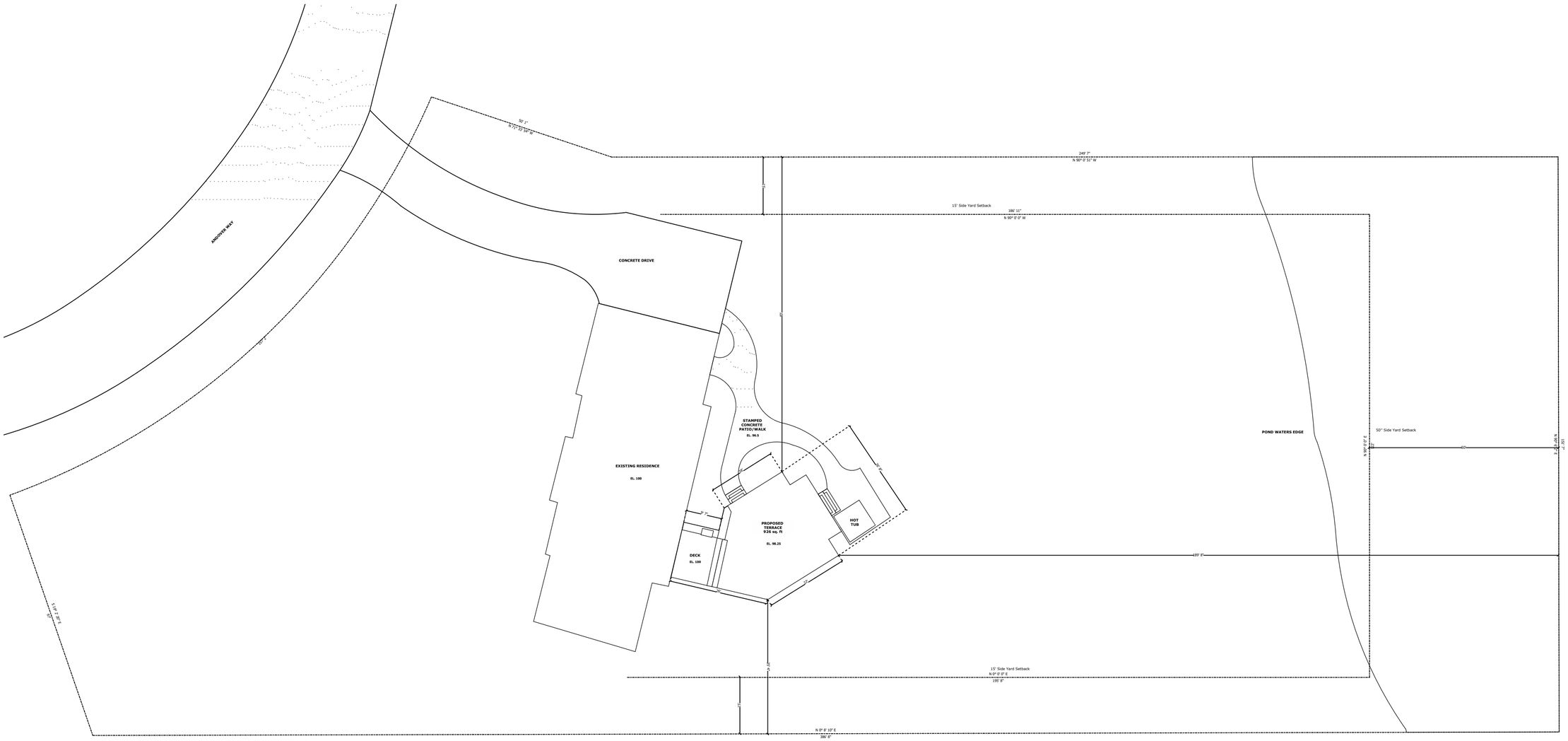

1 / S.1 Site Plan

Scale: 1" : 20'-0"

GENERAL NOTES

1. GOVERNING BUILDING CODE:
ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE '2019 RESIDENTIAL CODE OF OHIO'.

2. TYPICAL LINTEL:
TYPICAL WINDOW AND DOOR LINTELS (T.L.) SHALL BE A MINIMUM OF (2) 2 X 12 WITH A 1/2" PLYWOOD PLATE BETWEEN. TYPICAL WINDOW AND DOOR LINTELS (6" T.L.) SHALL BE A MINIMUM OF (3) 2 X 12 WITH (2) 1/2" PLYWOOD PLATES BETWEEN.

3. FOUNDATIONS:
   A. DESIGN BEARING PRESSURE HAS BEEN ASSUMED TO BE 2,000 PSF. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR MUST VERIFY SOIL BEARING PRESSURE, AND THAT SETTLEMENTS AT THIS PRESSURE WILL BE WITHIN ACCEPTABLE LIMITS.
   B. ALL BACKFILLED AREAS MUST BE PREPARED TO PROVIDE THE BEARING PRESSURE ASSUMED BELOW ALL CONC. FOOTINGS & SLAB ON GRADES.
   C. EXTERIOR FOOTINGS MUST HAVE A MINIMUM OF 3'-6" COVER FOR FROST PROTECTION.
   D. ALL CONCRETE FOOTINGS TO HAVE (2) #5'S CONT. TOP AND BOTTOM AND #5 DOWELS (4'-3" LONG) @ 32" O.C. FROM FOOTER INTO BLOCK COURSES. SLUSH CORES SOLID AT EACH DOWEL.
   E. ALL HIGHER FOOTINGS MUST BE STEPPED DOWN TO BOTTOM OF BASEMENT FOOTING (6'-7" T.B.), OR TO LOWER ADJACENT FOOTINGS, TO ENSURE EVEN SETTLEMENT OF FOUNDATIONS. STEP FOOTINGS AT 2 HORIZONTAL UNITS TO 1 VERTICAL UNIT PER STEP.
   F. IF ANY INDICATION OF UNEVEN BEARING CONDITIONS IS DETECTED, (2) #5 CONT. REBAR SHALL BE INSTALLED IN THE BOTTOM PART OF ALL FOOTERS.
   G. BACKFILLED AREAS BELOW SLAB ON GRADE (@ GARAGE & PORCHES):
      1. FOUNDATION WALLS WITHIN THE SLAB-ON-GRADE GARAGE AREAS SHALL BE BACKFILLED WITH #57 SIZE OR #3 SIZE GRAVEL OR CRUSHED STONE.
      2. THE BACKFILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12" THICKNESS.
      3. EACH LIFT OF BACKFILL SHALL BE COMPACTED WITH NOT MORE THAN TWO PASSES OF A VIBRATORY PLATE COMPACTER.

4. CONCRETE:
   A. CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 564 #/CY. A MAX. WATER TO CEMENT RATIO OF 0.49 AND OBTAIN A MIN. STRENGTH OF 4,000 PSI @ 28 DAYS UNLESS OTHERWISE NOTED.
   B. USE 6% +/- 1% ENTRAINED AIR FOR ALL CONCRETE EXPOSED TO WEATHER.
   C. ALL GARAGE SLABS AND TERRACE/PATIO SLABS SHALL BE AIR ENTRAINED.
   D. ALL CONCRETE SLABS TO HAVE SAWCUT CONTROL JOINTS AT A MAX OF 10'-0" ON CENTER EACH WAY, WITHIN 8 HOURS OF POUR.

5. MASONRY:
   A. CONCRETE MASONRY UNITS PER ASTM C90, GRADE N, BRICK PER ASTM C216, GRADE SW, TYPE FBS. MORTAR PER ASTM C270, TYPE S, PROPORTION SPECIFICATIONS.
   B. BACK FILLING AGAINST BASEMENT WALLS SHALL NOT BE DONE PRIOR TO INSTALLATION OF FIRST FLOOR JOISTS, BRIDGING, AND SHEATHING.
   C. ALL STEEL BEAMS BEARING ON MASONRY WALLS ARE TO BE ANCHORED TO WALL WITH (2) 1/2" CIRCULAR NELSON STUDS, 8" LONG AND WITH BEARING PLATES WHERE INDICATED ON THE PLAN.
   D. ALL STEEL BEAMS MUST BEAR AT LEAST 8" ON MASONRY WALLS AND 5" ON CONCRETE WALLS.
   E. MASONRY WALLS MUST BE GROUTED SOLID A MINIMUM OF 24" WIDE (3 CORES) UNDER BEAMS WITH (2) #5'S FULL HEIGHT TO FOOTER.
   F. CONTRACTOR MUST COVER TOP OF MASONRY WALLS AT END OF EACH DAY UNTIL COMPLETELY SEALED TO PROTECT THEM FROM PRECIPITATION AND EFFLORESCENCE.

6. STEEL:
   A. ROLLED SHAPES, PLATES AND BARS PER ASTM A36.
   B. WIDE FLANGE SHAPES SHALL BE ASTM A992.
   C. ALL PIPE COLUMNS SHALL BE ASTM A53.
   D. ALL FLOOR JOISTS BEARING ON STEEL BEAMS TO BE FASTENED TO THE BEAM.
   E. ALL TWO STORY COLUMNS SHALL BE SECURELY CONNECTED TO SECOND FLOOR FRAMING OR BE PLATFORM FRAMED.

7. WOOD:
   A. ALL RAFTERS, JOISTS AND HEADERS SHALL BE NO. 2 GRADE, HEM-FIR (NORTH) OR SOUTHERN PINE, OR BETTER (E = 1,600,000 PSI).
   B. ALL WALL STUDS AND BUILT-UP POSTS SHALL BE A MINIMUM OF SPRUCE-PINE-FIR, STUD GRADE OR BETTER (E = 1,200,000 PSI).
   C. ALL EXPOSED LUMBER OR LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED (PCL/HANIZED).
   D. ALL WOOD EXCEPT FOR EXTERIOR TREATED LUMBER, SHALL BE A MINIMUM OF 8" ABOVE EXTERIOR GRADE PER CODE.
   E. DOUBLE ALL FLOOR JOISTS RUNNING PARALLEL UNDER PARTITION WALLS ABOVE.
   F. ALL HEADERS AND RAFTERS AROUND SKYLIGHTS AND DORMERS SHALL BE AT LEAST DOUBLED, UNLESS NOTED OTHERWISE.
   G. ALL FRAMING UNDER JACUZZI/POOLS, SPAS, TUBS, AND KITCHEN ISLANDS WHICH ARE LARGER THAN NORMAL SHALL BE DOUBLED FULL LENGTH.
   H. ALL DRILLING AND NOTCHING OF FLOOR JOISTS SHALL BE IN ACCORDANCE WITH RCO R502.8. DIAMETERS OF HOLES SHALL NOT EXCEED ONE-THIRD THE DEPTH OF A MEMBER. HOLES SHALL NOT BE CLOSER THAN 2 INCHES TO THE TOP OR BOTTOM OF THE MEMBER, OR TO ANY OTHER HOLE OR NOTCH IN THE MEMBER.
   I. ALL DRILLING OR NOTCHING OF WALL STUDS OR TOP PLATES SHALL BE IN ACCORDANCE WITH RCO 602.6 AND 602.8.1. PROVIDE METAL TIES OR STUD SHOES WHERE REQUIRED.

8. ALL RAFTERS SHALL BE FRAMED TO A RIDGE BOARD, AT LEAST 1" NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER. AT ALL VALLEYS & HIPS THERE SHALL BE A VALLEY OR HIP RAFTER NOT LESS THAN 2" NOMINAL THICKNESS & NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER.

   ALL RAFTERS IN ROOF OVERBUILDS MUST BE SUPPORTED BY A 2X6 MIN. RUNNING ACROSS SHEATHING AND RAFTERS BELOW. (RAFTERS SHALL NOT BE SUPPORTED ON SHEATHING.)

9. FIREBLOCKING SHALL BE PROVIDED IN ACCORDANCE WITH RCO R602.8 TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN THE TOP STORY AND THE ROOF SPACE. OPENINGS AROUND PENETRATIONS TO BE SEALED WITH AN APPROVED MATERIAL.

10. HANDRAILS ARE REQUIRED AT ALL STAIRS WITH 4 RISERS OR MORE AND SHALL BE MOUNTED AT 36" ABOVE THE TREAD NOSING.

11. SOFFIT AND RIDGE VENTS MUST SUPPLY OPEN SPACE FOR VENTILATION OF NOT LESS THAN 1/150 OF THE TOTAL ATTIC OR SPACE (WHICH THEY ARE VENTILATING OR MUSHROOM TYPE VENTS SHOULD BE ADDED HIGH ON THE REAR ROOF SLOPE. PROVIDE SCREENING OVER OPENINGS WHERE REQUIRED. USE INSULATION BAFFLES TO MAINTAIN CLEAR AIR SPACE. RIDGE VENTS TO BE 12" WIDTH, 18 SQ. IN. NFA PER LINEAR FT. MIN., WITH EXTERNAL BAFFLE AND WEATHER FILTER. AIR VENT SHINGLE VENT II OR EQUAL

12. INSULATION AND MOISTURE VAPOR RETARDERS SHALL BE INSTALLED IN ACCORDANCE WITH RCO 316 & 601.3. IN ALL FRAMED WALLS, FLOORS AND ROOF/CEILINGS COMPRISING ELEMENTS OF THE BUILDING THERMAL ENVELOPE, A VAPOR RETARDER SHALL BE INSTALLED ON THE WARM-IN-WINTER SIDE OF THE INSULATION.

13. THE ENTIRE STRUCTURE TO BE SEALED IN ACCORDANCE WITH THE RCO ENERGY AND ICC PRESCRIPTIVE REQUIREMENTS.

14. THE EXTERIOR ENVELOPE OF THE STRUCTURE SHALL BE PROTECTED BY FLASHING IN ACCORDANCE WITH RCO R703.8. WHERE ALUM. TRIM IS USED IT SHALL BE INSTALLED IN A MANNER THAT DOES NOT ALLOW GAPS TO OCCUR WHICH WOULD ALLOW THE ENTRY OF WATER, ICE OR INSECTS. FOLLOW THE RECOMMENDATIONS OF THE 'ALCOA ALUM. SOFFIT INSTALLATION PLANNER'.

15. FIREPLACES: (IF APPLICABLE)
FIREPLACES TO BE BUILT PER 2019 R.C.O. CHAPTER 10 B.I.A. (BRICK INDUSTRY ASSOCIATION) TECHNICAL NOTE 19 (REVISED JAN. 1995) DIMENSIONS GIVEN IN FIGURES 1A, 1B, AND 1C, AND IN TABLE 1? FOR A SINGLE-FACED FIREPLACE WITH AN OPENING AS NOTED ON DRAWING. THE COMBUSTION CHAMBER TO BE LINED WITH FIRECLAY BRICK USING FIRECLAY MORTAR, EQUIP WITH CAST IRON DAMPER AND CAST IRON ASH DUMP AS SHOWN. OUTSIDE AIR INLET (PER B.I.A. TECHNICAL NOTE 19A) AND GAS LIGHTER TO BE PROVIDED. AN ASH CLEAN-OUT IS TO BE PROVIDED OUTSIDE OR IN BASEMENT. FLUE TO BE APPROVED CLAY FLUE LINING, AND SIZED PER F.P. OPENING.NON COMBUSTIBLE HEARTH TO BE 20 INCHES OUT AND OVERLAP A MINIMUM OF 12 INCHES ON BOTH SIDES OF THE OPENING.

PREMANUFACTURED FIREPLACE UNITS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, WHERE POSSIBLE USE UNITS WITHOUT LOUVERS AND/OR COVER GRILLS ON FACE OF UNIT FOR CLEAN FACE LOOK.

16. ELECTRICAL:
   A. LOCATIONS OF CONVENIENCE OUTLETS AND LIGHT FIXTURES SHALL BE LOCATED AS REQUIRED IN SECTION 210.52 AND 210.70 OF THE N.E.C. PROVIDE GFI RECEPTACLES IN ACCORDANCE WITH 210.8 OF THE N.E.C.
   B. ALL 120 VOLT, SINGLE PHASE, 15-20 AMP BRANCH CIRCUITS SUPPLYING OUTLETS IN HABITABLE AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, IN ACCORDANCE WITH N.E.C. 210.12.
   C. ALL 20 AMP, 120 VOLT RECEPTACLES IN HABITABLE AREAS TO BE TAMPER RESISTANT IN ACCORDANCE WITH N.E.C. 406.11.
   D. WHERE WHIRLPOOLS, SPAS, OR TUBS ARE INSTALLED, ALL WIRING AND INSTALLATION OF LIGHT FIXTURES, SWITCHES, RECEPTACLES AND OTHER ELECTRICAL DEVICES SHALL BE INSTALLED ACCORDING TO N.E.C. ARTICLE 680-40.

17. PROVIDE AN ATTIC ACCESS PANEL (MIN. SIZE 22" X 30") IN AN AREA WITH 30" CLEARANCE ABOVE WITH A LIGHT IN THE ATTIC WITH A SWITCH THAT CAN BE REACHED FROM IN THE OPENING. COVER ACCESS PANEL W/ R-38 INSULATION. THE OWNER SHALL BE OFFERED AN "ATTIC TENT" ATTIC ACCESS INSULATOR COVER. ACCESS MUST BE PROVIDED TO ALL ATTIC SPACES PER R.C.O. R807.

18. ALL ROOFS TO HAVE GUTTERS AND DOWNSPOUTS AS REQUIRED FOR PROPER DISCHARGE INTO STORM SEWERS, OR ONTO SPLASH BLOCKS AS REQUIRED BY THE CITY. THE OWNER SHALL BE OFFERED THE OPTION OF INCLUDING "MASTER SHIELD" GUTTER PROTECTION, ALONG WITH THEIR COMPLETE WARRANTY.

19. PROVIDE BITUTHENE PROTECTION (ICE AND WATER GUARD) UP 36" ON ALL EAVES, AND IN VALLEYS, SADDLES, SLOPES LESS THAN 4:12, AND 36" MIN. UP SIDE WALLS ADJACENT TO ROOF SURFACES OR OTHER AREAS WHERE POSSIBLE SNOW ACCUMULATION OR ICE BACK-UP MAY OCCUR.

20. TYVEK HOUSE WRAP TO BE INSTALLED ON ALL VERTICAL EXTERIOR SURFACES, (LIVING SPACES OR NOT). ALL HOUSE WRAP TO BE "TYVEK" BRAND RATED FOR SPECIFIC USE (NO SUBSTITUTE). ALL JOINTS TO BE TAPED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND PENETRATIONS SEALED. ASSURE THE UPPER LAYERS OF WRAP ALWAYS LAP OVER LOWER LAYERS, AND THAT WRAP OVER WINDOWS LAPS OVER THE WINDOW FLANGES.

21. WHERE VINYL SIDING IS USED, IT SHALL BE INSTALLED IN ACCORDANCE WITH THE VINYL SIDING INSTITUTES "VINYL SIDING INSTALLATION MANUAL" AND PROVIDE FOR EXPANSION & CONTRACTION, AND PROPER CLEARANCES FOR J-CHANNELS & ADJACENT SURFACES.

