



Dream.Design.Build.

Matthew Smith, Principal
2205 NE 175th Street
Shoreline, WA 98155

February 17, 2020

PREFABRICATED WOODEN YURT MODEL DADU, SEATTLE WA

PROJECT DESCRIPTION

Dream.Design.Build. has been custom designing yurt-inspired round houses throughout the US and Canada since 2012. Each project starts with a prefabricated shell manufactured in Washington's Methow Valley by our partners at Smiling Woods Yurts. This model DADU submission is based upon a successful project we designed and permitted for a north Seattle residence in 2017. The unit was lovingly completed in 2018 as a true mother-in-law to support an extended family. The wooden "yurt" kit (consisting of exterior 2x6 wall panels, 2x12 roof structure, metal roofing panels, 5 ft compression ring and central skylight, and hardware) was assembled within two weeks upon a stem wall foundation and floor deck. Once the shell was up, providing a dried-in work space, the rest was just like any other residential building relying on known contractor skillsets. The covered porch design shown here was eliminated from the permitted project but remains an optional feature.

PROJECT NARRATIVE

Context

This model DADU is based upon the aesthetic and structural principles of the traditional yurt—a pure circular structural shell with a conical roof harmonizing the forces of tension and compression—while exceeding engineering and energy code requirements. In an urban setting dominated by strict orthogonal planning, round structures offer relief through their organic form.

Energy Efficiency

Round structures contain 12% less volume to heat and cool than rectilinear structures with the same footprint. When combined with natural convection currents created by the circular plan and conical roof, they offer a highly efficient, low energy consumption housing alternative.

Family Friendly

This model DADU is designed with an en-suite master bedroom below an open loft which, with code compliant stair and egress windows, can accommodate a second bedroom for a small family.

Neighbor friendly

While DADU's provide solutions for densification, they present a challenge in terms of the impact on neighboring residences faced with sheer walls built against allowable setbacks. Circular structures, however, ease away from adjacent properties with curving walls, and their conical roof lines permit sunlight to pass through while enhancing view corridors with their iconic profiles.

**Dream.Design.Build.**

Matthew Smith, Principal
2205 NE 175th Street
Shoreline, WA 98155

Privacy

Rectilinear DADU plans is limited in orientation to four turns and a mirror. This wooden yurt model DADU plan can be dialed to any orientation. Thus, windows can be turned towards desirable views, and away from adjacent structures or yards where privacy is preferred.

Cost effective

There is an immediate cost savings associated with this prefabricated wooden yurt concept. Because the shell is manufactured in a factory setting from established templates, there is very little waste in their production greatly reducing material and labor costs, as well as minimizing impact on the immediate environment and landfills.

Constructability

These 25ft wooden yurt kits can be completely assembled on-site in as little as two weeks, hastening the construction process and rapidly providing a dried-in work space. Furthermore, because the prefabricated shell arrives as a kit-of-parts, it greatly reduces the amount of construction noise in residential neighborhoods.

