

Section 3 – Technically Complete Details

Detailed application requirements are noted below.

Code Requirement	Code Reference
All wood must be pressure treated or of natural resistance to decay.	IRC R317.1
Fasteners, hangers, nails, etc., must be stainless steel, hot-dipped galvanized, or as specifically required for the specified wood preservative used.	IRC R317.3.1
Lateral connection is required to resist overturning	IRC R507.5.1
Ledger boards must be attached with structural wood screws to the building and all connections between the deck and dwelling must be flashed with metal flashing. Hold-down tension ties shall be installed in not less than 2 locations.	IRC R507.2 IRC R507.2.4
Joists are of appropriate size to support imposed loads. The span of a joist is measured from the centerline of bearing at one end of the joist to the centerline of bearing at the other end of the joist and does not include length of the overhangs. Use Table 1 to determine joist span based on lumber size and joist spacing.	IRC R507.5
All decks, balconies or porches, open sides of landings and stairs which are more than 30" above grade or a floor below must be protected by a guardrail not less than 36" high (42" for commercial or common areas of multi-family dwellings). Open guardrails and stair railings require intermediate rails or an ornamental pattern such that a ball 4" in diameter cannot pass through.	IRC R312
Footings are of appropriate size to support imposed loads and extend a minimum of 12" below grade. See Table 1 for footing sizes.	IRC 403.1.4
Columns and posts exposed to the weather or to water splash must be supported by and connected to concrete piers or metal pedestals projecting above grade. Columns and posts in contact with the ground or embedded in concrete or masonry must be of special pressure treated wood approved for ground contact.	IRC R317.1.2 IRC R317.1.4
Positive connections required to secure posts to beams.	IRC R507.7.1
Decks should not overhang beams by more than ¼ the actual adjacent span, nor should beams overhang posts by more than ¼ the actual beam span at the ends unless a specific design is calculated. Floor joist spacing at 24" on center requires 2x decking, and floor joist spacing at 16" on center requires 1 ½ actual thickness.	IRC R507.5 IRC R507.6 IRC R507.4
Deck stairs (exterior stairways) shall be provided with a source of illumination at the top landing, controlled from within the dwelling or by automatic means.	IRC R303.8

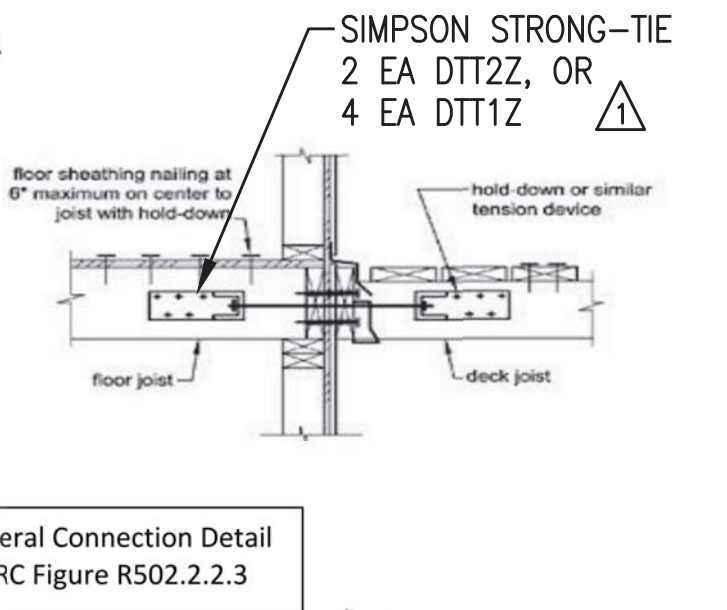
Kitsap County Department of Community Development  
614 Division Street, MS-36  
Port Orchard, WA 98366-4682  
Revision Date: 1/18/18