Scale: 1/20" = 1 ft

0 5 10 15 20 25 30 35 40 45

ACUTE VIEW
Brandon Hayes
2960 State Route 503
Mantua, OH 44255
www.acute-view.com

By: BWH Date: 2.9.22
By: _____ Date: _____
By: _____ Date: _____
By: _____ Date: _____
By: _____ Date: _____
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By: _____ Date: _____
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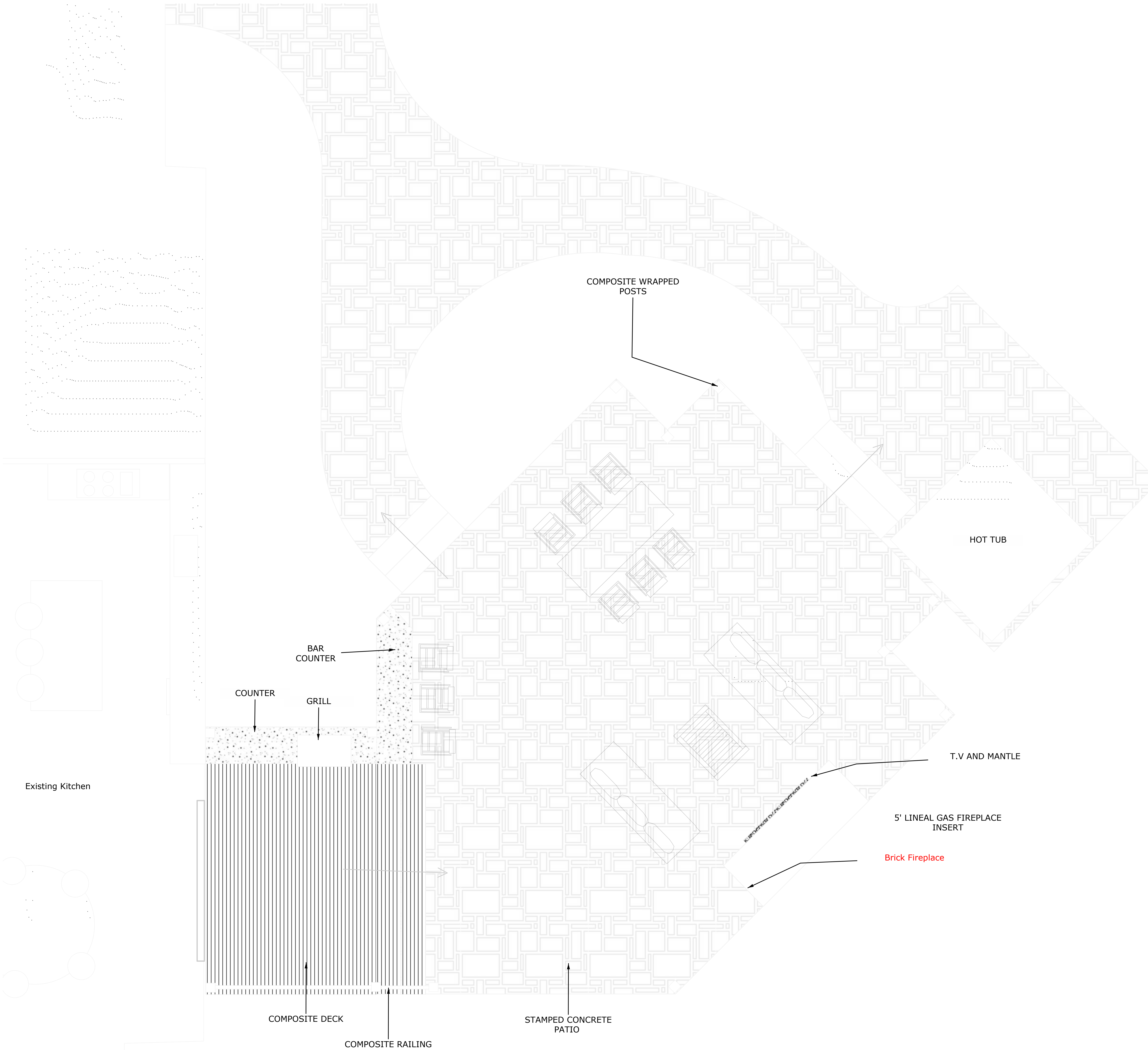
By: _____ Date: _____

SCHWARTZ RESIDENCE
7631 ANDOVER WAY
HUDSON, OH 44236
PROPOSED TERRACE ADDITION

N

S.1



4
L.3

Floor Plan

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

Scale: 1/4" = 1 ft
0 2 4 6 8 10

ACUTE VIEW

By	Date
By: BWH	Date: 2.9.22
By: BWH	Date: 2.22.22
By:	Date:
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By:	Date:

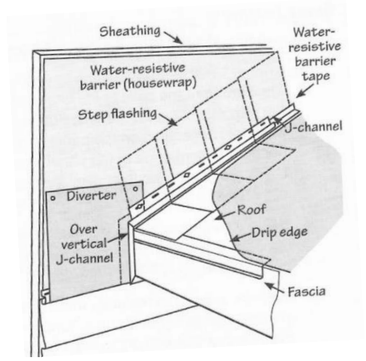
SCHWARTZ RESIDENCE

7631 ANDOVER WAY
HUDSON, OH 44236

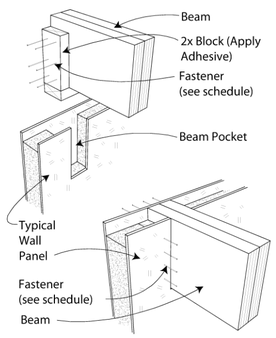
PROPOSED TERRACE ADDITION

N

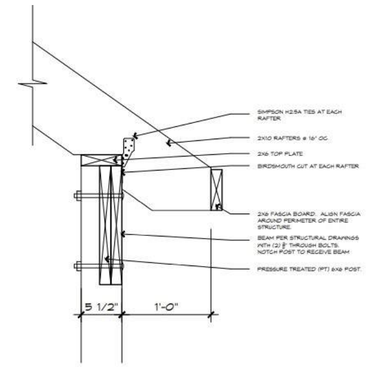
L.3



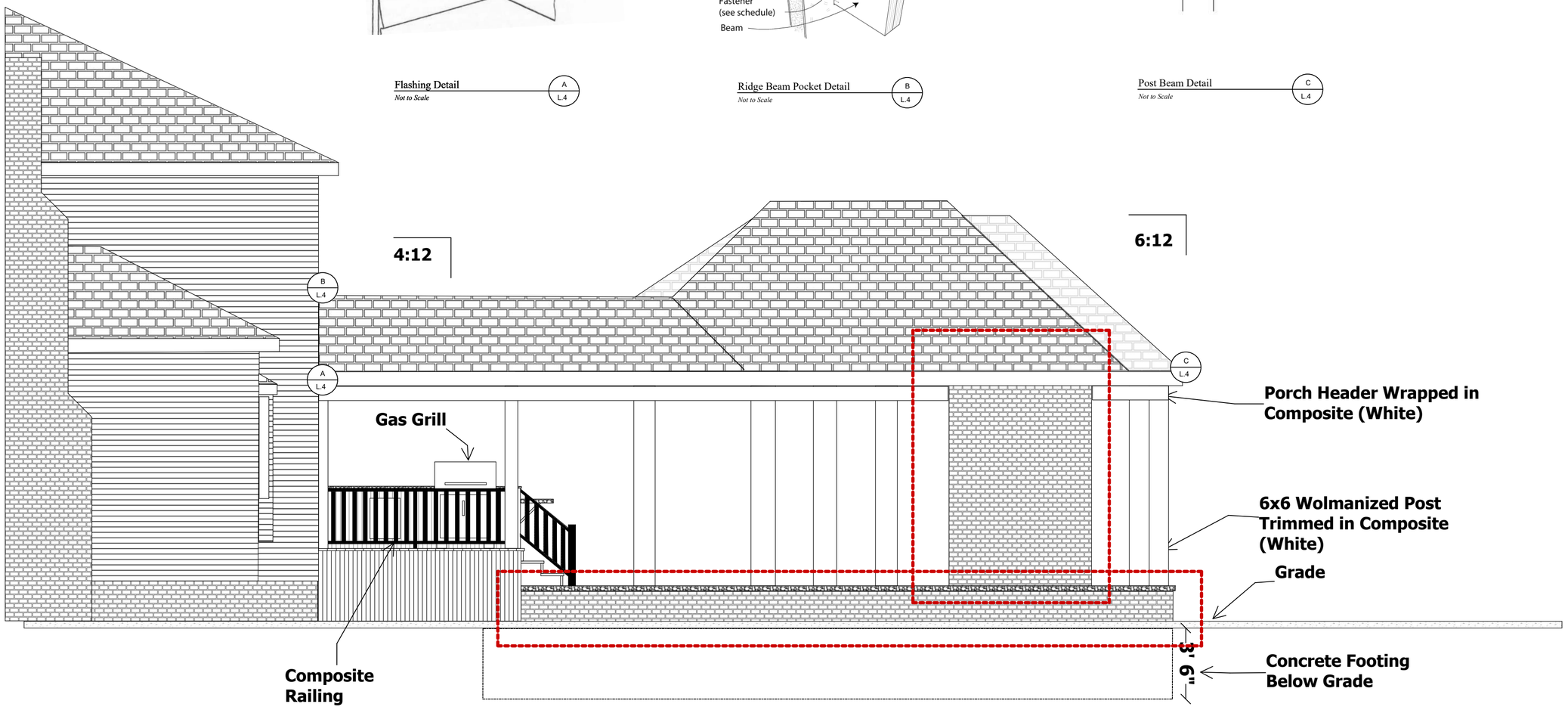
Flashing Detail — A / L.4
Not to Scale



Ridge Beam Pocket Detail — B / L.4
Not to Scale



Post Beam Detail — C / L.4
Not to Scale



5 / L.4 North Elevation (Left)
Scale: 1/4" : 1'-0"

Scale: 1/4" = 1 ft
0 2 4 6 8 10

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SCHWARTZ RESIDENCE
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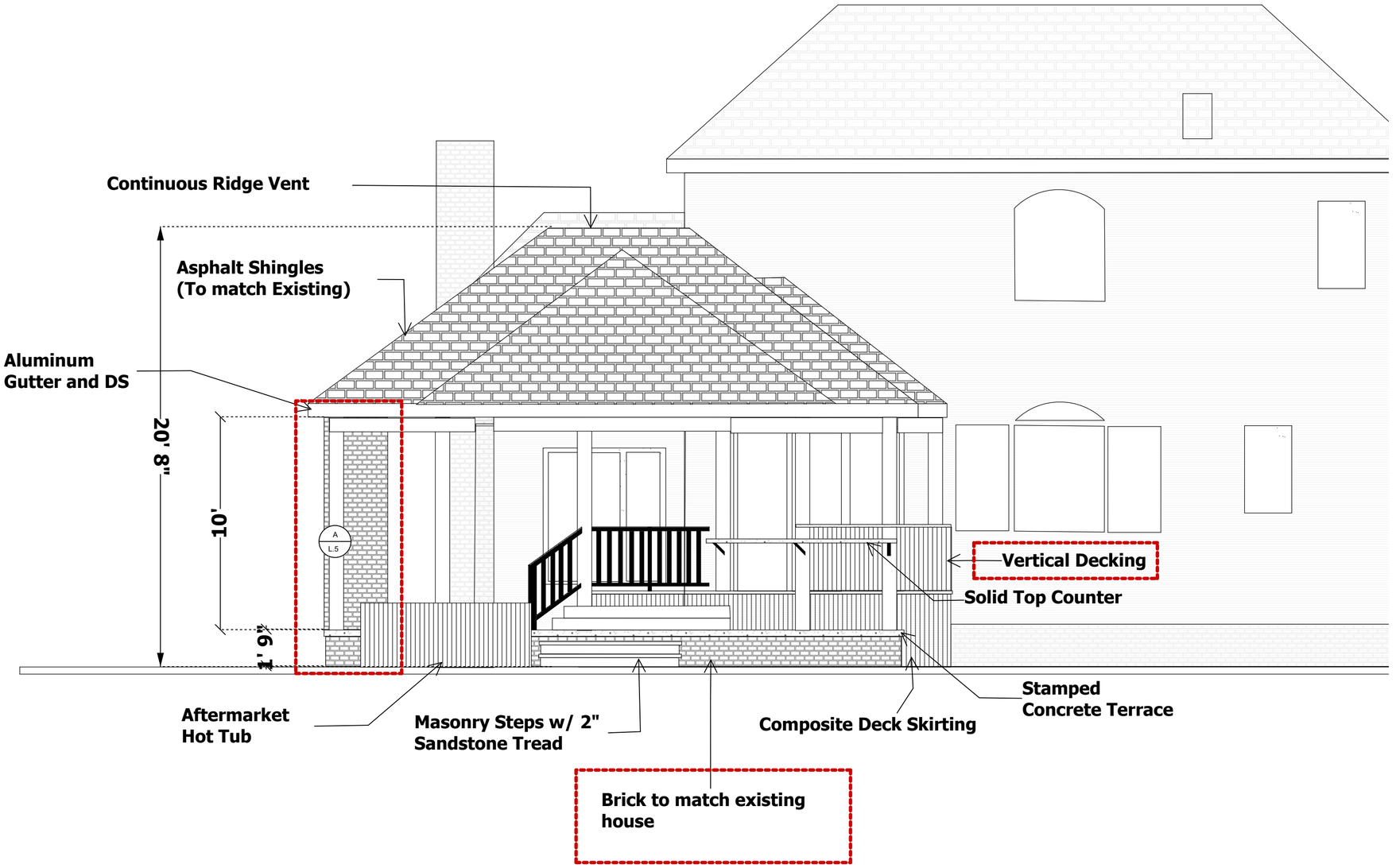
HUDSON, OH 44236
PROPOSED TERRACE ADDITION

N

L.4

BORAL COLUMN SURROUND
PT 6X6 POST
PACK OUT COLUMN AS REQUIRED TO INSTALL COLUMN SURROUND

A / L.5 Post Detail
Not to Scale



6 / L.5 West Elevation (Rear)
Scale: 1/4" : 1'-0"

Scale: 1/4" = 1 ft
0 2 4 6 8 10

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2260 State Route 303
Mantua, OH 44255
330-997-7404

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By:	Date:

SCHWARTZ RESIDENCE
7631 ANDOVER WAY
HUDSON, OH 44236
PROPOSED TERRACE ADDITION

N

L.5

ACUTE VIEW
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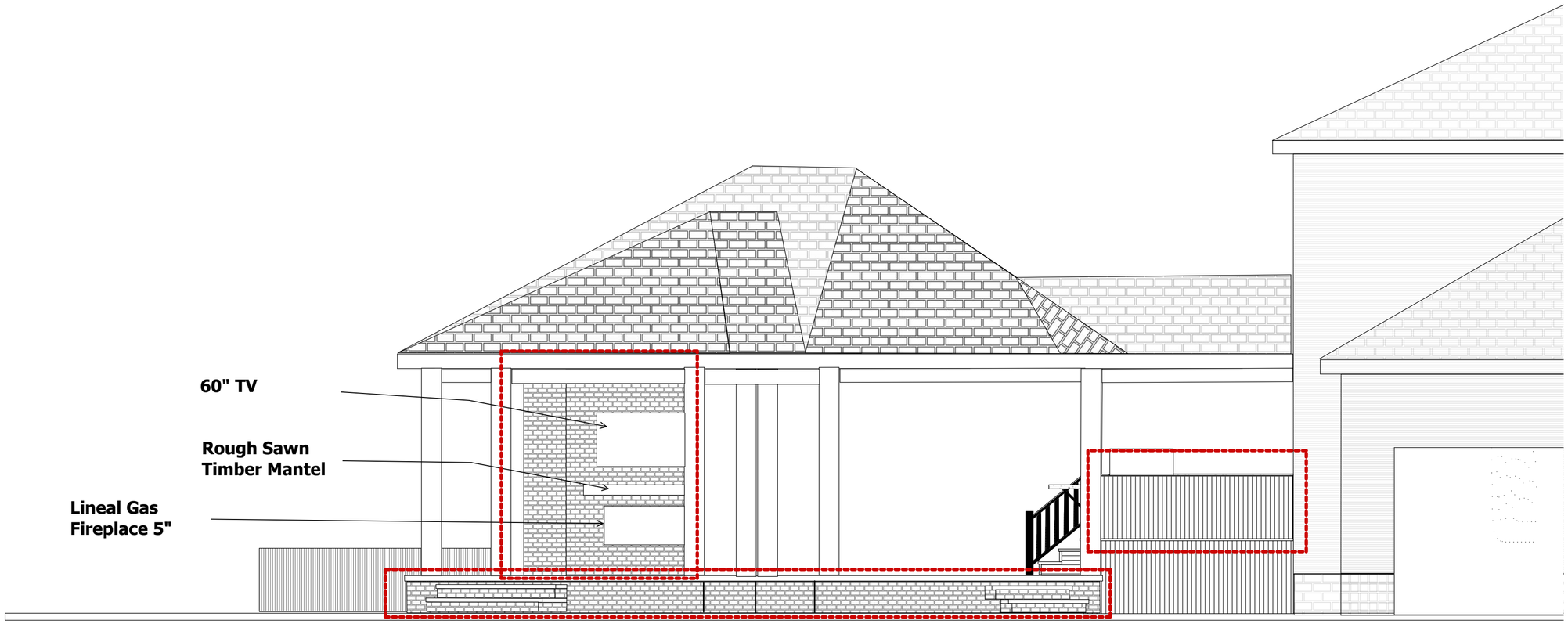
SCHWARTZ RESIDENCE

7631 ANDOVER WAY
HUDSON, OH 44236

PROPOSED TERRACE ADDITION



6 / L.5 West Elevation (Rear)

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

Scale: 1/4" = 1 ft
0 2 4 6 8 10

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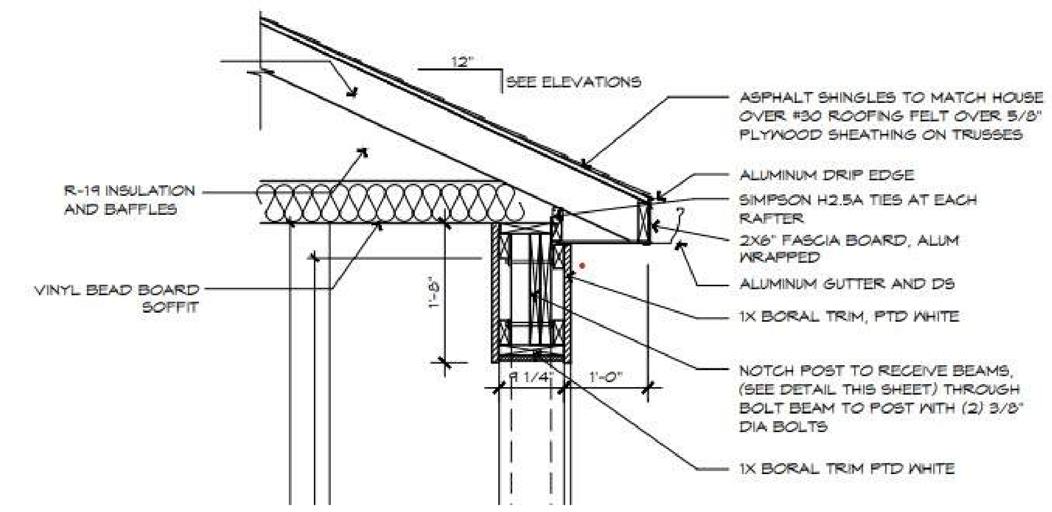
L.6

