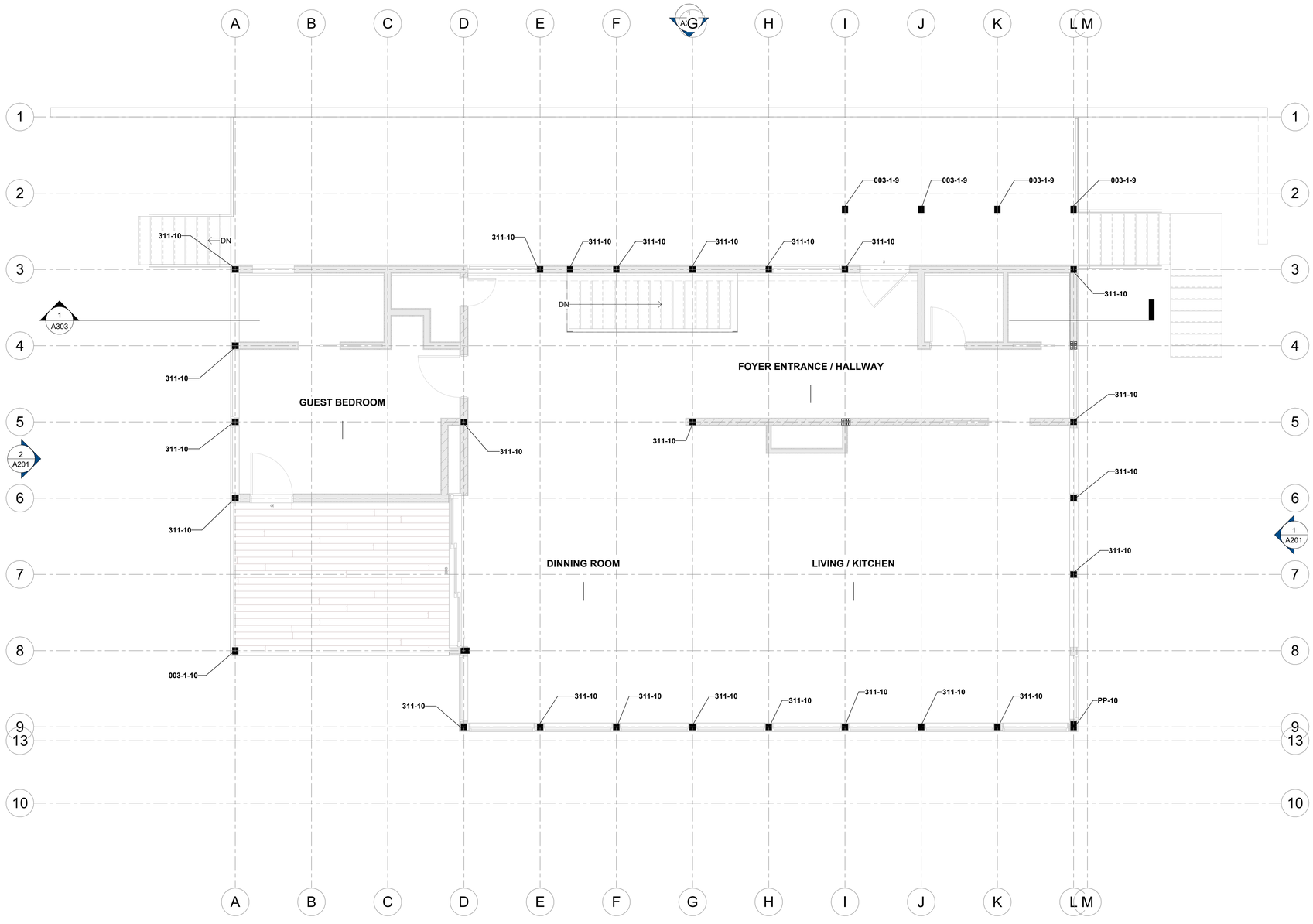
MT00

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:11 PM

FIRST FLOOR POST AND PARTITION OVERLAY

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

1. ALL POSTS TO BE JOB CUT TO FIT UNDER BEAMS. POSTS LABELED RECUT ARE JOB CUT FROM A POST with AN INDICATED LENGTH ALSO LABELED RECUT.
2. POST ATTACHMENT TO CONCRETE SLABS, DESIGN AND MATERIALS, ARE BY OTHERS.
3. GLULAM BEAMS VARY IN SIZE, MEASURE BEAM DEPTH at POST LOCATION TO DETERMINE EXACT POST LENGTH BEFORE CUTTING POST.
4. ALL INTERIOR WALL STUDS UNDER SECOND FLOOR ARE #412 (2x4) OR #414 (2x6) @ 24" O.C. UNLESS NOTED OTHERWISE.
5. ALL EXTERIOR WALL STUDS at FIRST FLOOR ARE #414, 2x6 @ 16" O.C. UNLESS NOTED OTHERWISE.
6. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.



1ST FLOOR POST SCHEDULE

STRUCTURAL MEMBER DESCRIPTION				DESIGN LENGTH	
PART #	APPLICATION	DIMENSIONS	MATERIAL	CUT	PRE-CUT
003-1-9	EXPOSED	CUSTOM	ALASKAN YELLOW CEDAR	8' - 9"	9' - 0"
311-10	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	9' - 6"	10' - 0"
PP-10	EXPOSED	5 1/8" x 7 1/2"	DOUG-FIR #2	9' - 6"	10' - 0"
003-1-10	EXPOSED	CUSTOM	ALASKAN YELLOW CEDAR	9' - 6"	10' - 0"
311-10	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	9' - 6"	10' - 0"

1 MT01 FIRST FLOOR OVERLAY
1/4" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:12 PM

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	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

