PROPOSED PROJECT FOR:

DK HOMES, LLC

General Notes & Supplemental Information
The attached 8 1/2 x 11 sheets are part of this plan approval. Plans are considered null and void without this information attached to the approved set of plans.

SEPARATE SEWER CONNECTION PERMIT REQUIRED. CONNECTION IS IN THE PUBLIC RIGHT OF WAY.

BES STORMWATER FACILITY INSPECTION REQUIRED AT TIME OF CONSTRUCTION. SEE GREEN BES INSPECTION CARD. To schedule, contact the automated inspection request (IVR) system at 503-823-7000 and request inspection #487 BES Onsite Stormwater Facility Eval - OR you may contact our office directly at 503-823-2059

BDS COMBINATION INSPECTOR APPROVAL REQUIRED FOR DOWNSPOUTS AND PRIVATE STORMWATER PIPING OUTSIDE OF STORM FACILITIES.

PROJECT DATA

PROJECT ADDRESS: PARCEL 1, SE RAYMOND AVE, PORTLAND, OR

ENERGY CODE DATA:
ALL CONSTRUCTION SHALL CONFORM TO 2011 OREGON RESIDENTIAL SPECIALTY CODE AND 2010 OREGON ENERGY EFFICIENCY SPECIALTY CODE.

TABLE N1101.1(1)
PRESCRIPTIVE ENVELOPE REQUIREMENTS

BUILDING COMPONENT	REQUIRED PERFORMANCE	EQUIV. VALUE
WALL INSULATION-ABOVE GRADE	U-0.060	R-21
WALL INSULATION-BELOW GRADE	F-0.565	R-15
FLAT CEILING	U-0.031	R-38
VAULTED CEILING	U-0.042	R-38
UNDERFLOORS	U-0.028	R-30
SLAB EDGE PERIMETER	F-0.520	R-15
HEATED SLAB INTERIOR	N/A	R-10
WINDOWS	U-0.35	U-0.35
WINDOW AREA LIMITATION	N/A	N/A
SKYLIGHTS	U-0.60	U-0.60
EXTERIOR DOORS	U-0.20	U-0.20
EXTERIOR DOORS W/ MORE THAN 2.5 SF. GLAZING	U-0.40	U-0.40
FORCED AIR DUCT INSULATION	N/A	R-8

NOTES: REF. TO GENERAL NOTES FOR FOOTNOTES

TABLE N1101.1(2)
ADDITIONAL MEASURES

ENVELOPE ENHANCEMENT MEASURE:
MEASURE: 2
HIGH EFFICIENCY ENVELOPE:
EXTERIOR WALLS - U-0.058/R-21 INTERMEDIATE FRAMING,AND
AVAULTED CEILINGS - U-0.33/R-30, AND
FLAT CEILING - U-0.025/R-49, AND
FRAMED FLOORS - U-0.025/R-38, AND
WINDOWS - U-0.30, AND
DOORS - ALL DOORS U-0.20, OR
ADDITIONAL 15 % OF PERMANENTLY INSTALLED LIGHTING FIXTURES AS HIGH-EFFICACY LAMPS OR CONSERVATION MEASURE D AND E
NOTES: REF. TO GENERAL NOTES FOR FOOTNOTES

CONSERVATION MEASURE:
MEASURE: A
HIGH EFFICIENCY HVAC SYSTEM:
-GAS-FIRED FURNACE OR BOILER WITH MINIMUM AFUE OF 90% A, OR AIR-SOURCE HEAT PUMP WITH MINIMUM HSPF OF 8.5 OR
-CLOSED-LOOP GROUND SOURCE HEAT PUMP WITH MINIMUM COP OF 3.0

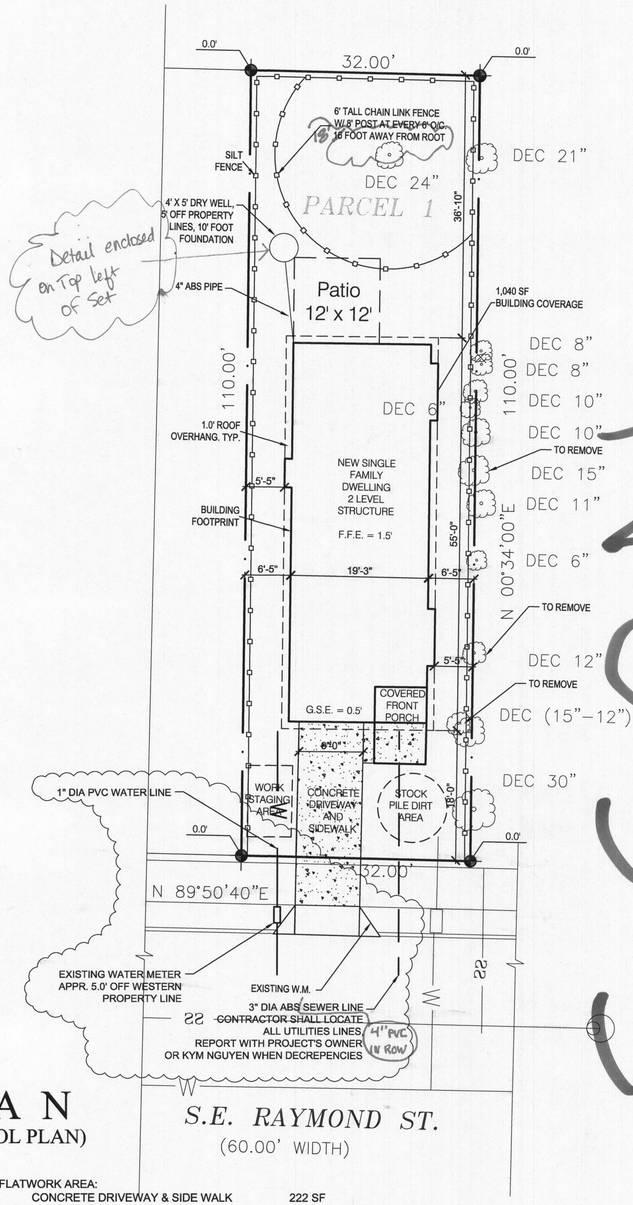
FLOOR PLAN INFORMATION:

FIRST FLOOR LIVING AREA:	860 SF
2ND FLOOR LIVING AREA:	1,120 SF
GARAGE:	248 SF.
TOTAL LIVING AREA:	1,980 SF

ELEVATION

'ELEVATION IS AN ARCHITECTURAL RENDERING NOT INTENDED TO REPRESENT ACTUAL CONDITIONS OR MATERIAL DISPLAYED. FINAL ELEVATION AND CHOICE OF MATERIALS ARE SUBJECT TO LOCAL JURISDICTION REQUIREMENTS AND BUILDER'S DISCRETION"

APPROVED
Urban Forestry



VICINITY MAP

SITE PLAN
(AND EROSION CONTROL PLAN)
SCALE : 1" = 10'-0"

PROJECT ADDRESS:
PARCEL 1, SE RAYMOND ST
PORTLAND, OR
PROJECT LEGAL:
TAX ID: R214023
STATE ID:
TAX ROLL:
LOT: PARCEL 1
BLOCK: 3

FLATWORK AREA:
CONCRETE DRIVEWAY & SIDE WALK 222 SF
LOT COVERAGE:
LOT AREA: 2,810 SF
BUILDING AREA (NOT INCLUDING EAVES): 1,208 SF
MAX BUILDING COVERAGE ALLOWABLE: 1,405 SF
IMPERVIOUS AREA:
ROOF AREA INCLUDING OVERHANGS: 1,560 SF
ZONING:
R2 - OVERLAY: NA

GENERAL NOTES

1. GENERAL CONTRACTOR SHALL REVIEW ALL SITE CONDITIONS AND CONSTRUCTION DOCUMENTS PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES IN THE PROPOSED WORK TO THE CONCEPT DESIGN & ASSOCIATES, OWNER/BUILDER IMMEDIATELY. PROCEED ONLY AFTER WRITTEN CLARIFICATIONS ARE SUBMITTED.

2. PROVIDE HVAC TO MEET BLDG. & MECH. CODES. HVAC SYSTEM DESIGN, DRAWINGS, CALCULATIONS AND PERMIT TO BE PROVIDED BY LICENSED MECHANICAL CONTRACTOR.

3. PROVIDE ELECTRICAL WIRING, OUTLETS AND DEVICES TO MEET BLDG. & ELEC. CODES. ELECTRICAL DESIGN, DRAWINGS, CALCULATIONS AND PERMIT TO BE PROVIDED BY LICENSED ELECTRICAL CONTRACTOR.

4. DRAWINGS, CALCULATIONS AND PERMIT TO BE PROVIDED BY LICENSED PLUMBING CONTRACTOR.

5. THIS IS PERMIT SET FOR ONE (1) SITE ADDRESS ABOVE ONLY. A COPY OF THESE CONSTRUCTION DRAWING FOR ANY FORM OF PRODUCTION WITHOUT AUTHORIZED BY CONCEPT DESIGN & ASSOCIATES IS PROHIBITIT

CONTACT INFO.

RESIDENTIAL DESIGN:
CONCEPT DESIGN & ASSOCIATES
P.O. BOX 8464
PORTLAND, OR 97207
PH: (503) 515-7418
kymcad@gmail.com
contact: Kym Nguyen

BUILDER & DEVELOPER:
D K HOMES LLC
P.O. BOX 90277
PORTLAND, OR 97290
PH: (503) 380-5959
Fax: (503) 762-1996
CCB#: 159237

INDEX OF SHEETS

PAGE #	DESCRIPTION
AO	SITE PLAN
CS	COVER SHEET
A1	EXTERIOR BUILDING ELEVATIONS
A2	FIRST FLOOR PLAN/2NDFLOOR FRAMING PLAN & SECOND FLOOR PLAN
A3	FOUNDATION PLAN, ROOF PLAN
A4	CROSS SECTION A & B
D1	INTERIOR STAIR DETAIL, FOOTING DETAIL POST & BEAM DETAIL, ALTERNATE BRACING FOR 1ST & 2ND FLOOR DETAIL & PORTAL FRAME DETAIL
G	GENERAL NOTES & SPECIFICATION
1.	DOCUMENT FOR GRAVITY ANALYSIS
2.	MANUFACTURE ROOF TRUSS (BY OTHER)

City of Portland
Bureau of Development Services
By L. Ducking Date 4/25/18
Approved by
Planning and Zoning Review

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

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CONCEPT Design & Associates
PO BOX 8464 - PORTLAND - OREGON 97207
PHONE: 503-515-7418
www.knstudiopdx.com

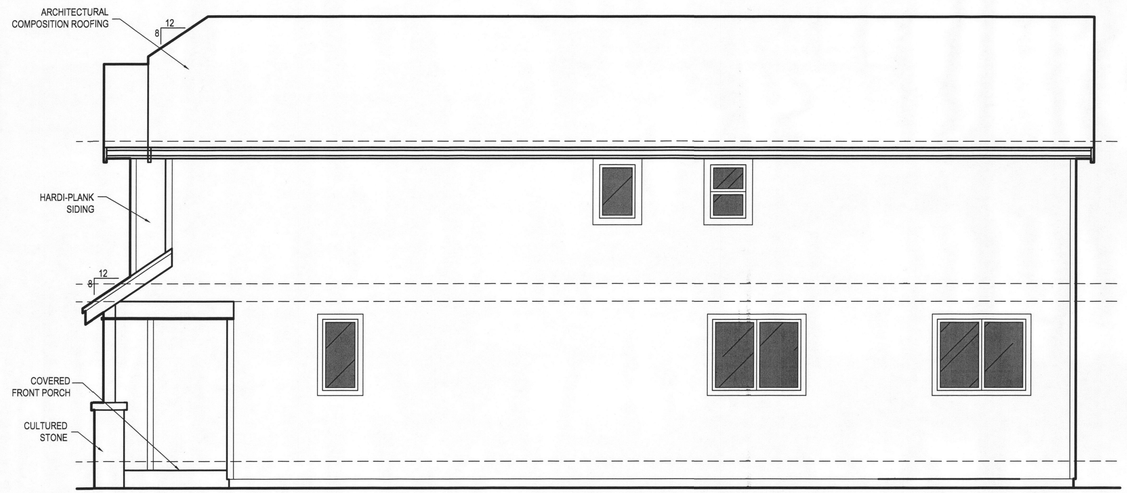
COVER SHEET

PLAN NUMBER: P-1980
PROJECT NAME: SINGLE DWELLING
PROJECT ADDRESS: SE Raymond Ave Portland, Or.
OWNER: DK Homes LLC

Revisions
1 REV: 09-10-2017 PER CITY
2 REV: 03-13-2018 PER BES

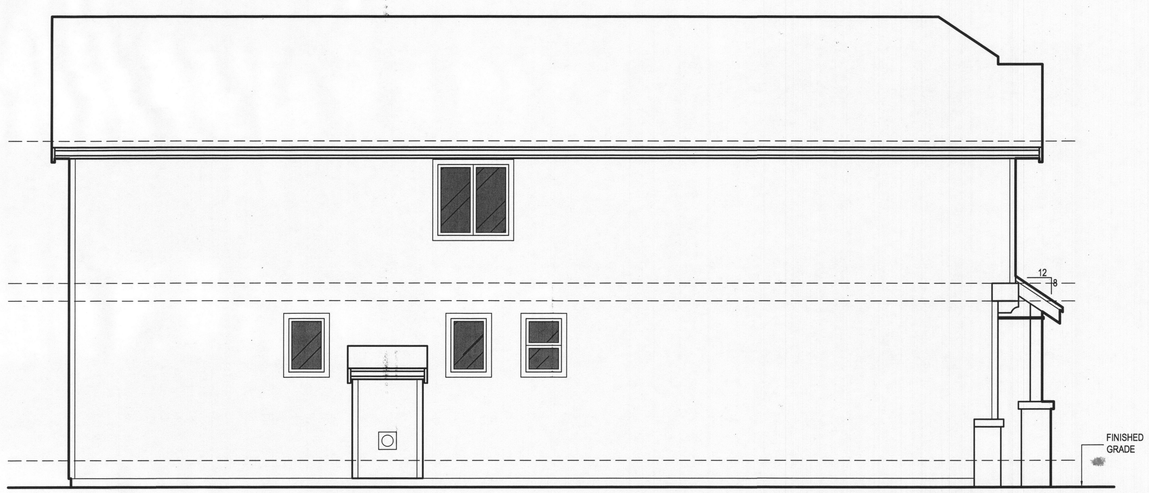
Drawn & Checked By: KN
Project Number: 17–190
Issue Date: 6–13–2017
Drawing File Name: P1980PLAN.DWG
Sheet Number: CS

