

ABBREVIATIONS

ABV	ABOVE
AEG	ABOVE EXISTING GRADE
AFF	ABOVE FINISHED FLOOR
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ALT	ALTERNATE
ARCH	ARCHITECT, ARCHITECTURAL
BLW	BELOW
BSMT	BASEMENT
BTW	BETWEEN
BLD	BUILDING
CAB	CABINET
CALC	CALCULATION
CLG	CEILING
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
DBL	DOUBLE
DEMO	DEMOLISH
DIA	DIAMETER
DIM	DIMENSION
DW	DISHWASHER
DS	DOWNSPOUT
EA	EACH
ELEC	ELECTRIC, ELECTRICIAN
ELEV	ELEVATION
ENGR	ENGINEER
EQUIV	EQUIVALENT
EXIST OR (E)	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
HDR	HEADER
HT	HEIGHT
HORIZ	HORIZONTAL
INSUL	INSULATION
INT	INTERIOR
LOC	LOCATE, LOCATION
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MTL	METAL
MIN	MINIMUM
NTS	NOT TO SCALE
NR	NON-REGULATED
O.C.	ON CENTER
OH	OVERHANG
OHVHM	ORDINARY HIGH WATER MARK
PLY	PLYWOOD
PRELIM	PRELIMINARY
PT	PRESSURE-TREATED
PL	PROPERTY LINE
REFR	REFRIGERATOR
REIN	REINFORCE, REINFORCING
REQD	REQUIRED
SCHED	SCHEDULE
SW	SHEARWALL
SIM	SIMILAR
SF	SQUARE FOOT
SPECS	SPECIFICATIONS
SSTL	STAINLESS STEEL
STL	STEEL
STRUCT	STRUCTURE, STRUCTURAL
TEMP	TEMPORARY
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT	VERTICAL
WP	WEATHERPROOF, WEATHERPROOF
WV	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD

GRAPHIC KEY

	GLASS		BATT INSULATION
	CONCRETE		RIGID INSULATION
	STEEL		PLYWOOD
	EARTH		FINISH WOOD
	GRAVEL		STUCCO
	WATER		SPRAY FOAM INSULATION
	BRICK		GYPSUM WALLBOARD
	ALUMINUM		

GENERAL NOTES

ALL WORK SHALL BE IN COMPLIANCE WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE AS ADOPTED AND MODIFIED BY THE CITY OF MERCER ISLAND, MERCER ISLAND LAND USE CODE, AND ALL OTHER LAWS, CODES, ORDINANCES AND REGULATIONS OF THE COUNTY, STATE, AND FEDERAL JURISDICTIONS INCLUDING THE 2015 WASHINGTON STATE ENERGY CODE, (LATEST EDITION AND AMENDMENTS)

ALL UNDERGROUND UTILITIES MUST BE VERIFIED AS TO EXACT LOCATIONS SO AS NO INTERFERENCE BY DISRUPTION WILL BE CAUSED. GENERAL CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES BY THE METHODS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND UPD REPRESENTATIVE AT THE PRE-CONSTRUCTION SITE MEETING. DAMAGE THAT MAY BE CAUSED BY GENERAL CONTRACTOR OR SUBCONTRACTOR TO ANY OF THE ABOVE MENTIONED SHALL BE REPAIRED BY HIM AND LEFT IN AS GOOD A CONDITION AS EXISTED PRIOR TO DAMAGING.

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND JOB CONDITIONS RELATED TO THIS WORK. ALL DIMENSIONS SHALL BE CONSIDERED "NOMINAL" UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. DIMENSIONS ON LARGE SCALE DRAWINGS OR DETAILS WILL PREVAIL OVER SMALLER SCALED DRAWINGS. WRITTEN DIMENSIONS ARE DRAWN TO THE FACE OF STUD OR CONCRETE U.N.O. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT, PROVIDE ALL BUCKOUTS, BLOCKING, AND JACKS AS REQUIRED BY THE DRAWINGS AND OTHER TRADES. ANY DISCREPANCY IN DIMENSIONS SHALL BE REPORTED IN WRITING TO THE PROJECT MANAGER/ DESIGNER FOR CLARIFICATION, OR APPROVAL OF MODIFICATION BEFORE COMMENCING WORK. THE RESPONSIBILITY TO THE PROJECT MANAGER/DESIGNER, SHALL REST WITH THE CONTRACTOR OR ANY OTHER PERSON APPROVING SUCH A CHANGE.

ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF CERTIFICATE OF OCCUPANCY UNLESS SPECIFIED FOR A LONGER PERIOD OF TIME ON SPECIFIED ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPAIRING HIS OWN DEFECTIVE WORK AS WELL AS PAY ALL COSTS INCIDENTAL THERETO INCLUDING DAMAGE TO OTHER WORK, FURNISHINGS OR EQUIPMENT.

ALL WARRANTIES OR GUARANTEES AS TO MATERIALS OR WORKMANSHIP ON OR WITH RESPECT TO THE OWNER'S WORK SHALL BE CONTAINED IN THE CONTRACT OR SUBCONTRACT WHICH SHALL BE SO WRITTEN THAT SUCH GUARANTEE OR WARRANTIES SHALL INSURE TO THE BENEFIT OF OWNER.

INSURANCE: PRIOR TO THE COMMENCEMENT OF WORK THE GENERAL CONTRACTOR SHALL DELIVER TO THE OWNER CERTIFICATES OF INSURANCE FOR BOTH COMPREHENSIVE GENERAL LIABILITY AND WORKMAN'S COMPENSATION INCLUDING THE TOTAL AMOUNT OF COVERAGE AND CONDITIONS STIPULATED AND AGREED BY BOTH PARTIES.

THE OWNER SHALL BE RESPONSIBLE FOR PAYING FOR THE BUILDING PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED OR NECESSARY FOR THE COMPLETION OF THE WORK FROM THE RESPECTIVE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE GOVERNING AGENCIES AS REQUIRED FOR SITE INSPECTIONS.

ALL TRADES SHALL REFER TO THE ARCHITECTURAL DRAWINGS REGARDING LOCATIONS OF WORK TO BE INSTALLED.

UNLESS OTHERWISE NOTED, PROVIDE ALL MISCELLANEOUS FASTENERS, HARDWARE AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. EVEN THOUGH SUCH ITEMS MAY NOT HAVE BEEN SPECIFICALLY MENTIONED IN THE DRAWINGS AND SPECIFICATIONS, NOTIFY THE ARCHITECT OF ANY REVISIONS OR ADDITIONAL INFORMATION OBTAINED FROM THE MANUFACTURER OF SPECIFIED MATERIALS OR EQUIPMENT WHICH MAY AFFECT THE CONTRACT TIME, COST OR QUALITY OF WORK.

GENERAL CONDITIONS
THE GENERAL CONTRACTOR, ALL SUB-CONTRACTORS AND ALL MAJOR SUPPLIERS SHALL SUBMIT TO THE OWNER WITHIN 30 DAYS AFTER COMPLETION ALL "RELEASE OF LIENS" FOR ALL WORK PERFORMED PRIOR TO FINAL PAYMENT.

PARTIAL LIEN WAIVERS TO BE SUBMITTED WITH MONTHLY REQUISITION.

ALL MANUFACTURERS AND/OR SUPPLIERS SHALL SUBMIT SHOP DRAWINGS AND/OR MATERIAL SAMPLES TO THE DESIGNER/OWNER FOR APPROVAL PRIOR TO FABRICATION.

ALL OF THE GENERAL CONTRACTOR'S EQUIPMENT, SCAFFOLDING HOISTS, ETC., SHALL BE AVAILABLE TO THE OWNER/ DESIGNER AND THEIR STAFF FOR INSPECTION OF ANY AND ALL WORK DURING NORMAL WORKING HOURS.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DELIVERY POINTS, HOISTS LOCATIONS, ACCESS TO AND FROM THE SITE OF THE BUILDING AND UTILITY SERVICES. BID TO INCLUDE ALL NECESSARY AND REQUIRED PERMITS, LICENSES, FEES, BONDS AND INSURANCE - EVIDENCE OF WHICH MUST BE SUBMITTED TO OWNER/ DESIGNER PRIOR TO ANY CONSTRUCTION.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBCONTRACTORS WORKING AT JOB SITE AND FOR ALL COORDINATION OF WORK.

THE MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE ALL EQUIPMENT WITH THE OTHER TRADES. THESE CONTRACTORS SHALL BE RESPONSIBLE FOR FINAL HOOK-UP OF ALL EQUIPMENT NOT FURNISHED BY THEM BUT REQUIRING THE SAME FOR FINAL COMPLETION.

GENERAL CONTRACTOR TO BE RESPONSIBLE FOR SECURITY OF ALL MATERIALS AT JOB SITE UNTIL FINAL ACCEPTANCE OF WORK BY OWNER.

ANY SUBCONTRACTOR CUTTING INTO WORK ALREADY COMPLETED, CUTTING CHASES AND TRENCHES FOR THE INTRODUCTION OF HIS WORK AND EQUIPMENT IN THE BUILDING SHALL DO OR PAY FOR ALL BACK FILLING, REPAIRATION OF WALLS, FLOOR, ETC., DAMAGE BY SUCH A COMPANY. ALL REPAIRS SHALL MATCH EXISTING SURFACES.

CONSTRUCTION SPECIFICATIONS
NO SUBSTITUTIONS ARE ALLOWED FOR MATERIALS WHERE SPECIFIC MANUFACTURERS ARE INDICATED. UNLESS APPROVED BY THE OWNER/ARCHITECT. THE ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHANGE, AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO OFFERED AS DESCRIBED ABOVE.

NO EXTRA WORK OR CHANGE SHALL BE MADE UNLESS A WRITTEN CHANGE ORDER IS SUBMITTED AND SIGNED BY THE OWNER AND ARCHITECT. THE ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHANGE, AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO OFFERED AS DESCRIBED ABOVE.

ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.

WOOD SPECIFICATIONS TO CONFORM TO OUTLINE SPECIFICATIONS, STRUCTURAL PLANS, NOTES, AND GENERAL CONDITIONS.

CAULKING AND SEALANTS: INSTALLED SHALL BE GUARANTEED WATERTIGHT. EXTERIOR METAL WORK, INCLUDING WINDOWS AND DOOR FRAMES AND ALL JUNCTIONS BETWEEN MASONRY, CONCRETE AND METAL SHALL BE SEALED WITH NEOPRENE OR POLYURETHANE FILLER AND APPROVED SEALANT COMPOUNDS.

PROVIDE GALVANIC INSULATION BETWEEN ALL DISSIMILAR METALS.

PROVIDE WATERPROOFING MEMBRANE OVER PROTECTIVE BOARD AT ALL WALLS EXPOSED TO EARTH.

ALL PIPING AND CONDUIT UNDER SLAB SHALL BE A MINIMUM OF 2"-0" CLEAR OF UNDERSIDE OF FOOTING.

ALL FINAL SURFACE GRADING SHALL BE COMPLETED TO FACILITATE POSITIVE DRAINAGE AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.

PROVIDE AND INSTALL INSULATION AT EXTERIOR WALLS, ROOF, FLOOR LOCATIONS AS SHOWN, SPECIFIED AND IN ACCORDANCE WITH WASHINGTON STATE ENERGY CODE.

WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS.

INSULATE ALL ROUGH-IN PLUMBING IN WALLS, FLOORS, AND CEILINGS FOR SOUND TRANSMISSION.

VICINITY PLAN

(NTS)



SYMBOLS KEY

GRID LINES		
ROOM REFERENCE		ROOM NAME ROOM NUMBER
DOOR REFERENCE		ROOM NUMBER DOOR NUMBER
WINDOW REFERENCE		ROOM NUMBER WINDOW NUMBER
EXTERIOR ELEVATIONS		DRAWING NUMBER SHEET NUMBER
WALL SECTION		DRAWING NUMBER SHEET NUMBER
SECTION DETAIL		DRAWING NUMBER SHEET NUMBER
AREA DETAIL		DRAWING NUMBER SHEET NUMBER
INTERIOR ELEVATION		DRAWING NUMBER SHEET NUMBER
ELEVATION DATUM		FINISH FLOOR LOCATION ELEVATION
FINISH MATERIAL		FINISH TYPE: SEE FINISH SCHEDULE FINISH NUMBER
REVISION BUG		NOTE: ONLY MOST RECENT REVISION SHOWN CLOUDED FOR PREVIOUS REVISIONS DELTAS REMAIN. DATE OF REVISIONS INDICATED AT RIGHT MARGINS.
ASSEMBLY TYPE		W4a R: ROOF TYPE W: WALL TYPE F: FLOOR TYPE SEE ASSEMBLIES FOR MORE INFO
EXHAUST FAN		
SMOKE DETECTOR		
SMOKE/CARBON MONOXIDE DETECTOR		
CENTERLINE		

SETBACKS

SIDE YARD 17% X 100' = 17' - 0" COMBINED

MIN SIDE YARD 33% X 17' = 5.61 FT

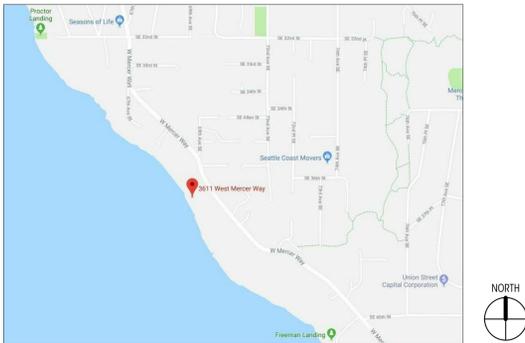
FRONT YARD 20' - 0"

SHORELINE 0 - 25' - 0" BUFFER FROM OHWM

25' - 0' - 50' - 0" BUFFER FROM OHWM

LOCATION PLAN

(NTS)



PROJECT DIRECTORY

OWNER	CHRISTINE AND RYAN YUAN 3611 W MERCER WAY MERCER ISLAND, WA 98040
ARCHITECT	COLIN BRANDT BRANDT DESIGN GROUP 66 BELL ST., UNIT 1 SEATTLE, WA 98121 206.239.0850 colin@brandtdesigninc.com
OWNER'S AGENT/CONTACT	GEORGE STEIRER PLAN TO PERMIT 206.909.2893 george@plantopermit.com
GENERAL CONTRACTOR	CHRIS GREGERSON GREGERSON CUSTOM HOMES 14107 180TH AVE NE REDMOND, WA 98052 206.691.0042
STRUCTURAL ENGINEER	BRETT MOZDEN SWENSON SAY FAGÉ 2124 THIRD AVENUE, SUITE 100 SEATTLE, WA 98121 206.443.6212
CIVIL ENGINEER	DUFFY ELLIS CIVIL ENGINEERING SOLUTIONS 102 NW CANAL ST SEATTLE, WA 98107 206.930.0342 duffy@cesolutions.us
GEOTECH	STEPHEN EVANS PANGEO 206.262-0370 sevans@pangeoinc.com

ENERGY CODE SUMMARY

CLIMATE ZONE 4C TABLE R402.1.1	
PRESCRIPTIVE OPTION III (EFFICIENT ENVELOPE OPTION 1A)	
UNLIMITED GLAZING	
GLAZING U-FACTOR (VERTICAL):	.28
GLAZING U-FACTOR (OVERHEAD):	.50
DOOR U-FACTOR:	.20
CEILING:	R-49
VAULTED CEILING:	R-38
WALL ABOVE GRADE:	R-21
WALL BELOW GRADE (INT.):	R-21 (INT.) OR R-10 (EXT.)
SLAB ON GRADE @ BASEMENT	R-10

ENERGY CREDITS: PER 2015 WSEC TABLE 406.2. 3.5 CREDITS MIN: 1a, 3a,4 and 5c.

HEATING
INSTALLED PER INTERNATIONAL MECHANICAL CODE, WORK TO BE COMPLETED UNDER A SEPARATE PERMIT.

VENTILATION
FANS ON TIMERS, PER PLANS. VOLUME OF REQUIRED OUTDOOR VENTILATION AIR TO BE PROVIDED BASED ON TABLE M1507.3.3 OF THE IRC.
* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY.
SEE SHEET A002 FOR VENTILATION & ENERGY CALCULATIONS.

SHEET INDEX

DISCIPLINE	SHEET NUMBER	SHEET NAME
ARCHITECTURAL	A000	COVERSHEET
	A001	WA STATE ENERGY CODE / VENTILATION CALC
SURVEYOR	1	SURVEY
	A100	SITE PLAN
	A101	SHORELINE VEGETATION PLAN
	D100	DEMO SITE PLAN
	A103	TEMPORARY EXCAVATION PLAN
	A104	FINAL GRADING PLAN
CIVIL	C1.0	EROSION CONTROL PLAN
	C1.2	TESC 7 CITY NOTES, TESC DETAILS
	C1.3	TREE INVENTORY
	C2.0	DRAINAGE/CIVIL PLAN
	C2.1	WATER SERVICE
	C2.2	FOOTING DRAIN PLAN
	C3.5	DRAINAGE/BMP DETAILS
ARCHITECTURAL	A200	LOWER FLOOR PLAN
	A201	MAIN FLOOR PLAN
	A202	ROOF PLAN
	A203	ROOF DETAILS
	A300	EXTERIOR ELEVATIONS
	A301	EXTERIOR ELEVATIONS
	A400	BUILDING SECTIONS
	A401	WALL SECTIONS
	A600	WINDOW / DOOR SCHEDULES
	A700	EXTERIOR DETAILS
	A704	INTERIOR DETAILS
STRUCTURAL	S1.1	GENERAL STRUCTURAL NOTES
	S1.2	GENERAL STRUCTURAL NOTES
	S2.1	FOUNDATION PLAN
	S2.2	MAIN FLOOR FRAMING PLAN
	S2.3	ROOF FRAMING PLAN
	S3.1	TYPICAL CONCRETE DETAILS
	S3.2	FOUNDATION DETAILS
	S3.3	FOUNDATION DETAILS
	S4.1	TYPICAL WOOD FRAMING DETAILS
	S4.2	WOOD FRAMING DETAILS
	S4.3	WOOD FRAMING DETAILS
	S4.4	WOOD FRAMING DETAILS
	S5.1	STEEL DETAILS
	SH.1	GENERAL SHORING NOTES
	SH.2	SHORING PLAN
	SH.3	SHORING DETAILS
	SH.3.2	SHORING ELEVATIONS

GENERAL INFORMATION

PROJECT ADDRESS	3611 W MERCER WAY, MERCER ISLAND, WA 98040
PROJECT NUMBER	TBD
ASSESSOR'S PARCEL #	362350-0265

LEGAL DESCRIPTION
THE NORTHWESTERLY 100 FT OF SOUTHEASTERLY 1000 FT OF BLOCK "A", AS MEASURED ALONG THE NORTHEASTERLY LINE THEREOF, REPLAT OF ISLAND PARK, ACCORDING TO THE PLAT RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WA.

PROJECT DESCRIPTION
DEMOLITION OF (E) 2,241 SF HOUSE W/ ATTACHED GARAGE AND PORTION OF (E) DRIVEWAY. CONSTRUCTION OF NEW 3988 SINGLE FAMILY DWELLING + 788 SF ATTACHED GARAGE; CONSTRUCTION OF NEW MOTOR COURT.

ZONE	R-15
BUILDING TYPE	SINGLE FAMILY RESIDENCE

PROJECT DATA

ZONING:	R-15
EXISTING LOT AREA SUMMARY:	
GROSS LOT AREA:	17,535 SF
ACCESS EASEMENT:	1446 SF
ACCESS EASEMENT LESS DRIVEWAY: 1446 - 1228 =	218 SF
NET LOT AREA:	17,317 SF
LOT SLOPE:	53' / 136.3' = 38.9%

30% ALLOWABLE LOT COVERAGE: 17,317 SF X 0.30 = 5,195 SF

EXISTING LOT COVERAGE:	
(E) HOUSE FOOTPRINT AND OVERHANGS	2,758 SF
(E) DRIVEWAY	3,686 SF
TOTAL EXISTING LOT COVERAGE:	6,444 SF = 37.2%
TOTAL EXISTING LANDSCAPING:	10,920 SF = 62.8%
(INCLUDES EXIST 1936 SF (11.1 %) HARDSCAPE)	

PROPOSED LOT COVERAGE:	
(E) DRIVEWAY TO REMAIN	1,491 SF
NEW DRIVEWAY	626 SF
HOUSE FOOTPRINT + OVERHANGS	3555 SF
TOTAL PROPOSED LOT COVERAGE:	5,672 SF = 32.7%
TOTAL PROPOSED LANDSCAPING:	11,592 SF = 67.3%
(INCLUDES 1462 SF (8.4%) HARDSCAPE)	

LOT COVERAGE 2:1 TRADE OFF CALCULATION (PER MICC 19.050 F3 biii):	
EXISTING LOT COVERAGE =	6,444 SF
LOT COVERAGE REMOVED =	1,526 SF
2:1 LOT COVERAGE CREDIT: 1526/2 =	763 SF
ALLOWABLE LOT COVERAGE: (6,444-1,526)+763 =	5,681 SF

ALLOWABLE HARDSCAPE: 17,317 X .9 = 1558.5 SF

PROPOSED HARDSCAPE:	
(E) HARDSCAPE TO REMAIN:	
(E) RETAINING WALLS:	36 SF
(E) DECK:	269 SF
(E) BULKHEAD LANDWARD OF OHWM:	559 SF
NEW HARDSCAPE:	
NEW PATIO/WALKWAYS:	195 SF
NEW DECK:	380 SF
NEW RETAINING WALLS:	23 SF
TOTAL PROPOSED HARDSCAPE:	1462 SF (8.4%)

R-15 ZONING MAX GFA: 12,000 SF OR 40% NET LOT AREA MAX

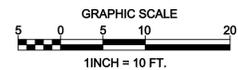
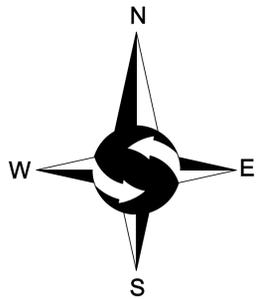
ALLOWABLE GFA: 17535 x .40 = 7,014 SF (40%)

GROSS FLOOR AREA CALCULATION:
EXISTING GFA : 2241 SF (12.9%)

MAIN FLOOR < 12' CEILING HEIGHT	556 X 1 =	556 SF
MAIN FLOOR > 12' CEILING HEIGHT	1546 X 1.5 =	2319 SF
GARAGE:		788 SF
COVERED DECK @ MAIN LEVEL:		273 SF
GROSS LOWER FLOOR AREA:		1,886 SF
LOWER FLOOR < 12' CEILING HEIGHT	1,110 X 1 =	1,100 SF
LOWER FLOOR > 12' CEILING HEIGHT	776 X 1.5 =	1,164 SF
LOWER FLOOR BELOW GRADE NOT INCLUDED		(224 SF)
TOTAL PROPOSED GFA:		5,976 SF (34.5%)

TOP OF PROPOSED ROOF: 59'-10"
DISTANCE TO NEAREST FIREHYDRANT: 477'

SHORELINE BUFFERS:
0' - 25' SHORELINE BUFFER AREA: 2895 SF
ALLOWABLE IMPERVIOUS AREA: 2895 SF X .10 =
EXISTING IMPERVIOUS AREA: 1222 SF (42.2%)
(E) BULKHEAD: 559 SF
(E) DECK: 266 SF
(E) DRIVE: 37 SF



LEGEND

- | | |
|---|--------------------------|
| ● FOUND MONUMENT AS DESCRIBED | —OHP— OVERHEAD POWER |
| ○ FOUND REBAR AS DESCRIBED | —OHU— OVERHEAD UTILITIES |
| ○ TACK IN LEAD FOUND | —X— CHAINLINK FENCE |
| ● SET 5/8" X 24" IRON ROD WITH YELLOW PLASTIC CAP | —□— WOOD FENCE |
| ⊠ POWER METER | ▨ CONCRETE WALL |
| ⊘ UTILITY POLE | ▭ ROCKERY |
| ⊙ GAS METER | ▭ ASPHALT SURFACE |
| ⊙ YARD DRAIN | ▭ CONCRETE SURFACE |
| ⊙ CATCH BASIN | ▭ GRAVEL SURFACE |
| ⊙ WATER VALVE | CH CHERRY |
| ⊙ FIRE HYDRANT | DS DECIDUOUS |
| ⊙ WATER METER | MP MAPLE |
| —GUYWIRE | BI BIRCH |
| —SS— APPROXIMATE LOCATION SANITARY SEWER LINE | LA LAUREL |
| —SD— APPROXIMATE LOCATION STORM DRAIN LINE | * INDICATES MULTI-TRUNK |

LEGAL DESCRIPTION

THE NORTHWESTERLY 100 FEET OF THE SOUTHEASTERLY 1,000 FEET OF BLOCK "A", AS MEASURED ALONG THE NORTHEASTERLY LINE THEREOF, REPLAT OF ISLAND PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WASHINGTON; TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING; EXCEPT SAID PORTION OF SAID SHORELANDS, IF ANY, AS MAY FALL WITHIN LAKE VIEW AVENUE AS EXTENDED BY THE COMMISSIONER OF PUBLIC LANDS

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

RECORD OF SURVEY BY DAVID EVANS AND ASSOCIATES FOR BOYD AND ANN GIVAN AS RECORDED UNDER RECORDING NO. 199109189001, RECORDS OF KING COUNTY, WASHINGTON. ACCEPTED A BEARING OF S42°09'00"E BETWEEN REBAR AND CAPS FOUND.

PROJECT INFORMATION

SURVEYOR: SITE SURVEYING, INC.
21923 NE 11TH ST
SAMMAMISH, WA 98074
PHONE: 425.298.4412

PROPERTY OWNER: RYAN YUAN
3611 W MERCER WAY
MERCER ISLAND, WA 98040

TAX PARCEL NUMBER: 362350-0285

PROJECT ADDRESS: 3611 W MERCER WAY
MERCER ISLAND, WA 98040

ZONING: R-15

JURISDICTION: CITY OF MERCER ISLAND

PARCEL ACREAGE: 17,635 S.F. (± 0.403 ACRES)
AS SURVEYED ABOVE OHWM

GENERAL NOTES

- THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
- INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND NIKON NIVO 5.C TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
- THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN SEPTEMBER 2018 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
- ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

VERTICAL DATUM & CONTOUR INTERVAL

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY US CORPS OF ENGINEERS AND ARE ON USCGE CHITTENDEN LOCKS DATUM.

WATER LEVEL = 20.050 1131 AM SEPTEMBER 9, 2018

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.



VICINITY MAP
NTS

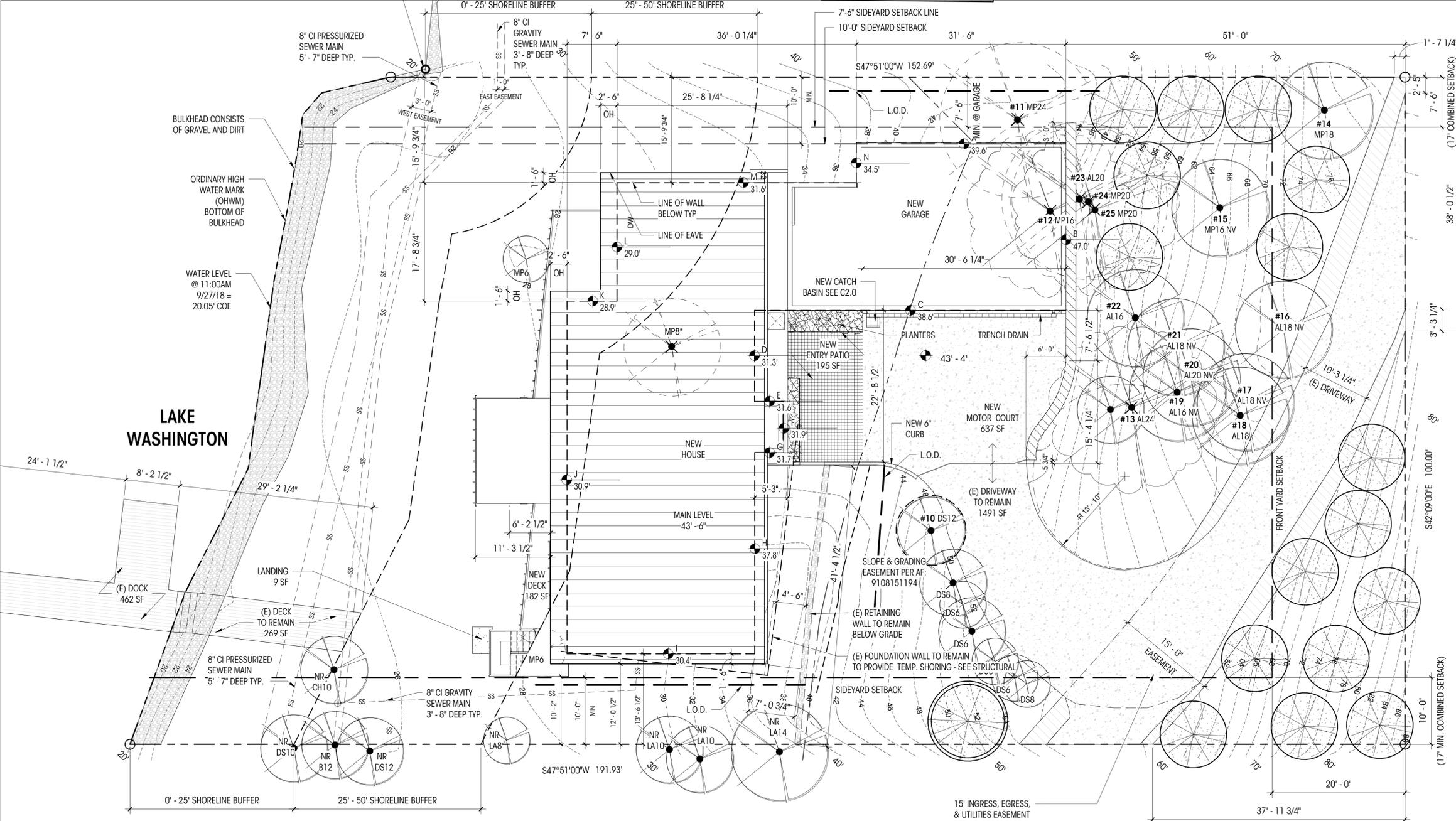
SW 1/4, SW 1/4, SEC 12, TWP 24N, RNG 4E, W.M.



TOPOGRAPHIC SURVEY
RYAN YUAN
3611 W MERCER WAY
MERCER ISLAND, WA 98040

PROJECT NO. 18-444
DRAWN BY: MTS
CHECKED BY: TNW
DATE: 5/9/19
SHEET 1 OF 1

© 2018, SITE SURVEYING, INC. ALL RIGHTS RESERVED. Phone: 425.298.4412
www.siteurveying.com 21923 NE 11th Street Sammamish, WA 98074



GENERAL INFORMATION

PROJECT ADDRESS 3611 W MERCER WAY, MERCER ISLAND, WA 98040

PROJECT NUMBER TBD

ASSESSOR'S PARCEL # 362350-0265

LEGAL DESCRIPTION
THE NORTHWESTERLY 100 FT OF SOUTHEASTERLY 1000 FT OF BLOCK "A", AS MEASURED ALONG THE NORTHEASTERLY LINE THEREOF, REPLAT OF ISLAND PARK, ACCORDING TO THE PLAT RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WA.

PROJECT DESCRIPTION
DEMOLITION OF (E) 2,241 SF HOUSE W/ ATTACHED GARAGE AND PORTION OF (E) DRIVEWAY, CONSTRUCTION OF NEW 3988 SINGLE FAMILY DWELLING + 788 SF ATTACHED GARAGE; CONSTRUCTION OF NEW MOTOR COURT.

ZONE R-15
BUILDING TYPE SINGLE FAMILY RESIDENCE

PROJECT DATA

ZONING: R-15

EXISTING LOT AREA SUMMARY:

GROSS LOT AREA:	17,535 SF
ACCESS EASEMENT:	1,446 SF
ACCESS EASEMENT LESS DRIVEWAY: 1446 - 1228 =	218 SF
NET LOT AREA:	17,317 SF
LOT SLOPE:	53' / 136.3' = 38.9%

30% ALLOWABLE LOT COVERAGE: 17,317 SF X 0.30 = 5,195 SF

EXISTING LOT COVERAGE:

(E) HOUSE FOOTPRINT AND OVERHANGS	2,758 SF
(E) DRIVEWAY	3,686 SF
TOTAL EXISTING LOT COVERAGE:	6,444 SF = 37.2%
TOTAL EXISTING LANDSCAPING:	10,920 SF = 62.8%
(INCLUDES EXIST 1936 SF (11.1 %) HARDSCAPE)	

PROPOSED LOT COVERAGE:

(E) DRIVEWAY TO REMAIN	1,491 SF
NEW DRIVEWAY	626 SF
HOUSE FOOTPRINT + OVERHANGS	3555 SF
TOTAL PROPOSED LOT COVERAGE:	5,672 SF = 32.7%
TOTAL PROPOSED LANDSCAPING:	11,592 SF = 67.3%
(INCLUDES 1462 SF (8.4%) HARDSCAPE)	

LOT COVERAGE 2:1 TRADE OFF CALCULATION (PER MICC 19.050 F3 biii):

EXISTING LOT COVERAGE =	6,444 SF
LOT COVERAGE REMOVED =	1,526 SF
2:1 LOT COVERAGE CREDIT: 1526/2 =	763 SF
ALLOWABLE LOT COVERAGE: (6,444-1,526)+763 =	5,681 SF

ALLOWABLE HARDSCAPE: 17,317 X .9 = **15,585 SF**

PROPOSED HARDSCAPE:

(E) HARDSCAPE TO REMAIN:	
(E) RETAINING WALLS:	36 SF
(E) DECK:	269 SF
(E) BULKHEAD LANDWARD OF OHWM:	559 SF
NEW HARDSCAPE:	
NEW PATIO/WALKWAYS:	195 SF
NEW DECK:	380 SF
NEW RETAINING WALLS:	23 SF
TOTAL PROPOSED HARDSCAPE:	1462 SF (8.4%)

R-15 ZONING MAX GFA: 12,000 SF OR 40% NET LOT AREA MAX

ALLOWABLE GFA: 17535 x .40 = **7,014 SF (40%)**

GROSS FLOOR AREA CALCULATION:

EXISTING GFA: **2241 SF (12.9%)**

MAIN FLOOR < 12' CEILING HEIGHT 556 X 1 =	556 SF
MAIN FLOOR > 12' CEILING HEIGHT 1546 X 1.5 =	2319 SF
GARAGE:	788 SF
COVERED DECK @ MAIN LEVEL:	273 SF
GROSS LOWER FLOOR AREA:	1,886 SF
LOWER FLOOR < 12' CEILING HEIGHT 1,110 X 1 =	1,100 SF
LOWER FLOOR > 12' CEILING HEIGHT 776 X 1.5 =	1,164 SF
LOWER FLOOR BELOW GRADE NOT INCLUDED (224 SF)	
TOTAL PROPOSED GFA:	5,976 SF (34.5%)

TOP OF PROPOSED ROOF: 59'-10"

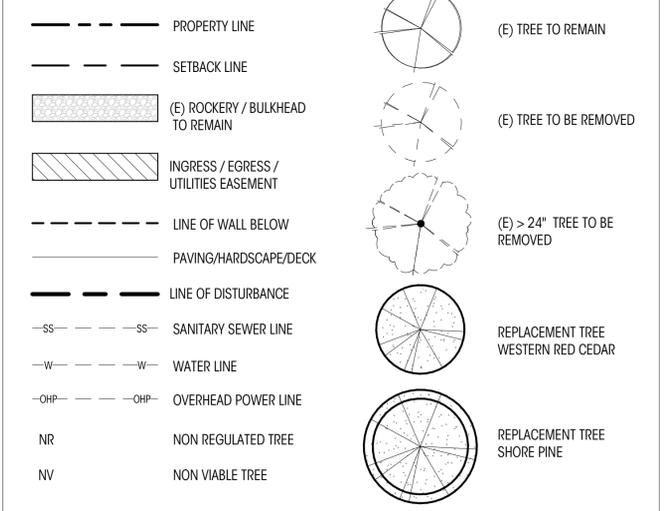
DISTANCE TO NEAREST FIREHYDRANT: 477'

AVERAGE BUILDING ELEVATION

WALL	MIDPOINT ELEV. (FT.)	WALL LENGTH (FT.)	PRODUCT
A	39.6	31.5	1247.4
B	47.0	25.1	1179.7
C	38.6	46.8	1806.5
D	31.3	13.6	425.7
E	31.7	4.6	145.8
F	31.9	7.8	248.8
G	31.7	4.6	145.8
H	37.8	30.1	1137.8
I	30.4	28.2	857.3
J	30.9	52.1	1609.9
K	28.9	7.5	216.7
L	29.0	18.4	533.6
M	31.6	36.0	1137.6
N	34.5	6.0	207.0
TOTALS		312.3	10,899.6

AVERAGE GRADE =
TOTAL PRODUCTS / TOTAL WALL LENGTHS
TOTAL PRODUCTS 10,899.6'
TOTAL WALL LENGTHS 312.3'
AVERAGE GRADE 10,899.6/312.3 = **34.9'**
MAX HEIGHT ALLOWABLE 30' ABOVE AVERAGE GRADE
MAX HEIGHT ELEVATION/MAX BUILDING HEIGHT **64.9'**
PROPOSED BUILDING HEIGHT: **59.83'**

SITE PLAN LEGEND



SITE PLAN

1/8" = 1'-0"

NOTE: ALL DIMENSIONS ON SITE PLAN TO FACE OF FINISHED WALL, CONCRETE, OR DECK.

SHORELINE BUFFERS:

0' - 25' SHORELINE BUFFER AREA:	2895 SF
ALLOWABLE IMPERVIOUS AREA: 2895 SF X .10 =	289.5 SF
EXISTING IMPERVIOUS AREA:	1222 SF (42.2%)
(E) BULKHEAD:	559 SF
(E) DECK:	626 SF
(E) DRIVE:	37 SF
PROPOSED IMPERVIOUS AREA:	
(E) BULKHEAD TO REMAIN:	559 SF
(E) DECK TO REMAIN:	163 SF
NEW IMPERVIOUS:	0 SF
TOTAL PROPOSED @ 0-25' BUFFER:	722 SF (24.9%)

25' - 50' SHORELINE BUFFER AREA:	2820 SF
ALLOWABLE IMPERVIOUS AREA: 2820 X .30 =	846 SF
EXISTING IMPERVIOUS AREA:	2099 SF (74.4%)
(E) HOUSE:	1317 SF
(E) DECK:	142 SF
(E) DRIVEWAY:	640 SF
PROPOSED IMPERVIOUS AREA:	
(E) DECK TO REMAIN:	0 SF
NEW HOUSE AND OVERHANG:	802 SF
NEW DECK AND STAIR:	244.25 SF
TOTAL PROPOSED @ 25'-50' BUFFER:	1046.25 SF (1049.5 ALLOW.)