OVERLAY - FIRST FLOOR PLAN

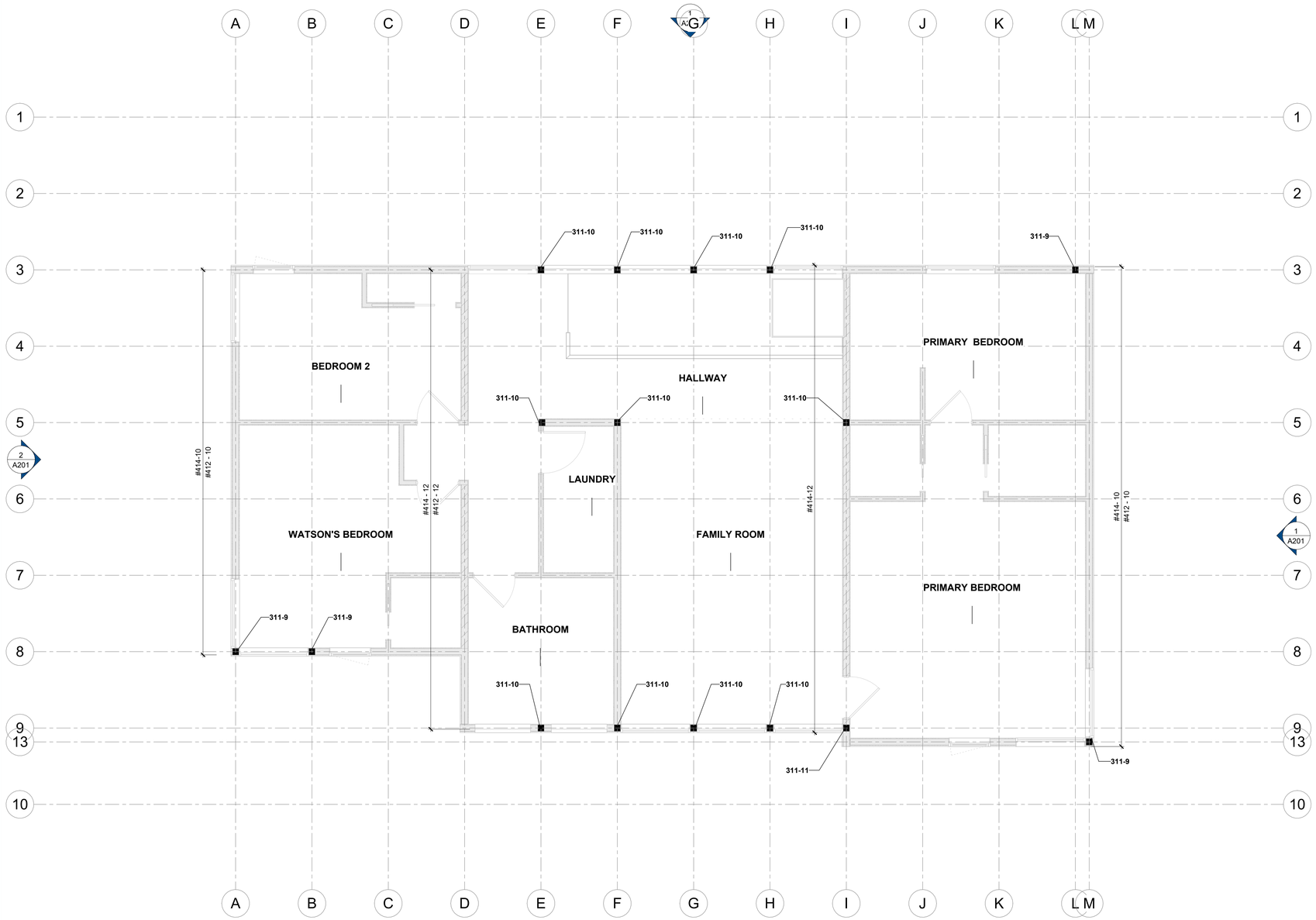
Scale: 1/4" = 1'-0"

MT01

SECOND FLOOR POST AND PARTITION OVERLAY

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

1. ALL POSTS TO BE JOB CUT TO FIT UNDER BEAMS. POSTS LABELED RECUT ARE JOB CUT FROM A POST WITH AN INDICATED LENGTH ALSO LABELED RECUT.
2. GLULAM BEAMS VARY IN SIZE, MEASURE BEAM DEPTH AT POST LOCATION TO DETERMINE EXACT POST LENGTH BEFORE CUTTING POST.
3. ALL INTERIOR STUDS ARE ARE #412 (2x4) OR #414 (2x6) @ 24" O.C. UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR WALL STUDS @ SECOND FLOOR ARE #414, 2x6 @ 16" O.C. UNLESS NOTED OTHERWISE.
5. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.



2ND FLOOR POST SCHEDULE

STRUCTURAL MEMBER DESCRIPTION				DESIGN LENGTH	
PART #	APPLICATION	DIMENSIONS	MATERIAL	CUT	PRE-CUT
311-9	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	8' - 0"	9' - 0"
311-10	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	8' - 10 3/4"	10' - 0"
311-11	NON-EXPOSED	5 1/8" x 5 1/2"	DOUG-FIR #2	10' - 0 1/4"	11' - 0"

1 MT02 02 - SECOND FLOOR OVERLAY

1/4" = 1'-0"

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:13 PM

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WARM MODERN LIVING

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NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

