CASITA — 6051 Old Allegan Rd, Saugatuck MI

Rebuild of the existing garage north of the pole barn as a one-bedroom, one-bath casita (cabin_600sf design)

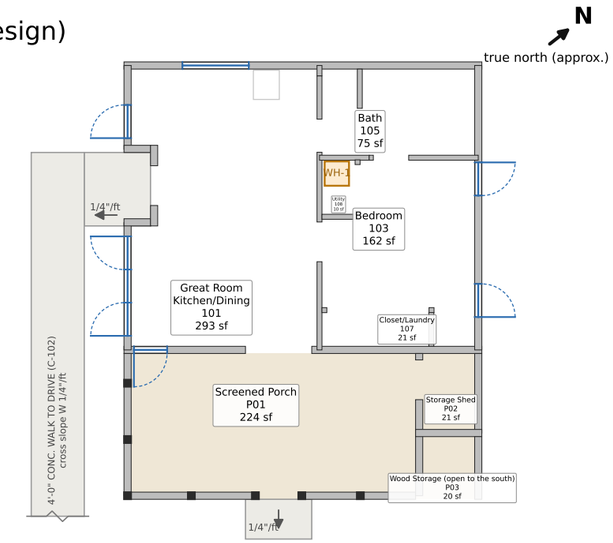
Conditioned area (outside of studs)	27'-0" x 22'-0" = 594 sf (under the 600 sf limit)
Screened porch	11'-0" deep x 21'-9" (posts + 3'-0" knee wall); gave 2'-0" to the interior
Storage shed + wood storage	on the porch end, under the main roof
Roof	EXISTING 1:12 shed roof kept, re-roofed in mechanically double-lock standing-seam metal (low-slope rated); 9'-0" plate east to 11'-6" west (verify)
Rooms	great room/kitchen/dining, bedroom (king), bath, closet + laundry, utility
Code basis	2015 Michigan Residential Code (2015 IRC base; incl. energy, plumbing, mechanical) + 2023 Michigan Electrical Code (2023 NEC); 2021 MRC on hold by court order - confirm at permit. AHJ: Saugatuck Twp Building Dept.
Utilities	All-electric: SP-1 subpanel (bedroom), 50 gal electric WH-1, water + septic (notes 7-9); RO at the sink

SHEET INDEX

G-001	Cover, notes, sheet index	**A-302**	Wall sections
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R-102	Renderings - interior	**E-101**	Lighting, power + low-voltage plan
R-103	Rendering - cutaway	**E-601**	Lighting + electrical schedules
C-101	Site plan - entire property	**P-101**	Plumbing + mechanical plan, schedules
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S-101	Foundation + slab plan	**A-402**	Interior elevations - bath
A-101	Floor plan + dimensions	**A-403**	Interior elevations - bedroom, closet, TV
A-102	Roof plan + site key	**A-501**	Millwork details
A-103	Roof cut sheets - panel + installation	**A-502**	General details + header schedule
A-104	Roof cut sheet - nailbase insulation	**A-603**	Millwork, trim + interior door schedule
A-201	Exterior elevations	**A-604**	Countertop, tile, mirror + glass schedules
A-301	Building sections	**A-605**	Hardware, appliance + finish schedules

Also in the full set: T-001, T-101..T-103, T-601..T-603, AV-101, AV-601 (low voltage) · H-101 hot tub pad, H-102 bidet receptacle (house)

Key plan



GENERAL NOTES

1. These drawings are generated from the 3D site model for planning, pricing and permit preparation. Where the township requires a licensed architect or engineer, they review and stamp the set.
2. Per Mike (10/3): the conditioned block grows from 27' x 20' (540 sf) to 27' x 22' (594 sf, under the 600 sf limit) by moving the porch-side (south) wall 2'-0" into the screened porch; the porch drops to 11'-0" deep and the overall 33' footprint is unchanged. Per Patrick, the existing structural columns are redone and the walls are likely rebuilt anyway, so the wall move does not add demolition.
3. The building is an EXISTING garage being converted. Field-verify every existing dimension, the slab, footings, wall framing and the roof structure before ordering materials. Items marked (est.) or ASSUMED in the model are estimates.
4. Compass labels (North/South/East/West) on these sheets follow the casita design model. True north is shown by the arrow on each plan; the model's 'East' wall faces roughly north-east.
5. Structural: NEW monolithic slab with 12" x 24" thickened edges (frost-protected, S-101) + F-1 under the spine; new headers per span tables; any new beam/post sized by an engineer. Existing porch posts embedded 48" (Patrick 10/14); new P-1 on a 42" frost footing.
6. Energy: conversion of unconditioned space to habitable — insulate walls, roof/ceiling and slab edge per the Michigan energy code (Climate Zone 5); air-seal; vapor retarder as required.
7. ELECTRICAL: SP-1 100 A subpanel recessed in the closet's east wall, facing the bedroom's SE corner (E-101/E-601), fed from the house or barn by a 4-wire feeder sized by load calc; detached-building grounding per NEC 250.32. The network links between buildings are fiber (no copper), so no network surge protector here.
8. WATER: source not in the model (barn well or a line from the house well). Size the line, bury below frost, and add backflow/pressure tank as required.
9. SEPTIC — CRITICAL: the Hamilton report notes the pole barn has a separate limited-use system. Adding a bedroom + full bath needs an Allegan County Health Dept permit and likely a new or upgraded system. Confirm before design is final.
10. Required: smoke alarms in the bedroom + outside it, hardwired, interconnected, battery backup (R314.3/.4/.6; E-101). No CO alarm needed - all-electric, no attached garage (R315.2). Not in the model: mini-split outdoor unit + line set, GFCI/AFCI protection, receptacles per code spacing.
11. CONCRETE CARE: exterior flatwork (entry landing, walk, porch stoop) gets a penetrating silane/siloxane sealer after a 28-day cure (C-102); curb foam cement-board faced above grade (S-101). No rock salt on any concrete - sand or CMA.
12. Low voltage (10/23): fiber F1 (house) + F2 (barn), in buried 1-1/4" PVC, end at NB-C1 over the closet shelf (switch PS-C); C1 Cat6 to AP-4, C2 to TV-D1. Owner furnishes fiber, Cat6 + gear (LV T-001 note 4). See E-101.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

COVER, NOTES, SHEET INDEX

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

G-001

LAYOUT RULES

1. DATUM = the NW outside corner of the NEW foundation (outside face of the thickened edge, west + north), set out from the existing pole-barn building line before forming (marked on A-101 and S-101). All new work is located FROM THE DATUM - measure from it, do not chain dimensions across the building, and do not scale the drawings.

2. East-west: from the west face. North-south: from the north face; the new south wall of the conditioned block is 22'-0" from it and the porch front is 33'-0". Interior partitions are dimensioned from the spine wall centreline, 14'-9" from the west face.

3. New-work dimensions are set to whole inches (half inches at 4-1/2" partitions); the only fractions are centred items (vanity) and glass + shower.

4. BEFORE FRAMING: measure every item in table 1 and write the value in 'Measured'. Email the filled-in sheet (a phone photo is fine) to darinlarimore@gmail.com. If any item is outside its tolerance, STOP and email D. Larimore at darinlarimore@gmail.com - please email rather than call - the model gets updated and the set reissued before anything is cut.

5. HOLD dimensions (table 2) are kept no matter what the field measures; other dimensions flex around them.

1 FIELD VERIFICATION - before framing (Mike to fill in)

#	Existing condition to measure	Design value	Tolerance	Measured	Depends on it
1	Existing building line, west to east (outside) - sets the forms	27'-0"	±1/2"		every E-W dimension; header spans
2	Existing building line, north to porch front (outside)	33'-0"	±1/2"		new south wall at 22'-0" -> 594 sf (must stay < 600 sf)
3	Diagonals of the conditioned block (NW-SE vs NE-SW)	34'-9 15/16" each	±1/2" difference		square; cabinets, tile, shower glass
4	Top of the slab-edge forms at the 4 corners + mid-points	level	±1/4"		16" curb height, sill plates, slab FF 0'-0"
5	Existing plate heights, east (low) + west (high)	9'-0" / 11'-6"	±1/2"		1:12 vault line, BM-1 beams, window + door heads, CL-2
6	Rafter size + spacing	2x12 (verify) @ ___ o.c.	-		R-19 batts, can + fan boxes, exhaust + dryer roof caps
7	Existing porch post locations (embedded 48", Patrick)	A-101 / S-101	±1"		screen panels, D9 on the slider axis; check for rot at grade
8	Existing gravel floor: depth to undisturbed soil	-	-		new slab + base thickness (S-101, pending Patrick)
9	Grade at the D3 landing, D9 stoop + 4 corners	C-102	±1"		landing heights, 6" fall in 10', drainage
10	House: deck height + screened-porch edge at the hot tub	21-22" / 1'-3"	±1"		H-101 pad + tub lip

2 HOLD DIMENSIONS - keep these; other dimensions flex

Hold dimension	Hold	Reason
WC centreline to the spine wall + to the half wall	16" each (15" min.)	MRC P2705.1
Clear in front of the WC	22" (21" min.)	MRC P2705.1
Shower inside, framed	36" x 78"; glass 46", open side 32"	A-402 D12
Fridge opening (GE GLE12HSPSS 23-1/2")	24-1/4"	A-401
Counter front to dining table	36"	A-401
W5 egress net clear opening	>= 5.7 sf, 20" W, 24" H, sill <= 44"	MRC R310.2
SP-1 working space	30" W x 36" deep x 6'-6"	NEC 110.26
Conditioned area (outside of studs)	< 600 sf (594 sf designed)	zoning cap
D9 screen door + D7 slider	same centreline	A-101
Kitchen sink + W1	same centreline	A-401

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

LAYOUT DATUM, FIELD VERIFICATION + HOLD DIMENSIONS

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

G-002



SITE PLAN — ENTIRE PROPERTY

Two parcels in one ownership, about 7.5 acres, Saugatuck Township

APPROXIMATE SETBACKS

Building	Sits on parcel	To nearest lot line	To road centreline
House	20-012-021-10	~135'	~125'
Pole barn	20-012-021-10	~71'	~135'
Casita	20-012-021-10	~47'	~183'

SITE NOTES

1. Parcel lines and the road centreline are from Allegan County GIS (queried Oct 2026). They are NOT a boundary survey. GIS acreage 3.89 + 3.61 = 7.50 ac; the deed lists 4.11 ac for 6051.

2. Buildings, drive, septic tank, drainbed, wells and sewer come from the site model, placed on the house and barn roofs the owner identified through the canopy in Esri aerial imagery. Expect +/- 15 ft. The drive is modelled near the buildings, with a 16' wide connection drawn to Old Allegan Rd (alignment approximate). Stake or survey before any permit drawing that depends on a setback.

3. Both parcels are owned together (per owner). The house, pole barn and casita all sit on 20-012-021-10 (6051); 20-012-021-00 is undeveloped woods. Confirm with Saugatuck Township that the accessory dwelling meets its setbacks and lot rules on 6051 alone, or whether combining the parcels helps.

4. Septic tank, drainbed and both wells per the Hamilton Evaluations sketch: no trenching, ground rods or heavy equipment over the drainbed; keep new water and power trenches clear of both wells.

5. Fire access (Saugatuck Township Fire District, 10/27): driveway 16' clear width minimum from Old Allegan Rd to the buildings, 13'-6" vertical clearance, surface for 80,000 lb all-weather (4-6" compacted gravel or the existing asphalt), grade 10% max., 28' inside radius at turns. Fire inspector: no turnaround required. Field-verify the as-built width.

6. Aerial imagery: Esri World Imagery (Maxar, Earthstar Geographics). Trees are not individually located; the property is wooded.

LEGEND

- Parcel 20-012-021-10 (6051)
- Parcel 20-012-021-00 (owned)
- Neighbouring parcels
- Old Allegan Rd centreline
- Buildings (roof outlines)
- Drive + parking
- Septic drainbed
- Well (keep-out)
- Sewer line

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

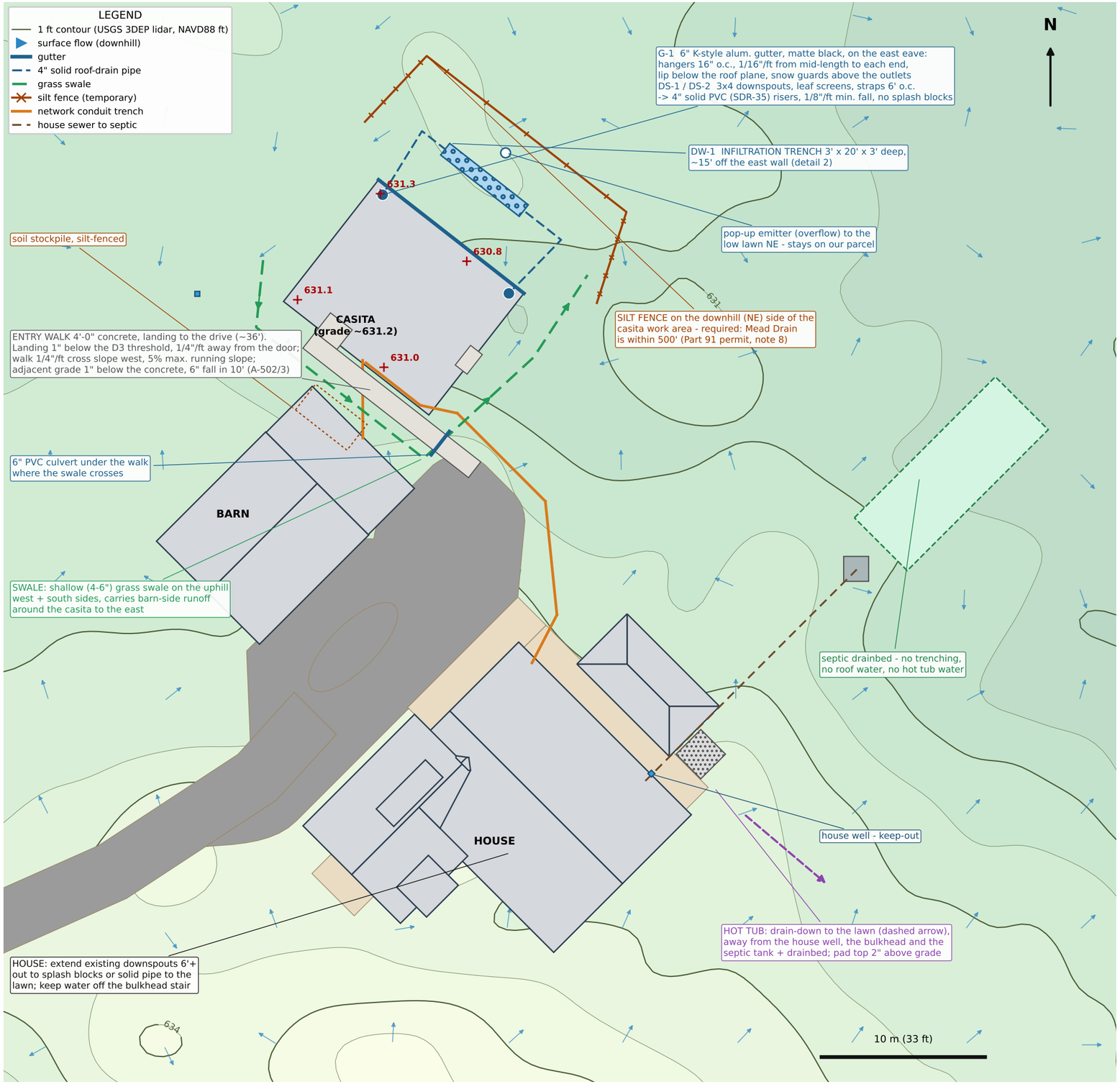
Rebuild of the existing garage as a 594 sf casita

SITE PLAN - ENTIRE PROPERTY

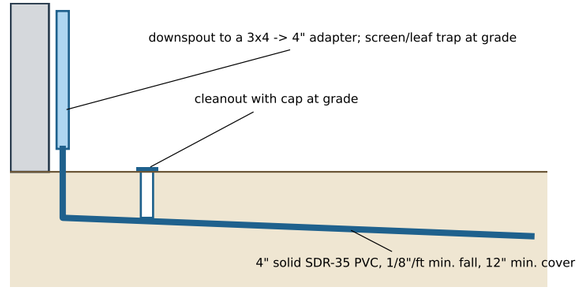
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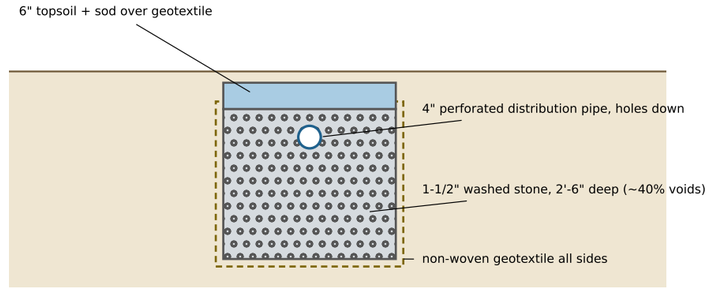
C-101



1 DOWNSPOUT CONNECTION



2 DW-1 INFILTRATION TRENCH (3' x 20' x 3')



DRAINAGE + EROSION NOTES

1. Contours: USGS 3DEP lidar bare-earth DEM, smoothed. ~1' of fall across the casita to the east/NE - too flat to daylight a pipe, so roof water soaks in on site. Field-verify grades before setting the trench.

2. Casita roof ~1146 sf drains entirely to the east gutter (1:12 shed roof). A 1" storm = ~95 cf of water; DW-1 holds ~60 cf in the stone voids plus what soaks in during the storm, and overflows through the pop-up emitter. Do a perc test; double the trench length if the soil is slow (clay).

3. DW-1 and roof-water pipe: 10' min. from the foundation, 25' from the septic tank + drainbed, well clear of both wells; don't cross the conduit trench (12" separation if you must).

4. Final grade: 6" fall in the first 10' away from the casita on all sides (MRC R401.3); swale on the uphill west + south sides; slope the CU-1 pad and porch slab away too.

5. EXTERIOR CONCRETE (landing, walk, porch stoop): 4,000 psi air-entrained (5-7%), broom finish; after a 28-day cure apply a penetrating silane/siloxane water repellent, re-apply every 5-10 yr (silane) or 3-5 yr (siloxane). No film-forming/acrylic 'wet look' sealer (slippery, peels in freeze-thaw). No rock salt - sand or CMA for ice, never salt the first winter.

6. ENTRY GRADES (D3): top of landing 1" below the threshold, falling 1/4"/ft (2%) away from the door; walk to the drive 1/4"/ft (2%) cross slope to the west, running slope 5% max.; finished grade beside the landing + walk 1" below the concrete, falling 6" in the first 10' away from the casita (MRC R401.3); the west swale passes under the walk in a 6" PVC culvert. PORCH (D9 screen door): new 4" concrete porch slab 1/8"/ft toward the door; 5'-0" x 3'-0" concrete stoop 1" below the porch floor, 1/4"/ft away (south), grade 1" below the stoop falling to the south swale.

7. Hot tub drain-down: dechlorinate, then hose it to the lawn on the dashed arrow - never toward the house well, the bulkhead or the septic.

8. EROSION CONTROL: the Mead Drain (Allegan County drain) runs ~300-400' SE of the casita - inside the 500' Part 91 limit, so get an Allegan County soil erosion (Part 91 / SESC) permit before digging. Silt fence (geotextile 24" high on 2x2 stakes @ 6' o.c., toed in 6") on the downhill side before any digging, stockpile fenced, no soil or wash-water toward the drain; topsoil + seed/sod within 5 days of final grade; fence stays until the lawn is established.