Brandt
Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850

brandtdesigninc.com

8843 REGISTERED ARCHITECT

YUAN RESIDENCE

3611 W MERCER WAY,
MERCER ISLAND, WA 98040

© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24X36)

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19

DRAWN BY: NDL/USE
CHECKED BY: LL

SITE PLAN

SCALE: 1" = 10'-0"

A100

SHORELINE RESTORATION DATA

REQUIRED SHORELINE PLANTING:

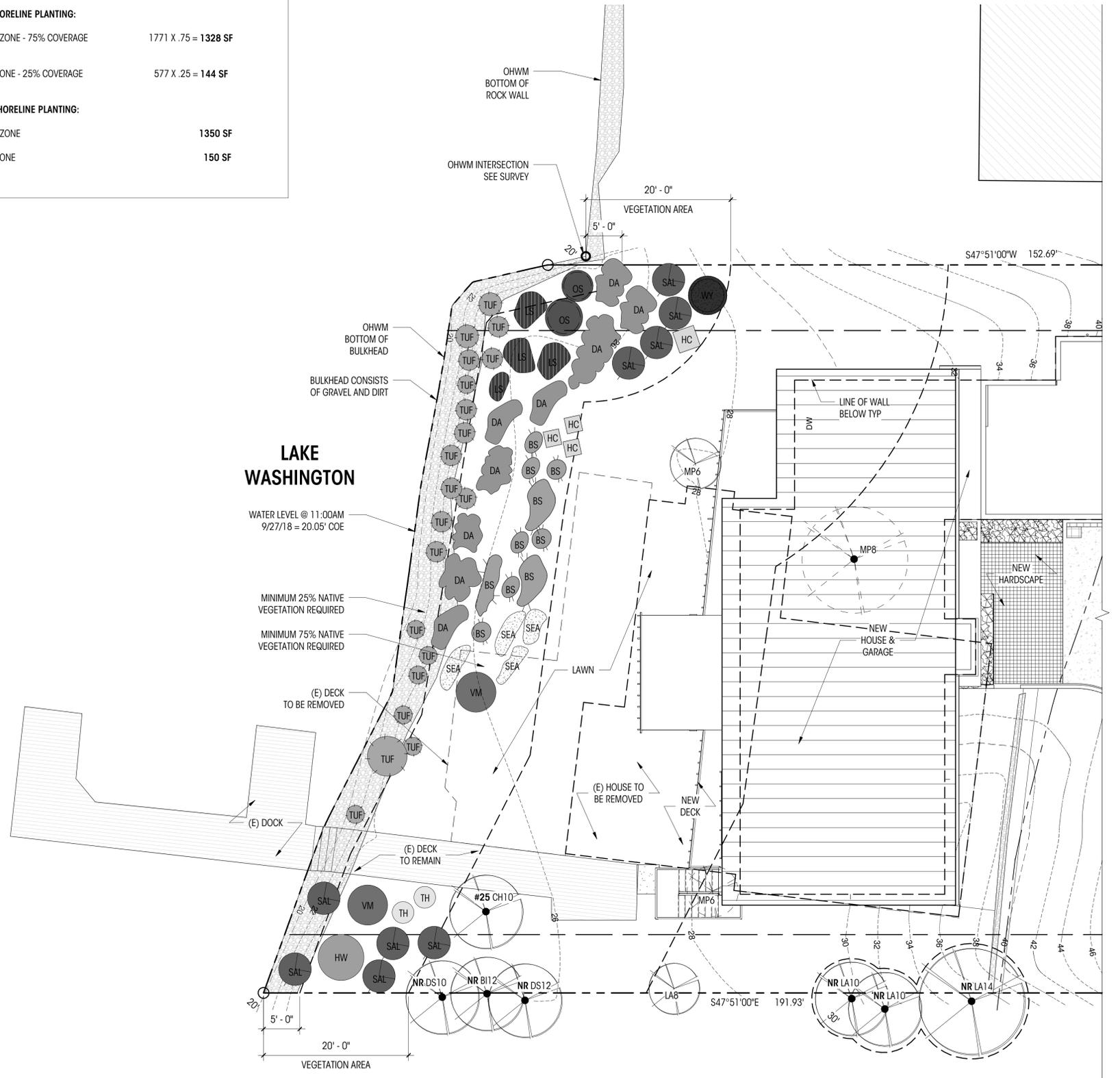
20' PLANTING ZONE - 75% COVERAGE 1771 X .75 = **1328 SF**
1771 SF

5' PLANTING ZONE - 25% COVERAGE 577 X .25 = **144 SF**
577 SF

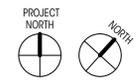
PROPOSED SHORELINE PLANTING:

20' PLANTING ZONE **1350 SF**

5' PLANTING ZONE **150 SF**

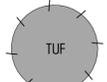
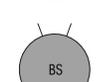
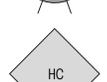
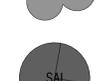
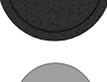


1 VEGITATION PLAN
1/8" = 1'-0"



SHORELINE RESTORATION PLAN LEGEND

VEGETATION SPECIES COMMON NAME SPECIES LATIN NAME

-  TUFTED HAIRGRASS *Deschampsia cespitosa*
-  OCEANSPRAY *Holodiscus discolor*
-  DUNEGRASS *Elymus mollis*
-  LYNGBYE'S SEDGE *Carex lyngbyei*
-  SEA-WATCH *Angelica lucida*
-  BEACH STRAWBERRY *Fragaria chiloensis*
-  HENDERSON'S CHECKER MALLOW *Sidalcea hendersonii*
-  DOUGLAS ASTER *Aster subspicatus*
-  SALAL
-  WESTERN YEWE *Taxus brevifolia*
-  HOOKERS WILLOW *Salix hookeriana*
-  VINE MAPLE *Acer circinatum*

- ANNOTATION
-  PROPERTY LINE
 -  SETBACK LINE
 -  2' CONTOUR LINE
 -  ROCKERY / BULKHEAD

NOTES

*DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION 19.02.020(F)(3)(a). NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19

GENERAL INFORMATION

PROJECT ADDRESS 3611 W MERCER WAY, MERCER ISLAND, WA 98040

PROJECT NUMBER TBD

ASSESSOR'S PARCEL # 362350-0265

LEGAL DESCRIPTION
THE NORTHWESTERLY 100 FT OF SOUTHEASTERLY 1000 FT OF BLOCK "A", AS MEASURED ALONG THE NORTHEASTERLY LINE THEREOF, REPLAT OF ISLAND PARK, ACCORDING TO THE PLAT RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WA.

PROJECT DESCRIPTION
DEMOLITION OF (E) 2,241 SF HOUSE W/ ATTACHED GARAGE AND PORTION OF (E) DRIVEWAY, CONSTRUCTION OF NEW 3988 SINGLE FAMILY DWELLING + 788 SF ATTACHED GARAGE; CONSTRUCTION OF NEW MOTOR COURT.

ZONE R-15
BUILDING TYPE SINGLE FAMILY RESIDENCE

PROJECT DATA

ZONING: R-15
EXISTING LOT AREA SUMMARY:
GROSS LOT AREA: 17,535 SF
ACCESS EASEMENT: 1446 SF
ACCESS EASEMENT LESS DRIVEWAY: 1446 - 1228 = 218 SF
NET LOT AREA: 17,317 SF
LOT SLOPE: 53' / 136.3' = 38.9%

30% ALLOWABLE LOT COVERAGE: 17,317 SF X 0.30 = 5,195 SF

EXISTING LOT COVERAGE:
(E) HOUSE FOOTPRINT AND OVERHANGS: 2,758 SF
(E) DRIVEWAY: 3,686 SF
TOTAL EXISTING LOT COVERAGE: 6,444 SF = 37.2%
TOTAL EXISTING LANDSCAPING: 10,920 SF = 62.8%
(INCLUDES EXIST 1936 SF (11.1 %) HARDSCAPE)

PROPOSED LOT COVERAGE:
(E) DRIVEWAY TO REMAIN: 1,491 SF
NEW DRIVEWAY: 626 SF
HOUSE FOOTPRINT + OVERHANGS: 3555 SF
TOTAL PROPOSED LOT COVERAGE: 5,672 SF = 32.7%
TOTAL PROPOSED LANDSCAPING: 11,592 SF = 67.3%
(INCLUDES 1462 SF (8.4%) HARDSCAPE)

LOT COVERAGE 2:1 TRADE OFF CALCULATION (PER MICC 19.050 F3 biii):
EXISTING LOT COVERAGE = 6,444 SF
LOT COVERAGE REMOVED = 1,526 SF
2:1 LOT COVERAGE CREDIT: 1526/2 = 763 SF
ALLOWABLE LOT COVERAGE: (6,444-1,526)+763 = 5,681 SF

ALLOWABLE HARDSCAPE: 17,317 X .9 = 1558.5 SF

PROPOSED HARDSCAPE:
(E) HARDSCAPE TO REMAIN: 36 SF
(E) RETAINING WALLS: 269 SF
(E) DECK: 269 SF
(E) BULKHEAD LANDWARD OF OHWM: 559 SF
NEW HARDSCAPE:
NEW PATIO/WALKWAYS: 195 SF
NEW DECK: 380 SF
NEW RETAINING WALLS: 23 SF
TOTAL PROPOSED HARDSCAPE: 1462 SF (8.4%)

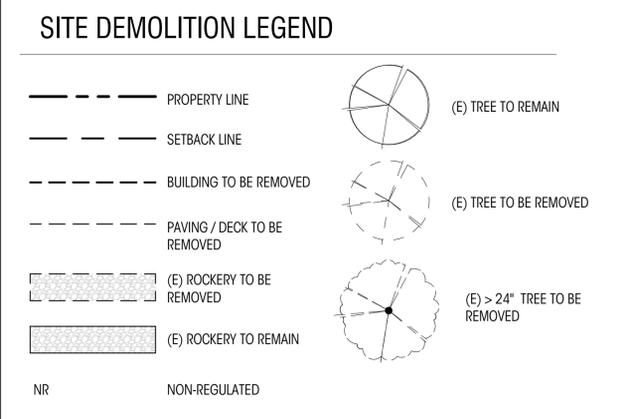
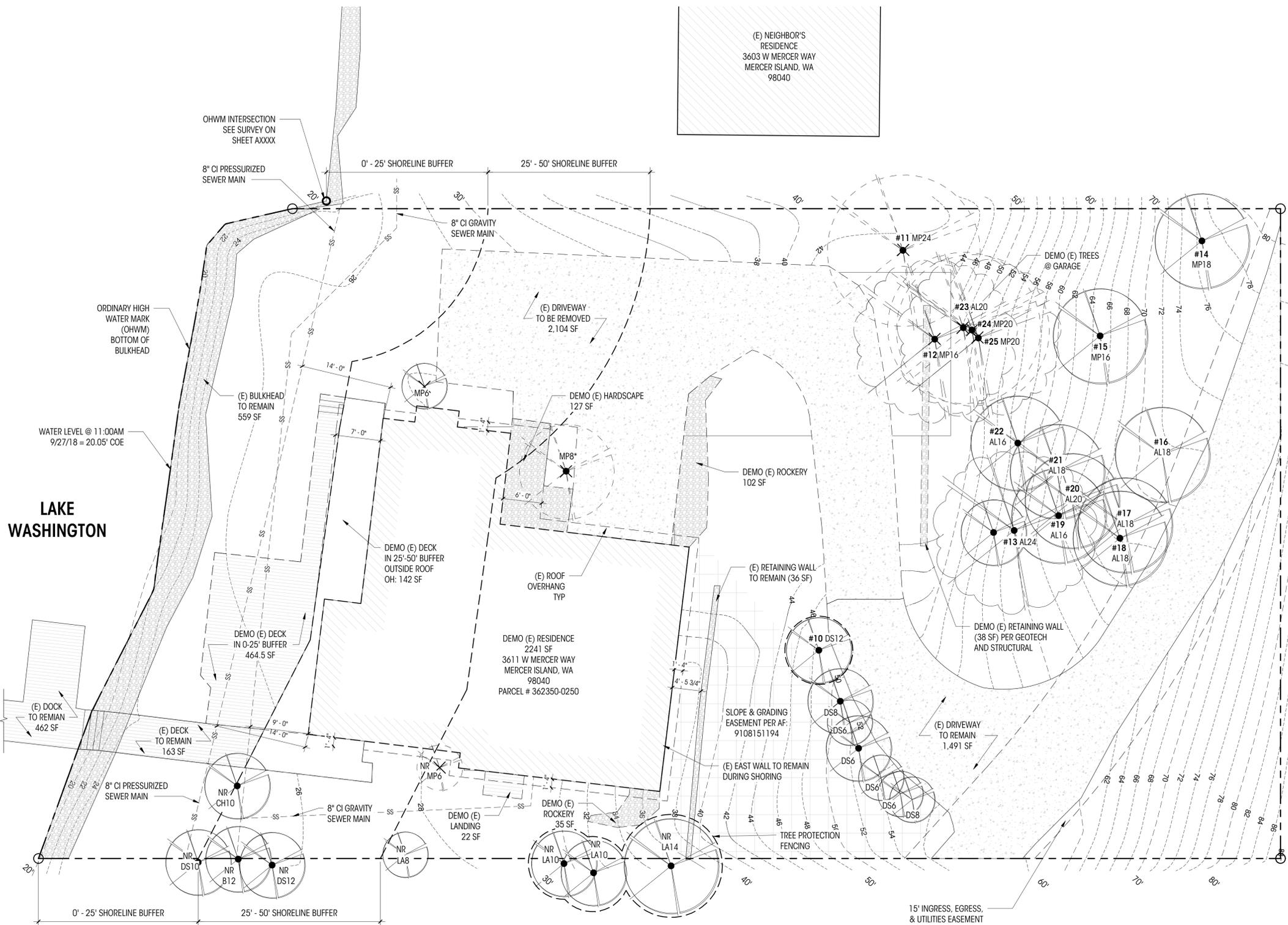
R-15 ZONING MAX GFA: 12,000 SF OR 40% NET LOT AREA MAX

ALLOWABLE GFA: 17535 x .40 = 7,014 SF (40%)

GROSS FLOOR AREA CALCULATION:
EXISTING GFA: 2241 SF (12.9%)

MAIN FLOOR < 12' CEILING HEIGHT 556 X 1 = 556 SF
MAIN FLOOR > 12' CEILING HEIGHT 1546 X 1.5 = 2319 SF
GARAGE: 788 SF
COVERED DECK @ MAIN LEVEL: 273 SF
GROSS LOWER FLOOR AREA: 1,886 SF
LOWER FLOOR < 12' CEILING HEIGHT 1,110 X 1 = 1,100 SF
LOWER FLOOR > 12' CEILING HEIGHT 776 X 1.5 = 1,164 SF
LOWER FLOOR BELOW GRADE NOT INCLUDED (224 SF)
TOTAL PROPOSED GFA: 5,976 SF (34.5%)

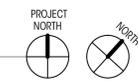
TOP OF PROPOSED ROOF: 59'-10"
DISTANCE TO NEAREST FIREHYDRANT: 477'



SHORELINE BUFFERS:

0' - 25' SHORELINE BUFFER AREA:	2895 SF
ALLOWABLE IMPERVIOUS AREA:	289.5 SF
EXISTING IMPERVIOUS AREA:	1222 SF (42.2%)
(E) BULKHEAD:	559 SF
(E) DECK:	626 SF
(E) DRIVE:	37 SF
PROPOSED IMPERVIOUS AREA:	
(E) BULKHEAD TO REMAIN:	559 SF
(E) DECK TO REMAIN:	163 SF
NEW IMPERVIOUS:	0 SF
TOTAL PROPOSED @ 0-25' BUFFER:	722 SF (24.9%)
25' - 50' SHORELINE BUFFER AREA:	2820 SF
ALLOWABLE IMPERVIOUS AREA:	846 SF
EXISTING IMPERVIOUS AREA:	2099 SF (74.4%)
(E) HOUSE:	1317 SF
(E) DECK:	142 SF
(E) DRIVEWAY:	640 SF
2:1 TRADE OFF CALC: 2099/2 = 1049.5 SF	
PROPOSED IMPERVIOUS AREA:	
(E) DECK TO REMAIN:	0 SF
NEW HOUSE AND OVERHANG:	802 SF
NEW DECK AND STAIR:	244.25 SF
TOTAL PROPOSED @ 25'-50' BUFFER:	1046.25 SF (1049.5 ALLOW.)

1 DEMO SITE PLAN
1/8" = 1'-0"

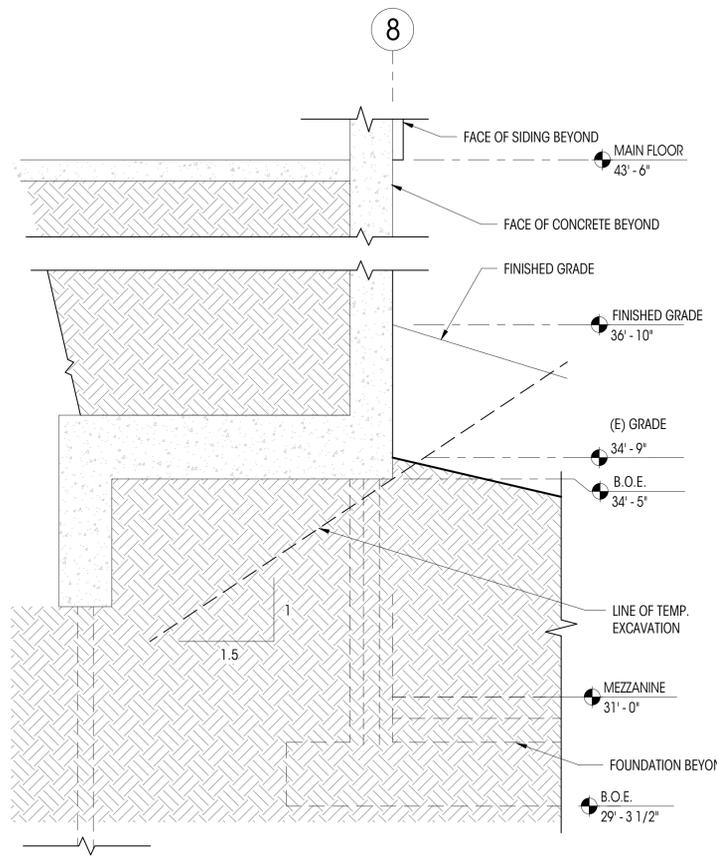


REVISIONS

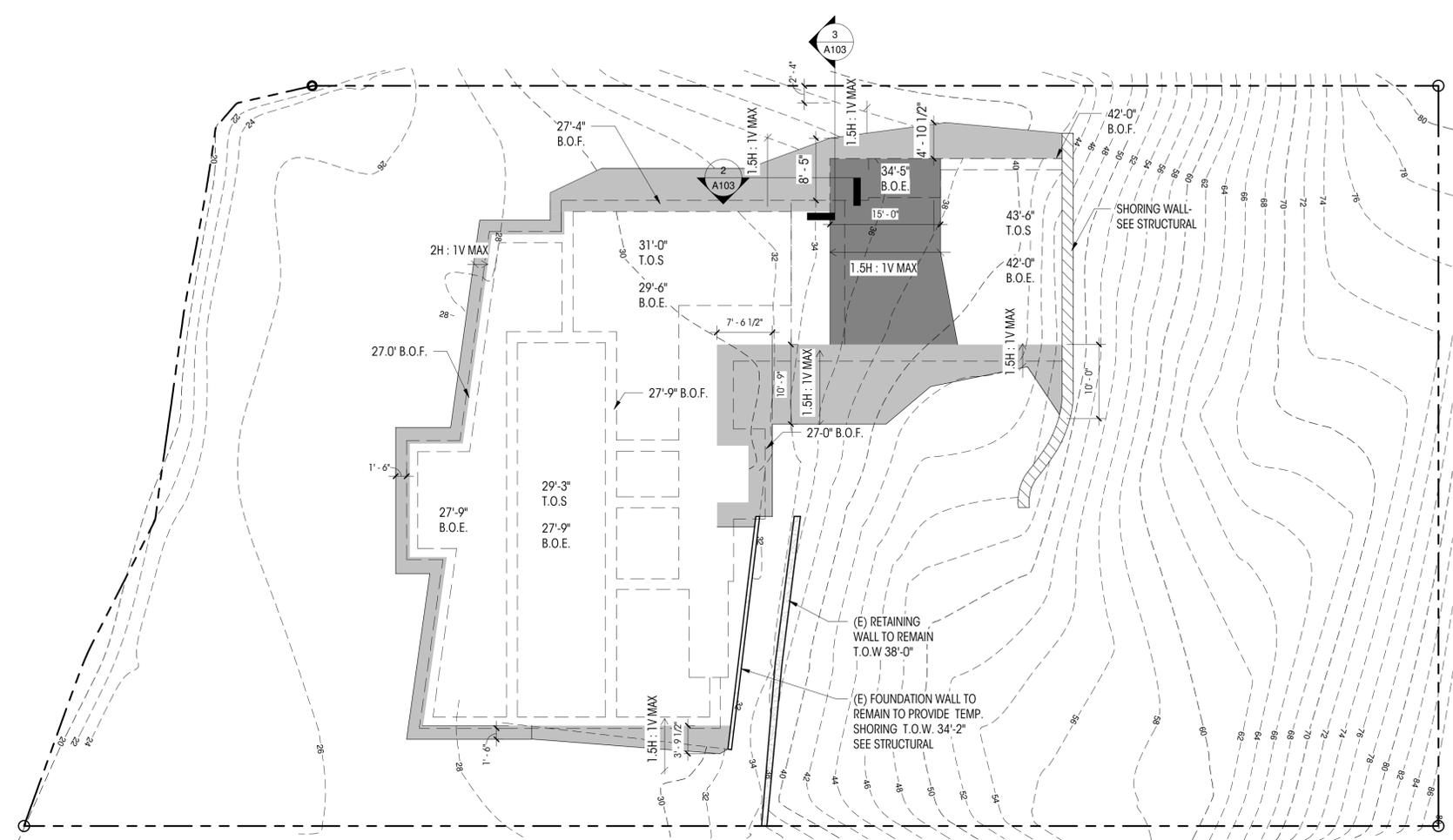
Revision Number	Date
2	10/09/19

REVISIONS

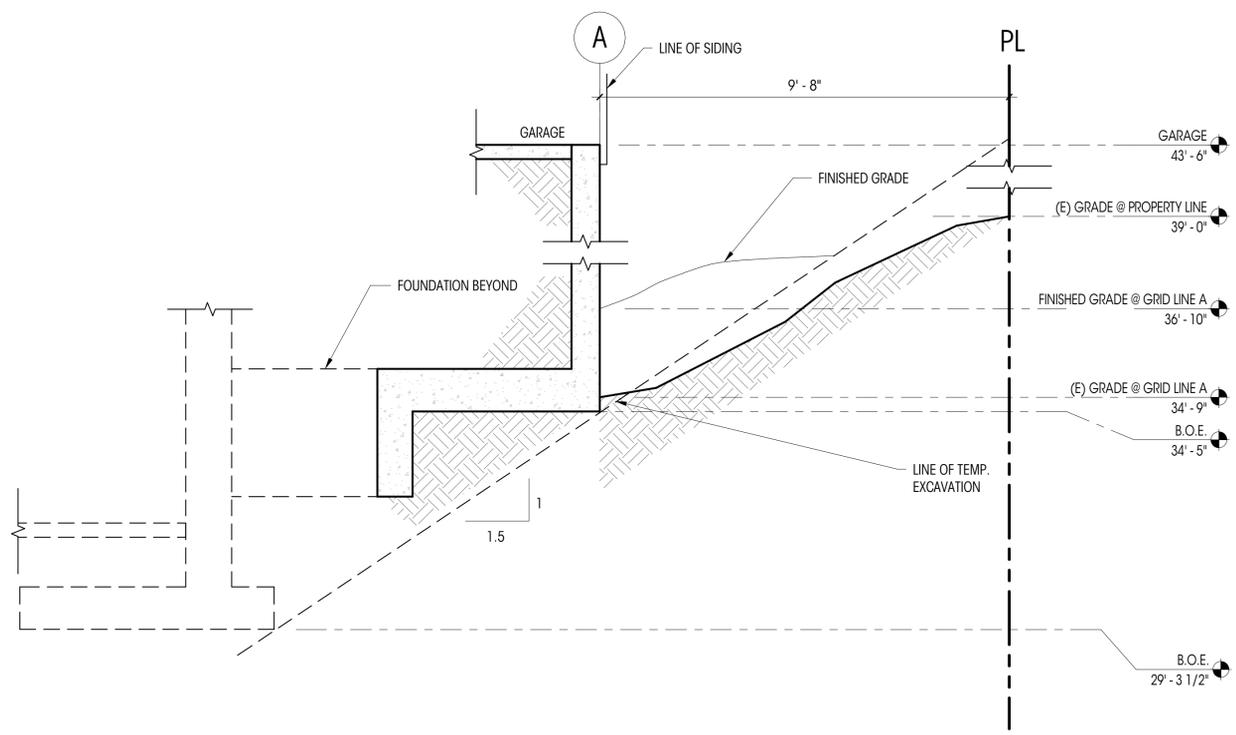
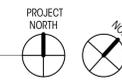
Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19



2 FOUNDATION SECTION
3/4" = 1'-0"



1 TEMPORARY EXCAVATION PLAN
1" = 10'-0"



3 FOUNDATION SITE SECTION
1/2" = 1'-0"

TEMPORARY EXCAVATION LEGEND

- T.O.S. TOP OF SLAB
- B.O.E. BOTTOM OF EXCAVATION
- TEMPORARY EXCAVATION INSIDE BUILDING FOOTPRINT
- TEMPORARY EXCAVATION OUTSIDE BUILDING FOOTPRINT
- (E) RETAINING WALL TO REMAIN
- DIRECTION OF EXCAVATION CUT

NOTE:
CONSTRUCTION SEQUENCING WILL AFFECT TEMPORARY EXCAVATION CUTS. THE GARAGE WILL BE COMPLETED AFTER THE MAIN HOUSE.

YUAN RESIDENCE

3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 10/9/19

SHEET SIZE: D (24X36)

REVISIONS

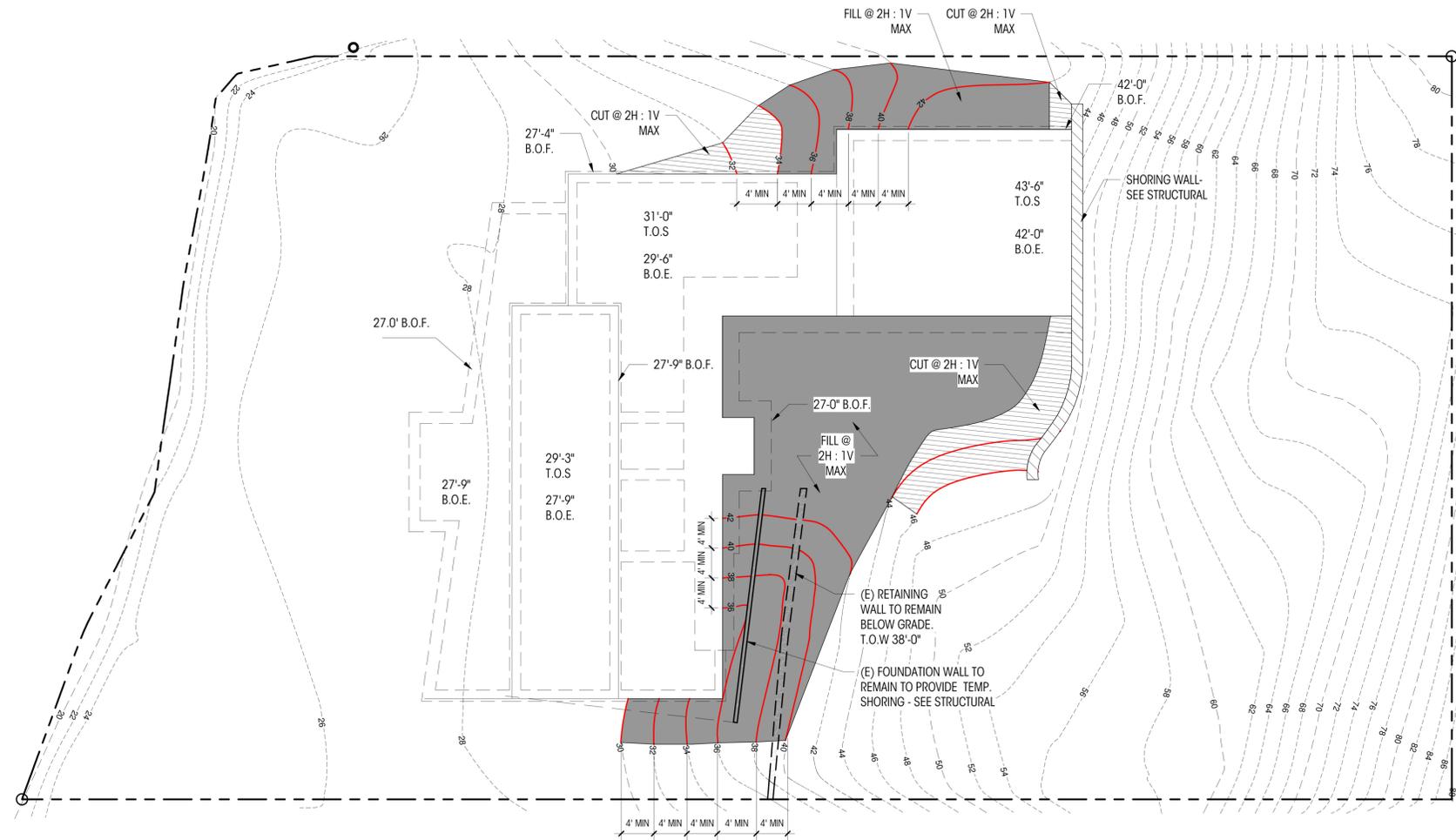
Revision Number	Date
2	10/09/19

DRAWN BY: NLD/LSE
CHECKED BY: LL

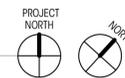
FINAL GRADING PLAN

SCALE: As indicated

A104



1 FINAL GRADING PLAN
1" = 10'-0"



FINAL GRADING PLAN LEGEND

- NEW TOPOGRAPHY LINE
- - - - - EXISTING TOPOGRAPHY LINE
- PERMANENT EXCAVATION OUTSIDE BUILDING FOOTPRINT
- FILL OUTSIDE BUILDING FOOTPRINT
- (E) RETAINING WALL BELOW FINISHED GRADE
- T.O.S. TOP OF SLAB
- B.O.E. BOTTOM OF EXCAVATION
- B.O.F. BOTTOM OF FOOTING

EROSION CONTROL LEGEND

- FILTER FABRIC FENCE (SILT FENCE) (SF)
 - STABILIZED CONSTRUCTION ENTRANCE (CE)
 - CATCH BASIN INLET PROTECTION (IP)
 - INTERCEPTOR SWALE SEE COR DWG 504, TYPE A TEMPORARY SWALE (IS)
 - TREE PROTECTION FENCING (TP)
 - STOCKPILE (ST)
 - STRAW WATTLES (SW)
 - PLASTIC COVERING (PC)
 - COMPOST SOCK (CS)
 - COMPOST BERM (CB)
- USE AS NEEDED
- COVER EXPOSED AREAS WITHIN MERCER ISLAND TIME LIMIT
- SEDIMENT CONTROL OPTION RECOMMENDED IN LIEU OF SILT FENCE
- SEDIMENT CONTROL OPTION RECOMMENDED IN LIEU OF SILT FENCE

DEWATERING NOTES FROM PANGEO REPORT

REF: PANGEO REPORT, 2019

CONSTRUCTION DEWATERING

Perched groundwater will likely be present within the sand beds, especially in the wet season. As such, the contractor should be prepared to provide temporary dewatering systems. Based on our understanding of the project and site conditions, we anticipate that a conventional dewatering system consisting of trenches, sumps and pumps will be adequate to dewater the temporary excavation. We also anticipate that the seepage quantities should be relatively small, likely less than 10 gallons per minute.

EROSION NOTES FROM PANGEO REPORT

REF: PANGEO REPORT, 2019

Erosion Hazards

The site also lies within a mapped potential erosion hazard area. Based on the results of our test borings, the silty and clayey soils exposed at the surface of the site are anticipated to exhibit moderate to low erosion potential. In our opinion, the erosion hazard at the site can be effectively mitigated with the best management practice during construction and with properly designed and implemented landscaping for permanent erosion control. During construction, the temporary erosion hazard can be effectively managed with an appropriate erosion and sediment control plan, including but not limited to installing a silt fence at the construction perimeter, limiting removal of vegetation to the construction area, placing rocks or hay bales at the disturbed/traffic areas and on the downhill side of the project, covering all stockpiled soil or cut slopes with plastic sheets, constructing a temporary drainage pond to control surface runoff and sediment traps if needed, placing rocks at the construction entrance, etc. Permanent erosion control measures should include establishing vegetation, landscape plants, and hardscape established at the end of project.

EROSION CONTROL NOTES

SHEET C1.2

EROSION CONTROL DETAILS

SHEET C1.2

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C1.2.

TREE INVENTORY

SHEET C1.3

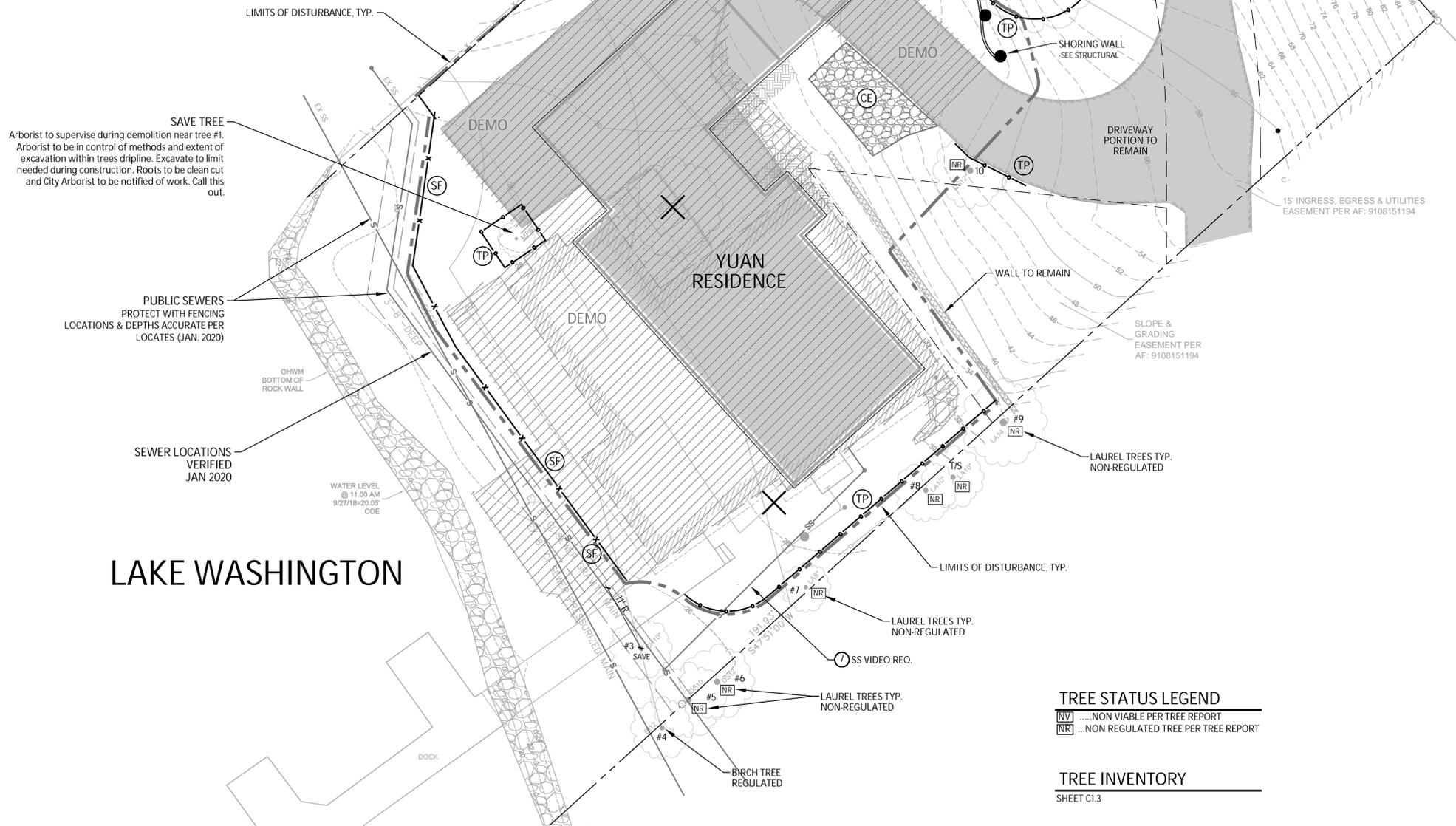
ARBORIST REPORT

SEE TREE INVENTORY REPORT BY GREENFOREST INCORPORATED, DATED FEBRUARY 13, 2019

PROPOSED TURF/PLANTING BEDS

PROPOSED PLANTING BEDS: 500 SF
 PROPOSED TURF: 4,500 SF
 PROPOSED QUANTITY COMPOST: 29 CY
 SCARIFICATION DEPTH: 8 INCHES

LAKE WASHINGTON



TREE STATUS LEGEND

- (NV) ...NON VIABLE PER TREE REPORT
- (NR) ...NON REGULATED TREE PER TREE REPORT

TREE INVENTORY

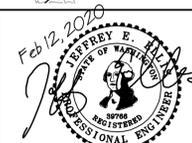
SHEET C1.3

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN



DATE: Feb 12, 2020
 JOB# 1838
 DRAFTED: CH DESIGN: DE
 DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
 102 NW CANAL STREET SEATTLE, WA 98107
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

EROSION CONTROL PLAN

YUAN RESIDENCE
 3611 W. MERCER WAY, MERCER ISLAND, WA 98040

DRAWING NO:
C1.0

APN 362350-0265
 1907-017

SILT FENCE DETAIL

DOE

Figure II-4.2.12 Silt Fence

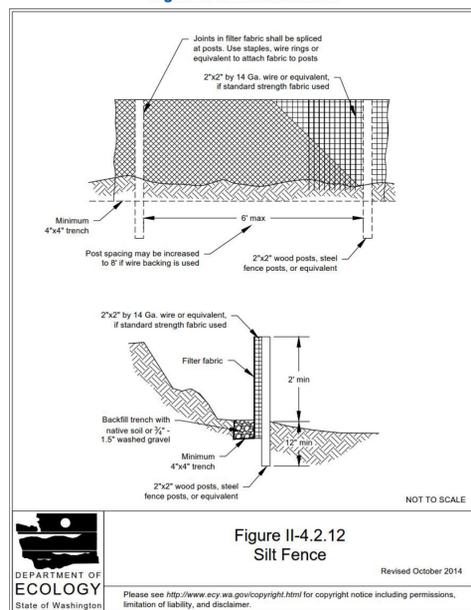


Figure II-4.2.12 Silt Fence

Revised October 2014



2014 Stormwater Management Manual for Western Washington
Volume II - Chapter 4 - Page 369

RECOMMENDED CONSTRUCTION SEQUENCE

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
3. FLAG OR FENCE CLEARING LIMITS.
4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
7. CONSTRUCT SEDIMENT PONDS AND TRAPS.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.
12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPs IF APPROPRIATE.

EROSION CONTROL NOTES

D.8.2 STANDARD ESC PLAN NOTES
THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

1. APPROVAL OF THIS EROSION AND SEDIMENTATION 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 SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). 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. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. 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.
6. 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 COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.
7. 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 ESC FACILITIES.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE 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.).
9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A 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.
12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

CITY NOTES

1. ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
3. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITIES.
5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED
7. EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
16. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
21. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

CONSTRUCTION ENTRANCE

DOE

Figure II-4.1.1 Stabilized Construction Entrance

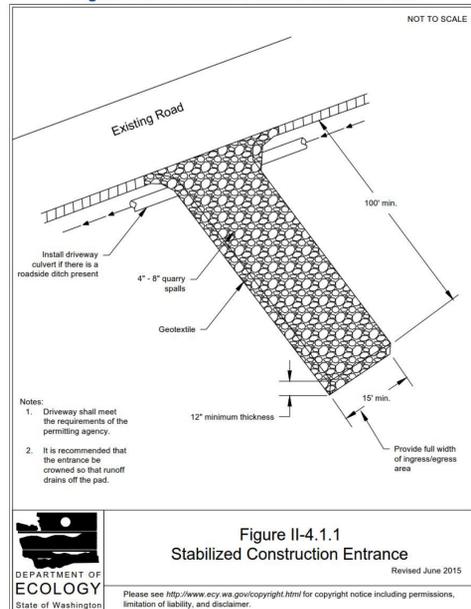


Figure II-4.1.1 Stabilized Construction Entrance

Revised June 2015



2014 Stormwater Management Manual for Western Washington
Volume II - Chapter 4 - Page 273

DENUDED AREAS REQUIREMENTS

APRIL 1 TO SEPT 30
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 7 DAYS OF CONSTRUCTION. PLEASE READ ALL CITY TESC NOTES ON SHEET C1.2.

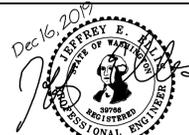
OCT 1 TO MARCH 31
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. IF AN EROSION PROBLEM ALREADY EXISTS ON THE SITE, OTHER COVER PROTECTION AND EROSION CONTROL WILL BE REQUIRED.

