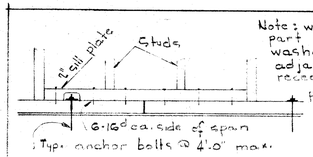
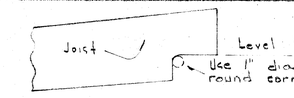
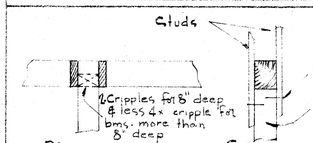


Note: where stud occurs over any part of an anchor bolt or washer install dble. sill betwn. adjacent studs as shown. Cut recess in top sill for bolt projection.

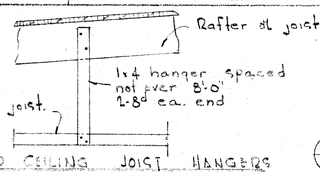
SPLICE IN SILL PLATE (N/S1)



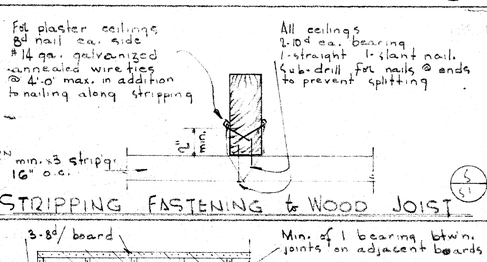
TYP. JOIST NOTCH CUT @ BEARING (O/S1)



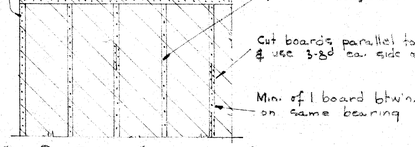
TYP. SUPPORT of BM. @ WALL (Q/S1)



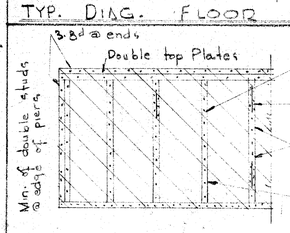
TYP. WOOD CEILING JOIST HANGERS (R/S1)



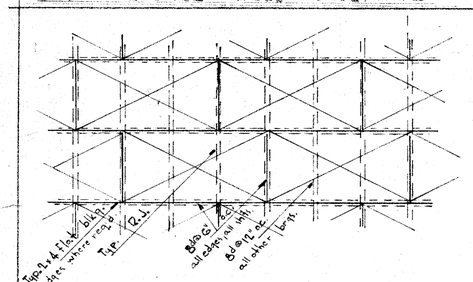
STRIPPING FASTENING to WOOD JOIST (S/S1)



TYP. DIAG. FLOOR SHEATHING (T/S1)



TYP. DIAGONAL WALL SHEATHING (U/S1)



TYP. ½" PLYW'D. ROOF PATTERN (V/S1)

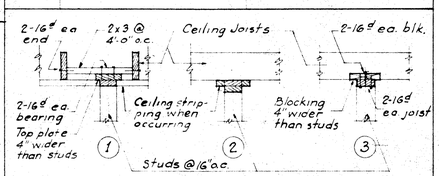
NAILING SCHEDULE

Connections listed are minimum permissible. All nails shall be common wire nails unless otherwise noted. Where possible, nails driven perpendicular to the grain shall be used instead of toe nails.