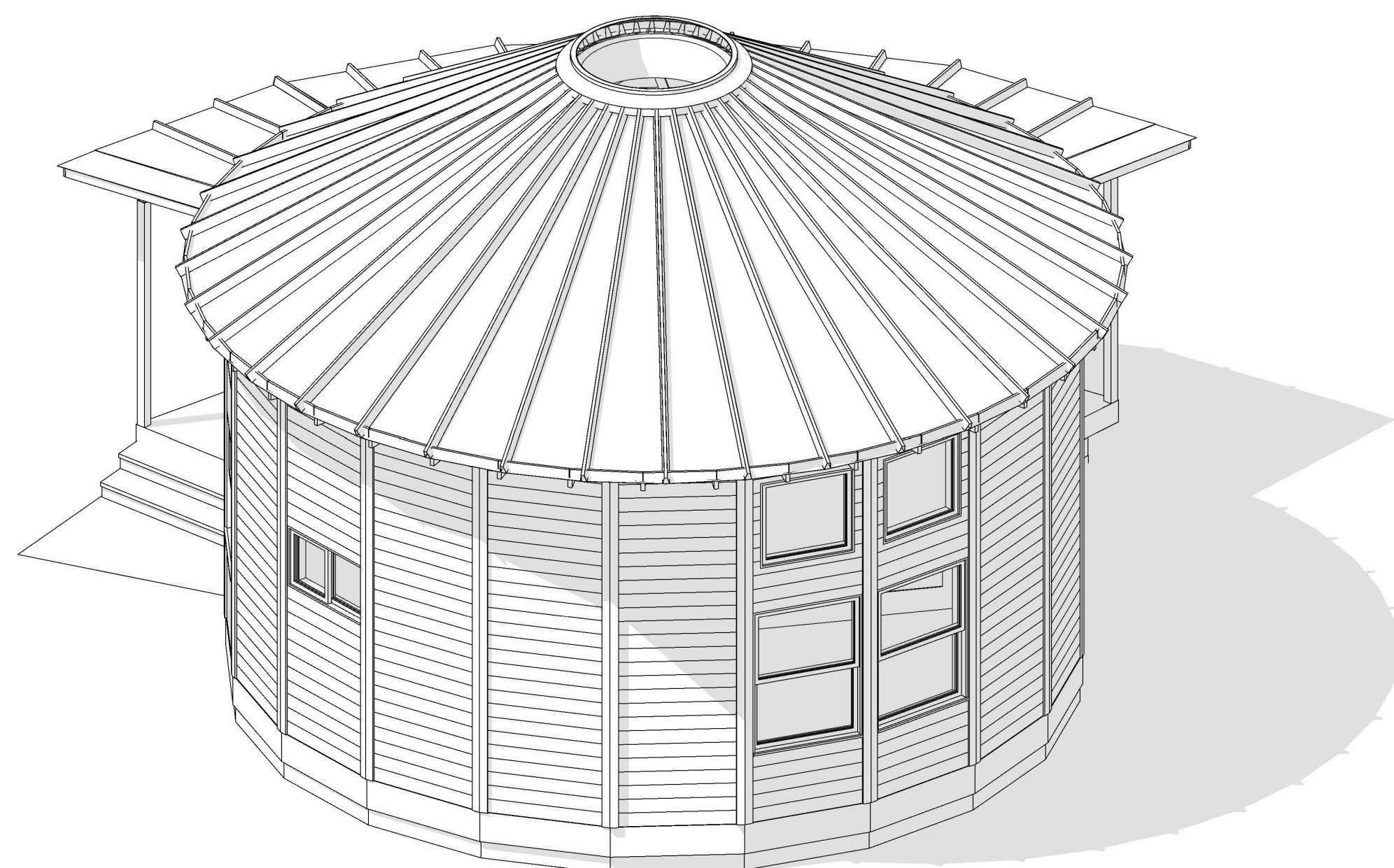
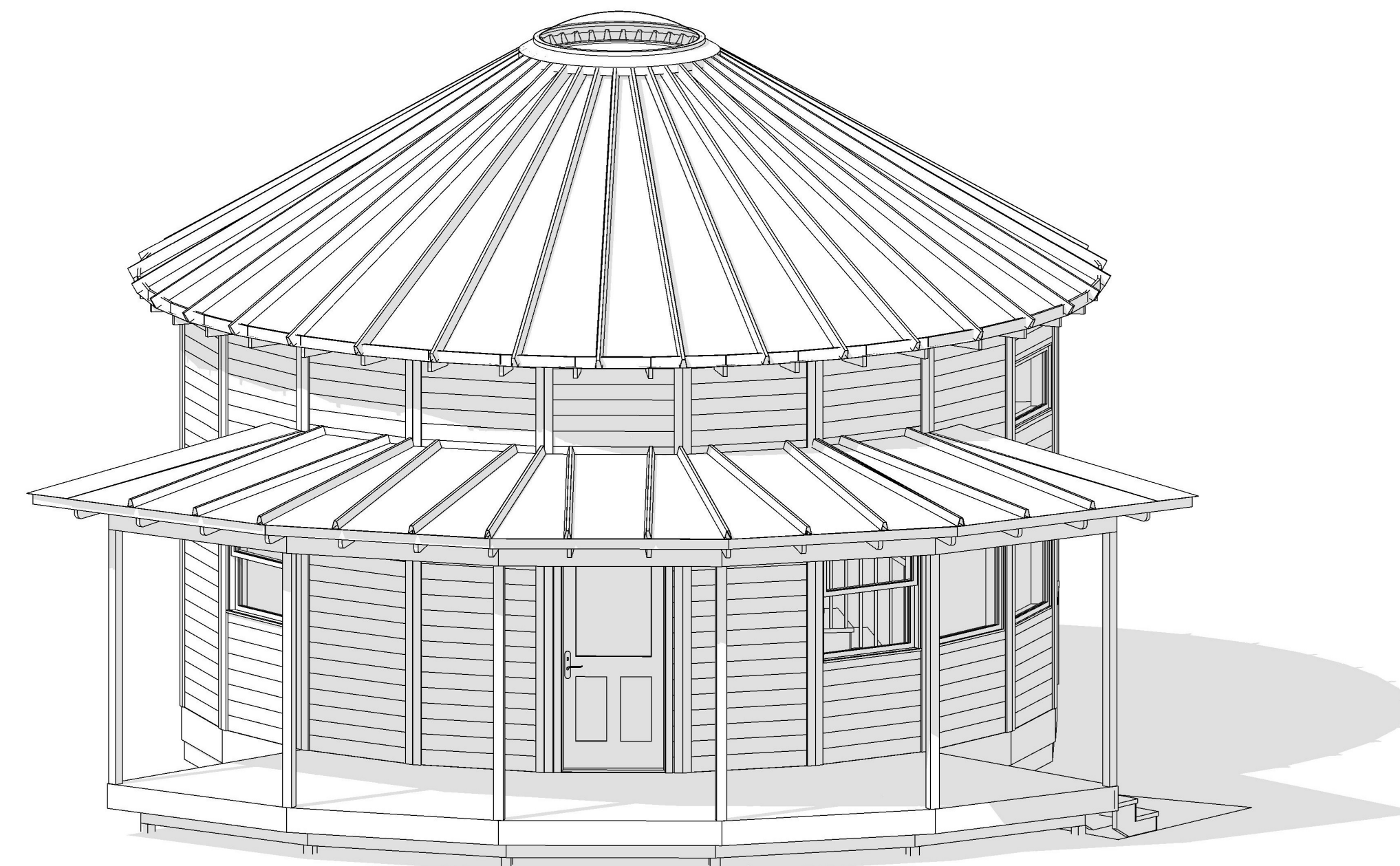