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SERIES

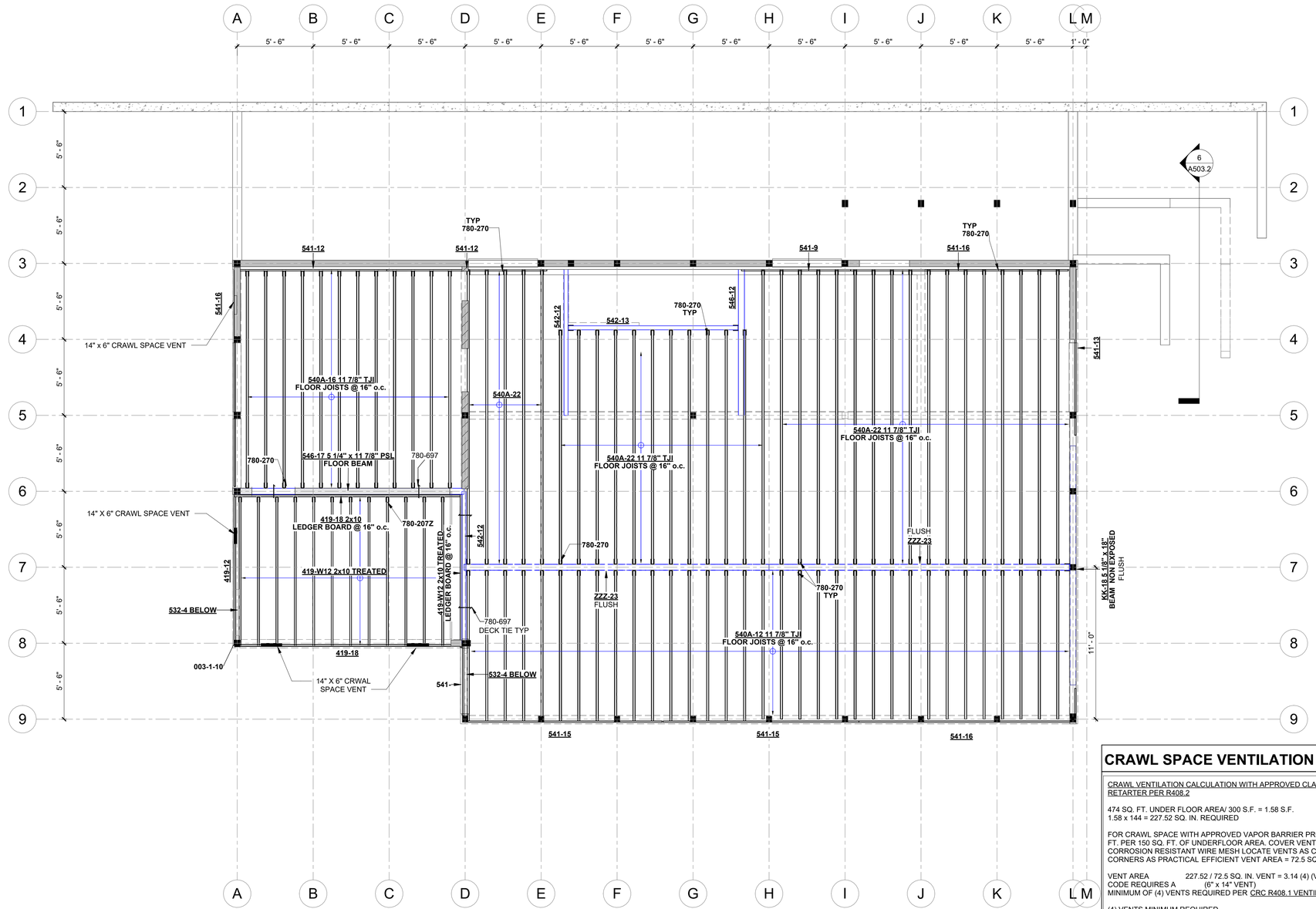
MODEL

CUSTOM ELEMENT HOME

OVERLAY - SECOND FLOOR PLAN

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

MT02



1 MT03 FIRST FLOOR FRAMING
1/4" = 1'-0"

CRAWL SPACE VENTILATION CALCS.

CRAWL VENTILATION CALCULATION WITH APPROVED CLASS 1 VAPOR RETARTER PER R408.2

474 SQ. FT. UNDER FLOOR AREA/ 300 S.F. = 1.58 S.F.
1.58 x 144 = 227.52 SQ. IN. REQUIRED

FOR CRAWL SPACE WITH APPROVED VAPOR BARRIER PROVIDE 1 SQ. FT. PER 150 SQ. FT. OF UNDERFLOOR AREA. COVER VENTS WITH 1/4" CORROSION RESISTANT WIRE MESH LOCATE VENTS AS CLOSE TO CORNERS AS PRACTICAL EFFICIENT VENT AREA = 72.5 SQ. IN

VENT AREA 227.52 / 72.5 SQ. IN. VENT = 3.14 (4) (VENTS)
CODE REQUIRES A (6" x 14" VENT)
MINIMUM OF (4) VENTS REQUIRED PER CRC R408.1 VENTILATION

(4) VENTS MINIMUM REQUIRED
(4) CRC APPROVED VENTS PROVIDED

CRAWL SPACE REQ. NOTES

18" MIN CLEARANCE UNDER JOIST
12" MIN CLEARANCE UNDER BEAMS
6 MIL VAPOR BARRIER
12" MIN LAP SEAMS

1ST FLOOR FRAMING NOTES

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

1. VERIFY ACTUAL BEAM DIMENSIONS PRIOR TO CUTTING POSTS.
2. ALL DESIGN and MATERIALS BELOW L.C.H. SUPPLIED FLOOR SYSTEM ARE BY OTHERS N.I.C., UNLESS NOTED OTHERWISE.
3. POSTS and FOOTINGS MUST BE DESIGNED TO SUPPORT LOADS INDICATED.
4. TYPICAL FLOOR JOISTS ARE
   - #540A, 11.7/8" TJI (110 SERIES) at 16" o.c., UNLESS NOTED OTHERWISE. USE (3) 8d GALV. BOX NAILS at SILL PLATE and at EACH BEAM.TYPICAL.
   - #540E, 11.7/8" TJI (110 SERIES) at 16" o.c., UNLESS NOTED OTHERWISE. USE (3) 8d GALV. BOX NAILS at SILL PLATE and at EACH BEAM.TYPICAL.
5. BLOCKING SHALL BE
   - #541-RL, 11.7/8" LSL SOLID BLOCKING BELOW ALL POSTS FROM ABOVE, UNLESS NOTED OTHERWISE.
   - #419, 2x10 SOLID BLOCKING BELOW ALL POSTS FROM ABOVE AND STAGGERED BLOCKING OVER EACH SUPPORT, UNLESS NOTED OTHERWISE.
6. PROVIDE FLOOR JOIST or BLOCKING BELOW ALL INTERIOR NON-LOAD BEARING PARTITIONS PARALLEL TO JOISTS. PROVIDE DOUBLE FLOOR JOISTS or BLOCKING BELOW LANDING POINT OF STAIR STRINGERS.
7. FLOOR SHEATHING IS #697, 3/4" T&G PLYWOOD with #753 ADHESIVE and #8 x 2" FLAT HEAD SCREWS (BY OTHERS) at 6" o.c. at EDGES and 10" o.c. at INTERMEDIATE SUPPORTS. RUN PLYWOOD LONG DIRECTION PERPENDICULAR TO FLOOR JOISTS.
8. DECK SHEATHING IS #697-OSB, 23/32" T&G OSB UNDERLAYMENT SHEATHING. APPLY with CONSTRUCTION ADHESIVE (#753) and #8 x 2" FLAT HEAD SCREWS (BY OTHERS) at 6" o.c. at EDGES and 10" o.c. at INTERMEDIATE SUPPORTS. RUN SHEATHING LONG DIRECTION PERPENDICULAR TO FLOOR JOISTS.
9. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