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN



DATE: Dec 16, 2019
JOB#: 1838
DRAFTED: CH DESIGN: DE
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

**TESC & CITY NOTES
TESC DETAILS**
YUAN RESIDENCE
3611 W. MERCER WAY, MERCER ISLAND, WA 98040

DRAWING NO:
C1.2
APN 362350-0265
1907-017

TREE INVENTORY

Tree No.	DBH (in.)	QMD*	Species	Drilline radius (ft.)	Health	Structure	Visible Tree	Tree Type
1	3.5, 3.3, 4.8, 2.9, 3.7"	10.1"	Vine maple, Acer circinatum	6'	1	2	Stumpsprout, multiple stems	Yes D
2	14.5"		Japanese maple, Acer palmatum	13'	1	2	Growth obstruction, roots are soil surface	Yes D
3	10.8"		Kwanzan flowering ch. P. serrulata 'Kwanzan'	11'	3	3	Diseased, decay, decline	NO D
4	12.7"		European white birch, Betula pendula	15'	1	2	Ivy	Yes D
5	11"		NOT A REGULATED SPECIES	10'	1	2	Sheared as hedge	Yes BE
6	10"			10'	1	2		Yes BE
7	4.5, 6.8"	10.9"		8'	1	2		Yes BE
8	6.7, 9"	12.8"		8'	1	2		Yes BE
9	11"			8'	1	2		Yes BE
10	11"			10'	1	2		Yes BE
11	18"		Bigleaf maple, Acer macrophyllum	20'	1	3	Asymmetric canopy, sweep, rootplate failure	NO D

Tree No.	DBH (in.)	QMD*	Species	Drilline radius (ft.)	Health	Structure	Visible Tree	Tree Type
12	10.18, 18"	27.3"	Bigleaf maple, Acer macrophyllum	25'	1	2	Multiple leaders, ivy, perched on retaining wall	Yes D
13	24"		Red alder, Alnus rubra	18'	2	2	Branch decline, lean, ivy	Yes D
14	8.10, 12"	17.5"	Bigleaf maple, Acer macrophyllum	10'	1	3	Stumpsprout, diseased, decay, decline, ivy	NO D
15	16.5"		Bigleaf maple, Acer macrophyllum	12'	2	3	Stumpsprout, ivy	NO D
16	17"		Red alder, Alnus rubra	15'	2	3	NO D	
17	18"			12'	2	3	NO D	
18	18"			12'	2	3	Branch dieback, asymmetric, very dense ivy covering nearly the entire tree	NO D
19	16"			16'	2	3	NO D	
20	21"			18'	2	3	NO D	
21	19"			16'	3	3	NO D	
22	16"			14'	3	3	NO D	
23	20"			Bigleaf maple, Acer macrophyllum	20'	2	2	Lean, asymmetric, ivy, perched on	Yes D

Tree No.	DBH (in.)	QMD*	Species	Drilline radius (ft.)	Health	Structure	Visible Tree	Tree Type
24	21"		Red alder, Alnus rubra	25'	2	2	retaining wall Lean, asymmetric, ivy, perched on retaining wall	Yes D
25	19.22"	29"	Bigleaf maple, Acer macrophyllum	30'	2	2	Multiple leaders, ivy, perched on retaining wall	Yes D
OFFSITE TREES								
101	(6) 6-18"	32"	Bigleaf maple, Acer macrophyllum	20'			Offsite	D
102	30"		Western red-cedar, Thuja plicata	16'			Offsite	C

Remove or Retain Status: Project is still in the design phase and tree status will be indicated in these columns by owner.
QMD - quadratic mean diameter in inches.

TREE INVENTORY

YUAN RESIDENCE
3611 W. MERCER WAY, MERCER ISLAND, WA 98040

DRAWING NO:
C1.3

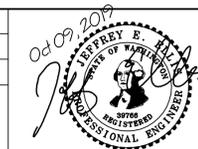
APN 362350-0265
1907-017

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN



DATE: Oct 09, 2019
JOB# 1838
DRAFTED: CH DESIGN: DE
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS

102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

SANITARY SEWER IMPROVEMENTS

- 1 -
- 2 - 6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0%.
- 3 - BACKWATER VALVE ASSEMBLY INSTALLED TO EXISTING SIDE SEWER. SEE DETAIL S-26. VALVE ELEVATION MIN. 2-FEET ABOVE HIGH WATER ELEVATION.
- 4 - 6" SEWER CLEANOUT PER MERCER ISLAND DETAIL S-19.
- 7 - LOCATE AND VIDEO CONDITION OF EXISTING SANITARY SIDE SEWER. REPLACE LINE IF FOUND DEFECTIVE AS DETERMINED BY CITY INSPECTOR.

WATER IMPROVEMENTS

- 10 - NEW SF RESIDENTIAL WATER SERVICE & METER PIT. CONFIRM REQUIRED SIZE WITH BUILDING PERMIT REVIEW. INSTALL PER MERCER ISLAND DETAIL W-13, W-14, OR W-14A DEPENDING ON SIZE REQUIREMENT.
- 11 - PRIVATE WATER SERVICE FROM METER TO HOUSE. SEE PLAN FOR SIZE. CONFIRM ADEQUATE TO MEET FIRE FLOW REQUIREMENTS. HDPE WATER (ASTM D2239). RECOMMENDED DEPTH=36".
- 12 - REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) REQUIRED. PROVIDE FROST PROTECTION IN ACCORDANCE WITH UPC (UNIFORM PLUMBING CODE)

STORM DRAIN

- 20 - 4" STORM DRAIN (3034 PVC) @ MIN 2% GRADE
- 21 - 4" FOUNDATION DRAIN (3034 PVC) @ MIN 1% GRADE
- 22 - 6" STORM DRAIN (3034 PVC) @ MIN 2% GRADE
- 23 -
- 24 -
- 25 -
- 26 -

STORM DRAIN STRUCTURES

- 30 -
- 31 -
- 32 -
- 33 -
- 34 -
- 35 -
- 36 - NDS DURASLOPE CHANNEL DRAIN OR EQUAL. MINIMUM 6" CHANNEL CLASS B VEHICLE RATED GRATE.
- 38 - MIN 15" PVC BASIN OR EQUAL. MIN 6" IE DROP (FROM FOOTING DRAIN)
- 39 -
- 40 - TYPE 40 CATCH BASIN. IN DRIVEWAY, ADD WATER QUALITY RISER TEE FOR EXITING PIPE (OR DOWNTURNED ELBOW).
- 41 -
- 43 -
- 46 -
- 47 -
- 49 -

CLEARING LIMIT NOTE

ALL SELECTIVE CLEARING, TRENCHING AND OTHER WORK WITHIN THE DRIPLINES OF SIGNIFICANT TREES SHALL BE BY LOW IMPACT/HAND METHODS ONLY AND WORK SHALL BE ADJUSTED AS POSSIBLE TO MINIMIZE ANY DISTURBANCE TO THE SIGNIFICANT AND RETAINED TREES AND PROTECTED UNDERSTORY. CONSTRUCTION MATERIALS AND VEHICLES SHALL NOT BE STORED OUTSIDE THE CLEARING LIMITS.

TREE DRIPLINE NOTE

WORK WITHIN THE DRIPLINE OF TREES TO BE SAVED MUST BE UNDER THE DIRECTION OF A CERTIFIED ARBORIST (TYP.) SEE ALSO CLEARING LIMIT NOTE ON THIS SHEET.

STORM BMP's

COMPOSTED AMENDED SOIL IS REQUIRED FOR DISTURBED AREAS. SEE DETAIL ON C3.5.
STORM BMP'S ARE NOT PROPOSED FOR PROJECT. SEE STORM REPORT.

SOILS

SITE IS IN AN AREA MAPPED "INFILTRATING LID FACILITIES ARE NOT PERMITTED" ON THE "LOW IMPACT DEVELOPMENT INFILTRATION FEASIBILITY ON MERCER ISLAND" MAP

SURVEYOR

TOPOGRAPHIC & BOUNDARY SURVEY BY:
TERRANE LAND SURVEYING
10801 MAIN STREET, SUITE 102
BELLEVUE, WA 98004
PHONE: 425.458.4488
WWW.TERRANE.NET

LEGAL DESCRIPTION

THE NORTHWESTERLY 100 FEET OF THE SOUTHEASTERLY 1,000 FEET OF BLOCK "A", AS MEASURED ALONG THE NORTHEASTERLY LINE THEREOF, REPLAT OF ISLAND PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WASHINGTON; TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING; EXCEPT SAID PORTION OF SAID SHORELANDS, IF ANY, AS MAY FALL WITHIN LAKE VIEW AVENUE AS EXTENDED BY THE COMMISSIONER OF PUBLIC LANDS

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

VERTICAL DATUM

NAVD88 PER WGS SURVEY DATA WAREHOUSE. POINT DESIGNATION 7007. MON IN CASE AT INT. 70TH AVE. S.E. AND S.E. 24TH ST. ELEV.=208.21'

TREE REMOVALS

SEE C1.0

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

FOOTING DRAINS

SEE NEW SHEET C2.2

PRIVATE PVC STORM STRUCTURES

- 100 -
- 101 -
- 102 -
- 103 - 24" NYLOPLAST PVC AREA DRAIN (OR EQUAL). H20 RATED GRATE IN DRIVEWAY LOCATIONS.

TV EXISTING SEWER

THE CONTRACTOR IS REQUIRED TO TV THE EXISTING CITY SEWER MAIN WITHIN THE PROPERTY LIMITS PRIOR TO ANY CONSTRUCTION ACTIVITIES AND PRIOR TO REQUEST THE FINAL INSPECTION. THE CONTRACTOR IS REQUIRED TO SUBMIT INSPECTION RESULTS (DVD AND REPORT) TO THE CITY. IF THERE ARE ANY DAMAGES TO THE CITY SEWER MAIN DUE TO THE RESULT OF THE PROJECT, THE OWNER IS REQUIRED TO REPAIR THE DAMAGES TO THE SATISFACTION OF THE CITY ENGINEER.

CONSTRUCTION FENCE REQ.

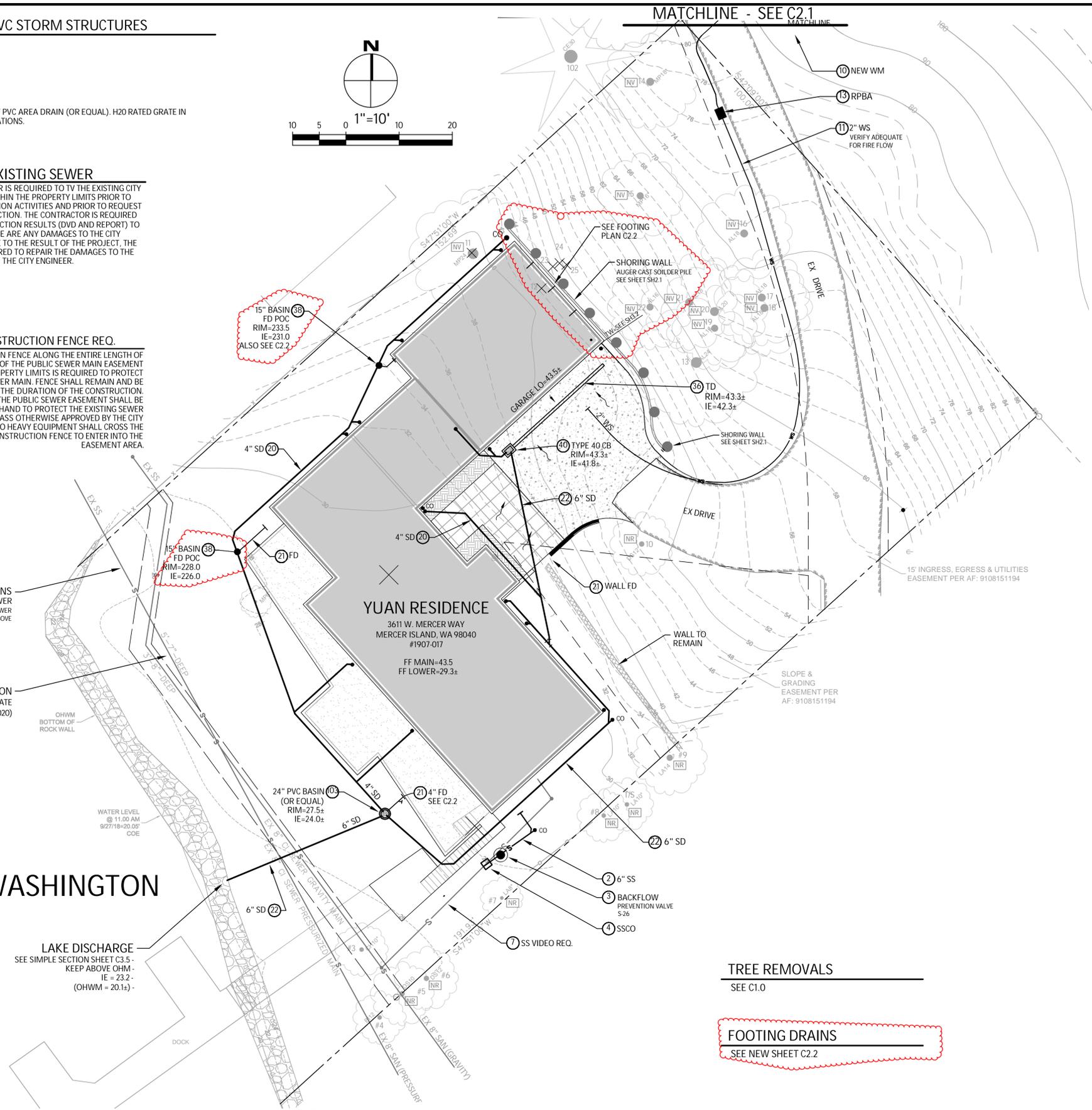
A CONSTRUCTION FENCE ALONG THE ENTIRE LENGTH OF THE EASTERN EDGE OF THE PUBLIC SEWER MAIN EASEMENT WITHIN THE PROPERTY LIMITS IS REQUIRED TO PROTECT THE EXISTING SEWER MAIN. FENCE SHALL REMAIN AND BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION. ALL WORK WITHIN THE PUBLIC SEWER EASEMENT SHALL BE COMPLETED BY HAND TO PROTECT THE EXISTING SEWER MAIN. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. NO HEAVY EQUIPMENT SHALL CROSS THE TEMPORARY CONSTRUCTION FENCE TO ENTER INTO THE EASEMENT AREA.

CAUTION EX SEWER MAINS
TEMP CONST FENCE ALONG EX SEWER
PROTECT SEWER
SEE NOTE ABOVE

EX SEWERS & ESMT LOCATION
LOCATIONS AND DEPTHS ACCURATE
PER LOCATES (JAN. 2020)

LAKE WASHINGTON

LAKE DISCHARGE
SEE SIMPLE SECTION SHEET C3.5.
KEEP ABOVE OHM.
IE = 23.2.
(OHWM = 20.1a)



TREE REMOVALS

SEE C1.0

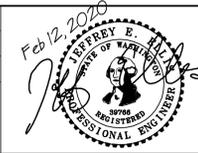
FOOTING DRAINS

SEE NEW SHEET C2.2

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN

DATE:	Feb 12, 2020
JOB#:	1838
DRAFTED:	DE
DESIGN:	DE
DIGITAL SIGNATURE	



CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET
PHONE: 206.930.0342
SEATTLE, WA 98107
DUFFY@CESOLUTIONS.US

DRAINAGE / CIVIL PLAN
YUAN RESIDENCE
3611 W. MERCER WAY, MERCER ISLAND, WA 98040

DRAWING NO:	C2.0
APN 362350-0265	1907-017

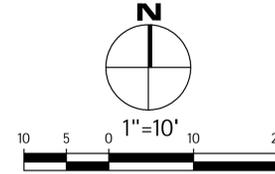
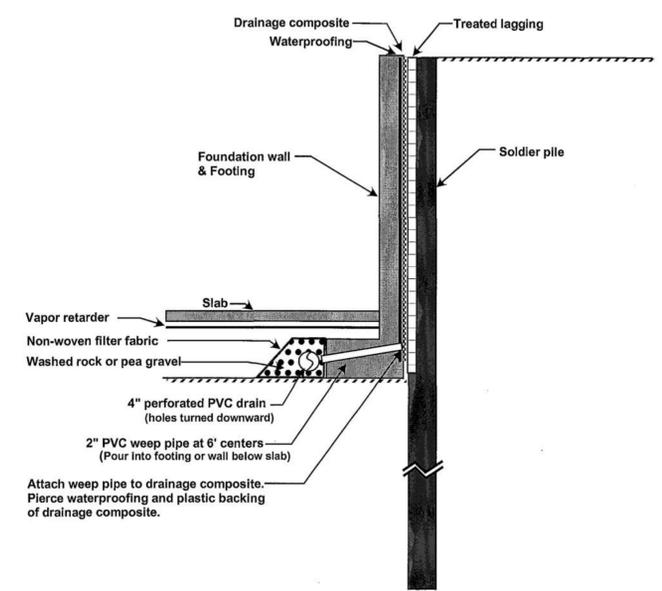
STORM DRAIN KEY NOTES

- 20
- 21 4" FOUNDATION DRAIN (3034 PVC) @ MIN 1% GRADE
- 22
- 23
- 24
- 25
- 26
- 26
- 27
- A 4" PERFORATED FOUNDATION/FOOTING DRAIN (ASTM 3034 PVC), MIN 0.5% GRADE, 1% PREFERRED.

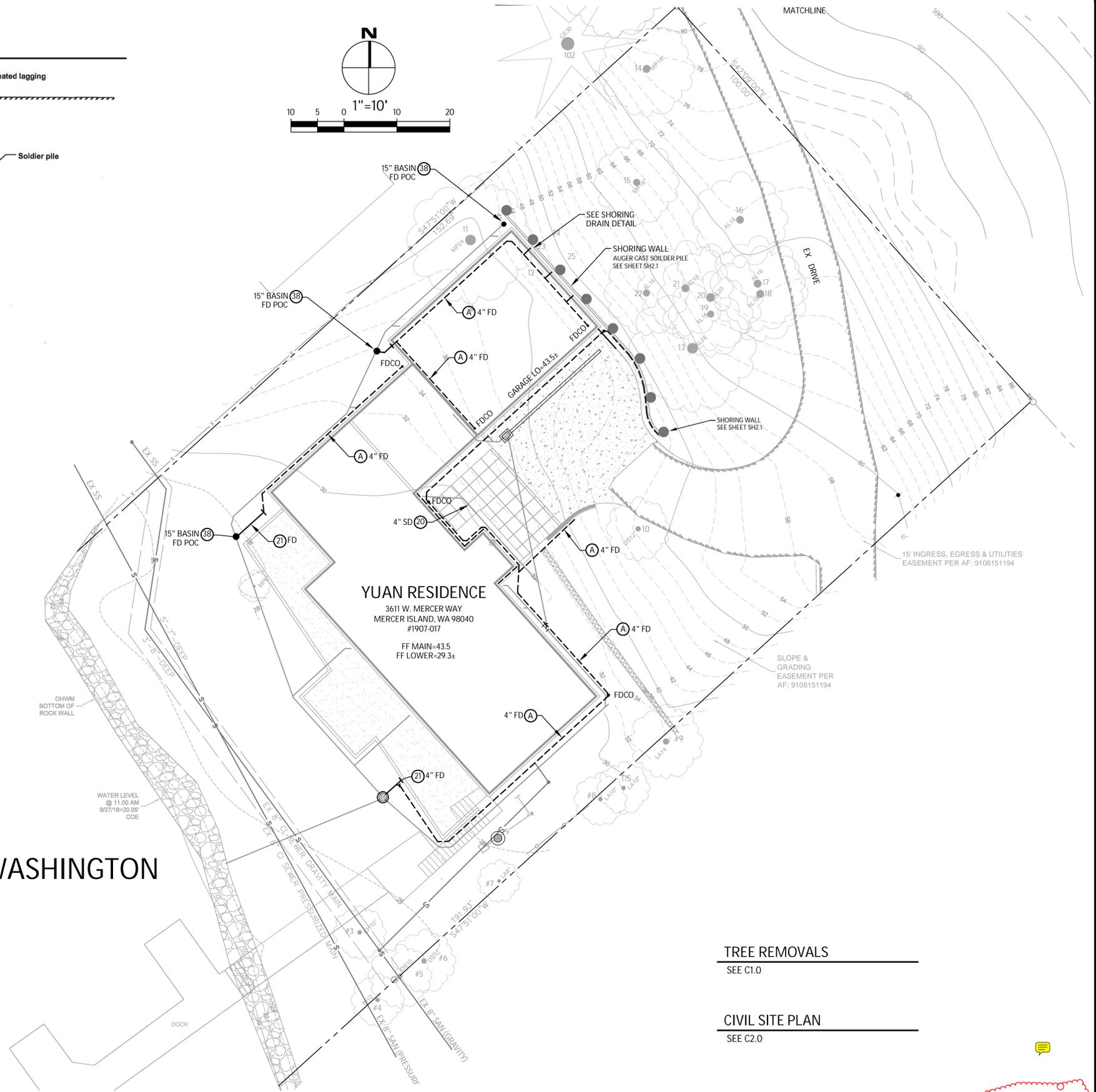
STORM DRAIN STRUCTURE KEY NOTES

- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 26
- 27
- 28 -MIN 15" PVC BASIN OR EQUAL. MIN 6" IE DROP (FROM FOOTING DRAIN)
- 29
- 30
- 31
- 32
- 33
- 34
- 35
- 36
- 37
- 38

SHORING DRAIN DETAIL



LAKE WASHINGTON



YUAN RESIDENCE
 3611 W. MERCER WAY
 MERCER ISLAND, WA 98040
 #1907-017
 FF MAIN=43.5
 FF LOWER=29.3±

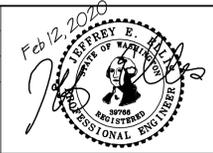
TREE REMOVALS
 SEE C1.0

CIVIL SITE PLAN
 SEE C2.0

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN

DATE: Feb 12, 2020
 JOB#: 1838
 DRAFTED: DE DESIGN: DE
 DIGITAL SIGNATURE

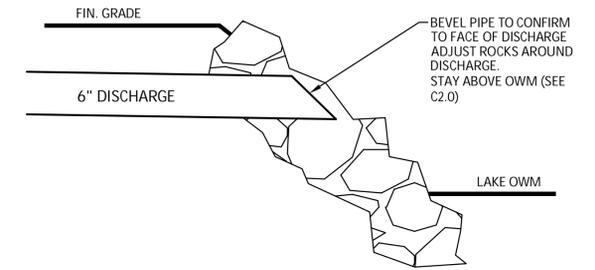


CIVIL ENGINEERING SOLUTIONS
 102 NW CANAL STREET SEATTLE, WA 98107
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

FOOTING DRAIN PLAN
 YUAN RESIDENCE
 3611 W. MERCER WAY, MERCER ISLAND, WA 98040

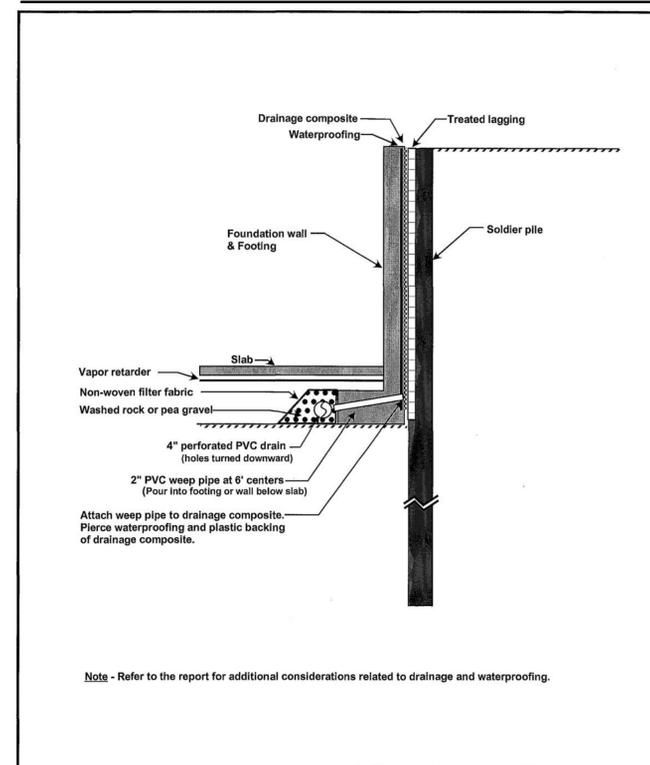
DRAWING NO:
C2.2
 APN 362350-0265
 1907-017

PIPE @ LAKE DISCHARGE



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.

PERMANENT SHORING DRAINAGE DETAIL



TYPE 40 CB (OR EQUAL)

catch basin products 88

Catch Basin Type 40

Reinforcing

- ASTM A-615 Specifications
- All components
- #3 grade 60 reinforcing bar

Cast Iron Grate

- The 14" x 20" cast iron grate drops in the recessed area at the top of the basin or riser
- An 14" x 20" frame & grate is available

Additional Information

- The base unit has a 12" diameter knock-out on each of the four sides
- Base unit - 1000 lbs
- 6 inch Riser - 150 lbs
- 12 inch Riser - 300 lbs
- 1 1/2 inch hole on each side for handling

Note: drawings not to scale

shope concrete products
Shope Enterprises, Inc.
1618 East Main Avenue
Puyallup, WA 98372-3142

(253) 848-1551
Fax Line 1 (253) 845-0292
Fax Line 2 (253) 864-6172

1-800-422-7560 [Toll Free - WA only]
www.shopeconcrete.com

COMPOST AMENDED SOIL SPEC

AMENDMENT FOR LANDSCAPED AREAS

2 INCHES OF WOOD CHIP MULCH OR STOCKPILED DUFF

3 INCHES OF COMPOST, PER NDP MATERIALS, INCORPORATED INTO 5" OF SOIL (OR AMEND FOR 8" SETTLED SOIL AT 10% ORGANIC CONTENT).

SCARIFY TOP 4" OF NATIVE SOIL

NATIVE SOIL

2" MINIMUM AFTER SETTLING

8" MINIMUM AFTER SETTLING

AFTER AMENDING, RAKE BEDS AND REMOVE SURFACE ROCKS > 2" DIAMETER BEFORE MULCHING.

SOIL AMENDMENT FOR GRASS OR TURF AREAS

1.75" OF COMPOST (SEE D6-05 MATERIALS) INCORPORATED INTO 6.25" SOIL, GOAL OF 5% ORGANIC MATTER IN 8" OF SETTLED SOIL

SCARIFY TOP 4" OF NATIVE SOIL

NATIVE SOIL

8" MINIMUM AFTER SETTLING

AFTER AMENDING, WATER OR ROLL WITH WALK BEHIND DRUMROLLER FOR COMPACTION TO APPROXIMATELY 85% OF MAXIMUM DRY DENSITY. RAKE TO LEVEL AND REMOVE SURFACE ROCKS > 1" DIAMETER.

NOTES:

1. AMEND SOILS PER DOE MANUAL, VOL. V, 5.3.1, BMP T5.13, (2012 OR CURRENT) OR WWW.SOILSFORSALMON.ORG
2. DO NOT AMEND SOILS IN AREAS WITH UNDISTURBED SOIL AND NATIVE VEGETATION.
3. OPTIONAL ALTERNATIVE: STOCKPILE NATIVE TOPSOIL ONSITE, AMEND IF NEEDED, AND REPLACE BEFORE PLANTING.
4. OPTIONAL ALTERNATIVE: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET REQUIREMENTS.

City of Bellevue STORM AND SURFACE WATER UTILITY

TITLE: AMENDED SOILS

NO SCALE

JANUARY 2017

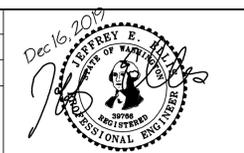
NO. NDP-1

NO.	DATE	BY	REVISIONS

APPLICANT:
RYAN YUAN

811
Know what's below.
Call before you dig.

DATE: Dec 16, 2019
JOB#: 1838
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS

102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

DRAINAGE/BMP DETAILS

YUAN RESIDENCE
3611 W. MERCER WAY, MERCER ISLAND, WA 98040

DRAWING NO:
C3.5

APN 362350-0265
1907-017

LEGEND

- 200A WINDOW ID
- 100A DOOR ID
- 100A FINISH ID
- 0 SMOKE DETECTOR
- X SMOKE/CARBON MONOXIDE DETECTOR
- / FAN - 100 CFM U.N.O.
- E ELEVATION DATUM
- 0 GRIDLINE
- NEW WALL
- WALL TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

NOTES

1. ALL DIMENSIONS TO FACE OF FRAMING OR CONCRETE UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS UNLESS NOTED OTHERWISE.
3. EXHAUST FANS OF 400 CFM OR GREATER REQUIRE INTERLOCKED OUTSIDE MAKE-UP AIR PER IRC SECTION M1503.4.

ENERGY CREDITS

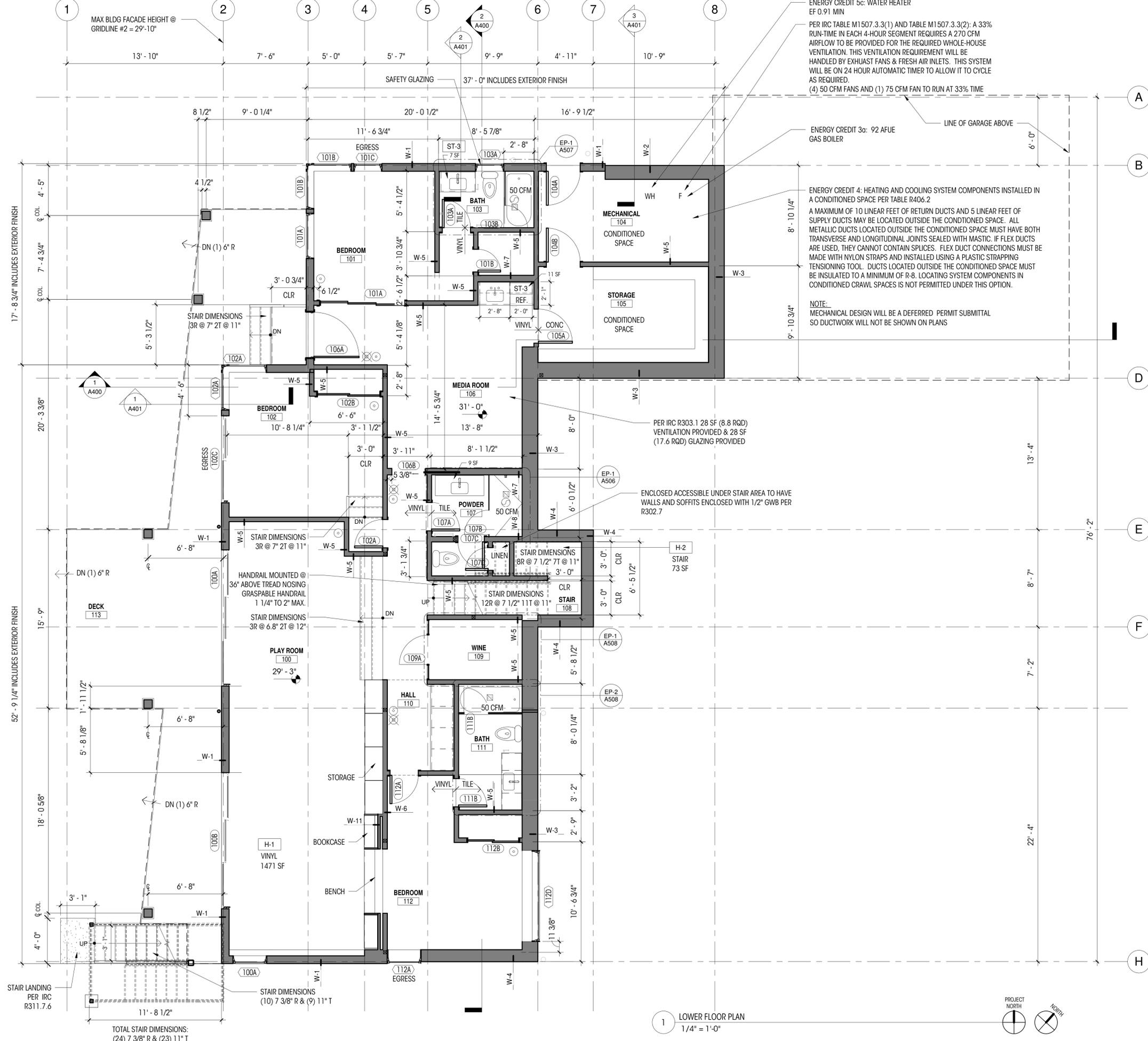
1a	R-38 FLOORS AND U-28 WINDOWS	.5
3a	92 AFUE GAS BOILER	1.0
4	ALL HEATING AND COOLING SYSTEM COMPONENTS INSTALLED WITHIN THE CONDITIONED SPACE. ELECTRIC RESISTANCE AND DUCTLESS HEAT PUMPS NOT PERMITTED UNDER THIS OPTION.	1.0
5c	GAS WATER HEATING SYSTEM W/ A MINIMUM EF OF 0.91	1.0
TOTAL		3.5

BASEMENT FLOOR AREA CALCULATIONS

WALL	COVERAGE %	WALL LENGTH	PRODUCT
A	0.0	36.8'	0.0
B	36.8	18.8'	6.9
C	10.8	16.3'	1.8
D	2.7	13.7'	0.4
E	5.4	4.7'	0.3
F	8.0	7.8'	0.6
G	6.3	4.6'	0.3
H	4.5	30.1'	1.4
I	0.8	28.7'	0.2
J	0.0	52.8'	0.0
K	0.0	8.0'	0.0
L	0.0	17.7'	0.0
TOTALS	240%	11.9%	

GROSS LOWER FLOOR AREA = 1,886 SF
 TOTAL PERCENTAGE OF BELOW GRADE WALLS = 11.9%
 LOWER FLOOR AREA EXCLUDED (1,886' X 11.9%) = 224 SF
 NET LOWER FLOOR AREA (1,886 - 224) = 1,662 SF

- H-1 LOWER FLOOR VINYL 1471 SF
- H-2 STAIR TREADS & LANDING 73 SF



1 LOWER FLOOR PLAN
1/4" = 1'-0"

Brandt
Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850
brandtdesigninc.com

8843 REGISTERED ARCHITECT
STATE OF WASHINGTON

YUAN RESIDENCE
3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24X36)

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19

DRAWN BY: ND/LLSE
CHECKED BY: LL

LOWER FLOOR PLAN

SCALE: As indicated

A200

LEGEND

- 200A WINDOW ID
- 100A DOOR ID
- 100A FINISH ID
- SMOKE DETECTOR
- ⊗ SMOKE/CARBON MONOXIDE DETECTOR
- ⊙ FAN - 100 CFM U.N.O.
- ▲ EL= 148.5' (+0'-0')
MAIN LEVEL FIN. FLR.
- GRIDLINE
- NEW WALL
- WALL TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

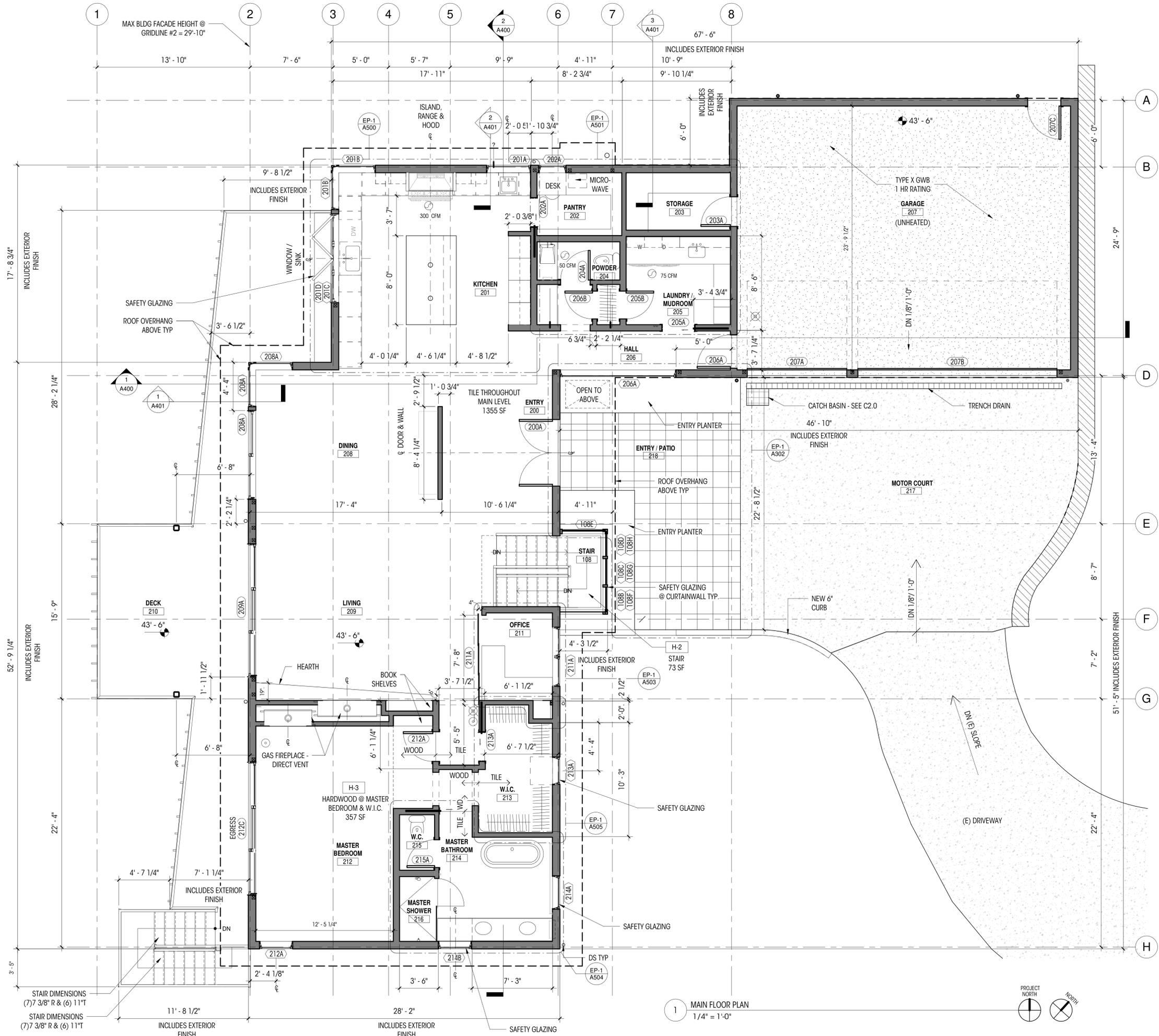
NOTES

1. ALL DIMENSIONS TO FACE OF FRAMING OR CONCRETE UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS UNLESS NOTED OTHERWISE.
3. EXHAUST FANS OF 400 CFM OR GREATER REQUIRE INTERLOCKED OUTSIDE MAKE-UP AIR PER IRC SECTION M1503.4.