ACUTE VIEW
Brandon Hayes
2862 State Route 303
Mantua, OH 44255
330-357-1366

By	Date
BWH	2.9.22



Eve Detail (C / L.2)
Not to Scale

SCHWARTZ RESIDENCE
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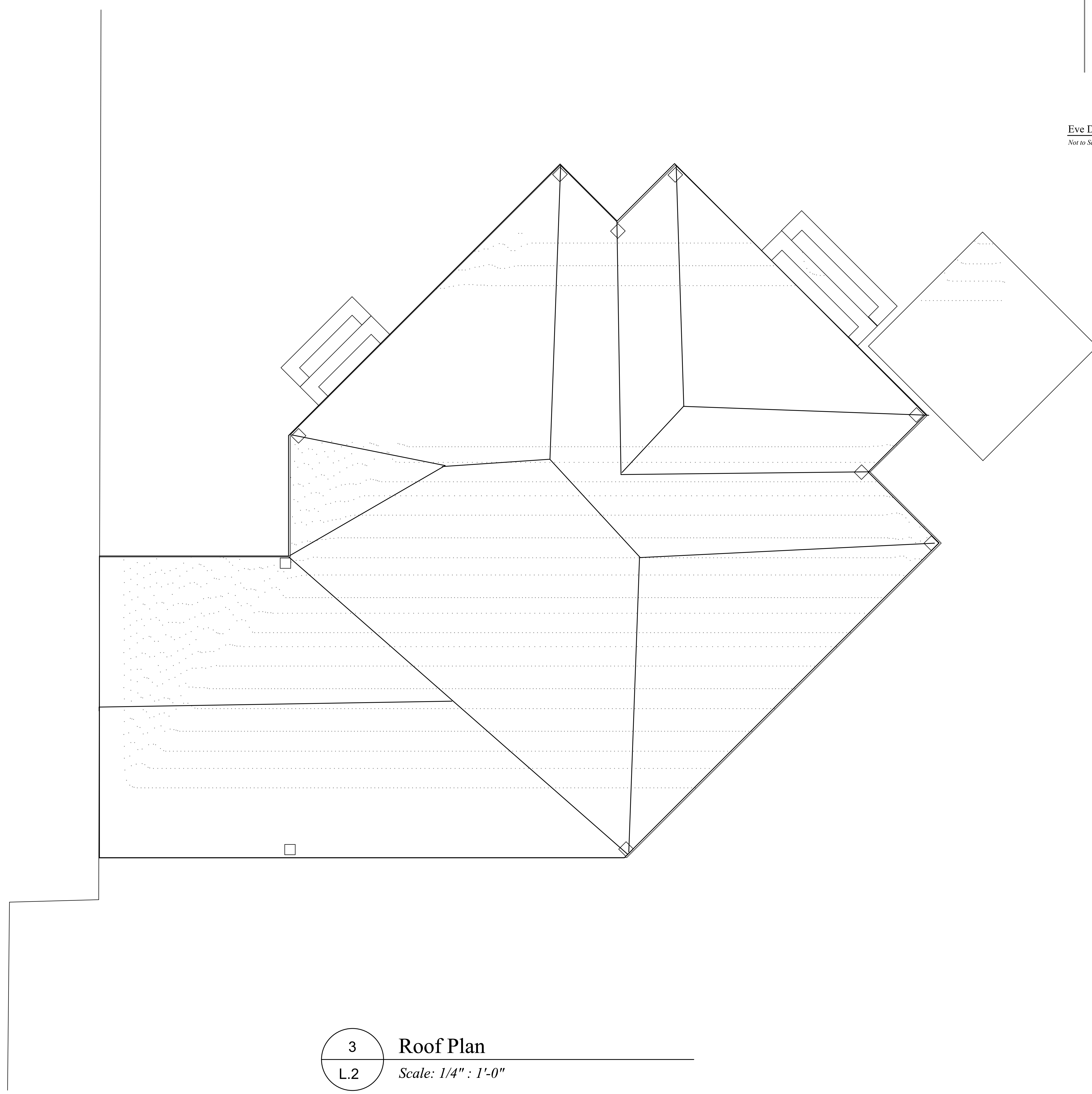
PROPOSED TERRACE ADDITION

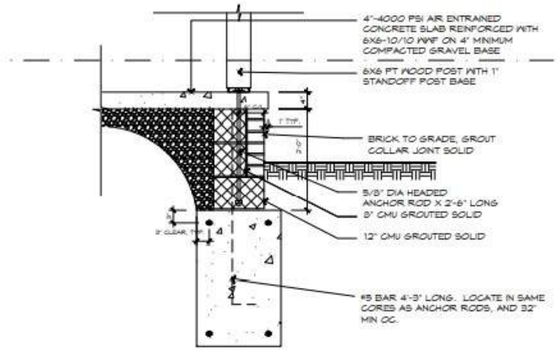


Roof Plan (3 / L.2)
Scale: 1/4" : 1'-0"

Scale: 1/4" = 1 ft
0 2 4 6 8 10

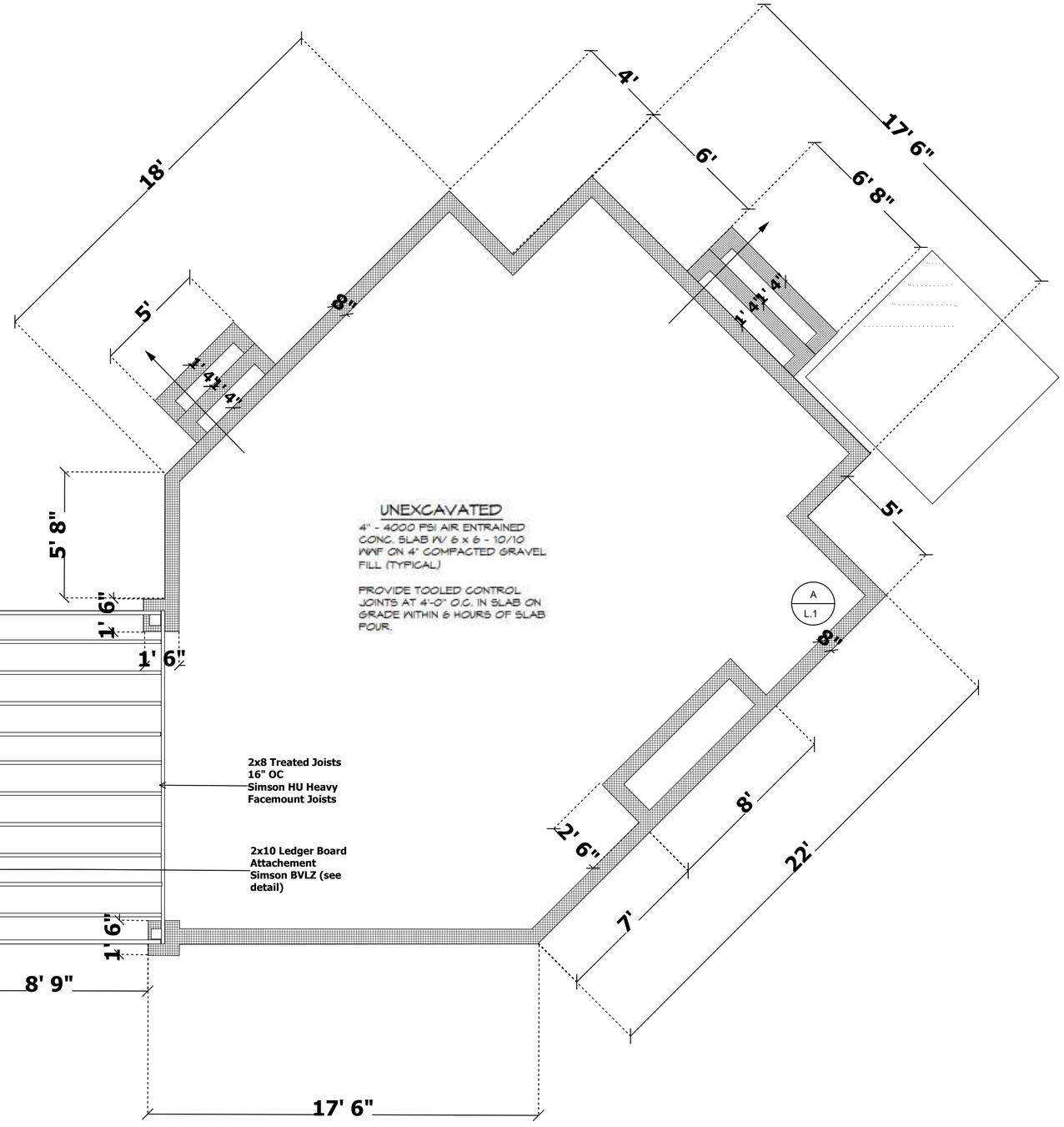
N

L.2



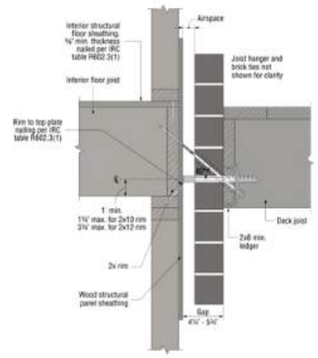
A L.1 **Footer Post Detail**

Not to Scale



2 L.1 **Foundation Plan**

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



B L.1 **Ledger Detail**

Not to Scale

Scale: 1/4" = 1 ft

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ACUTE VIEW
Brandon Hayes
2962 State Route 303
Mantua, OH 44255
330-977-1566

By: BWH Date: 2.9.22
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By: Date:

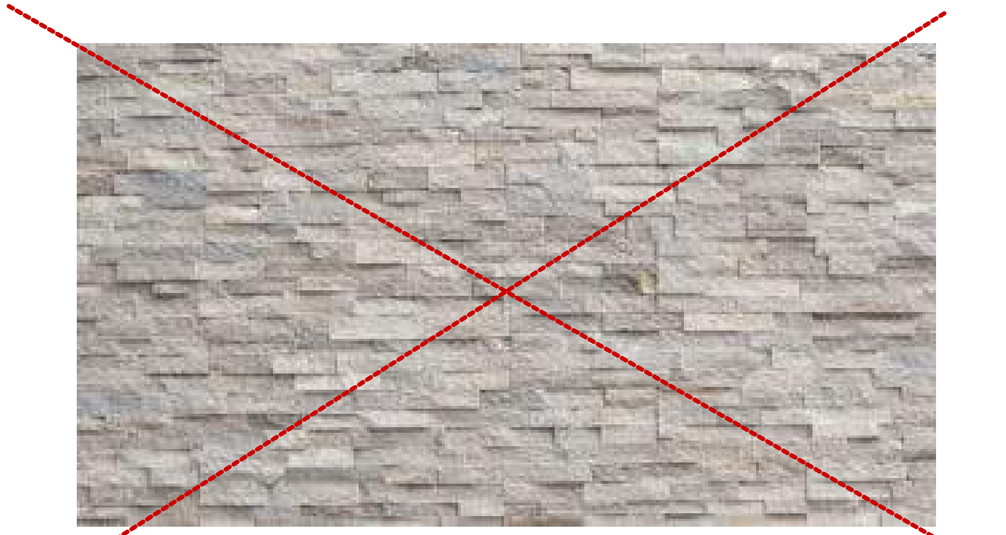
SCHWARTZ RESIDENCE
7631 ANDOVER WAY
HUDSON, OH 44236
PROPOSED TERRACE ADDITION

N

L.1

Terrace and Patio Material:

**Standard Grey Concrete with Charcoal Release-
Stamped Finish with Ashlar Slate**



Fireplace and Terrace Base:

Realstone Veneer Buff Ledgestone

Deck and Skirting:

Timber Tek Castle Gate

8
L.7

Material Call Outs

Not To Scale

ACUTE VIEW
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Mantua, OH 44255
330-997-7404

By: BWH Date: 2.9.22
By: BWH Date: 2.22.22
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SCHWARTZ RESIDENCE
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HUDSON, OH 44236
PROPOSED TERRACE ADDITION

N

L.7

Schwartz Residence

7631 Conceptual Renderings

7631 Andover Way Front View

Rear View

North View

SouthView

SMARTOP®

by Leisure Concepts

Smartop Succeeds Where Other Covers Fail

For more than fifty years, spa owners worldwide have desired an alternative to the ever-failing vinyl cover that becomes water-logged, develops mold and mildew and loses its efficiency and ability to hold in heat, resulting in higher energy costs.

Smartop is the only solution that gives you a hassle and maintenance-free environment, allowing you to relax and enjoy the spa ownership experience you expect and deserve.

Opening and closing Smartop is effortless and easy, while the chic and stylish design is odor, mold, and mildew free! Zero maintenance, combined with a higher heat retention, make Smartop's performance and long list of benefits, unmatched by any other cover.

Learn why Smartop is the spa cover YOU expected and the spa cover YOU deserve.

The Spa Cover You Deserve

- No maintenance
- Zero water absorption
- Dual integrated cover lift system
- Durable and strong
- Exclusive heat retention system
- Safe and secure
- Attractive woven PVC skirt

SMAR

The Differen

Non-Water Absorbing Foam
Smartop is insulated with specially formulated, Owens Corning closed cell, waterproof foam, making it impermeable to moisture and water weight gain, thereby preventing sagging and water puddling on the cover. Smartop is sanitary and clean and will not develop mold, mildew

DecoShield Protective Overlay
DecoShield is an elegant, textured polymer overlay that provides style AND protection to Smartop's rigid exterior shell. This durable, weather-resistant material is designed to withstand extreme heat and cold, snow, ice, pounding hail and intense UV rays

Black Anodized Aluminum Trim
The durable, rustproof anodized aluminum trim adds the finishing touch to the aesthetically pleasing Smartop.

Automatic Snow and Ice Melt
Using heat transfer from the spa's water, Smartop's polymer panels automatically melt snow and ice off the Smartop ensuring your spa is easily accessible throughout the winter months.

Maintenance-Free
The durable, polymer panels and protective DecoShield overlay makes cleaning quick and easy using common dish soap and water. Smartop does not require the use of costly conditioners, nor is there any required maintenance to the foam, making Smartop effortless and easy to own.

SmartSeal
A layer of compression foam is applied to the underside of the cover, creating a tight seal that prevents heat from escaping the spa.

RTOP®

nce Defined

UL certified to ASTM F1346-91 (Reapproved 2010)
Standard for Manual Safety Covers

Durable and Strong

Interlocking polymer panels, combined with anodized aluminum reinforcement channels, allow Smartop to support over 1,000 pounds.

ost and Energy Savings

martop's heat retention capability (often referred to as R-value) has een tested against the highest-rated vinyl covers on the market roving equal in performance. However, unlike traditional vinyl covers, martop's R-value remains constant throughout its lifespan due to the osed cell insulating foam never absorbing moisture or water. This sults in superior heat retention and cost savings. (Learn more about martop's high heat retention capability later in this brochure.)

ual Cover Lift System

he patented EAS Lift and Assist component, combined with a rear hydraulic cover lift, makes opening and closing Smartop feather-light and fingertip easy.

e and Secure

tainless steel lockdown cables and a combination padlock prevent unauthorized use of the spa keeping children and unsupervised users safe.

Repairable and Replaceable Components

In the unlikely event Smartop becomes damaged, every component is repairable or replaceable. NEVER deal with the hassle of a costly cover replacement again.

SMARTOP

Smartop Upright 3.0

Privacy and Wind Block Built-In

The Smartop Upright creates a private, peaceful hot tub experience with its functional space saving design. Feather-light opening and closing, durability and a chic, sophisticated appearance make Smartop the perfect way to cover your spa. *Patent No. 8,813,275 | 9,689,172*