1ST FLOOR DESIGN LOADS:

1ST FLOOR LIVE LOAD	40 PSF
1ST FLOOR DEAD LOAD	12 PSF
TOTAL LOAD	52 PSF

STRUCTURAL CONNECTION

PART#	MNF PART#	MNF	QTY
780-270	1TS1.81/11.88	SIMPSON STRONG TIE	249
CBT4Z	CBT4Z	SIMPSON STRONG TIE	1
008-02	HGUS7.5/12	SIMPSON STRONG TIE	3
008-04	HTS30-C	SIMPSON STRONG TIE	2
780-516	HUC5.125/16	SIMPSON STRONG TIE	1
780-608	HUC68	SIMPSON STRONG TIE	8
780-412	HUC412	SIMPSON STRONG TIE	28
008-06	HUCQ1.81/11SDS	SIMPSON STRONG TIE	8
760-612	HUCQ612-SDS	SIMPSON STRONG TIE	16
780-204	LS70	SIMPSON STRONG TIE	8
780-206	LUS26	SIMPSON STRONG TIE	22
780-208	LUS28-2	SIMPSON STRONG TIE	4
780-207Z	LUS210	SIMPSON STRONG TIE	12
780-271	MIT411/11.88	SIMPSON STRONG TIE	69

1ST FLOOR BEAM SCHEDULE

FRAMING MEMBER DESCRIPTION			DESIGN LENGTH	
PART #	DIMENSIONS	MATERIAL	CUT	PRE-CUT
BEAM				
542-12	3 1/2" x 11 7/8"	LSL	11' - 0"	12' - 0"
542-13	3 1/2" x 11 7/8"	LSL	12' - 4"	13' - 0"
546-12	5 1/4" x 11 7/8"	PSL	11' - 0"	12' - 0"
BEAM				
KK-18	5 1/8" x 18"	DOUG-FIR #2	17' - 3 3/4"	18' - 0"
FLOOR BEAM				
ZZZ-23	5 1/8" x 16"	DOUG-FIR #2	<varies>	23' - 0"
546-17	5 1/4" x 11 7/8"	PSL	16' - 7 1/2"	17' - 0"
HEADER				
532-4	3 1/2" x 9 1/2"	LSL	<varies>	4' - 0"
532-9	3 1/2" x 9 1/2"	LSL	8' - 5"	9' - 0"

DECK FRAMING NOTES

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

1. DECK JOISTS ARE #419-C, 2x10 SPF AT 24" o.c., UNLESS NOTED OTHERWISE.
2. ALL SUPPORT POSTS, BRACING, POST BASES, POST CAPS and FOOTINGS ARE N.I.C., UNLESS NOTED OTHERWISE.
3. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

DECK DESIGN LOADS:

DECK LIVE LOAD	60 PSF
DECK DEAD LOAD	10 PSF
TOTAL LOAD	70 PSF

Lindal CEDAR HOMES

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PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