DETAIL	FASTENING
1-Joists or rafters to sides of studs.	
8" Joists or less	3-16d
For ea. additional 4" in depth or less	1-16d
2-Joists or rafters at all bearings	
Toe nails ea. side	2-10d
3-Studs to bearings	
Toe nails ea. side	2-10d
4-Blocking between joists or rafters	
To joist or rafter - Toe nails ea. side, ea. end	2-10d
To joist or rafter bearing - Toe nails ea. side	2-10d
5-Blocking between studs - Toe nails ea. end	2-10d
(2-16d end nails may be used at either or both ends in lieu of toe nails when feasible)	
6-Sheathing at all bearings	
1" x 6"	2-8d
1" x 8"	3-8d
Plywood {at all edges — 6d @ 6" o.c. / at all interior supports — 6d @ 12" o.c.	
7-Diagonal sheathing at all ends	
1" x 6"	3-8d
1" x 8"	4-8d
8-Cross bridging between joists or rafters	
Toe nails ea. end	2-8d
9-Herringbone blocking, ea. end	2-16d
10-Ceiling strips to under side of joists, per bearing	
1" x 4" - one straight and one slant	2-8d
2" x 3" - " " " " "	2-16d
1¼" Net x 3" - " " " " "	2-10d
In lieu of common wire nails "Stronghold" (annularly grooved) nails may be used as follows:-	
1" x 4"	2-10d
1¼" Net x 3	2-10d
2 x 3	1-20d
At plastered ceilings refer to (1/S1)	
11-Ribbons to studs	
1" ribbons	2-8d
2" ribbons	2-16d
12-Double Top Plates	
Lower plate to top of stud	2-20d
Upper plate to lower plate - staggered	16d @ 18"
Upper plate to lower plate - at intersection	3-16d
13-Multiple Studs - Stagger where possible	16d @ 12"
14-Built up Beams	
10" or less in depth - staggered	16d @ 12"
More than 10" deep - staggered (bolts)	½" @ 2'-0"
15-Double Joists under Partitions	
Where not blocked apart - staggered	16d @ 12"
Where blocked apart - at ea. block ea. side	2-16d

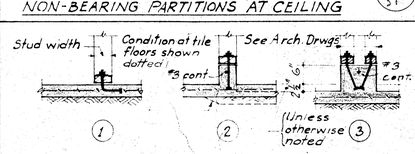
WASHER SCHEDULE FOR BOLTS & LAG SCREWS

Bolt Diam.	Round Malleable Iron Washers Diameter	Thickness	Square Cut Steel Washers Size	Thickness
½	2½"	¼"	2½ x 2½	¼"
⅝	2 ¾"	5/16"	2½ x 2½	¼"
¾	3"	7/16"	2¾ x 2¾	5/16"
⅞	3 ½"	7/16"	3¼ x 3¼	⅜"
1	4"	½"	3¾ x 3¾	⅜"
1⅛	4½"	9/16"	4 x 4	7/16"



PARALLEL TO JOISTS — PERPENDICULAR TO JOISTS WITH STRIPPING — PERPENDICULAR TO JOISTS WITHOUT STRIPPING

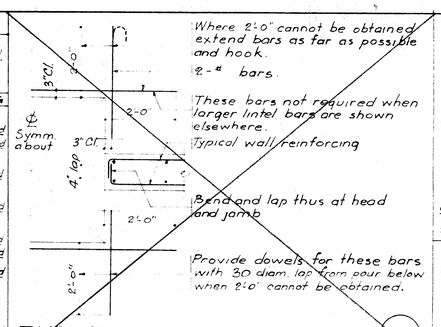
NON-BEARING PARTITIONS AT CEILING (L/S1)



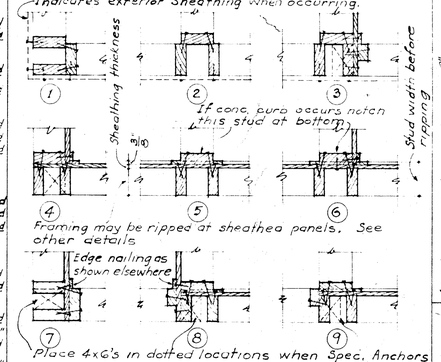
NOTES
All sills 2" Douglas Fir (treated). All sills set on 1" dry tamp grout and bolted to conc. with 5/8" x 12" bolts at 4'-0" max. o.c.

Alternate:- In lieu of bolts shown Contractor may use ½" ø shanked Powder bolts and washers @ 4'-0" o.c. Powder bolts must penetrate conc. 1½" min.

NON-BEARING PARTITIONS AT FLOOR (M/S1)



TYPICAL TRIM BARS AT CONCRETE OPENINGS

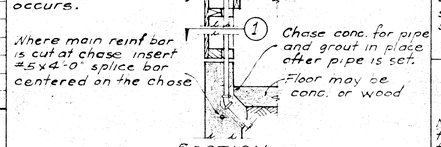


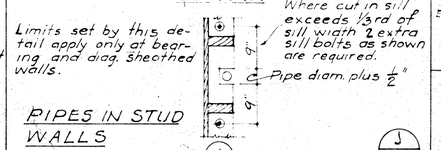
Place 4x6's in dotted locations when Spec. Anchors occur.

