Building Your High-Performance Home

CHECKLIST for the Southern Region

When you build, remodel or shop for a home, you have the power of choice. Combine that with science-based knowledge to take control of your investment and reap the benefits:

- low utility bills
- comfort
- higher quality
- better health
- safety and security
- low maintenance
- less storm damage, easier recovery
- environmental protection
- increased market value
- more time to spend as you please

Use this checklist to explore and select components of a sustainable, high-performance home for the south. It is organized to help you achieve the above benefits for a home that is resource-efficient, durable, healthy, convenient and practical. It’s also crucial to design a home as a system with an understanding of air, heat and moisture control to avoid problems. With the power of knowledge, it’s possible to have it all! Visit www.LSUAgCenter.com/LaHouse and click on My House for more about each item on this checklist.

Common Abbreviations and Symbols used in the Checklist

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>N</td>
<td>north</td>
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<tr>
<td>S</td>
<td>south</td>
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<tr>
<td>E</td>
<td>east</td>
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<tr>
<td>W</td>
<td>west</td>
</tr>
<tr>
<td>R</td>
<td>R-value</td>
</tr>
<tr>
<td>MBR</td>
<td>master bedroom</td>
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<tr>
<td>BR</td>
<td>bedroom</td>
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<tr>
<td>Ba</td>
<td>bathroom</td>
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<td>&lt;</td>
<td>less than</td>
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<td>≤</td>
<td>less than or equal to</td>
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<td>&gt;</td>
<td>more than</td>
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<td>≥</td>
<td>more than or equal to</td>
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<tr>
<td>%</td>
<td>percent</td>
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<tr>
<td>°</td>
<td>degrees</td>
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<tr>
<td>ft. or ’</td>
<td>feet (unit of measure)</td>
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<tr>
<td>in. or “</td>
<td>inches (unit of measure)</td>
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<td>/yr.</td>
<td>per year</td>
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<tr>
<td>min.</td>
<td>minimum</td>
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<td>max.</td>
<td>maximum</td>
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<tr>
<td>o.c.</td>
<td>on center (spacing of structural parts)</td>
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<tr>
<td>cfm</td>
<td>cubic feet per minute (rate of air flow)</td>
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<td>ICAT</td>
<td>Insulation covered, airtight recessed light fixture</td>
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<td>NFRC</td>
<td>National Fenestration Rating Council, rates performance of window units</td>
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<tr>
<td>HVAC</td>
<td>heating, ventilation and air conditioning</td>
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<tr>
<td>SEER</td>
<td>Seasonal Energy Efficiency Ratio</td>
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<tr>
<td>AFUE</td>
<td>Annual Fuel Utilization Efficiency</td>
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<tr>
<td>HSPF</td>
<td>Heating Season Performance Factor</td>
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<tr>
<td>COP</td>
<td>Coefficient of Performance</td>
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<tr>
<td>EER</td>
<td>Energy Efficiency Ratio</td>
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<tr>
<td>SHR</td>
<td>Sensible heat ratio</td>
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<tr>
<td>EF</td>
<td>Energy Factor</td>
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<tr>
<td>SHGC</td>
<td>Solar Heat Gain Coefficient</td>
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<tr>
<td>AL</td>
<td>Air leakage</td>
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<tr>
<td>VT</td>
<td>Visible Light Transmittance</td>
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<tr>
<td>MERV</td>
<td>Minimum Efficiency Reporting Value, an air filter efficiency rating</td>
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<tr>
<td>BFE</td>
<td>Base Flood Elevation</td>
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<tr>
<td>UL</td>
<td>Underwriter Laboratory (testing and certification of materials)</td>
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<tr>
<td>VOC</td>
<td>Volatile organic compounds (fumes)</td>
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</tbody>
</table>
Resource-Efficient

Energy-Efficiency

Certified Home
☐ Certified ENERGY STAR Home or Zero-Energy Ready Home

Design for the Climate

Landscaping for energy savings:
☐ Deciduous trees shade W, SW, E and SE sides of house
☐ Large shrubs or trellis with vines on W side
☐ Ground cover, mulch near house to reduce reflected heat
☐ Little unshaded pavement near house, none under windows
☐ Evergreen shrubs and trees grouped as windbreak on N side

