## Build your Dream Garage from Quality Garage Plans by Cad Northwest Custom Home Design



#### **Congratulations:**

This is our Free 24' X 30' garage plan with loft. It is our intent that this plan can be used to plan, cost, permit, and build that additional storage that you so need. This is our sixth most popular plan and it has been sold many times for \$209. It has been successfully built by many customers just like you.

#### **Modifications:**

We hope that the existing configuration is exactly what you need and you can begin building with no cost for plans. We can make modifications to match your individual needs for an additional cost. There is a good chance we have a predesigned plan, close to your requirements, for a very reasonable cost. Just go to our website www.garageplans123.com and look through our entire collection.

### Why do we give this plan away for free:

One of the reasons we offer this excellent plan is to show you, before you pay anything, the completeness and quality of our standard plan package. Our purchased plans are equal to this plan with the exception that they are printed on full 24" X 36" sheets. This free plan is formatted on 8-1/2" X 11" sheets so that it can be printed on your standard printer. Another reason for giving away this plan is to promote our company and our other products by sending you an email each time we have a new offer or have added some new plans to our collection.

#### This plan can be upgraded at no additional cost:

There are several more versions of this 24' X 30' Garage plan. The first part of this free plan is18 pages describing a truss roof version, which will be all you need to build a truss roof building. The upgrade of the plan is for two additional framed versions, one with a standard 2X ridge and another version with a glulam beam ridge.

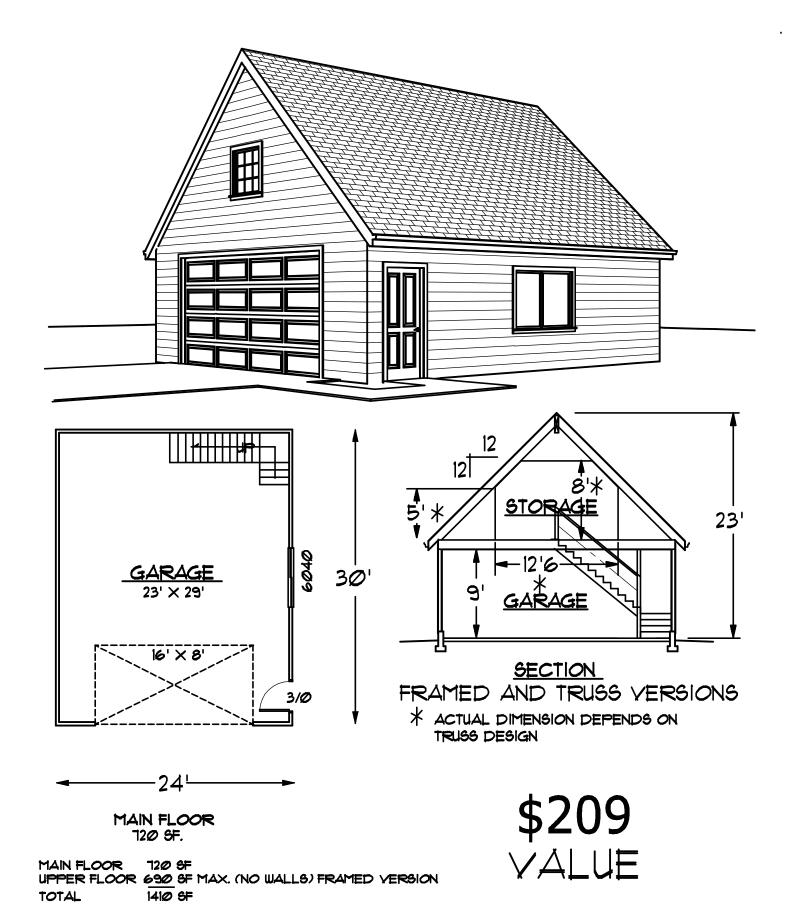
To upgrade this plan just share our website www.garageplans123.com with other people that you know. You can use Twitter, Facebook, Google+, any blog or forum, or just email the link "www.garageplans123.com" to two or three friends that might be interested in building a garage.







To order or ask a question just call Tom Easton Cad Northwest Custom Home Design (503) 625-6330 cadnw@zzz.com www.garageplans123.com