SCANNED
17-188547-RS
RS 47



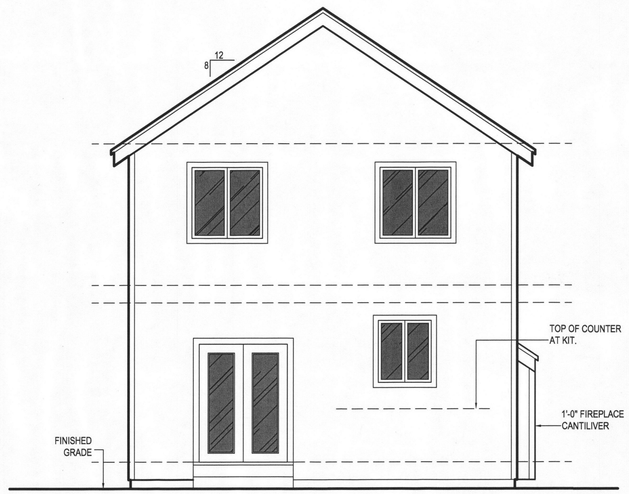
4 A1 Right Side Elevation

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



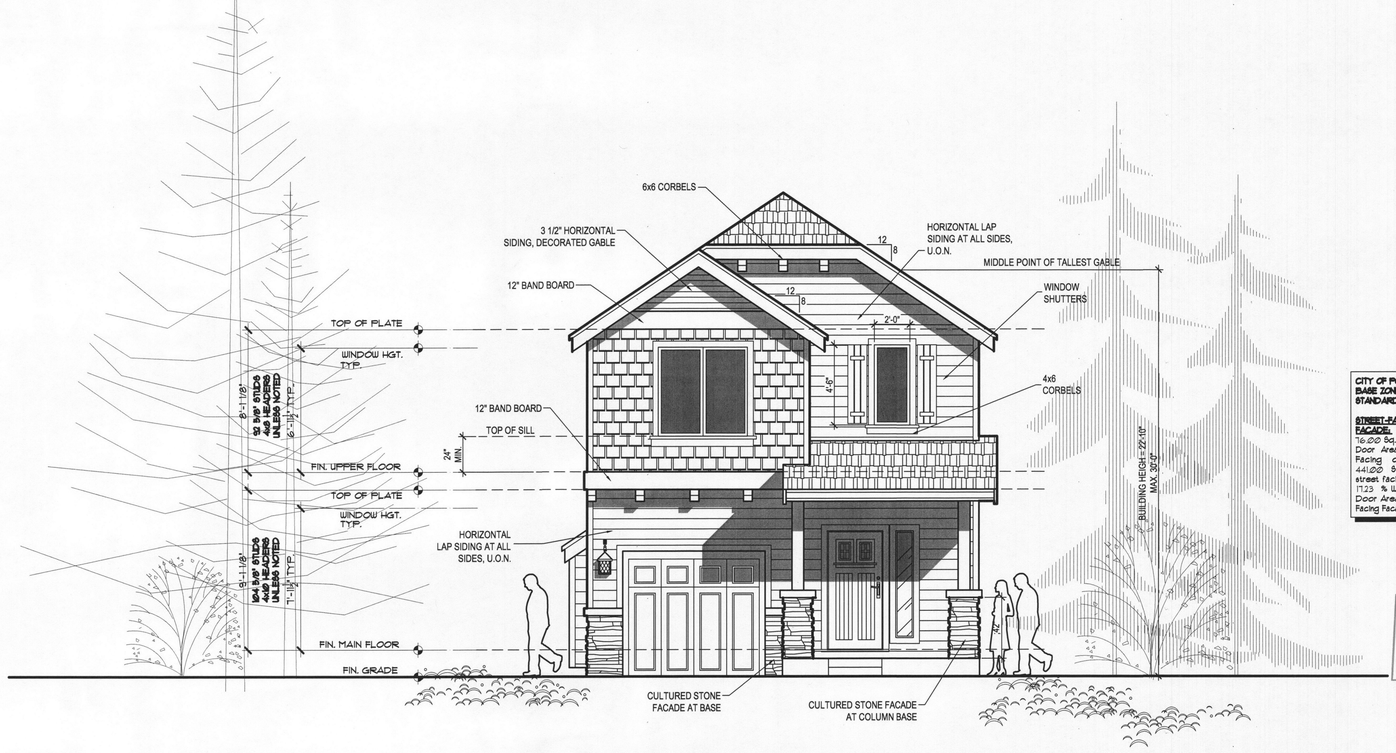
3 A1 Left Side Elevation

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



2 A1 Rear Elevation

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



1 A1 Front Elevation

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

CITY OF PORTLAND BASE ZONE DESIGN STANDARD:

STREET-FACING FACADE:

16.00 Sq. Ft. Window & Door Area of Street Facing divided by 44.00 Sf. Ft. Area of street facing facade = 17.23 % Window and Door Area of Street Facing Facade (15% Min.)

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City of Portland
Bureau of Development Services
By L Dunkins Date 4/25/18
Approved by Planning and Zoning Review

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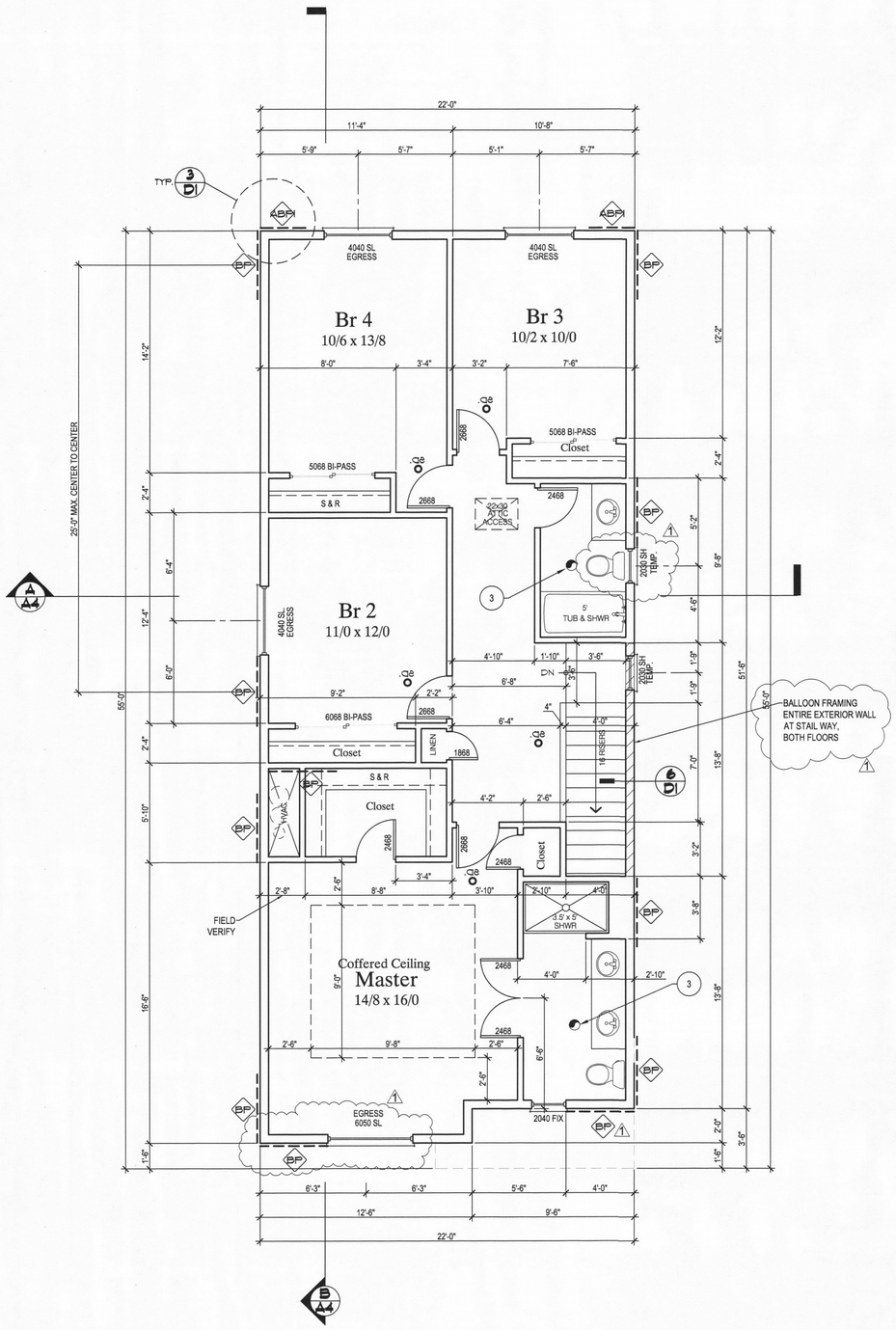
BUILDING ELEVATIONS

PLAN NUMBER:
P-1980
PROJECT NAME:
SINGLE DWELLING
PROJECT ADDRESS:
SE Raymond Ave
Portland, Or.
OWNER:
DK Homes LLC

Revisions

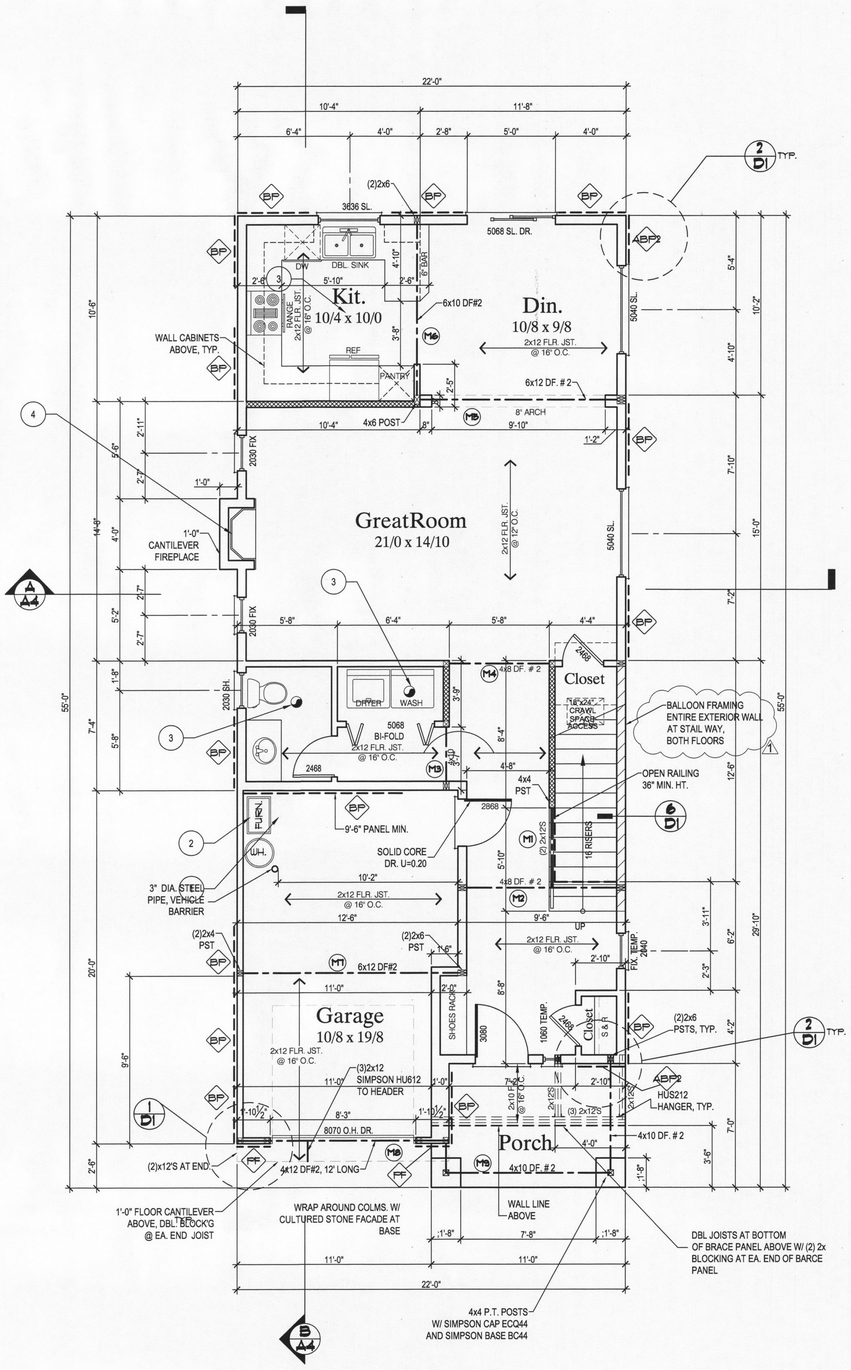
1 REV: 03-23-2018 Per City

Drawn & Checked By: KN
Project Number: 17-190
Issue Date: 6-13-2017
Drawing File Name: P1980PLAN.DWG
Sheet Number: A1



2ND FLOOR PLAN

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



2ND FLOOR FRAMING PLAN
1ST FLOOR PLAN

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

LEGEND

- INTERIOR BEARING WALL (SUPPORTING STRUCTURE ABOVE)
- POINT LOAD FROM ABOVE
- BEARING POINT LOCATION AT WALL PROVIDE SOLID BEARING, MIN. OF MEMBER WIDTH, UNLESS NOTED

SD. — 110V SMOKE/HEAT DETECTOR W/ BATTERY BACKUP-INNER CONNECT
CARBON MONOXIDE ALARM SHALL BE INSTALLED IN EACH SLEEPING ROOM OR WITHIN 15 FEET OUT SIDE EACH SLEEPING ROOM DOOR. CO ALARMS MAY BE HARD-WIRED OR BATTERY-POWERED, CO ALARMS MAY BE COMBINATION SMOKE/ CO ALARMS WHEN INSTALLED AS REQUIRED FOR SMOKE ALARM.

LATERAL BRACING LEGEND:

BP — INDICATED REQUIRED BRACE PANEL. 48" WIDTH w/8d @ 6" O/C EDGES & 12" O/C FIELD 3/8" MIN. SHEATHING UNLESS OTHERWISE NOTED

ABP — NOTE: * LOCATION OF ABP, 2* AT FIRST LEVEL, 1* AT SECOND LEVEL. ALTERNATE BRACE PANEL, 32" MIN. LENGTH. UNLESS OTHERWISE NOTED

PF — INDICATED PORTAL FRAME LOCATION. 22 1/2" MIN. WIDTH.

NOTE:
PER TABLE R602.10.3(1)
1ST STORY 45% BRACING REQUIRED
2ND STORY 28% BRACING REQUIRED
THE CENTER-TO-CENTER MAX. 25 FEET AT EACH BRACE PANEL

KEY NOTES

1. HIGH EFFIENCY HVAC SYSTEM:
GAS-FIRED FURNACE BOILER WITH MINIMUM AFUE OF 90%
NOTE:
a. FURNACE LOCATED WITHIN THE BUILDING ENVELOPE SHALL HAVE SEALED COMBUSTION AIR INSTALLED. COMBUSTION AIR SHALL BE DUCTED DIRECTLY FROM THE OUTDOORS.

2. WATER HEATER SHALL ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT CAUSE BY EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF WATERHEATER TANK'S VERTICAL DIMENSIONS. STRAPPING SHALL MAINTAIN A MIN. DISTANCE OF 4 INCHES AT THE LOWER POINT. PROVIDE 18" HIGH PLATFORM. INSTALLATION PER MANUFACTOR TO MEET BLDG & PLUMBING CODES.