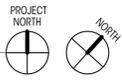
ENERGY CREDITS

1a	R-38 FLOORS AND U-28 WINDOWS	5
3a	92 AFUE GAS BOILER	1.0
4	ALL HEATING AND COOLING SYSTEM COMPONENTS INSTALLED WITHIN THE CONDITIONED SPACE. ELECTRIC RESISTANCE AND DUCTLESS HEAT PUMPS NOT PERMITTED UNDER THIS OPTION.	1.0
5c	GAS WATER HEATING SYSTEM W/ A MINIMUM EF OF 0.91	1.0
TOTAL		3.5

T-1	MAIN FLOOR TILE	1355 SF
H-2	STAIR TREADS & LANDING	73 SF
H-3	MASTER SUITE HARDWOOD	357 SF



1 MAIN FLOOR PLAN
1/4" = 1'-0"



Brandt
Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850
brandtdesigninc.com

8843 REGISTERED ARCHITECT
STATE OF WASHINGTON

YUAN RESIDENCE
3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24x36)

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19

DRAWN BY: NDL/USE
CHECKED BY: LL

MAIN FLOOR PLAN

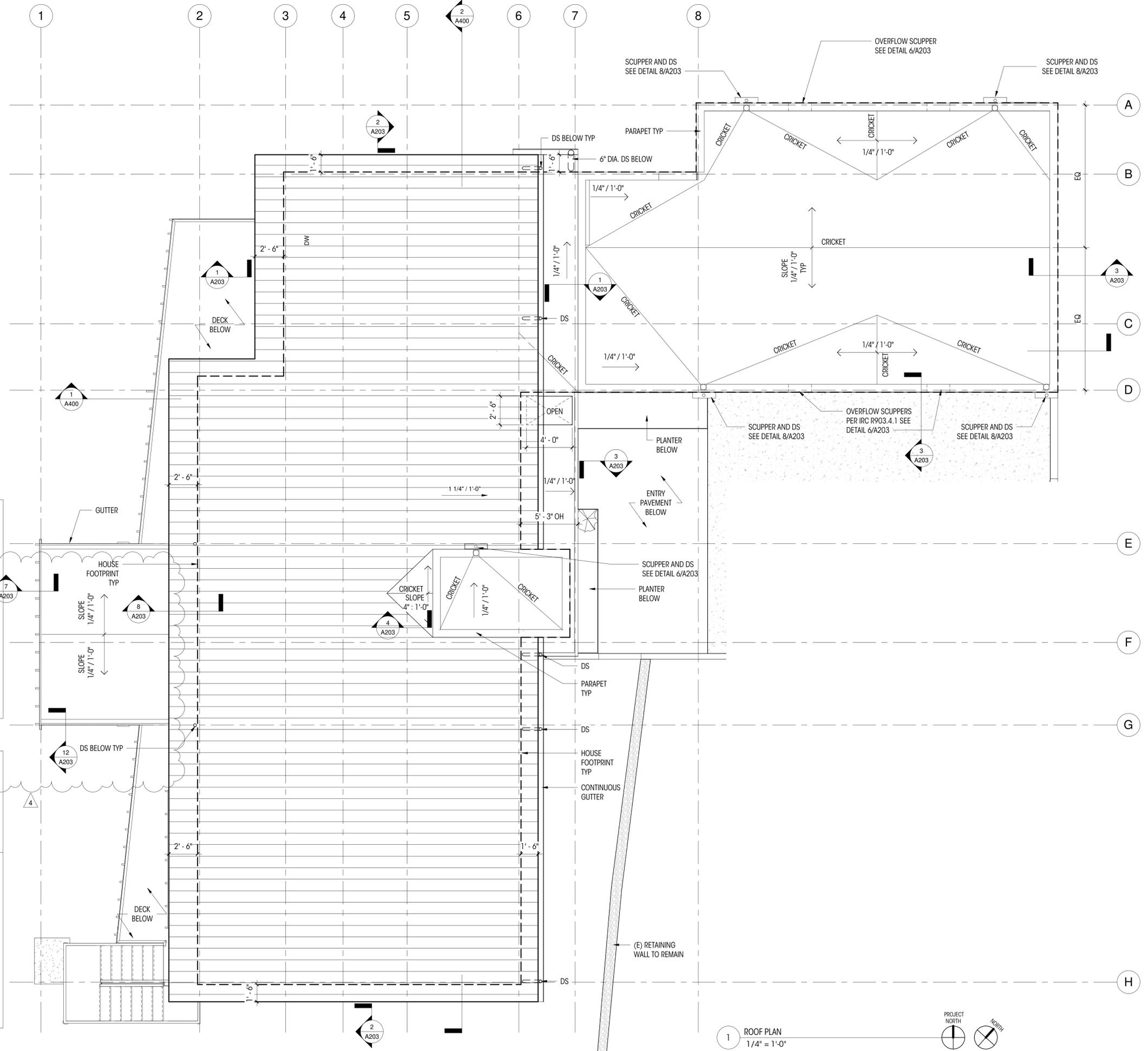
SCALE: As indicated

A201

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19
4	02/18/20

ROOF PLAN



REQUIRED ROOF VENTILATION

REQUIRED VENTILATION = 1 SF/300 SF OF TOTAL ROOF AREA

SHED ROOF AREA = 1680 SF
REQUIRED VENTILATION = 1680/300 = 5.6 SF = 806.4 SQ INCHES
PROPOSED VENTILATION = 1380 SQ INCHES TOTAL
(690 SQ INCHES AT EAST EAVE AND 690 SQ INCHES AT WEST EAVE)

GARAGE FLAT ROOF AREA = 1011 SF
REQUIRED VENTILATION = 1011/300 = 3.37 SF = 485.3 SQ INCHES
PROPOSED VENTILATION = 920 SQ INCHES TOTAL
(460 SQ INCHES AT SOUTH PARAPET AND 460 SQ INCHES AT NORTH PARAPET)

ENTRY FLAT ROOF AREA = 72 SF
REQUIRED VENTILATION = 72/300 = .24 SF = 34.56 SQ INCHES
PROPOSED VENTILATION = 130 SQ INCHES

LEGEND

0 --- GRIDLINE
--- HOUSE FOOTPRINT

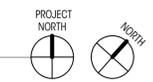
ENERGY CREDITS

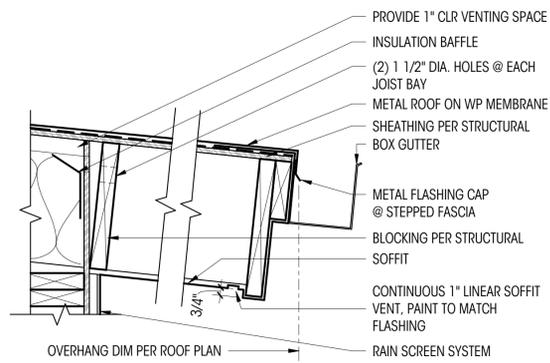
1a	R-38 FLOORS AND U-28 WINDOWS	.5
3a	92 AFUE GAS BOILER	1.0
4	ALL HEATING AND COOLING SYSTEM COMPONENTS INSTALLED WITHIN THE CONDITIONED SPACE. ELECTRIC RESISTANCE AND DUCTLESS HEAT PUMPS NOT PERMITTED UNDER THIS OPTION.	1.0
5c	GAS WATER HEATING SYSTEM W/ A MINIMUM EF OF 0.91	1.0
TOTAL		3.5

NOTES

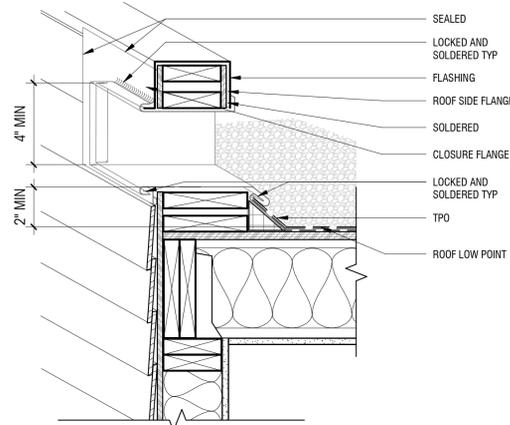
- ALL DIMENSIONS TO FACE OF FRAMING OR CONCRETE UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS UNLESS NOTED OTHERWISE.

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

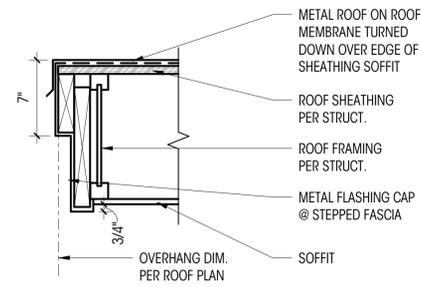




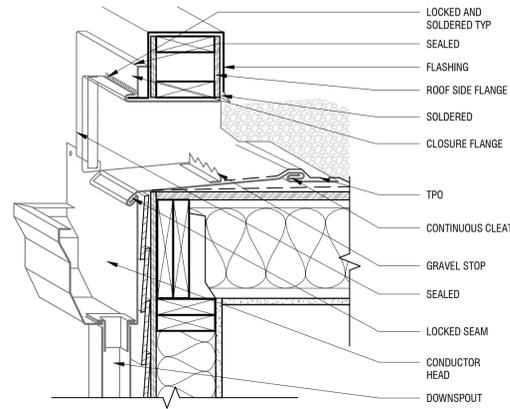
1 DTL_EXTENDED EAVE W/ GUTTER
1 1/2" = 1'-0"



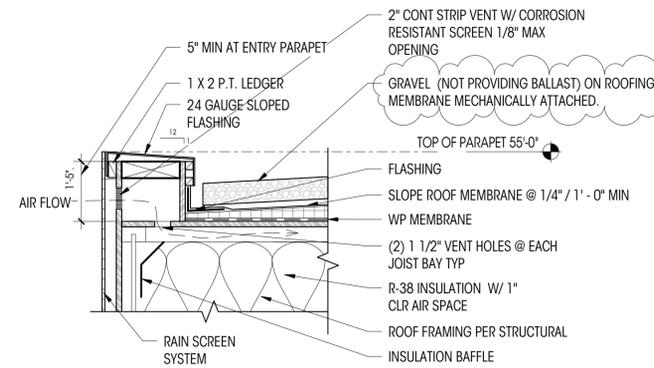
5 DTL_ROOF OVERFLOW SCUPPER
1 1/2" = 1'-0"



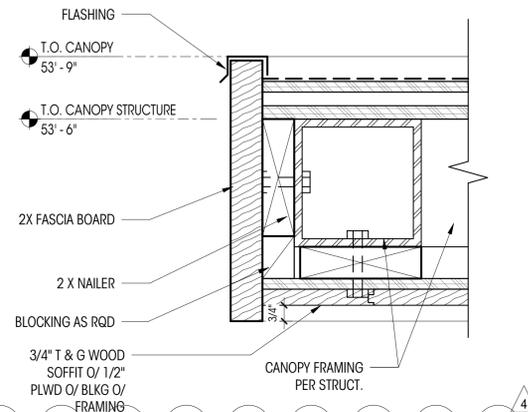
2 DTL_EXTENDED RAKE
1 1/2" = 1'-0"



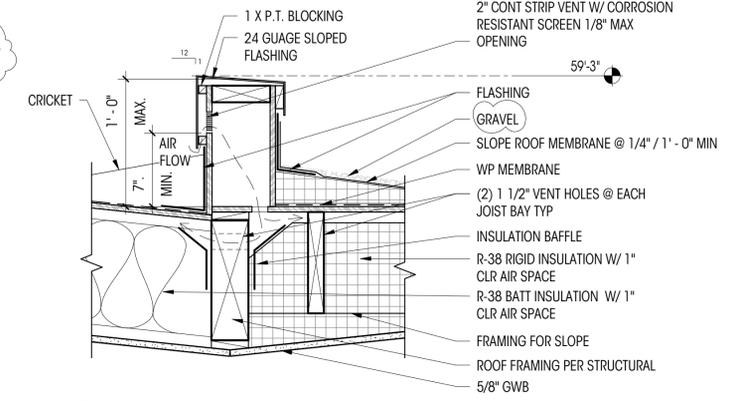
6 DTL_ROOF SCUPPER @ PARAPET
1 1/2" = 1'-0"



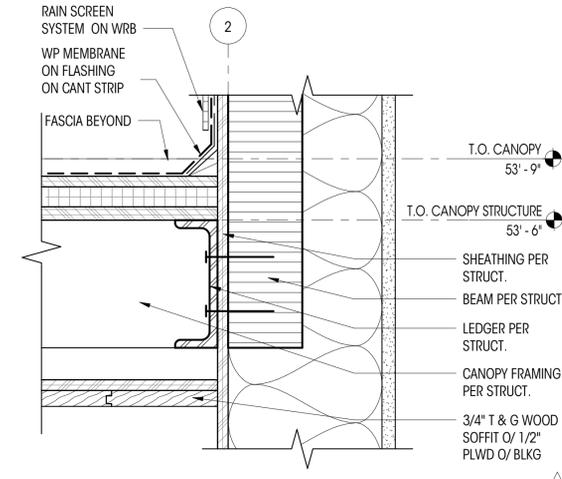
3 DTL_PARAPET @ GARAGE
1 1/2" = 1'-0"



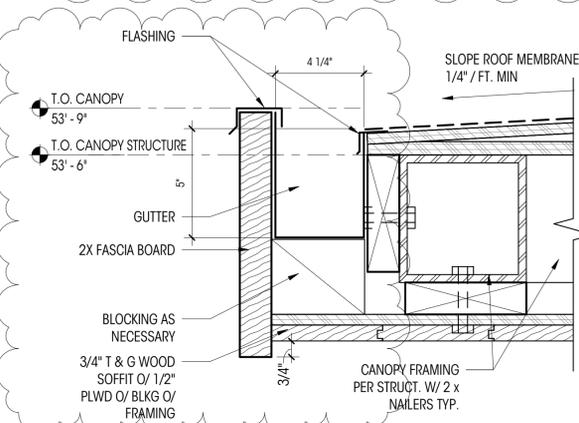
7 DTL_DECK CANOPY EAVE
3" = 1'-0"



4 DTL_PARAPET @ ENTRY
1 1/2" = 1'-0"



8 DTL_DECK CANOPY @ GL 2
3" = 1'-0"



12 DTL_DECK CANOPY @ GUTTER
3" = 1'-0"

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19
4	02/18/20



YUAN RESIDENCE
3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24x36)

REVISIONS

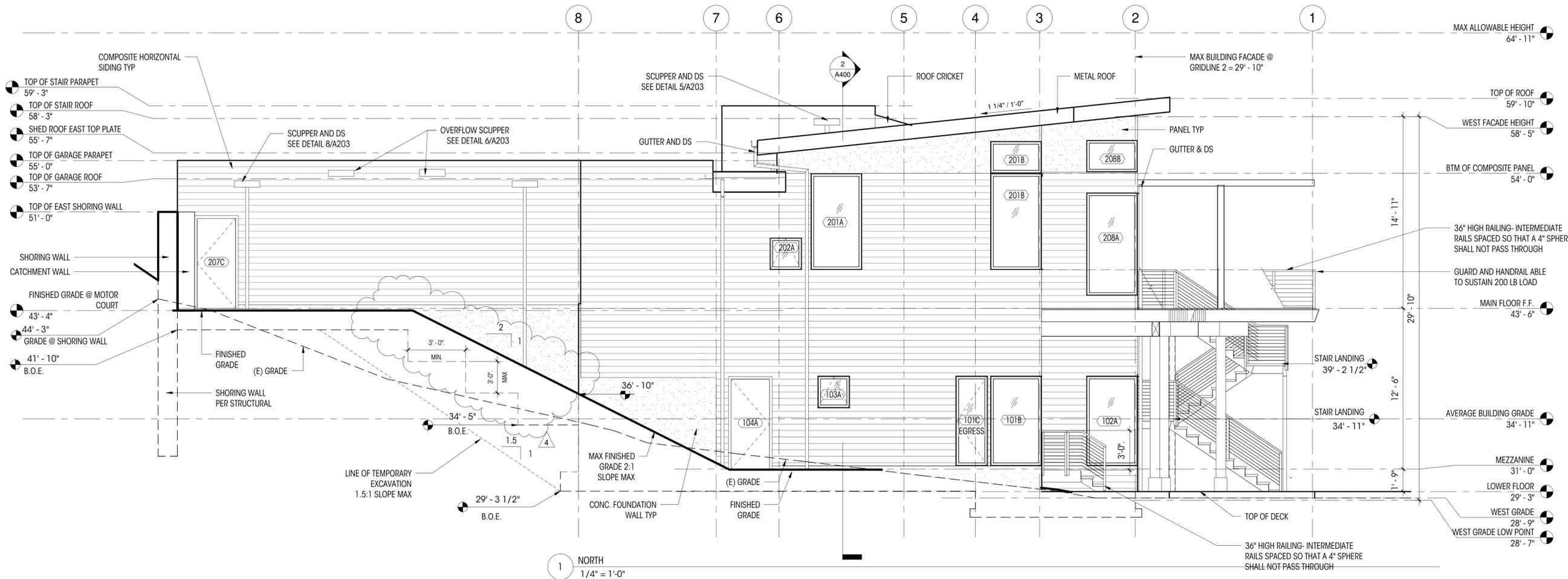
Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19
4	02/18/20

DRAWN BY: NDL/USE
CHECKED BY: LL

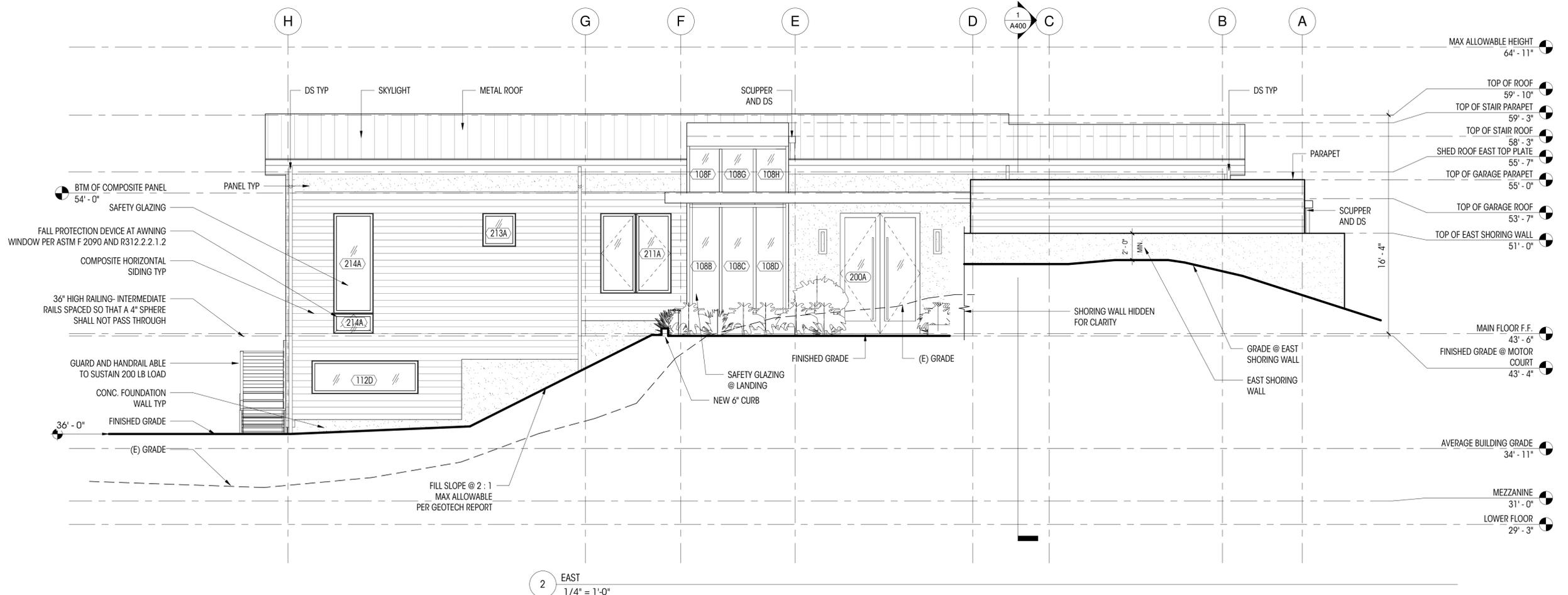
EXTERIOR ELEVATIONS

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

A300



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



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



YUAN RESIDENCE
3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24x36)

REVISIONS

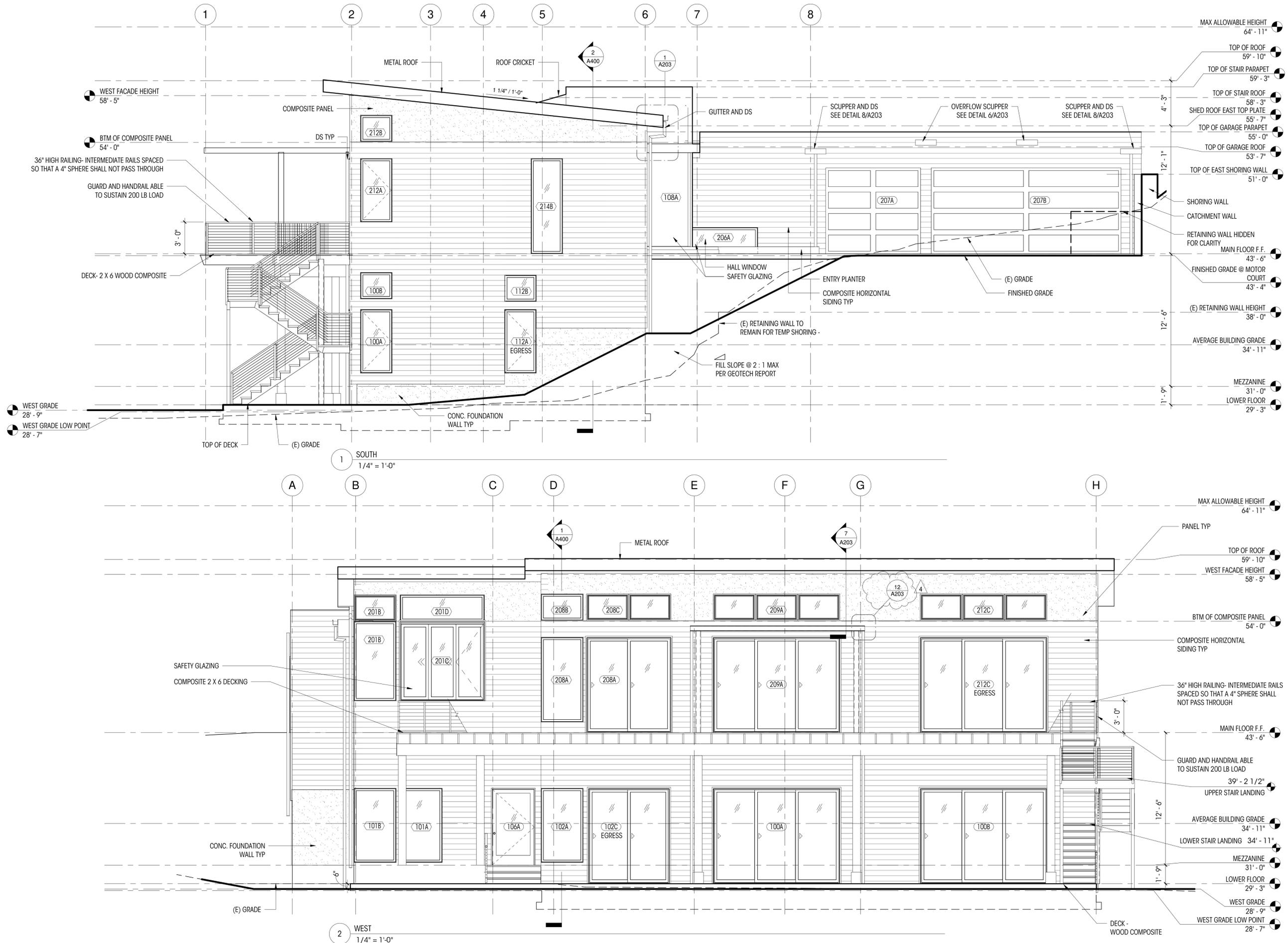
Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19
4	02/18/20

DRAWN BY: ND/LUSE
CHECKED BY: LL

EXTERIOR ELEVATIONS

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

A301





YUAN RESIDENCE
3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24X36)

REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19

DRAWN BY: ND/LLSE

CHECKED BY: LL

WALL SECTIONS

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

A401

(2) 1 1/2" VENT HOLES @ BLKG @ EACH JOIST BAY TYP.
PROVIDE BAFFLE @ INSULATION

- ROOF**
- STANDING SEAM METAL ROOFING
 - ROOFING MEMBRANE
 - FULLY-ADHERED ROOF UNDERLAYMENT (GRACE ICE & WATER SHIELD OR APPROVED EQUIVALENT)
 - 1/2" ROOF SHEATHING PER STRUCTURAL
 - 1" AIR CAVITY
 - 11 7/8" TJI W/MIN R-38 INSULATION
 - 5/8" GWB, PRIMER SEALER

1" CONTINUOUS STRIP VENT W/CORROSION RESISTANT SCREEN- 1/8" MAX. OPENING AT SOFFIT

- EXTERIOR WALL**
- SIDING PER ELEVATIONS
 - WRB PER CONTRACTOR
 - 1/2" PLYWOOD PER STRUCTURAL
 - 2X6 @ 16" OC W/ MIN R-21 INSULATION W/1 EACH BAY
 - 5/8" GWB, PRIMER SEALER

RIM JOIST PER STRUCTURAL

- FLOOR**
- 2" GYP-CRETE W/ HYDRONIC TUBES
 - 3/4" PLYWOOD SHEATHING
 - 16" TJI
 - ROCKWOOL INSULATION FOR SOUND
 - 5/8" GWB, PRIMER SEALER

36" HIGH RAILING- INTERMEDIATE RAILS SPACED SO THAT A 4" SPHERE SHALL NOT PASS THROUGH

GUARD AND HANDRAIL ABLE TO SUSTAIN 200 LB LOAD

FLASHING ON OUTRIGGER

GLULAM PER STRUCTURAL

RIM JOIST PER STRUCTURAL

HEADER PER STRUCTURAL

- INTERIOR SLAB ON GRADE**
- 6" CONCRETE SOG, SEALED, W/ HYDRONIC TUBING
 - R-10 CONTINUOUS INSULATION UNDER ENTIRE SLAB
 - 10 MIL VAPOR BARRIER
 - 4" LAYER OF 3/4" CRUSHED ROCK

- DECK**
- COMPOSITE 1 X 6 DECKING ON P.T. 2 X FRAMING

WEST GRADE 28' - 9"

GRADE

CONCRETE STEM WALL- SEE STRUCTURAL

GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

10" CLR

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

R-10 MIN RIGID INSULATION @ SLAB

R-5 RIGID INSULATION @ SLAB EDGE TYP.

FOOTING PER STRUCTURAL

4" PERFORATED DRAIN PIPE IN 12" OF WASHED GRAVEL (MIN ONE SIEVE LARGER THAN THE DRAIN OPENING OR PERFORATION)

PIN PILES PER STRUCTURAL

FILTER MEMBRANE

FILTER MEMBRANE

FILTER MEMBRANE

FILTER MEMBRANE

2

1
A203

TOP OF ROOF 59' - 10"

WEST FACADE HEIGHT 58' - 5"

BTM OF COMPOSITE PANEL 54' - 0"

MAIN FLOOR F.F. 43' - 6"

AVERAGE BUILDING GRADE 34' - 11"

MEZZANINE 31' - 0"

LOWER FLOOR 29' - 3"

WEST GRADE LOW POINT 28' - 7"

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

B

2
A203

TOP OF ROOF 59' - 10"

WEST FACADE HEIGHT 58' - 5"

SHED ROOF EAST TOP PLATE 55' - 7"

MAIN FLOOR F.F. 43' - 6"

AVERAGE BUILDING GRADE 34' - 11"

MEZZANINE 31' - 0"

LOWER FLOOR 29' - 3"

WEST GRADE LOW POINT 28' - 7"

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

GRADE

(N) ROOF

- STANDING SEAM METAL ROOFING
- ROOFING MEMBRANE
- FULLY-ADHERED ROOF UNDERLAYMENT (GRACE ICE & WATER SHIELD OR APPROVED EQUIVALENT)
- 1/2" ROOF SHEATHING PER STRUCTURAL
- 1" AIR CAVITY
- 11 7/8" TJI WITH R-38 INSULATION
- 5/8" GWB, PRIMER SEALER

EXTERIOR WALL

- SIDING PER ELEVATIONS
- WRB PER CONTRACTOR
- 1/2" PLYWOOD PER STRUCTURAL
- 2X6 @ 16" OC W/ MIN R-21 INSULATION
- 5/8" GWB, PRIMER SEALER

FLOOR

- TILE FLOOR
- 2" GYP CRETE W/ HYDRONIC TUBING
- 1 1/8" PLYWOOD SHEATHING
- 16" TJI
- ROCKWOOL INSULATION FOR SOUND
- 5/8" GWB, PRIMER SEALER

INTERIOR SLAB ON GRADE

- 6" CONCRETE SOG, SEALED, W/ HYDRONIC TUBING
- R-10 CONTINUOUS INSULATION UNDER ENTIRE SLAB
- 10 MIL VAPOR BARRIER
- 4" LAYER OF 3/4" CRUSHED ROCK

P.T. SILL PLATE

R-5 RIGID INSULATION @ SLAB EDGE TYP.

GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

4" PERFORATED DRAIN PIPE IN 12" OF WASHED GRAVEL (MIN ONE SIEVE LARGER THAN THE DRAIN OPENING OR PERFORATION)

FILTER MEMBRANE

FOOTING PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

PIN PILES PER STRUCTURAL

24 GAUGE SLOPED FLASHING

1 X 2 P.T. LEDGER

FLASHING

WP MEMBRANE ROOF ON SLOPED RIGID INSULATION

SLOPE PER ROOF PLAN

8'-11"

10' - 9 1/2"

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

MIRRADRAIN 6000 @ CONC. BELOW GRADE

B

2" CONT STRIP VENT W/ CORROSION RESISTANT SCREEN 1/8" MAX OPENING

TOP OF GARAGE PARAPET 55' - 0"

(2) 1 1/2" VENT HOLES @ EACH JOIST BAY TYP

TOP OF GARAGE ROOF 53' - 7"

R-38 INSULATION W/ 1" CLR AIR SPACE

RAIN SCREEN SIDING SYSTEM W/3/4" AIR GAP

ROOF FRAMING PER STRUCTURAL

EXTERIOR WALL

- SIDING PER ELEVATIONS
- WRB PER CONTRACTOR
- 1/2" PLYWOOD PER STRUCT.
- 2X6 @ 16" OC W/ MIN R-21 INSULATION
- 5/8" GWB, PRIMER SEALER

RIM JOIST PER STRUCTURAL

MAIN FLOOR F.F. 43' - 6"

FLOOR

- TILE FLOOR
- 2" GYP CRETE W/ HYDRONIC TUBING
- 1 1/8" PLYWOOD SHEATHING
- 16" TJI
- ROCKWOOL INSULATION FOR SOUND
- 5/8" GWB, PRIMER SEALER

EXTERIOR CONC. WALL

- 10" CONC. WALL
- 1/2" AIR GAP
- 2X6 FURRING W/ R-21 INSULATION
- 5/8" TYPE X' GWB, PRIMER SEALER

AVERAGE BUILDING GRADE 34' - 11"

PROPOSED GRADE

MEZZANINE 31' - 0"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

LOWER FLOOR 29' - 3"

1 WALL SECTION 1
1/2" = 1'-0"

2 WALL SECTION 2
1/2" = 1'-0"

3 WALL SECTION 3
1/2" = 1'-0"



REVISIONS

Revision Number	Date
1	7/18/19
2	10/09/19
3	12/20/19

WINDOW SCHEDULE

PLAN ID	TYPE	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	NOTES
100A	A	3'-0"	6'-0"	7'-3"	18 SF	0.28	5 SF	2
100B	C	3'-0"	2'-6"	10'-9"	8 SF	0.28	2 SF	2
101A	C	4'-0"	7'-0"	7'-3"	28 SF	0.28	8 SF	2
101B	D	4'-0"	7'-0"	7'-3"	28 SF	0.28	8 SF	2
101B	D	4'-0"	7'-0"	7'-3"	28 SF	0.28	8 SF	2
101C	A	2'-6"	7'-0"	7'-3"	18 SF	0.28	5 SF	1.2
102A	D	4'-0"	7'-0"	9'-0"	28 SF	0.28	8 SF	2
102A	D	4'-0"	7'-0"	9'-0"	28 SF	0.28	8 SF	2
103A	B	2'-6"	2'-6"	7'-3"	6 SF	0.28	2 SF	2
108B	F	2'-2 3/4"	8'-8 3/4"	---	19 SF	0.28	5 SF	2.6
108C	F	2'-4 7/32"	8'-8 3/4"	---	21 SF	0.28	6 SF	2.6
108D	F	2'-2 3/4"	8'-8 3/4"	---	19 SF	0.28	5 SF	2.6
108E	F	3'-10 19/32"	8'-10"	---	34 SF	0.28	10 SF	2.6
108F	F	2'-2 3/4"	3'-8 1/2"	---	8 SF	0.28	2 SF	2.6
108G	F	2'-4 7/32"	3'-8 1/2"	---	9 SF	0.28	2 SF	2.6
108H	F	2'-2 3/4"	3'-8 1/2"	---	8 SF	0.28	2 SF	2.6
112A	A	3'-0"	6'-0"	9'-0"	18 SF	0.28	5 SF	1.2
112B	C	3'-0"	2'-6"	10'-6"	8 SF	0.28	2 SF	2
112C	C	5'-0"	1'-6"	10'-0"	8 SF	0.28	2 SF	2.7
112D	C	8'-0"	2'-6"	10'-6"	20 SF	0.28	6 SF	2
201A	C	4'-0"	7'-6"	10'-6"	30 SF	0.28	8 SF	2
201B	D	4'-0"	7'-6"	10'-6"	30 SF	0.28	8 SF	2.6
201B	D	4'-0"	2'-6"	13'-0"	10 SF	0.28	3 SF	2.6
201B	D	4'-0"	7'-6"	10'-6"	30 SF	0.28	8 SF	2.6
201B	D	4'-0"	2'-6"	13'-0"	10 SF	0.28	3 SF	2.6
201C	E	8'-0"	7'-6"	10'-6"	60 SF	0.28	17 SF	2.4
201D	C	8'-0"	2'-6"	13'-0"	20 SF	0.28	6 SF	2
202A	B	2'-6"	2'-6"	5'-6"	6 SF	0.28	2 SF	2
206A	C	10'-6"	2'-6"	2'-6"	26 SF	0.28	7 SF	2
208A	D	4'-0"	8'-0"	9'-0"	32 SF	0.28	9 SF	2
208A	D	4'-0"	8'-0"	9'-0"	32 SF	0.28	9 SF	2
208B	D	4'-0"	2'-6"	3'-0"	10 SF	0.28	3 SF	2
208B	D	4'-0"	2'-6"	3'-0"	10 SF	0.28	3 SF	2
208C	C	8'-0"	2'-6"	3'-0"	20 SF	0.28	6 SF	2.6
209A	C	12'-0"	2'-6"	3'-0"	30 SF	0.28	8 SF	2.6
211A	A	5'-4"	6'-0"	9'-0"	32 SF	0.28	9 SF	2.6
212A	A	3'-0"	6'-0"	9'-0"	18 SF	0.28	5 SF	2
212B	C	3'-0"	2'-6"	3'-0"	8 SF	0.28	2 SF	2
212C	C	12'-0"	2'-6"	3'-0"	30 SF	0.28	8 SF	2.6
213A	C	2'-6"	2'-6"	9'-0"	6 SF	0.28	2 SF	2
214A	B	3'-0"	1'-6"	1'-6"	5 SF	0.28	1 SF	2.6,8
214A	C	3'-0"	7'-6"	9'-0"	23 SF	0.28	6 SF	2.6
214B	C	3'-0"	9'-0"	9'-0"	27 SF	0.28	8 SF	2

Grand total: 43
TOTAL WINDOW COUNT: 36
TOTAL GLAZING SURFACE: 925 SF
AVERAGE UA: .28 SF

GENERAL NOTES

- ALL DIMENSIONS SHOWN ARE FINISHED DIMENSIONS. R.O. PER CONTRACTOR.
- CONTRACTOR TO VERIFY ALL SIZES AND DIMENSIONS IN FIELD WITH OWNER BEFORE ORDERING.
- ALL NEW WINDOWS TO BE NFRC CERTIFIED.
- ALL WINDOW WALL IS TEMPERED GLASS.
- REFER TO PLANS AND TAGS FOR LOCATION AND SWINGS.
- ALL ELEVATIONS ARE FROM THE EXTERIOR.
- ALL NEW VERTICAL FENESTRATION U-VALUE TO BE .28
- PER IRC 1030.2 AND 1030.3 AND 310.2.1 ALL **EGRESS** OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SF, NET CLEAR HEIGHT OPENING SHALL NOT BE LESS THAN 24" AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20".
- THE WINDOW SILL SHALL HAVE HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR
- PROVIDE WINDOW FALL PROTECTION PER IRC R312 FOR ANY WINDOW WITH SILL HEIGHT LESS THAN 24" AND GREATER THAN 72" ABOVE FINISHED GRADE

SPECIFIC NOTES

- EGRESS
- TEMPERED GLASS/SAFETY GLAZING
- FROSTED/OPAQUE GLASS
- BIFOLD WINDOW SYSTEM
- SILLS FLUSH WITH COUNTERTOP
- FACTORY MULLED UNITS
- INTERIOR UNIT
- ASTM F 2090 OPENING CONTROL DEVICE PER R312.2
- SKYLIGHT

DOOR SCHEDULE

PLAN ID	TYPE	WIDTH (ft)	HEIGHT (ft)	AREA (sf)	U VALUE	UA	NOTES
100A	F	12'-0"	9'-0"	108 SF	0.28	30 SF	1.2
100B	F	12'-0"	9'-0"	108 SF	0.28	30 SF	1.2
101A	C	7'-6"	7'-4"	55 SF	0	0 SF	
101B	A	2'-0"	7'-0"	14 SF			
102A	A	2'-6"	7'-0"	18 SF			
102B	C	5'-6"	7'-0"	39 SF			
102C	F	7'-8"	9'-0"	69 SF	0.28	19 SF	1.2
103A	A	2'-6"	7'-0"	18 SF			
103B	D	2'-0"	5'-9"	12 SF			2.6
104A	A	3'-0"	7'-0"	21 SF	0	0 SF	
104B	A	3'-0"	7'-0"	21 SF			
105A	A	3'-0"	7'-0"	21 SF			
106A	A	4'-0"	7'-2"	29 SF	0.28	8 SF	1.2
106B	B	3'-0"	7'-0"	21 SF			
107A	A	2'-6"	7'-0"	18 SF			
107B	D	2'-2"	7'-0"	15 SF			2.6
107C	A	2'-4"	7'-0"	16 SF			
107D	A	2'-0"	7'-0"	14 SF			
109A	D	2'-7"	6'-11 1/2"	18 SF			2.6
111B	D	2'-2"	6'-1"	13 SF			2.6
111D	B	3'-0"	7'-0"	21 SF			
111E	A	2'-6"	7'-0"	18 SF			
112A	A	2'-6"	7'-0"	18 SF			
112B	C	4'-6"	7'-0"	32 SF			
200A	E	6'-0"	9'-0"	54 SF	0.28	15 SF	1.2,5
202A	B	2'-8"	7'-0"	19 SF			
203A	A	2'-8"	7'-0"	19 SF			
204A	A	2'-8"	7'-0"	19 SF			
205A	B	3'-0"	7'-0"	21 SF			
205B	A	2'-6"	7'-0"	18 SF			
206A	A	3'-0"	7'-0"	21 SF			3
206B	A	2'-6"	7'-0"	18 SF			
207A	H	9'-0"	8'-0"	72 SF			4
207B	H	18'-0"	8'-0"	144 SF			4
207C	A	3'-0"	7'-0"	21 SF	0.28	6 SF	1
208A	F	8'-0"	9'-0"	72 SF	0.28	20 SF	1.2
209A	F	12'-0"	9'-0"	108 SF	0.28	30 SF	1.2
211A	C	7'-8"	9'-0"	69 SF	0	0 SF	
212A	A	2'-8"	7'-0"	19 SF			
212C	F	12'-0"	9'-0"	108 SF	0.28	30 SF	1.2
213A	B	2'-8"	7'-0"	19 SF			
215A	A	2'-6"	7'-0"	18 SF			
216A	D	2'-6"	8'-0"	20 SF			

TOTAL DOOR COUNT: 42
TOTAL EXTERIOR DOOR AREA: 938 SF
TOTAL EXTERIOR DOOR GLAZING AREA: 616 SF
AVERAGE UA: .28 SF

GENERAL NOTES

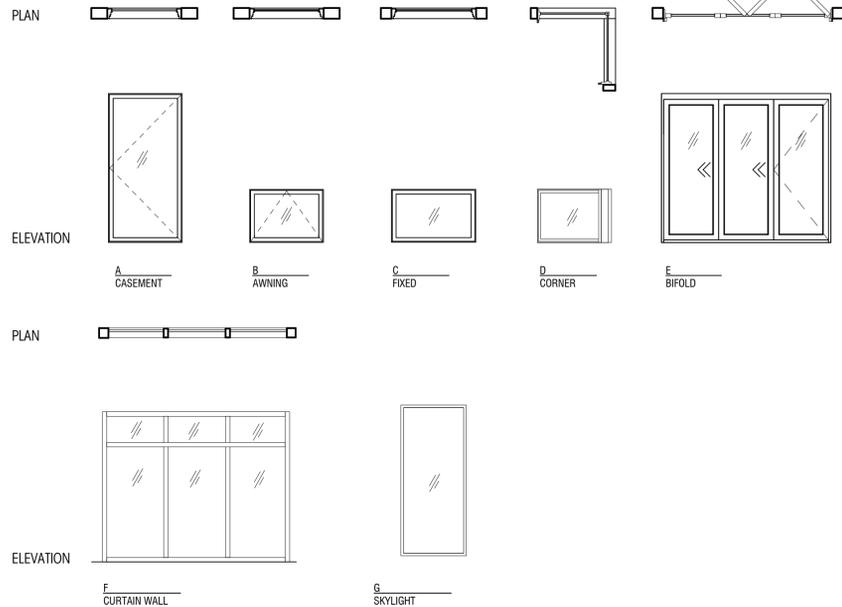
- ALL NEW DOORS TO BE NFRC CERTIFIED
- ALL NEW VERTICAL FENESTRATION U-VALUE TO MEET ENERGY COMPLIANCE GUIDELINES
- ALL DOORS TO BE SOLID-CORE WOOD VENEER FLAT PANELS UNO
- ALL DOORS UNDERCUT TO 1/2" MIN. ABOVE FINISHED FLOOR TO ENSURE AIRFLOW PER M403.4.5.1

SPECIFIC NOTES

- EXTERIOR
- TEMPERED GLASS/SAFETY GLAZING
- 20-MINUTE RATED W/SELF-CLOSURE PER IRC R302.5.1
- OVERHEAD DOOR
- ENTRY DOOR
- FRAMELESS GLASS DOOR W/ FRAMELESS GLASS SURROUND
- FROSTED/OPAQUE GLASS
- BARN DOOR

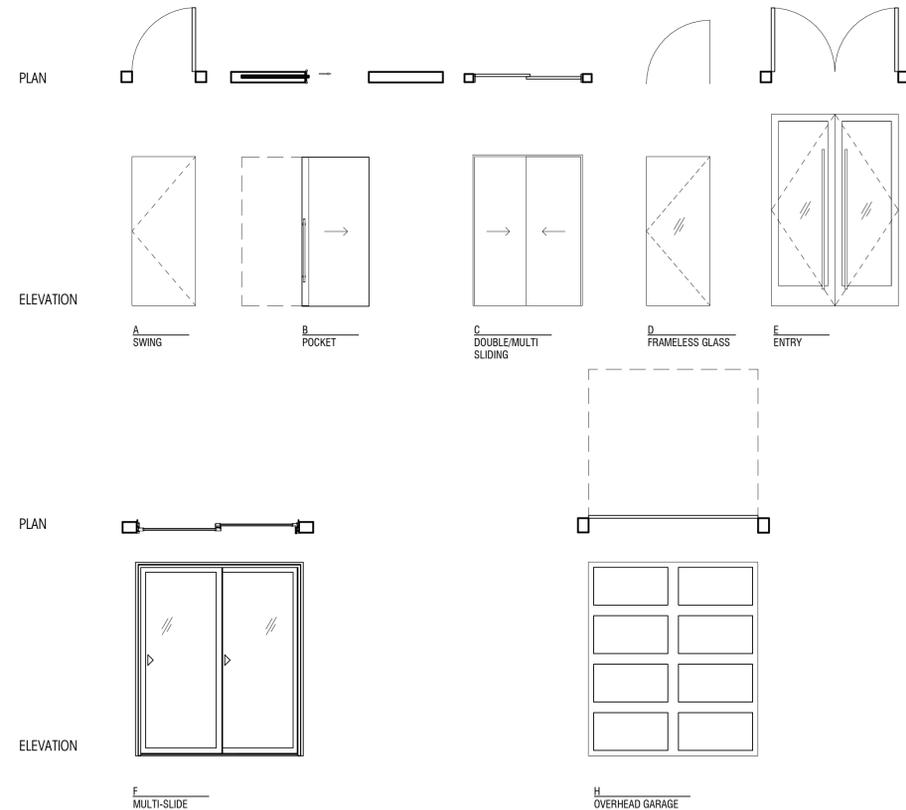
WINDOW TYPES

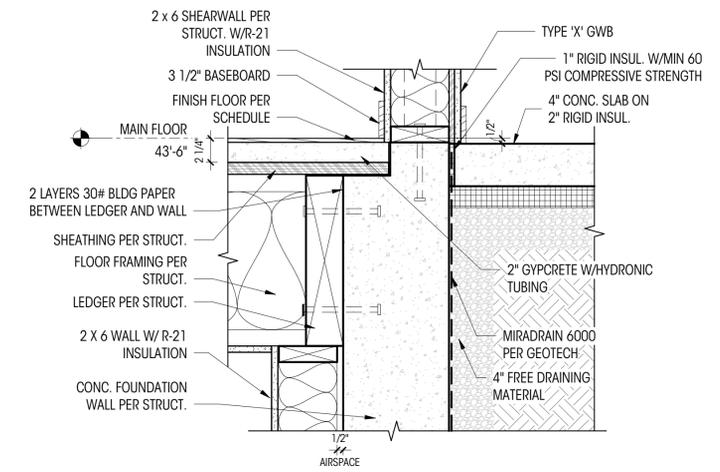
1/4" = 1'-0"



DOOR TYPES

1/4" = 1'-0"





1 DTL_FOUNDATION @ GL 8
1 1/2" = 1'-0"



YUAN RESIDENCE

3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24x36)

REVISIONS

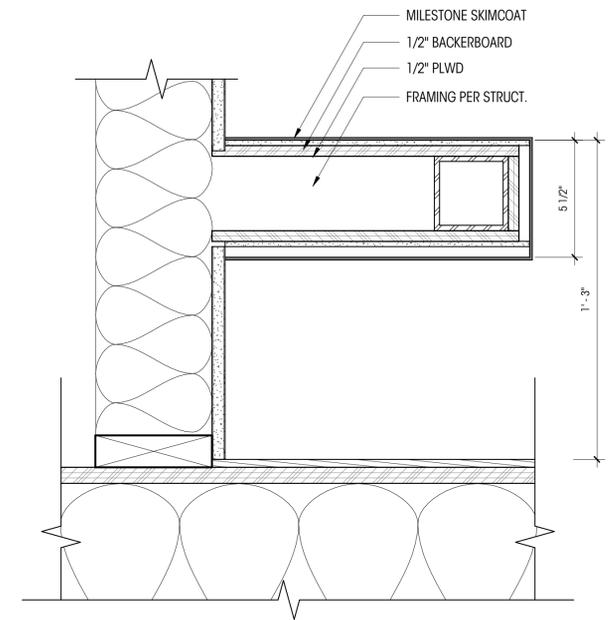
Revision Number	Date
4	02/18/20

DRAWN BY: ND/LUSE
CHECKED BY: LL

EXTERIOR DETAILS

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

A700



1 DTL_FLOATING HEARTH
3" = 1'-0"

YUAN RESIDENCE

3611 W MERCER WAY,
MERCER ISLAND, WA 98040
© COPYRIGHT 2019 BRANDT DESIGN, INC. SEATTLE, WA

PERMIT SET

DATE: 6/12/19

SHEET SIZE: D (24X36)

REVISIONS

Revision Number	Date
4	02/18/20

DRAWN BY: NDL/USE
CHECKED BY: LL

INTERIOR DETAILS

SCALE: 3" = 1'-0"

A704

General Structural Notes
THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2015 SEATTLE BUILDING CODE.
- DESIGN LOADING CRITERIA:
RESIDENTIAL – ONE AND TWO-FAMILY DWELLINGS
FLOOR LIVE LOAD 40 PSF
ROOF 25 PSF
MISCELLANEOUS LOADS
DECKS 1.5 x AREA SERVED
ENVIRONMENTAL LOADS
SNOW Ce=1.0, Is=1.0, Ct=1.1, Pg=25 PSF, Pf=20 PSF
WIND Gcpi=0.18, 110 MPH, RISK CATEGORY II, EXPOSURE "C"
EARTHQUAKE . . . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS
SITE CLASS=0, Ss=1.402, Sds=0.935, S1=0.54, S01=0.54, Cs=0.144
SDC D, Ie=1.0, R=6.5
SEE PLANS FOR ADDITIONAL LOADING CRITERIA
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.
- PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS 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 TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
- 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.
- 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. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.
- ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERCTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

GLUED LAMINATED MEMBERS
MANUFACTURED LUMBER (PSL'S, LSL'S, LVL'S)
PLYWOOD WEB JOISTS
STRUCTURAL STEEL

CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENT'S AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WALL ELEVATION DRAWINGS WITH REINFORCEMENT SHOP DRAWINGS.

APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

- SHOP DRAWING REVIEW: 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 ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

- SHOP DRAWINGS OF DESIGN BUILD COMPONENTS INCLUDING CANOPIES, BALCONIES, COLD FORM STEEL FRAMING, TEMPORARY SHORING, CURTAIN WALL SYSTEMS, SKYLIGHT FRAMES, PREFABRICATED STAIR SYSTEMS, EXTERIOR CLADDING, AND PRE-ENGINEERED SYSTEMS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. SHOP DRAWINGS SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW OF THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.

QUALITY ASSURANCE

- SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 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 OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL FABRICATION AND ERECTION	PER AISC 360
SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY	PER TABLE 1705.6
DRIVEN DEEP FOUNDATION	PER TABLE 1705.7
HELICAL PILE FOUNDATION	CONTINUOUS
EXPANSION BOLTS AND THREADED EXPANSION INSERTS	PER MANUFACTURER
EPOXY GROUTED INSTALLATIONS	PER MANUFACTURER

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.
CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

GEOTECHNICAL

- FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL 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 SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	. . . . . 50 PCF/35 PCF
ACTIVE PRESSURE AT EAST WALL WITH MAX. SLOPE	. . . . . 55 PCF
ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED)	. . . . . 400 PCF
COEFFICIENT OF FRICTION (FS OF 1.5 INCLUDED)	. . . . . 0.5
SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD)	. . . . . 6H PSF
4" DIA PILE CAPACITY	. . . . . 10 TONS
GARAGE SURCHARGE	. . . . . 90 PSF

SOILS REPORT REFERENCE:

GEOTECHNICAL ENGINEERING STUDY
PROPOSED RESIDENCE
3611 WEST MERCER WAY, MERCER ISLAND, WA

PREPARED BY:

PANGEO INCORPORATED ON APRIL 16, 2019

- PIN PILES SHOWN ON THE PLAN SHALL BE 4" DIAMETER SCHEDULE 40. THE MAXIMUM CAPACITY OF 4" PILES SHALL BE 10 TONS. ALL PILES SHALL BE DRIVEN TO REFUSAL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. PILES USED IN COMMON TO RESIST LATERAL EARTH PRESSURES SHALL HAVE THE ADDITIONAL REQUIREMENT OF BEING EMBEDDED A MINIMUM OF 10 FEET BELOW RETAINED GRADE. THE MAXIMUM PILE ECCENTRICITY SHALL BE 2 INCHES. GEOTECHNICAL SPECIAL INSPECTION SHALL BE SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SEE PLANS FOR OTHER SIZES AND CRITERIA. DRIVING CRITERIA FOR 4" DIAMETER PIPE PILES ARE AS FOLLOWS:

HAMMER MODEL	HAMMER WEIGHT (lb)/ BLOWS PER MINUTE	REFUSAL CRITERIA (seconds per inch of penetration)
HYDRAULIC TB 325	850/900	16
HYDRAULIC TB 425	1,100/900	10
HYDRAULIC TB 725X	2,000/600	4

NOTE: AT LEAST 3% OF THE PIN PILES BUT NO MORE THAN (5) PILES SHALL BE LOAD TESTED TO TWICE THE DESIGN PILE LOAD (ASTM D1143). USE OF LARGER OR SMALLER PILES WITH DIFFERENT DRIVING EQUIPMENT MAY OR MAY NOT REQUIRE A LOAD TEST. THE POTENTIAL NEED FOR A LOAD TEST WILL BE ADDRESSED IN THE FIELD.

CONCRETE

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. 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. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.

- A CONCRETE PERFORMANCE MIX SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, 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 318-14, SECTIONS 26.4.3 AND 26.4.4. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

- ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.

- REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.

- DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

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

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	. . . . . 3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER)	. . . . . 2"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER)	. . . . . 1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS	. . . . . 1-1/2"
SLABS AND WALLS (INT. FACE)	. . . . . GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

- CONCRETE WALL REINFORCING—PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
8" WALLS	#4 @ 12 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
10" WALLS	#4 @ 18 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS
12" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS

- 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.

- NON-SHRINK GROUT SHALL 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 (3000 PSI MINIMUM).

ANCHORAGE

- EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

- EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.

- CONCRETE SCREW ANCHORS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

STEEL

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

- AISC 360 AND SECTION 2205.2 OF THE INTERNATIONAL BUILDING CODE.
- APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS FOLLOWS: 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.
- SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

- WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, FY = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 42 KSI (ROUND), FY = 46 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS SHALL CONFORM TO ASTM A307.

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

- ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED.

- SHOP PRIME ALL STEEL EXCEPT:

- STEEL ENCASED IN CONCRETE.
- SURFACES TO BE WELDED.
- CONTACT SURFACES AT HIGH-STRENGTH BOLTS.
- MEMBERS TO BE GALVANIZED.
- MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.
- SURFACES TO RECEIVE SPRAYED FIREPROOFING.
- SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

- ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.

- ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

- ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX 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.



2124 Third Avenue - Suite 100 - Seattle, WA 98121
p: 206.443.6212 sseengineers.com
934 Broadway - Tacoma, WA 98402
p: 253.284.9470 sseengineers.com

Copyright 2019 Swenson Sky Fajét - All Rights Reserved



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DDP:

PROJECT TITLE:

Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:

Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:

PERMIT

SHEET TITLE:

**General
Structural Notes**

SCALE:

DATE: April 20, 2019

PROJECT NO: 01519-2019-01

SHEET NO:

S1.1

General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

WOOD

36. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD "GRADING RULES FOR WEST COAST LUMBER NO. 17", OR WMPA STANDARD, "WESTERN LUMBER GRADING RULES 2011". FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2X & 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI

STUDS, PLATES & MISC. FRAMING: DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

37. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS, WITH SPANS OVER 30', TO 3,500' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

38. MANUFACTURED LUMBER, PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED PRODUCTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION IN ACCORDANCE WITH ICC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E)	Fb = 2900 PSI, E = 2000 KSI, Fv = 290 PSI
LVL (2.0E)	Fb = 2600 PSI, E = 2000 KSI, Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI, E = 1550 KSI, Fv = 310 PSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

39. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

40. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 5/8" (NOMINAL) WITH SPAN RATING 32/16.

FLOOR SHEATHING SHALL BE 1-1/8" (NOMINAL) WITH SPAN RATING 48/24.

WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

41. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

42. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.

43. WOOD TREATED FOR FIRE RESISTANCE SHALL MEET THE REQUIREMENTS OF ASTM E 84 OR UL 723 AND HAVE A LISTED FLAME SPREAD INDEX OF 25 OR LESS. FIRE RETARDANT TREATED LUMBER AND WOOD STRUCTURAL PANELS SHALL BE LABELED IN ACCORDANCE WITH IBC 2303.2.4. WOOD TREATED FOR FIRE PROTECTION FOR USE IN INTERIOR ABOVE GROUND CONSTRUCTION AND CONTINUOUSLY PROTECTED FROM WEATHER AND OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFA. WOOD TREATED FOR FIRE PROTECTION FOR USE IN EXTERIOR ABOVE GROUND CONSTRUCTION AND SUBJECT TO WETTING OR OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFB.

44. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
AZCA	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

45. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "TIS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

46. WOOD FASTENERS

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

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

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

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

47. NOTCHES AND HOLES IN WOOD FRAMING:

A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.

48. 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 INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". 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.

B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 6" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

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. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G 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 16d @ 12" ON-CENTER UNLESS OTHERWISE NOTED.



2124 Third Avenue - Suite 100 - Seattle, WA 98121
P: 206.443.6212 ssfengineers.com
934 Broadway - Tacoma, WA 98402
P: 253.284.9470 ssfengineers.com

Copyright 2019 Swenson Sky Fajert - All Rights Reserved



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:		
1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
General Structural Notes

SCALE:
-
DATE:
April 20, 2019
PROJECT NO:
01519-2019-01
SHEET NO:

S1.2



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:		
1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Foundation Plan

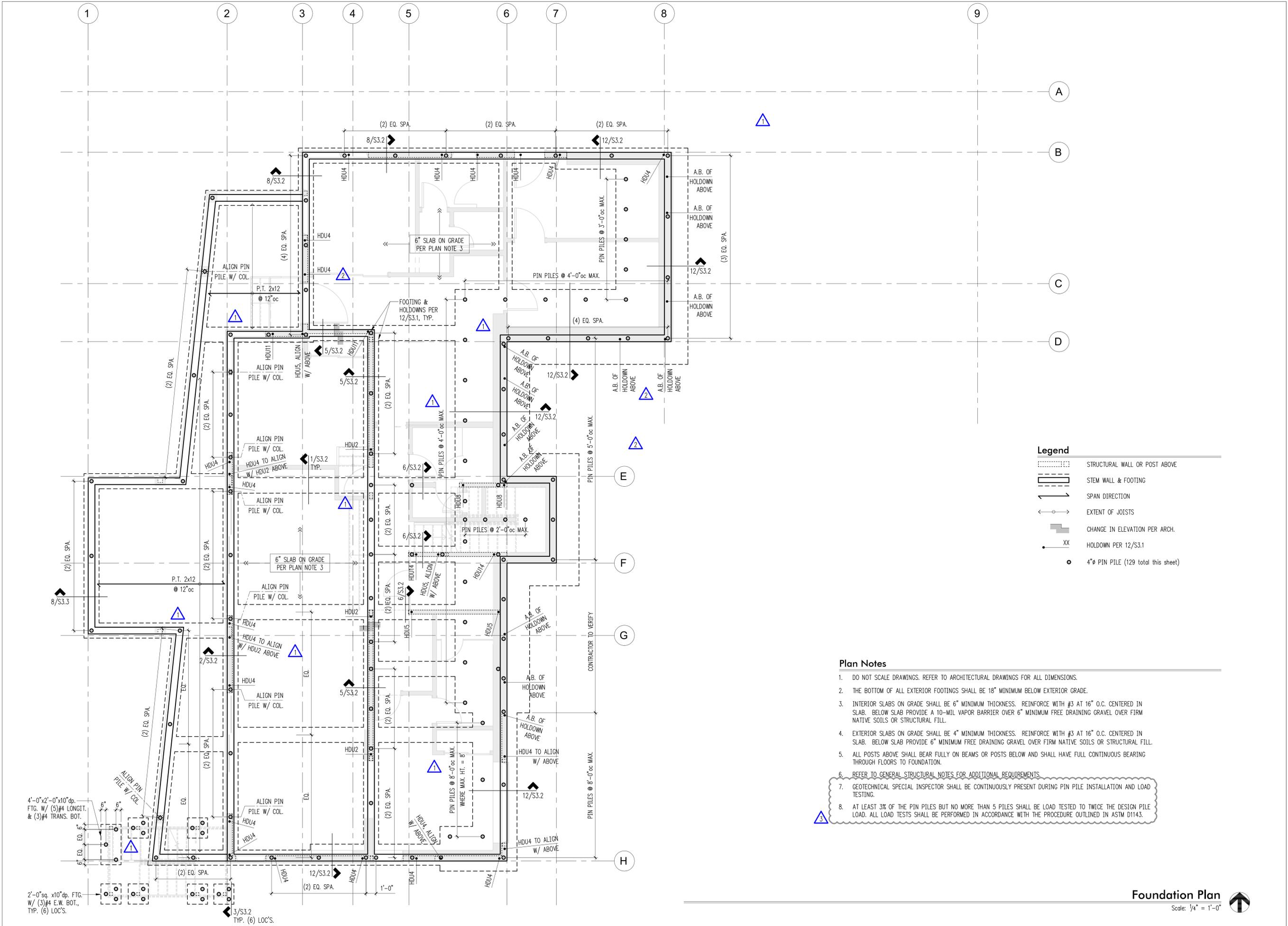
SCALE:
1/4" = 1'-0" U.N.O.

DATE:
April 20, 2019

PROJECT NO:
01519-2019-01

SHEET NO:

S2.1



Legend

	STRUCTURAL WALL OR POST ABOVE
	STEM WALL & FOOTING
	SPAN DIRECTION
	EXTENT OF JOISTS
	CHANGE IN ELEVATION PER ARCH.
	HOLDOWN PER 12/S3.1
	4" PIN PILE (129 total this sheet)

- Plan Notes**
- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
 - THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW EXTERIOR GRADE.
 - INTERIOR SLABS ON GRADE SHALL BE 6" MINIMUM THICKNESS. REINFORCE WITH #3 AT 16" O.C. CENTERED IN SLAB. BELOW SLAB PROVIDE A 10-MIL VAPOR BARRIER OVER 6" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL.
 - EXTERIOR SLABS ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH #3 AT 16" O.C. CENTERED IN SLAB. BELOW SLAB PROVIDE 6" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL.
 - ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
 - REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
 - GEOTECHNICAL SPECIAL INSPECTOR SHALL BE CONTINUOUSLY PRESENT DURING PIN PILE INSTALLATION AND LOAD TESTING.
 - AT LEAST 3% OF THE PIN PILES BUT NO MORE THAN 5 PILES SHALL BE LOAD TESTED TO TWICE THE DESIGN PILE LOAD. ALL LOAD TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN ASTM D1143.

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



DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

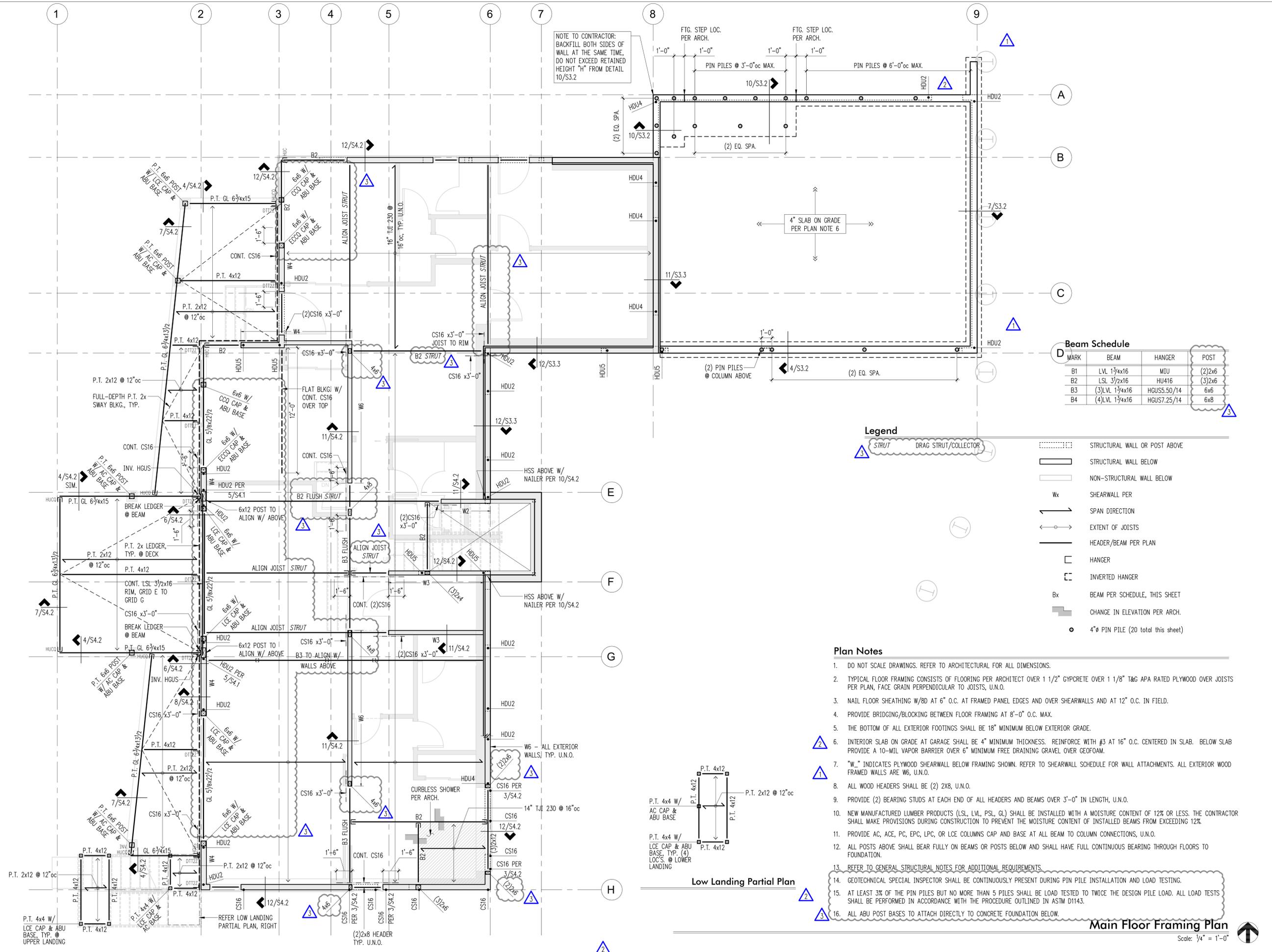
ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Main Floor Framing Plan

SCALE: 1/4" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

S2.2





DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

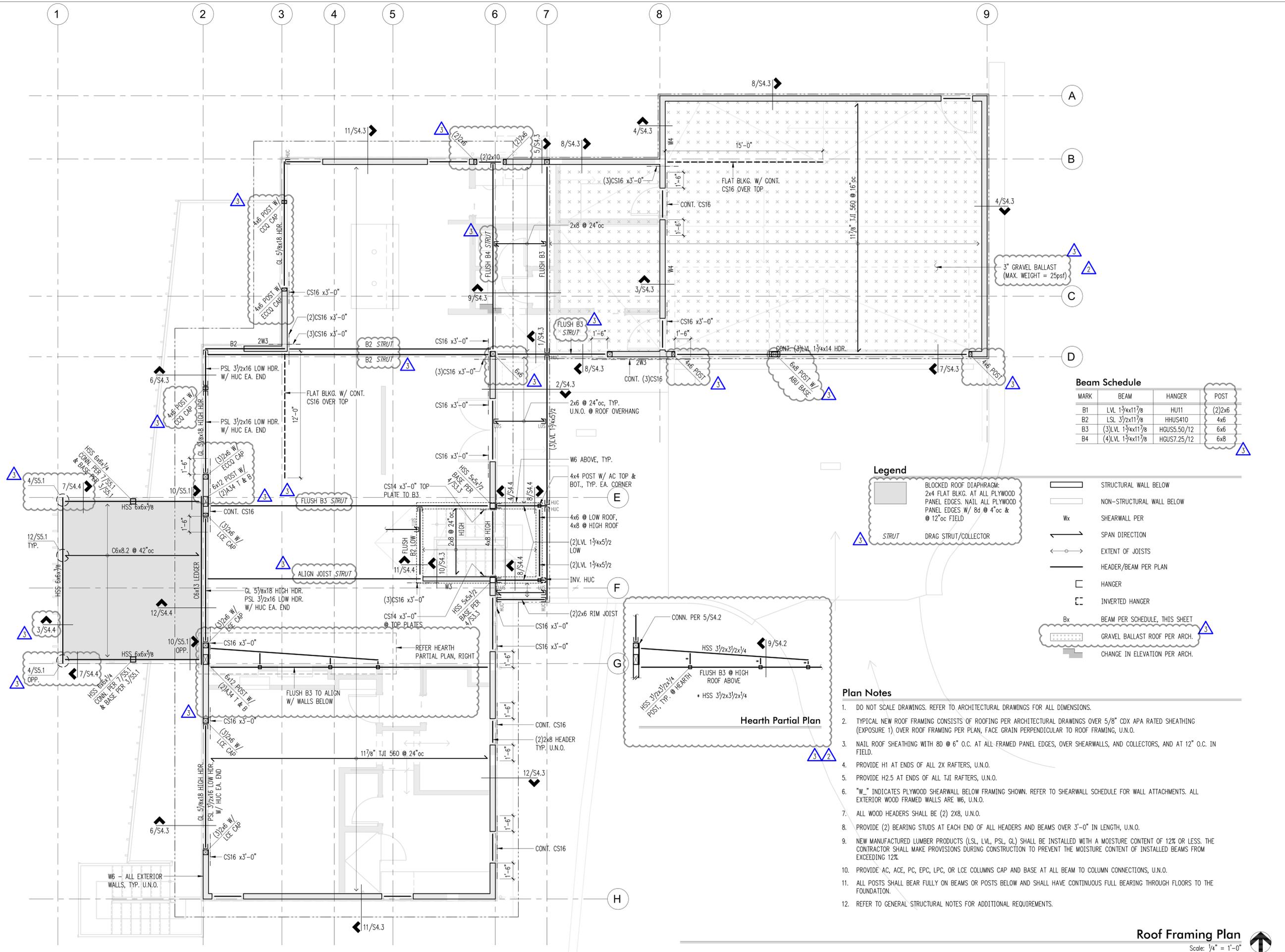
ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Roof Framing Plan

SCALE: 1/4" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

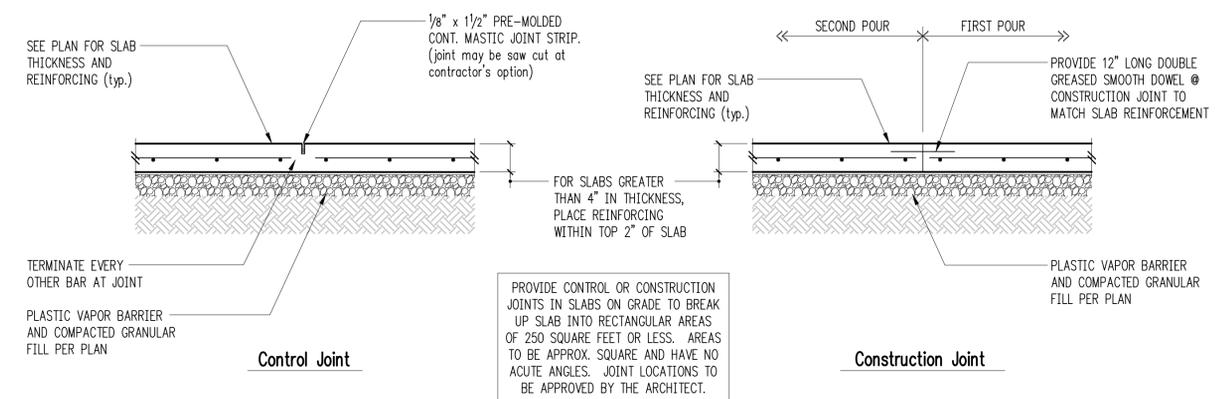
S2.3



Roof Framing Plan
 Scale: 1/4" = 1'-0"



DESIGN: SRW, HAA
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS



Typical Slab Joints 4

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

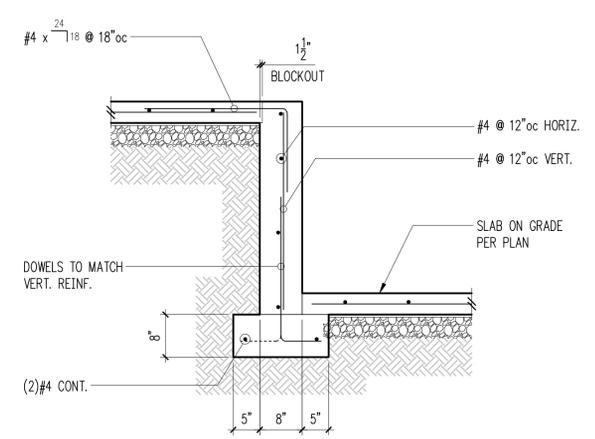
SHEET TITLE:
Typical Concrete Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: April 20, 2019
PROJECT NO: 01519-2019-01
SHEET NO:

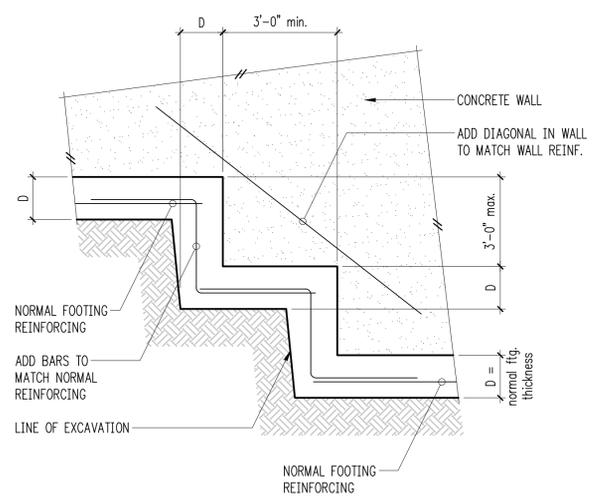
S3.1

1

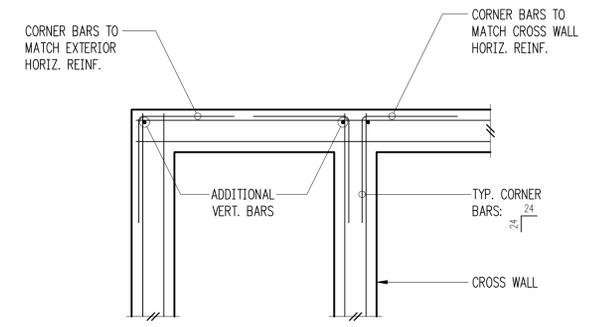
2



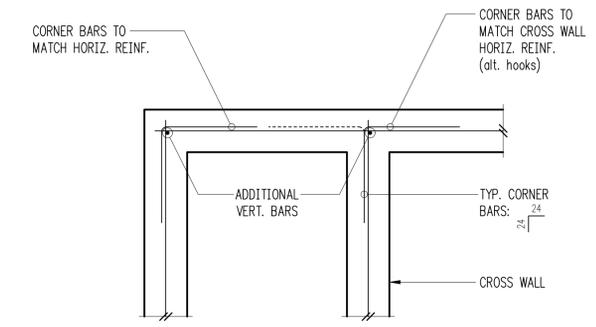
Typical Elevation Change 5



Typical Stepped Footing 6

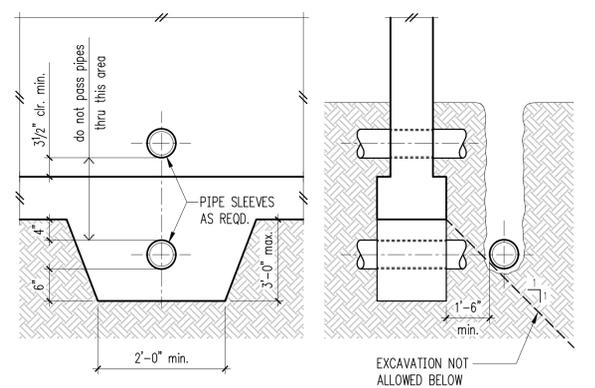


Double Curtain

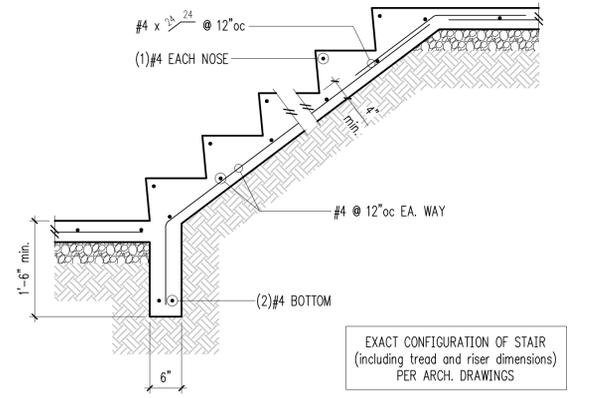


Single Curtain

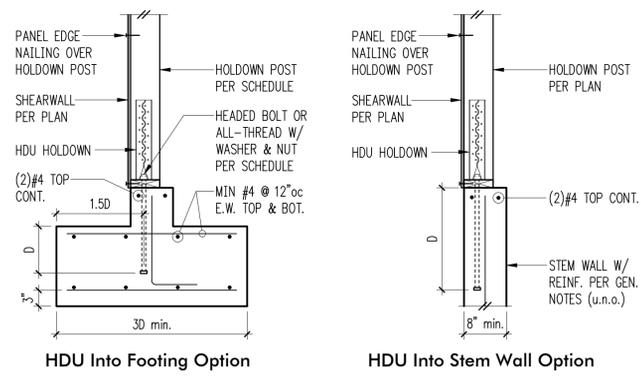
Typical Corner Bars at Concrete Walls and Footings 8



Pipe and Trench Locations 9



Typical Stair On Grade 10



HDU Into Footing Option

HDU Into Stem Wall Option

Holddown Schedule

Plan Mark	Screws	Anchor Bolt	Min. A.B. Embed (D)		Holddown Post ①	
			Stem Wall	Footing	if 2x4	if 2x6
HDU2-SDS2.5	(6)SDS 1/4"x2 1/2"	5/8" PAB5	12"	4"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS 1/4"x2 1/2"	5/8" PAB5	18"	6"	4x4	4x6
HDU5-SDS2.5	(14)SDS 1/4"x2 1/2"	5/8" PAB5	S8 9/8x24	7"	4x4	4x6
HDU8-SDS2.5	(20)SDS 1/4"x2 1/2"	7/8" PAB7	SSTB28	8"	4x6	6x6
HDU11-SDS2.5	(30)SDS 1/4"x2 1/2"	1" PAB8	SB1x30	10"	4x8	6x6
HDU14-SDS2.5	(36)SDS 1/4"x2 1/2"	1" PAB8	N/A	12"	4x8	6x6

① MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

Typical HDU Holddown 12



DESIGN: SRW, HAA
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:
1 Revisions Oct. 09, 2019
2 Revisions Dec. 20, 2019
3 Revisions Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

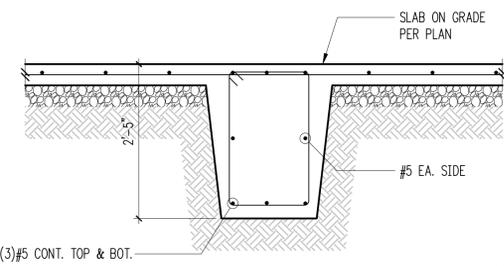
ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

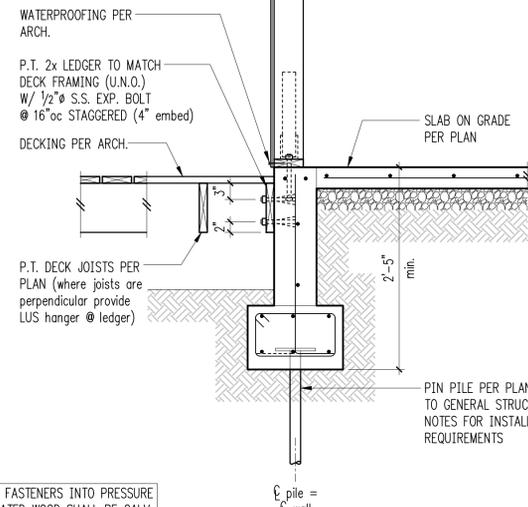
SHEET TITLE:
**Foundation
Details**

SCALE: 3/4" = 1'-0" U.N.O.
DATE: April 20, 2019
PROJECT NO: 01519-2019-01
SHEET NO:

S3.2

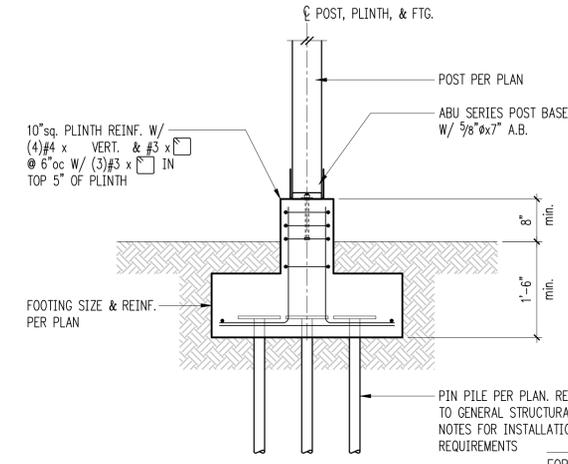


FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 1

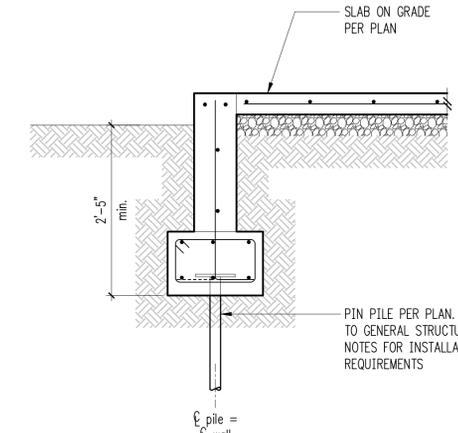


ALL FASTENERS INTO PRESSURE TREATED WOOD SHALL BE GALV. OR STAINLESS STEEL PER GENERAL NOTES

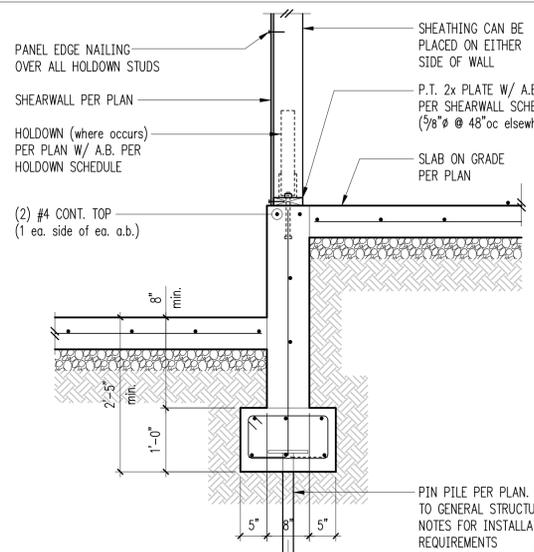
FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 2



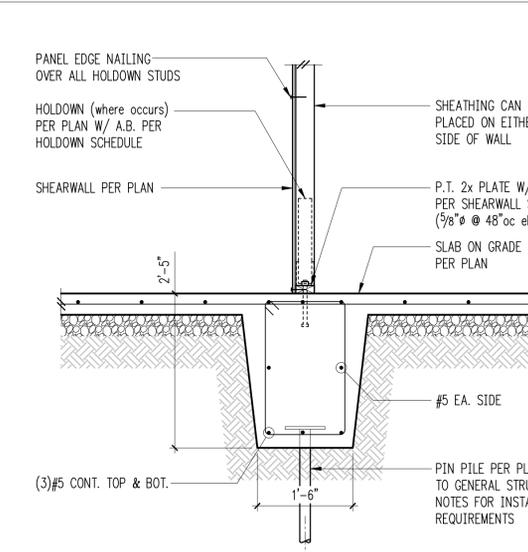
FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 3



FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 1 4

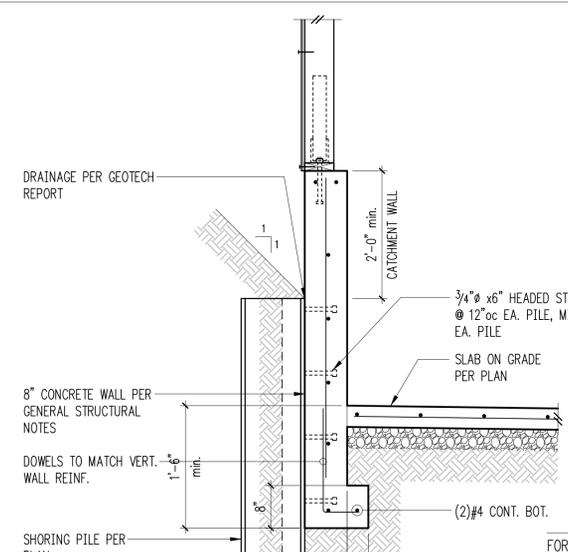


FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 5

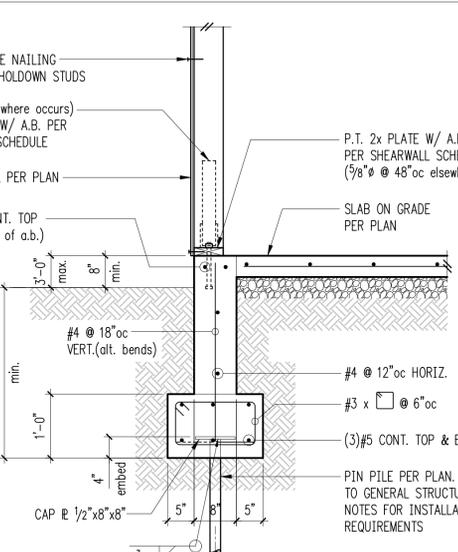


ALL FASTENERS INTO PRESSURE TREATED WOOD SHALL BE GALV. OR STAINLESS STEEL PER GENERAL NOTES

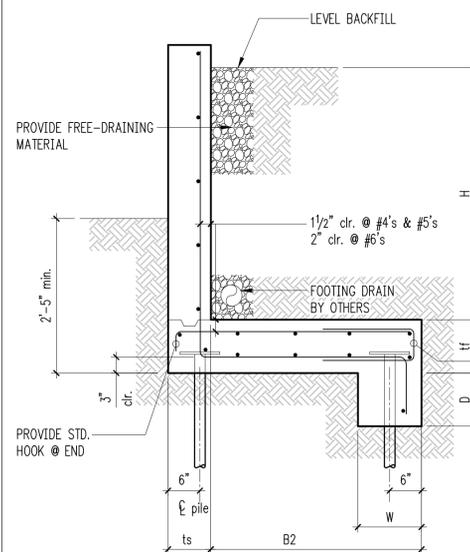
FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 6



FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 1 7



FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 3 2 8

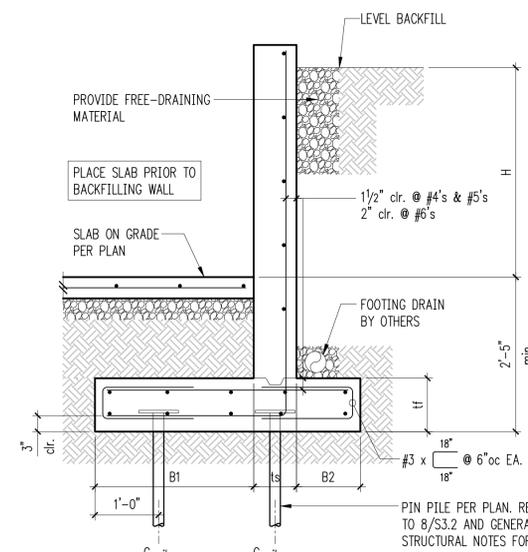


Property Line Retaining Wall Schedule

H (ft.)	B2	ts	tf	D	W	Stem Reinforcing		Footing Reinforcing		Key Reinforcing	
						Vert.	Horiz.	Top	Longit. Top & bot.	Longit.	Vert
4'-0"	1'-6"	8"	9"	9"	8"	#4 @ 18"oc	#4 @ 12"oc	#4 @ 18"oc	(2)#4	-	-
6'-0"	2'-9"	8"	10"	16"	8"	#4 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(4)#4	(1)#4	#4 @ 12"oc
8'-0"	5'-3"	8"	12"	24"	10"	#5 @ 12"oc	#4 @ 12"oc	#6 @ 12"oc	(5)#5	(1)#4	#4 @ 12"oc
12'-6"	6'-9"	12"	18"	36"	12"	#7 @ 9"oc	(2)#4 @ 12"oc	#6 @ 12"oc	(6)#6	(2)#5	#5 @ 12"oc

#3 x 18" @ 18"oc

FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 1 10



Retaining Wall Schedule W/ Slab

H (ft.)	B1	ts	B2	tf	Stem Reinforcing		Footing Reinforcing	
					Vert.	Horiz.	Top	Longit. Top & bot.
3'-0"	5"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	-	(2)#4
4'-0"	1'-0"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	-	(2)#4
6'-0"	2'-3"	8"	5"	10"	#4 @ 12"oc	#4 @ 12"oc	-	(4)#4
8'-0"	2'-9"	8"	1'-0"	12"	#5 @ 12"oc	#4 @ 12"oc	#4 @ 18"oc	(6)#5
10'-0"	3'-9"	8"	1'-6"	18"	#7 @ 12"oc	#4 @ 12"oc	#4 @ 18"oc	(8)#5
12'-6"	4'-6"	10"	2'-0"	18"	#9 @ 12"oc	#5 @ 12"oc	#4 @ 18"oc	(10)#5

FOR CALLOUTS
IN COMMON
REFER 8/S3.2
2 1 12



DESIGN: SRW, HAA
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

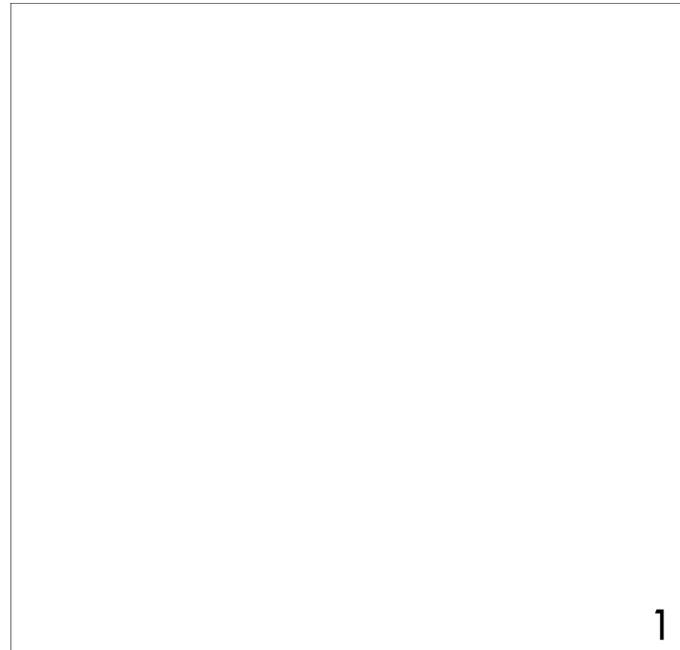
ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

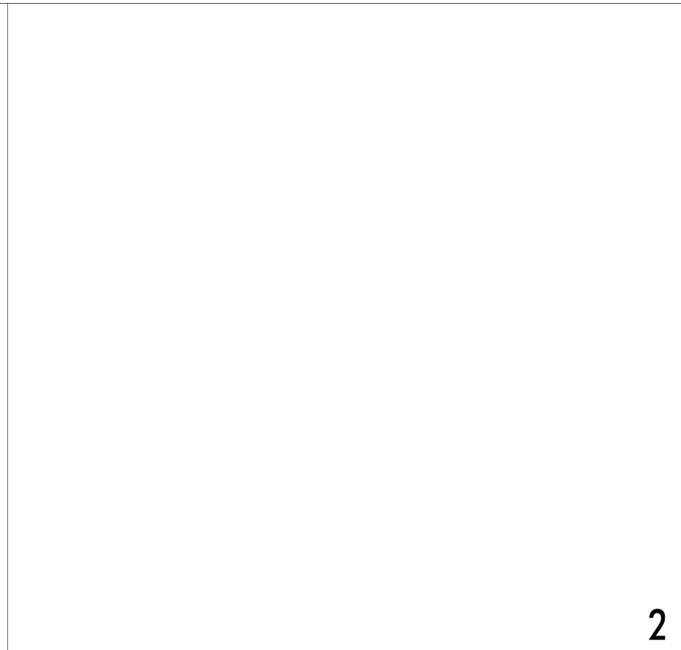
SHEET TITLE:
**Foundation
Details**

SCALE:
3/4" = 1'-0" U.N.O.
DATE:
April 20, 2019
PROJECT NO:
01519-2019-01
SHEET NO:

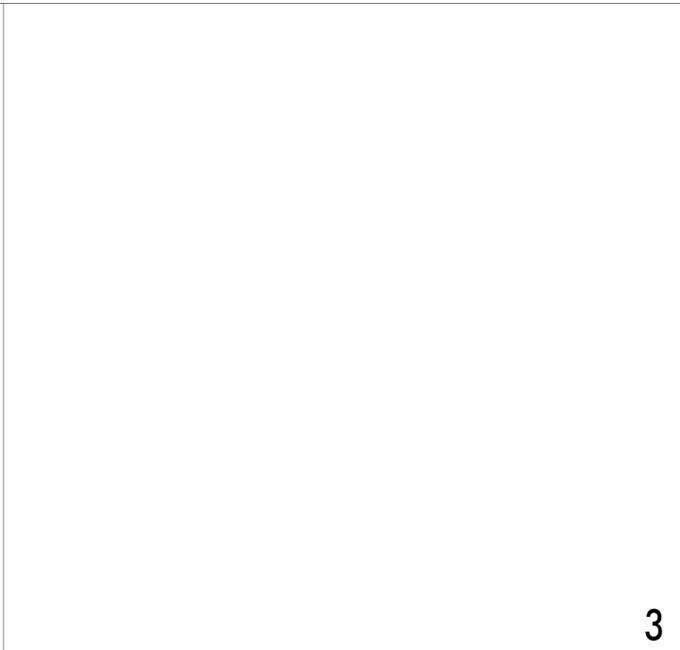
S3.3



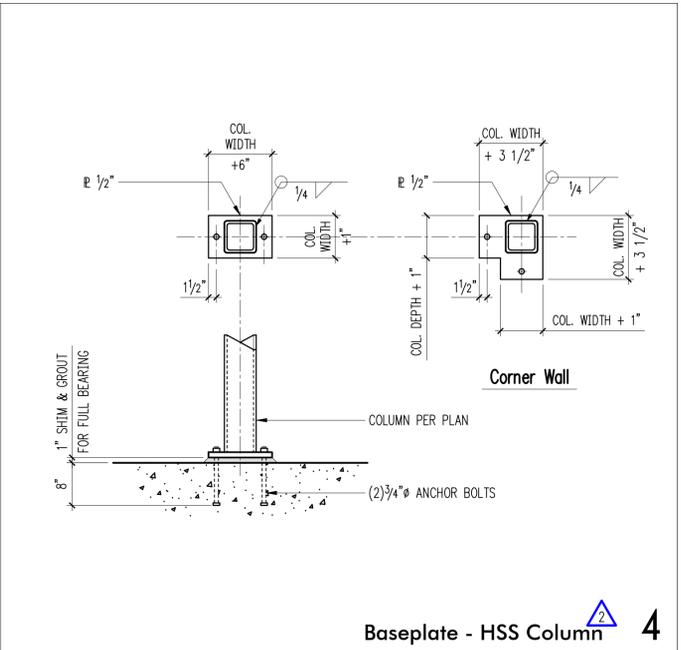
1



2



3



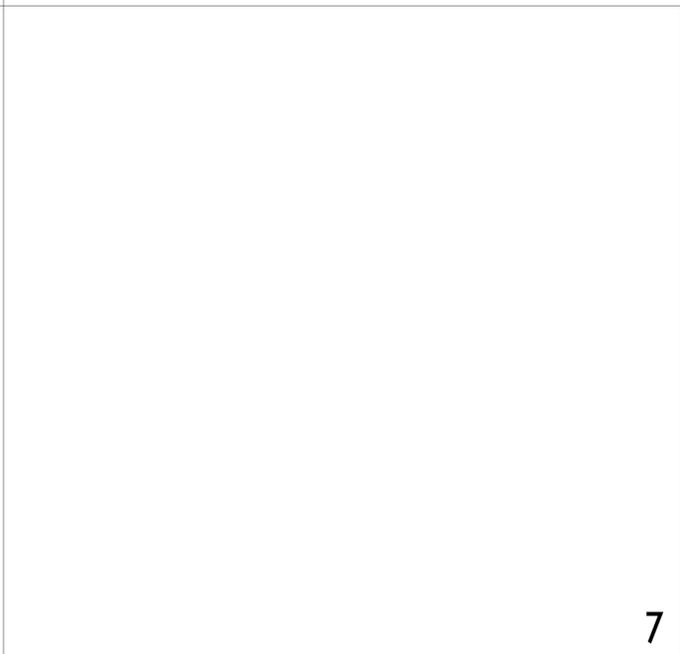
Baseplate - HSS Column ² 4



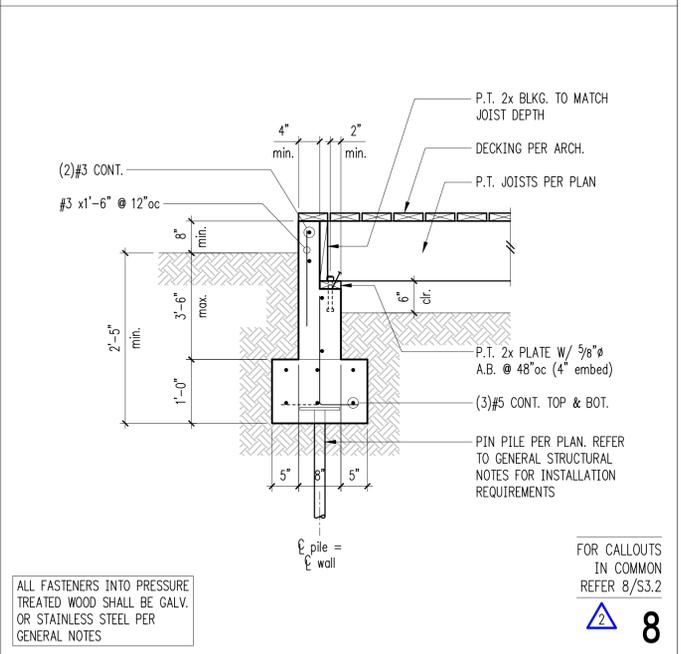
5



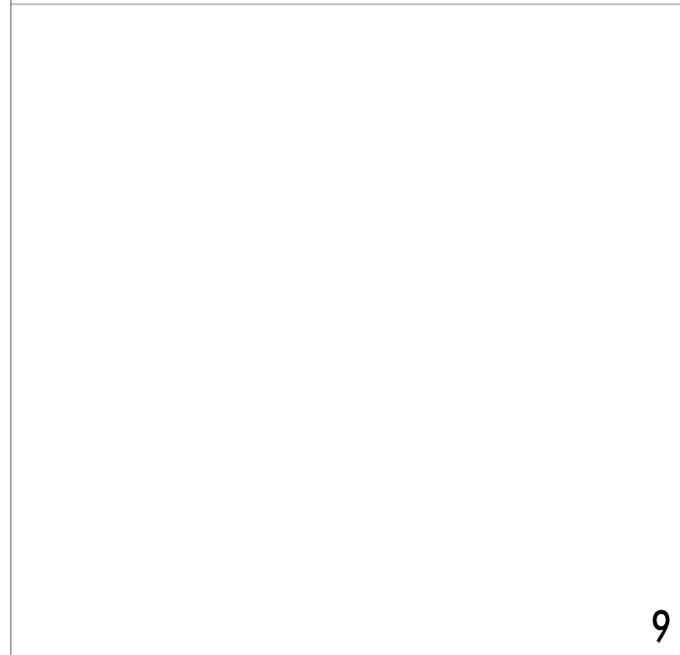
6



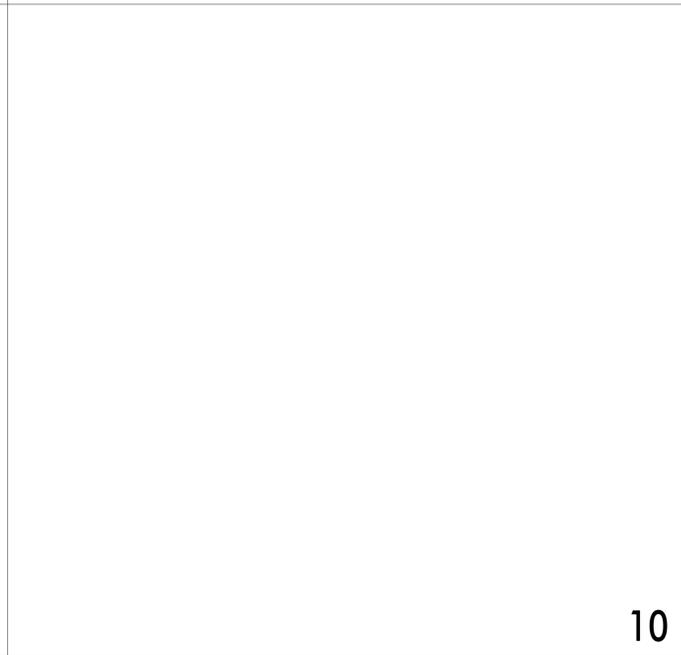
7



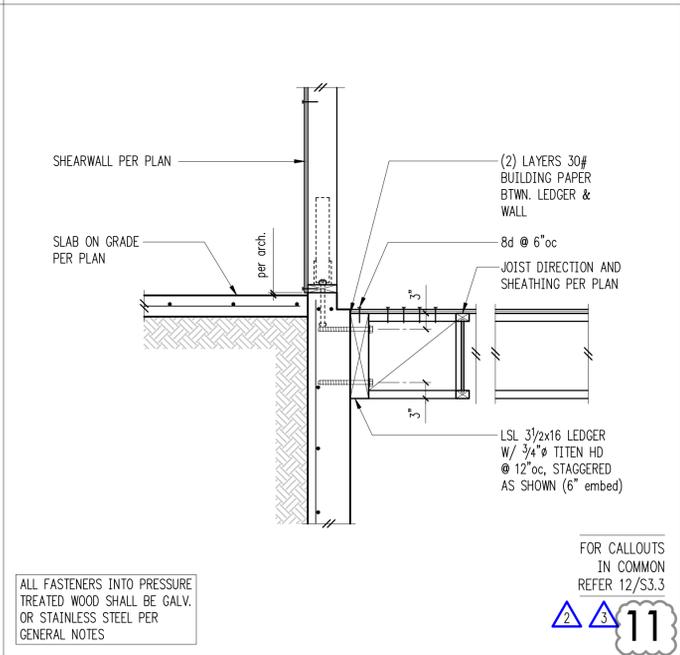
² 8



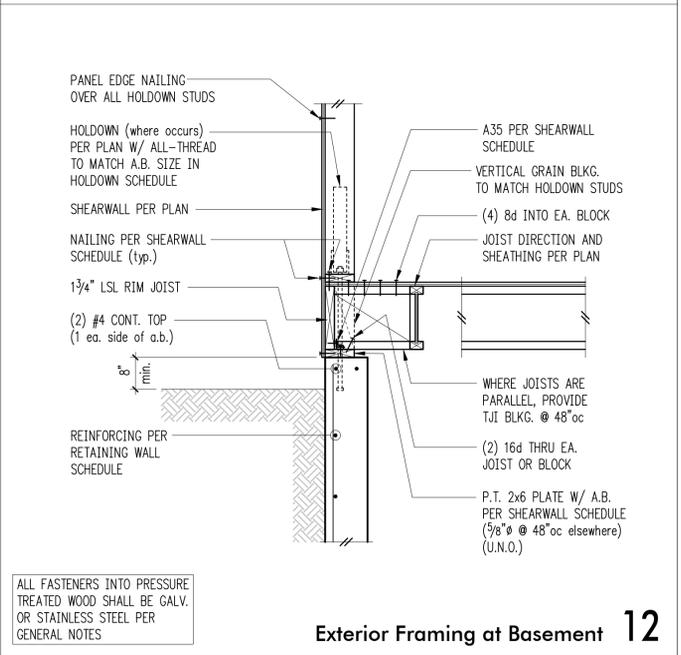
9



10



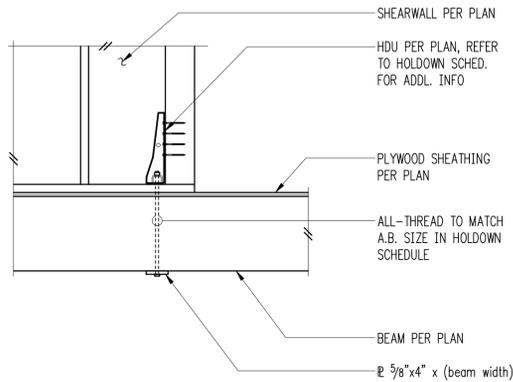
² ³ 11



12

ALL FASTENERS INTO PRESSURE
TREATED WOOD SHALL BE GALV.
OR STAINLESS STEEL PER
GENERAL NOTES

ALL FASTENERS INTO PRESSURE
TREATED WOOD SHALL BE GALV.
OR STAINLESS STEEL PER
GENERAL NOTES

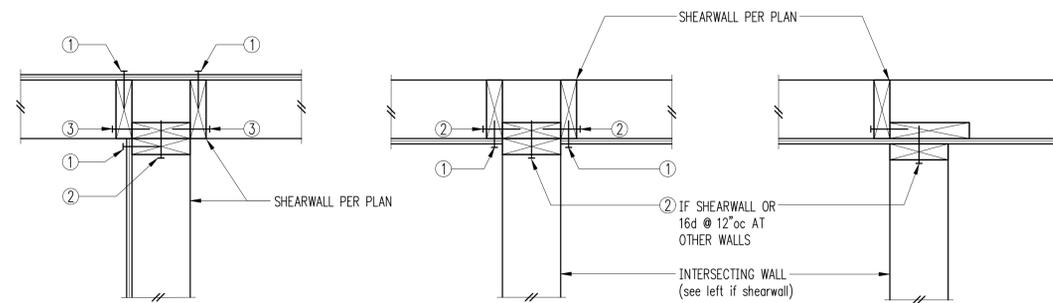


HDU at Floor Beam 1

	A	B	C
PLAN VIEW			
SECTION			
# OF WOOD BMS (LVL)	2-1 3/4"	3-1 3/4"	4-1 3/4"
SDS SCREW SIZE	1/4"x3 1/2"	1/4"x4 1/2"	1/4"x6"
# OF SDS SCREWS	3	3	3
SPACING OF SDS SCREWS	16"oc	8"oc	6"oc

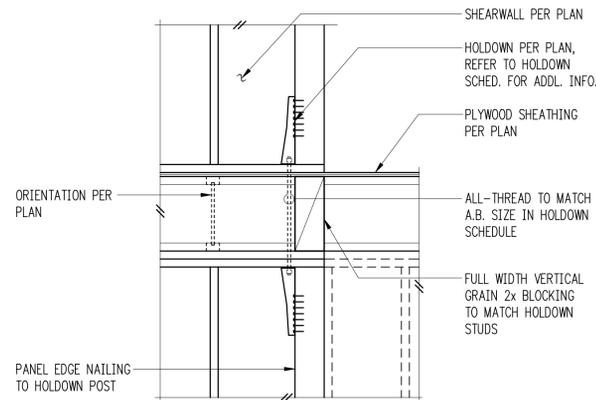
NOTES:
- MIN. SCREW END DISTANCE = 4"

Sistering Schedule for Multi Beams 2

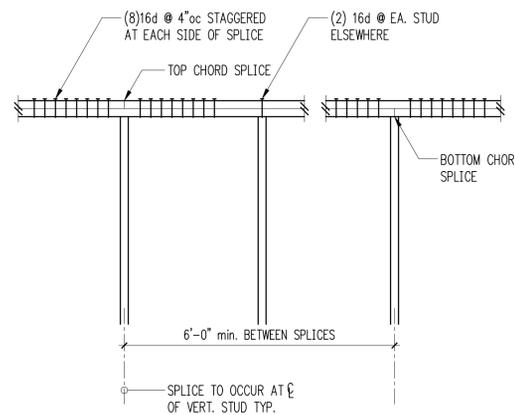


- 1 PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE
- 2 BASE PLATE NAILING PER SHEARWALL SCHEDULE
- 3 16d @ 8"oc

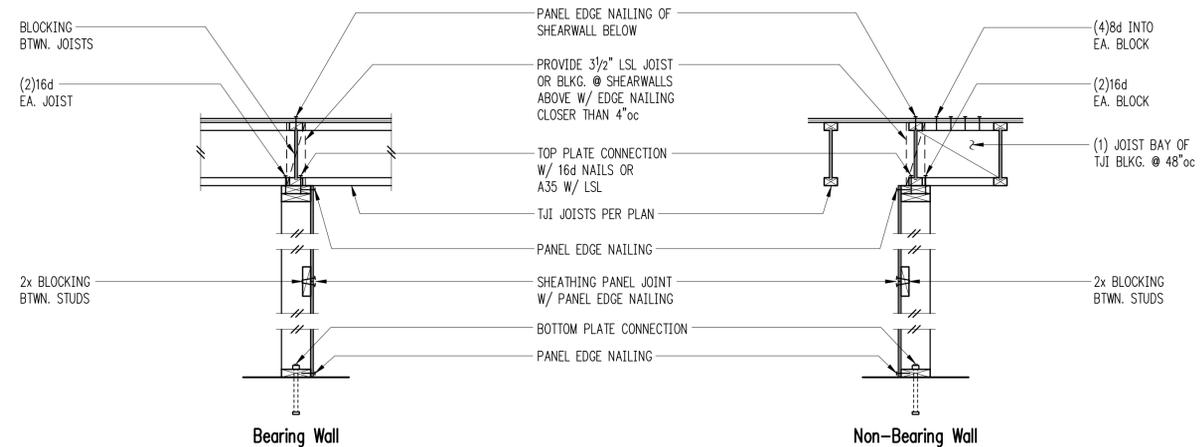
Typical Shearwall Intersections 4



Typical HDU Holdowns 5

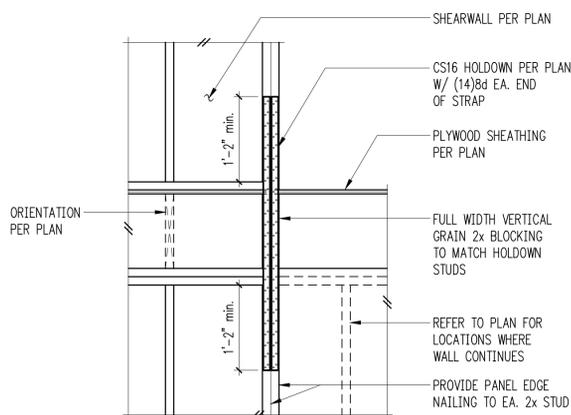


Typical Top Plate Splice 6

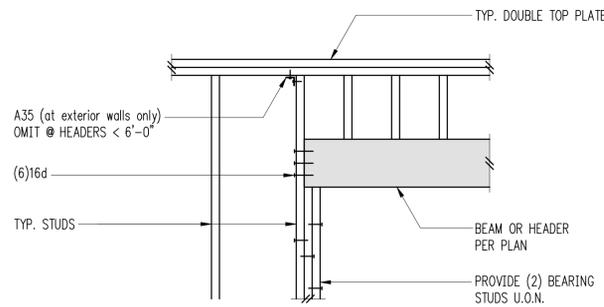


NOTE:
SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, NOT OTHERWISE NOTED

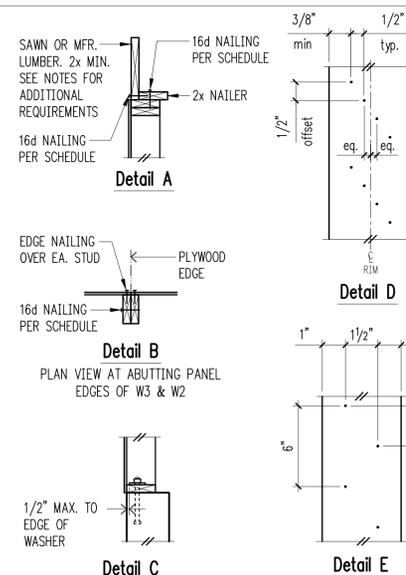
Typical Shearwall Construction 8



Typical CS16 Holdown 9



Typical Header Support w/2 Bearing Studs 10



Shearwall Schedule 1 2 3 4 5 6 7 8

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if Wood ①	at Wood ①②	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc ⑩	(2)rows 16d @ 6"oc	5/8" A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc ⑩	(2)rows 16d @ 4"oc ⑬	5/8" A.B. @ 32"oc
W3 ④	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc ⑩	(2)rows 16d @ 4"oc ⑬	5/8" A.B. @ 24"oc
W2 ⑤	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc ⑩	(3)rows 16d @ 4"oc ⑬	5/8" A.B. @ 16"oc
2W3 ⑥	15/32" CDX PLYWOOD, EA. SIDE	8d @ 3"oc EA. SIDE	n/a	A35 @ 6"oc	(4)rows 16d @ 4"oc ⑬	5/8" A.B. @ 16"oc
2W2 ⑦	15/32" CDX PLYWOOD, EA. SIDE	8d @ 2"oc EA. SIDE	n/a	HGA10KT @ 8"oc	(2)ROWS SDS 1/4"x5" 6"oc ⑮	5/8" A.B. @ 12"oc
2W2-10 ⑧	15/32" CDX PLYWOOD, EA. SIDE	10d @ 2"oc EA. SIDE	n/a	HGA10KT @ 6"oc	n/a	5/8" A.B. @ 12"oc

- 1 BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"oc.
- 2 8d NAILS SHALL BE 0.131" x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" x 3 1/2" (box) - 10d NAILS SHALL BE 0.148" x 3" (common).
- 3 EMBED ANCHOR BOLTS AT LEAST 7". EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
- 4 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
- 5 3x FOUNDATION SILL PLATES ARE REQUIRED FOR 2W3 AND 2W2. 3x STUDS ARE REQUIRED AT ABUTTING PANEL EDGES AND PANEL JOINTS SHALL BE OFFSET EACH SIDE OF WALL. STAGGER NAILS AT ADJOINING PANEL EDGES. 3x STUD, MIN., REQUIRED AT END OF SHEARWALL.
- 6 TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SINGLE-SIDED SHEARWALLS. ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
- 7 ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
- 8 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX, EXCEPT AT 10d PANEL EDGE NAILING.
- 9 LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- 10 A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- 11 AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.
- 12 LVL RIMS PERMITTED AT "W6", "W4", & "W3" ONLY.
- 13 PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.
- 14 MINIMUM RIM OR JOIST 3/2" WIDE.
- 15 MINIMUM RIM OR JOIST 3/2" WIDE. SEE DETAIL E FOR SPACING REQUIREMENTS.

Shearwall Schedule 12



DESIGN: SRW, HAA
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

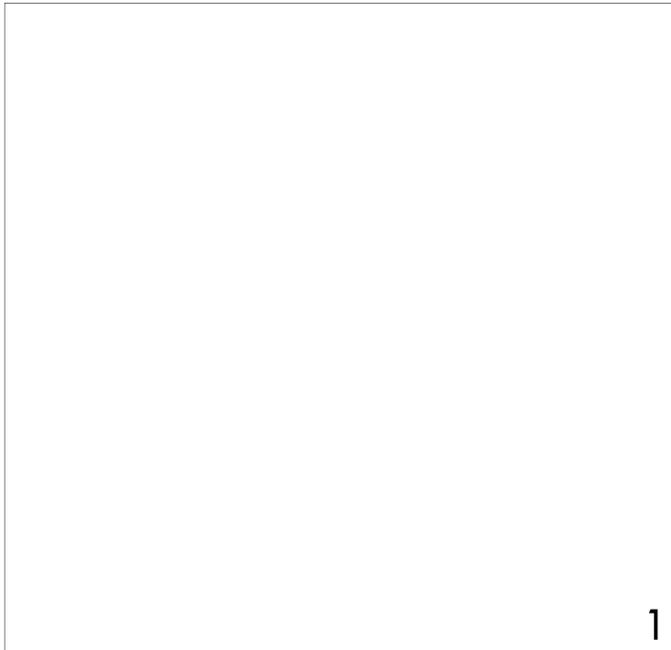
PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

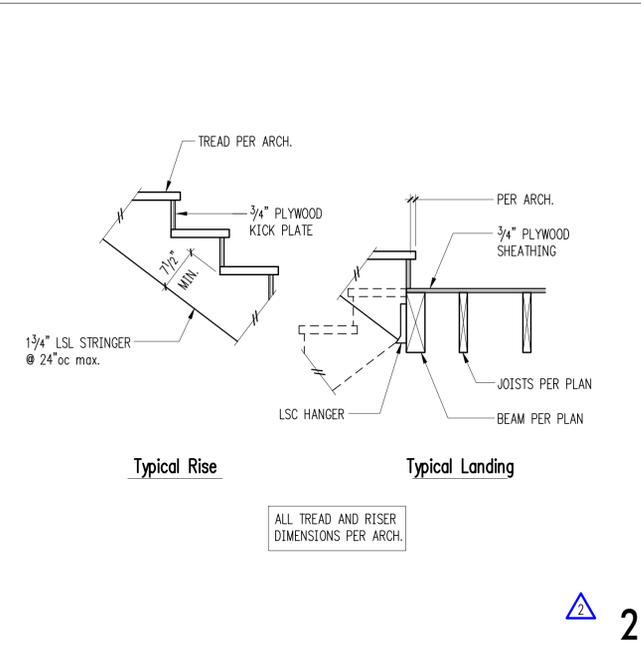
ISSUE:
PERMIT

SHEET TITLE:
Typical Wood Framing Details
SCALE: 3/4" = 1'-0" U.N.O.
DATE: April 20, 2019
PROJECT NO: 01519-2019-01
SHEET NO:

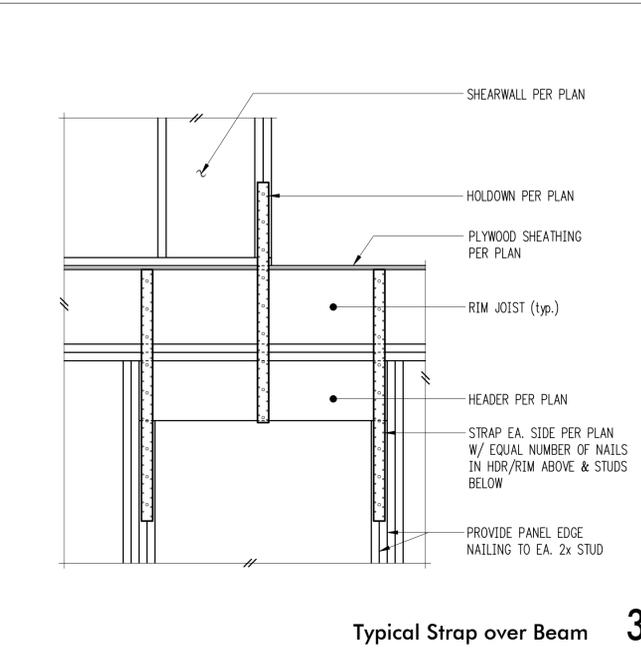
S4.1



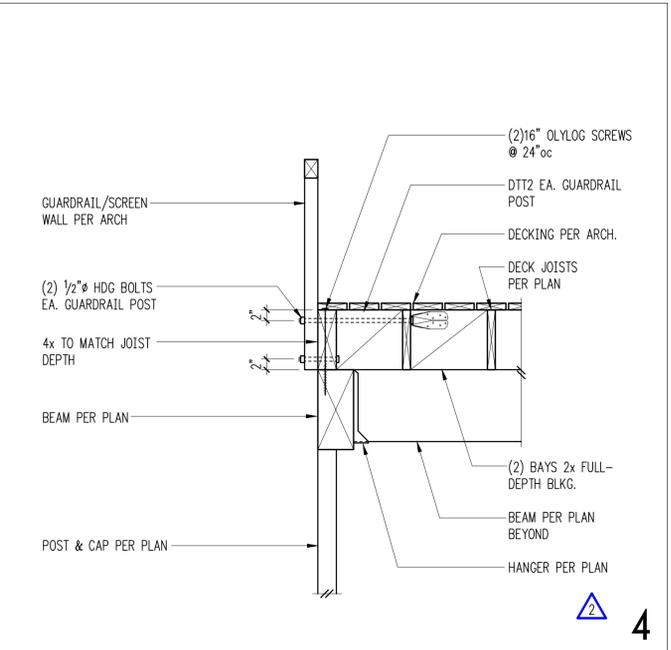
1



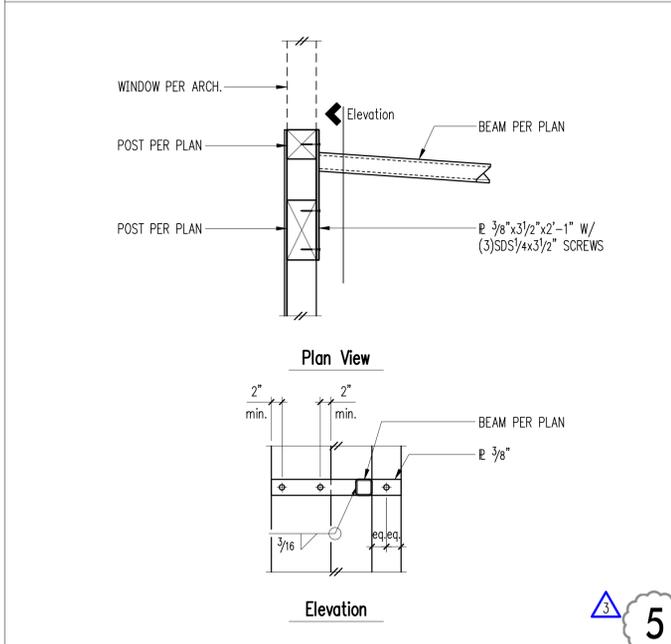
2



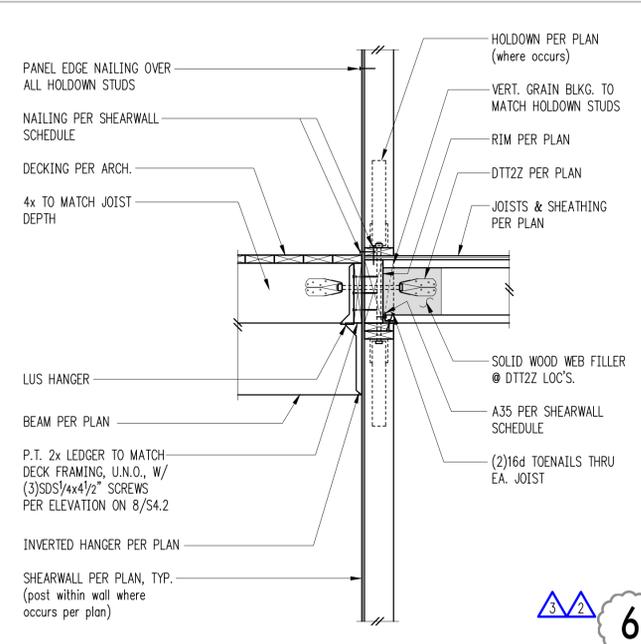
3



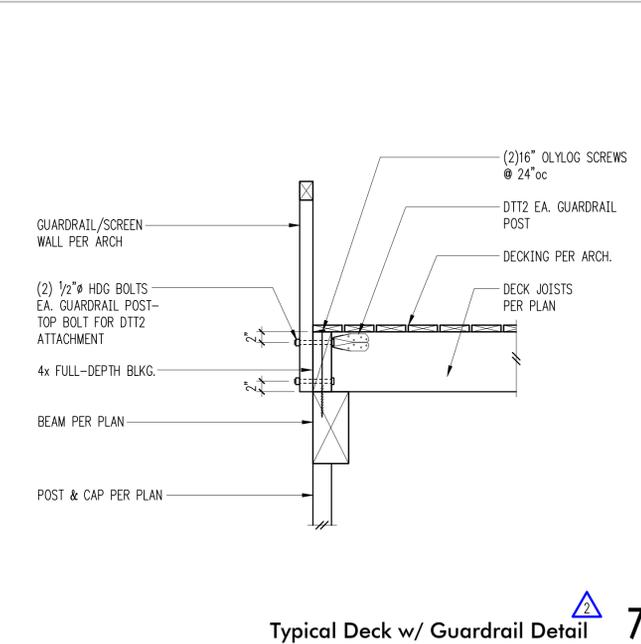
4



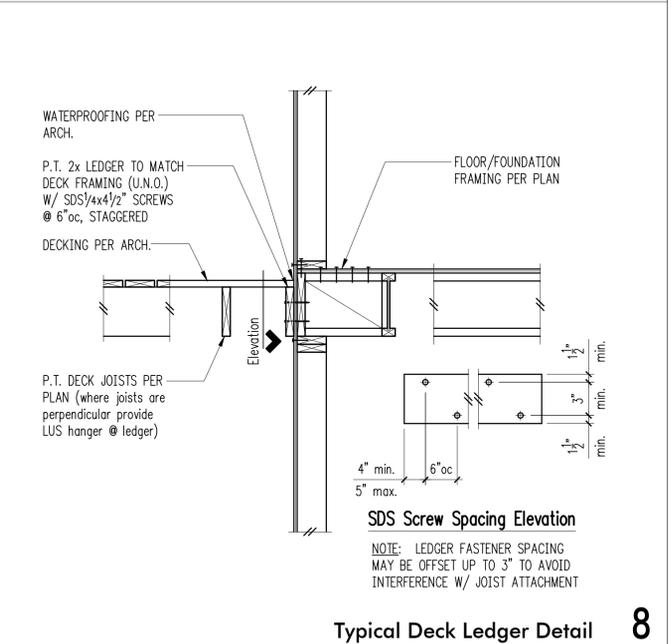
5



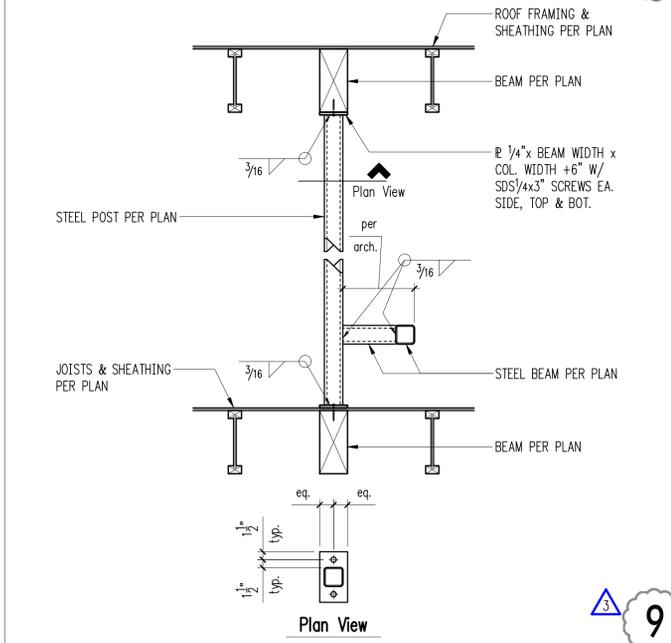
6



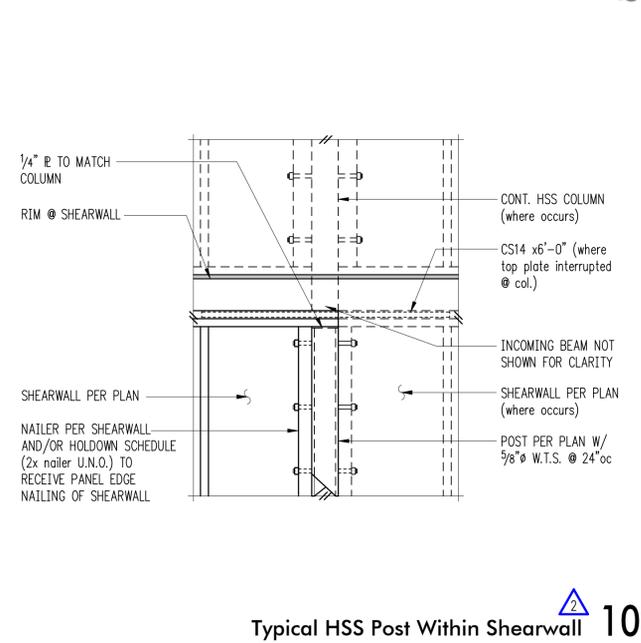
7



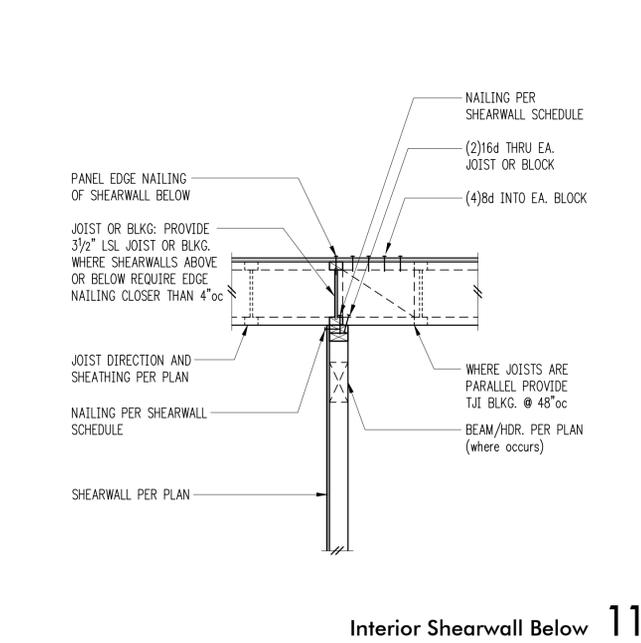
8



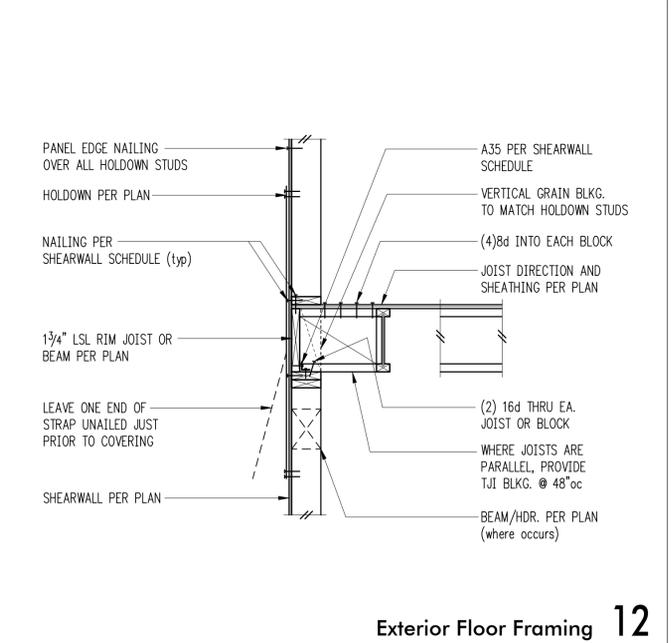
9



10



11



12



DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

S4.2



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:	
1	Revisions Oct. 09, 2019
2	Revisions Dec. 20, 2019
3	Revisions Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

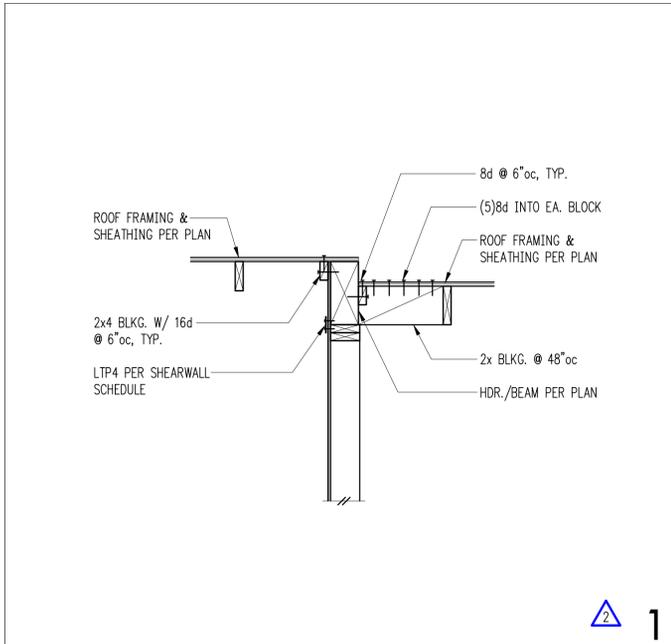
ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:
PERMIT

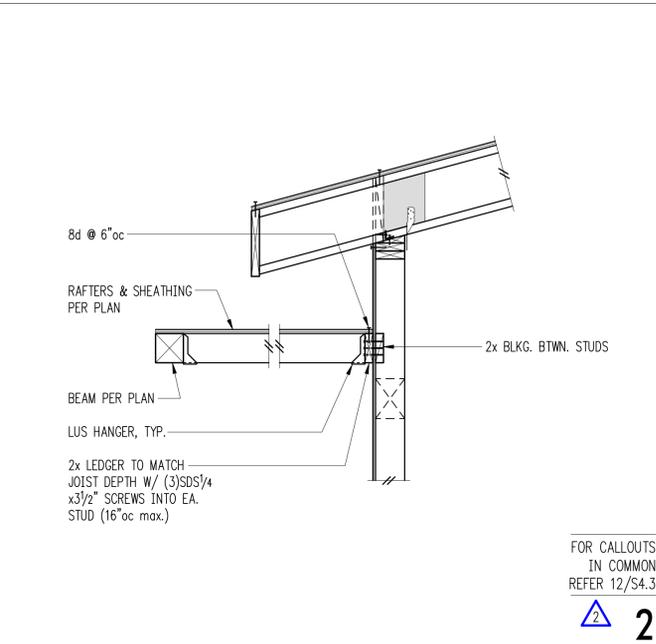
SHEET TITLE:
Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: April 20, 2019
PROJECT NO: 01519-2019-01
SHEET NO:

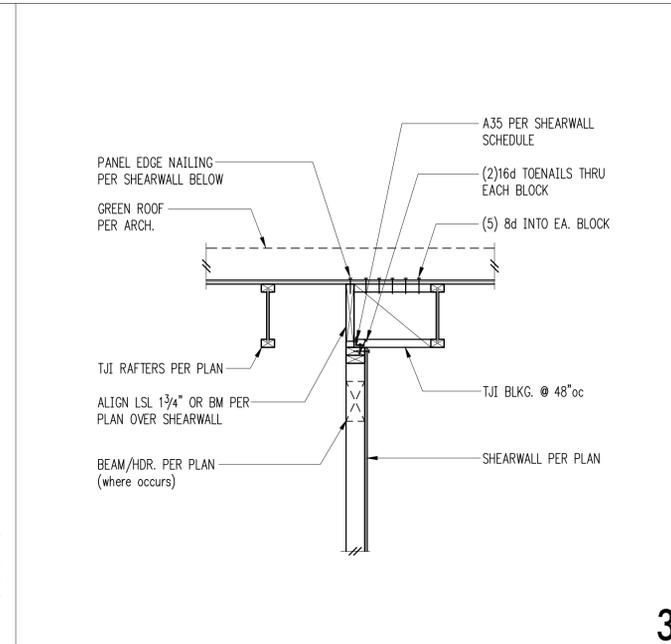
S4.3



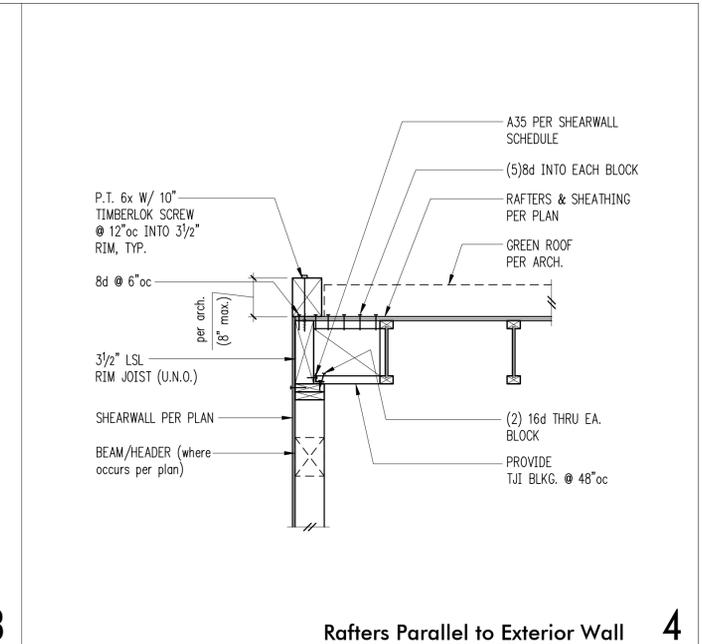
1



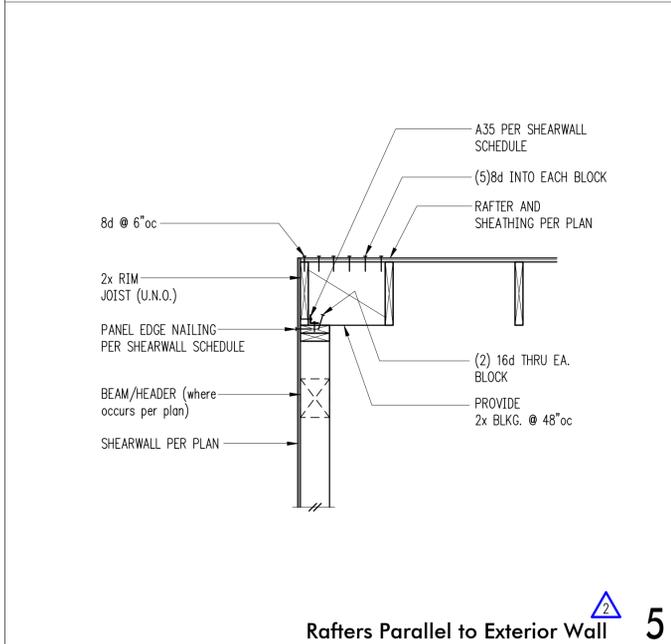
2
FOR CALLOUTS IN COMMON REFER 12/S4.3



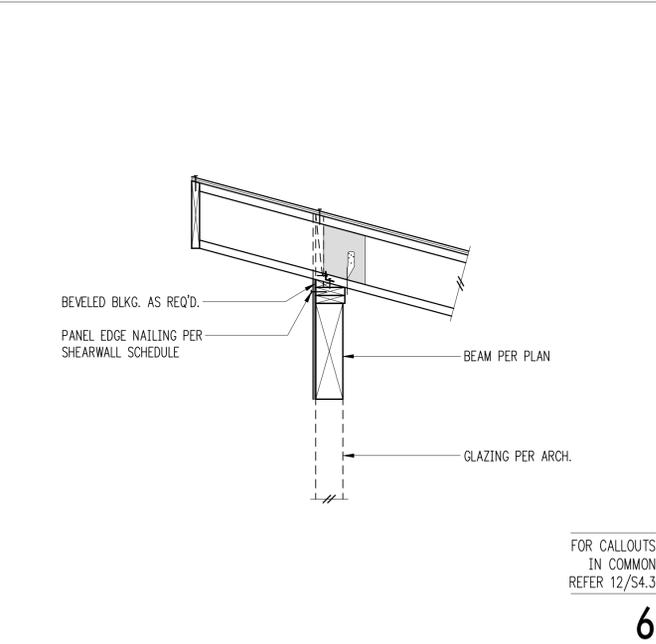
3



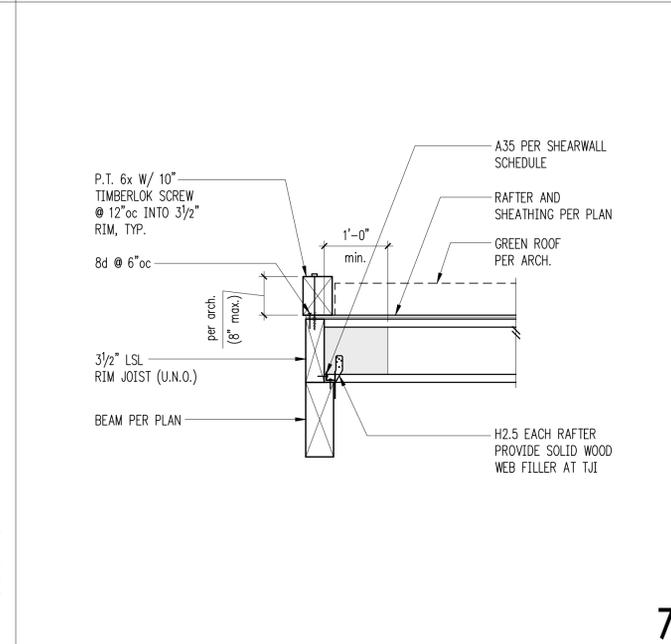
Rafters Parallel to Exterior Wall 4



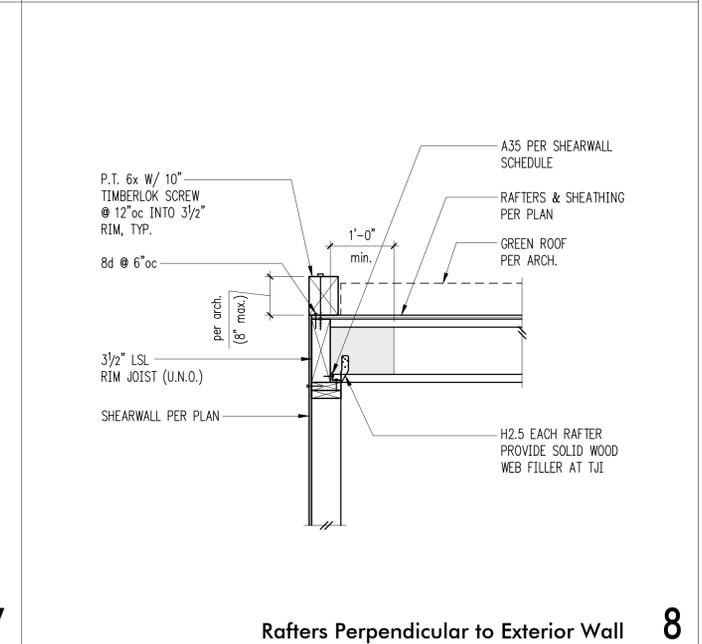
Rafters Parallel to Exterior Wall 5



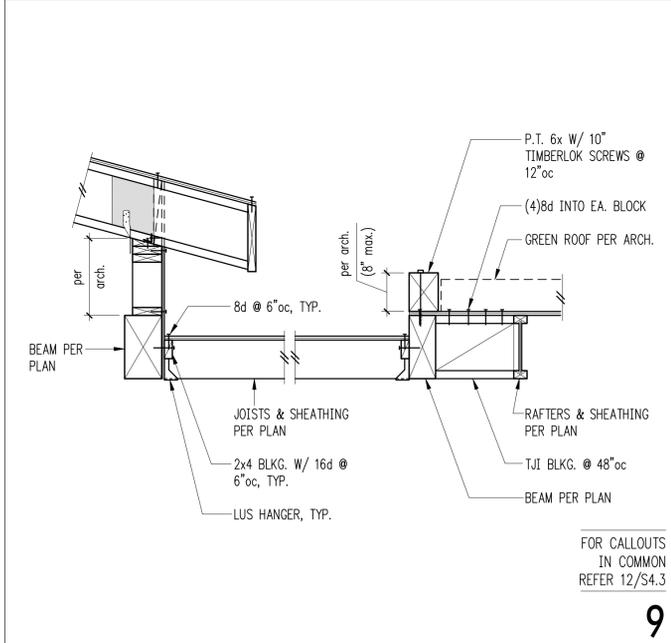
6
FOR CALLOUTS IN COMMON REFER 12/S4.3



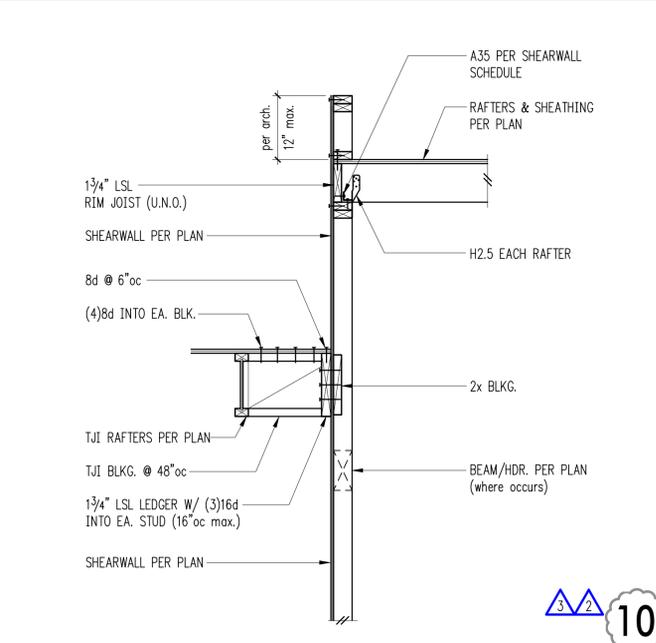
7



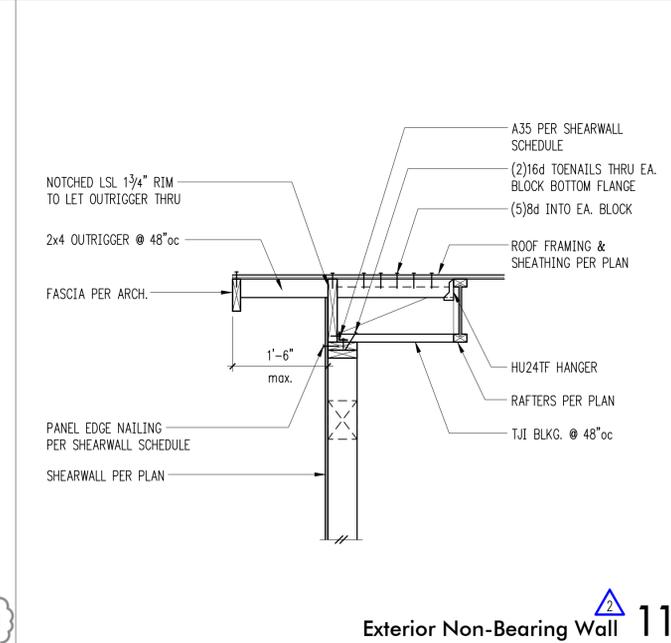
Rafters Perpendicular to Exterior Wall 8



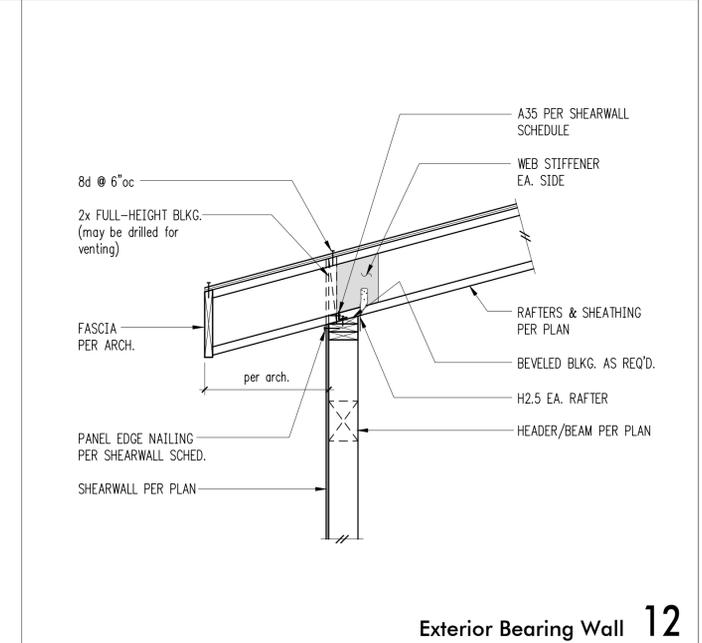
9
FOR CALLOUTS IN COMMON REFER 12/S4.3



10



Exterior Non-Bearing Wall 11



Exterior Bearing Wall 12



DESIGN: SRW, HAA
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

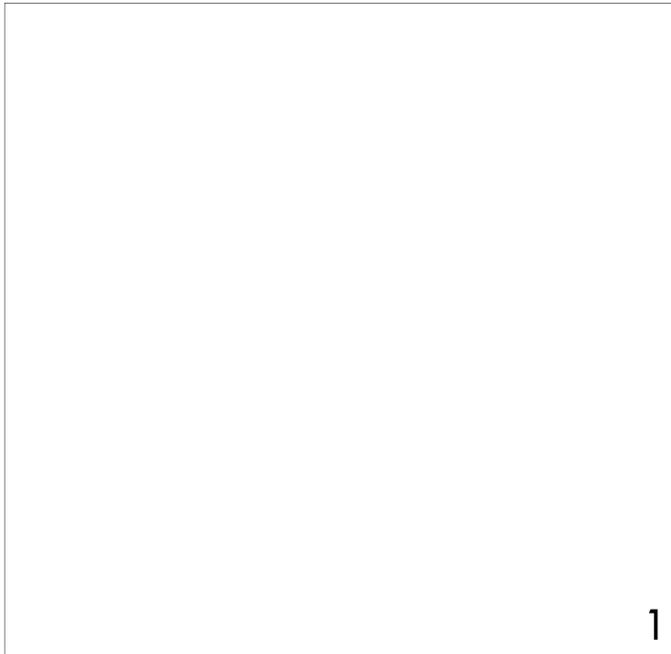
ISSUE:
PERMIT

SHEET TITLE:
**Wood Framing
Details**

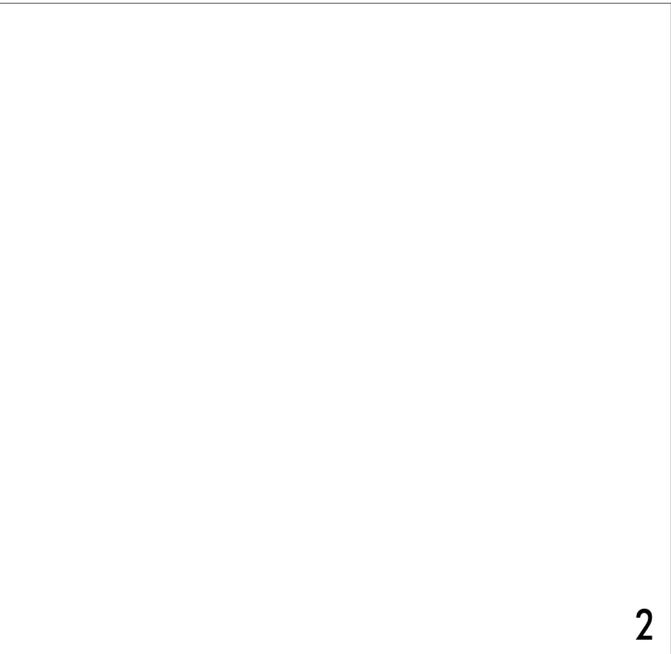
SCALE: 3/4" = 1'-0" U.N.O.
DATE: April 20, 2019
PROJECT NO: 01519-2019-01
SHEET NO:

FOR CALLOUTS
IN COMMON
REFER 6/S4.3

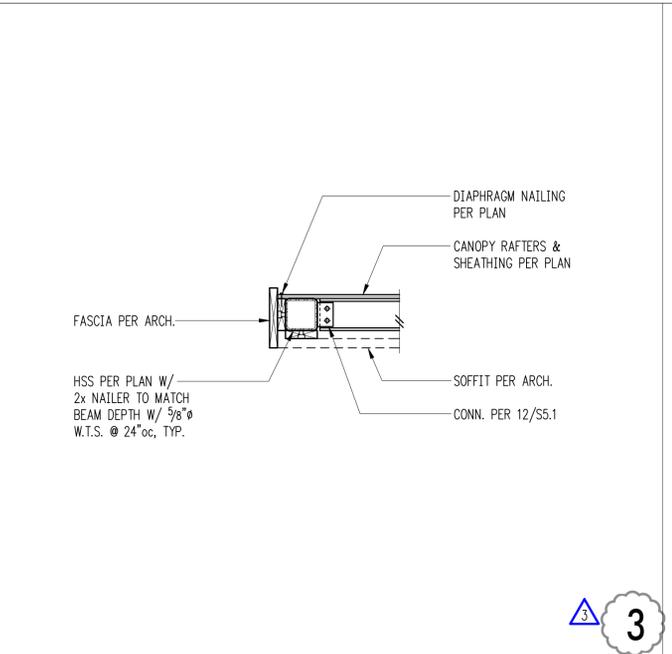
S4.4



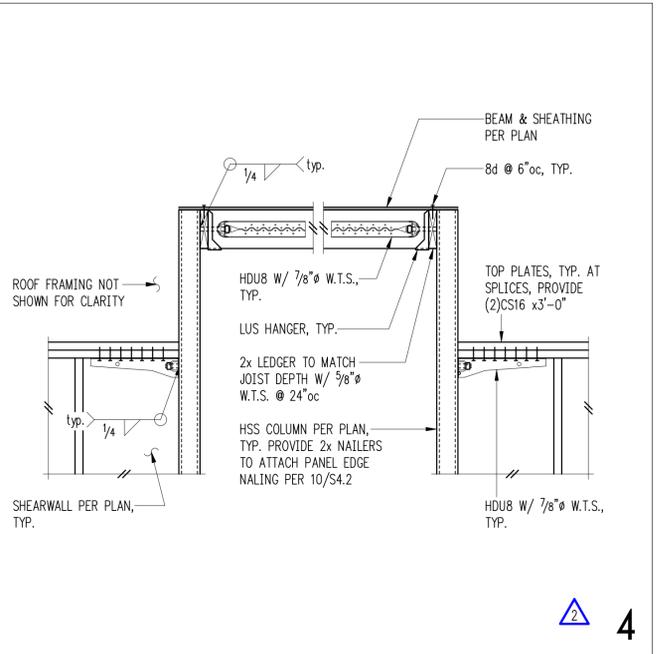
1



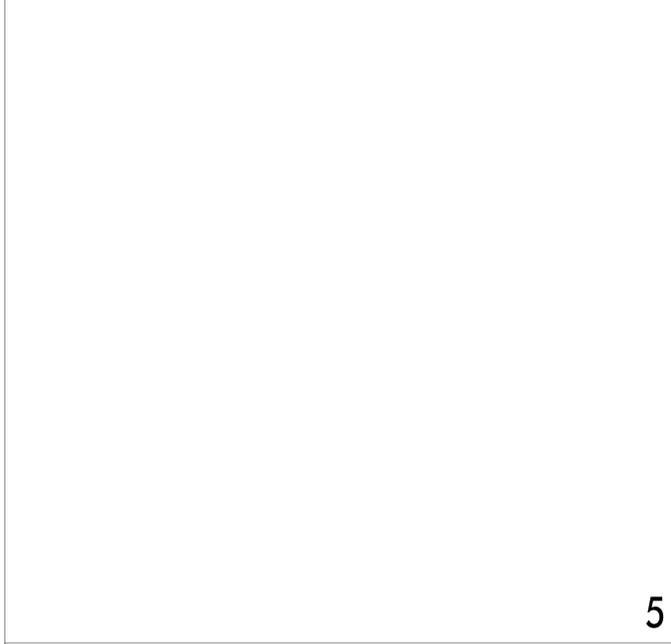
2



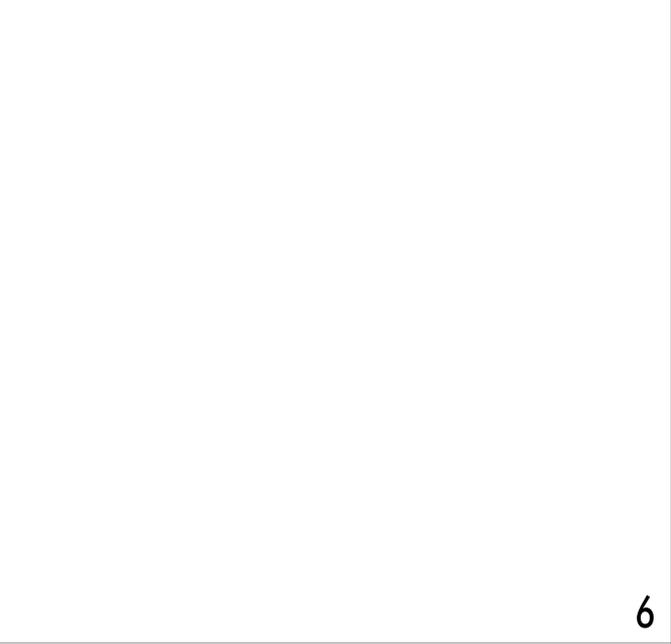
3



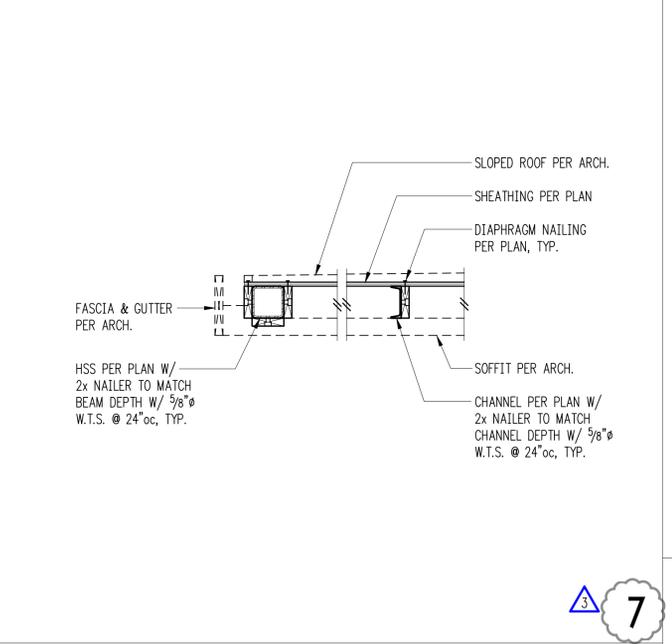
4



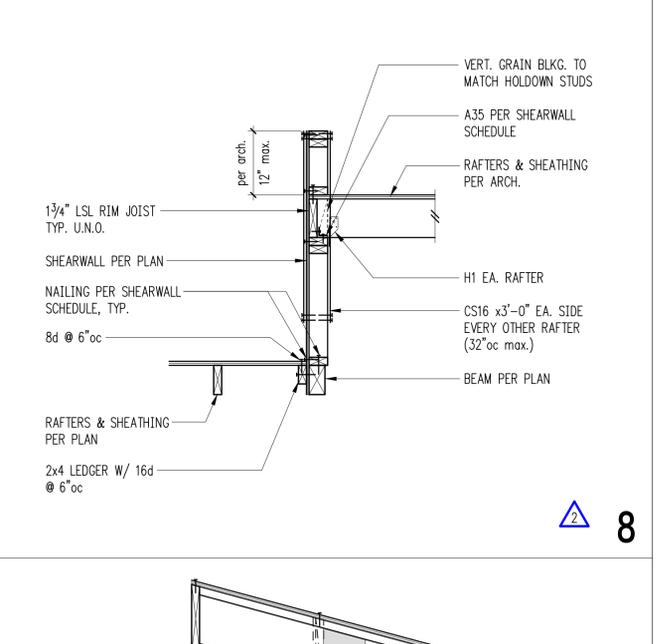
5



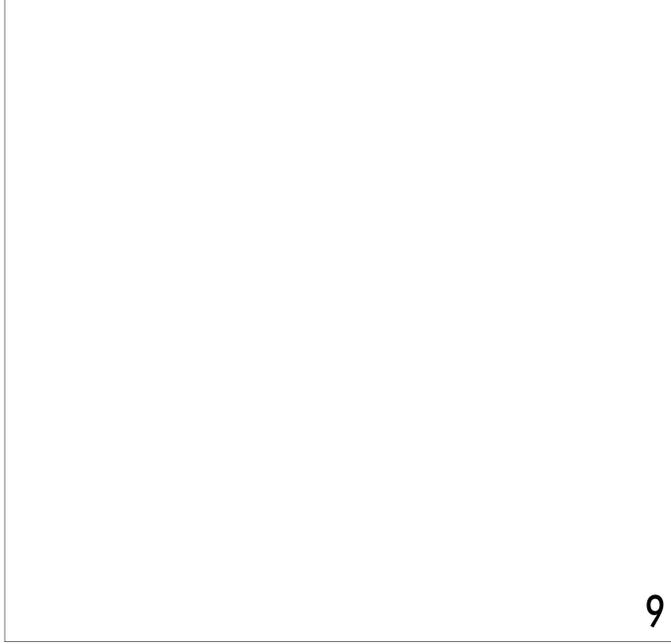
6



7



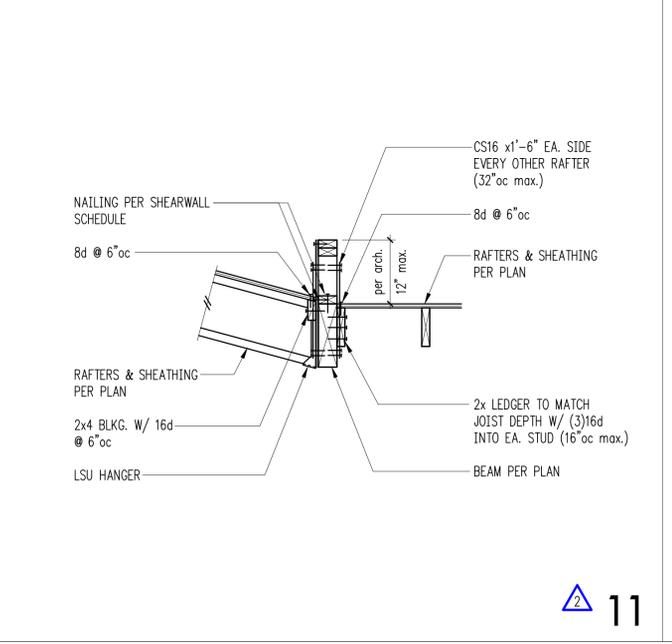
8



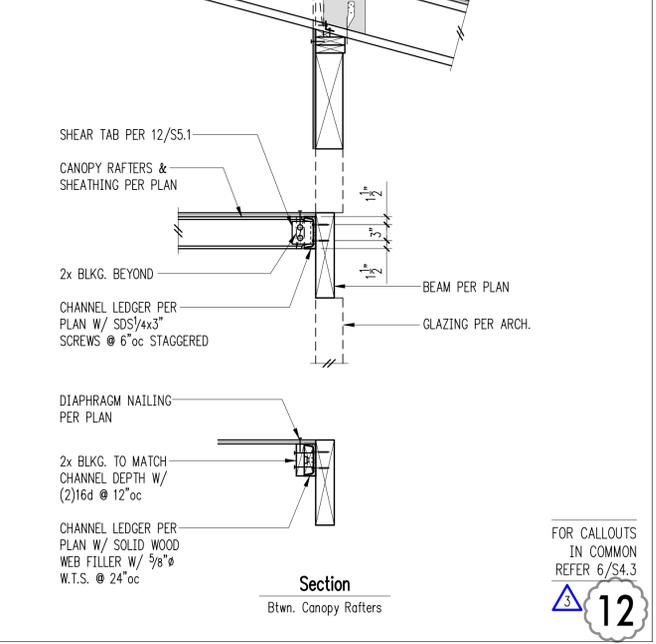
9



10



11



12

Section
Btwn. Canopy Rafters



DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS

REVISIONS:

1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:

PERMIT

SHEET TITLE:

Steel Details

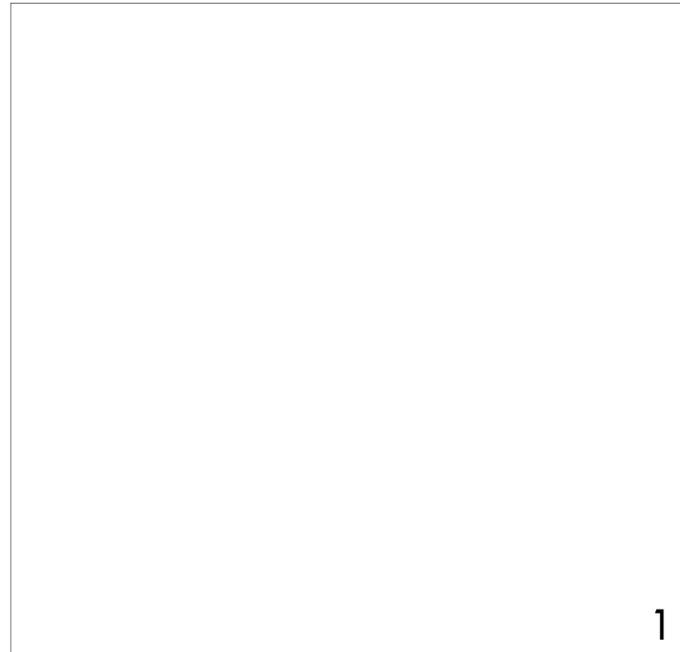
SCALE: 3/4" = 1'-0" U.N.O.

