





ZONING CODE ANALYSIS

CODE REFERENCES:  
 MERCER ISLAND MUNICIPAL CODE, ADOPTED DECEMBER 1, 2014  
 2012 INTERNATIONAL BUILDING CODE WITH STATEWIDE AND CITY AMENDMENTS  
 2012 INTERNATIONAL RESIDENTIAL CODE WITH STATEWIDE AND CITY AMENDMENTS  
 2012 SEATTLE ENERGY CODE - RESIDENTIAL  
 2012 INTERNATIONAL MECHANICAL CODE WITH STATEWIDE AND CITY AMENDMENTS  
 WASHINGTON CITIES ELECTRICAL CODE  
 2012 INTERNATIONAL FIRE CODE WITH STATEWIDE AND CITY AMENDMENTS  
 2012 INTERNATIONAL FUEL GAS CODE WITH STATEWIDE AND CITY AMENDMENTS  
 2012 WASHINGTON STATE PLUMBING CODE WITH CITY AMENDMENTS

SECTION	EXISTING / REQUIRED	PROPOSED	COMPLIES	SHEET
ZONING	R-15	R-15	YES	G0.02
LOT SIZE	21,417.54 SF STEEP SLOPE			G0.02
CRITICAL AREAS	HILLSIDE ( 27.71 % MAX SLOPE )			A1.01
MAXIMUM BUILDABLE AREA	45% OF LOT AREA (21,417 SF) = 9,637.65 SF	9,637.65 SF	YES	G0.02
MAXIMUM IMPERVIOUS COVERAGE	30% OF LOT AREA (21,417 SF) = 6,425.10 SF	-	-	G0.02
BUILDING HEIGHT LIMIT	30' FROM AVERAGE BUILDING GRADE + 5' FOR ROOF WITH MINIMUM 4:12 PITCH FRONT = 20' MINIMUM	30'	YES	A3.01 / A3.02
SETBACKS	REAR = 25' MINIMUM	25'	YES	A1.01
	SIDES = 5' MINIMUM	5'	YES	A1.01
PARKING	1 PARKING SPACE / DWELLING UNIT	1 PARKING SPACE / DWELLING UNIT	YES	A2.01
PARKING ACCESS	ACCESS FROM PRIVATE ROAD	10 FT DRIVE	YES	A2.01
LANDSCAPING	TOTAL DIAMETER OF TREES RETAINED OR PLANTED = 2 INCH PER 1000 SF	1	YES	A1.01
FIRE SPRINKLERS	PER NFPA 13D - REQUIRED ON STRUCTURES 5,000 SF OR MORE	YES	YES	DEFERED
PROJECTIONS	36" ROOF EAVES AND GUTTERS		YES	A2.04
CONSTRUCTION TYPE	RESIDENTIAL - TYPE VA			
WATER	WATER DISTRICT			
SEWER / SEPTIC	PUBLIC			
ROAD ACCESS	PRIVATE			
STREET SURFACE	PAVED			

ENERGY CODE ANALYSIS

PERFORMANCE REQUIREMENT	MEET OR EXCEED THE 2012 WASHINGTON STATE ENERGY CODE	PROPOSED
TOTAL HEATED FLOOR AREA (GROSS)		3,017.01 SF
LEVEL 1		1,394 SF
LEVEL 2		976.21 SF
LEVEL 3		646.80
GLAZING AREA % OF FLOOR	OPTION III : UNLIMITED	1,310.67 SF
CLIMATE ZONE	MARINE 4	
FENESTRATION U-FACTOR	0.30	SEE WSEC GLAZING SCHEDULE
CEILING R-VALUE	R-49 OR R-38 ADVANCED FRAMED CEILING	R-50 & R-54 (SEE ROOF PLAN)
WOOD FRAME WALL ABOVE GRADE R-VALUE	R-21 (16 OC, HEADERS MIN R-10)	R-21
FLOOR R-VALUE / U-FACTOR	R = 30 / U = 0.029	R-30
SLAB ON GRADE R-VALUE	R = 10, 2'	R-10 (FULL UNDER)
BELOW GRADE U-FACTOR	0.042	
DOOR U-FACTOR	0.20	
(DEFAULT GLAZED FENESTRATION U-FACTOR, METAL WITH THERMAL BREAK, DOUBLE PANE, TABLE R303.1.3 (1))	0.65	NOT APPLICABLE

CONTRACTOR NOTES

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL BONDS, CASH DEPOSITS, ETC. THAT THE CITY WILL REQUIRE TO FACILITATE CONSTRUCTION OF THE PROJECT.
- GENERAL CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE WATER, SEWER, POWER AND TELEPHONE CONNECTIONS FOR THE CONSTRUCTION TRAILER.
- UNLESS QUALIFIED, NO PRODUCT SUBSTITUTIONS "OR EQUAL" PRODUCTS, EQUIPMENT OR MATERIALS SHALL BE ALLOWED.
- THE GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL OTHER PERMITS REQUIRED BY LAW FOR THE EXECUTION OF THIS WORK UNLESS NOTED OTHERWISE. THE BASIC BUILDING PERMIT WILL BE OBTAINED AND PAID FOR BY THE OWNER. ALL TRADE PERMITS, IF REQUIRED BY JURISDICTION AUTHORITIES, AND FEES SHALL BE PAID FOR BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL ALSO OBTAIN AND PAY CERTIFICATES, INSPECTIONS AND OTHER LEGAL FEES REQUIRED, BOTH PERMANENT AND TEMPORARY, INCLUDING PLUMBING, ELECTRICAL AND HIGHWAY PERMITS UNLESS SPECIFICALLY OTHERWISE PROVIDED.
- GENERAL CONTRACTOR HAS RESEARCHED AND VERIFIED ALL TRASH, DEBRIS, AND RECYCLING REQUIREMENTS FOR THE CITY IN WHICH THIS WORK WILL BE PERFORMED AND HAS INCLUDED SUCH COSTS INTO THIS PROPOSAL.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR SITE SURVEYING AND LAYOUT, OWNER TO PROVIDE ONE (1) BENCHMARK FOR GENERAL CONTRACTOR'S USE.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE, FURNISH AND INSTALL ALL FRAMING, BACKING AND DEADWOOD REQUIREMENTS FOR EQUIPMENT AND MATERIALS INSTALLED IN THE BUILDING.
- JOINT SEALERS SHALL BE REQUIRED AT THE INTERSECTION OF ALL DISSIMILAR MATERIALS IN INTERIOR AND EXTERIOR CONDITIONS.
- ARCHITECTURAL, MECHANICAL, AND ELECTRICAL PENETRATIONS OF THE BUILDING ENVELOPE INCLUDING EXTERIOR WINDOWS, GRILLES, HVAC DUCTWORK, AND CONDUIT AS REQUIRED THROUGH THE EXTERIOR WALLS, ROOF DECKS, VERTICAL ROOF AND MANSARD WALLS SHALL REQUIRE MECHANICAL FLASHING IN ADDITION TO APPROPRIATE EXTERIOR SEALANTS TO PROVIDE AND ENSURE WATER-TIGHT CONDITIONS AT THESE LOCATIONS.
- GUTTERS, DOWNSPOUTS AND ALL EXTERIOR SHEET METALS ARE TO BE PRE-FINISHED AT THE FACTORY. COLOR SHALL BE SELECTED FROM THE MANUFACTURER'S FULL RANGE OF COLOR OPTIONS BY THE ARCHITECT. NO FIELD PAINTING TO BE ALLOWED.
- ALL EXTERIOR LOUVER GRILLES SHALL BE FACTORY PAINTED WITH KYNAR FINISH TO MATCH THE EXTERIOR FIELD COLOR IN WHICH THEY ARE LOCATED.
- ALL EXTERIOR METALS SHALL BE GALVANIZED, PRE-FINISHED OR FIELD PAINTED PER ARCHITECT COORDINATION GC SHALL ASSUME THE MOST STRINGENT FINISH IF NOT INDICATED ON DOCUMENTS.
- APPLIANCES - GENERALLY, THIS EQUIPMENT IS DELIVERED FACTORY DIRECT MOUNTINGS AND CONNECTIONS NOT INCLUDED. GENERAL CONTRACTOR SHALL MOUNT AND MAKE UP ALL REQUIRED CONNECTIONS TO MAKE THE EQUIPMENT FUNCTION PROPERLY.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE SET OF DRAWINGS TO EACH SUBCONTRACTOR AND FOR INSURING THAT THE WORK OF EACH SUBCONTRACTOR IS COORDINATED WITH THE WORK OF ALL OTHER SUBCONTRACTORS.
- THE LAST DATED REVISION VOIDS AND SUPERSEDES ANY AND ALL PREVIOUS DRAWINGS WITH THE SAME SHEET NUMBER. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO RECOVER AND DISPOSE OF ALL SUPERSEDED / PREVIOUSLY ISSUED PLANS FROM ALL SUBCONTRACTORS, SUPPLIES AND MATERIAL PERSONS. ALL COSTS RESULTING FROM A FAILURE TO ISSUE REVISED SHEETS, AND RECOVERY / DISPOSAL OF SUPERSEDED SHEETS IN A TIMELY MANNER, SHALL BE ABSORBED BY THE GENERAL CONTRACTOR. THE OWNER AND ARCHITECT WILL NOT BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE ABOVE.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE ALL EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK. ALL FINAL CONNECTIONS TO EXISTING UTILITIES SHALL BE BY THE CONTRACTOR.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF THE SITE THROUGHOUT THE CONSTRUCTION PROCESS.
- GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AS REQUIRED BY GENERAL CONDITIONS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT OBSTRUCT STREETS, SIDEWALKS, ALLEYS OR OTHER RIGHT-OF-WAYS WITHOUT FIRST OBTAINING PROPER PERMITS.
- ALL FIRE RATED CONSTRUCTION SHALL CONFORM WITH CURRENT UL TESTED STANDARD AND/OR LOCAL REQUIREMENTS.

GENERAL NOTES

- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE.
- DRAWINGS HAVE BEEN PREPARED ON AN ORIGINAL SHEET SIZE OF 24" X 36".
- INFORMATION REGARDING EXISTING CONDITIONS USED TO PREPARE THESE DRAWINGS HAS BEEN PROVIDED BY OTHERS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION. PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE DRAWINGS. THE ARCHITECT WILL ISSUE A WRITTEN DIRECTIVE IF FURTHER CLARIFICATION IS REQUIRED.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, DATUM, LEVELS AND CONDITIONS PERTAINING TO THE WORK PRIOR TO COMMENCING CONSTRUCTION. PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT OF ANY DISCREPANCIES WITH THE DOCUMENTS. THE ARCHITECT WILL ISSUE A WRITTEN DIRECTIVE IF FURTHER CLARIFICATION IS REQUIRED.
- THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF STUDIO19 ARCHITECTS, AND HAVE BEEN PREPARED FOR THE USE IN THE EXECUTION OF THE ENCLOSED PROJECT. USE OR REPRODUCTION FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF STUDIO19 ARCHITECTS IS PROHIBITED.
- LEGENDS ON THE PLANS AND SCHEDULE IN THE SPECS SHALL BE COMPLEMENTARY.
- ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE CODES AND RESTRICTIONS ENFORCED BY AUTHORITIES HAVING JURISDICTION.

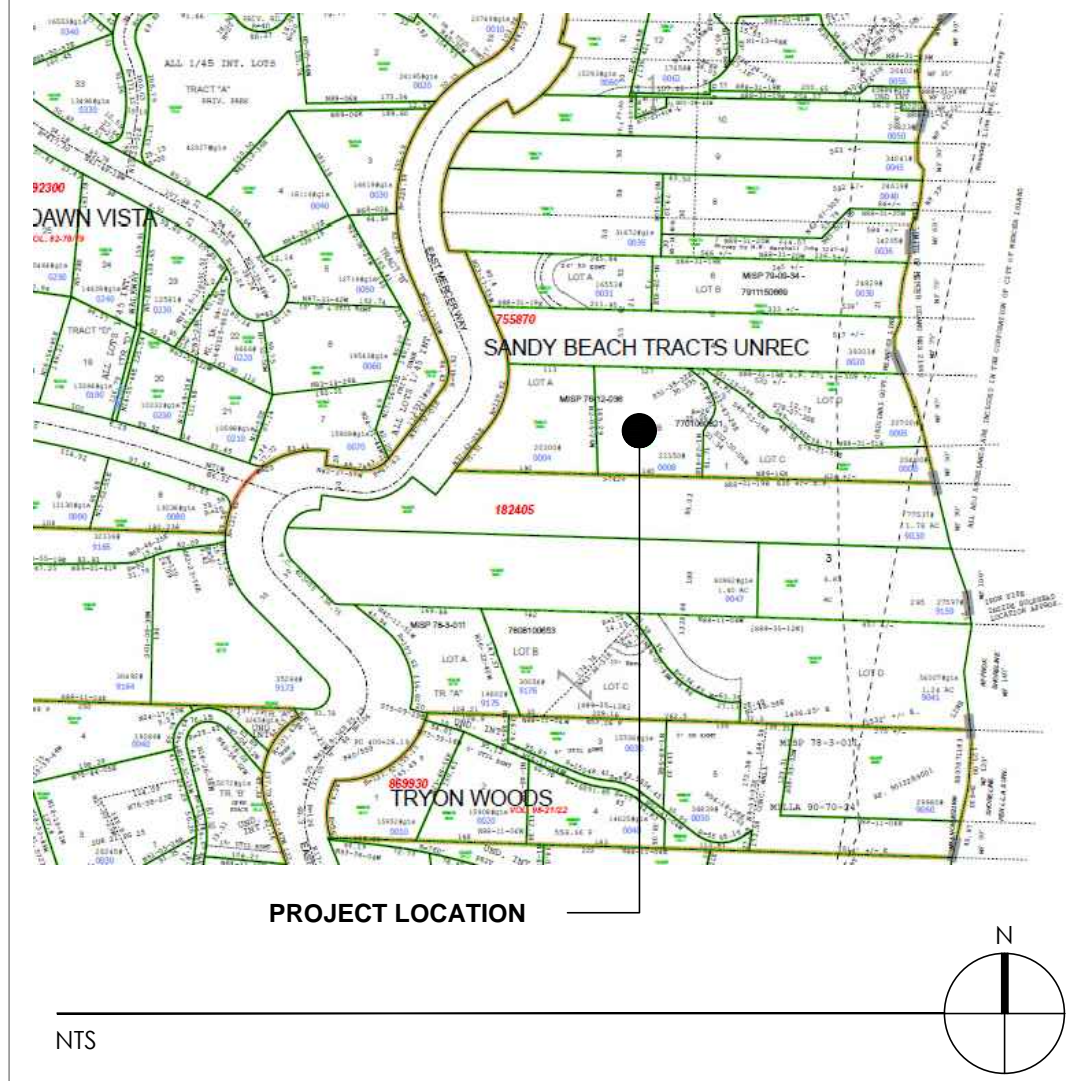
VENTILATION NOTES

- WAC 51-13, WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODE SEATTLE RESIDENTIAL CODE (SRC), CHAPTER 15
- WHOLE HOUSE VENTILATION PER IRC M1508.7.
  - NOISE: WHOLE HOUSE FANS LOCATED FOUR FEET OR LESS FROM THE INTERIOR GRILLE SHALL HAVE A SONE RATING OF 1.0 OR LESS.
  - EXHAUST DUCTS SHALL TERMINATE OUTSIDE OF THE BUILDING.
  - OUTDOOR AIR DISTRIBUTION: OUTDOOR AIR SHALL BE DISTRIBUTED TO EACH HABITABLE ROOM BY MEANS SUCH AS INDIVIDUAL INLETS, SEPARATE DUCT SYSTEMS, OR A FORCED-AIR SYSTEM.
  - DOORS SHALL BE UNDERCUT TO A MINIMUM OF ONE-HALF INCH ABOVE THE SURFACE OF THE FINISH FLOOR COVERING. DOORS AND OPERABLE LITES IN WINDOWS ARE DEEMED NOT TO MEET THE OUTDOOR AIR SUPPLY INTAKE REQUIREMENTS.
  - INTERMITTENTLY OPERATING MINIMUM EXHAUST RATES FOR BATHROOMS = 50 CFM, KITCHENS = 100 CFM. - U.N.O.
  - EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CFM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH A MEANS OF CLOSURE AND SHALL BE AUTOMATICALLY CONTROLLED TO START AND OPERATE SIMULTANEOUSLY WITH THE EXHAUST SYSTEM. PER M1503.4

ENERGY CODE NOTES

- WASHINGTON STATE ENERGY CODE
- BUILDING AIR LEAKAGE TESTING, DEMONSTRATING 2.0 AIR EXCHANGES PER HOUR (MAX) IS REQUIRED PRIOR TO FINAL INSPECTION. THE TEST RESULTS SHALL BE POSTED ON THE RESIDENTIAL ENERGY COMPLIANCE CERTIFICATE.
  - EACH DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR REGULATION OF TEMPERATURE (WSEC R403.1.1).
  - A SIGNED AFFIDAVIT DOCUMENTING THE DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO AN APPROVED FINAL INSPECTION (WSEC R402.4.1.2).
  - DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO APPROVED FINAL INSPECTION (WSEC R403.2.2 AND WSU RS-33).
  - MINIMUM 75% OF ALL INTERIOR LUMINAIRES SHALL BE HIGH EFFICACY LUMINAIRES, AND ALL EXTERIOR LIGHTING SHALL BE HIGH EFFICACY LUMINAIRES (WSEC R404.1).
  - ALL HEADERS IN EXTERIOR WALLS TO HAVE A MINIMUM R-10 INSULATION.
  - ALL DUCTS NOT LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-8.
  - REQUIRED SLAB PERIMETER INSULATION TO BE WATER RESISTANT MATERIAL, MANUFACTURED FOR ITS INTENDED USE, AND INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. FOR SLABS INSIDE FOUNDATION WALL, THE INSULATION SHALL BE INSTALLED TO PROVIDE A THERMAL BREAK BETWEEN THE SLAB EDGE AND THE FOUNDATION. MONOLITHIC SLABS SHALL INCLUDE INSULATION, INSTALLED OUTSIDE THE FOUNDATION WALL, AND SHALL EXTEND DOWNWARD FROM THE TOP OF THE SLAB FOR A MINIMUM DISTANCE OF 24" OR DOWNWARD AND THEN HORIZONTALLY FOR A MINIMUM COMBINED DISTANCE OF 24". AND SHOULD INCLUDE R-10 INSULATION UNDER THE NON-LOAD BEARING PORTIONS OF THE SLAB.
  - INSULATION FOR HOT WATER PIPES SHALL BE A MINIMUM OF R-4.
  - WASHINGTON STATE ENERGY CREDITS PER TABLE 406.2:
    - EFFICIENT BUILDING ENVELOPE PRESCRIPTIVE COMPLIANCE BASED ON TABLE R402.1 WITH THE FOLLOWING MODIFICATIONS:  
 FENESTRATION U = 0.28  
 SLAB ON GRADE, R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB OR COMPLIANCE BASED ON SECTION R402.1.4: REDUCE TOTAL UA BY 5% CREDITS FROM THIS OPTION = 0.5
    - AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION COMPLIANCE BASED ON SECTION R402.4.1.2 REDUCE TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAX, AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE IRC.  
  
 PROVIDE BALANCED WHOLE HOUSE VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.70 PER WSEC R403.5 CREDITS FROM THIS OPTION = 1.0
    - EFFICIENT WATER HEATING GAS, PROPANE, OR OIL WATER HEATER WITH MINIMUM EF OF 0.62 CREDITS FROM THIS OPTION = 0.5

VICINITY MAP



SITE DESCRIPTION

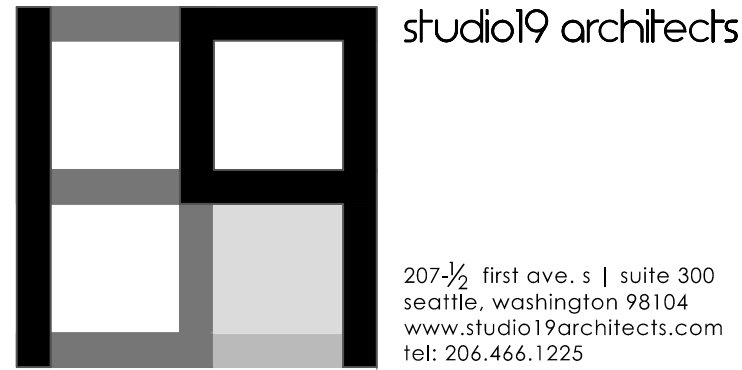
PARCEL # 755870-0008  
 LEGAL DESCRIPTION SANDY BEACH TRS UNREC LOT B CITY OF MERCER ISLAND SHORT PLAT 76-12-036 REC #7701060821 SD SP DAF - LOTS 1-2 & 3  
 PROPERTY ADDRESS: 4634 EAST MERCER WAY, MERCER ISLAND, WA 98040  
 LOT SIZE 21,417.54 GSF PER SURVEY  
 WIDTH 159.65'  
 DEPTH 145.19'  
 WATERFRONT NONE  
 ACCESS PRIVATE ROAD FROM EAST MERCER WAY  
 EASEMENTS ACCESS EASEMENT AS DEFINED IN SHORT PLAT 76-12-036 REC#7701060821

PROJECT INFORMATION

PROJECT DESCRIPTION: A NEW CONSTRUCTION OF A 3 LEVEL SINGLE FAMILY RESIDENCE  
 PROPERTY ADDRESS: 4634 EAST MERCER WAY, MERCER ISLAND, WA 98040  
 SEISMIC ZONE: ZONE 3  
 PARCEL #: 755870-0008  
 LOT AREA: 21,417.54 GSF PER SURVEY  
 BUILDING AREAS:  
 LEVEL 1: 1,716 SQ FT  
 LEVEL 2: 2,408 SQ FT  
 LEVEL 3: 2,364 SQ FT  
 TOTAL LIVABLE AREA: 6,488 SQ FT  
 F.A.R. 30.29 %  
 LEVEL 1 GARAGE: 898 SQ FT  
 LEVEL 2 VIEW DECK 1: 431 SQ FT  
 LEVEL 2 VIEW DECK 2: 217 SQ FT  
 LEVEL 3 VIEW DECK 3: 148 SQ FT  
 LEVEL 3 ROOF DECK: 262 SQ FT  
 TOTAL STRUCTURE SF: 8,444 SQ FT  
 IMPERVIOUS AREAS:  
 STRUCTURE FOOTPRINT: 3,511 SQ FT  
 ENTRY STAIR: 477 SQ FT  
 LEVEL 1 PATIO: 73 SQ FT  
 LEVEL 2 PATIO: 316 SQ FT  
 DRIVEWAY: 1,500 SQ FT  
 TOTAL IMPERVIOUS AREA: 5,877 SQ FT  
 PERCENTAGE LOT COVERAGE: 27.44 %

MECHANICAL, ELECTRICAL, AND PLUMBING NOTES

MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS AND CALCULATIONS TO BE DEFERRED.



CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
 Phone: (206) 724-1072

EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
 MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

DATE	DESCRIPTION
6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MARK DATE DESCRIPTION

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

CODE SUMMARY

PROJECT NO.: 20140904

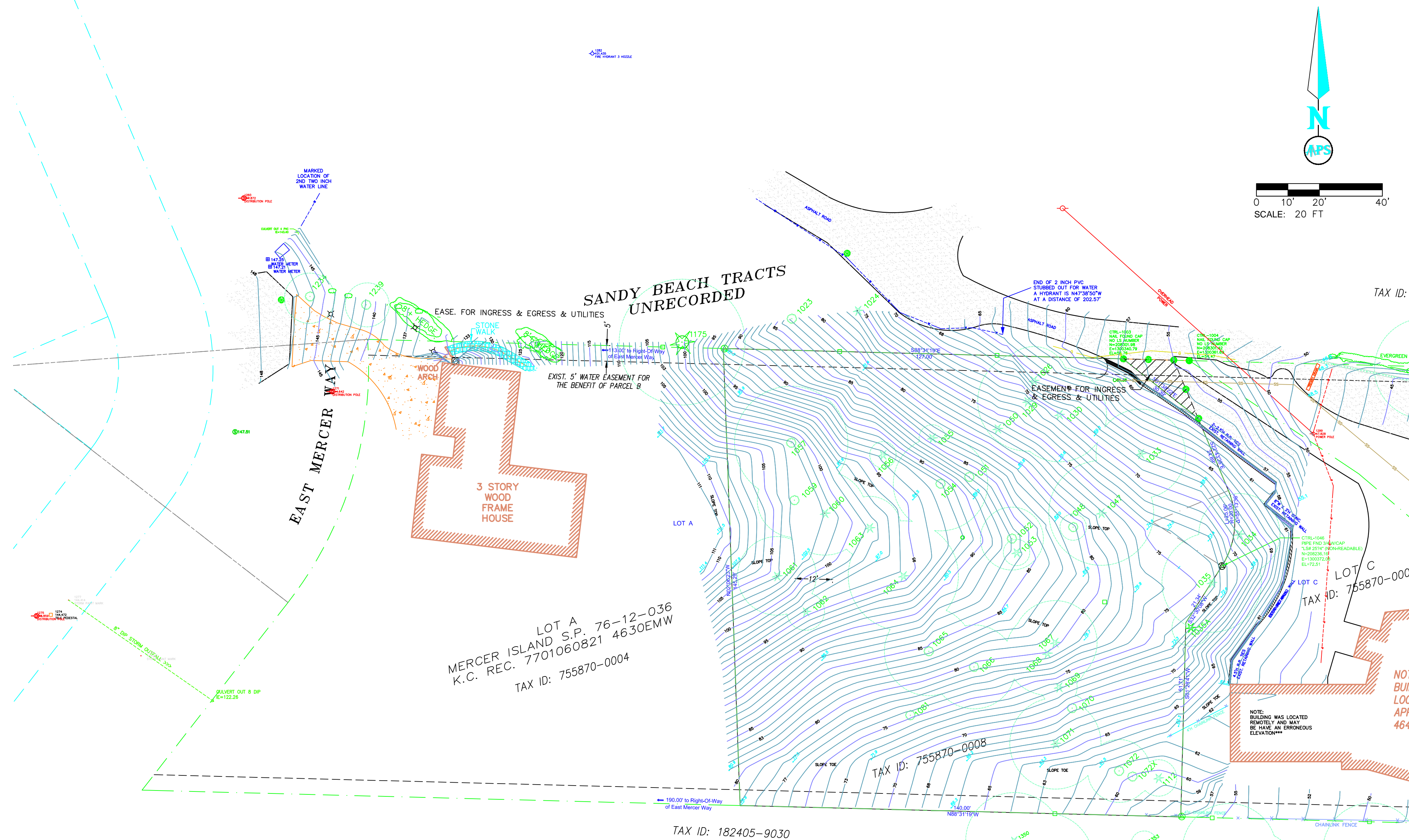
DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

G0.02



WITHIN THE SE 1/4 PF THE SE 1/4 OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 05 EAST, W.M., IN KING COUNTY, WASHINGTON



**GENERAL NOTES**

1. THE SOLE PURPOSE OF THIS SURVEY IS TO TOPOGRAPH AND ILLUSTRATE THE UTILITY, INGRESS/ EGRESS AND SEWER EASEMENT WITHIN THE PROPERTY, AS SHOWN HEREON.
2. OUR CLIENT, BARCELO HOMES, HAS NOT FURNISHED APS SURVEY & MAPPING WITH A TITLE REPORT OF THE BOUNDARIES. A COMBINATION OF RECORD OF SURVEYS AND PLATS WERE USED IN CONCERT WITH FOUND MONUMENTATION TO DETERMINE THE BOUNDARIES SHOWN HEREON. ACTUAL OWNERSHIP STATUS MAY VARY.
3. THIS SURVEY WAS BASED ON A RTK VRS SURVEY (USING TRIMBLE R8 UNITS) IN COMBINATION WITH A CONVENTIONAL SURVEY (USING TRIMBLE 5600 TOTAL STATIONS, LEICA 1" TO 5" TOTAL STATION). THIS NETWORK MEETS OR EXCEEDS THE ACCURACY STANDARDS SET BY WAC 332-130-090.
4. ALL MONUMENTS WERE OCCUPIED OR OBSERVED DURING THE MONTH OF APRIL OF 2015.
5. ALL MEASURING INSTRUMENTS AND EQUIPMENT USED FOR THIS SURVEY WERE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
6. THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION OF LAND.
7. THE LOCATION OF SUBSURFACE UTILITIES ARE BASED ON OBSERVED UTILITY PAINT MARKS ON THE SURFACE, AND SET THERE BY OTHERS.
8. ALL COORDINATES AND BEARINGS ARE BASED ON OBSERVATIONS USING THE WASHINGTON STATE PREFERENCE NETWORK, THE WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, EXPRESSED IN US SURVEY FEET.
9. ALL VERTICAL ELEVATIONS ARE BASED ON NAVD88 DATUM FROM THE FOLLOWING DESCRIBED BENCHMARK.

**SPECIAL SURVEY NOTE**

THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF BARCEL HOMES, AND DOES NOT EXTEND TO ANY UNNAMED PARTY WITHOUT EXPRESS RECERTIFICATION BY APS SURVEY & MAPPING, LLC AND/OR THE PROFESSIONAL LAND SURVEYOR NAMED HEREON, NAMING SAID PARTY.

LOT A  
MERCER ISLAND S.P. 76-12-036  
K.C. REC. 7701060821 4630EMW  
TAX ID: 755870-0004

LOT C  
TAX ID: 755870-0001

TAX ID: 182405-9030

REF	TYPE	DIA. (INCHES)	REF	TYPE	DIA. (INCHES)
1023	MAPLE	6 6 6 6 8 10 NORTH OF SITE	1175	CEDAR	48 LOT A
1024	CEDAR	14 NORTH OF SITE	1234	DECID.	4 LOT A
1026	HEMLOCK	26	1339	DECID.	4 LOT A
1029	FIR	38	1308	CEDAR	36 LOT D
1030	FIR	38	1329	CEDAR	22 LOT D
1033	FIR	34	1326	DECID.	10 LOT D
1034	FIR	31	1344	CEDAR	24 LOT D
1035	FIR	38	1346	CEDAR	22 LOT D
1035A	FIR	4 FROM ARBORIST	1347	CEDAR	18 LOT D
1047	FIR	40	1348	CEDAR	18 LOT D
1048	CHERRY	10	1349	CEDAR	26 LOT D
1050	FIR	12 DEAD SNAG			
1051	MAPLE	10 DEAD SNAG			
1052	MAPLE	24			
1053	CEDAR	10			
1054	MAPLE	36 12			
1055	HEMLOCK	10			
1056	FIR	10			
1057	MAPLE	36			
1059	MAPLE	27			
1060	FIR	32			
1061	FIR	30			
1062	HEMLOCK	12			
1063	FIR	24			
1064	FIR	42			
1065	MAPLE	34			
1066	MAPLE	32			
1067	FIR	42			
1068	CEDAR	32			
1069	CEDAR	14			
1070	MAPLE	10			
1071	CEDAR	35			
1072	MAPLE	12			
1072X	MAPLE	8 FROM ARBORIST			
1081	MAPLE	16 DEAD SNAG			
1112	HEMLOCK	14			

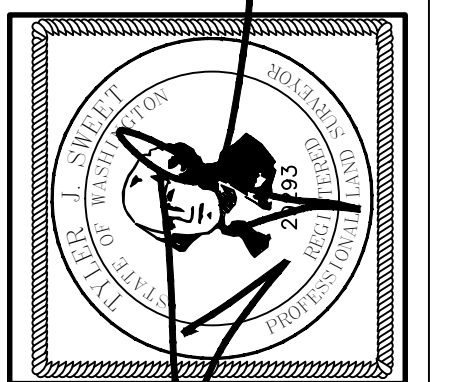
TYPICAL  
OUTER CIRCLE = DRIPLINE  
NUMBER ALONG SIDE = THE TREE DESCRIPTION ON THE CHART  
THE TREE SYMBOL = A DECIDUOUS TREE

OUTER CIRCLE = DRIPLINE  
NUMBER ALONG SIDE = THE TREE DESCRIPTION ON THE CHART  
THE TREE SYMBOL = A EVERGREEN TREE

THE FOLLOWING HATCHING PATTERN AT THE NORTHWESTERLY CORNER OF LOT C REFERS TO AN EASEMENT ACROSS A PORTION OF LOT C CONTAINING AN INGRESS / EGRESS AND UTILITY EASEMENT FOR THE BENEFIT OF LOT B.

**APS SURVEY & MAPPING**  
18274 S.E. 28TH STREET, SUITE A  
BELLEVUE, WASHINGTON 98005  
TEL: (425) 746-3200  
FAX: (425) 746-3342

**VOSB**  
Member Small Business  
Member CMAA



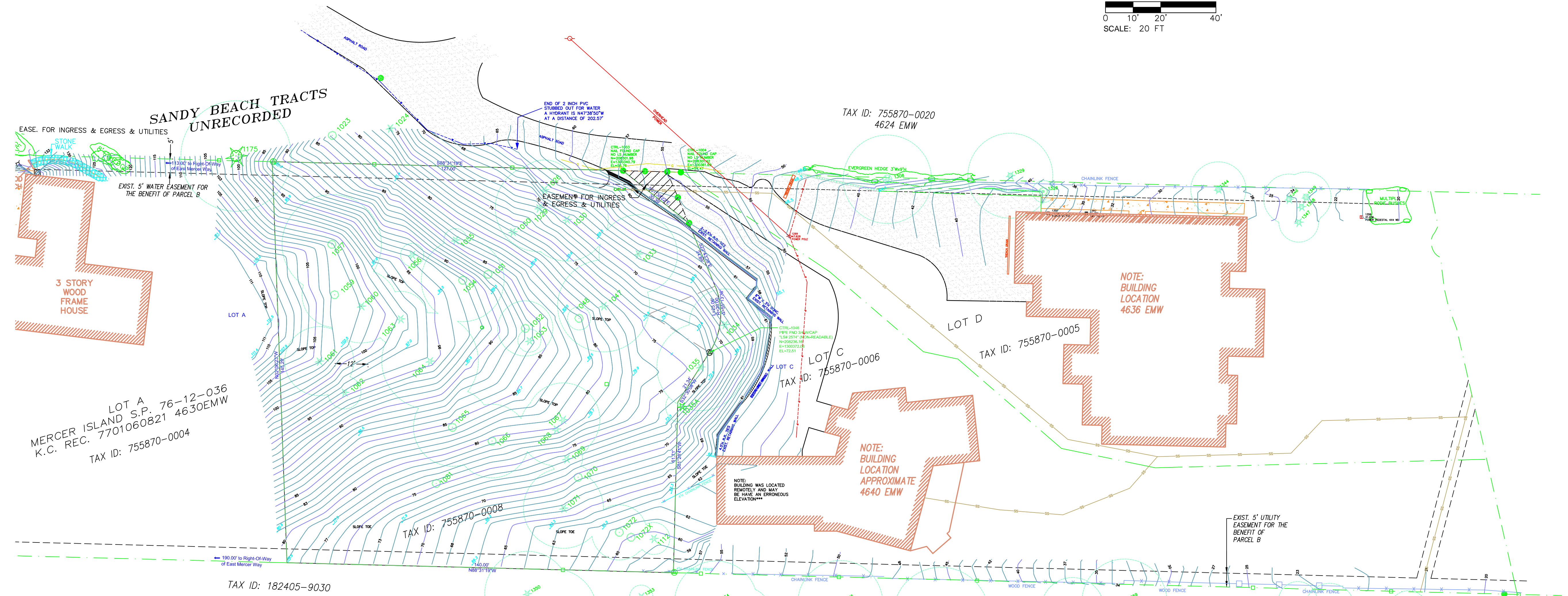
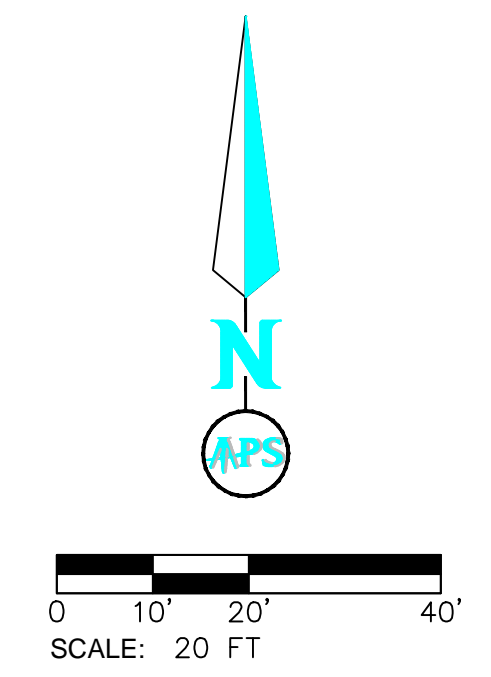
**AS-BUILT SURVEY of**  
4634 EAST MERCER WAY  
BARCELO HOMES

MERCER ISLAND  
DATE: 5/27/15  
APSSM PROJECT NO.: 1294002  
ACAD DWG NAME: rev1294002-ARCH.DWG  
WASHINGTON

SURVEYED BY: TJS	CHECKED BY: _____			
DRAWN BY: MAGG	APPROVED BY: _____			
DATE	BY	REVISION	CK'D	APPR.



WITHIN THE SE 1/4 PF THE SE 1/4 OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 05 EAST, W.M., IN KING COUNTY, WASHINGTON



LOT A  
MERCER ISLAND S.P. 76-12-036  
K.C. REC. 7701060821 4630EMW  
TAX ID: 755870-0004

TAX ID: 755870-0008

LOT C  
TAX ID: 755870-0006

TAX ID: 755870-0020  
4624 EMW

LOT D  
TAX ID: 755870-0005

TAX ID: 182405-9030

SANDY BEACH TRACTS  
UNRECORDED  
4644 EMW

REF	TYPE	DIA. (INCHES)
1023	MAPLE	6 6 6 8 10 NORTH OF SITE
1024	CEDAR	14 NORTH OF SITE
1026	HEMLOCK	26
1029	FIR	38
1030	FIR	36
1033	FIR	34
1034	FIR	31
1035	FIR	38
1035A	FIR	4 FROM ARBORIST
1047	FIR	40
1048	CHERRY	10
1050	FIR	12 DEAD SNAG
1051	MAPLE	24
1053	CEDAR	10
1054	MAPLE	36 12
1056	HEMLOCK	10
1056	FIR	10
1057	MAPLE	36
1059	MAPLE	27
1060	FIR	32
1061	FIR	30
1062	HEMLOCK	12
1063	FIR	24
1064	FIR	42
1065	MAPLE	34
1066	MAPLE	32
1067	FIR	42
1068	CEDAR	32
1069	CEDAR	14
1070	MAPLE	10
1071	CEDAR	35
1072	MAPLE	12
1072X	MAPLE	8 FROM ARBORIST
1091	MAPLE	16 DEAD SNAG
1112	HEMLOCK	14

REF	TYPE	DIA. (INCHES)
1175	CEDAR	48 LOT A
1234	DECID.	4 LOT A
1359	DECID.	4 LOT A
1308	CEDAR	38 LOT D
1329	CEDAR	22 LOT D
1326	DECID.	10 LOT D
1344	CEDAR	24 LOT D
1346	CEDAR	22 LOT D
1347	CEDAR	18 LOT D
1348	CEDAR	18 LOT D
1349	CEDAR	26 LOT D

ESTIMATED (COULD NOT GAIN ACCESS)

1350	CEDAR	22 4644 E. MERCER
1351	CEDAR	18 4644 E. MERCER
1352	DECID.	8 4644 E. MERCER
1353	CEDAR	8 4644 E. MERCER
1354	CEDAR	22 4644 E. MERCER
1355	CEDAR	16 4644 E. MERCER
1356	CEDAR	22 4644 E. MERCER
1357	CEDAR	26 4644 E. MERCER
1358	CEDAR	12 4644 E. MERCER
1359	CEDAR	22 4644 E. MERCER
1360	DECID.	6 4644 E. MERCER
1361	DECID.	10 4644 E. MERCER
1362	DECID.	8 4644 E. MERCER

TYPICAL

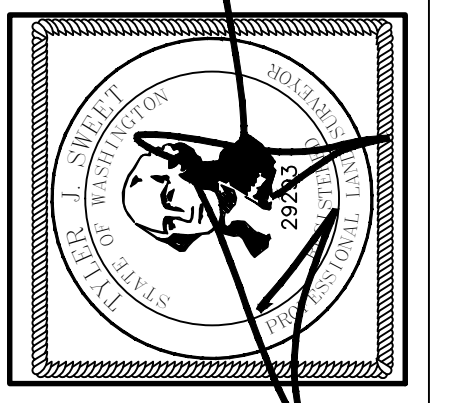
OUTER CIRCLE = DRIPLINE  
NUMBER ALONG SIDE = THE TREE DESCRIPTION ON THE CHART  
THE TREE SYMBOL = A DECIDUOUS TREE

OUTER CIRCLE = DRIPLINE  
NUMBER ALONG SIDE = THE TREE DESCRIPTION ON THE CHART  
THE TREE SYMBOL = A EVERGREEN TREE

THE FOLLOWING HATCHING PATTERN AT THE NORTHWESTERLY CORNER OF LOT C REFERS TO AN EASEMENT ACROSS A PORTION OF LOT C CONTAINING AN INGRESS / EGRESS AND UTILITY EASEMENT FOR THE BENEFIT OF LOT B.

**APS**  
SURVEY & MAPPING  
18274 S.E. 28TH STREET, SUITE A  
BELLEVUE, WASHINGTON 98005  
TEL: (425) 746-3200  
FAX: (425) 746-3342

**VOSB**  
Verified Small Business  
**cm**



WASHINGTON  
rev/294002-ARCH.DWG  
ACAD DWG NAME:  
APSSM PROJECT NO.: 1294002  
DATE: 5/27/15  
MERCER ISLAND  
AS-BUILT SURVEY of  
4634 EAST MERCER WAY  
BARCELO HOMES

SURVEYED BY:	CHECKED BY:	APPROVED BY:	DATE	BY	REVISION	CK'D	APPR.
TJS							
MAGG							

SHEET  
2  
OF  
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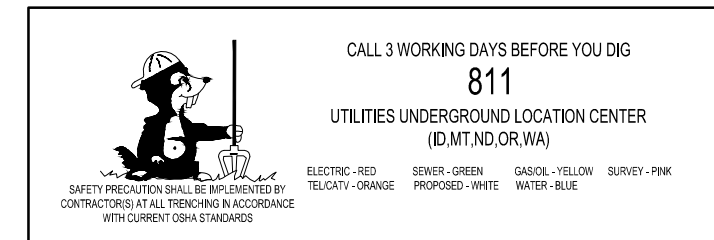
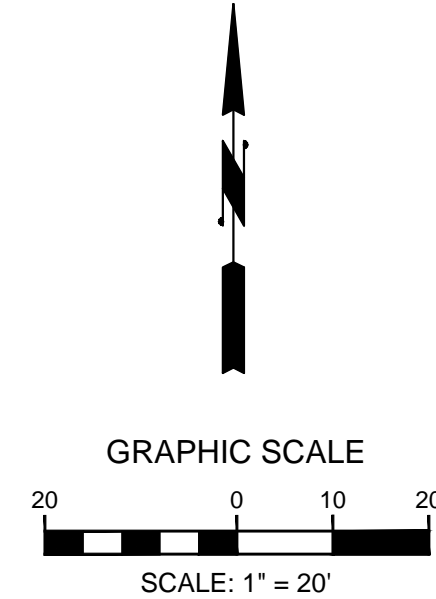


SEC. 18, TWN. 24N, RGE. 5E, W.M.

# COVER SHEET

### GENERAL NOTES

1. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
2. SPECIAL INSPECTIONS BY CITY INSPECTOR ARE REQUIRED DURING CONSTRUCTION. GENERAL CONTRACTOR TO COORDINATE.
3. ALL ROADWAY WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE CURRENT APWA AND CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
4. A COPY OF THE APPROVED CONSTRUCTION PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTATION SHALL BE 95 PERCENT.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY TRAFFIC CONTROL TO ENSURE TRAFFIC SAFETY DURING CONSTRUCTION ACTIVITIES. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
7. MEASURES SHALL BE TAKEN BY THE DEVELOPER TO PROVIDE GROUND COVER IN AREAS WITHIN THE RIGHT-OF-WAY WHICH HAVE BEEN STRIPPED OF NATURAL VEGETATION OR HAVE A POTENTIAL FOR EROSION.
8. ANY EXISTING PUBLIC IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED PRIOR TO FINAL INSPECTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC STREETS FREE FROM MUD AND DEBRIS AT ALL TIMES.
10. ALL EXISTING ON-SITE STRUCTURES AND ASSOCIATED UTILITIES TO BE DEMOLISHED, REMOVED, AND/OR ABANDONED PER APPLICABLE JURISDICTIONAL REQUIREMENTS.
11. DEFICIENCIES, WHETHER CAUSED BY CONTRACTOR OPERATIONS OR NOT CAUSED BY THE CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED IMMEDIATELY.
12. THE CONTRACTOR SHALL MAINTAIN ROADS AND STREETS ADJACENT TO THE PROJECT LIMITS WHEN AFFECTED BY THE CONTRACTOR'S OPERATIONS. THE CONTRACTOR SHALL REMOVE OR REPAIR ANY CONDITION RESULTING FROM THE WORK THAT MIGHT IMPEDE TRAFFIC OR CREATE A HAZARD. PUBLIC ROADWAYS SHALL BE BROOMED CLEAN AT THE END OF EACH WORK DAY.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF THE WORK COVERED BY THE CONTRACT.
14. ROCKERIES AND/OR RETAINING WALLS TO BE CONSTRUCTED PER GEOTECHNICAL AND/OR STRUCTURAL ENGINEER'S PLANS & SPECIFICATIONS.



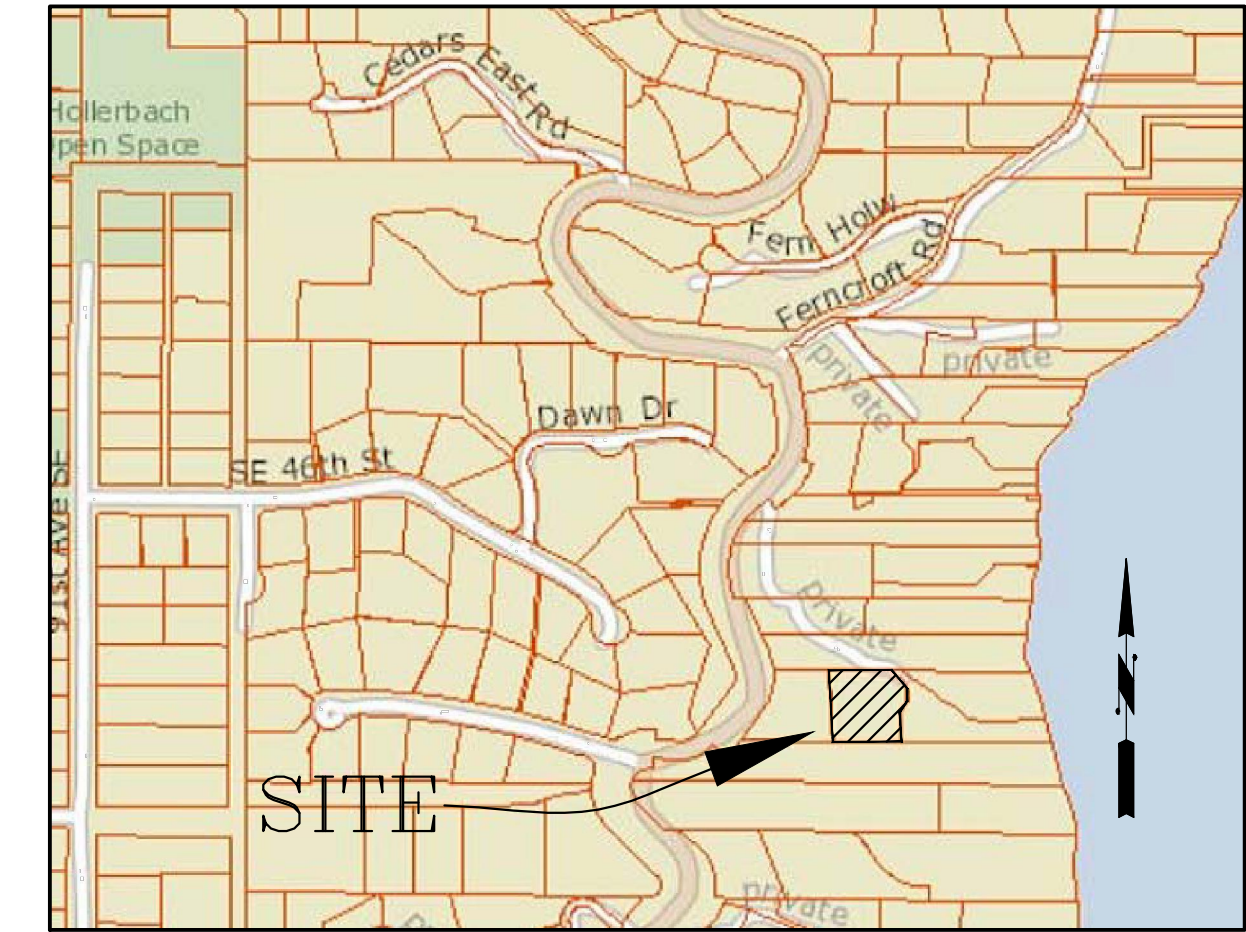
### PROJECT DATA

PROPERTY ADDRESS: 4634 EAST MERCER WAY  
 MERCER ISLAND, WASHINGTON 98040  
 TAX LOT NUMBER: 755870-0008  
 SITE AREA: 21,350 SF (0.49 ACRES)  
 ZONING: R-15 = RESIDENTIAL 15

### LEGEND

- FOUND PIPE
- SET HUB
- SET PK NAIL
- FOUND NAIL
- GAS METER
- GAS VALVE
- SOIL LOG/TEST PIT
- SANITARY SEWER MANHOLE
- CATCH BASIN
- WATER METER
- WETLAND FLAG
- POWER METER
- AREA LIGHT
- POWER POLE
- SS — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- OP — OVERHEAD POWER LINE

- ▨ CONCRETE PAVING
- ▨ ASPHALT PAVING
- ▨ BUILDINGS
- ▨ GRAVEL SURFACE



VICINITY MAP  
NOT TO SCALE

### PROJECT TEAM

**OWNER/DEVELOPER:** BARCELO HOMES  
 PO BOX 1733  
 AUBURN, WA 98071  
 CONTACT: BOGDAN MAKSIMCHUK  
 PHONE: (206) 724-1072

**ARCHITECT:** STUDIO 19 ARCHITECTS  
 207 1/2 1ST AVENUE SOUTH  
 SEATTLE, WASHINGTON 98104  
 CONTACT: ANDREW WISDOM  
 PHONE: (206) 466-1225

**CIVIL ENGINEER:** LITCHFIELD ENGINEERING  
 12840 81ST AVE NE  
 KIRKLAND, WA 98034  
 (425) 821-5038  
 CONTACT: KEITH LITCHFIELD, PE

**GEOTECHNICAL ENGINEER:** PANGEO, INC  
 3213 EASTLAKE AVENUE E, STE. B  
 SEATTLE, WA 98102  
 CONTACT: MICHAEL H. XUE, PE  
 (206) 262-0374

**SURVEYOR:** APS SURVEYING AND MAPPING  
 13221 SE 26TH STREET, SUITE A  
 BELLEVUE, WASHINGTON 98005  
 CONTACT: TYLER SWEET, PLS  
 PHONE: (425) 746-3342

**CRITICAL AREA CONSULTANT:** WETLAND RESOURCES  
 9515 19TH AVE SE #106  
 EVERETT, WA 98208  
 CONTACT: NIELS PEDERSON,  
 SENIOR ECOLOGIST  
 PHONE: (425) 337-3174

### LEGAL DESCRIPTION

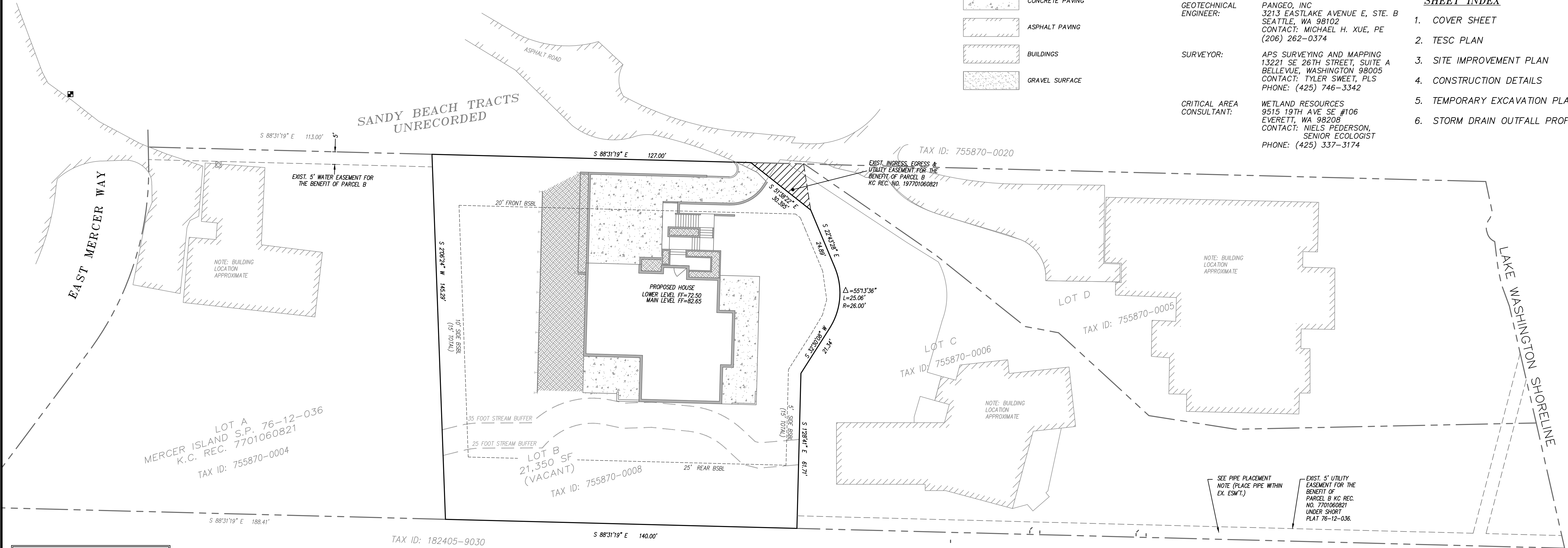
SANDY BEACH TRS UNREC LOT B  
 CITY OF MERCER ISLAND SHORT  
 PLAT 76-12-036 REC #7701060821  
 SD SP DAF - LOTS 1-2 & 3;

### DATUM

NAVD88  
 BENCHMARK: POINT NAME: 4135:  
 1/4" BRASS PIN IN CONC.  
 (DOWN 1.0') INTX. E. MERCER WAY  
 & SE 68th ST.  
 ELEVATION: 158.465

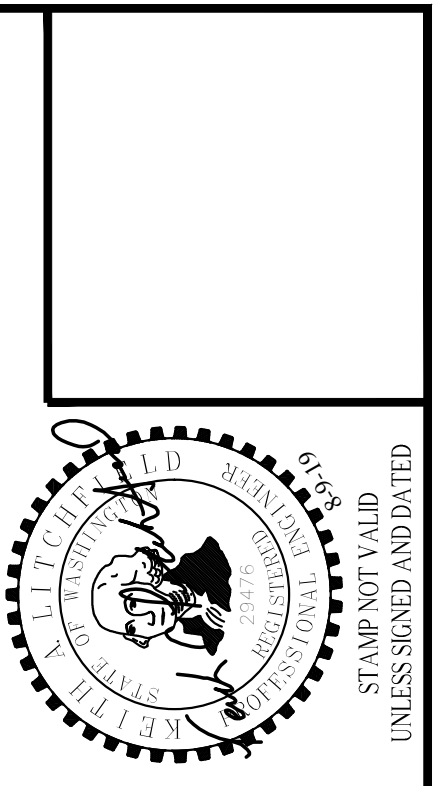
### SHEET INDEX

1. COVER SHEET
2. TESC PLAN
3. SITE IMPROVEMENT PLAN
4. CONSTRUCTION DETAILS
5. TEMPORARY EXCAVATION PLAN
6. STORM DRAIN OUTFALL PROFILE



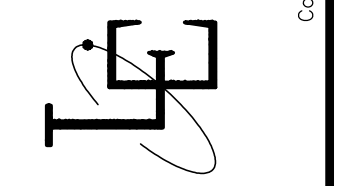
**PROJECT CESCL**  
 MICHAEL H. XUE, PE, CESCL  
 PANGEO, INC.  
 (206) 262-0374 (O)  
 (206) 491-0081 (C)

APPROVED: \_\_\_\_\_  
 CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP Date



DATE	CHD BY	NOTES
6-16-15	KAL	SUBMITTED TO CLIENT
7-6-15	KAL	REVISED PER CITY COMMENTS
10-19-15	KAL	REVISED PER CITY COMMENTS
3-25-16	KAL	ADD EXCAVATION PLAN: SHEET 5
5-25-16	KAL	ADD PROFILE: SHEET 6
6-14-17	KAL	UPDATED PER STREAM BUFFER
8-3-18	KAL	PER CITY COMMENTS
1-22-19	KAL	PER CITY COMMENTS
8-9-19	KAL	PER CITY COMMENTS

**LITCHFIELD ENGINEERING**  
 12840 81ST AVENUE NE  
 KIRKLAND, WA 98034  
 TEL: (425) 821-5038 FAX: (425) 821-0729



**COVER SHEET**  
**BARCELO HOMES SFR,**  
**4634 EAST MERCER WAY**  
 BOGDAN MAKSIMCHUK  
 P.O. BOX 1733  
 AUBURN, WA 98071