<u>PLAN</u> G243ØDJ

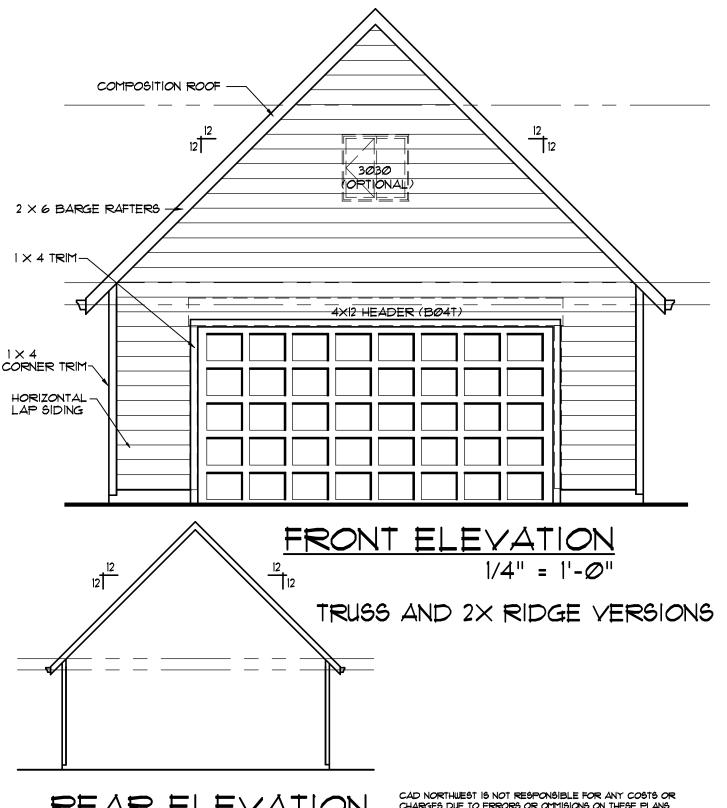
24' imes 30' TWO CAR GARAGE WITH LOFT

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CAD NorthWest

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REAR ELEVATION

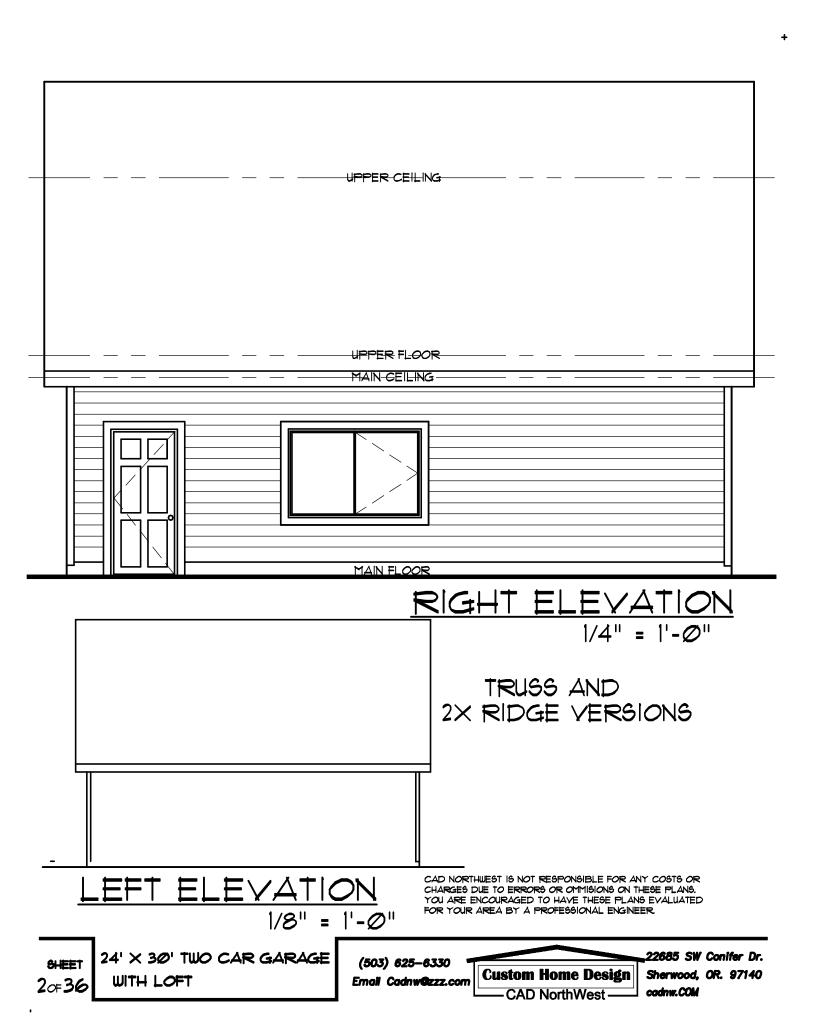
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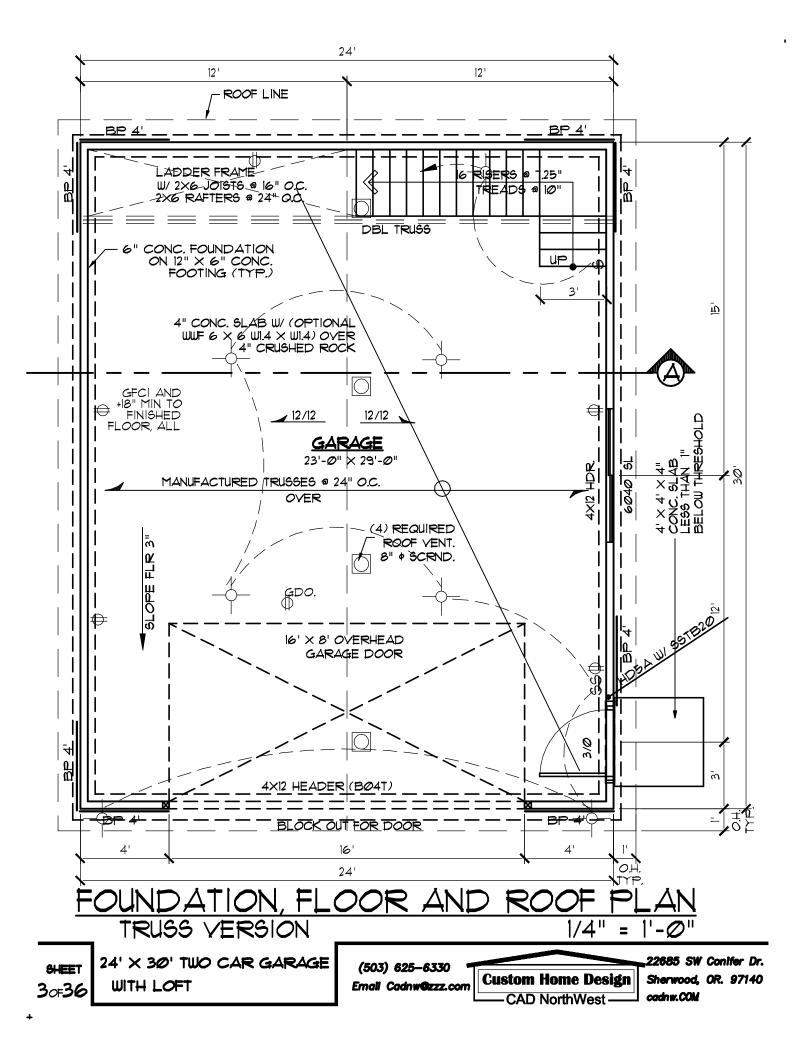
9HEET 1 *o*⊧36