CASITA — 6051 OLD ALLEGAN RD

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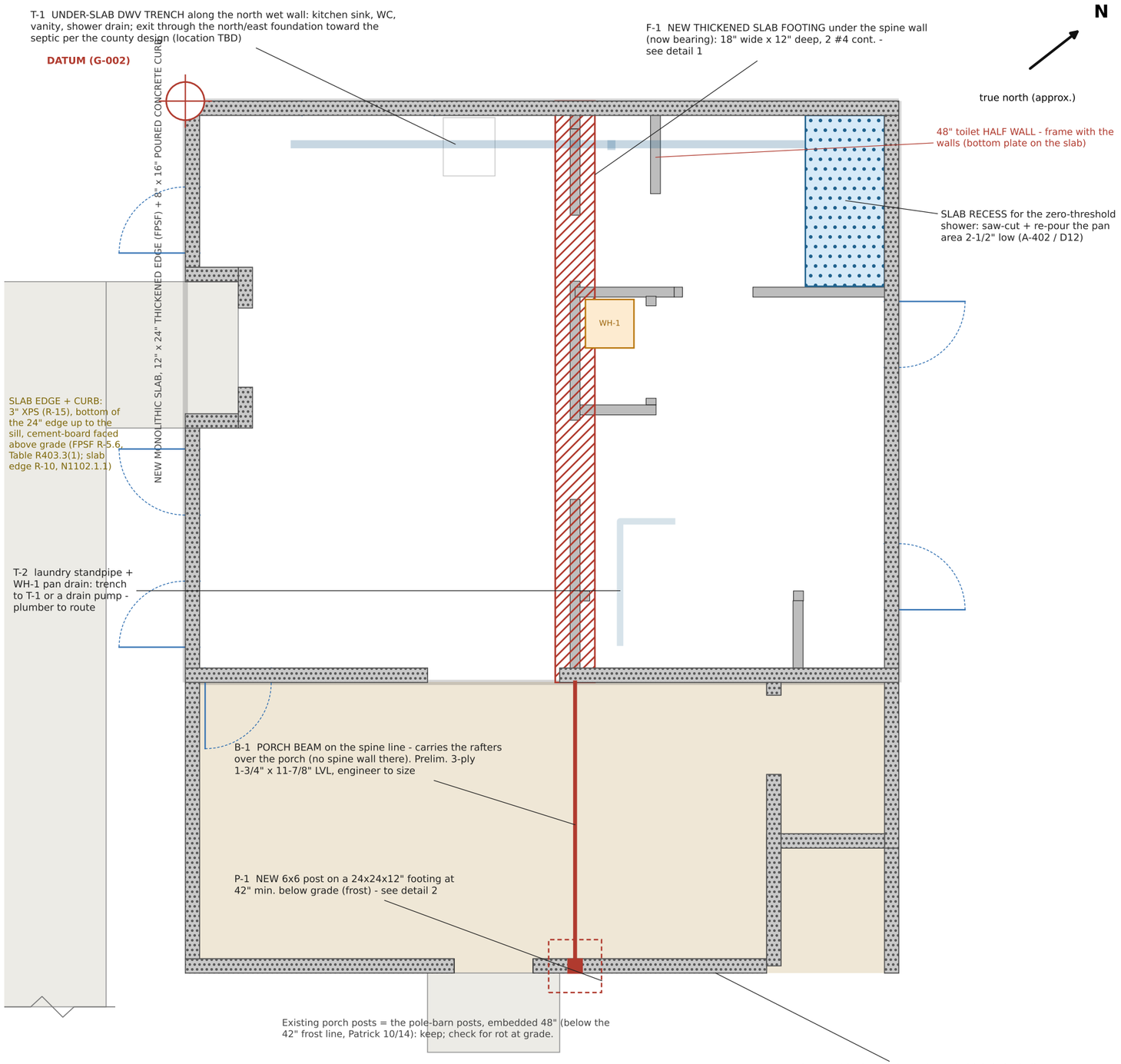
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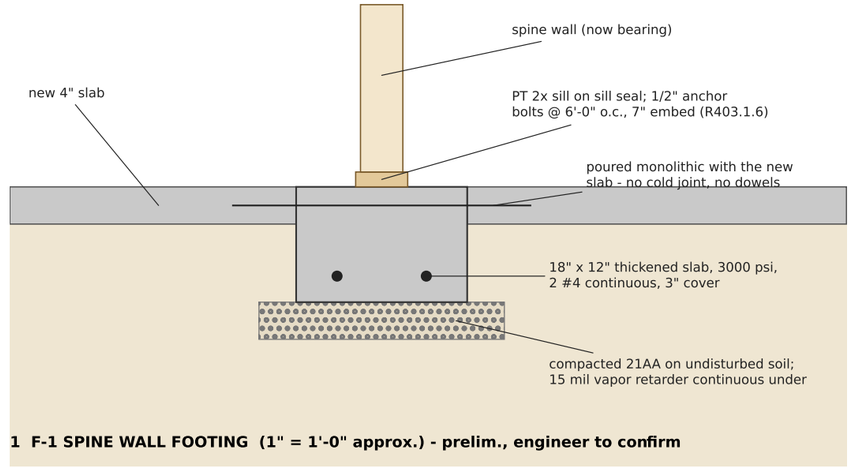
SITE DRAINAGE, GRADING + EROSION CONTROL

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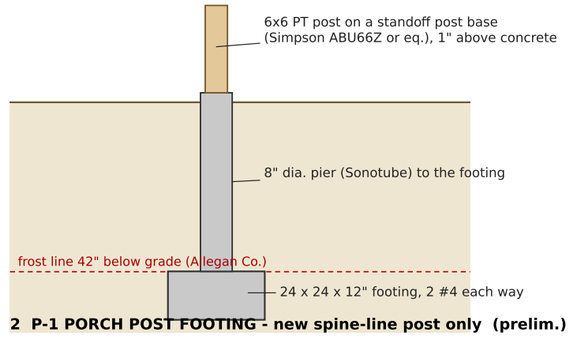
Drawn by: D. Larimore Checked: ___

C-102





1 F-1 SPINE WALL FOOTING (1" = 1'-0" approx.) - prelim., engineer to confirm



2 P-1 PORCH POST FOOTING - new spine-line post only (prelim.)

FOUNDATION NOTES

1. NEW MONOLITHIC SLAB (Patrick 10/14; pole barn, no existing foundation): 4" slab + 12" x 24" thickened edge under every exterior wall, (2) #4 bottom. FROST-PROTECTED SHALLOW FOUNDATION (R403.3): Allegan AFI 2,000 (Table R403.3(2)) -> 14" min. depth, vertical R-5.6, no wing (Table R403.3(1)); 3" XPS = R-13.5. Casita must stay HEATED (64 F monthly mean). Not allowed under the unheated porch/shed: 3" XPS between the casita edge and the porch slab (R403.3.1.1); existing porch posts embedded 48" (Patrick); new P-1 to 42" frost. Moisture-test before FL-1.

2. Design soil bearing 1,500 psf - the lowest presumptive class in MRC Table R401.4.1 (clay/silt; sand would allow 2,000) - confirm on site. Concrete (Table R402.2, severe weathering): 2,500 psi min. footings/interior slab (3,000 specified); 4,000 psi air-entrained (5-7%) for porch and exterior slabs, landing, walk and stoop (C-102 note 5).

3. Roof reaction on F-1 ~730 plf (50 psf ground snow + 20 psf dead, 13'-3" tributary) - engineer to confirm F-1, B-1 and P-1. Rafters are designed per A-102 note 4.

4. CONCRETE CURB: 8" x 16" poured, 3,500 psi air-entrained, on the new thickened slab edge under every exterior wall, broken at the doors. #4 dowels @ 24" o.c. cast into the thickened edge, (2) #4 continuous, 1/2" anchor bolts cast in @ 6' o.c. and within 12" of ends (R403.1.6). Cold joint: roughened, cleaned, hydrophilic waterstop strip. 3" XPS (R-15) outside, continuous with the edge insulation (mass wall R-13 ci, Table N1102.1.1), damp-proofed below grade (R406.1). Above grade the XPS is CEMENT-BOARD FACED (factory-faced, or 1/2" cement board fastened through to the curb) against UV + impact; tan breathable coating. Keeps snow off the siding (R317.1 item 5, R404.1.6).

5. SLAB VAPOR RETARDER (R506.2.3), the ENTIRE slab - casita, porch, shed + wood store: 15 mil Class A (ASTM E1745, Stego Wrap 15 or eq.; code min. 6 mil). Over 4" compacted 21AA on the existing gravel (G-002 FV-8), directly under the concrete, no sand layer (ACI 302.1R). Seams lapped 6" + taped; pipes booted + taped. Down the haunch + inside face of the thickened edge. Grade: 6" fall in the first 10' (R401.3, C-102).

CASITA — 6051 OLD ALLEGAN RD

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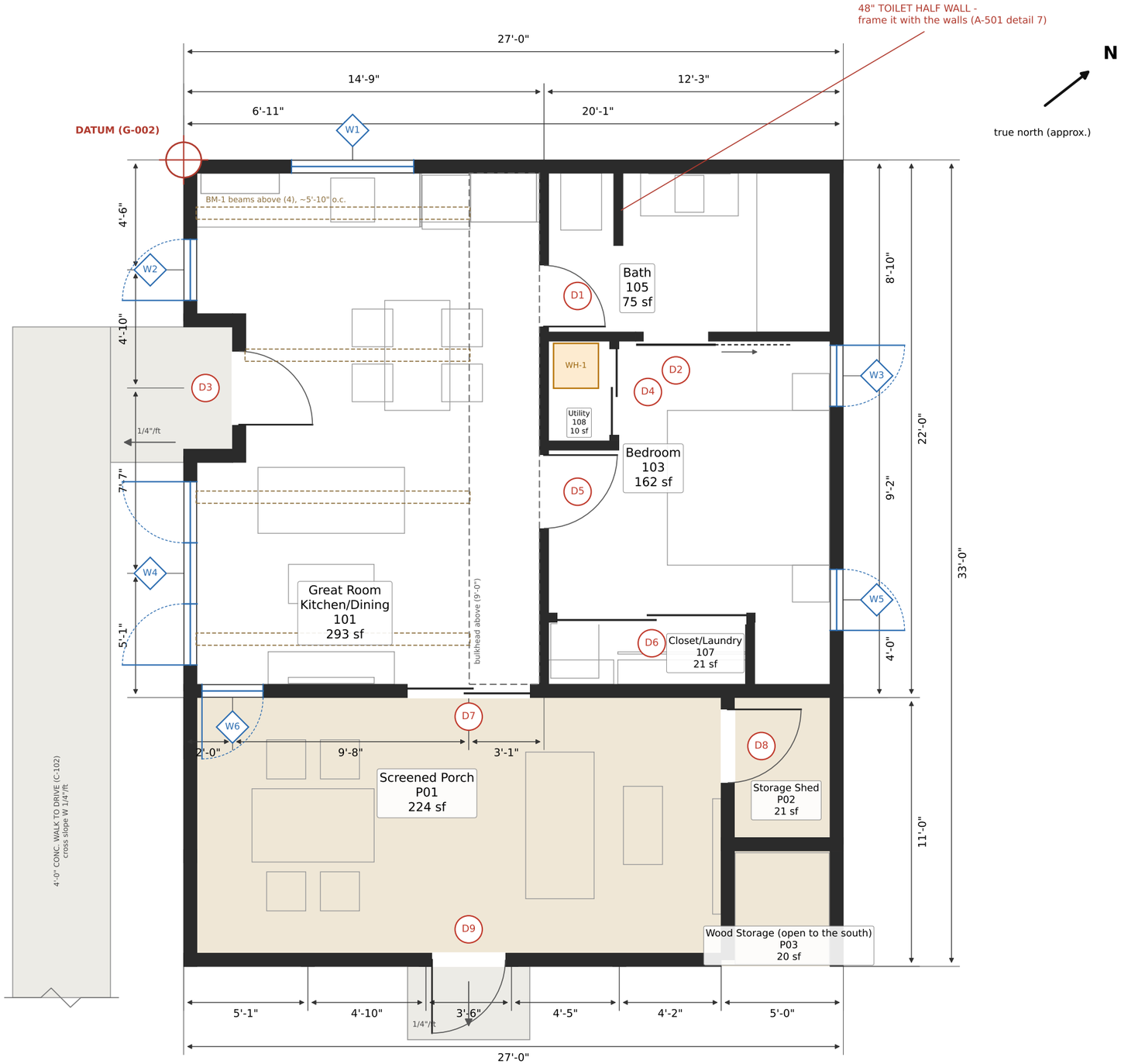
Rebuild of the existing garage as a 594 sf casita

FOUNDATION + SLAB PLAN

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

S-101



PLAN NOTES

1. Dimensions to outside face of exterior walls and to centrelines of partitions and openings; lay out from the DATUM (G-002).

2. Exterior walls 2x6 (6½" overall), interior 2x4 (4½") — verify existing.

3. Closet + laundry: stacked W/D on a drain pan with leak sensor; heat-pump dryer or vent through the south wall.

4. Bath: 2'-6" hinged door from the great room (swings in, ~22" clear of the WC per P2705.1), barn door on the bedroom side; zero-threshold walk-in shower; 48" centred vanity; toilet behind a 48" half wall; 6" tile base.

5. Porch: 3'-0" knee wall (16" concrete curb + framed, sided), screen panels above, 36" screen door on the slider axis; porch floor is a NEW 4" concrete slab (gravel today) on the 15 mil vapor retarder (S-101), smooth trowel under FL-3 woven vinyl, falling 1/8"/ft toward the screen door, concrete stoop outside it 1" lower, 1/4"/ft away (A-502/3 typ.).

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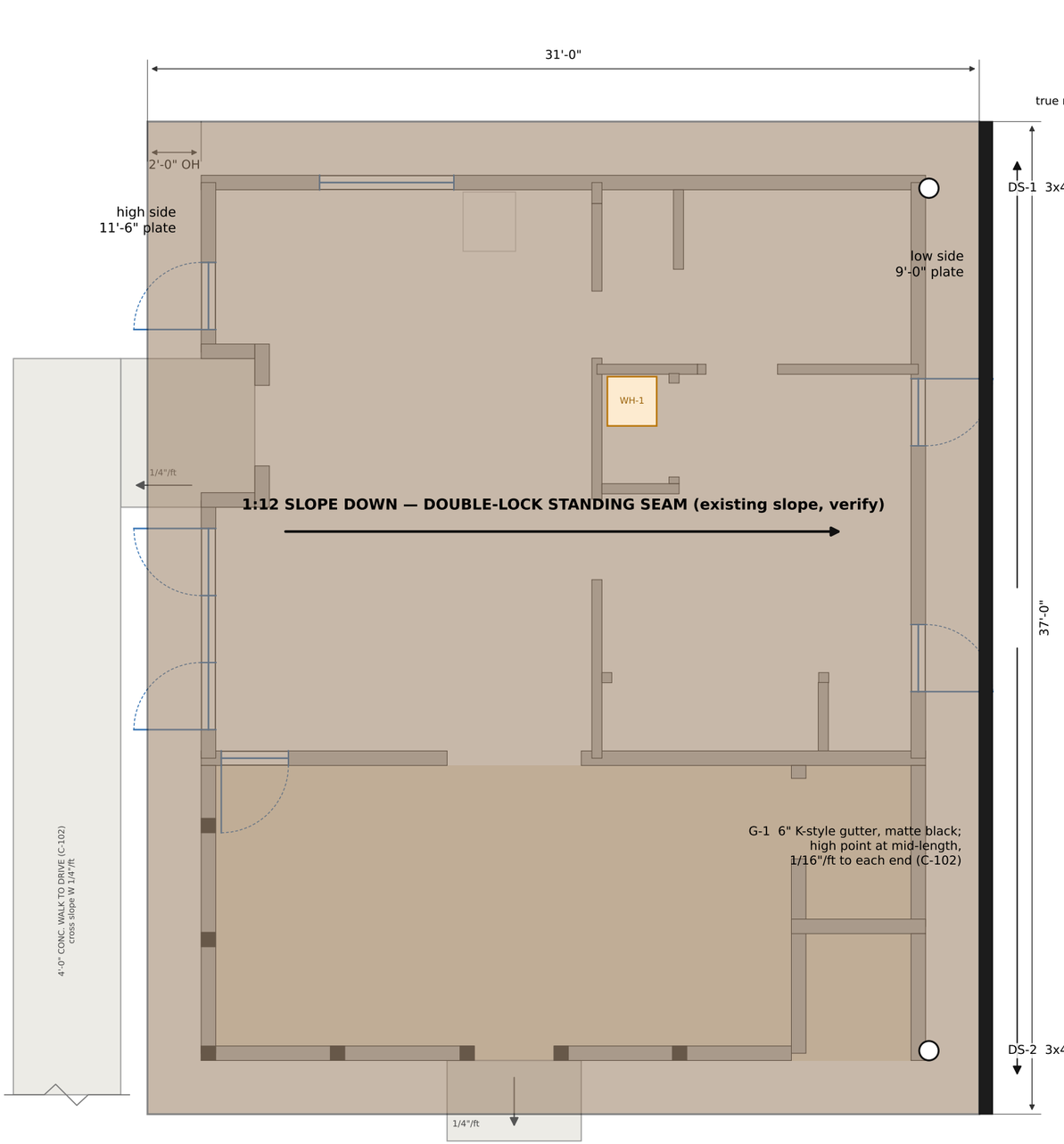
Rebuild of the existing garage as a 594 sf casita

FLOOR PLAN

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ____

A-101



ROOF NOTES

1. ROOFING: keep the existing 1:12 slope. Standing-seam metal, 2" MECHANICALLY DOUBLE-LOCK seam rated by the manufacturer for 1:12 or lower (e.g. 1/2:12 min.), 24 ga steel, AZ50 Galvalume or G90 base under the Kynar/PVDF matte black finish (ASTM A755 - MRC Table R905.10.3(2)), 16" panels, concealed clips; continuous single-length panels west to east (no end laps). 2015 MRC R905.10.2 item 3 allows standing seam to 1/4:12. BASIS OF DESIGN: PAC-CLAD Tite-Loc Plus 16" 24 ga Matte Black (min. slope 1/2:12) or approved equal - cut sheet A-103.

2. UNDERLAYMENT: high-temperature self-adhered ice-and-water membrane (ASTM D1970) over the ENTIRE roof, lapped per the manufacturer (MRC R905.10.5 / R905.1.1 Exc. 1). This goes beyond the code: R905.1.2 ice barriers do not cover metal panels, but the slope is low and Michigan winters are icy.

3. ASSEMBLY (unvented per MRC R806.5, CZ5): metal / HT underlayment / NAILBASE: Hunter H-Shield NB 4.0" (R-21.1) with a 5/8" PLYWOOD face (the panel clips need 5/8" of thread in wood - A-103/2) or 2 staggered layers of polyiso under 5/8" plywood, R-20 min. above the deck (Table R806.5; cut sheet A-104) / 5/8" plywood deck / R-19 in the 2x12 rafters (R-39 total, R-38 min. Table N1102.1.1; spray foam must be a Class II vapor retarder, item 4) / CL-1 painted drywall + BM-1 beams inside.

4. STRUCTURE (2015 MRC Ch. 8; 2021 IRC section in brackets): slope < 3:12, so members supporting rafters are designed as beams and there is no ridge board - R802.3 [R802.4.4]; rafters bear on the west wall, the spine wall (now bearing - thickened slab/footing) and the east wall, 1-1/2" min. - R802.6. Table R802.5.1(6) [R802.4.1(6)] (50 psf ground snow, ceiling attached, 20 psf dead): 2x12 #2 DF-L or SPF @ 16" o.c. = 16'-2" max, for the ~14'-6" west and ~12'-0" east spans; uplift per R802.11 / Table R802.11. Truss tables need 3:12+, so any trusses are engineered. Engineer verifies the existing framing.

5. EDGES + PENETRATIONS: matching drip edge and rake trim, eave cleat at the low (east) gutter; penetrations (plumbing vents, the 4" dryer and EF-1 bath fan roof caps - no water heater vent) high on the slope, centred in a pan (not through a seam), with metal-compatible high-temp boots + a diverter. Flashing min. 26 ga (0.019") at every wall/roof joint, with a kick-out wherever an eave meets a sidewall (MRC R903.2.1). Snow guards over the east entry/walk if snow slides.

6. Overhang and fascia dimensions are ASSUMED in the model — field verify.

7. Gutter G-1 on the low (east) eave, downspouts DS-1 / DS-2 piped to DW-1 - away from the slab and the conduit trench (spec on C-102).

8. AC-1 line set + condensate: up out of the spine wall and east inside one 2x12 rafter bay (the 1:12 slope gives the condensate its fall), out the east wall under the eave to CU-1 - no roof penetration.

9. Porch and shed/wood storage stay under the main roof (unconditioned).

SITE KEY

- Casita sits ~13 ft north of the pole barn (see C-101).
- Barn well ~20 ft from the casita: keep the water/septic/power trenches clear.
- Fiber conduits F1 (house) + F2 (barn) enter the great room's west corner by the porch (E-101).
- Drive + parking: the loop at the barn doors; no new driveway assumed.

CASITA — 6051 OLD ALLEGAN RD

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ROOF PLAN + SITE KEY

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Drawn by: D. Larimore Checked: ____

A-102

1 STANDING-SEAM PANEL: PAC-CLAD Tite-Loc Plus, 2" mechanical double-lock seam, 24 ga steel, 16" o.c., Matte Black (basis of design, or approved equal)

Petersen Aluminum Corp. product data sheet rev. 7/26, pac-clad.com (Elk Grove Village IL). Min. slope 1/2:12 per Petersen; casita roof is 1:12.