As little as 8 inches is required behind the spa and 3 inches on each side

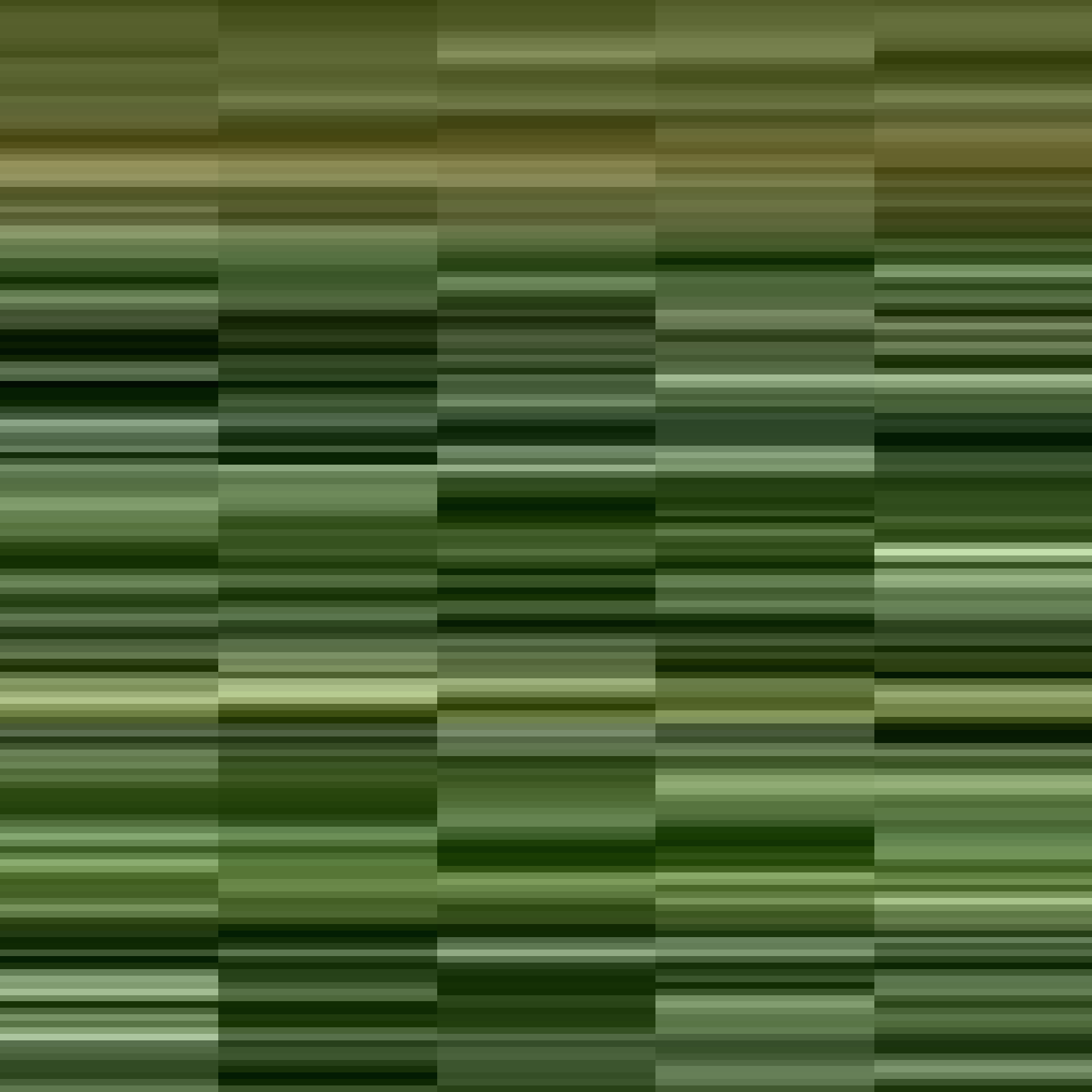
Smartop Vanish XL

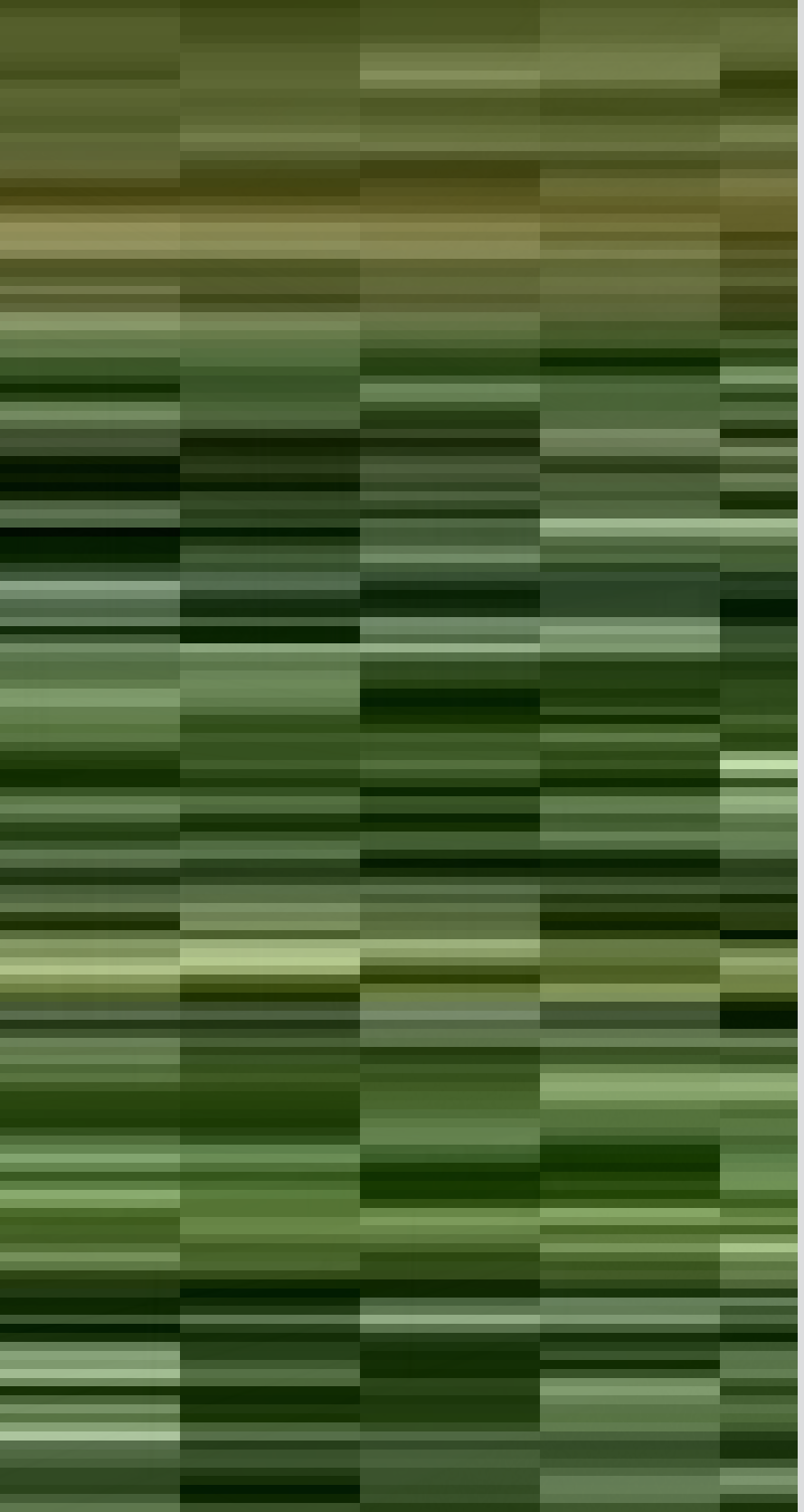
Panoramic View Included

Experience the world around you with the Smartop Vanish XL. Fingertip-light and velvet smooth opening and closing, make placing Smartop in a low position behind the spa effortless, creating a 360-degree view for you to enjoy during your hot tub experience.

Patent No. 9,574,361 | 9,689,172

A minimum of 28 inches is required behind the spa and 5 inches on each side





SMARTOP®

Smartop transforms your spa and its surroundings, into an eye-catching, sophisticated space. The contemporary, alluring design coupled with performance and ease of ownership make Smartop the new standard for spa covers.

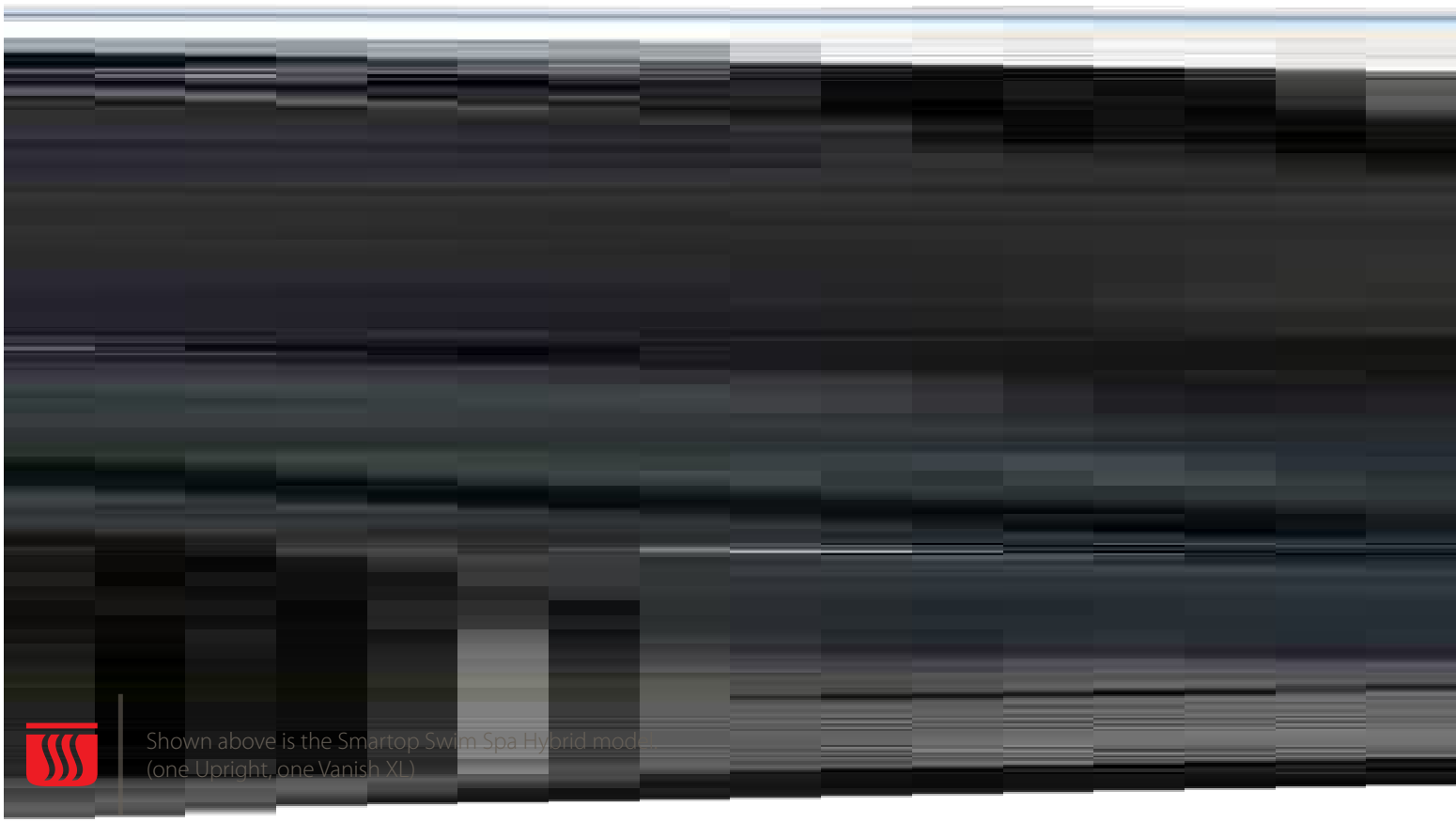
Smartop spa covers are available in a variety of models to meet your specific needs. Whether it's a small two-person spa or a large twenty-foot swim spa, aboveground or recessed, Smartop can be manufactured to fit most spas with a flat top surface. If you have a spa with a unique shape, size or installation requirements, let us know and we will work to design and build a Smartop to meet your situation and needs.

Proudly made in the

MADE IN THE USA

www.SmartopSpaCover.com

SMARTOP



Shown above is the Smartop Swim Spa Hybrid model
(one Upright, one Vanish XL)

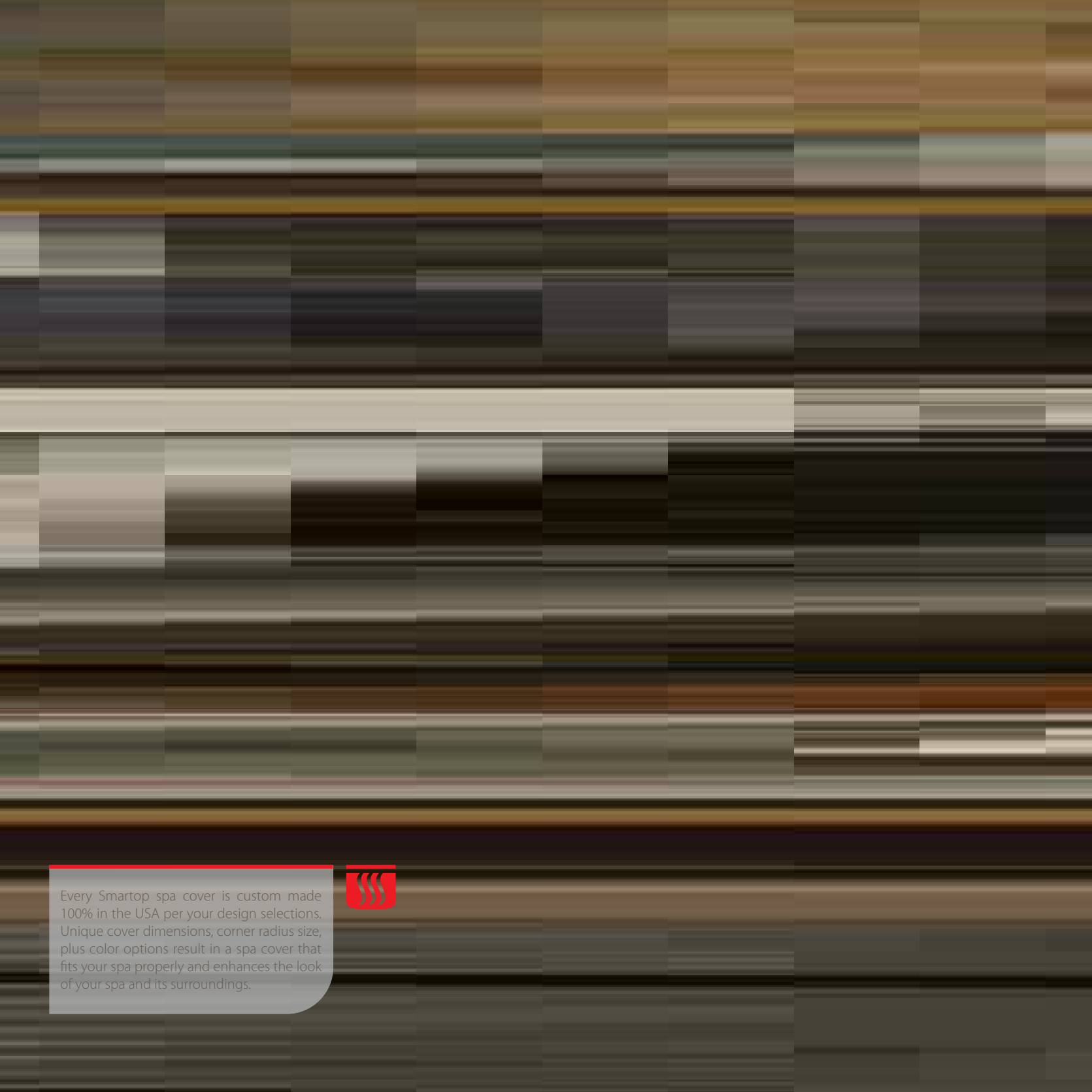
Smartop Swim Spa

Easy Handling - On and Off

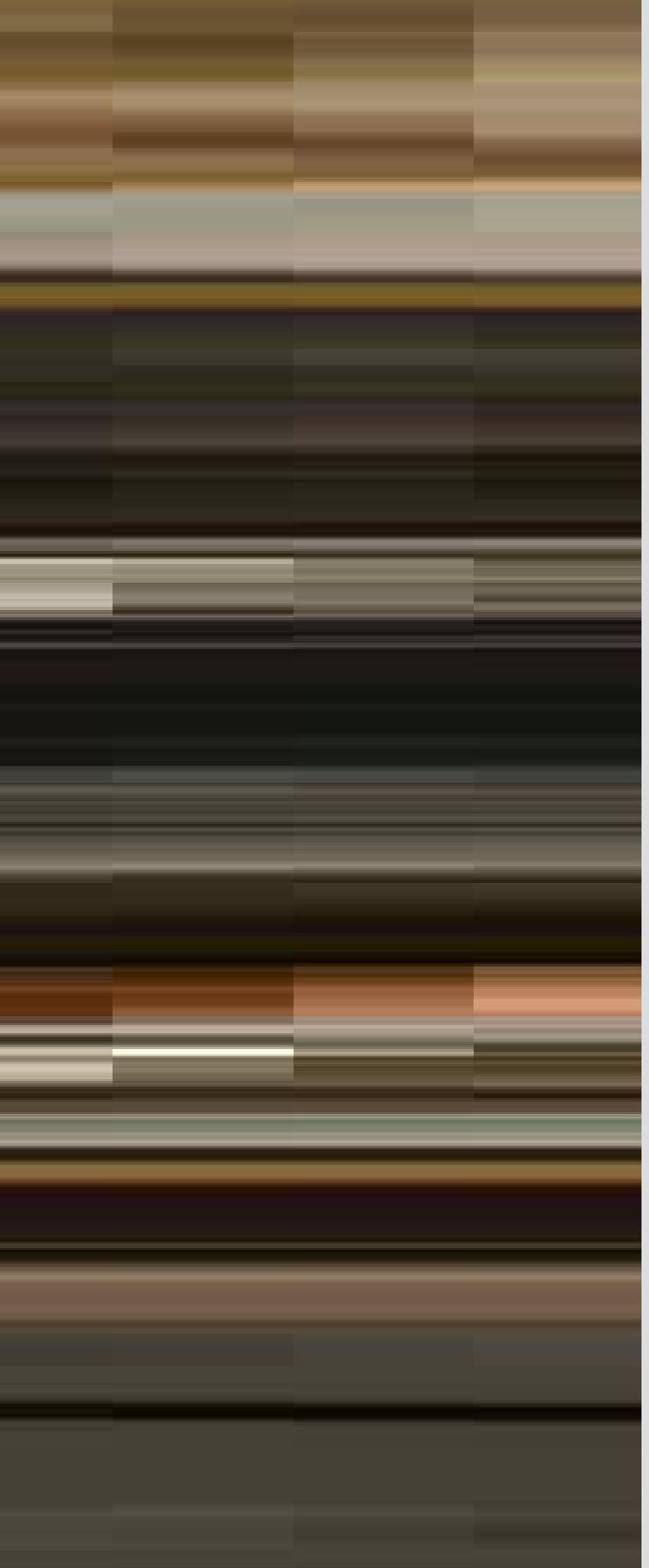
Available for spas up to twenty-feet, Smartop Swim Spa makes easy work of opening and closing the covers required for these larger spas. Available as an Upright, Vanish XL or Hybrid model (one Upright, one Vanish XL).

Patent No. 8,813,275 | 9,574,361 | 9,689,172

The exclusive center bridge design where the two covers meet, creates a tight seal that holds the heat in the swim spa while preventing dirt and debris from entering the swim spa.

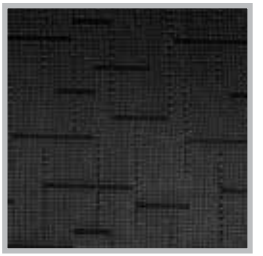


Every Smartop spa cover is custom made 100% in the USA per your design selections. Unique cover dimensions, corner radius size, plus color options result in a spa cover that fits your spa properly and enhances the look of your spa and its surroundings.



Deco shield

Choose From Six Elegant Color Options



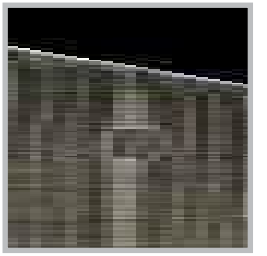
Black

Bamboo

Cocoa

Portobello

Pepper Grey



Sterling Silver

SMARTOP

www.SmartopSpaCover.com

How Well Does Smartop Retain Heat in the Spa? (R-value)

A cover is an essential component of the spa serving many critical purposes. The cover prevents dirt and debris from entering the spa and causing damage to the equipment, minimizes water evaporation, and also prevents heat from escaping the spa when the spa is not in use, thereby increasing the spa's energy efficiency while reducing energy costs.

The traditional vinyl-wrapped, open-cell foam cover is proven to absorb moisture and become waterlogged. Independent research shows that as the cover's interior insulating foam absorbs water and moisture its ability to prevent heat from escaping the spa is reduced by as much as fifty percent.*

Smartop's unique design is one that resolves the ever-occurring water-absorption problem that occurs in traditional vinyl covers. Smartop is manufactured with a specially formulated, Owens Corning closed-cell insulating foam that is water-resistant and moisture-free, enabling the cover to maintain its initial R-value throughout its ENTIRE lifespan. The facts show Smartop is on par with the top-rated vinyl cover in terms of heat retention, however, as time passes and the interior insulating foam in the vinyl cover becomes water-saturated, its insulating properties abilities significantly dropped below Smartop's insulating properties.

Simply put, there is not another cover available that can match Smartop's ability to hold heat in your spa allowing reduced energy consumption and lower energy costs.

For extremely cold climates where maximum heat retention is of the highest priority - SmartShield 800 is the answer! Applied to the underside of the Smartop, this dense, soft-to-the-touch, black material has proven to increase the already energy-conscious Smartop by more than 20%.

*Professional Service Industries Inc., a division of construction materials testing firm Intertek.