3. VENT BATHS, RANGE HOOD W/ 150 CFM, UTILITY FANS TO OUT SIDE
BATHROOM FAN W/ MIN. 80 CFM ON TIMER OR HUMIDISTAT, TYP.

4. METAL GAS FIREPLACE TO BE INSTALLED FER MANUFACTURES SPECIFICATIONS,PROVIDE OUTSIDE COMBUSTIBLE AIR.

5. TOP OF FINISHED SILL @ 24" MIN. TO FINISHED FLOOR AT 2ND LEVEL, TYP.

6. PROVIDE STEPS TO FINISHED GRADE, FINISHED PATIO, EQ TREAD W/ MIN. 10" & EQ RISER W/ MAX 7 3/4"

7. DOUBLE JOISTS AT END OF BRACE PANEL, TYP.

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1ST FLOOR PLAN/UPPER FRAMING PLAN AND 2ND FLOOR PLAN

City of Portland
Bureau of Development Services
By L Dahlinger Date 4/25/18
Approved by Planning and Zoning Review

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FIRST FLOOR LIVING AREA:	860 SF
2ND FLOOR LIVING AREA:	1,120 SF
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PLAN NUMBER: P-1980
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PROJECT ADDRESS: SE Raymond Ave Portland, Or.
OWNER: DK Homes LLC

Revisions
1 REV: 03-23-2018 Per City

Drawn & Checked By: KN
Project Number: 17-190
Issue Date: 6-13-2017
Drawing File Name: P1980PLAN.DWG
Sheet Number: A2

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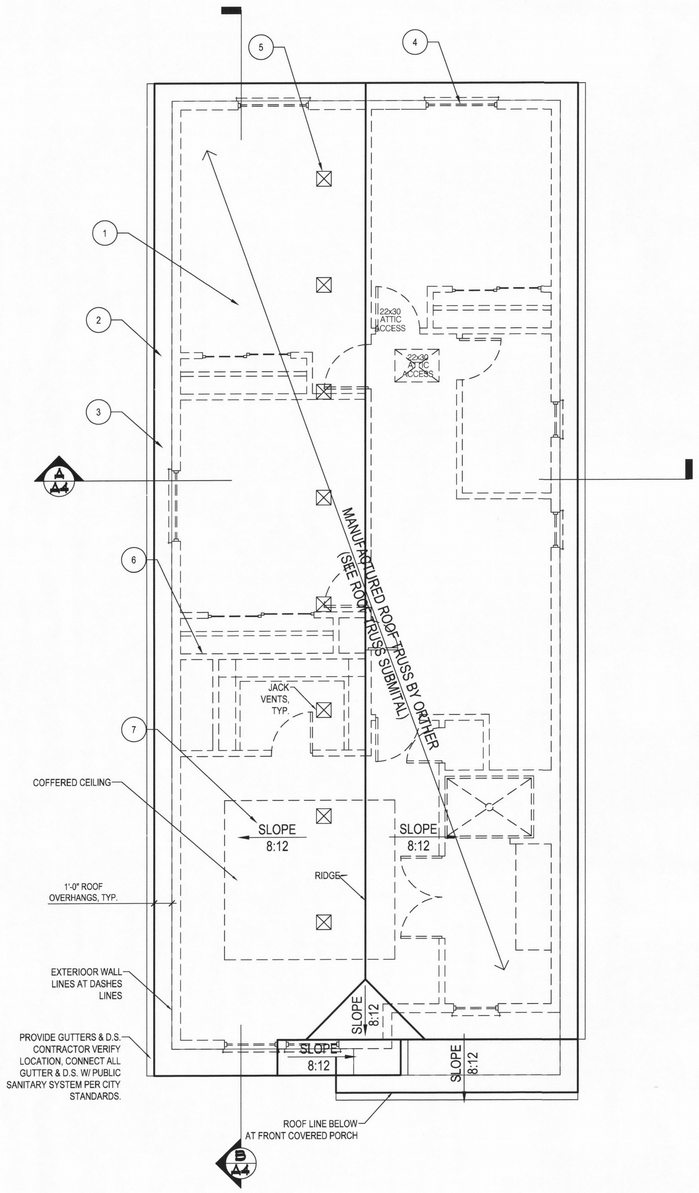
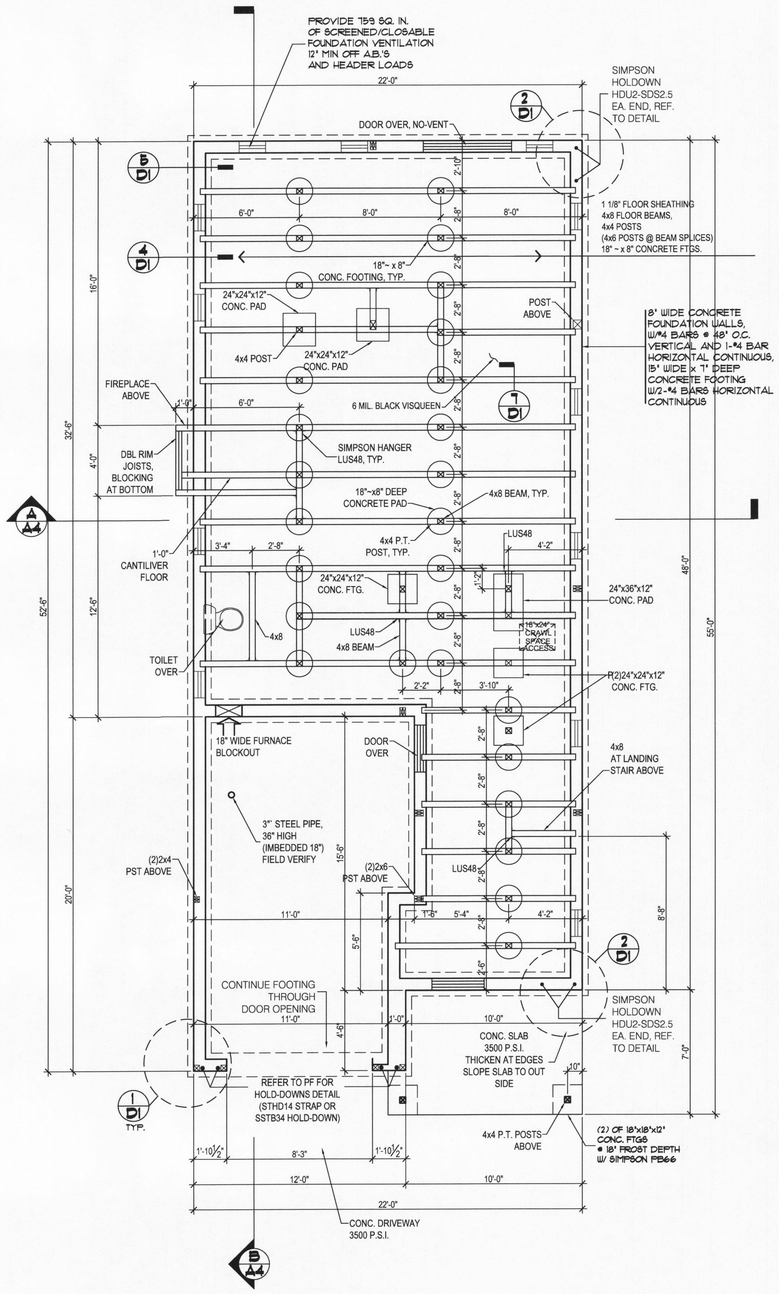
ROOF NOTES & LEGEND:

1. ARCHITECTURAL COMPOSITION ROOFING. OVER 1 LAYER OF 15 # FELT, UNLESS NOTED. 1/2" ROOF SHEATHING
2. GALVANIZED GUTTER SYSTEM. (CONSTRUCTION TO SPECIFY & LOCATE DOWNSPOUTS)
3. ROOF OVERHANGS: 1'-0" TYP. U.O.N. ROOF PITCH: VARIES, REF. TO ROOF PLAN BARGE RAFTER: 2x8, U.O.N.
4. 4x8 WINDOW AND DOOR HDR, U.O.N.
5. PROVIDE ROOF VENTILATION MIN. 288 SQ. IN. VENTILATION. CONTRACTOR TO SPECIFY & LOCATE ALL ROOF VENTS.
6. USE HURRICANE TIES H2.5A TYP. AT ROOF RAFTER TO TOP PLATES CONNECTIONS.
7. COFFERED CEILING MANUFACTURED SCISSOR TRUSSES @ 24" O.C.



FOUNDATION NOTES:

NOTE: 'SIMPSON' PRODUCTS TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS. SEE CURRENT 'SIMPSON' CATALOG FOR MORE INFORMATION.



2 A3 ROOF PLAN

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

1 A3 FOUNDATION PLAN

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

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ROOF PLAN & FOUNDATION PLAN

PLAN NUMBER: P-1980
PROJECT NAME: SINGLE DWELLING
PROJECT ADDRESS: SE Raymond Ave Portland, Or.
OWNER: DK Homes LLC

Revisions

Drawn & Checked By: KN
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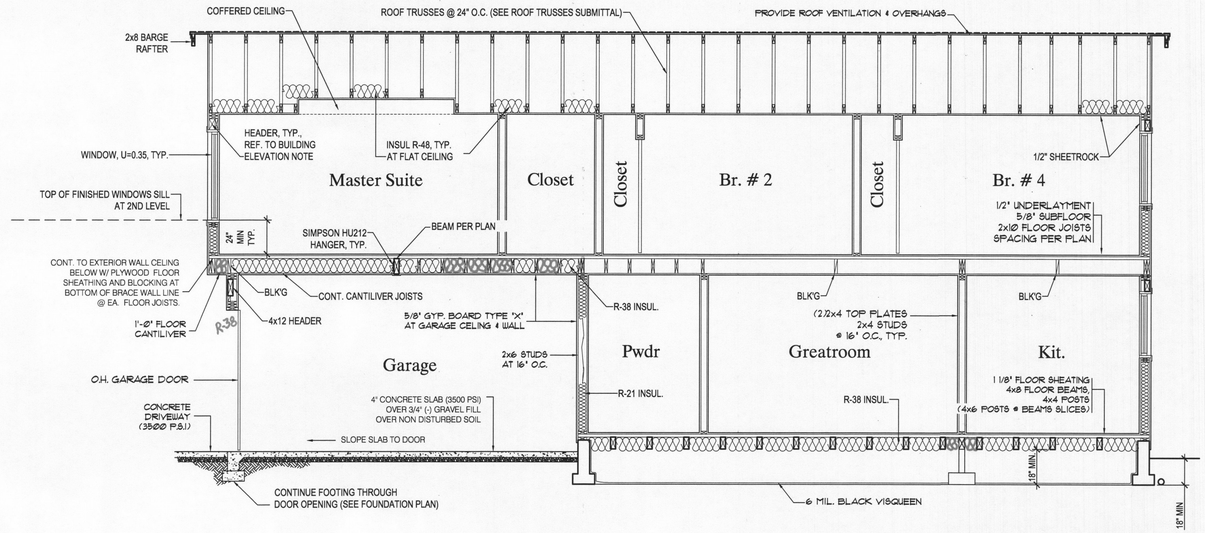
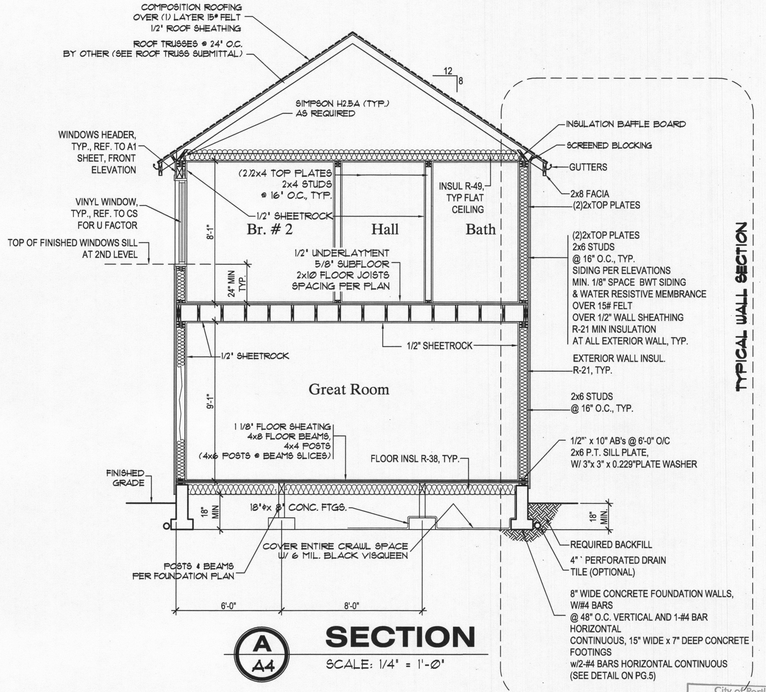
Drawing File Name: P1980PLAN.DWG
Sheet Number: A3

City of Portland REVIEWED FOR CODE COMPLIANCE APR 26 2018 Permit Number



B / A4 **SECTION**

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



A / A4 **SECTION**

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

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PHONE: 503-515-7418
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BUILDING CROSS SECTIONS

PLAN NUMBER:
P-1980
PROJECT NAME:
SINGLE DWELLING
PROJECT ADDRESS:
SE Raymond Ave
Portland, Or.
OWNER:
DK Homes LLC

Revisions

1	REV: 03-23-2018 Per City

Drawn & Checked By: KN
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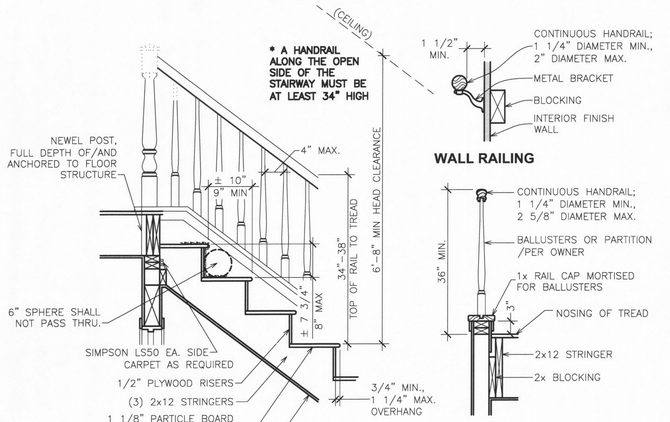
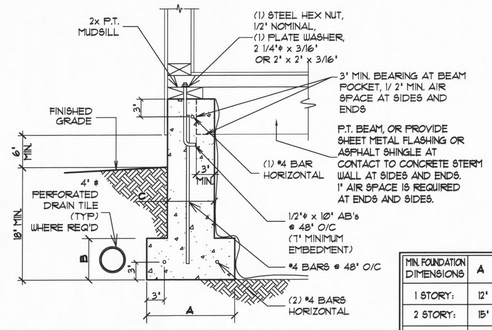


TYPICAL INTERIOR STAIR DETAIL

6 D1

NTS



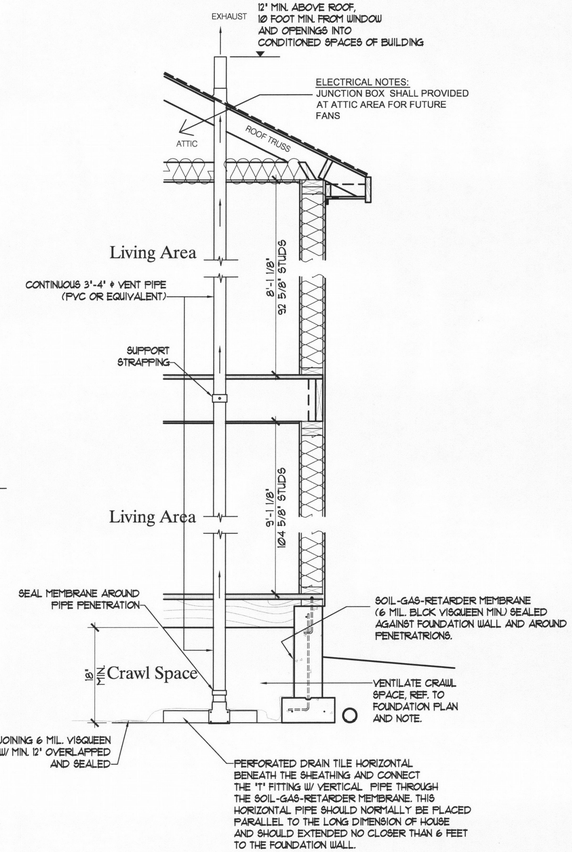
MIN FOUNDATION DIMENSIONS	A	B	C
1 STORY:	12'	6'	6'
2 STORY:	15'	7'	8'
3 STORY:	18'	8'	10'

NOTE: SEE FOUNDATION PLAN FOR STEM WALL AND FOOTING SIZES.