Overall house design:
☐ Compact building layout to minimize total surface area
☐ Open planning, min. corridor area (space-efficient design)
☐ Kitchen, laundry rooms are not on W side
☐ Living areas, kitchen have N or S windows
☐ Porches, patios, etc. on N & S sides (unconditioned living space)

House design elements to minimize solar heat gain:
☐ More wall area faces within 20° of due S and N
☐ W facing glass < 2% of floor area
☐ E facing glass < 3% of floor area
☐ 2-ft. or larger overhangs
☐ All W, E and S glass shaded
☐ Garage/carport on W or E side (blocking sun)
☐ No skylights (except light tubes)
☐ Reflective roofing (min. 0.25 solar reflectance)
☐ Light color brick or siding

Design elements for passive solar winter benefits:
☐ S overhangs sized or louvered for summer shade and winter sun
☐ Thermal mass flooring along S glass
☐ S facing sunroom with mass floor, walls

House design elements for mild seasons:
☐ Operable windows placed for cross ventilation
☐ Porch open on three sides or in breezeway

Windows
☐ ENERGY STAR or NFRC labeled windows rated:
  ☐ ≤ 0.25 SHGC (solar heat gain) in zones 1 & 2 (southern), or
  ☐ ≤ 0.25 SHGC in zone 3 (south-central)
☐ ≤ 0.40 U-factor (heat conduction) in climate zones 1 & 2, or ≤ 0.30 in zone 3
☐ ≥ 0.50 VT preferred (visible light transmittance)
☐ All W and E glass has ≤ 0.25 SHGC or shade screens
☐ If passive solar, high solar gain low-e S-facing glass
☐ For day lighting, 0.70 VT on N and S if shaded

Tight Construction (Air Sealing)

Continuous air barrier around conditioned space via:
☐ Exterior air barrier
☐ Airtight Drywall Approach interior air barrier
☐ Sealed, airtight floor system
☐ All hidden bypasses sealed from attic and crawl space
☐ Bottom plate of exterior walls sealed to foundation
☐ Band joists between floors sealed
☐ All penetrations in building envelope sealed
☐ Airtight electrical boxes (or sealed by hand)
☐ Low infiltration windows and doors
☐ Fireplace: sealed from attic, outside air duct, tight damper, glass doors
☐ Weather-stripped, insulated attic access (or in unconditioned area)
☐ No recessed lights, or only ICAT used
☐ Tight dampers, sealed housings on exhaust and inlet vents (exhaust not vented into attic)

Insulation Systems with Good “Whole Wall” R-Values

Continuous insulation surrounding all conditioned space (except slab floor)

Recommended Insulation Material R-values:
☐ Attic: R 30-60 in climate zone 2; R 38-60 in climate zone 3
☐ Cathedral ceiling: R 30 in zone 2; R 38 in zone 3
☐ Unvented, conditioned attic (such as spray foam under roof or insulated roof): > R 21
☐ Wood frame walls: R 13-20 in climate zone 2; R 15-20 in zone 3
☐ Concrete or masonry walls: R 13-20
☐ Band joist between levels: R 13-20
Elements of Insulation System:
- Insulation installed without gaps, voids and compressions
- Radiant barrier under roof decking (if A/C ducts in attic and non-reflective roofing)
- Building system with continuous insulation coverage
- Insulation type with extra advantages (see more info in manual or online articles)
- Roof framing for full insulation above exterior walls
- Insulated window and door headers
- Insulated corners and T-wall intersections
- Insulated, air tight attic access door (R 30)
- All insulated doors (R 5-15)
- All glass low-e insulated; nonconductive framing

HVAC - Efficient Cooling and Heating

ENERGY STAR labeled cooling and heating equipment:
- Air conditioner: ≥ SEER 15 matched system
- Gas furnace: ≥ AFUE 90%
- Heat Pump (air source): ≥ SEER 15 & HSPF 8.5
- Geothermal closed loop heat pump: ≥ EER 17.1 + COP 3.6
- Equipment is performance tested

