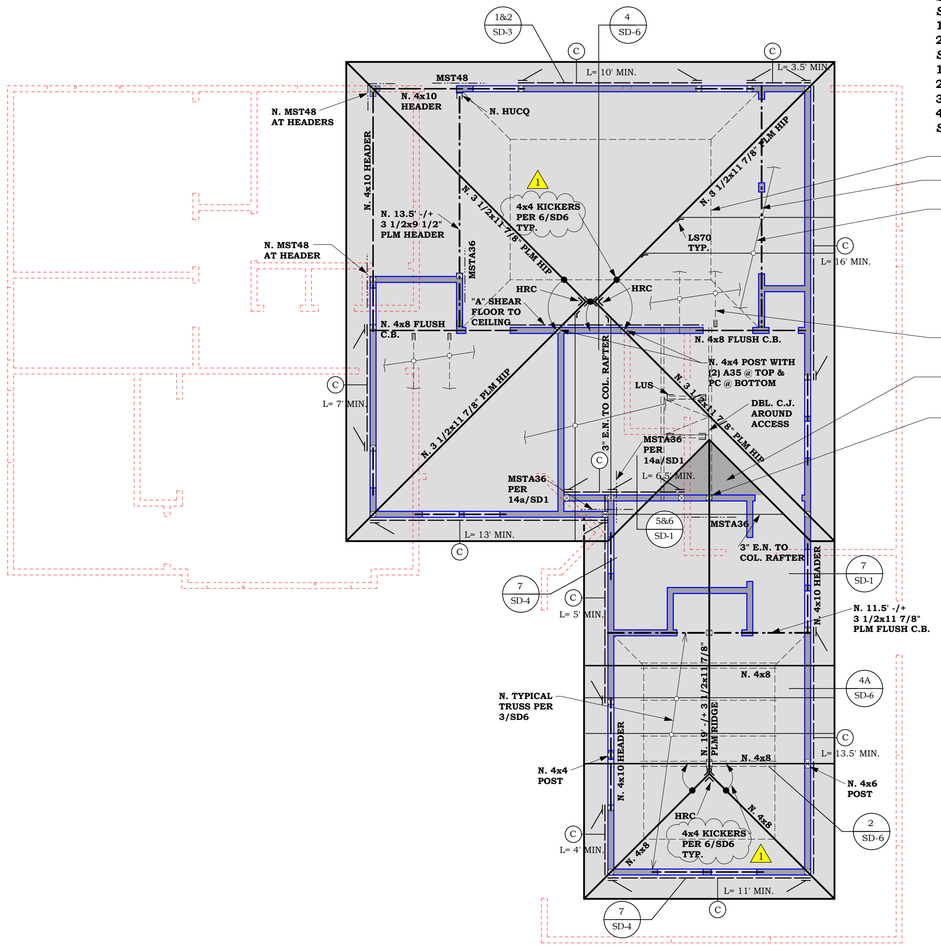


DBL. 2x8 C.J. AT EDGE OF COFFER

13' -/+ 3 1/2x9 1/2" PLM HEADER

TYPICAL ALL RAFTERS 2x8's @ 24" O.C. WITH LS70 TO RIDGE/HIPS & VALLEYS. DIRECTION TO FOLLOW SLOPE OF ROOF (RAFTERS ARE NOT SHOWN FOR CLARITY)

TYPICAL 2x8 C.J. @ 24" O.C., ALIGN & TIE WITH RAFTERS

MED. SHADE DENOTES 2x6's @ 24" O.C. AT CALIFORNIA FRAMING

TYPICAL 4x6 POST WITH EPC OR PC @ TOP & INVERTED PC @ BOTTOM TO SUPPORT RIDGE

## *SHEARWALL NOTES:*

***S1a)*** Denotes holdowns straps to tie base of walls at two story conditions,
**1.** MST48 at 4x4 posts typical u.n.o.
**2.** See details 3 & 4 sheet SD1.

NOTE: HOLDOWNS ARE TO BE INSTALLED AT BOTTOM OF WALLS.

***S2)*** Indicates shear wall plywood & nailing schedule. Type "A" on all new exterior walls, typical u.n.o. See sheet SD-1 for nailing schedule.

***S3) 3X Plates required:***
At type "B", "C" and "E" shearwalls, 3x nominal studs and plates are to be used at edge nailing and where panels adjoin. Top plates may be (2) 2x.
See sheet SD1 details and notes and other detail sheets for shearwall detail.
***S4)*** Run shear wall plywood continuously at wall "T" intersections.
***S5) Provide shear transfer to roof & through floor framing:***
**1.** Extend plywood to roof and provide shear transfer hardware
**2.** See sheet SD1 details and notes and other shear transfer details.
***S6)*** Use *(1) MSTA36* straps per top plate:
**1.** at existing to new top plates
**2.** both or one top plate is cut where top plate detail 13/SD1 is not satisfied
**3.** top plates are at different elevations, see detail 14b/SD1
**4.** Gable walls: (1) MSTA36 over ridge line
***S7)*** Engineer to review shearwalls and holdowns.

## *ROOF FRAMING NOTES:*

**R1)** Contractor to verify all point loads to be chased to framing or foundation

**R2)** ***EXTERIOR WALLS:*** *(typical unless noted otherwise)*
studs to 10' max 2x4 at 16" o.c.
studs to 16' max 2x6 at 16" o.c.
**1.** Gable end walls shall be balloon framed at vaulted ceiling with minimum (2) 2x king studs. Note 4x posts are required at holdowns.
**2.** All new plumbing walls shall be 2x6 at 16" o.c.