TYPICAL FOOTING REINFORECEMENT

5 D1

NTS

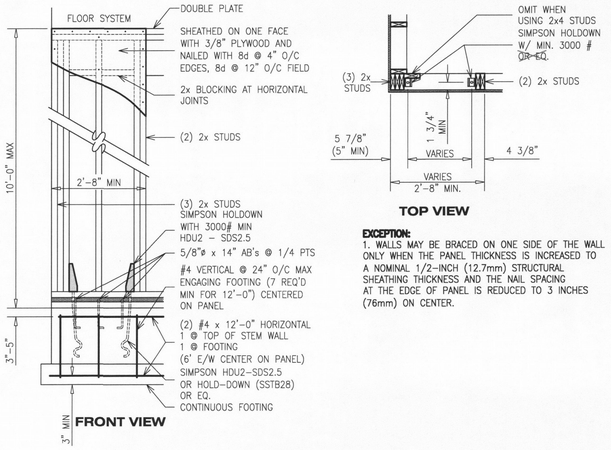


RADON CONTROL DETAIL

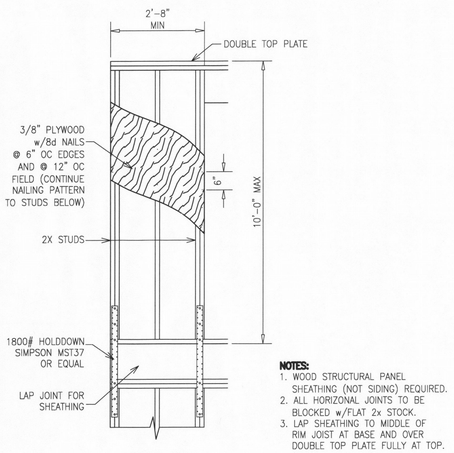
4 D1

NTS

ABP - 2	ALTERNATE BRACE PANEL 1ST STORY OF TWO STORY



EXCEPTION:
1. WALLS MAY BE BRACED ON ONE SIDE OF THE WALL ONLY WHEN THE PANEL THICKNESS IS INCREASED TO A NOMINAL 1/2–INCH (12.7mm) STRUCTURAL SHEATHING THICKNESS AND THE NAIL SPACING AT THE EDGE OF PANEL IS REDUCED TO 3 INCHES (76mm) ON CENTER.



NOTES:
1. WOOD STRUCTURAL PANEL SHEATHING (NOT SIDING) REQUIRED.
2. ALL HORIZONAL JOINTS TO BE BLOCKED w/FLAT 2x STOCK.
3. LAP SHEATHING TO MIDDLE OF RIM JOIST AT BASE AND OVER DOUBLE TOP PLATE FULLY AT TOP.

FRONT VIEW

ABP - 1	ALTERNATE BRACE PANEL 2ND STORY OF TWO STORY

ABP1 DETAIL

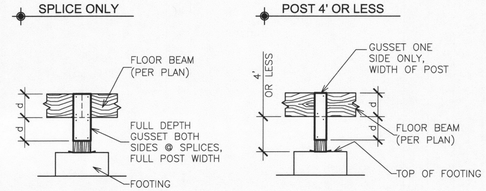
3 D1

NTS

ABP2 DETAIL

2 D1

NTS



CONNECTORS:
1. QUANTITY AS SHOWN ON DETAILS.
2. GUSSET PLATE: 1/2" STRUCTURAL SHEATHING OR 1x4" NOMINAL WOOD LUMBER MIN. OR 16 GAUGE (0.0598") STEEL SHEETING MIN.
3. NAILS: 8d FOR 1/2" STRUCTURAL SHEATHING OR 1x (VARIES) NOMINAL MATERIAL, 10d FOR 2x (VARIES) NOMINAL MATERIAL & LARGER

NAIL AND SCREW PENETRATION	END OR EDGE DISTANCE
8d NAILS, #8 SCREWS = 1 1/2"	3/4"
10d NAILS, #10 SCREWS = 1 5/8"	13/16"

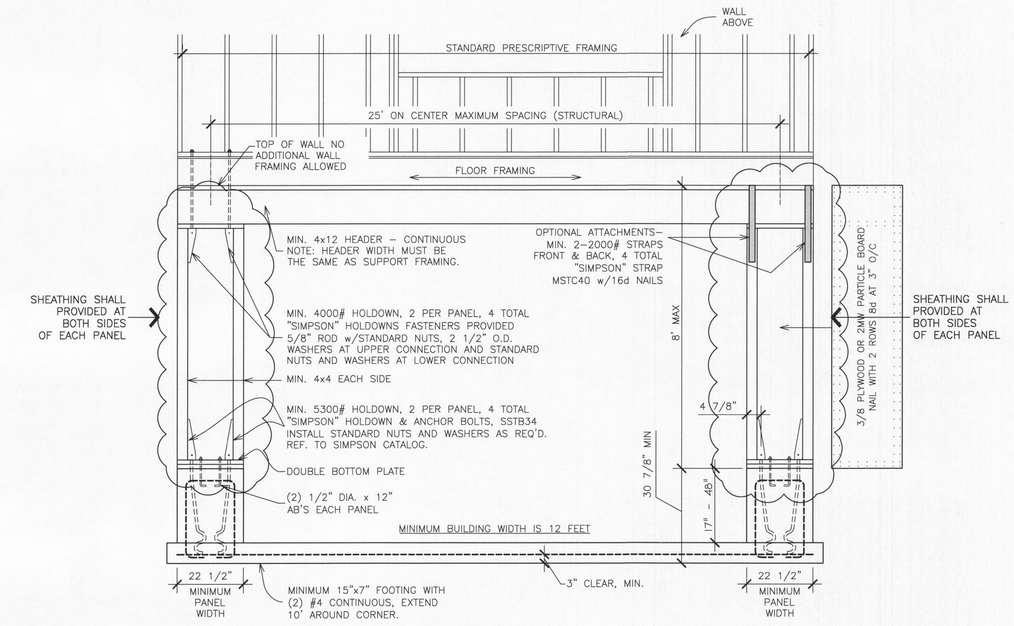
4. WOOD SCREWS & STAPLES ARE AN ACCEPTABLE ALTERNATE.

Post & Beam Connections At Crawl Space

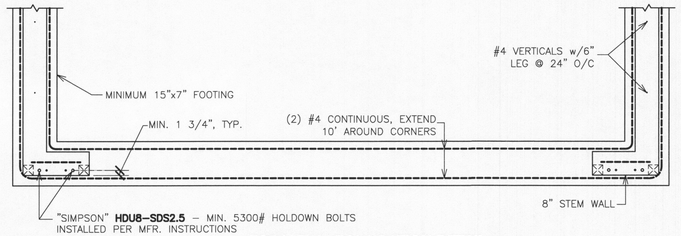
7 D1

NTS

(OTHER EQUIVALENT METHODS OK)



FRONT VIEW - FRAMING DETAIL



TOP VIEW - FOUNDATION DETAIL

NOTES:
1. VERTICAL DOWELS ARE #4 WITH 6" LEG
2. HORIZONTAL WALL REINF. MIN. (1) #4 OR PER HOLDOWN REQUIREMENT WHICH EVER IS MORE RESTRICTIVE.
3. ANCHOR BOLTS ARE (2) 1/2" x 12" MIN./PANEL
4. ROOF IS TO BE SHEATHED WITH A.P.A. RATED STRUCTURAL USE PANELS.
5. NO ADDITIONAL WALL FRAMING ALLOWED.

* THE PANELS AT THE END OF EACH PORTAL FRAME MUST BE EQUAL WIDTH AND HEIGHT

Portal Frame 2 Story Structure

1 D1

NTS

CONCEPT Design & Associates
PO BOX 8464 - PORTLAND, OREGON 97207
PHONE: 503-515-7418
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DETAILS PAGE

PLAN NUMBER: P-1995-A
PROJECT NAME: SINGLE DWELLING
PROJECT ADDRESS: SE Raymond Ave Portland, Or.
OWNER: DK Homes LLC

Revisions

Drawn & Checked By: KN
Project Number: 17–190
Issue Date: 5–21–2017
Drawing File Name: P1995AxPLAN.DWG
Sheet Number: D1

City of Portland REVIEWED FOR CODE COMPLIANCE APR 26 2018 Permit Number

General Specifications Sheet

This sheet forms an integral part of these plans. Please do not detach.

GENERAL NOTES

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CODES & STANDARDS

- These plans are comply with the latest abopted version of INTERNATIONAL RESIDENTIAL CODE (IRC), 2014 OREGON RESIDENTIAL SPECIALTY CODE (2011 ORSC) and any applicable State, County or local Regulations.
- Building codes and requirements can change and may vary from jurisdiction to jurisdiction. It is the responsibility you and/ or your builder of this plan to see that the structure is built in compliance with local code requirements.
- The Contractor is responsible to check the plans for any error or omissions and notify Concept Design & Associates prior to the start of constructions.
- Written dimensions have precedence over scaled dimensions. Do not scale drawings.
- In the case of high snow loads, wind loads, seismic requirements or unusual site conditions, non standard foundations or beam sizes beyond the scope of spand tables contained in Chapter 16 of the International Residential Code (IRC), the owner/builder may be required to provide at his/her expense an engineers report. Please consult with your local building authorities.
- Any variances from the structural drawings and specifications or from conditions encountered at the job site, shall be resolved by the owner/builder and such solutions shall be their sole responsibility.The builder is to provide all necessary temporary support for walls and floors prior to the completion of vertical and lateral load systems. All workmanship is to be of a standard equal in all respects to good building practice.
- CONCEPT DESIGN & ASSOCIATES shall not be liable for damages resulting from any deviation, variations and/or revisions whatsoever, undertaken by any party other than CONCEPT DESIGN & ASSOCIATES, in specifications, structure or other instructions contained in these plans.

TRUSSES

- Truss layout to be confirmed by manufactor trusses prior to start of constructions.
- Trusses to be engineered by truss fabricator and installed and braced as per fabricator's instructions.
- Owner/builder to obtain Engineer's certificate from manufacturer of floor and roof trusses.

ROOF

- All roofing shall be applied according to the manufaturer's recommendations and conform to Section R901 of 2011 ORSC
- Each course of wood shakes to be interlaid with 18" wide strip of No. 15 roofing felt. Lap 6" at hips and ridges in a manner that will prevent water from reaching the roof sheathing.

CONCRETE AND FOUNDATIONS

1. Soil bearing pressure assumed to be 1500 PSF.
2. Footings to bear on undisturbed level soil devoide of organic materical and stepped as required to maintain a minimum of 18" below final grade.
3. All slabs on grade shall bear on 4" compacted granular fill.
4. Concrete: (28 dar compressive strength)
   2500 PSI - Basement walls and foundations not exposed to the weather; Basement, foundation and exterior walls;
   3000 PSI - Basement, foundation and exterior walls; Other vertical concrete work exposed to the weather
   3500 PSI - Porches, carport slabs and steps exposed to the weather; Garage floor slab
5. Concrete slabs to have control joints at 25' maximun intervals each way.
6. Reinforcing steel to be A-615 Grade 40, Welded wire mesh to be A-185.
7. Cover entire crawl space with 6 mil. black "Visqueen" and extended up to foundation walls to pressure treeated sill plate.
8. Crawl space vents are to be closable with 1'4" openings in corrosive resistant screen. Post closable vent notice on electric panal door.
9. Provide crawl space drain & slope to low point for positive drainage.
10. Beam pockets in concrete to have 1/2" airspace at sides and end with a mininum bearing of 3 inches.
11. All wood in contact with concrete to be pressure treated or protected with 55# roll roofing.

MISCELLANEOUS

- For exact specifications & locations of lights, switches & outlets.
- Basement with habitable space and every sleeping room shall have at least one opening for emergency escape and every sleeping room shall have at least
  a. A sill height of not more than 44 inches above the floor.
  b. The minimun net clear opening shall be 5.7 sq. ft.
  c. Grade floor openings shall have a minimun net clear opening of 5 sq. ft.
  d. The minimun net cleat opening height shall be 20 inches.
  e. The minimun net clear opening width shall be 20 inches.
- All windows within 18" of the floor and 24" of doors to be tempereed glazing
- All skylight to be tempered glazing.
- All tub & shower glass enclosures are to be safty glazing.
- All windows & patio doors are to be double glazed. Exterior doors are to be solid core with weatherstripping.
  Backfill for positive slope away fromt he structure with slope no less than 6 inches in the first 10 inches and no greater than 6:12
  Do not excavate greater than a 1 1/2 : 2 slope below footings
  Maintain 6 inches minimun space from ground to wood siding.

SIMPSON STRONG - TIE

Simpson recommends using this chart when selecting which product finish works best with the pressure treated wood you are using. If the pressure treated wood you are unsing does not appear by name, then Simpson recommends you use the "other presure-treated woods" column and use only stainless steel connectors and fasteners. Refer to current simpson products for more inforation.

ROOF DESIGN

LOAD	Live Load	Dead Load	Total Design Load
Composite	25 PSF	17 PSF	40 PSF
Cedar Shakes Asphalt Shingles	25 PSF	15 PSF	42 PSF
Concrete Tile	25 PSF	20 PSF	52 PSF

FLOOR DESIGN

LOAD	Live Load	Dead Load	Total Design Load
Carpet/Sheet vinyl flooring	40 PSF	12 PSF	50 PSF
Ceramic tile over plywood	40 PSF	25 PSF	65 PSF
Exterior Balcony/Deck	60 PSF	7 PSF	67 PSF
Ceilings	10 PSF	5 PSF	15 PSF
Garage floor	50 PSF,	2000# POINT LOAD	
Stair	100 PSF		100 PSF

Design loads may vary in your area, consult with a local structural engineer for appropriate revisions.