Smartop Cares About the Environment

More than one million traditional vinyl covers are discarded annually. Sadly, the foam insulating material used in the vinyl cover is not readily biodegradable. Research shows it takes as long as five hundred years for the foam material to decompose. Below are more concerning facts about extended polystyrene foam and its effects on Mother Earth:

- 25-35% (by volume) of landfills are comprised of polystyrene products (about 10 cu ft. of volume taken up for every 10,000 cups in landfill)
- 80% of extended polystyrene foam ends up in landfills, and much of the remaining 20% in waterways (as per U.S. Environmental Protection Agency: 3 million tons of polystyrene produced in the U.S per year; 2.3 million tons end up in landfills, with much of the remainder finding its way into waterways)
- 18% of total coastal clean-up costs are attributed to polystyrene products

Smartop is the only spa cover designed and built as a non-disposable cover – one that will never negatively impact the environment - making Smartop not just a smart choice, but the responsible choice as well.

SMARTOP®

MADE IN THE USA

3 Year Manufacturer Backed Performance Assurance Guarantee

Each cover is manufactured with superior materials and craftsmanship and meets or exceeds all ASTM safety standards for UL classification resulting in a product that is warrantied against defects in materials and workmanship. If your Smartop is found to be unserviceable due to defects in materials or workmanship within three years from date of purchase, replacement parts OR a replacement cover will be provided.

About Leisure Concepts

Leisure Concepts has been providing hundreds of thousands of satisfied homeowners quality products for over 20 years, making the company the #1 spa accessory manufacturer in the world. All manufacturing is completed in the USA in our 100,000 sq. ft. state-of-the-art facility allowing the strictest quality control and on-time delivery. Our goal is to provide quality products that offer many years of trouble-free ownership and 100% customer satisfaction.

SMARTOP® by Leisure Concepts

5342 North Florida Street
Spokane, WA 99217
www.SmartopSpaCover.com

042420V19

Installation Manual

Installation and appliance setup

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

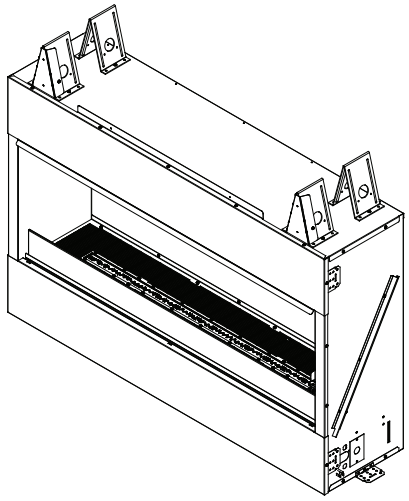
***NOTICE: DO NOT** discard this manual!*

outdoor lifestyles
by hearth & home technologies®

Model:

ODLANAIG-48
ODLANAIG-60

GAS-FIRED
c UL us
LISTED
MH61458



⚠ WARNING! Risk Of Fire!

Do not install glass doors on this appliance.

Glass doors could cause overheating of adjacent structures.

⚠ DANGER

FIRE OR EXPLOSION HAZARD

If you smell gas:

- Shut off gas to the appliance.
- Extinguish any open flame.
- If odor continues, leave the area immediately.
- After leaving the area, call your gas supplier or fire department.
- Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.

⚠ WARNING

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance

An LP-cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

⚠ WARNING: For outdoor use only.
Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

⚠ WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

⚠ WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

⚠ DANGER

CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor.

Using it in an enclosed space can kill you.

Never use this appliance in an enclosed space such as a camper, tent, car or home.

⚠ Safety Alert Key:

- ***DANGER!*** *Indicates a hazardous situation which, if not avoided will result in death or serious injury.*
- ***WARNING!*** *Indicates a hazardous situation which, if not avoided could result in death or serious injury.*
- ***CAUTION!*** *Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.*
- ***NOTICE:*** *Used to address practices not related to personal injury.*

Table of Contents

Standard Work Checklist

Attention Installer:

Follow this Standard Work Checklist

This standard work checklist is to be used by the installer in conjunction with, not instead of, the instructions contained in this installation manual

Customer: _____ Date Installed: _____
Lot/Address _____ Location of fireplace _____
_____ Installer _____
_____ Dealer/Distributor Phone # _____
Model ODLANAIG-48 Serial # _____
ODLANAIG-60

WARNING! Risk of Fire or Explosion! *Failure to install appliance according to these instructions could lead to a fire or explosion.*

Appliance Install Section 3 & 4	**YES**	**IF NO, WHY?**
Required non-combustible board is installed.	❑	_____
Verified clearances to combustibles.	❑	_____
Fireplace is leveled and secured.	❑	_____
Electrical Section 5		
Unswitched power (110-120Vac.) provided to the appliance.	❑	_____
Switch wires properly installed.	❑	_____
Gas Section 6		
Proper appliance for fuel type.	❑	_____
Was a conversion performed?	❑	_____
Leak check performed and inlet pressure verified.	❑	_____
Finishing Section 7		
Combustible materials not installed in non-combustible areas.	❑	_____
Verified all clearances meet installation manual requirements.	❑	_____
Mantels and wall projections comply with installation manual requirements.	❑	_____
Appliance Setup Section 8		
All packaging and protective materials removed (inside and outside of appliance)	❑	_____
Media installed correctly.	❑	_____
Optional screen or trim kit properly installed.	❑	_____
Manual bag and all of its contents are removed from inside/under the appliance and given to party responsible for use and operation.	❑	_____
Started appliance and verified no gas leak exists.	❑	_____

Hearth & Home Technologies recommends the following:

- Photographing the installation and copying this checklist for your file.
- That this checklist remain visible at all times on the appliance until the installation is complete.

Comments: Further description of the issues, who is responsible (Installer/Builder/Other trades, etc.) and corrective action needed_____

_____

_____

Comments Communicated to party responsible _____ by _____ on _____
(Builder/Gen. Contractor) **(Installer)** **(Date)**

4111-982A 2/20

1 Product Specific Information

A. Appliance Certification

***Model:* ODLANAIG-48/ODLANAIG-60**
Laboratory: Underwriters Laboratories (UL)
Type: Outdoor Decorative Gas Appliances
Standard: ANSI Z21.97-2017, CSA 2.41-2017

This product is listed to ANSI standards for "Outdoor Decorative Gas Appliances" and "Gas Fired Appliances for Use at High Altitudes".

Notice: *This installation must conform with local codes. In the absence of local codes you must comply with the National Fuel Gas Code, ANSI Z223.1- latest edition in the U.S.A. and the CAN/CGA B149 Installation codes in Canada.*

When an appliance is connected to a fixed piping system, the installation must conform with local codes, or in the absence of local codes with the ***National Fuel Gas Code, ANSI Z223.1/NFPA 54, or International Fuel Gas Code.***

B. BTU Specifications

Model	Gas Type	Max Input BTU	Orifice Size
ODLANAIG-48	Natural	55,000	#26 (.147)
	Propane	55,000	# 42 (.093)
ODLANAIG-60	Natural	65,000	#23 (.154)
	Propane	65,000	#39 (.099)

C. High Altitude Installations

Notice: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.
When installing above 2000 feet elevation:

- In the USA: reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Input ratings are certified without a reduction of input rate for elevations up to 4500 feet (1350m) above sea level. Please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4500 feet (1370m.)

Check with your local gas utility to determine proper orifice size.

D. Non-combustible Materials Specification

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass, plasters or any combination thereof.
Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 °C** shall be considered non-combustible materials.

E. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or plastered or unplastered shall be considered combustible materials.

F. Electrical Codes

Notice: This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/NFPA 70-latest edition** *or the* **Canadian Electrical Code CSA C22.1.**

- A 110-120Vac. circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes.

G. Fuel

This appliance must not be used to burn solid fuel. When an appliance is connected to a fixed piping system, the installation must conform with local codes, or in the absence of local codes with the **National Fuel Gas Code, ANSI Z223.1/NFPA 54,** *or* **International Fuel Gas Code.**

⚠ WARNING: This product and the fuels used to operate this product (liquid propane or natural gas), and the products of combustion of such fuels, can expose you to chemicals including benzene, which is known to the State of California to cause cancer and reproductive harm. For more information go to: www.P65Warnings.ca.gov.

2 Getting Started

A. Design and Installation Considerations

The Lanai series gas appliance is designed for outdoor use and may be installed as a stand alone appliance or built into a wall.

Outdoor spaces - For the purpose of these instructions, an appliance is considered to be outdoors if installed with shelter no more inclusive than:

1. With walls on all sides, but no overhead cover
2. Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway, or at right angles to each other; or
3. Within a partial enclosure which includes an overhead cover and three sidewalls, as long as 30 % or more of the horizontal periphery of the enclosure is permanently open. See Addendum on page 25.

NOTE: Screen may be used on the open sides of the shelter. 14x18 and 16x18 screen mesh is approved for use. DO NOT use solar screen or no-see-um screen.

The appliance may be installed on a wood or non-combustible deck.

Refer to section three for clearances.

Installation MUST comply with local, regional, state and national codes and regulations. Consult the authorities having jurisdiction over restrictions, installation inspection and permits.

Before installing, determine the following:

- Where the appliance is to be installed.
  - Clearances to side walls.
  - Location of indoor appliance terminations, air inlets, gas meters, etc.
  - Location of the appliance to a door that swings open to ensure it doesn't interfere with the appliance when opened
  - Location of Windows.
  - Location of Walkways.
  - Possibility of flooding or running water.
- Gas supply piping requirements.
- Electrical wiring requirements.
- Framing and finishing details.

B. Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

Tape Measure	Framing material
Pliers	Hammer
Phillips screwdriver	Manometer
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4in)
Plumb line	Safety glasses
Level	Reciprocating saw
3/4 inch wrench	Crescent wrench
7/8 inch wrench	1/4 inch nut driver
7/16 inch wrench	pipe sealant

Flat head screwdriver

Non-corrosive leak check solution

1/2 - 3/4 inch length, #6 or #8 Self-drilling screws

Caulking material (300°F Minimum continuous exposure rating.)

myhht FACTORY training

Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified service technician, service agency or your dealer.

NOTE: Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners, and circulating air passageways of the appliance are kept clean.

C. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- Remove deflection glass and packaging from inside of appliance.
- Remove crystal media which is packaged separately and located inside of the appliance.
- Remove wall control which is packaged separately and located inside of the appliance.
- Remove protective coating.
- Report any components damaged in shipping to your dealer.
- Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.

WARNING! Risk of Fire or Explosion! *Damaged parts could impair safe operation.* ***DO NOT*** *install damaged, incomplete or substitute components.*

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance.
- Modification of the appliance.
- Installation other than as instructed by Hearth & Home Technologies.
- Improper positioning of the media.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

Any such action may cause a fire hazard.

WARNING! Risk of Fire, Explosion or Electric Shock!

DO NOT *use this appliance if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system and/or gas control which has been under water. DO NOT use this appliance if any of the media area is contaminated with snow or debris.*

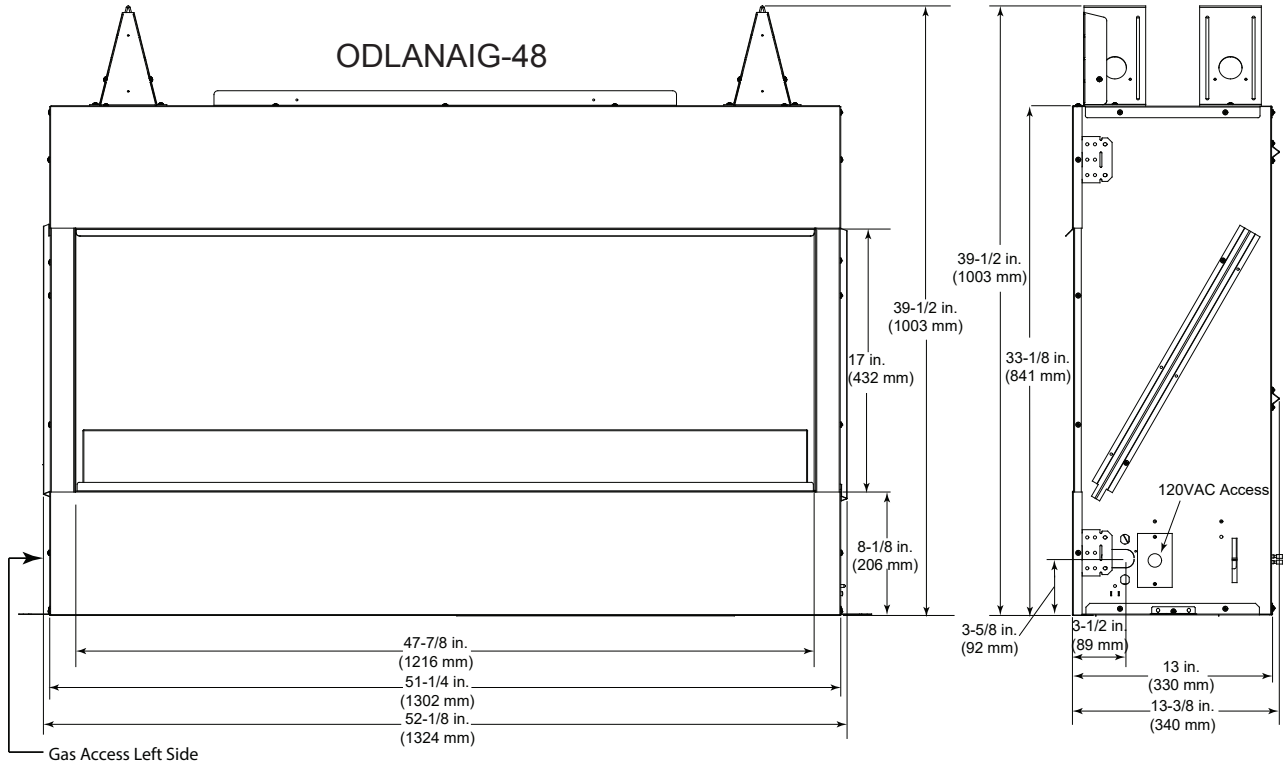
3 Framing and Clearances

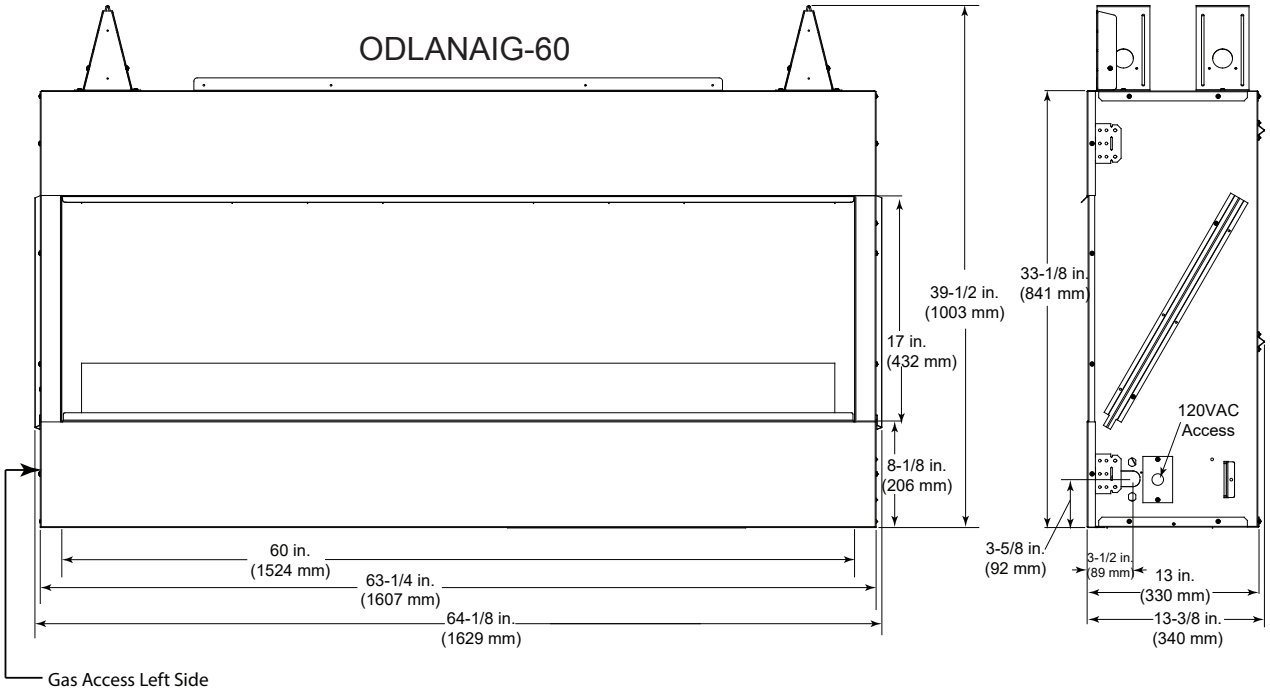
A. Appliance Dimension/Weights Diagrams

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Figure 3.2 and Figure 3.3.

Appliance Weights

Model	Pounds
ODLANAIG-48	215
ODLANAIG-60	245





▶ **Figure 3.1.** Appliance Dimensions – ODLANAIG-48/60

B. Clearances to Combustibles

When selecting a location for the appliance, it is important to consider the required clearances to walls (see Figures 3.2, 3.3, and 3.4.)

WARNING! Risk of Fire or Burns! *Provide adequate clearance around air openings and for service access. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.*

WARNING! Risk of Fire or Burns! The appliance is hot and wind may cause flames to reach out in front.

- Be sure to install eyebrow in the top of the opening before using appliance.
- Keep furniture, draperies and other combustibles away.
- Locate the appliance away from traffic areas.
- Clean up fallen leaves, branches and other combustible materials before using the appliance.
- See Figure 3.2, 3.3 and 3.4 for required clearances.
- Only install on wood or solid noncombustible surfaces extending full width and depth to prevent damage.