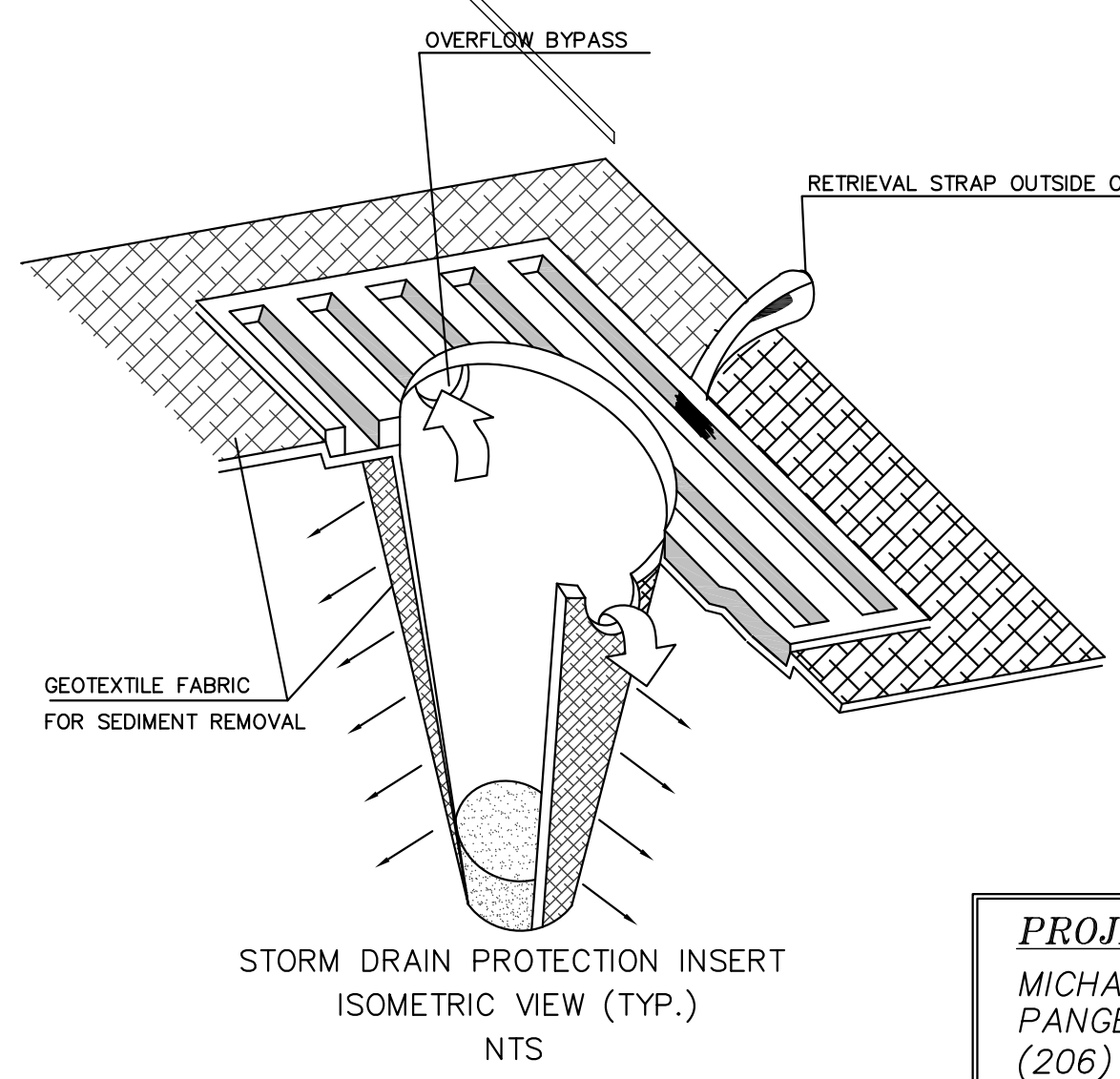
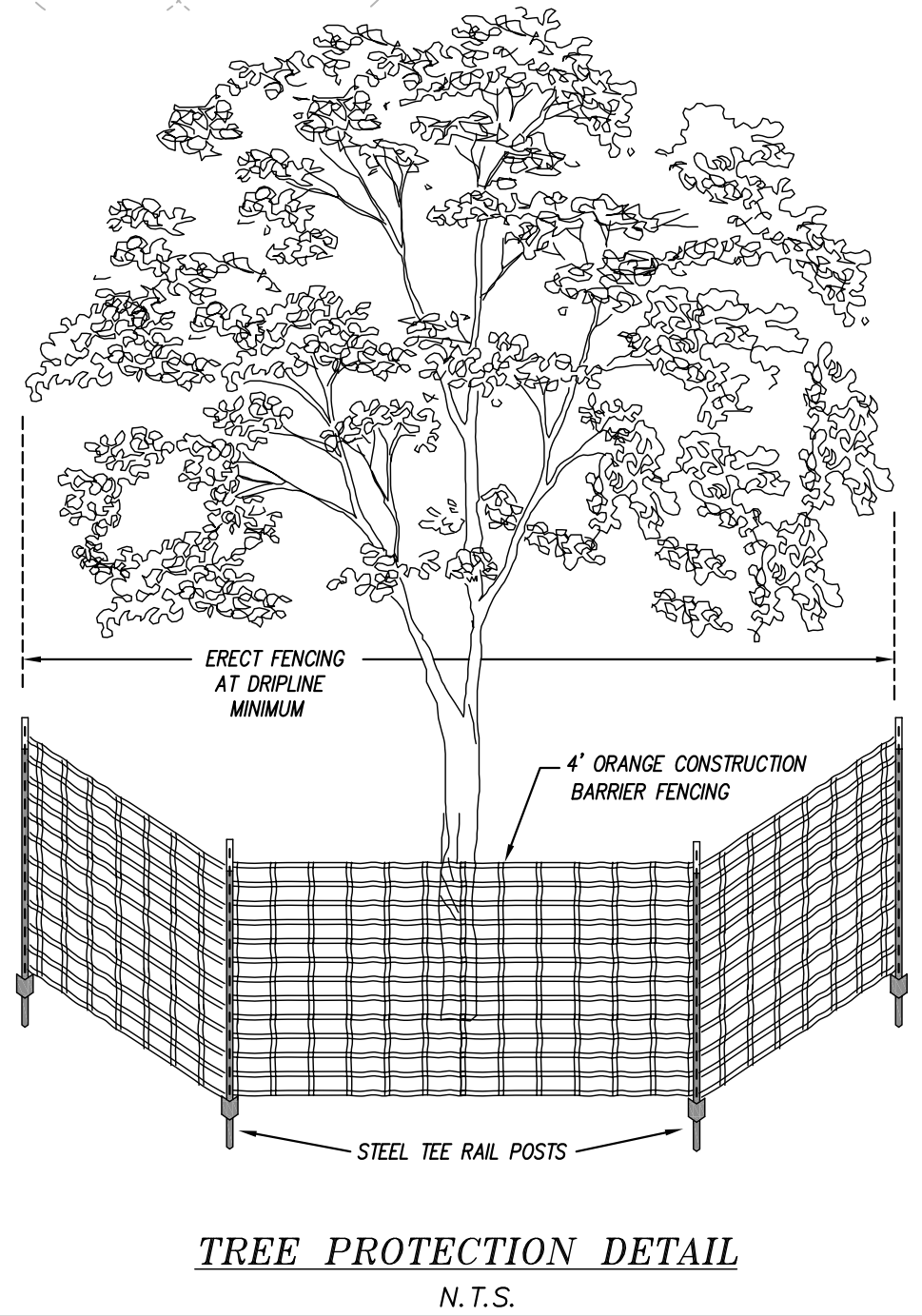
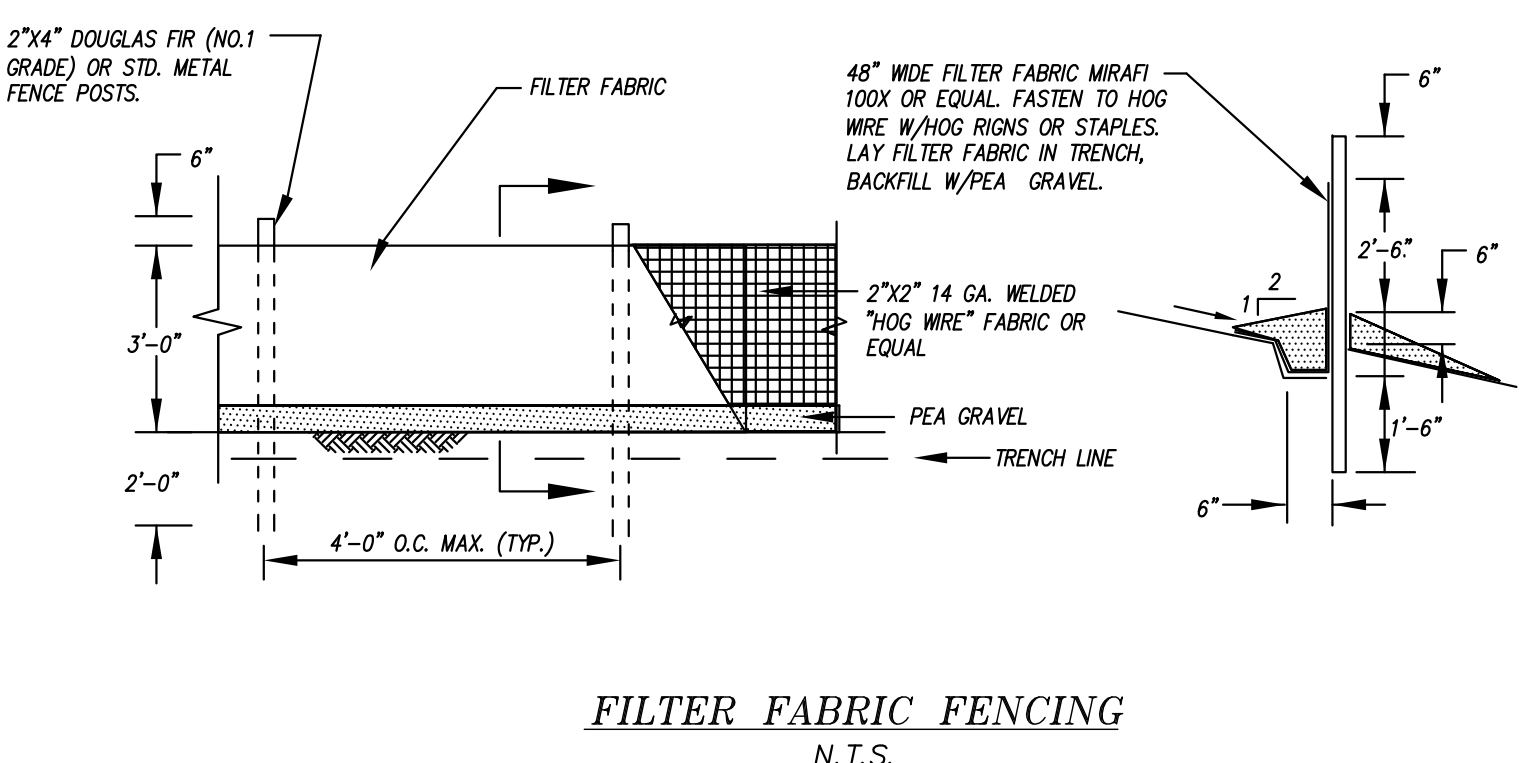
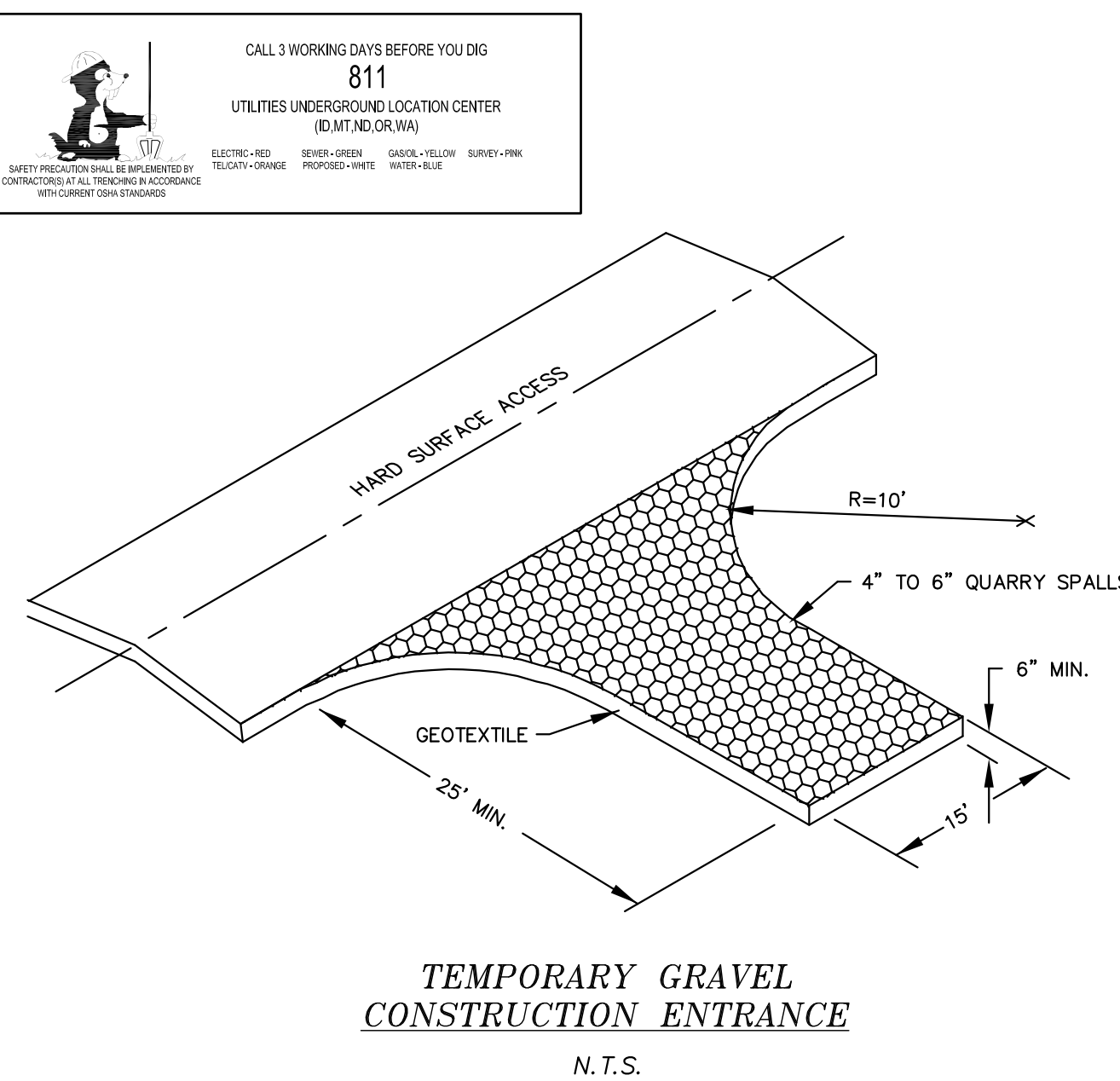
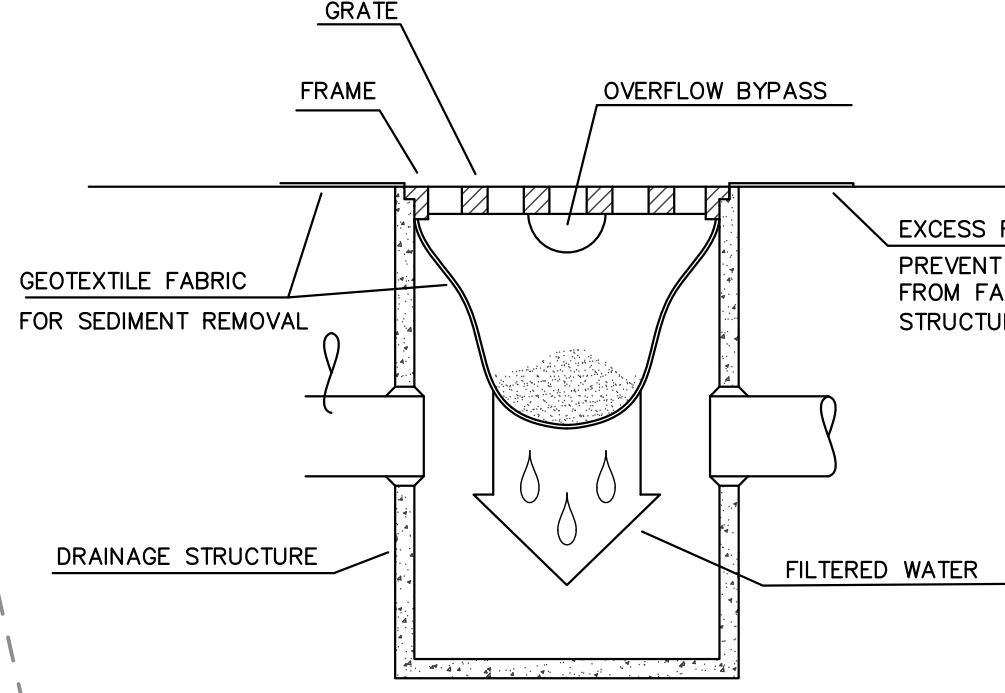
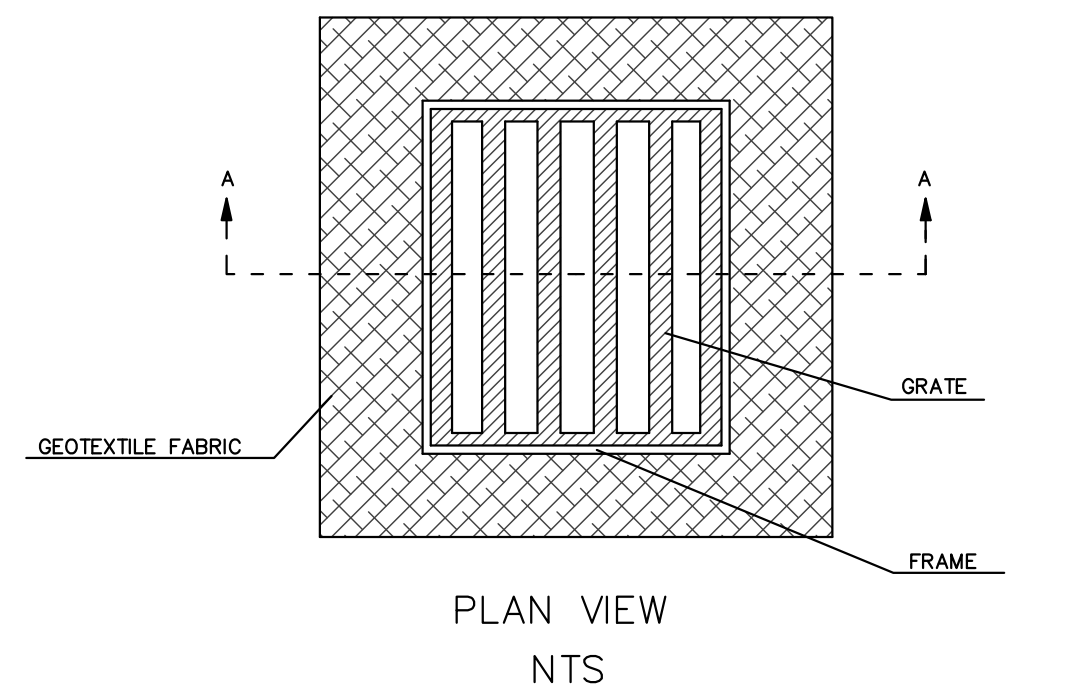
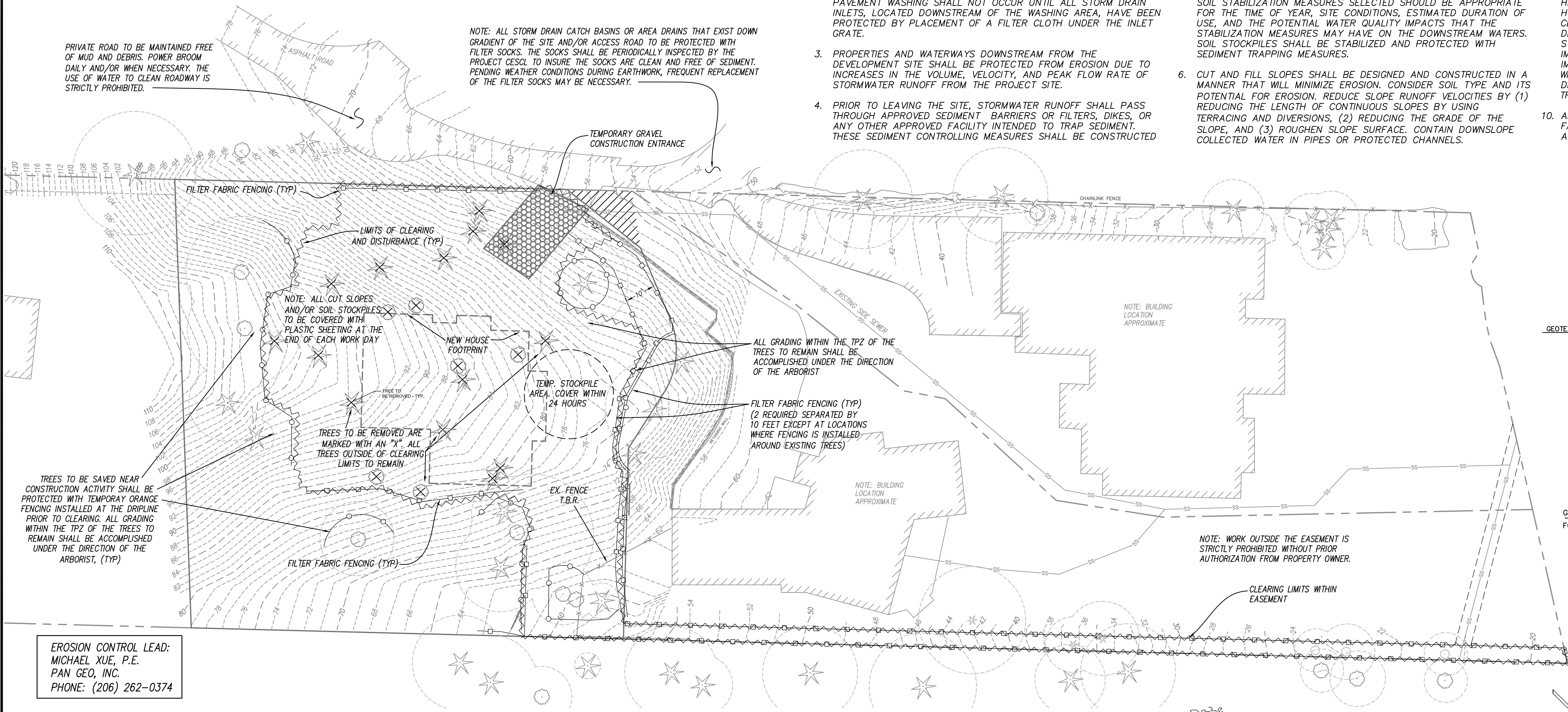
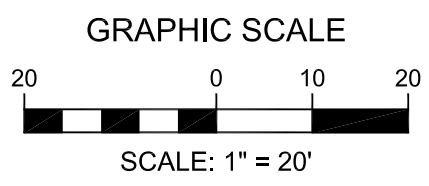


**CONSTRUCTION SEQUENCE:**

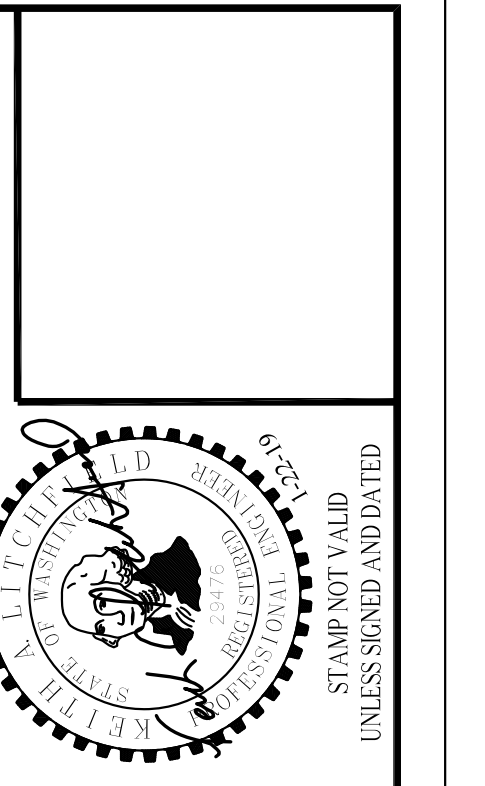
1. ATTEND PRE-CONSTRUCTION MEETING
2. FLAG CLEARING LIMITS
3. INSTALL ORANGE TREE BARRIER FENCING
4. INSPECTION BY CITY OF MERCER ISLAND INSPECTOR
5. EROSION CONTROL DEVICES AND RESOURCES TO COVER ALL SOIL, IN CASE OF EROSION RISK, ARE TO BE ON THE SITE AT ALL TIMES
6. INSTALL 2 ROWS OF SILT FENCING ALONG THE EDGE OF CLEARING LIMITS
7. INSTALL FILTER SOCKS ON ALL DOWN GRADIENT STORM DRAIN INLETS.
8. CONSTRUCT TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
9. CLEAR AND GRUB WITHIN CLEARING LIMITS
10. PERFORM SITE GRADING
11. KEEP PRIVATE ACCESS DRIVE FREE OF DIRT AND DEBRIS AT ALL TIMES.
12. CONSTRUCT BUILDING FOUNDATIONS, FOOTING DRAINS, AND WALL BACK DRAINS
13. CONSTRUCT DRAINAGE TIGHT LINE TO THE LAKE (PROPERTY OWNER OF LOT C TO BE PRESENT)
14. BACKFILL FOUNDATIONS AND RETAINING WALLS WITH DRAIN ROCK OR OTHER POROUS MATERIAL APPROVED BY PROJECT GEOTECH.
15. FINISH GRADE
16. APPLY PERMANENT VEGETATION AND MULCH ALL DISTURBED AREAS
17. CLEAN-UP THE SITE. TEMPORARY EROSION CONTROL DEVICES MAY BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THEY ARE NO LONGER NECESSARY. PROJECT CESCL TO INSPECT SITE AND APPROVE REMOVAL OF TEMPORARY EROSION CONTROL MEASURES.

**EROSION/SEDIMENT CONTROL NOTES**

1. PRIOR TO BEGINNING EARTH DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRADING, ALL CLEARING LIMITS, EASEMENTS, SETBACKS, TREES AND DRAINAGE COURSES SHALL BE CLEARLY DEFINED AND MARKED IN THE FIELD TO PREVENT DAMAGE AND OFFSITE IMPACTS.
2. CONSTRUCTION VEHICLE ACCESS AND EXIT SHALL BE LIMITED TO ONE ROUTE IF POSSIBLE. ACCESS POINTS SHALL BE STABILIZED WITH QUARRY SPALLS OR CRUSHED ROCK TO MINIMIZE THE TRACKING OF SEDIMENTS ONTO PUBLIC STREETS. WHEEL WASH OR TIRE BATHS SHALL BE LOCATED ON-SITE. IF SEDIMENT IS TRANSPORTED ONTO A ROAD SURFACE, THE PAVEMENT SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE PAVEMENT BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING WILL ONLY BE ALLOWED AFTER SEDIMENT IS REMOVED IN THIS MANNER. PAVEMENT WASHING SHALL NOT OCCUR UNTIL ALL STORM DRAIN INLETS, LOCATED DOWNSTREAM OF THE WASHING AREA, HAVE BEEN PROTECTED BY PLACEMENT OF A FILTER CLOTH UNDER THE INLET GRATE.
3. PROPERTIES AND WATERWAYS DOWNSTREAM FROM THE DEVELOPMENT SITE SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.
4. PRIOR TO LEAVING THE SITE, STORMWATER RUNOFF SHALL PASS THROUGH APPROVED SEDIMENT BARRIERS OR FILTERS, DIKES, OR ANY OTHER APPROVED FACILITY INTENDED TO TRAP SEDIMENT. THESE SEDIMENT CONTROLLING MEASURES SHALL BE CONSTRUCTED AS THE FIRST STEP IN GRADING. THESE FACILITIES SHALL BE FUNCTIONAL BEFORE ANY OTHER LAND DISTURBING ACTIVITY TAKES PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED UNDER ITEM 5.
5. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE PLACEMENT OF SOD OR OTHER VEGETATION, PLASTIC COVERING, MULCHING, APPLICATION OF BASE ROCK WITHIN AREAS TO BE PAVED, OR SOME OTHER APPROVED MEANS, TO PROTECT THE SOIL FROM THE EROSION FORCES OF RAINDROP IMPACT AND FLOWING WATER. FROM OCTOBER 1 THROUGH APRIL 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. FROM MAY 1 THROUGH SEPTEMBER 30, NO SOIL SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. THIS CONDITION APPLIES TO ALL SOILS ON SITE, WHETHER AT FINAL GRADE OR NOT. THE SOIL STABILIZATION MEASURES SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, ESTIMATED DURATION OF USE, AND THE POTENTIAL WATER QUALITY IMPACTS THAT THE STABILIZATION MEASURES MAY HAVE ON THE DOWNSTREAM WATERS. SOIL STOCKPILES SHALL BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES.
6. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. CONSIDER SOIL TYPE AND ITS POTENTIAL FOR EROSION. REDUCE SLOPE RUNOFF VELOCITIES BY (1) REDUCING THE LENGTH OF CONTINUOUS SLOPES BY USING TERRACING AND DIVERSIONS, (2) REDUCING THE GRADE OF THE SLOPE, AND (3) ROUGHEN SLOPE SURFACE. CONTAIN DOWNSLOPE COLLECTED WATER IN PIPES OR PROTECTED CHANNELS.
7. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENTS.
8. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION. STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION AT ALL DISCHARGE POINTS, ADJACENT STREAM BANKS, SLOPES AND DOWNSTREAM REACHES, SHALL BE PROVIDED.
9. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF, MUST BE CONDUCTED UNDER COVER AND ON IMPERVIOUS SURFACES. THESE SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILLAGE INCIDENT. WHEEL WASH, OR TIRE BATH WASTEWATER, SHALL NOT BE DISCHARGED TO THE STORM DRAIN, OR ON-SITE STORMWATER TREATMENT SYSTEM.
10. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.



APPROVED: \_\_\_\_\_ Date \_\_\_\_\_  
CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP



DATE	CHG BY	DATE	NOTES
6-16-15	KAL	6-16-15	SUBMITTED TO CLIENT
10-1-15	KAL	10-1-15	REVISED PER CITY COMMENTS
10-19-15	KAL	10-19-15	REVISED PER CITY COMMENTS
3-25-16	KAL	3-25-16	ADD EXCAVATION PLAN: SHEET 5
5-25-16	KAL	5-25-16	PER CITY COMMENTS
6-14-17	KAL	6-14-17	UPDATED PER STREAM BUFFER
8-3-18	KAL	8-3-18	PER CITY COMMENTS
1-22-19	KAL	1-22-19	PER CITY COMMENTS

**LITCHFIELD ENGINEERING**  
12840 81ST AVENUE NE  
Kirkland, WA 98034  
Tel: 425.821.5038 Fax: 425.821.5739

**T.E.S.C. PLAN**  
**BARCELLO HOMES SFR,**  
**4634 EAST MERCER WAY**  
BOGDAN MAKSYMCHUK  
P.O. BOX 1733  
AUBURN, WA 98071

**PROJECT CESCL**  
MICHAEL H. XUE, PE, CESCL  
PANGE0, INC.  
(206) 262-0374 (O)  
(206) 491-0081 (C)

SHEET  
2 of 6



**SITE IMPROVEMENT NOTES**

- PROOF OF LIABILITY INSURANCE SHALL BE SUBMITTED TO THE CITY PRIOR TO THE PRE-CONSTRUCTION MEETING.
- THESE PLANS ARE APPROVED FOR GRADING, DRAINAGE, AND UTILITY IMPROVEMENTS ONLY. PLANS FOR STRUCTURES REQUIRE A SEPARATE REVIEW AND APPROVAL.
- RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT.
- FILL MATERIAL PLACED UNDER BUILDING FOUNDATIONS OR PAVEMENT SHALL BE CRUSHED BASE ROCK OR COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH CITY AND WSDOT STANDARD SPECIFICATIONS.
- ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOOKING LIDS.
- THIS PLAN DOES NOT SHOW THE LOCATION OF ALL EXISTING UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL EXPOSE ALL EXISTING PIPING THAT WILL BE CONNECTED TO WITH NEW PIPING. DEPTH, LOCATION, AND CONDITION SHALL BE RELAYED TO THE ENGINEER IF CONDITIONS VARY SIGNIFICANTLY FROM WHAT IS DETAILED OR ANTICIPATED.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE TO DETAILS AND SPECIFICATIONS OF CITY STANDARDS. ALL CONSTRUCTION DEBRIS GENERATED DURING CONSTRUCTION TO BE REMOVED & DISPOSED OF AT AN APPROVED LOCATION OFF-SITE.
- ALL CUT MATERIAL GENERATED DURING THE PROJECT THAT IS NOT ACCEPTABLE FOR USE AS COMPACTED FILL MATERIAL AT ANOTHER LOCATION ON-SITE MUST BE HAULED TO AN APPROVED LOCATION OFF-SITE.

**DRAINAGE GENERAL NOTES**

- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- BEFORE ANY CONSTRUCTION MAY OCCUR, THE CONTRACTOR SHALL HAVE PLANS WHICH HAVE BEEN SIGNED AND APPROVED BY THE CITY OF MERCER ISLAND PUBLIC WORKS DEPARTMENT, OBTAINED ALL CITY, COUNTY, STATE, FEDERAL AND OTHER REQUIRED PERMITS, AND HAVE POSTED ALL REQUIRED BONDS.
- ALL STORM DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF MERCER ISLAND PUBLIC WORKS PRE-APPROVED PLANS AND POLICIES AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, PREPARED BY WSDOT AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA).
- ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL. ALL CHANGES SHALL BE SUBMITTED TO THE CITY.
- A COPY OF THE APPROVED STORM WATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR SIMILARLY STABILIZED TO THE SATISFACTION OF THE CITY OF MERCER ISLAND DEPARTMENT OF PUBLIC WORKS FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.
- MINIMUM COVER OVER STORM DRAINAGE PIPES IN ROW OR VEHICULAR PATH SHALL BE 18 INCHES, UNLESS OTHER DESIGN IS APPROVED.
- CONSTRUCTION OF DEWATERING (GROUNDWATER) SYSTEMS SHALL BE IN ACCORDANCE WITH THE APWA STANDARD SPECIFICATIONS.
- ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, CONFINED SPACE PROTECTION, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
- APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION INSPECTOR AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE DEVELOPMENT ENGINEER PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT.
- THE UNDERGROUND UTILITY LOCATION SERVICE SHALL BE CONTACTED FOR FIELD LOCATION OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE CONTACTED IF A UTILITY CONFLICT EXISTS. FOR UTILITY LOCATION IN KING COUNTY, CALL 811. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAY SHALL BE BACKFILLED ONLY WITH 5/8" MINUS CRUSHED ROCK AND MECHANICALLY COMPACTED (UNLESS OTHERWISE APPROVED BY THE CITY). CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW OR JACKHAMMER IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE A MINIMUM OF 1" THICKER THAN THE ORIGINAL ASPHALT WITH A MINIMUM THICKNESS OF 2".
- ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE CITY CONSTRUCTION INSPECTOR BEFORE PROJECT APPROVAL AND/OR THE RELEASE OF THE PROJECT'S PERFORMANCE BOND.
- GROUT ALL SEAMS AND OPENINGS IN ALL INLETS, CATCH BASINS, AND MANHOLES.

**PUMP SYSTEM CALL-OUT**

ORENCO 30" PUMP BASIN & COVER  
W/DUPLEX SUBMERSIBLE PUMPS,  
PUMPS TO BE ALTERNATING AND  
FUNCTION AS A LEAD/LAG SYSTEM  
RIM = 61.00  
IE 6" PVC = 55.00 (ALL PIPES)  
BASE = 51.00  
(PER PUMP SYSTEM DETAIL)

**BACK-UP GENERATOR NOTES**

- ELECTRICAL CONTRACTOR TO PROVIDE GENERATOR AND TRANSFER SWITCH FOR BATTERY BACK-UP & AUTO START FOR SERVICE TO PUMPS DURING UTILITY OUTAGE.
- DUPLEX PUMP CONTROL PANEL & TRANSFER SWITCH TO BE LOCATED IN GARAGE.

**ARCHITECTURAL, STRUCTURAL & GEOTECHNICAL NOTES**

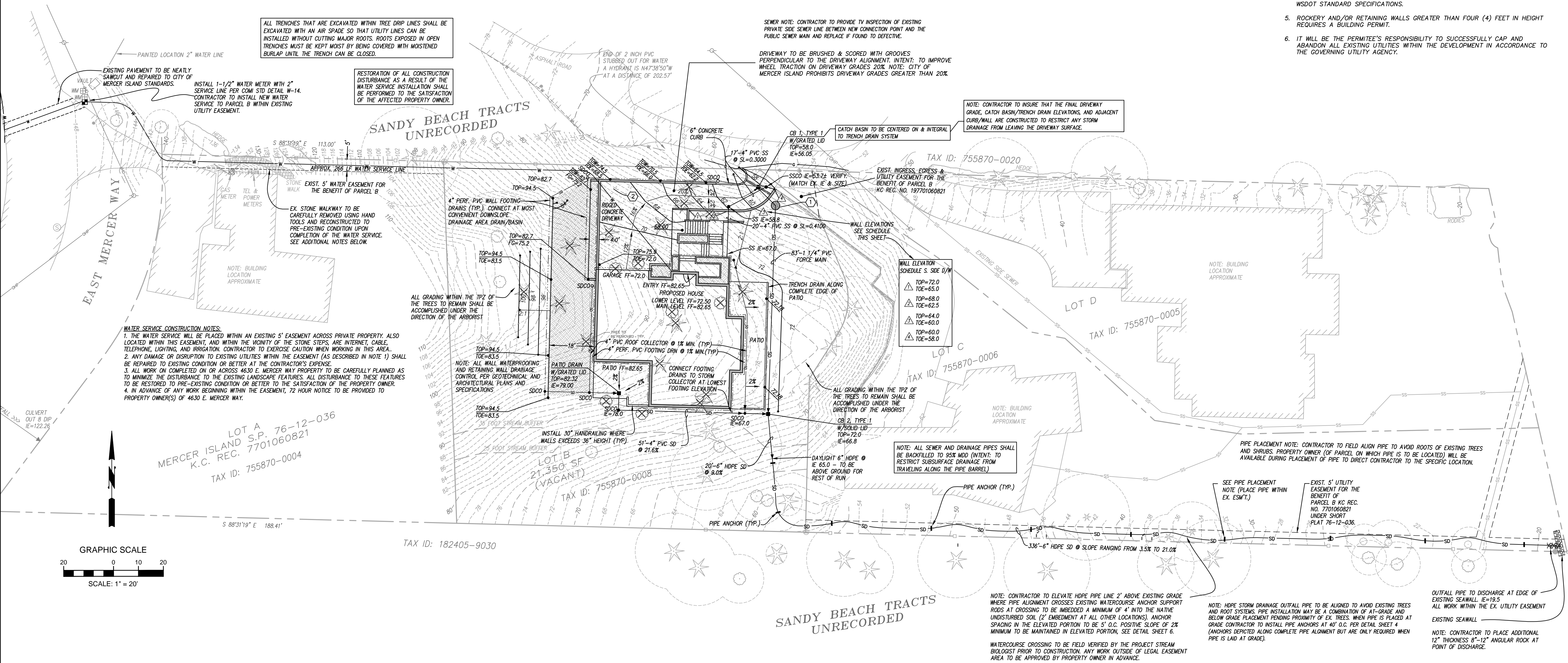
- THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES SUCH AS RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- SPECIAL INSPECTIONS FOR GEOTECHNICAL AND/OR STRUCTURAL ASPECTS OF THE PROJECT MAY BE REQUIRED DURING VARIOUS STAGES OF THE PROJECT. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION AND OBTAINING INSPECTIONS WHEN AND WHERE NECESSARY.
- SEE ARCHITECTURAL PLANS FOR BUILDING SECTIONS AND ALL LOCAL/DIMENSIONAL ASPECTS OF BUILDINGS.
- SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL BUILDING AND RETAINING WALL DETAILS.
- COORDINATE ALL SITE CIVIL CONSTRUCTION WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL/PLUMBING AND LANDSCAPE PLANS AND IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
- PRIOR TO CONSTRUCTION THE EARTHWORK/GENERAL CONTRACTOR TO BE COMPLETELY FAMILIAR WITH THE GEOTECHNICAL REPORT AND RECOMMENDATIONS. PLEASE REVIEW PANGEO, INC.'S REPORT DATED MARCH 31, 2014 AND CONTACT MICHAEL XUE, PE ON ANY QUESTIONS OR CONCERNS REGARDING HIS RECOMMENDATIONS.

**GRADING NOTES:**

- ALL CUT MATERIAL GENERATED DURING THE PROJECT THAT IS NOT ACCEPTABLE FOR USE AS COMPACTED FILL MATERIAL AT ANOTHER LOCATION ON-SITE MUST BE HAULED TO AN APPROVED LOCATION OFF-SITE.
- THE ON-SITE TOPOGRAPHICAL MAPPING WAS PROVIDED BY EMERALD LAND SURVEYING, INC.
- ALL TEMPORARY OR PERMANENT SLOPES SHALL NOT EXCEED 2H:1V UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
- FILL MATERIAL PLACED UNDER BUILDING FOUNDATIONS OR PAVEMENT SHALL BE CRUSHED BASE ROCK OR COMPACTED STRUCTURAL FILL IN ACCORDANCE TO WSDOT STANDARD SPECIFICATIONS.
- ROCKERY AND/OR RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT REQUIRES A BUILDING PERMIT.
- IT WILL BE THE PERMITEE'S RESPONSIBILITY TO SUCCESSFULLY CAP AND ABANDON ALL EXISTING UTILITIES WITHIN THE DEVELOPMENT IN ACCORDANCE TO THE GOVERNING UTILITY AGENCY.



STAMP NOT VALID UNLESS SIGNED AND DATED



ALL TRENCHES THAT ARE EXCAVATED WITHIN TREE DRIP LINES SHALL BE EXCAVATED WITH AN AIR GRADE SO THAT UTILITY LINES CAN BE INSTALLED WITHOUT CUTTING MAJOR ROOTS. ROOTS EXPOSED IN OPEN TRENCHES MUST BE KEPT MOST BY BEING COVERED WITH MOISTENED BURLAP UNTIL THE TRENCH CAN BE CLOSED.

RESTORATION OF ALL CONSTRUCTION DISTURBANCE AS A RESULT OF THE WATER SERVICE INSTALLATION SHALL BE PERFORMED TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER.

SEWER NOTE: CONTRACTOR TO PROVIDE TV INSPECTION OF EXISTING PRIVATE SEWER LINE BETWEEN NEW CONNECTION POINT AND THE PUBLIC SEWER MAIN AND REPLACE IF FOUND TO BE DEFECTIVE.

DRIVEWAY TO BE BRUSHED & SCORED WITH GROOVES PERPENDICULAR TO THE DRIVEWAY ALIGNMENT. INTENT: TO IMPROVE WHEEL TRACTION ON DRIVEWAY GRADES 20%. NOTE: CITY OF MERCER ISLAND PROHIBITS DRIVEWAY GRADES GREATER THAN 20%.

NOTE: CONTRACTOR TO INSURE THAT THE FINAL DRIVEWAY GRADE, CATCH BASIN/TRENCH DRAIN ELEVATIONS, AND ADJACENT CURB/WALL ARE CONSTRUCTED TO RESTRICT ANY STORM DRAINAGE FROM LEAVING THE DRIVEWAY SURFACE.

WALL ELEVATION SCHEDULE S. SIDE D/W

- TOP=72.0 TOE=65.0
- TOP=68.0 TOE=62.5
- TOP=64.0 TOE=60.0
- TOP=60.0 TOE=58.0

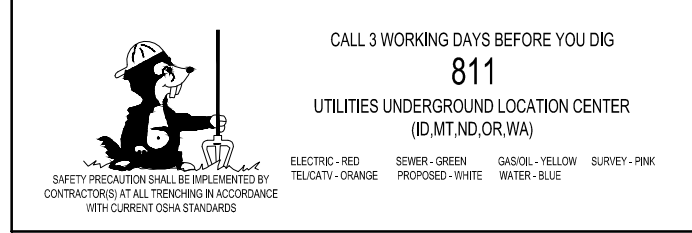
NOTE: ALL SEWER AND DRAINAGE PIPES SHALL BE BACKFILLED TO 95% MDD (INTENT: TO RESTRICT SUBSURFACE DRAINAGE FROM TRAVELING ALONG THE PIPE BARREL).

PIPE PLACEMENT NOTE: CONTRACTOR TO FIELD ALIGN PIPE TO AVOID ROOTS OF EXISTING TREES AND SHRUBS. PROPERTY OWNER (OF PARCEL ON WHICH PIPE IS TO BE LOCATED) WILL BE AVAILABLE DURING PLACEMENT OF PIPE TO DIRECT CONTRACTOR TO THE SPECIFIC LOCATION.

OUTFALL PIPE TO DISCHARGE AT EDGE OF EXISTING SEAWALL. IE=19.5  
ALL WORK WITHIN THE EX. UTILITY EASEMENT  
EXISTING SEAWALL

NOTE: CONTRACTOR TO PLACE ADDITIONAL 12" THICKNESS 8"-12" ANGULAR ROCK AT POINT OF DISCHARGE.

**PROJECT CESCL**  
MICHAEL H. XUE, PE, CESCL  
PANGEO, INC.  
(206) 262-0374 (O)  
(206) 491-0081 (C)



APPROVED: CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP Date

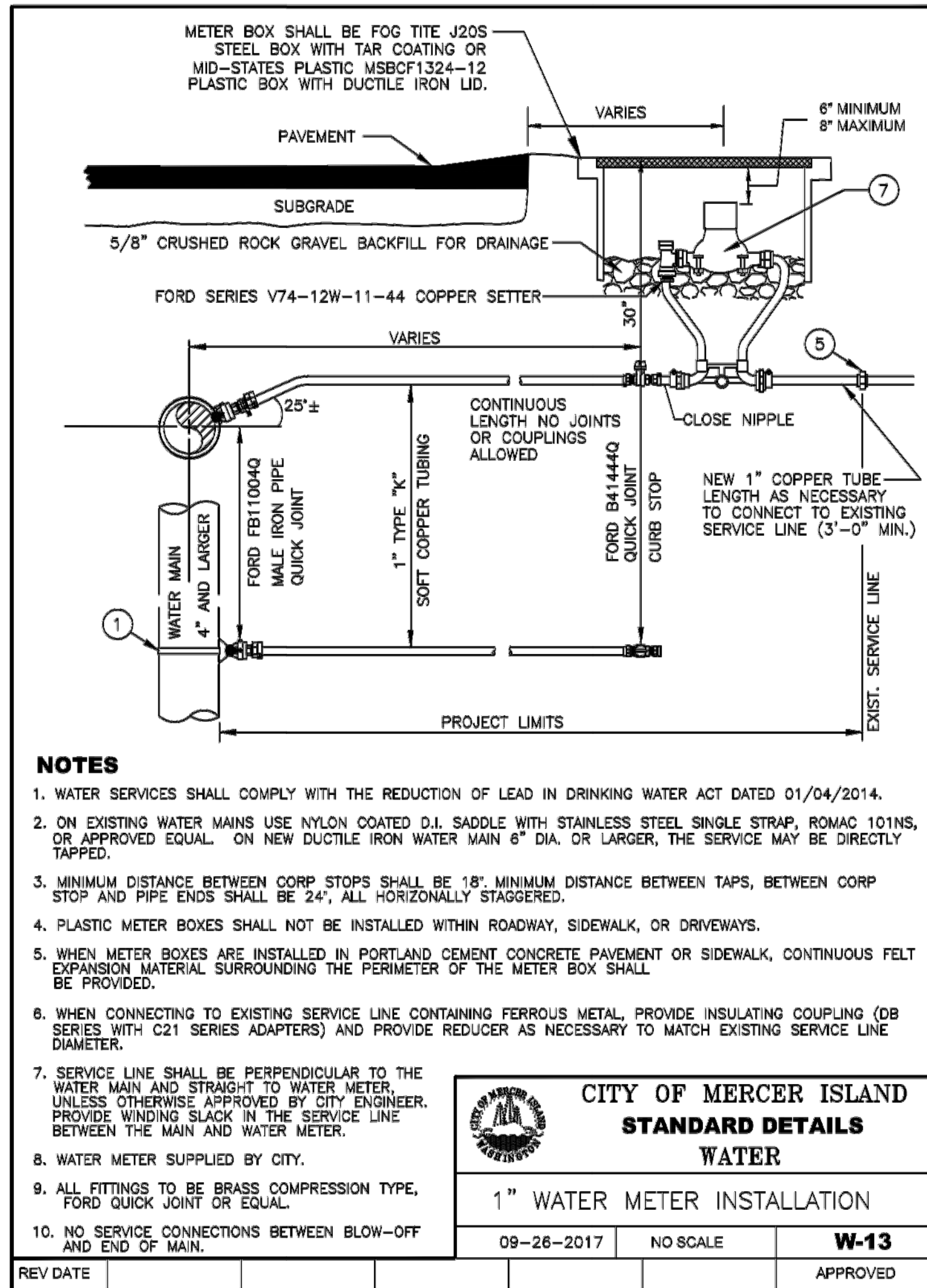
CHD BY	DATE	NOTES
KAL	6-16-15	SUBMITTED TO CLIENT
KAL	7-6-15	REVISED PER CITY COMMENTS
KAL	10-19-15	REVISED PER CITY COMMENTS
KAL	3-25-16	ADD EXCAVATION PLAN: SHEET 5
KAL	5-25-16	PER CITY COMMENTS
KAL	6-14-17	UPDATED PER STREAM BUFFER
KAL	8-3-18	PER CITY COMMENTS
KAL	1-22-19	PER CITY COMMENTS
KAL	5-15-19	PER CITY COMMENTS
KAL	8-9-19	PER CITY COMMENTS

**LITCHFIELD ENGINEERING**  
12840 81ST AVENUE NE  
Kirkland, WA 98034  
Tel: (425) 821-5606 Fax: (425) 821-6729

**SITE IMPROVEMENT PLAN**  
**BARCELO HOMES SER.**  
**4634 EAST MERCER WAY**  
BOGDAN MAKSYMCHUK  
P.O. BOX 1733  
AUBURN, WA 98071



FIGURE 4.2.1.C CORRUGATED METAL PIPE COUPLING AND/OR GENERAL PIPE ANCHOR ASSEMBLY

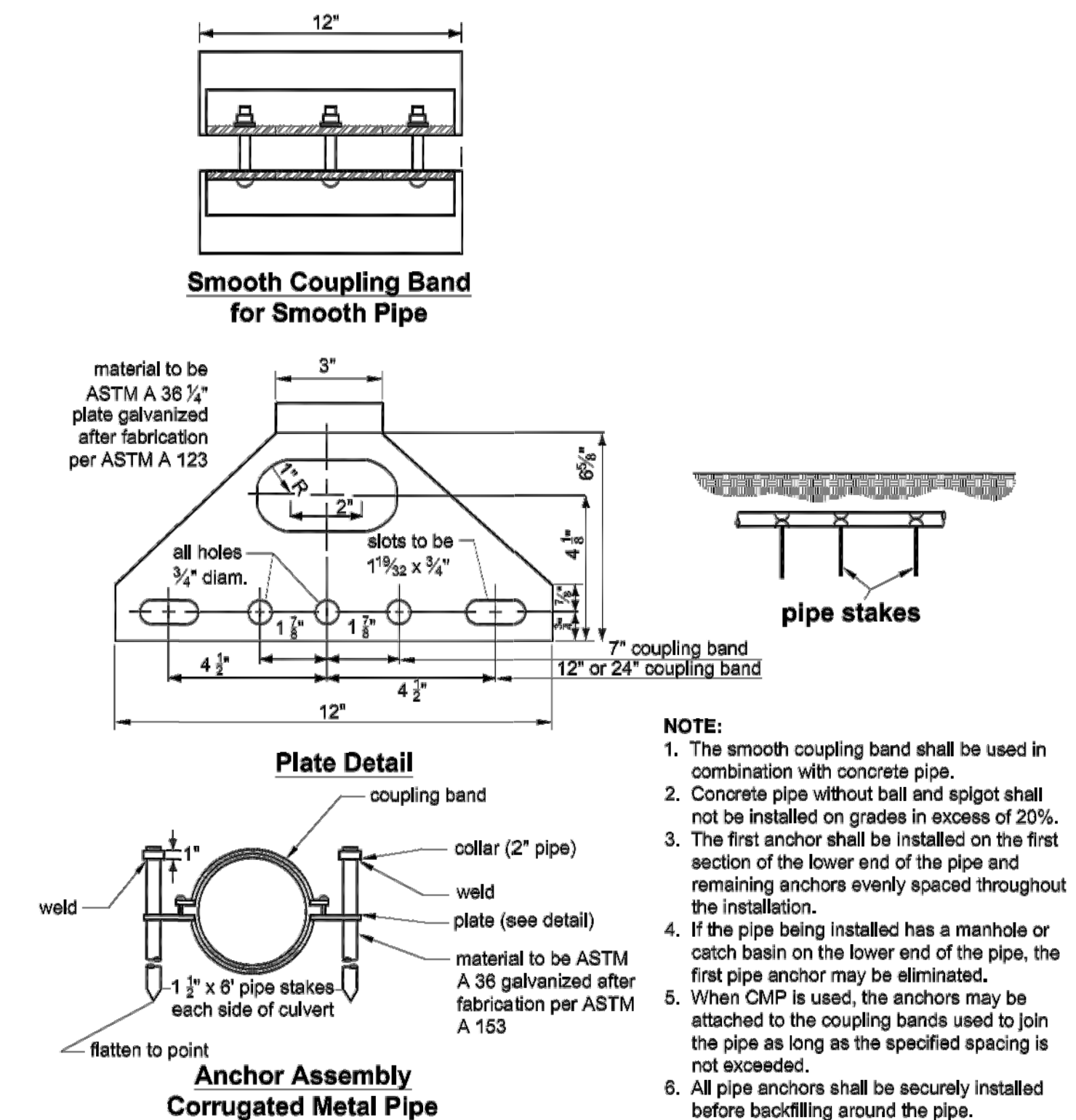
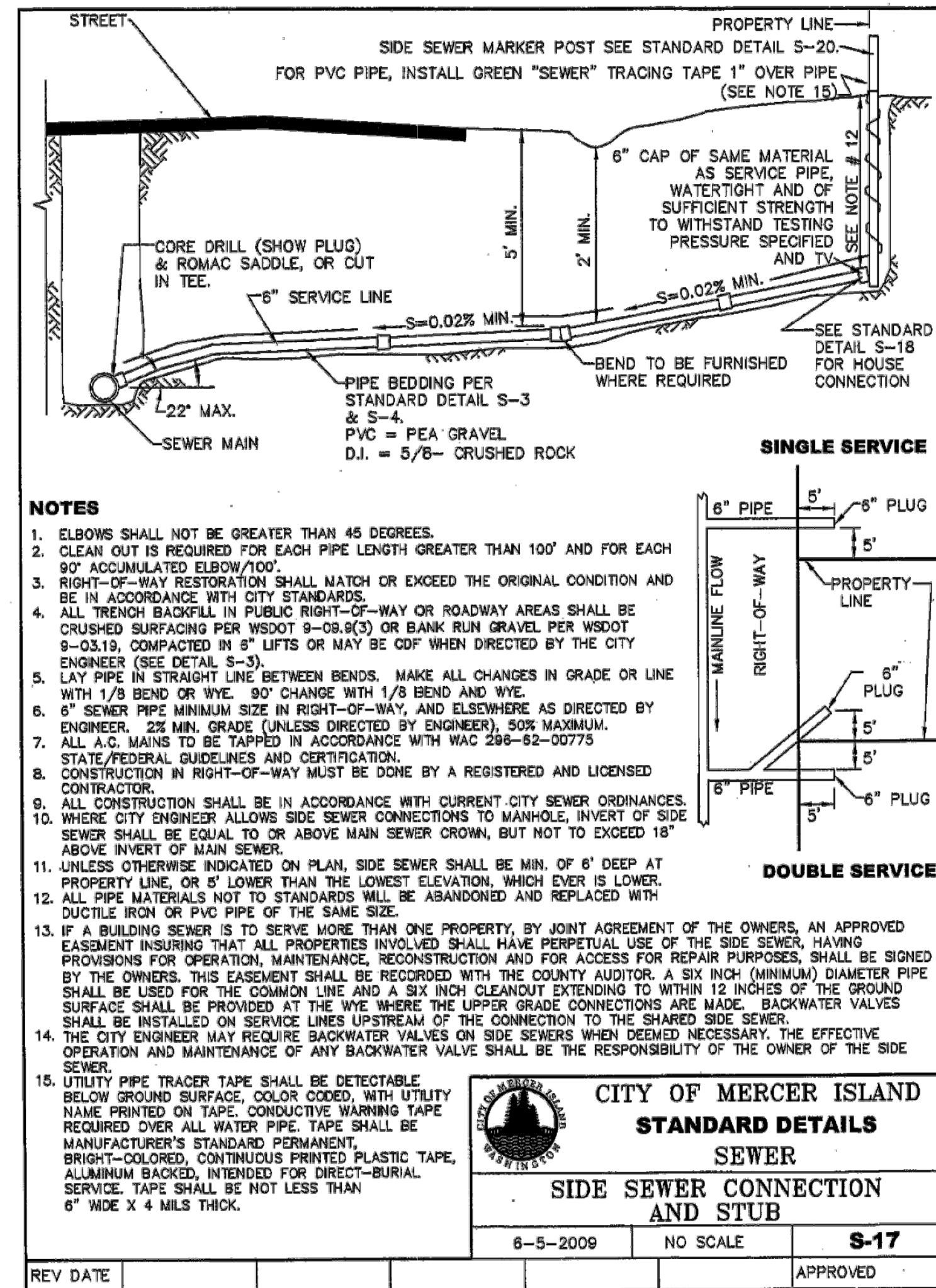


**CITY OF MERCER ISLAND**  
**STANDARD DETAILS**  
**WATER**

1" WATER METER INSTALLATION

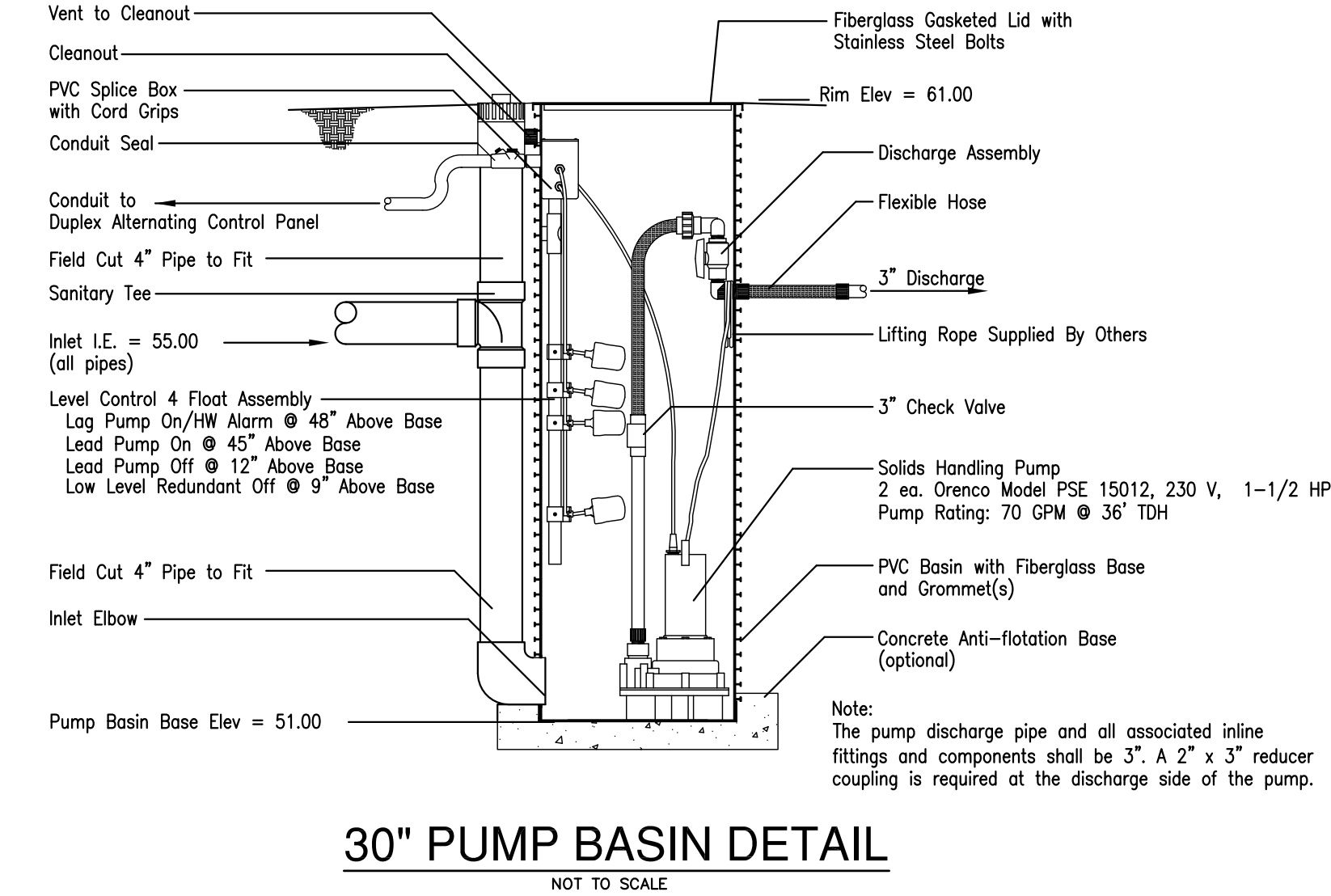
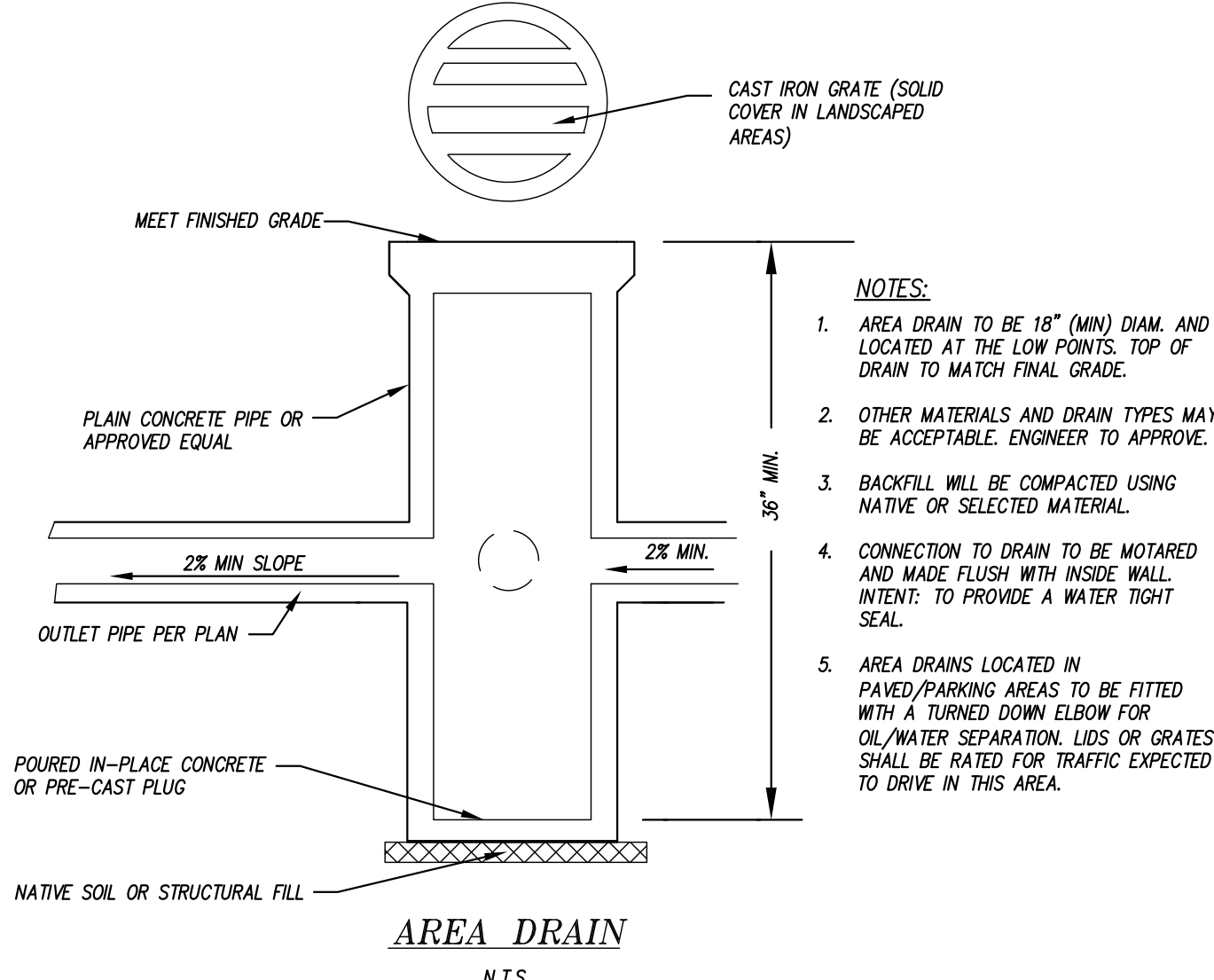
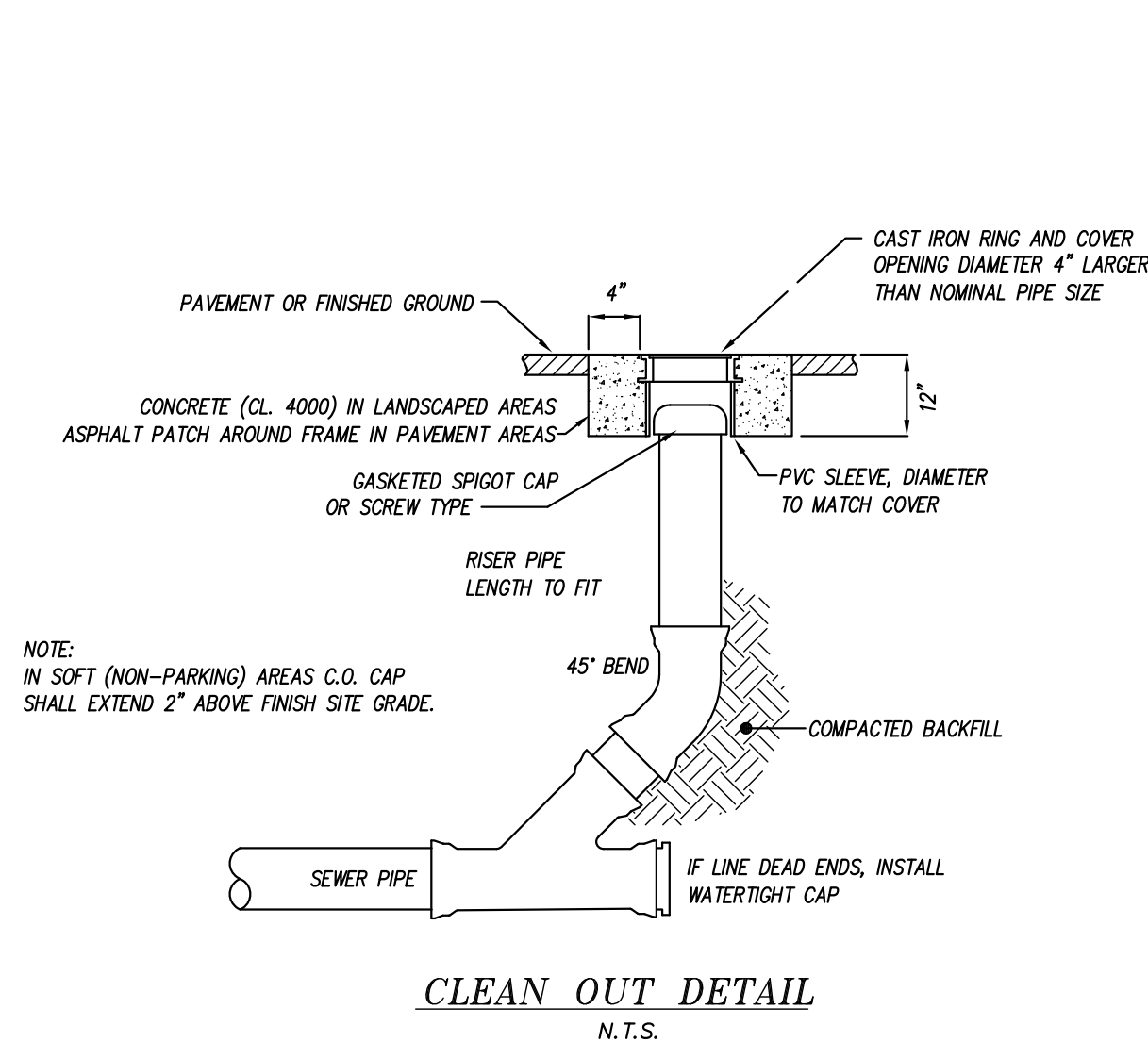
09-26-2017 NO SCALE **W-13**

APPROVED

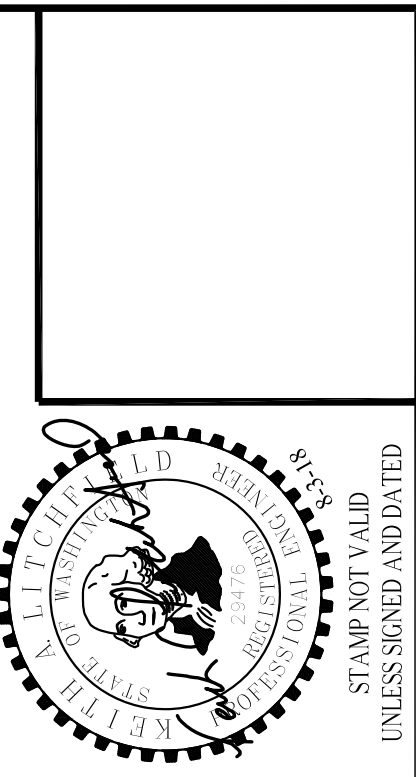


**PUMP SYSTEM SPECIFICATIONS:**

1. PUMP BASIN, CONTROL PANEL, PUMPS, AND ALL ASSOCIATED COMPONENTS SHALL BE BY ORENCO SYSTEMS, INC. TECHNICAL AND/OR INSTALLATION SUPPORT PHONE NUMBER: TRISTAN BOUNDS 800-348-9843, EXT 236. ORDER FROM HD FOWLER: KEVIN GABRIEL 425-746-8400.
2. PUMP BASIN TO BE 30" DIAMETER WITH LID MOUNTED WITH STAINLESS STEEL SCREWS.
3. PUMPS TO BE SINGLE PHASE, 230 VOLT, MODEL PSE 15012; CONTROL PANEL TO BE MODEL DX 2 ETACT WITH ELAPSED TIME METER AND PUMP COUNTER; FLOAT SWITCHES TO BE MF44-YP,B,R,W (4 FLOATS RED'D)



APPROVED: \_\_\_\_\_ Date \_\_\_\_\_  
CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP



DATE	NOTES
6-16-15	SUBMITTED TO CLIENT
10-19-15	REVISED PER CITY COMMENTS
3-25-16	ADD EXCAVATION PLAN: SHEET 5
02-09-18	REVISED SITE PLAN
08-03-18	PER CITY COMMENTS

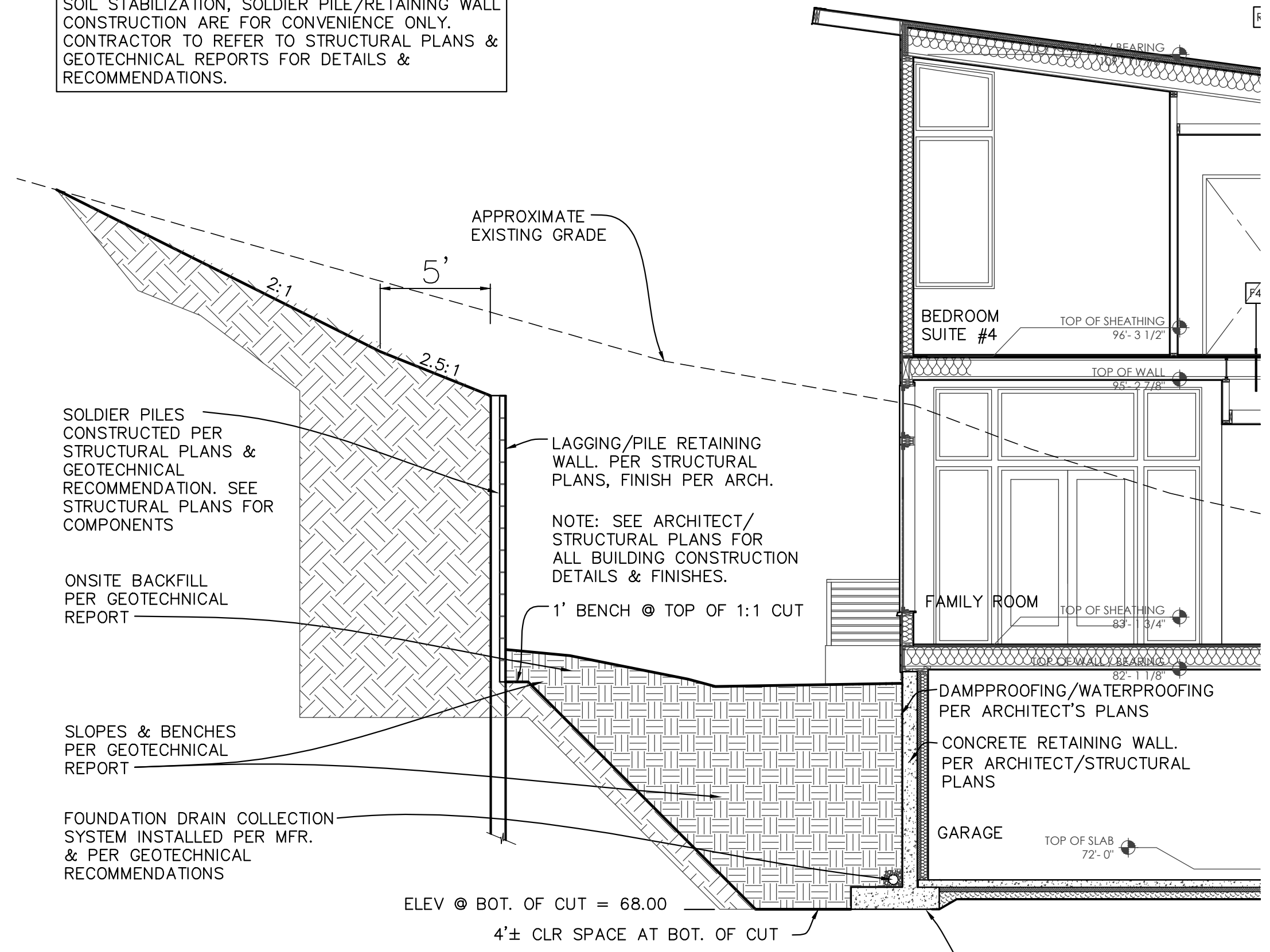
**LITCHFIELD ENGINEERING**

12840 81ST AVENUE NE  
Kirkland, WA 98034  
Tel: 425.821.5038 Fax: 425.821.5739

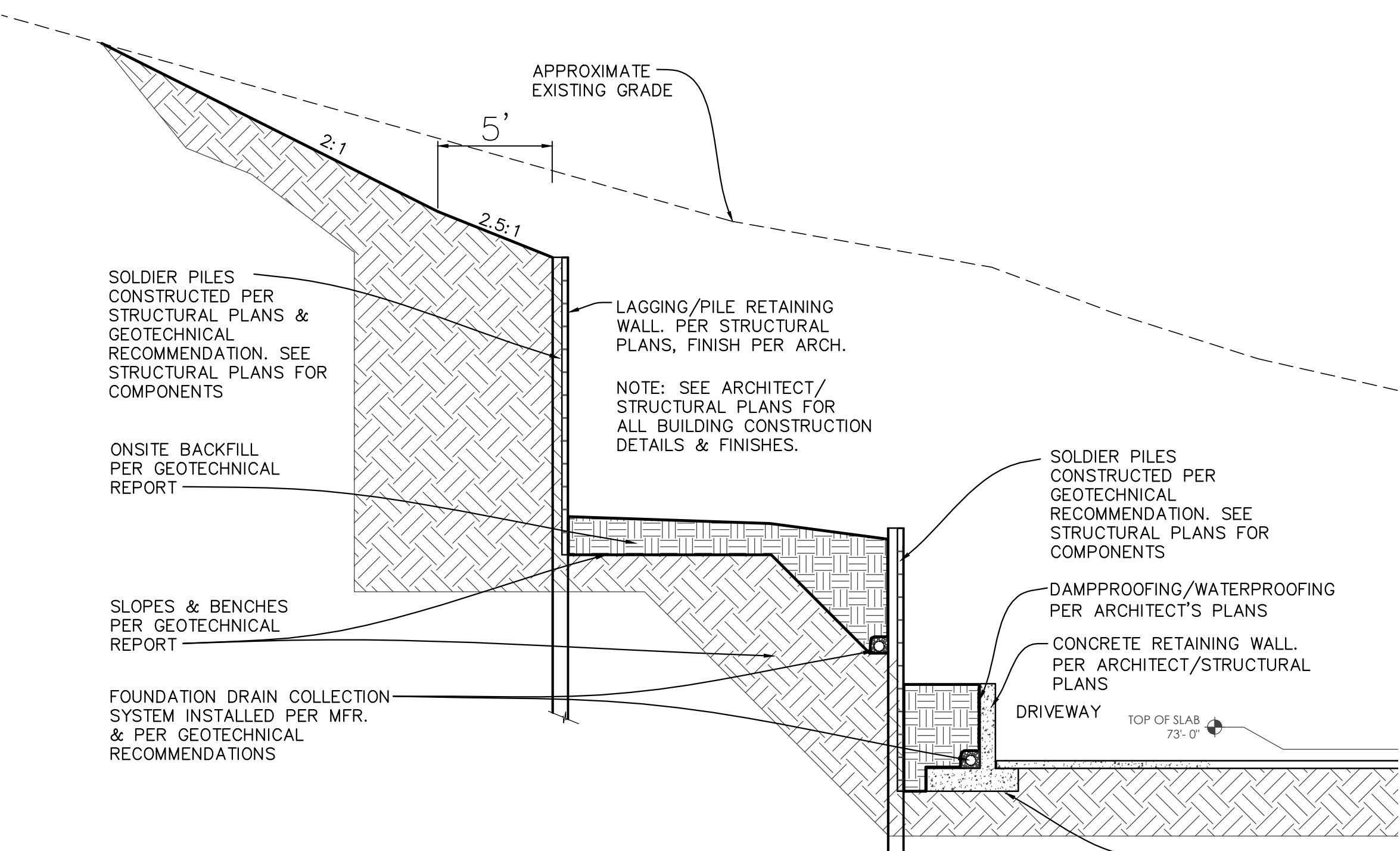
**CONSTRUCTION DETAILS**  
**BARCELO HOMES SFR,**  
**4634 EAST MERCER WAY**  
BOGDAN MAKSYMCHUK  
P.O. BOX 1733  
AUBURN, WA 98071



SPECIAL NOTE TO CONTRACTOR: THE DETAILS & NOTES REGARDING TEMPORARY/PERMANENT CUTS, SOIL STABILIZATION, SOLDIER PILE/RETAINING WALL CONSTRUCTION ARE FOR CONVENIENCE ONLY. CONTRACTOR TO REFER TO STRUCTURAL PLANS & GEOTECHNICAL REPORTS FOR DETAILS & RECOMMENDATIONS.