NOTES

Sheathing shown shall be as noted and detailed elsewhere. See other details for edge nailing indicated above. Typically studs in direct contact shall be nailed together with 16d @ 12" o.c. (staggered where possible). Connection for studs separated by a layer of sheathing shall be 20d @ 12" o.c. unless otherwise noted

TYPICAL STUD WALL CORNERS AND INTERSECTIONS. (H/S1)

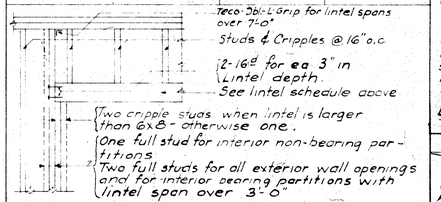




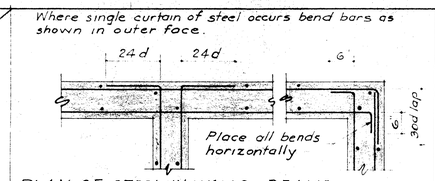
PIPES IN STUD WALLS (J/S1)

LINTEL SCHEDULE

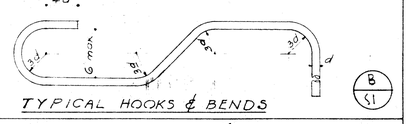
BEARING WALLS		NON-BEARING WALLS	
OPENING WIDTH	LINTEL SIZE	OPENING WIDTH	LINTEL SIZE
3'-6" or less	2-2x6	3'-0" or less	2-2x4
3'-6" to 7'-2"	6x6	3'-0" to 6'-6"	2-2x6



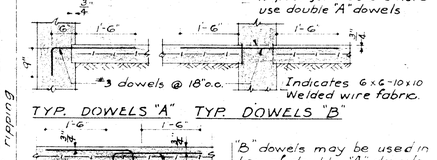
TYPICAL LINTEL END DETAIL (K/S1)



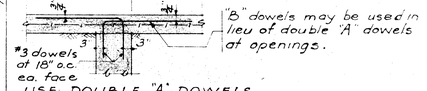
PLAN OF STEEL IN WALLS, BEAMS & FOOTING PADS AT CORNERS & INTERSECTIONS. (A/S1)



TYPICAL HOOKS & BENDS (B/S1)

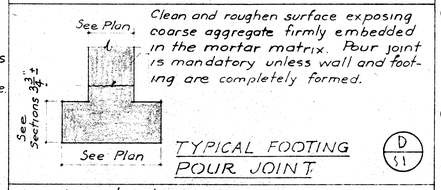


TYP. DOWELS "A" TYP. DOWELS "B"



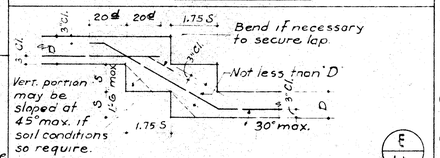
USE DOUBLE "A" DOWELS AT OPENINGS

TYPICAL DOWELLING OF SLABS ON EARTH TO WALLS (C/S1)

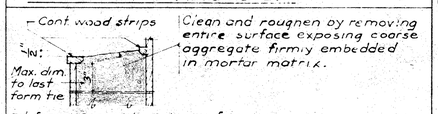


Clean and roughen surface exposing coarse aggregate firmly embedded in the mortar matrix. Pour joint is mandatory unless wall and footing are completely formed.

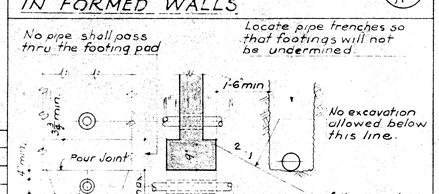
TYPICAL FOOTING POUR JOINT (D/S1)



TYPICAL FOOTING STEP (E/S1)



TYPICAL POUR JOINT IN FORMED WALLS (F/S1)



DETAIL OF PIPES AT CONCRETE FOOTINGS (G/S1)

GENERAL NOTES

SOIL CONDITIONS

1. Soil supporting footings is Sandy clay
2. Soil bearing value for use in design assumed to be 1200 #/sq' D+LL
3. Footings shall extend at least 1'-6" into natural undisturbed soil or 2'-0" below finish grade whichever is the lower.