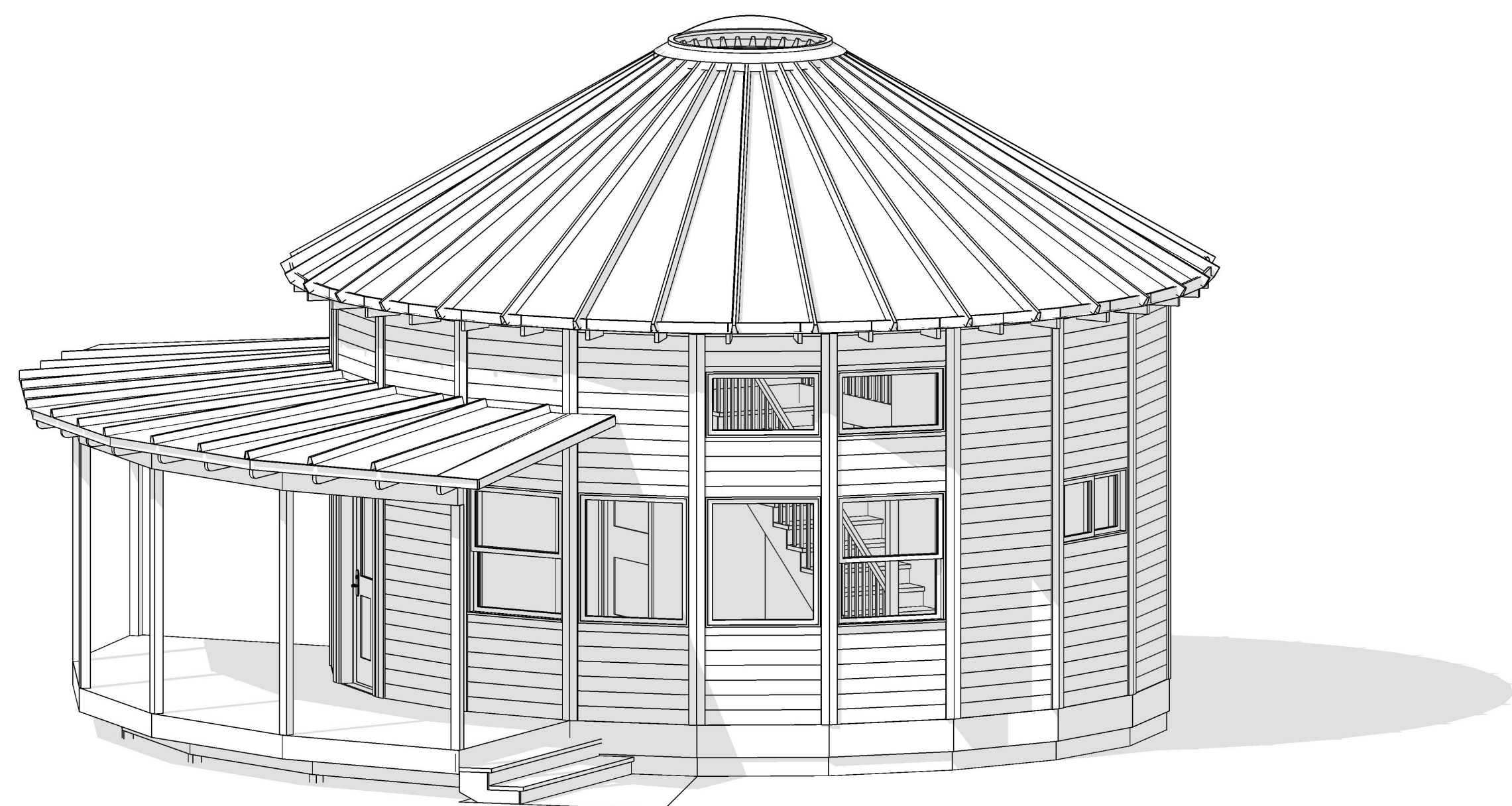