**A-A EXCAVATION AT WEST WALL WITH SOLDIER PILES**  
SCALE: HOR.: 1"=5'; VER.: 1"=5'



**B-B EXCAVATION AT WEST WALL WITH PARALLEL SOLDIER PILES**  
SCALE: HOR.: 1"=5'; VER.: 1"=5'

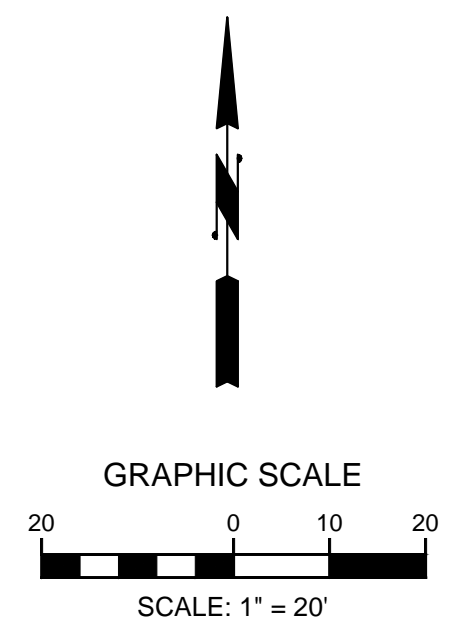
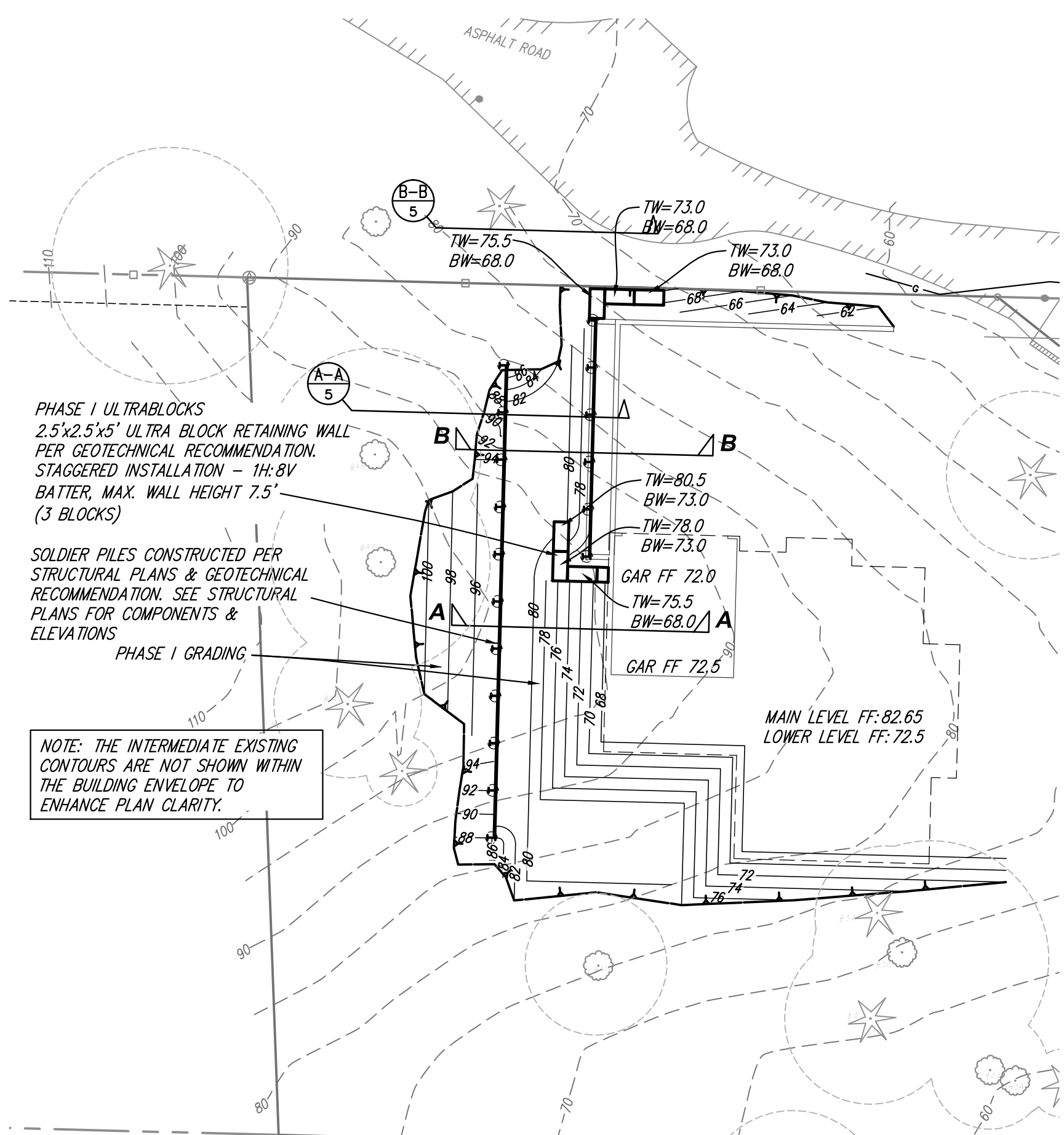
**SPECIAL GEOTECHNICAL ULTRABLOCK NOTES**

1. THE MAXIMUM WALL HEIGHT OF STAGGERED BLOCKS IS 7½ FEET (I.E., 3 BLOCKS IN HEIGHT);
2. THE VERTICAL WALL FACE IS NO STEEPER THAN 1H (HORIZONTAL):8V (VERTICAL);
3. THE SUBGRADE AT THE BASE OF THE ULTRABLOCK BLOCKS SHALL CONSIST OF DENSE NATIVE SOIL OR LEVELING CRUSHED ROCK PLACED ON DENSE SOIL;
4. NO EXCAVATION SHALL BE MADE UNTIL BLOCKS ARE AVAILABLE ON SITE;
5. THE WIDTH OF UNSUPPORTED CUT FACE FOR BLOCK PLACEMENT SHALL BE LIMITED TO NO MORE THAN ABOUT 10 FEET AT ANY GIVEN TIME;
6. BLOCKS SHALL BE PLACED IMMEDIATELY AFTER THE CUT IS MADE, OTHERWISE THE CUT FACE SHALL BE BUTTRESSED WITH ON-SITE SOILS UNTIL THE BLOCKS CAN BE PLACED;
7. ANY VOIDS BEHIND BLOCKS SHALL BE BACKFILLED WITH GRAVEL IMMEDIATELY AFTER THE BLOCK WALL ARE INSTALLED; AND
8. PANGEO SHALL PROVIDE FULL TIME OBSERVATION DURING BLOCK WALL INSTALLATION.

GEOTECHNICAL ENGINEER TO REVIEW THESE PLANS AND COORDINATE WITH CONTRACTOR ON ALL EXCAVATION, FOUNDATION DRAINAGE, RETAINING WALLS, SHEET PILING, SHORING, ULTRABLOCK, BACKFILLING AND OTHER EARTHWORK NECESSARY TO CONSTRUCT THIS PROJECT.

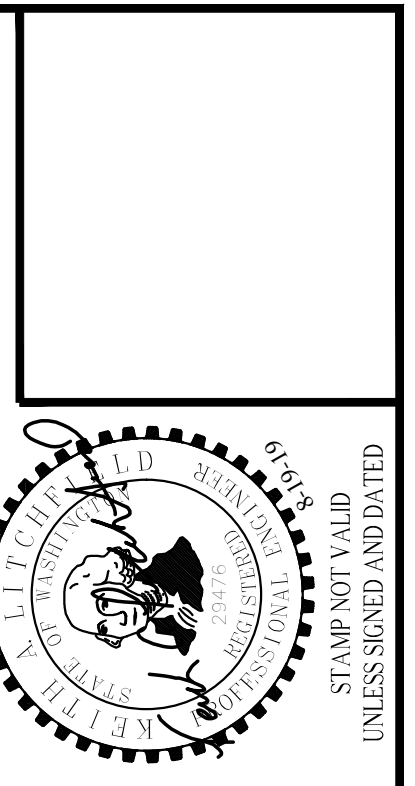
THIS PROJECT REQUIRES STAGED FOUNDATION CONSTRUCTION. CONTRACTOR TO WORK WITH GEOTECHNICAL ENGINEER TO DETERMINE THE APPROPRIATE LIMITS AND PROCESSES FOR SUCCESSIVE STAGES OF THE CONSTRUCTION.

CONTRACTOR TO COORDINATE WITH ARCHITECT & STRUCTURAL ENGINEER ON ALL PENETRATIONS THROUGH RETAINING WALLS, PROVIDING SLEEVES WHERE SHOWN OR REQUIRED.



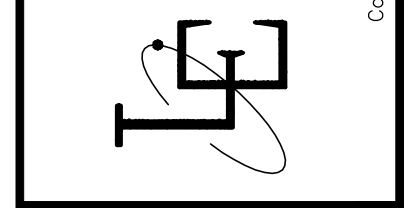
**PROJECT CESCL**  
MICHAEL H. XUE, PE, CESCL  
PANGEO, INC.  
(206) 262-0374 (O)  
(206) 491-0081 (C)

APPROVED: \_\_\_\_\_  
CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP Date

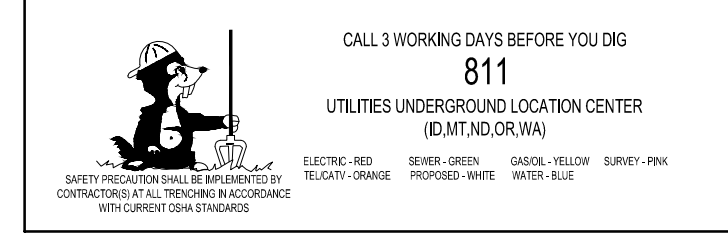


DATE	CHD BY	NOTES
1-29-16	KAL	PER STRUCTURAL REVISION
3-9-16	KAL	PER ARCH/STRUCT/GEOTECH
3-25-16	KAL	ADD EXCAVATION PLAN: SHEET 5
5-25-16	KAL	PER CITY COMMENTS
6-14-17	KAL	UPDATED PER STREAM BUFFER
10-10-17	KAL	PER CITY COMMENTS
8-3-18	KAL	PER CITY COMMENTS
1-22-19	KAL	PER CITY COMMENTS
8-19-19	KAL	PER CITY COMMENTS

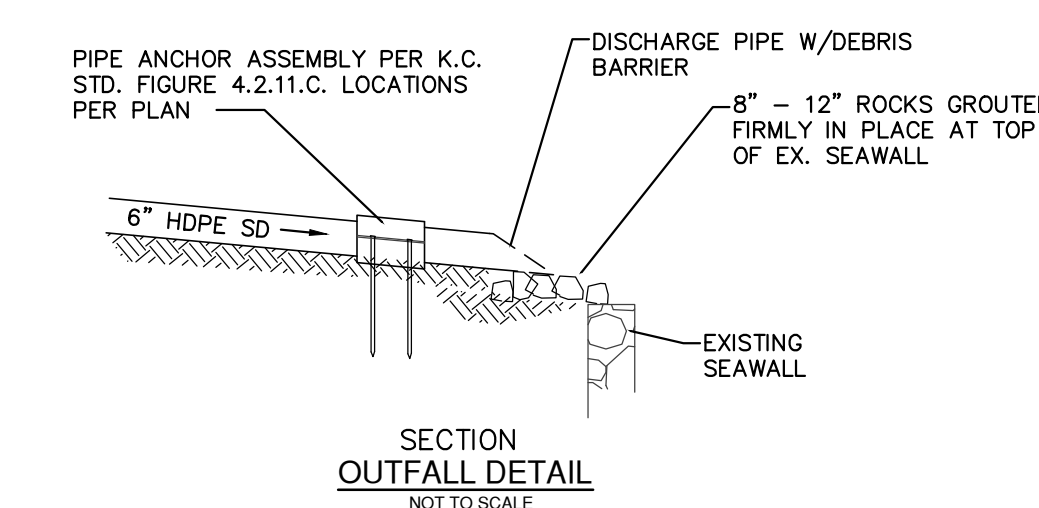
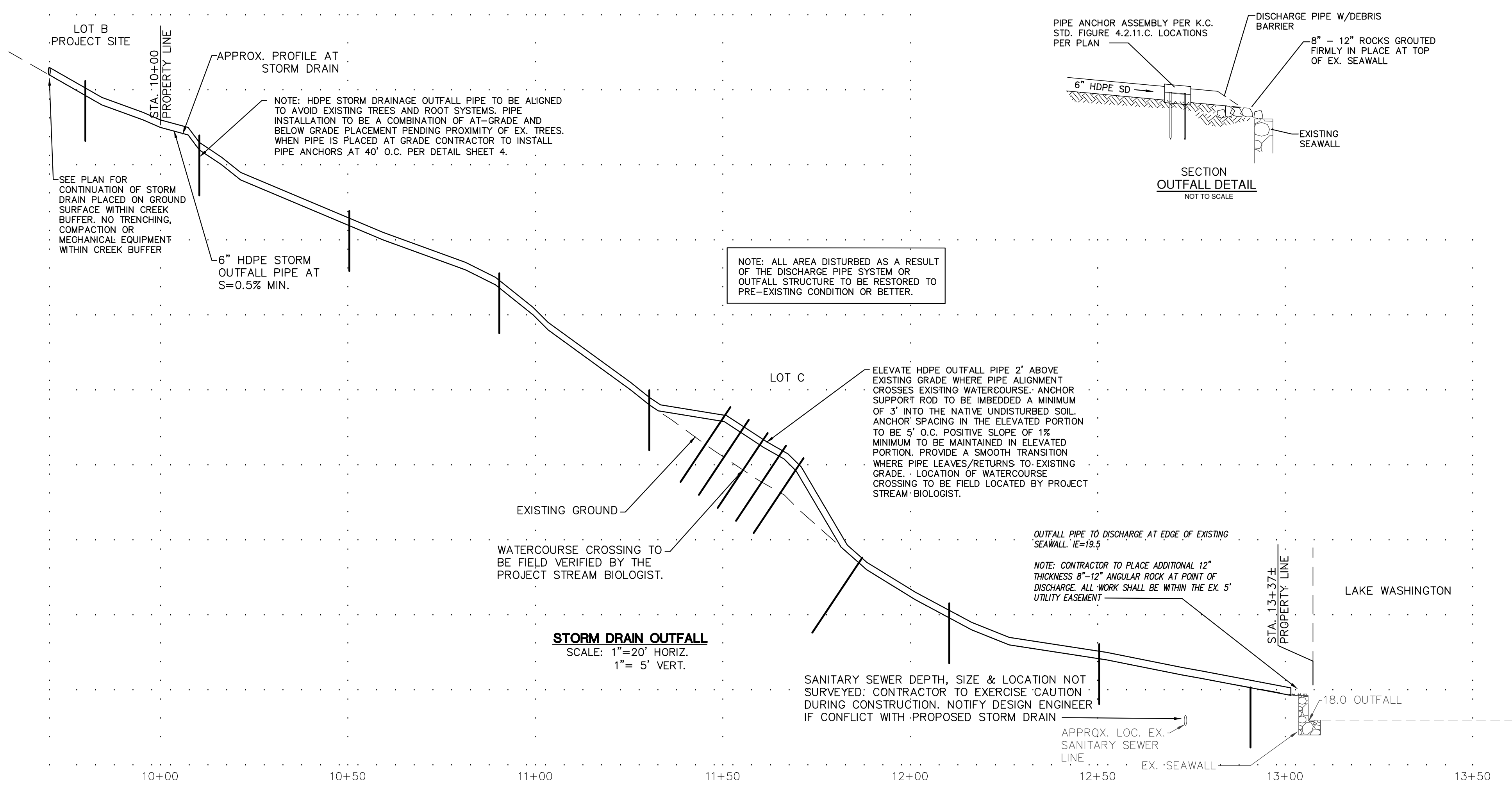
**LITCHFIELD ENGINEERING**  
12840 81ST AVENUE NE  
Kirkland, WA 98034  
Tel: (425) 821-5006 Fax: (425) 821-0729



**TEMPORARY EXCAVATION PLAN**  
**BARCELLO HOMES SFR,**  
**4634 EAST MERCER WAY**  
BOGDAN MAKSYMCHUK  
P.O. BOX 1733  
AUBURN, WA 98071

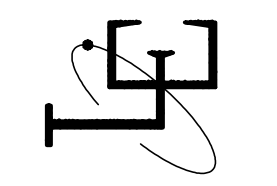






DWN BY	CHKD BY	DATE	NOTES
KAL	KAL	5-25-16	ADD PROFILE SHEET 6
KAL	KAL	08-03-18	PER CITY COMMENTS
KAL	KAL	1-22-19	PER CITY COMMENTS
KAL	KAL	4-16-19	PER CITY REVIEW
KAL	KAL	7-23-19	PER CITY COMMENTS
KAL	KAL	8-9-19	REVISED PER CITY COMMENTS

**LITCHFIELD ENGINEERING**  
 12840 81ST AVENUE NE  
 Kirkland, WA 98034  
 TEL: (425) 821-5006 FAX: (425) 821-0729



**STORM DRAIN OUTFALL PROFILE**  
**BARCELLO HOMES SFR,**  
**4634 EAST MERCER WAY**  
 BOGDAN MAKSYMCHUK  
 P.O. BOX 1733  
 AUBURN, WA 98071

APPROVED: \_\_\_\_\_  
 CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP Date

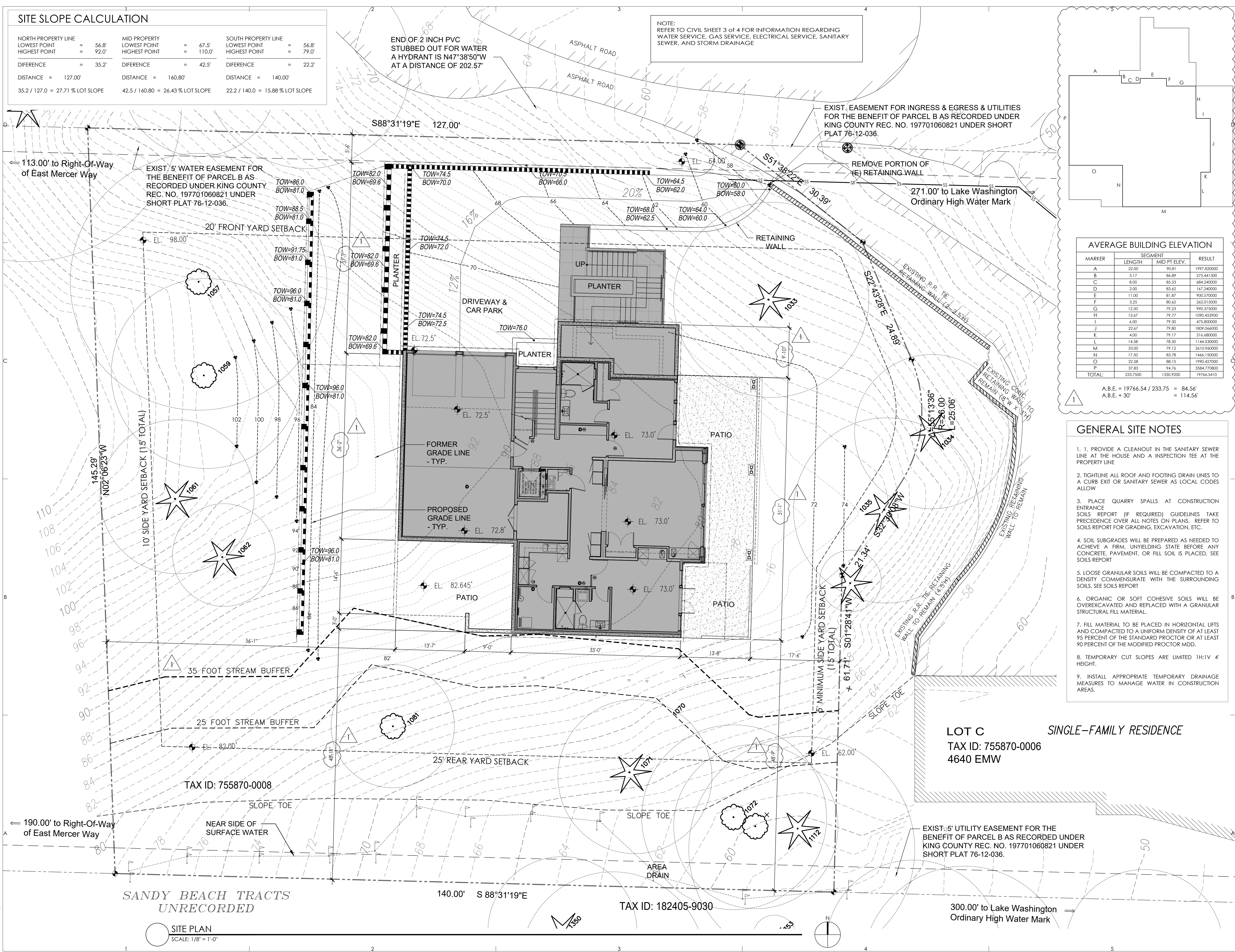


**SITE SLOPE CALCULATION**

NORTH PROPERTY LINE LOWEST POINT = 56.8' HIGHEST POINT = 92.0'	MID PROPERTY LOWEST POINT = 67.5' HIGHEST POINT = 110.0'	SOUTH PROPERTY LINE LOWEST POINT = 56.8' HIGHEST POINT = 79.0'
DIFFERENCE = 35.2'	DIFFERENCE = 42.5'	DIFFERENCE = 22.2'
DISTANCE = 127.00'	DISTANCE = 140.80'	DISTANCE = 140.00'
35.2 / 127.0 = 27.71% LOT SLOPE	42.5 / 140.80 = 26.43% LOT SLOPE	22.2 / 140.0 = 15.88% LOT SLOPE

NOTE:  
REFER TO CIVIL SHEET 3 OF 4 FOR INFORMATION REGARDING  
WATER SERVICE, GAS SERVICE, ELECTRICAL SERVICE, SANITARY  
SEWER, AND STORM DRAINAGE

END OF 2 INCH PVC  
STUBBED OUT FOR WATER  
A HYDRANT IS N47°38'50"W  
AT A DISTANCE OF 202.57'



**AVERAGE BUILDING ELEVATION**

MARKER	SEGMENT	MID PT. ELEV.	RESULT
A	22.00	90.81	1997.820000
B	3.17	86.89	275.441300
C	8.00	85.53	684.240000
D	2.00	83.62	167.240000
E	11.00	81.87	905.370000
F	3.25	80.42	262.015000
G	12.50	79.23	993.375000
H	13.67	79.77	1090.459000
I	6.00	79.30	475.800000
J	22.67	79.80	1809.066000
K	4.00	79.17	316.480000
L	14.58	78.50	1144.530000
M	33.00	79.12	2610.960000
N	17.50	83.78	1466.150000
O	22.58	88.15	1990.427000
P	37.83	94.76	3584.770000
TOTAL:	233.7500	1330.9200	19766.5410

A.B.E. = 19766.54 / 233.75 = 84.56'  
A.B.E. + 30' = 114.56'

- GENERAL SITE NOTES**
1. PROVIDE A CLEANOUT IN THE SANITARY SEWER LINE AT THE HOUSE AND AN INSPECTION TEE AT THE PROPERTY LINE
  2. TIGHTLINE ALL ROOF AND FOOTING DRAIN LINES TO A CURB EXIT OR SANITARY SEWER AS LOCAL CODES ALLOW
  3. PLACE QUARRY SPALLS AT CONSTRUCTION ENTRANCE  
SOILS REPORT (IF REQUIRED) GUIDELINES TAKE PRECEDENCE OVER ALL NOTES ON PLANS. REFER TO SOILS REPORT FOR GRADING, EXCAVATION, ETC.
  4. SOIL SUBGRADES WILL BE PREPARED AS NEEDED TO ACHIEVE A FIRM, UNYIELDING STATE BEFORE ANY CONCRETE, PAVEMENT, OR FILL SOIL IS PLACED. SEE SOILS REPORT
  5. LOOSE GRANULAR SOILS WILL BE COMPACTED TO A DENSITY COMMENSURATE WITH THE SURROUNDING SOILS. SEE SOILS REPORT
  6. ORGANIC OR SOFT COHESIVE SOILS WILL BE OVEREXCAVATED AND REPLACED WITH A GRANULAR STRUCTURAL FILL MATERIAL.
  7. FILL MATERIAL TO BE PLACED IN HORIZONTAL LIFTS AND COMPACTED TO A UNIFORM DENSITY OF AT LEAST 95 PERCENT OF THE STANDARD PROCTOR OR AT LEAST 90 PERCENT OF THE MODIFIED PROCTOR MDD.
  8. TEMPORARY CUT SLOPES ARE LIMITED 1H:1V 4' HEIGHT.
  9. INSTALL APPROPRIATE TEMPORARY DRAINAGE MEASURES TO MANAGE WATER IN CONSTRUCTION AREAS.

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

SITE PLAN

PROJECT NO.: 20140904

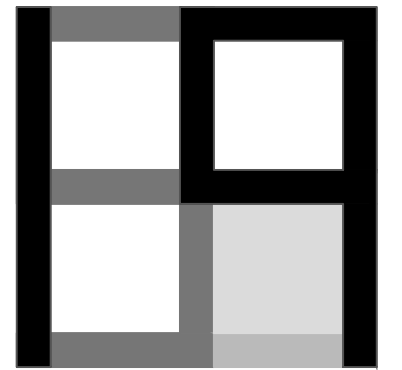
DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

A1.01

File: A1.01\_SitePlan.dwg / Sheet: A1.01 / Plot Date: June 26, 2017





NOTE: REFER TO CIVIL SHEET 3 OF 4 FOR INFORMATION REGARDING WATER SERVICE, GAS SERVICE, ELECTRICAL SERVICE, SANITARY SEWER, AND STORM DRAINAGE

**TREE PLAN KEY NOTES**

1. TREE PROTECTION FENCING AT DRIP LINE
2. ALL TRENCHES THAT ARE EXCAVATED WITHIN TREE DRIP LINES SHALL BE EXCAVATED WITH AN AIR SPADE SO THAT UTILITY LINES CAN BE INSTALLED WITHOUT CUTTING MAJOR ROOTS.
3. ROOTS EXPOSED IN OPEN TRENCHES MUST BE KEPT MOIST BY BEING COVERED WITH MOISTENED BURLAP UNTIL THE TRENCH CAN BE CLOSED.

**TREE INVENTORY (SEE ARBORIST REPORT)**

EXISTING ONSITE TREES		REMOVE/RETAIN
ARB SURVEY #	SPECIES	DBH DRIP COND
21	1030 DOUGLAS FIR	36" 26' G REMOVE
22	1029 DOUGLAS FIR	43" 27' G REMOVE
23	1028 DOUGLAS FIR	26" 33' G REMOVE
24	1033 DOUGLAS FIR	43" 23' F RETAIN
25	1034 DOUGLAS FIR	30" 15' G RETAIN
26	1035 DOUGLAS FIR	37" 18' G RETAIN
27	1047 DOUGLAS FIR	37" 21' F REMOVE
28	1048 SWEET CHERRY	8" 22' G REMOVE
29	1052 BIGLEAF MAPLE	36" 30' G REMOVE
30	1053 WSTRN RD CEDAR	9" 13' G REMOVE
31	1054 SITKA SPRUCE	5" 6' P REMOVE
32	1112 WSTRN HEMLOCK	20" 22' G RETAIN
33	1072 BIGLEAF MAPLE	14" 18' G RETAIN
34	1072X BIGLEAF MAPLE	8" 16' F RETAIN
35	1071 BIGLEAF MAPLE	38" 20' F RETAIN
36	1070 BIGLEAF MAPLE	9/8" 20' F RETAIN
37	1069 WSTRN RD CEDAR	15" 12' E REMOVE
38	1067 WSTRN RD CEDAR	41" 16' G REMOVE
39	1066 BIGLEAF MAPLE	32" 35' G REMOVE
40	1061 BIGLEAF MAPLE	18" 18' G RETAIN
41	1065 BIGLEAF MAPLE	34" 35' G REMOVE
42	1064 DOUGLAS FIR	44" 20' F REMOVE
43	1063 DOUGLAS FIR	31" 20' F REMOVE
44	1060 DOUGLAS FIR	34" 23' G REMOVE
45	1061 DOUGLAS FIR	33" 15' G RETAIN
46	1062 DOUGLAS FIR	13" 10' G RETAIN
47	1059 BIGLEAF MAPLE	31" 28' E RETAIN
48	1058 BIGLEAF MAPLE	34" 40' G RETAIN
49	1056 DOUGLAS FIR	13" 20' F REMOVE
50	1054 BIGLEAF MAPLE	40/11" 35' G,F REMOVE
51	1051 BIGLEAF MAPLE	10" 25' F REMOVE
52	1053 WSTRN HEMLOCK	10" 15' F REMOVE
53	1050 BIGLEAF MAPLE	14" 18' F RETAIN
A	GRAND FIR	4" 6' P REMOVE

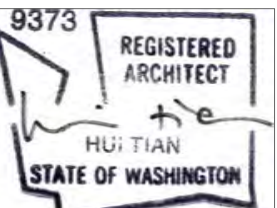
**EXISTING OFF SITE TREES**

LOT SURVEY #	SPECIES	DBH DRIP	REMOVE/RETAIN
4624 1023	MAPLE	6" 15'	NORTH OF SITE RETAIN
4624 1024	CEDAR	14" 20'	NORTH OF SITE RETAIN
LOT A 1175	CEDAR	48" 35'	RETAIN
LOT A 1234	DECID.	4" 9'	RETAIN
LOT A 1339	DECID.	4" 7'	RETAIN
LOT D 1308	CEDAR	38" 20'	RETAIN
LOT D 1329	CEDAR	22" 16'	RETAIN
LOT D 1326	DECID.	10" 6'	RETAIN
LOT D 1344	CEDAR	24" 10'	RETAIN
LOT D 1346	CEDAR	22" 9'	RETAIN
LOT D 1347	CEDAR	18" 8'	RETAIN
LOT D 1348	CEDAR	18" 10'	RETAIN
LOT D 1349	CEDAR	26" 9'	RETAIN
ESTIMATED (COULD NOT GAIN ACCESS)			
4644 1350	CEDAR	22" 20'	RETAIN
4644 1351	CEDAR	18" 16'	RETAIN
4644 1352	DECID.	8" 10'	RETAIN
4644 1353	CEDAR	6" 4'	RETAIN
4644 1354	CEDAR	22" 15'	RETAIN
4644 1355	CEDAR	16" 10'	RETAIN
4644 1356	CEDAR	22" 15'	RETAIN
4644 1357	CEDAR	26" 18'	RETAIN
4644 1358	CEDAR	12" 12'	RETAIN
4644 1359	CEDAR	22" 16'	RETAIN
4644 1360	DECID.	6" 7'	RETAIN
4644 1361	DECID.	10" 9'	RETAIN
4644 1362	DECID.	8" 6'	RETAIN

TOTAL ON SITE TREES TO BE REMOVED : 20  
TOTAL ON SITE TREES TO REMAIN : 14  
TOTAL OFF SITE TREES TO BE REMOVED : 0  
SEE ARBORIST REPORT FOR MORE INFORMATION.

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:

PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MARK DATE DESCRIPTION

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

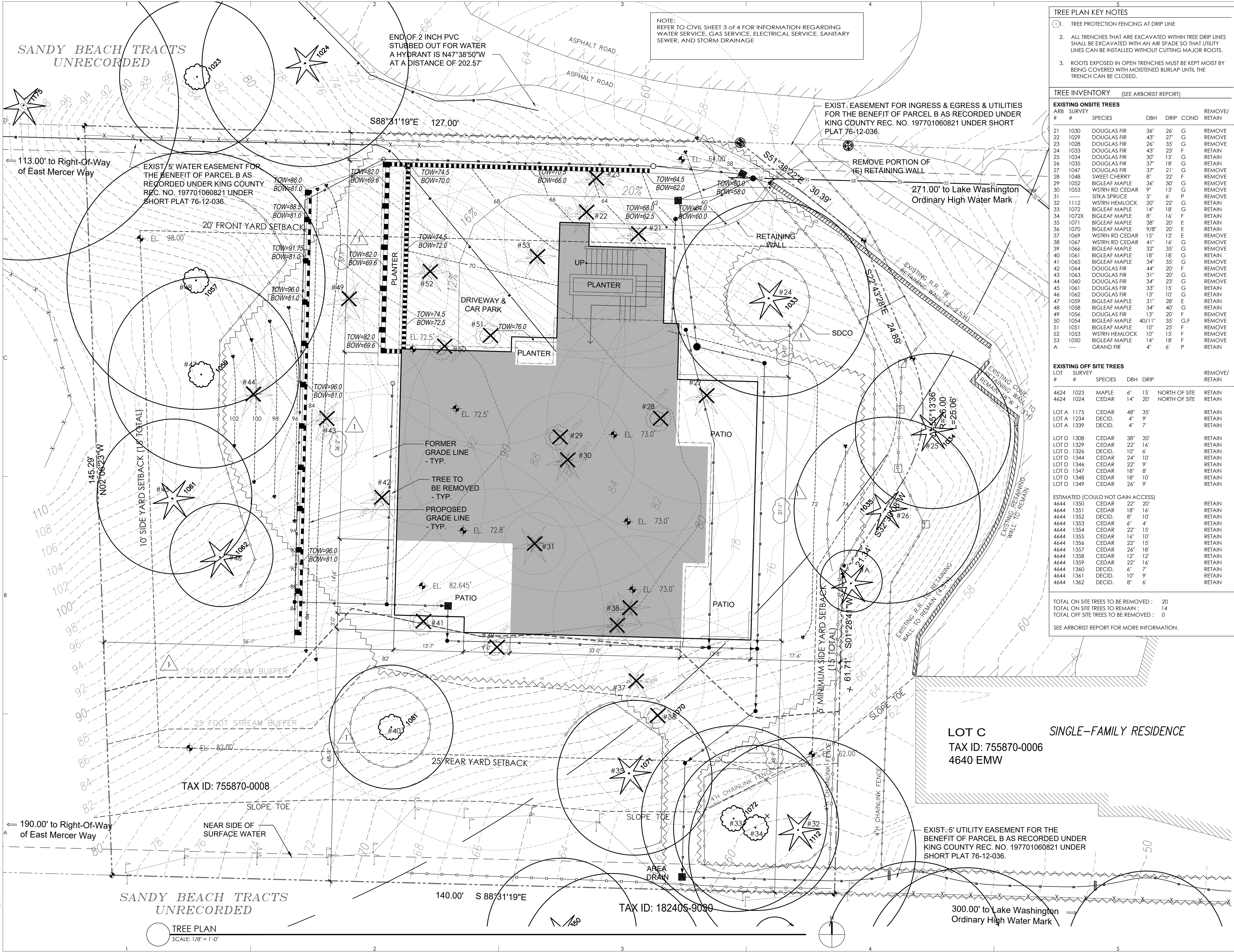
TREE PLAN

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

A1.02



SANDY BEACH TRACTS UNRECORDED

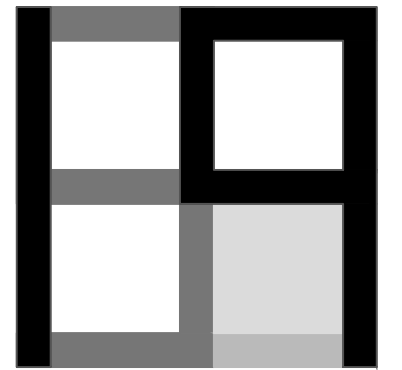
TAX ID: 755870-0008

LOT C  
TAX ID: 755870-0006  
4640 EMW

EXIST. 5' UTILITY EASEMENT FOR THE BENEFIT OF PARCEL B AS RECORDED UNDER KING COUNTY REC. NO. 197701060821 UNDER SHORT PLAT 76-12-036.

TREE PLAN  
SCALE: 1/8" = 1'-0"

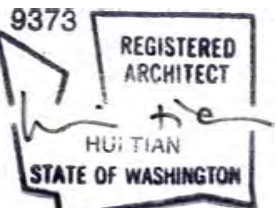




- GENERAL NOTES**
- 1-HR FIRE RATED ASSEMBLY BETWEEN GARAGE AND DWELLING, AND USABLE SPACE BELOW STAIR, SEE SHEET A2.01.
  - 1/2" GYPSUM BOARD ON GARAGE SIDE REQUIRED AT WALLS SEPARATING GARAGE AND DWELLING.
  - GARAGE CEILING REQUIRES 5/8" TYPE X GYPSUM BOARD, AND SUPPORTING STRUCTURE REQUIRES 1/2" GYPSUM BOARD.
  - 1-3/8" THICK MINIMUM SOLID CORE OR 20 MINUTE DOOR REQUIRED BETWEEN GARAGE AND DWELLING, SEE SHEET A9.01.
  - KITCHEN, BATHROOMS, LAUNDRY ROOM MUST BE VENTED MECHANICALLY PER SRC TABLE M1507.3.
  - NON COMBUSTIBLE SURFACE ON GARAGE FLOORS (SRC R309.1).
  - RESIDENTIAL ELEVATORS #950 HYD HP1 S 15 RH RAIL. PRIVATE RESIDENCE ELEVATORS SHALL COMPLY WITH ASME A17.1 AS REQUIRED BY IRC SECTION R323.1. ELEVATOR TO BE INSTALLED BY A LICENSED ELEVATOR CONTRACTOR AND SHALL HAVE YEARLY SAFETY INSPECTIONS AS REQUIRED BY WASHINGTON STATE DEPT. OF LABOR AND INDUSTRIES.

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE:

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

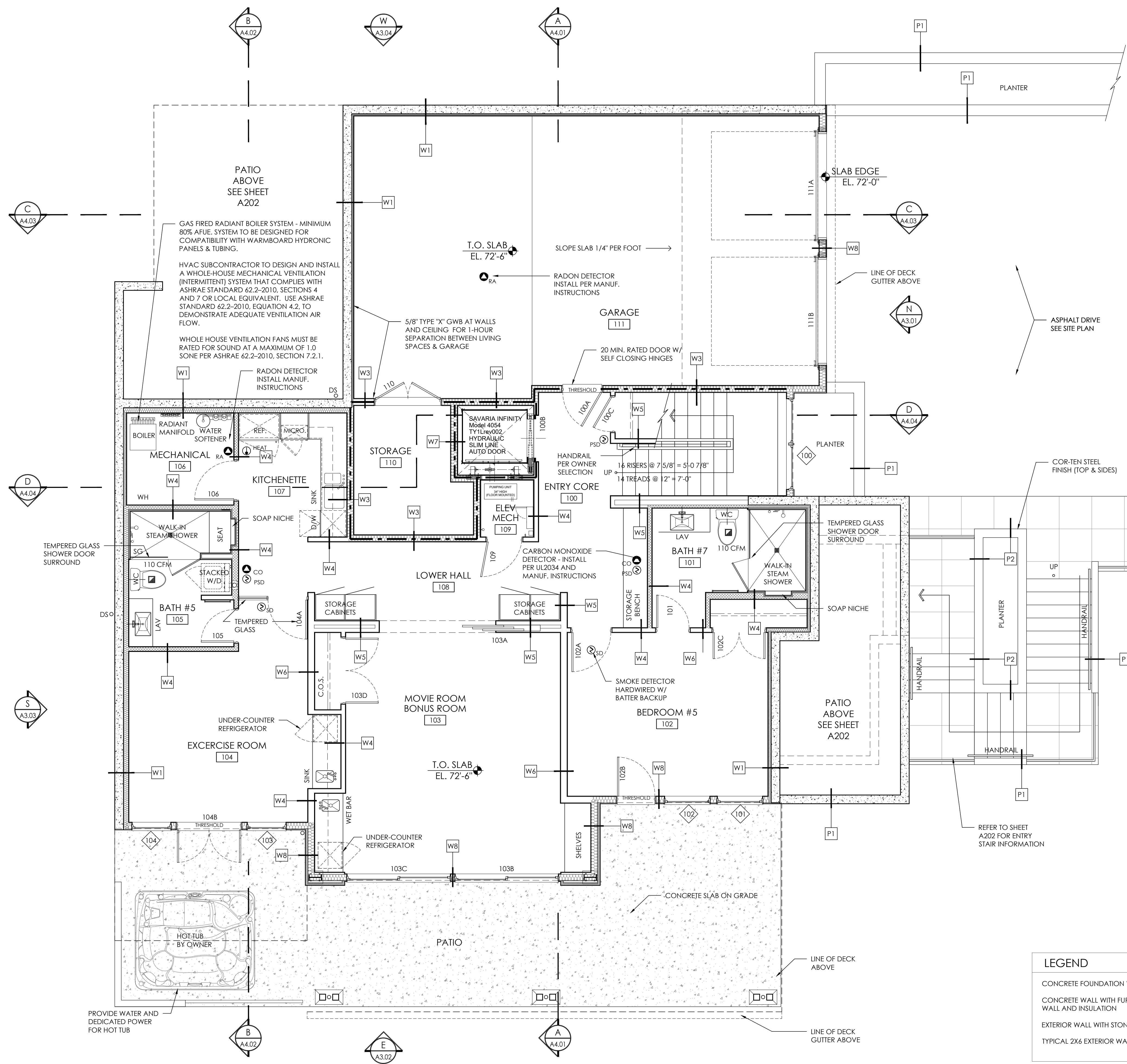
LEVEL 1 FLOOR PLAN

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

A2.01



**WALL TYPES**

- W1** EXTERIOR BELOW GRADE CONCRETE WALLS  
PROTECTION BOARD OVER  
DRAINAGE MATT / DAMPROOFING OVER  
REINFORCED CONCRETE WALL (PER STRUCTURAL)  
WITH 1" AIR SPACE  
WITH R-21 SPRAY FOAM INSULATION MIN. (OR EQUAL)  
WITH 2x4 / 2x6 FRAMING @ 16" O.C. (PER STRUCTURAL)  
WITH 1/2" GYPSUM WALL BOARD  
WITH VAPOR BARRIER PVA PRIMER  
FINISH PER INTERIORS
- W2** INTERIOR CONCRETE WALLS  
FINISH PER INTERIORS OVER  
1/2" GYPSUM WALL BOARD OVER DRAINAGE MATT / DAMPROOFING  
OVER 2x4 / 2x6 FRAMING @ 16" O.C. (PER STRUCTURAL) OVER  
1" AIR SPACE OVER  
REINFORCED CONCRETE WALL (PER STRUCTURAL)  
WITH 1" AIR SPACE  
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WITH 1/2" GYPSUM WALL BOARD  
WITH VAPOR BARRIER PVA PRIMER  
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(1 HOUR RATED)  
FINISH COAT EACH SIDE OVER  
VAPOR BARRIER PVC PRIMER EACH SIDE OVER  
5/8" GYPSUM WALLBOARD EACH SIDE (TYPE-X AT GARAGE) OVER  
2x6 STUDS @ 16" O.C. OR AS NOTED.  
R 21 FIBERGLASS INSULATION
- W4** INTERIOR FRAMED WALL ASSEMBLY (2x4)  
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VAPOR BARRIER PVC PRIMER EACH SIDE OVER  
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RAINSCREEN DRAINAGE SYSTEM  
W/ CLIP SYSTEM AS INDICATED OVER  
WEATHER RESISTIVE BARRIER OVER  
PLYWOOD SHEATHING PER STRUCTURAL OVER  
2x6 STUDS @ 16" O.C.  
WITH R-21 INSULATION (MIN)  
WITH 1/2" GYPSUM WALL BOARD  
WITH VAPOR BARRIER PVA PRIMER  
FINISH PER INTERIORS

**LEGEND**

CONCRETE FOUNDATION WALL	TYPICAL 2X4 INTERIOR WALL
CONCRETE WALL WITH FURRED WALL AND INSULATION	WALL WITH SOUND INSULATION
EXTERIOR WALL WITH STONE	1-HR FIRE RATED WALL
TYPICAL 2X6 EXTERIOR WALL	

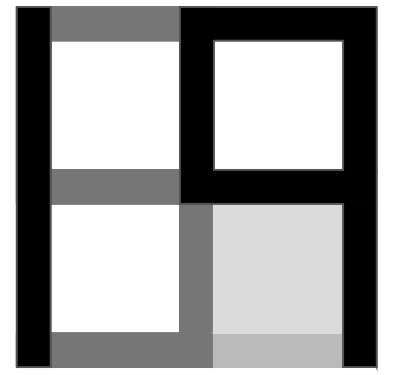
**A1 LEVEL 1 - FLOOR PLAN**  
SCALE: 1/4" = 1'-0"  
**(1,716 SF LIVING + 898 SF GARAGE)**

File: A201 Level 1 Floor Plan.dwg / Sheet: A201 / Plot Date: June 5, 2017









**GENERAL NOTES**

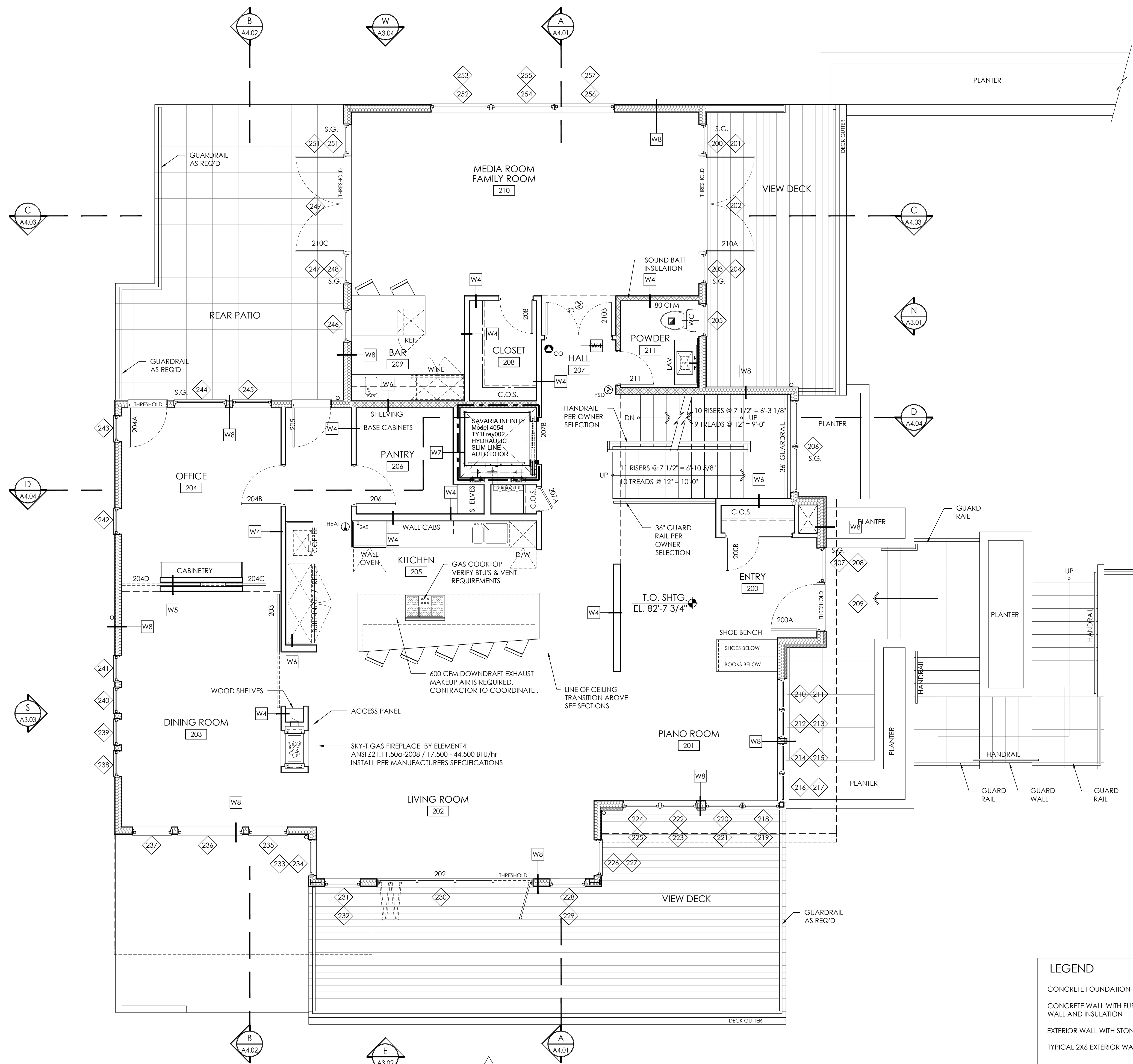
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**WALL TYPES**

- W1** EXTERIOR BELOW GRADE CONCRETE WALLS  
PROTECTION BOARD OVER  
DRAINAGE MATT / DAMPROOFING OVER  
REINFORCED CONCRETE WALL (PER STRUCTURAL)  
WITH 1" AIR SPACE  
WITH R-21 SPRAY FOAM INSULATION MIN. (OR EQUAL)  
WITH 2x4 / 2x6 FRAMING @ 16" O.C. (PER STRUCTURAL)  
WITH 1/2" GYPSUM WALL BOARD  
WITH VAPOR BARRIER PVA PRIMER  
FINISH PER INTERIORS
- W2** INTERIOR CONCRETE WALLS  
FINISH PER INTERIORS OVER  
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OVER 2x4 / 2x6 FRAMING @ 16" O.C. (PER STRUCTURAL) OVER  
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WITH 1" AIR SPACE  
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FINISH PER INTERIORS
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2x6 STUDS @ 16" O.C. OR AS NOTED.  
R-21 FIBERGLASS INSULATION
- W4** INTERIOR FRAMED WALL ASSEMBLY (2x4)  
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W/ CLIP SYSTEM AS INDICATED OVER  
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WITH VAPOR BARRIER PVA PRIMER  
FINISH PER INTERIORS

**LEGEND**

CONCRETE FOUNDATION WALL	TYPICAL 2x4 INTERIOR WALL
CONCRETE WALL WITH FURRED WALL AND INSULATION	WALL WITH SOUND INSULATION
EXTERIOR WALL WITH STONE	1-HR FIRE RATED WALL
TYPICAL 2x6 EXTERIOR WALL	



**A2 LEVEL 2 - FLOOR PLAN** (2,408 SF LIVING)  
SCALE: 1/4" = 1'-0"

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo homes**  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

LEVEL 2  
FLOOR PLAN

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

**A2.02**



CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
 Phone: (206) 724-1072

# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
 MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

6/24/2015	PERMIT SUBMITTAL
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MARK	DATE	DESCRIPTION

MUNICIPALITY REVIEW: \_\_\_\_\_

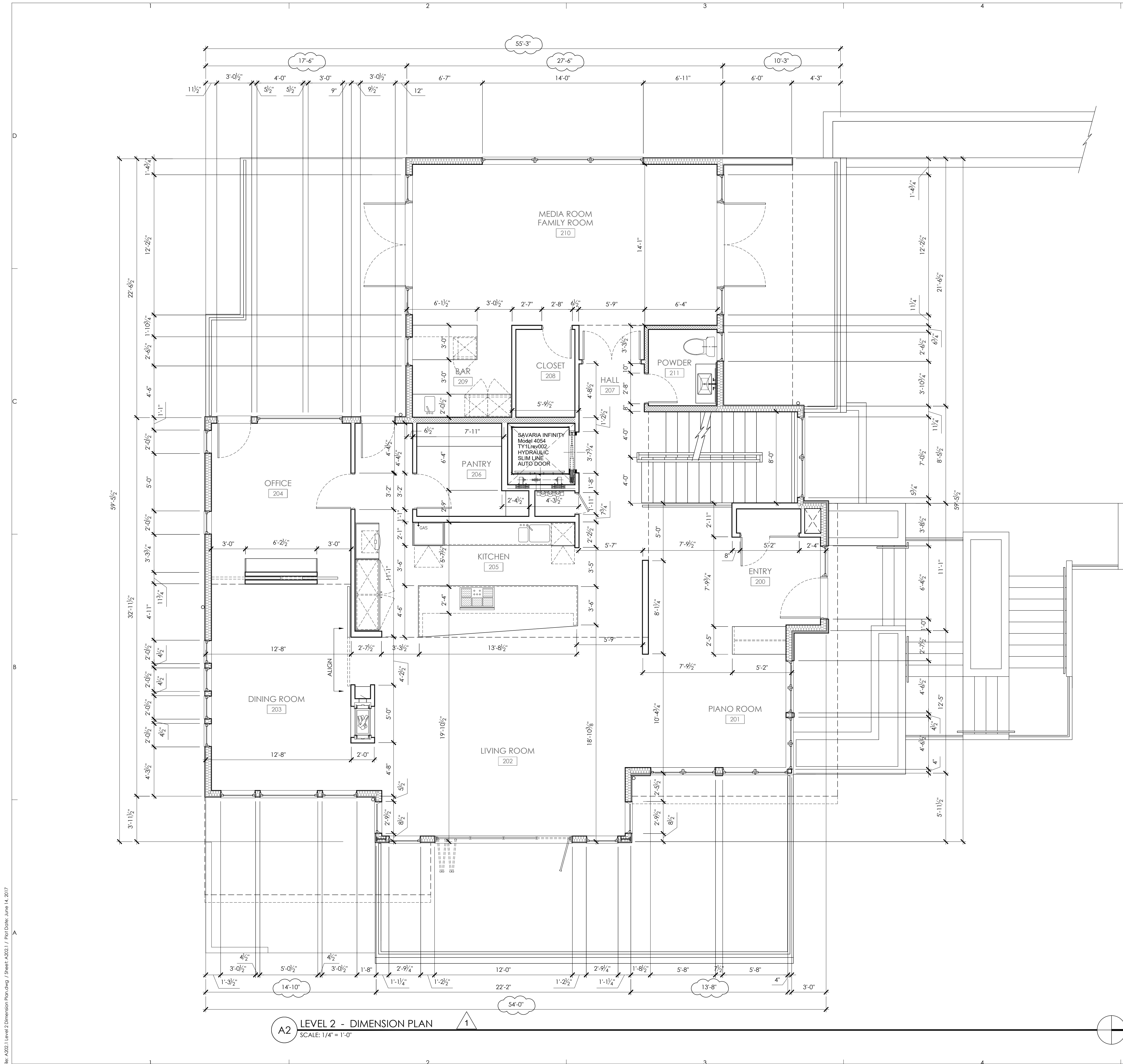
PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

LEVEL 2  
 DIMENSION PLAN

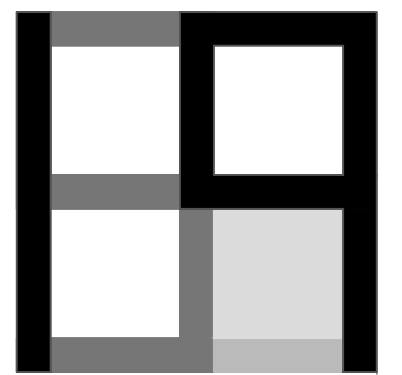
PROJECT NO.: 20140904  
 DATE ISSUED: 6/05/2017

SHEET NUMBER: **A2.02.1**



**A2** LEVEL 2 - DIMENSION PLAN  
 SCALE: 1/4" = 1'-0"





**GENERAL NOTES**

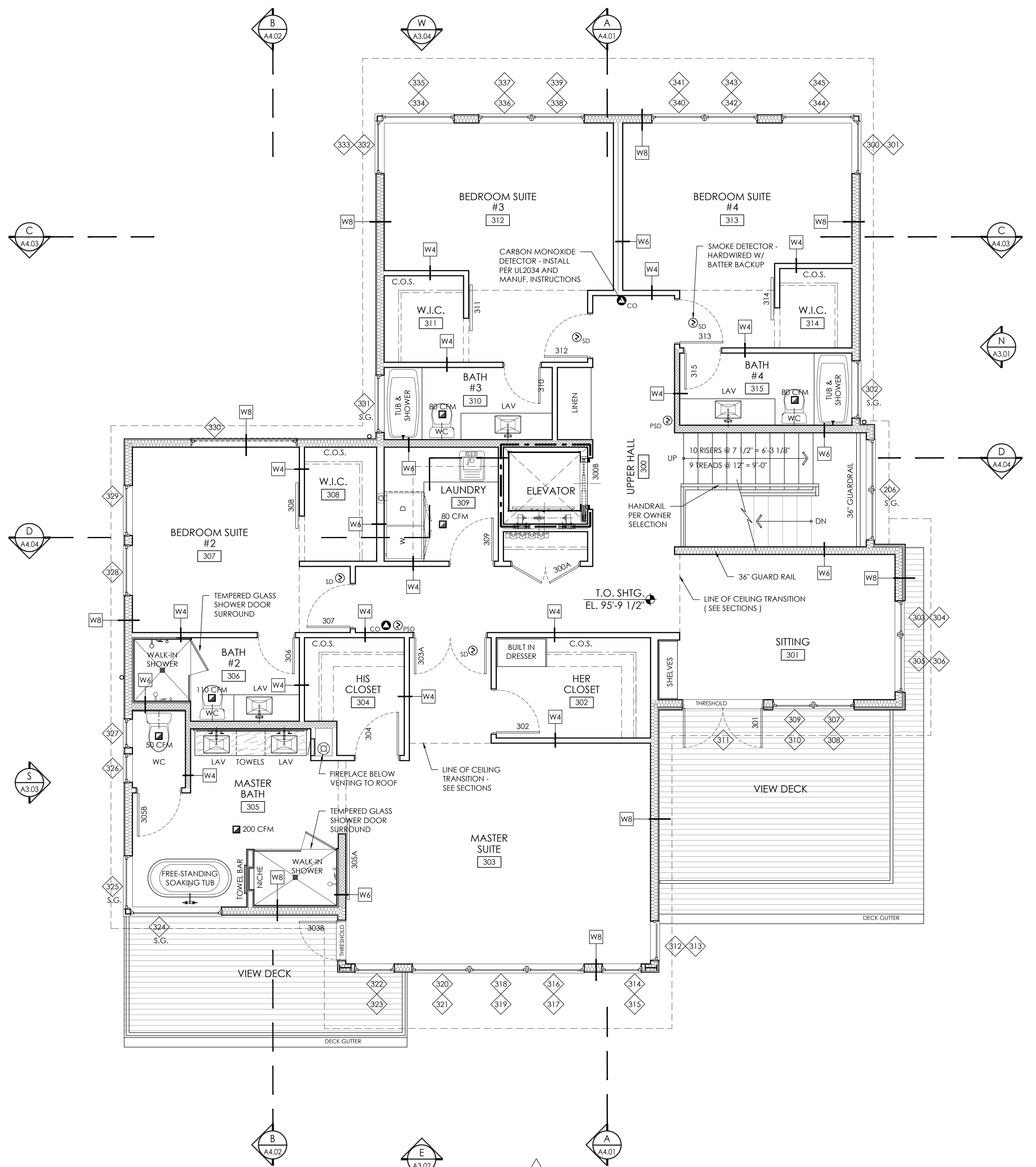
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**WALL TYPES**