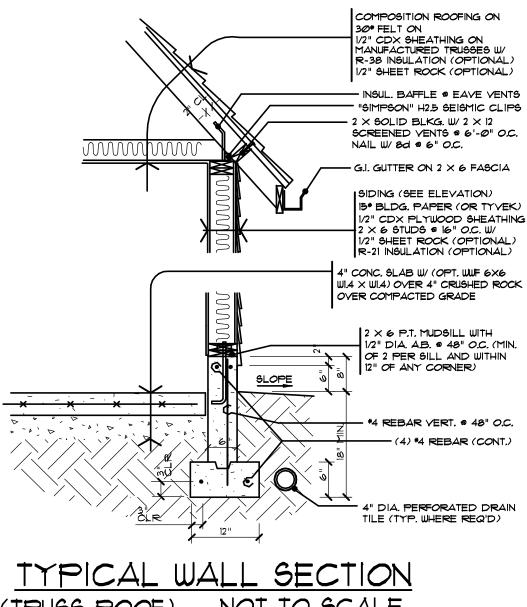
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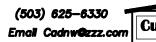


NOT TO SCALE (TRUSS ROOF)

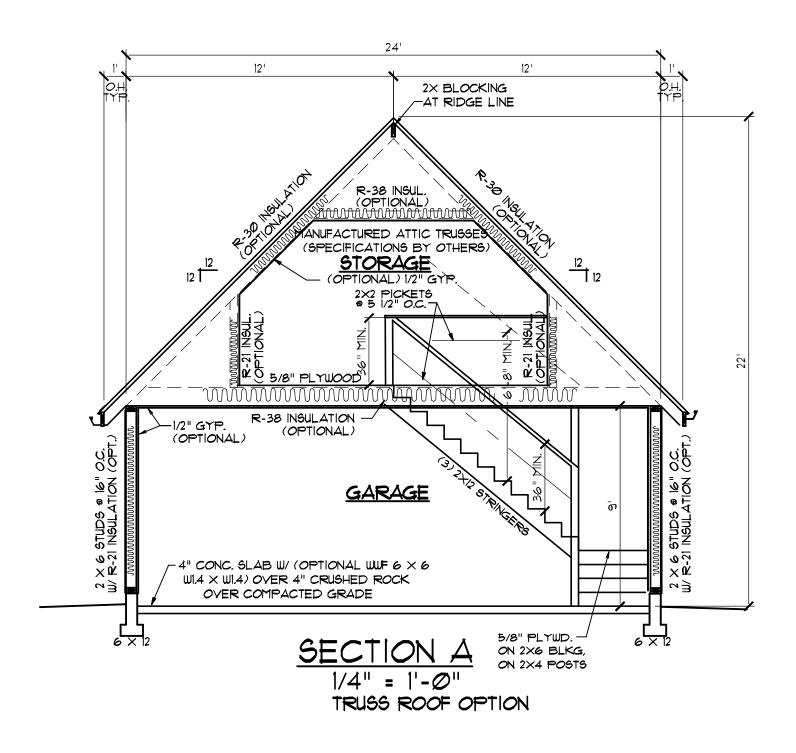
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 $24' \times 30'$  TWO CAR GARAGE WITH LOFT