LUMBER GRADES (BEAM CALCULATIONS TAKE PRECEDENCE OVER TABLE BELOW)

GRADE	STRUCTURAL MEMBER
DF NO. 1	Beams
DF NO. 1	Headers 8'-0" or Longer
DF NO. 2	Headers less than 8'-0"
DF NO. 2	Roof rafters, joists & posts
24F-V4	Glu-lam beams
DF NO. 3	Sills, plates, blocking, brigding, etc.
STUD GRADE DF	Studs
DF NO. 2	studs over 10'-0" high

TABLE R602.3 (1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER a, b, c	SPACING OF FASTENERS
JOIST TO SILL OR GIRDER, TOE NAIL	3-8d (2-1/2"X0.113")	-
1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d(2 1/2" X 0.113" 2 STAPLES, 1 3/4"	-
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d(3 1/2"X0.035")	-
SOLE PLATE TO JOIST, SOLID DECK OR BLOCKING, FACE NAIL	16d(3 1/2"X0.135")	16" O/C
TOP OR SOLE PLATE TO STUD, END NAIL	2-16d(3 1/2"X0.135")	-
STUD TO SOLE PLATE, TOE NAIL	3-8d or 2-16d	-
DOUBLE STUDS, FACE NAIL	10d(3"X0.128")	24" O/C
DOUBLE TOP PLATES, FACE NAIL	10d(3"X0.128")	24" O/C
SOLE PLATE TO JOIST, SOLID DECK OR BLOCKING AT BRACED WALL PANELS	3-16d (3 1/2"X 0.135")	-
DOUBLE TOP PLATES, MINIMUM 48-INCH OFFSET OF END JOINTS, FACE NAIL IN LAPPED AREA	8-16d(3 1/2"X0.135")	-
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	3-8d(2 1/2"X0.113")	-
RIM JOIST TO TOP PLATE, TOE NAIL	8d(2 1/2"X0.113")	6" O/C
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL	2-10d(3"X0.128")	-
BUILT-UP HEADER, TWO PIECES WITH 1/2" SPACER	16d(3 1/2"X0.135")	16" O/C ALONG EACH EDGE
CONTINUED HEADER, TWO PIECES	16d(3 1/2"X0.135")	16" O/C ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOE NAIL	3-8d(2 1/2"X0.113")	-
CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d(2 1/2"X0.113")	-
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	3-10d(3"X0.128")	-
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-10d(3"X0.128")	-
RAFTER TO PLATE, TOE NAIL	2-16d(3 1/2"X0.135")	-
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d(2 1/2" X 0.135" 2 STAPLES, 1 3/4"	-
1" x 6" SHEATHING TO EACH BEARING, FACE NAIL	2-8d(2 1/2" X 0.135" 2 STAPLES, 1 3/4"	-
1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	2-8d(2 1/2" X 0.135" 3 STAPLES, 1 3/4"	-
WIDER THAN 1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d(2 1/2"X0.113") 4 STAPLES, 1 3/4"	-
BUILT-UP CORNER STUDS	10d(3"X0.128")	24" O/C
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	10d(3"X0.128")	NAIL EACH LAYER AS FOLLOWS: 32" O/C AT TOP AND BOTTOM AND STAGGERED. TWO NAILS AT ENDS AND AT EACH SPLICE.
2" PLANKS	2-16d(3 1/2"X0.135")	AT EACH BEARING
ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS: TOE NAIL FACE NAIL	4-16d(3 1/2"X0.135" 3-16d(3 1/2"X0.135")	-
RAFTER TIES TO RAFTERS, FACE NAIL	3-8d(2 1/2"X0.113")	-
COLLAR TIE TO RAFTER, FACE NAIL, OR 1 1/4 x 20 GAGE RIDGE STRAP	3-10d(3"X0.128")	-

DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER b, c, d, e	SPACING OF FASTENERS: EDGES[f] (INCHES)	SPACING OF FASTENERS: INTERMEDIATE SUPPORTS [c, e] (INCHES)
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLE BOARD WALL SHEATHING TO FRAMING			
5/16" - 1/2"	6d COMMON NAIL(2"x0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL(2 1/2"x0.131") NAIL (ROOF) [f]	6	12 [g]
19/32" - 1"	8d COMMON NAIL(2 1/2"x0.131")	6	12 [g]
1 1/8" - 1 1/4"	10d COMMON(3"x0.148") NAIL or 8d(2 1/2'x0.131")DEFORMED NAIL	6	12
OTHER WALL SHEATHING [h]			
1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 8d COMMON NAIL (21/ 2"x0.131"); STAPLE 16 GA., 1 1/2" LONG	3	6
25/32" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 3/4" GALVANIZED ROOFING NAIL 8d (2 1/2"x0.131") NAIL STAPLE 16 GAGE, 1 3/4" LONG	3	6
1/2" GYPSUM SHEATHING	1 1/2" GALVANIZED ROOFING NAIL; 6d COMMON NAIL(2"x0.131") NAIL STAPLE GALVANIZED, 1 1/2" LONG; 1 1/4" SCREWS, TYPE W or S	4	8
5/8" GYPSUM SHEATHING	1 3/4" GALVANIZED ROOFING NAIL; 8d COMMON NAIL(2 1/2"x0.131") NAIL STAPLE GALVANIZED, 1 5/8" LONG; 1 5/8" SCREWS, TYPE W or S	4	8
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
3/4" AND LESS	6d DEFORMED(2'x0.120")NAIL or 8d COMMON (2 1/2"x0.131") NAIL	6	12
7/8" - 1"	8d COMMON(2 1/2"X0.131" NAIL or 8d DEFORMED (2 1/2"X0.120" NAIL	6	12
1 1/8" - 1 1/4"	10d COMMON(3"X0.148") NAIL or 8d DEFORMED (2 1/2"X0.120")NAIL	6	12

FOR SI: 1 INCH = 25.4mm, 1 FOOT = 304.8mm, 1 MILE PER HOUR = 1.609 km/h
a. ALL NAILS SHALL BE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED.
b. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH ON DIAMETER CROWN WIDTH.
c. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.
d. 4-FOOT-BY-8-FOOT or 4-FOOT-BY-9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
e. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).
f. FOR REGIONS HAVING A BASIC WIND SPEED OF 110 MPH OR GREATER, 8d DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.
g. FOR REGIONS HAVING A BASIC WIND SPEED OF LESS THAN 110 MPH, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER WHEN BASIC WIND SPEED IS GREATER THAN 100 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING.
h. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 79 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C 208.
i. SPACING OF FASTERNER ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS NEED NOT TO BE PROVIDED EXCEPT AS REQUIRED BY OTHER PROVISIONS OF THIS CODE. FLOOR PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.
j. INTERIOR NONBRACED WALL LINES MAY BE NAILED WITH A MINUMUM 4-10d NAILS.

TABLE N1101.1(1)
PRESCRIPTIVE ENVELOPE REQUIREMENTS[a]

BUILDING COMPONENT	STANDARD BASE CASE: Required Performance	STANDARD BASE CASE: Equiv. Value[b]	LOG HOMES ONLY: Required Performance	LOG HOMES ONLY: Equiv. Value[b]
Wall insulation-above grade	U-0.060	R-21c	Note d	Note d
Wall insulation-below grade[g]	F-0.565	R-15	F-0.565	R-15
Flat ceilings[f]	U-0.031	R-38	U-0.025	R-49
Vaulted ceilings[g]	U-0.042	R-38[g]	U-0.027	R-38A[h]
Underfloors	U-0.028	R-30	U-0.028	R-30
Slab edge perimeter	F-0.520	R-15	F-0.520	R-15
Heated slab interior[e]	n/a	R-10	n/a	R-10
Windows[j]	U-0.35	U-0.35	U-0.35	U-0.35
Window area limitation[j, k]	n/a	n/a	n/a	n/a
Skylights[l]	U-0.60	U-0.060	U-0.060	U-0.060
Exterior doors[m]	U-0.20	U-0.020	U-0.054	U-0.054
Exterior doors w/ > 2.5 ft[2] glazing[d]	U-0.40	U-0.040	U-0.40	U-0.040
Forced air duct insulation	n/a	R-8	n/a	R-8

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m2, 1 degree = 0.0175 rad.
a. As allowed in Section N1104.1, thermal performance of a component may be adjusted provided that overall heat loss does not exceed the total resulting from conformance to the required U-value standards. Calculations to document equivalent heat loss shall be performed using the procedure and approved U-values contained in Table N1104.1(1).
b. R-values used in this table are nominal for the insulation only in standard wood framed construction and not for the entire assembly.
c. Wall insulation requirements apply to all exterior wood framed, concrete or masonry walls that are above grade. This includes cripple walls and rim joist areas. R-19 Advanced Frame or 2 × 4 wall with rigid insulation may be substituted if total nominal insulation R-value is 18.5 or greater.
d. The wall component shall be a minimum solid log or timber wall thickness of 3.5 inches (90 mm).
e. Below-grade wood, concrete or masonry walls include all walls that are below grade and do not include those portions of such wall that extend more than 24 inches (609.6 mm) above grade.
f. Insulation levels for ceilings that have limited attic/rafter depth such as dormers, bay windows or similar architectural features totaling not more than 150 square feet (13.9 m2) in area may be reduced to not less than R-21. When reduced, the cavity shall be filled (except for required ventilation spaces).
g. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless area has a U-factor no greater than U-0.031. The U-factor of 0.042 is representative of a vaulted scissor truss. A 10-inch (254 mm) deep rafter vaulted ceiling with R-30 insulation is U-0.033 and complies with this requirement, not to exceed 50 percent of the total heated space floor area.
h. A = Advanced frame construction, which shall provide full required insulating value to the outside of exterior walls.
i. Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system within the slab. Insulation shall be installed underneath the entire slab.
j. Sliding glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with Section NF1111.2, Item 3 shall comply with window performance requirements if constructed with thermal break aluminum or wood, or vinyl, or fiberglass frames and double-pane glazing with low-emissivity coatings of 0.10 or less. Buildings designed to incorporate passive solar elements may include glazing with a U-factor greater than 0.35 by using Table N1104.1(1) to demonstrate equivalence to building envelope requirements.
k. Reduced window area may not be used as a trade-off criterion for thermal performance of any component.
l. Skylight area installed at 2 percent or less of total heated space floor area shall be deemed to satisfy this requirement with vinyl, wood or thermally broken aluminum frames and double-pane glazing with low-emissivity coatings. Skylight U-factor is tested in the 20 degree (0.35 rad) overhead plane in accordance with NFRC standards.
m. A maximum of 28 square feet (2.6 m2) of exterior door area per dwelling unit can have a U-factor of 0.54 or less.
n. Glazing that is either double pane with low-e coating on one surface, or triple pane shall be deemed to comply with this U-0.40 requirement.

TABLE N1101.1(2)
ADDITIONAL MEASURES

Envelope Enhancement Measure (Select One)	1	High efficiency walls & windows: Exterior walls—U-0.047/R-19+5 (insulation sheathing)/SIPS, and one of the following options: Windows—Max 15 percent of conditioned area; or Windows—U-0.30
	2	**High efficiency envelope:** Exterior walls—U-0.058/R-21 Intermediate framing, and Vaulted ceilings—U-0.033/R-30A[f,g], and Flat ceilings—U-0.025/R-49, and Framed floors—U-0.025/R-38, and Windows—U-0.30; and Doors—All doors U-0.20, or Additional 15 percent of permanently installed lighting fixtures as high-efficacy lamps or Conservation Measure D and E
	3	**High efficiency ceiling, windows & duct sealing:** (Cannot be used with Conservation Measure E) Vaulted ceilings—U-0.033/R-30A[f,g], and Flat ceilings—U-0.025/R-49, and Windows—U-0.30; and Performance tested duct systems[b]
	4	**High efficiency thermal envelope UA:** Proposed UA is 15% lower than the Code UA when calculated in Table N1 104.1(1)
	5	**Building tightness testing, ventilation & duct sealing:** (Cannot be used with Conservation Measure E) A mechanical exhaust, supply, or combination system providing whole-building ventilation rates specified in Table N1101.1(3), or ASHRAE 62.2, and The dwelling shall be tested with a blower door and found to exhibit no more than: 1. 6.0 air changes per hour[f], or and ~~2. 5.0 air changes per hour[g] when used with Conservation Measure E, and~~ 2. Performance tested duct systems[b]
	6	**Ducted HVAC systems within conditioned space:** (Cannot be used with Conservation Measure B or C) All ducts and air handler are contained within building envelope[i]
Conservation Measure (Selected One)	A	**High efficiency HVAC system:** Gas-fired furnace or boiler with minimum AFUE of 90% a, or Air-source heat pump with minimum HSPF of 8.5 or Closed-loop ground source heat pump with minimum COP of 3.0
	B	**Ducted HVAC systems within conditioned space:** All ducts and air handler are contained within building envelope[i]
	C	**Ductless heat pump:** Replace electric resistance heating in at least the primary zone of dwelling with at least one ductless mini-split heat pump having a minimum HSPF of 8.5. Unit shall not have integrated backup resistance heat, and the unit (or units, if more than one is installed in the dwelling) shall be sized to have capacity to meet the entire dwelling design heat loss rate at outdoor design temperature condition. Conventional electric resistance heating may be provided for any secondary zones in the dwelling. A packaged terminal heat pump (PTHP) with comparable efficiency ratings may be used when no supplemental zonal heaters are installed in the building and integrated backup resistant heat is allowed in a PTHP
	D	**High efficiency water heating & lighting:** Natural gas/propane, on-demand water heating with min EF of 0.80, or heat pump water heater with min EF of 1.8 (northern climate), and a minimum 75 percent of permanently installed lighting fixtures as CFL or linear fluorescent or a min efficacy of 40 lumens per watt as specified in Section N1107.2c
	E	**Energy management device & duct sealing:** Whole building energy management device that is capable of monitoring or controlling energy consumption, and Performance tested duct systems[b], and A minimum 75 percent of permanently installed lighting fixtures as high-efficacy lamps.
	F	**Solar photovoltaic:** Minimum 1 watt/sq ft conditioned floor space[g]
	G	**Solar water heating:** Minimum of 40 ft2 of gross collector area[h]

For SI: 1 square foot = 0.093 m2, 1 watt per square foot = 10.8 W/m2.
a. Furnaces located within the building envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
b. Documentation of Performance Tested Ductwork shall be submitted to the building official upon completion of work. This work shall be performed by a ~~contractor~~ technician certified by the Oregon Department of Energy 's (ODOE) Residential Energy Tax Credit program and Performance Tested Comfort Systems (PTCS) program administered by the Bonneville Power Administration (BPA) ,documentation shall be provided that work demonstrates conformance to ODOE PTCS duct performance standards.
c. Section N1 107.2requires 50 percent of permanently installed lighting fixtures to contain high efficacy lamps. Each of these additional measures adds an additional percent to the Section N1 107.2 requirement.
d. A = advanced frame construction, which shall provide full required ceiling insulation value to the outside of exterior walls.
e. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
f. Building tightness test shall be conducted with a blower door depressurizing the dwelling 50 Pascal 's from ambient conditions. Documentation of blower door test shall be submitted to the Building Official upon completion of work.
g. Solar electric system size shall include documentation indicating that Total Solar Resource Fraction is not less than 75 percent.
h. Solar water heating panels shall be Solar Rating and Certification Corporation (SRCC) Standard OG-300 certified and labeled, with documentation indicating that Total Solar Resource Fraction is not less than 75 percent.
i. A total of 5 percent of an HVAC systems ductwork shall be permitted to be located outside of the conditioned space. Ducts located outside the conditioned space shall have insulation installed as required in this code.

