# Contractor must verify all dimensions at project before proceeding with this work. Do not reproduce these drawings and specifications without the expressed written permission from William Mutka. The drawings and specifications are instruments of service and shall remain the property of William Mutka whether the project for which they are made is executed or not. These drawings and specifications shall not be used by anyone on any other projects, for additions to this project, or for completion of this project by others except by the expressed written permission from William Mutka.

### **GENERAL STRUCTURAL NOTES:**

ALL CONSTRUCTION SHALL CONFORM TO THE 2006 EDITION OF THE INTERNATIONAL BUILDING CODE.

24 P.S.F. DEAD LOAD 20 P.S.F. LIVE LOAD

BASIC WIND = 90 M.P.H. EXPOSURE C **FOUNDATIONS:** 

WIND FORCES:

ALL FOOTINGS SHALL BE A MINIMUM 1'-6" BELOW NATURAL OR FINISH GRADE WHICHEVER GIVES THE GREATEST DEPTH. ALL FILL UNDER BUILDING AREA IF REQUIRED SHALL BE COMPACTED AND SHALL BE INSPECTED BY A SOILS ENGINEER PRIOR TO CONCRETE PLACEMENT. ALLOWABLE SOIL BEARING PRESSURES:

REINFORCING SHALL BE INTERMEDIATE GRADE ASTM 615-40(Fy=40,000 P.S.L.). ASTM 615-60 (60,000 P.S.L.) FOR 46 AND LARGER. USE DEFORMED BARS IN ACCORDANCE WITH LATEST ASTM SPECIFICATIONS. ARRANGEMENT AND BENDING OF BARS AS PER ACI DETAILING MANUAL, LAP REINFORCMENT A MINIMUM OF 36 BAR DIAMETERS WITH A MINIMUM LAP OF 12" — STAGGER SPLICE LOCATION. CONCRETE PROTECTION:

CONCRETE PROTECTION:

FOOTINGS—COVERAGE OF 3" FOR BOTTOMS AND SIDES.

WALLS —COVERAGE OF 1 1/2"

COLUMNS —COVERAGE OF 1 1/2" FOR TIES AND SPIRALS.

ALL OTHER AS PER ACI 318—71

DOWELL ALL VERTICAL REBAR TO FOUNDATIONS. WELD REBAR WITH LOW

HYDROGEN RODS ONLY, AT APPROVED LOCATIONS.

WOOD TRUSSES SHALL CONFORM TO ALL REQUIREMENTS AS LISTED WITH THE L.C.B.O. STEEL GUSSET PLATE REPORT. TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS COMPLETE WITH STRESS ANALYSIS, STRESS DIAGRAMS, MAXIMUM DEFLECTIONS, AND PLACING DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND REVIEWED BY THE STRUCTURAL ENGINEER AND APPROVED PRIOR TO FABRICATION OF MEMBERS. INCOMPLETE DRAWINGS SHALL BE REJECTED

ALL TRUSSES SHALL BE DESIGNED TO SUPPORT DEAD LOADS, LIVE LOADS AND LATERAL LOADS AS SPECIFIED IN THE LOAD TABLE BELOW. ANY ADDITIONAL LOADS RESULTING FROM MECHANICAL EQUIPMENT, PIPING, OR ARCHITECTURAL FEATURES WHICH MUST BE SUPPORTED BY THE TRUSSES SHALL BE INCORPORATED INTO THE DESIGN. CALCULATION SUBMITTED SHALL CLEARLY INDICATE DESIGN LOADING CONDITIONS SEE FRAMING PLANS FOR SIZE AND LOCATION. CALCULATIONS SHALL BE STAMPED BY AN ENGINNER REGISTERED IN THE STATE OF ARIZONA. NOTE THAT MECHANICAL LOADS SHOWN MAY BE RELOCATED TO OTHER POSITIONS AFTER ROOF IS CONSTRUCTED. PROPER BRACING DURING CONSTRUCTION IS TO BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NOT BE REVIEWED BY THE PROJECT ENGINEER. TRUSSES SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE.

DESIGN LOADS:

## SLOPE ROOF = 24 P.S.F. DEAD LOAD 16 P.S.F. LIVE LOAD

GIRDER TRUSSES SHALL HAVE A POST  $\bullet$  ALL BEARING PTS: (3)2x4  $\bullet$  4" Walls or (3)2x6  $\bullet$  6" Walls; supporting MBRS to be set as near as practical directly under supported member.