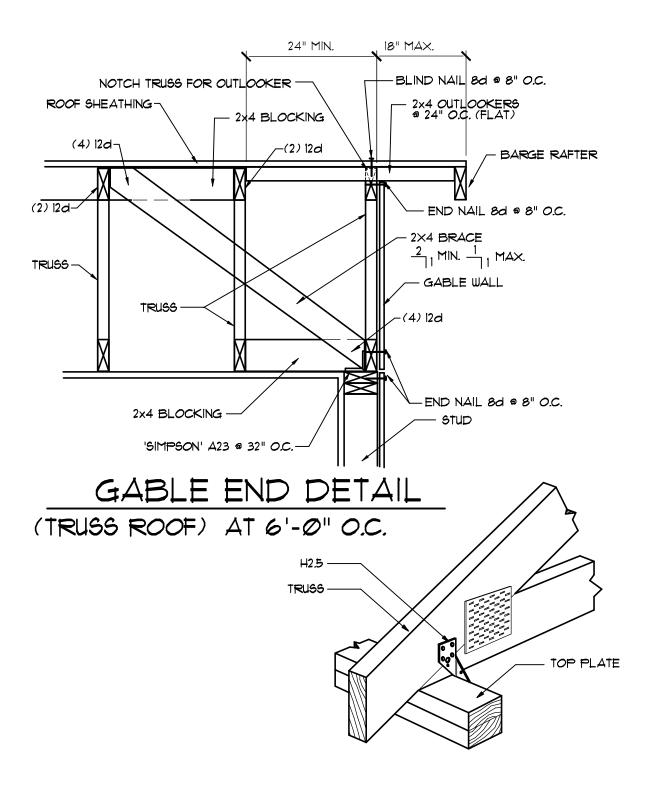






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# SIMPSON' H2.5 DETAIL

NOT TO SCALE

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8HEET 60=36

 $24' \times 30'$  TWO CAR GARAGE WITH LOFT

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### GENERAL NOTES

- I. ALL WORK SHALL COMPLY WITH THE INTERNATIONAL RESIDENTIAL CODE (2009 EDITION), ANY APPLICABLE STATE CODES OR AMENDMENTS, AND ALL COUNTY OR LOCAL CODES AND REGULATIONS.
- 2. THE CONTRACTOR IS RESPONSIBLE TO CHECK THE PLANS AND IS TO NOTIFY THE DESIGNER OF ANY ERRORS OR OMISSIONS PRIOR TO THE START OF CONSTRUCTION.
- 3. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS, DO NOT SCALE THE DRAWINGS.

4. DESIGN LOADS: ROOF 30 PSF (LIVE LOAD)
FLOOR 40 PSF (LL)
STAIRS 100 PSF (LL)
GARAGE FLOOR 50 PSF (2000\* PT.)
DECKS 60 PSF (LL)
WIND ≤ 100 MPH
SEISMIC DI

( IF YOUR LOCAL AREA REQUIRES DIFFERENT DESIGN LOADS CONSULT WITH A LOCAL STRUCTURAL ENGINEER TO DETERMINE THE APPROPRIATE REVISIONS,)

5. INSULATION: PATH 1

 ROOF (VAULTED)
 R-30

 ROOF (FLAT)
 R-38

 WALL\$ (2X4 EXTERIOR)
 R-13

 WALL\$ (2X6 EXTERIOR)
 R-21

 FLOOR (OVER UNHEATED \$PACE)
 R-25

- 6. THE ABOVE VALUES ARE A MINIMUM AND MAY BE INCREASED IF DESIRED. VERIFY WITH CONTRACTOR.
- ALL EXPOSED INSULATION IS TO HAVE A FLAME SPREAD RATING OF LESS THAN 25 AND A SMOKE DENSITY RATING OF LESS THAN 450.
- 8. PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS.
- 9. ROOF VENTS TO TOTAL MORE THAN 1/300 OF THE ATTIC AREA BEING VENTILATED.