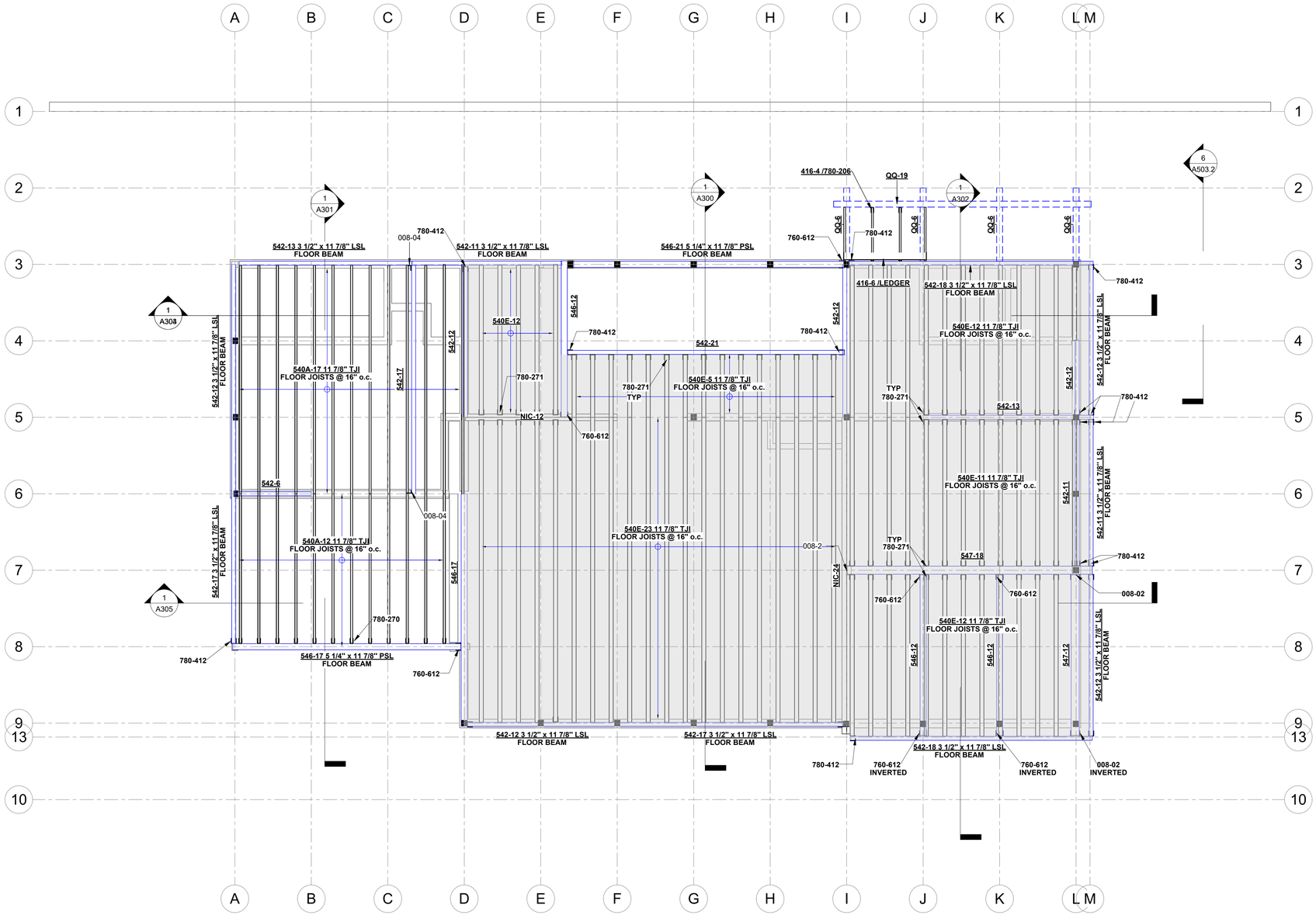
CUSTOM ELEMENT HOME

FIRST FLOOR FRAMING

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

MT03

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:15 PM



1 MT04 02 - SECOND FLOOR FRAMING PLAN

1/4" = 1'-0"

2ND FLOOR FRAMING NOTES

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

1. VERIFY ACTUAL BEAM DIMENSIONS PRIOR TO CUTTING POSTS.
2. ALL DESIGN and MATERIALS BELOW L.C.H. SUPPLIED FLOOR SYSTEM ARE BY OTHERS N.I.C., UNLESS NOTED OTHERWISE.
3. POSTS and FOOTINGS MUST BE DESIGNED TO SUPPORT LOADS INDICATED.
4. TYPICAL FLOOR JOISTS ARE
   - #540A, 11.7/8" TJI (110 SERIES) at 16" o.c., UNLESS NOTED OTHERWISE. USE (3) 8d GALV. BOX NAILS at SILL PLATE and at EACH BEAM.TYPICAL.
   - #540E, 11.7/8" TJI (110 SERIES) at 16" o.c., UNLESS NOTED OTHERWISE. USE (3) 8d GALV. BOX NAILS at SILL PLATE and at EACH BEAM.TYPICAL.
5. BLOCKING SHALL BE
   - #541-RL, 11.7/8" LSL SOLID BLOCKING BELOW ALL POSTS FROM ABOVE, UNLESS NOTED OTHERWISE.
   - #419, 2x10 SOLID BLOCKING BELOW ALL POSTS FROM ABOVE AND STAGGERED BLOCKING OVER EACH SUPPORT, UNLESS NOTED OTHERWISE.
6. PROVIDE FLOOR JOIST or BLOCKING BELOW ALL INTERIOR NON-LOAD BEARING PARTITIONS PARALLEL TO JOISTS. PROVIDE DOUBLE FLOOR JOISTS or BLOCKING BELOW LANDING POINT OF STAIR STRINGERS.
7. FLOOR SHEATHING IS #696 1 1/8" T&G PLYWOOD with #753 ADHESIVE and #8 x 2" FLAT HEAD SCREWS (BY OTHERS) at 6" o.c. at EDGES and 10" o.c. at INTERMEDIATE SUPPORTS. RUN PLYWOOD LONG DIRECTION PERPENDICULAR TO FLOOR JOISTS.
8. FLOOR SHEATHING IS #697-OSB, 23/32" T&G OSB UNDERLAYMENT SHEATHING. APPLY with CONSTRUCTION ADHESIVE (#753) and #8 x 2" FLAT HEAD SCREWS (BY OTHERS) at 6" o.c. at EDGES and 10" o.c. at INTERMEDIATE SUPPORTS. RUN SHEATHING LONG DIRECTION PERPENDICULAR TO FLOOR JOISTS.
9. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

2ND FLOOR DESIGN LOADS:

2ND FLOOR LIVE LOAD	40 PSF
2ND FLOOR DEAD LOAD	12 PSF
TOTAL LOAD	52 PSF

STRUCTURAL CONNECTION

PART#	MNF PART#	MNF	QTY
780-270	1TS1.81/11.88	SIMPSON STRONG TIE	249
CBT4Z	CBT4Z	SIMPSON STRONG TIE	1
008-02	HGUS7.5/12	SIMPSON STRONG TIE	3
008-04	HTS30-C	SIMPSON STRONG TIE	2
780-516	HUC5.125/16	SIMPSON STRONG TIE	1
780-608	HUC68	SIMPSON STRONG TIE	8
780-412	HUC412	SIMPSON STRONG TIE	28
008-06	HUCQ1.81/11SDS	SIMPSON STRONG TIE	8
760-612	HUCQ612-SDS	SIMPSON STRONG TIE	16
780-204	LS70	SIMPSON STRONG TIE	8
780-206	LUS26	SIMPSON STRONG TIE	22
780-208	LUS28-2	SIMPSON STRONG TIE	4
780-207Z	LUS210	SIMPSON STRONG TIE	12
780-271	MIT411/11.88	SIMPSON STRONG TIE	69