Dream.Design.Build.

Matthew Smith, Principal
2205 NE 175th Street
Shoreline, WA 98155

PROJECT SPECIFICATIONS

- PROJECT SPECIFICATIONS, AS SHOWN
 - 25' DIAMETER KIT WITH 12' EXTERIOR WALL PANELS.
 - 500 SF MAIN FLOOR + 250 SF LOFT + 210 SF COVERED PORCH (OPTIONAL)
 - 1-BEDROOM, 1-FULL BATHROOM, KITCHEN, LIVING ROOM, OPEN LOFT
- PREFABRICATED KIT PACKAGE (BY SMILING WOODS YURTS) INCLUDES:
 - STANDARD PRE-ASSEMBLED WALL PANELS INCLUDE: 2X6 STUDS, 1/2" CDX PLYWOOD SHEATHING; VAPOR BARRIER, 1X6 T&G CEDAR SIDING, PRE-INSTALLED VINYL WINDOWS AND EXTERIOR SIMPSON DOORS. UPGRADES AVAILABLE ON SIDING AND WINDOW PACKAGES.
 - 2X12 ROOF RAFTERS, SUFFICIENT DEPTH TO MEET R-38 VAULTED CEILING INSULATION REQUIREMENTS.
 - 5' DIA. GLULAM COMPRESSION RING AND STEEL TENSION CABLES, ENGINEERED TO EXCEED LOCAL STRUCTURAL REQUIREMENTS.
 - METAL ROOFING PANELS AND FLASHING KIT, COMPLETE WITH ALL HARDWARE AND AIR VENTILATION COMPONENTS.
 - OPTIONAL: PORCH ROOFING
 - 5 FT OPERABLE SKYLIGHT, ELECTRIC POWER OPTION.
 - NOT INCLUDED:
 - FOUNDATION MATERIALS AND SILL PLATE
 - MAIN FLOOR AND LOFT FLOOR DECKS
 - WALL AND CEILING FINISHES
 - INSULATION AND UTILITIES
 - FIXTURES AND FINISHES
 - PORCH DECK AND ROOF STRUCTURE
- CUSTOM HOME DESIGNER: DREAM.DESIGN.BUILD.,INC.
 - COST FOR MODEL DADU PLAN TEMPLATE: \$1000
 - COST TO REVISE OR COORDINATE ENGINEERING: \$125/HR
- CONSTRUCTION COSTS:
 - 25' PREFABRICATED WOODEN YURT KIT WITH 12' WALLS: APX. \$36,000
 - TOTAL COST TO FINISH: \$150-\$200/SF, OR \$112,000-\$150,000 (INCLUDING THE COST OF THE PREFABRICATED KIT)
- MECHANICAL SYSTEM RECOMMENDED:
 - 2-ZONE ELECTRIC MINI-SPLIT DUCTLESS HEAT PUMP
 - ZONE 1: MAIN OPEN LIVING SPACE AND KITCHEN
 - ZONE 2: MASTER BEDROOM
 - LOFT HEATED BY WAY OF NATURAL CONVECTION CURRENTS
 - MASTER BATHROOM HEATED BY WALL MOUNTED CONVECTION HEATER