### STAIR DETAIL

MIN. 3' WIDE 2XIØ TREADS 1.5" RISE ON 2XI2 STRINGERS ON 4X4 P.T. POSTS ON METAL BRACKETS ON 16" \$\times\$ 18" DP. CONC. FOOTINGS

PLATFORM MIN. 3' WIDE ON 2X6 JOISTS @ 16" O.C. ON 4X4 P.T. POSTS ON METAL BRACKETS ON 16" \$\times 18" DP. CONC. FOOTINGS

#### FRAMING NOTES

- 1. ALL EXTERIOR WALL OPENINGS & BEARING WALL OPENINGS TO HAVE 4 × 8 HEADERS UNLESS OTHERWISE INDICATED.
- 2. JOISTS THAT ARE ATTACHED TO FLUSH BEAMS ARE TO BE HUNG WITH "SIMPSON" U-210 OR EQUIV.
- 3, PROVIDE DOUBLE 1975, UNDER ALL WALLS ABOVE RUNNING PARALLEL TO JOISTS.
- 4. PROVIDE FIREBLOCKING, DRAFTSTOPS 4 FIRESTOPS AS PER THE I.R.C. (R302.11 AND 302.12)
- 5. LUMBER SPECIES:

A. POSTS, BEAMS, HEADERS	NO. 2 DOUGLAS FIR
JOISTS AND RAFTERS B. SILLS, PLATES, BLOCKING	NO. 3 DOUGLAS FIR
BRIDGING ETC. C. STUDS D. POST & BEAM DECKING E. PLYWOOD SHEATHING F. GLU-LAM BEAMS	STUD GRADE DF. UTILITY GRADE DF. 1/2" CDX PLY, 32/16 Fb-24 <i>00</i> , DRY ADH.

F. GLU-LAM BEAMS	Fb-24	00, DRY ADH.
6. NAILING SCHEDULE: JOIST TO SILL OR GIRDER BRIDGING TO JOIST 2" SUBFLOOR TO GIRDER SOLE PL. TO JOIST TOP PL. TO STUDS STUD TO SOLE PL.  COLLAR TIE RAFTER	3-8d 2-8d 2-16d 16d @ 16" 2-16d 3-8d 2-16d 3-10d	END NAIL TOE NAIL
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE DOUBLE STUDS DOUBLE TOP PL. CONTINUOUS HEADER (2 PC.) CLG. JST. TO PL. CLG. JST. LAP OVER PL. CLG. JST. TO RAFTER RAFTER TO TOP PL. BUILT-UP CORNER STUDS PLYWOOD SUBFLOOR	3-8d 10d = 24" 16d = 16" 16d = 16" 3-8d	EDGE NAIL TOE NAIL FACE NAIL FACE NAIL TOE NAIL FACE NAIL EDGE NAIL
PLY WALL & ROOF SHEATHING		EDGE NAIL
TOP PL. AT INTERSECTIONS MULTIPLE JOISTS EA. LAYER (UP TO 3)	2-16d 10d @ 32"	FACE NAIL
MULTIPLE JOISTS (OVER 3)	1/2" DIA, BOL EA, SIDE @ 24	TS W/ WASHERS 4" <i>O.C.</i>

 MANUFACTURED TRUSS JOISTS MAY BE SUBSTITUTED FOR 2 X JOISTS WHERE APPLICABLE.

IX 6 SPACED SHEATHING

2-8d

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9HEET 170∓36  $24' \times 30'$  TWO CAR GARAGE WITH LOFT

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22685 SW Conifer Dr. Sherwood, OR. 97140 codnw.COM

FACE NAIL

## FOUNDATION NOTES

- I. FOOTINGS ARE TO BEAR ON UNDISTURBED LEVEL SOIL DEVOID OF ANY ORGANIC MATERIAL AND STEPPED AS REQUIRED TO MAINTAIN THE REQUIRED DEPTH BELOW THE FINAL GRADE.
- 2. SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSF.
- 3. ANY FILL UNDER GRADE SUPPORTED SLABS TO BE A MINIMUM OF 4" GRANULAR MATERIAL COMPACTED TO 95%.
- 4. CONCRETE: -BASEMENT WALLS & FOUNDATIONS
  NOT EXPOSED TO WEATHER: 2,500 PSI

-BASEMENT & INTERIOR

•

SLABS ON GRADE :

2,500 PSI

-BASEMENT WALLS & FOUNDATIONS

3,000 <del>PS</del>I

EXPOSED TO THE WEATHER:
- PORCHES, STEPS & CARPORT

SLABS EXPOSED TO WEATHER : 3,500 PSI

(AS PER I.R.C. TABLE R402.2)

- 5. CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25 FT. (MAXIMUM) INTERVALS EA, WAY.
- 6. CONCRETE SIDEWALKS TO HAVE 3/4 IN. TOOLED JOINTS AT 5 FT. (MINIMUM) O.C.
- 7. REINFORCING STEEL TO BE A-615 GRADE 40. WELDED WIRE MESH TO BE A-185.
- 8. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR PROTECTED WITH 55\* ROLL ROOFING.
- 9. FOOTING TO BE CONTINUOUS ACROSS
  OPENINGS W/ REBAR (SEE TYPICAL WALL DETAIL)
- 10. ALL HOLD DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.