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PROTECTION BOARD OVER  
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REINFORCED CONCRETE WALL (PER STRUCTURAL)  
WITH 1" AIR SPACE  
WITH R-21 SPREAY FOAM INSULATION MIN. (OR EQUAL)  
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FINISH PER INTERIORS
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CONCRETE FOUNDATION WALL	TYPICAL 2X4 INTERIOR WALL
CONCRETE WALL WITH FURRED WALL AND INSULATION	WALL WITH SOUND INSULATION
EXTERIOR WALL WITH STONE	1-HR FIRE RATED WALL
TYPICAL 2X6 EXTERIOR WALL	



**A3 LEVEL 3 - FLOOR PLAN**  
SCALE: 1/4" = 1'-0"  
**(2,364 SF LIVING)**

**CONSULTANT:** \_\_\_\_\_

**PROFESSIONAL SEAL:** \_\_\_\_\_



**PROJECT:** \_\_\_\_\_

a project for:  
**Barcelo homes**  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

**SHEET ISSUE:**

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MARK DATE DESCRIPTION

**MUNICIPALITY REVIEW:** \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

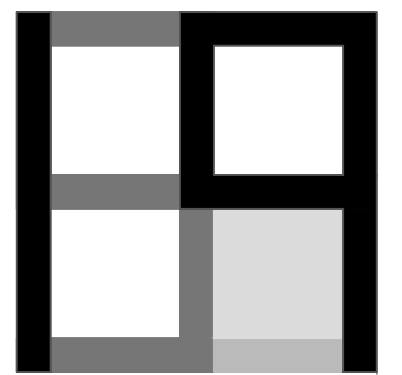
**SHEET TITLE:** \_\_\_\_\_

**LEVEL 3 FLOOR PLAN**

PROJECT NO.: 20140904  
DATE ISSUED: 6/05/2017

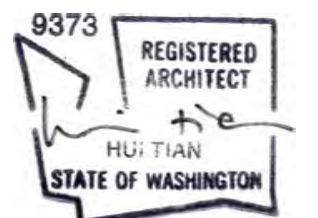
**SHEET NUMBER: A2.03**





CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
 PO BOX 1733 AUBURN, WA 98071  
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PROJECT # MERCER ISLAND 15 - 015

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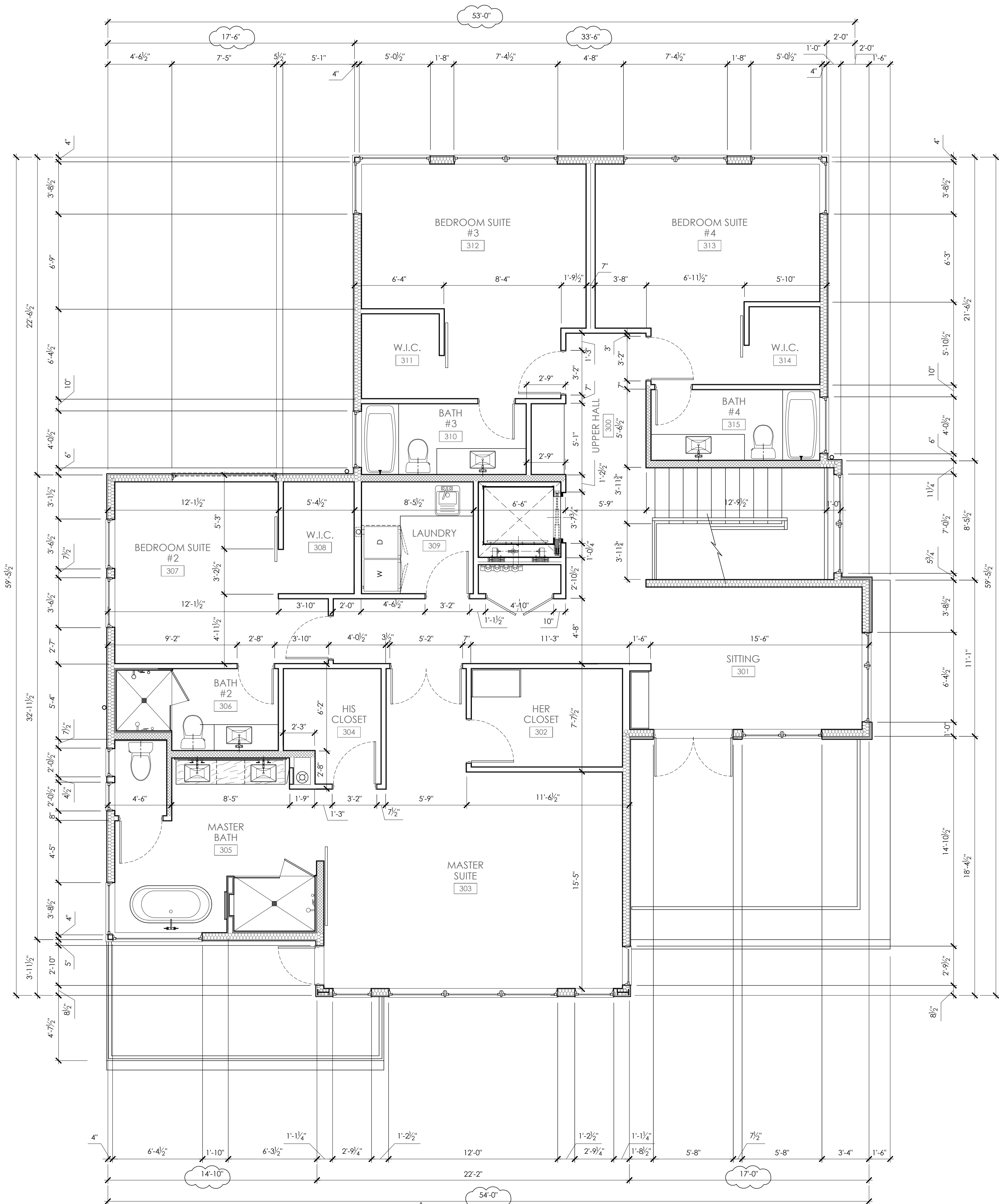
LEVEL 3  
DIMENSION PLAN

PROJECT NO.: 20140904

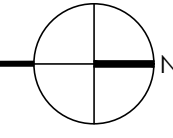
DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

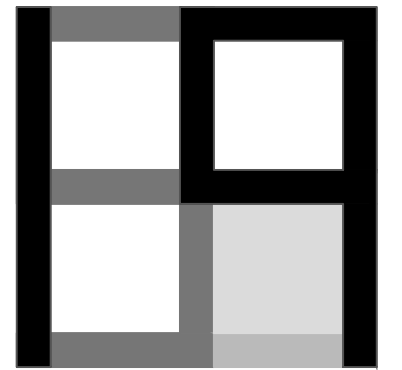
A2.03.1



**A3** LEVEL 3 - DIMENSION PLAN  
SCALE: 1/4" = 1'-0"







CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

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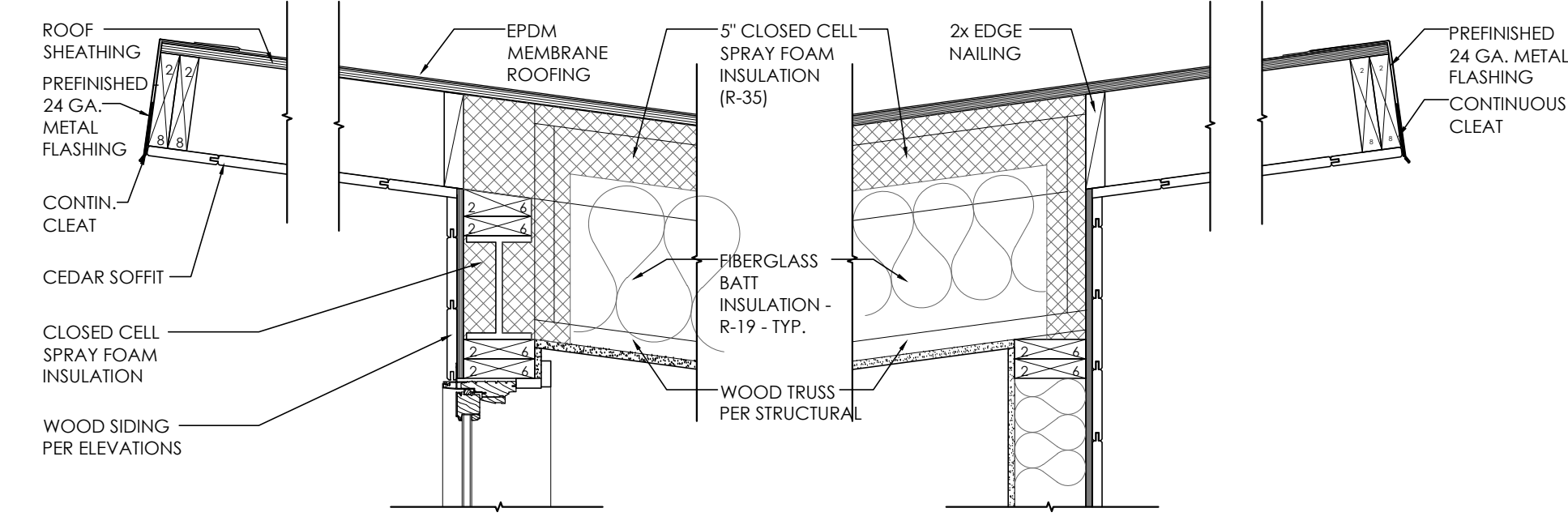
ROOF PLAN

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

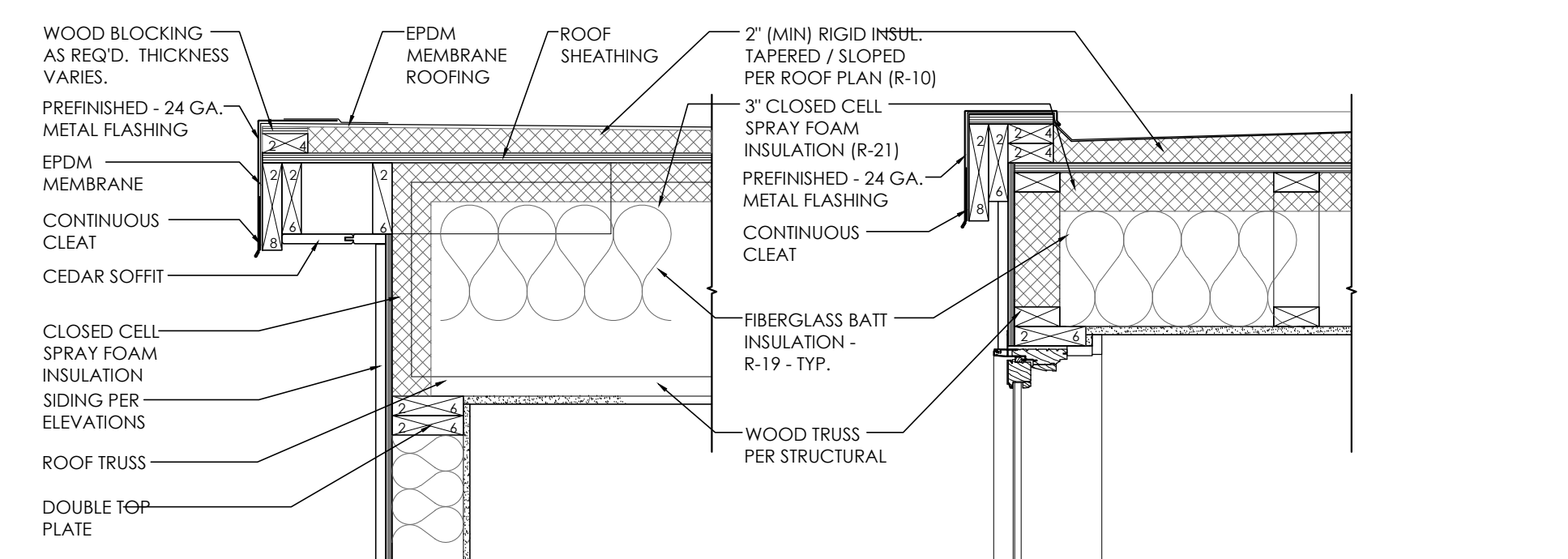
SHEET NUMBER: \_\_\_\_\_

A2.04



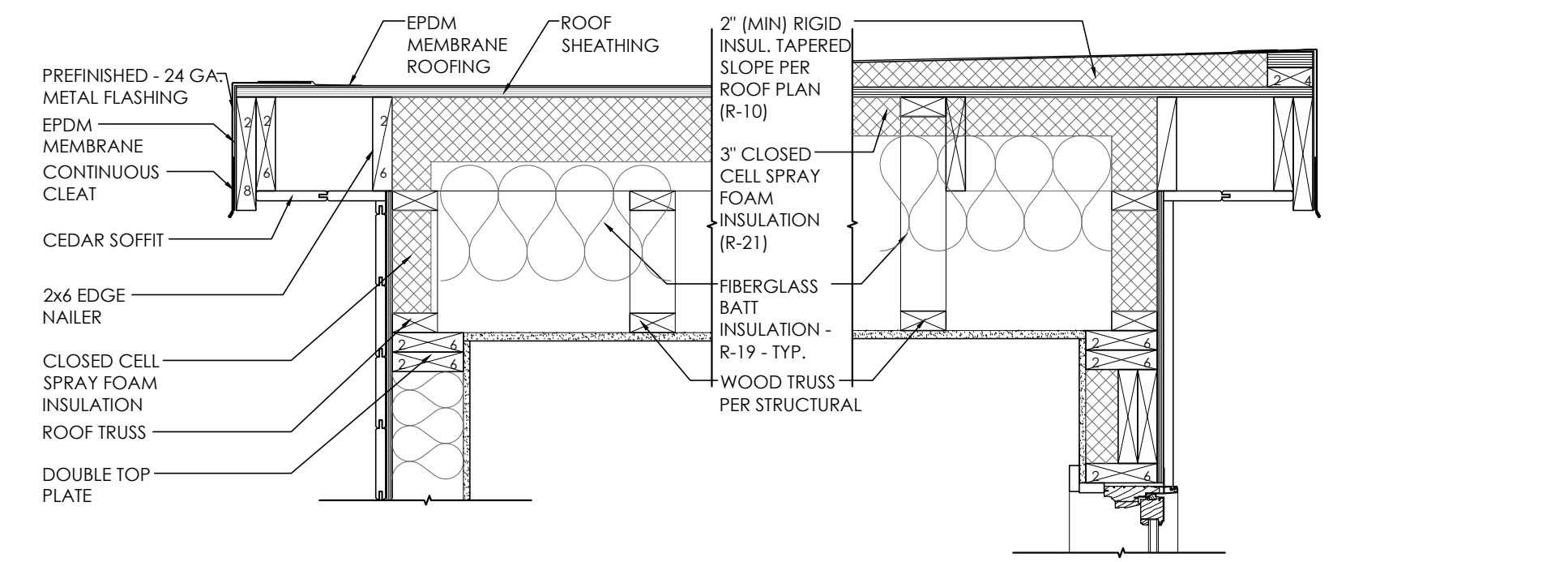
D1 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"

D2 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"



D3 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"

D4 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"



D5 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"

D6 ROOF EDGE DETAIL  
SCALE: 1" = 1'-0"

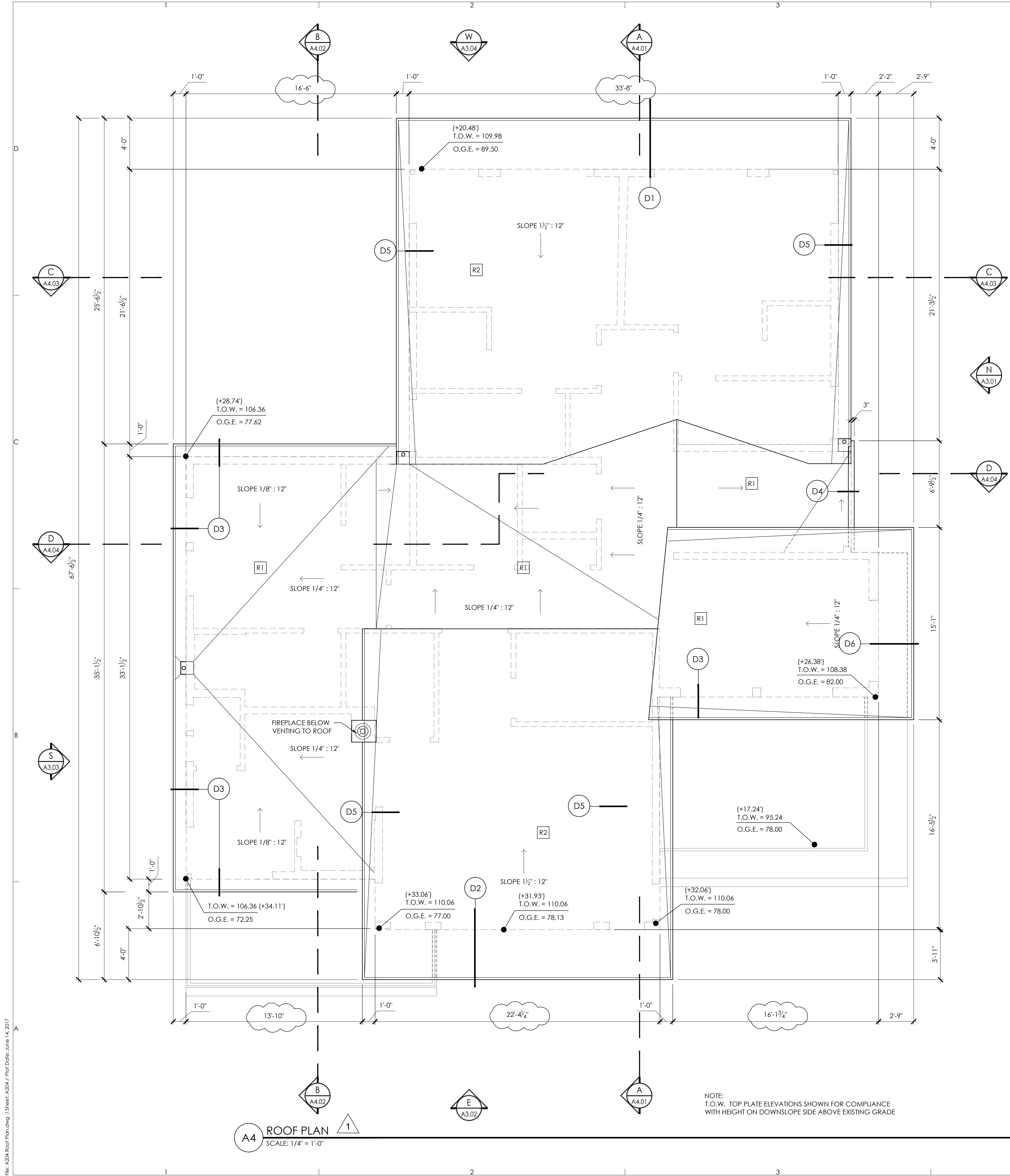
- R1 FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT OVER MECHANICALLY-ADHERED BASE SHT) OVER TAPERED INSULATION (MIN. R-10 AT LOW POINT) OVER 2 LAYERS OF 30 LB. ROOFING FELTS OVER 3/4 PLYWOOD SHEATHING PER STRUCT. OVER 3" (R-21) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-50) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION
- R2 FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT) OVER MECHANICALLY-ADHERED BASE SHT) OVER 3/4 PLYWOOD SHEATHING PER STRUCT. 5" (R-35) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-54) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION

### ROOF NOTES

- ALL WATERPROOFING SHOWN IS FOR DESIGN INTENT ONLY. ALL ELEMENTS OF THE WATERPROOFING SYSTEMS, DETAILS OF INSTALLATION, AND COORDINATION WITH ADJACENT MATERIALS AND FINISHES IS THE RESPONSIBILITY OF THE DESIGN-BUILD SUBCONTRACTOR FOR SUCH SYSTEM(S).
  - UNVENTED ROOF ASSEMBLY PROPOSED. R-10 RIGID INSULATION ABOVE SHEATHING (WHERE APPLICABLE) WITH AIR-IMPERMEABLE SPRAY FOAM INSULATION BELOW.
  - ALL ROOF PENETRATIONS, SUCH AS VENT STACKS, ETC., TO BE GROUPED TOGETHER AND LOCATED AS FAR AWAY FROM THE ROOF EDGE AS POSSIBLE.
- WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ETC. PERTAINING TO THE WORK BEFORE PROCEEDING. THE OWNER MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN ON THESE DRAWINGS. ANY SUCH VARIATIONS SHALL BE RESOLVED BY THE OWNER PRIOR TO PROCEEDING WITH THE WORK, OR THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY SAME.

NOTE:  
T.O.W. TOP PLATE ELEVATIONS SHOWN FOR COMPLIANCE WITH HEIGHT ON DOWNSLOPE SIDE ABOVE EXISTING GRADE

A4 ROOF PLAN  
SCALE: 1/4" = 1'-0"





CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
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 Phone: (206) 724-1072

# EAST MERCER RESIDENCE

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 MERCER ISLAND, WA 98040

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PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

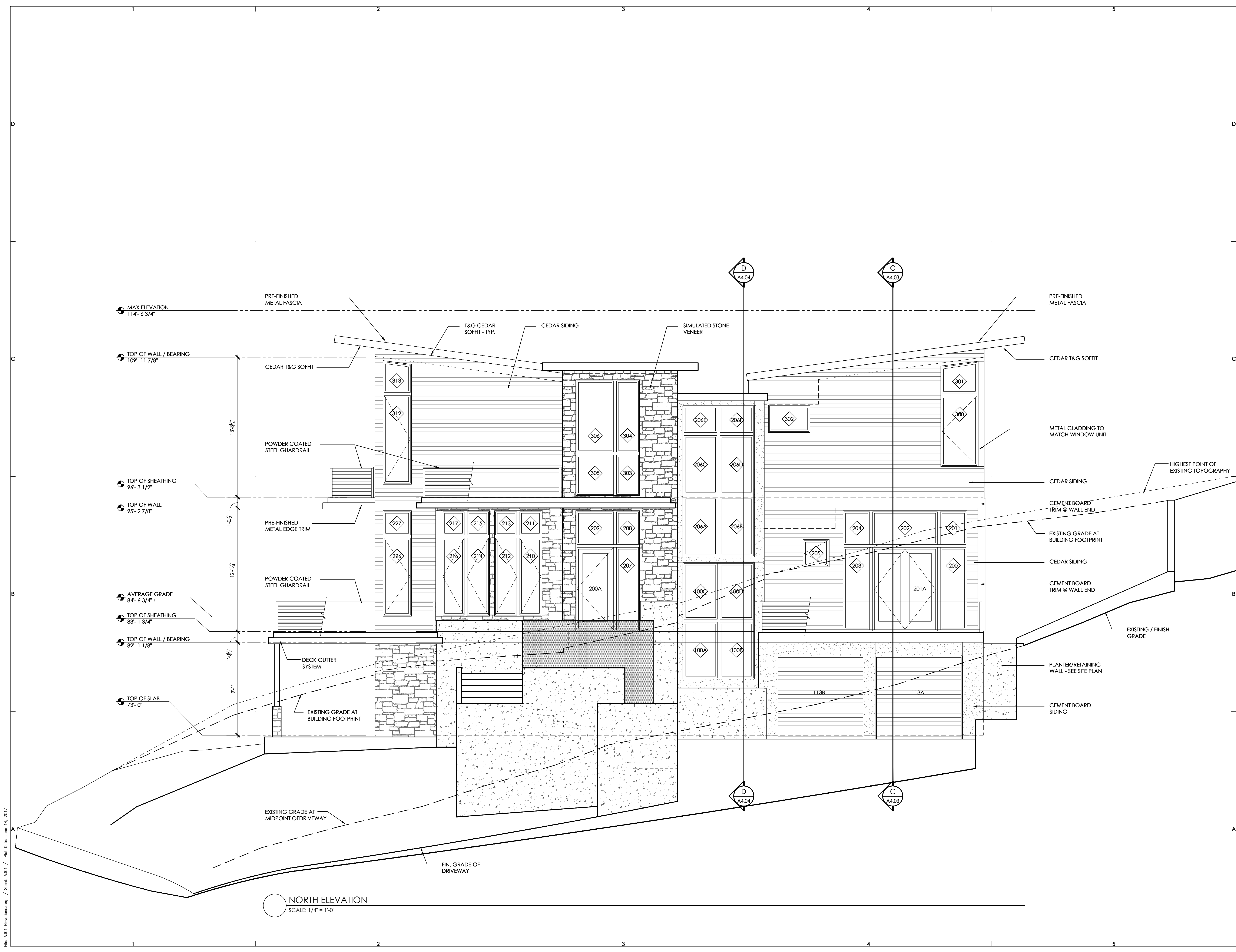
NORTH  
 EXTERIOR ELEVATION

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

A3.01





CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
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# EAST MERCER RESIDENCE

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PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

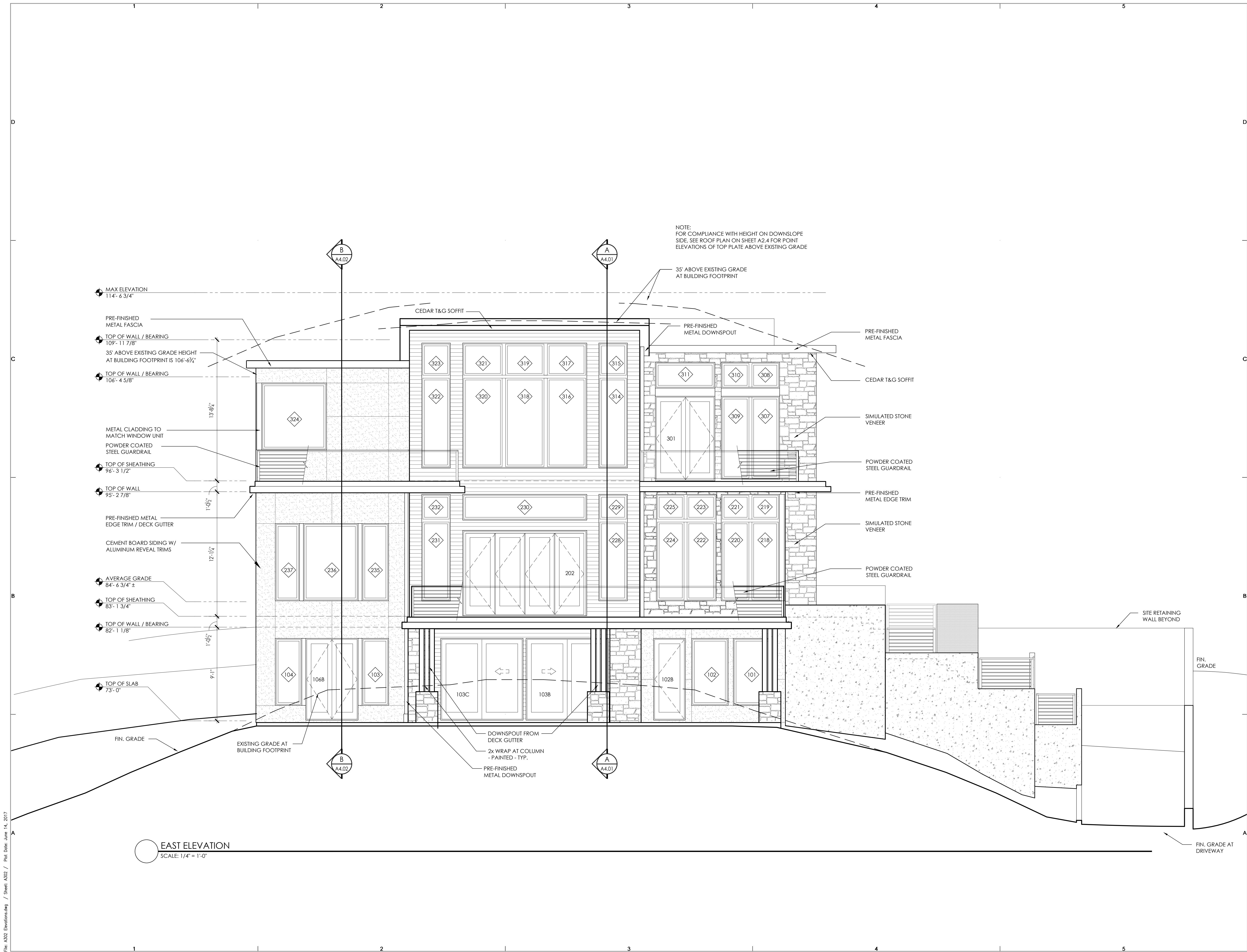
EAST EXTERIOR ELEVATION

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

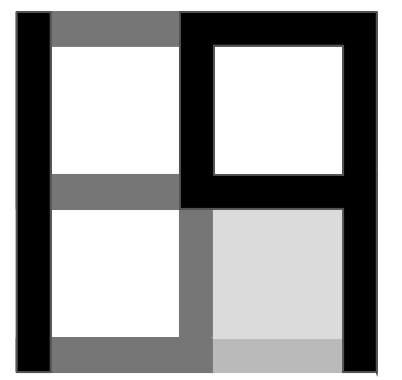
SHEET NUMBER: \_\_\_\_\_

A3.02



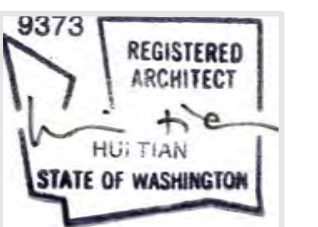
**EAST ELEVATION**  
 SCALE: 1/4" = 1'-0"





CONSULTANT:

PROFESSIONAL SEAL:



PROJECT:

a project for:



# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
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PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE:

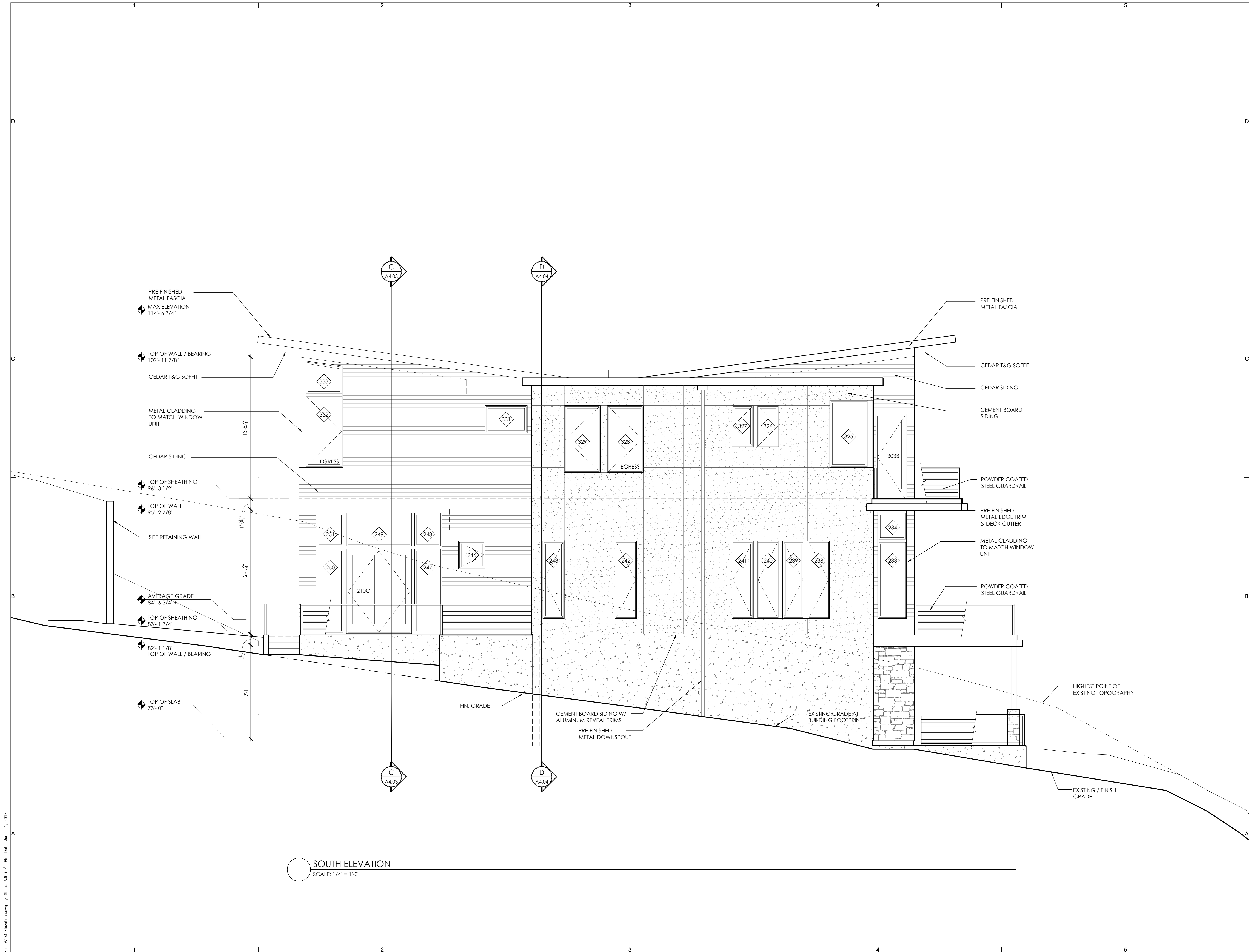
SOUTH  
EXTERIOR ELEVATION

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER:

A3.03

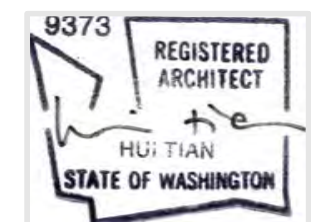


SOUTH ELEVATION  
SCALE: 1/4" = 1'-0"



CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
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# EAST MERCER RESIDENCE

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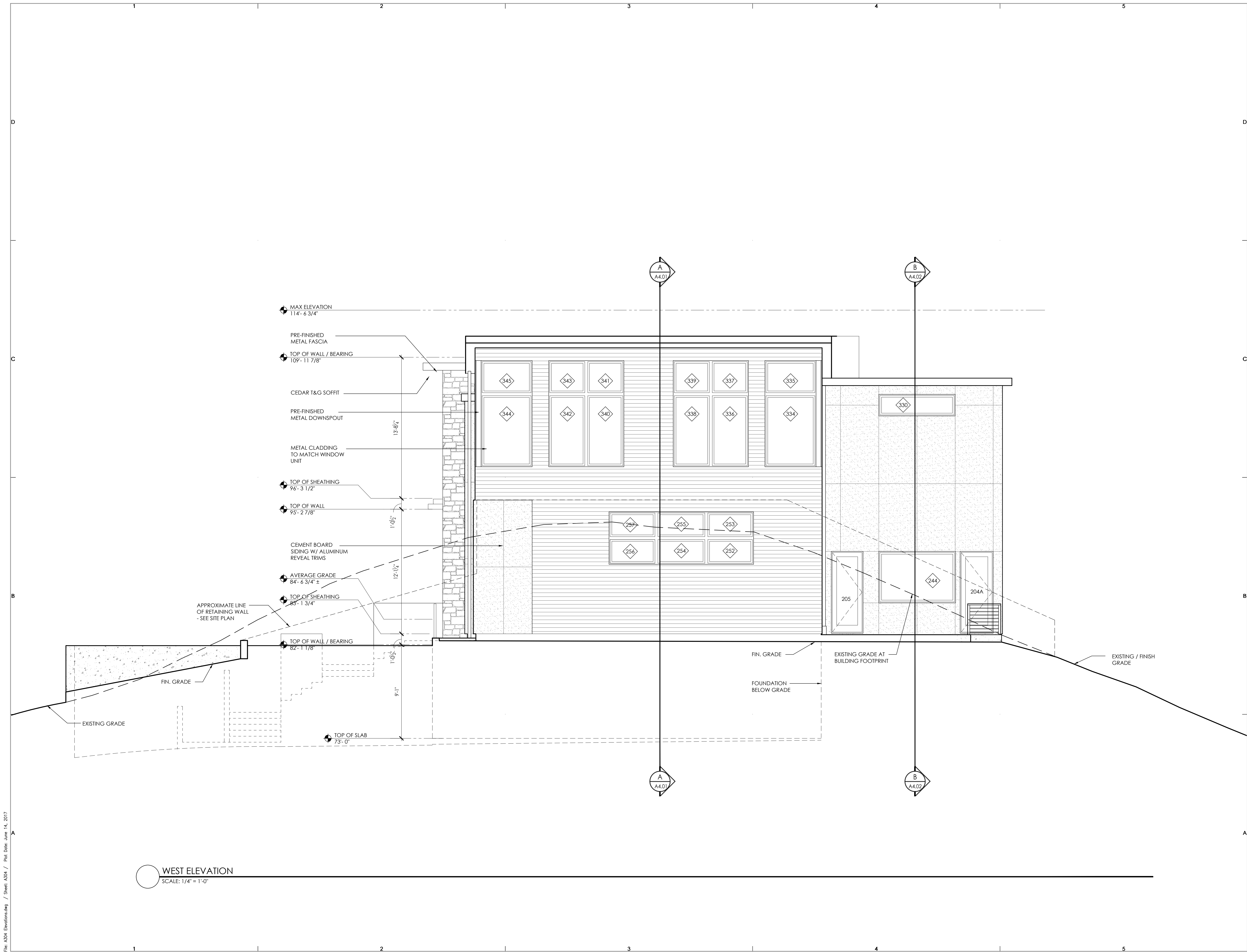
SHEET TITLE: \_\_\_\_\_

WEST  
 EXTERIOR ELEVATION

PROJECT NO.: 20140904  
 DATE ISSUED: 6/05/2017

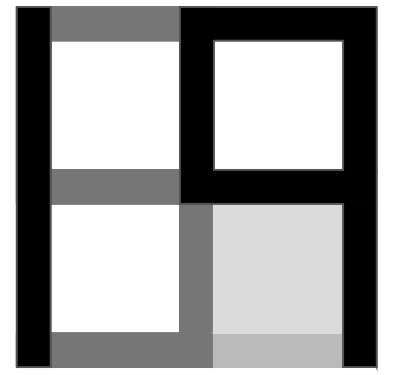
SHEET NUMBER: \_\_\_\_\_

A3.04



**WEST ELEVATION**  
 SCALE: 1/4" = 1'-0"





GENERAL NOTES

- HANDRAIL 34"-38" ABOVE TREAD NOSING. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.
- HANDRAIL GRASPING DIMENSION 1-1/4" MINIMUM - 2" MAXIMUM.
- DECKS, PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GROUND BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.

**R1** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT OVER MECHANICALLY-ADHERED BASE SHT) OVER TAPERED INSULATION (MIN. R-10 AT LOW POINT) OVER 2 LAYERS OF 30 LB. ROOFING FELTS OVER 3/4 PLYWOOD SHEATHING PER STRUCT. OVER 3" (R-21) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-50) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION

**R2** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT OVER MECHANICALLY-ADHERED BASE SHT) OVER 3/4 PLYWOOD SHEATHING PER STRUCT. 5" (R-35) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-54) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION

**F1** TYPICAL WOOD FINISH OVER SLAB ON GRADE:  
WOOD FINISH PER INTERIORS  
REINFORCED CONCRETE SLAB PER STRUCT WITH IN-SLAB HYDRONIC HEATING SYSTEM. W/ THERMAL EXPANSION JOINTS AT WALL 6 MIL VISQUEEN (MIN) VAPOR BARRIER R-10 RIGID FOAM INSULATION 6" MINIMUM COMPACTED GRAVEL BASE OVER UNDISTURBED SOIL

**F2** TYPICAL GARAGE FLOOR ASSEMBLY  
CONCRETE SEALER  
REINFORCED CONCRETE SLAB PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), 6 MIL POLY VAPOR BARRIER OVER 6" MINIMUM COMPACTED STRUCT. FILL UNDISTURBED SOIL.

**F3** TYPICAL FLOOR ASSEMBLY OVER UNHEATED EXTERIOR SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL R30 FIBERGLASS BATT INSULATION 6 MIL VISQUEEN VAPOR BARRIER EXTERIOR T&G CEDAR SOFFIT MATERIAL (SMOOTH FACE EXPOSED)

**F4** TYPICAL FLOOR ASSEMBLY OVER HEATED SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL (2X DROP CEILING /SOFFIT FRAMING AS INDICATED/APPLICABLE) 5/8" GYPSUM WALLBOARD VAPOR BARRIER PVC PRIMER FINISH PER OWNER SELECTION

**F5** TYPICAL FLOOR ASSEMBLY OVER GARAGE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL R30 FIBERGLASS BATT INSULATION 6 MIL VISQUEEN VAPOR BARRIER 5/8" TYPE X" GWB VAPOR BARRIER PVC PRIMER FINISH PER OWNER SELECTION

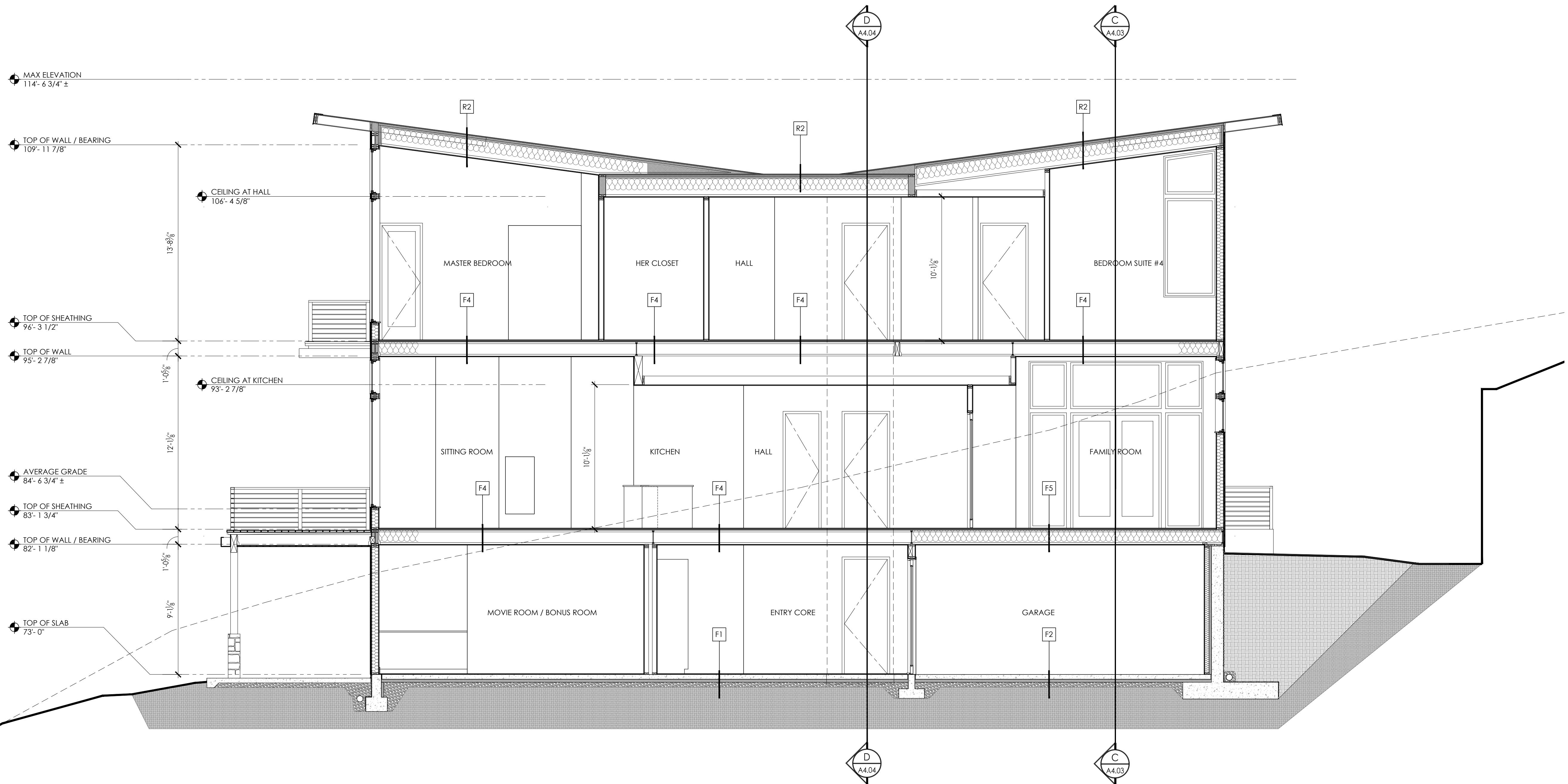
**F6** TILE FLOOR ASSEMBLY:  
TILE (TBD)  
THINSET UNDERLAYMENT/ISOLATION MAT TYPICAL FLOOR ASSEMBLY

**F7** COMPOSITE WOOD DECKING OVER WATERPROOF DECK ASSEMBLY:  
DECKING PER OWNER SELECTION  
"DRYJOIST" PVC STRUCTURAL DECK DRAINAGE SYSTEM DECK FRAMING PER STRUCTURAL 2X SOFFIT FURRING STRIPS 3/8" BEVELED SOFFIT BOARDS (SMOOTH FACE EXPOSED) W/ CONTINUOUS STRIP VENTING

**S1** TYPICAL DRIVEWAY ASSEMBLY  
REINFORCED CONCRETE SLAB PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), STAINED & SCORED, OVER 6" MINIMUM COMPACTED STRUCT. FILL OVER UNDISTURBED SOIL.

**S2** TYPICAL CONCRETE SIDEWALK/STAIR ASSEMBLY  
REINFORCED CONCRETE SLAB / STEPS PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), STAINED & SCORED, OVER 6" MINIMUM COMPACTED STRUCT. FILL OVER UNDISTURBED SOIL.

**F8** PATIO PAVERS OVER PIT SET PEDESTAL SYSTEM:  
PAVERS PER OWNER SELECTION  
LEVELING PEDESTALS CONCRETE SEALER REINFORCED 4" CONCRETE SLAB (SLOPE TO DRAIN 1/4" PER FOOT TO TRENCH DRAIN) 6" MINIMUM COMPACTED SAND BASE OVER UNDISTURBED SOIL.



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

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

6/24/2015	PERMIT SUBMITTAL
8/19/2016	EXPRESS SUBMITTAL #5

MARK	DATE	DESCRIPTION

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

BUILDING SECTION 'A'

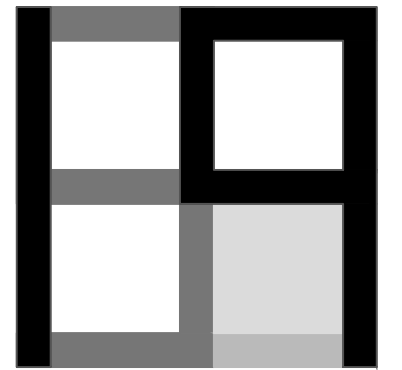
PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

**A4.01**





GENERAL NOTES

- HANDRAIL 34" 38" ABOVE TREAD NOSING. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.
- HANDRAIL GRASPING DIMENSION 1-1/4" MINIMUM - 2" MAXIMUM.
- DECKS, PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GROUND BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.

**R1** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE  
(SELF-ADHERING CAP SHT OVER  
SELF-ADHERING BASE SHT OVER  
MECHANICALLY-ADHERED BASE SHT) OVER  
TAPERED INSULATION (MIN. R-10 AT LOW POINT) OVER  
2 LAYERS OF 30 LB. ROOFING FELTS OVER  
3/4 PLYWOOD SHEATHING PER STRUCT. OVER  
3" (R-21) SPRAY APPLIED CLOSED CELL INSULATION  
W/ VAPOR BARRIER TO UNDERSIDE OF DECKING  
R-19 FIBERGLASS BATT INSULATION  
(FOR TOTAL ASSEMBLY R-VALUE OF R-50)  
ROOF TRUSSES/FRAMING PER STRUCT. W/  
5/8 GYPSUM WALLBOARD &  
FINISH PER OWNER SELECTION

**R2** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE  
(SELF-ADHERING CAP SHT OVER  
SELF-ADHERING BASE SHT OVER  
MECHANICALLY-ADHERED BASE SHT)  
3/4 PLYWOOD SHEATHING PER STRUCT.  
5" (R-35) SPRAY APPLIED CLOSED CELL INSULATION  
W/ VAPOR BARRIER TO UNDERSIDE OF DECKING  
R-19 FIBERGLASS BATT INSULATION  
(FOR TOTAL ASSEMBLY R-VALUE OF R-54)  
ROOF TRUSSES/FRAMING PER STRUCT. W/  
5/8 GYPSUM WALLBOARD &  
FINISH PER OWNER SELECTION

**F1** TYPICAL WOOD FINISH OVER SLAB ON GRADE:  
WOOD FINISH PER INTERIORS  
REINFORCED CONCRETE SLAB PER STRUCT.  
WITH IN-SLAB HYDRONIC HEATING SYSTEM.  
W/ THERMAL EXPANSION JOINTS AT WALL  
6 MIL VISQUEEN (MIN) VAPOR BARRIER  
R-10 RIGID FOAM INSULATION  
6" MINIMUM COMPACTED GRAVEL BASE OVER  
UNDISTURBED SOIL

**F2** TYPICAL GARAGE FLOOR ASSEMBLY  
CONCRETE SEALER  
REINFORCED CONCRETE SLAB PER STRUCT.,  
SLOPED TO DRAIN (1/4" PER FT.),  
6 MIL POLY VAPOR BARRIER OVER  
6" MINIMUM COMPACTED STRUCT. FILL  
UNDISTURBED SOIL.

**F3** TYPICAL FLOOR ASSEMBLY OVER UNHEATED EXTERIOR SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
(GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
FLOOR FRAMING PER STRUCTURAL  
R30 FIBERGLASS BATT INSULATION  
6 MIL VISQUEEN VAPOR BARRIER  
EXTERIOR T&G CEDAR SOFFIT MATERIAL  
(SMOOTH FACE EXPOSED)

**F4** TYPICAL FLOOR ASSEMBLY OVER HEATED SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
(GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
FLOOR FRAMING PER STRUCTURAL  
(2X DROP CEILING /SOFFIT FRAMING AS INDICATED/APPLICABLE)  
5/8" GYPSUM WALLBOARD  
VAPOR BARRIER PVC PRIMER  
FINISH PER OWNER SELECTION

**F5** TYPICAL FLOOR ASSEMBLY OVER GARAGE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
(GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
FLOOR FRAMING PER STRUCTURAL  
R30 FIBERGLASS BATT INSULATION  
6 MIL VISQUEEN VAPOR BARRIER  
5/8" TYPE X" GWB  
VAPOR BARRIER PVC PRIMER  
FINISH PER OWNER SELECTION

**F6** TILE FLOOR ASSEMBLY:  
TILE (TBD)  
THINSET  
UNDERLAYMENT/ISOLATION MAT  
TYPICAL FLOOR ASSEMBLY

**F7** COMPOSITE WOOD DECKING OVER WATERPROOF DECK  
ASSEMBLY:  
DECKING PER OWNER SELECTION  
"DRYJOIST" PVC STRUCTURAL DECK DRAINAGE SYSTEM  
DECK FRAMING PER STRUCTURAL  
2X SOFFIT FURRING STRIPS  
3/8" BEVELED SOFFIT BOARDS (SMOOTH FACE EXPOSED) W/  
CONTINUOUS STRIP VENTING

**S1** TYPICAL DRIVEWAY ASSEMBLY  
REINFORCED CONCRETE SLAB PER STRUCT.,  
SLOPED TO DRAIN (1/4" PER FT.),  
STAINED & SCORED, OVER  
6" MINIMUM COMPACTED STRUCT. FILL OVER  
UNDISTURBED SOIL.

**S2** TYPICAL CONCRETE SIDEWALK/STAIR ASSEMBLY  
REINFORCED CONCRETE SLAB / STEPS PER STRUCT.,  
SLOPED TO DRAIN (1/4" PER FT.),  
STAINED & SCORED, OVER  
6" MINIMUM COMPACTED STRUCT. FILL OVER  
UNDISTURBED SOIL.

**F8** PATIO PAVERS OVER PIT SET PEDESTAL SYSTEM:  
PAVERS PER OWNER SELECTION  
LEVELING PEDESTALS  
CONCRETE SEALER  
REINFORCED 4" CONCRETE SLAB (SLOPE TO DRAIN 1/4" PER FOOT TO  
TRENCH DRAIN)  
6" MINIMUM COMPACTED SAND BASE OVER  
UNDISTURBED SOIL.

MAX ELEVATION  
114'-6 3/4" ±

TOP OF WALL / BEARING  
106'-4 5/8"

TOP OF SHEATHING  
96'-3 1/2"

TOP OF WALL  
95'-2 7/8"

AVERAGE GRADE  
84'-6 3/4" ±

TOP OF SHEATHING  
83'-1 3/4"

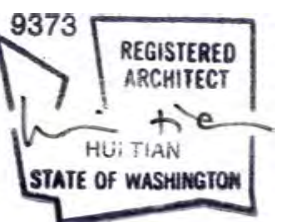
TOP OF WALL / BEARING  
82'-1 1/8"

TOP OF SLAB  
73'-0"

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

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE: \_\_\_\_\_

DATE	DESCRIPTION
6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED

MARK	DATE	DESCRIPTION

MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

BUILDING SECTION 'B'

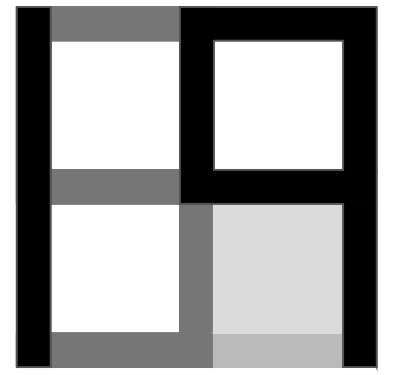
PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

**A4.02**





GENERAL NOTES

- HANDRAIL 34" 38" ABOVE TREAD NOSING. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.
- HANDRAIL GRASPING DIMENSION 1-1/4" MINIMUM - 2" MAXIMUM.
- DECKS, PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GROUND BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.

**R1** FLAT ROOF / ROOF DECK ASSEMBLY  
 3-PLY EPDM SELF-ADHERING MEMBRANE  
 (SELF-ADHERING CAP SHT OVER  
 SELF-ADHERING BASE SHT OVER  
 MECHANICALLY-ADHERED BASE SHT) OVER  
 TAPERED INSULATION (MIN. R-10 AT LOW POINT) OVER  
 2 LAYERS OF 30 LB. ROOFING FELTS OVER  
 3/4 PLYWOOD SHEATHING PER STRUCT. OVER  
 3" (R-21) SPRAY APPLIED CLOSED CELL INSULATION  
 W/ VAPOR BARRIER TO UNDERSIDE OF DECKING  
 R-19 FIBERGLASS BATT INSULATION  
 (FOR TOTAL ASSEMBLY R-VALUE OF R-50)  
 ROOF TRUSSES/FRAMING PER STRUCT. W/  
 5/8 GYPSUM WALLBOARD &  
 FINISH PER OWNER SELECTION

**R2** FLAT ROOF / ROOF DECK ASSEMBLY  
 3-PLY EPDM SELF-ADHERING MEMBRANE  
 (SELF-ADHERING CAP SHT OVER  
 SELF-ADHERING BASE SHT OVER  
 MECHANICALLY-ADHERED BASE SHT)  
 3/4 PLYWOOD SHEATHING PER STRUCT.  
 5" (R-35) SPRAY APPLIED CLOSED CELL INSULATION  
 W/ VAPOR BARRIER TO UNDERSIDE OF DECKING  
 R-19 FIBERGLASS BATT INSULATION  
 (FOR TOTAL ASSEMBLY R-VALUE OF R-54)  
 ROOF TRUSSES/FRAMING PER STRUCT. W/  
 5/8 GYPSUM WALLBOARD &  
 FINISH PER OWNER SELECTION

**F1** TYPICAL WOOD FINISH OVER SLAB ON GRADE:  
 WOOD FINISH PER INTERIORS  
 REINFORCED CONCRETE SLAB PER STRUCT  
 WITH IN-SLAB HYDRONIC HEATING SYSTEM  
 W/ THERMAL EXPANSION JOINTS AT WALL  
 6 MIL VISQUEEN (MIN) VAPOR BARRIER  
 R-10 RIGID FOAM INSULATION  
 6" MINIMUM COMPACTED GRAVEL BASE OVER  
 UNDISTURBED SOIL

**F2** TYPICAL GARAGE FLOOR ASSEMBLY  
 CONCRETE SEALER  
 REINFORCED CONCRETE SLAB PER STRUCT.,  
 SLOPED TO DRAIN (1/4" PER FT.),  
 6 MIL POLY VAPOR BARRIER OVER  
 6" MINIMUM COMPACTED STRUCT. FILL  
 UNDISTURBED SOIL.

**F3** TYPICAL FLOOR ASSEMBLY OVER UNHEATED EXTERIOR SPACE  
 FLOOR FINISH PER INTERIORS  
 1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
 (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
 FLOOR FRAMING PER STRUCTURAL  
 R30 FIBERGLASS BATT INSULATION  
 6 MIL VISQUEEN VAPOR BARRIER  
 EXTERIOR T&G CEDAR SOFFIT MATERIAL  
 (SMOOTH FACE EXPOSED)

**F4** TYPICAL FLOOR ASSEMBLY OVER HEATED SPACE  
 FLOOR FINISH PER INTERIORS  
 1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
 (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
 FLOOR FRAMING PER STRUCTURAL  
 (2X DROP CEILING /SOFFIT FRAMING AS INDICATED/APPLICABLE)  
 5/8" GYPSUM WALLBOARD  
 VAPOR BARRIER PVC PRIMER  
 FINISH PER OWNER SELECTION

**F5** TYPICAL FLOOR ASSEMBLY OVER GARAGE  
 FLOOR FINISH PER INTERIORS  
 1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING  
 (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM  
 FLOOR FRAMING PER STRUCTURAL  
 R30 FIBERGLASS BATT INSULATION  
 6 MIL VISQUEEN VAPOR BARRIER  
 5/8" TYPE X" GWB  
 VAPOR BARRIER PVC PRIMER  
 FINISH PER OWNER SELECTION

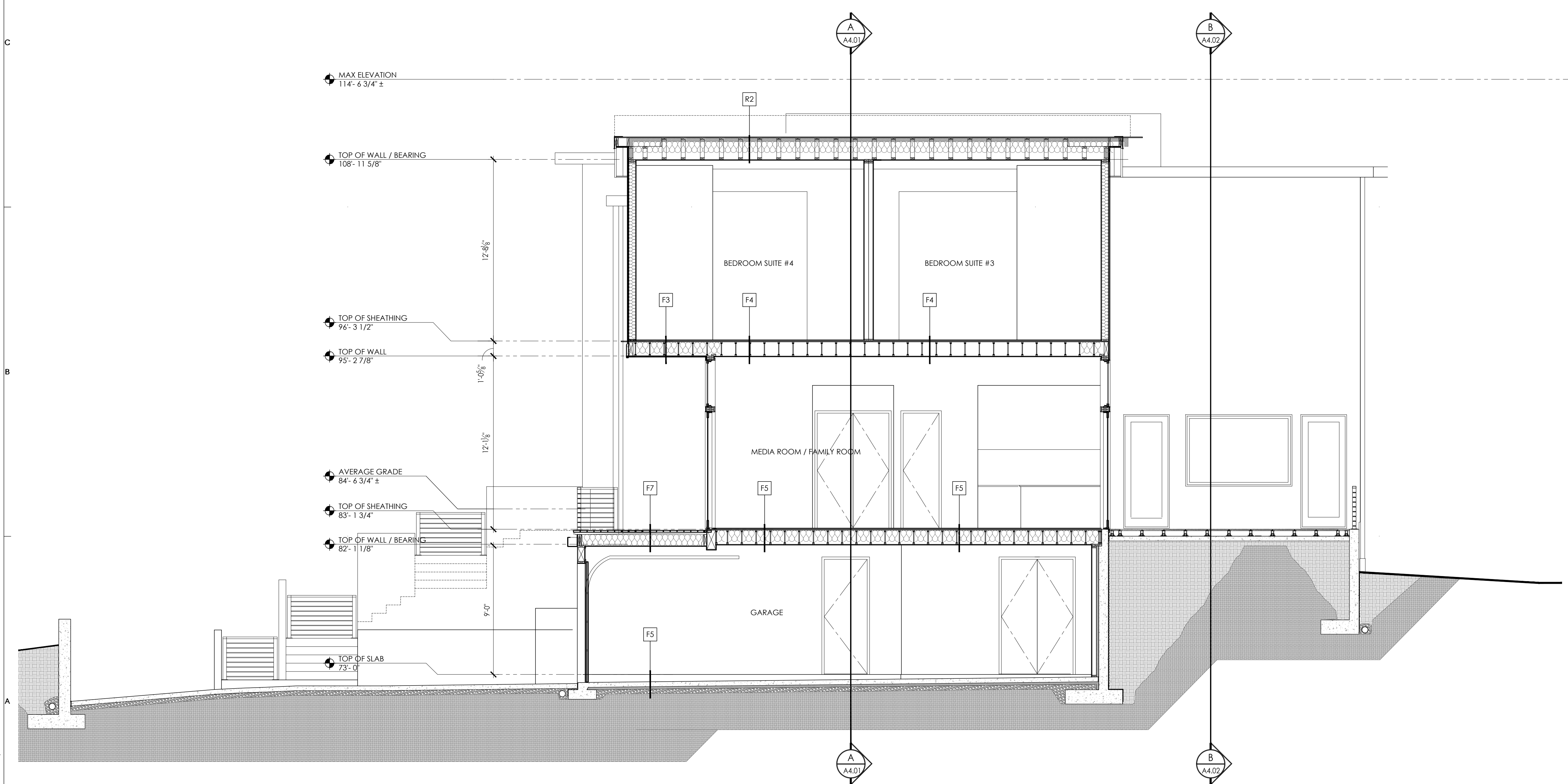
**F6** TILE FLOOR ASSEMBLY:  
 TILE (TBD)  
 THINSET  
 UNDERLAYMENT/ISOLATION MAT  
 TYPICAL FLOOR ASSEMBLY

**F7** COMPOSITE WOOD DECKING OVER WATERPROOF DECK  
 ASSEMBLY:  
 DECKING PER OWNER SELECTION  
 "DRY-JOIST" PVC STRUCTURAL DECK DRAINAGE SYSTEM  
 DECK FRAMING PER STRUCTURAL  
 2X SOFFIT FURRING STRIPS  
 3/8" BEVELED SOFFIT BOARDS (SMOOTH FACE EXPOSED) W/  
 CONTINUOUS STRIP VENTING

**S1** TYPICAL DRIVEWAY ASSEMBLY  
 REINFORCED CONCRETE SLAB PER STRUCT.,  
 SLOPED TO DRAIN (1/4" PER FT.),  
 STAINED & SCORED, OVER  
 6" MINIMUM COMPACTED STRUCT. FILL OVER  
 UNDISTURBED SOIL.

**S2** TYPICAL CONCRETE SIDEWALK/STAIR ASSEMBLY  
 REINFORCED CONCRETE SLAB / STEPS PER STRUCT.,  
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 STAINED & SCORED, OVER  
 6" MINIMUM COMPACTED STRUCT. FILL OVER  
 UNDISTURBED SOIL.

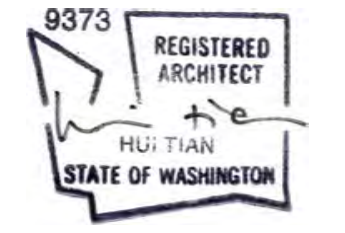
**F8** PATIO PAVERS OVER PIT SET PEDESTAL SYSTEM:  
 PAVERS PER OWNER SELECTION  
 LEVELING PEDESTALS  
 CONCRETE SEALER  
 REINFORCED 4" CONCRETE SLAB (SLOPE TO DRAIN 1/4" PER FOOT TO  
 TRENCH DRAIN)  
 6" MINIMUM COMPACTED SAND BASE OVER  
 UNDISTURBED SOIL.



**C** BUILDING SECTION 'C'  
 SCALE: 1/4" = 1'-0"

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
 Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
 MERCER ISLAND, WA 98040

SHEET ISSUE:

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MUNICIPALITY REVIEW:

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE:

BUILDING SECTION 'C'

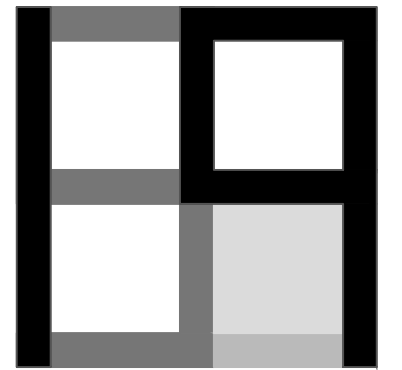
PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

**A4.03**





GENERAL NOTES

- HANDRAIL 34" 38" ABOVE TREAD NOSING. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.
- HANDRAIL GRASPING DIMENSION 1-1/4" MINIMUM - 2" MAXIMUM.
- DECKS, PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GROUND BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. STYLE & CONFIGURATION PER OWNER SELECTION. TBD.

**R1** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT OVER MECHANICALLY-ADHERED BASE SHT) OVER TAPERED INSULATION (MIN. R-10 AT LOW POINT) OVER 2 LAYERS OF 30 LB. ROOFING FELTS OVER 3/4 PLYWOOD SHEATHING PER STRUCT. OVER 3" (R-21) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-50) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION

**R2** FLAT ROOF / ROOF DECK ASSEMBLY  
3-PLY EPDM SELF-ADHERING MEMBRANE (SELF-ADHERING CAP SHT OVER SELF-ADHERING BASE SHT OVER MECHANICALLY-ADHERED BASE SHT) OVER 3/4 PLYWOOD SHEATHING PER STRUCT. 5" (R-35) SPRAY APPLIED CLOSED CELL INSULATION W/ VAPOR BARRIER TO UNDERSIDE OF DECKING R-19 FIBERGLASS BATT INSULATION (FOR TOTAL ASSEMBLY R-VALUE OF R-54) ROOF TRUSSES/FRAMING PER STRUCT. W/ 5/8 GYPSUM WALLBOARD & FINISH PER OWNER SELECTION

**F1** TYPICAL WOOD FINISH OVER SLAB ON GRADE:  
WOOD FINISH PER INTERIORS  
REINFORCED CONCRETE SLAB PER STRUCT WITH IN-SLAB HYDRONIC HEATING SYSTEM. W/ THERMAL EXPANSION JOINTS AT WALL 6 MIL VISQUEEN (MIN) VAPOR BARRIER R-10 RIGID FOAM INSULATION 6" MINIMUM COMPACTED GRAVEL BASE OVER UNDISTURBED SOIL

**F2** TYPICAL GARAGE FLOOR ASSEMBLY  
CONCRETE SEALER  
REINFORCED CONCRETE SLAB PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), 6 MIL POLY VAPOR BARRIER OVER 6" MINIMUM COMPACTED STRUCT. FILL UNDISTURBED SOIL.

**F3** TYPICAL FLOOR ASSEMBLY OVER UNHEATED EXTERIOR SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL R30 FIBERGLASS BATT INSULATION 6 MIL VISQUEEN VAPOR BARRIER EXTERIOR T&G CEDAR SOFFIT MATERIAL (SMOOTH FACE EXPOSED)

**F4** TYPICAL FLOOR ASSEMBLY OVER HEATED SPACE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL (2X DROP CEILING /SOFFIT FRAMING AS INDICATED/APPLICABLE) 5/8" GYPSUM WALLBOARD VAPOR BARRIER PVC PRIMER FINISH PER OWNER SELECTION

**F5** TYPICAL FLOOR ASSEMBLY OVER GARAGE  
FLOOR FINISH PER INTERIORS  
1-1/8" T&G 'WARMBOARD' SUBFLOOR FLOOR SHEATHING (GLUED & SCREWED) WITH HYDRONIC HEATING SYSTEM FLOOR FRAMING PER STRUCTURAL R30 FIBERGLASS BATT INSULATION 6 MIL VISQUEEN VAPOR BARRIER 5/8" TYPE X" GWB VAPOR BARRIER PVC PRIMER FINISH PER OWNER SELECTION

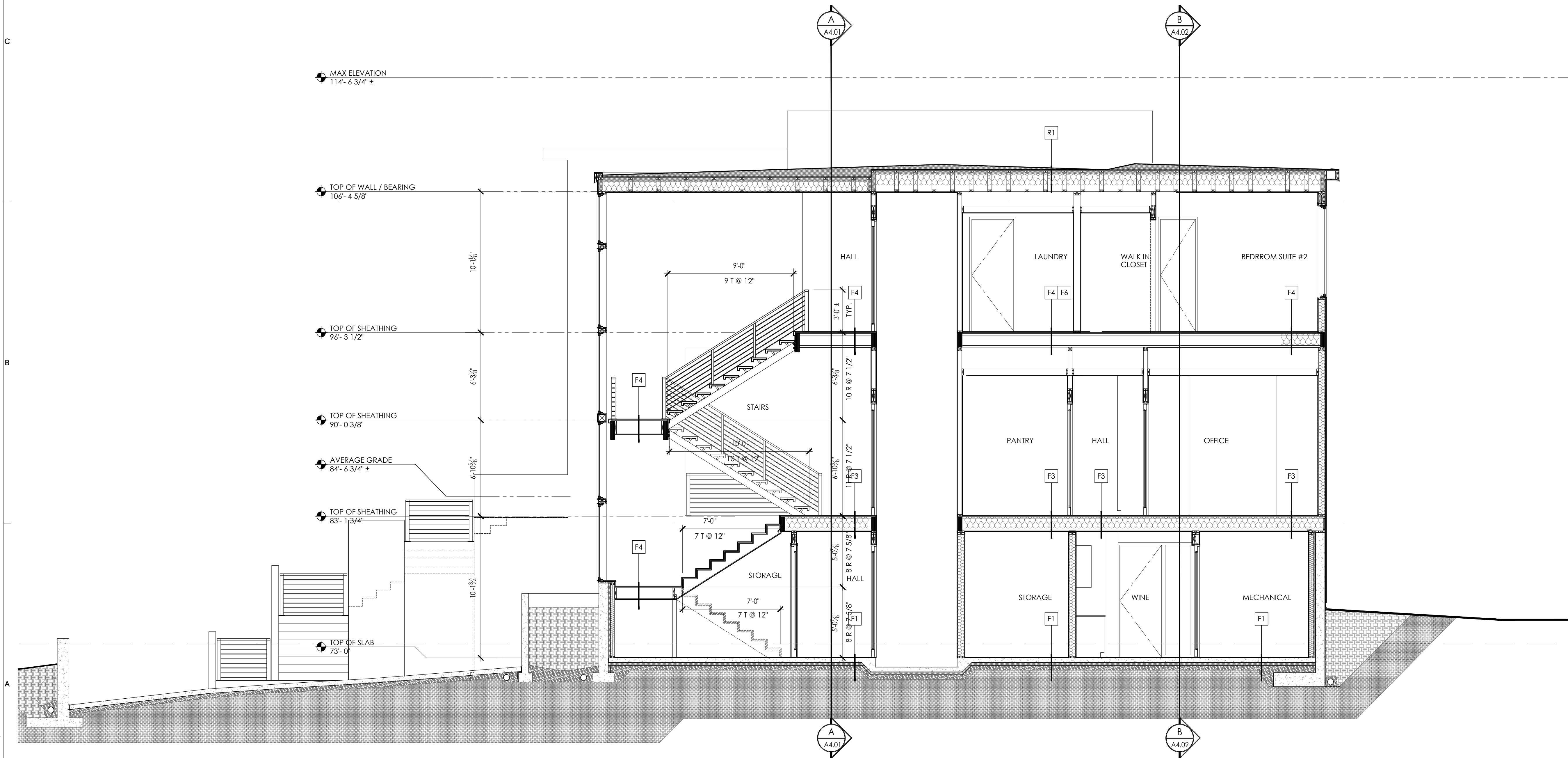
**F6** TILE FLOOR ASSEMBLY:  
TILE (TBD)  
THINSET UNDERLAYMENT/ISOLATION MAT TYPICAL FLOOR ASSEMBLY

**F7** COMPOSITE WOOD DECKING OVER WATERPROOF DECK ASSEMBLY:  
DECKING PER OWNER SELECTION  
"DRYJOIST" PVC STRUCTURAL DECK DRAINAGE SYSTEM DECK FRAMING PER STRUCTURAL 2X SOFFIT FURRING STRIPS 3/8" BEVELED SOFFIT BOARDS (SMOOTH FACE EXPOSED) W/ CONTINUOUS STRIP VENTING

**S1** TYPICAL DRIVEWAY ASSEMBLY  
REINFORCED CONCRETE SLAB PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), STAINED & SCORED, OVER 6" MINIMUM COMPACTED STRUCT. FILL OVER UNDISTURBED SOIL.

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REINFORCED CONCRETE SLAB / STEPS PER STRUCT., SLOPED TO DRAIN (1/4" PER FT.), STAINED & SCORED, OVER 6" MINIMUM COMPACTED STRUCT. FILL OVER UNDISTURBED SOIL.

**F8** PATIO PAVERS OVER PIT SET PEDESTAL SYSTEM:  
PAVERS PER OWNER SELECTION  
LEVELING PEDESTALS CONCRETE SEALER REINFORCED 4" CONCRETE SLAB (SLOPE TO DRAIN 1/4" PER FOOT TO TRENCH DRAIN) 6" MINIMUM COMPACTED SAND BASE OVER UNDISTURBED SOIL.



**D** BUILDING SECTION 'D'  
SCALE: 1/4" = 1'-0"

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

**EAST MERCER RESIDENCE**

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

SHEET ISSUE:

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MARK DATE DESCRIPTION

MUNICIPALITY REVIEW:

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE:

BUILDING SECTION 'D'

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

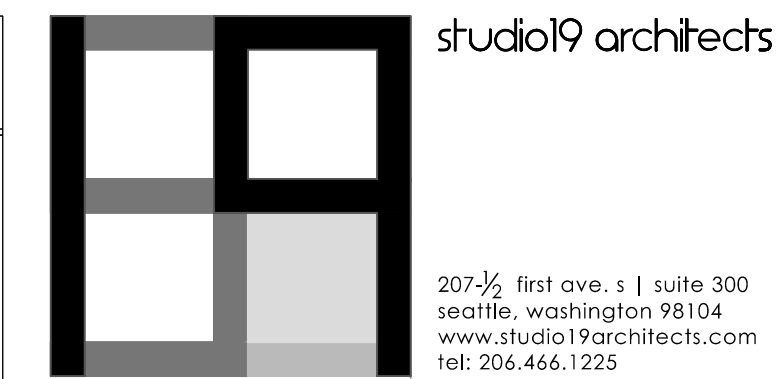
SHEET NUMBER:

**A4.04**



# W.R.B. & FLASHING SEQUENCE AT BUILDING PENETRATIONS

# NOTES



**NOTE:**  
CONTRACTOR SHALL CONFIRM COMPATIBILITY OF ALL MATERIALS USED IN PENETRATION FLASHING SEQUENCE. USE SIMILAR METHODS AT EACH BUILDING PENETRATION.

### MATERIALS / ASSEMBLIES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK AND MATERIALS IN ACCORDANCE WITH ALL APPLICABLE COUNTY, AND LOCAL BUILDING AND FIRE CODES AS REQUIRED.
- ALL WOOD AND SONITUBE FORMS USED FOR CONCRETE IN THE GROUND OR BETWEEN FOUNDATION SILLS & THE GROUND SHALL BE REMOVED.
- ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WOOD OR ANY SPECIES OR FOUNDATION GRADE CEDAR OR REDWOOD, ALL MARKED BY AN APPROVED TESTING AGENCY.
- PROVIDE 90# FELT BETWEEN POSTS & CONCRETE.
- PROVIDE DRAFT STOPS, FIRE BLOCKING, AND FIRESTOPS AS REQUIRED BY CODE.
- FLASHING AND COUNTER FLASHING TO BE MIN. 24 GAUGE OF CORROSION-RESISTANT METAL AND SHALL BE INSTALLED IN COMPLIANCE WITH LOCAL BUILDING CODES AND MANUFACTURERS RECOMMENDATIONS.
- GENERAL CONTRACTOR SHALL PROVIDE BLOCKING FOR ALL WALL-MOUNTED HARDWARE, TOILET ACCESSORIES, TOWEL BARS, LIGHT FIXTURES, BUILT-INS, ETC., AS REQUIRED FOR SECURE AND PROPER INSTALLATION.
- ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE TREATED OR CEDAR.
- ALL STRUCTURAL PANEL COMPONENTS OF THE RESIDENCE SHALL COMPLY WITH APPROPRIATE STANDARDS FOR THE EMISSION OF FORMALDEHYDE. THE BACK-DRAFTING OF COMBUSTION BY PRODUCTS FROM COMBUSTION APPLIANCES SHALL BE MINIMIZED THROUGH THE USE OF DAMPERS, VENTS, OUTSIDE COMBUSTION AIR SOURCES, OR OTHER APPROPRIATE TECHNOLOGIES [RCW 19.27.190(VER)1]

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

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## EAST MERCER RESIDENCE

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MERCER ISLAND, WA 98040

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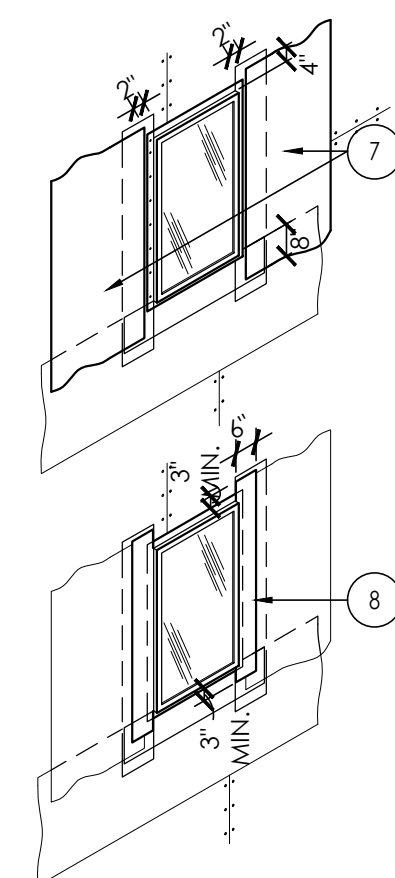
TYPICAL WALL, FLOOR, & ROOF ASSEMBLIES  
W.R.B. & FLASHING SEQUENCE AT  
BUILDING PENETRATIONS

PROJECT NO.: 20140904

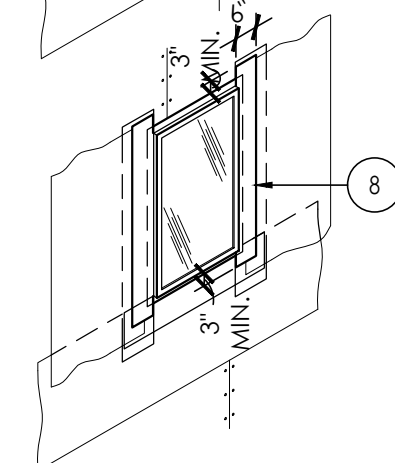
DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

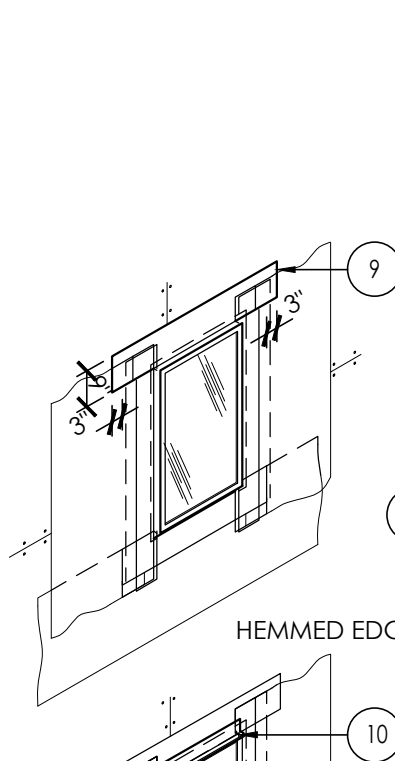
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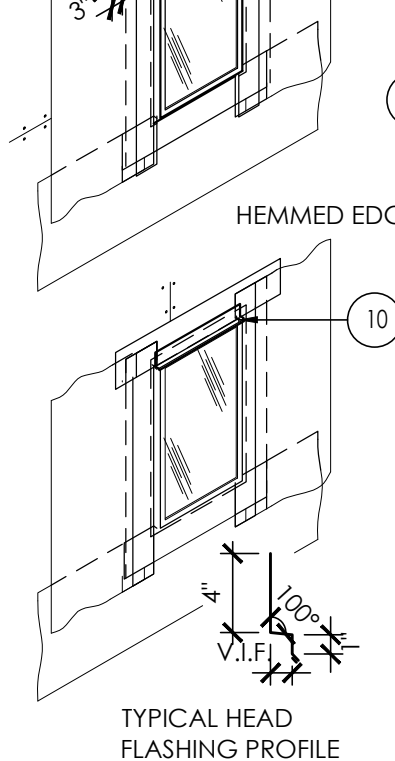
7 BLEEDER STRIPS AT JAMBS:  
INSTALL ONE COURSE OF WEATHER-RESISTIVE BARRIER VERTICALLY AT JAMBS. OFFSET EDGE OF WEATHER-RESISTIVE BARRIER 2" FROM ROUGH OPENING.



8 SELF-ADHESIVE JAMB FLASHING:  
WIPE CLEAN NAILING FLANGE AND BASE FLASHING. APPLY 6" WIDE SELF-ADHESIVE JAMB FLASHING (FORTIFIBER "MOISTOP FORTIFLASH") OVER NAILING FLANGE. APPLY FIRM PRESSURE WITH A ROLLER ALONG ENTIRE SELF-ADHESIVE STRIP TO ENSURE A CONTINUOUS SEAL.

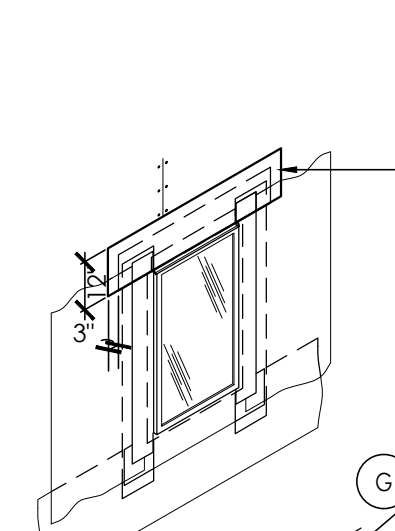


9 SELF-ADHESIVE HEAD MEMBRANE FLASHING:  
WIPE CLEAN THE WINDOW FLANGE, PREVIOUS FLASHING LAYERS AND SUBSTRATE. APPLY 9" WIDE SELF-ADHESIVE HEAD FLASHING (FORTIFIBER "MOISTOP EZ-SEAL") OVER THE WINDOW FLANGE, BASE FLASHING AND SELF-ADHESIVE JAMB FLASHING. USING A ROLLER, APPLY FIRM PRESSURE ALONG THE ENTIRE SELF-ADHESIVE STRIP TO ENSURE A CONTINUOUS SEAL.

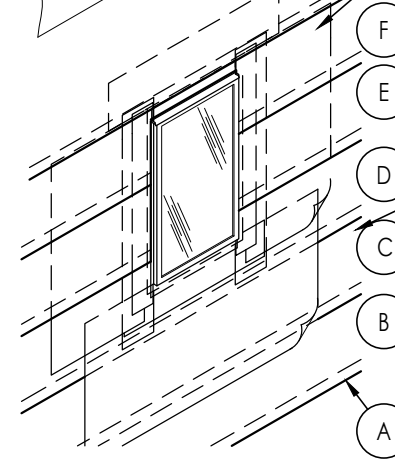


10 METAL SIDING APPLICATION:  
APPLY METAL FLASHING DIRECTLY ABOVE WINDOW. EXTEND FLASHING BEYOND WINDOW FRAME 3/8" EACH SIDE, OR THE MINIMUM REQUIRED TO COVER 1/2" SEALANT JOINT.

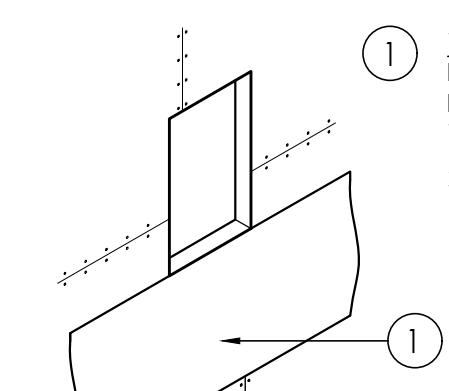
TYPICAL HEAD FLASHING PROFILE



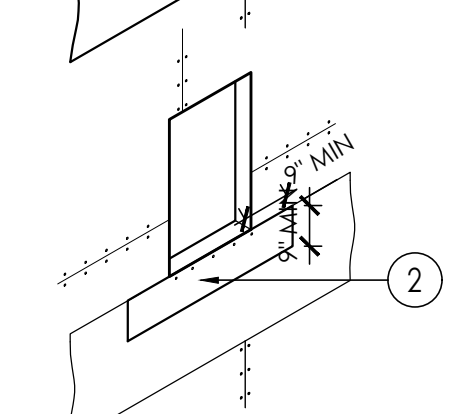
11 WATERPROOF HEAD FLASHING MEMBRANE:  
INSTALL MEMBRANE (FORTIFIBER "FORTIFLASH") OVER METAL HEAD FLASHING. APPLY FIRM PRESSURE WITH A ROLLER ALONG THE ENTIRE SELF-ADHESIVE STRIP TO ENSURE A CONTINUOUS SEAL. FASTEN AT CORNERS AND MIDPOINT.



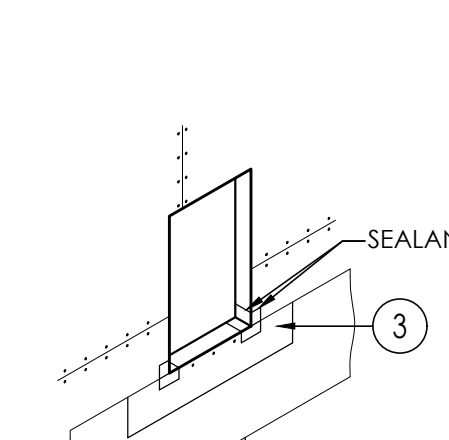
12 WEATHER-RESISTIVE BARRIER:  
START AT THE BOTTOM OF THE WALL. LAY WEATHER-RESISTIVE BARRIER UP THE WALL, OVERLAPPING 1/2 ROLL + 4" MIN. HORIZ. AND 6" VERTICAL IN WEATHERBOARD FASHION. MAKE SURE THAT COURSE 'C' AND 'D' ARE PLACED UNDER THE SILL STRIP FLASHING AND JAMB FLASHING. ALIGN VERTICAL EDGE OF W.R.B. WITH SIDES OF HEAD FLASHING (LETTERS REFER TO ORDER OF INSTALLATION)



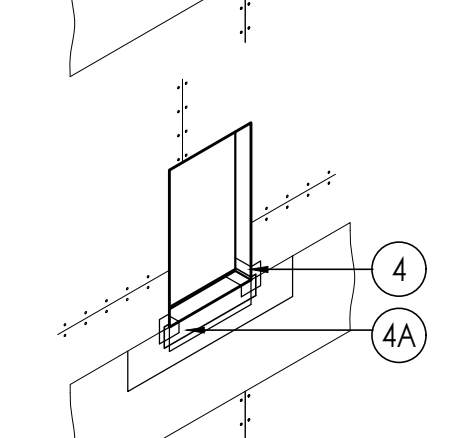
1 WEATHER-RESISTIVE BARRIER MATERIAL AT SILL:  
INSTALL ONE COURSE OF WEATHER-RESISTIVE BARRIER AT SILL. FASTEN ONLY THE TOP OF WEATHER-RESISTIVE BARRIER TO SUBSTRATE, TO ALLOW (FOLLOWING) LOWER COURSE OF WEATHER RESISTIVE BARRIER TO GO UNDERNEATH.



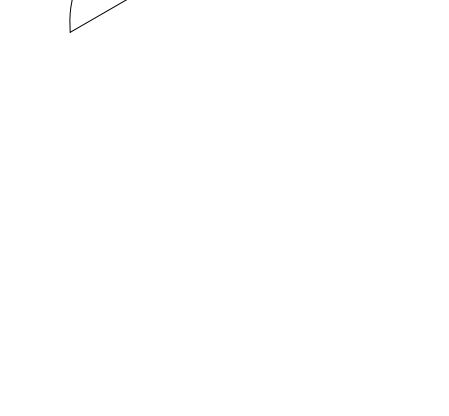
2 BASE FLASHING - SILL:  
INSTALL WATER-RESISTANT BASE FLASHING (FORTIFIBER "NEXT") AT SILL, ON TOP OF WEATHER-RESISTIVE BARRIER.



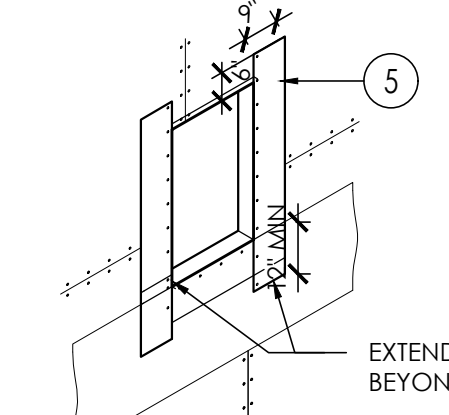
3 CORNER SHIELD:  
FASTEN PRE-FORMED CORNER SHIELDS IN BEAD OF SEALANT AT JAMB TO FRAMING. CUT TO FIT TIGHT TO EXISTING LINER. DO NOT NAIL THROUGH SILL.



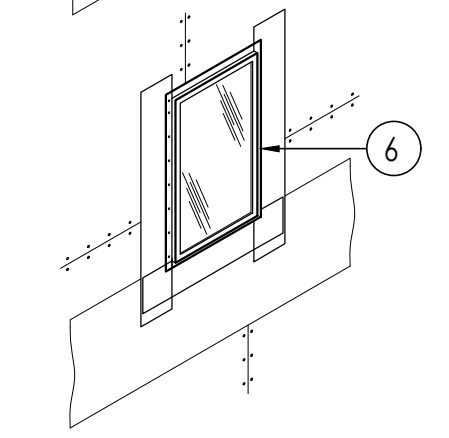
4 SILL WRAP:  
INSTALL SELF-ADHESIVE SILL WRAP FLASHING (FORTIFIBER "FORTIFLASH") AT SILL, ON TOP OF BASE FLASHING AND CORNER SHIELDS. INSTALL UP TO LINER.



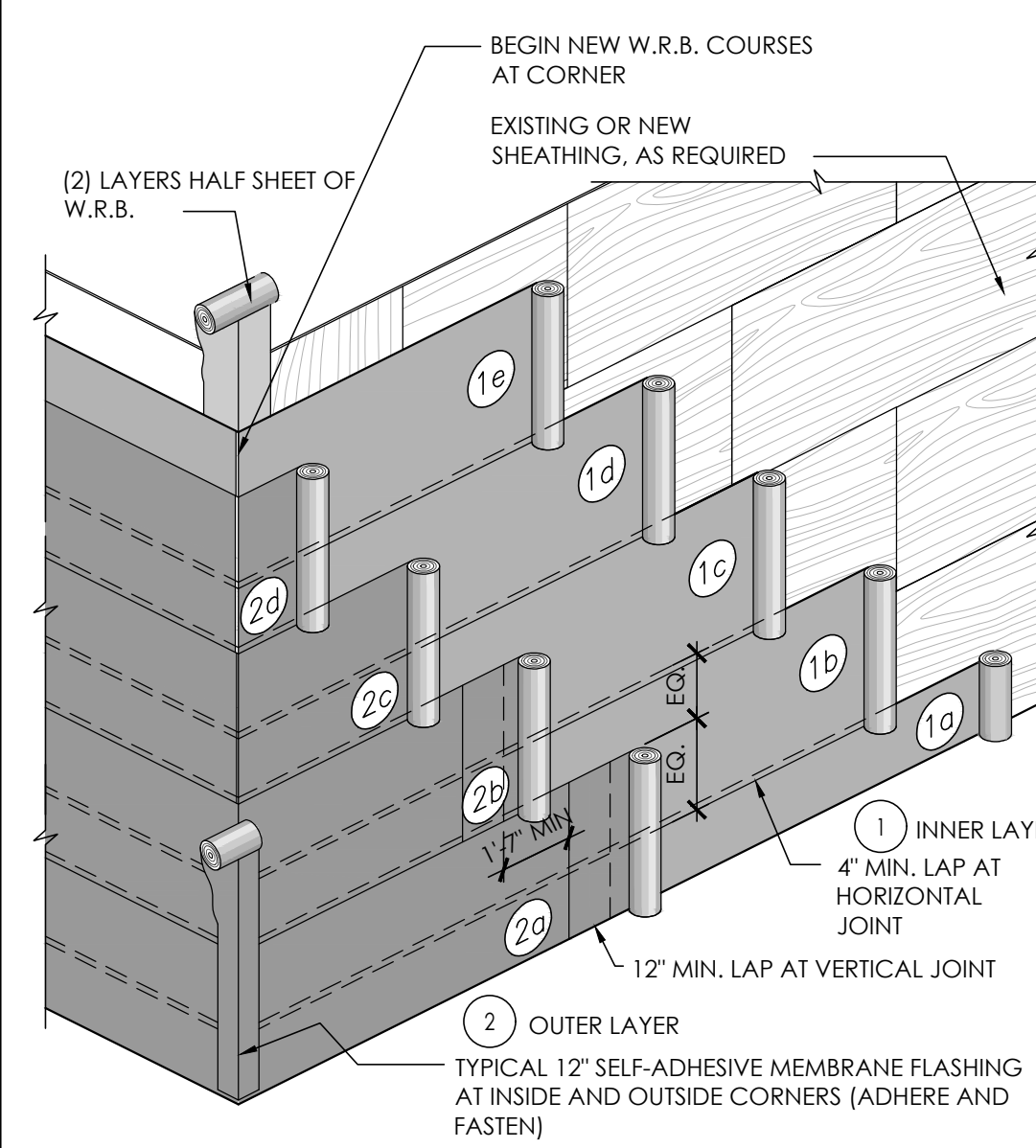
4A SILL PAN:  
METAL SILL PAN WITH VERTICAL INTERIOR LIP OVER SILL WRAP



5 VERTICAL BASE FLASHING - JAMB:  
INSTALL VERTICAL BASE FLASHING (FORTIFIBER "MOISTOP") OVER SILL FLASHING.



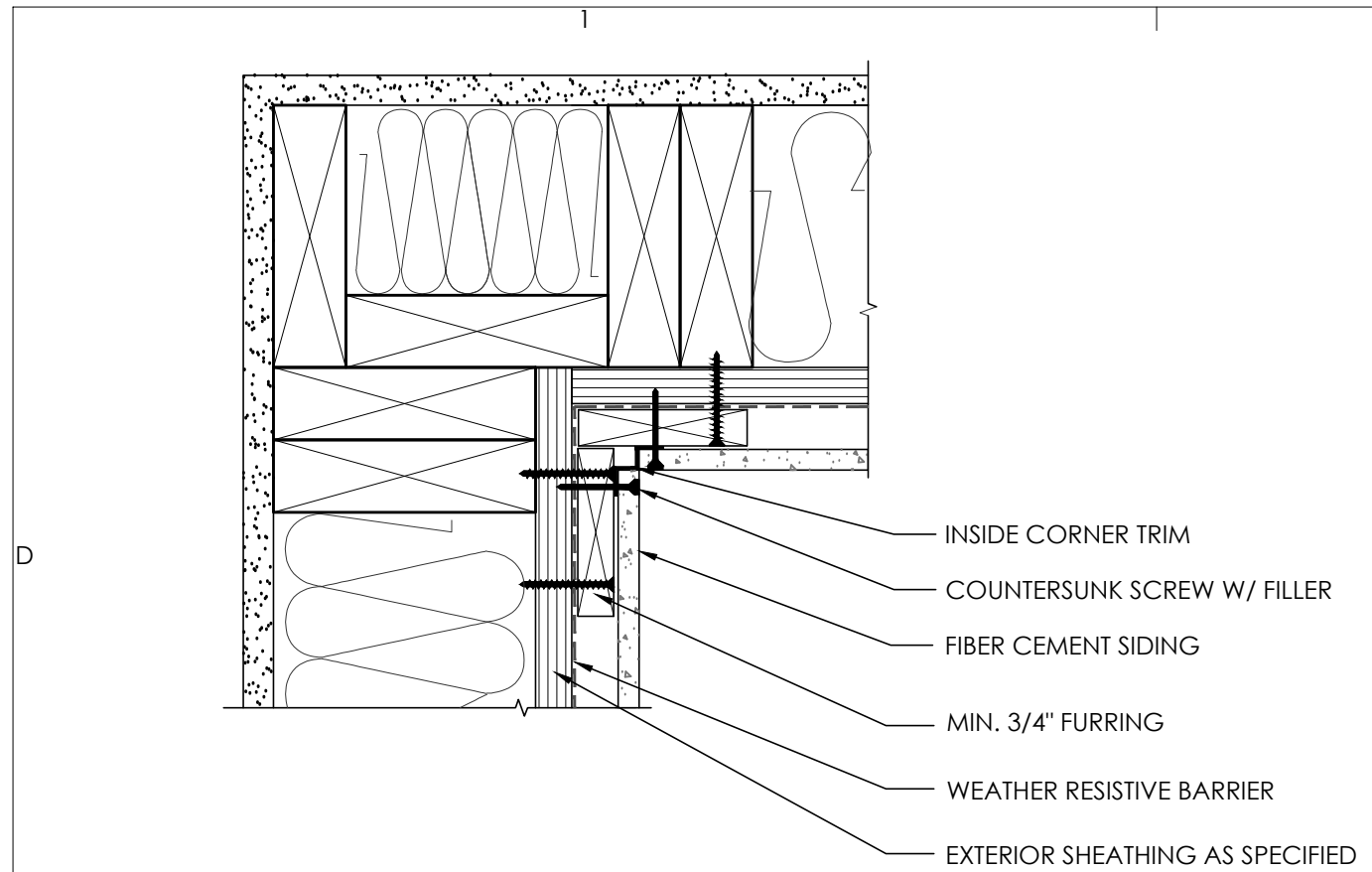
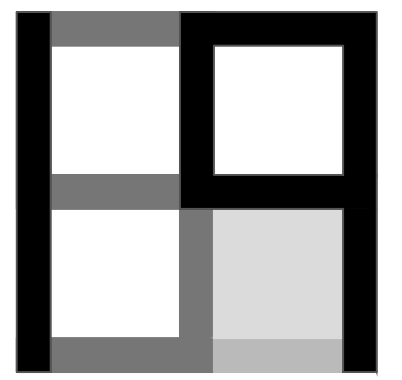
6 WINDOW FLANGE W/ SILICONE SEALANT:  
APPLY CONTINUOUS BEAD OF SILICONE SEALANT (ASTM C-920 TYPE "S" GRADE N.S. CLASS 2S) ALONG TOP, SIDES AND BOTTOM OF WINDOW FLANGE. DO NOT NAIL AT WINDOW HEAD. INSTALL WINDOW IN OPENING PER MANUFACTURER'S SPECIFICATIONS.



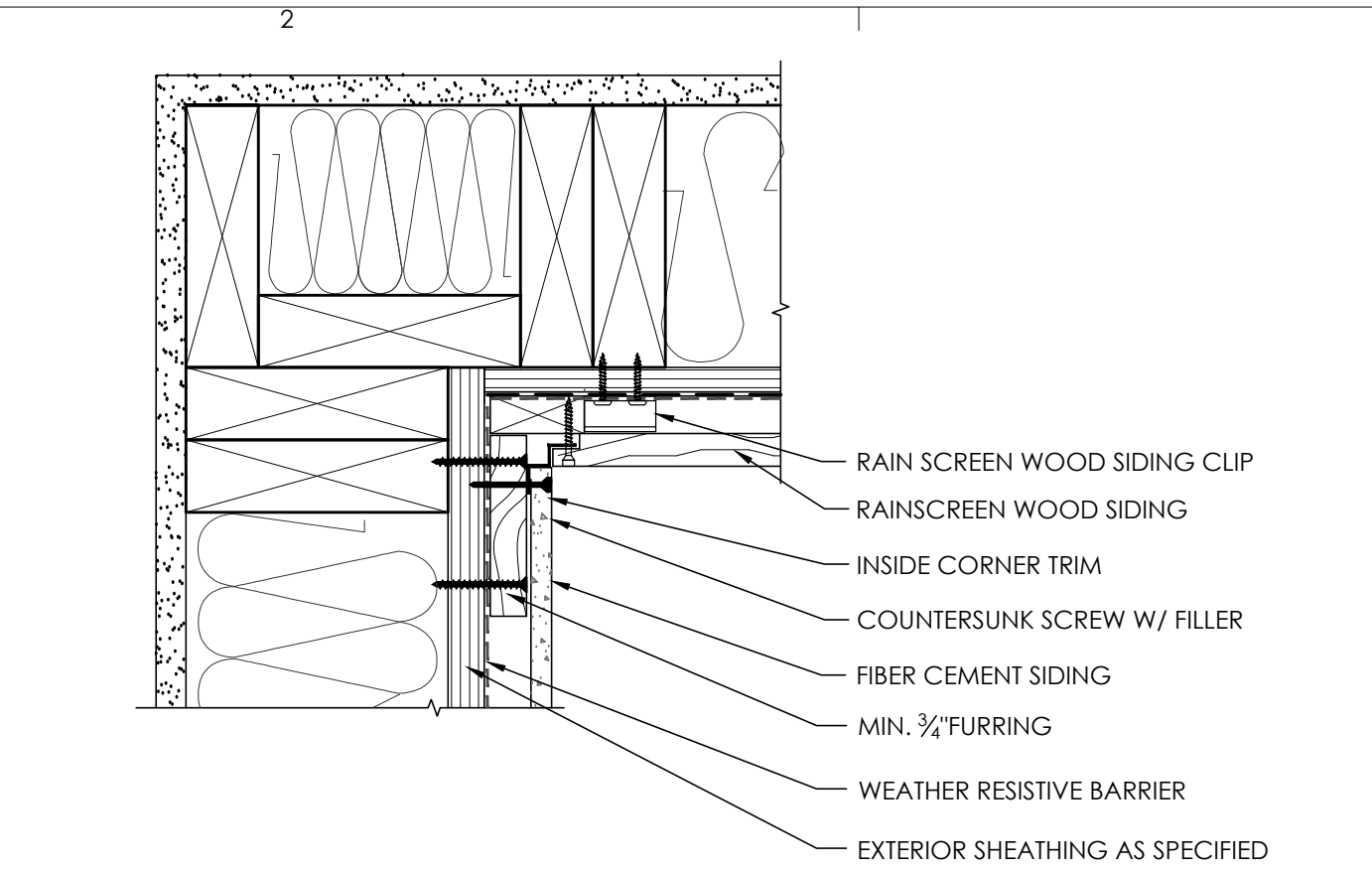
TYPICAL SEQUENCING OF WEATHER RESISTIVE MEMBRANE PRIOR TO INSTALLATION OF EXTERIOR FINISH MATERIAL

A1 WEATHER RESISTIVE BARRIER

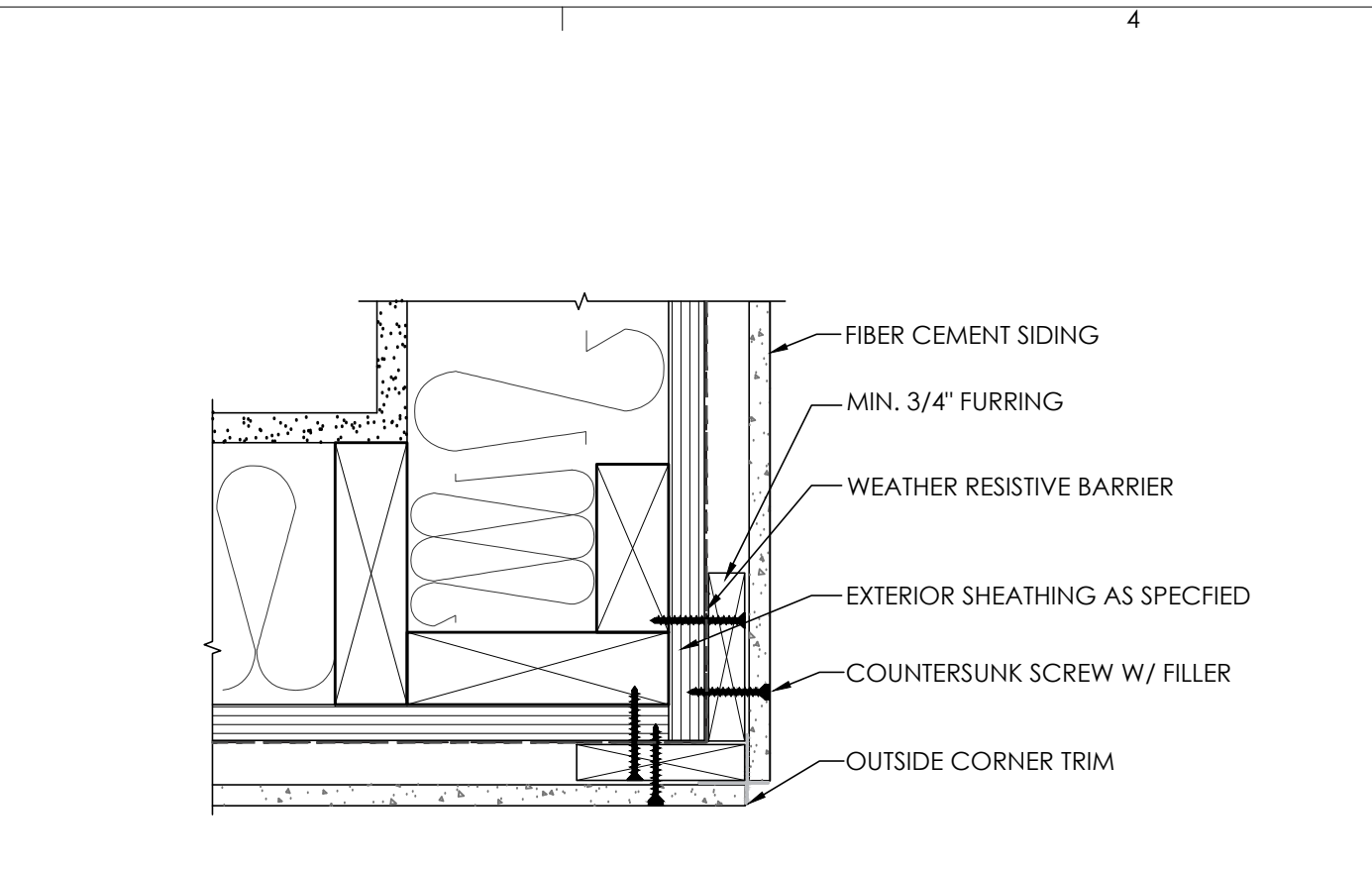




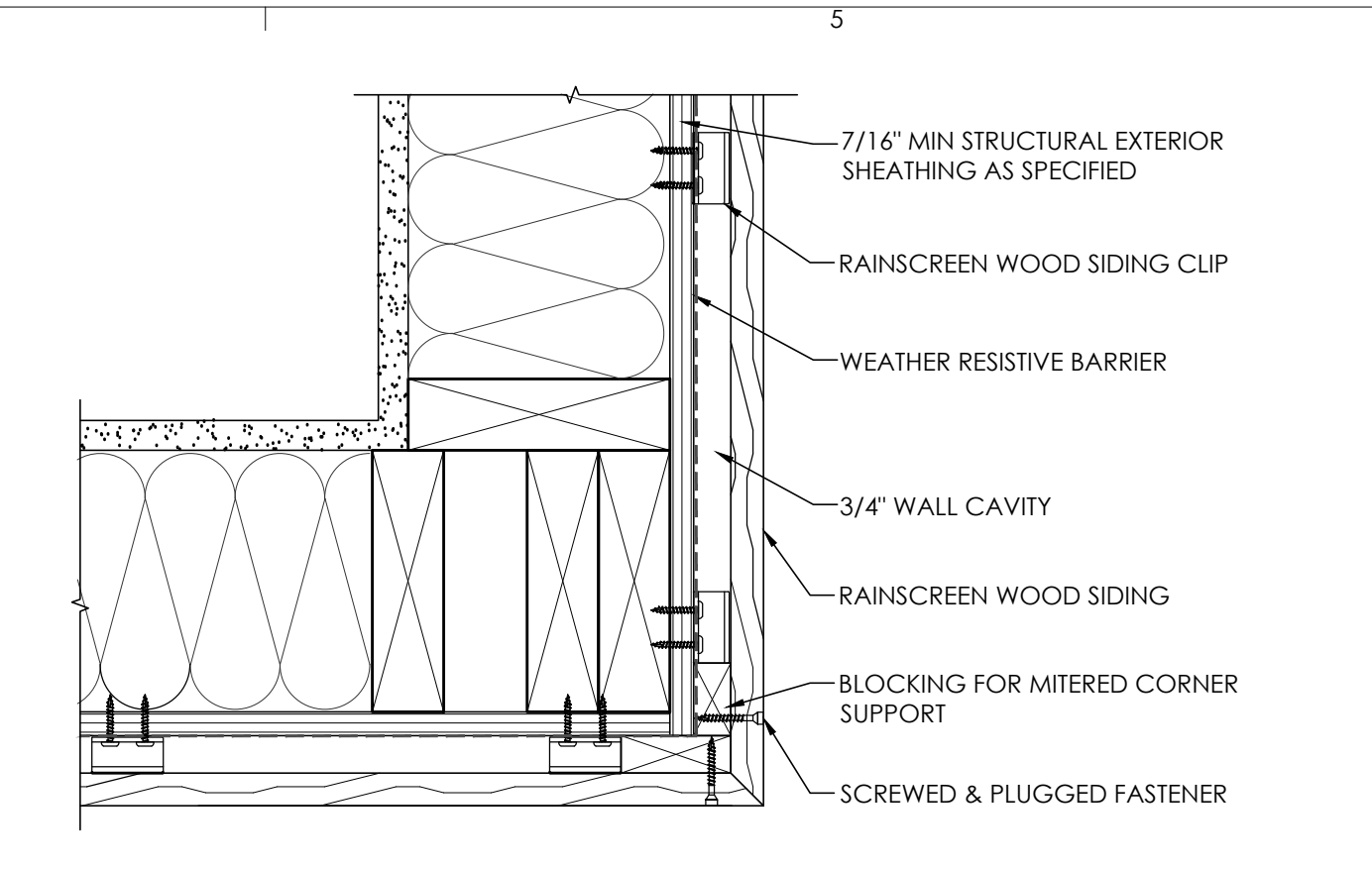
**D1** PLAN DETAIL AT INSIDE CORNER TRIM  
SCALE: 3" = 1'-0"



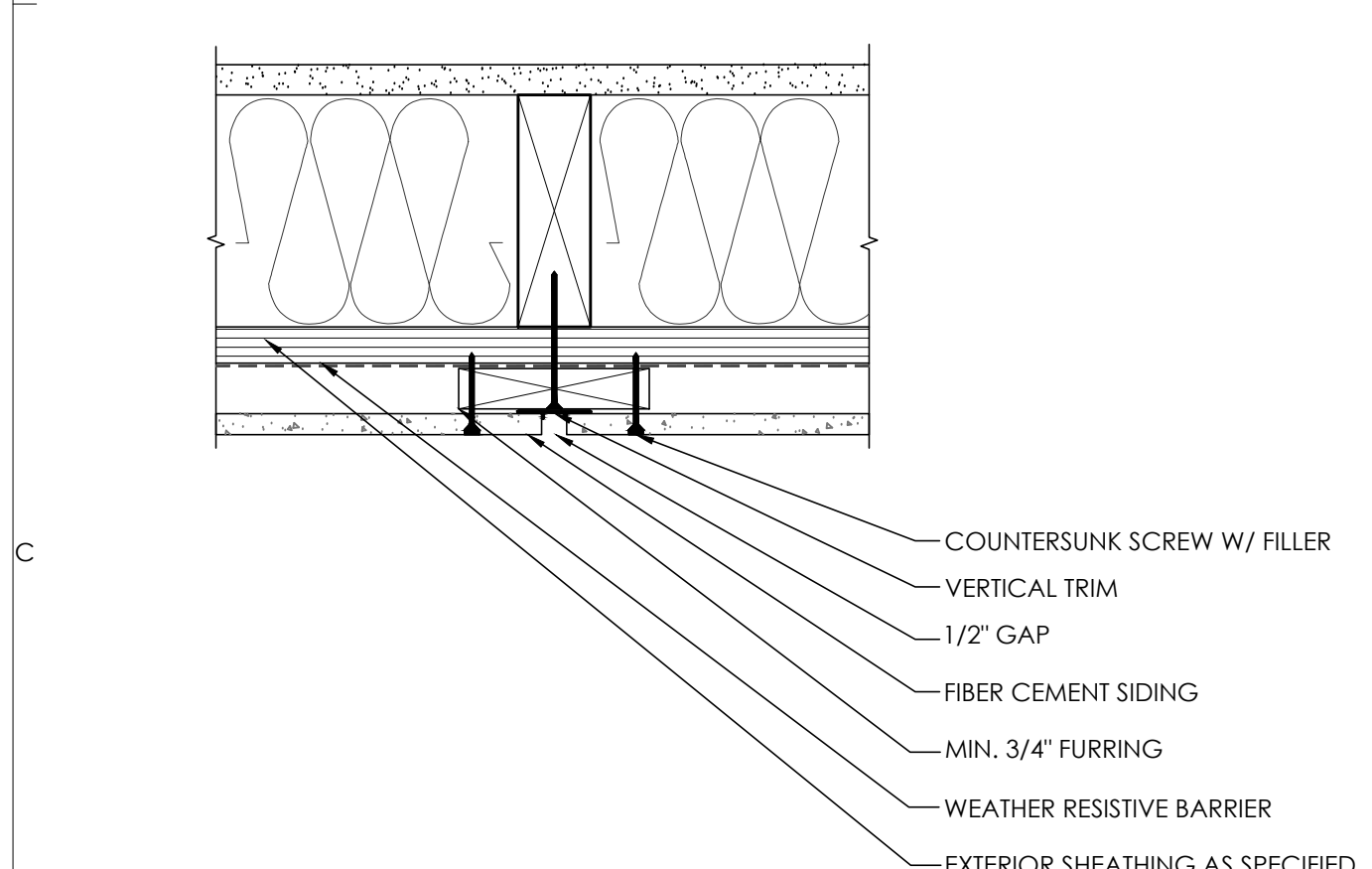
**D2** INSIDE CORNER - FIBER CEMENT TO WOOD  
SCALE: 3" = 1'-0"



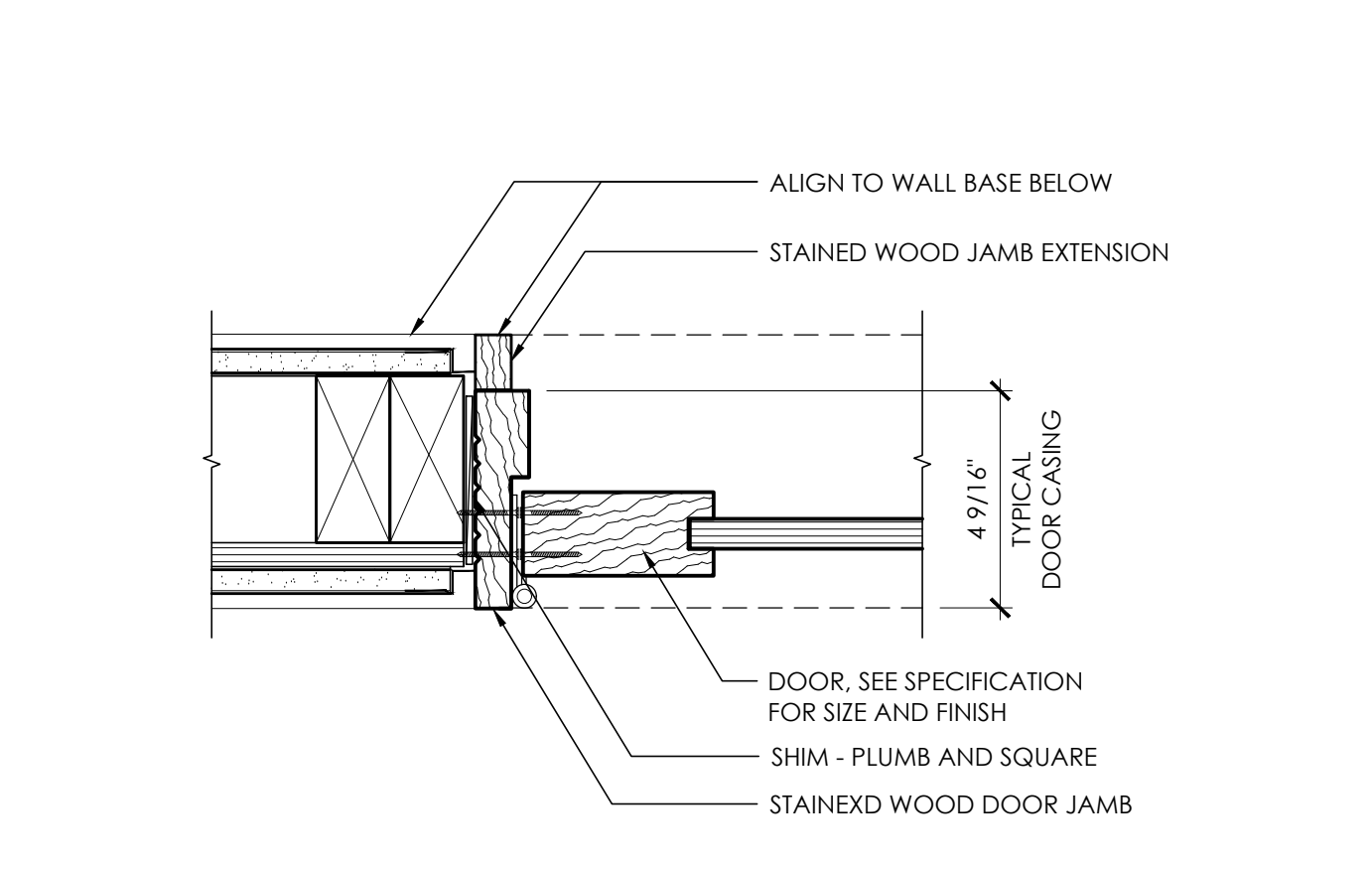
**D3** PLAN DETAIL AT OUTSIDE CORNER TRIM  
SCALE: 3" = 1'-0"



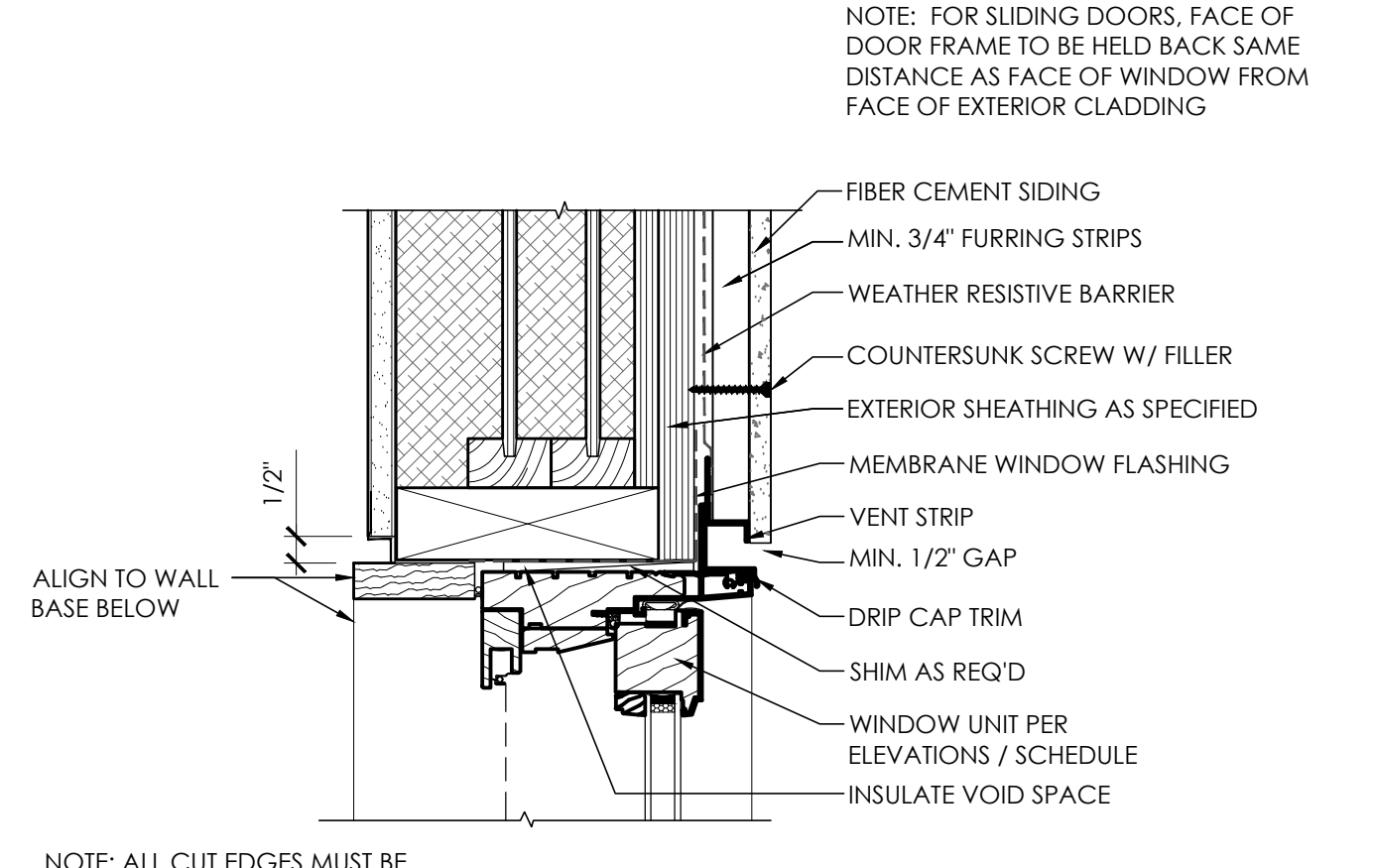
**D5** OUTSIDE CORNER AT WOOD SIDING  
SCALE: 3" = 1'-0"



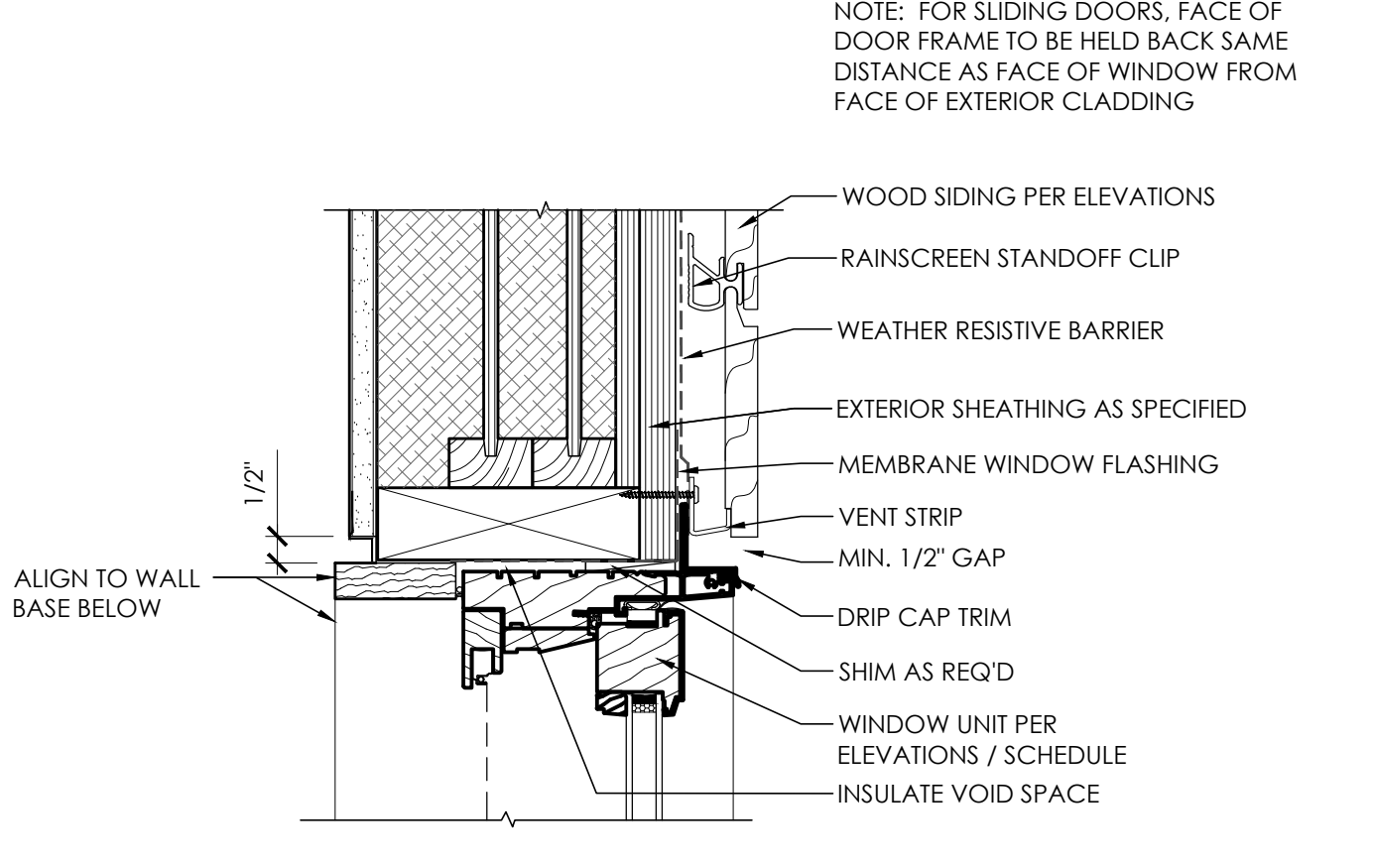
**C1** PANEL SECTION W/ VERTICAL TRIM  
SCALE: 3" = 1'-0"



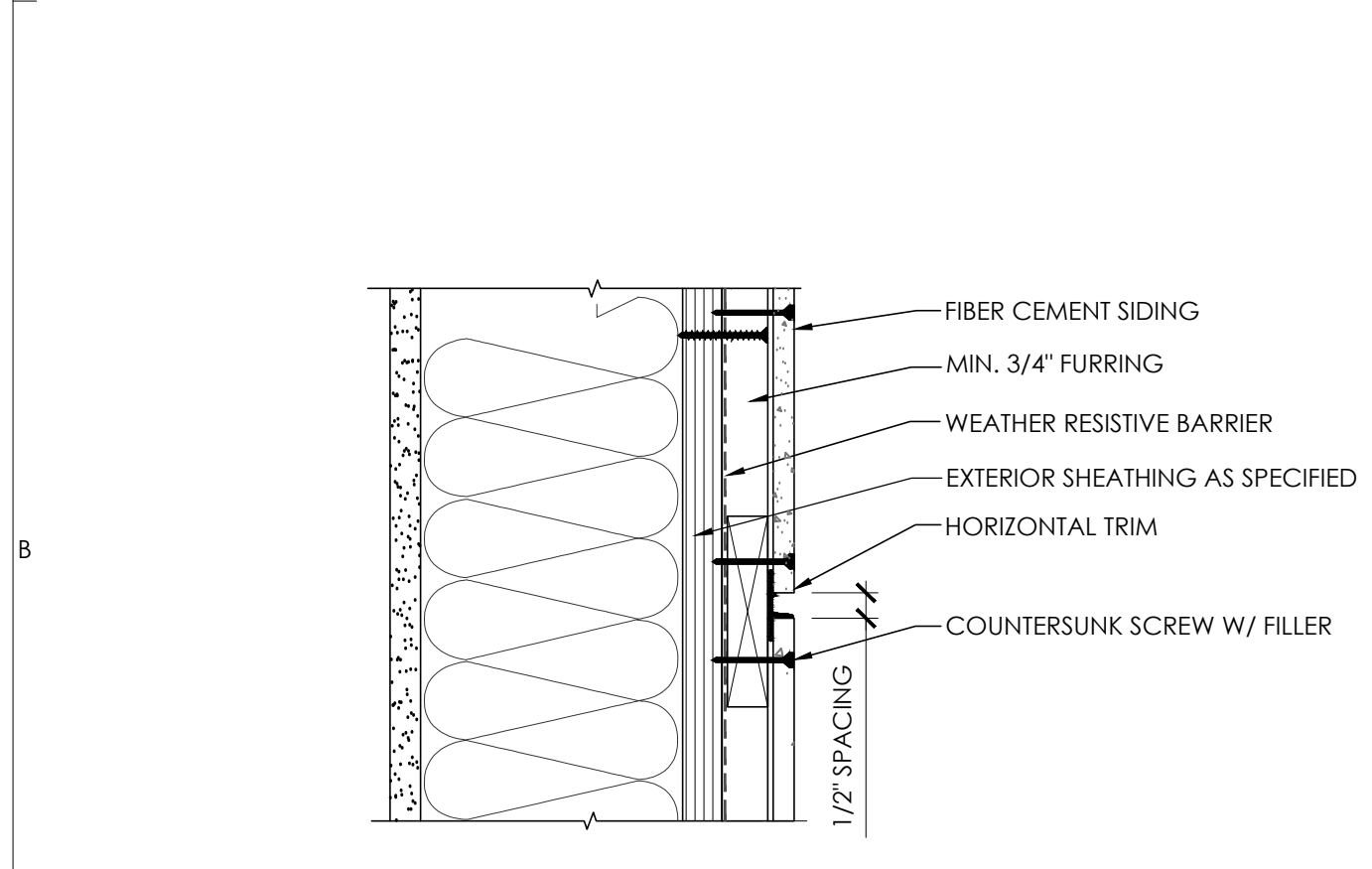
**C2** INTERIOR DOOR JAMB  
SCALE: 3" = 1'-0"