DATE: April 20, 2019

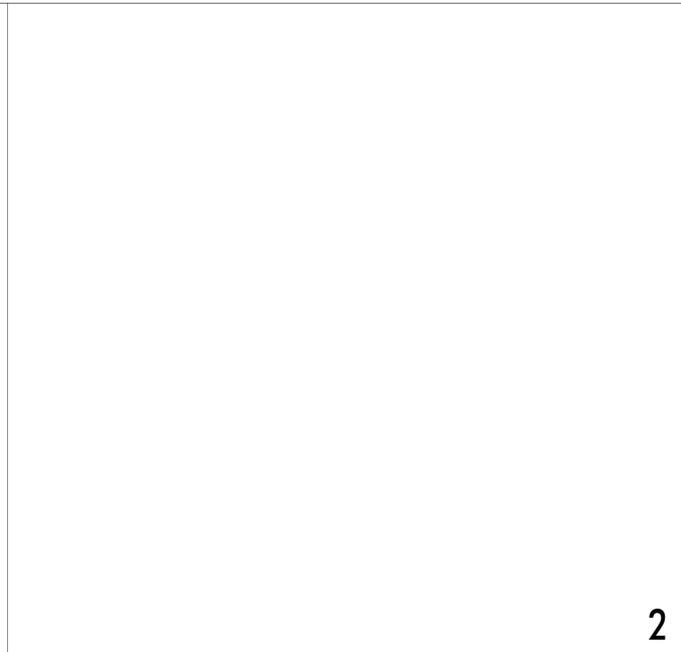
PROJECT No: 01519-2019-01

SHEET NO:

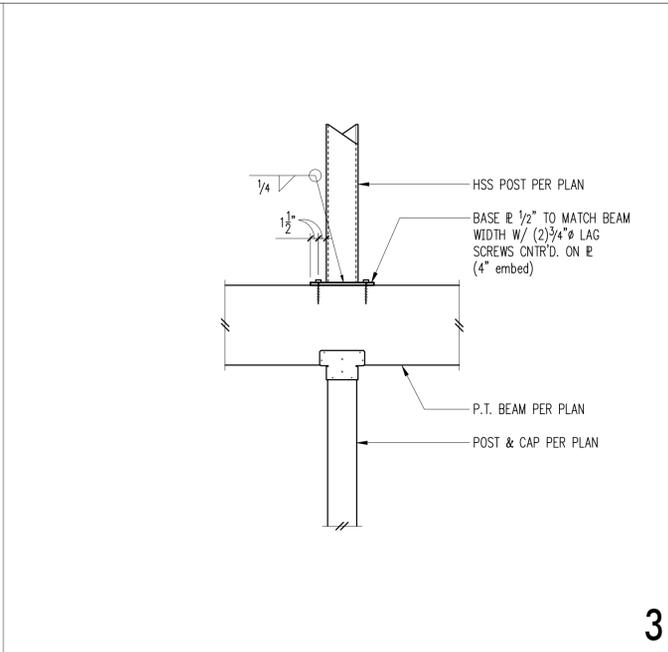
S5.1



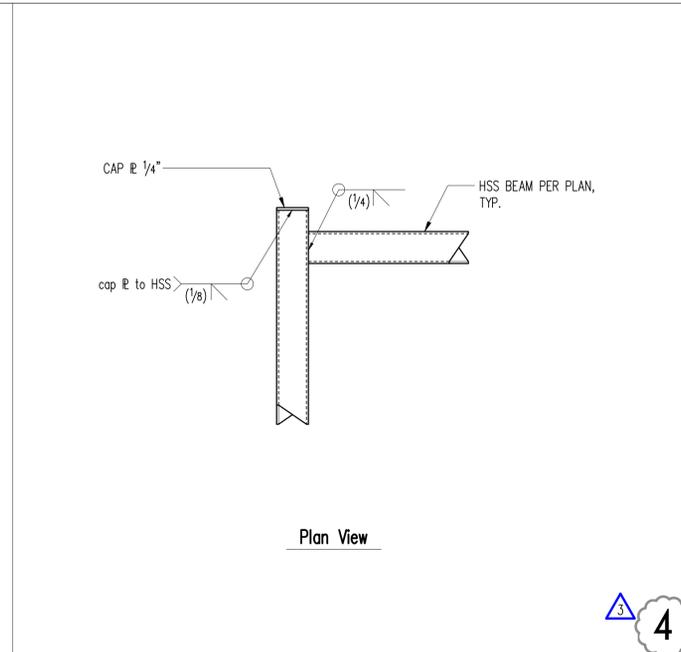
1



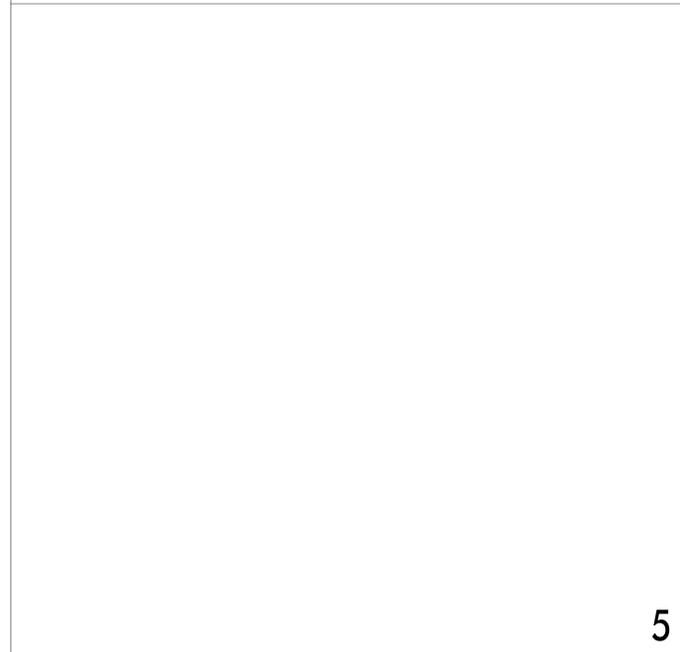
2



3



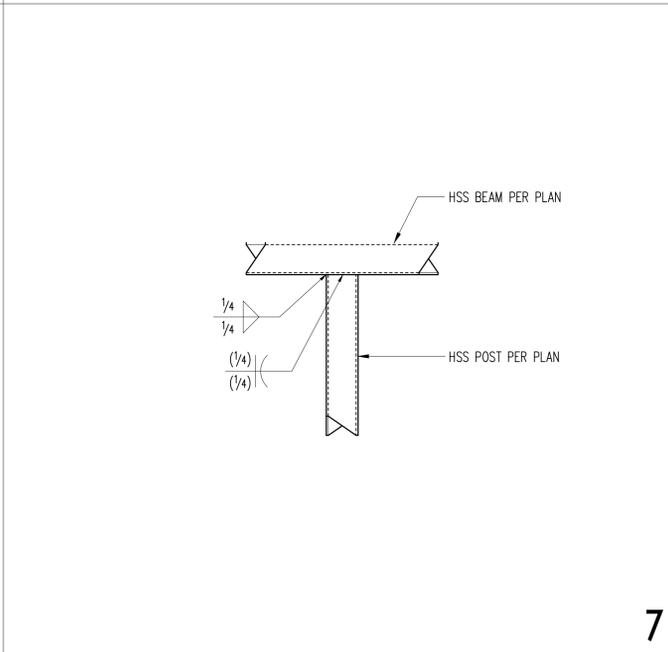
4



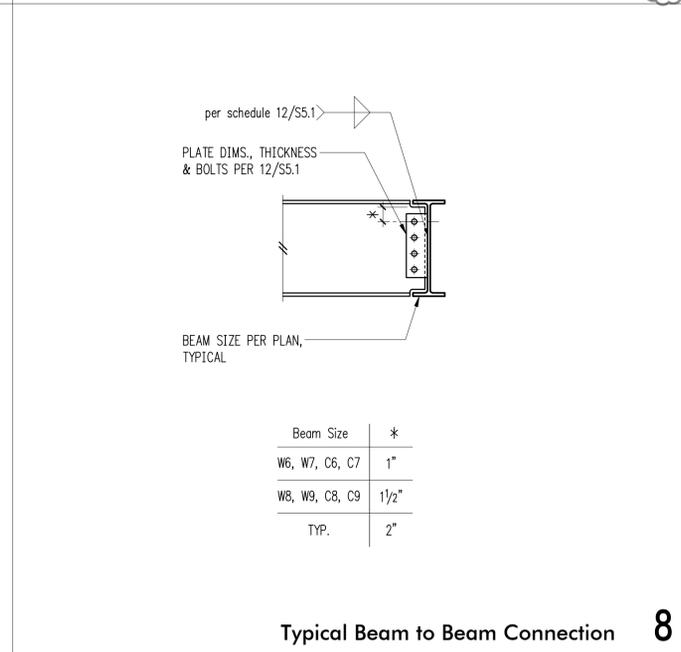
5



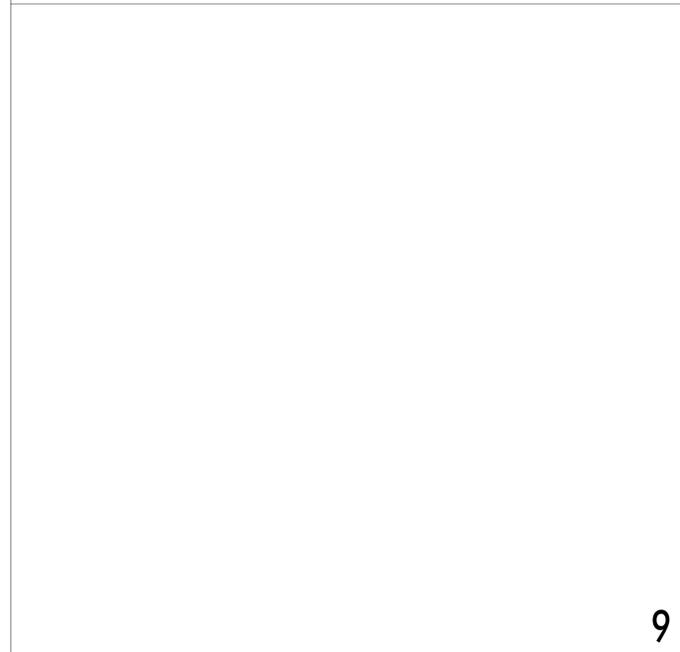
6



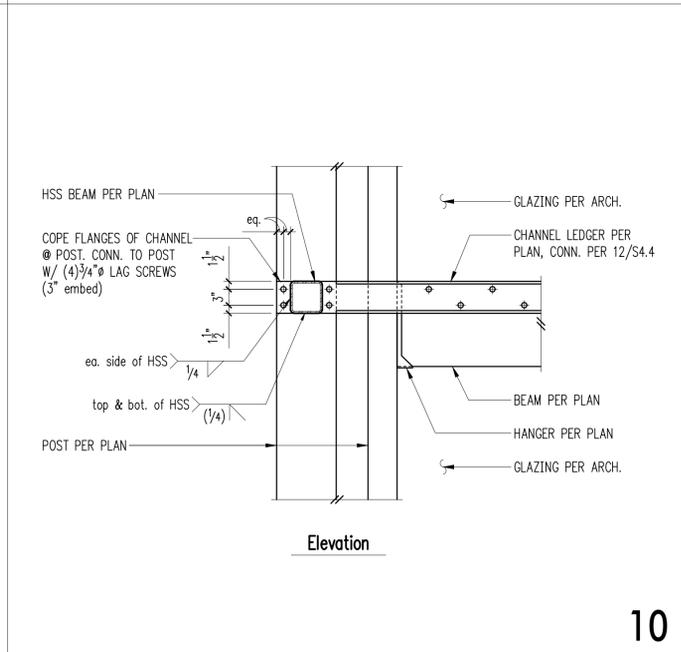
7



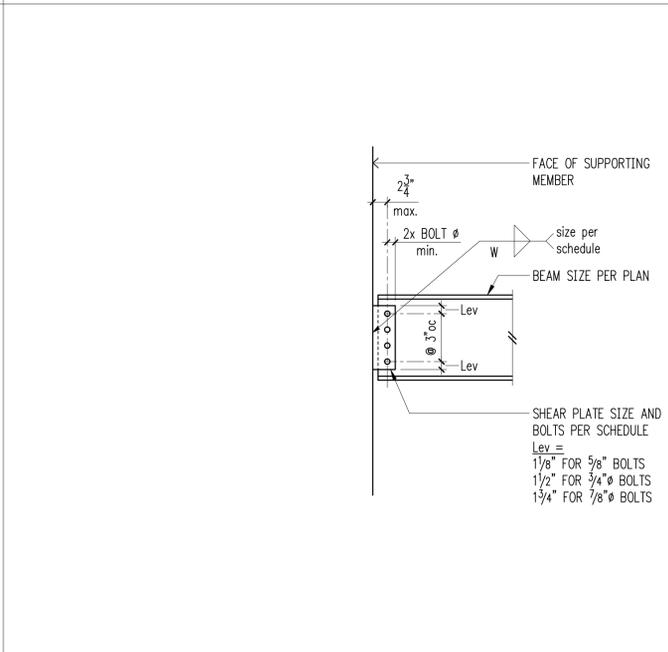
8



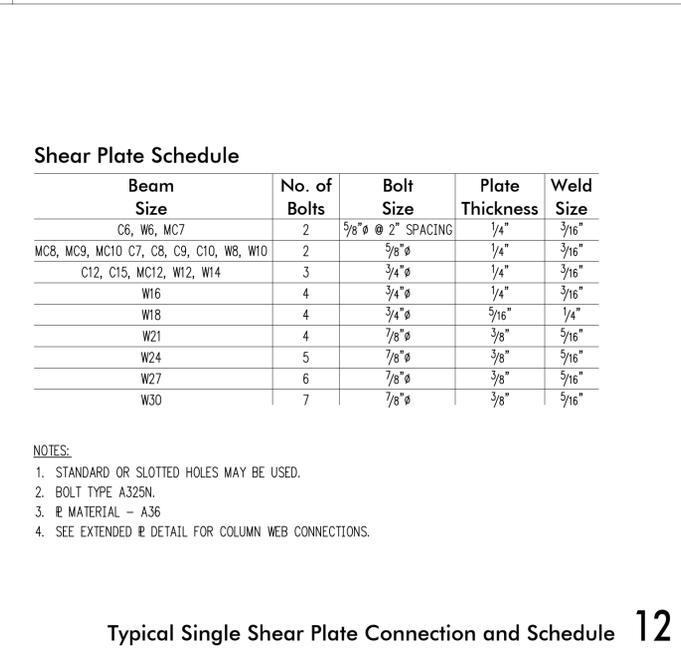
9



10



11



12

Typical Single Shear Plate Connection and Schedule

General Shoring Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CODE REQUIREMENTS

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2015 EDITION, AND THE LATEST EDITION OF PTI DC-35.1, "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS".

REFERENCE DOCUMENTS

2. REPORT ON GEOTECHNICAL INVESTIGATION BY PANGEO INC. DATED APRIL 16, 2019. FILE NO. 18-371. GEOTECHNICAL ENGINEERING STUDY - PROPOSED RESIDENCE - 3611 WEST MERCER WAY, MERCER ISLAND, WA

GENERAL REQUIREMENTS

3. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER AND ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.

4. SHOULD ANY DISCREPANCIES BE FOUND IN THE PROJECT DOCUMENTS, THE CONTRACTOR WILL BE DEEMED TO HAVE INCLUDED IN THE PRICE THE MOST EXPENSIVE WAY OF COMPLETING THE WORK, UNLESS PRIOR TO SUBMISSION OF THE PRICE THE CONTRACTOR ASKS FOR A DECISION FROM THE ENGINEER AND ARCHITECT AS TO WHICH SHALL GOVERN.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S 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 TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

6. 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 OF ANY STRUCTURAL MEMBER.

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. ALL TYPICAL AND NOTES SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

9. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

STRUCTURAL STEEL

10. SHOP DRAWING REVIEW: 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 ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE DESIGN TEAM.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS.

11. UTILITY LOCATION: THE UTILITIES INFORMATION SHOWN ON THE PLANS MAY NOT BE COMPLETE. THE SHORING CONTRACTOR SHALL DETERMINE THE HORIZONTAL AND VERTICAL LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRILLING PILE HOLES OR CUTTING OR DIGGING. PILES INCLUDING CONCRETE CASING SHALL MAINTAIN A MINIMUM OF 12" CLEARANCE TO ANY EXISTING UTILITIES TO REMAIN. CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONFLICTS. CONFLICTS SHALL BE RESOLVED IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION.

QUALITY ASSURANCE

12. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1704 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS WITHIN TWO WEEKS OF COMPLETION OF EACH PHASE OF WORK. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED

SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY PER TABLE 1705.6

PERIODIC INSPECTION ALLOWS INSPECTION AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS. CONTINUOUS SPECIAL INSPECTION REQUIRES THAT THE INSPECTOR BE ONSITE AT ALL TIMES THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED.

13. INSPECTORS SHALL BRING DEFICIENCIES TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE INSPECTOR SHALL BRING THE UNCORRECTED DEFICIENCY TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER IMMEDIATELY AND PRIOR TO COMPLETION OF THAT PHASE OF WORK.

14. SOILS INSPECTION: INSPECTION BY THE SOILS ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF PILES. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING LAB. THE GEOTECHNICAL ENGINEER SHALL ALSO ADVISE ON WATER CONTROL AND SLAB ON GRADE CONSTRUCTION.

15. WET WEATHER INSPECTION: A SITE VISIT FROM THE GEOTECHNICAL SPECIAL INSPECTOR SHALL OCCUR DURING EACH DAY OF ACTIVE GRADING AND IN THE EVENT OF SIGNIFICANT RAINFALL WHICH MIGHT COMPROMISE STABILIZATION MEASURES BETWEEN NOVEMBER 1 AND MARCH 31. THE DETERMINATION OF WHAT CONSTITUTES SIGNIFICANT RAINFALL IS SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL SPECIAL INSPECTOR. HOWEVER, AS A MINIMUM STANDARD, THE GEOTECHNICAL SPECIAL INSPECTOR IS REQUIRED TO CONDUCT A SITE VISIT IF MORE THAN ONE HALF INCH OF PRECIPITATION OCCURS ON ANY GIVEN DAY. ANY RECOMMENDATIONS REQUIRED TO MAINTAIN STABILITY OF EXCAVATIONS AND PROPER FUNCTIONING OF THE SEDIMENT/EROSION CONTROL SYSTEM PROVIDED BY THE GEOTECHNICAL SPECIAL INSPECTOR SHALL BE IMPLEMENTED IMMEDIATELY. THE GEOTECHNICAL SPECIAL INSPECTOR SHALL PROVIDE WRITTEN NOTICE THAT THE SITE HAS BEEN STABILIZED FOLLOWING COMPLETION OF GRADING.

SHORING MONITORING

16. A SYSTEMATIC PROGRAM OF MONITORING SHALL BE CONDUCTED DURING THE PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT FACILITIES AND STRUCTURES IN ORDER TO PROTECT THEM FROM DAMAGE. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDATIONS. FIELD DATA AND MEASUREMENTS ARE TO BE SUBMITTED TO THE STRUCTURAL AND GEOTECHNICAL ENGINEER FOR REVIEW.

17. MONITORING SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR (PLS) LICENSED IN THE STATE OF WASHINGTON.

18. UNLESS OTHERWISE REQUIRED BY THE GEOTECHNICAL ENGINEER, THE MONITORING PROGRAM SHALL INCLUDE A VIDEO OR PHOTOGRAPHIC SURVEY PRIOR TO THE BEGINNING OF THE SHORING INSTALLATION TO DOCUMENT THE CURRENT CONDITIONS OF THE SURROUNDING FEATURES, THE SIZE AND LOCATION OF ANY EXISTING CRACKS IN ADJACENT SLABS, PAVEMENTS OR BUILDINGS SHALL BE MEASURED AND DOCUMENTED. CONTROL POINTS SHALL BE ESTABLISHED AT A DISTANCE WELL AWAY FROM THE WALLS AND SLOPES, AND DEFLECTIONS FROM THE REFERENCE POINTS SHALL BE MEASURED THROUGHOUT CONSTRUCTION BY OPTICAL SURVEY. A MINIMUM OF 3 MONITORING POINTS SHALL BE ESTABLISHED ON NEARBY ADJACENT BUILDINGS. MINIMUM SURVEY FREQUENCY SHALL BE ONCE PER WEEK.

19. SOLDIER PILE MONITORING PROGRAM: FOLLOWING INSTALLATION OF THE SOLDIER PILES, MONITORING POINTS SHALL BE ESTABLISHED ON THE TOP OF THE PILES PRIOR TO PROCEEDING WITH THE EXCAVATION. ONE MONITORING POINT SHALL BE ESTABLISHED FOR EVERY FOUR PILES. THE MONITORING POINTS SHALL BE READ DAILY DURING EXCAVATION OPERATIONS AND TWICE WEEKLY ONCE THE EXCAVATION IS COMPLETED. THE INITIAL READINGS FOR THIS MONITORING SHALL BE TAKEN BEFORE STARTING ANY DEMOLITION OR EXCAVATION ON THE SITE. NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, SHORING DESIGNER, AND THE BUILDING DEPARTMENT IF .5" OF MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS. THE ENGINEERS AND DESIGNERS SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP REMEDIAL MEASURES IF WARRANTED. PLEASE NOTE THAT A MAXIMUM OF 1" HORIZONTAL DISPLACEMENT IS REQUIRED ANYWHERE ON SHORING WALL SURFACES THROUGHOUT THE SHORING WALL SERVICE LIFETIME. CONSTRUCTION SHALL BE SUSPENDED IMMEDIATELY AND REMEDIAL PROCEDURES APPLIED AS LONG AS A DISPLACEMENT READING EXCEEDS 1". IF THE TOTAL MEASURED LATERAL DEFLECTION OF THE PILES EXCEEDS 1", REMEDIAL MEASURES MAY BE REQUIRED.

20. EACH SET OF MONITORING DATA MUST BE PROVIDED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. IT MAY BE NECESSARY TO INSTALL ADDITIONAL MONITORING POINTS IF WARRANTED BY THE DATA. RECOMMENDATIONS WILL BE PROVIDED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION IF ADDITIONAL MONITORING POINTS BECOME NECESSARY.

21. SURVEY FREQUENCY MAY BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND EXCAVATION IS COMPLETE IF THE DATA INDICATES LITTLE OR NO ADDITIONAL MOVEMENT. CHANGE IN THE SURVEY FREQUENCY SHALL BE APPROVED IN WRITING BY THE GEOTECHNICAL ENGINEER. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETE TO FINAL AND STREET GRADES.

GEOTECHNICAL INFORMATION AND CRITERIA

22. INSTALLATION OF SHORING, SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION AND FILLING REQUIREMENTS SHALL CONFORM WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORT AND/OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SUBSURFACE CHARACTERIZATIONS USED TO DESIGN THE SHORING ARE CONTAINED IN THE SOILS REPORT AS REFERENCED ABOVE.

23. EXCAVATIONS FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE. EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS. CONTRACTOR SHALL PROTECT CUT SLOPES AS NECESSARY IF CONSTRUCTION OCCURS DURING WET WEATHER, AND SHALL CONTROL AND MANAGE RUNOFF TO MINIMIZE EFFECTS ON CONSTRUCTION.

24. DESIGN SOIL CAPACITIES ARE DETERMINED BY THE GEOTECHNICAL ENGINEER. THE SOIL PRESSURES INDICATED ON THE SOIL PRESSURE DIAGRAM WERE USED FOR DESIGN, IN ADDITION TO THE DEAD AND LIVE LOADS. SEE REPORT OF GEOTECHNICAL INVESTIGATION FOR MORE COMPLETE INFORMATION, INCLUDING RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING, AND DRAINAGE.

25. SOIL DESIGN PARAMETERS ARE AS FOLLOWS:

LATERAL EARTH PRESSURES	E. F. P.
ACTIVE EARTH PRESSURE (YIELDING)	
LEVEL BACKFILL	35 PCF
MAX SLOPE BACKFILL	55 PCF
SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD)	6H PSF
PASSIVE EARTH PRESSURE (INCLUDES FS-1.5)	400 PCF
ALLOWABLE END BEARING PRESSURE	20.0 KSF
ALLOWABLE SKIN FRICTION	1.0 KSF

26. SHORING DURATION: PERMANENT

27. HELICAL ANCHORS SHALL BE DESIGNED TO MEET THE LOADING REQUIREMENTS SHOWN ON THE DRAWINGS AND SHALL INCLUDE A MINIMUM SAFETY FACTOR OF 2. DRAWINGS AND CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON SHALL BE SUBMITTED PRIOR TO INSTALLATION. INSTALLATION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE ANCHOR MANUFACTURER AND INSTRUCTIONS OF THE GEOTECHNICAL ENGINEER. THE CAPACITY OF THE INSTALLED ANCHORS SHALL BE VERIFIED BY FIELD TESTING THE GREATER OF ONE ANCHOR OR 5% OF THE TOTAL ANCHORS TO THE SPECIFIED ANCHOR CAPACITY MULTIPLIED BY THE SAFETY FACTOR USED FOR DESIGN

CONCRETE

28. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906, AND ACI 301. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

f'c	Minimum Cement	Max. Water Per	Use
psi	Per Cubic Yard	94 LB Cement	

n/a 1-1/2 sacks ----- pile & tieback lean concrete

STEEL

29. STEEL SPECIFICATIONS: DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL, AISC 360 AND SECTION 2205 OF THE BUILDING CODE.

30. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	FY
WIDE FLANGE SHAPES	A992	50 KSI
OTHER SHAPES, PLATES, AND RODS	A36	36 KSI
HEADED SHEAR STUDS	A108	

31. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX 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.

32. STEEL PROVIDED FOR PERMANENT SHORING SHALL BE GALVANIZED OR PAINTED BLACK FOR CORROSION RESISTANCE.

WOOD

33. FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLTB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

Use	Grade	Fb (psi, single use)
4X TIMBER LAGGING	HEM-FJR NO. 2	850 (WHERE SPECIFIED)

PILE AND LAGGING CONSTRUCTION

34. DEMOLITION: SHORING AND SOIL EXCAVATION SHALL BE DONE SIMULTANEOUSLY.

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

36. PILE 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.

37. STEEL PILE PLACEMENT TOLERANCES:

1" INSIDE PERPENDICULAR TO SHORING WALL.
1" OUTSIDE PERPENDICULAR TO SHORING WALL.
3" LATERALLY.
1" IN ANY DIRECTION

38. LAGGING: TIMBER LAGGING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED WITH PEA GRAVEL OR LEAN MIX FILL. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4 FEET IS RECOMMENDED. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID GROUND LOSS DURING EXCAVATION.



2124 Third Avenue - Suite 100 - Seattle, WA 98121
P: 206.443.6212
ssfengineers.com

934 Broadway - Tacoma, WA 98402
P: 253.284.9470
ssfengineers.com

Copyright 2019 Swenson Say Fajét - All Rights Reserved



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:		
1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:

Yuan Residence

3611 West Mercer Way
Mercer Island, WA 98040

ARCHITECT:

Brandt Design Group

66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850

ISSUE:

PERMIT

SHEET TITLE:

**General Shoring
Notes**

SCALE:

DATE:

April 20, 2019

PROJECT NO:

01519-2019-01

SHEET NO:

SH1.1



DESIGN:	SRW, HAA
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:		
1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

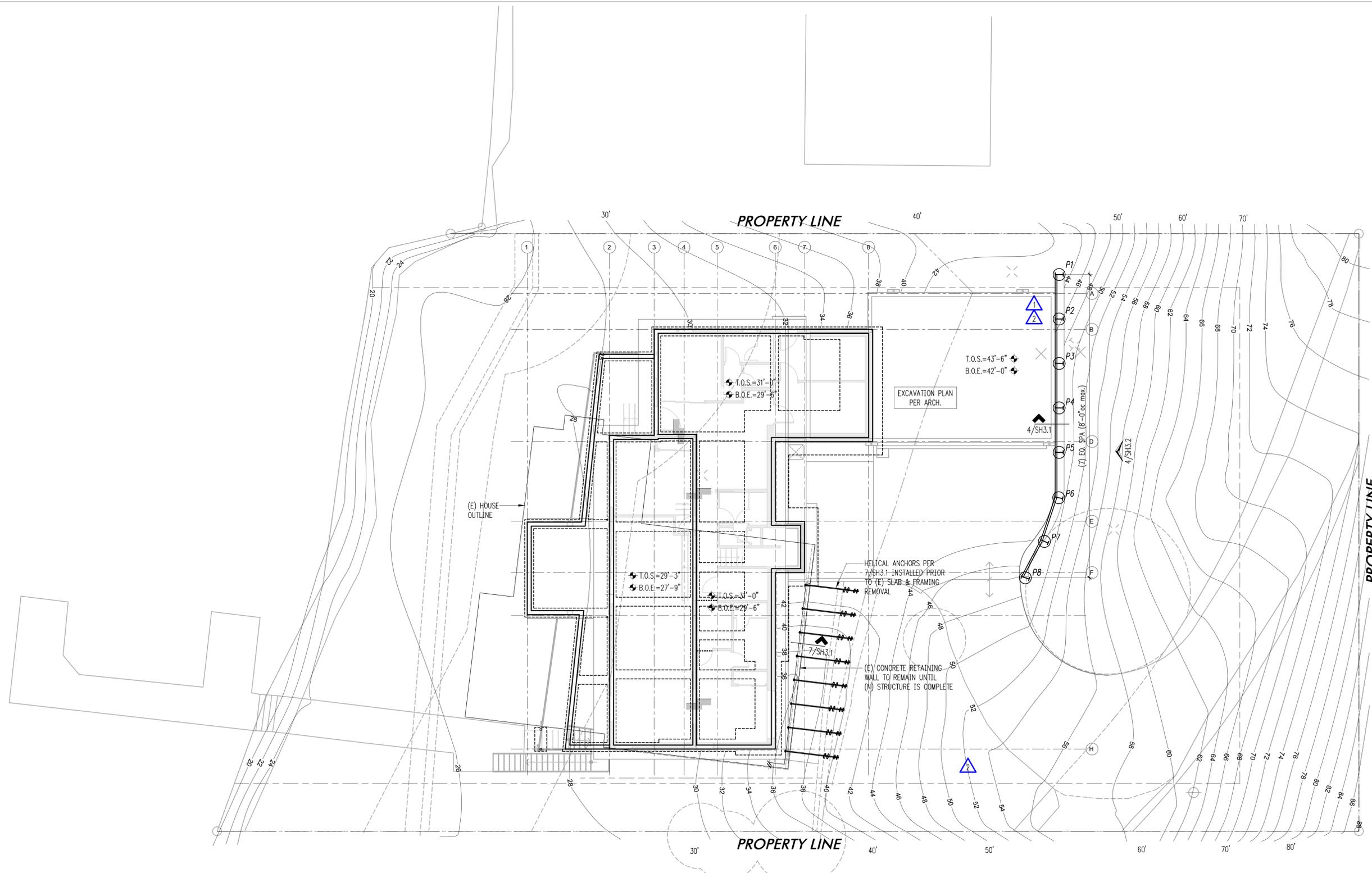
ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Shoring Plan

SCALE: 1/8" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

SH2.1



Shoring Plan
 Scale: 1/8" = 1'-0"
 PROJECT NORTH
 TRUE NORTH

MARK	AUGER DIA. (min.)	STEEL PILE SIZE	ELEVATION	
			MAX. TOP OF PILE	MIN. BOT. OF PILE
P1-P9	24"φ	W16x45	48'-0"	25'-0"

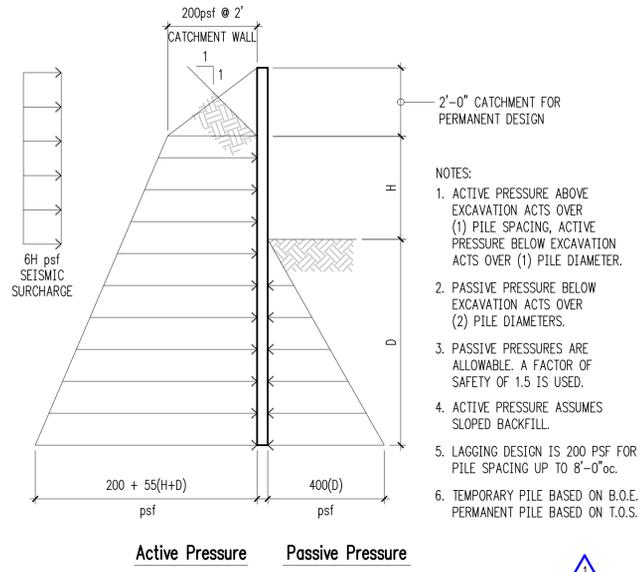
- Plan Notes**
- DO NOT SCALE DRAWINGS. DIMENSIONS AND EXISTING ELEVATIONS ARE ESTIMATED AND ARE SHOWN FOR BID PURPOSES. EXISTING DIMENSIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 - TIMBER LAGGING SHALL CONSIST OF 4x12 DF #2 WITH A BASE VALUE OF FB=900 PSF.
 - OBSTRUCTIONS MAY BE ENCOUNTERED DURING EXCAVATION AND SHORING/PILE INSTALLATION. NOTIFY ENGINEER OF RECORD AND GEOTECHNICAL ENGINEER IF OBSTRUCTIONS PREVENT INSTALLATION OF PILES PER PLANS.
 - FOR EACH PILE UTILIZING LEAN CONCRETE, THE REQUIRED VOLUME OF GROUT SHALL BE CALCULATED PRIOR TO, AND MONITORED DURING INSTALLATION. GROUTING OPERATIONS SHALL BE STOPPED IF THE PUMPED GROUT VOLUME EXCEEDS THE CALCULATED GROUT VOLUME BY 10%.
 - REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

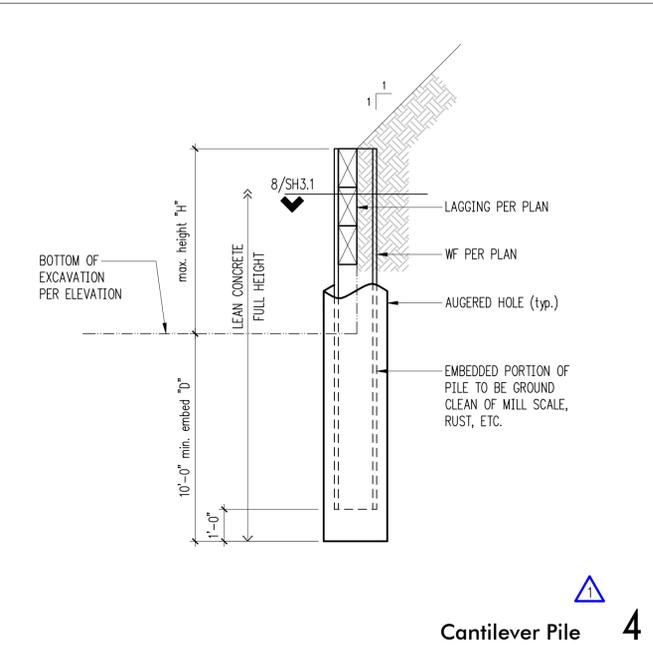
T.O.W.	TOP OF WALL
T.O.S.	TOP OF SLAB
B.O.E.	BOTTOM OF EXCAVATION
⊖ Pxx	PILE PER SCHEDULE

1

2



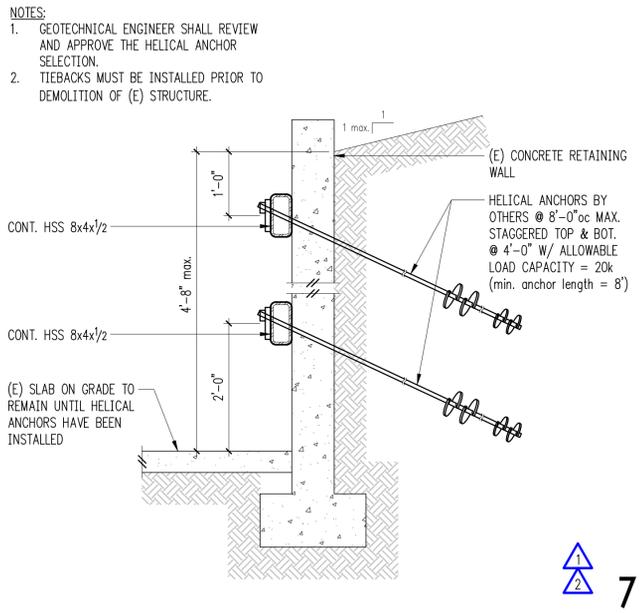
Cantilever Pile With Slope Diagram 3



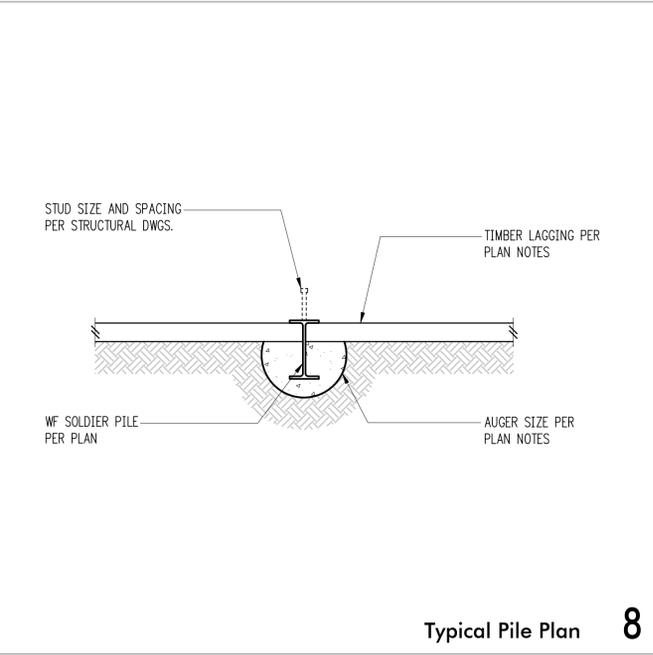
Cantilever Pile 4

5

6



7



Typical Pile Plan 8

9

10

11

12



DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS

REVISIONS:		
1	Revisions	Oct. 09, 2019
2	Revisions	Dec. 20, 2019
3	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

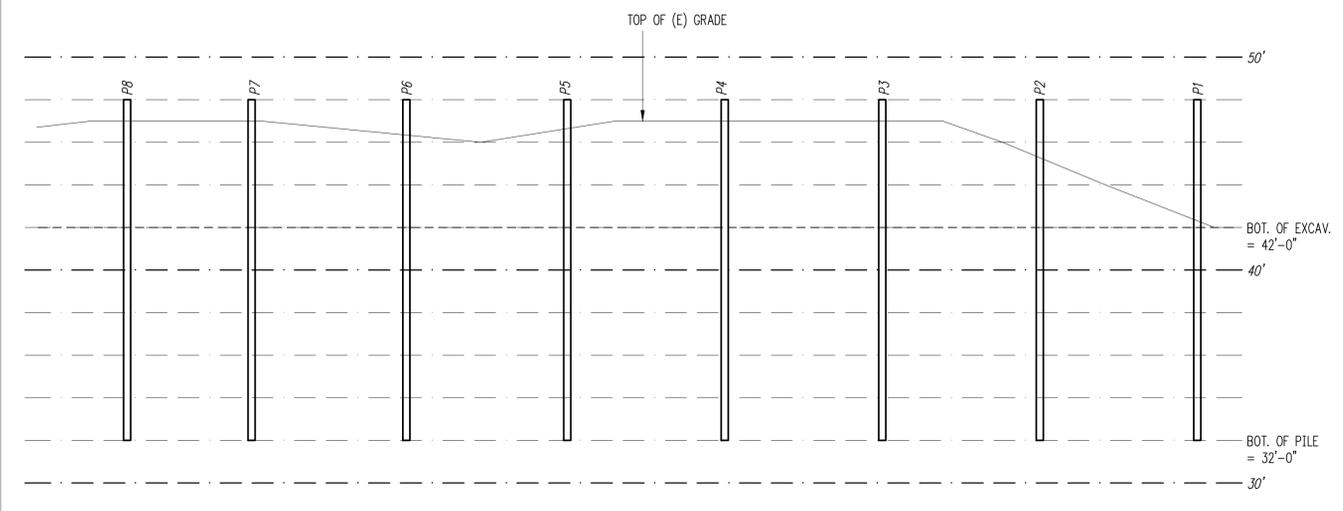
SHEET TITLE:
Shoring Details

SCALE: 3/4" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

SH3.1



DESIGN: SRW, HAA
 DRAWN: NHD
 CHECKED: BDM
 APPROVED: DJS



Shoring Elevation ¹ 4

REVISIONS:

¹	Revisions	Oct. 09, 2019
²	Revisions	Dec. 20, 2019
³	Revisions	Feb. 12, 2020

DPD:

PROJECT TITLE:
Yuan Residence
 3611 West Mercer Way
 Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121
 PH 206.239.0850

ISSUE:
PERMIT

SHEET TITLE:
Shoring Elevations

SCALE: 1/4" = 1'-0" U.N.O.
 DATE: April 20, 2019
 PROJECT NO: 01519-2019-01
 SHEET NO:

SH3.2

1

2

5

6

7

8

9

10

11

12