JOIST HANGERS AND OTHER MISCELLANEOUS FRAMING ANCHORS SHALL BE MANUFACTURED BY SIMPSON COMPANY OR APPROVED EQUAL.

ROOF SHEATHING:
ROOF PLYWOOD SHALL BE A.P.A. RATED CDX GRADE SHEATHING WITH EXTERIOR
GLUE 1/2" THICK WITH SPAN INDEX RATIO 32/16 AND SHALL BEAR THE STAMP OF
APPROVED TESTING AGENCY. PANELS SHALL BE NAILED WITH 8d AT 6"o.c. ALONG
PANEL EDGE BEARING AND 12" o.c. ALONG INTERMEDIATE BEARINGS.

ALTERNATE ROOF SHEATHING — ORIENTED STRAND BOARD ROOF SHEATHING SHALL BE A.P.A RATED 2—M—F GRADE, 1/2" THICK SHEATHING WITH A SPAN INDEX RATIO OF 32/16 AND SHALL BEAR THE STAMP OF AN APPROVED TESTING

TOP SIDE OF TRUSSES &/OR RAFTERS TO BE SHEATHED PRIOR TO CONSTRUCTION OF ANY OVERLAYING ROOF STRUCTURE. AFTER CONSTRUCTION, SAW—CUT APPROPRIATE OPENINGS BETWEEN TRUSSES OR RAFTERS TO ALLOW FOR ROOF VENTING.
BOUNDARY NAILING: 8d @ 6"O/C;
FIELD NAILING: 8d @ 12"O/C ALL INTERMEDIARY MEMBERS INCLUDING BLOCKING.

2x Blocking @ Bearing Points Between Trusses; Nail W/ (3) 16d Nails to t. Plate. Boundary Nailing: 8d @ 6°0/c all sheathing. Roof sheathing to extend to beyond end of Rafters, to cover Barge or fascia (a: Trim if used); Boundary Nailed, W/ 8d @ 6°0/c. Also; Midpoint of @ ±8ft on centers, if span exceeds 20ft overall. Member, to be tite-fitting across entire face/surface of each member in Place.

END OF INSIDE & OUTSIDE CORNERS, ALONG W/ BEING BRACED EACH 25 ft IN HORIZ. LENGTH
GARAGE DOOR WALL: BRACE ENTIRE WALL w/ 3/8" PLYWD. SHEATHING.

HEADERS: LIKEWISE, DOUBLE 2x UNDER EA. END, or (1)4x MAY BE UTILIZED IN PLACE OF MULTPLE 2x'e.

SPIKE TOGETHER W/ 16d @ 12"0/C PER NAILING SCHEDULE SHEET 6 or 7.M WHERE NOT OTHERWISE NOTED: HEADERS SHALL BE AS FOLLOWS:

4" NON-BEARING WALLS: (2) 2x4e w/ 1/2" OSB SPACER MIDDLE;

4" BEARING WALLS: (2)2x6e w/ 1/2" OSB SPACER MIDDLE;

6" WALLS (ALL): (3) 2x6e w/ (2) 1/2" OSB SPACERS SANDWICHED BETWEEN;

FRAMING TIES: SIMPSON H2.5 DBL. TOP PLATE TO ALL TRUSSES, RAFTERS, &/or OTHER ROOF FRAMING MEMBERS <u>BEARING ON</u> THE WALL, SHALL BE ON/AT END OF TRUSS, EXTERIOR SIDE OF WALL — UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN OF DETAIL. (SPECIFIC NOTE STATING PLACEMENT ELSEWHERE).

SYMBOL INDICATES A POST OR MULTIPLE 2x SUPPORT w/ SIMPSON HOLDOWN, INSIDE WALL OR FRAMING. (MAY NOT BE SHOWN  $\oplus$  MISC. DOORWAYS, WINDOWS, ETC., WHERE REQUIRED BY FRAMING PRACTICES.

STIS TIE STRAP EACH SIDE BEAM TO POST, TYPICAL. POSTS: • 6" WALL(S) USE (3)2x6 or 6x6 POST. • 4" WALL(S) USE (3)2x4 or 4x6 POST.