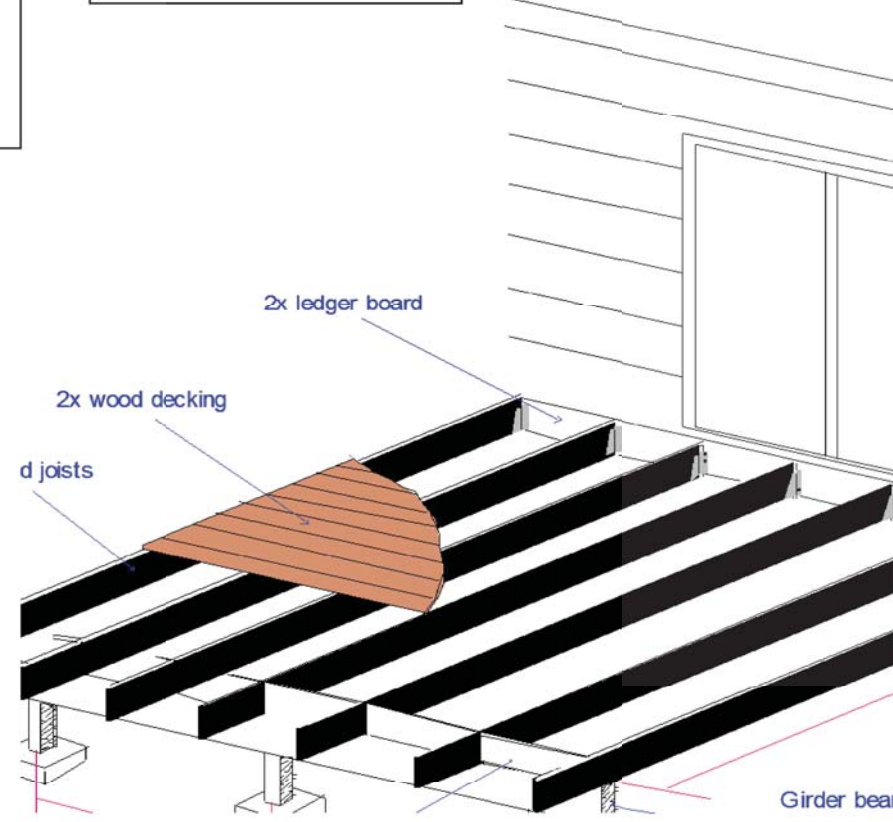
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Section 4 – Prescriptive Construction Drawings

Construction Details
2" x 10" Joist
16" O.C. Joist spacing
4" x 10" Support Beam(s)
4" x 4" Support Post(s)
7" Post Spacing
Footing Size:
Round: N/A
Square: 2' x 2' by 12" deep



Lateral Connection Detail  
IRC Figure R502.2.2.3



Deck supports or footings may not bear directly on top of septic system components.

If the deck is located over the septic system, ensure access to septic lids and ports. Contact Kitsap Public Health for assistance 360-337-5235.

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Table 1				
Beam Span, LB	Joist Span LJ	Round Footing Diameter	Square Footing Dimensions	Footing Thickness <sup>2</sup>
6'	≤10'	15"	13"	6"
	≤14'	17"	15"	6"
	≤18'	20"	18"	7"
8'	≤10'	17"	15"	6"
	≤14'	20"	18"	8"
	≤18'	23"	21"	9"
10'	≤10'	19"	17"	7"
	≤14'	22"	20"	9"
	≤18'	25"	23"	10"
12'	≤10'	21"	19"	8"
	≤14'	24"	22"	10"
	≤18'	28"	26"	11"
14"	≤10'	22"	20"	9"
	≤14'	26"	24"	11"
	≤18'	30"	28"	12"
16"	≤10'	24"	22"	9"
	≤14'	28"	26"	12"
	≤18'	32"	30"	13"
18"	≤10'	25"	23"	10"
	≤14'	30"	28"	12"
	≤18'	34"	32"	14"

- Notes
- Assumes 1,500 PSF soil bearing capacity.
  - Assumes 2,500 PSI compressive strength of concrete. Coordinate footing thickness with post base and anchor requirements.
  - No 12" x 12" preformed pier blocks allowed.
  - Post sizes are dictated by beam size. Required 4x beam requires 4x4 post, 6x beam requires 6x6 post.
  - Footing to be 12" below grade minimum.
  - Footing to have a minimum of (2) #4 rebar each way, 3-4' from bottom of the footing.