Alternatives with special advantages:
- Geothermal heat pump with water heating
- Variable speed air conditioner or heat pump
- Integrated gas space and water heating system
- Manual J sizing (not oversized) and Manual S equipment selection (to meet humidity load)
- Sensible Heat Ratio ≤ 0.70 SHR (min. 30% dehumidification)
- Zoned heating/cooling (zone control system or multiple units)
- Programmable thermostats
- Outdoor thermostat on heat pump
- Heat pump has gas back-up heat
- Compressor on N or E side of house

Minimized duct losses:
- Ducts and air handler (AH) within conditioned space (inside building insulation "envelope"):
  - In sealed soffit or dropped ceiling, AH in closet
  - Or, in insulated, sealed enclosure above ceiling
  - Or, encased in spray foam above ceiling
  - Or, in unvented, conditioned attic (code compliant insulation at roofline, not attic floor)
- Supply ducts, AH, all connections sealed with mastic
- Duct insulation (R-8 if not in conditioned space)
- Sealed return plenum or duct
- Manual D duct and return design
- Airflow measured and balanced with air flow hood
- Central supply trunk (not octopus layout)
- Duct runs and registers not extended to exterior walls
- Air returns, transfer grilles or transoms for all BR’s
- Tested duct leakage < 5% to outside (min. 8%)

Other Efficient HVAC equipment (see Healthy/IAQ for Ventilation):
- ENERGY STAR dehumidifier (if needed)
- ENERGY STAR ceiling fans in often-used areas
- ENERGY STAR quiet exhaust fans (< 1.5 sones)

Appliances with Low Life-Cycle Cost
- ENERGY STAR refrigerator, clothes washer, dishwasher
- ENERGY STAR electronics
- Efficient dryer, oven, etc. (see EnergyGuide labels)
- If well or pool present, efficient variable speed pump

Efficient water-heating system options:
- Integrated with geothermal heat pump
- Heat recovery unit on air conditioner compressor
- Solar water heater, certified
- Heat pump water heater, EF ≥ 2.0
- Tankless gas water heater, EF ≥ 0.90
- ≥ 0.67 EF small gas water heater, 0.77 ≥ 55 gal.
- Insulated hot water pipes and tank
- Central location of water heater
- Efficient piping layout, sizing for hot water

Lighting with Fewer Watts, Less Heat
- high color low wattage lighting throughout house
  - fluorescent tubes, electronic ballast in attractive built-ins
  - EnergyStar fixtures
  - compact fluorescent lamps in standard fixtures
  - LED lamps
- high efficiency outdoor lighting
  - photovoltaic solar lights
  - outdoor fluorescents
  - high pressure sodium or metal halide
- controlled, diffuse daylighting
  - 0.8 VT N and shaded S glass
  - If skylights, tubular type only
- light color scheme interiors
- motion or photo sensors
### Water-Efficiency

- Drought-tolerant landscape
- Micro-irrigation system for garden (or none needed)
- Low water use lawn sprinkler system (or none needed)
- Timer on hose or watering system
- High performance low-flow toilets
- EPA Water Sense label low-flow fixtures
- Water-efficient appliances
- No oversized garden tub
- On-demand recirculating plumbing system

**In areas of threatened water supply:**
- Automatic faucets
- Residential urinal
- Rainwater harvesting for outdoor use
- Greywater for underground irrigation (if permitted)
- Household sewage flow reduction system for irrigation, if permitted

### Waste Management

**Reduce Construction Site Waste**
- Modular planning
- Use of manufactured components
- Use of low-waste building systems
- Job site framing plan, cut list, central cut area
- Donation or re-use of excess materials
- Recycling of construction waste
- Cleared trees milled or ground into mulch

**Household Waste Management**
- Home recycling, sorting center (for household trash)
- Backyard composting

### Pollution Prevention and Ecosystem Protection

**Water Quality Protection:**
- Effective sanitary sewer system
- Private water well protected from flooding

**Storm water management/ runoff reduction:**
- Porous paving
- Rainwater harvesting from roof
- Landscaped buffers, retention areas on site
- Construction sediment/erosion control