WALL DETAILS: SEE GENERAL WALL SECTIONS, SHEET 6
GYPSUM WALL BOARD:
EXTERIOR: BROWNBOARD, ICBO 1874, TYPE MR
U.S.GYPSUM, ICBO 2240, "SHEETROCK" (TM)
INTERIOR: GOLD BOND, ICBO 1352; U.S. GYPSUM, NER 458
TUB or SHOWER, or SUPPORTING CERAMIC TILE: GREENBOARD,
ICBO 1874 TYPE "MR";
FIRE RESISTIVE: 5/8" TYPE "X", ON 2x FRAMING
GOLD BOND BLDG PROD. ER 3579
U.S. GYPSUM CO., NER 258

MATERIAL SPECIFICATIONS: fc => 2500 p.s.l. Grade "N", fm => 1350 p.s.l. Type "S", 1800 p.s.l. fc => 2000 p.s.l. ASTM, A-615, Fy = 40 k.s.l. ASTM, A-38, Fy = 36 k.s.l. Glue-Lam Beams\* Fb =>2400 p.s.l.; E => 1,800,000 p.s.l

# SHEAR: ALL BEARING WALLS ARE ALSO SHEAR WALLS: SHEATH ALL BEARING WALLS ONE SIDE w/ 3/6" OSB SEE SHEET 3.0 FOR HOLDOWN LOCATIONS MECHANICAL ROOM(S): 3/4" OSB ON RAISED DECK/FLOOR HOUSE-GARAGE INTERFACE WALLS: 1/2" OSB ONE SIDE; NO "LET-IN" BRACING ALLOWED; BOUNDARY NAILING: 8d @ 6"0/C; FIELD NAILING: 8d @ 12"0/C ALL INTERMEDIARY MEMBERS INCLUDING BLOCKING.

REFER TO SHEET 6.0 FOR COMPLETE SCHEDULE

<u> VINIMUM NAILING SCHEDULE — LR.C. TABLE 2304.9.1:</u>

### <u>GENERAL</u>

PROVIDE ALL TEMPORARY BRACING, SHORING, AND GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING ERECTION ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL AND PLUMBING, WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE LOCATION SIZE AND PLACEMENT OF ALL BUILT-IN OR RECESSED EQUIPMENT, OR OPENINGS FOR EQUIPMENT TO BE INSTALLED IN THIS BUILDING.

THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION AND OBSERVATION VISITS SHALL NOT INCLUDE INSPECTION FOR THESE MEASURES OR CONSTRUCTION METHODS.

VERIFY ALL DIMENSIONS, AND EXISTING CONDITIONS SHOWN ON DRAWINGS PRIOR TO STARTING WORK. CONSULT ALL ARCHITECTURAL AND STRUCTURAL DRAWINGS TO DETERMINE WHERE ANCHOR BOLTS, INSERTS, RECESSED EQUIPMENT, OR SIMILAR ITEMS MAY BE REQUIRED.

OPTIONS ARE FOR CONTRACTORS CONVENIENCE HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOSES AN OPTION AND HE SHALL COORDINATE ALL DETAILS.

CONCRETE:
CEMENT: USE ONLY TYPE II PORTLAND GRAY CEMENT CONFORMING TO A.S.T.M. C-DESIGN OF CONCRETE MIXES SHALL BE PER A.C.I. STANDARD 318R-17
AND SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO
POURING ANY CONCRETE.

CONCRETE MIX DESIGNS SHALL CONTAIN 6 % ± ENTRAINED AIR.

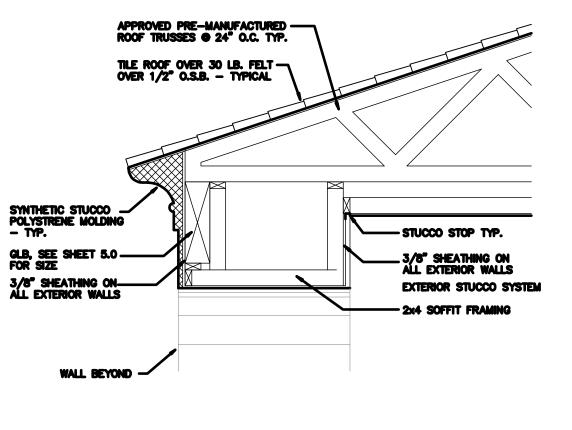
NO ADMIXTURES SHALL BE USED WITHOUT PRIOR APPROVAL.

FLY ASH SHALL NOT BE USED IN ANY CONCRETE MIX DESIGN.

SLUMP OF CONCRETE DELIVERED TO JOBSITE SHALL BE NO LESS THAN

4° OR MORE THAN 5°. NO WATER IS TO BE ADDED AT JOB SITE. MAKE SLUMP TESTS IN
ACCORDANCE WITH A.S.T.M. C-143, AS FREQUENTLY AS DIRECTED BY THE
ARCHITECT.