**R3)** ***HEADERS:*** *(typical unless noted otherwise)*
**1.** Headers are DFL, No. 1,
**2.** Engineered lumber such as PLM is preferred to minimize shrinkage
**3.** Double jack studs min. at spans over 5'
(4x posts are required at shearwall ends to tie holdowns)
**4.** At spans over 5', headers to tie to jack posts with A35's or LTP4's.
**A)** 2X4 WALLS;
Exterior and Interior bearing walls: 4x8 to 4' span, 4x10 to 10', 4x12 to 14'
Interior non-bearing walls, 4x8 to 6' span, 4x6 to 3' span
**B)** 2X6 WALLS;
Exterior and Interior bearing walls: 6x8 to 4' span, 6x10 to 11', 6x12 to 15'
Interior non-bearing walls, 6x8 to 7' span, 6x6 to 4' span

**R4)** ***HANGERS*** *(typical unless noted otherwise)*:
**A)** RAFTERS**:** all new rafters are to receive hangers as follows
2x6 rafters: A35,
2x8 rafters: LS70 typical, may use A35's to 6' span,
2x10 rafters: LS90 typical, may use LS70 to 12' span, A35's to 6' span,
***B)*** *RIDGE TO HIPS:*
HRC hangers or (2) LS90's at 10" deep members, (2) LS70's at 8" deep members
**C)** FLUSH ROOF OR CEILING BEAMS:
Flush Parallams: HGUS
Flush DFL: HUS

**R5)** ***POSTS*** *(typical unless noted otherwise)*:
**1.** Posts shall not break through double top plates.
Spilce post at top plates, clip posts to plates with (2) A35's
**2.** Posts can be solid members or multiple studs
nailed with 16d at 12" o.c per lap, (solid posts at HD's)
**3.** Posts to match thickness of walls and width of beams they are supporting;
for example:4x6 at 2x4 wall supporting 6x beam, etc.
**4.** Posts supporting Ridge beams, hips, valleys or kickers
shall have PC, EPC or (2) A35's or (2) LPT4's
**5.** Provide beams, solid blkg or posts to transfer loads to fdn or framing below
**6.** denote kicker posts. These are tilted posts to 45 degrees from vertical max. Connect top and bottom of kickers with (2) A35's

**R6)** ***COLLECTORS*** *(typical unless noted otherwise)*:
**1.** PARALLEL FRAMING ELEMENTS SUCH AS JOISTS OR BEAMS:
4" Edge nail to collector element, strap at splices as shown on the plans
**2.** PERPENDICULAR FRAMING ELEMENTS:
2x4 flat or solid block & use continuous collector straps as shown on the plans

**R7)** ***RIDGE BEAMS*** *(typical unless noted otherwise):*
4X10's at 2x6 and 2x8 rafters
4x12's at 2x10 rafters

**R8)** ***RAFTERS*** *(typical unless noted otherwise)*:
2x8's at 24" o/c to 15' maximum span on horizontal projection

**R9)** ***CEILING JOISTS*** *(typical unless noted otherwise)*:
2x6 at 24" o/c to 10' maximum span
2x8 at 24" o/c to 15' maximum span
**1.** Where ceiling joists overlap, tie with (5) 10d nails
**2.** Align ceiling joists with rafters and tied with (5) 10d, see detail 7/SD1
**3.** Use 5/8" sheet rock at 24" o.c. spacing

**R10)** ***HIPS & VALLEYS*** *(typical unless noted otherwise)*:
at 2X6 rafters; 2x8 to 9' span, dbl 2x8's to 13' span
at 2X8 rafters; 2x10 to 11' span, dbl 2x10's to 14' span
at 2X10 rafters; 2x12 to 13' span, dbl 2x12's to 16' span
**1.** Nail double rafters with 16 d nails at 12" o.c. staggered
**2.** Hips and valley spans are based on horizontal projection
**3.** At Vaulted ceilings, do not back cut the underside of the hips and valleys unless approved by engineer.

**R10)** ***CALIFORNIA FRAMING*** *(typical unless noted otherwise)*:
**A)** RAFTERS: 2X6 at 24" o.c.
**B)** HIPS & VALLEYS: Lay flat (1) 2x8 over roof, nail into ex. rafters with (2) 16d
**1.** New Cal. Fra. over Existing roof; remove all non-structural roofing materials
**2.** New Cal. Fra. over New roof; plywood above and below Cal. Framed roof

## LEGEND

DENOTES NEW 2x4 WALLS

**STRUCTURAL OBSERVATIONS BY ENGINEER:**
**3 BUSINESS DAY NOTICE IS REQUIRED TO SCHEDULE SITE VISITS - ENGINEER TO OBSERVE:**

**1- FOUNDATION STEEL, REBARS AT 10% & 100% PRIOR TO INSTALLATION OF INSIDE FORMS.**
**2- FRAMING PRIOR TO PLYWOOD.**
**3- SHEARWALLS, HOLDOWNS, & POSITIVE CONNECTORS.**

SCALE: 1/4"=1'-0"


ATA ENGINEERING
*Ali Adib, P.E.*
1202 Main Street, Redwood City, CA 94063
Tel. 650.363.2338, Fax 650.363.2031, email: ata@ataeng.net


# UPPER ROOF FRAMING PLAN

REMODEL/ADDITION:
**DALTON RESIDENCE**
3900 CHRISTIAN DRIVE
BELMONT, CA 94002

REGISTERED PROFESSIONAL ENGINEER
ALI ADIB
NO. CE49976
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA

PLANS ARE FAVORABLY REVIEWED FOR COMPLIANCE WITH STRUCTURAL CALCULATIONS ONLY

1 07-25-18 PC1

DATE: 06-07-18

S-3

OF SHEETS