Tite-Loc Plus Panel

PAC-CLAD PETERSEN — A CARLISLE COMPANY

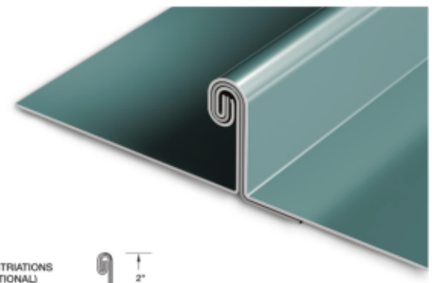
MATERIALS

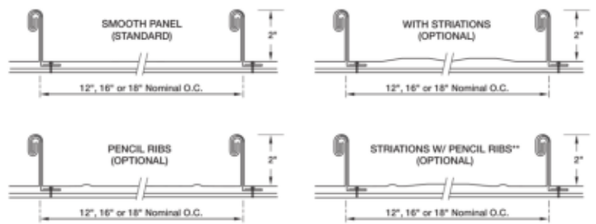
.032 aluminum*	24 gauge steel*
.040 aluminum*	22 gauge steel*

SPECS

12", 16" or 18" O.C.** 2" High

UL-90 · ICC ES





PRODUCT FEATURES

- Herr-Voss corrective leveled
- Pencil ribs and striations are only available by request
- 35-year non-prorated finish warranty
- Maximum panel length varies by facility. Consult rep for details.
- Weathertightness warranty available

MATERIAL

- 24 gauge steel
- 22 gauge steel
- .032 aluminum
- .040 aluminum
- Galvalume Plus available

UL CLASSIFICATION

- UL-580 Class 90 rated up to 18" O.C.
- UL-1897 wind uplift
- UL-790 Class A fire rated
- UL-263 fire resistance rated
- UL-2218 impact resistance rated

TESTS (TITE-LOC PLUS ONLY)

- 24 Gauge steel SSTD Missile Impact Tested - Passed
- .032 aluminum SSTD Missile Impact Tested - Passed

ASTM TESTS

- ASTM E1592 tested
- ASTM E331/1646 tested
- ASTM E283/1680 tested
- ASTM E2140 (Tite-Loc Plus only)

FLORIDA BUILDING & MIAMI-DADE PRODUCT APPROVALS

Please refer to pac-clad.com or your local factory for specific product approval numbers for Tite-Loc Plus.

*24 gauge and 22 gauge steel and .032 and .040 aluminum panels are UL-90 classified over solid substrate. See roof deck construction in Underwriters Laboratories roofing materials and systems directory. 24 gauge and 22 gauge Tite-Loc Plus panels are FM Approved in 12" and 16" widths over 16 gauge open purlins only.

** widths are nominal

*** Not available in all locations. Consult PAC rep for availability.

Not all panel conditions are available in each Petersen branch; additional freight charges might apply if specific panel condition is required. Tite-Loc and Tite-Loc Plus panels are supplied "smooth" as standard. Customer must advise if additional panel conditions are required.

PAC-CLAD® is a registered trademark of Petersen Aluminum Corporation. 7/26

PAC-CLAD.COM | 800 PAC CLAD

2 INSTALLATION OVER NAILBASE / POLYISO (Petersen detail, eff. 01-03-2023)

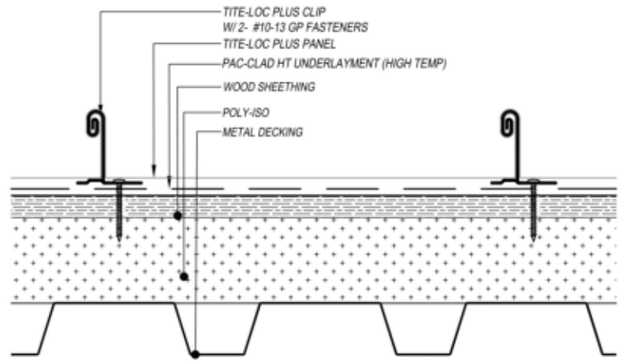
Shown on metal deck; the casita deck is 5/8" plywood on 2x12 rafters (A-102 note 3). Clips with (2) #10-13 fasteners; spacing per the Petersen load tables for 50 psf snow / local wind.

PAC-CLAD PETERSEN — A CARLISLE COMPANY

TITE-LOC PLUS - METAL DECK / ISO SUBSTRATE DETAILS

INSTALLATION - NAILBASE / ISO





SCALE: 4" = 1'-0"

0 1 2 3 4 5 6 in

EFFECTIVE DATE: 01-03-2023
SUBJECT TO CHANGE WITHOUT NOTICE

KEYNOTES:
- CLIP FASTENERS MUST PENETRATE WOOD SHEETHING SUBSTRATE BY 5/8" MINIMUM THREAD LENGTH
- FASTENER SPACING VARIES BASED ON PROJECT SPECIFIC LOADS AND/OR LOCAL BUILDING CODES

DISCLAIMER: DETAIL SHOWN FOR ILLUSTRATION PURPOSES ONLY. ACTUAL PROJECT DETAIL MAY VARY

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102 Northpoint Parkway, Acworth, GA 30102 — P: 800-272-4482 — F: 770-420-2533

1800 S. 7th Ave., Suite 130, Phoenix, AZ 85007 — P: 833-793-1935 — F: 602-254-6934

9817 233rd Ave. E., Suite A, Bonney Lake, WA 98391 — P: 253-501-2450 — F: N/A

ROOF MATERIAL NOTES

1. ROOF ASSEMBLY, outside in (A-102 note 3): Tite-Loc Plus panel / PAC-CLAD HT (high-temp self-adhered) underlayment over the ENTIRE roof / nailbase: Hunter H-Shield NB 4.0" (R-21.1 LTTR) with a 5/8" PLYWOOD face (A-104) / 5/8" plywood deck / 2x12 rafters @ 16" with R-19 batts / CL-1 painted drywall. R-39 total, R-38 min. for Michigan CZ5.

2. WHY 5/8" PLYWOOD on the nailbase: the Petersen keynote (detail 2) says clip fasteners must have 5/8" min. thread in the wood sheathing. The stock H-Shield NB face is 7/16" OSB, so order the off-line 5/8" plywood version (H-Shield NB data sheet, A-104).

3. PANELS: continuous single-length panels west to east, no end laps; 16" smooth (no striations) unless Darin approves pencil ribs for oil-canning; concealed clips; field-seamed with the Petersen mechanical seamer to the 180-degree double lock (required below 3:12).

4. SUBSTITUTIONS: any 2" mechanically seamed 24 ga panel with a published 1/2:12 (or lower) minimum slope, UL 580 Class 90, PVDF (Kynar 500) matte black, and the maker's HT underlayment + low-slope details - submit the cut sheet before ordering. Snap-lock and 1-1/2" or 1-3/4" nailed-flange panels are NOT acceptable on this slope.

5. SUPPLY: Petersen's Elk Grove Village IL plant is the nearest; confirm Matte Black availability in 24 ga from the PAC-CLAD colour availability chart with the order.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

ROOF MATERIAL CUT SHEETS: STANDING-SEAM PANEL + INSTALLATION

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

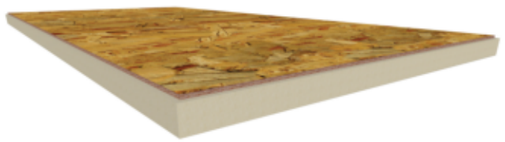
A-103

3 NAILBASE: Hunter Panels H-Shield NB, 4.0" nominal (R-21.1 LTTR), polyiso bonded to a 5/8" plywood face (basis of design, or approved equal)

Hunter Panels / Carlisle technical data sheet via pac-clad.com (related products). Page 1 of 2; page 2 is the Petersen address block.

H-SHIELD NB

Flat Polyisocyanurate Insulation
Manufactured On-Line to Oriented Strand Board



H-Shield NB
Manufactured by Hunter Panels

PRODUCT DESCRIPTION

H-Shield NB is a rigid roof insulation composite panel composed of a closed-cell polyisocyanurate foam core manufactured on-line to a fiber reinforced facer on one side and either 7/16" or 5/8" oriented strand board (OSB) on the other. H-Shield NB can also be manufactured off-line bonded to 5/8" or 3/4" plywood.

FEATURES AND BENEFITS

- Manufactured with NexGen Chemistry: Contains no CFCs, HFCs, HCFCs, is Zero ODP, EPA Compliant, and has virtually no GWP
- A superior combination of high insulating properties and a nailable surface
- Suitable for new construction and re-roofing on both commercial and residential projects
- Incorporates APA-TECO Rated Exposure 1 OSB and Plywood
- The edges of the wood panels are rabbeted to allow for expansion and contraction of the wood. The foam edges shall be installed tightly to achieve thermal integrity across the entire roof deck
- Available as a non-rabbeted panel upon special request
- Hail Rating: SH-1, VSH

PANEL CHARACTERISTICS

- Available in two grades of compressive strengths per ASTM C1289 Type V, Class 1 Grade 2 (20 psi) or Grade 3 (25 psi)
- Also available in ASTM C1289 Type V, Class 2 (H-Shield CG), Grade 2 (20 psi) or Grade 3 (25 psi)
- Available foam size is 47.5"x95.5" when manufactured on line in thicknesses of 1.5" (38mm) to 4.0" (102mm)
- Available in foam size is 48"x96" when manufactured off-line in thicknesses of 1.5" (38mm) to 4.0" (102mm)
- Multiple Substrate Types Available:

OSB:	Plywood:
· 7/16" or 5/8"	· 5/8" or 3/4" CDX
	· Fire-Treated

APPLICATIONS

- Standing seam metal roof systems

H-SHIELD NB THERMAL VALUES

THICKNESS† (INCHES)	(MM)	LTTR R-VALUE*	FLUTE SPANABILITY
1.5	38	6.3	4 3/8"
2.0	51	9.2	4 3/8"
2.5	64	12.0	4 3/8"
3.0	76	15.0	4 3/8"
3.5	89	18.0	4 3/8"
4.0	102	21.1	4 3/8"

*Long Term Thermal Resistance Values are based on ASTM C 1289.
†Thickness is calculated with 7/16" OSB. Also available in 5/8" OSB, 5/8" Ply and 3/4" Ply.

H-Shield NB is only manufactured in the sizes listed above and on the packaging and weight chart. R-values other than those listed can be achieved by installing a multi-layer system consisting of an additional layer of flat polyiso under H-Shield NB.

CODES AND COMPLIANCES

- ASTM C 1289 Type V, Grade 2 (20 psi) or Grade 3 (25 psi)
- International Building Code (IBC) Chapter 26
- State of Florida Product Approval Number FL 5968
- California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1420
- Miami Dade County Product Control Approved

UNDERWRITERS LABORATORIES INC. CLASSIFICATIONS

- UL 1256
- Insulated Steel Deck Construction Assemblies – No. 120, 123
- UL 790
- UL 263 Hourly Rated P Series Roof Assemblies

UL CLASSIFIED FOR USE IN CANADA

- Refer to UL Directory of Products Certified for Canada for details

FACTORY MUTUAL APPROVALS

- FM 4450, FM 4470
- Approved for Class 1 insulated steel deck constructions. Refer to FM Approval's RoofNav for details on specific systems

POTENTIAL LEED CREDITS FOR POLYISO USE

Energy and Atmosphere

- Optimize Energy Performance

Materials and Resources

- Building Life-Cycle Impact Reduction
- Environment Product Declaration
- Material Reuse
- Recycled Content
- Construction and Demolition Waste Management

Indoor Environmental Quality

- Thermal Comfort

NAILBASE NOTES

1. THICKNESS: 4.0" nominal = R-21.1 LTTR (table at right of the sheet), which meets the R-20 above-deck minimum of 2015 MRC Table R806.5 (CZ5, unvented) on its own. Thickness in the table is figured with the 7/16" OSB face; with 5/8" plywood the panel is ~3/16" thicker - hold that in the fascia + edge blocking.

2. FACE: order the OFF-LINE 5/8" plywood face (see 'Multiple Substrate Types Available'). The Tite-Loc Plus clips need 5/8" of thread in wood (A-103 detail 2); 7/16" OSB does not give that.

3. FASTENING: Hunter SIP fasteners through the panel into the 5/8" plywood deck + 2x12 rafters, pattern per the Hunter installation guide for the field, perimeter and corners (50 psf snow, uplift per MRC R802.11). Stagger panel joints; tape the facer joints; 1/4" gap at the perimeter filled with spray foam.

4. EDGES: PT or kiln-dried blocking the same thickness as the nailbase at the eaves (east), rake (north + south) and the high (west) edge, so the drip edge, rake trim and gutter cleat have solid nailing (Hunter install guide).

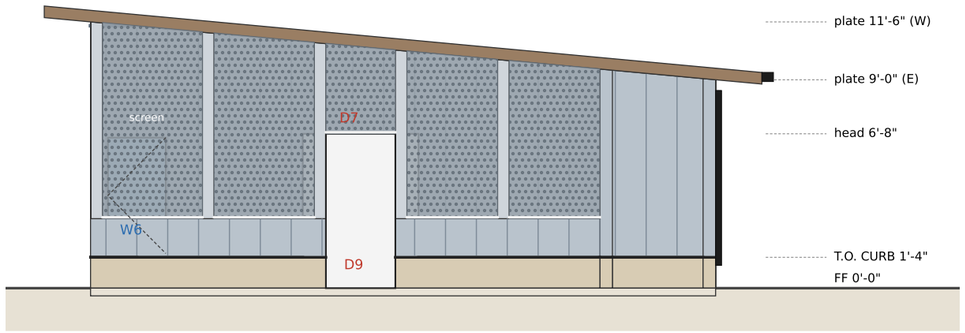
5. VAPOR: H-Shield NB's water vapor transmission is under 1 perm (data sheet), so the polyiso itself is the Class II vapor retarder that 2015 MRC R806.5 item 4 requires on air-impermeable insulation in CZ5; the HT underlayment over the plywood face is the air barrier. The R-19 batts below need nothing beyond kraft facing + drywall (R806.5 item 5.2).

6. ALTERNATE (same R): two staggered layers of 2" flat polyiso (Hunter H-Shield, R-11.4 each) under a separate 5/8" plywood nailer deck screwed through to the rafters. More labour; the composite nailbase is preferred.

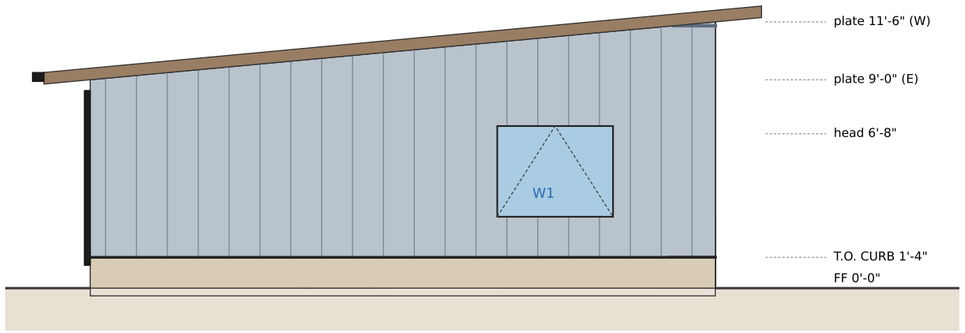
CASITA — 6051 OLD ALLEGAN RD
Saugatuck MI · parcel 20-012-021-10
Rebuild of the existing garage as a 594 sf casita
ROOF MATERIAL CUT SHEET: NAILBASE INSULATION
From old-allegan-site.ifc · Nov 10, 2026
Drawn by: D. Larimore Checked: ___

A-104

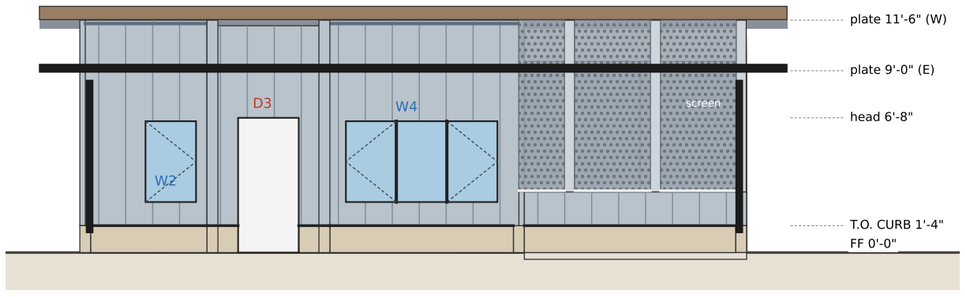
SOUTH (model) — porch side · faces SE (true)



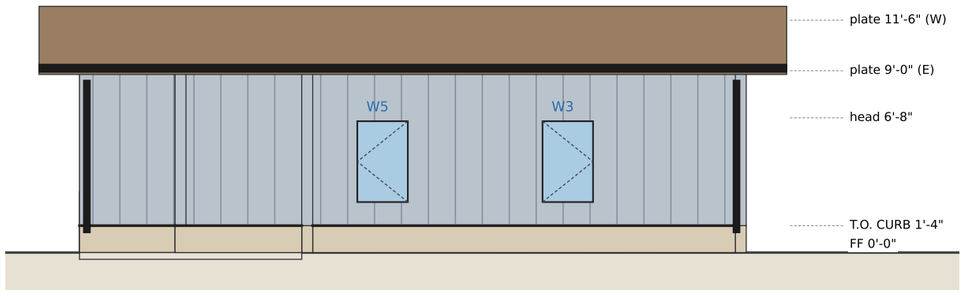
NORTH (model) — kitchen side · faces NW (true)



WEST (model) — entry side, high eave · faces SW (true)



EAST (model) — bedroom side, low eave · faces NE (true)



Base: 8" x 16" POURED CONCRETE CURB (16" above the slab) around the whole perimeter - keeps snow and splash off the siding (MRC R317.1 item 5, R404.1.6); insulated outside, cement-board-faced foam coated tan to match the garage block, white water-table cap flashing. Siding: fiber-cement board-and-batten to match the main house (slate blue, white 1x4 window casing + corner boards) - 4' vertical panels (James Hardie HardiePanel or equal) with VERTICAL fiber-cement battens over every panel joint and at 16" o.c., starting 1" above the water-table cap. Roof: matte black double-lock standing-seam metal on the existing 1:12 slope. Windows: white aluminum-clad wood, modern single-lite (no grilles); W4 (living, west) is a 3-panel mulled unit, casement | fixed | casement; dashed lines meet at the hinge jamb (hand to confirm); tags per A-601. Elevations are projections of the model; grade shown flat (verify).

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

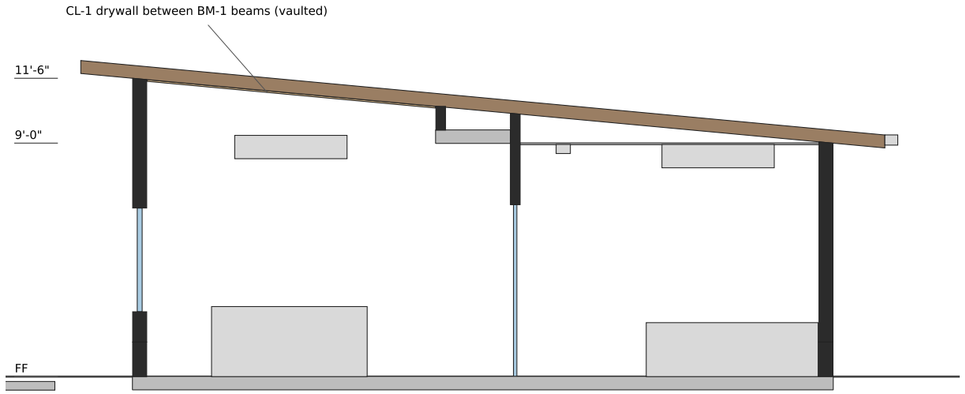
EXTERIOR ELEVATIONS

From old-allegan-site.ifc · Nov 10, 2026

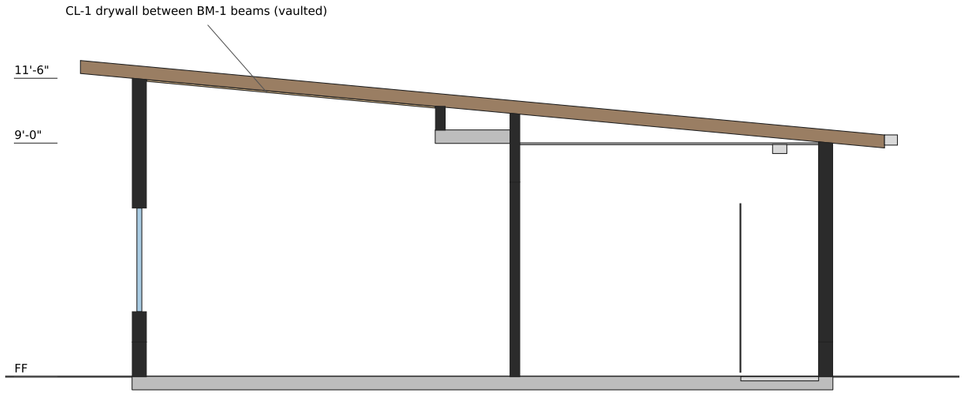
Drawn by: D. Larimore Checked: ____

A-201

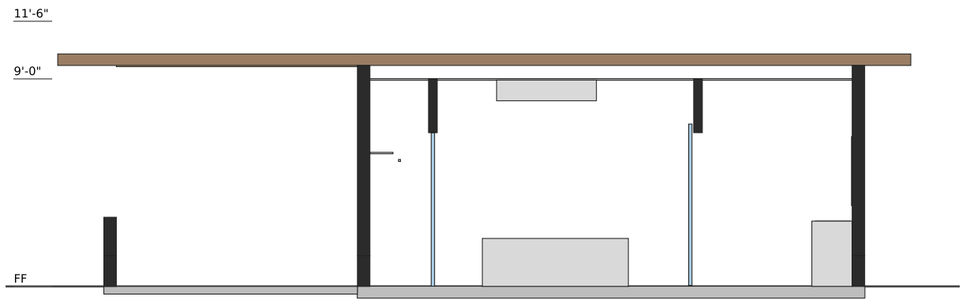
SECTION A — east-west through great room + bedroom (cut 8'-2" north of the south wall)



SECTION B — east-west through kitchen + bath



SECTION C — north-south through bedroom + bath



SECTION D — north-south through great room + porch



Insulation/assemblies (typ., verify): walls 2x6 R-21 kraft-faced + 7/16" OSB (CS-WSP bracing) + air sealing; roof R-39 hybrid: R-20+ polyiso + nailbase above the deck under the standing seam + R-19 in the rafters (unvented); slab edge + curb 3" XPS R-15 down the 24" thickened edge; bath walls moisture-resistant board, tile backer at shower.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

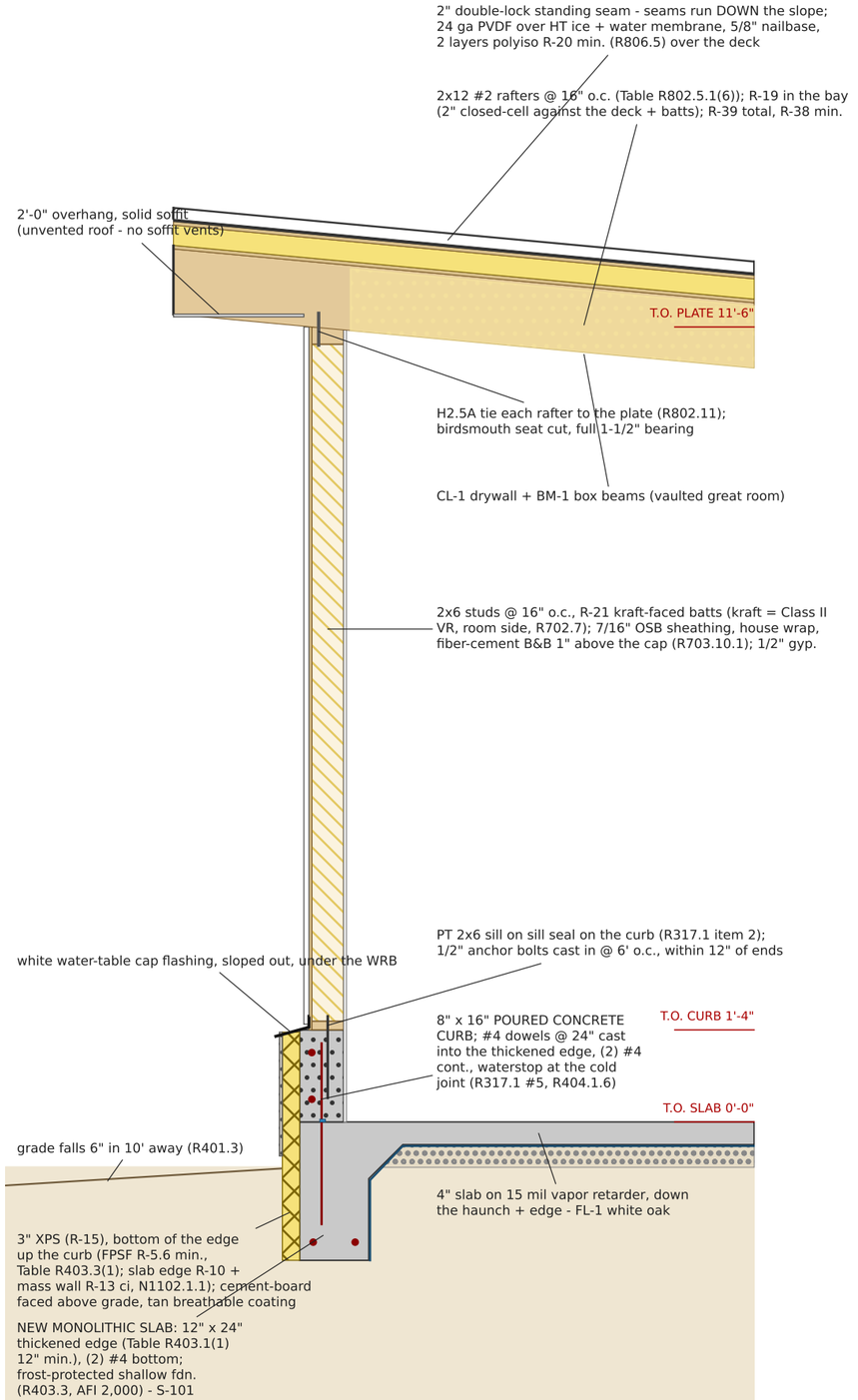
Rebuild of the existing garage as a 594 sf casita

BUILDING SECTIONS

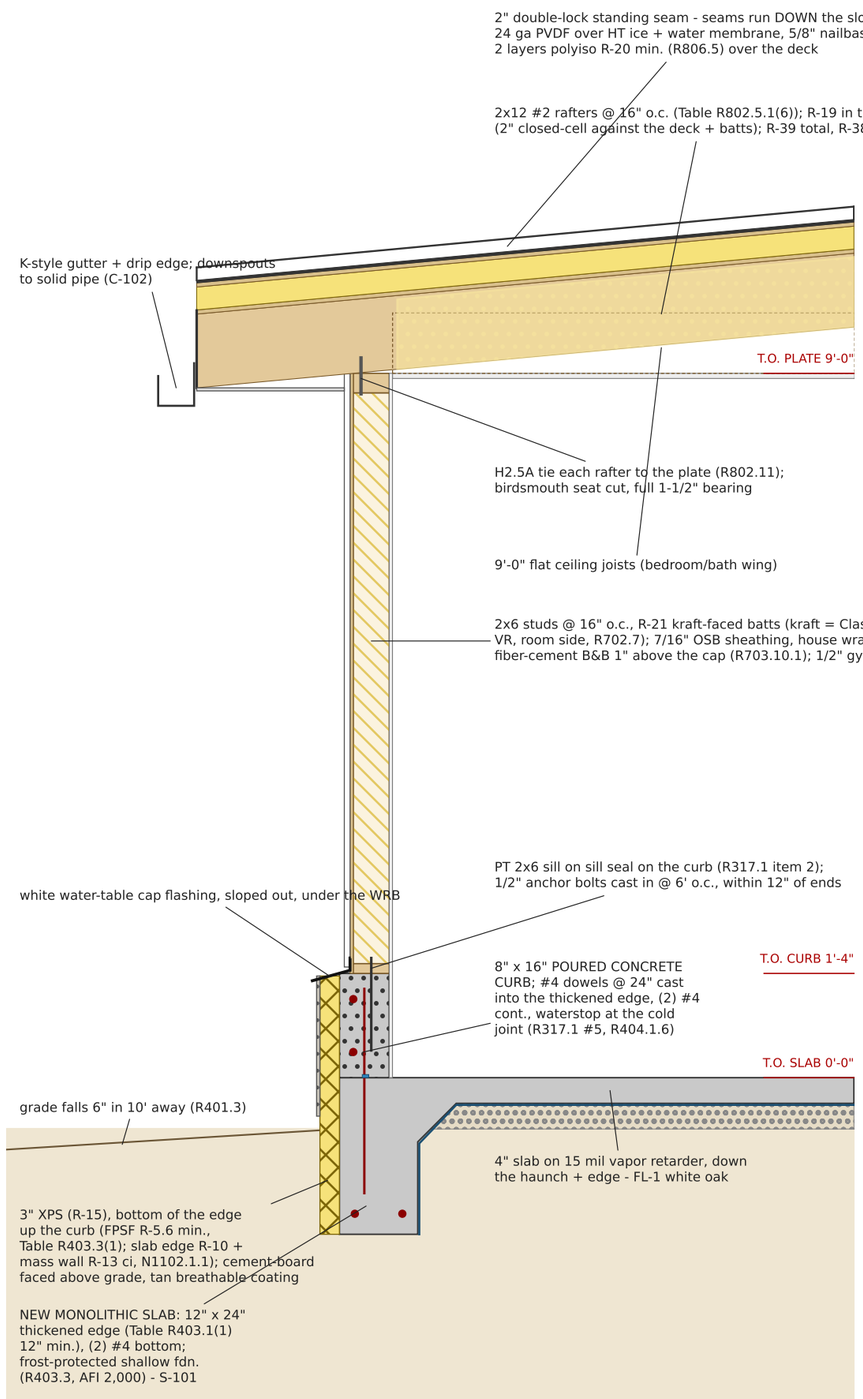
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A-301



1 WALL SECTION - WEST (HIGH) WALL, looking north (1/2" = 1'-0" approx.)



2 WALL SECTION - EAST (LOW) WALL, mirrored (exterior on the left)

WALL SECTION NOTES

1. Michigan-amended 2015 MRC Table N1102.1.1, Allegan Co. = Climate Zone 5A: ceiling R-38 (this roof: R-20 above the deck + R-19 in the bay = R-39), wood-frame walls R-20 or R-13 + R-5 ci (R-21 batts specified), slab edge R-10 for 2 ft (R-15 if the slab is heated), windows U-0.32 max.

2. Roof is UNVENTED (R806.5): R-20 min. rigid above the deck, no soffit or ridge vents, air-impermeable insulation in contact with the deck underside.

3. Existing garage walls may be 2x4: if so, fur to 2x6 or add 1" rigid exterior insulation to reach R-20 equivalent.

4. Air-seal the sill, top plates, rim and every penetration; blower-door test at 4 ACH50 max. (N1102.4.1.2); post the energy certificate on the panel (MRC N1101.16).

5. Flash windows and doors per A-502 detail 1 and R703.4 (pan flashing at sills; AAMA 711 self-adhered tapes); WRB per R703.2; kick-out where a roof meets a wall.

6. SIDING to match the main house: fiber-cement board-and-batten - ASTM C1186 Grade II panels (James Hardie HardiePanel smooth or Sierra 8, or equal) installed vertically over the WRB, every vertical joint on a stud and covered by a VERTICAL 1x3 fiber-cement batten (R703.10.1); intermediate vertical battens at 16" o.c. to match the house spacing. Fasten per the maker / Table R703.3(1). Taller walls (west, 11'-6" plate) need a horizontal joint: Z-flashing over a trim band. The siding starts 1" above the white water-table cap on the concrete curb (16" above the slab, 12"+ above grade), 2" above roof lines; paint slate blue to match the house.

7. CONCRETE CURB (10/11 - poured instead of the CMU knee wall): 8" x 16" poured concrete on the new thickened slab edge all around the casita, porch knee walls and shed, broken at the entry, slider, screen and shed doors; doweled + reinforced per S-101. One solid pour has no mortar joints or hollow cores for snow-melt to work into. Keeps drifting snow and splash-back off the fiber-cement and framing (MRC R317.1 item 5: 6" min. to grade; R404.1.6). As an above-grade mass wall it needs R-13 ci outside (Table N1102.1.1): 3" XPS continuous with the slab-edge insulation, cement-board faced above grade and coated tan to match the garage block, sloped white cap flashing on top.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

WALL SECTIONS

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ____

A-302

DOOR SCHEDULE

Tag	Door	Room	Width	Height	Type	Int/Ext	Hardware / energy	In wall
D1	Bath door 2'-6 HINGED	Bath 105	2'-6"	6'-8"	interior swing, solid-core WO slab	interior	privacy lockset	Spine infill - bath (closes the former bunk-alcove opening)
D2	Bedroom BARN door 3'-2 x 7'-0 slab	Bath 105	3'-2"	7'-0"	barn slider, surface-mounted	interior	no lock (per Mike)	Bath - south (ensuite)
D3	Entry door 3'-0	Great room 101	3'-0"	6'-8"	ext. swing, insulated, w/ deadbolt	exterior	U ≤ 0.30, weatherstripped	Ext - West, recessed entry wall
D4	Utility closet BYPASS SLIDING door	Utility 108	3'-6"	6'-8"	bypass slider, 2 panels	interior	—	Utility closet - east
D5	Bedroom entry door 3'-0 HINGED	Bedroom 103	3'-0"	6'-7 1/2"	interior swing, solid-core WO slab	interior	—	Spine wall (to roof)
D6	Closet BYPASS SLIDING door 8'-0	Closet 107	7'-8 1/2"	6'-8"	bypass slider, 2 panels	interior	—	Closet - north (closet + laundry, south wall of the bedroom)
D7	Slider 5'-0 x 6'-8 to porch	Porch P01	5'-0"	6'-8"	patio slider (OX), insulated glass	exterior	U ≤ 0.30, weatherstripped	Ext - South
D8	Shed door 36"	Shed P02	3'-0"	6'-8"	ext. swing, solid	exterior	—	Shed - west
D9	Porch screen door - south	Porch P01	3'-0"	6'-8"	screen door, self-closing	exterior	—	Porch knee wall - south

WINDOW SCHEDULE

Tag	Window	Room	Width	Height	Sill AFF	Head AFF	Type	Energy	Code note
W1	Kitchen window N	Great room 101	5'-0"	3'-11"	3'-1"	7'-0"	awning + screen	U ≤ 0.30	—
W2	Dining window W	Great room 101	2'-6"	4'-0"	2'-6"	6'-6"	casement + screen	U ≤ 0.30	—
W3	Bedroom window E-2	Bedroom 103	2'-6"	4'-0"	2'-6"	6'-6"	casement + screen	U ≤ 0.30	—
W4	Living window W	Great room 101	7'-6"	4'-0"	2'-6"	6'-6"	3-panel: csmt|fixed|csmt	U ≤ 0.30	—
W5	Bedroom window E (egress)	Bedroom 103	2'-6"	4'-0"	2'-6"	6'-6"	casement + screen	U ≤ 0.30	EGRESS R310.2: ≥5.7 sf, ≥20x24", sill 2'-6" ✓; screen per R310.4
W6	Great room window S	Great room 101	2'-6"	5'-0"	1'-6"	6'-6"	casement + screen	U ≤ 0.30	tempered: 18" sill is the R308.4.3 limit (recommended)

ALL WINDOWS: aluminum-clad wood, modern single-lite - no grilles or SDLs. One sash or one fixed lite per opening, except W4: a factory-mulled 3-panel unit, each panel 30" x 48" like W5/W3, outer panels casements, centre fixed (narrow white mull, no visible grilles). W1 is an awning (top-hinged, cranks out) over the sink, for ventilation (Darin 11/10). Exterior clad white to match the trim (Darin 11/10); interior white oak (or a species stained to match the WO millwork), natural finish. Low-E, U ≤ 0.30 (code max. 0.32, Table N1102.1.1). Basis of design: Marvin Ultimate, Andersen E-Series or Pella Reserve Contemporary, or equal. SCREENS: every operable (casement or awning) window gets the maker's interior insect screen - black aluminum frame, fiberglass mesh (or a retractable screen where offered); none on the fixed centre panel of W4. The W5 egress screen must release from inside without keys, tools or extra force (MRC R310.4).

Sizes are rough-opening-class nominal sizes from the model; confirm unit sizes with the supplier and adjust ROs. Second bedroom window W3 (E-2) is not required for egress. STANDARD UNITS (Darin 11/10, basis Pella Lifestyle): W2, W3, W5 = 2947 casement (frame 29" x 47", RO 29-3/4" x 47-3/4"); W4 = three 2947 factory-mulled, casement | fixed | casement (frame 87" x 47"); W6 = 2959 casement, tempered; W1 = 5947 awning vent (frame 59" x 47"). W5: side-pivot egress hardware. D7 = 6080 sliding door, OX (frame 59-1/4" x 79-1/2", RO 60" x 80"). No special sizes.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

DOOR + WINDOW SCHEDULES

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

A-601

ROOM FINISH SCHEDULE (finishes are PROPOSED defaults — owner to select)

No.	Room	Area sf	Size (approx.)	Floor	Walls	Ceiling	Notes
101	Great Room / Kitchen / Dining	293	14'-0" x 20'-11"	FL-1 eng. white oak	painted 1/2" gyp.	CL-1 painted gyp., vaulted, BM-1 WO box ... [1]	conditioned
103	Bedroom	162	11'-6" x 14'-1"	FL-1 eng. white oak	painted gyp.	9'-0" flat	egress window W5
105	Bath (ensuite, doors to the bedroom + great room)	75	11'-6" x 6'-6"	T-1 / T-2, zero threshold	MR gyp., 6" tile base, tile at shower	9'-0" flat, MR gyp.	2 doors; exhaust fan to ext.
107	Closet + Laundry	21	8'-3" x 2'-7"	FL-1 eng. white oak	painted gyp.	9'-0" flat	W/D + shelf + rod
108	Utility (WH-1 + panel SP-1)	10	2'-6" x 4'-1"	T-1 porcelain	painted gyp.	9'-0" flat	WH-1 50 gal tank on pan
P01	Screened Porch (unconditioned)	224	21'-6" x 10'-5"	FL-3 woven vinyl on ... [2]	screen panels on knee wall	CL-2 cedar T&G, sloped 1:12	unconditioned
P02	Storage Shed (unconditioned)	21	3'-11" x 5'-5"	existing	unfinished / OSB	open	unconditioned
P03	Wood Storage (open to the south)	20	4'-5" x 4'-6"	existing	open to south	open	firewood
	Conditioned net total (room boxes)	561					

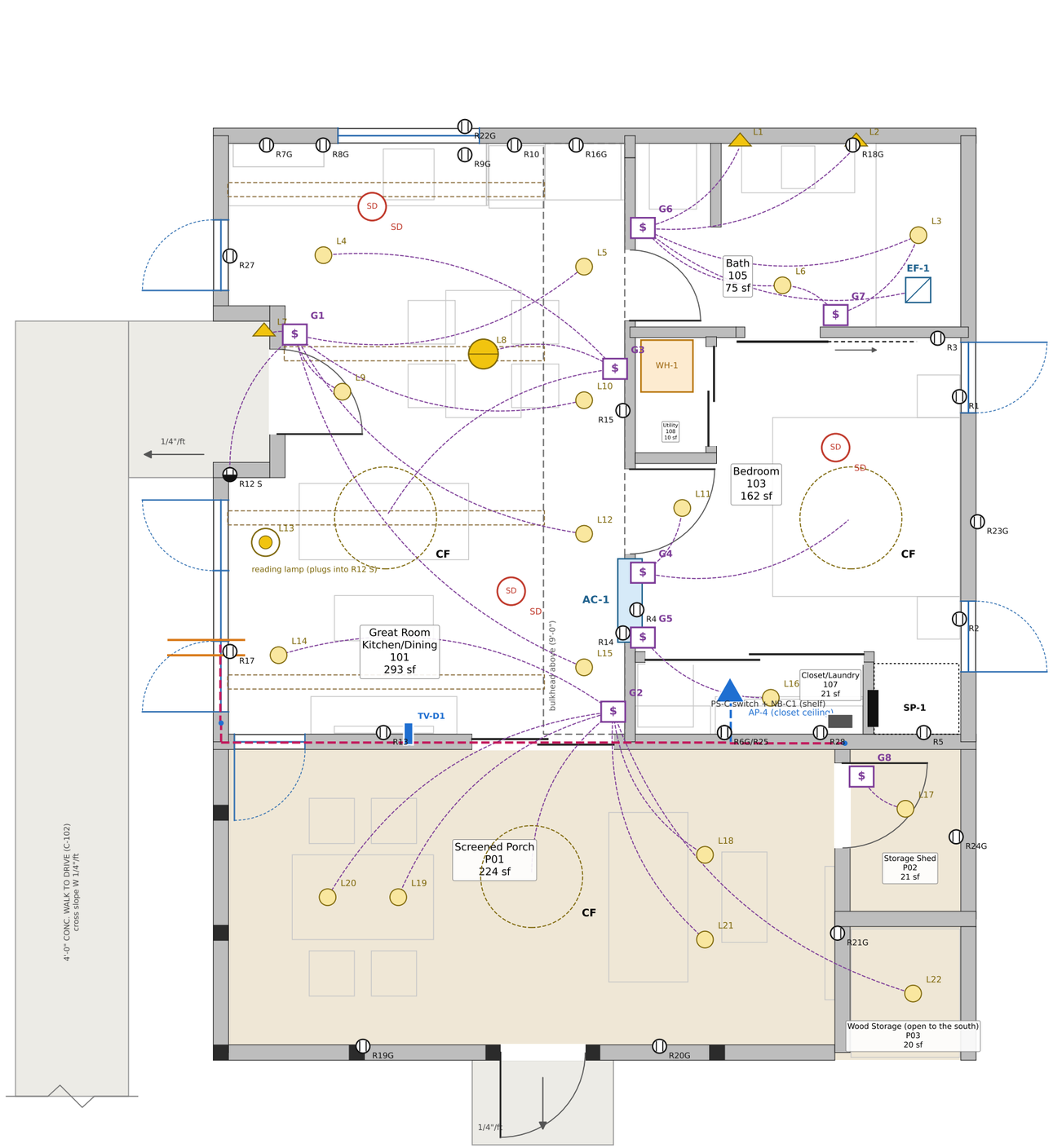
[1] CL-1 painted gyp., vaulted, BM-1 WO box beams; bulkhead painted gyp.
[2] FL-3 woven vinyl on new 4" conc.