# BRACED WALL PANEL DEFINITION

A BRACED WALL PANEL CONSTRUCTED AS PER 'IRC 2009' (WSP)

BRACE PANEL SHEATHING MIN. TI-11, 3/8 PLYWOOD ONE SIDE NAIL W/ 8d @ 6" O.C. ON THE EDGES AND 8d @ 12" O.C. IN THE FIELD.

PROVIDE PERIMETER MEMBERS AT OPENINGS. USE EXTERIOR GLUE PLYWOOD.
PROVIDE FRAMING MEMBERS OR BLOCKING AT EDGES OF ALL PLYWOOD SHEETS.
PROVIDE HOLD DOWNS AT EACH END OF EACH BRACE PANEL. SEE TYPICAL WALL DETAIL.

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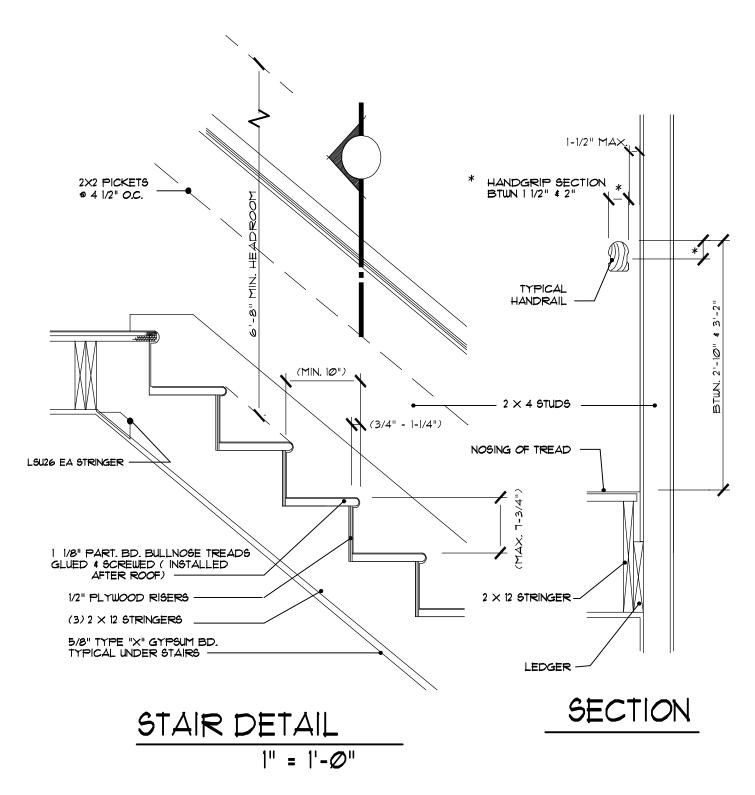


# ELECTRICAL LEGEND

9	SWITCH, SINGLE POLE				
\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$	SWITCH, 3-WAY				
Ф	DUPLEX OUTLET				
Ф	220 VOLT OUTLET				
	8' FLUORESCENT FIXTURE				
	4' FLUORESCENT FIXTURE				
<u> </u>	STANDARD INCANDESCENT				
	RECESSED INCANDESCENT				
	SERVICE PANEL				
(SD)	SMOKE DETECTOR				
K	EXAUST FAN VENTED TO EXTERIOR				
	CADET HEATER				

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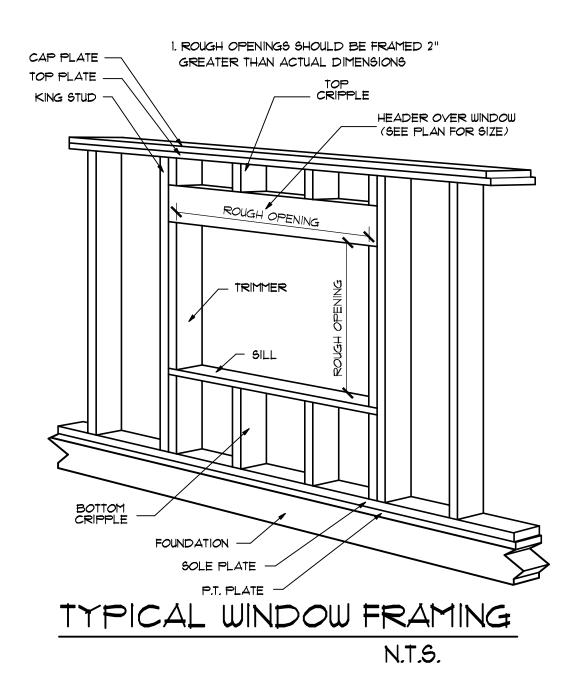
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9HEET 200=36