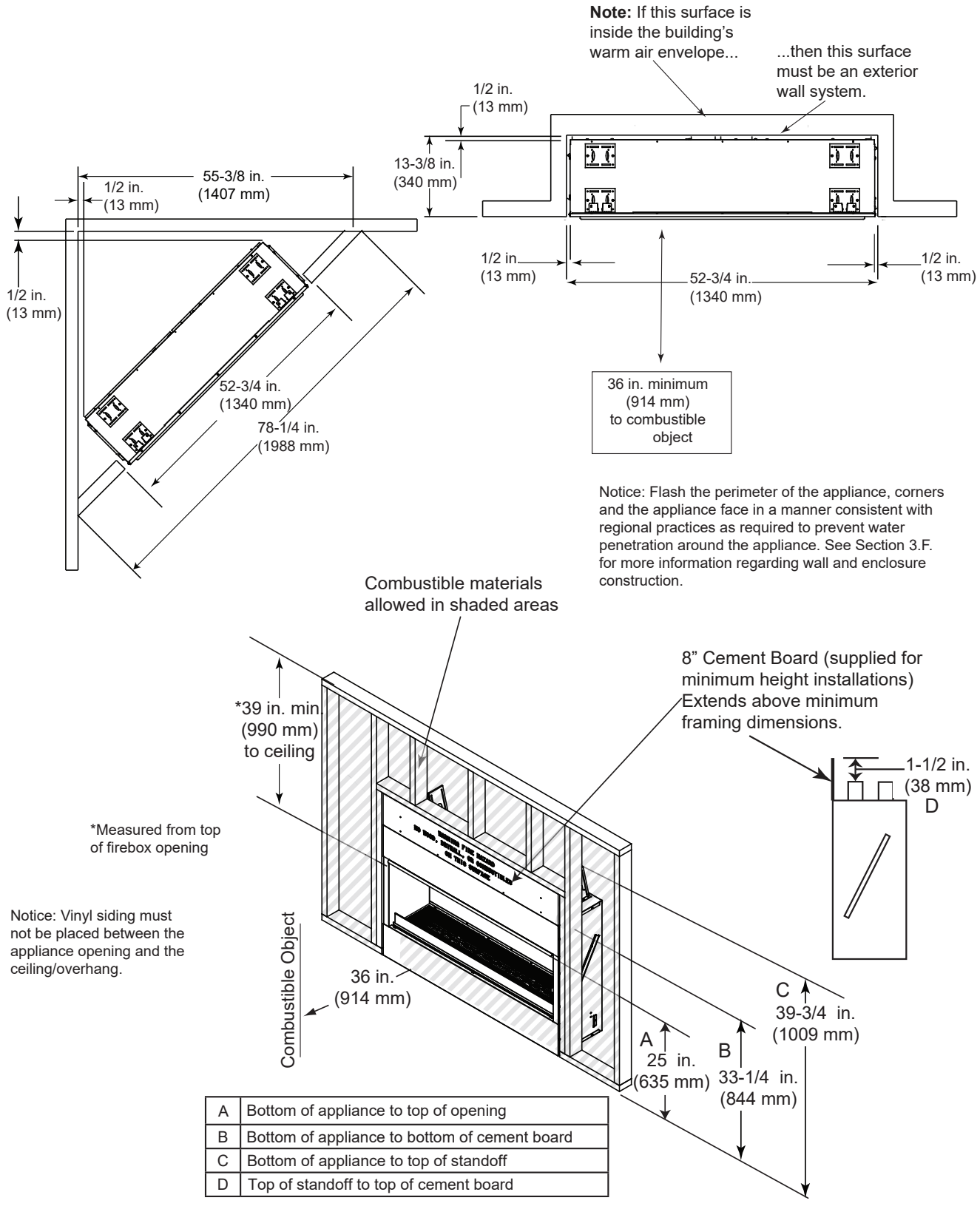
WARNING! Risk of Fire! *Maintain specified air space clearances to appliance:*

- *Insulation and other materials must be secured to prevent accidental contact.*
- The chase/enclosure must be properly blocked to prevent blown insulation or other combustibles from entering and making contact with the appliance.
- Failure to maintain air space may cause overheating and a fire.

ODLANAIG-48

NOTICE: Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/ diagrams are not drawn to scale. Actual installation may vary due to individual design preference.

Note: For actual appliance dimensions refer to Section 3.A.



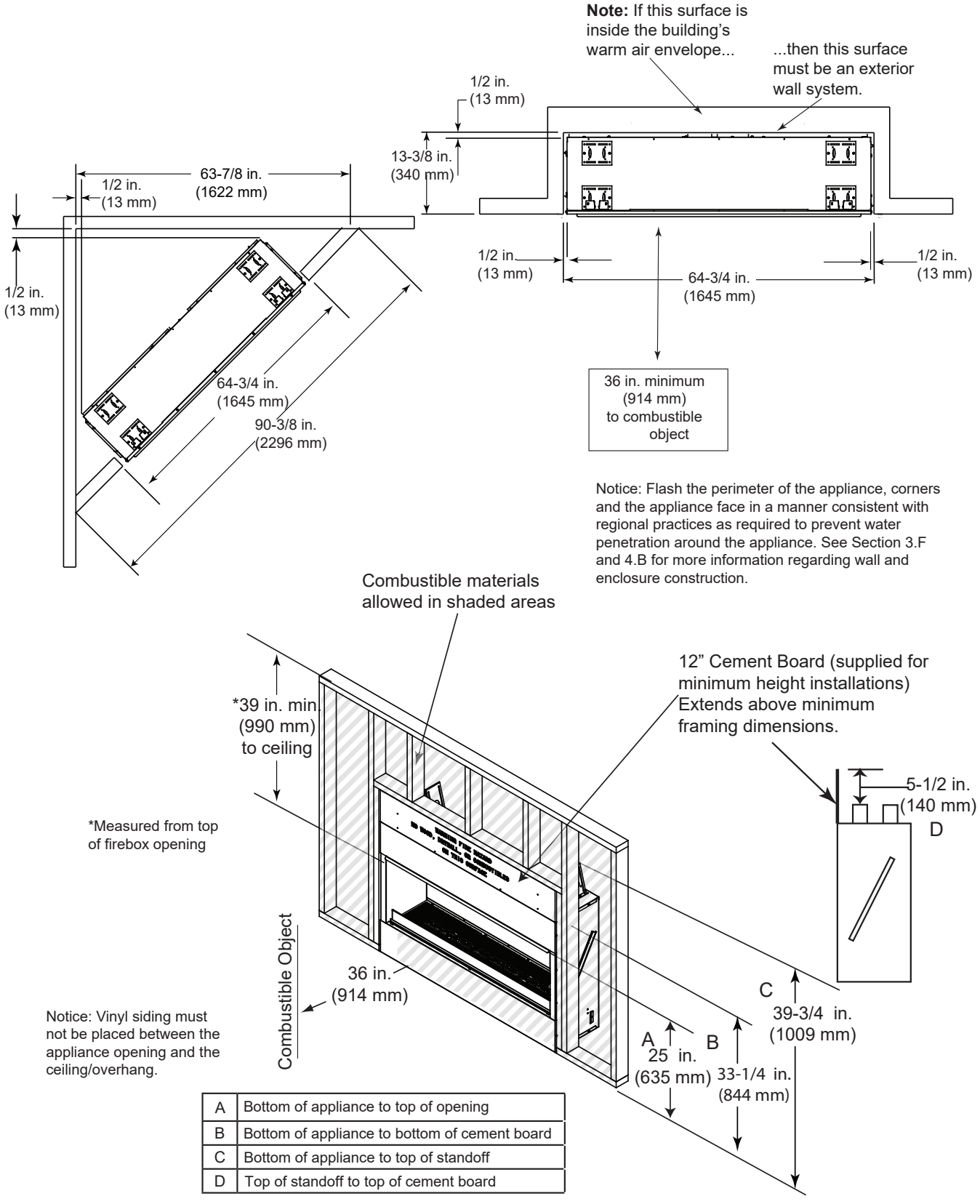
A	Bottom of appliance to top of opening
B	Bottom of appliance to bottom of cement board
C	Bottom of appliance to top of standoff
D	Top of standoff to top of cement board

Figure 3.2. Appliance Locations and Framing Dimensions - ODLANAIG-48

ODLANAIG-60

NOTICE: Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/ diagrams are not drawn to scale. Actual installation may vary due to individual design preference.

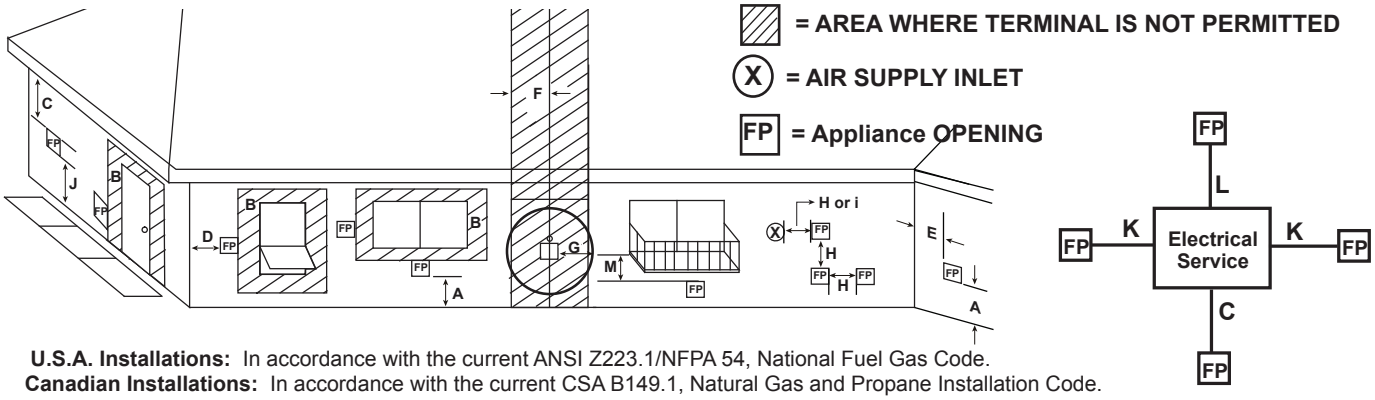
Note: For actual appliance dimensions refer to Section 3.A.



A	Bottom of appliance to top of opening
B	Bottom of appliance to bottom of cement board
C	Bottom of appliance to top of standoff
D	Top of standoff to top of cement board

Figure 3.3. Appliance Locations and Framing Dimensions - ODLANAIG-60

C. Vent Minimum Clearances



U.S.A. Installations: In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code.
Canadian Installations: In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code.

			U.S.A.	CANADA
A	Clearance above grade,veranda, porch, deck, or balcony		0 in. (0 cm)	0 in. (0 cm)
B	Clearance to window or door that may be opened, or to permanently closed window	Non-vinyl	12 in. (305 mm)	12 in. (305 mm)
		Vinyl	24 in. (610 mm)	24 in. (610 mm)
C	clearance below unventilated soffit		39 in. (990 mm)	39 in. (990 mm)
	clearance below ventilated soffit		39 in. (990 mm)	39 in. (990 mm)
	clearance below any vinyl soffits and electrical service		60 in. (1524 mm)	60 in. (1524 mm)
D	clearance to outside corner		9 in. (229 mm)	9 in. (229 mm)
E	clearance to inside corner	Non-vinyl siding (1 side)	4 in. (102 mm)	4 in. (102 mm)
		Non-Vinyl siding (Alcove)	8 in. (203 mm)	8 in. (203 mm)
		Vinyl siding & windows	48 in. (1219 mm)	48 in. (1219 mm)
F	not to be installed above a gas meter/regulator assembly within 3 feet horizontally from the center-line of the regulator		3 ft (914 mm)	3 ft (914 mm)
G	clearance to gas service regulator vent outlet		3 ft (914 mm)	3 ft (914 mm)
H	clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance termination (mechanical or non-mechanical)		12 in. (305 mm)	12 in. (305 mm)
I	clearance to a mechanical (powered) air supply inlet ***(All mechanical air intakes within 10 feet of a horizontal termination cap must be a minimum of 3 feet below termination.)		3 ft (914 mm)***	6 ft (1829 mm)
J	For appliances installed facing or opening onto public property or property servicing more than one single family dwelling, such as driveways, sidewalks, etc. refer to local building codes/regulations for proper clearances.		Refer to local codes	Refer to local codes
K	clearance from sides of electrical service		24 in. (610 mm)	24 in. (610 mm)
	Location of the vent termination must not interfere with access to the electrical service.			
L	clearance above electrical service		12 in. (305 mm)	12 in. (305 mm)
	Location of the vent termination must not interfere with access to the electrical service.			
M	clearance under veranda, porch, deck, balcony or overhang (Permitted only if the area meets the requirements of an outdoor space as defined in section 2.A "Design and Installation Considerations")		39 in. (990 mm)	39 in. (990 mm)
	vinyl or composite overhang		72 in. (1829 mm)	72 in. (1829 mm)

Figure 3.4 Minimum Clearances

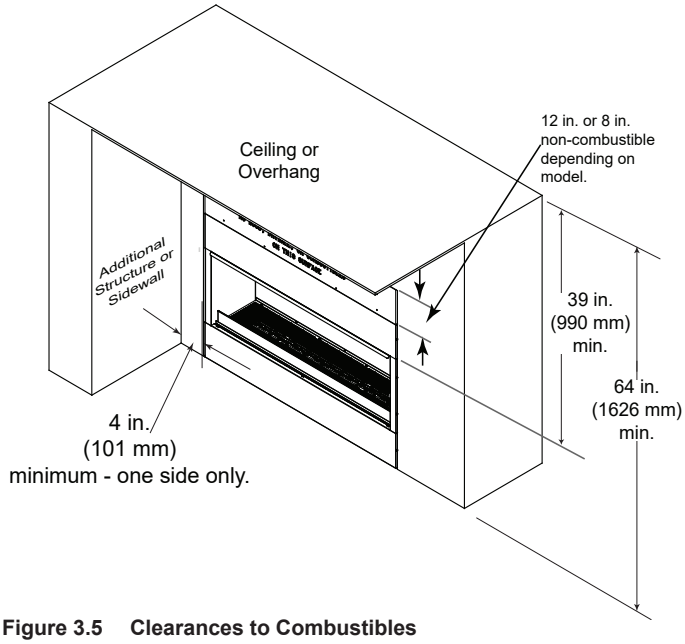


Figure 3.5 Clearances to Combustibles

WARNING! Risk of Fire! *Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of non-combustible materials (i.e., steel studs, concrete board, etc).*

D. Hearth Extension/Floor Protection

This application does not require a hearth extension.

E. Stand-Alone Installation

This appliance may be installed as a stand-alone appliance.

- Construct a stand-alone framing of combustible or noncombustible materials.
- Cement board or other noncombustible material can be applied directly to the face of the appliance.
- Tape and seal all joints and corners.
- Provide proper flashing and moisture management if installed on surfaces that may rot or otherwise be damaged by water. (See also Section 4.B.)

• Built-in Installation

When this appliance is installed into a wall, we recommend that the wall be an exterior wall system.

- See framing measurements in Figure 3.2 and 3.3.
- You must maintain ½ in. air space at the back and sides.
- The header must not be placed below the top of the top standoffs.
- Noncombustible wall sheathing material is required above the appliance. (See Figure 3.4 and 3.5)
- A cement board has been provided for this installation.

Flash the perimeter of the appliance, corners and the appliance face in a manner consistent with regional practices as required to prevent water penetration around the appliance. See Section 3B and Figure 3.2 and 3.3 for more information regarding wall and enclosure construction.

F. Moisture Resistance

This outdoor appliance will shed moderate amounts of water, but is not waterproof. This appliance must be enclosed or covered with noncombustible finish material and all joints sealed to prevent water infiltration.

The firebox will not perform as an exterior wall. Moisture penetration must be considered for construction that places the appliance in structure walls or on moisture sensitive surfaces.

When installed on exterior walls: Hearth & Home Technologies recommends that the chase be constructed outside the structure's weather envelope. Where the platform meets the wall, use a flashing detail similar to that required for attached decks. Chase platforms, including hearths should slope away from the structure at 1/8 in. to 1/4 in. per foot. The appliance can be shimmed level.

Water Drainage: The Lanai is designed to operate outdoors experiencing rain and other sources of moisture that will enter the firebox. The appliance has built-in drain holes in the base which will allow moisture to pass through the bottom of the enclosure. When constructing the enclosure, the builder must provide a means of draining water from under the appliance and out of the structure. This can be achieved by properly positioned drain holes, slots or other means to allow water to exit at the lowest grade of the structure. Choosing the location of the appliance is also important so that an area that may experience excessive water flow or standing water is avoided. In some cases a drain pan is needed to ensure proper drainage. This can be constructed from a corrosion resistant metal, or suitable material for outdoor use with a water resistant membrane. A slope of 1/4" per foot toward the drain ports of the structure is recommended. A drain pan can also be purchased (ODLANAIG-48DP) for the 48 inch appliance or the (ODLANAIG-60DP) for the 60 inch appliance.

4 Appliance Preparation

A. Securing and Leveling Appliance

CAUTION! Risk of cuts, abrasions or flying debris. *Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.*
Position, level and secure the appliance.

- Place the appliance into position on either a wood or noncombustible continuous flat surface.
- Level the appliance from side to side and front to back.
- Shim the appliance with noncombustible material, such as sheet metal, as necessary.
- Chase platforms, including hearths, should slope away from the structure at 1/8 inch to 1/4 inch per foot.
- Nailing tabs must be moved from shipping position to installation position and secured to framing. Bend the four nailing tabs out on each side. See Figure 4.1.

B. Flashing

- Flash the appliance in a manner consistent with regional practices to prevent water penetration around the appliance. Due to elevated temperatures across the top of the appliance, metal flashing and high temperature sealant must be used. Adhesive or polymer flashing materials may melt.
- For brick, stone, stucco and similar construction, weep screeds should be installed per regional codes.
- See Section 3.F. and Figures 3.2 and 3.3 for more information regarding wall and enclosure construction required to prevent moisture penetration into the structure. The appliance will shed moderate amounts of water but is not waterproof.

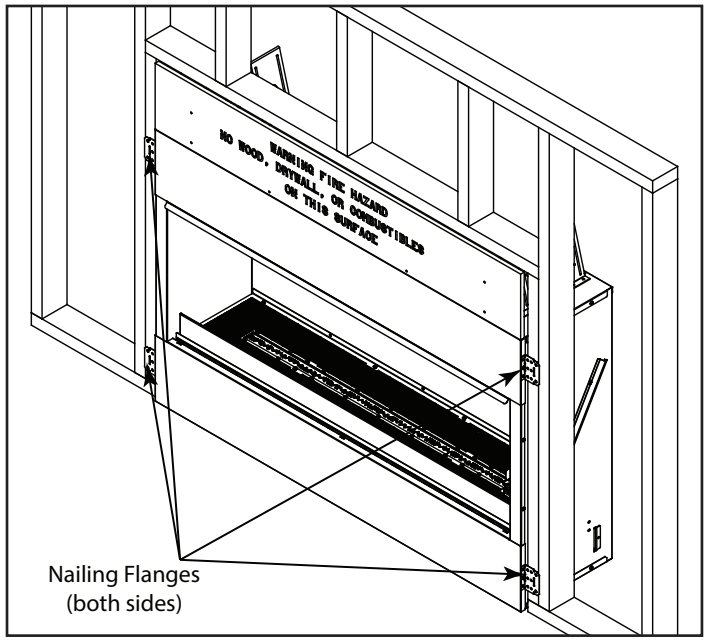


Figure 4.1. Positioning and Securing Nailing Flange

NOTE: Use high temp silicone or sealant recommended by the manufacturer of the house wrap to seal between combustible sheathing house wrap and non-combustible sheathing. The sealant material used within 6 inches of the top and 1 inch on the sides of the appliance surround must be approved to withstand a minimum temperature of 225°F continuous exposure.
House wrap tape with a 225°F minimum temperature may also be used. See Figure 4.2.