### Minimize Use of Environmental Hazards

- Suitable ozone friendly materials
- Minimal use of pesticides, solvents, etc.
- Low toxic wood treatments
- Catalytic wood stove (if used for heating)

**Native Plant and Ecosystem Protection**
- Onsite preservation of native trees, plants
- Protection of tree root system
- Landscaping with native plants
- Preserved or created wetland
- Preserved or created wildlife habitat

### FAVORING GREEN & RENEWABLES

**Suitable Green Materials**
- Engineered lumber, framing systems, trim
- Concrete made with fly ash
- Recycled plastic or composite decking
- Recycled content building, finish materials
- Recyclable or salvaged materials
- Materials made from waste (mulch, bagasse, etc.)

**Site Choice**
- Lot within “green” development
- Site near workplace or mass transportation
- Infill site or small lot development

**Shift Toward Renewable or Zero Energy**
- Passive solar (house design)
- Solar water heating
- Fuel cell (when cost-effective)
- Photovoltaics

**Use of Local Resources**
- Local renewable natural resources
- Locally manufactured products (< 200 miles)
## Decay Resistance

### Moisture Control
Architectural detailing that sheds rainwater away from walls:
- Overhangs all around (2 ft. wide)
- Roof pitch between 3:12 and 6:12
- Roof drip edge
- If lacking overhangs, non-clogging gutters or diffusers
- Covered entries
- Cap flashing with drip edges above windows, doors
- Extended, sloped window sills
- Sloped porches, balconies, driveways, etc.

### Roof leak reduction:
- Simple roof design
- No flat roofs
- Minimal penetrations; leak-resistant vent systems
- Properly installed flashing at penetrations, valleys
- Step and kick-out flashings if a roof intersects a wall
- Higher performance underlayment for leak-prone roofing types

Continuous drainage plane in walls exposed to rain:
- Drainage space behind cladding in high rainfall areas
- Vented space behind cladding in extreme rainfall areas
- Or, sealed masonry construction (reservoir system)
- Flashing of windows, doors, etc. that continues drainage plane
  - Shingle fashion installation of all materials
  - Flexible flashing tape, waterproof coating or sill pans and corner guards
  - Doors set in pan flashing or “seat” in slab

Hot, humid climate ideal wall assembly (zones 1A, 2A, lower part of 3A):
- Air flow retarder to the exterior
- Vapor diffusion retarder to the exterior
- Permeable interior finish (no vinyl wallpaper)
- Unfaced cavity insulation

Mixed, humid climate ideal wall assembly (zones 4A, top part of 3A):
- Air flow retarder to the interior
- Permeable interior finish (no vinyl wallpaper)

Vapor diffusion retarder that adapts to seasons:
- $\geq R\ 5$ insulating rigid foam sheathing
- Kraft paper faced insulation
- Special membrane that is low-perm in winter and high-perm in summer.

### Water managed foundation:
- Ground slopes away from foundation
- Gasket between foundation and framing

For slab on grade house:
- Durable plastic sheeting under slab and lining the grade beam
- Coarse gravel drainage bed under slab

For raised house:
- Ground level under house higher than outside grade
- Plastic ground cover in enclosed crawl space
- Entire wood subfloor treated to resist decay
- Drainage board for any below grade walls
- Insulation system that minimizes condensation on wood framing

### Other:
- Exhaust fans, clothes dryer do not vent under house or into attic
- Wood, fiber cement siding backprimed
- No plumbing within exterior walls
- Stainless steel hoses for clothes washer
- Sloped floor and drain or drain pan for clothes washer, water heater
- Air infiltration control (see Energy-efficiency section)
- Humidity control system (see Healthy/ Indoor Air section)

### Long-Lasting Materials and Equipment
- $\geq 40$-year roofing warranty, 12 year total-system 100% warranty
- $\geq 50$-year cladding warranty or masonry
- $\geq 10$-year window frame, 20 year glass warranty
- Pressure-treated wood, masonry, steel structural components
- Fiber cement, composite or other long-life trim
- Plastic lumber or pressure-treated wood decking
- Appliances, equipment with longer warranties
- Long-lasting floorings
- Foundation designed for soil conditions
### Multi-Hazard Resistance

