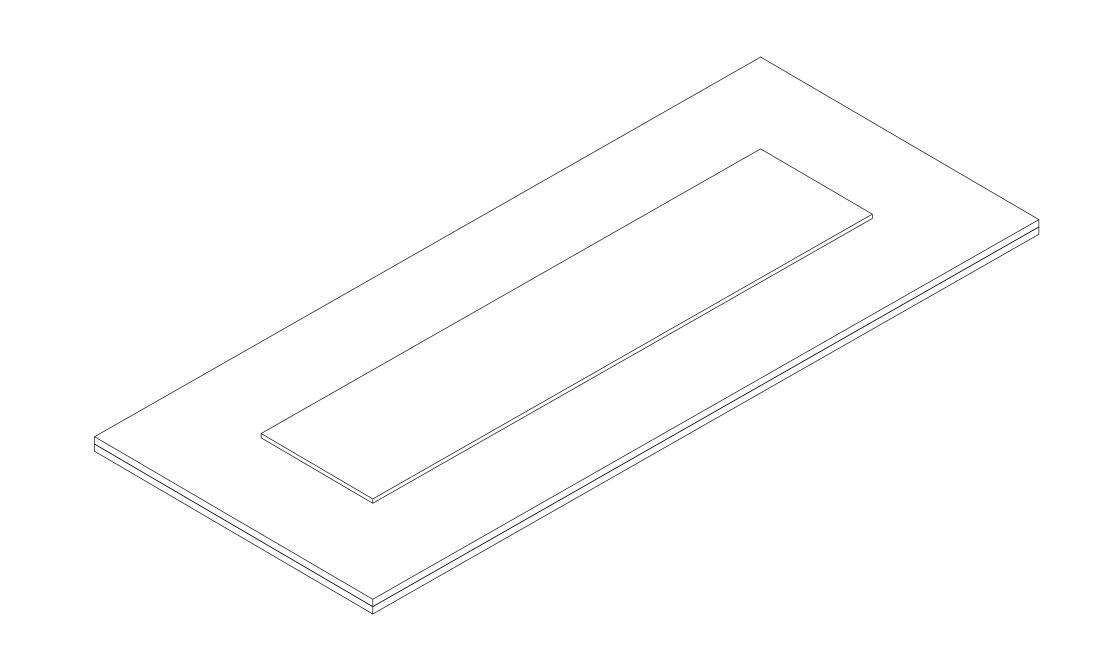
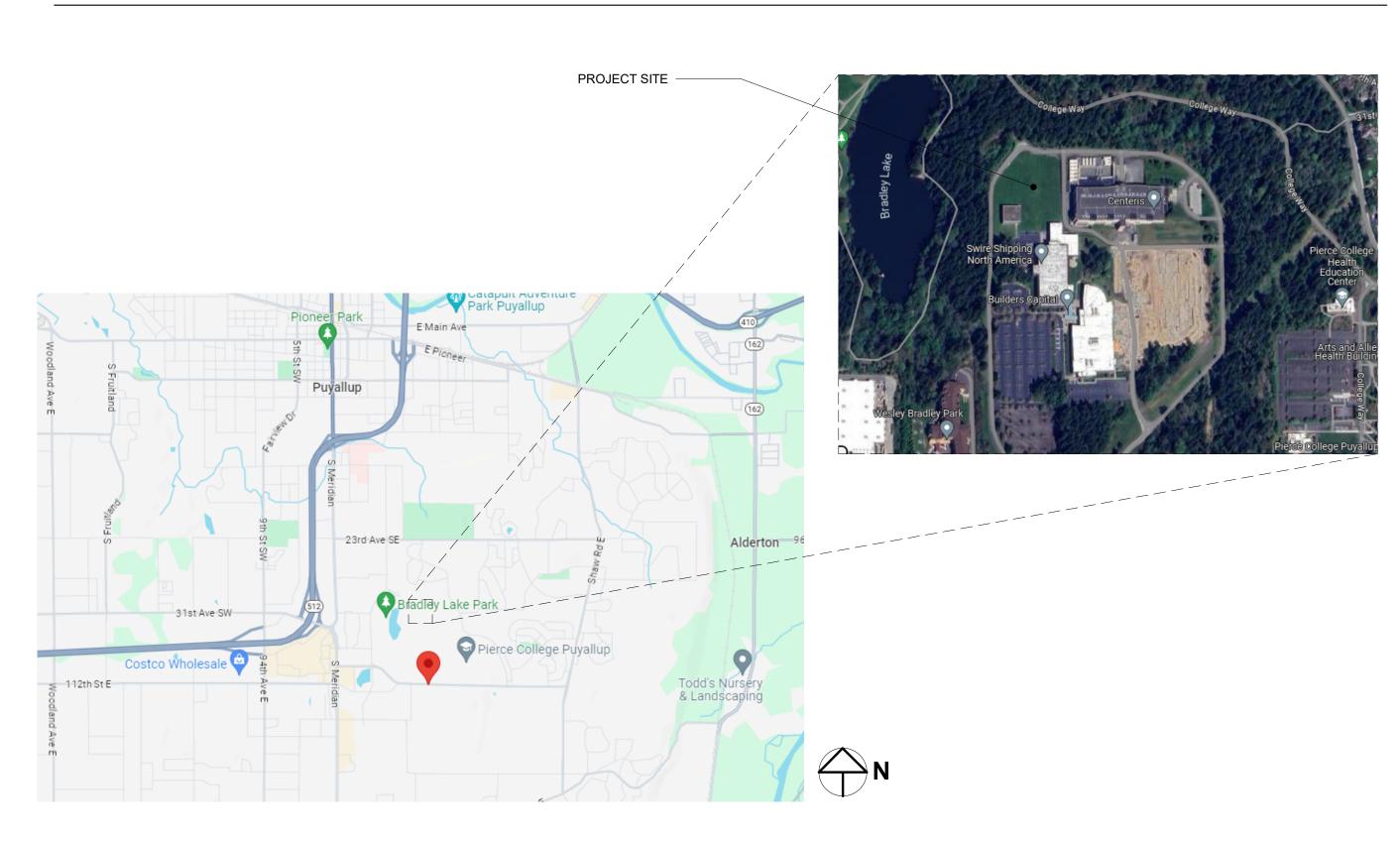
CENTERIS SHED - FOUNDATION PERMIT SUBMITTAL



Vicinity Map

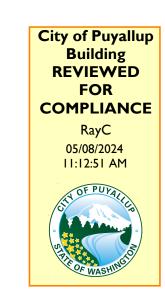


PRFO20240573

See S.01 for Special Inspection requirements.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.
PRINT in COLOR and to SCALE.

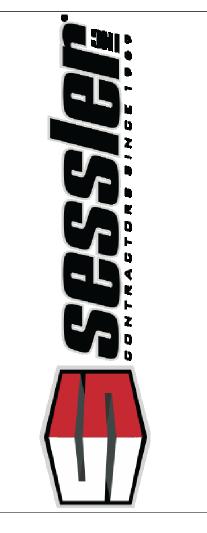


Brienen
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39TH AVENUE SOUTH EA PUYALLUP, WA 98374

Δ Issue Date
Foundation Permit 04/05/2024

Job # 24202

Drawn RRS

Checked PJB

COVER SHEET

S0₀

THE TERM 'ENGINEER', 'EOR', AND/OR 'SE' AS USED IN THESE STRUCTURAL DOCUMENTS SHALL MEAN BRIENEN STRUCTURAL ENGINEERS, P.S.

ALL WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE REFERENCE STANDARDS AND CODES INDICATED IN THE DRAWINGS UNLESS NOTED OTHERWISE. REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION AS OF THE BID DATE OR DATE OF OWNER-CONTRACTOR AGREEMENT, WHICHEVER IS LATER, UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE BUILDING CODE.

PRIME CONTRACT DRAWINGS THE ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. STRUCTURAL MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, AND LANDSCAPING, AMONG OTHERS, ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS TO THE PRIME CONTRACT DRAWINGS, STRUCTURAL DRAWINGS, AND OTHER SUPPLEMENTARY DRAWINGS.

OMISSIONS/CONFLICTS CONTRACTOR SHALL VERIFY ALL DIMENSIONS, FLOOR ELEVATIONS. DEPRESSIONS. FINISHES, STAIR DETAILS, GUARDRAILS, AND ETC. WITH OTHER DISCIPLINES INCLUDING ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.

TYPICAL DETAILS SHOWN ON THE DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE. SOME TYPICAL DETAILS ARE CUT OR OTHERWISE REFERENCED IN THE DRAWINGS HOWEVER MOST OR NOT. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS THE SPECIFIC DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CHOOSE THE APPROPRIATE DETAIL FROM THOSE PROVIDED.

THE CONTRACTOR SHALL SUBMIT ALL SUBSTITUTION REQUESTS (MATERIAL, PROCEDURE,

CONFIGURATION, AND/OR DETAIL) TO THE ARCHITECT/ENGINEER PRIOR TO SHOP DRAWING PRODUCTION.

REFER TO THE SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND THE STRUCTURAL DRAWINGS.

CONSTRUCTION MEANS AND METHODS AND SAFETY ONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS/METHODS AND FOR VERIFYING STRUCTURAL CAPACITY PRIOR TO APPLYING CONSTRUCTION LOADING. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY AT THE SITE AND FOR PROVIDING THE STRENGTH AND STABILITY OF ALL PARTIALLY COMPLETED STRUCTURE CONFORMING TO ASCE 37 'DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION'.

CONTRACTOR PROVIDED DESIGN SUBMITTALS THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE ITEMS NOTED IN THE DEFERRED SUBMITTALS SECTION OF THE GENERAL NOTES.

THE ENGINEER WILL PERFORM PERIODIC OBSERVATION DURING CONSTRUCTION OF THE FOUNDATION AND STRUCTURAL FRAME AS REQUIRED BY THE BUILDING CODE.

GEOTECHNICAL

ALLOWABLE BEARING PRESSURE (DEAD + LIVE) = 1500 PSF (ASSUMED) A 1/3 INCREASE IS ALLOWED FOR WIND OR SEISMIC

PASSIVE LATERAL PRESSURE = 250 PSF/FT ACTIVE LATERAL PRESSURE = 35 PSF/FT AT-REST LATERAL PRESSURE = 55 PSF/FT

COEFFICIENT OF FRICTION = 0.35 (INCLUDES A 1.5 FACTOR OF SAFETY)

DESIGN CRITERIA

<u>BUILDING CATEGORY</u> STRUCTURAL RISK CATEGORY II IMPORTANCE FACTOR SNOW ------ Is = 1.0 IMPORTANCE FACTOR SEISMIC ----- le = 1.0

GRAVITY LOADS DESIGN DEAD LOAD

SEISMIC DESIGN CATEGORY = D

20 PSF LIVE LOAD 25 PSF SNOW LOAD SEISMIC LOADS SITE CLASS = D - DEFAULT

MAPPED SPECTRAL RESPONSE PARAMETERS

Ss = 1.257 g; S1 = 0.434 g

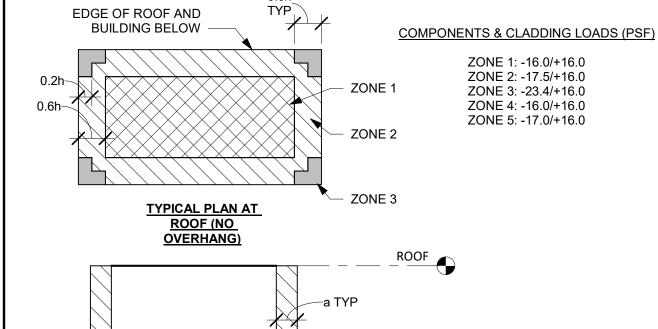
Sds = 1.006 g; Sd1 = ---ANALYSIS TYPE = EQUIVALENT LATERAL FORCE PROCEDURE (STAGED ANALYSIS PROCEDURE)

20 PSF

R = 6.5 (CFS WALLS WITH WOOD STRUCTURAL PANELS) WEIGHT, W = 25.8 KIPS, SEISMIC RESPONSE COEFFICIENT, Cs = 0.155 BASE SHEAR, V = Cs*W = 4.0 KIPS REDUNDANCY FACTOR = 1.0

<u>WIND LOADS</u> EXPOSURE CATEGORY = B BASIC WIND SPEED = 98 MPH

COMPONENT AND CLADDING WIND PRESSURE



TYPICAL BUILDING

ELEVATION

WIND LOADS FOR COMPONENT AND CLADDING ARE STRENGTH LEVEL AND DETERMINED IN ACCORDANCE WITH ASCE 7-16, CHAPTER 30, PART 1.

EXTERIOR COMPONENTS AND CLADDING SHALL BE DESIGNED TO ACCOMMODATE WORST-CASE WIND LOAD SHOWN.

ZONE 5

ZONE 4

POSITIVE PRESSURE ACTS TOWARDS THE SURFACE OF THE STRUCTURE.

NEGATIVE PRESSURE ACTS OUTWARD AS SUCTION ON THE BUILDING SURFACE. PRESSURE ARE CALCULATED USING MINIMUM EFFECTIVE AREA OF 10 sf. FOR ROOF AREAS GREATER THAN 10 sf EXCEPT AT OVERHANGS, NEGATIVE

PRESSURE MAY BE REDUCED AS FOLLOWS: 5% REDUCTION 20 sf < AREA < 50 sf 50 sf < AREA < 80 sf 12% REDUCTION 80 sf < AREA < 200 sf 16% REDUCTION 200 sf < AREA 20% REDUCTION

FOR WALL AREAS AND PARAPET AREAS GREATER THAN 10 sf, POSITIVE PRESSURE MAY BE REDUCED AS FOLLOW: 20 sf < AREA < 50 sf 5% REDUCTION 50 sf < AREA < 80 sf 12% REDUCTION 80 sf < AREA < 200 sf 16% REDUCTION 200 sf < AREA 20% REDUCTION

FOR ALL OVERHANGS, NO WIND LOAD MAY BE REDUCED.

FOR WALL AREAS AND PARAPET AREAS GREATER THAN 10 sf, NEGATIVE PRESSURE MAY BE REDUCED AS FOLLOW: 20 sf < AREA < 50 sf 3% REDUCTION 50 sf < AREA < 80 sf 8% REDUCTION 80 sf < AREA < 200 sf 10% REDUCTION 15% REDUCTION 200 sf < AREA

EDGE PRESSURE SHALL BE USED FOR A DISTANCE "a" FROM THE BUILDING CORNERS, WHERE "a" IS THE SMALLER OF 10% OF THE LEAST HORIZONTAL DIMENSION OR 0.4*h BUT NOT LESS THAN EITHER 4% OF THE LEAST HORIZONTAL DIMENSION OR 3'-0".

CONCRETE

ASTM A615, Fy = 60KSI

ASTM A185

SPECIFIED VALUES ARE TOTAL AIR INCLUDING ENTRAPPED AND ENTRAINED. TOLERANCE

FOR AIR CONTENT SHALL BE + OR - 1 1/2% TESTING SHALL CONFORM TO ASTM C231, AND

MIX DESIGN TABLE

MAX W/C | MIN PCY | AGGREGATE |

RATIO | FLYASH | GRADING

MIX NOTES:

1. DESIGN OF STRUCTURAL ELEMENTS IS BASED ON fc = 2500 PSI. HIGHER

CONTRACTOR SHALL MAKE APPROPRIATE MODIFICATIONS TO MIXING, TRANSPORTING.

APPLY A SILANE SEALER WITH 40% SOLIDS CONTENT TO ALL SLABS AND TOPPING SLABS

THE INTERFACE OF ALL CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHEN TO

IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL SURFACES SHALL BE WETTED AND

AN AMPLITUDE OF 1/4". SURFACES SHALL BE CLEANED, LAITANCE SHALL BE REMOVED.

REINFORCING SHALL BE DEVELOPED INTO A COLUMN OR WALL Ld UNO. WHERE 12" OR

LAP SPLICED REINFORCING AS REQUIRED Ls. WHERE 12" OR MORE OF CONCRETE IS

DEVELOPMENT IS NOT POSSIBLE TERMINATE REINFORCING WITH A STANDARD HOOK NOT

MORE OF CONCRETE IS CAST BELOW Ldt SHALL BE USED. WHERE STRAIGHT BAR

RECOMMENDATIONS. USE LOW PRESSURE SPRAY, ROLLER, OR BRUSH APPLICATORS.

PERMANENTLY EXPOSED TO WEATHER. APPLY SEALER ACCORDING TO MANUFACTURER'S

PLACING, AND CURING PROCEDURES DURING PERIODS OF HOT, COLD, OR WINDY

SPECIFIED f'c FOR MIX DESIGN STRENGTH IS FOR DURABILITY.

ASTM

57 OR 67

57 OR 67

7 OR 8

100 57 OR 67

f'c MIX DESIGN

3000 @ 28 DAYS

4000 @ 28 DAYS

5000 @ 28 DAYS

3000 @ 28 DAYS

57 OR 67 4500 @ 28 DAYS

57 OR 67 4000 @ 28 DAYS

STRENGTH (PSI) NOTES

THE AVERAGE OF ALL TESTS TAKEN SHALL EQUAL OR EXCEED THE SPECIFIED VALUE.

TESTING SHALL BE PERFORMED PRIOR TO ENTERING THE PUMP HOPPER.

CEMENT:

WATER:

FLY ASH:

REINFORCING STEEL UNO:

LOCATION

FOOTINGS

SLAB ON GRADE

SLAB ON GRADE

BASEMENT WALL

TOPPING SLAB OVER

WOOD JOISTS

OTHER CONCRETE

WEATHER CONDITIONS

STANDING WATER REMOVED.

CAST BELOW Lst SHALL BE USED..

XPOSED OR GARAGE 0.40

PROVIDE 5% AIR ENTRAINMENT.

WEATHER IN ACCORDANCE WITH ACI 301.

REINFORCING DEVELOPMENT AND LAP SPLICES

LESS THAN 3-INCHES FROM THE FAR END OF MEMBER.

2500 PSI CONCRETE DEVELOPEMENT AND SPLICE

LENGTH TABLE

#4 2'-0" 2'-7" 2'-7" 3'-5" 1'-7"

#5 2'-6" 3'-3" 3'-3" 4'-3" 1'-11"

Ld Ldt Ls

#6 3'-0" 3'-11" 3'-11" 5'-1"

WELDED WIRE REINFORCEMENT:

AISI S100-16 (2020) W/ S2-20 - NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-MATERIAL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS UNLESS NOTED FORMED STEEL STRUCTURAL MEMBERS AISI S202-20 - CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL STRUCTURAL OTHERWISE ON PLANS: AISI S220-20 - NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL NONSTRUCTURAL ASTM C150, C595 AGGREGATES: ASTM C33 ADMIXTURES: ASTM C260, C494, C1017 AISI S230-19 - STANDARD FOR COLD-FORMED STEEL FRAMING - PRESCRIPTIVE METHOD ASTM C94 FOR ONE- AND TWO-FAMILY DWELLINGS AISI S240-20 - NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL STRUCTURAL ASTM C618, CLASS F OR C

STEEL STRUCTURAL SYSTEMS

CONFORM WITH ICC REPORT ER-4943P.

FOLLOWING EXAMPLE:

MATERIAL CRITERIA

AISI S400-20 - NORTH AMERICAN STANDARD FOR SEISMIC DESIGN OF COLD-FORMED

REFERENCE STANDARDS

COLD-FORMED STEEL MATERIAL SHALL BE MANUFACTURED AND FORMED, PER ASTM A1003/A1003M, FROM GALVANIZED ASTM A653 SS GRADE 50 STEEL FOR 54, 68 AND 97 MIL BASE THICKNESS MATERIAL AND FROM GALVANIZED ASTM A653 SS GRADE 33 MATERIAL FOR 43 AND 33 MIL BASE THICKNESS MATERIAL, UNO. WHERE NOTED, PAINTED COLD-FORMED STEEL MATERIAL SHALL CONFORM TO ASTM A570 SS GRADE 80. MINIMUM COLD-FORMED STEEL ACCEPTANCE CRITERIA SHALL BE PER ICC-ES AC46.

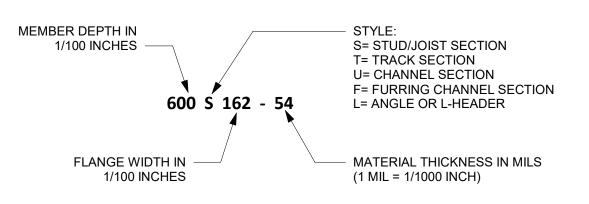
ALL GALVANIZED MEMBERS SHALL CONFORM TO ASTM A924 WITH THE FOLLOWING MINIMUM COATING REQUIREMENTS: NON-STRUCTURAL MEMBERS (ASTM C645 - G40 COATING), STRUCTURAL MEMBERS (ASTM C955 - G60 COATING), EXPOSED EXTERIOR MEMBERS (ASTM C955 - G90 COATING).

EACH MEMBER SHALL BEAR A LEGIBLE STICKER, STAMP, STENCIL, OR EMBOSSMENT, SPACED A MAXIMUM OF 48"OC ON THE WEB OF THE FRAMING MEMBER, INDICATING THE MINIMUM STEEL SHEET THICKNESS. METALLIC-COATING DESIGNATION. MINIMUM YIELD STRENGTH, PRODUCT DESIGNATION, AND NAME OF MANUFACTURER. WHERE MEMBERS ARE NOT LABELED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE STEEL IS IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS.

PRODUCT DATA FOR ALL MEMBERS, ACCESSORIES, AND FASTENERS SHALL BE SUBMITTED TO THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT FOR REVIEW AND ACCEPTANCE PRIOR TO FABRICATION AND ERECTION. FRAMING SUBSTITUTIONS SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE BY THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO FABRICATION AND INSTALLATION.

ALL COLD-FORMED STEEL FRAMING SHALL BE IN ACCORDANCE WITH AISI "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", AS AMENDED BY THE INTERNATIONAL BUILDING CODE AND SHALL STRICTLY

ALL COLD-FORMED STEEL PRODUCTS SHALL BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA). MATERIAL DESIGNATIONS NOTED ON THE DRAWINGS, RELATING TO MEMBER TYPES AND SIZES OR MISCELLANEOUS FRAMING ITEMS, REFER TO PRODUCT IDENTIFICATION STANDARDS ADOPTED BY THE SSMA. SSMA PRODUCTS HAVE A FOUR PART IDENTIFICATION CODE AS INDICATED IN THE



EACH JOIST, RAFTER, TRUSS AND STRUCTURAL WALL STUDS SHALL BE ALIGNED WITHIN 3/4 FROM CENTERLINE OF HORIZONTAL FRAMING MEMBER TO CENTERLINE OF VERTICAL FRAMING MEMBER, UNO, OR AS SPECIFIED IN FIGURE C1-1 OF THE AISI STANDARD "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS". STRUCTURAL FRAMING MEMBERS SHALL BE INSTALLED PER ASTM C1007 AND NON-STRUCTURAL FRAMING MEMBERS PER ASTM C754.

CONCRETE BEARING SURFACES AT STRUCTURAL FRAMING SHALL PROVIDE A UNIFORM BEARING SURFACE WITH A MAXIMUM 1/4" GAP BETWEEN THE TRACK AND THE CONCRETE STEEL BEARING SHIMS OR NON-SHRINK GROUT CAN BE USED TO ACHIEVE THIS REQUIREMENT. THE BOTTOM TRACK OF LOAD BEARING WALLS SHALL NOT EXTEND OVER THE EDGE OF FORMED CONCRETE BEARING SURFACES BELOW.

COLD-FORMED STEEL SHALL NOT BE IN DIRECT CONTACT WITH THE GROUND UNLESS NOTED OTHERWISE.

COLD-FORMED STEEL CONNECTIONS

FOR STEEL-TO-STEEL CONNECTIONS AND FOR STRUCTURAL SHEATHING-TO-STEEL CONNECTIONS SHALL BE SELF TAPPING, SELF DRILLING FASTENERS IN COMPLIANCE WITH ASTM C1513 AND SHALL HAVE A TYPE II COATING IN ACCORDANCE WITH ASTM B633 "ELECTRO-DEPOSITED COATING OF ZINC ON IRON AND STEEL". SELF-PIERCING SCREWS PER ASTM C1002 ARE PERMITTED FOR CONNECTION OF 33 MILS STEEL OR THINNER. THE SCREW MANUFACTURER SHALL PROVIDE VERIFICATION OF THE FASTENERS' RESISTANCE TO HYDROGEN EMBRITTLEMENT. SCREWS SHALL CONFORM TO SAEJ78 "STANDARD SPECIFICATION FOR SELF-DRILL TAPPING SCREWS". SCREW ACCEPTANCE SHALL BE BASED ON ICC-ES AC118 "ACCEPTANCE CRITERIA FOR TAPPING SCREW FASTENERS".

SCREW CONNECTIONS SHALL BE IN COMPLIANCE WITH THE AISI STANDARD "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS, 2007 EDITION". SCREW CONNECTIONS SHALL BE MADE FROM THE LIGHTER MATERIAL INTO THE THICKER MATERIAL, UNO. SCREWS SHALL EXTEND THROUGH THE STEEL CONNECTION A MINIMUM OF THREE EXPOSED THREADS AND SHALL HAVE MINIMUM CENTER-TO-CENTER SPACING AND EDGE DISTANCES OF THREE TIMES THE NOMINAL SCREW DIAMETER. SCREWS SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL NOT CAUSE PERMANENT SEPARATION BETWEEN COMPONENTS. SHEATHING FASTENERS SHALL MAINTAIN A MINIMUM 3/8" EDGE DISTANCE IN SHEATHING AND SHALL HAVE THEIR HEADS FLUSH WITH THE SHEATHING (BUT NO MORE THAN 1/16" BELOW THE SURFACE OF THE SHEATHING).

STRIPPED SCREWS IN DIRECT TENSION SHALL BE CONSIDERED INEFFECTIVE AND SHALL BE REPLACED. STRIPPED SCREWS IN SHEAR THAT CONSTITUTE MORE THAN 25% OF THE TOTAL SCREWS IN THE CONNECTION SHALL BE CONSIDERED INEFFECTIVE AND SHALL BE REPLACED. STRIPPED SCREWS ARE PERMITTED TO BE REMOVED AND REPLACED WITH SCREWS OF THE NEXT LARGER DIAMETER.

CONNECTION	MINIMUM SCREW SIZE		
METAL TO METAL (68 MILS)	#10-16 (#3 POINT)		
METAL TO METAL (33 MILS - 54 MILS)	#8-18 (#2 POINT)		
METAL TO METAL (SHEAR WALLS)	#8-18 (#2) POINT) WAFER HEAD		
APA SHEATHING (SHEAR WALLS)	#8-18 (#2 POINT FLAT HEAD w/ 0.292"Ø HEAD MIN		
GWB OR GYPSUM SHEATHING	#6 x 1" (#2 POINT) DRYWALL		
METAL DECK TO FRAMING	#12-14 (#3 POINT)		
SIMPSON HARDWARE	PER SIMPSON CATALOG		

ALLOWABLE LOADS FOR SCREW CONNECTIONS (LBS/SCREW) SHALL BE AS INDICATED IN THE TABLE BELOW AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EITHER PROVIDE SCREW TEST DATA FROM THE SCREW MANUFACTURER'S QUALITY ASSURANCE PROGRAM OR SHALL RETAIN AN INDEPENDENT CERTIFIED TESTING AGENCY TO PROVIDE THE LOAD TEST VERIFICATION. NOMINAL STRENGTH OF SCREWS SHALL BE AT LEAST 3.0 TIMES THE ALLOWABLE LOADS SHOWN IN THE TABLE.

ALLOWABLE LOADS FOR SCREW CONNECTIONS (POUNDS)									
SHEET METAL SCREW SIZE	STEEL THICK	33 Mils (0.0346")		43 Mils (0.0451")		54 Mils (0.0566")		68 Mils (0.0713")	
	STEEL	Fy	Fu	Fy	Fu	Fy	Fu	Fy	Fu
	PROPTY (KSI)	33	45	33	45	50	65	50	65
NO. 6	SHEAR	14	11	214		214		214	
(Ø0.138")	PULLOUT	61		79		140		140	
NO. 8	SHEAR	164		24	44	42	26	42	26
(Ø0.164")	PULLOUT	72		9)4	17	71	19	95
NO. 10	SHEAR	177		2:	36	53	34	54	48
(Ø0.190")	PULLOUT	84		109		19	98	24	49
No. 12 (Ø0.216")	SHEAR	18	38	280		569		777	
	PULLOUT	9	5	1:	24	22	25	28	34

COLD FORMED STEEL CONNECTORS COLD-FORMED STEEL CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE

"STRONG-TIE" BY THE SIMPSON STRONG-TIE COMPANY. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED. PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER, LENGTH, TYPE, AND SIZE OF FASTENERS AS SPECIFIED BY THE MANUFACTURER. FILL ALL HOLES WITH FASTENERS AS SPECIFIED BY THE MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

WELDING OF COLD-FORMED METAL FRAMING SHALL CONFORM TO LATEST EDITION OF THE "STRUCTURAL WELDING CODE - SHEET STEEL" AWS D1.3 AND SHALL BE PERFORMED BY WELDERS CERTIFIED BY W.A.B.O. TO PRODUCE THE SPECIFIED CLASSES OF WELD. ONLY PRE-QUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL WELDS SHALL BE MADE USING LOW HYDROGEN ELECTRODES OR PROCESSES. LOW HYDROGEN ELECTRODES SHALL BE PROVIDED IN HERMETICALLY SEALED CONTAINERS; ELECTRODES THAT HAVE BEEN WET SHALL NOT BE USED. REFER TO AWS REQUIREMENTS REGARDING ALLOWABLE EXPOSURE OF LOW HYDROGEN ELECTRODES TO THE ATMOSPHERE AND FOR RE-DRYING RECOMMENDATIONS AND RESTRICTIONS. MATCHING FILLER METALS PER AWS D1.3 SHALL BE USED AND SHALL BE ADJUSTED TO ELIMINATE BURN-THROUGH IN LIGHT-GAUGE STEEL MATERIALS. WELDED AREAS SHALL BE TREATED WITH ZINC PAINT CONFORMING TO ASTM A780. FOR MATERIAL LESS THAN 0.15" THICK, DRAWINGS SHOW NOMINAL WELD SIZES. FOR SUCH MATERIAL. THE EFFECTIVE THROAT OF WELDS SHALL NOT BE LESS THAN THE THICKNESS OF THE THINNEST CONNECTED PART. PUDDLE WELDS ARE PROHIBITED. WELDING OF COLD-FORMED STEEL SHALL ONLY BE APPLIED TO MATERIAL WITH A BASE STEEL THICKNESS OF 43 MILS OR GREATER, UNO.

BOLTED CONNECTIONS BOLTED CONNECTIONS SHALL BE IN ACCORDANCE WITH SECTION E3 OF THE AISI "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STRUCTURES". PRE-DRILLED HOLES FOR BOLTS SHALL NOT BE OVERSIZED MORE THAN 1/16" FOR BOLTS UP TO 1/2" IN

DIAMETER AND 1/8" FOR LARGER BOLTS. BURNED HOLES ARE PROHIBITED.

DRILLED ANCHORS USED TO FASTEN COLD-FORMED STEEL MEMBERS TO CONCRETE SHALL BE KWIK BOLT TZ AS MANUFACTURED BY THE HILTI CORPORATION. AND SHALL CONFORM TO ICC REPORT ESR-1917 INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. FASTENERS SHALL NOT BE INSTALLED BEFORE THE SPECIFIED 28 DAY COMPRESSIVE STRENGTH OF THE CONCRETE HAS BEEN OBTAINED. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED WITH ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. CONNECTED MEMBERS MAY LIMIT ACTUAL DESIGN VALUES.

POWDER-DRIVEN OR PNEUMATIC FASTENERS POWDER-DRIVEN OR PNEUMATIC FASTENERS USED TO FASTEN COLD-FORMED STEEL MEMBERS TO STRUCTURAL STEEL OR CONCRETE SHALL BE MANUFACTURED BY THE HILTI CORPORATION, AS INDICATED IN THE TABLE BELOW. ALL FASTENERS SHALL CONFORM STRICTLY TO ICC REPORT ESR-2269 INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. FASTENERS THROUGH STRUCTURAL STEEL SHALL FULLY PENETRATE THE STRUCTURAL STEEL WITH A MINIMUM PENETRATION OF 1/4" THROUGH THE LAST MATERIAL JOINED. UNDERDRIVEN PINS SHALL NOT BE RESET BUT SHALL BE REPLACED BY ANOTHER PIN INSTALLED IN ANOTHER LOCATION. FASTENERS IN CONCRETE SHALL NOT BE INSTALLED BEFORE THE SPECIFIED 28 DAY COMPRESSIVE STRENGTH OF THE CONCRETE HAS BEEN ACHIEVED. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED WITH ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. THE FOLLOWING TABLE INDICATES REQUIRED SHEAR AND PULLOUT VALUES (LBS/FASTENER). CONNECTED MEMBERS MAY LIMIT ACTUAL DESIGN VALUES.