Room areas are measured from the model's room boxes (inside faces) and overlap slightly where a room is irregular (bedroom/closet).

CASITA — 6051 OLD ALLEGAN RD
Saugatuck MI · parcel 20-012-021-10
Rebuild of the existing garage as a 594 sf casita
ROOM FINISH SCHEDULE

From old-allegan-site.ifc · Nov 10, 2026
Drawn by: D. Larimore Checked: ___

A-602



LEGEND

- Can light (L#)
- Sconce
- Chandelier
- Ceiling fan w/ light (CF)
- Two-way heat pump unit (AC-1)
- Wi-Fi AP-4 (PoE)
- Subpanel SP-1 (dashed = clear space)
- Duplex receptacle R# (G = GFCI, WR)
- Half-switched duplex (S) - lamp outlet
- PoE switch PS-C on the closet shelf (NB-C1 box behind)
- Data jack (TV-D1 TV box; AP-4 box on the closet ceiling)
- Conduit (ends at wall)
- Fiber F1 (house) + F2 (barn)
- Indoor Cat6 C1/C2
- Smoke alarm SD - hardwired, interconnected, battery backup
- $ Switch group G# (Decora, 46" AFF)
- Switch leg

SWITCH SCHEDULE

Group	Location	Controls (S switch, SD dimmer, SD3 3-way dimmer, SF fan/light)
G1	Entry, latch side	SD3 great-room cans (w/ G2); SD entry sconce; S R12 lamp half
G2	Spine wall, right of the slider	SD3 GR cans; SD living flush; SF porch fan; SD 4 porch spots; S wood can
G3	Spine wall, dining	SD chandelier; SD kitchen flush; SF great-room fan
G4	Bedroom door, latch side	SF bedroom fan/light; SD bedroom can
G5	Bedroom, by the closet	S closet + laundry can
G6	Bath, at the great-room door	SD vanity sconces; SD3 bath cans (w/ G7); S exhaust fan
G7	Bath, right of the barn door	SD3 bath cans (w/ G6)
G8	Shed, inside the door	S shed can

ELECTRICAL NOTES

1. SP-1 (E-601) recessed in the closet's east wall, facing the bedroom's SE corner - opens to the bedroom, not the closet (NEC 240.24(D)); closet wall set 2" west for the 36" clear depth (110.26). Main breaker = disconnect; 4-wire feeder sized by load calc; N + G not bonded; 2 ground rods.

2. Receptacles R1-R28 (per Mike, 10/7; R6 washer 20 A + R25 dryer 14-30R beside the W/D): both nightstands, kitchen counters (GFCI, 42" AFF, no point > 24" from one), lamp corner right of the entry (half switched), porch GFCI WR w/ in-use covers, front/back exterior (210.52(E)), CU-1 service outlet (210.63). 12 ft rule elsewhere; AFCI + tamper-resistant; 12" AFF unless noted.

3. Switching per the schedule above: Decora paddles + dimmers, screwless white plates, 46" AFF to box bottom; all lights dimmed except closet/shed/wood store (E-601).

4. Smoke alarms interconnected. All-electric, no attached garage: CO alarm not required (R315) but recommended.

5. Low voltage: F1 (house) + F2 (barn) fiber sleeves in the west corner; fiber along the top plates to NB-C1 (2-gang brush plate, 6'-3" AFF) over the closet shelf, switch PS-C on the shelf (R28). C1 Cat6 to the data box behind AP-4; C2 to TV-D1. No surge protection on fiber.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

LIGHTING, POWER + LOW-VOLTAGE PLAN

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

E-101

LIGHTING FIXTURE SCHEDULE

Tag	Fixture	Room	Type	Mount	Rating	Lamp / notes
L1	Sconce - flanking the mirror W (5'-0" AFF)	105	wall sconce	4'-11" AFF ctr	dry	LED, dimmable
L2	Sconce - flanking the mirror E (5'-0" AFF)	105	wall sconce	4'-11" AFF ctr	dry	LED, dimmable
L3	Can light - bath / shower (wet-rated)	105	A - 4" recessed can	ceiling	wet-location	LED, dimmable
L4	Can light - great room (kitchen) - centred on the W2 window	101	B - LED flushmount	ceiling	dry	integrated LED, dim.
L5	Can light - great room bulkhead (4 of 4)	101	A - 4" recessed can	ceiling	dry	LED, dimmable
L6	Can light - bath (centre)	105	A - 4" recessed can	ceiling	damp (bath)	LED, dimmable
L7	Sconce - entry (exterior)	101	wall sconce	5'-6" AFF ctr	wet-location	LED, dimmable
L8	Chandelier - over dining	101	chandelier/pendant	5'-6" AFF bottom	dry	LED, dimmable
L9	Can light - great room entry	101	B - LED flushmount	ceiling	dry	integrated LED, dim.
L10	Can light - great room bulkhead (3 of 4)	101	A - 4" recessed can	ceiling	dry	LED, dimmable
L11	Can light - bedroom (entry alcove)	103	A - 4" recessed can	ceiling	dry	LED, dimmable
L12	Can light - great room bulkhead (2 of 4)	101	A - 4" recessed can	ceiling	dry	LED, dimmable
L13	Reading lamp - floor lamp beside the W lounge chair	101	floor reading lamp (plug-in)	floor	dry	on R12 switched half (G1)
L14	Can light - living room W (by the TV wall), dimmable	101	B - LED flushmount	ceiling	dry	integrated LED, dim.
L15	Can light - great room bulkhead (1 of 4)	101	A - 4" recessed can	ceiling	dry	LED, dimmable
L16	Can light - closet + laundry	107	A - 4" recessed can	ceiling	dry	LED, dimmable
L17	Can light - shed	P02	A - 4" recessed can	ceiling	dry	LED, dimmable
L18	Can light - porch lounge N	P01	C - porch spot	ceiling	damp (porch)	integrated LED, dim.
L19	Can light - porch table E	P01	C - porch spot	ceiling	damp (porch)	integrated LED, dim.
L20	Can light - porch table W	P01	C - porch spot	ceiling	damp (porch)	integrated LED, dim.
L21	Can light - porch lounge S	P01	C - porch spot	ceiling	damp (porch)	integrated LED, dim.
L22	Can light - wood storage (wet-rated)	P03	A - 4" recessed can	ceiling	wet-location	LED, dimmable
CF	Ceiling fan w/ light - great room	101	ceiling fan w/ LED light kit	ceiling	dry	fan-rated box
CF	Ceiling fan w/ light - bedroom	103	ceiling fan w/ LED light kit	ceiling	dry	fan-rated box
CF	Ceiling fan w/ light - porch	P01	ceiling fan w/ LED light kit	ceiling	wet-rated	fan-rated box

TYPE A: 4" recessed LED can - new-construction housing + dimmable LED module/trim, IC-rated, 2700-3000 K; wet-rated trim in the shower + wood store, damp in the bath - flat ceilings (bulkhead, bedroom, bath, closet, shed, wood store). TYPE B: Maxim Diverse 6" LED flush mount 57413WTWT, white, 6" x 1.25", 800 lm, 11 W, 3000 K, TRIAC/ELV dimmable, wet-rated, mounts on a 4" box fixed to the rafters, parallel to the 1:12 vault (4.8 deg). Great room vault. TYPE C: WAC Lighting Solo monopoint TK-180501-30-BK, black, 8 W integrated LED (no lamp to buy), 800 lm, 3000 K, CRI 90, ELV/TRIAC dims 100-5%, damp-rated (ETL); head aimed straight down. Screened porch: 2 over the table, 2 over the lounge.
DIMMING: every lighting leg on a dimmer except the closet, shed + wood-store cans; 3-way pairs (G1/G2, G6/G7) = dimmer at one end + Decora 3-way at the other. Every fixture, can module and lamp dimmable LED - check the dimmer's compatibility list.

WIRING DEVICES - DECORA STYLE

Device	Product (or equal)	Finish	Notes
Switches	Leviton Decora Edge or Lutron Claro paddle, 15 A, single-pole / 3-way	white	46" AFF to box bottom
Dimmers	Lutron Diva LED+ DVCL-153P (single-pole + 3-way) or eq.; smart option Lutron Caseta	white	all lights except closet, shed, wood store
Fan + light	Lutron Diva fan/light or Leviton Decora fan-speed + dimmer	white	bedroom, great room, porch fans
Bath fan	Decora on/off paddle switch	white	EF-1
Receptacles	Decora tamper-resistant 15/20 A; GFCI/AFCI Decora-face where required	white	12" AFF, 42" at counters
Wall plates	Screwless Decora plates (e.g. Leviton 80301-SW), multi-gang as needed	white	match the data wall plates

MECHANICAL / ELECTRICAL EQUIPMENT

Tag	Item	Spec	Notes
AC-1	Two-way heat pump unit, spine wall	heat + cool, single-zone, Manual J/S	top ~8'-4" AFF, grilles both rooms
CU-1	Outdoor unit (east/low side; place on site)	pad, east/low side	disconnect in sight
EF-1	Bath exhaust fan, shower ceiling	Panasonic FV-0511VQ1, 80 cfm	GFCI; switch; 4" duct to roof cap
WH-1	Electric tank WH, 50 gal (utility 108)	A.O. Smith / Rheem 4500 W or eq.	240 V 30 A 2-pole, 10 AWG; no vent
SP-1	Subpanel 100 A main breaker, 24-space (closet E wall)	Square D QO124M100FTRB or eq.	recessed; 36" clear space; ground rods

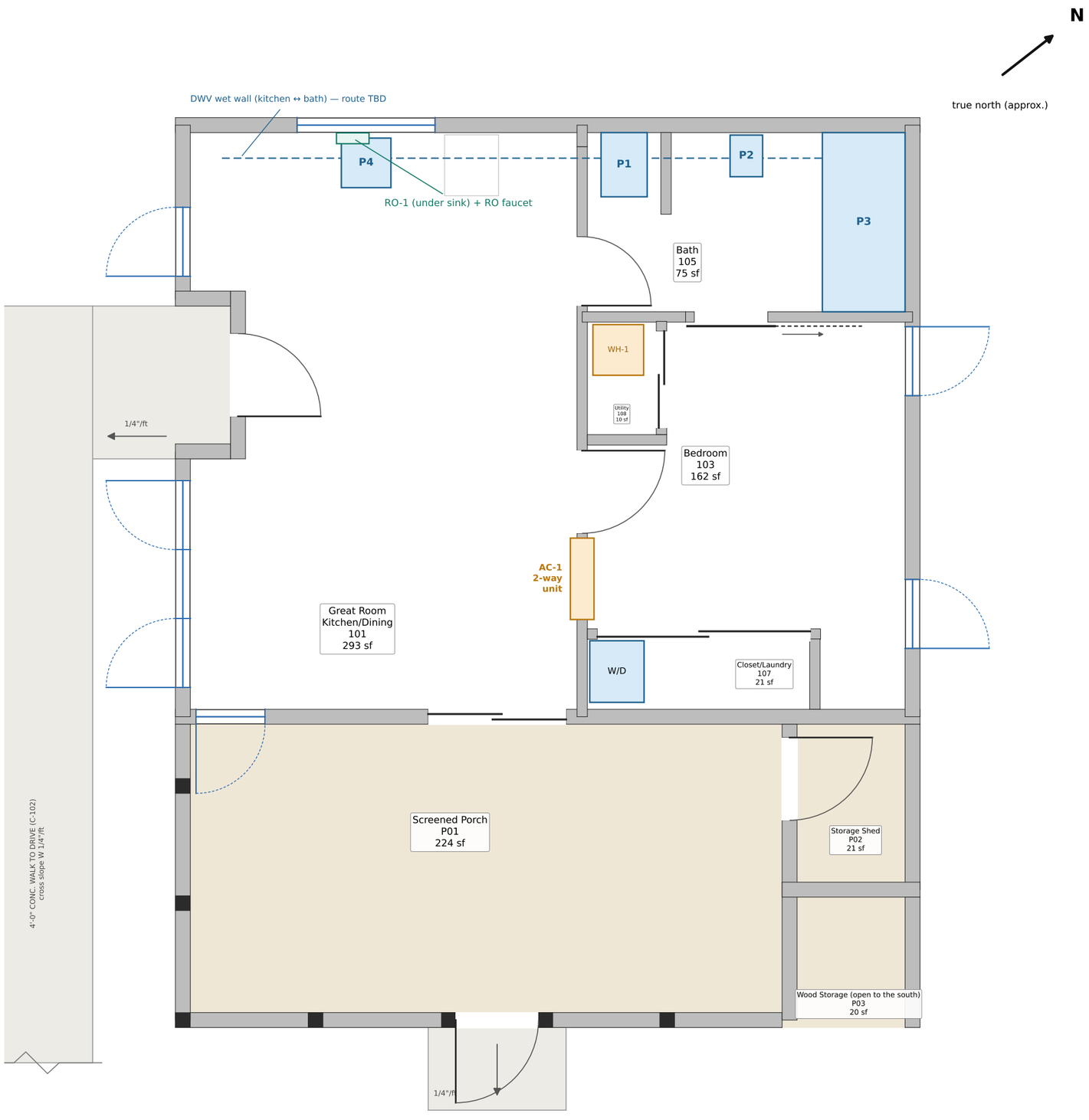
PRELIMINARY SUBPANEL CIRCUITS (electrician to confirm)

Ckt	Load	Breaker / protection
1	Lighting — great room / kitchen / dining	15 A AFCI
2	Lighting + fans — bedroom, bath, closets, porch, exterior	15 A AFCI/GFCI as req.
3	Kitchen countertop receptacles	20 A GFCI (2 circuits)
4	Bath receptacle	20 A GFCI
5	Washer R6 - Samsung WW25B6900AW	20 A 120 V GFCI, dedicated
5a	Dryer R25 - Samsung DV25B6900EW (NEMA 14-30R)	30 A 2-pole 240 V, 10 AWG
6	Mini-split CU-1	per nameplate
7	Water heater WH-1 (50 gal, 4500 W, 240 V)	30 A 2-pole, 10 AWG
8	General receptacles (bedroom, great room, porch WR)	15/20 A AFCI/GFCI
9	Spare (no cooktop / range)	-

CASITA — 6051 OLD ALLEGAN RD
Saugatuck MI · parcel 20-012-021-10
Rebuild of the existing garage as a 594 sf casita
LIGHTING + ELECTRICAL SCHEDULES

From old-allegan-site.ifc · Nov 10, 2026
Drawn by: D. Larimore Checked: ____

E-601



PLUMBING FIXTURE SCHEDULE

Tag	Fixture	Room	Spec (proposed)	DFU
P1	WC	Bath 105	floor-mount elongated, 1.28 gpf	3
P2	Lavatory basin	Bath 105	undermount, centred in the 48" vanity, 1.2 gpm	1
P3	Shower 36x78 walk-in	Bath 105	36x78 curbless, linear drain (D12), 1.8 gpm	2
P4	Kitchen sink	Kitchen 101	21" single-bowl undermount, 16 ga (A-605), 1.8 gpm faucet	2
P6	Washer (closet + laundry 107)	Closet 107	box w/ shut-offs, drain pan	2
RO-1	RO drinking water (under sink)	Kitchen 101	4-5 stage, 50-75 GPD, 3 gal tank, ≤2:1 waste	—
			Total DFU (approx.)	10

PLUMBING / MECHANICAL NOTES

1. SEPTIC: new bedroom + full bath → Allegan County Health Dept evaluation/permit before construction; the barn's existing system is noted as limited-use.

2. RO-1: cold-water tee with ¼-turn shut-off at the sink supply; drain saddle on the tailpiece ABOVE the P-trap through the faucet air gap; tank and filters in the sink base, leave the cabinet floor clear for a leak tray. Choose a high-efficiency unit (≤2:1 waste, permeate pump) because reject water goes to the limited-use septic. Optional ¼" line to the fridge ice maker. No power needed unless a tankless or booster-pump model is chosen (then add a receptacle in the sink base).

3. WATER: from the barn well or a new line from the house — size, freeze protection (≥42" cover), shut-off at entry, pressure tank if on the barn well.

4. WH-1 50 gal electric tank (240 V, 4500 W dual element; A.O. Smith / Rheem or equal, ~22" dia x 60") in utility closet 108 at its north end, central to the shower, vanity and kitchen sink. On a drain pan with leak sensor; T&P relief and pan drain piped to an indirect receptor (or the exterior per AHJ) - P2804; thermal expansion tank on the cold; full-port shut-off on the cold + union/dielectric fittings; set 120°F (mixing valve if set higher). No vent, no propane, no combustion air. Front (elements + thermostat) faces the bypass door, 24" service clear.

5. Vent through the roof on the high side; keep the wet wall on the bath/kitchen north side as drawn.

6. LAUNDRY (closet 107): Samsung WW25B6900AW washer + DV25B6900EW 4" vented electric dryer, stacked on SK-DH. Recessed washer box BESIDE the stack at 42" AFF (no box behind the washer) on its own drain to T-2; drain pan + leak sensor. Dryer exhaust: 4" rigid smooth metal, foil tape (no screws into the airstream), straight up behind the dryer, through the closet ceiling and the roof to a dryer roof cap with a damper and no screen - well under the 35' max developed length (MRC M1502). Alt.: DV25B6900HW heat-pump dryer, same size, no duct.

7. Heat pump: ONE two-way indoor unit (AC-1, Mike's selection - model to confirm) recessed high in the spine wall between the great room and the bedroom, supply/return grilles on both faces, top ~8'-4" AFF; frame that bay of the spine wall 2x6 (or fur it) to the unit's depth. Single-zone outdoor unit (CU-1) on the east side; line set + condensate run east in a rafter bay. Manual J/S sizing for both rooms.

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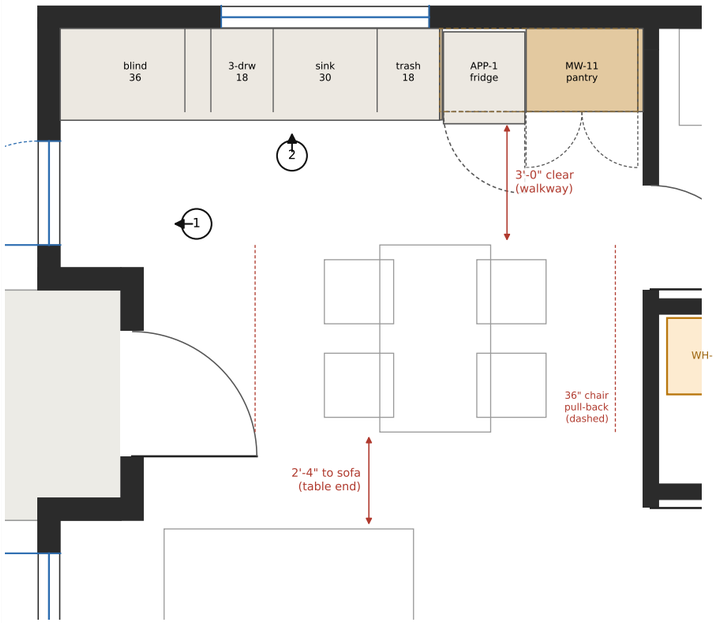
PLUMBING + MECHANICAL PLAN, SCHEDULES

From old-allegan-site.ifc · Nov 10, 2026

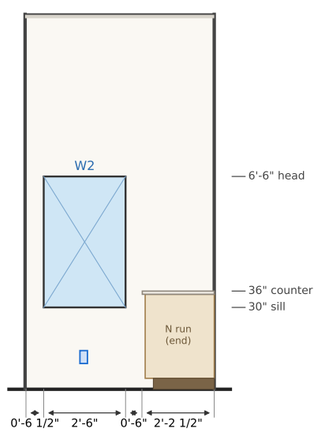
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P-101

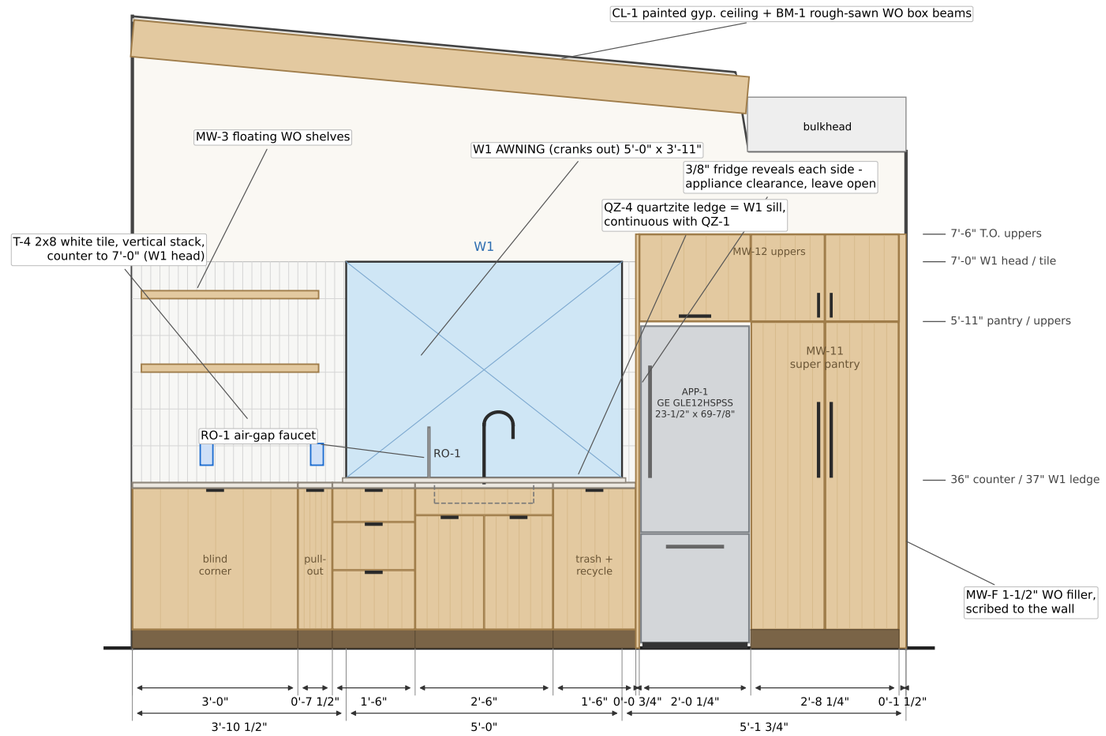
KITCHEN + DINING PLAN (enlarged) · 1 = west wall, 2 = north wall



1 WEST WALL (2'-6" casement window by the kitchen corner)
3/8" = 1'-0" (approx.)



2 KITCHEN — NORTH WALL (blind corner, 3-drawer base, sink under W1, trash, panel + 24" fridge, pantry, uppers over)
3/8" = 1'-0" (approx.)