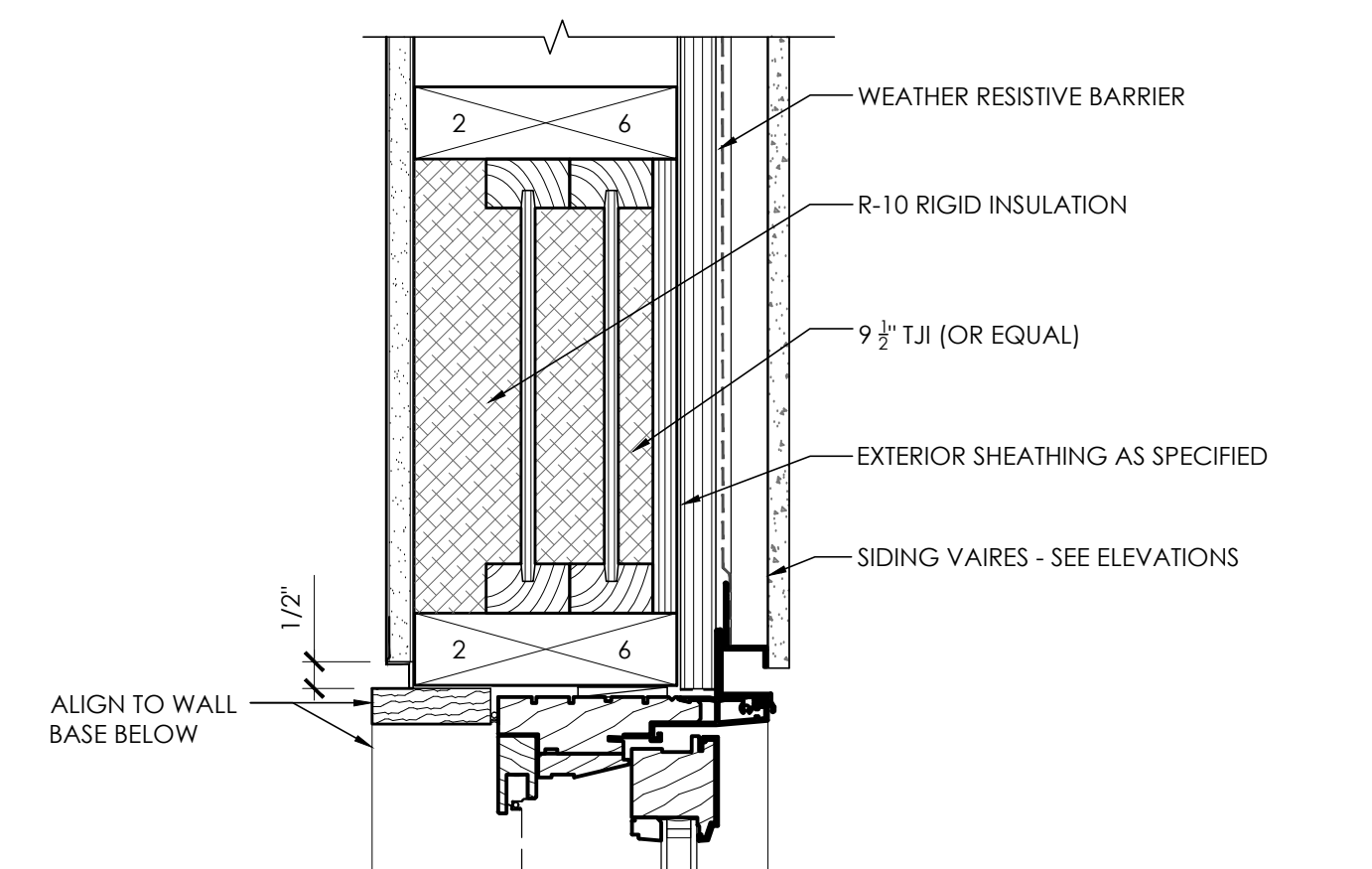
**C3** WINDOW HEAD AT SIDING - DOOR HEAD SIM.  
SCALE: 3" = 1'-0"



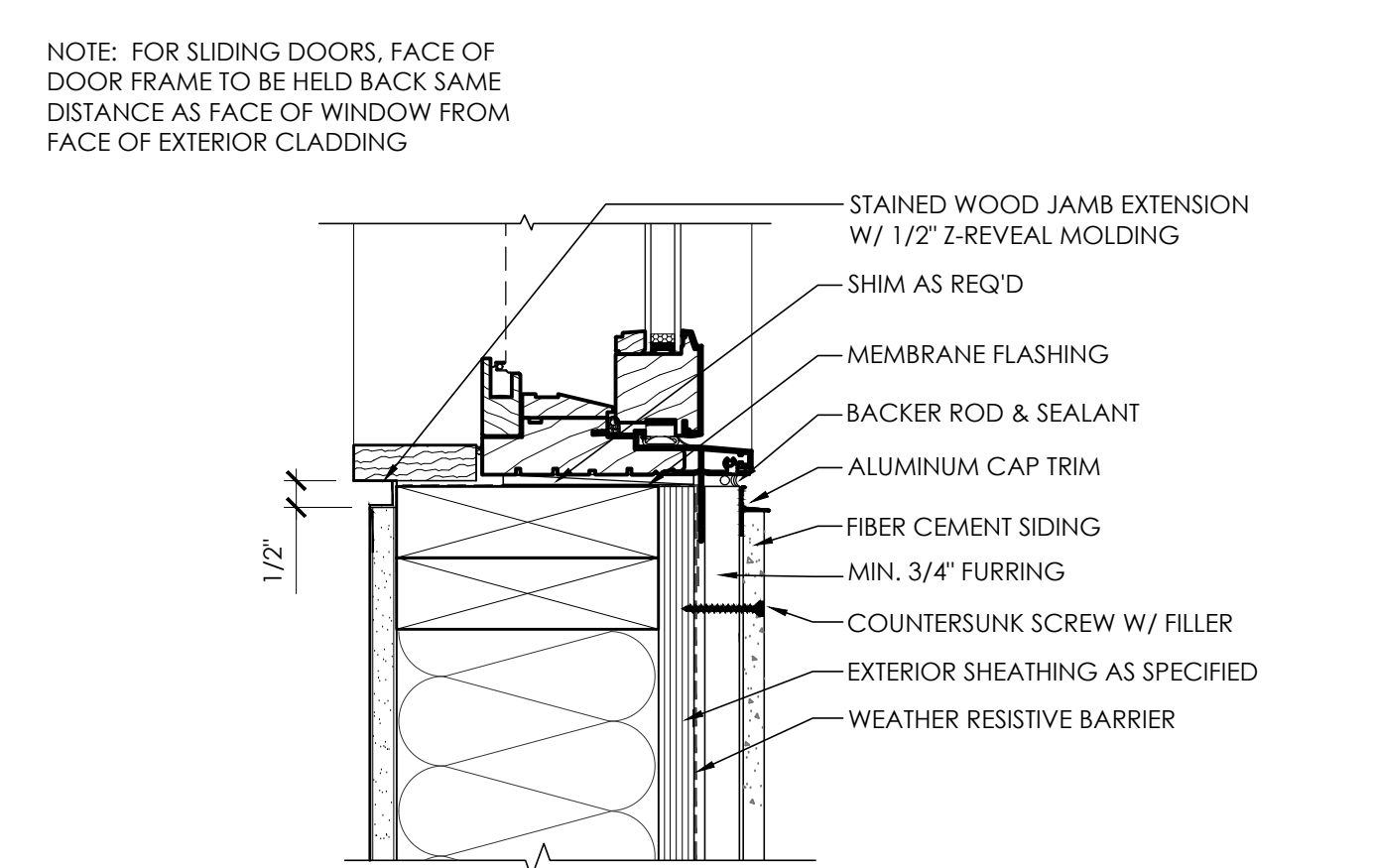
**C5** WINDOW HEAD AT WOOD SIDING - DOOR HEAD SIM  
SCALE: 3" = 1'-0"



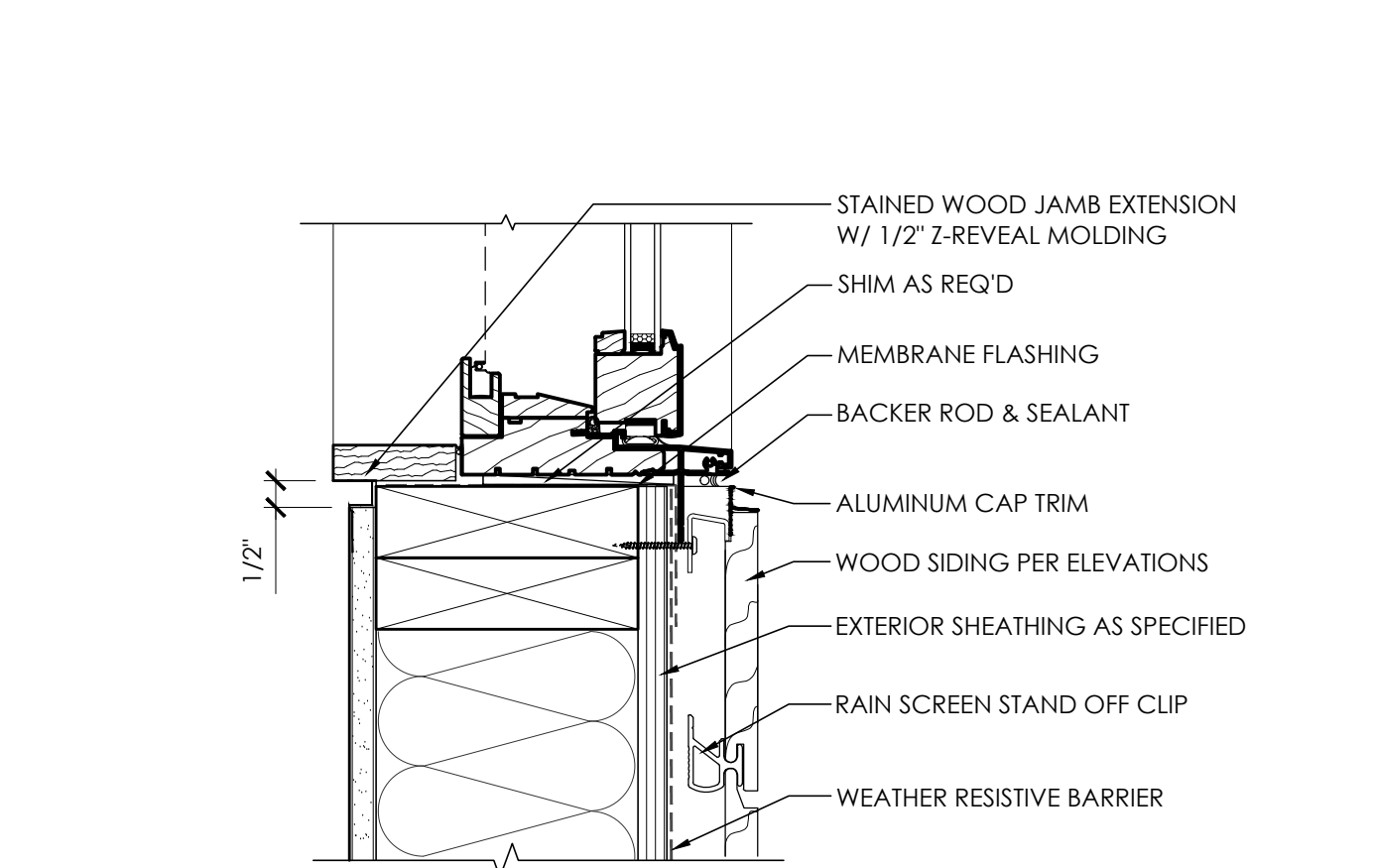
**B1** PANEL SECTION W/ HORIZONTAL TRIM  
SCALE: 3" = 1'-0"



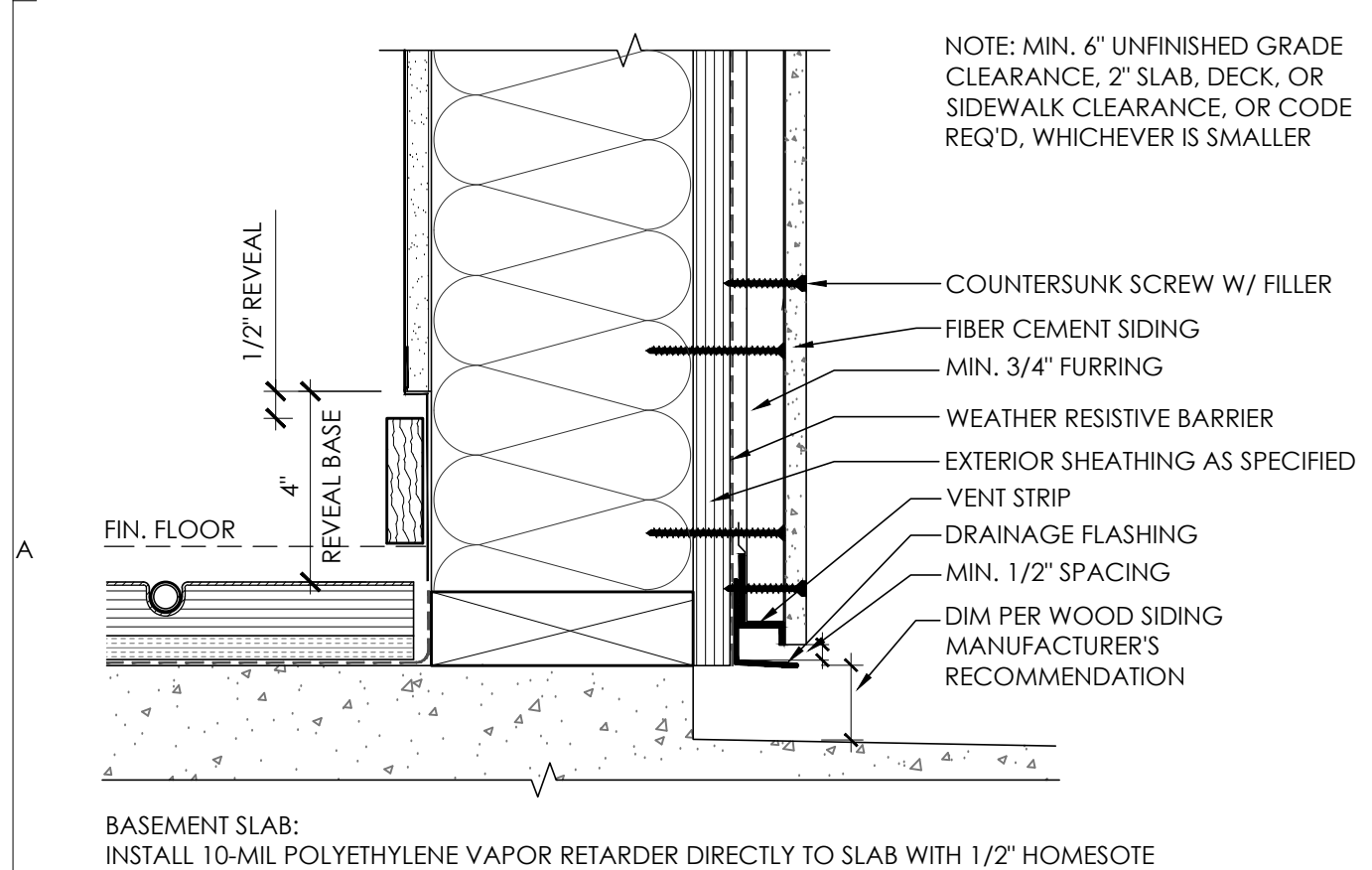
**B2** TYPICAL WINDOW/DOOR HEADER  
SCALE: 3" = 1'-0" CONTRACTOR OPTION



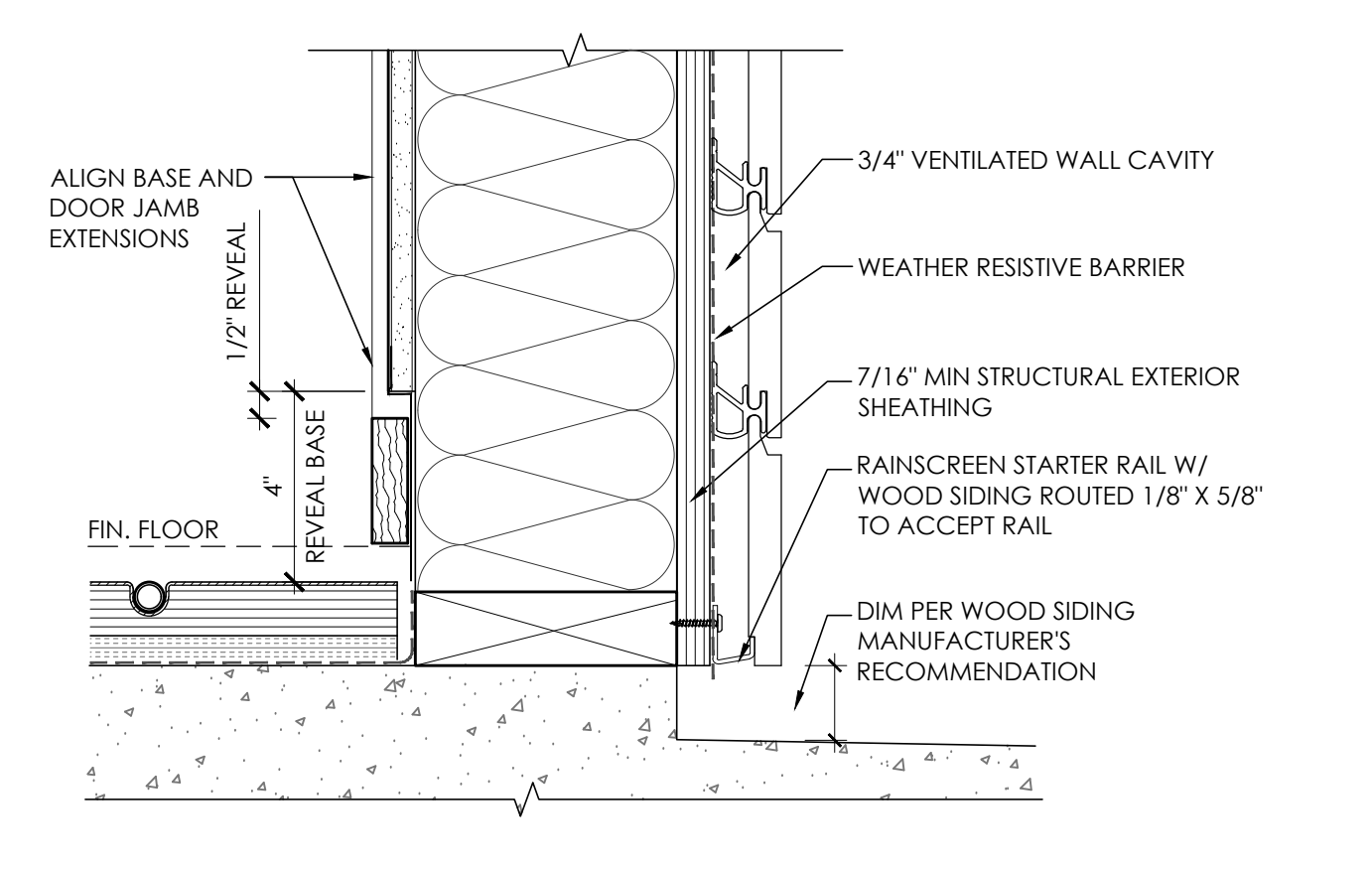
**B3** WINDOW SILL AT SIDING  
SCALE: 3" = 1'-0"



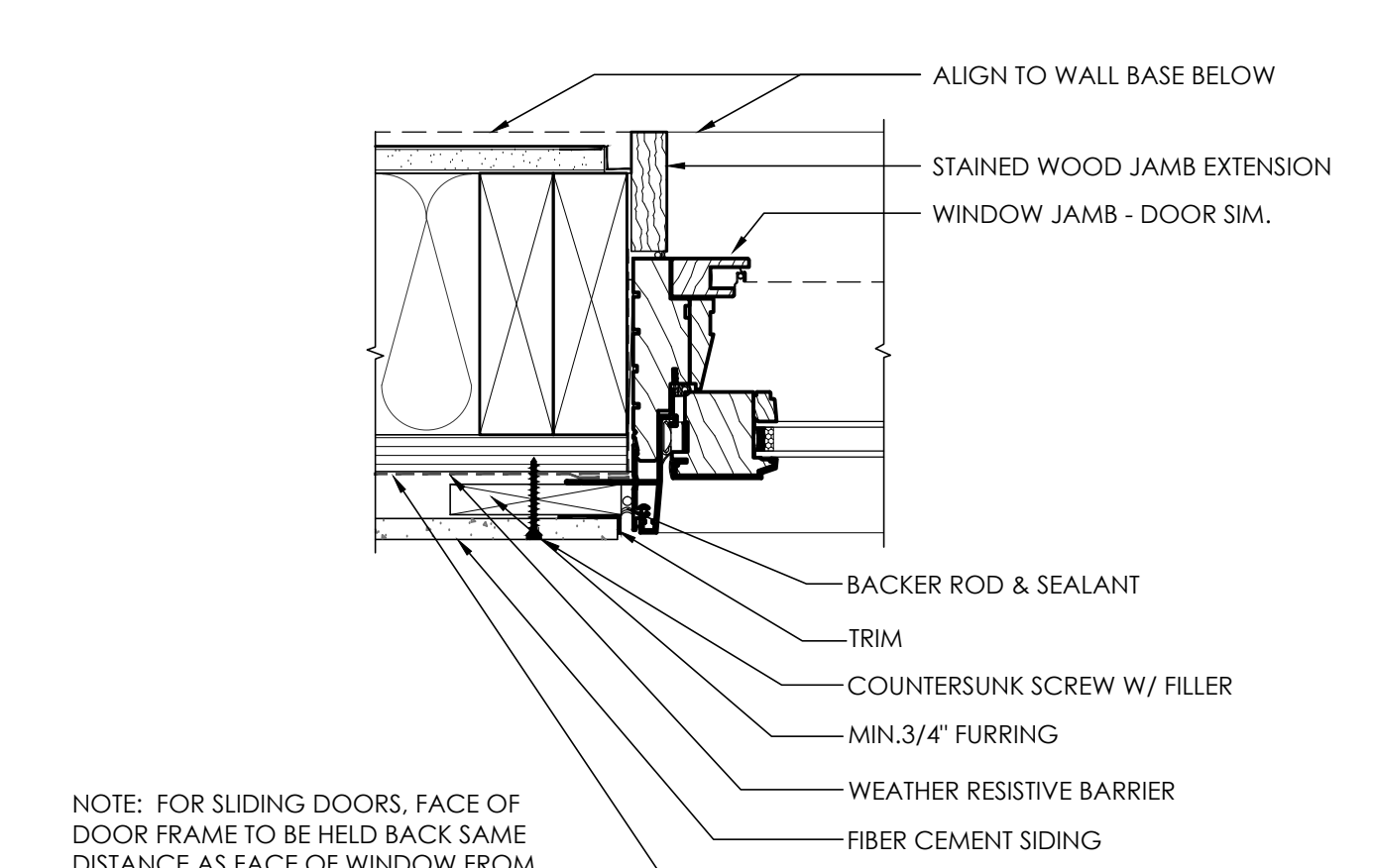
**B5** WINDOW SILL AT WOOD SIDING  
SCALE: 3" = 1'-0"



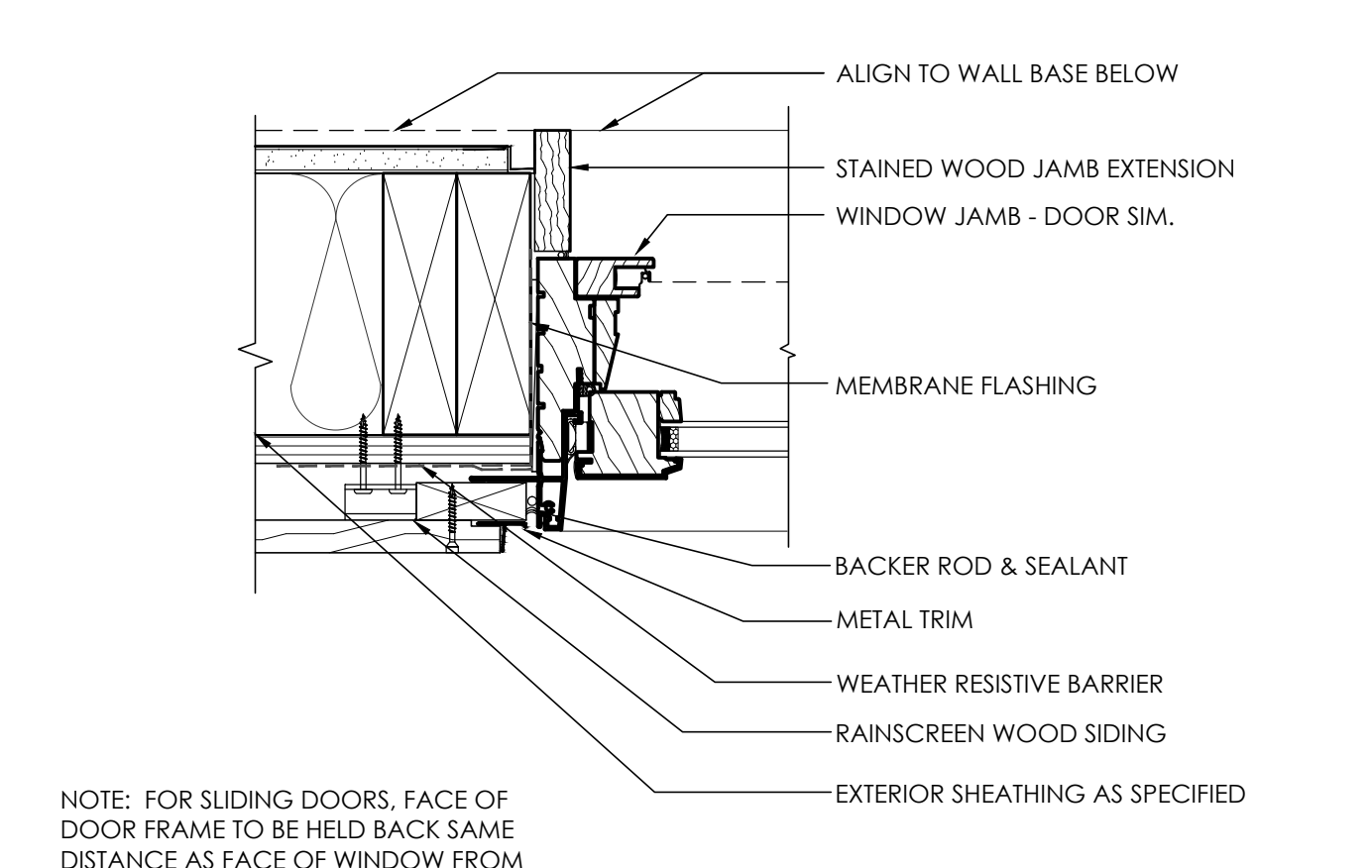
**A1** FOUNDATION DETAIL  
SCALE: 3" = 1'-0"



**A2** FOUNDATION DETAIL  
SCALE: 3" = 1'-0"



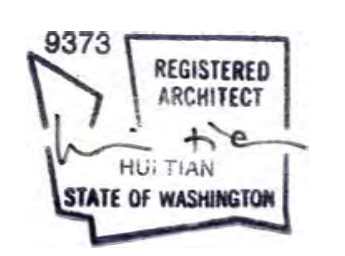
**A3** WINDOW JAMB AT SIDING - DOOR JAMB SIM.  
SCALE: 3" = 1'-0"



**A5** WINDOW JAMB AT WOOD SIDING - DOOR JAMB SIM  
SCALE: 3" = 1'-0"

CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
**Barcelo** homes  
PO BOX 1733 AUBURN, WA 98071  
Phone: (206) 724-1072

# EAST MERCER RESIDENCE

4634 EAST MERCER WAY  
MERCER ISLAND, WA 98040

**SHEET ISSUE:**

6/24/2015	PERMIT SUBMITTAL
8/29/2016	PERMIT APPROVED
6/05/2017	REVISION TO PERMIT

MARK DATE DESCRIPTION


MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

EXTERIOR DETAILS - CLADDING

PROJECT NO.: 20140904  
DATE ISSUED: 6/05/2017

SHEET NUMBER: **A8.02**

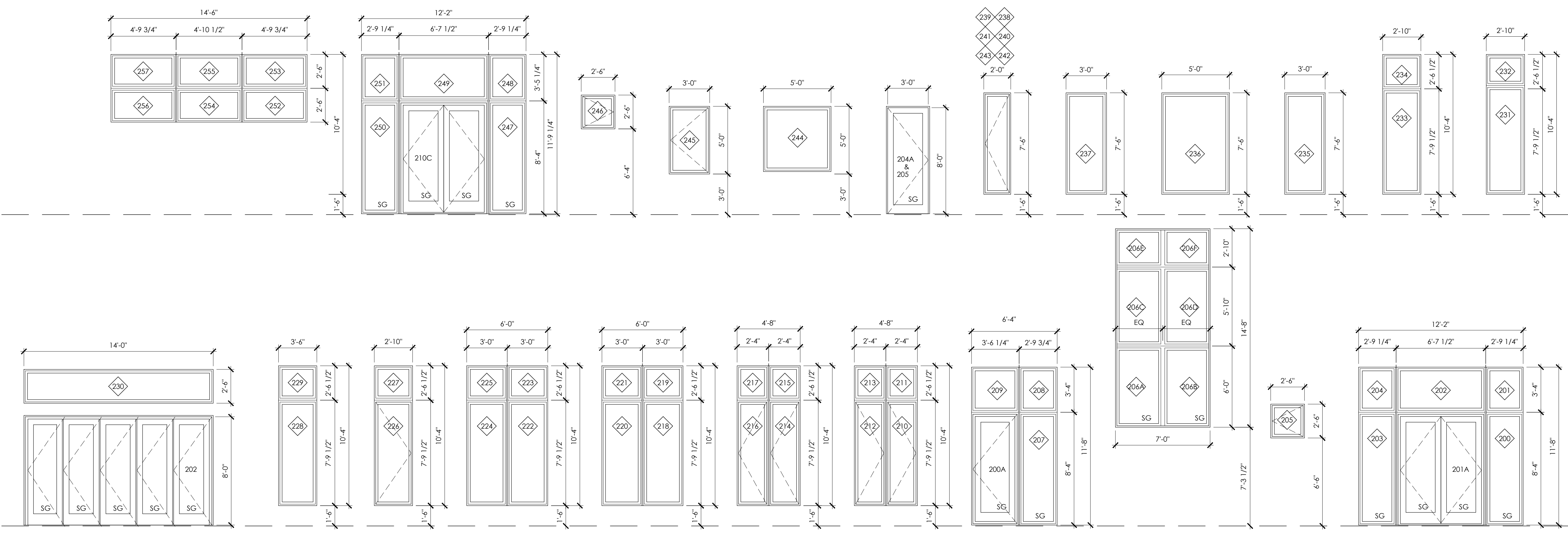






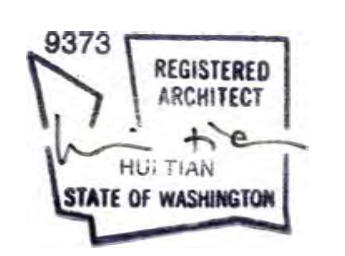
OPENING SCHEDULE - LEVEL 2 - EXTERIOR WINDOWS										
MARKER	DIMENSION		HEAD HEIGHT ABOVE SUBFLOOR	TYPE	FRAME		DETAILS			REMARKS
	SEE ELEVATIONS	SEE ELEVATIONS			TYPE	FINISH	HEAD	JAMB	SILL	
200	SEE ELEVATIONS	SEE ELEVATIONS	SEE ELEVATIONS	PICTURE	CLAD WOOD	BRONZE	SEE SHT A8.02	SEE SHEET A8.02	SEE SHEET A8.02	SAFETY GLASS NOTED ON ELEVATIONS - TYP.
201				PICTURE						
202				PICTURE/TRANSOM						
203				PICTURE						
204				PICTURE						
205				CASEMENT						
206				PICTURE						
207				PICTURE						
208				PICTURE						
209				PICTURE						
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220				PICTURE						
221				PICTURE						
222				PICTURE						
223				PICTURE						
224				PICTURE						
225				PICTURE						
226				CASEMENT						
227				PICTURE						
228				PICTURE						
229				PICTURE						
230	✓	✓	✓	PICTURE	✓	✓	✓	✓	✓	

OPENING SCHEDULE - LEVEL 2 - EXTERIOR WINDOWS										
MARKER	DIMENSION		HEAD HEIGHT ABOVE SUBFLOOR	TYPE	FRAME		DETAILS			REMARKS
	SEE ELEVATIONS	SEE ELEVATIONS			TYPE	FINISH	HEAD	JAMB	SILL	
231	SEE ELEVATIONS	SEE ELEVATIONS	SEE ELEVATIONS	PICTURE	CLAD WOOD	BRONZE	SEE SHT A8.02	SEE SHT A8.02	SEE SHT A8.02	SAFETY GLAZING NOTED ON ELEVATIONS - TYP.
232				PICTURE						
233				PICTURE						
234				PICTURE						
235				PICTURE						
236				PICTURE						
237				PICTURE						
238				CASEMENT						
239				CASEMENT						
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249				TRANSOM						
250				PICTURE						
251				PICTURE						
252				PICTURE						
253				PICTURE						
254				PICTURE						
255				PICTURE						
256				PICTURE						
257				PICTURE						
.	✓	✓	✓		✓	✓	✓	✓	✓	



CONSULTANT: \_\_\_\_\_

PROFESSIONAL SEAL: \_\_\_\_\_



PROJECT: \_\_\_\_\_

a project for:  
  
 PO BOX 1733 AUBURN, WA 98071  
 Phone: (206) 724-1072

## EAST MERCER RESIDENCE

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MUNICIPALITY REVIEW: \_\_\_\_\_

PROJECT # MERCER ISLAND 15 - 015

SHEET TITLE: \_\_\_\_\_

WINDOW SCHEDULE

PROJECT NO.: 20140904

DATE ISSUED: 6/05/2017

SHEET NUMBER: \_\_\_\_\_

A9.02

A1 EXTERIOR DOOR AND WINDOW ELEVATIONS - LEVEL 2  
 SCALE: 1/4" = 1'-0"











**GENERAL STRUCTURAL NOTES**

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2012 EDITION) AND MODIFICATIONS TO THE INTERNATIONAL BUILDING CODE, BY THE LOCAL JURISDICTION.
- DESIGN LOAD CRITERIA
  - DEAD LOADS
 

ROOF	25 PSF
FLOORS	N/A
DECKS	N/A
EXTERIOR WALLS	10 PSF
INTERIOR WALLS	8 PSF
  - LIVE LOADS
 

ROOF	20 PSF
FLOOR / LIVING SPACE	N/A
DECKS / BALCONIES	N/A
  - SNOWLOADS
 

GROUND LOAD	25 PSF
ROOF SNOW LOAD	25 PSF
EXPOSURE FACTOR	C <sub>c</sub> = 0.9
IMPORTANCE FACTOR	I <sub>s</sub> = 1.0
THERMAL FACTOR	C <sub>t</sub> = 1.0
  - WIND
 

ULTIMATE DEIGN WIND SPEED (V <sub>ult</sub> )	110 MPH
ASD WIND SPEED (V <sub>asd</sub> )	85 MPH
WIND EXPOSURE	C
IMPORTANCE FACTOR I <sub>w</sub>	1.0
ADJUSTMENT FACTOR λ	1.0
WIND SPEED UP FACTOR	1.0
ROOF SLOPE	flat
  - SEISMIC
 

SEISMIC USE GROUP	I
IMPORTANCE FACTOR I <sub>e</sub>	1.0
SITE CLASS	D
SEISMIC DESIGN CATEGORY	D
RESPONSE FACTOR FOR LIGHT FRAME CONSTRUCTION	R = 6.5
RESPONSE FACTOR FOR ORDINARY STEEL MOMENT FRAME	R = 3.5
MAPPED ACCELERATION (PER USGS)	S <sub>s</sub> = 1.276
BASE SHEAR	S <sub>i</sub> = 0.434
SEISMIC RESPONSE COEFFICIENT	V = 29,350
	C <sub>s</sub> = 0.131

PER GEOTECHNICAL REPORT FILE NO. 14-128, 02/02/2015, PanGEO

ALL SOIL PRESURE	2,500 PSF
FRICTION COEFFICIENT	0.4
EQUIVALENT FLUID PRESSURE	35 PSF
AT REST	45 PSF
AT REST WITH BACKSLOPE	55 PSF
PASSIVE	300 PSF
REDUCED PASSIVE	150 pcf
SEISMIC HORIZONTAL PRESSURE (PASSIVE)	8H 375 pcf

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 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 OF THE OWNER, CONTRACTORS, OR OTHER SITE ENTITIES OR PERSONS AT THE PROJECT SITE.
- 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 STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

**FOUNDATIONS**

- ALL FOOTINGS AND FOUNDATIONS SHALL BE SUPPORTED BY COMPETENT NATIVE SOIL 18" BELOW FINISHED GRADE FOR EXTERIOR SIDE AND 12" FOR INTERIOR FOOTINGS, FREE OF ORGANIC MATERIALS. OVEREXCAVATION MIGHT BE NEEDED TO REACH THE COMPETENT SOIL.
- FOOTINGS AND FOUNDATION EXCAVATION SHALL BE FREE OF LOOSE SOILS, SLOUGHS, DEBRIS, AND FREE OF WATER AT ALL TIMES.
- FOUNDATION WALL BACKFILL SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF WALL PROVIDING 4" PERFORATED PIPE (AS REQUIRED) FOR SUBSURFACE DRAINAGE.
- U.N.O. IN AN APPROVED GEOTECHNICAL REPORT, THE FOLLOWING METHOD FOR BACKFILL PLACEMENT AND COMPACTION IS TO BE USED:
 

EXCEPT FOR BACKFILL AGAINST BELOW-GRADE WALLS OR RETAINING WALLS, ALL OTHER STRUCTURAL FILL AND STRUCTURAL BACKFILL MATERIALS SHALL BE PLACED IN RELATIVELY HORIZONTAL LOOSE LIFTS NOT EXCEEDING 10 INCHES IN THICKNESS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR (ASTM D1557) MAXIMUM DENSITY AT MOISTURE CONTENTS WITHIN TWO (2) PERCENT OF OPTIMUM. THE SPECIFIED COMPACTION DENSITY AND MOISTURE CONTENT OF EACH LIFT MUST BE VERIFIED BY INSPECTION, PRIOR TO PLACEMENT OF SUBSEQUENT LIFTS. BACKFILL AGAINST BELOW-GRADE WALLS AND RETAINING WALLS SHOULD BE COMPACTED AS DESCRIBED ABOVE TO ONLY 90 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- FOOTING SIZE SHALL BE AS INDICATED ON DRAWINGS OR MIN. AS PER IBC SECTION 1806.
- WHERE THE SURFACE IS SLOPED MORE THAN ONE (1) FOOT IN TEN (10) FEET THE FOUNDATION SHALL BE LEVEL OR STEPPED SO THAT BOTH, TOP AND BOTTOM, OF SUCH FOUNDATION ARE LEVEL PER IBC.
- WHERE STRUCTURAL COLUMNS AND POSTS ARE EXPOSED TO WATER SPLASH ABOVE, A CONCRETE SURFACE OR TO THE WEATHER, PROVIDE A MIN. OF 1" ABOVE CONCRETE SURFACE, OR 8" ABOVE THE EXPOSED EARTH PER IBC.

**CONCRETE**

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906, AND ACI 301. STRENGTH AT AGE 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS, U.N.O.:
 

MEMBER TYPE (IN)	PSI	MAX AGGR	MAX W/C RATIO
SLABS ON GRADE	2,500	1	0.45
FOUNDATIONS	2,500	1	0.45
WALLS	4,500	1	0.50
COLUMNS	4,500	¾	0.40
ELEVATED SLABS & BEAMS	4,500	¾	0.40
- CONCRETE MIX FOR FOUNDATION AND SLAB: CEMENT: 5.5 SACK TYPE I NORMAL PORTLAND CEMENT 1,210 LBS OF WET SAND 1,925 LBS GRAVEL
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, F<sub>y</sub> = 60,000 PSI, UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM-185.
- DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-92 AND ACI 318-08. LAP ALL REINFORCEMENTS IN ACCORDANCE WITH "THE REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE". PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. 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 AND 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 (NO. 6 BARS OR LARGER)	2"
(NO 5 BARS OR SMALLER)	1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS	1-1/2"

 SLABS AND WALLS: GREATER OF BAR DIAMETER + 1/8 OR 3/4"

- 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.
- 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 (2,500 PSI MIN).

**ANCHORAGE**

- POXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BARS) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED WITH SIMPSON EPOXY "SET-XP" OR EQUAL. SPECIAL INSPECTION IS REQUIRED. RODS SHALL BE ASTM A-36 UNLESS NOTED OTHERWISE.
- DRIVEN PINS AND OTHER POWDER ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE. INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE

**STEEL**

- STRUCTURAL STEEL FABRICATION, ERECTION AND WELDING INSPECTION SHALL COMPLY WITH THE SPECIAL INSPECTION SCHEDULE. STRUCTURAL STEEL SHALL BE GRADE A-36 UNLESS NOTED OTHERWISE. ARCHITECTURALLY EXPOSED STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- ALL ANCHORS EMBEDDED IN MASONRY OF CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD.
- ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND A.W.S STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY A.W.S.) SHALL BE USED ALL 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, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION
- WELDING INSPECTION SHALL BE IN COMPLIANCE WITH AWS D1.1.

**WOOD**

- ALL SOLID LUMBER TO BE GRADED BY WCLIB OR WWSA. ALL LUMBER SHALL BE HEM-FIR #2 (HF #2) OR BETTER. ALL SOLID LUMBER 5" X 4" OR LARGER SHALL BE DOUGLAS FIR #2 (DF #2) U.N.O. ALL GLUE-LAMINATED LUMBER SHALL BE GLULAM 24F-1.8E WS.
 

DESIGN VALUES FOR GLULAM BEAMS	
FLEXURAL STRESS TENSION ZONE	2,400 PSI
FLEXURAL STRESS COMPRESSION ZONE	1,850 PSI
COMPRESSION PERPENDICULAR TO GRAIN	650 PSI
SHEAR	266 PSI
APPARENT E	1.8x16 lb-in <sup>2</sup>
TRUE E	1.9x10 lb-in <sup>2</sup>
- LUMBER IN CONTACT WITH CONCRETE AND ALL EXTERIOR WOOD SHALL BE PRESSURE TREATED, ALL CONNECTORS GALVANIZED.
- INSTALL SOLID BLOCKING BTWN JOISTS AT ALL BEARING POINTS.
- THROUGH BOLTS AND LAG BOLTS SHALL BE ASTM A307. PROVIDE MALLEABLE IRON WASHER AT ALL BOLT AND LAG BOLT LOATIONS. PROVIDE CUT WASHER FOR ALL BOLTS PROTRUDING BEARING WOOD.
- ALL METAL (CONNECTORS, NAILS, BOLTS, ETC.) IN CONTACT WITH P.T. WOOD SHALL BE HOT DIPPED GALVANIZED.
- U.N.O. CONNECTORS AND FASTENERS SHALL COMPLY WITH IBC TABLE 2304.9.1

**OPEN WEB TRUSSES**

- PER IBC 2012 1704.2.2, PREFABRICATED OPEN-WEB JOISTS SHALL BE FABRICATED BY A REGISTERED AND APPROVED FABRICATOR. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

**NOTE:**

NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD UNLESS PRIOR TO MAKING CHANGES, WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER OF RECORD. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTOR OR SUB-CONTRACTORS INVOLVED AND SHALL BE THEIR RESPONSIBILITY TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE ENGINEER.

COMPARISON OF COMMON, BOX AND SINKER NAIL DIMENSIONS (inches) OF THE SAME PENNYWEIGHT.						
TYPE	FEATURE	PENNYWEIGHT				
		6d	8d	10d	12d	16d
COMMON	Length	2	2-1/2	3	3-1/4	3-1/2
	Diameter	0.113	0.131	0.148	0.148	0.162
	Head	0.226	0.281	0.312	0.312	0.344
BOX	Length	2	2-1/2	3	3-1/4	3-1/2
	Diameter	0.099	0.113	0.128	0.128	0.135
	Head	0.266	0.297	0.312	0.312	0.344
SINKER	Length	1-7/8	2-3/8	2-7/8	3-1/8	3-1/4
	Diameter	0.092	0.113	0.120	0.135	0.148
	Head	0.231	0.266	0.281	0.312	0.344

PROTECTION FOR REINFORCEMENT OF CAST IN-PLACE CONCRETE	MIN. COVER
Concrete cast against and permanently exposed to earth	3"
Concrete exposed to earth or weather	
Wall panels: No. 6 through No. 18 bars No. 5 bars, W31 or D31 wire, and smaller	2" 1 1/2"
Concrete exposed to neither earth or weather Slabs, walls, and joists: No. 14 and no. 18 bars No. 11 and smaller bars	1 1/2" 3/4"
Beams and Columns: Primary reinforcement, ties, stirrups, and spirals	1 1/2"
Shells and folded-plate members: No. 6 bars and larger	3/4"
No. 5 bars, W31 or D31 or smaller	3/4"



REVISION 08/06/19

**tec instruct LLC**  
 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028  
 Telephone (206) 553 9076 - Fax (206) 529 4408  
**ENGINEERING**

BUILDER:	Barcelo Homes	<b>S1</b>
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15	
ENGINEER:	Roland Heimisch, P. E.	SCALE: as noted



**Statement of special inspections**

**General**

The owner shall comply an approved agency for the special inspections for the construction of this project

A quality assurance and inspection plan from an AISC approved fabricator is required to satisfy the inspection requirements.

The following systems and components shall be inspected

Type                      Standard

At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents

**Special inspections for structural steel**

Steel sections, steel grade, location of installation                      all elements                      AISC 360

**Special inspections for steel construction other than structural steel**

Inspection of welding                      periodic                      AWS D1.3

**Special inspections for concrete construction**

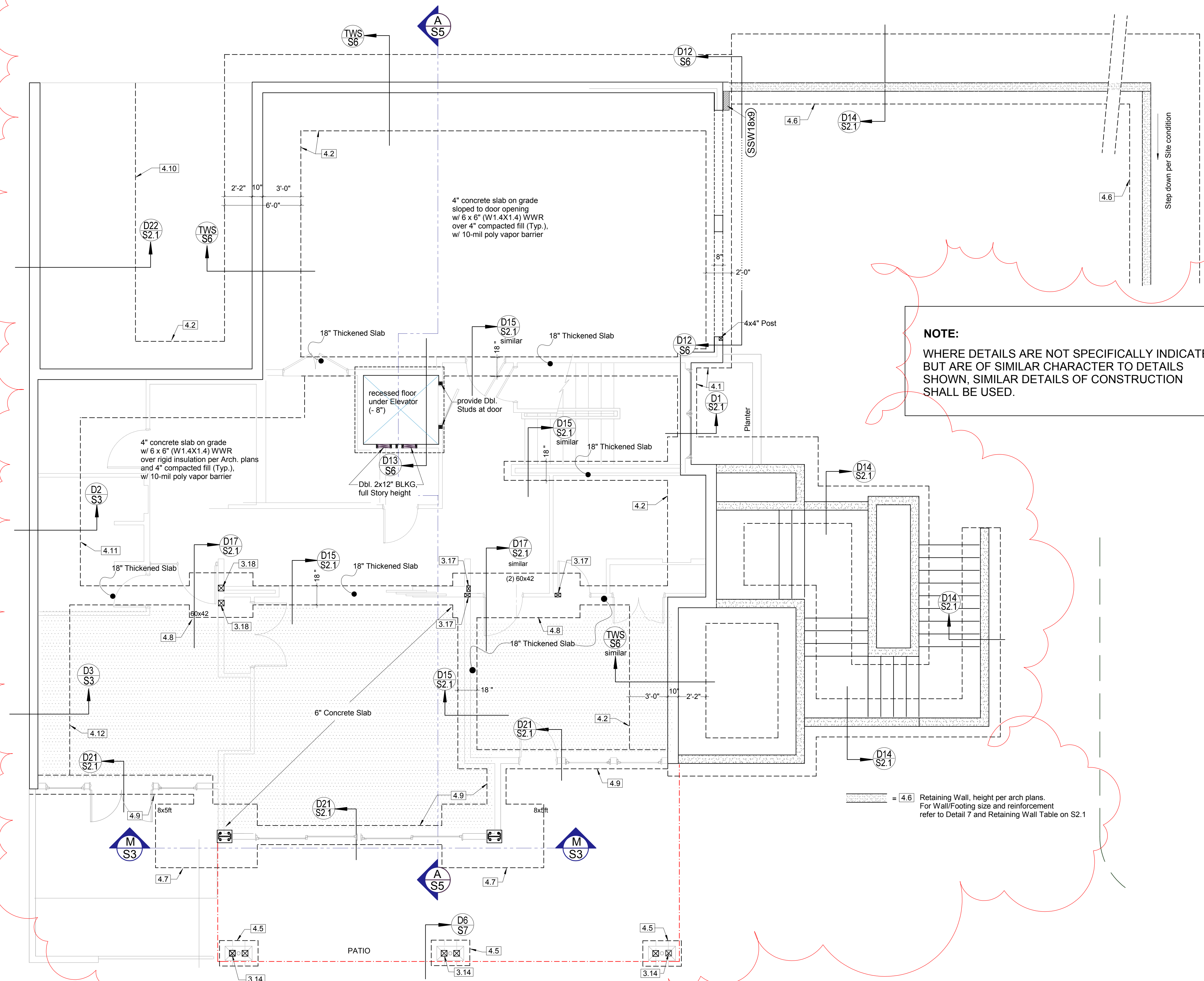
Inspection of reinforcing steel	periodic	ACI 318 3.5, 7.1-7.7
Inspection of anchors post-installed in hardened concrete members	periodic	ACI 318 3.8.6, 8.13, 21.2.8
Verifying use of required design mix	periodic	ACI 318 Ch 4,5.2-5.4
Inspect formwork for shape, locations, and dimensions	periodic	ACI 318 6.1.1



REVISION 05/29/16

<p><b>tec instruct LLC</b>  <small>6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028          Telephone (206) 553 9076 - Fax (206) 529 4408</small></p> <p><b>ENGINEERING</b></p>		
BUILDER:	Barcelo Homes	<b>S1.1</b>
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15      SCALE: as noted	
ENGINEER:	Roland Heimisch, P. E.	





KEY NO.	STRUCTURAL MEMBERS
<b>FOUNDATION</b>	
4.1	Cont. Footing, fc = 2,500 psi, 18x12"
4.2	Basement Wall 10" w/ Cont. Footing fc = 2,500 psi, 72x16"
4.3	Basement Wall 8" w/ Cont. Footing fc = 2,500 psi, 48x12"
4.4	Basement Wall 8" w/ Cont. Footing fc = 2,500 psi, 36x12"
4.5	Spread Footing, fc = 2,500 psi, 24x24x10"
4.6	Retaining Wall, fc = 2,500 psi, 8" wall thickness, Ftg size and reinforcement per Detail 14/Table S2.1
4.7	Spread Footing under Moment Frame fc = 2,500 psi, 8ftx5ftx2ft
4.8	Spread Footing, fc = 2,500 psi, 60x48x10"
4.9	Cont. Footing, fc = 2,500 psi, 18x18"
4.10	Retaining Wall, fc = 2,500 psi, 8" wall w/ Ftg 8'-4"x1'-4"
4.11	Retaining Wall, fc = 2,500 psi, 8" wall w/ Ftg 48x10"
4.12	Retaining Wall, fc = 2,500 psi, 8" wall w/ Ftg 38x12"



REVISION 06/18/17

<b>tec instruct LLC</b> 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408 ENGINEERING		
BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	<b>S2</b>
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	

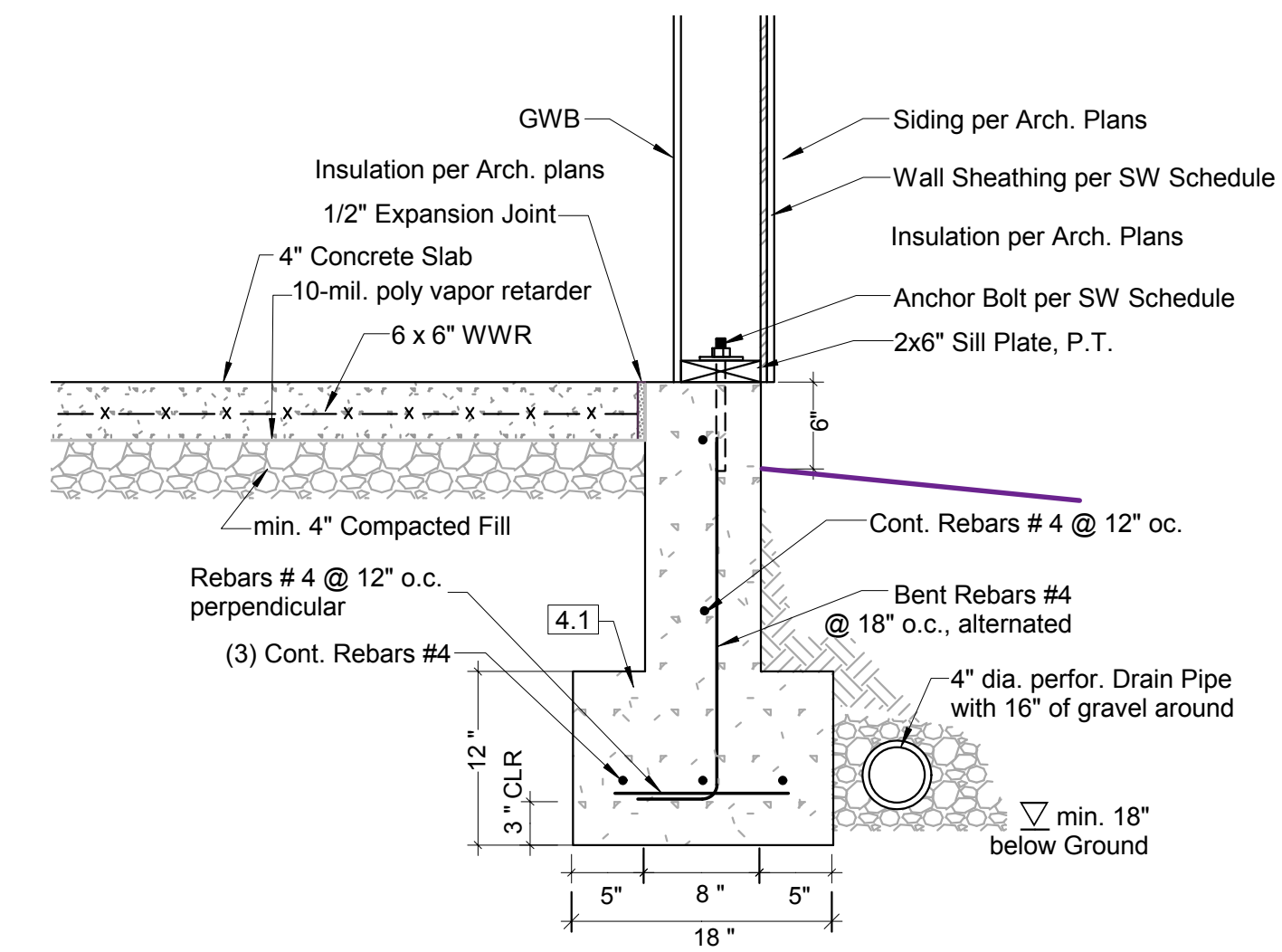


**RETAINING WALL SCHEDULE**

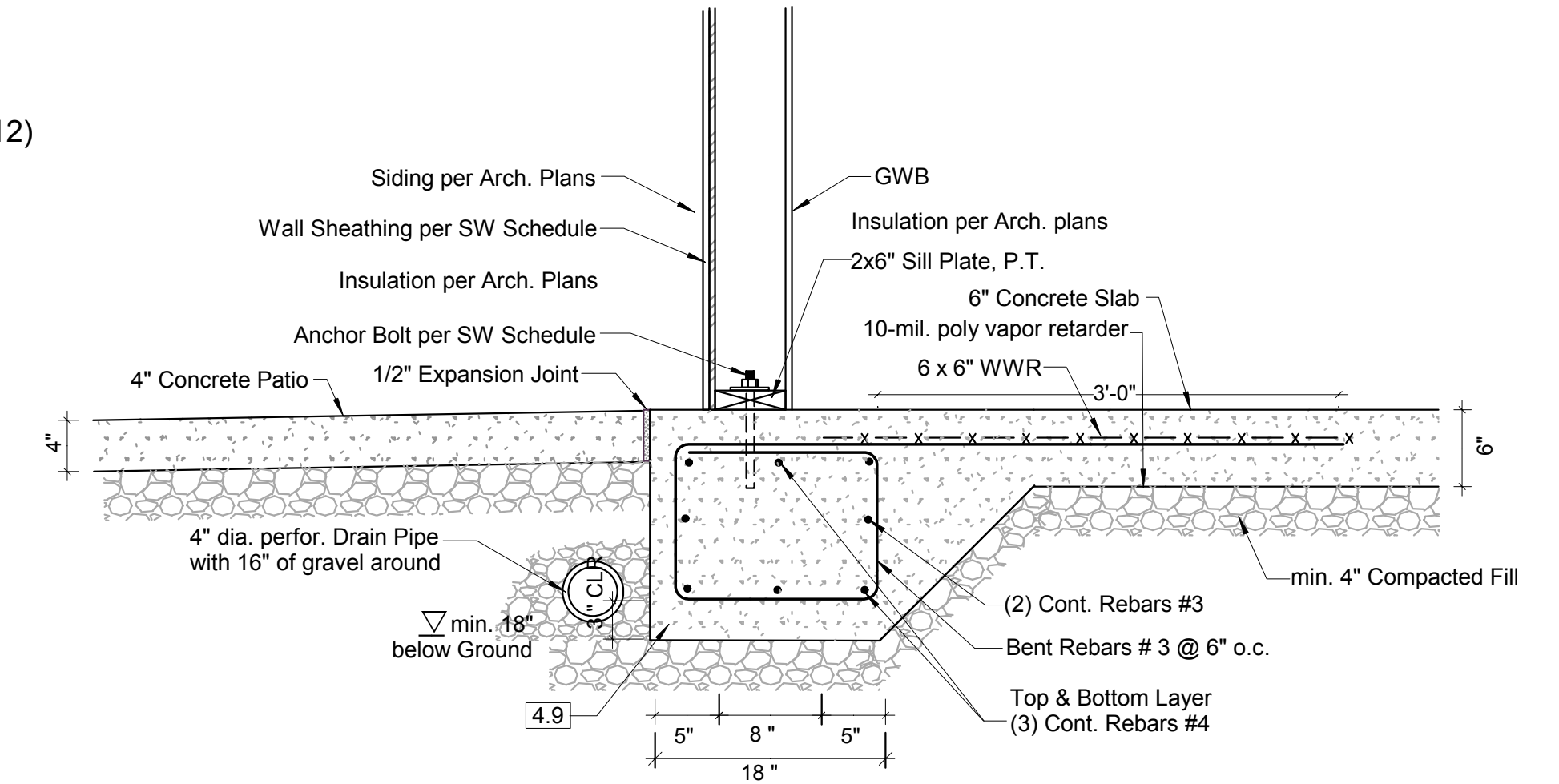
H (ft.)	B1	ts	B2	tf	Stem Reinforcing			Footing Reinforcing			
					horiz.	vert.	splice	Top Layer		Bottom Layer	
								cont.	perp.	cont.	perp.
3'-0"	1'-0"	8"	1'-0"	12"	#4 @ 12" o.c.	#4 @ 12" o.c.	2ft	-	-	(2) #4	#4 @ 12" o.c.
4'-0"	1'-0"	8"	1'-4"	12"	#4 @ 12" o.c.	#4 @ 12" o.c.	2ft	-	-	(3) #4	#4 @ 12" o.c.
5'-0"	1'-4"	8"	1'-6"	10"	#4 @ 12" o.c.	#4 @ 16" o.c.	3ft	-	-	(3) #4	#4 @ 16" o.c.
6'-0"	1'-4"	8"	2'-0"	10"	#4 @ 12" o.c.	#4 @ 12" o.c.	3ft	-	-	(4) #4	#4 @ 12" o.c.
8'-0"	1'-10"	8"	2'-9"	12"	#4 @ 12" o.c.	#5 @ 9" o.c.	3ft	(6) #4	#4 @ 9" o.c.	(6) #4	#4 @ 9" o.c.
10'-0"	2'-0"	10"	3'-10"	14"	#5 @ 12" o.c.	#5 @ 8" o.c.	4ft	(8) #4	#5 @ 8" o.c.	(8) #4	#4 @ 8" o.c.
12'-0"	2'-6"	10"	4'-2"	10"	#5 @ 12" o.c.	#6 @ 6" o.c.	4ft	(8) #4	#5 @ 6" o.c.	(8) #4	#4 @ 6" o.c.

**RETAINING WALL WITH SLOPED BACKFILL**

12'-0"	3'-0"	12"	5'-0"	16"	#5 @ 12" o.c.	#6 @ 6" o.c.	4ft	(8) #4	#5 @ 6" o.c.	(8) #4	#4 @ 6" o.c.
--------	-------	-----	-------	-----	---------------	--------------	-----	--------	--------------	--------	--------------

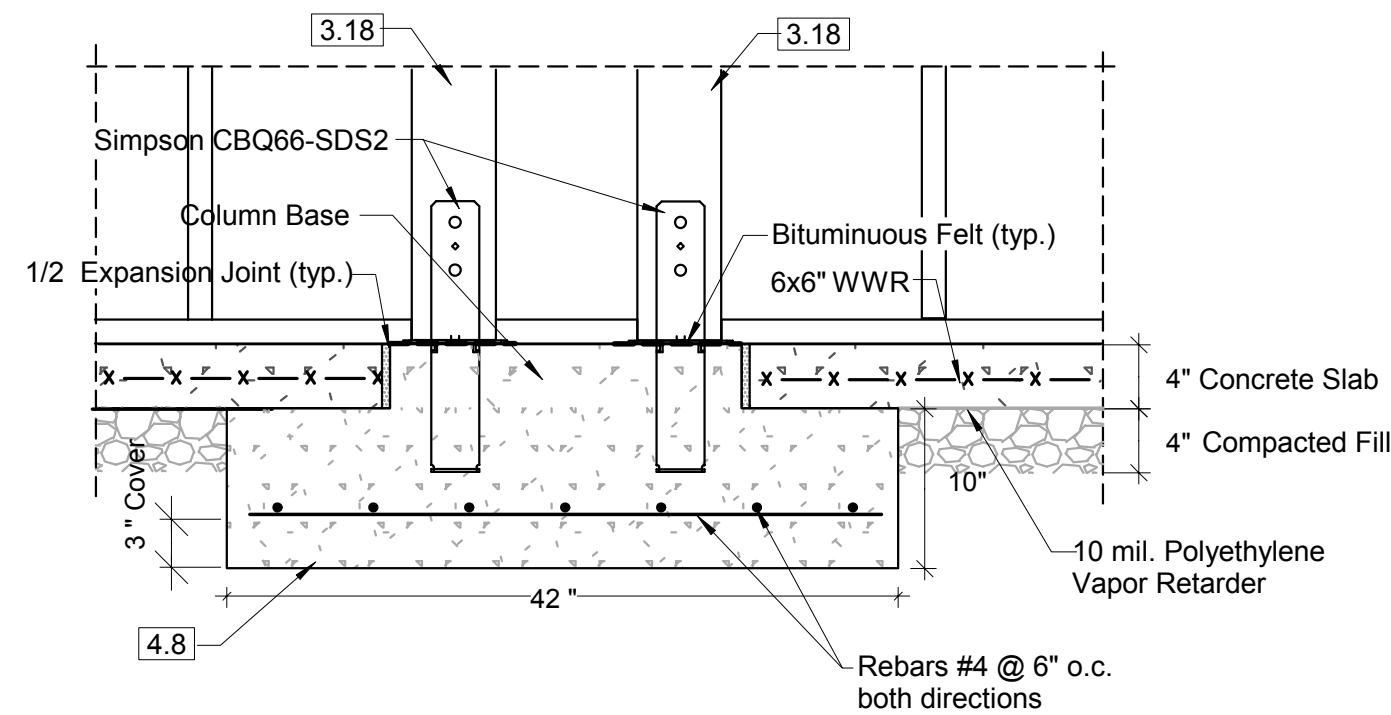


**DETAIL 1** SCALE: 1" = 1'-0" (1:12)

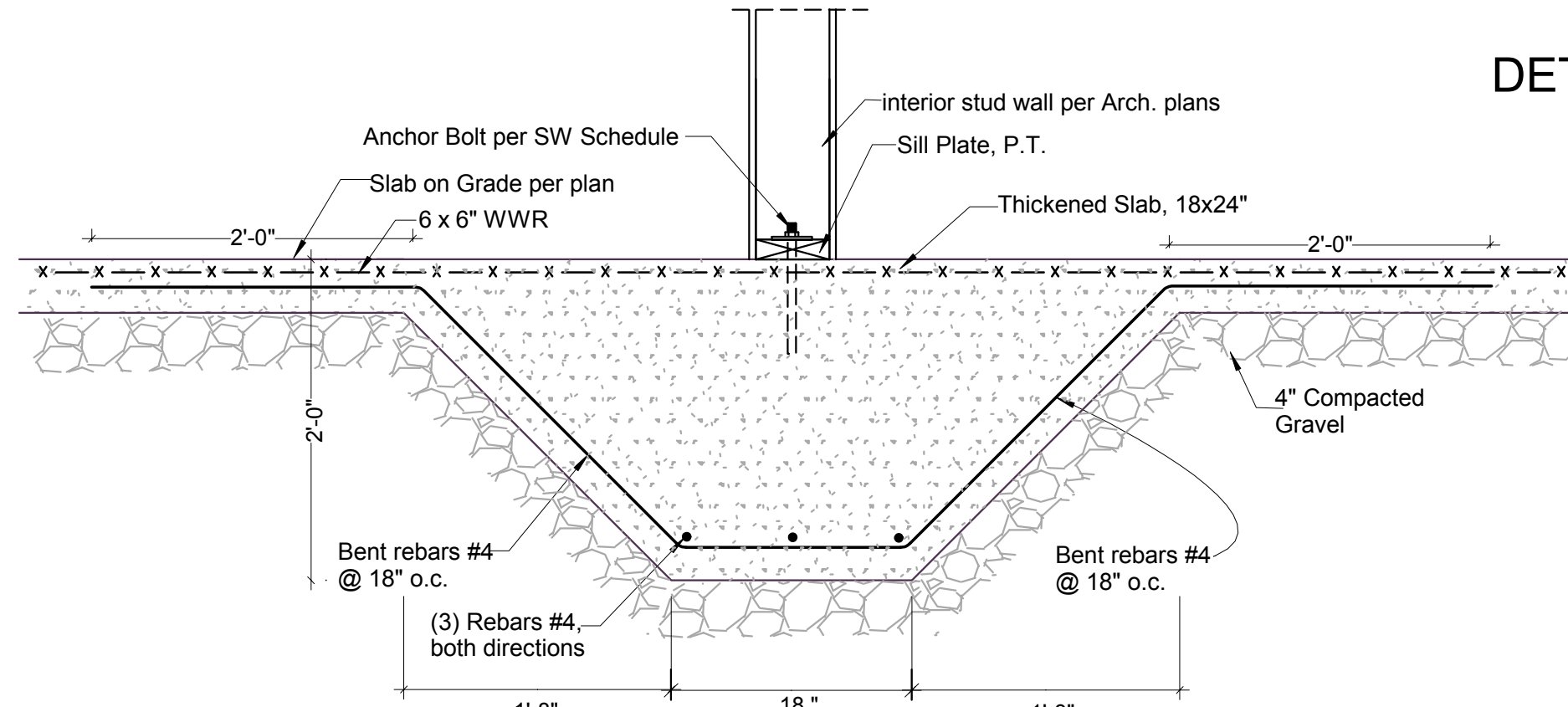
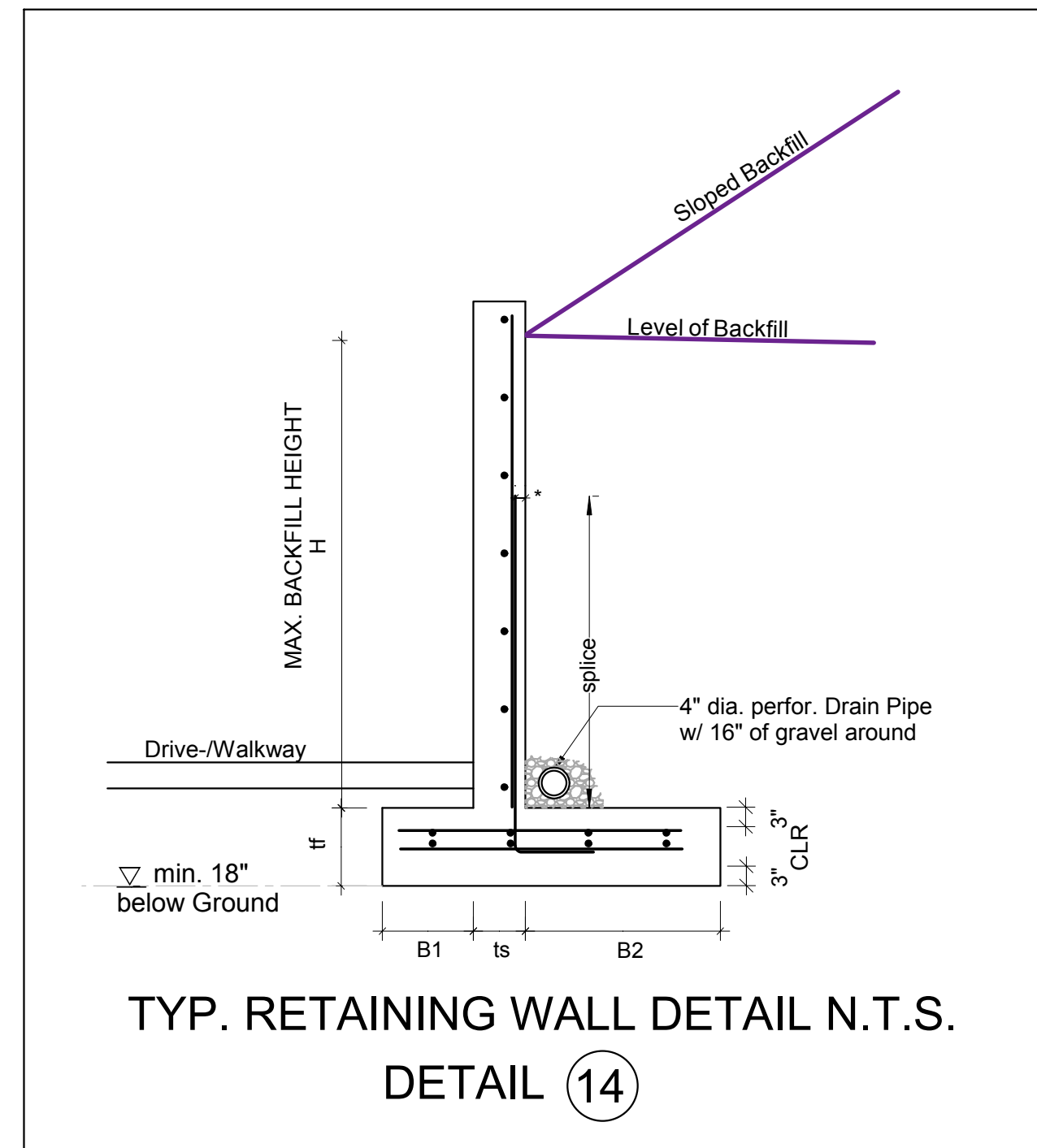


**DETAIL 21** SCALE: 1" = 1'-0" (1:12)

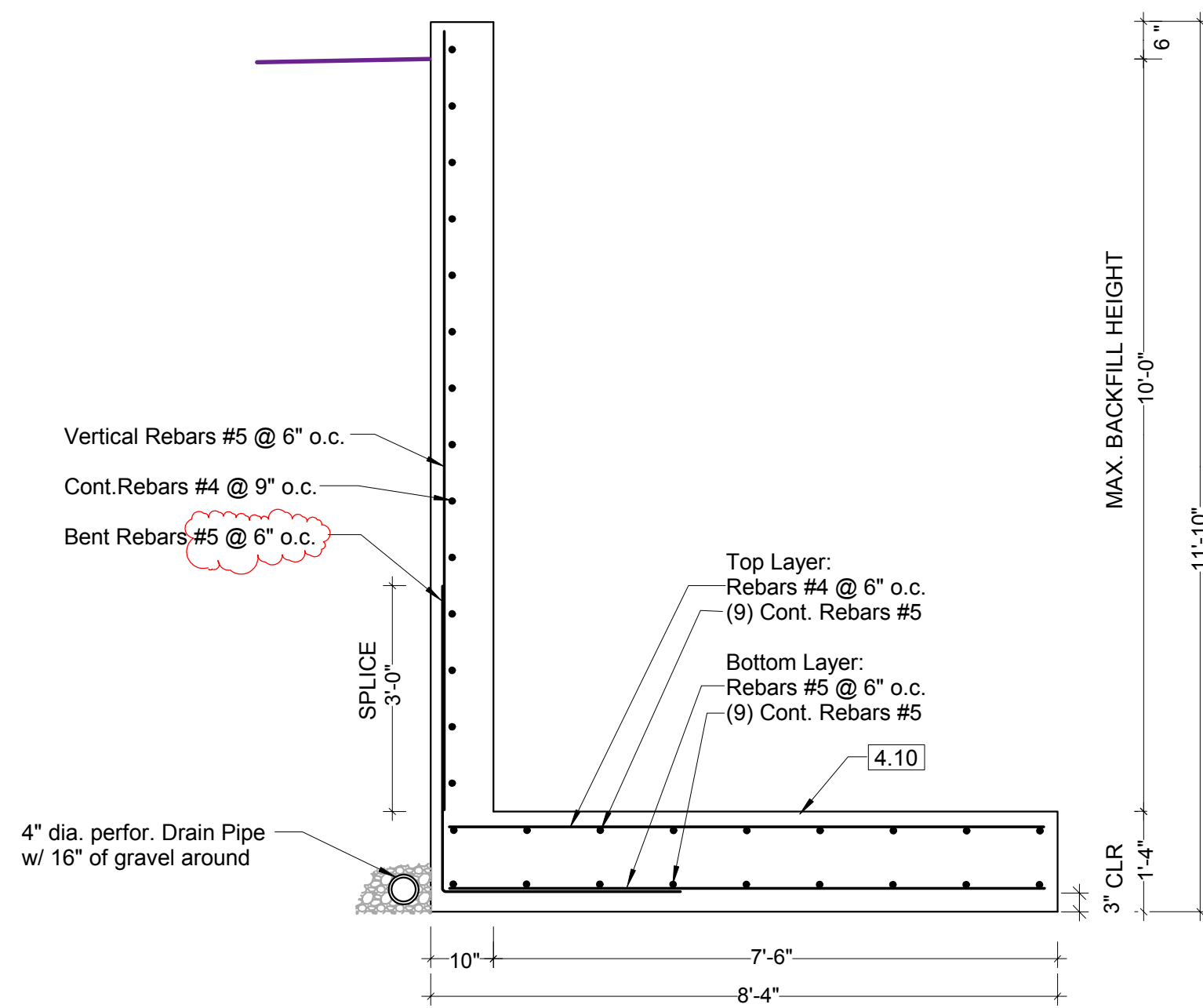
PROTECTION FOR REINFORCEMENT OF CAST-IN-PLACE CONCRETE	MIN. COVER
Concrete cast against and permanently exposed to earth	3"
Concrete exposed to earth or weather	
* Wall panels:	
No. 6 through No. 18 bars	2"
No. 5 bars, W31 or D31 wire, and smaller	1 1/2"
Concrete exposed to neither earth or weather	
Slabs, walls, and joists:	
No. 14 and no. 18 bars	1 1/2"
No. 11 and smaller bars	3/4"
Beams and Columns:	
Primary reinforcement, ties, stirrups, and spirals	1 1/2"
Shells and folded-plate members:	
No. 6 bars and larger	3/4"
No. 5 bars, W31 or D31 or smaller	3/4"



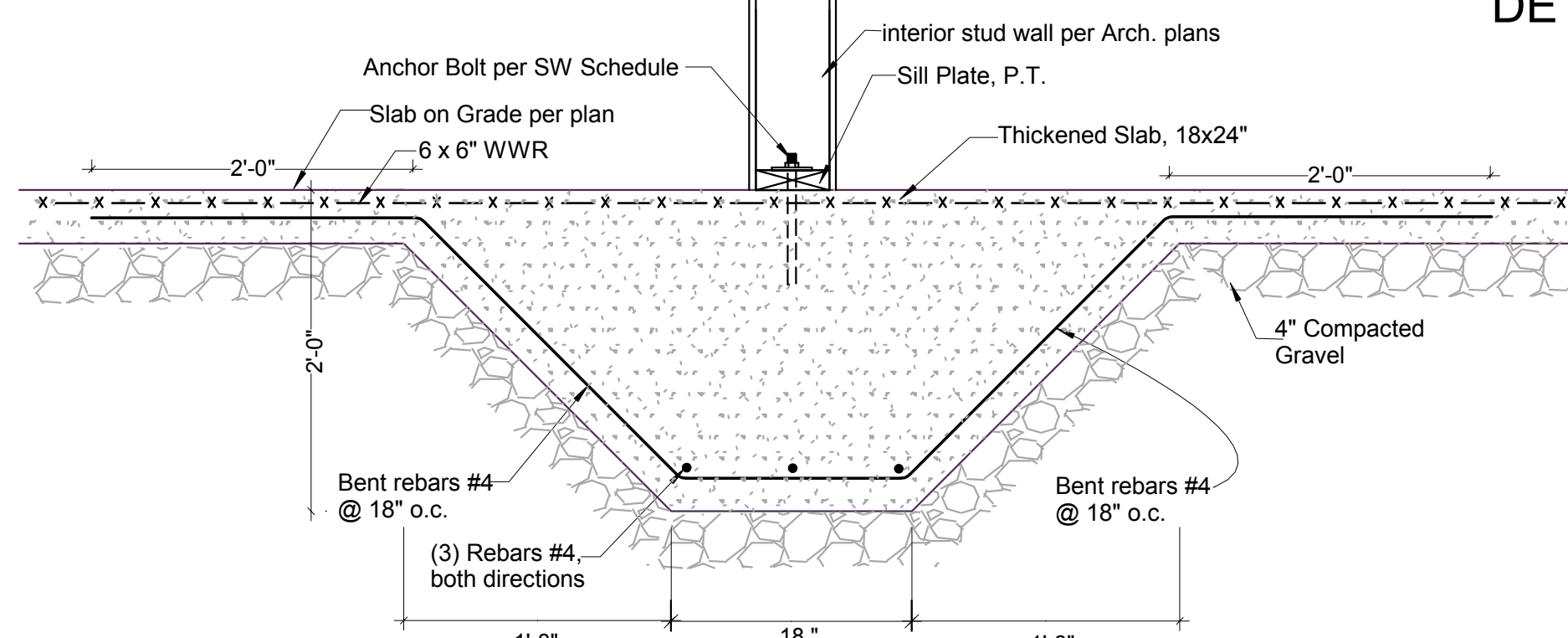
**DETAIL 17** SCALE: 1" = 1'-0" (1:12)



**DETAIL 15** SCALE: 1" = 1'-0" (1:12)



**DETAIL 22** SCALE: 1/2" = 1'-0" (1:24)



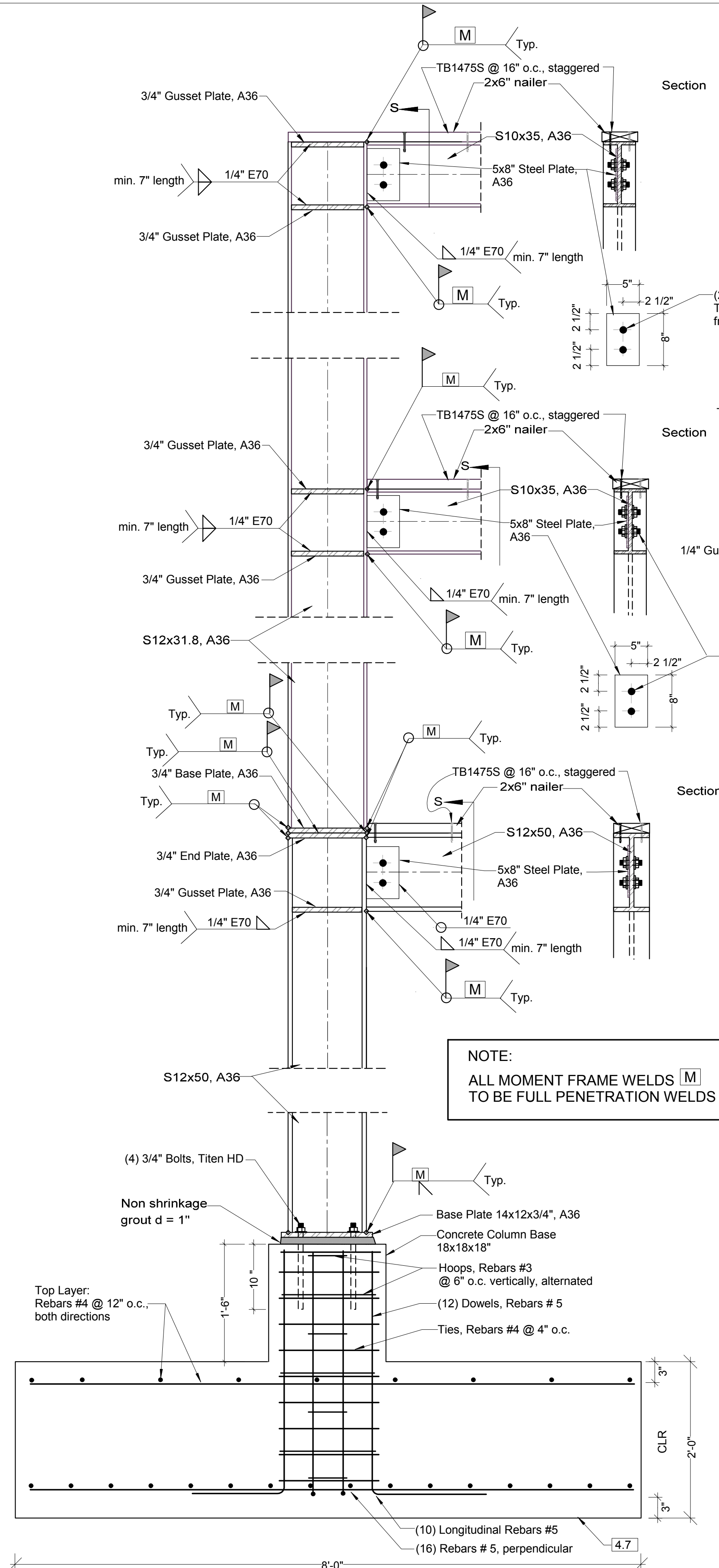
**DETAIL 20** SCALE: 1/2" = 1'-0" (1:24)



REVISION 09/17/17

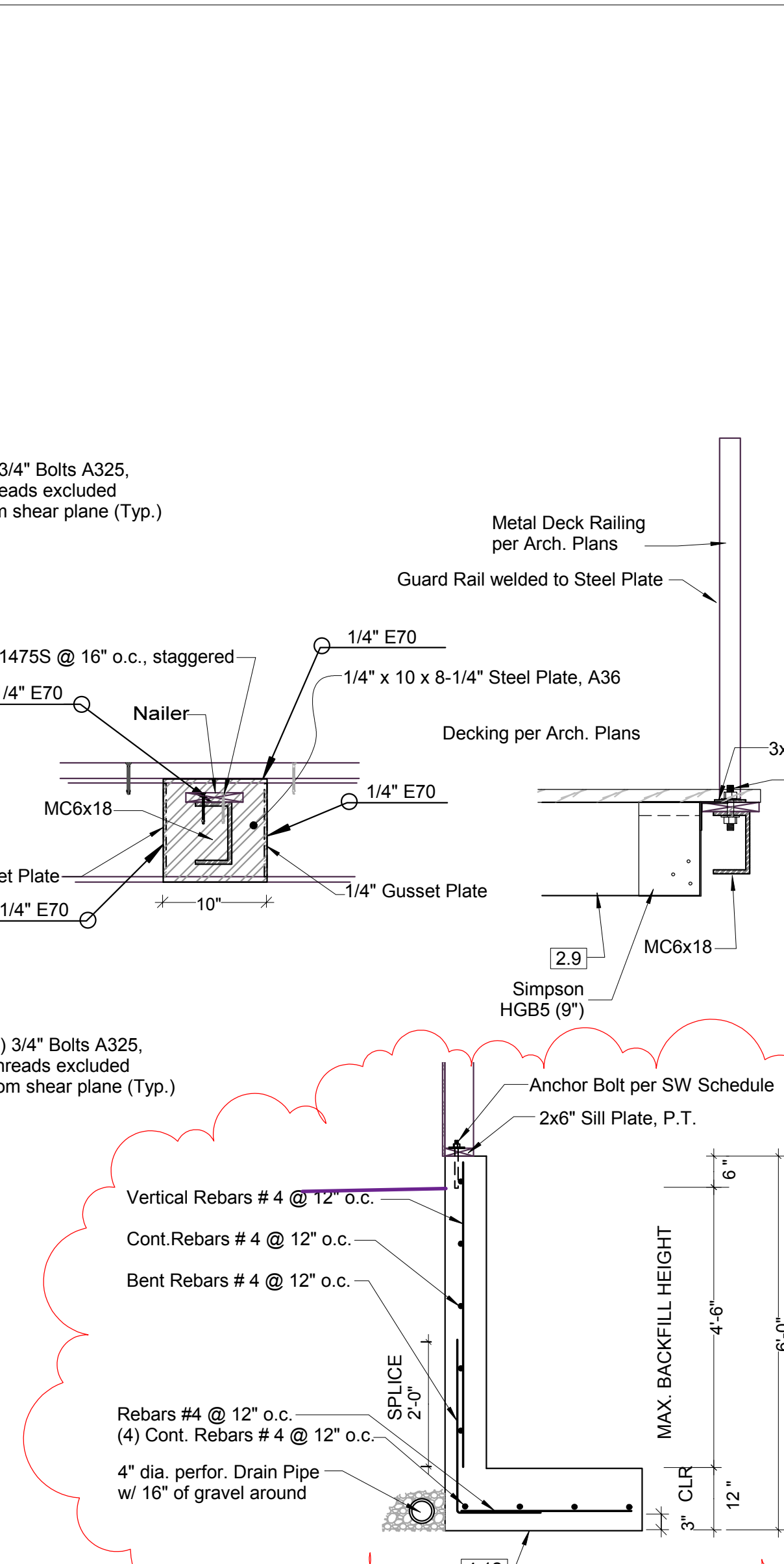
		SHEET
6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408 ENGINEERING		
BUILDER:	Barcelo Homes	S2.1
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	



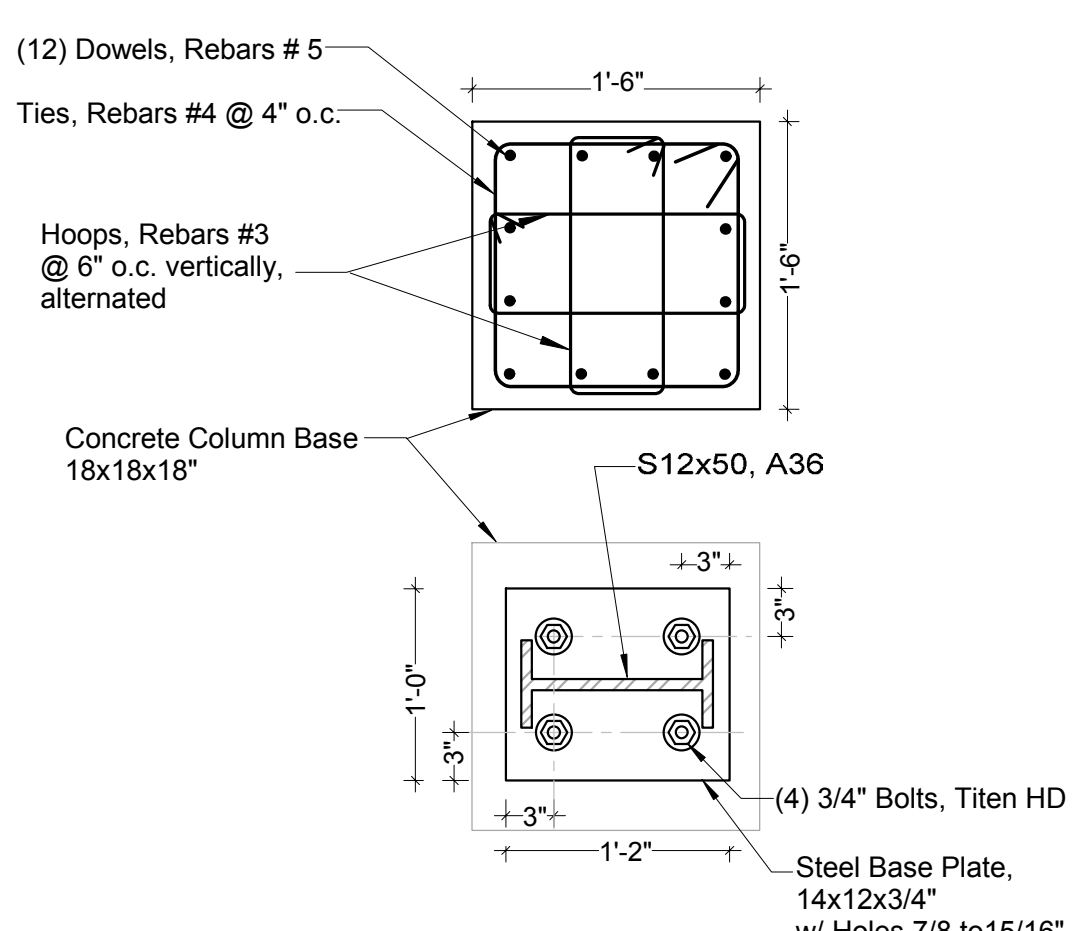


**DETAIL 1**  
**MOMENT FRAME** SCALE: 1" = 1'-0" (1:12)

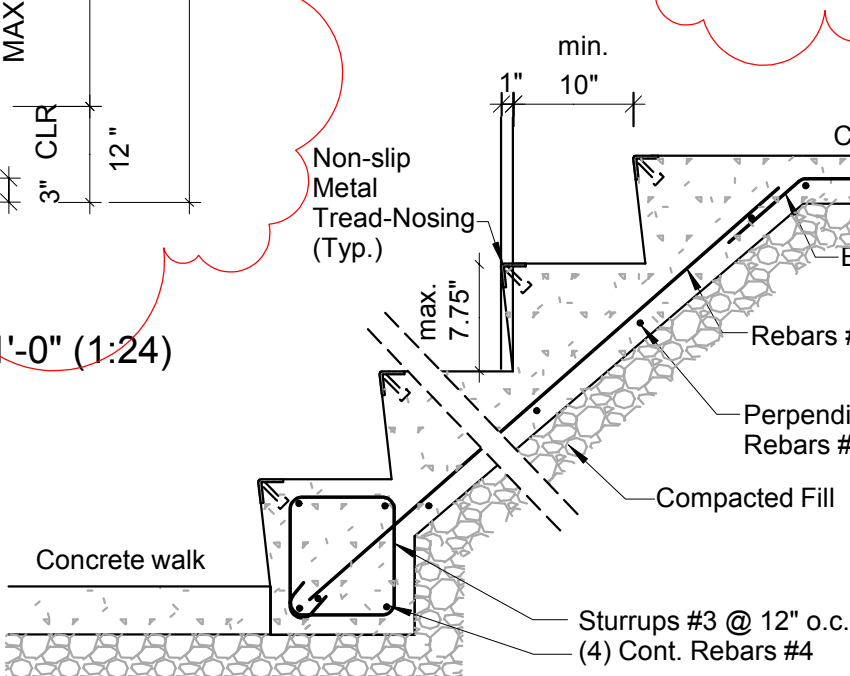
**NOTE:**  
 ALL MOMENT FRAME WELDS **M**  
 TO BE FULL PENETRATION WELDS



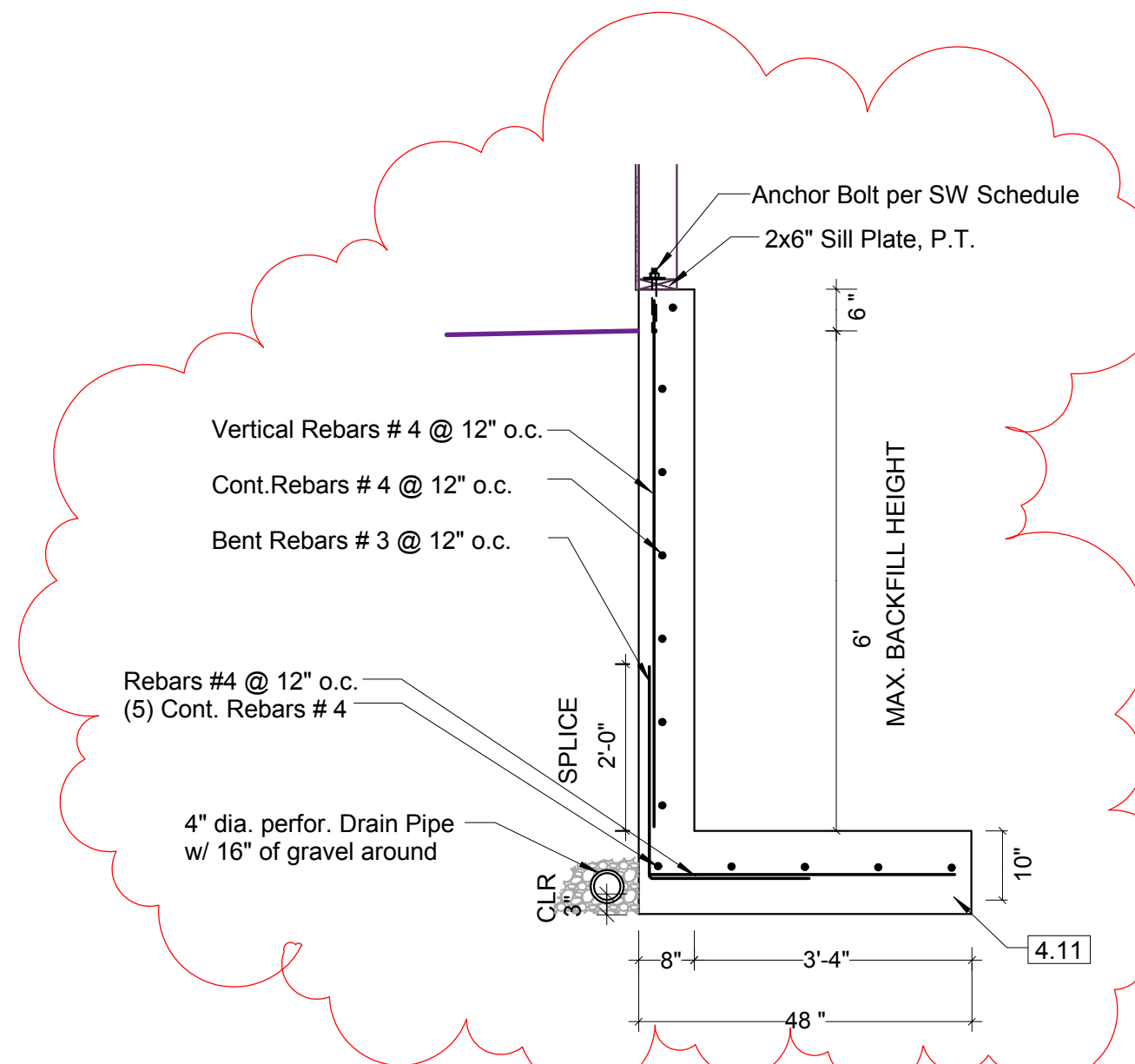
**DETAIL 3** SCALE: 1/2" = 1'-0" (1:24)



**MOMENT FRAME COLUMN BASE**  
 SCALE: 1" = 1'-0" (1:12)



**CONCRETE STAIRS (TYP)**  
 SCALE: 3/4" = 1'-0" (1:16)



**DETAIL 2**  
 SCALE: 1/2" = 1'-0" (1:24)



**MOMENT FRAME ELEVATION M-M** SCALE: 1/4" = 1'-0" (1:48)



REVISION 06/18/17

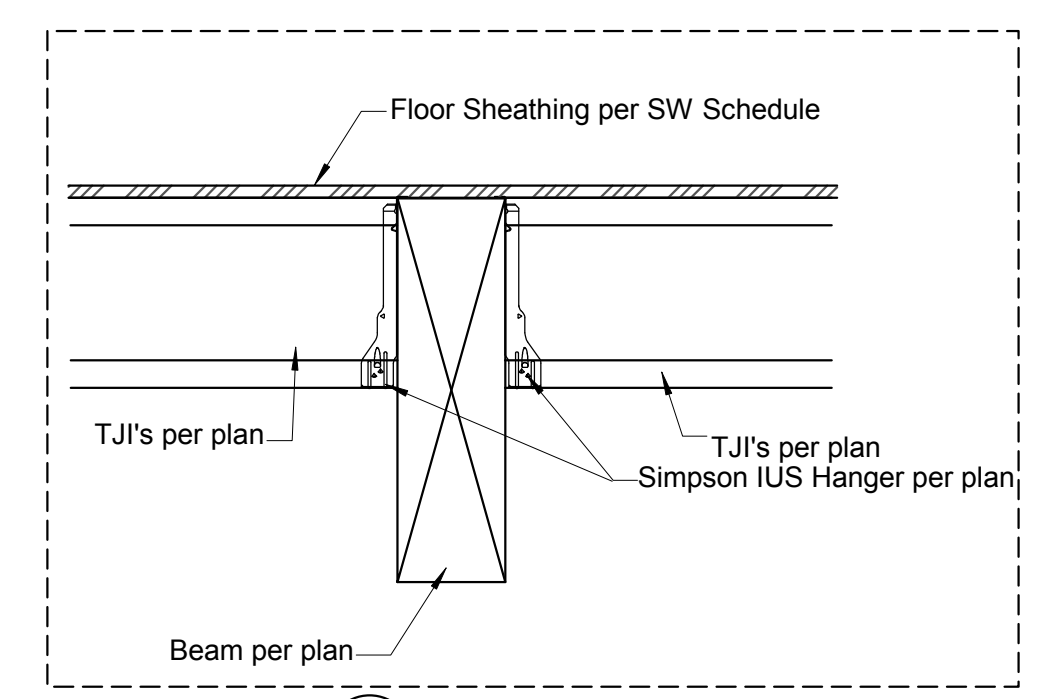
<b>tec instruct LLC</b>		<b>S3</b>
6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408		
<b>ENGINEERING</b>		
BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15	
ENGINEER:	Roland Heimisch, P. E.	



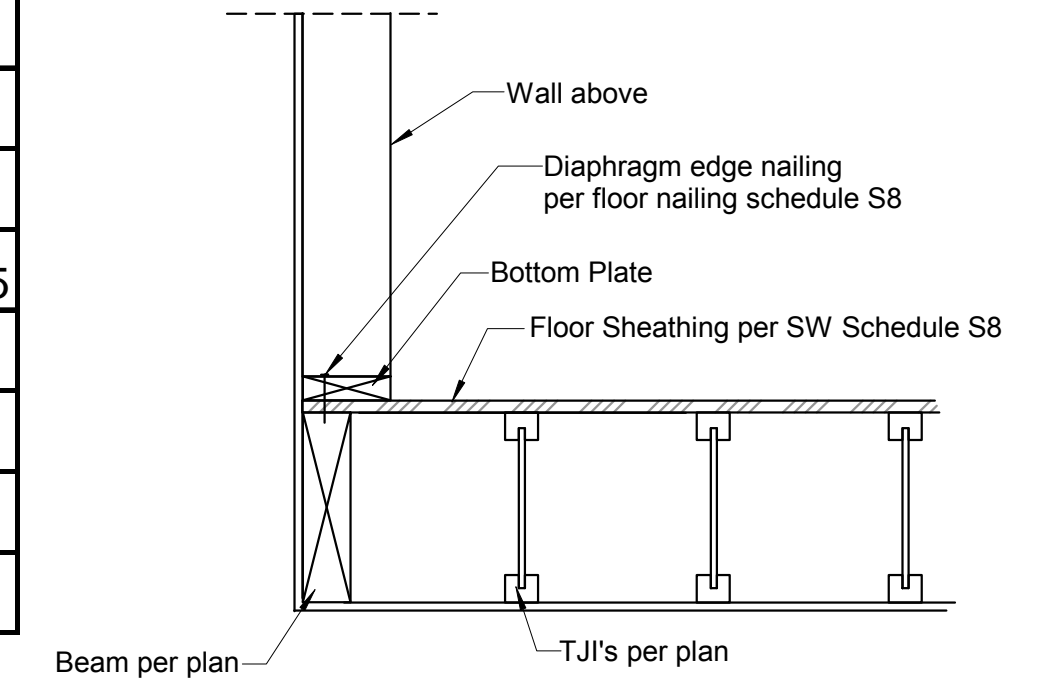




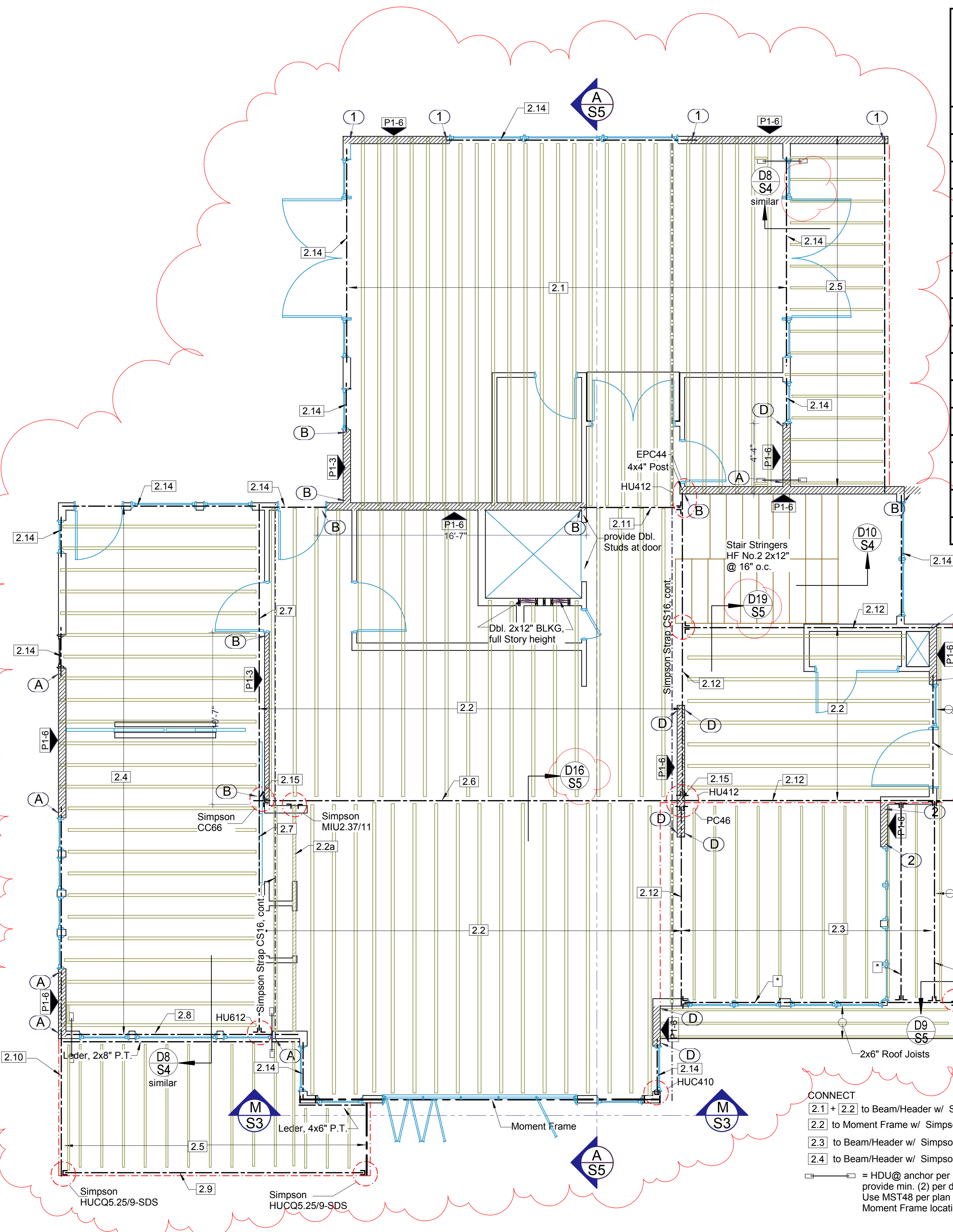
KEY NO.	STRUCTURAL MEMBERS	REACTIONS			
		FLOOR SYSTEM ABOVE 2ND LEVEL		CANTILEVER	
		DL	LL	(-) = uplift	rear end
2.1	TJI 360, 2-5/16x11-7/8" @ 12" o.c.				
2.2	TJI 360, 2-5/16x11-7/8" @ 16" o.c.				
2.2a	TJI 360, 2-5/16x11-7/8" @ 16" o.c.				
2.3	TJI 210, 2-1/16x11-7/8" @ 16" o.c.				
2.4	TJI 210, 2-1/16x11-7/8" @ 16" o.c.				
2.5	Deck Joists, HF No.2, 2x8" @ 16" o.c. P.T.				
2.6	Beam, Glulam WS, 24F-1.8E, 6-3/4x24"	5,016	9,100		
2.7	Beam, PSL, 2.0E, 2900Fb, 5-1/4x11-7/8"	1,534	2,736		
2.8	Beam, PSL, 2.0E, 2900Fb, 5-1/4x11-7/8"	3,040	3,931		
2.9	Beam @ Deck, Glulam WS, 24F-1.8E, 5-1/8x9"	636	1,370		
2.10	Beam, Glulam WS, 24F-1.8E, 6-3/4x12"	1,056	2,194	-1,250	
2.11	Beam, PSL, 2.0E, 2900Fb, 3-1/2x11-7/8"	955	1,688	-415	85
2.12	Beam, PSL, 2.0E, 2900Fb, 3-1/2x11-7/8"	2,574	2,604		
2.13	Beam, Glulam WS, 24F-1.8E, 5-1/4x12"	1,950	1,733		
2.14	Header (=Rim), LSL, 1.55E, 2325Fb, 3-1/2x11-7/8"				
2.15	Column, PSL, 1.8E, 5-1/4x5-1/4"				



DETAIL 16 SCALE: 1" = 1'-0" (1:12)  
TJI'S TO BEAM (TYP.)



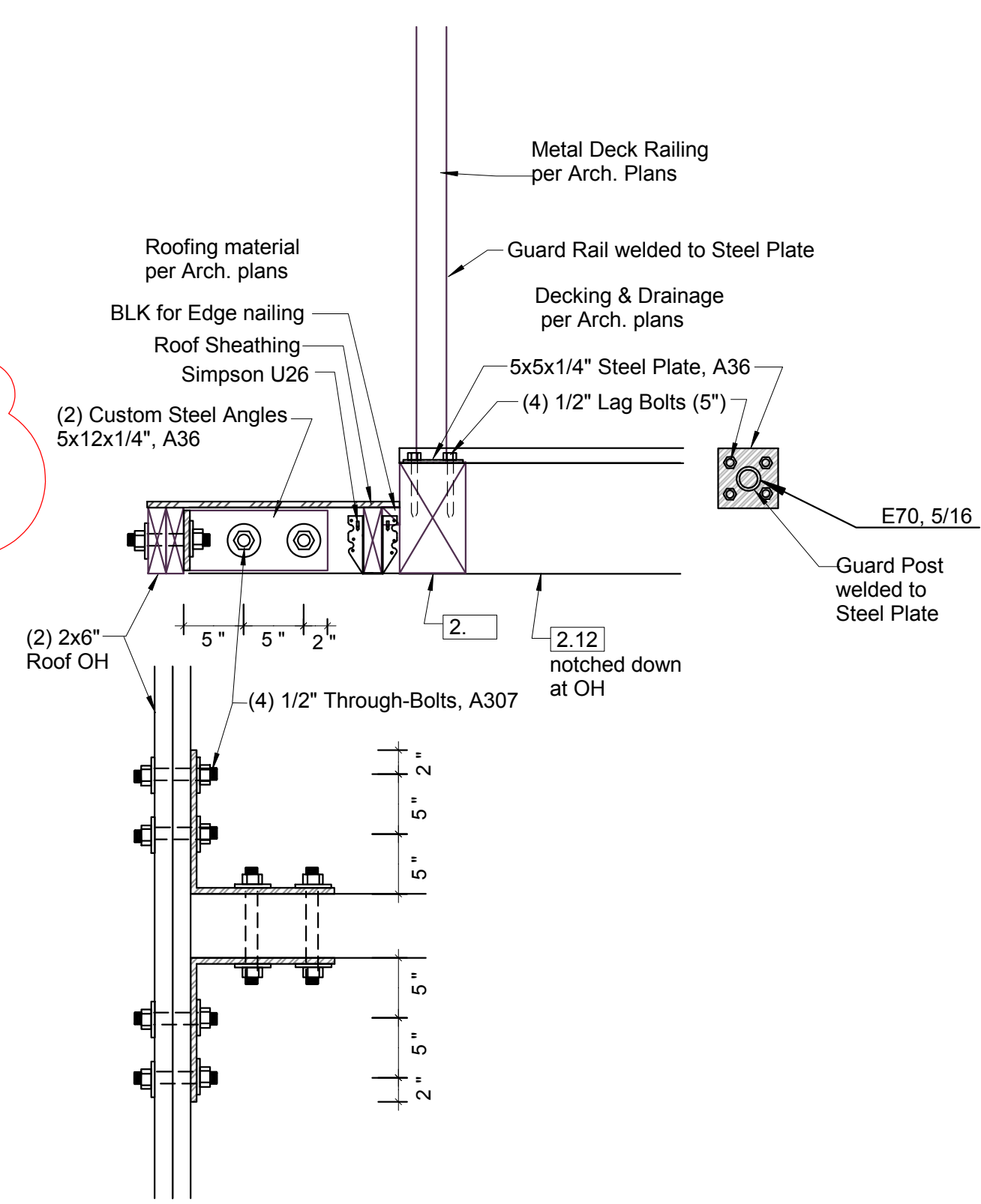
DETAIL 19 SCALE: 1" = 1'-0" (1:12)



FRAMING ABOVE 2ND LEVEL SCALE: 1/4" = 1'-0" (1:48)

**NOTE:**  
WHERE DETAILS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED.

- CONNECT
- [2.1] + [2.2] to Beam/Header w/ Simpson IUS2.37/11.88
  - [2.2] to Moment Frame w/ Simpson LBV2.37/11.88
  - [2.3] to Beam/Header w/ Simpson U210
  - [2.4] to Beam/Header w/ Simpson IUS2.06/11.88
- = HDU@ anchor per D8/S5, provide min. (2) per deck; Use MST48 per plan at Moment Frame location.



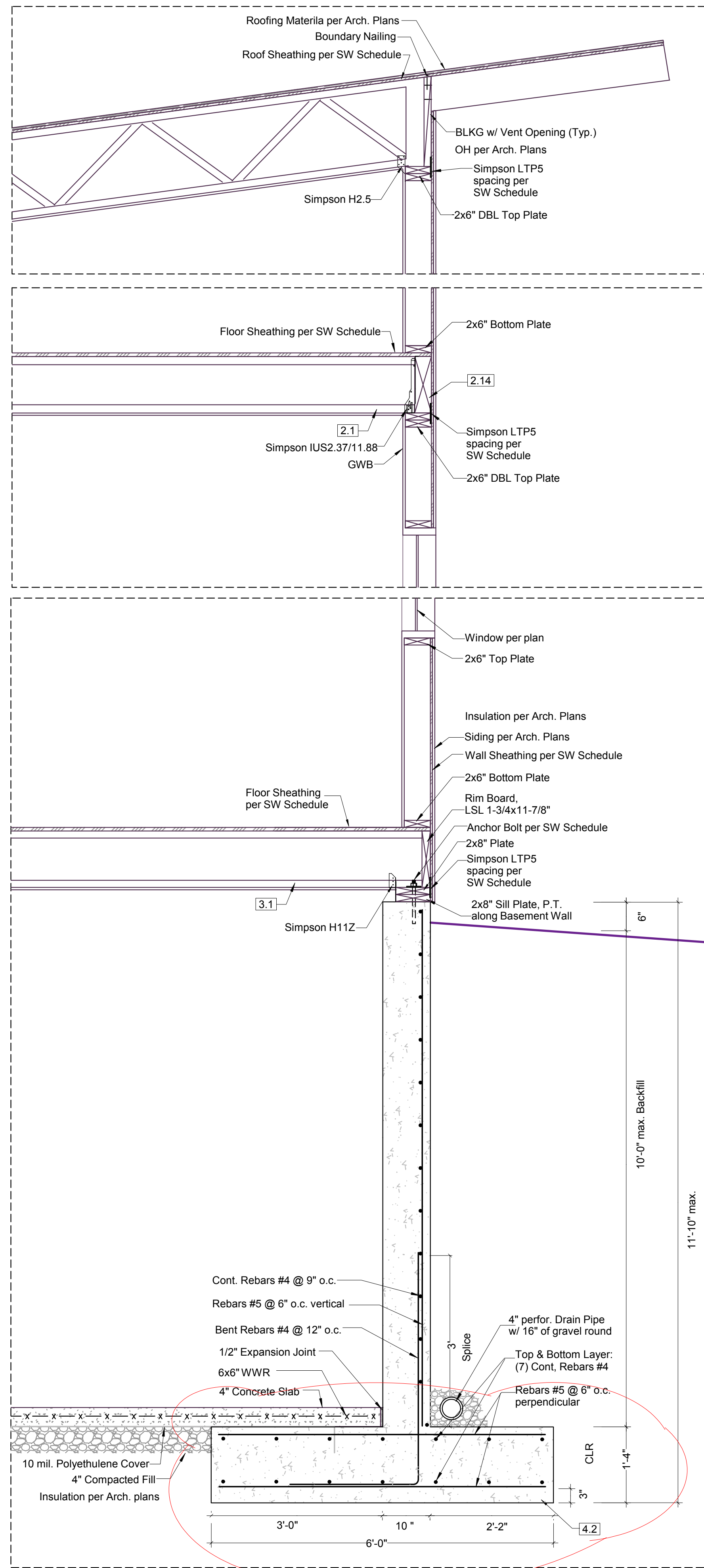
DETAIL 9 SCALE: 1" = 1'-0" (1:12)



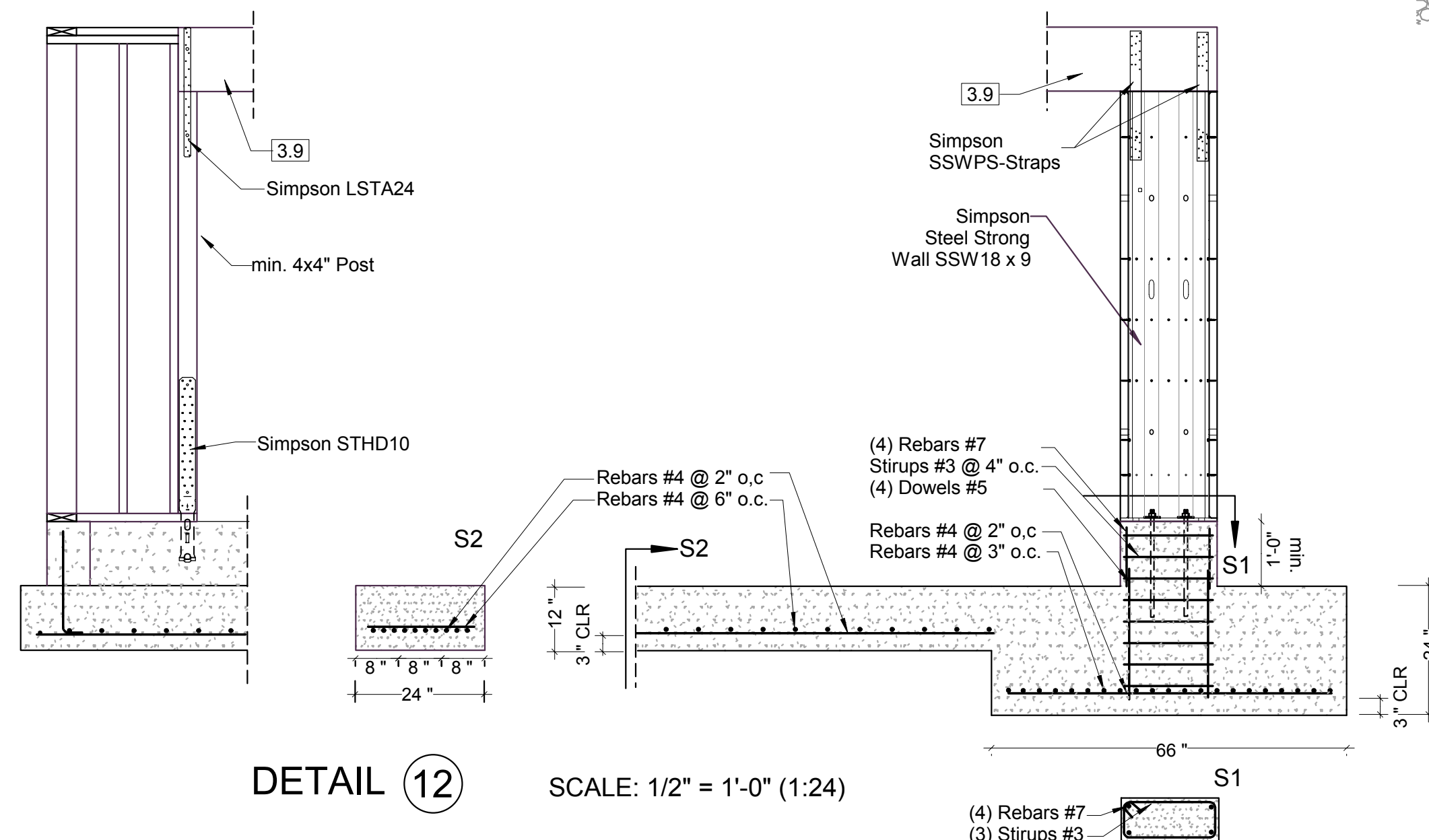
REVISION 06/18/17

<p>tec instruct LLC 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408</p>		S5
ENGINEERING		
BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	DATE: 03/11/15 SCALE: as noted
DESCRIPTION:	new SFR	
ENGINEER:	Roland Heimisch, P. E.	

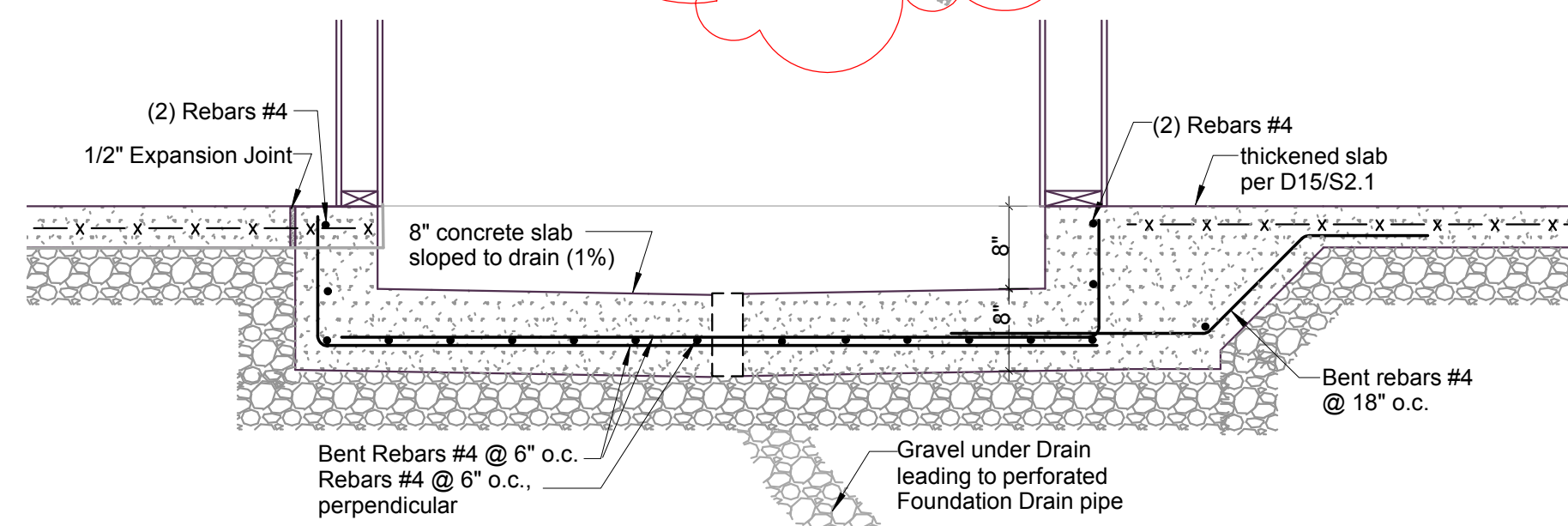
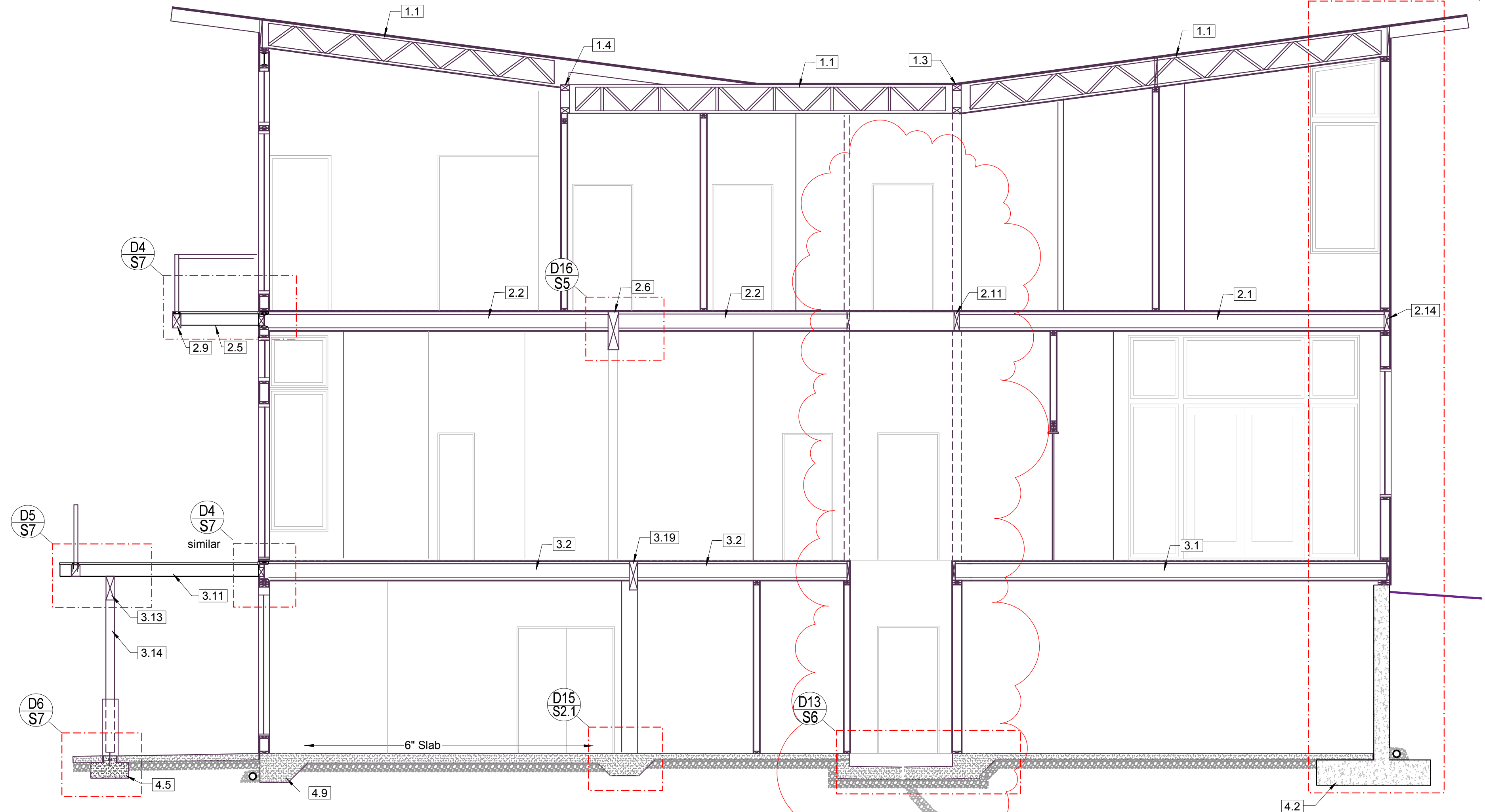




TYPICAL WALL SECTION (TWS) SCALE: 3/4" = 1'-0" (1:16)



DETAIL 12 SCALE: 1/2" = 1'-0" (1:24)



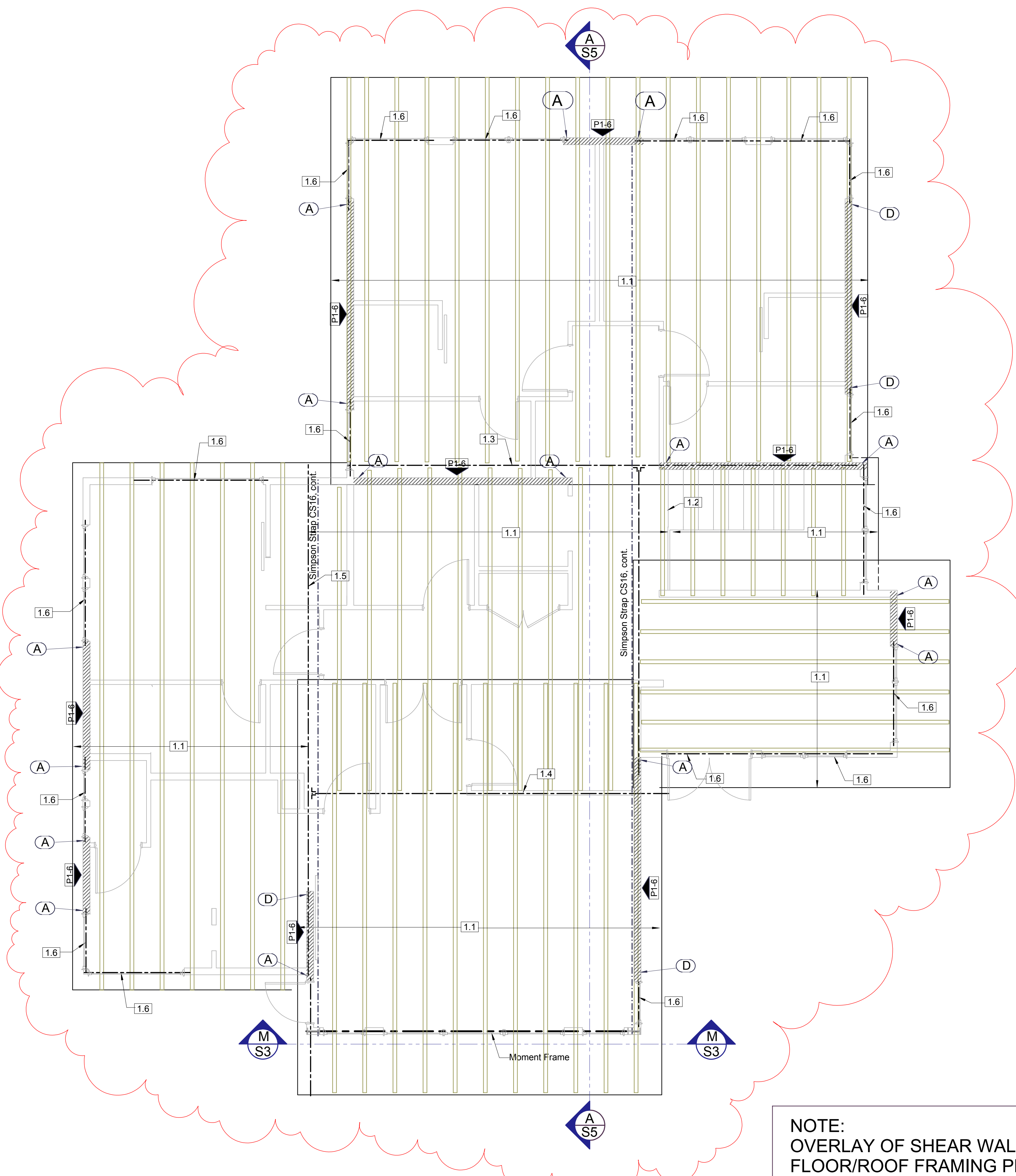
DETAIL 13 SCALE: 3/4" = 1'-0" (1:16)