2ND FLOOR BEAM SCHEDULE

FRAMING MEMBER DESCRIPTION			DESIGN LENGTH	
PART #	DIMENSIONS	MATERIAL	CUT	PRE-CUT
BEAM				
542-13	3 1/2" x 11 7/8"	LSL	12' - 3"	13' - 0"
546-12	5 1/4" x 11 7/8"	PSL	11' - 3"	12' - 0"
546-17	5 1/4" x 11 7/8"	PSL	16' - 8 3/4"	17' - 0"
BEAM				
QQ-6	5 1/8" x 9"	ALASKAN YELLOW CEDAR	5' - 3 1/4"	6' - 0"
QQ-19	5 1/8" x 9"	ALASKAN YELLOW CEDAR	18' - 6 1/4"	19' - 0"
NIC-12	W10x26	STEEL	10' - 11"	12' - 0"
NIC-24	W10x39	STEEL	22' - 9 1/4"	24' - 0"
FLOOR BEAM				
542-6	3 1/2" x 11 7/8"	LSL	<varies>	6' - 0"
542-11	3 1/2" x 11 7/8"	LSL	<varies>	11' - 0"
542-12	3 1/2" x 11 7/8"	LSL	<varies>	12' - 0"
542-13	3 1/2" x 11 7/8"	LSL	12' - 5"	13' - 0"
542-17	3 1/2" x 11 7/8"	LSL	<varies>	17' - 0"
542-18	3 1/2" x 11 7/8"	LSL	<varies>	18' - 0"
542-21	3 1/2" x 11 7/8"	LSL	19' - 11 3/8"	21' - 0"
546-12	5 1/4" x 11 7/8"	PSL	11' - 7 1/2"	12' - 0"
546-17	5 1/4" x 11 7/8"	PSL	16' - 5"	17' - 0"
546-21	5 1/4" x 11 7/8"	PSL	19' - 10 7/8"	21' - 0"
547-12	7" x 11 7/8"	PSL	11' - 7 1/2"	12' - 0"
547-18	7" x 11 7/8"	PSL	17' - 8"	18' - 0"

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

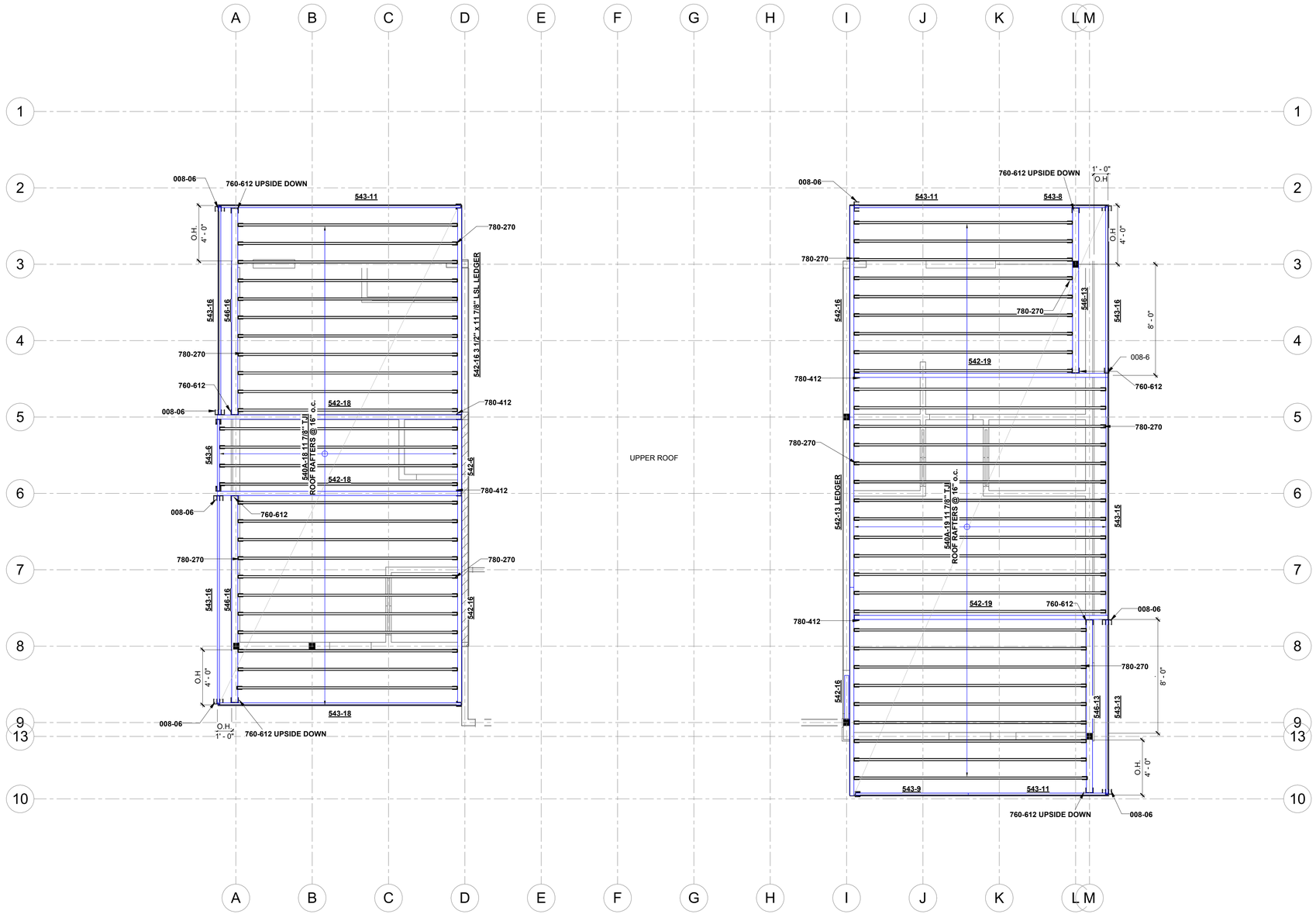
CUSTOM ELEMENT HOME

SECOND FLOOR FRAMING

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

MT04

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:17 PM



1 / MT05 04 - LOW ROOF FRAMING PLAN

1/4" = 1'-0"

ROOF FRAMING NOTES

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

1. VERIFY ACTUAL BEAM DIMENSIONS PRIOR TO CUTTING POSTS.
2. TYPICAL ROOF RAFTERS ARE
   - #540A, 11.7/8" TJI (110 SERIES) at 24" o.c., UNLESS NOTED OTHERWISE.
   - ARE #481, 2x12 RAFTERS at 24" o.c., UNLESS NOTED OTHERWISE.
3. ROOF SHEATHING IS
   - #700-OSB, 15/32" OSB SHEATHING with 8d GALV. BOX NAILS at 6" o.c. at EDGES and 12" o.c. at INTERMEDIATE SUPPORTS. USE # 739-15/32 "H" CLIPS AT UNSUPPORTED EDGES. RUN SHEATHING LONG DIRECTION PERPENDICULAR TO ROOF RAFTERS.
4. ATTACH FASCIA W/ #770, 6d GALV. (BROWN) SIDING NAILS at EACH RAFTER OR BLOCKING SUPPORT. USE TWO NAILS AT PER FASCIA BOARD AT EACH RAFTER.
5. #014, TRUSS PACKAGE INCLUDES ALL REQUIRED BLOCKING AND PERMANENT BRACING TO BE SUPPLIED BY TRUSS MANUFACTURER.
6. ALL TEMPORARY BRACING AND SHORING TO BE SUPPLIED BY OTHERS.
7. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

ROOF DESIGN LOADS:

GROUND SNOW LOAD	40 PSF
ROOF DEAD LOAD	16 PSF
TOTAL LOAD	56 PSF

STRUCTURAL CONNECTION

PART#	MNF PART#	MNF	QTY
780-270	1TS1.81/11.88	SIMPSON STRONG TIE	249
CBT4Z	CBT4Z	SIMPSON STRONG TIE	1
008-02	HGUS7.5/12	SIMPSON STRONG TIE	3
008-04	HTS30-C	SIMPSON STRONG TIE	2
780-516	HUC5.125/16	SIMPSON STRONG TIE	1
780-608	HUC68	SIMPSON STRONG TIE	8
780-412	HUC412	SIMPSON STRONG TIE	28
008-06	HUCQ1.81/11SDS	SIMPSON STRONG TIE	8
760-612	HUCQ612-SDS	SIMPSON STRONG TIE	16
780-204	LS70	SIMPSON STRONG TIE	8
780-206	LUS26	SIMPSON STRONG TIE	22
780-208	LUS28-2	SIMPSON STRONG TIE	4
780-207Z	LUS210	SIMPSON STRONG TIE	12
780-271	MIT411/11.88	SIMPSON STRONG TIE	69

ROOF BEAM SCHEDULE

FRAMING MEMBER DESCRIPTION			DESIGN LENGTH	
PART #	DIMENSIONS	MATERIAL	CUT	PRE-CUT
BEAM				
(3)-???-10	(3)-1 3/4" x 7 1/4"	LVL	9' - 7"	10' - 0"
(3)-???-11	(3)-1 3/4" x 7 1/4"	LVL	9' - 10"	11' - 0"
BEAM				
XX-16	5 1/8" x 13 1/2"	DOUG-FIR #2	<varies>	16' - 0"
XX-17	5 1/8" x 13 1/2"	DOUG-FIR #2	16' - 8 3/4"	17' - 0"
XX-27	5 1/8" x 13 1/2"	DOUG-FIR #2	<varies>	27' - 0"
BU ROOF BEAM				
(2)-416-6	(2)-2x8	SPF #2	<varies>	6' - 0"
(2)-416-8	(2)-2x8	SPF #2	<varies>	8' - 0"

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY
MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