KITCHEN + DINING NOTES

1. Layout (Darin 10/11): north run W to E: 36" blind-corner base, 7-1/2" tray pull-out, 18" 3-drawer base (no dishwasher - Darin 10/12), 30" sink centred under W1, 18" double-bin TRASH/RECYCLE pull-out (fridge landing), 3/4" WO end panel (MW-12), FRIDGE APP-1 (GE GLE12HSPSS) hinged on the east (pantry) side, MW-11 super pantry; MW-12 24"-deep uppers over the fridge + pantry from 5'-11" to 7'-6". West wall: a 2'-6" x 4'-0" casement window (30" sill, matches the bedroom casements + the living-window panels; W2 on the plans) centred between the entry return and the end of the counter, where the fridge used to be; R27 below it. W1 (5'-0" x 3'-11" fixed, head 7'-0") slid 2'-1" west to stay centred on the sink. NO cooktop, hood or oven (Darin 10/11) - no 240 V kitchen circuit, no hood duct; no skylight. R9 is a listed pop-up countertop receptacle over the trash base (no wall space between W1 and the fridge).

2. Casework MW-K: frameless, full-overlay slab fronts in rift white oak veneer, grain vertical and matched across the run; soft-close; blind corner gets a swing-out insert. MW-11 super pantry: 32-1/4" x 24" deep, 5'-11" tall (cut down, top 1-1/8" above the fridge; painted wall above to the bulkhead), pair of full-height leaves on 155-deg / zero-protrusion hinges (clear the roll-outs), roll-out shelves + door racks; 1-1/2" filler at the spine (the 16" leaves stop ~4" short of the D1 latch).

3. Counters QZ-1 (quartzite, 3 cm, honed or leathered, 1/8" eased edge, 1" overhang) on the north run. W1 sill is a QZ-4 quartzite ledge at 37" AFF, continuous with the counter. Template after cabinets are set.

4. Appliances: APP-1 refrigerator GE GLE12HSPSS (or eq.) - 24" counter-depth bottom freezer, 11.9 cu ft, stainless, 23-1/2" W x 69-7/8" H x 26-1/2" D with handle; right-hand hinge on the pantry side (reversible; not zero-clearance - the door sits ~2" proud of the pantry face so it opens past 90 deg). Opening 24-1/4" between the MW-12 end panel and the pantry, 1" air gap behind, 1-1/8" under the MW-12 upper (GE wants ~1" top clearance). APP-2 18" panel-ready dishwasher. Verify every cut-out against the purchased model.

5. RO-1 (P-101): filter + tank in the sink base; air-gap faucet left of the sink. Receptacles R7 (west corner), R8 (prep, left of W1), R9 (listed pop-up in the counter over the trash base - W1 and the fridge fill the wall there), R27 (12" AFF under the kitchen-corner window W2), R16 inside the super pantry - GFCI, 42" AFF; no point on the counter more than 24" from a receptacle (NEC 210.52(C)(1)), none inside W1.

6. Dining: 54" x 32" white oak slab table turned to run north-south and nudged 6" north (Darin 10/11): 36" clear to the counter (walkway, no chairs at that end), 22" from its south end to the sofa; 4 DC-1 chairs, 2 per long side (east + west), ends open; 36" pull-back clears the entry door swing on the west and the spine wall on the east, 27" per seat.

7. DC-1 dining chair (4): armless, solid rift white oak frame, F1 natural clear matte (non-ambering); 18-1/2" W x 20" D x 31" H, seat 18" AFF (12" below the 30" table top); seat black leather or woven black paper cord; felt glides. Owner to select the product (or equal).

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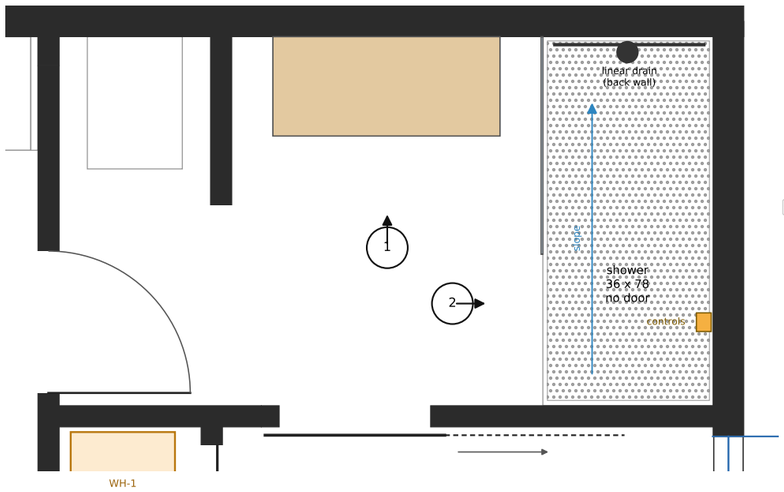
INTERIOR ELEVATIONS — KITCHEN + DINING

From old-allegan-site.ifc · Nov 10, 2026

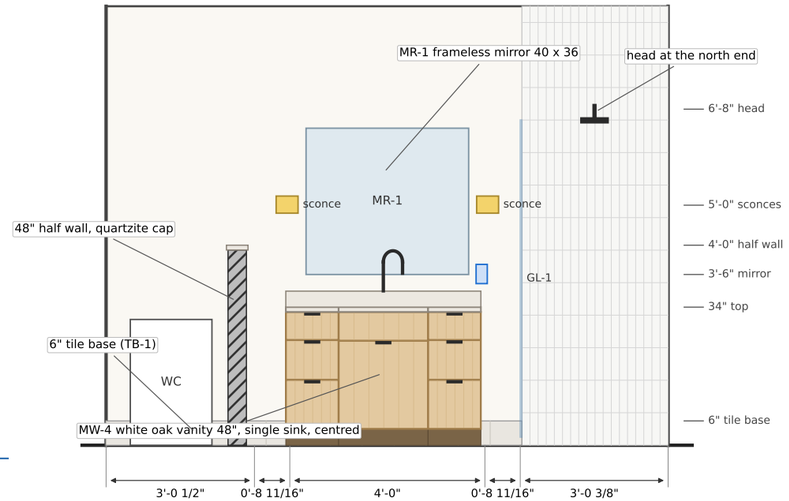
Drawn by: D. Larimore Checked: ____

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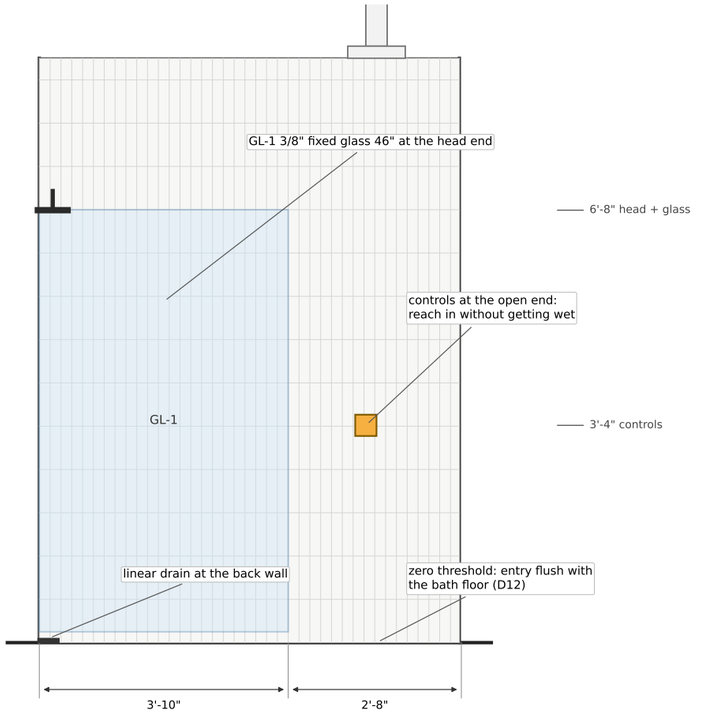
BATH PLAN (enlarged) · 1 = north wall, 2 = east wall



1 BATH — NORTH WALL (WC, 48" vanity, shower head end)
3/8" = 1'-0" (approx.)



2 BATH — EAST WALL (walk-in shower)
3/8" = 1'-0" (approx.)



BATH NOTES

1. Vanity MW-4: 48" white oak, one centred sink base with drawer banks either side, centred between the toilet half wall and the shower glass (8-11/16" clear each side); recessed 4" toe.

2. QZ-2 quartzite top 3 cm with 4" splash, one centred undermount sink with counter space both sides; single-hole matte-black faucet; 40 x 36 mirror centred above, sconces either side.

3. Shower: 36 x 78 walk-in, no door. Fixed 46" glass covers the head (north) end; the south 32" is the open entry. ZERO THRESHOLD (ADA): the south end is the high point, flush with the bath floor; the whole floor falls a uniform 2% to a linear drain at the back (north) wall (P2709.1), with the bath floor in front of the open side warped down to meet it - D12. Kerdi (ANSI A118.10) lining, 3" min. past the jambs (P2709.2), over the whole bath floor.

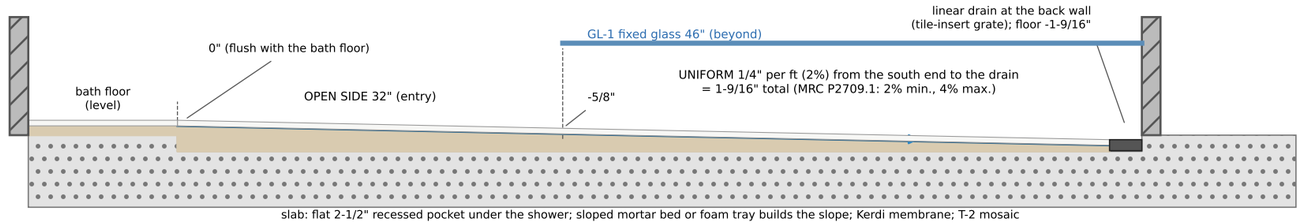
4. Tile base TB-1 (6", cut from the T-1 floor tile or a matching cove/bullnose) on every bath wall outside the shower, set on the Kerdi membrane turned up 6" behind it, for water protection; no wood base in the bath.

5. Controls on the east wall at the open end (3'-4" AFF), head at the north end: separate valve and head rough-ins; pressure-balance valve with the high-limit stop set to 120°F max. (P2708.4). Both are on exterior walls: run supplies in a furred 2x4 chase on the warm side of the insulation.

6. Toilet at the west end behind a 48" half wall with a quartzite cap (D7); 16" from the toilet centreline to the finished wall and half wall (15" min., MRC P2705.1 item 5); 21" clear in front.

7. Doors: the 2'-6" hinged door from the great room swings INTO the bath (hinge at the south jamb, opens flat against the bath south wall). Its opening is set south in the spine wall so the swing stays ~22" clear of the front of the toilet (MRC P2705.1 item 5: 21" to any wall, fixture or door). To the bedroom: a 3'-2" x 7'-0" white oak BARN DOOR on the BEDROOM side over the 2'-8" x 6'-8" opening - 3" overlap each side + 3-1/2" above the head, 1/2" floor gap, no casing on the bedroom side. Slides EAST along the bedroom face of the bath wall, clear of the north nightstand (open most of the time); no lock (per Mike); 6'-6" track.

D12 ZERO-THRESHOLD SHOWER SLOPE (section along the shower, south entry to north drain)



True scale. South end flush with the bath floor (ADA 303.2: 1/4" max.).
Along the 32" open side the bath floor in front of the opening is warped down to meet the shower edge at 2% max. (5/8" at the glass end) - waterproof the whole bath floor. Glass U-channel shimmed to the fall.

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Rebuild of the existing garage as a 594 sf casita

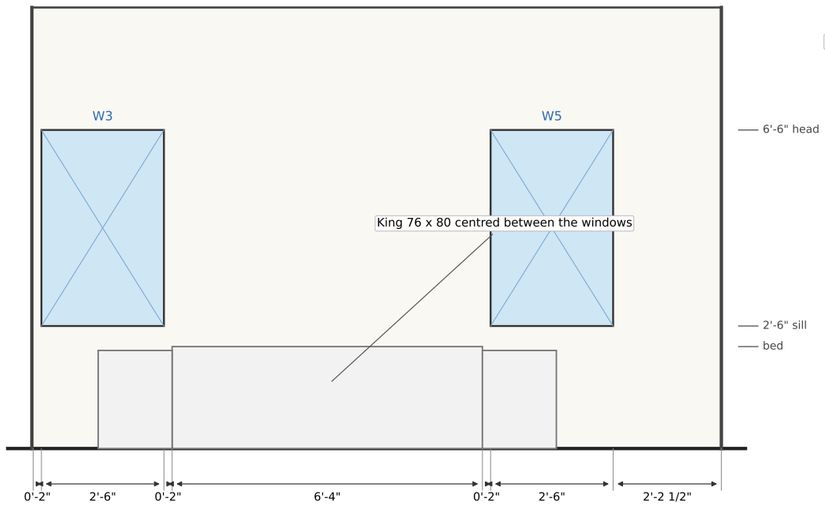
INTERIOR ELEVATIONS — BATH

From old-allegan-site.ifc · Nov 10, 2026

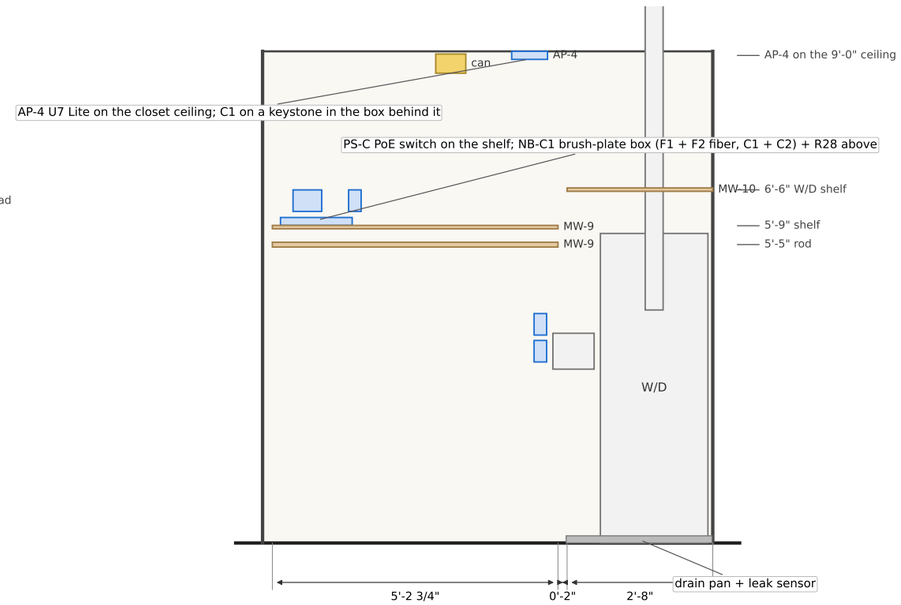
Drawn by: D. Larimore Checked: ___

A-402

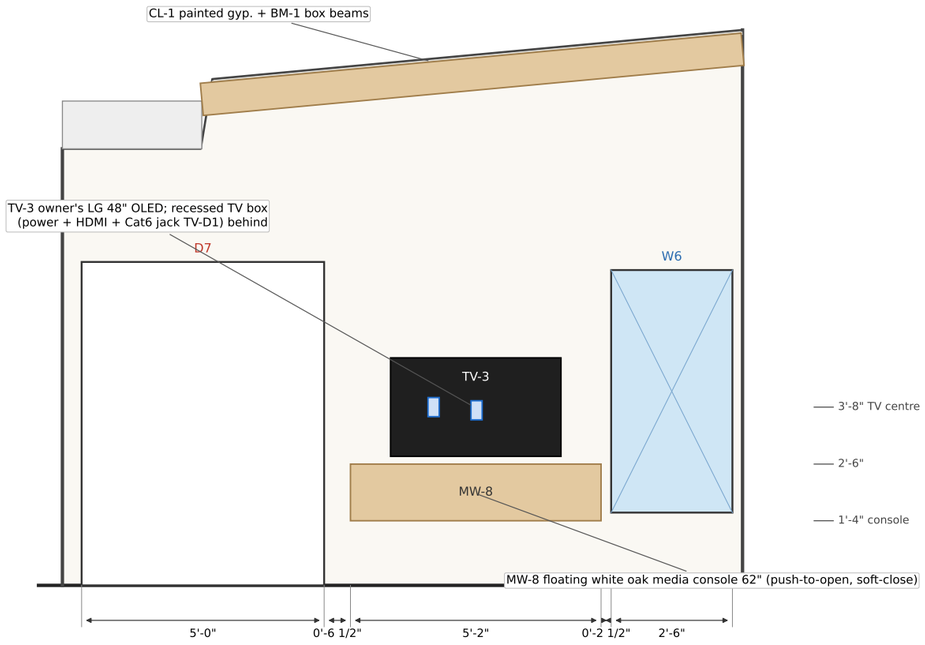
1 BEDROOM — HEADBOARD WALL (east): windows flank the king
3/8" = 1'-0" (approx.)