REVISION 06/18/17

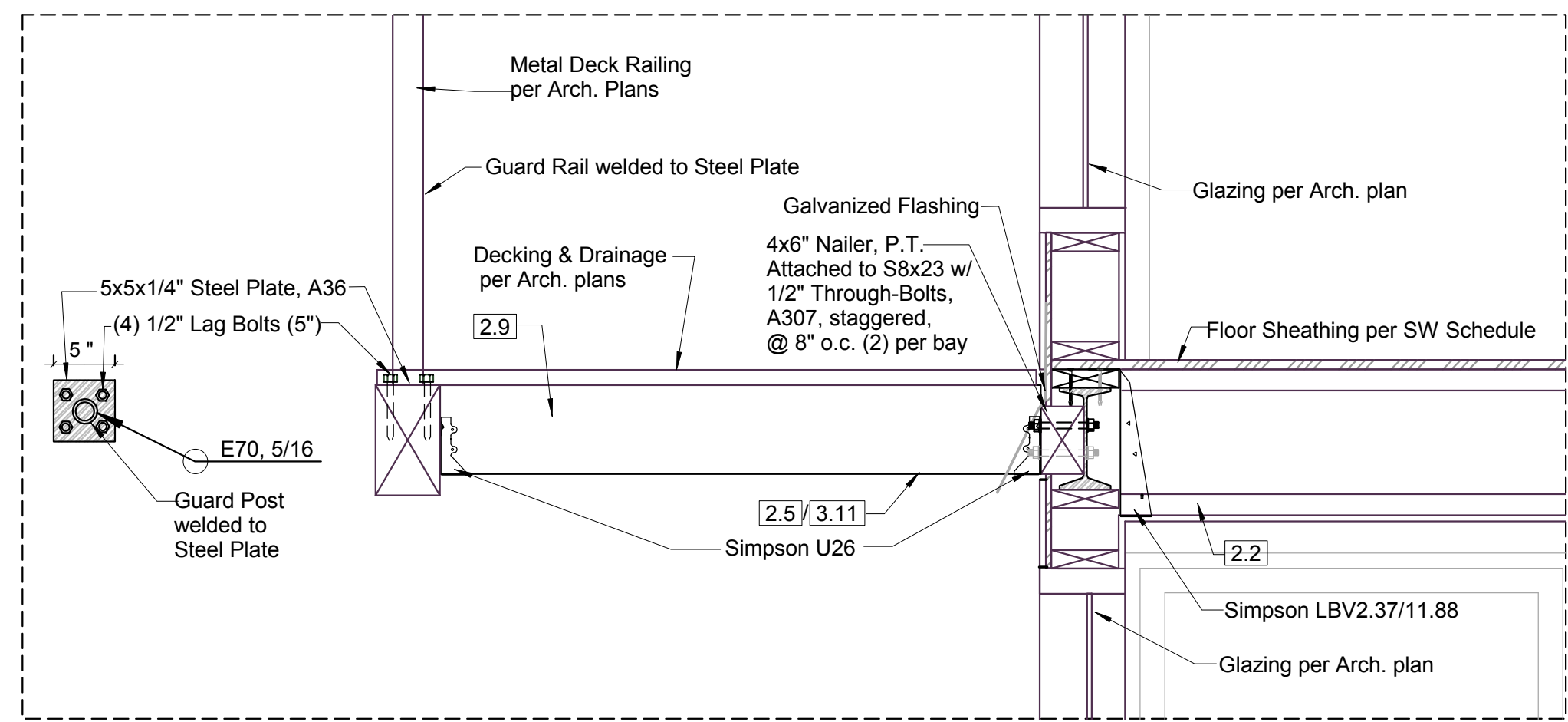
<b>tec instruct LLC</b> 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408		
<b>ENGINEERING</b>		
BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	<b>S6</b>
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	03/11/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	



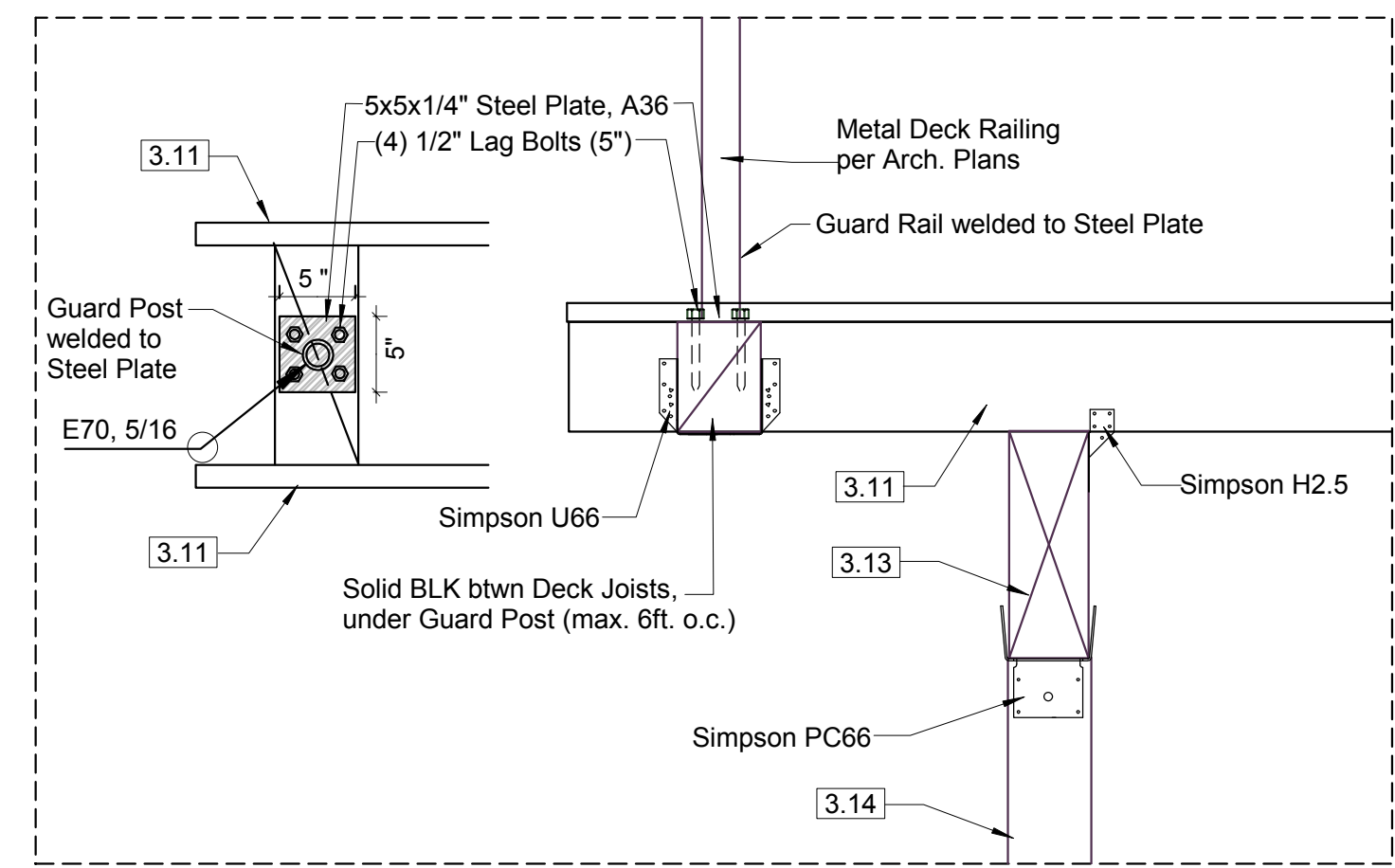


ROOF FRAMING PLAN SCALE: 1/4" = 1'-0" (1:48)

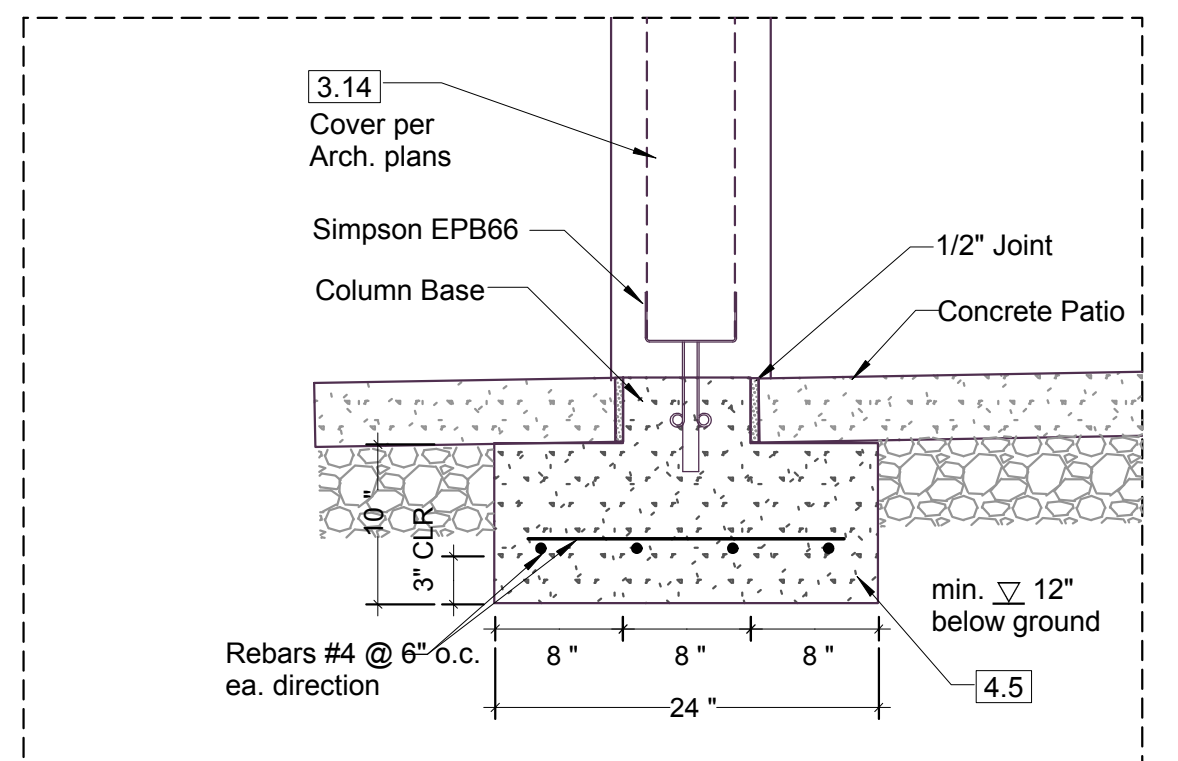
**NOTE:**  
 OVERLAY OF SHEAR WALLS IN  
 FLOOR/ROOF FRAMING PLANS PER  
 REVIEWER REQUEST,  
 REFER TO SHEAR WALL PLANS (S8/S9)  
 FOR SHEAR WALL INFORMATION



DETAIL 4 SCALE: 1" = 1'-0" (1:12)



DETAIL 5 SCALE: 1" = 1'-0" (1:12)



DETAIL 6 SCALE: 1" = 1'-0" (1:12)

KEY NO.	STRUCTURAL MEMBERS
<b>ROOF LEVEL</b>	
1.1	Open Web Trusses @ 24" o.c., d = 18"
1.2	Girder Truss, d = 18"
1.3	Girder Truss, d = 18"
1.4	Girder Truss, d = 18"
1.5	Girder Truss, d = 18"
1.6	Header (=Rim), LVL, 2-ply, (2) 1-3/4x18"



REVISION 06/18/17

<p>tec instruct LLC          6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028          Telephone (206) 553 9076 - Fax (206) 529 4408          ENGINEERING</p>		S7
BUILDER:	Barcelo Homes	
JOB SITE:	4634 E Mercer Way, Mercer Island	
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	02/23/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	



### HOLDOWN SCHEDULE

SYMBOL	HOLDOWN	EMBED.	BOLT TYPE	MIN. WOOD MEMBER THICKNESS
①	Simpson HDU2	18"	SB5/8x24	(2) 2x
②	Simpson HDU4	18"	SB5/8x24	(2) 2x
③	Simpson HDU8	18"	SB7/8x24	DF 6x6"
④	Simpson HDU11	24"	SB1x30	DF 6x6"

### VERTICAL DIAPHRAGM

SHEARWALL TYPE	WALL SHEATHING (PANEL) THICKNESS & GRADE	SPAN INDEX	NAIL TYPE	NAILING		WALL STUD GRADE & SPACING	BLKG REQ'D	BLOCK SIZE	ABUTTING PLYWOOD PANEL EDGE MEMBER SIZE	TOP PLATE NAILING SIZE & SPACING	SOLE PLATE NAILING SIZE &	FOUNDATION ANCHOR BOLTS SIZE & SPACING	ALLOWABLE LOAD SEISMIC / WIND	SIMPSON CLIPS
				EDGE	FIELD									
P1-6	15/32" APA RATED/OSB ONE FACE	24/0	8d	6" o.c.	12" o.c.	HEM-FIR @ 16" o.c.	yes	2x	2x	16d @ 5"	16d @ 5"	5/8" @ 48" o.c.	244 PLF / 342 PLF	LTP5 @ 24" o.c.
P1-3 <sup>2</sup>	15/32" APA RATED/OSB ONE FACE	24/0	8d	3" o.c.	12" o.c.	HEM-FIR @ 16" o.c.	yes	3x	3x	(2) ROWS 16d @ 4"	(2) ROWS 16d @ 4"	5/8" @ 24" o.c.	564 PLF / 790 PLF	LTP5 @ 12" o.c.

**NOTE:**  
For all non-Shear Walls use nailing pattern, bolt and clip size/spacing for P1-6

### STRAP SCHEDULE

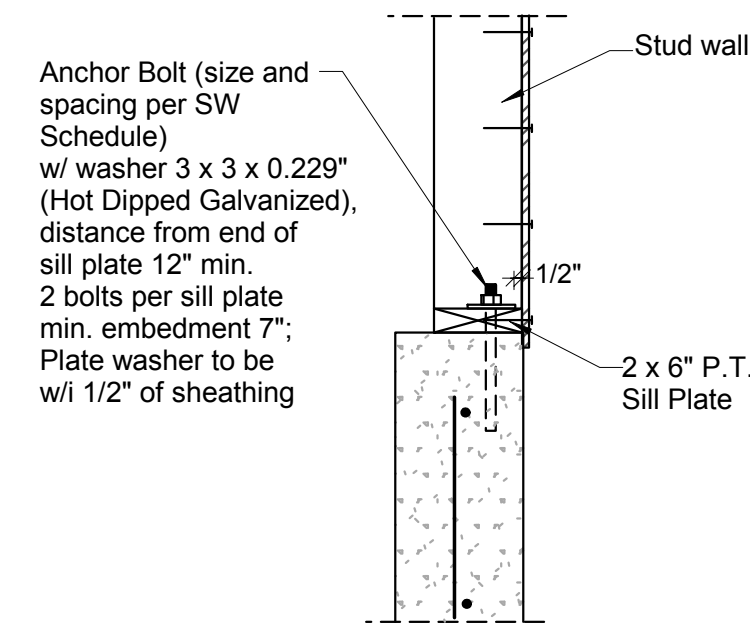
SYMBOL	STRAP	WOOD MEMBER	NAILS
Ⓐ	MST48	(2) 2x	34 - 16d
Ⓑ	MST60	(2) 2x	46 - 16d
Ⓒ	HTS20	(2) 2x	20 - 16d
Ⓓ	MSTC66B3	(2) 2x	38 - 10d

### HORIZONTAL DIAPHRAGM

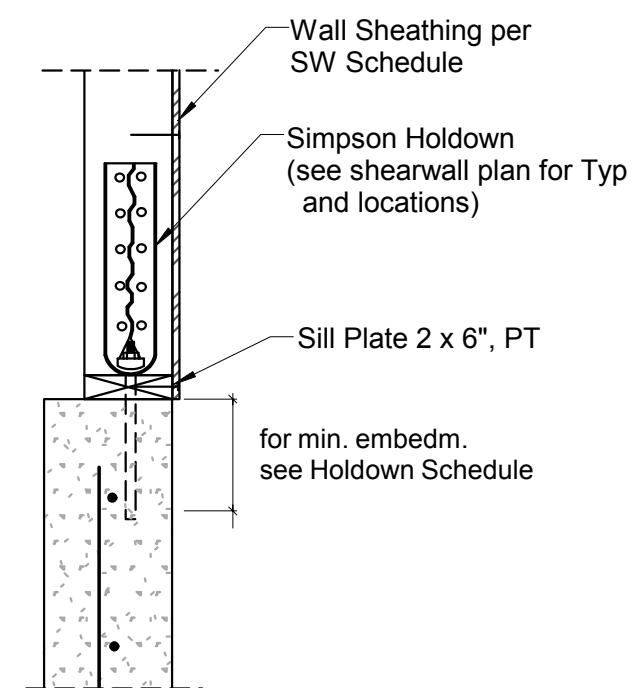
	THICKNESS & GRADE	SPAN INDEX	NAIL TYPE	NAILING		
				BDRY	EDGE	FIELD
FLOOR NAILING	3/4" CDX T&G APA RATED/OSB	48/24	10d	6" o.c.	6" o.c.	12" o.c.
ROOF NAILING	7/16" APA RATED/OSB	24/0	8d	6" o.c.	6" o.c.	12" o.c.

### SHEAR WALLS

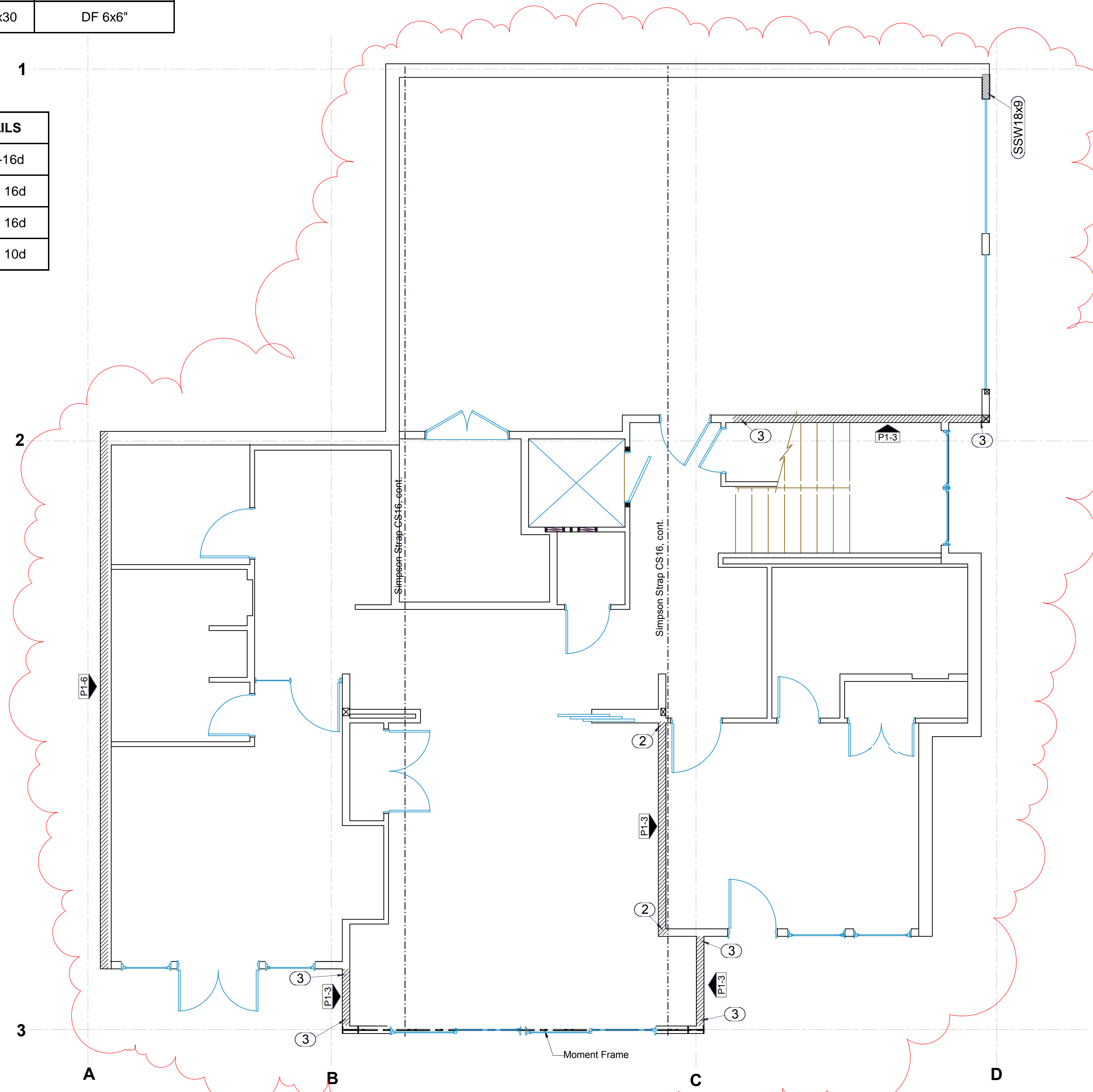
- ALL SHEAR WALLS SHALL CONFORM TO IBC SECTION 23 REQMENTS. APPLY NAILING TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKINGS. SHEATHING SHALL BE INSTALLED VERTICALLY W/ 4x10 SHEETS FROM THE SILL PLATE AT THE FOUNDATION TO THE LOWER OF THE DOUBLED TOP PLATES AT THE MAIN LEVEL AND FROM THE UPPER OF THE DOUBLED TOP PLATES AT THE WALL TO THE TOP OF THE DOUBLED TOP PLATES AT THE UPPER LEVEL.
- WHERE APA SHEATHING IS APPLIED ON BOTH FACES OF THE WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBER, OR FRAMING SHALL BE 3x NOMINAL AND NAILS ON EACH SIDE SHALL BE STAGGERED. WHERE ALLOWABLE SHEAR VALUES EXCEED 350 PLF (NAIL SPACING 4" OR LESS, OR SHEAR WALLS W/ PLYWOOD APPLIED ON EACH SIDE OF THE STUD WALL) FOUNDATION SILL PLATES AND FRAMING ABUTTING PANEL EDGES SHALL BE 3x NOMINAL OR (2) 2x W/ STAGGERED NAILING.
- ABOVE LISTED ALLOWABLE SHEAR CAPACITIES ARE ADJUSTED FOR USE OF HEM-FIR STUDS, SPACED NO MORE THAN 16" O.C. AND SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS.
- 14 GAUGE STAPLES W/ 7/16" CROWN AND 2" NOMINAL LEG LENGTH OR 0.131 DIA. P-NAILS W/ 2" NOMINAL LENGTH CAN BE SUBSTITUTED FOR 8D COMMON NAILS W/ REDUCED SHEAR CAPACITIES TO USE STAPLES. VERIFY W/ ENGINEER.
- ALL FASTENERS SHALL BE DRIVEN FLUSH W/ SURFACE OF SHEATHING.
- PROVIDE A SINGLE JOIST OR MIN. 2x SOLID BLOCKING BELOW AND AT THE TOP OF ALL SHEARWALLS.



ANCHOR BOLT DETAIL (TYP.)  
SCALE: 1" = 1'-0" (1:12)



HOLDOWN DETAIL (TYP.)  
SCALE: 1" = 1'-0" (1:12)



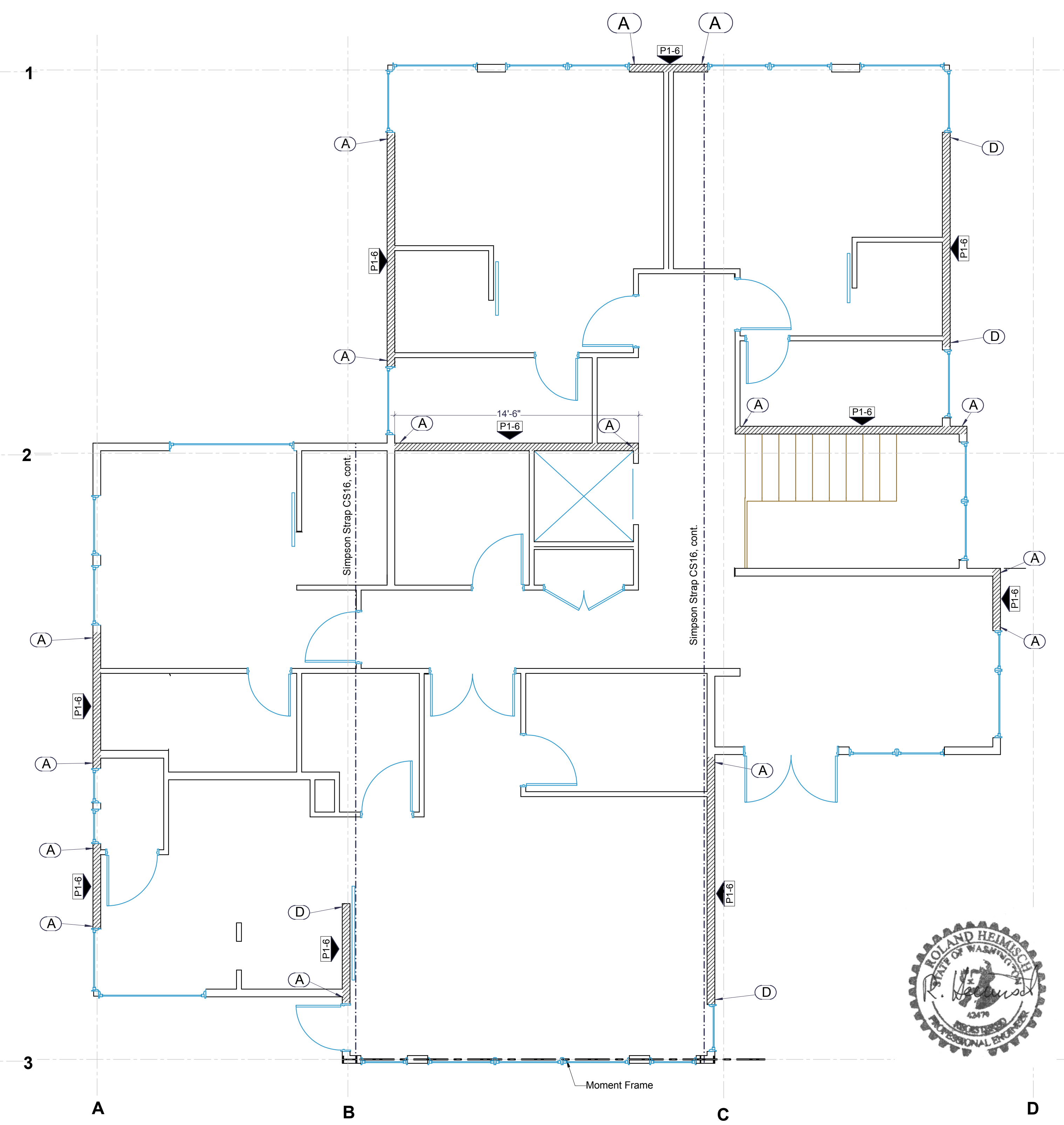
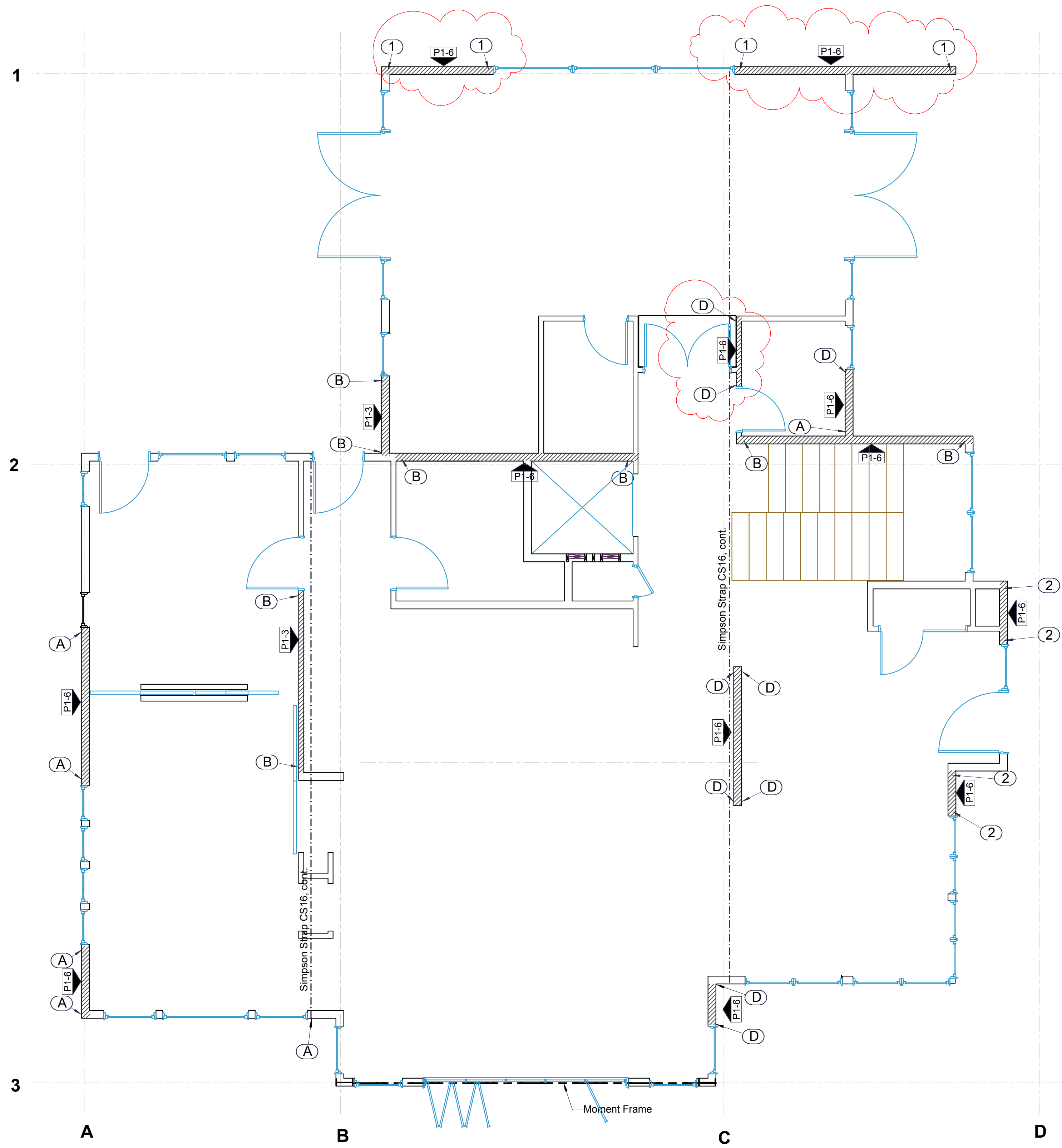
FIRST LEVEL SHEAR WALL PLAN SCALE: 1/4" = 1'-0" (1:48)



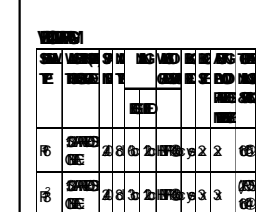
REVISION 06/18/17

<b>tecinstruct LLC</b> 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408 <b>ENGINEERING</b>		
BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	<b>S8</b>
PARCEL NO.:	WA 98040	
DESCRIPTION:	new SFR	
DATE:	02/23/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	

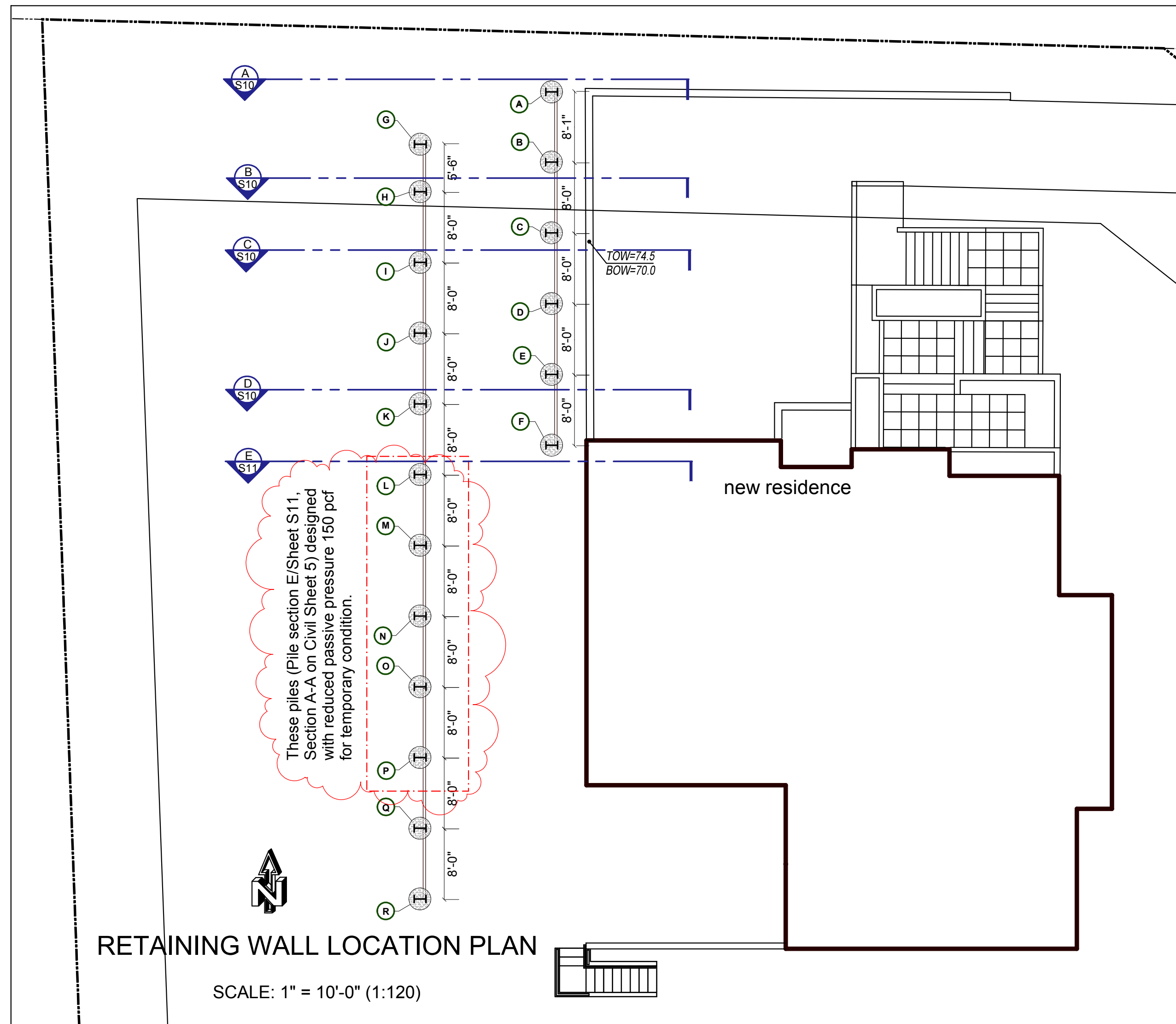




REVISION 09/17/17

 <b>tec instruct LLC</b> 6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028 Telephone (206) 553 9076 - Fax (206) 529 4408 ENGINEERING			S9
BUILDER:	Barcelo Homes	SHEET	
JOB SITE:	4634 E Mercer Way, Mercer Island		
PARCEL NO.:	WA 98040		
DESCRIPTION:	new SFR		
DATE:	02/23/15	SCALE: as noted	
ENGINEER:	Roland Heimisch, P. E.		



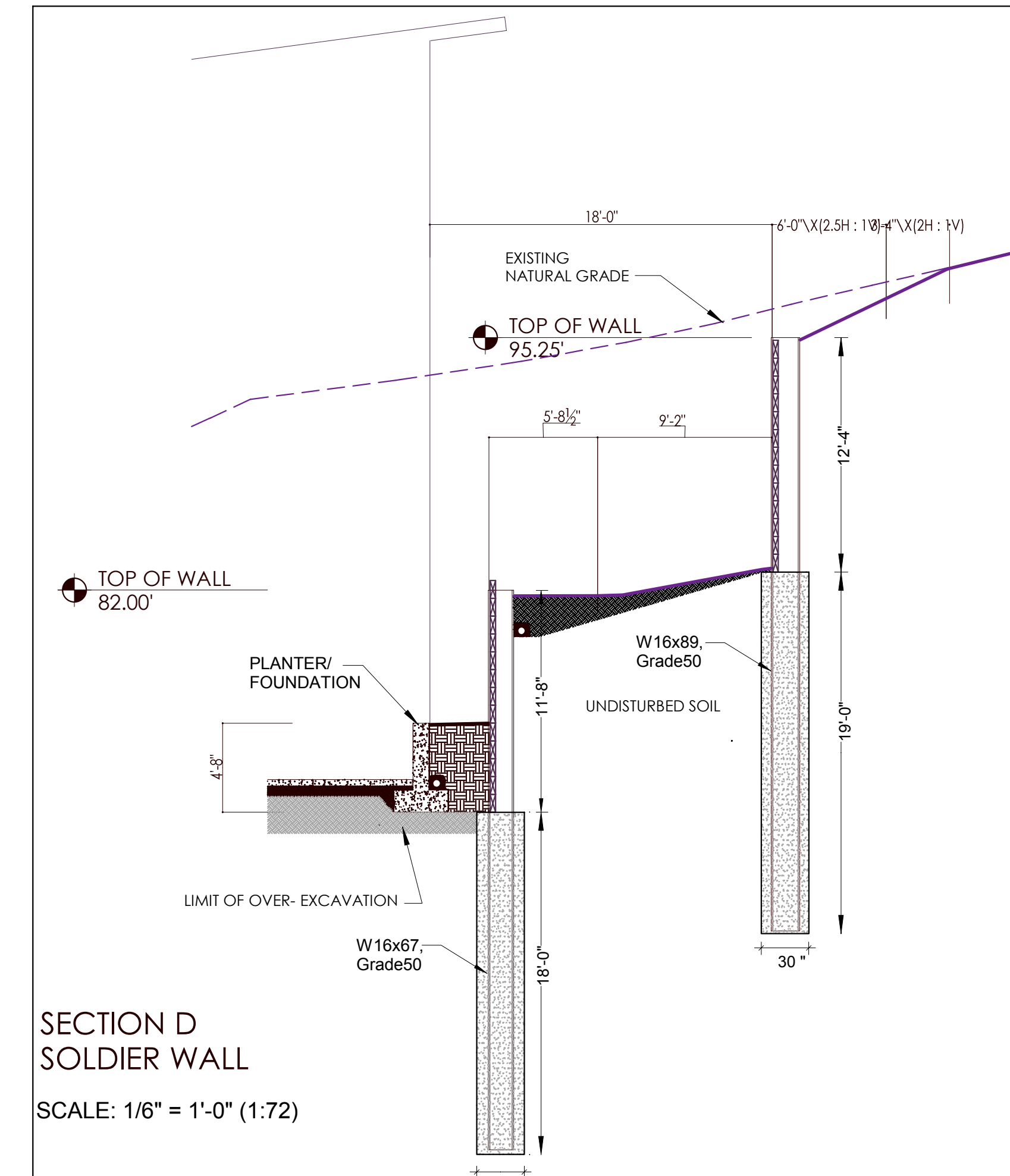


CONTRACTOR TO COORDINATE WITH ARCHITECT & STRUCTURAL ENGINEER ON ALL PENETRATIONS THROUGH RETAINING WALLS, PROVIDING SLEEVES WHERE SHOWN OR REQUIRED.

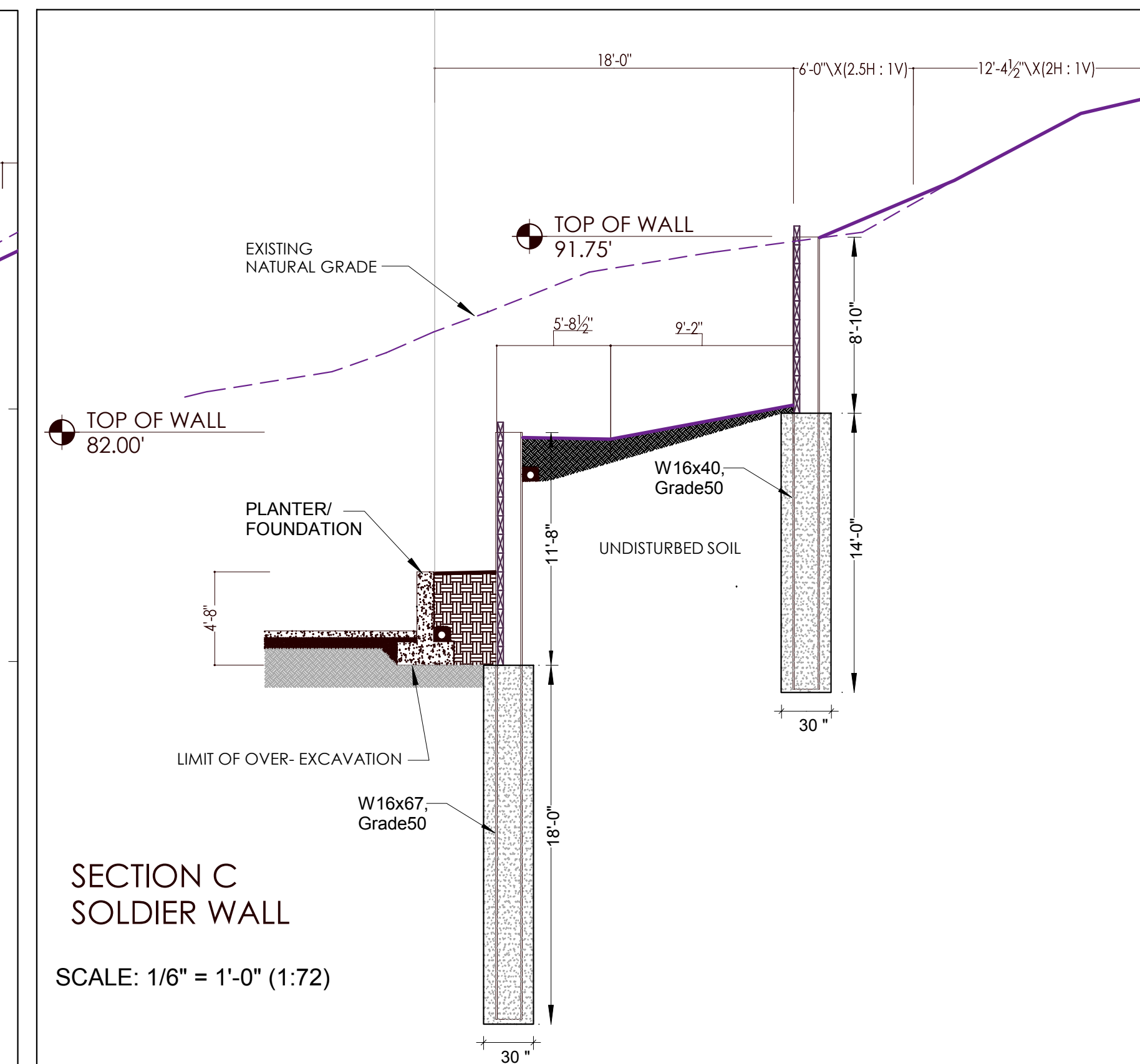
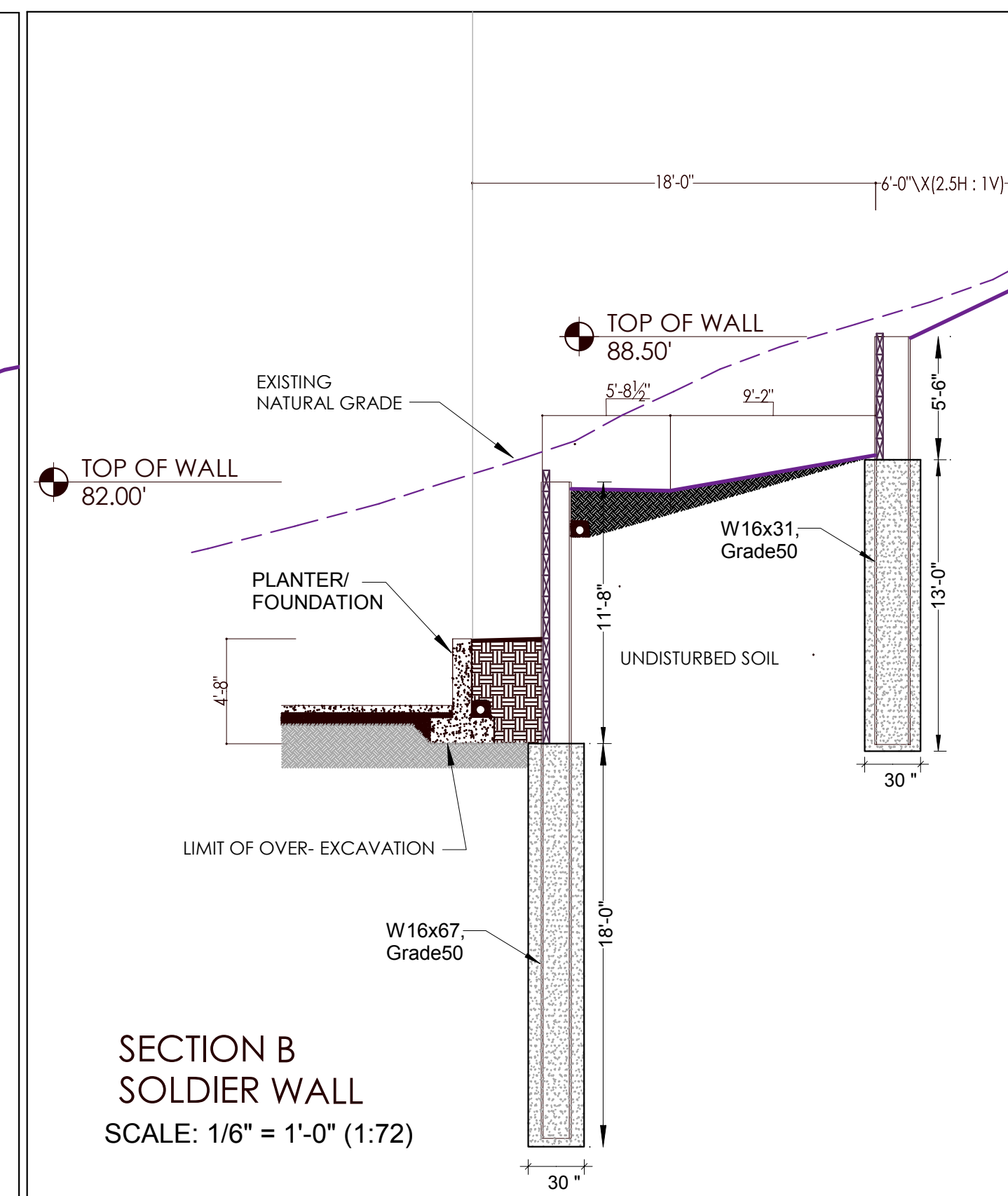
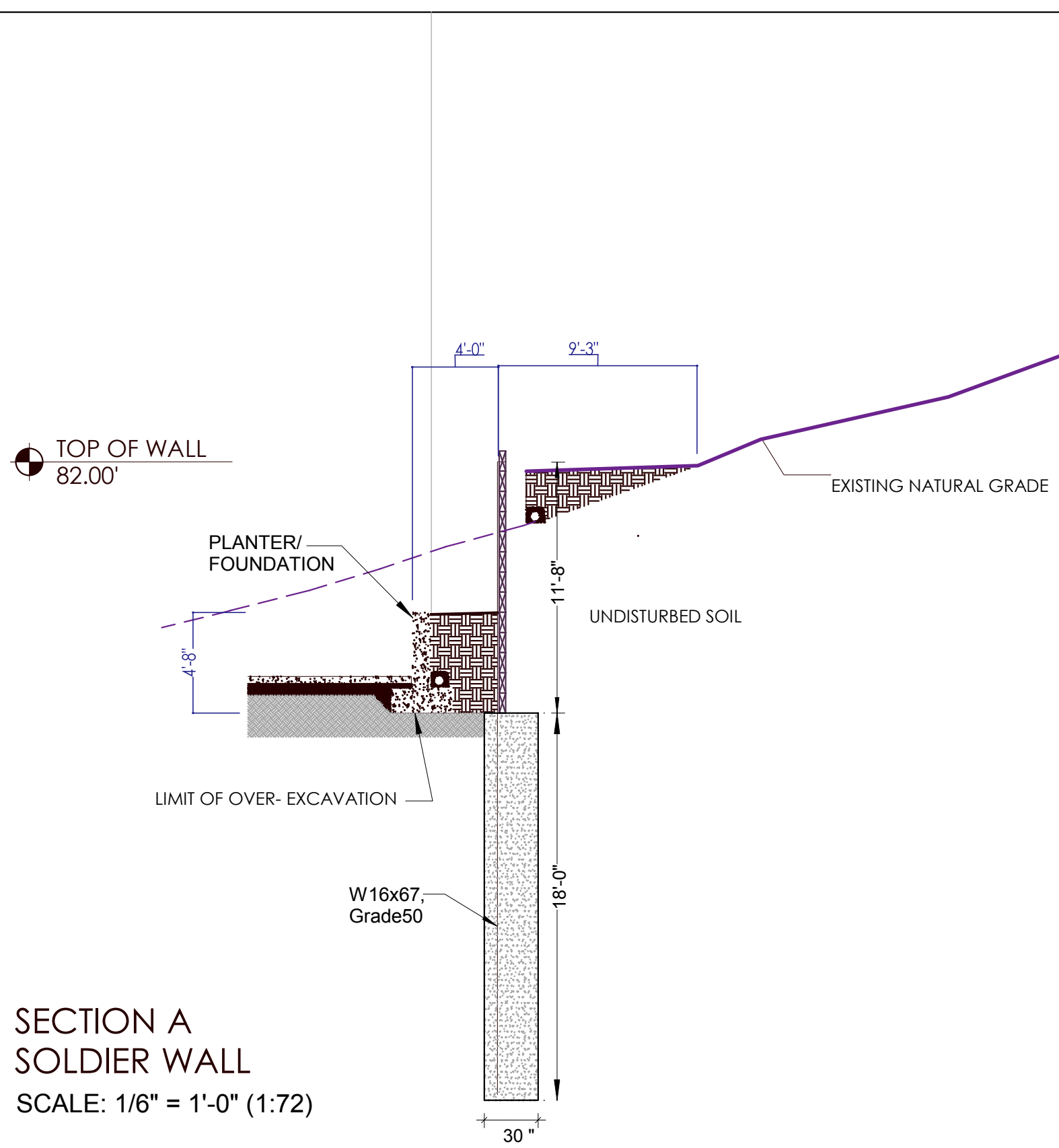
**PILE/LAGGING TABLE**

	TOP OF PILE	TOP LAGGING (N)	BOTTOM LAGGING (N)	TOP LAGGING (S)	BOTTOM LAGGING (S)	MIN. PILE EMBEDMENT
LOWER SOLIDER PILES, SPACING PER PLAN						
A	82.0	N/A	N/A	82.0	70.3	18ft
B	82.0	82.0	70.3	82.0	70.3	18ft
C	82.0	82.0	70.3	82.0	70.3	18ft
D	82.0	82.0	70.3	82.0	70.3	18ft
E	82.0	82.0	70.3	82.0	70.3	18ft
F	82.0	82.0	70.3	N/A	N/A	18ft
UPPER SOLIDER PILES, SPACING PER PLAN						
G	86.0	N/A	N/A	86.0	83.0	13ft
H	88.5	86.0	83.0	88.5	83.0	13ft
I	91.75	88.5	83.0	91.75	83.0	14ft
J	91.75	91.75	83.0	91.75	83.0	14ft
K	95.3	91.75	83.0	95.3	83.0	19ft
L	95.3	95.3	83.0	95.3	83.0	28ft
M	95.3	95.3	83.0	95.3	83.0	28ft
N	95.3	95.3	83.0	95.3	83.0	28ft
O	95.3	95.3	83.0	95.3	83.0	28ft
P	95.3	94.0	83.0	95.3	83.0	28ft
Q	94.0	94.0	83.0	91.75	83.0	28ft
R	91.75	91.75	83.0	N/A	N/A	28ft

- ALL LAGGING TO BE PRESSURE TREATED.
- PILES SHALL BE COATED WITH CORROSION PROTECTION PAINT.
- USE CONCRETE  $f_c = 2,500$  psi TO EMBED PILES



NOTE:  
REFER TO GEOTECHNICAL REPORT ADDENDUM  
EVALUATION OF SURCHARGE LOAD ON THE SOLDIER PILE WALL  
PROPOSED SIGLE-FAMILY RESIDENCE  
4634 E MERCER WAY, MERCER ISLAND, WA  
FOR FURTHER INFORMATION.



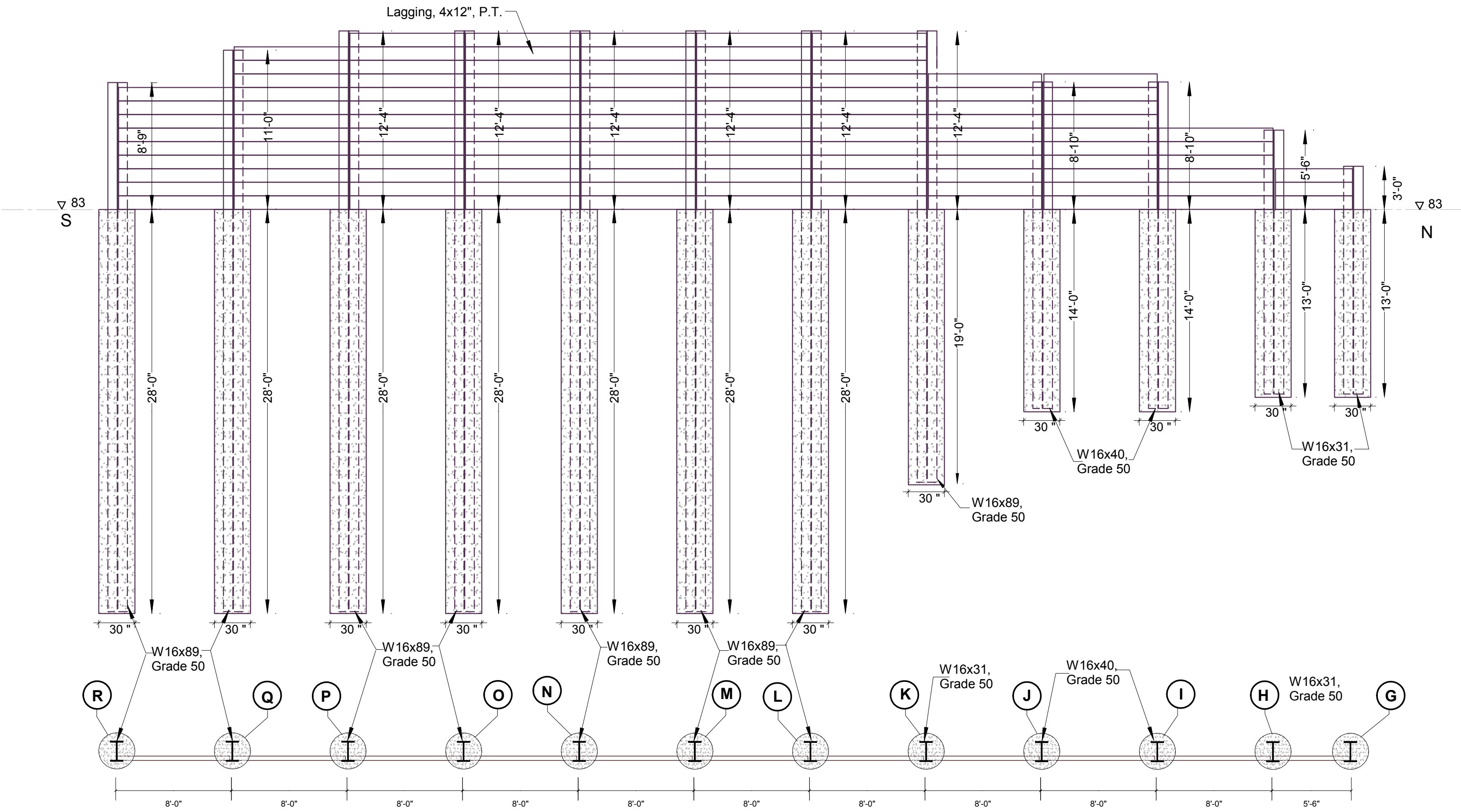
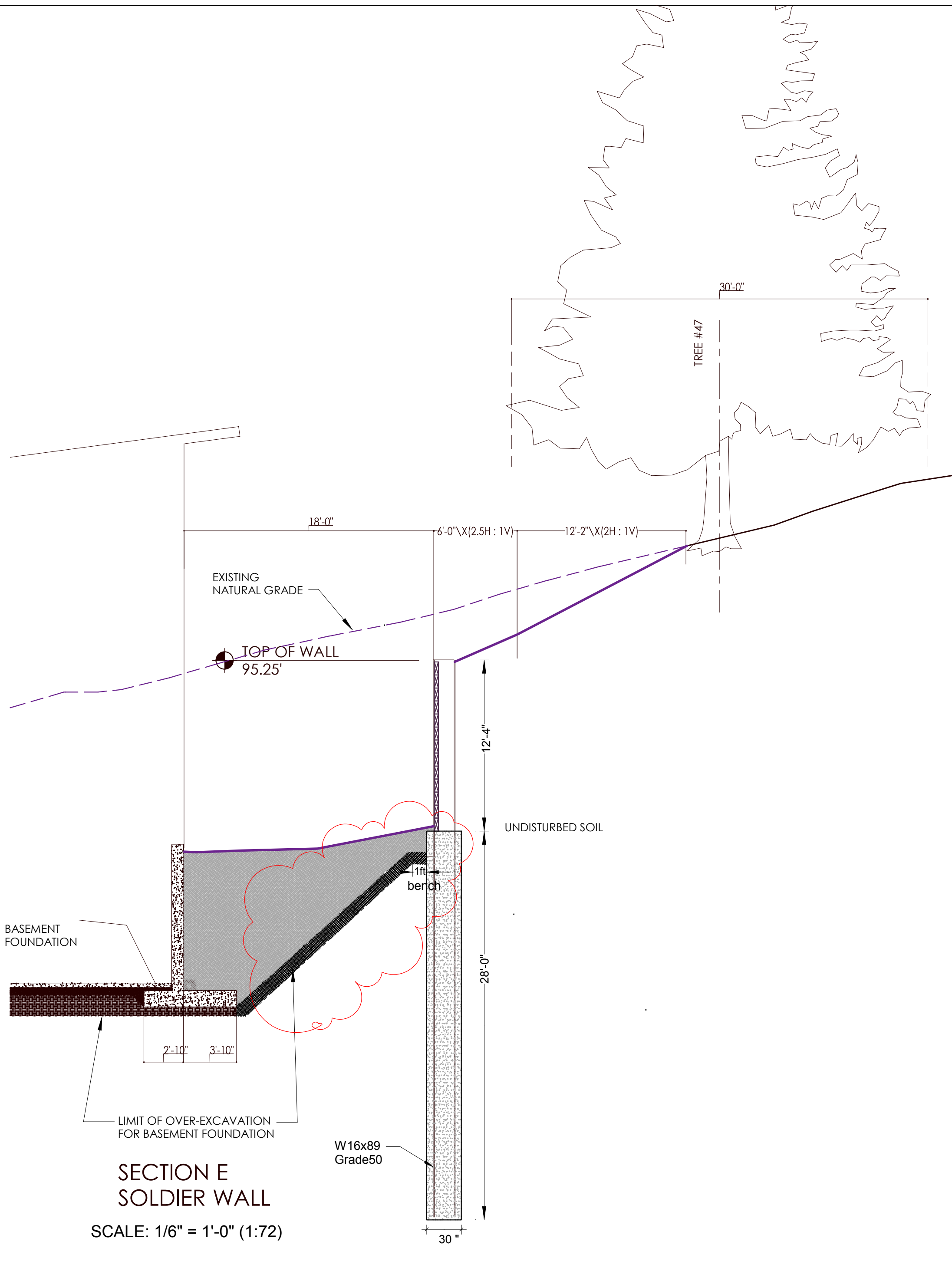
REVISION 08/05/19



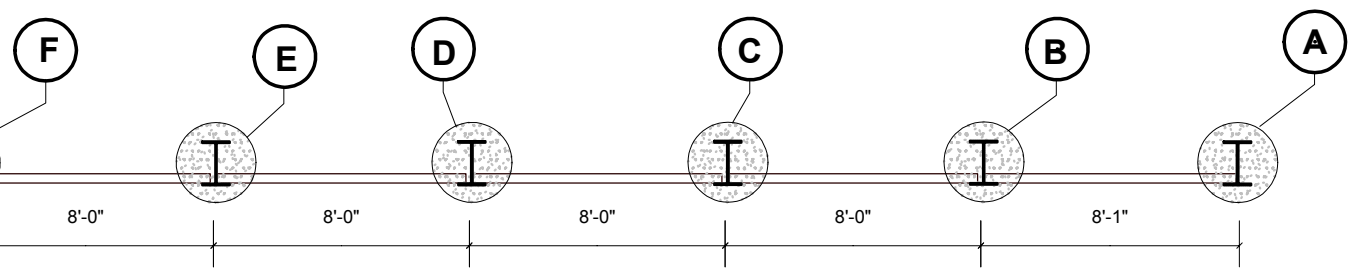
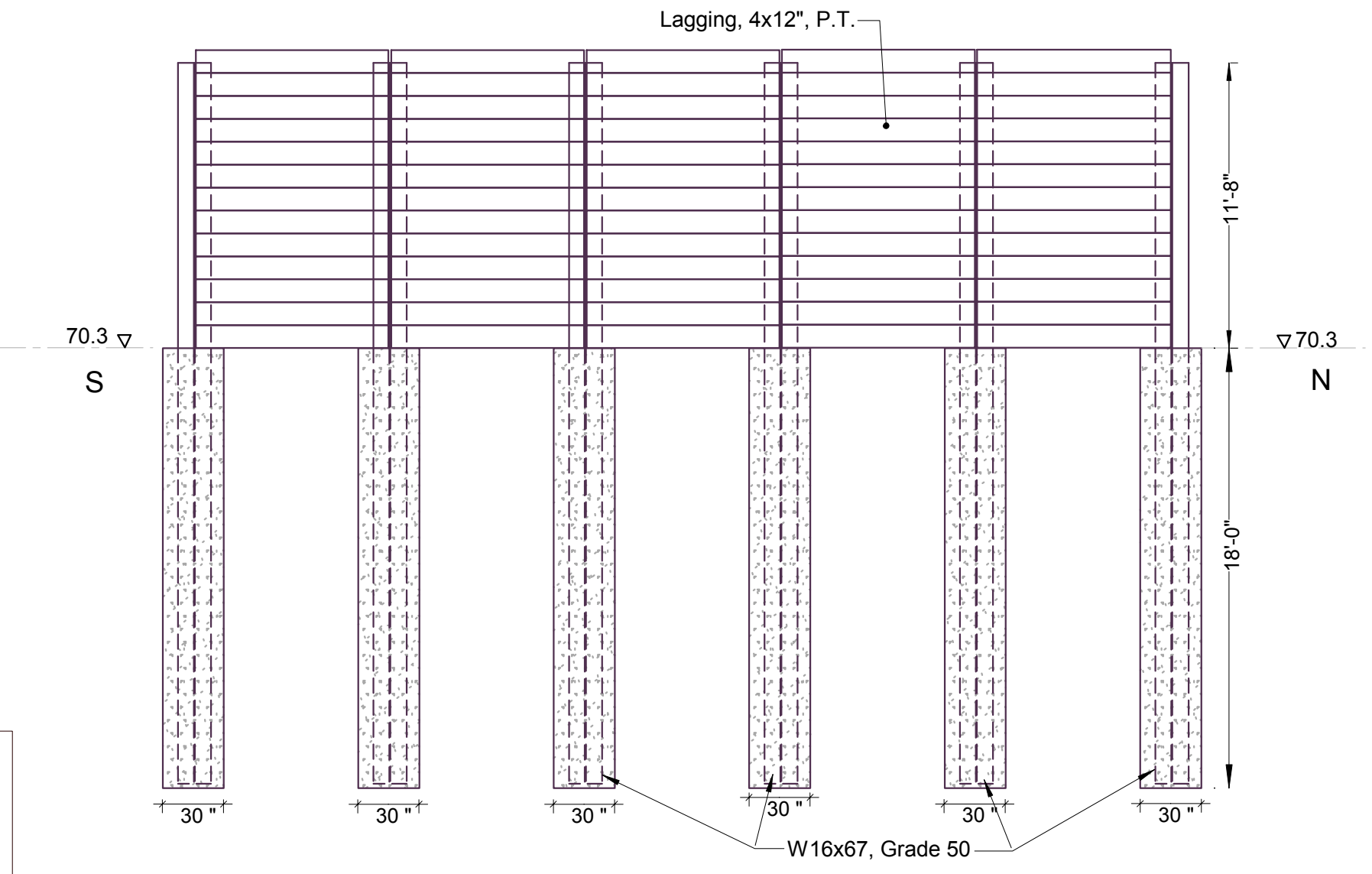
**tec instruct LLC**  
6830 NE Bothell Way - Suite C, PMB 181, Kenmore, WA 98028  
Telephone (206) 553 9076 - Fax (206) 529 4408  
ENGINEERING

BUILDER:	Barcelo Homes	SHEET
JOB SITE:	4634 E Mercer Way, Mercer Island	S10
PARCEL NO.:	WA 98040	
DESCRIPTION:	Solider Pile Shoring	
DATE:	03/11/15	SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.	





UPPER LINE OF SOLDIER PILE SHORING  
SCALE: 1/6" = 1'-0" (1:72)



LOWER LINE OF SOLDIER PILE SHORING  
SCALE: 1/6" = 1'-0" (1:72)

KEY NO.	STRUCTURAL MEMBERS
<b>FOUNDATION</b>	
4.9	Lower soldier Pile Wall, all Sections, W16x67, Grade 50
4.10	Upper Soldier Pile Wall, Section B, W16x31, Grade 50
4.11	Upper Soldier Pile Wall, Section C, W16x40, Grade 50
4.12	Upper Soldier Pile Wall, Section D, W16x89, Grade 50
4.13	Soldier Pile Wall, Section E, W16x89, Grade 50

**Shoring Construction Sequence**

- Grade and excavate to the top of the upper wall
- Drill 2.5 ft dia. holes for upper wall to bottom of embedment and install steel piles
- Dig soil in sections only deep enough to immediately install lagging  
Install lagging following the excavation to the top level of the lower wall
- Drill 2.5 ft dia. holes for lower wall to bottom of embedment and install steel piles
- Dig soil in sections only deep enough to immediately install lagging  
Install lagging following the excavation to the bottom level of the wall



REVISION 08/16/19

**tec instruct LLC**  
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Telephone (206) 553 9076 - Fax (206) 529 4408  
ENGINEERING

BUILDER:	Barcelo Homes	SHEET	
JOB SITE:	4634 E Mercer Way, Mercer Island	<b>S11</b>	
PARCEL NO.:	WA 98040		
DESCRIPTION:	Soldier Pile Shoring		
DATE:	03/11/15		SCALE: as noted
ENGINEER:	Roland Heimisch, P. E.		