PREFABRICATED WOODEN YURT

MODEL DADU
SEATTLE, WA



MATTHEW R. SMITH
2205 NE 175TH ST
SHORELINE, WA 98155
CONTACT: 206-683-1713
MATT@DREAMDESIGNBUILD.ORG
WWW.DREAMDESIGNBUILD.ORG

OFFERING:

DESIGN & BUILDING PLANS
PERMIT SUBMITTAL
CONSTRUCTION CONSULTATION

Owner:

Site Address:

Mailing Address

Phone
e-mail

Consultant	
Address	
Address	
Phone	
Fax	
e-mail	

Consultant
Address
Address
Phone
Fax
e-mail

Consultant	
Address	
Address	
Phone	
Fax	
e-mail	

Consultant
Address
Address
Phone
Fax
e-mail

[illegible]

CLIENT TBD
SEATTLE DADU

COVER SHEET

Project number	20-02_SEATTLE_DADU
Date	02/17/20
Drawn by	MATTHEW SMITH
Checked by	DDB

A0

Scale



Owner:	TBD
Site Address:	
Mailing Address	
Phone	
e-mail	

Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail

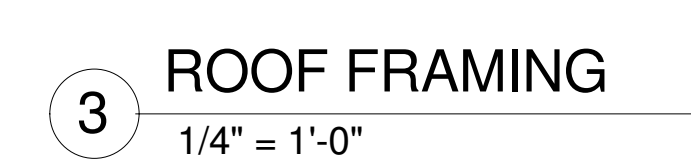
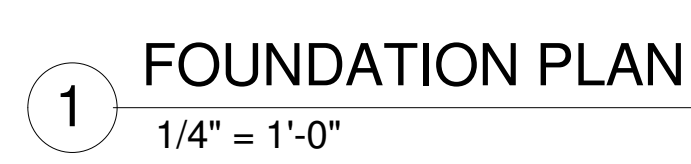
[illegible]

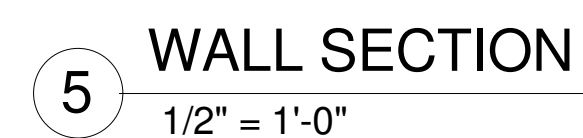
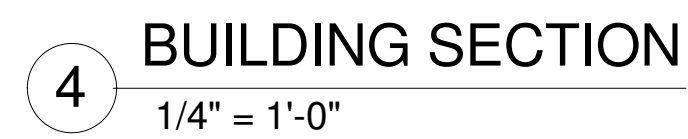
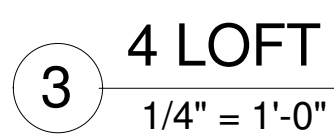
CLIENT TBD
SEATTLE DADU

FOUNDATION AND FRAMING PLANS

Project number	20-02_SEATTLE_DAD
Date	02/17/2
Drawn by	MATTHEW SMIT
Checked by	DD

A1
Scale 1/4" = 1'-0"





OFFERING:

DESIGN & BUILDING PLANS
PERMIT SUBMITTAL
CONSTRUCTION CONSULTATION

Owner:

Site Address:

Mailing Address:

Phone

e-mail

Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail
Consultant	Address	Address	Phone	Fax	e-mail

[illegible]

CLIENT TBD
SEATTLE DADU

<h1 style="text-align: center;">FLOOR PLANS AND BUILDING SECTIONS</h1>	
Project number	20-02_SEATTLE_DADU
Date	02/17/20
Drawn by	MATTHEW SMITH
Checked by	DDB

A2	
Scale	As indicated



OFFERING:

DESIGN & BUILDING PLANS
PERMIT SUBMITTAL
CONSTRUCTION CONSULTATION

Owner:	
Site Address:	
Mailing Address:	
Phone:	
e-mail:	

Consultant	
Address	
Address	
Phone	
Fax	
e-mail	

Consultant
Address
Address
Phone
Fax
e-mail

Consultant	
Address	
Address	
Phone	
Fax	
e-mail	

Consultant	
Address	
Address	
Phone	
Fax	
e-mail	

[illegible]

CLIENT TBD
SEATTLE DADU

ELEVATIONS

Project number	20-02_SEATTLE_DADU
Date	02/17/20
Drawn by	MATTHEW SMITH
Checked by	DDB

A3

Scale	1/4" = 1'-0"
-------	--------------





Dream.Design.Build.
Matthew Smith, Principal
2205 NE 175th Street
Shoreline, WA 98155

**PREFABRICATED WOODEN YURT
MODEL DADU, SEATTLE WA**