**General:**
- Emergency back-up power system
- Easy access shut-offs
- Emergency kit storage
- Multiple escape exits

### Flood Damage Reduction

**Built above anticipated flood levels:**
- In non-coastal A zones, floor is 2-3 feet above BFE using one of these foundation types:
  - slab on compacted fill, extending max. 2 ft. beyond house footprint
  - slab cap on compacted fill within a stem wall foundation
  - unfinished, floodable crawl space with flood vents
  - pile, post, column or pier open foundation; enclosures vented or designed to allow entry and exit of flood water
- In V zones and coastal-A zones, lowest horizontal structural member is above BFE with:
  - Continuous pile, open foundation
  - No or minimal obstruction as allowed by local ordinance
- In areas of minimal risk (Zones C and X) near A or V zone property:
  - Lowest floor is above BFE of nearest flood zone

**Additional design features:**
- Decks, porches built and anchored to resist flood forces
- Garage above BFE or includes flood vents if below BFE
- Garage floor, patios, etc. min. 4 in. below living floor,
- HVAC, electrical, mechanical systems elevated above BFE

**Additional flood protection features:**
- Backflow valve in sewer line
- Flood-resistant materials and on first floor assemblies (drainable, changeable, dryable)
- Appliance styles, installations that minimize damage in shallow floods
- In areas protected by levees, designs and materials that are submersible, drainable and easily flushed

### Hurricane and Tornado Resistance

(See wind design speed map and associated wind resistant building code for specific requirements; checklist below includes general guidelines for hurricane zones)

**General features:**
- House is ≤ 60 ft. long
- No more than two stories (levels)
- Wall height of each story is ≤ 10 ft.
- Exterior cladding (siding, roofing, etc. rated for wind design speed)
- Reinforced safe-room within house
- Storm storage for outdoor items
- Outside accessories securely anchored

**Walls:**
- For wood frame construction
  - 2x4 studs spaced 16” o.c., or 2x6 studs spaced 24” o.c.
  - Bottom plates anchored to foundation
  - All load bearing studs anchored to bottom and top plates with metal hurricane connectors or structural sheathing with load-specific nailing pattern
  - Upper story anchored to lower story
  - Structural sheathing or inset shearwalls to meet shear load requirements
  - No windows, doors near corners
  - Corner hold-down hardware at ends of each shear wall
- For masonry construction:
  - Rebar connects foundation to wall (4-ft. spacing typical)
  - Rebar reinforcement full height of walls
  - Vertical rebar reinforcement at corners and both sides of windows and doors
- For SIPS, ICF and other building systems:
  - Engineered for wind speed of local wind zone

**Roof, Overhangs and Attachments:**
- Wind-rated connection of roof to walls
  - Hurricane straps over every rafter/truss (preferable to clips)
  - Roof pitch between 3:12 and 12:12 (< 7:12 preferred)
  - Hip roof design (preferred)
  - Gable roof end walls braced or balloon framed
  - Overhangs ≤ 2 ft. (or engineered, if larger)
  - Roof decking nailed to rafters with ring shank nails (not stapled) at 6” o.c. or to code
- In tornado zone, 5/8-inch plywood roof decking
- Roof deck seams sealed (with adhesive roof tape or membrane)
- Min. #30 roofing felt (prefer tear resistant synthetic underlayment or peel-and-stick membrane)
- Wind- and impact-rated roofing (Class H, UL Class 4 are best); shingles installed with dedicated starter strips, nailed per high wind instructions.
- Attic vents protected from wind-driven rain
- Soffits of rigid material and fastened securely to framing
- Porch, patio, carport designed, anchored for wind load
  - Columns anchored to foundation and roof beam

Windows and doors:
- Height ≤ 6’-8”
- Meet code design pressure ratings (typically > DP 30)
- Glass protections (plywood panels or certified impact-rated storm shutters, panels, screens, or window/door units)
- In tornado zone, passive protection (impact rated) windows
- Pressure rated or reinforced garage door

**Fire Protection**
- