







The Pines

A single-storey modern house: a tall cedar great room under a floating roof between two white stucco bedroom wings.

DRAWING INDEX

A0.0	Cover, drawing index, design basis
A1.1	Floor plan
A2.1	Exterior elevations
A3.1	Building sections
A4.1	Wall, roof and floor assemblies
A5.1	Door, window and room schedules

DESIGN BASIS

Codes	2021 IRC, 2021 IECC prescriptive
Climate zone	5 (assumed; site TBD)
Ground snow	30 psf
Wind	115 mph, Exposure B
Frost depth	42 in
Wildfire	WUI construction assumed (forest lot)

AREAS

101 Primary Bedroom	320 sq ft
102 Primary Bath	132 sq ft
103 Walk-in Closet	108 sq ft
104 Great Room	728 sq ft
105 Hall	88 sq ft
106 Bedroom 2	132 sq ft
107 Bedroom 3	132 sq ft
108 Bath 2	120 sq ft
109 Laundry / Mudroom	144 sq ft
110 Garage	528 sq ft
Heated area (to wall centrelines)	**1904 sq ft**

GENERAL NOTES

1. All drawings are generated from the project BIM (IFC4) model.
2. Dimensions are to wall centrelines unless noted.
3. Design development set: not for construction or permit.
4. Structure, foundations, energy and code compliance to be verified by licensed professionals for the actual site.
5. Items marked ENGINEER on A4.1 require structural design.
6. Site, grading, utilities and drainage by others.

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PROJECT

The Pines

Single-family residence, 1,904 sq ft

3 bed, 2 bath, 2-car garage

ISSUE

Design development

Date 2026-10-18

NOT FOR CONSTRUCTION

Engineering & permit review required

SHEET

Cover

Scale: AS NOTED

A0.0



FLOOR PLAN

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

PLAN NOTES

Exterior walls 9-1/2" (WT-1 stucco, WT-2 cedar), see A4.1.

Garage separation wall WT-3: 5/8" Type X garage side.

Interior partitions 4-1/2" (WT-5), MR board at baths.

Door from garage: solid-core, self-closing (IRC R302.5.1).

All glazing tempered, U-0.25 (see A5.1).

Floor: engineered white oak 3/4" over slab FT-1.

Room sizes to wall centrelines; areas to centrelines.

Section cuts A-A and B-B: see A3.1.

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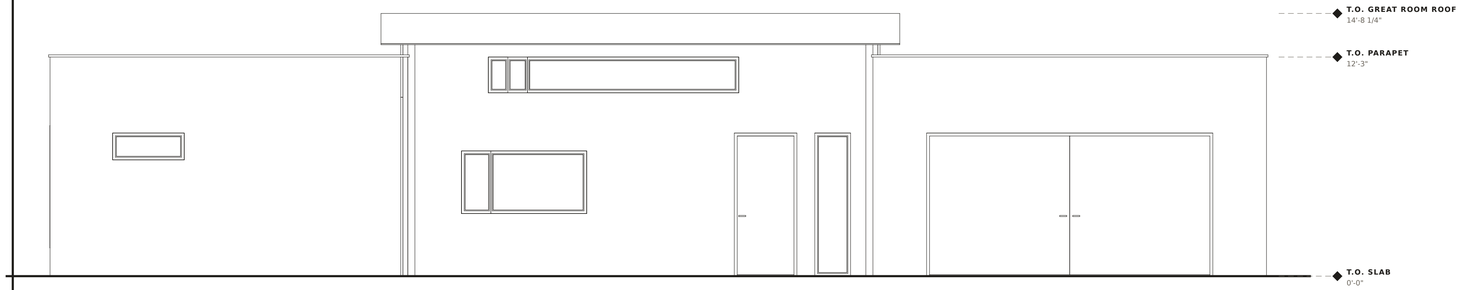
Engineering & permit review required