2 CLOSET + LAUNDRY (south wall, looking south)
3/8" = 1'-0" (approx.)



3 GREAT ROOM — TV WALL (south, looking south)
3/8" = 1'-0" (approx.)



NOTES

1. Bedroom: the two east windows are moved to flank the king headboard (30" wide, sills 2'-6"); the south one stays the egress window. Heat/cool comes from the two-way AC-1 unit in the spine wall (bedroom west wall, by G4/G5).
2. Closet + laundry: one 8' bypass slider (2 x 4'-0" WO panels), FLIPPED so the W/D panel rides the outer track (~33-3/4" clear behind the closed door). Samsung WW25B6900AW + DV25B6900EW stacked: 26-13/16" deep + 3" behind for the 4" duct = ~29-3/4", leaving ~4" in front of the doors. Washer box + both outlets go BESIDE the stack (east), not behind it. Notch MW-10 around the dryer duct. Drain pan + leak sensor; 3/4" WO ply shelves with 1-1/2" solid edge, 1-1/16" matte black rod, centre supports at 32" max.
3. Media console: French cleat to blocking, cord grommet into a recessed TV box above; 48" TV on a low-profile VESA 300x200 mount.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

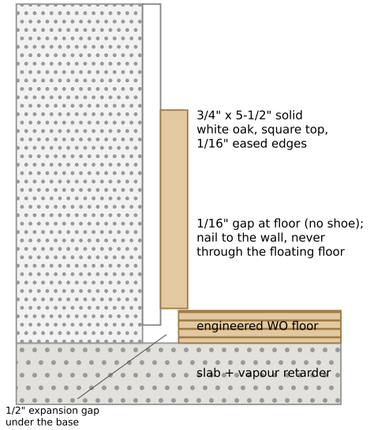
BEDROOM, CLOSET + TV WALL ELEVATIONS

From old-allegan-site.ifc · Nov 10, 2026

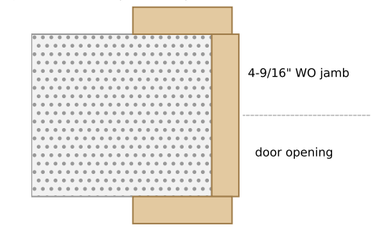
Drawn by: D. Larimore Checked: ___

A-403

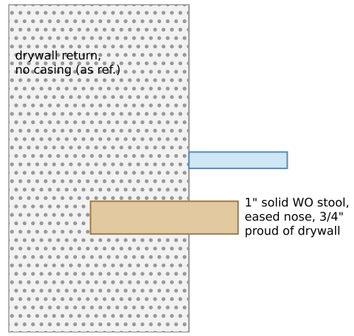
D1 BASE (TR-1) 3" = 1'-0"



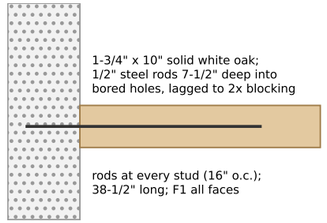
D2 DOOR CASING (TR-2) 3" = 1'-0"



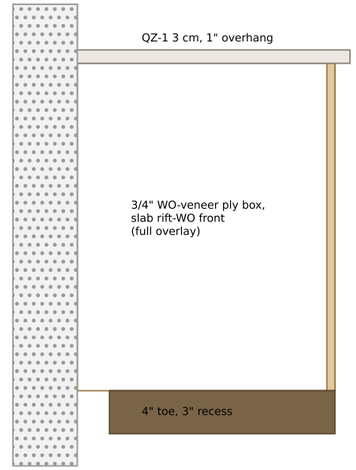
D3 WINDOW RETURN + STOOL (TR-3) 3" = 1'-0"



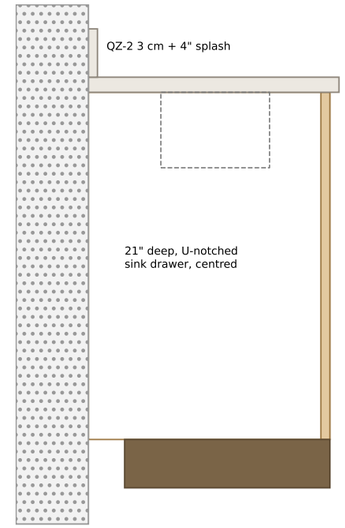
D4 FLOATING SHELF (MW-3) 3" = 1'-0"



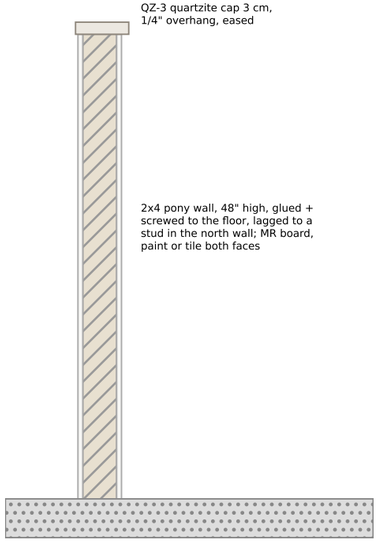
D5 KITCHEN BASE SECTION 1-1/2" = 1'-0"



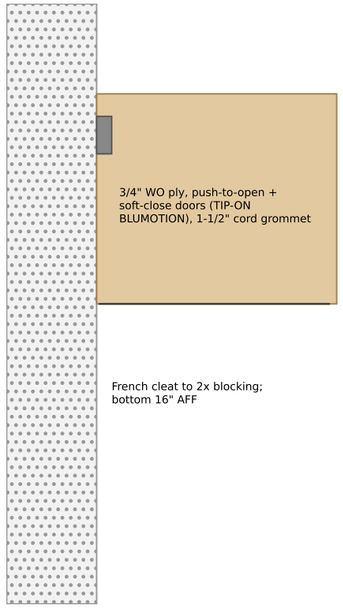
D6 VANITY SECTION 1-1/2" = 1'-0"



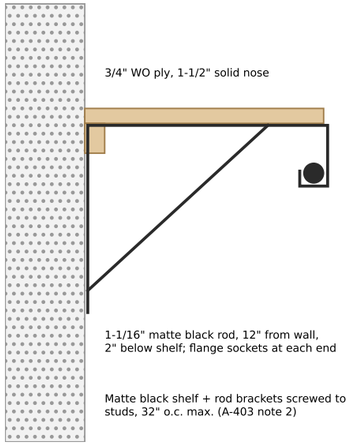
D7 TOILET HALF WALL 1-1/2" = 1'-0"



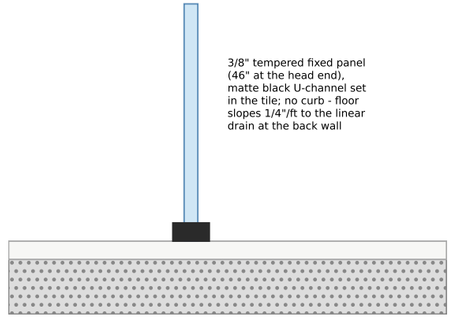
D8 MEDIA CONSOLE (MW-8) 1-1/2" = 1'-0"



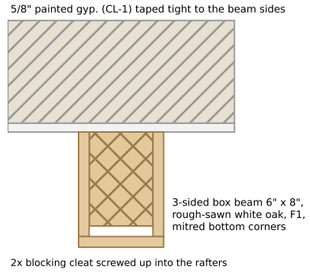
D9 CLOSET SHELF + ROD (MW-9) 1-1/2" = 1'-0"



D10 SHOWER GLASS, ZERO THRESHOLD 3" = 1'-0"



D11 BM-1 BOX BEAM 1-1/2" = 1'-0"



FINISH F1 (all white oak)

Rift / quarter-sawn white oak, natural: hardwax oil with zero colour (e.g. Rubio Monocoat Oil Plus 2C 'Pure') or waterborne clear matte with a natural sealer (e.g. Bona NaturalSeal + Traffic HD Matte). Same system on floors, cabinets, trim, doors and the BM-1 rough-sawn box beams (rough-sawn takes more oil - test a beam offcut). Approve sample boards first. No stain.

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

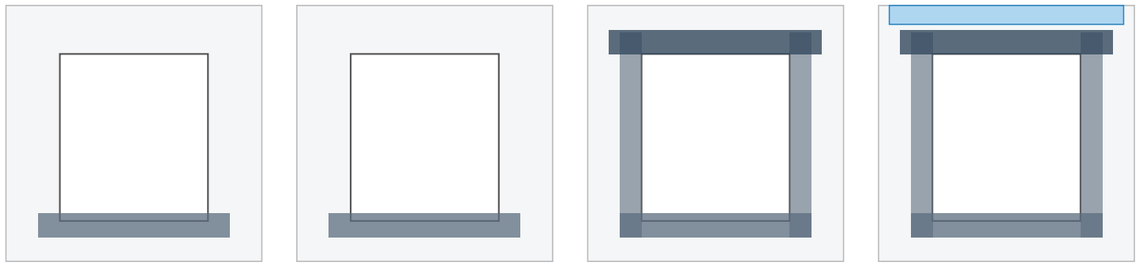
MILLWORK DETAILS

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ___

A-501

1 WINDOW + DOOR FLASHING SEQUENCE (all new and relocated openings)



A SILL PAN first: self-adhered flashing (or a formed pan) across the sill, up 6" at each jamb, out over the house wrap. Back dam / slope out.

B SET the window in sealant on the jambs and head ONLY - leave the sill un-sealed so the pan can drain. Shim, fasten per the maker.

C JAMB flashing strips, then the HEAD strip over them (shingle lap). Tape the flange.

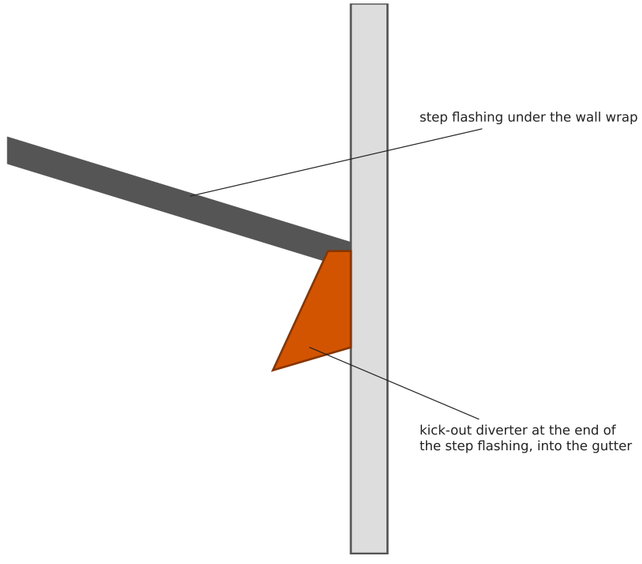
D Drop the house-wrap HEAD FLAP over the head flashing and tape the diagonal cuts. Every lap sheds water down and out.

HEADER SCHEDULE - bearing walls (2015 MRC Table R602.7(1))

Tag	Opening	Wall	Width	Header	Max span	Jacks
W4	Living window W	West (bearing)	7'-6"	(3) 2x12	9'-2"	2 each end
W5	Bedroom window E	East (bearing)	2'-6"	(2) 2x8	5'-2"	2 each end
W3	Bedroom window E-2	East (bearing)	2'-6"	(2) 2x8	5'-2"	2 each end
W2	Dining window W	West (bearing)	2'-6"	(2) 2x8	5'-2"	2 each end
D3	Entry door 3'-0	West recess (bearing)	3'-0"	(2) 2x8	5'-2"	2 each end
D5	Bedroom entry door 3'-0 HINGED	Spine (bearing)	3'-0"	(2) 2x8	5'-2"	2 each end
D1	Bath door 2'-6 HINGED	Spine (bearing)	2'-6"	(2) 2x8	5'-2"	2 each end
AC-1	Two-way unit recess (36" RO - verify the unit)	Spine (bearing)	3'-0"	(2) 2x8	5'-2"	2 each end
-	North + south walls (gable/rake ends)	Non-bearing	up to 8'	single flat 2x4 (R602.7.4)	8'-0"	-

Sized from 2015 MRC Table R602.7(1), 'Roof and ceiling', 50 psf ground snow, 28' building width (#2 DF-L / hem-fir / SPF). The 28' column is conservative here: each wall carries far less roof than an exterior wall of a 28'-wide gable. Table R602.7(2) covers floor loads only, so the spine-wall headers use R602.7(1) as an equivalent - engineer to confirm. Jacks per footnote d; full-height studs per Table R602.7.5. 1/2" ply flitch between the plies; insulate the cavity in exterior headers.

2 KICK-OUT FLASHING (R903.2.1) - wherever a roof edge dies into a wall



GENERAL FRAMING NOTES

1. Lumber: #2 SPF or DF-L min.; PT (ground contact UC4A) for sills on concrete and porch posts; corrosion-resistant fasteners in PT.

2. Studs 2x6 @ 16" o.c. exterior, 2x4 @ 16" interior non-bearing; the SPINE WALL is bearing - 2x4 @ 16" min., 2x6 at the AC-1 bay; double top plate lapped 24" min.

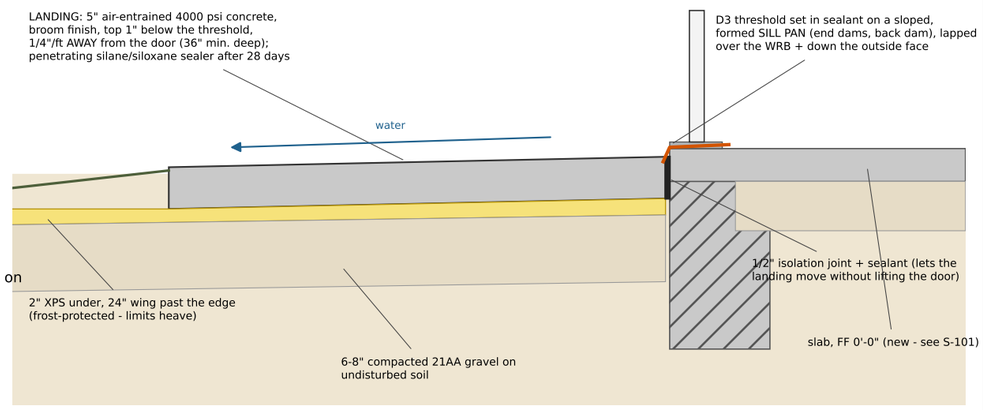
3. Fireblock at the soffit/ceiling line and around penetrations (R302.11). Draftstop the flat-ceiling attic above the bedroom wing if it connects to the great room vault.

4. Nailing per Table R602.3(1); roof sheathing 8d @ 6"/12"; rafter ties per R802.11 at every rafter to the west, spine and east bearing lines.

5. WALL SHEATHING = BRACING (R602.10): 7/16" OSB, 24/16 span rating, CONTINUOUS on every exterior wall incl. above + below openings and the gable ends - Method CS-WSP (Table R602.10.4, R602.10.4.2). 8d common (2-1/2" x 0.131") @ 6" edges / 12" field, every edge on framing or blocking (Table R602.3(3)); 1/2" gyp. on the inside face (R602.10.4.3).

6. Every dimension and existing member to be field verified - the model shows the existing garage as estimated.

3 ENTRY LANDING AT D3 (typ. at the D9 porch stoop)



CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

GENERAL DETAILS + HEADER SCHEDULE

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ____

A-502

MILLWORK / CASEWORK (all naturally finished white oak)

Tag	Item	Material / construction	Finish	Notes
MW-K	Kitchen bases: 36" blind corner, 7-1/2" tray pull-out, 18" 3-drawer base, 30" sink, 18" trash pull-out	Frameless, 3/4" WO-veneer ply boxes, rift WO slab fronts	F1	soft-close; blind swing-out; 2-bin trash (2 x 35 qt)
MW-3	Floating shelves (2) 1-3/4 x 10 x 38-1/2"	Solid white oak	F1	D4; west corner of the north run; 5'-0" + 6'-4" AFF
MW-11	Super pantry 32-1/4 x 24" D x 5'-11" tall, pair of full-height leaves	WO-veneer ply box, rift WO slab doors	F1	roll-outs + door racks; 155-deg hinges
MW-12	Uppers over the fridge + pantry, 24" D x 19" H (5'-11" to 7'-6"), + 3/4" end panel left of the fridge, floor to 7'-6"	WO-veneer ply box, rift WO slab doors + solid panel	F1	lift-up (Blum Aventos HK) over the fridge; pair over the pantry
MW-4	Vanity 48" x 21" D: centred sink base + drawer banks	Frameless, rift WO slab fronts	F1	D6; centred, 8-11/16" clear each side
MW-8	Floating media console 62 x 16 x 14"	3/4" WO ply; push-to-open + soft-close (TIP-ON BLUMOTION)	F1	D8; under TV-3
MW-9	Closet + laundry shelf (5'-9") + rod (5'-5")	3/4" WO ply, 1-1/16" black rod	F1	D9; AP-4 above; PS-C switch on the shelf
MW-10	Shelf 12" over the stacked W/D at 6'-6"	3/4" WO ply	F1	closet + laundry
MW-F	Fillers + scribes: 1-1/2" filler pantry/uppers-to-spine (floor to 7'-6"); 3/4" scribe at the west-wall end of MW-K	Rift WO, grain matched to the adjacent fronts	F1	any field gap 1/8"-3" at casework gets a filler or scribe
HW-1	Toilet half wall 48" with quartzite cap	2x4 pony wall, MR board, QZ-3 cap	paint	D7

SOFT-CLOSE: every cabinet door, drawer, pull-out, roll-out and lift-up closes soft (Blum BLUMOTION or equal), including the MW-8 console, which is push-to-open AND soft-close (Blum TIP-ON BLUMOTION). Hardware on A-605.

GAPS: no open gap where casework meets a wall, ceiling or other casework - fill with matching rift-WO fillers or scribe moldings (MW-F), never caulk. Exception: the 3/8" reveals each side of the fridge stay open (appliance clearance).

TRIM, INTERIOR DOORS + FLOORING

Tag	Item	Material	Finish	Notes
TR-1	Base	3/4" x 5-1/2" solid white oak, square top, eased edges	F1	all conditioned rooms except the bath (TB-1 tile base)
TR-2	Door casing	3/4" x 2-3/4" flat solid white oak, 3/16" reveal	F1	doors only (as the reference)
TR-3	Window returns + stools	Drywall returns, no casing; 1" solid WO stool, eased	F1	kitchen N window W1: quartzite ledge QZ-4
TR-4	Door jambs	White oak, 4-9/16" (2x4 walls) / 6-9/16" (2x6)	F1	split jambs OK
DR-1	Bedroom/bath barn door 3'-2" x 7'-0" over a 2'-8" x 6'-8" opening (3" overlap each side)	1-3/4" solid-core slab, rift WO veneer; flat-track hardware	F1	bedroom side, slides east; 6'-6" track, soft-close, floor guide; no lock
DR-2	Bath door 2'-6" x 6'-8" hinged (from great room)	1-3/4" solid-core slab, rift WO veneer	F1	swings IN; ~22" clear of the WC (P2705.1)
DR-3	Closet + laundry bypass 2 x 4'-0" x 6'-8"	1-3/8" rift WO veneer slabs, top-hung track	F1	panels flipped: W/D panel on the OUTER track
DR-4	Bedroom entry door 3'-0" x 6'-8" hinged	1-3/4" solid-core slab, rift WO veneer	F1	opens against the utility closet wall
DR-5	Utility closet bypass 2 x 1'-10" x 6'-8" (3'-6" opening, 1" overlap)	1-3/8" rift WO veneer slabs, top-hung track - matches DR-3	F1	flush pulls; service access to WH-1
CL-1	Vaulted ceiling - great room 101 (~215 sf)	5/8" gypsum board on the rafters, taped to the beam sides, painted (SW 7004, flat)	paint	between the BM-1 beams; bulkhead painted gyp.
CL-2	Ceiling - screened porch P01, sloped 1:12	1x6 clear western red cedar T&G, V-groove, runs N-S; back-primed, sealed all sides; SS trim-head nails	clear UV	matte, no stain; 1/8" perimeter gap; fan + cans on blocking
BM-1	Exposed box beams (4) - great room vault, ~5'-10" o.c., west wall to the bulkhead, parallel ... [1]	3-sided 6" x 8" box beam, rough-sawn white oak, on 2x blocking cleats	F1	D11; Mindy 10/11; pendant + great-room fan hang from beams 3 + 2
FL-1	Floor - 101, 103, 107	7" engineered white oak, 3/4" (4 mm wear layer), site-finished F1	F1	float or glue over the slab with vapour retarder
FL-2	Floor - 105, 108	Tile T-1 (A-604)	—	Schluter reducer at oak
FL-3	Floor - screened porch P01 (~226 sf net, order ~250 sf)	Woven vinyl (woven plastic) flooring, ~1/8" thick, rated for outdoor + freeze-thaw	—	per mfr. on the smooth slab, no sealer; ~1/8" = no transitions

[1] Exposed box beams (4) - great room vault, ~5'-10" o.c., west wall to the bulkhead, parallel to the 1:12 slope

CASITA — 6051 OLD ALLEGAN RD

Saugatuck MI · parcel 20-012-021-10

Rebuild of the existing garage as a 594 sf casita

MILLWORK, TRIM + DOOR SCHEDULE

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ____

A-603

COUNTERTOPS - QUARTZITE (one slab should cover all four if the layout allows)

Tag	Location	Stone	Thick.	Finish	Remarks
QZ-1	Kitchen north run (~9'-1-1/2"), 26" deep	Quartzite - Taj Mahal (warm white / taupe veining)	3 cm	honed or leathered	1/8" eased edge, 1" overhang, u/m sink cut-out
QZ-2	Bath vanity 48 x 21-3/4" + 4" splash	same slab as QZ-1	3 cm	honed	one centred undermount sink
QZ-3	Toilet half-wall cap 5 x 36"	same slab	3 cm	honed	1/4" overhang, eased
QZ-4	Kitchen N window W1 ledge / sill	same slab	3 cm	honed	37" AFF, continuous with QZ-1

Verify the slab is a true quartzite (scratches glass, no etching from a lemon test); some 'soft quartzites' are dolomitic marble. Seal with a penetrating impregnator after install and yearly. Alt.: Sea Pearl or White Macaubas quartzite.