REINFORCED CONCRETE

1. No brick or porous material shall be used to support footing steel off the ground
2. All concrete shall have a min. ultimate compressive strength of 2000 psi at 28 days unless otherwise noted.
3. Anchor bolts and dowels shall be securely held in place before concrete is poured.
4. Splices in reinforcing steel shall lap 30 bar diam. min for all bars including column steel. At splices and laps bars shall be separated 2½ diam. o.c. min. but in no case shall the separation be less than 1½" clear. However column bars may be separated 1" min. and wall bars may be wired together.
5. Reinforcing steel shall have min. protective conc. covering as tabulated below:—

WALL STEEL

Below {Poured directly against dirt = 3", opp. Side away from dirt (also above grade) = 1"
Grade {Formed but exposed to dirt = 2", opp. Side away from dirt (" " ") = 1"
Other Items

Footing Pads	3"	Tied Columns (to main steel)	1½"
Slabs on forms	¾"	Spiral Columns (to main steel)	2"
Joists (sides, tops, soffits)	¾"	Beams & Girders (sides, tops, soffits)	1½"

6. Slabs on earth other than walks shall be reinforced with 6"x6"-#10x#10 Welded Wire Fabric located at mid-depth of slab.
7. Dowel slabs to walls and other edge members as per typical details.
8. See Architectural and/or Mechanical Drawings for location of pipes, vents, ducts and other similar openings.
9. All walls shall be doweled to supporting footings, beams, pads, etc. with bars of the same size and spacing as the vertical bars in the wall.
10. Anchorage of dowels shall be the equivalent of a bar splice.
11. Wall footing pads not otherwise detailed shall be 10" thick and 1'-2" in width and reinforced as per typical details.
12. Deformation requirements for reinforcing steel shall conform to ASTM Designation A-305

STRUCTURAL STEEL

1. When stress is not given and/or details are not shown design connections for members carrying direct stress to develope the strength of the members.
2. AISC standard beam connections or connections of equal strength shall be used for all beam connections not shown.
3. Base plates shall be bedded on drypack grout of 1" min. thickness.
4. All welding shall be done by the electric shielded arc process.
5. At bolted connections no bearing on threads will be permitted To avoid such bearing washers or their equivalent shall be used.
6. The following structural steel items shall be tested:- B^C 11.5 , B^C 13.7 , B B 13

TIMBER

1. All framing lumber shall be grade marked Douglas Fir. See Specifications
2. Sill plates shall be treated Douglas Fir unless otherwise noted. All mud sills shall be set on a minimum of ½" min. grout
3. Sill plates shall be bolted to concrete with ⅝" x 12" bolts at 4'-0" o.c. max. unless otherwise noted. At all corners, intersections, door openings, sill ends and wherever any cut or notch in the sill exceeds ⅓ of the sill width place a bolt not over 9" from the notch or end of the sill piece. Should a special condition arise where the bolts are not spaced within the 9" noted above the sill may be spliced as shown in detail (H/S1)
4. Where stud partitions join conc. or masonry walls the end stud shall be anchored thereto with ½" bolts near top and bottom and of each row of fire blocking. Such bolts shall be embedded in the wall not less than 6"
5. Studs shall be spaced @ 16" o.c. max. and of the size shown on plans and sects.
6. No structural members shall be cut for pipes, vents, ducts and other similar openings except as detailed or specified.
7. Joists and rafters shall be spliced at supports only unless otherwise detailed.
8. Splices shall lap not less than 1'-0" min. and be spiked together with 3-16d min.
9. Two inch solid blocking shall be placed between all joists and rafters at all points of support and under all partitions running across joists, unless otherwise detailed
10. 2x3 cross bridging shall be placed between joists or rafters where spans exceed 8'-0". Bridging members shall be set ½" clear from top and/or soffit of joists or rafters. The distance between lines of bridging and between bridging and wall shall not exceed 8'-0". Cross bridging is not required for roof and ceiling joists 8" and under in depth.
11. All bolts shall be fitted with malleable iron or steel plate washers. Holes for bolts in timber shall be bored with a bit of the same nominal diameter as the bolt.

LEGEND

- Pile capacity in tons / Pile cut off elevation
- Nominal Finish Floor Elevation 100'-0" = 604.0'
- New Concrete in Section
- Existing Concrete in Section
- Brick in Section
- Continuous Wood Member
- Wood Blocking
- Indicates Footing Step
- W.W.F. = Welded Wire Fabric
- 100'-0" = Elevation bottom of footings.
- Detail reference / Sheet number

9-30-57

106 21 216 9-12-57