SHEET

Floor plan

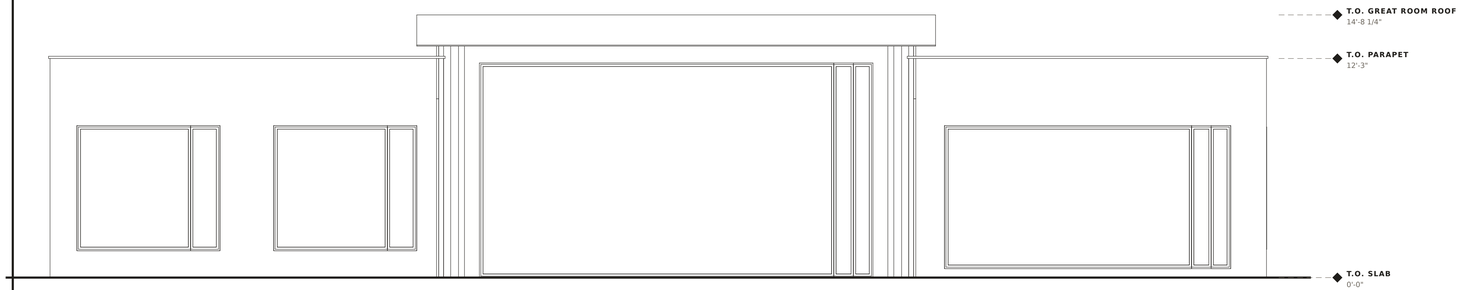
Scale: 1/4" = 1'-0"

A1.1



SOUTH ELEVATION (STREET)

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



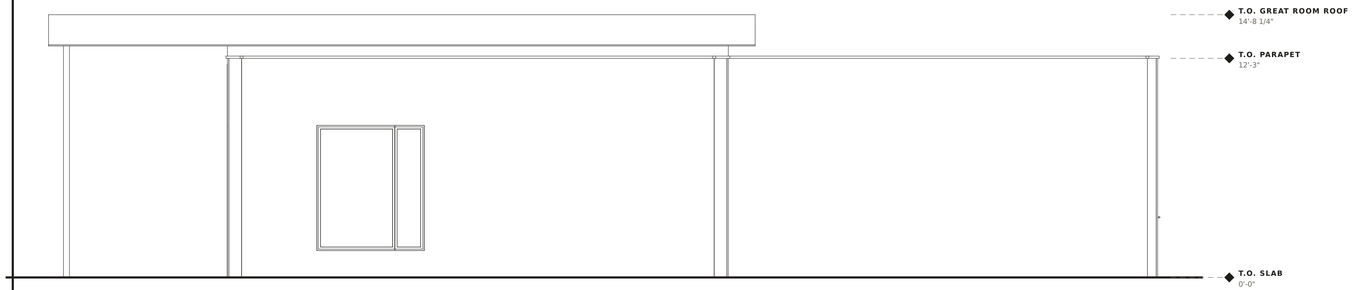
NORTH ELEVATION (YARD)

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



EAST ELEVATION

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



WEST ELEVATION

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

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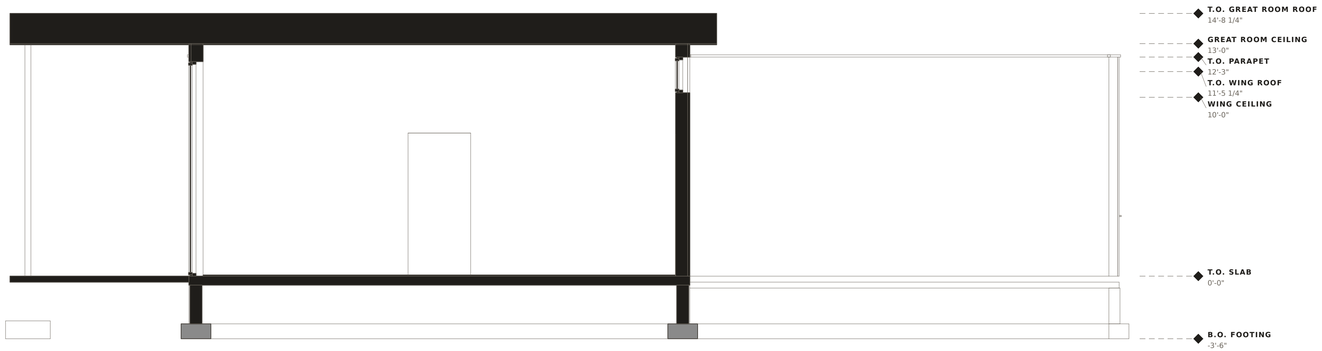
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SHEET