STATEMENT OF SPECIAL INSPECTIONS

CONCRETE

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND AS

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	NOTES
REINFORCING STEEL AND PLACEMENT		Х	ACI 318: 20, 25.2, 25.3, 26.6.1-26.6.3	SPECIAL INSPECTION SHALL CONFORM TO ACI 26.13 UNO
ANCHORS CAST IN CONCRETE		Х	ACI 318: 17.8.2	SPECIAL INSPECTIONS NOT REQUIRED FOR THE
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS: A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR	х		ACI 318: 17.8.2.4	FOLLOWING CONDITIONS: NON-STRUCTURAL SLAB ON
UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAIN TENSION LOADS.			A01310. 17.0.2.4	GRADE
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN A.		X	ACI 318: 17.8.2	CONCRETE FOUNDATION WALLS WITH F'c ≤ 2500 PSI
VERIFY USE OF REQUIRED DESIGN MIX		X	ACI 318: 19, 26.4.3, 26.4.4	ISOLATED SPREAD FOOTINGS FOR BUILDINGS
			IBC 1904.1, 1904.2	THREE-STORIES AND LESS ABOVE GRADE PLANE
SAMPLING OF FRESH CONCRETE, SLUMP TEST, AIR CONTENT, TEMPERATURE OF CONCRETE AT TIME OF	Х		ACI 318: 26.5, 26.12 ASTM C 172, C 31	CONTINUOUS FOOTINGS
MAKING SPECIMENS			7.61111 6 172, 6 61	SUPPORTING WALLS OF THREE-STORIES AND LESS ABOVE GRADE PLANE WHERE
MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		Х	ACI 318: 26.5.3-26.5.5	WALLS ARE LIGHT-FRAME
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		Х	ACI 318: 26.11.1.2(b)	
MATERIAL VERIFICATION OF REINFORCEMENT STEEL FOR ASTM A615 REINFORCING		Х	ACI 20.2.2.5 (b)	MANUFACTURER SHALL PROVIDE MILL TEST REPORTS
COLD-FORM	ED:	STE	EL FRAMING	
VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	NOTES
SCREW ATTACHMENT, WELDING, BOLTING, ANCHORING AND FASTENING OF SHEAR WALLS, BRACES, DIAPHRAGMS, DRAG STRUTS, AND HOLD-DOWNS THAT ARE PART OF SEISMIC		Х	AWS D1.3 IBC 1705.12.2, 1705.13.3	EXCEPTIONS PER IBC 1705.12.2

SPECIAL INSPECTION OF PLUMBING, ELECTRICAL AND MECHANICAL COMPONENTS PER IBC 1705.13.6 WHERE APPLICABLE. "C" DENOTES CONTINUOUS INSPECTION "P" DENOTES PERIODIC INSPECTION

TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT AND STRUCTURAL ENGINEER. SPECIAL INSPECTOR SHALL UTILIZE DRAWINGS, SPECIFICATIONS, RFI'S, AND OTHER PERTINENT DESIGN DOCUMENTS DURING INSPECTIONS.

IBC 1705.12.3, 1705.13.5

EXCEPTIONS PER IBC

SPECIAL INSPECTOR SHALL CLEARLY NOTE ON THE INSPECTION REPORTS WHEN AN ITEM IS NOT IN CONFORMANCE WITH THE PLANS AND SPECIFICATION, AND KEEP A LOG OF EACH ITEM UNTIL THEY ARE CLEARED VIA RFI OR OTHER MEANS.

SPECIAL INSPECTOR SHALL PROVIDE A STRUCTURAL CLOSE OUT LETTER AT THE END OF THE PROJECT. THIS LETTER SHALL CONFIRM THAT ALL STRUCTURAL NON-CONFORMANCES NOTED IN INSPECTION REPORTS HAVE BEEN CLEARED AND THAT TO THE BEST OF THEIR KNOWLEDGE THERE ARE NO OUTSTANDING STRUCTURAL DEFICIENIES TO BE RESOLVED.

STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNATED REPRESENTATIVE IN ACCORDANCE WITH IBC 1704.6. STRUCTURAL OBSERVATION SHALL BE PERFORMED AS FOLLOWS:

- PERIODIC VISUAL OBSERVATION OF STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES. REVIEW OF TESTING AND INSPECTION REPORTS.
- REPORTS SHALL BE PREPARED FOR EACH SITE VISIT AND SHALL BE DISTRIBUTED TO ARCHITECT

RESISTING SYSTEM

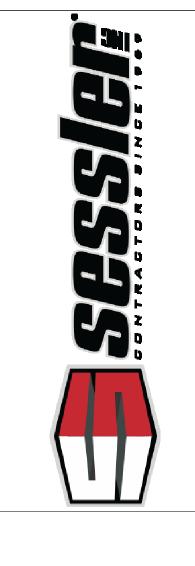
OOF AND WALL CLADDING

ION LOAD BEARING WALLS

GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

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С)rawn	RRS
С	Checked	PJI

GENERAL NOTES

City of Puyallup

ISSUED PERMIT

Building

Engineering

Fire

evelopment & Permitting Services

Planning

Public Works



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

FOUNDATION PLAN NOTES

- 1. SLAB ON GRADE IS 5" THICK ENLESS NOTED OTHERWISE.
- 2. REINFORCE SLAB ON GRADE WITH #4 @ 12" OC EW, UNO.
- PROVIDE SAW CUT JOINTS IN SLAB ON GRADE PER TYPICAL SLAB ON GRADE DETAILS. MAX SPACING SHALL BE 12' 0" O.C. EACH WAY UNLESS SPECIFIED OTHERWISE BY ARCHITECT. SUBMIT SAW CUT PLAN TO ARCHITECT FOR REVIEW.
- 4. REFERENCE DRAWINGS: S3.1 FOR CONCRETE FOUNDATION DETAILS
- OVEREXCAVATION SHALL BE BACKFILLED WITH A LEAN-MIX CONCRETE (1 1/2 SACK MIN) PER GEOTECHNICAL REPORT.

COLD-FORMED STEEL FRAMING PLAN NOTES

- 1. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- COLD-FORMED STEEL STUD WALLS SHALL ALIGN WITH TRUSS/JOIST LAYOUT AND BE SPACED AT 24" OC MAXIMUM, UNLESS NOTED OTHERWISE.
- 3. A INDICATES PLYWOOD SHEAR WALL. SEE SHEAR WALL SCHEDULE ON SHEET S3.0 AT WALLS SHEATHED ON ONE FACE ONLY, PLACE SHEATHING ON THE CHEVRON TAG SIDE. ALL EXTERIOR BEARING AND NON-BEARING WALLS SHALL MEET SHEAR WALL TYPE A REQUIREMENTS UNLESS NOTED OTHERWISE.
- 4. PLACE ALL HOLDOWNS AND SILL ANCHORS EMBEDDED IN CONCRETE PRIOR TO CASTING OF THE CONCRETE. DRILLING SUCH ITEMS IN AFTER THE DECK IS CAST SHALL BE ASSUMED NOT FESABLE.
- 5. PROVIDE 3/4" NOMINAL TOUNGE & GROOVE WOOD SHEATHING OVER ALL ROOF STRUCTURE. PROVIDE #8 SMS @ 6" OC EDGE NAILING AND #8 SMS @ 10" OC FIELD NAILING, UNLESS OTHERWISE NOTED.
- 6. ALL ROOF TRUSSES SHALL ALIGN WITH WALL STUDS.
- 7. PROVIDE EDGE NAILING OVER ALL RIM JOISTS AND TRUSS BLOCKINGS OVER SHEAR WALLS.
- 8. REFERENCE DRAWINGS: S3.X FOR TYPICAL CFS DETAILS