TILE

Tag	Location	Tile	Pattern	Grout	Edge / notes
T-1	Bath floor (shower floor is T-2)	Porcelain 4 x 19" (e.g. Textone Gris)	herringbone	TEC Power Grout 550, Dove Gray 908	flush to oak, no threshold
TB-1	Bath tile base 6" (all walls outside the shower)	T-1 cut tile or matching cove base	—	Dove Gray 908	Schluter Rondec top edge
T-2	Shower floor	Porcelain penny mosaic (e.g. Festival Industrial Penny)	sheet	Dove Gray 908	slopes per D12 (A-402)
T-3	Shower walls, floor to ceiling	Ceramic 2 x 8" white (e.g. Festival Bright White Ice), polished	vertical stack, 1/16"	Bright White 910	Schluter Jolly, satin anodized
T-4	Kitchen backsplash	same as T-3	vertical stack	Bright White 910	counter to 7'-0" (W1 head)
WP	Waterproofing	Schluter Kerdi + Kerdi-Board walls; Kerdi-Line linear drain at the back wall, tile-insert grate; Kerdi over the whole bath floor (A-402)	—	—	flood test 24 h

MIRRORS + GLASS

Tag	Location	Glass / mirror	Hardware	Remarks
MR-1	Bath vanity	Frameless mirror 40 x 36", 1/4" polished edge, centred, bottom 3'-6" AFF	hidden J-channel / clips	sconces either side at 5'-0"
GL-1	Shower, west side at the head end	3/8" tempered clear fixed panel 46 x 78" (no door)	matte black U-channel / clamps	31" open entry; low-iron optional

CASITA — 6051 OLD ALLEGAN RD

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Rebuild of the existing garage as a 594 sf casita

COUNTERTOP, TILE + GLASS SCHEDULES

From old-allegan-site.ifc · Nov 10, 2026

Drawn by: D. Larimore Checked: ____

A-604

HARDWARE + BATH ACCESSORIES

Item	Location	Product	Finish	Notes
Cabinet pulls	all kitchen + vanity drawers/doors	Richelieu 3-1/8" ledge pull BP989880990 (or equal)	brushed black	top edge of each front
Cabinet hinges	every cabinet door: MW-K, MW-4 ... [1]	Blum CLIP top BLUMOTION concealed hinges (or equal)	nickel	soft-close; 155-deg at ... [2]
Drawer slides	every drawer, pull-out + roll-out	Blum MOVENTO full-ext. undermount, BLUMOTION (or equal)	—	soft-close; trash pull-out ... [3]
Lift-up	MW-12 over the fridge	Blum AVENTOS HK top (or equal)	—	soft-close, stays at any height
Console	MW-8 doors	Blum TIP-ON BLUMOTION + CLIP top hinges	—	push-to-open AND ... [4]
Door levers	DR-2 bath (privacy), DR-4 bedroom	Kwikset Halifax lever, square rose (or equal)	iron black	
Barn door kit	DR-1 bath	flat track, soft-close, floor guide, pulls	matte black	6'-6" track
Bypass pulls	DR-3 closet	2-1/2" square flush pulls	matte black	
Hinges	all swing doors	3-1/2" square hinges	matte black	
Towel bar	bath S wall by the shower entry, 4'-6"	Moen Align 24" towel bar	matte black	blocking
Hand towel bar	east face of the half wall, 3'-6"	Moen Align YB0486	matte black	blocking
Robe hooks (2)	bath S wall by the shower, 5'-6"	Moen Align YB0403	matte black	blocking
TP holder	west face of the half wall, 26"	Moen Align YB0408	matte black	blocking

[1] every cabinet door: MW-K, MW-4, MW-11, MW-12
[2] soft-close; 155-deg at pantry roll-outs
[3] soft-close; trash pull-out heavy-duty
[4] push-to-open AND soft-close; no pulls

PLUMBING TRIM

Item	Product (or equal)	Finish
Kitchen faucet	Delta Trinsic pull-down 9159-BL-DST (or equal)	matte black
Kitchen sink	21" single-bowl undermount, 16 ga stainless	stainless
RO faucet	air-gap drinking-water faucet	matte black
Lav faucet	Delta Nicoli single-hole 35849LF-BL (or equal)	matte black
Lav sink	undermount rectangular porcelain (fabricator)	white
Shower trim	Delta Trinsic T14259-BL trim + head; valve at the open end, head at the far end	matte black
Linear drain	Schluter Kerdi-Line, tiled-in or black grate	matte black
WC	ProFlo PF6112 / PF1501 + PFTSWEC2000 seat (as reference)	white

APPLIANCES (owner to select models)

Tag	Appliance	Notes
APP-1	Refrigerator GE GLE12HSPSS (or eq.): 24" counter-depth bottom freezer, 11.9 cu ft, stainless, 23-1/2 x 69-7/8 x 26-1/2"	dedicated 120 V; 24-1/4" opening
W/D	Samsung WW25B6900AW + DV25B6900EW (vented) on SK-DH; 23-5/8 x 33-1/2 x 26-13/16 each	4" duct, 14-30R, pan
WH-1	Electric tank water heater 50 gal, 240 V 4500 W (A.O. Smith / Rheem or eq.)	utility 108; drain pan, no vent

OWNER-FURNISHED TVs

Tag	Display	Location	Size / mount	Notes
TV-3	LG 48" OLED (owner's; confirm model - C1 / B4)	casita great room, S wall	~42 x 24-1/2", VESA 300x200	centre 3'-8" AFF
TV-1	LG 77" A2 OLED (OLED77A2PUA, owner's)	HOUSE primary bedroom	~67-3/4 x 39", VESA 300x200	see low-voltage set
TV-2	LG 55" C-series OLED (owner's)	HOUSE A-frame living room	~48-1/4 x 27-3/4", VESA 300x200	see low-voltage set
—	Porch TV - future, not owned	casita porch E wall	outdoor-rated if added	

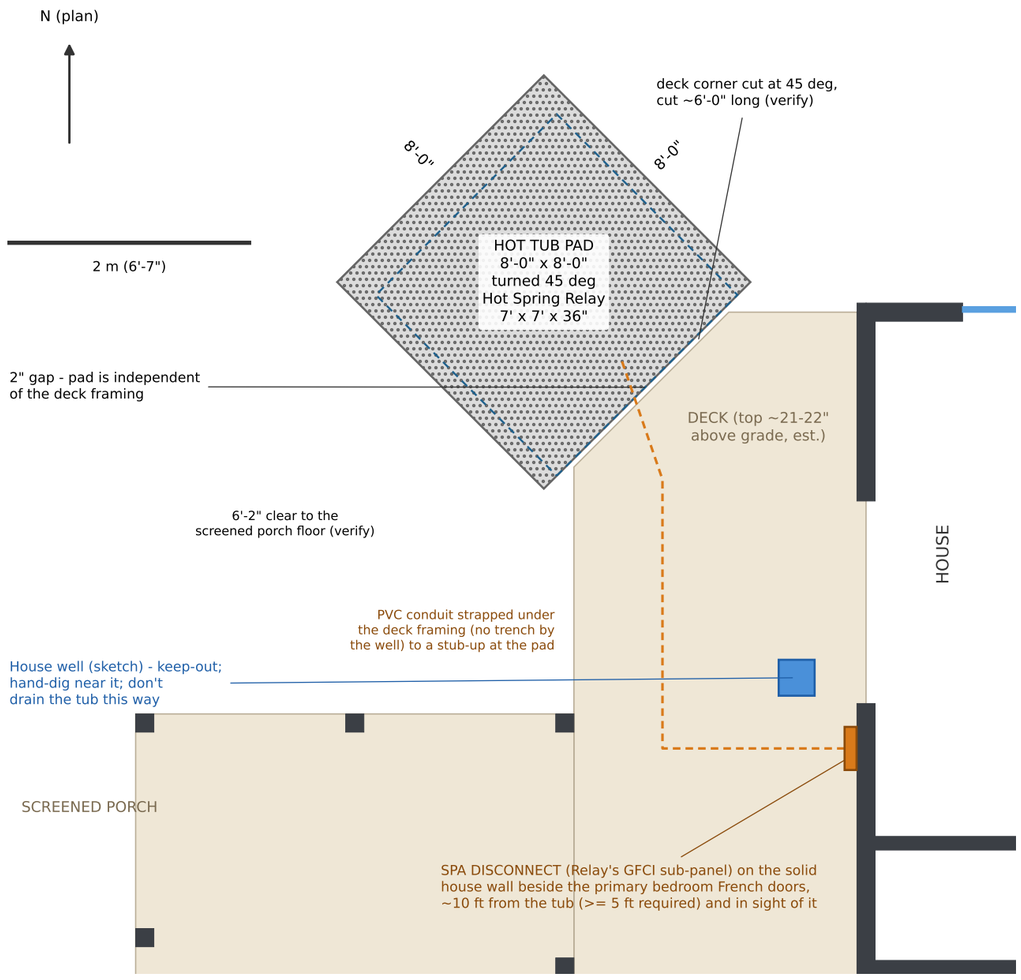
PAINT + FINISH: walls SW 7004 Snowbound, matte; ceilings SW 7004, flat; all white oak F1 natural (A-501); exterior to match existing. Every TV gets a low-profile mount on blocking and a recessed TV box (power + low voltage) behind the screen.

CASITA — 6051 OLD ALLEGAN RD
Saugatuck MI · parcel 20-012-021-10
Rebuild of the existing garage as a 594 sf casita
HARDWARE, APPLIANCES + FINISHES

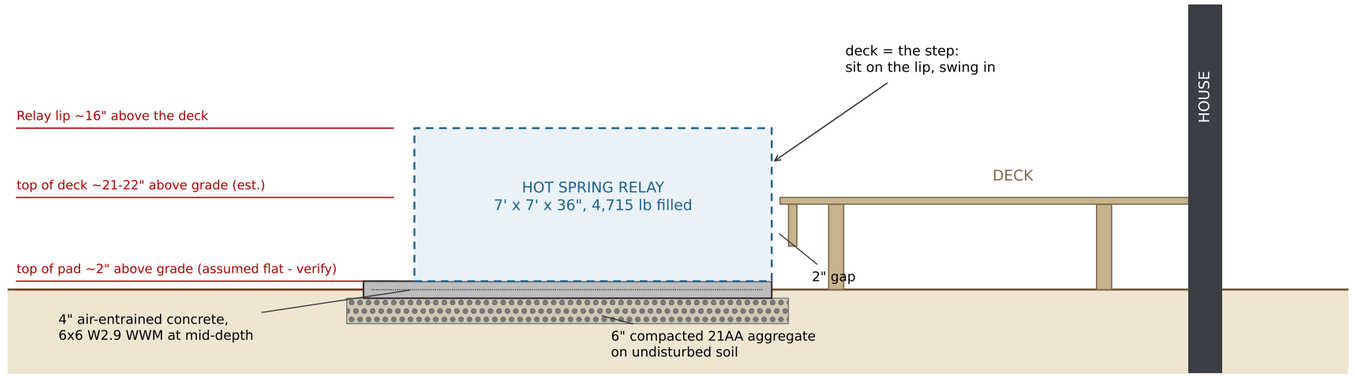
From old-allegan-site.ifc · Nov 10, 2026
Drawn by: D. Larimore Checked: ___

A-605

PLAN - hot tub pad off the back deck



SECTION - pad, tub and deck (true scale, cut square to the deck's cut corner)



HOT TUB PAD NOTES

1. PAD: 8'-0" x 8'-0" x 4" concrete, 4000 psi air-entrained (5-7% air) for Michigan freeze-thaw; 6x6 W2.9xW2.9 welded wire mesh on chairs at mid-depth (or fiber mesh); over 6" of compacted MDOT 21AA aggregate on undisturbed soil (strip the topsoil and roots). Top ~2" above finished grade; LEVEL within 1/4" across the pad; light broom finish, tooled edges, no control joint needed at this size.

2. TUB: owner's Hot Spring Relay (Hot Spot collection) - 7' x 7' x 36", 340 gal, 830 lb dry / 4,715 lb filled with 6 adults (~96 psf over the pad), well within a 4" slab on a compacted base. Set its 84" base parallel to the deck's cut corner (2" off the framing), leaving a 6" apron each side and 1'-0" on the far side, with no cabinet overhang. Follow the Hot Spring owner's manual for the foundation if it asks for more.

3. LOCATION (Darin 11/10): on the back deck's outer corner by the primary bedroom, where the deck corner is cut at 45 deg (~6'-0" cut - verify). The pad is turned 45 deg to sit parallel to that cut, 2" off the deck framing so it never bears on the deck or its footings; about 6'-2" clear of the screened porch floor (verify). The deck (est. 21-22" above grade - verify) is the step: the Relay's lip sits ~16" above the deck, a comfortable sit-and-swing height, so the Hot Spot step isn't needed on this side.

4. GUARD: the deck stays under 30" above grade, so no guard is required along that edge (2015 MRC R312.1.1). Don't raise the grade-to-deck height to 30" or more at the tub.

5. ELECTRICAL (2023 MEC = NEC 2023, Art. 680 Part IV): the Relay is 230 V / 50 A, 60 Hz and ships with a GFCI-protected sub-panel (680.44). New 50 A 2-pole breaker in the house panel; 4-wire feeder (2 hots, neutral, insulated copper ground - 6 AWG Cu typ., electrician to size) in PVC conduit under the deck. Mount the Relay's GFCI sub-panel on the solid house wall beside the primary bedroom French doors (not in the door opening), at least 5 ft horizontally from the inside wall of the tub and in sight of it (680.13); conduit strapped under the deck framing from there to the tub's equipment bay. Bonding per 680.42(B) - electrician to confirm. Electrical permit required.

6. HOUSE WELL: ~8-9 ft from the pad, under the deck by the house wall (sketch location). Locate the well line before digging; hand-dig near it. Drain the tub to the open lawn southeast of the pad (true north, see C-102) - downhill and away from the well, the bulkhead stair and the septic - after the sanitizer dissipates.

7. COVER / BARRIER: keep the Relay's lockable cover on (ASTM F1346 safety cover) - the usual alternative to fencing a residential hot tub. Confirm with Saugatuck Township, along with any zoning setback.

8. CONFIRM BEFORE THE POUR: which side the Relay's equipment bay faces (put the conduit stub-up there), and the deck height in the field.

HOUSE - 6051 OLD ALLEGAN RD

Saugatuck MI - parcel 20-012-021-10

Hot tub pad off the back deck

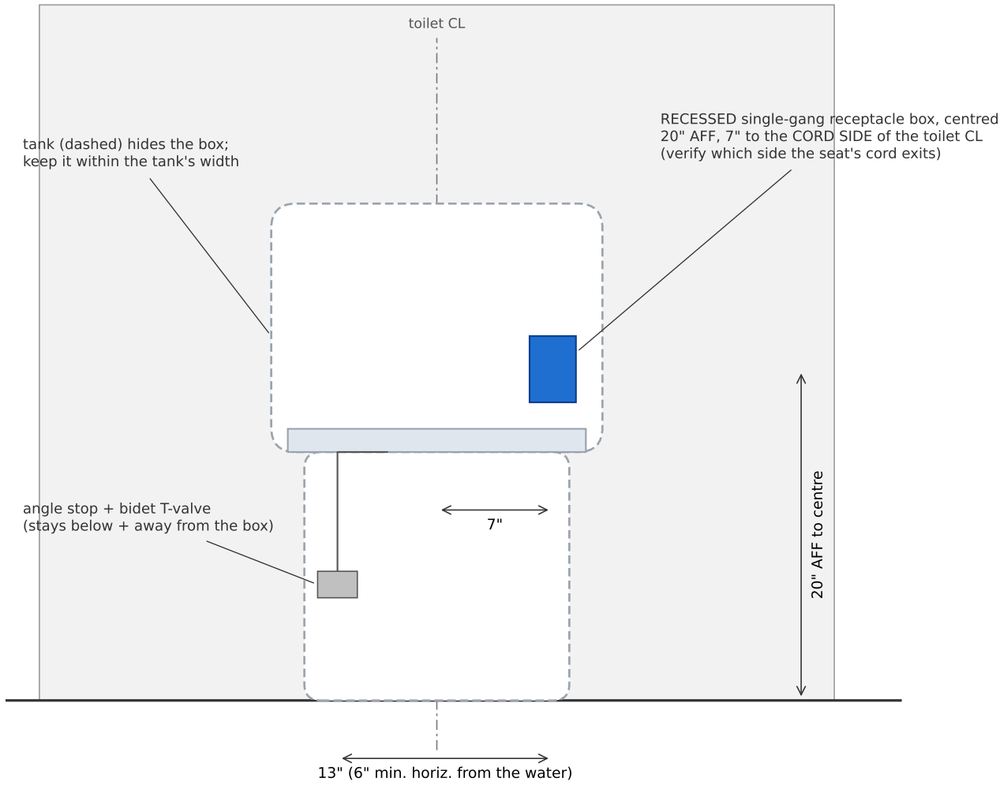
HOT TUB PAD - PLAN, SECTION + SPEC

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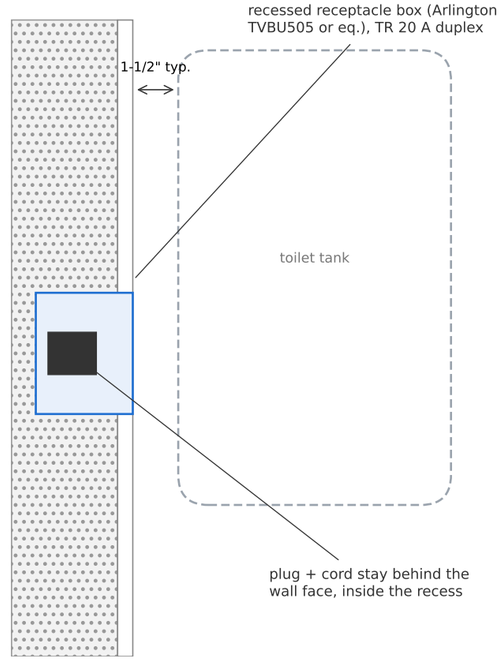
Drawn by: D. Larimore Checked: ____

H-101

1 ELEVATION - wall behind the toilet (looking at the wall) 1-1/2" = 1'-0"



2 SECTION - recessed box behind the tank 3" = 1'-0"



BIDET RECEPTACLE NOTES

1. PURPOSE: 120 V receptacle for the owner's Bio Bidet BB-2000 Bliss seat (elongated; 1,400 W, ~4 ft cord), hidden behind the primary-bath toilet tank. The house model has the bath walls but no toilet, receptacles or wiring, so everything here is set from the toilet centreline and the circuit is traced on site.

2. LOCATION: wall behind the toilet, centred 20" AFF and 7" to the side the BB-2000's power cord exits (confirm on the seat before rough-in; the ~4 ft cord reaches either side). Keep it inside the tank's width so it's hidden, and at least 6" horizontally from the angle stop / bidet T-valve.

3. BOX: RECESSED single-gang receptacle box (Arlington TVBU505 or equal) so the plug and cord sit behind the wall face; a normal outlet + plug won't fit in the 1-2" behind a tank. 20 A tamper-resistant duplex (NEC 406.12), white plate. Old-work install through the drywall.

4. POWER - preferred: a NEW dedicated 20 A 120 V circuit (12/2 NM-B) from the house panel in the basement on a GFCI breaker, so the GFCI test/reset is readily accessible at the panel (2023 MEC = NEC 2023 210.8; behind the toilet is not). The BB-2000 heats water on demand at 1,400 W (~11.7 A): on a shared vanity circuit a hair dryer (~12.5 A) at the same time trips a 20 A breaker.

5. POWER - fallback only if the vanity circuit is a 20 A circuit (12 AWG) serving this bathroom only (NEC 210.11(C)(3)) and the trip risk is accepted: extend from the LOAD terminals of the vanity GFCI receptacle (test/reset stays at the vanity). Never from a 15 A, shared, bedroom or hall circuit.

6. ROUTING (field): fish the new 12/2 from the basement panel up through the floor or bottom plate under the primary bath (verify what is below it) into the stud bay behind the toilet. For the fallback, kill the vanity GFCI breaker, confirm dead, read the breaker size + wire gauge and check what else goes dead (other rooms = shared: use the new circuit).

7. LOAD: BB-2000 nameplate 120 V 60 Hz 1,400 W (water heater ~1,340 W + seat ~55 W) = ~11.7 A, under the 16 A (80%) limit for one cord-and-plug load on a 20 A circuit (NEC 210.23(A)(1)). Electrician to confirm against the seat's label.

8. AFCI: bathrooms are not in the NEC 2023 210.12(A) list, so extending the bath circuit doesn't add AFCI. A new circuit from the panel follows the panel's existing protection; electrician to confirm. Permit: confirm with Saugatuck Township whether the extension or new circuit needs an electrical permit.

9. WATER: the seat's water comes from a T-valve on the existing toilet supply (angle stop stays accessible). Run the cord and the water line on opposite sides of the toilet where the seat allows.

HOUSE - 6051 OLD ALLEGAN RD

Saugatuck MI - parcel 20-012-021-10

Primary bath, behind the toilet

BIDET SEAT RECEPTACLE

From old-allegan-site.ifc - Oct 23, 2026

Drawn by: D. Larimore Checked: ____

H-102