Exterior elevations

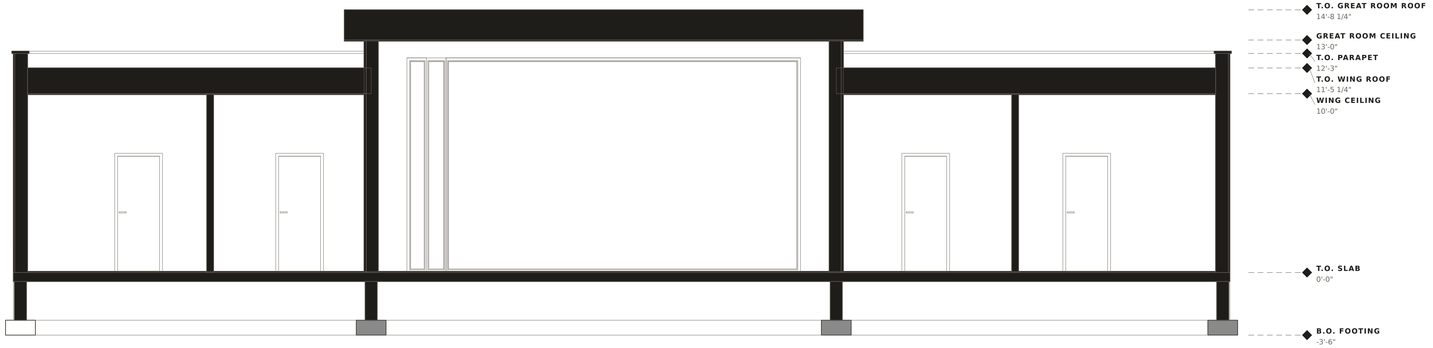
Scale: 1/4" = 1'-0"

A2.1



SECTION A-A (NORTH-SOUTH, THROUGH GREAT ROOM)

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



SECTION B-B (EAST-WEST)

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

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SHEET

Building sections

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

A3.1

WT-1 Exterior stucco wall

9.5" total · effective R-26.3 · U-0.038



0.875"	Portland cement stucco, 3-coat 7/8in on self-furring lath, integral-colour white
0.0625"	Drainage mat + 2 layers Grade D WRB
2"	Mineral wool board 2in (R-8.4), continuous exterior insula tion
0.4375"	Structural sheathing 7/16in, integral WRB/air barrier, sea ms taped
5.5"	2x6 SPF studs @16in o.c. + R-21 high-density mineral wool batts
0.625"	Gypsum board 5/8in, Level 4 finish, painted

IECC_CZ5_Requirement: R-20+5ci or R-13+10ci (Table R402.1.3)

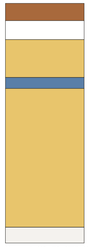
IECC_CZ5_Provided: R-21 cavity + R-8.4 ci

Combustibility: Non-combustible exterior

Used at: E, N0, N2, S0, W

WT-2 Exterior cedar rainscreen wall

9.5" total · effective R-24.4 · U-0.041



0.6875"	Western red cedar 1x6 T&G vertical, fire-retardant treated (exterior, Class B)
0.75"	Ventilated rainscreen cavity, 3/4in battens
1.5"	Mineral wool board 1-1/2in (R-6.3), continuous exterior in sulation
0.4375"	Structural sheathing 7/16in, integral WRB/air barrier, sea ms taped
5.5"	1-3/4x5-1/2 LSL tall-wall studs @16in o.c. + R-21 mineral wool batts
0.625"	Gypsum board 5/8in, Level 4 finish, painted

IECC_CZ5_Requirement: R-20+5ci or R-13+10ci (Table R402.1.3)

