

STUD WALL  
HEIGHT ft.

SIZE TABLE

STUD SIZE

$F = 1450 \text{ psi}$

$E = 1,700,000 \text{ psi}$

ENDWALL ANCHOR  
BOLT SPACING

No. 2 Douglas Fir

in.

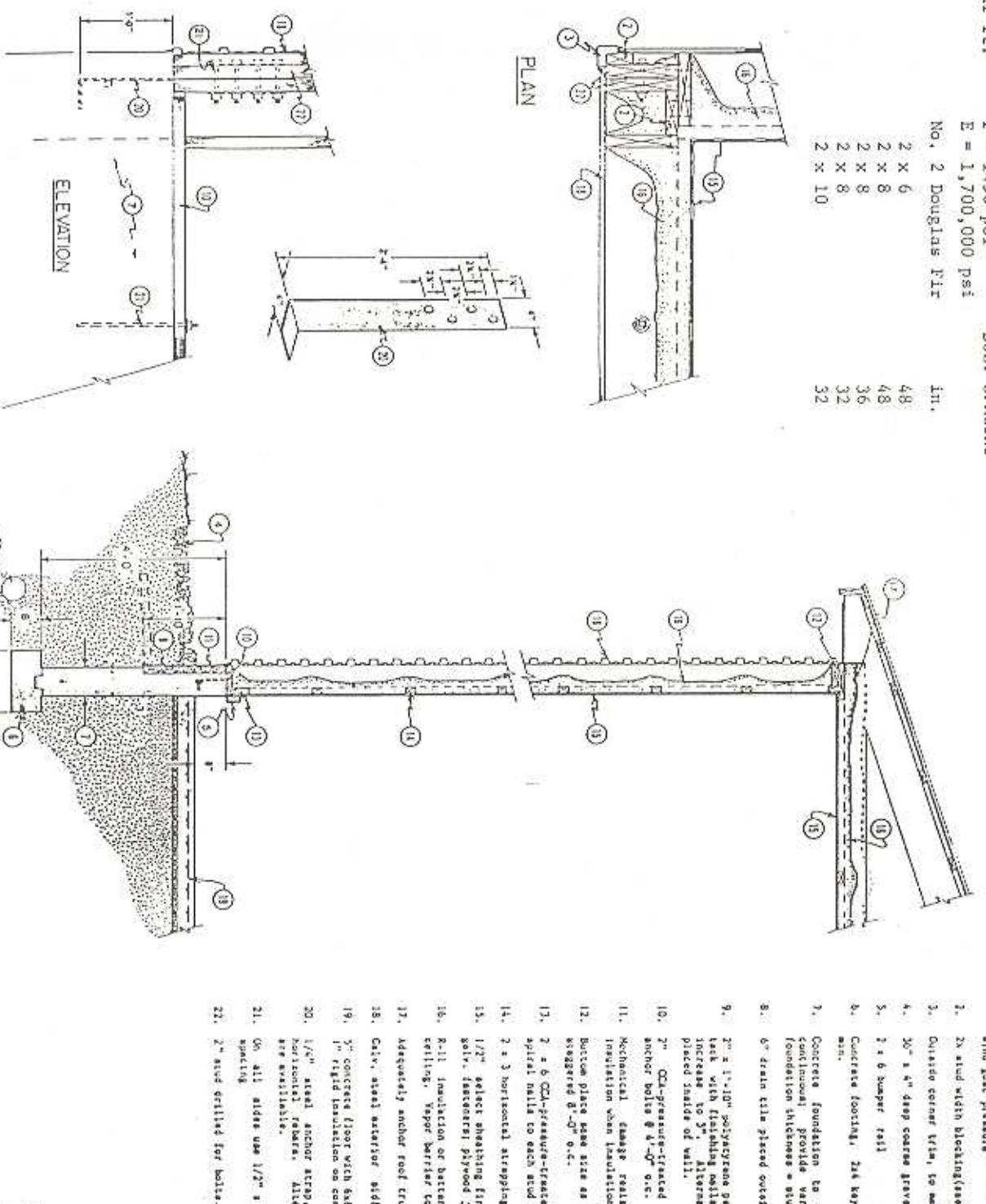
12 2 x 6 48

14 2 x 8 48

16 2 x 8 36

18 2 x 8 32

20 2 x 10 32



1. Studs @ 16"-0" o.c., recommended stud sizes based on .3" clear span bldg., 32 psf total load + ceiling load combined with 15 psf wind load pressure
2. 2x stud width blocking (see ①), nail to studs
3. Outside corner trim, to match siding
4. 30" x 4" deep coarse gravel splash pad
5. 7 x 6 bumper rail
6. Concrete footings, 2x kerbs, extend below frostline 4"-0"
7. Concrete foundation to below frost, 6" square, 30"-0" o.c. - continuous provide vertical control joints
8. 6" drain tile placed outside of footings as needed.

9. 2" x 16"-0" polyisocyanate perimeter insulation tank with finishing mastic to form, in colder climate increase to 3". Alternatively, the insulation could be placed inside of wall.

10. 7" OCL-pressure-treated sill, anchor with 1/2" x 1-1/2" anchor bolts @ 48"-0" o.c.

11. Mechanical design resistance factor for foundation insulation when insulation is placed on the outside of wall.

12. Bottom plate same size as studs, top plate 4" wider. Joints staggered @ 3'-0" o.c.

13. 2 x 6 OCL-pressure-treated base strapping, 2-3 1/2" x 1/2" x 1/2" spiral nails to each stud and sill

14. 2 x 3 horizontal strapping @ 2'-0" o.c.

15. 1/2" select sheathing fir plywood, fast grain vertical, bolts, fasteners, plywood joints spaced 1/8".

16. R-11 insulation or batter in walls and R-18 insulation in ceiling. Vapor barrier to be placed toward the outside.

17. Adequately anchor roof truss to top plates.

18. Galv. steel exterior siding, mastic beside ribs to ①.

19. 3" concrete floor with 5# 6ga. welded wire mesh optional rigid insulation on compacted sand fill.

20. 1/2" steel anchor strap, drill for 5/8" bolts, tie to horizontal rebars. Alternative commercial strap connectors are available.

21. On all studs use 1/2" x 1'-0" anchor bolts, see ① for spacing.

22. 2" stud drill for bolts.

COOPERATIVE EXTENSION SERVICE  
AGRICULTURE AND HOME ECONOMICS

UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

SECTION AND ELEVATION  
OF STRAP ANCHOR AND  
ENDWALL CORNERS  
AND DOORWAYS

WALL SECTION