Table 2								
Deck Beam Spans (LB) <sup>1</sup> for Joists Framing from One Side Only								
Joist Spans (LJ) Less Than or Equal to:								
Species	Size	6"	8"	10"	12"	14"	16"	18"
Douglas Fir-Larch,	3x6 or	5'-5"	4'-5"	3'-6"	2'-11"	2'-6"	2'-2"	1'-11"
Hem-Fir,	(2) 2x6	7'-3"	5'-9"	4'-8"	3'-10"	3'-4"	2'-11"	2'-7"
SPF3	(2) 2x8	8'-11"	7'-5"	5'-11"	4'-11"	4'-3"	3'-8"	3'-3"
	3x10 or	10'-4"	8'-11"	7'-2"	6'-0"	5'-2"	4'-6"	4'-0"
	(2) 2x10							
	3x12 or							
	(2) 2x12							
	4x6	6'-3"	5'-11"	4'-11"	4'-1"	3'-6"	3'-1"	2'-9"
	4x8	8'-9"	7'-9"	6'-6"	5'-5"	4'-8"	4'-1"	3'-7"
	4x10	11'-0"	9'-6"	8'-3"	6'-11"	5'-11"	5'-2"	4'-7"
	4x12	12'-10"	11'-1"	10'-0"	8'-5"	7'-2"	6'-3"	5'-7"
	(3) 2x6	6'-11"	6'-6"	6'-1"	5'-3"	4'-6"	3'-11"	3'-8"
	(3) 2x8	9'-8"	8'-6"	7'-8"	6'-11"	5'-11"	5'-3"	4'-8"
	(3) 2x10	11'-11"	10'-4"	9'-4"	8'-5"	7'-7"	6'-8"	5'-11"
	(3) 2x12	13'-10"	12'-0"	10'-10"	9'-10"	9'-1"	8'-1"	7'-2"

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Subject To Field Inspection

CHANGES  
MUST Be Approved Prior  
To Performing Work

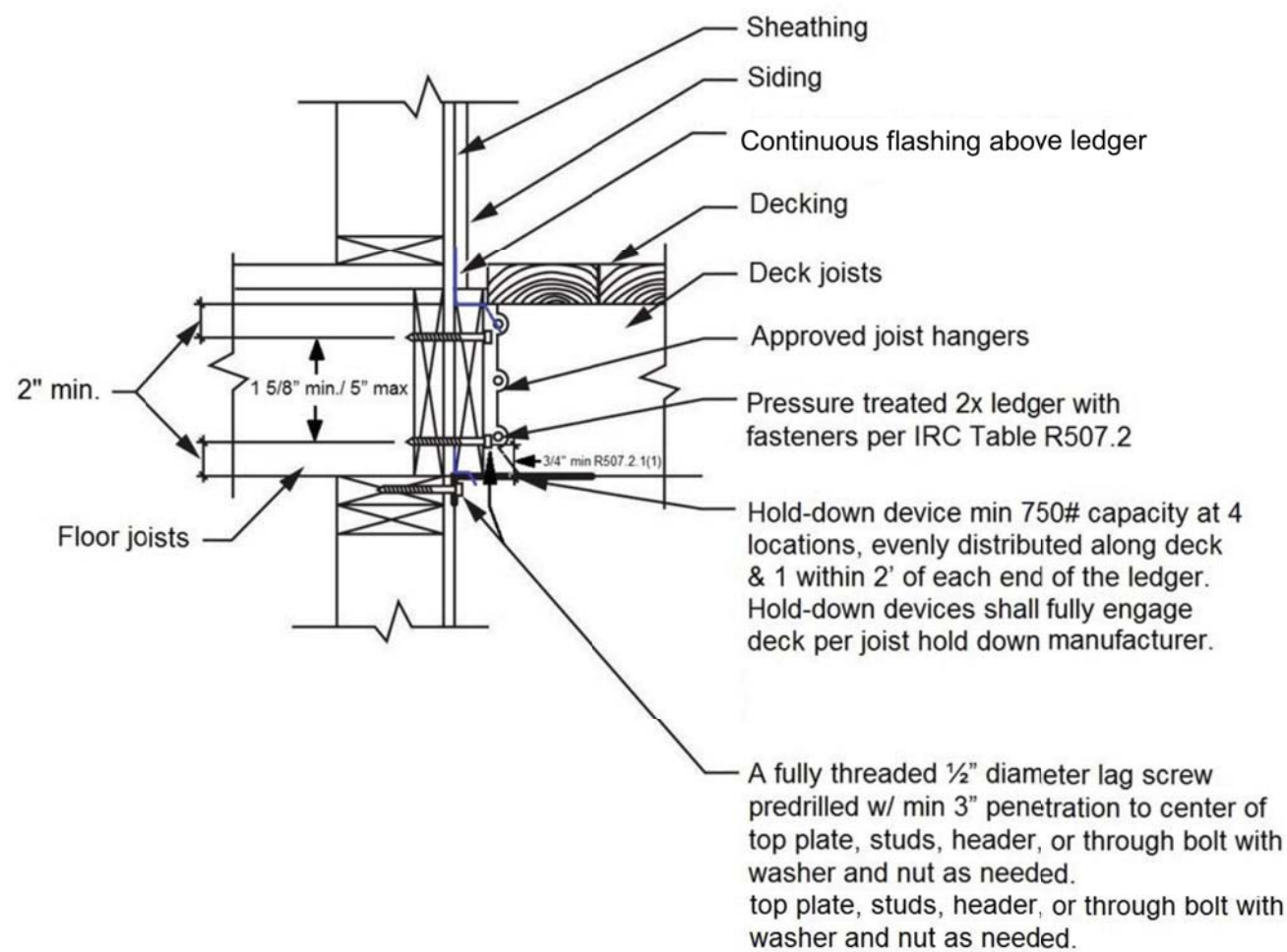
Reviewed for code compliance  
with IRC 2015  
Kitsap County Building Department  
jbowling@co.kitsap.wa.us  
08/04/2020