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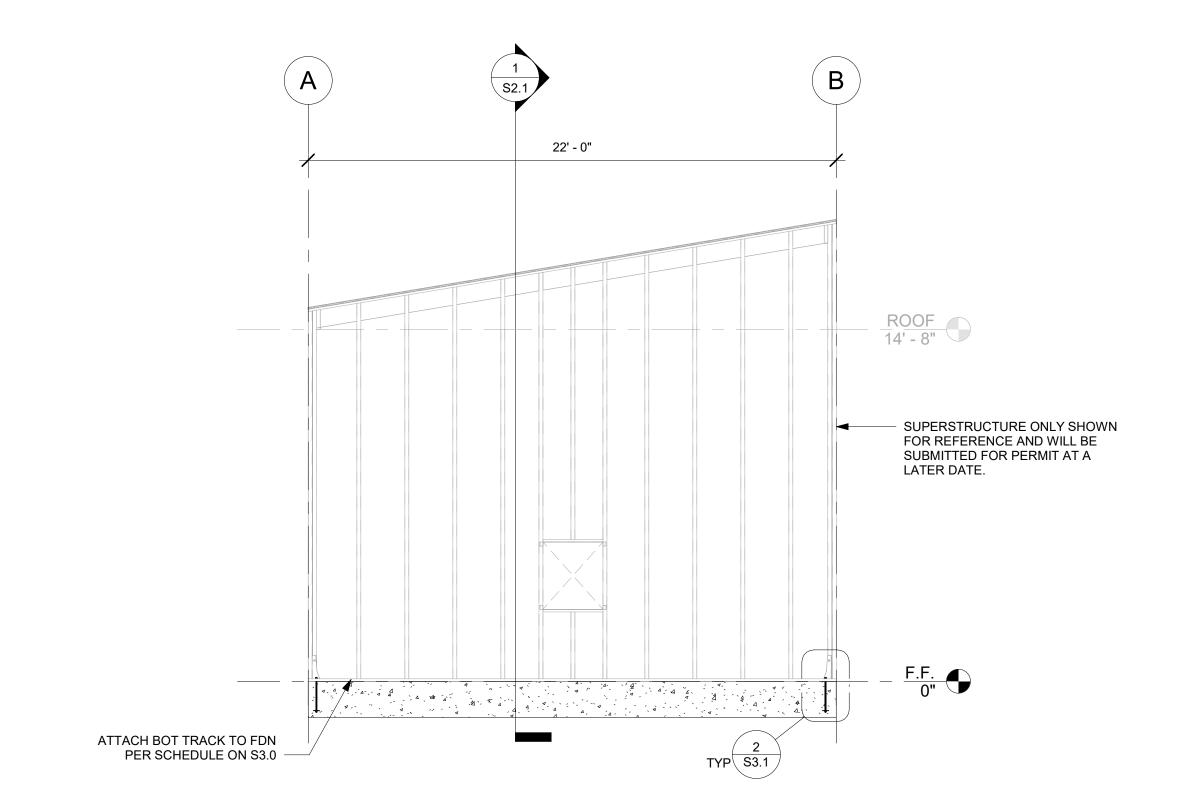
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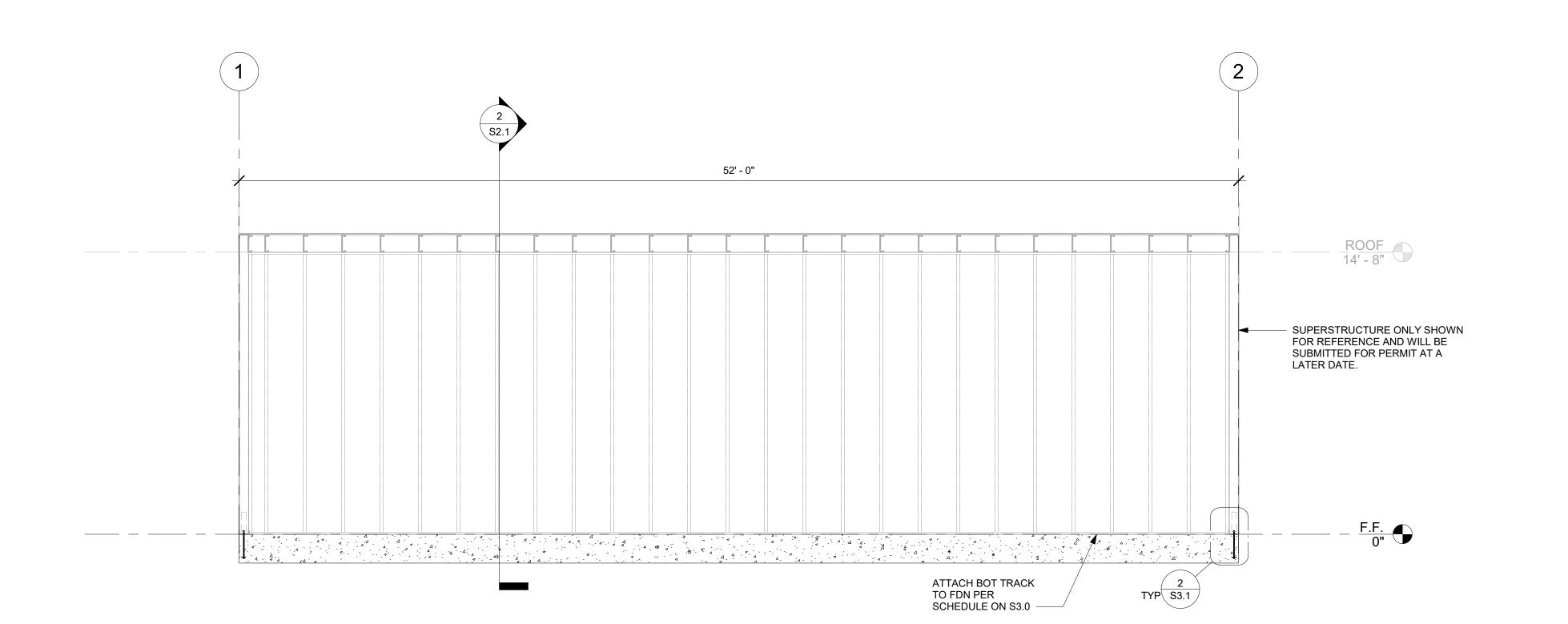
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FRAMING PLANS



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

2 <u>EAST ELEVATION</u> 1/4" = 1'-0"



ATTACH BOT TRACK TO FON PER SCHEDULE ON \$3.0

3 SOUTH ELEVATION

1/4" = 1'-0"

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

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Engineering Public Works

Fire Traffic

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3 39TH AVENUE SOUTH EAST PUYALLUP, WA 98374

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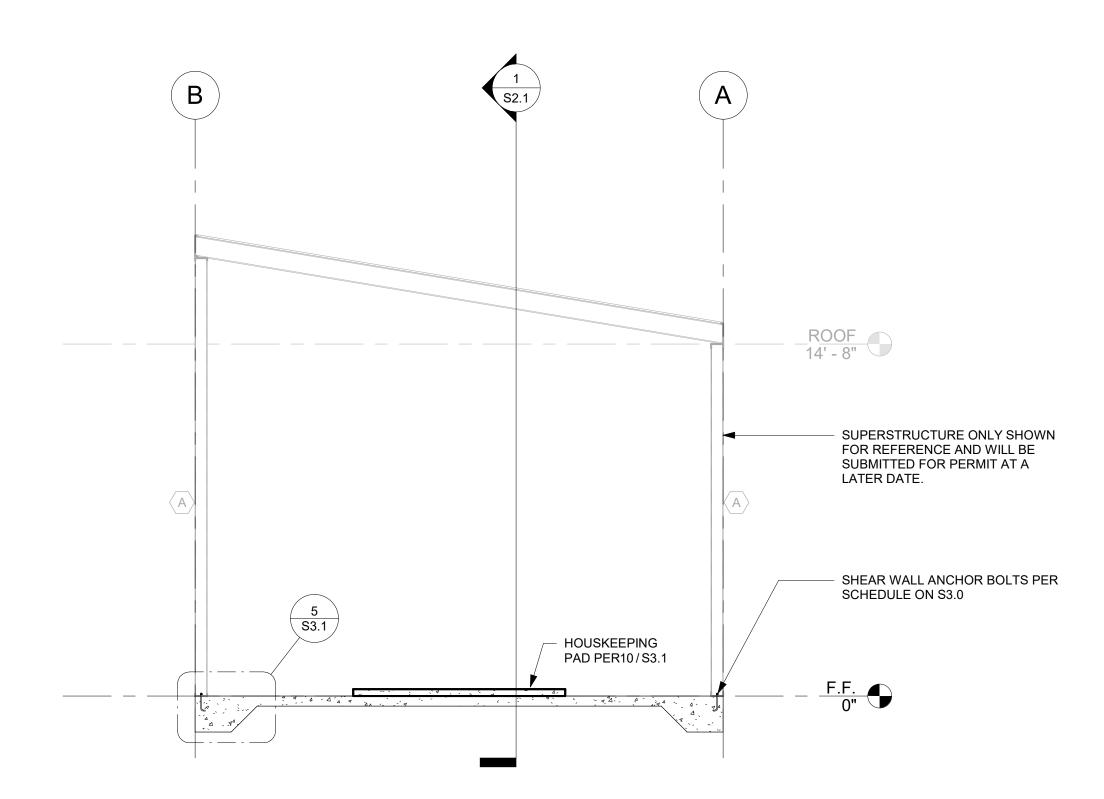
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ELEVATIONS AND SECTIONS

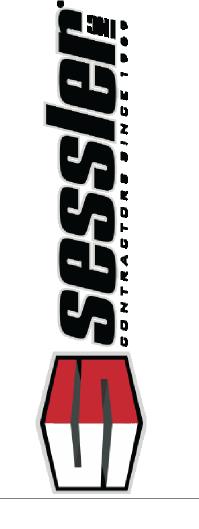




2 NORTH-SOUTH SECTION
1/4" = 1'-0"

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39TH AVENUE SOUTH PUYALLUP, WA 98374 1023

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ELEVATIONS AND SECTIONS

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**	Planning	
g	Public Works	
FV	Traffic	