24' imes 30' TWO CAR GARAGE WITH LOFT

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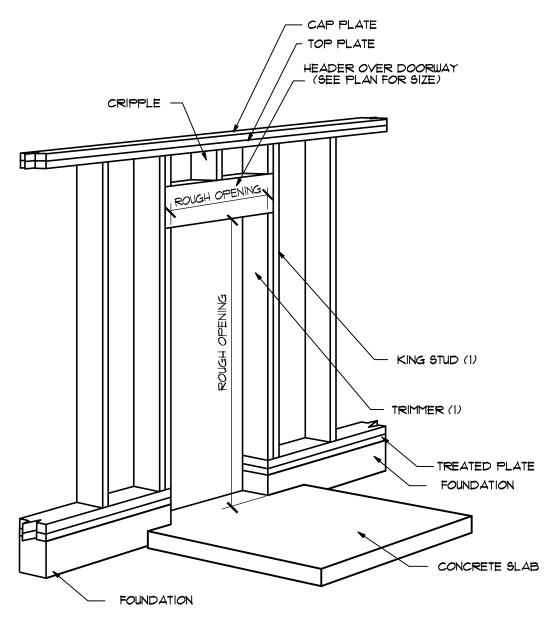


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8HEET 21 ⊘∓36  $24' \times 30'$  TWO CAR GARAGE WITH LOFT

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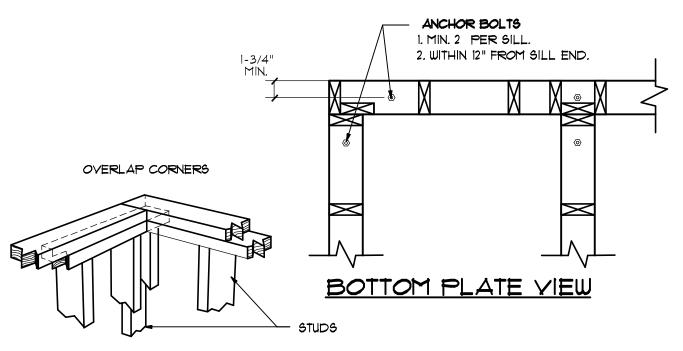




1. ROUGH OPENINGS SHOULD BE FRAMED 1" GREATER THAN THE ACTUAL HEIGHT OF THE DOOR AND 2" MORE THAN THE WIDTH OF THE DOOR.

# DOOR FRAMING DETAIL N.T.S.

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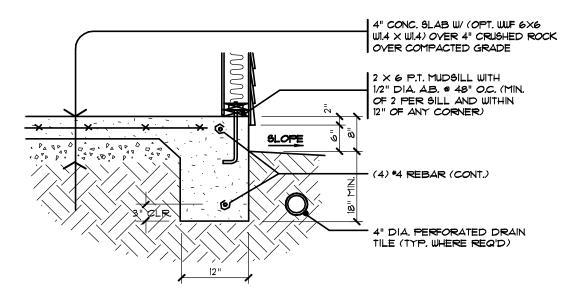
# TOP PLATE VIEW

- 1. JOINTS SHALL FALL ON A BEARING STUD.
- 2. JOINTS SHALL BE OFFSET W/ A SPACING NO LESS THEN 24" O.C.

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# TYPICAL CORNER DETAIL

# NOT TO SCALE



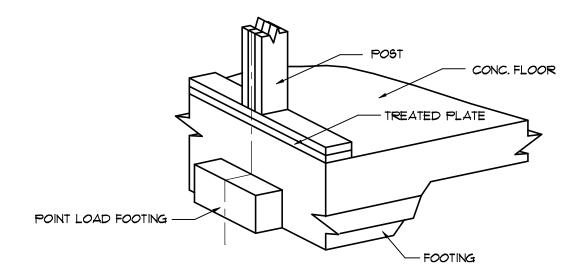
# ALTERNATE FOUNDATION SECTION NOT TO SCALE



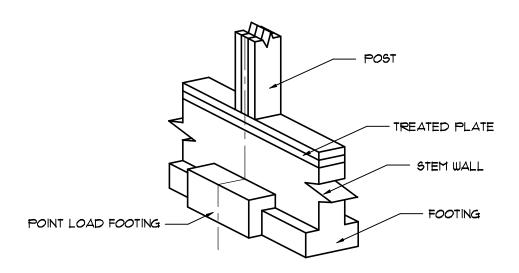
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# FOOTING DETAIL N.T.S.