CONCEPT Design & Associates
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GENERAL NOTES

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

Revisions

Drawn & Checked By: KN
Project Number: 2016
Issue Date: 1/2016–12/2016
Drawing File Name: GENERAL.DWG
Sheet Number: G

2

MiTek USA, Inc.
250 Klug Circle
Corona, CA 92880
951-245-9525

Re: B1701644
DK Homes

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by ProBuild West - Beaverton, OR.

Pages or sheets covered by this seal: K3247589 thru K3247599

My license renewal date for the state of Oregon is December 31, 2017.

May 30,2017

Baxter, David

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

17-188547RS

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	A01	GABLE	1	1	K3247589
					Job Reference (optional)

NOTES-

12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	A02	California	1	1	K3247590
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007

7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:53 2017 Page 1
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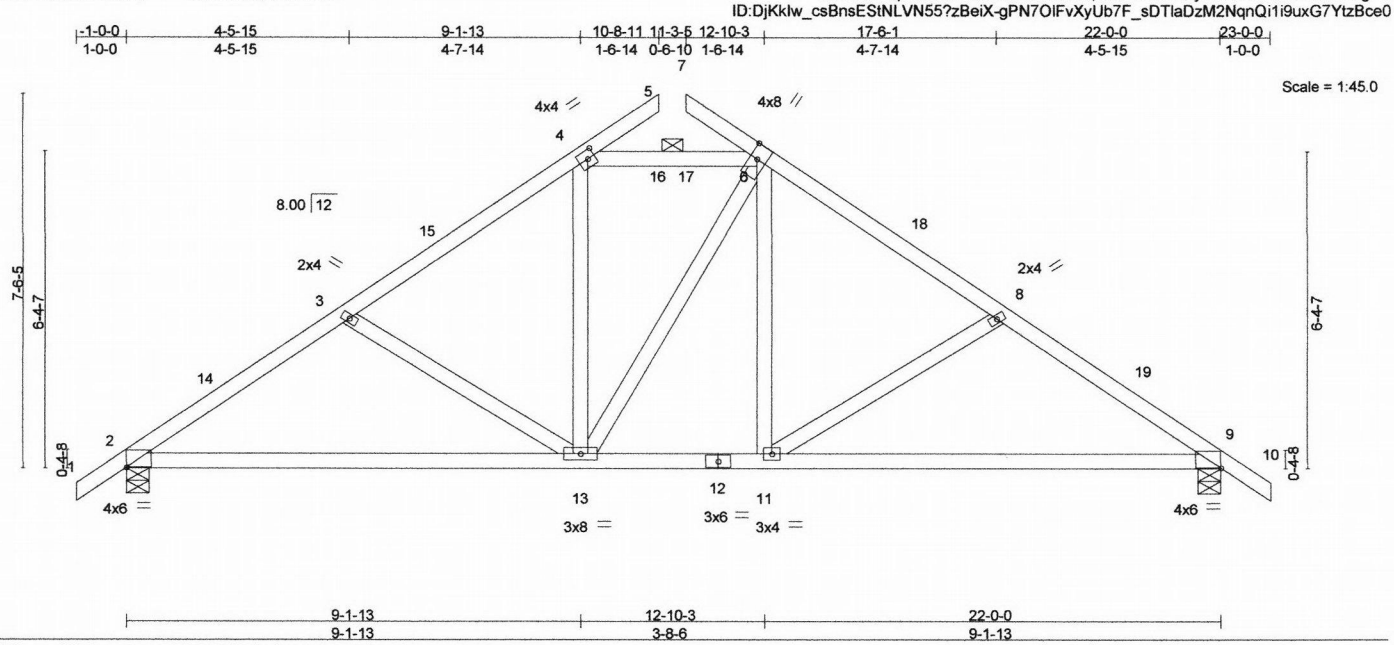

Plate Offsets (X,Y)-- [4:0-1-12,0-2-0], [6:0-3-8,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.13	9-11	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.39	9-11	>657	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		(Matrix)							Weight: 115 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1075/0-5-8, 9=1075/0-5-8
Max Horz 2=235(LC 7)
Max Uplift 2=-253(LC 10), 9=-258(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-14=-1445/605, 3-14=-1395/623, 3-15=-1208/592, 4-15=-1115/606, 4-16=-937/729, 16-17=-937/729, 6-17=-937/729, 6-18=-1115/606, 8-18=-1208/592, 8-19=-1394/624, 9-19=-1445/605
BOT CHORD 2-13=-389/1146, 12-13=-308/937, 11-12=-308/937, 9-11=-390/1146
WEBS 3-13=-333/223, 4-13=-55/305, 6-11=-44/304, 8-11=-333/223

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-5-13, Exterior(2) 6-5-13 to 15-6-3, Interior(1) 15-6-3 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 9=258.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

Job	Truss	Truss Type	Qty	Ply	DK Homes	K3247591
B1701644	A03	Roof Special	4	1	Job Reference (optional)	

ProBuild Beaverton Truss, Beaverton, oR 97007 — 7.640 s Nov 10 2015 MiTek Industries, Inc. Mon May 29 16:36:05 2017 Page 1

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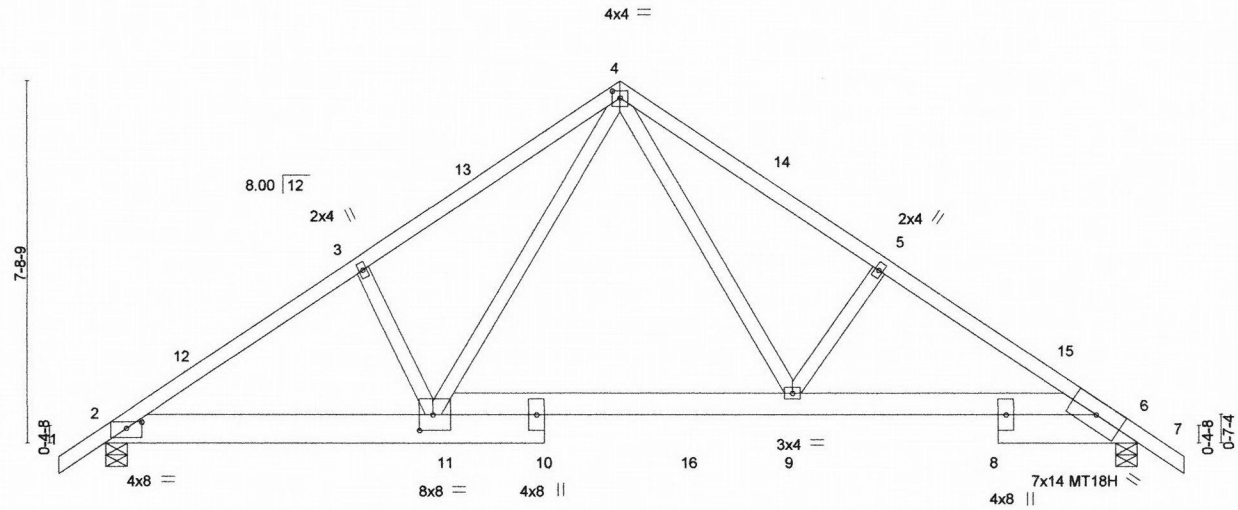
1-0-0	5-6-0	9-4-8	11-0-0	14-8-0	16-6-0	19-0-8	22-0-0	23-0-0
1-0-0	5-6-0	3-10-8	1-7-8	3-8-0	1-10-0	2-6-8	2-11-8	1-0-0

Scale: 1/4"=1'



7-0-0	9-4-8	14-8-0	19-0-8	22-0-0
7-0-0	2-4-8	5-3-8	4-4-8	2-11-8

Plate Offsets (X,Y)-- [2:0-4-0,0-1-10], [4:0-2-0,0-1-12], [11:0-3-8,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.05	9-11	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.15	6-9	>999	180	MT18H	220/195
TCDL	7.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0 *	Code	IBC2015/TPI2014	(Matrix)							Weight: 135 lb	FT = 10%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 DF No.1&Btr G
BOT CHORD	2x8 DF SS *Except* 6-11: 2x6 DF No.2
WEBS	2x4 DF Std G

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-3-4 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=983/0-5-8, 6=983/0-5-8
Max Horz 2=-229(LC 8)
Max Uplift 2=-225(LC 10), 6=-225(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-12=-1413/275, 3-12=-1245/291, 3-13=-1250/320, 4-13=-1140/331, 4-14=-1235/345, 5-14=-1354/334, 5-15=-1366/318, 6-15=-1534/302
BOT CHORD	2-11=-280/1221, 10-11=-56/748, 10-16=-49/762, 9-16=-49/762, 8-9=-158/1206, 6-8=-166/1203
WEBS	4-11=-184/607, 3-11=-347/291, 4-9=-197/726, 5-9=-354/290

NOTES-

1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 14-0-0 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	A04	Common	20	1	K3247592
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007

7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:54 2017 Page 1
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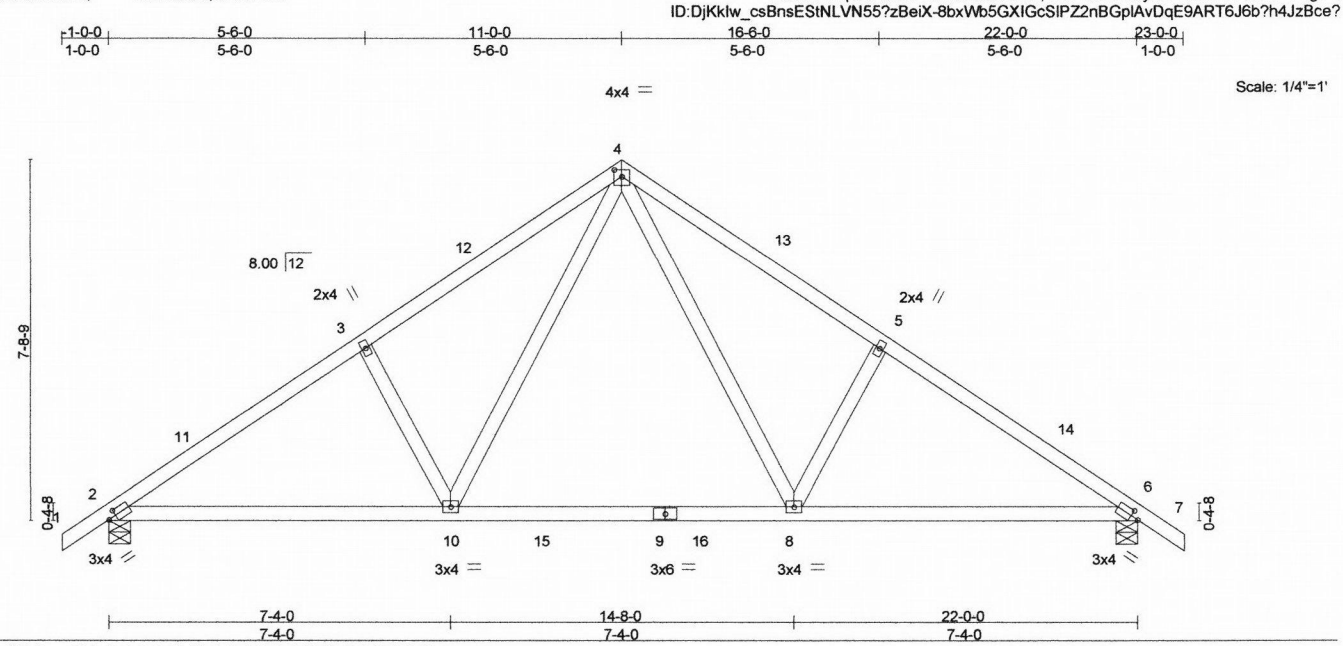

Plate Offsets (X,Y)-- [2:0-2-0,0-1-8], [4:0-2-0,0-1-12], [6:0-2-0,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.10	8-10	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.19	8-10	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0 *	Code	IBC2015/TPI2014	(Matrix)							Weight: 103 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=983/0-5-8, 6=983/0-5-8
Max Horz 2=229(LC 9)
Max Uplift 2=-224(LC 10), 6=-224(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-11=-1312/267, 3-11=-1140/290, 3-12=-1159/329, 4-12=-1039/340, 4-13=-1039/340, 5-13=-1159/329, 5-14=-1140/290, 6-14=-1312/267
BOT CHORD 2-10=-267/1117, 10-15=-47/701, 9-15=-47/701, 9-16=-47/701, 8-16=-47/701, 6-8=-130/1010
WEBS 4-8=-194/581, 5-8=-341/291, 4-10=-194/581, 3-10=-341/291

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 14-0-0 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=224, 6=224.
8) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	A05	GABLE	1	1	K3247593
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007 — 7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:55 2017 Page 1
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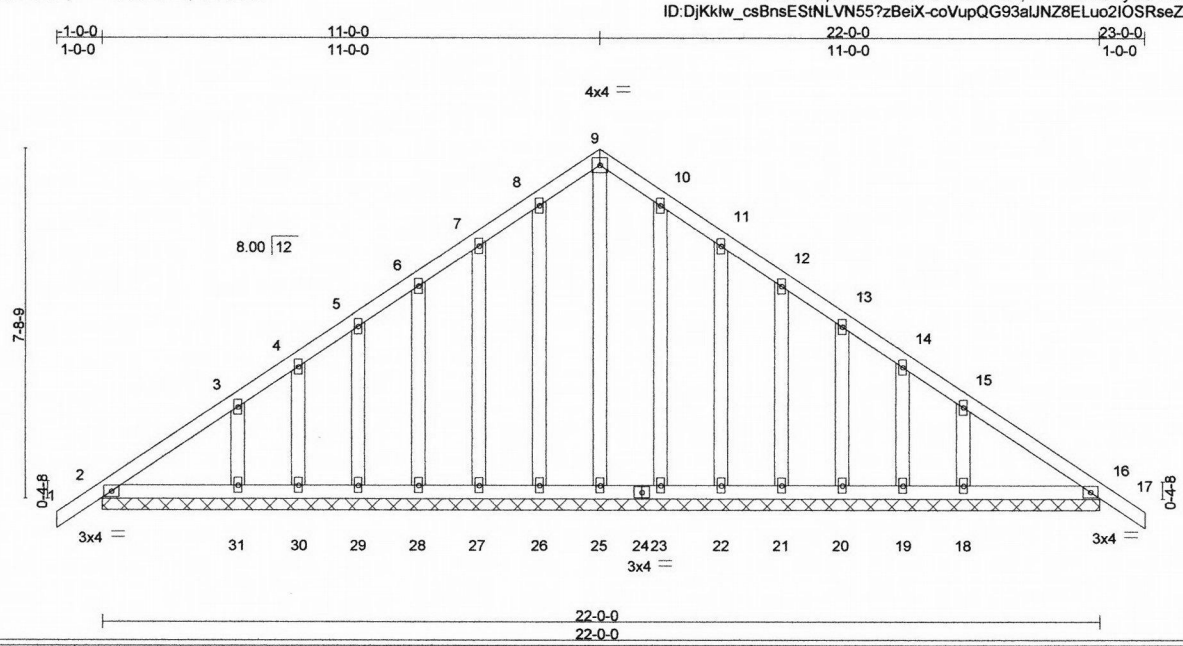