EXTERIOR METAL STUD WALL FRAMING SCHEDULE NOTES

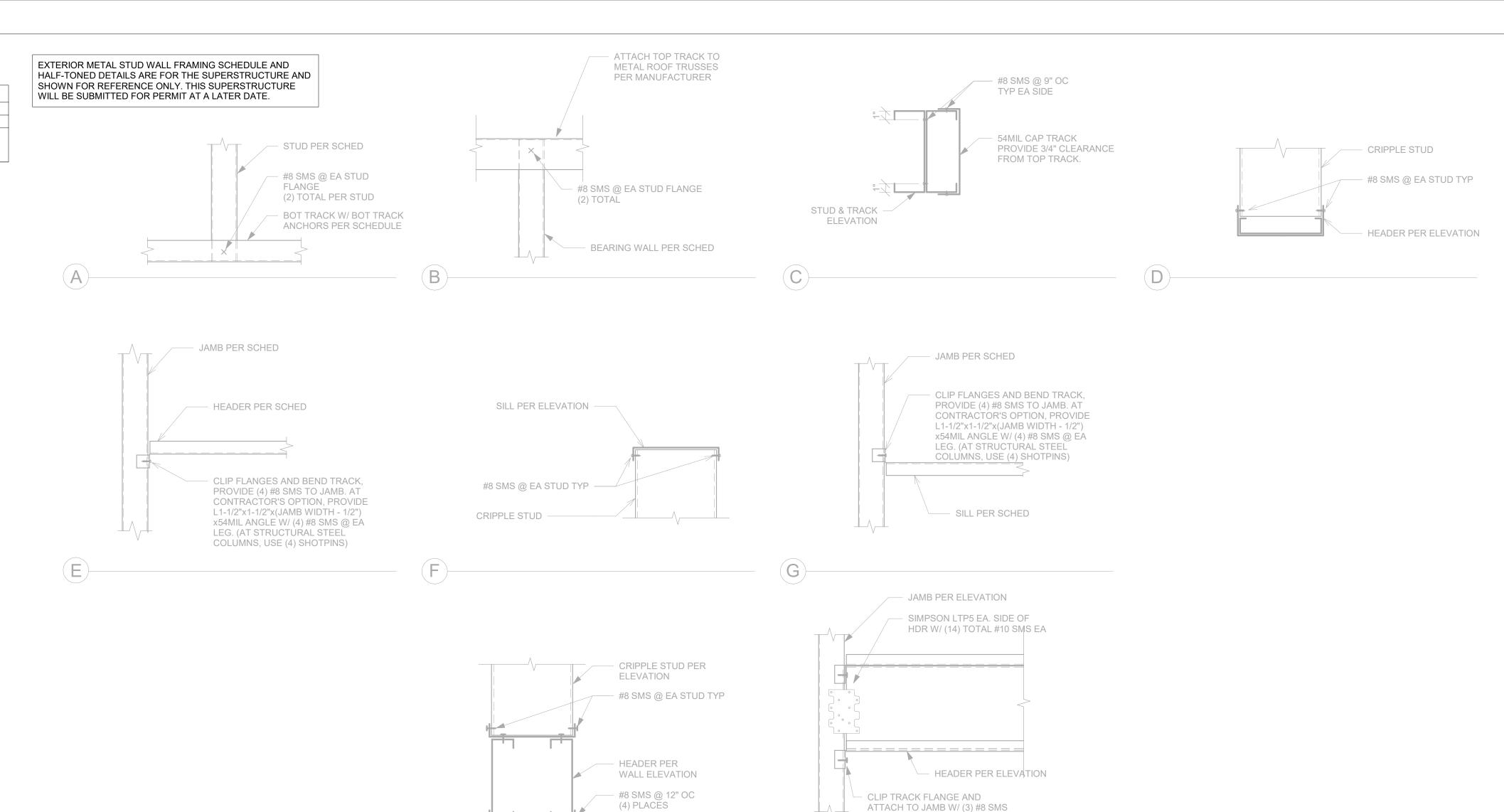
- 1. FULLY-SHEATHE FACE OF STUDS AS NOTED ON PLANS FULL-HEIGHT OR PROVIDE BRIDGING OR SOLID BLOCKING AT 4'-0" OC MAX UNLESS NOTED OTHERWISE
- 2. ALL STUDS SHALL FULLY BEAR AT TOP AND BOTTOM TRACK -- SHIM WHERE NECESSARY. WEB STIFFENERS ARE NOT REQUIRED UNLESS OTHERWISE SPECIFIED.
- 3. TOP/BOTTOM TRACK PENETRATIONS OR FLANGE CLIPS UP TO 2/3 (TRACK WIDTH) ARE STRUCTURALLY ACCEPTABLE 16" CLEAR FROM ANY JAMB STUDS ADD ANCHOR ON EACH SIDE OF OPENING.
- 4. WALL STUDS, CRIPPLE STUDS, JAMBS, HEADERS AND SILLS SHALL NOT BE SPLICED.
- 5. ALL COLD-FORMED STEEL STUDS, TRACKS AND LIGHT GAUGE ANGLES SHALL CONFORM TO ASTM A653 SS GRADE 50 (Fy=50KSI) FOR 118, 97, 68 AND 54 MILS MEMBERS AND ASTM 653 SS GRADE 33 (Fy=33KSI) FOR 43 MILS AND LIGHTER MEMBERS.
- 6. BLOCKING SHALL MATCH GAUGE OF WALL STUD AND 1 1/2" WIDE, MINIMUM.
- 7. CONCRETE SCREWS SHALL BE HILTI KH-EZ SCREW-TYPE CONCRETE ANCHOR OR SIMPSON TITEN HD. SEE DETAILS FOR REQUIRED DIAMETERS AND EMBEDMENTS. ALL DRILLING IN CONCRETE SHALL CONFORM TO REQUIREMENTS IN GENERAL NOTES. DO NOT DAMAGE REINFORCING IN CONCRETE SLAB OR FOUNDATION.
- 8. SHEET-METAL SCREWS (SMS) SHALL BE SELF-TAPPING, SELF-DRILLING FASTENERS IN COMPLIANCE WITH ASTM C1513 AND SHALL HAVE A TYPE II COATING IN ACCORDANCE WITH ASTM B633.
- 9. IT IS STRUCTURALLY ACCEPTABLE TO USE A THICKER FRAMING MEMBER PROVIDED THE WEB SIZE REMAINS UNCHANGED AND FLANGE SIZE REMAINS UNCHANGED OR IS INCREASED.

SPECIAL CFS FRAMING SHEAR WALL W/ PLYWOOD					
	SHEAR WALL REQUIREMENTS				
MARK	STRUCTURAL PANEL REQ'MENTS	EDGE SCREWS (NOTES 2, 4)	BOTTOM TRACK ANCHORS (NOTE 6)		
A	(1) SIDE 7/16" WOOD SHT'G	#8 @ 6" OC	5/8"Ø ANCHOR @ 32" OC - EMBED 7" UNO		

SHEAR WALL FRAMING NOTES

- INDICATES STRUCTURAL WALL MARK. STUDS SHALL ALIGN WITH JOISTS AND STUDS ABOVE. FOR NUMBER OF STUDS REQUIRED BELOW JOIST/STUD ABOVE SEE SCHEDULE. FOR TYPICAL WALL STUD
- BRIDGING DETAIL AND ADDITIONAL WALL FRAMING REQUIREMENTS SEE 2/S3.2

 2. ALL EXTERIOR AND INTERIOR WALLS DESIGNATED AS SHEAR WALLS SHALL BE BLOCKED AT ALL UNSUPPORTED PANEL EDGES. EDGE SCREW SPACING APPLIES TO TOP AND BOTTOM TRACK, PANEL VERTICAL AND HORIZONTAL JOINTS, WALL CORNERS, HOLDOWN ANCHOR STUDS, AND WALL END STUDS. SHEAR WALL STUD FLANGE WIDTH SHALL BE S162 MINIMUM. BLOCKING SHALL MATCH GAUGE OF WALL STUD x 1 1/2" WIDE MINIMUM.
- 3. SHEATHING PANELS MAY BE INSTALLED PARALLEL OR PERPENDICULAR TO FRAMING.
 4. SCREWS SHALL BE SELF-DRILLING, SELF-TAPPING FLAT HEAD SCREWS WITH MINIMUM 0.292" HEAD DIAMETER.
- 5. PROVIDE 3"x3"x1/4" PLATE WASHER AT EACH ANCHOR BOLT WELD PLATE WASHER TO TRACK WITH FILLET WELD ALL AROUND. DISTANCE FROM ANCHOR TO END OF TRACK TO BE 3" MIN AND 6" MAX.
- 6. ACCEPTABLE TO USE 5/8"Ø HILTI HUS-EZ SCREW ANCHORS WITH 3-1/2" EMBED AS AN ALTERNATE TO THE CAST-IN-PLACE ANCHOR SHOWN IN THE SCHEDULE.