# FOOTING DETAIL N.T.S.

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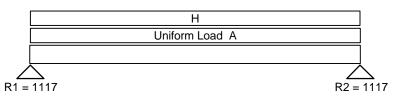
SHEET 24' × 30' TWO CAR GARAGE 240: 36' WITH LOFT

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Custom Home Design

CAD NorthWest

BeamChek v2013 licensed to: Cad Northwest Reg # 5234-65453								
G2430DJ Gar	age Plan	Garage Door Header (Truss, 2X)						
B04T		Date: 12/20/13						
Selection	4x 12 DF-L #2	Lu = 0.0 Ft						
<b>Conditions</b>	NDS 2012							
	Min Bearing Area	R1= 1.8 in <sup>2</sup>	R2= 1.8 in <sup>2</sup>	(1.5	) DL Defl= 0	.35 in		
<u>Data</u>	Beam Span	16.0 ft	Reaction 1	LL	320 #	Reaction 2 LL	320 #	
	Beam Wt per ft	9.57 #	Reaction 1	TL	1117#	Reaction 2 TL	1117 #	
	Bm Wt Included	153 #	Maximum V	′	1117#			
	Max Moment	4466 '#	Max V (Red	luced)	986 #			
	TL Max Defl	L/240	TL Actual D	efl	L / 441			
	LL Max Defl	L/360	LL Actual Defl		L/>1000			
<u>Attributes</u>	Section (in³)	Shear (in²)	TL Defl (i	n)	LL Defl			
Actual	73.83	39.38	0.44		0.09			
Critical	54.14	8.21	0.80		0.53			
Status	OK	OK	OK		OK			
Ratio	73%	21%	54%		17%			
		Fb (psi)	Fv (psi)	1	E (psi x mil)	Fc <u>l</u> (psi)		
<u>Values</u>	Reference Values	900	180		1.6	625		
	Adjusted Values	990	180		1.6	der (Truss, 2X)		
<u>Adjustments</u>	CF Size Factor	1.100						
	Cd Duration	1.00	1.00					
	Cr Repetitive	1.00						
	Ch Shear Stress		N/A					
	Cm Wet Use	1.00	1.00		1.00	1.00		
	Cl Stability	1.0000	Rb = 0.00	Le = 0	0.00 Ft			
Loads Uniform LL: 40				Uniforr	m TL: 50 = A	1		
					Par Unif TL	Start	End	
					H = 80	0	16.0	



SPAN = 16 FT

Uniform and partial uniform loads are lbs per lineal ft.



## **MATERIAL LIST**

## **G2430DJ Garage Plan**

Standard W/ Truss Roof

This estimate is designed solely to provide the customer with a rough estimate of the amount of material used in the given project. The material estimate is based on normal and typical building and construction techniques. The actual amount of material used may vary from this estimate due to a number of factors. Consequently, no representation or warranty has been made that the amount of material used will not vary from the estimate.

	ITEM	CALC	SIZE	LENGTH	O.C.	QTY	
1	MAIN EXT STUDS		2X6	93.50	16"	66	EA
2	MAIN TREATED SILL		2X6			89	LF
3	MAIN EXT PLATES		2X6			308	LF
4	UPPER EXT STUDS		2X6	36.00	16"	81	EA
5	UPPER CEILING S.R. (Optional)		1/2" GYP.			1018	SF
6	UPPER EXT WALL S.R. (Optional)		1/2" GYP.			324	SF
7	UPPER INT WALL S.R. (Optional)		1/2" GYP.			288	SF
8	HEADER, (Main Window)	N/A	4X12	7'		1	EA
9	HEADER, (Ext Main Garage Door)	B04T	4X12	17'		1	EA
10	HEADER, (Ext Main Door)	N/A	4X8	4'		1	EA
11	TRUSSES				24"	12	EA
12	TRUSSES (Ends)					2	EΑ
13	EAVE BLOCKING		2X	22.5"	24"	30	EΑ
14	H2.5 RAFTER TIE				24"	32	EΑ
15	ROOF SHEATH		1/2" CDX			1177	SF
16	ROOF FELT		30# Felt			1177	SF
17	ROOFING					1177	SF
18	BARGE RAFTERS		2X6	20'		4	EA
19	MAIN EXT WALL S.R. (Optional)		1/2" GYP.			801	SF
20	MAIN CEILING S.R. (Optional)		1/2" GYP.			720	SF
21	EXT WALL SHEATH		1/2" CDX			1125	SF
22	EXT WALL VAPOR		15# Felt			1125	SF
23	EXT SIDING (See Plan)		Varies			1125	SF
24	CONCRETE					14.42	CY
25	RIM JOIST					108	LF
26	UPPER FLOOR PLYWOOD					420	SF
27	GIRDER TRUSS			24'		1	EA
28	ANCHOR BOLTS		1/2"		48"	23	EA
29	HOLD DOWNS		HD5A			1	EA
30	WIRE MESH		6X6 W1.4 X W1.4			720	SF