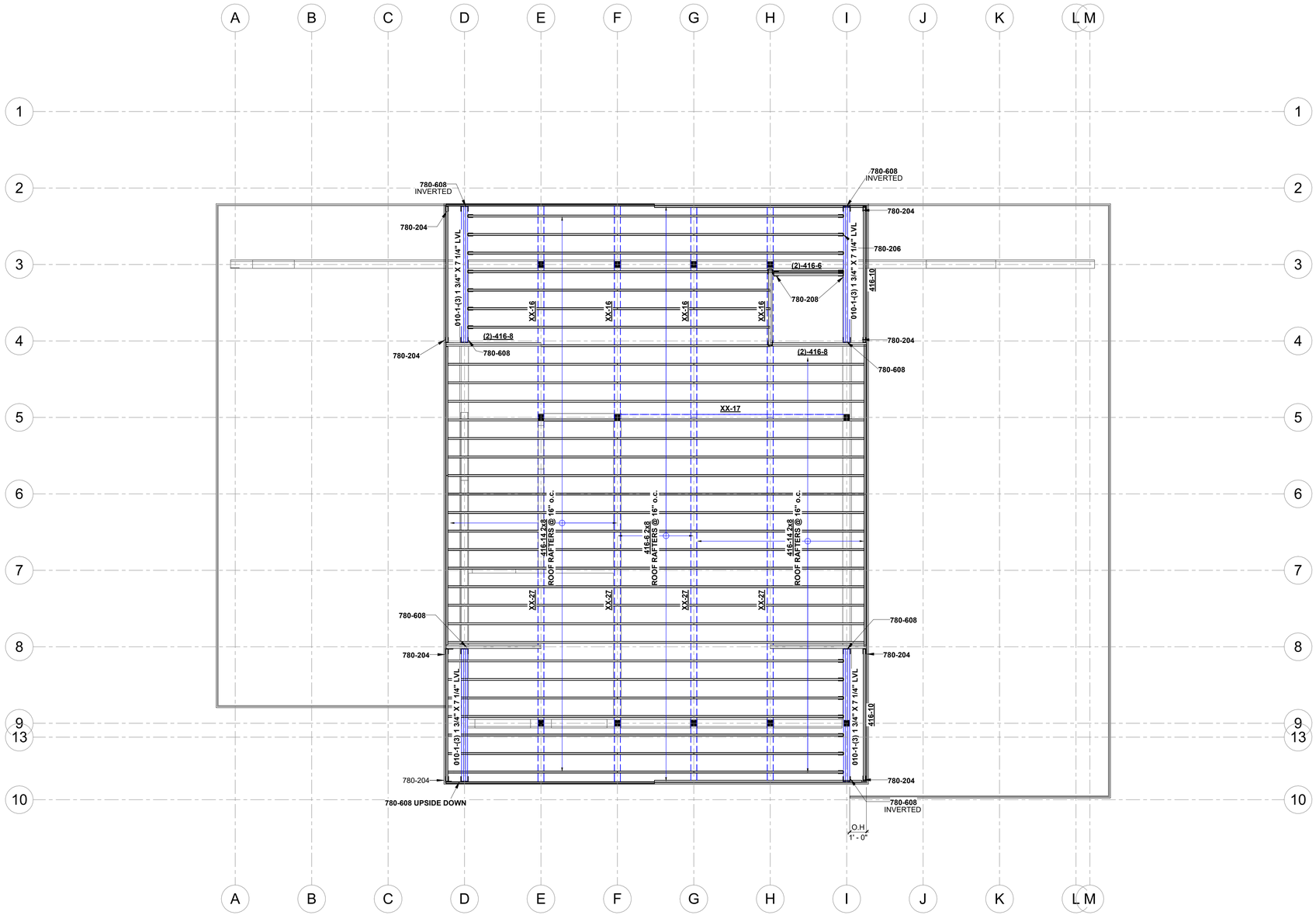
CUSTOM ELEMENT HOME

LOWER ROOF FRAMING

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

MT05

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:20 PM



1 MT06 05 - HIGH ROOF FRAMING PLAN

1/4" = 1'-0"

ROOF FRAMING NOTES

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

1. VERIFY ACTUAL BEAM DIMENSIONS PRIOR TO CUTTING POSTS.
2. TYPICAL ROOF RAFTERS ARE
   - #540A, 11.7/8" TJI (110 SERIES) at 24" o.c., UNLESS NOTED OTHERWISE.
   - ARE #481, 2x12 RAFTERS at 24" o.c., UNLESS NOTED OTHERWISE.
3. ROOF SHEATHING IS
   - #700-OSB, 15/32" OSB SHEATHING with 8d GALV. BOX NAILS at 6" o.c. at EDGES and 12" o.c. at INTERMEDIATE SUPPORTS. USE # 739-15/32 "H" CLIPS AT UNSUPPORTED EDGES. RUN SHEATHING LONG DIRECTION PERPENDICULAR TO ROOF RAFTERS.
4. ATTACH FASCIA W/ #770, 6d GALV. (BROWN) SIDING NAILS at EACH RAFTER OR BLOCKING SUPPORT. USE TWO NAILS AT PER FASCIA BOARD AT EACH RAFTER.
5. #014, TRUSS PACKAGE INCLUDES ALL REQUIRED BLOCKING AND PERMANENT BRACING TO BE SUPPLIED BY TRUSS MANUFACTURER.
6. ALL TEMPORARY BRACING AND SHORING TO BE SUPPLIED BY OTHERS.
7. WHEN PLANS ARE ON 12"x18" SHEETS, REDUCE SCALE BY HALF FOR PROPER DIMENSIONS.

ROOF DESIGN LOADS:

GROUND SNOW LOAD	40 PSF
ROOF DEAD LOAD	16 PSF
TOTAL LOAD	56 PSF

STRUCTURAL CONNECTION

PART#	MNF PART#	MNF	QTY
780-270	1TS1.81/11.88	SIMPSON STRONG TIE	249
CBT4Z	CBT4Z	SIMPSON STRONG TIE	1
008-02	HGUS7.5/12	SIMPSON STRONG TIE	3
008-04	HTS30-C	SIMPSON STRONG TIE	2
780-516	HUC5.125/16	SIMPSON STRONG TIE	1
780-608	HUC68	SIMPSON STRONG TIE	8
780-412	HUC412	SIMPSON STRONG TIE	28
008-06	HUCQ1.81/11SDS	SIMPSON STRONG TIE	8
760-612	HUCQ612-SDS	SIMPSON STRONG TIE	16
780-204	LS70	SIMPSON STRONG TIE	8
780-206	LUS26	SIMPSON STRONG TIE	22
780-208	LUS28-2	SIMPSON STRONG TIE	4
780-207Z	LUS210	SIMPSON STRONG TIE	12
780-271	MIT411/11.88	SIMPSON STRONG TIE	69

ROOF BEAM SCHEDULE

FRAMING MEMBER DESCRIPTION			DESIGN LENGTH	
PART #	DIMENSIONS	MATERIAL	CUT	PRE-CUT
BEAM				
(3)-???-10	(3)-1 3/4" x 7 1/4"	LVL	9' - 7"	10' - 0"
(3)-???-11	(3)-1 3/4" x 7 1/4"	LVL	9' - 10"	11' - 0"
BEAM				
XX-16	5 1/8" x 13 1/2"	DOUG-FIR #2	<varies>	16' - 0"
XX-17	5 1/8" x 13 1/2"	DOUG-FIR #2	16' - 8 3/4"	17' - 0"
XX-27	5 1/8" x 13 1/2"	DOUG-FIR #2	<varies>	27' - 0"
BU ROOF BEAM				
(2)-416-6	(2)-2x8	SPF #2	<varies>	6' - 0"
(2)-416-8	(2)-2x8	SPF #2	<varies>	8' - 0"

Lindal CEDAR HOMES

PN

PROJECT NORTH

LINDAL DEALER

WARM MODERN LIVING

CLIENT

HOANG INTRACHAT

PROJECT ADDRESS

7929 EAST MERCER WAY MERCER ISLAND WA 98040

NO.	DESCRIPTION	ISSUED BY	DATE
	REVISION DD	ES	7/18/2023
	ISSUED FOR CD	ES	10/19/2023
2	CITY COMMENT 2	ES	4/3/2024
1	CITY COMMENTS	ES	11/27/2023

ISSUANCES

WARRANTY NUMBER

42255

SERIES

MODEL

CUSTOM ELEMENT HOME

UPPER ROOF FRAMING

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

MT06

ARCH D 24" x 36" LAST PLOT DATE: 4/10/2024 12:21:21 PM