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL)	0.00	16	n/r	90	MT20	220/195
(Roof Snow=25.0)	Lumber DOL 1.15	BC 0.04	Vert(CT)	0.00	17	n/r	120		
TCDL 7.0	Rep Stress Incr YES	WB 0.17	Horz(CT)	0.01	16	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014	(Matrix)						Weight: 147 lb	FT = 10%
BCDL 10.0									

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 22-0-0.
(lb) - Max Horz 2=-229(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 16 except 31=-121(LC 10), 18=-121(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16 except 31=250(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 8-0-0, Corner(3) 8-0-0 to 11-0-0, Exterior(2) 14-0-0 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) A plate rating reduction of 20% has been applied for the green lumber members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 16 except (jt=lb) 31=121, 18=121.
12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes	K3247594
B1701644	B01	GABLE	1	1	Job Reference (optional)	

ProBuild Beaverton Truss, Beaverton, oR 97007 — 7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:56 2017 Page 1
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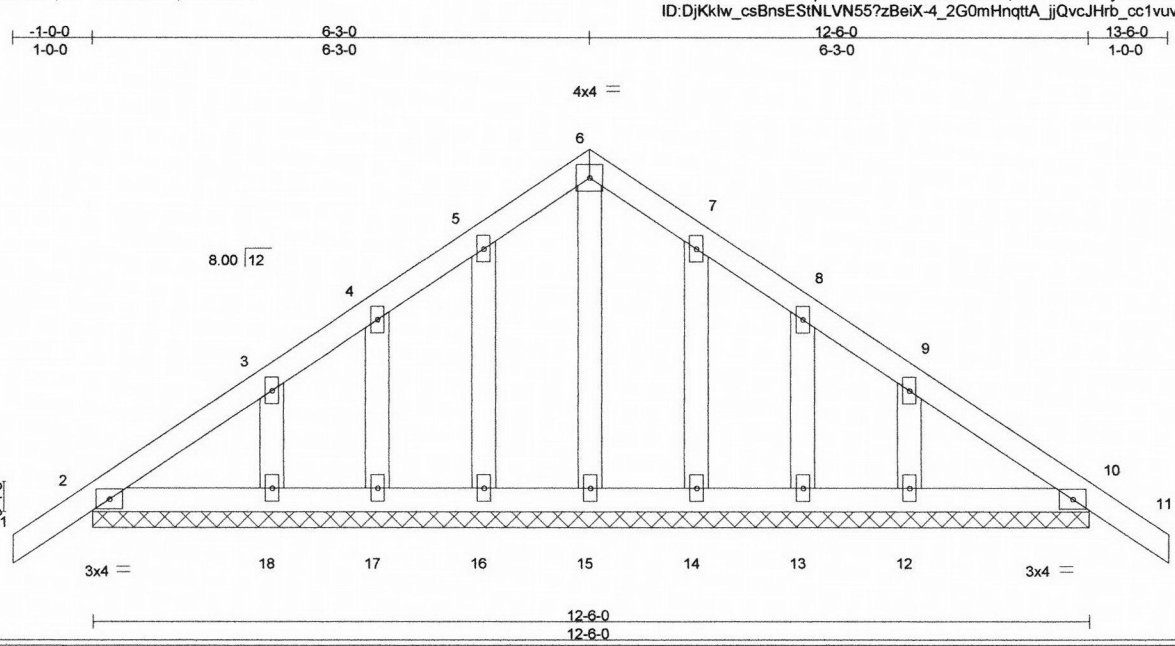

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	11	n/r	90	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	11	n/r	120		
TCDL	7.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		(Matrix)							Weight: 65 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 12-6-0.
(lb) - Max Horz 2=139(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) -1-0-0 to 2-3-0, Exterior(2) 2-3-0 to 3-3-0, Corner(3) 3-3-0 to 6-3-0, Exterior(2) 9-3-0 to 10-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) A plate rating reduction of 20% has been applied for the green lumber members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14, 13, 12.
12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

EXPIRES: 12/31/2017
May 30,2017

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	D01	GABLE	2	1	K3247595
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007

7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:57 2017 Page 1
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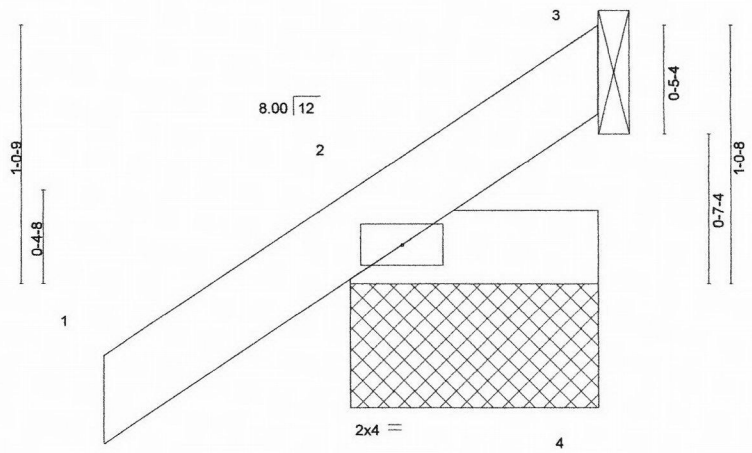


1-0-0 1-0-0

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.14	Vert(LL) -0.00 2 >999 240	MT20 220/195
(Roof Snow=25.0)	Lumber DOL 1.15	BC 0.01	Vert(CT) -0.00 2 >999 180	
TCDL 7.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a	
BCLL 0.0 *	Code IBC2015/TPI2014	(Matrix)		Weight: 5 lb FT = 10%
BCDL 10.0				

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=200/1-0-0, 4=7/1-0-0, 3=-66/Mechanical
Max Horz 2=55(LC 10)
Max Uplift 2=-82(LC 10), 3=-150(LC 16)
Max Grav 2=318(LC 16), 4=13(LC 3), 3=26(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) A plate rating reduction of 20% has been applied for the green lumber members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 3=150.
11) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

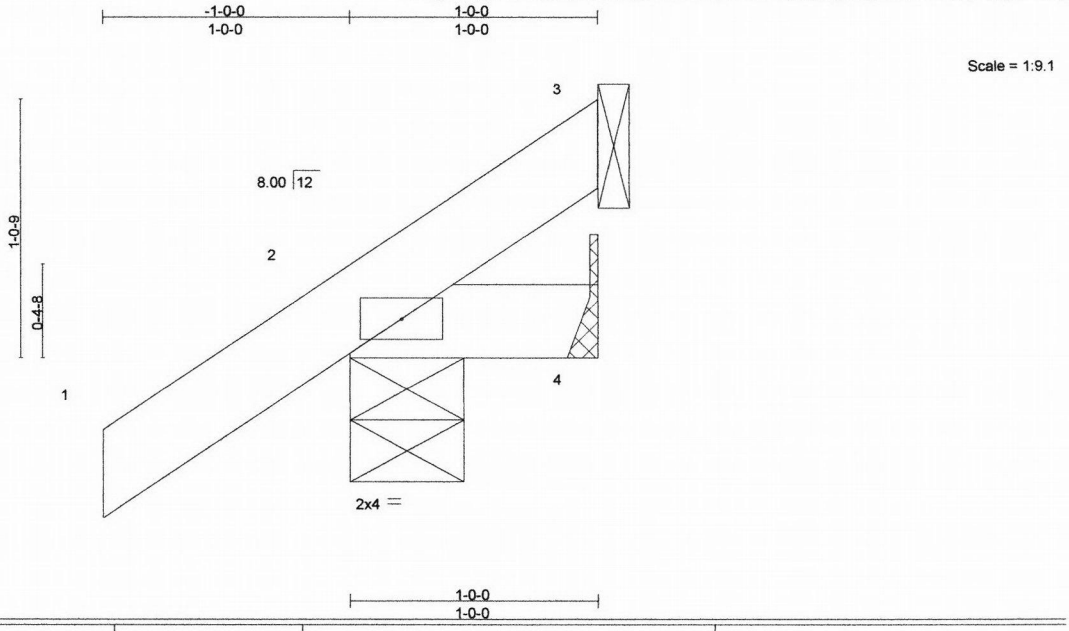
EXPIRES: 12/31/2017
May 30,2017

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	D02	Monopitch	1	1	K3247596
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007

7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:57 2017 Page 1
ID:DjKklw_csBnsESTNLVN55?zBeiX-YAceD6IPbB?1ctIdSJqWNpXnFRFXetUlpZELgezBcdy



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	2	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		(Matrix)							Weight: 5 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=144/0-5-8, 4=9/Mechanical, 3=-7/Mechanical
Max Horz 2=55(LC 10)
Max Uplift 2=-56(LC 10), 3=-60(LC 16)
Max Grav 2=201(LC 16), 4=19(LC 3), 3=11(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Refer to girder(s) for truss to truss connections.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

EXPIRES: 12/31/2017
May 30,2017

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	JC01	Jack-Open Girder	1	1	K3247597
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007 — 7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:58 2017 Page 1
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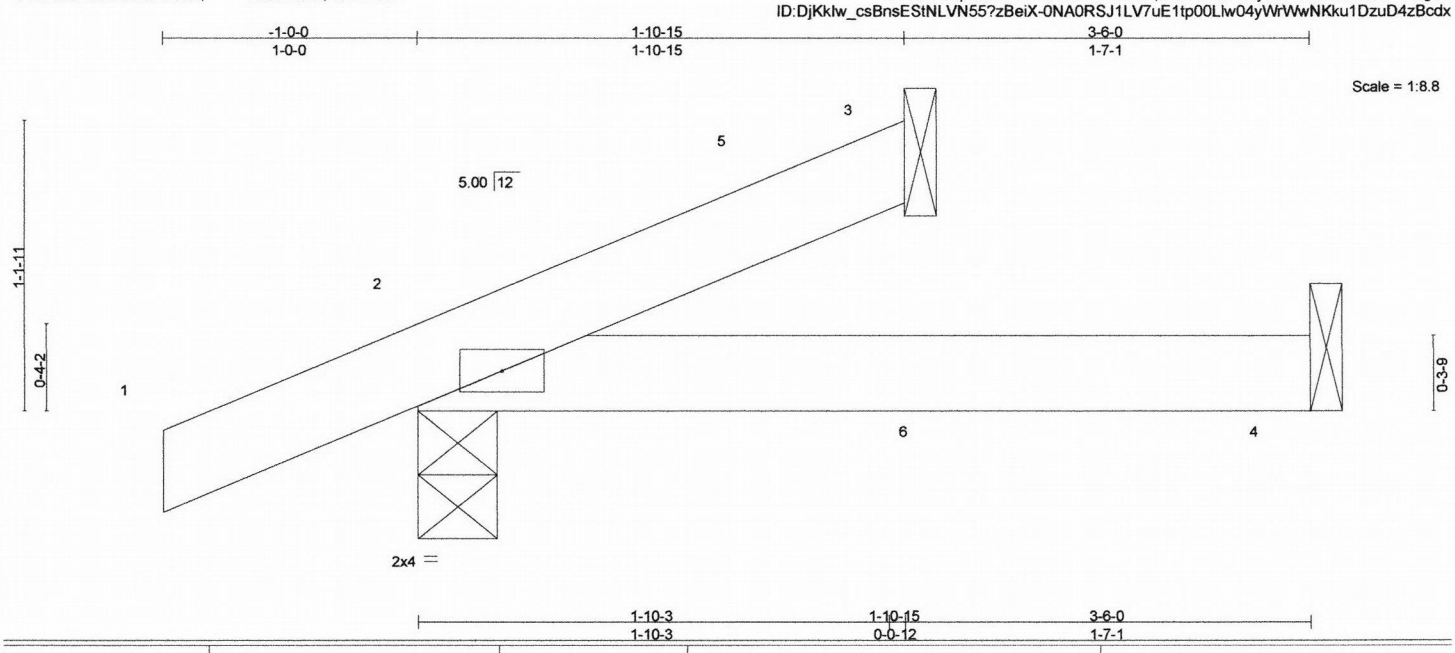

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01	2-4	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.02	2-4	>999	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		(Matrix)							Weight: 9 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 3=29/Mechanical, 2=186/0-3-12, 4=42/Mechanical
Max Horz 2=51(LC 10)
Max Uplift 3=-33(LC 16), 2=-57(LC 6)
Max Grav 3=30(LC 17), 2=221(LC 16), 4=85(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 19.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8 lb down at 2-0-12, and 19 lb down at 3-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-64, 2-4=-20
Concentrated Loads (lb)
Vert: 4=-10(B)

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OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

MiTek
250 Klug Circle
Corona, CA 92880

Job	Truss	Truss Type	Qty	Ply	DK Homes	
B1701644	JC02	Monopitch	3	1	Job Reference (optional)	K3247598

ProBuild Beaverton Truss, Beaverton, oR 97007

7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:58 2017 Page 1
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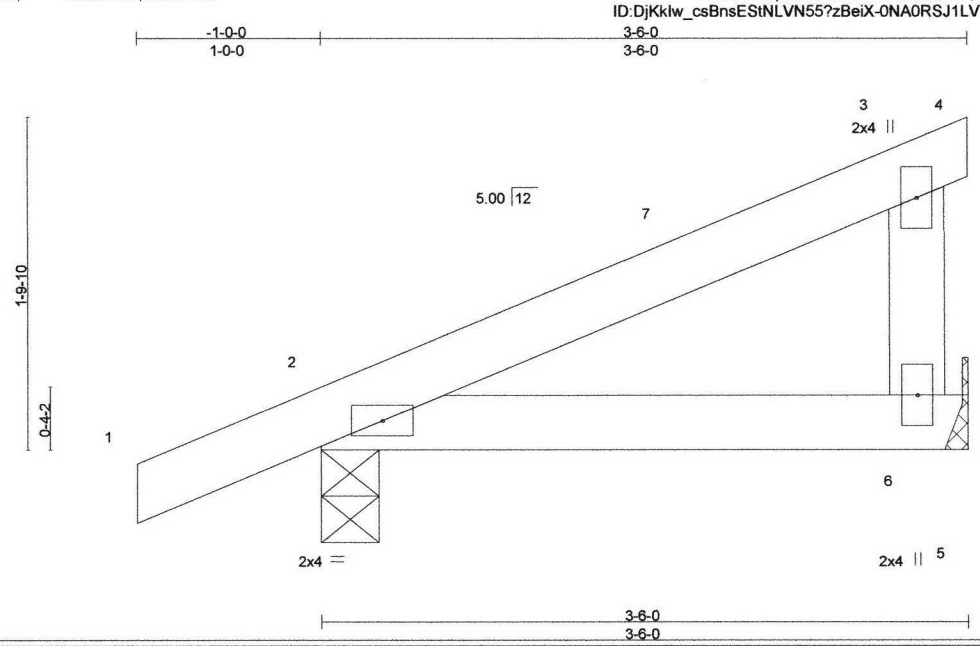

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.01	2-6	>999	240	MT20	220/195
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	2-6	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0 *	Code	IBC2015/TPI2014	(Matrix)							Weight: 13 lb	FT = 10%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF Std G
WEBS 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=216/0-3-12, 6=139/Mechanical
Max Horz 2=81(LC 12)
Max Uplift 2=-63(LC 12), 6=-51(LC 12)
Max Grav 2=218(LC 19), 6=149(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 19.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