IECC_CZ5_Provided: R-21 cavity + R-6.3 ci

Combustibility: FRT cedar, Class B flame spread

Note: 13ft+ wall height: LSL studs, verify per IRC R602.3 / engineer

Used at: N1, S1, X20, X46

WT-3 House/garage separation wall

9.1875" total · effective R-27.3 · U-0.037



0.625"	Gypsum board 5/8in Type X (garage fire separation, IRC R30 2.6)
2"	Mineral wool board 2in (R-8.4), continuous exterior insula tion
0.4375"	Structural sheathing 7/16in, integral WRB/air barrier, sea ms taped
5.5"	2x6 SPF studs @16in o.c. + R-21 high-density mineral wool batts
0.625"	Gypsum board 5/8in, Level 4 finish, painted

FireSeparation: IRC R302.6: >=1/2in gypsum on garage side (5/8 Type X provided)

IECC_CZ5_Provided: R-21 cavity + R-8.4 ci (wall to unconditioned garage)

Used at: S2

WT-4 Garage exterior wall

6.875" total · effective R-3.0 · U-0.337



0.875"	Portland cement stucco, 3-coat 7/8in on self-furring lath, integral-colour white
0.0625"	Drainage mat + 2 layers Grade D WRB
0.4375"	Structural sheathing 7/16in, integral WRB/air barrier, sea ms taped
5.5"	2x6 SPF studs @16in o.c., uninsulated (unconditioned garag e)

Used at: GE, GS, GW

WT-5 Interior partition

4.5" total · effective R-12.3 · U-0.081

0.5"	Gypsum board 1/2in, painted (moisture-resistant at baths)
3.5"	2x4 SPF studs @16in o.c. + 3-1/2in mineral wool sound batt s
0.5"	Gypsum board 1/2in, painted (moisture-resistant at baths)

AcousticRating: STC ~45 (estimated)

Used at: P_bath2_laundry, P_bath_wic, P_bed2_bed3, P_bed_bath, P_hall_N, P_hall_S

RT-1 Wing roof (low slope, unvented)

17.25" total · effective R-61.8 · U-0.016

0.085"	TPO membrane 60 mil white, fully adhered (Class A assembly)
0.5"	High-density polyiso cover board 1/2in
4"	Tapered polyiso, 1/4in per ft, 4in average (R-23)
0.04"	Self-adhered vapor retarder / temporary roof
0.75"	Plywood roof deck 3/4in T&G
11.88"	11-7/8in I-joists @16in o.c. + R-38 high-density batts

IECC_CZ5_Requirement: Ceiling R-60

CondensationControl: IRC R806.5 CZ5: >=R-20 rigid above deck (R-25.5 provided)

FireClassification: Class A

Slope: 1/4in per ft tapered to scuppers

Used at: Roof - east wing, Roof - garage, Roof - west wing

RT-2 Great room roof (low slope, unvented)

20.25" total · effective R-59.4 · U-0.017

0.085"	TPO membrane 60 mil white, fully adhered (Class A assembly)
0.5"	High-density polyiso cover board 1/2in
3.875"	Tapered polyiso, 1/4in per ft, 3-7/8in average (R-22.1)
0.04"	Self-adhered vapor retarder / temporary roof
0.75"	Plywood roof deck 3/4in T&G
15"	Glulam beams 5-1/8x15 @8ft + flush 2x10 joists @16in, 5-1/ 2in closed-cell SPF

IECC_CZ5_Requirement: Ceiling R-60

Structure: Glulam beams span 26ft wall to wall / post to post - ENGINEER TO SIZE

FireClassification: Class A

Fascia: Prefinished aluminium, white

Used at: Roof - great room

FT-1 House slab on grade

6.0" total · effective R-11.2 · U-0.089

3.99"	Concrete slab 4in, 4000 psi, fibre-reinforced
0.01"	Vapor retarder 10 mil, Class I, taped
2"	XPS rigid insulation 2in (R-10), full under slab

IECC_CZ5_Requirement: Slab R-10, 4ft (Table R402.1.3)

IECC_CZ5_Provided: R-10 full under slab + R-10 vertical at slab edge

Used at: Ground slab - house

FT-2 Garage slab on grade

4.0" total · effective R-1.2 · U-0.806



4"	Concrete slab 4in, 4000 psi, fibre-reinforced

Used at: Ground slab - garage

ITEMS REQUIRING STRUCTURAL ENGINEERING

1. Great room roof: glulam beams (shown 5-1/8 x 15 @ 8') spanning 26' wall to wall and post to post; drift at wing parapets.
2. 22' x 12' lift-and-slide opening in N1: header / transfer beam carrying the roof beams.
3. Patio posts HSS 4x4x1/4 and their pad footings; uplift and lateral bracing of the roof's patio edge.
4. 13'+ cedar walls (S1, N1, X20, X46): LSL tall-wall studs and wall bracing per IRC R602.10 or engineered design.
5. Wing roof I-joist spans (20' and 22') and ledger connections to the great room walls.

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SHEET

Assemblies

Scale: NTS

A4.1

DOOR SCHEDULE

MARK	LOCATION	WIDTH	HEIGHT	OPERATION	U	SPECIFICATION
D01	Front door	3'-6"	8'-0"	single swing right	U-0.25	Insulated white-oak veneer pivot/flush door, U-0.25, multi-point lock
D02	Garage door	16'-0"	8'-0"	double door sliding	U-0.25	Insulated steel sectional R-16 with FRT cedar overlay panels, 16x8
D03	Great room sliding wall	22'-0"	12'-0"	double door sliding	U-0.28	Lift-and-slide, thermally broken aluminium, triple-glazed tempered, U-0.28; 22ft x 12ft - header by engineer
D04	bath 2	2'-8"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D05	bedroom 2	3'-0"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D06	bedroom 3	3'-0"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D07	laundry	2'-8"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D08	laundry to garage	3'-0"	6'-8"	single swing right	-	Solid-core 1-3/8in, self-closing, weatherstripped (IRC R302.5.1)
D09	primary bath	2'-8"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D10	primary suite	3'-0"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in
D11	walk-in closet	2'-8"	6'-8"	single swing right	-	Solid-core flush door, white-oak veneer, 1-3/4in

WINDOW SCHEDULE

MARK	LOCATION	WIDTH	HEIGHT	SILL	U	SPECIFICATION
W01	Primary bedroom glass wall	16'-0"	8'-0"	0'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W02	Bedroom 2 window	8'-0"	7'-0"	1'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W03	Bedroom 3 window	8'-0"	7'-0"	1'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W04	Primary bedroom side window	6'-0"	7'-0"	1'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W05	Bedroom 3 side window	5'-0"	6'-0"	2'-0"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W06	Great room clerestory	14'-0"	2'-0"	10'-3"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W07	Kitchen window	7'-0"	3'-6"	3'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W08	Front door sidelight	2'-0"	8'-0"	0'-0"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W09	Primary bath clerestory	4'-0"	1'-6"	6'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.
W10	Bath 2 clerestory	3'-0"	1'-6"	6'-6"	U-0.25	Tempered, triple low-e argon, thermally broken alum.

ROOM FINISH SCHEDULE

NO.	ROOM	SQ FT	CEILING	FLOOR	WALLS	CEILING FINISH
101	Primary Bedroom	320	10'-0"	White oak	Gypsum, painted	Gypsum, painted
102	Primary Bath	132	10'-0"	Porcelain tile	Gypsum MR, tile at wet walls	Gypsum MR, painted
103	Walk-in Closet	108	10'-0"	White oak	Gypsum, painted	Gypsum, painted
104	Great Room	728	13'-0"	White oak	Gypsum, painted	FRT cedar T&G
105	Hall	88	10'-0"	White oak	Gypsum, painted	Gypsum, painted
106	Bedroom 2	132	10'-0"	White oak	Gypsum, painted	Gypsum, painted
107	Bedroom 3	132	10'-0"	White oak	Gypsum, painted	Gypsum, painted
108	Bath 2	120	10'-0"	Porcelain tile	Gypsum MR, tile at wet walls	Gypsum MR, painted
109	Laundry / Mudroom	144	10'-0"	Porcelain tile	Gypsum, painted	Gypsum, painted
110	Garage	528	10'-0"	Concrete, sealed	Gypsum Type X / exposed	Gypsum Type X

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Schedules

Scale: NTS

A5.1