



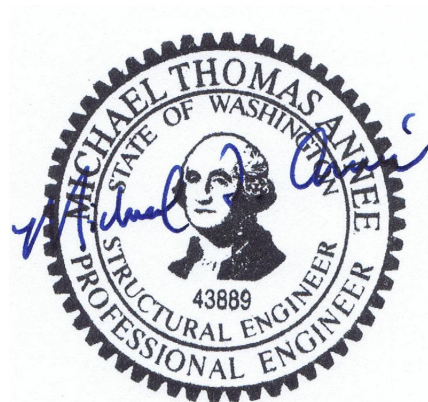
## Structural Calculations (Review Correction Response)

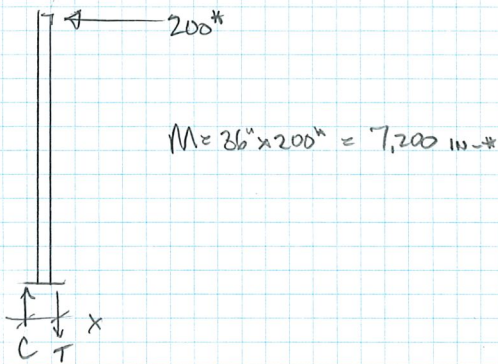
Project: **Biggs Residence**  
2411 60<sup>th</sup> Ave SE  
Mercer Island, WA 98040

For: **Sturman Architects**  
9 – 103<sup>rd</sup> Avenue NE, Suite 203  
Bellevue, WA 98004

By: **Année Structural Engineering, LLC**  
1801 18<sup>th</sup> Ave S  
Seattle, WA 98144

Date: **December 12, 2024**





FASTENMASTER LEADERON/VEESAUX

WITHDRAWAL =  $3" \times 210 \frac{\text{lb}}{\text{in}} = 810"$  (MAX.)  
DFL

$\therefore X = \frac{7,200 \text{ in-in}}{(2) 810} = 4.44"$

$\therefore$  USE 5" x 6" PL

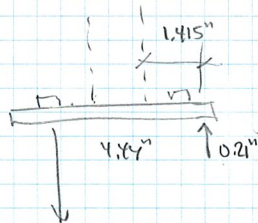


PLATE IN FLEXURE:

$M = 810" (2) 1.415" = 2,292 \text{ in-in}$

$S = \frac{2,292}{0.6 \times 36,000} = 0.106 \text{ in}^3$

$\frac{bd^2}{6} = S; d = \sqrt{\frac{6S}{b}} = 0.324" \therefore \frac{3}{8}" A36 PL$

w/ (4) VESPAUX SCREWS

AT WALL PERIMETER;  $T = C = \frac{7,200}{5.5"} = 1,309"$

$\therefore$  CSLB w/ 10" END LENGTH

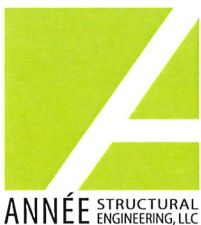
STAIR STRINGERS;

$l = 7.875'; w = \frac{3}{2} (602 + 500) + 100 = 175 \frac{\text{lb}}{\text{ft}}$

$R = V = 689"; M = 1,357 \text{ ft-in}$

$f_v = 26 \text{ psi}; f_b = 211 \text{ psi} \therefore \underline{4 \times 12 \text{ HP} \#2}$

TO LANDING BEAM w/ (2) ML26Z ANCHORS



Project GUARDRAIL SUPPORT

Designer \_\_\_\_\_

Date \_\_\_\_\_

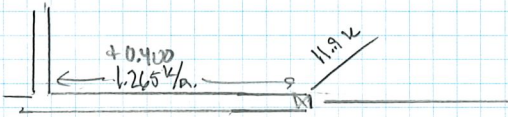
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PIN PILES: SCHED. 80 2"  $\phi$  PILE (CAP. = 6.0k)

ALONG GRID (E) AT 15'-0" WESTERN  
PORTION OF GARAGE



AT PT. LOAD:  $\frac{11.3k}{6.0k} \sim 2$   $\therefore$  USE (3) 2"  $\phi$  PILES

AT UNIFORM LOAD  $\frac{3.67 \text{ k/ft}}{1.665 \text{ k/ft.}} = 2.61 \text{ } \circledast$

$\therefore$  2"  $\phi$  PILES @ 2'-0" OC

ALONG GRID (6.2) IN GARAGE

AT PT. LOAD:  $\frac{31.05k}{6.0k} = 5.175$   $\therefore$  USE (6) 2"  $\phi$  PILES

AT UNIFORM LOAD:  $\sim 0.410 \text{ k/ft.}$

LARGEST CONC. LOAD @ 0/T:

$$T_{62} = 135(3.4) \times 0.25 = 2.89k$$

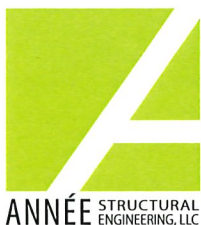
$\therefore$  2"  $\phi$  PILES @ 4'-0" OC

AT CORNER OF NEW SHOWER IN PRIMARY  
BATHROOM:

TRIBUTARY LOAD  $\leq 6.0k$  BY INSPE

$$P = 2.05k + 3.5'(0.70k + 0.81k) = 3.76k$$

$\therefore$  (1) 2"  $\phi$  PILE



Project BIGGS

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