City of Portland
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REGISTERED PROFESSIONAL ENGINEER
89200PE
OREGON
MAY 14, 2014
DAVID MERRILL BAXTER

EXPIRES: 12/31/2017
May 30,2017

Job	Truss	Truss Type	Qty	Ply	DK Homes
B1701644	SC02	Jack-Open	1	1	K3247599
					Job Reference (optional)

ProBuild Beaverton Truss, Beaverton, oR 97007 — 7.640 s Sep 29 2015 MiTek Industries, Inc. Mon May 29 13:26:59 2017 Page 1
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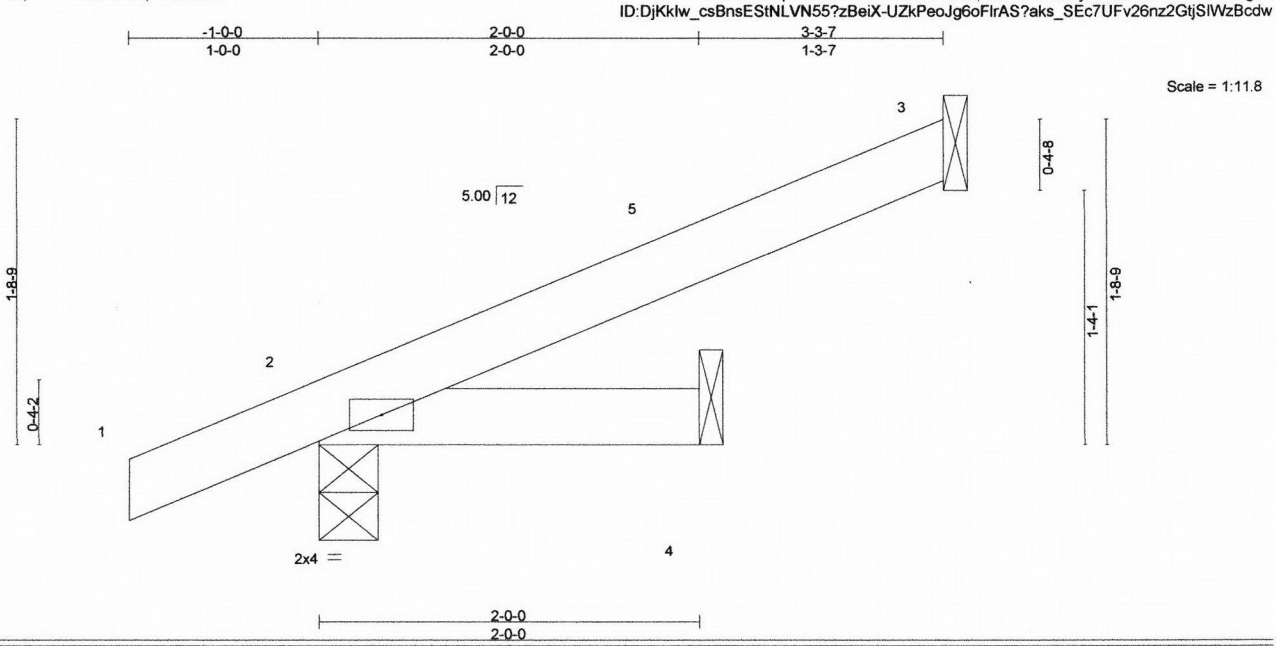

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) -0.00 2 >999 240	MT20 220/195
(Roof Snow=25.0)	Lumber DOL 1.15	BC 0.08	Vert(CT) -0.00 2-4 >999 180	
TCDL 7.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a	
BCLL 0.0 *	Code IBC2015/TPI2014	(Matrix)		Weight: 9 lb FT = 10%
BCDL 10.0				

LUMBER-
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF Std G

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 3=92/Mechanical, 2=198/0-3-12, 4=20/Mechanical
Max Horz 2=76(LC 12)
Max Uplift 3=-66(LC 12), 2=-70(LC 12)
Max Grav 3=99(LC 19), 2=200(LC 19), 4=39(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 19.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

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EXPIRES: 12/31/2017
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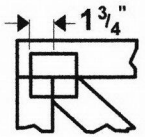
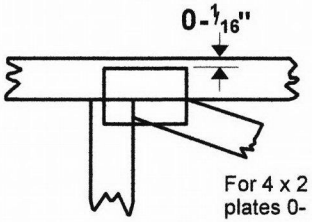
250 Klug Circle
Corona, CA 92880

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

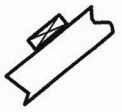
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

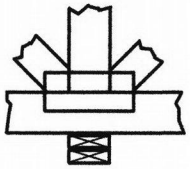
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

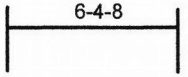


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

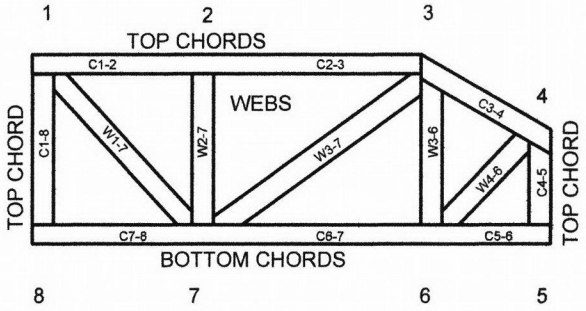
Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



dimensions shown in ft-in-sixteenths
(Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

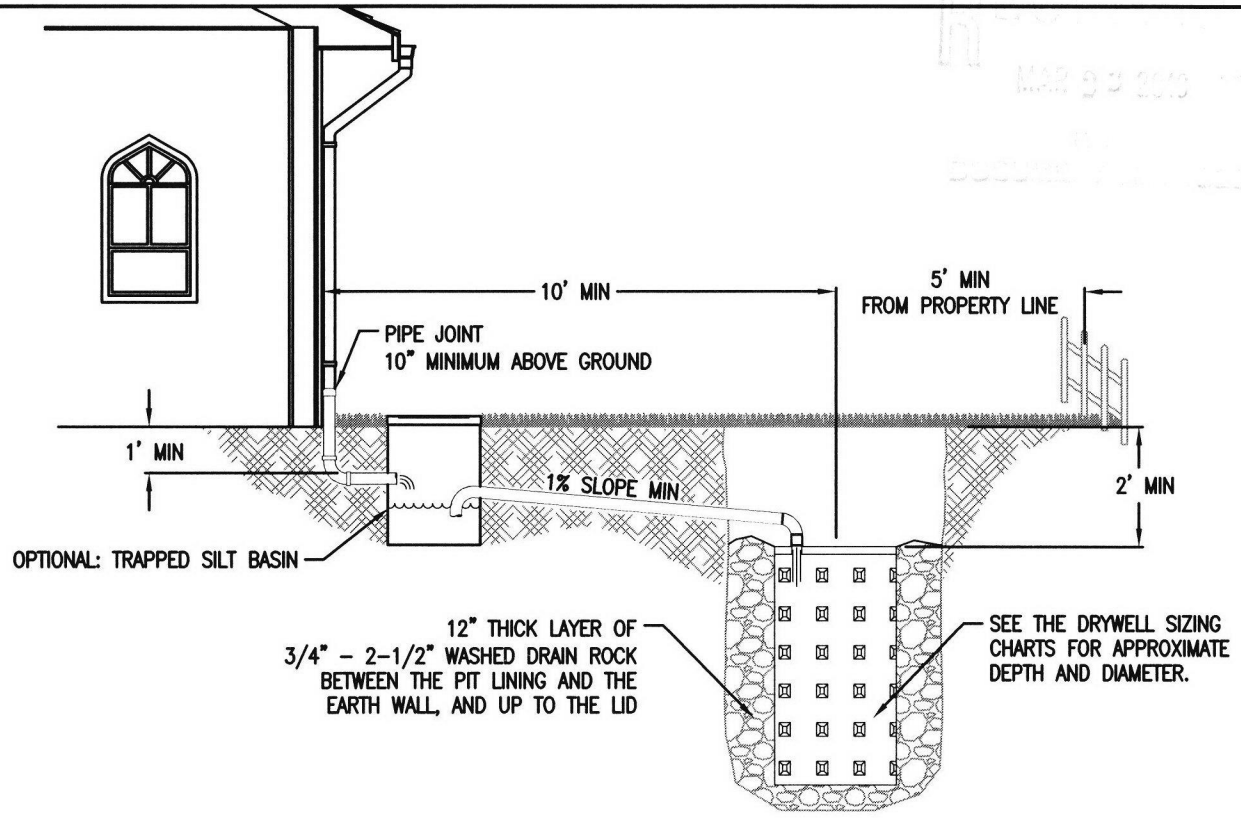
MiTek

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.



1. Detail intended as an example. Detail must match design report.
2. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during and after construction.
3. Siting Criteria: Gravelly sand, gravelly loamy sand or other equally porous material must occur in a continuous 5' deep stratum within 12' of the ground surface. Drywell must not be placed where base of facility has less than 5' of separation to water table.
4. Sizing: Exhibit 2-36 is used as guidance to size drywells. Sizing per stormwater report.
5. Top of drywell must be below lowest finished floor.
6. Setbacks: Measured from center of drywell, must be 10' from foundations, 5' from property lines, and 20' from cesspools. Drywells sized using the performance approach that use a significantly sized rock gallery must measure setbacks from the edge of the rock gallery or get approval from geotechnical and structural engineers to place drywell closer to the foundation.
7. Piping: must be ABS Sch.40, cast iron, or PVC Sch.40. 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping must have 1% grade and follow the Uniform Plumbing Code.
8. Trapped Silt Basin: Optional for roof runoff or pedestrian only paved areas.

Exhibit 2-36: Drywell Sizing Table

Once approval has been given by BES for onsite infiltration of stormwater, the following chart shall be used as a general guide for sizing. Sizing per stormwater report.

IMPERVIOUS Area (sq-ft)	28" Diameter Drywell Depth				48" Diameter Drywell Depth			
	5'	10'	15'	20'	5'	10'	15'	20'
1000								
2000								
3000								
4000								
5000								
6000								
7000								
8000								
9000								
10000								

- DRAWING NOT TO SCALE -

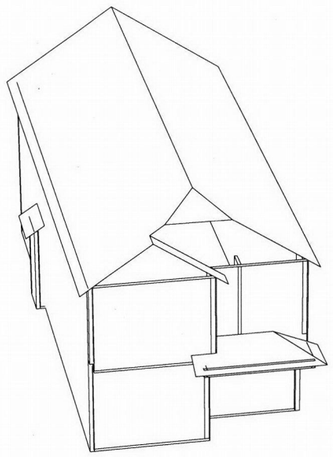
STORMWATER MANAGEMENT TYPICAL DETAILS

- Performance Design Approach -
Drywell

Bureau of Environmental Services

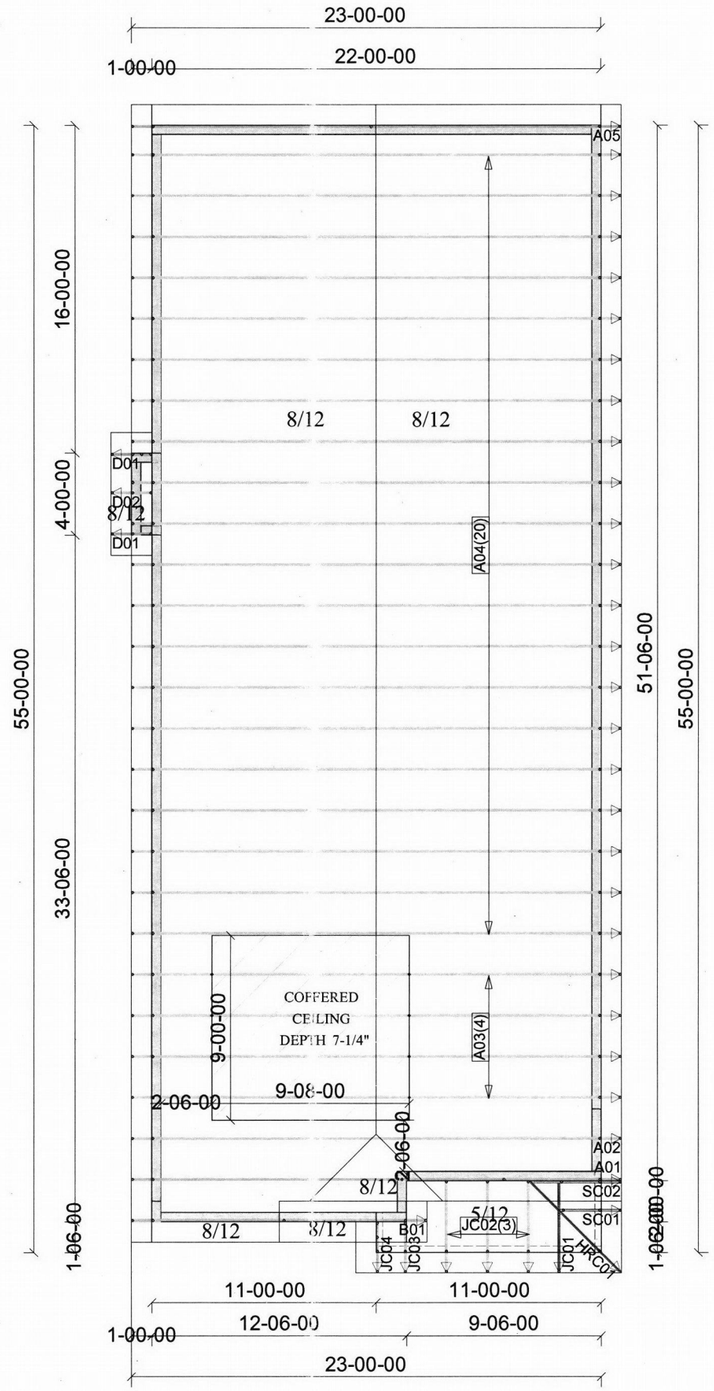
NUMBER
SW-280
7-1-16

TRIANGLE SHAPE △ INDICATES LEFT END ON LAYOUT AND TRUSS DRAWING ON STAMPED ENGINEERING PAGE



Garage Left

Use LUS24 Hangers UNO



TC LL = 25
TC DL = 7
BC LL = 0
BC DL = 10
Total Load = 42
Wind Speed = 140 mph
Exposure = B
Roof pitch = 5/12,8/12
Overhang = 12"

DO NOT CUT, DRILL, NOTCH OR MODIFY TRUSS MEMBERS WITHOUT PRIOR APPROVAL FROM PROBUILD TRUSS

City of Portland
REVIEWED FOR CODE COMPLIANCE
APR 26 2018
Permit Number

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See the individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179

DATE : 05/29/2017
SCALE: NTS
SALESMAN : Jody Platta
QUOTE #: B1701644
DESIGNER : Marielka Villegas
JOB #:

PROBuild
Builders FirstSource
5350 SW 107th Ave
Beaverton, OR 97005
Phone: 971-371-5971

BUILDER : DK Homes
PROJECT : P1980
ADDRESS : , Portland, OR