MAKE TEST FOR 7 DAY AND 28 DAY STRENGTH, MAKE A TEST (3 CM INDER) FOR EACH MAKE TEST FOR 7 DAY AND 28 DAY STRENGTH. MAKE A TEST (3 CYLINDER) FOR EACH 40 CUBIC YARDS OF EACH CLASS OF CONCRETE WHEN PLACED IN LARGE CONTINUOUS POURS, OR AT LEAST ONE TEST (3 CYLINDER) FOR POURS LESS THAN 40 CUBIC YARDS OF EACH CLASS OF CONCRETE. TESTING METHODS SHALL CONFORM TO A.S.T.M.C-172, A.S.T.M. C-31 AND A.S.T.M. C-39. TESTING SHALL BE PAID FOR BY THE GENERAL CONTRACTOR.





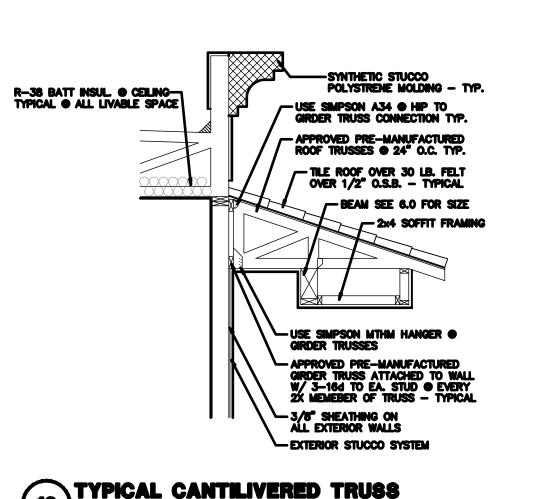
+ 9'-0" A.F.F.

3/8" SHEATHING ON-ALL EXTERIOR WALLS

STUCCO SYSTEM

CANT. STRIP

BUILT-UP ROOF-SYSTEM OVER 1/2" O.S.B. TYP.



SCALE: 3/4" - T-0"

USE SIMPSON A34 @ HIP TO GIRDER TRUSS CONNECTION TYP. - APPROVED PRE-MANUFACTURED ROOF TRUSSES ● 24° O.C. TYP.

TILE ROOF OVER 30 LB. FELT OVER 1/2" O.S.B. - TYPICAL

**SCALE: 3/4" - T-0"** 

APPROVED PRE-MANUFACTURED TRUSS

1"  $\times$  16", ROUGH SAWN FACED OUT, TYP. OF 3 SIDES

**SCALE: 3/4" = T-0"** 

- 2x NAILERS

1/2" x 4" LAGS • 24"

R-38 BATT INSUL. @ CEILING-

FAUX BEAM, ROUGH SAWN OUT-

\FRONT ENTRY SECTION

BUILT-UP ROOF SYSTEM -TYPICAL OVER 1/2" O.S.B.

USE SIMPSON THA29 HANGER • EA. TRUSS - TYPICAL

R-38 BATT INSUL. • CEILING TYPICAL • ALL LIVABLE SPACE

R-38 BATT INSUL. © CEILING-Typical © All Livable space

- CANT. STRIP TYPICAL

APPROVED PRE-MANUFACTURED GIRDER TRUSS TYP.