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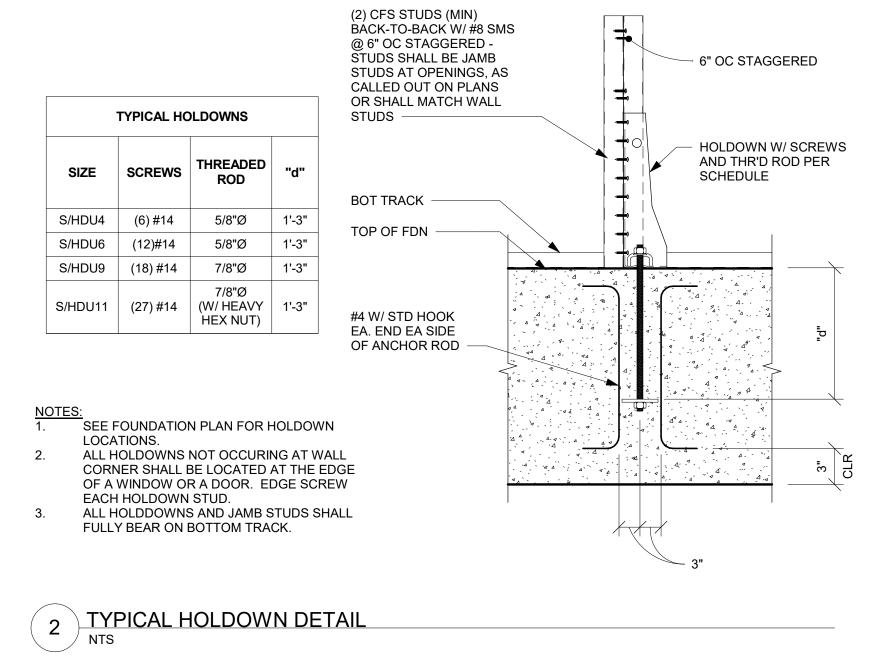
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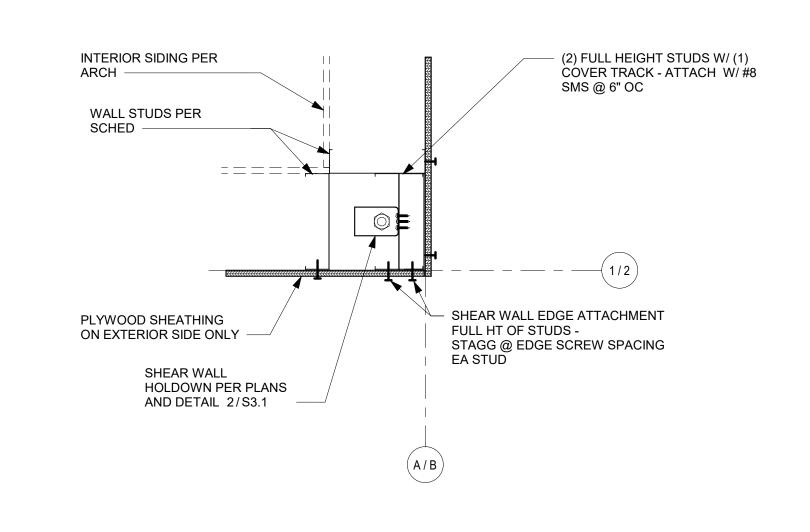
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EXTERIOR					
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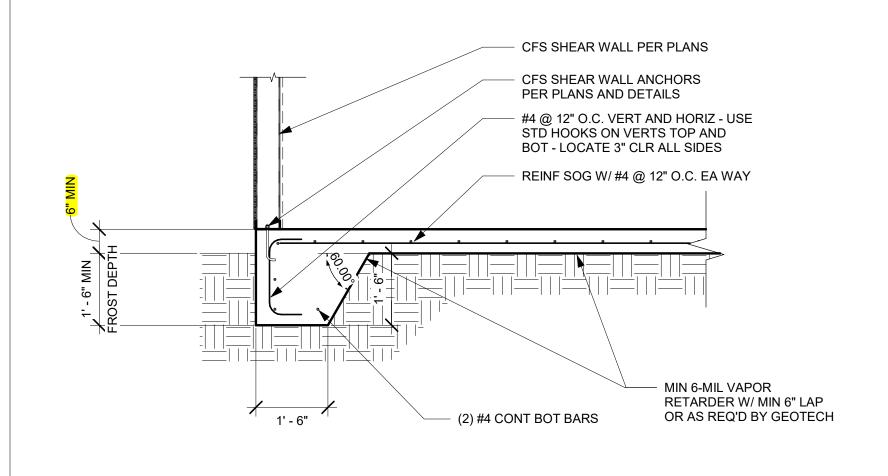
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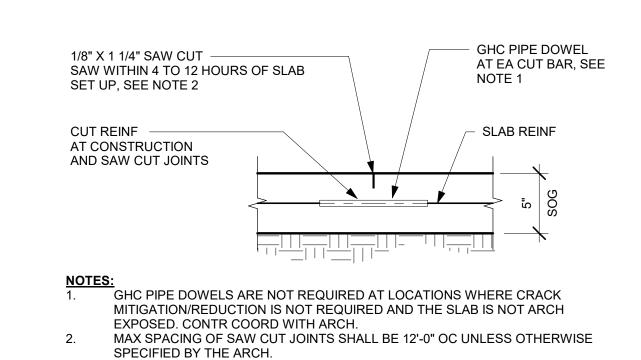
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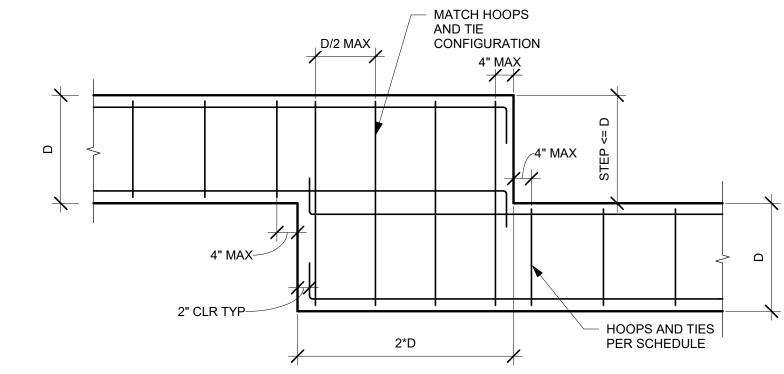




3 TYPICAL HOLDOWN DETAIL @ CORNER NTS



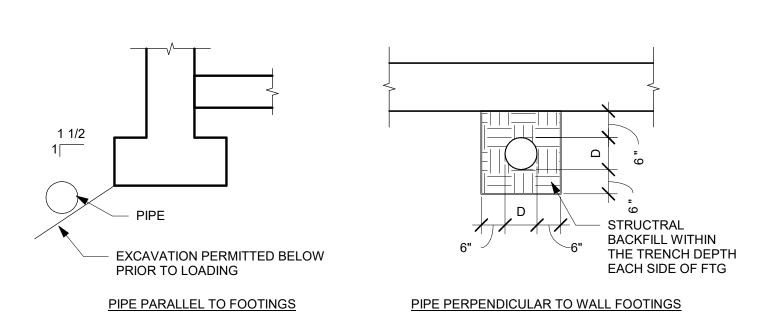


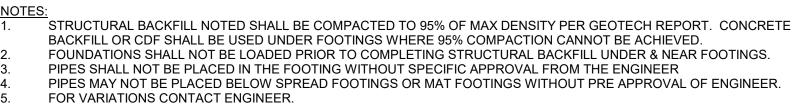


5 THICKENED SLAB EDGE DETAIL
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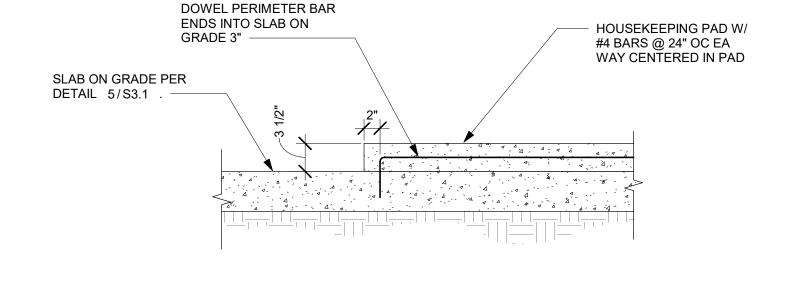












10 HOUSEKEEPING PAD DETAIL

PS TION AND TIES PER SCHEDULE

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FRAMING DETAILS

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Traffic		

City of Puyallup
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