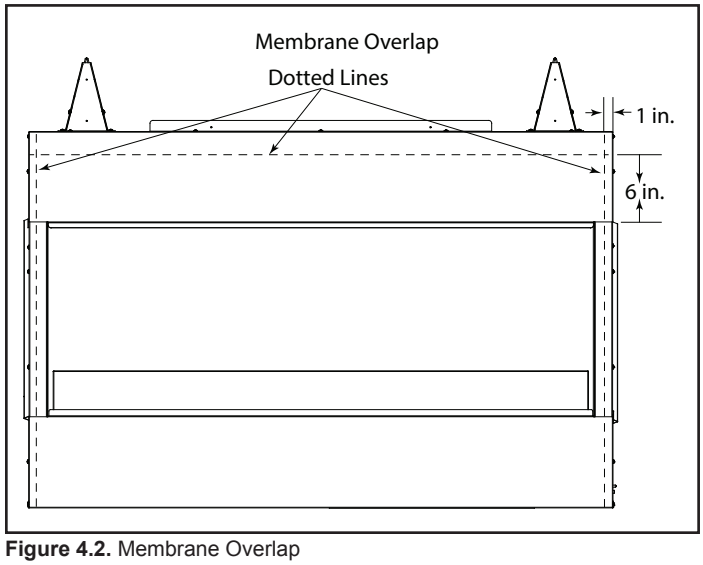


Figure 4.2. Membrane Overlap

A. Wiring Requirements

Note: The Lanai appliance **MUST** be connected to a GFCI (Ground Fault Circuit Interrupt) protected circuit breaker.

WARNING! Risk of Shock or Explosion! DO NOT *wire 110-120 Vac. to the valve or to the appliance wall switch. Incorrect wiring will damage controls.*

NOTICE: *This appliance must be electrically wired and grounded in accordance with local codes, or in the absence of local code, with* **National Electric Code ANSI/NFPA 70-latest edition** *or the* **Canadian Electric Code CSA C22.1.**

Total Electrical Requirements: 110-120Vac., 60Hz., less than 12 Amperes.

- Wire the appliance junction box to unswitched 110-120Vac. This is required for proper operation of the appliance.
- A 110-120Vac. circuit for this appliance must be protected with ground-fault circuit-interrupter protection in compliance with the applicable electrical codes.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.

Electrical Service and Repair

WARNING! Risk of Shock! *Label all wires prior to disconnection when servicing controls. Wiring errors could cause improper and dangerous operation. Verify proper operation after servicing.*

B. IntelliFire Pilot Ignition System Wiring

- Wire the appliance junction box to 110-120Vac. for proper operation of the appliance.

WARNING! Risk of Shock or Explosion! DO NOT *wire IPI controlled appliance junction box to a switched circuit. Incorrect wiring will override IPI safety lockout.*

THIS APPLIANCE IS SUPPLIED STANDARD WITH:

- IntelliFire control valve (3V)
- Wall switch Control – Operates appliance On/Off and LED lights.
- Two (2) LED outdoor rated light strips (12V)
- Conductor wall switch wire

C. Installing the Electrical

The Lanai is supplied with the junction box located on the right side of the appliance. There is no option to relocate junction box to the left side of the appliance.

Wiring Junction Box

- Remove (2) screws securing junction box access panel. See Figure 5.1.

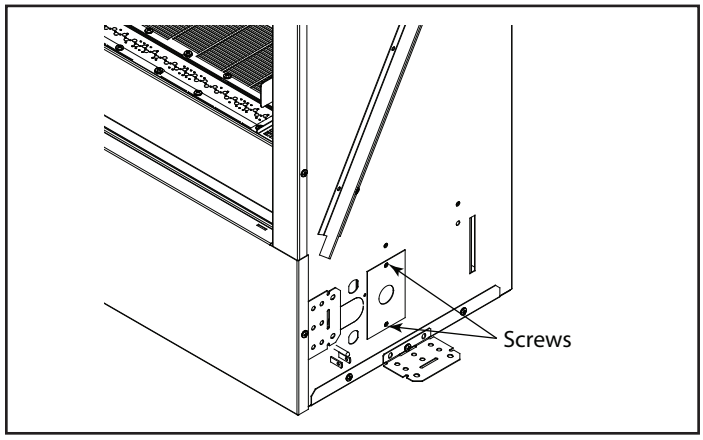


Figure 5.1. Access Panel Removal

- Unplug transformer and power supply.
- Disassemble junction box. See Figure 5.2

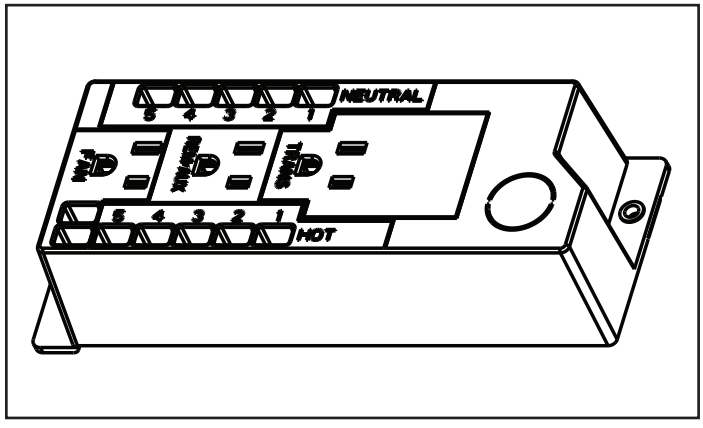


Figure 5.2. Junction Box

- Wire junction box and reassemble. See Figure 5.3.

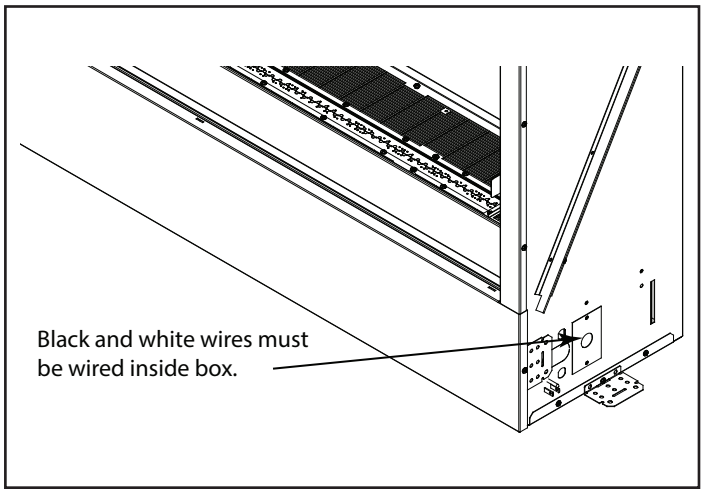


Figure 5.3. Wire Junction Box

- Plug in transformer and power supply to junction box. See Figure 5.4.

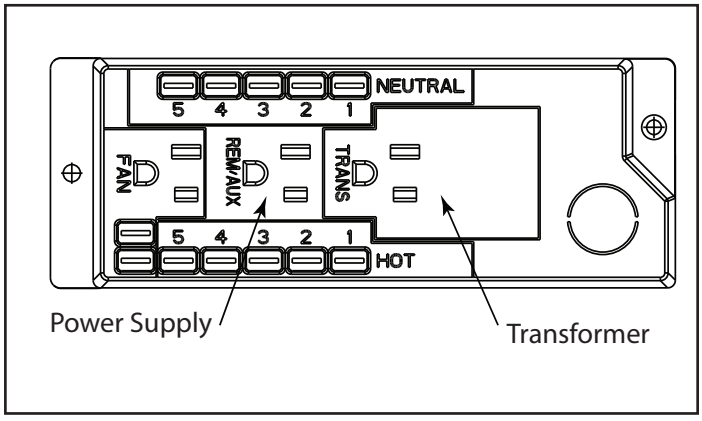


Figure 5.4. Power Supply

Wiring Diagram

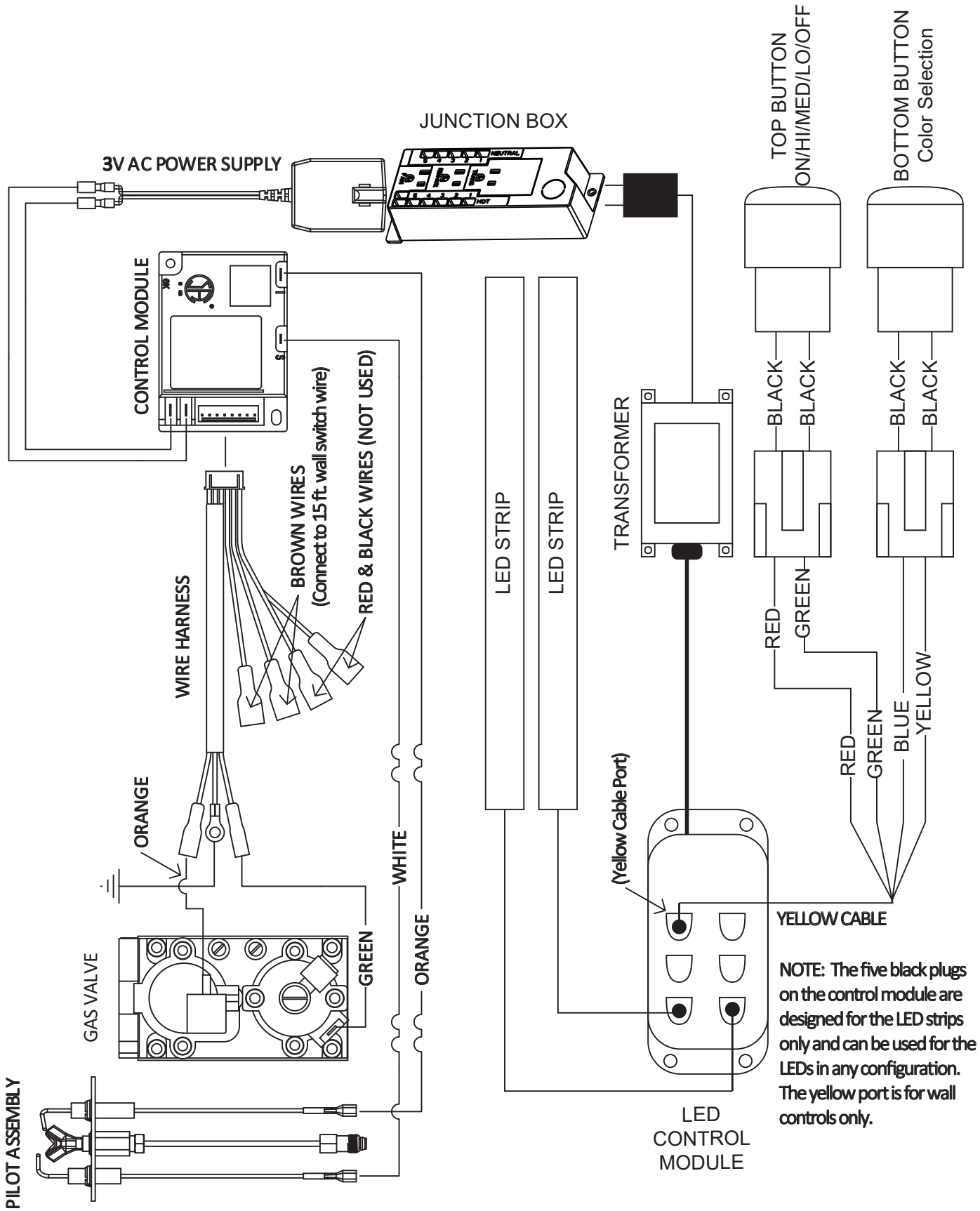


Figure 5.5. Wiring Diagram

►D. Wall Switch Control Assembly

The Lanai series outdoor gas appliance is supplied with a wall switch control panel, and control mounting box. See Figure 5.6.

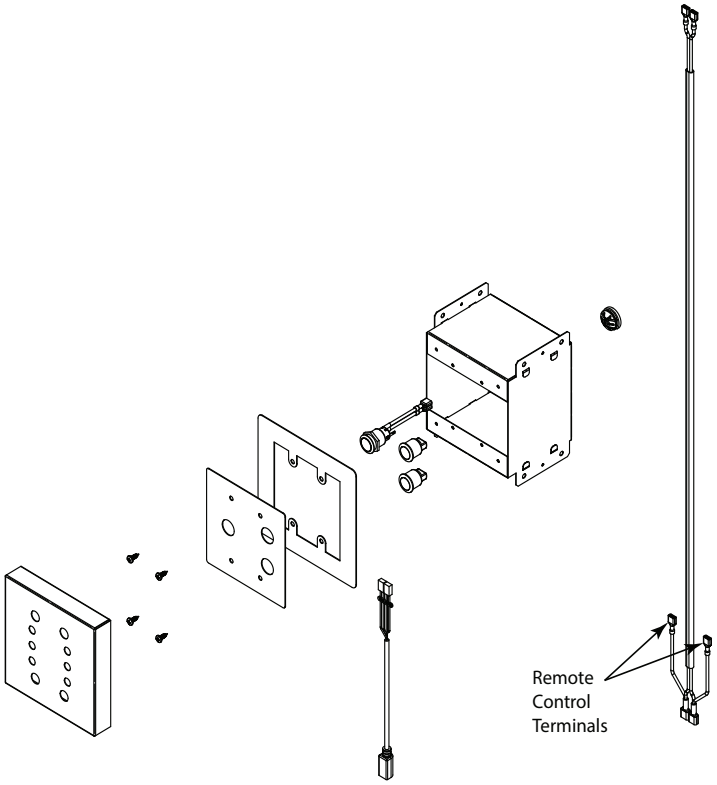


Figure 5.6. Wall Control Switch Assembly

NOTE: Supplied wire allows for the control assembly to be mounted up to 14 feet from the appliance. The supplied grommet can be installed on the left or right side of the appliance for wall switch control wire routing.

- The control box can be rerouted on the right or left side of the appliance.
- Locate controls by lifting engine and using support legs. To access Intellifire control module and LED control module, lift control box cover off of controls.
- The rocker switch wire (Black/white) must be plugged into the two brown wires on the control wiring harness. There is no incorrect connection for these two wires. Shown in wiring diagram (Figure 5.5.)
- The yellow cable for the two LED buttons plugs into the LED module (Yellow control module) located under the control cover which is under side of the engine base.
- Make sure the cable is completely engaged and clip is over top of the plug.
- Using the tabs, mount the wall control switch assembly to a stud within 14 feet of the appliance.

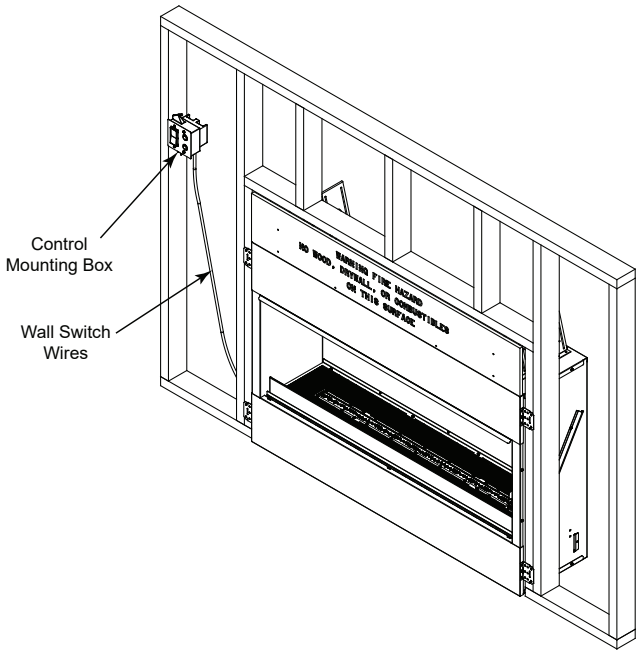


Figure 5.7. Wall Switch Mounting

A. Valve Access

The valve and controls are located in the appliance control box. See Figure 6.1.

The control box and controls can be accessed by lifting engine assembly as shown in Figure 6.1

- Make sure appliance is off and cool.
- Remove media and deflection glass panel from hearth pan.
- Remove the 3 or 5 screws (depending on the model) from the back of the hearth pan.
- Lift the front of the burner assembly and place the two leg supports, provided under the Engine, against lower front space at the bottom of the face, and slide into the slots at the bottom of the engine assembly. See Figure 6.1.

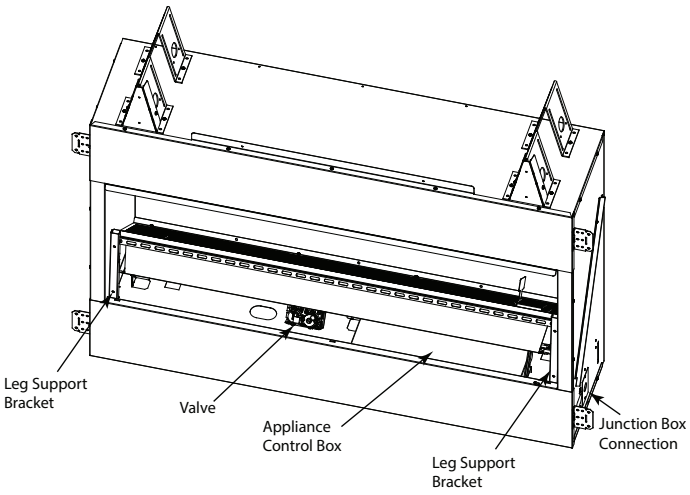


Figure 6.1. Appliance With Engine Lifted

- Remove control box cover panel revealing control board if access to any controls is needed.

B. Gas Pressure

Gas Pressure	Natural Gas	Propane
Minimum inlet supply for the purpose of input adjustment	5.0 in. w.c.	11 in. w.c.
Maximum inlet pressure	10.5 in w.c.	13 in. w.c.
Manifold pressure	3.5 in. w.c.	10 in. w.c.

⚠ WARNING

Fire Risk.
Explosion Hazard.
High pressure will damage valve. Low pressure could cause an explosion.

- Disconnect gas supply piping BEFORE pressure testing gas line at test pressures above 1/2 psig.

- Close the manual shut-off valve BEFORE pressure testing gas line at test pressures equal to or less than 1/2 psig.
- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating
- Install regulator upstream of valve if line pressure is greater than 1/2 psig.

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z233.1 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.
- Pressure requirements are:

These pressures can be verified by lifting engine and removing control cover to reveal the valve.

When an appliance is connected to a fixed piping system, the installation must conform with local codes,or in the absence of local codes with the ***National Fuel Gas Code, ANSI Z223.1/NFPA 54*** *or* ***International Fuel Gas Code.***

Note: Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI Z223.1 Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter.)

Note: An individual manual shut-off valve (not supplied) is required when installing this appliance. The manual shut-off valve must be located in an easily accessible area, no more than six feet from the appliance.

Note: A listed (and commonwealth of Massachusetts approved) 1/2 inch (13mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 inch (13mm) control valve inlet.

- **If substituting for these components, please consult local codes for compliance.**

C. Gas Connection

- Refer to Section 3 for location of gas line access in appliance.
- The gap between supply piping and gas access hole may be caulked with a minimum of 300°F continuous exposure rating or stuffed with noncombustible, unfaced insulation to help prevent rodents and insects from getting into the control area of the appliance.
- Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.
- Pipe incoming gas line into lower compartment.
- Connect incoming gas line to the 1/2 inch (13mm) connection on the manual shut-off valve.

WARNING! Risk of Fire or Explosion! *Support control when attaching pipe to prevent bending gas line.*

- A small amount of air will be in the gas supply lines.

Light the appliance. It will take a short time for air to purge from lines. When purging is complete, the appliance will light and operate normally.