TYPICAL TRUSS TO GIRGER

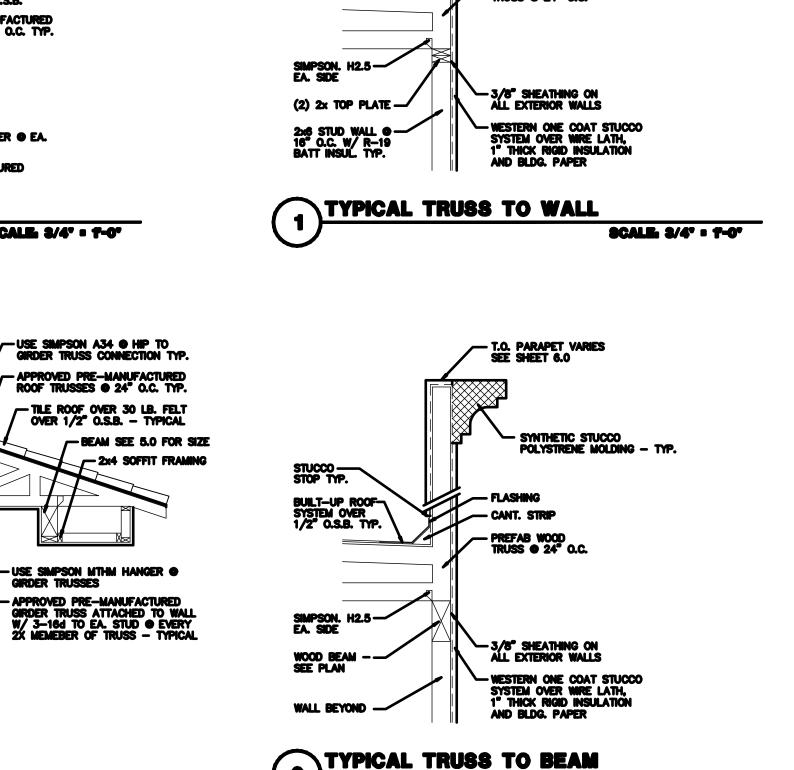
- BUILT-UP ROOF SYSTEM TYPICAL OVER 1/2" O.S.B.

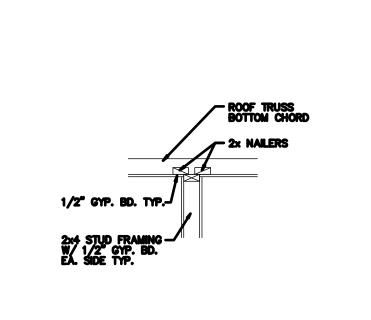
- APPROVED PRE-MANUFACTURED ROOF TRUSSES @ 24° O.C. TYP.

**SCALE. 3/4" - T-0"** 

**SCALE 3/4" - T-0"** 





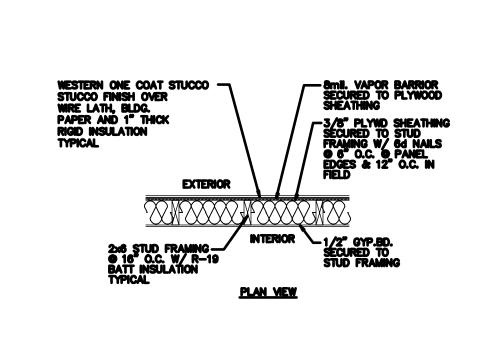


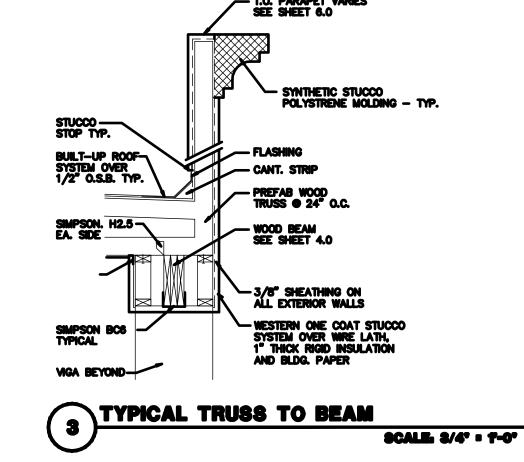
3/8" SHEATHING ON ALL EXTERIOR WALLS

CANTILIVERED TRUSS

-EXTERIOR STUCCO SYSTEM

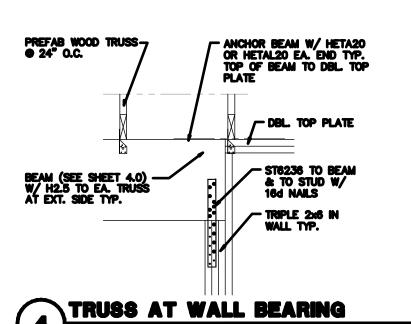


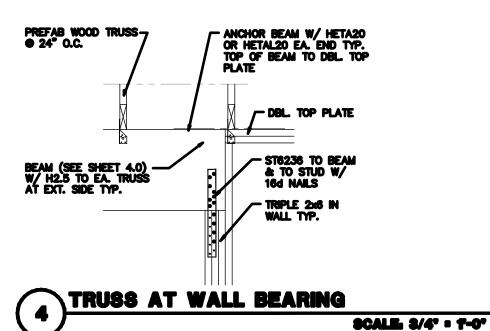






**SCALE 3/4" • T-0"** 





FRAMING DETAILS

# 1/2" standard sheathing with ext. glue panel index 32/16 A-307, Fy = 33 k.s.i.