Table 3

Maximum Joist Spans		Joist Spacing (o.c.)			With Overhangs up to LJ/42		
		Without Overhangs <sup>1</sup>					
Species	Size	12"	16"	24"	12"	16"	24"
Douglas Fir-Larch,	2x6	8'-1"	7'-0"	5'-9"	7'-5"	6'-9"	5'-9"
Hem-Fir,	2x8	10'-10"	9'-5"	7'-8"	9'-7"	8'-8"	7'-7"
SPF3	2x10	13'-3"	11'-6"	9'-4"	13'-3"	11'-6"	9'-5"
	2x12	15'-4"	13'-4"	10'-10"	15'-5"	13'-4"	10'-11"

1. Assumes 60 PSF live load, 10 PSF dead load, L/360 deflection, #2 grade, and wet service conditions.  
2. Assumes 60 PSF live load, 10 PSF dead load, L/180 cantilever deflection with 220 lb. point load, #2 grade, and wet service conditions.  
3. Incising assumed for refractory species including Douglas Fir-Larch, Hem-Fir, and Spruce-Pine-Fir.

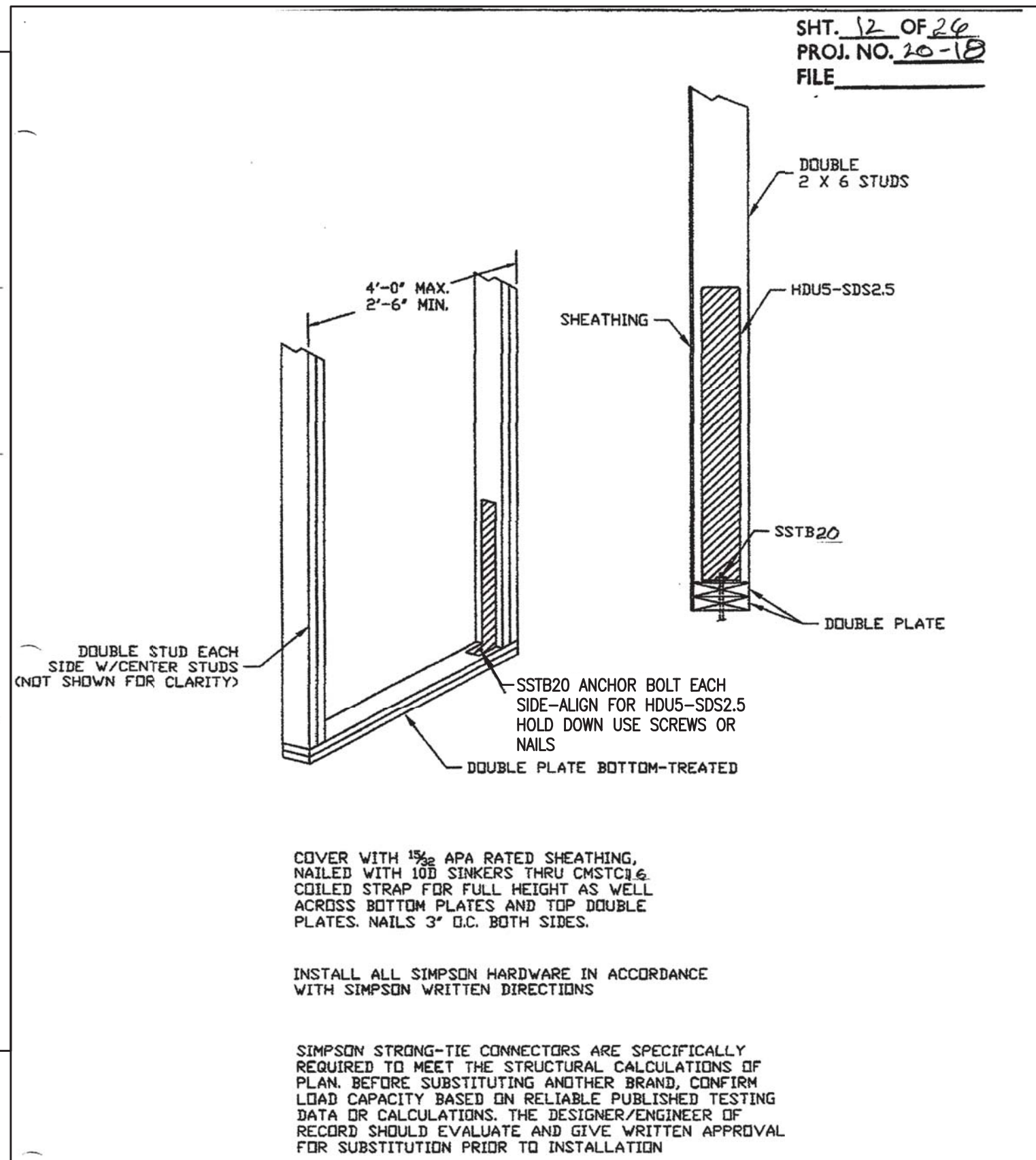
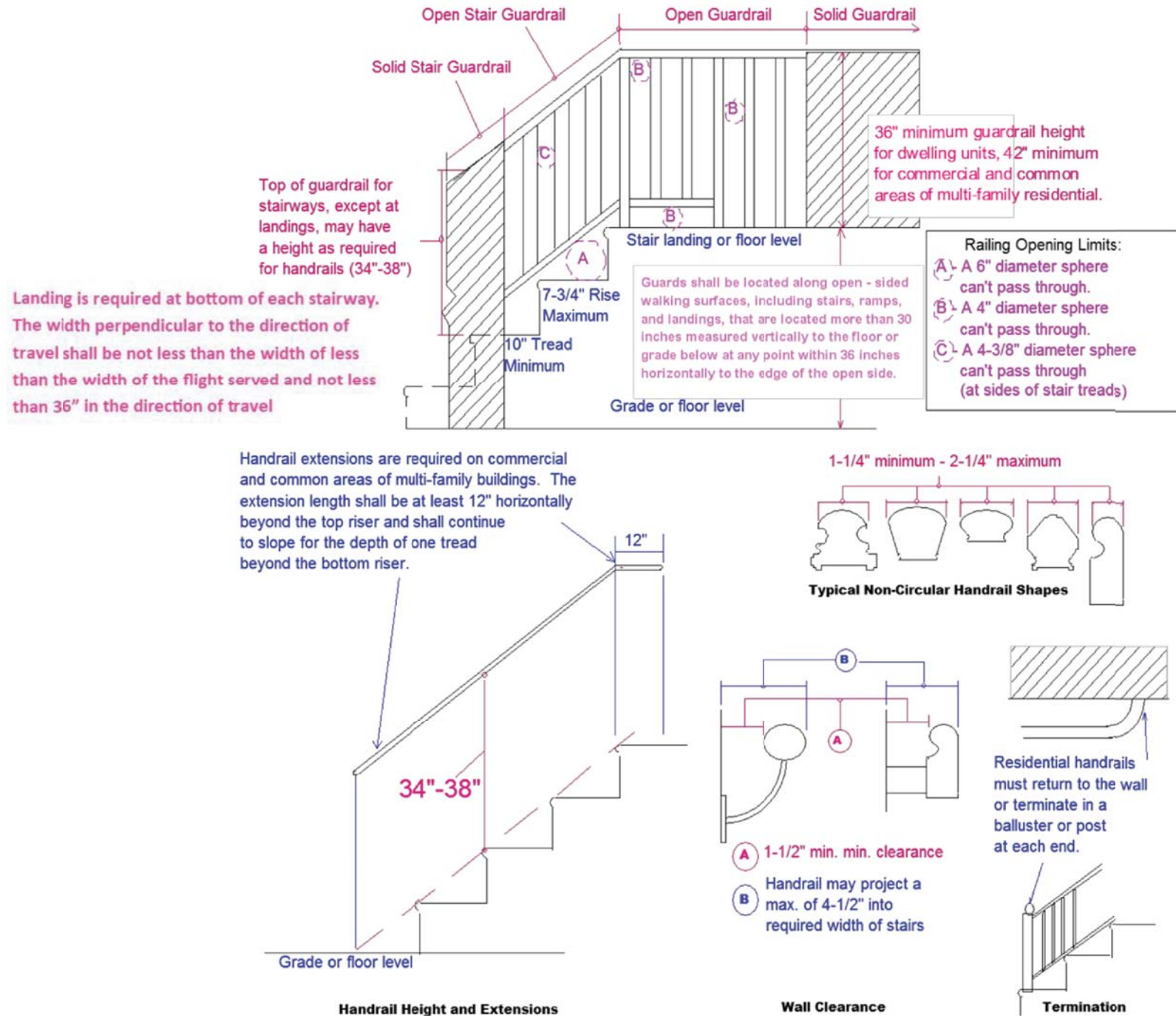
Standard Deck Connection Details



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SPECIAL SHEAR PANEL DETAIL  
SCALE: N.T.S.

Permit Number 20-02334

Permit Number: 20-02334

Permit Number: 20-02334R

Prepared for: MIKE AND CAROL WNEK  
1655 SHERWOOD DRIVE  
BREMERTON, WA 98311

Revisions: 10-08-2020: STRUCTURAL CHANGES.

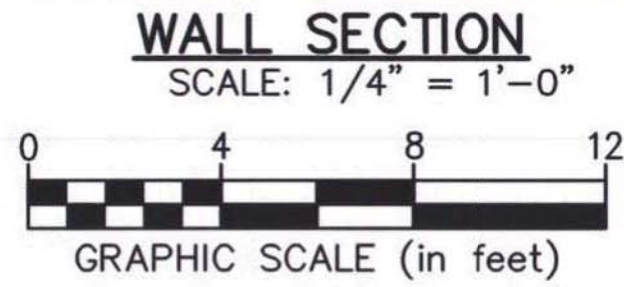
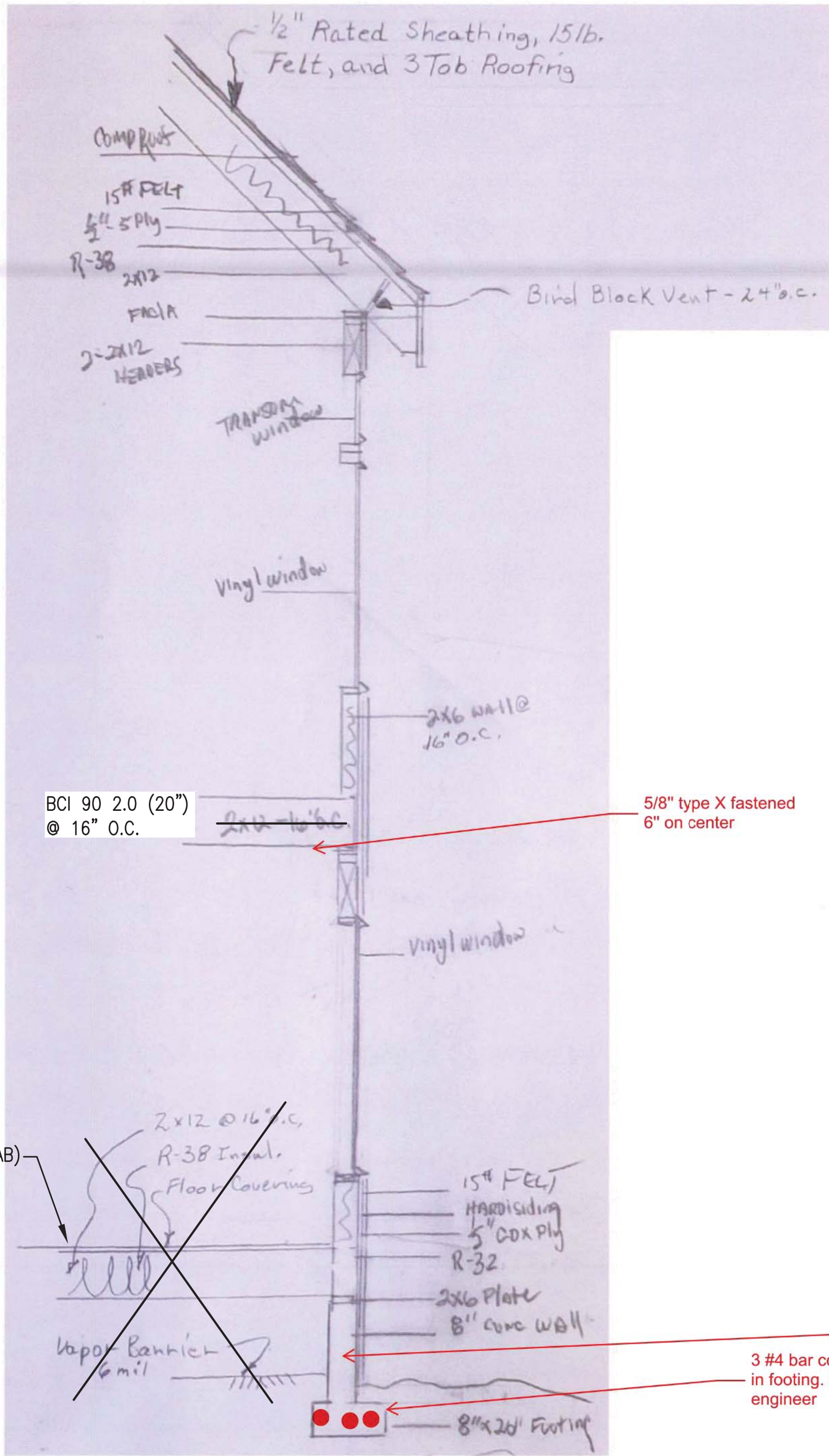
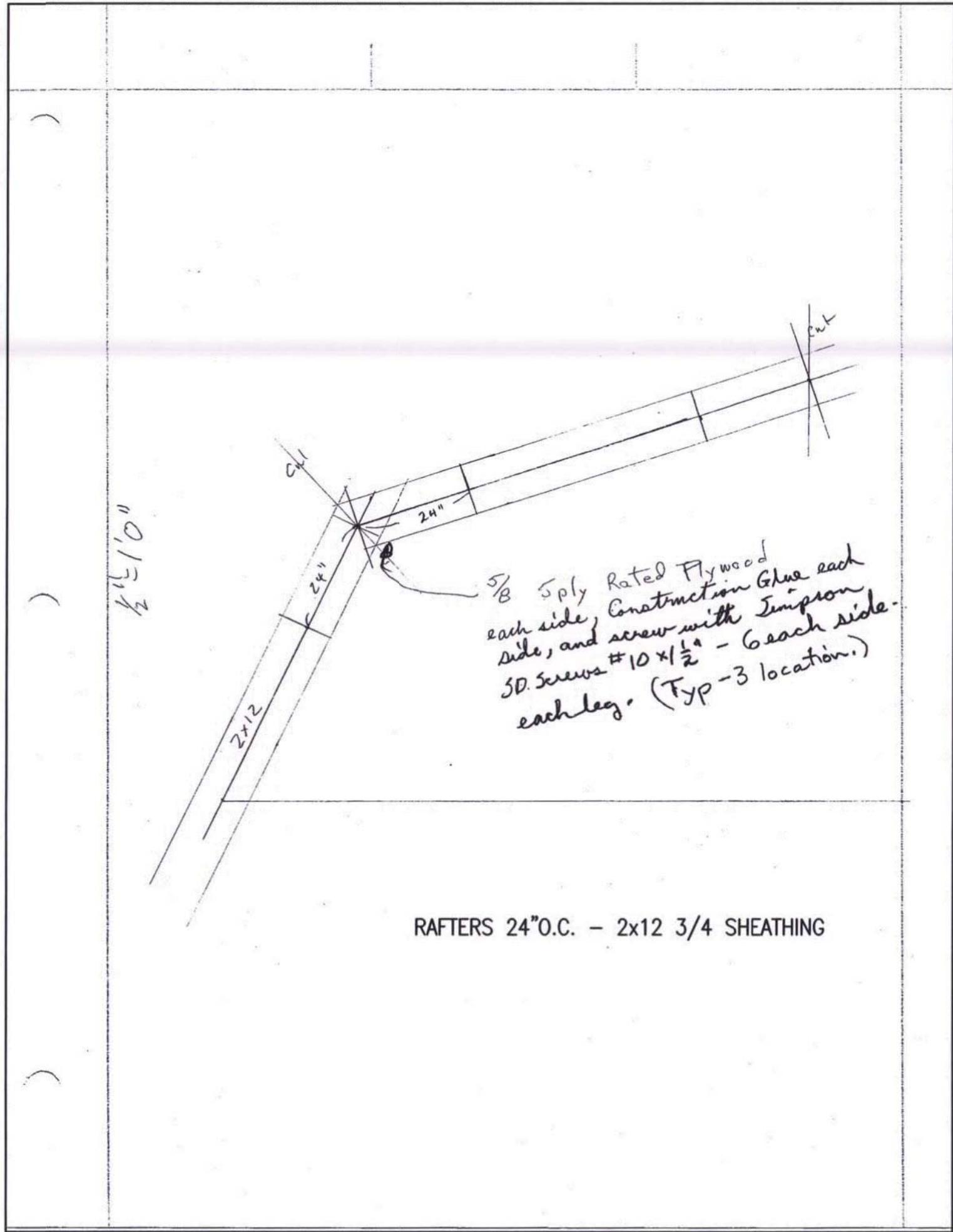
SCALE: 1/4"=1'-0" (24X36)  
DATE: 07-22-20  
DESIGN BY: EPA  
DRAWN BY: CDH  
PROJ. #: ...

Prepared By: AUSTIN ENGINEERING  
CIVIL ENGINEER  
2182 NE ETON LANE  
BREMERTON, WA 98311  
(360) 698-1661

DETAILS  
WNEK BARN

WASHINGTON

S2



REFER TO SHEET S1 (INTERIOR SLAB)

CHANGES  
MUST Be Approved Prior  
To Performing Work

Reviewed for code compliance  
with IRC 2015  
Kitsap County Building Department  
jbowling@co.kitsap.wa.us  
08/04/2020

Subject To Field Inspection



DETAILS	WNEK BARN	WASHINGTON	Prepared By: AUSTIN ENGINEERING CIVIL ENGINEER 2182 NE ETON LANE BREMERTON, WA 98311 (360) 698-1661	Revisions: 1. 10-08-20: STRUCTURAL CHANGES.	Prepared for: MIKE AND CAROL WNEK 1655 SHERWOOD DRIVE BREMERTON, WA 98311
			SCALE: 1/4"=1'-0" (24X36) DATE: 07-22-20 DESIGN BY: EPA DRAWN BY: CDH PROJ. #:		