WARNING! Risk of Fire, Explosion or Asphyxiation! *Check all fittings and connections with a non-corrosive commercially available leak-check solution.* ***DO NOT*** *use open flame. Fittings and connections could have loosened during shipping and handling.*

WARNING! Risk of Fire or Explosion! *Gas build-up during line purge could ignite.*

- *Purge should be performed by a qualified service technician.*
- *Ensure adequate ventilation.*
- *Ensure there are no ignition sources such as sparks or open flames.*

D. Fuel Conversion

- Make sure the appliance is compatible with available gas types.
- The Lanai series gas appliance is supplied from the factory for use with natural gas. If a Propane(LP) conversion is required, kit LPK-ODLANAIG48 or LPK-ODLANAIG60 must be purchased in order to convert the appliance for use with propane.
- Conversions must be made by a qualified service technician using Hearth & Home Technologies specified and approved parts.

E. High Altitude Installations

Notice: *If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.*

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In Canada: Input ratings are certified without a reduction of input rate for elevations up to 4500 feet (1370m) above sea level. Please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4500 feet (1370m.)

Check with your local gas utility to determine proper orifice size. See conversion kit (LPK-ODLANAIG48 or LPK-ODLANAIG60) for instructions on how to change main burner orifice.

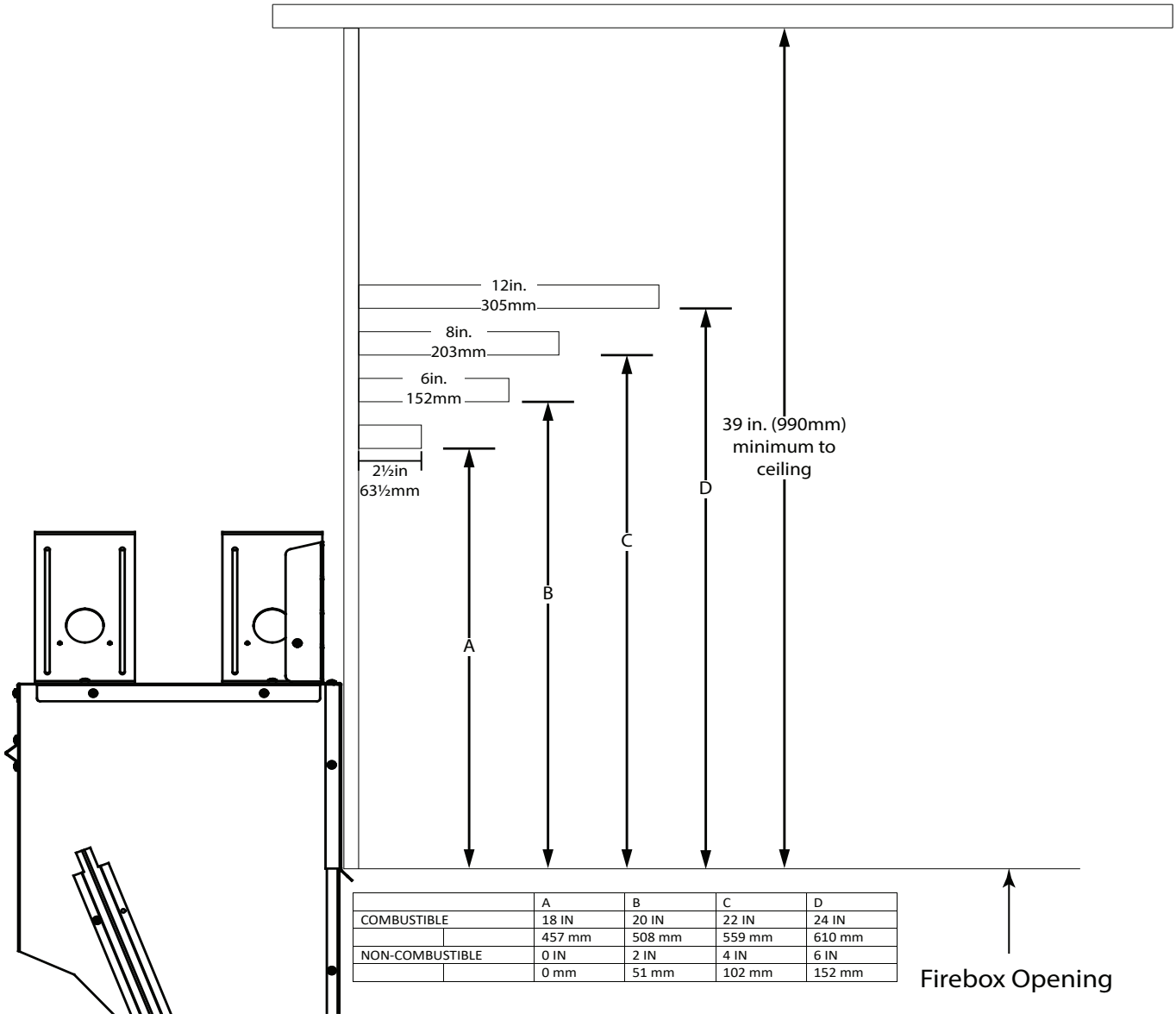
A. Facing Material

The appliance structure can be covered with any noncombustible material. Refer to Section 1.D.

WARNING! Risk of Fire! DO NOT *apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Overlapping materials could ignite. Any installation outside the scope as stated in this manual please contact your authorized Hearth & Home Technologies dealer prior to installation.*

Mantel and Wall Projections

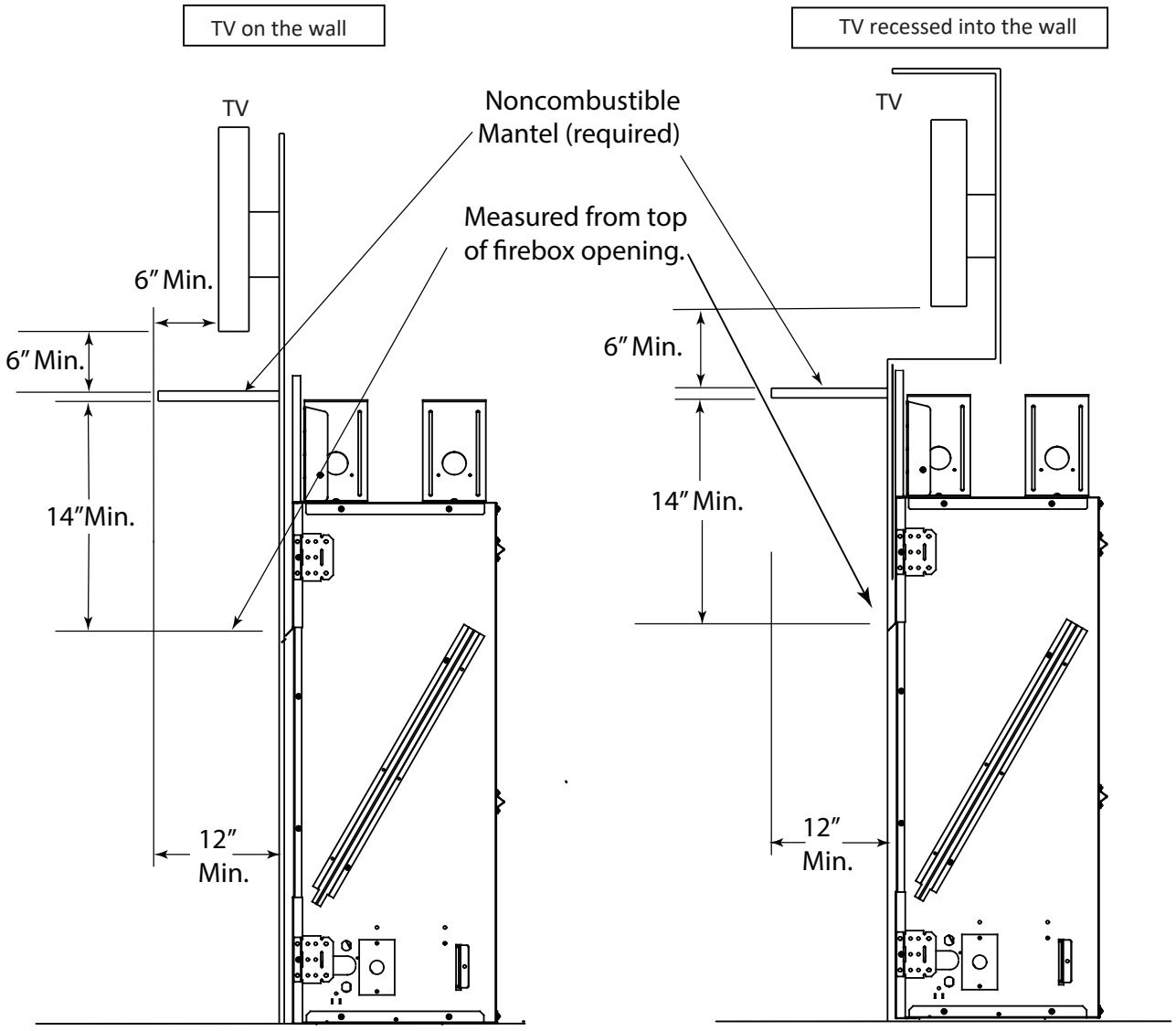
WARNING! Risk of Fire! *Comply with all minimum clearances to combustible as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of noncombustible materials (i.e. steel studs, concrete board, etc.) Figures 7.1 and 7.2 show the dimensions for mantels or other combustible projections above the appliance opening.*



	A	B	C	D
COMBUSTIBLE	18 IN	20 IN	22 IN	24 IN
	457 mm	508 mm	559 mm	610 mm
NON-COMBUSTIBLE	0 IN	2 IN	4 IN	6 IN
	0 mm	51 mm	102 mm	152 mm

Figure 7.1. Minimum vertical and maximum horizontal mantel dimensions for combustible and non-combustible materials.

Good Faith Guidelines for TV Installations above a Typical Gas Fireplace



Notes:

1. TV installation as shown requires the mantel be constructed entirely of non-combustible material as it is below the allowable height for a combustible mantel.
2. These are good faith recommended clearances only and not a guarantee of compliance with all TV manufacturers' maximum allowable operating temperatures.
3. Since every home has unique air flow characteristics and maximum allowable operating temperatures can vary from manufacturer to manufacturer and from model to model, actual TV temperatures should be validated at the time of each installation. TVs should not be used in situations where the actual TV temperature exceeds the manufacturers' maximum allowable operating temperatures identified in the TV's technical specifications. Contact the TV's manufacturer directly if you cannot locate this information or have questions regarding the information.
4. Mantel height and depth must conform to mantel requirements specified in the appliance installation manual.

Figure 7.2. Good Faith TV Guidelines

A. Remove the Shipping Materials

Remove the plastic coating and shipping materials from the firebox.

WARNING! Risk of Fire! *Close the ball valve before installing the media template to prevent accidental lighting. Remove the media template before lighting the appliance.*

B. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside the firebox.

C. Optional Accessories

Install approved accessories per instructions included with accessories. Contact your dealer for a list of approved accessories.

WARNING! Risk of Fire and Electric Shock! *Use ONLY Hearth & Home Technologies-approved optional accessories with this appliance. Using non-listed accessories could result in a safety hazard and will void the warranty.*

D. Verify Pilot Shield

Ensure proper placement of the pilot shield and media placement template. See Figure 8.1. Shipping could cause then to become displaced.

E. Install Deflection Glass

Deflection glass is stored on top of the media tray. Remove the two brackets holding the deflection glass. Remove deflection glass packaging. Carefully place deflection glass into support bracket provided. See Figure 8.1.

F. Install Clear Crystal Media

Pour crystal media into the hearth area. Cover the entire hearth pan area evenly, including burner area and the pilot cover.

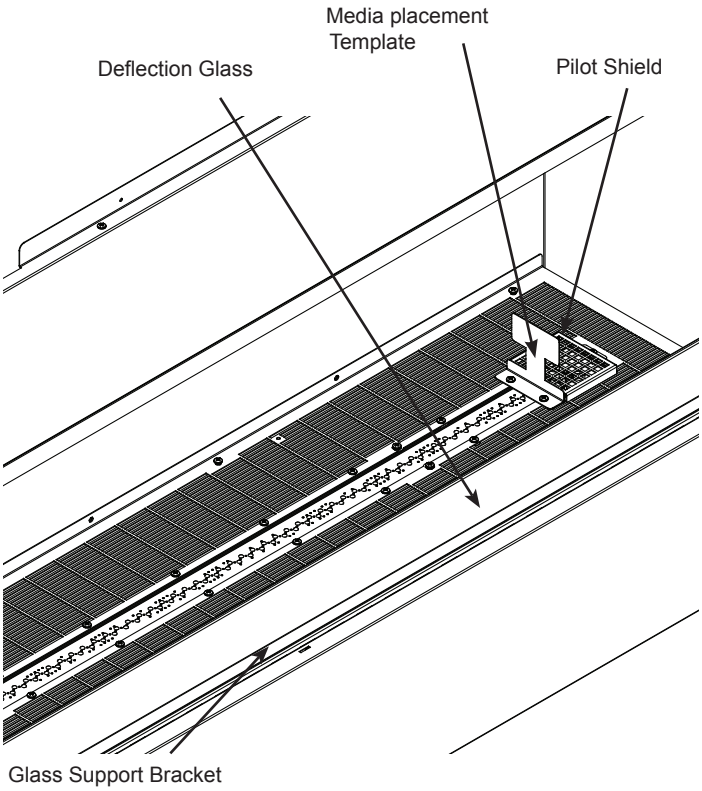


Figure 8.1. Media Placement Template

G. Remove Media Placement Template

Remove screws attaching the media placement template and remove. Do not discard template. This must be used at any time media is applied to appliance.

9 Reference Materials

A. Accessories

LP Conversion Kit:

- LPK-ODLANAIG48
- LPK-ODLANAIG60

Media Kits: **NOTE:** Same media kit for ODLANAIG-48 and ODLANAIG-60

- Media-Ebony-48
- Media-Cobalt-48
- Media-Red-48
- Media-Amber-48

Optional Screen – ODLANAIG-48SCN/ODLANAIG-60SCN

- The Lanai series outdoor gas appliance offers a protection screen that is designed to protect the inside of the appliance from trash and other debris (sticks, leaves, etc.) while not in use. This appliance may be operated with the screen installed.

Optional Trim Kit – ODLANAIG-48CFT/ODLANAIG-60CFT

- The Lanai series outdoor gas appliance offers a trim kit that will allow the owner the option to cover the face of the appliance down to the firebox opening. This four (4) piece kit comes with an integrated eyebrow and 3/4” stainless steel lip that frames in the opening for a clean and seamless install.

Optional Drain Pan – ODLANAIG-48DP/ODLANAIG-60DP

- The Lanai series outdoor gas appliance offers a drain pan that is designed to channel moisture to the front or rear of the enclosure housing the appliance. This option will help ensure moisture does not become trapped inside the structure and helps to keep the area under the appliance free of standing water.

Optional Contemporary Driftwood Log Set - CDLS
Optional Stone Kit - STONEKIT

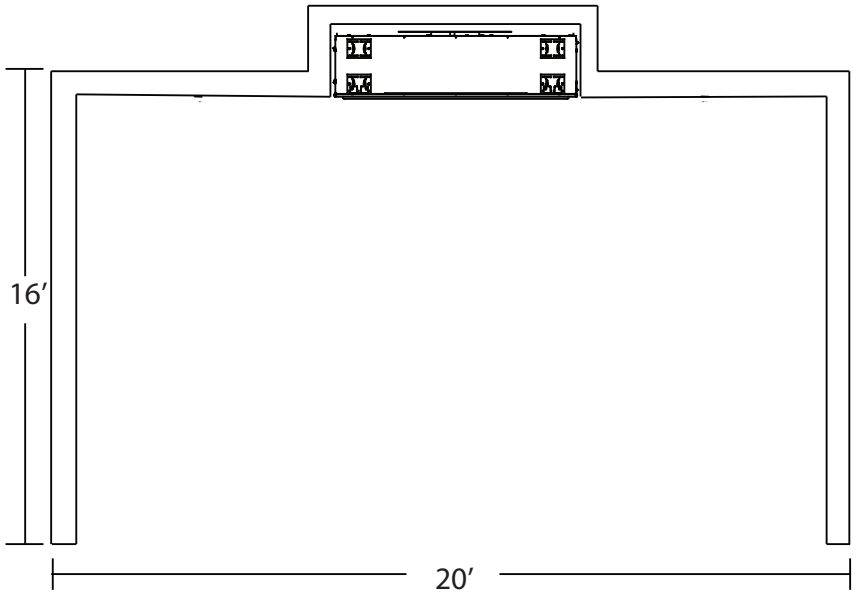
NOTE: CDLS and STONEKIT cannot be used in conjunction with each other.

Optional Remote control - RCB

- Battery operated remote control that will control the flame ON/OFF function

B. Addendum

How to Calculate the Minimum Opening Needed In an Outdoor Living Space

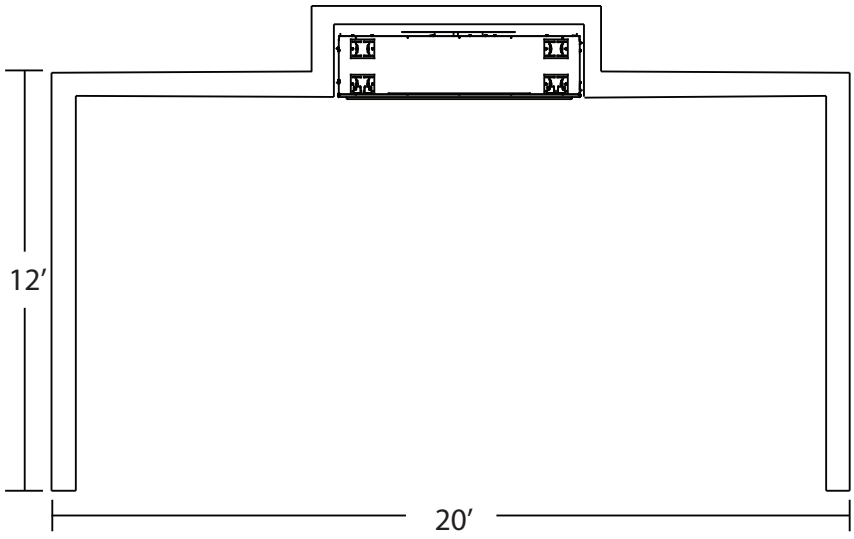


30% (or .30) of the outdoor living space periphery needs to be open.

1. Add lengths of the outside living space.
   16′+20′+16′+20′=72′

2. Divide the open area length by the total outdoor living space.
   20/72=**.28**

.28 is less than the .30 required and therefore this installation would not be approved.



1. Add lengths of the outside living space.
   12′+20′+12′+20′=64′
2. Divide the open area length by the total outdoor living space.
   20/64=**.31**

.31 is greater than the .30 required and therefore this installation would be approved.

Outdoor Lifestyles, a brand of Hearth & Home Technologies
2571 215th Street West, Lakeville, MN 55044
www.hearthnhome.com

Please contact your Outdoor Lifestyles dealer with any questions or concerns.
For the location of your nearest Outdoor Lifestyles dealer,
please visit www.hearthnhome.com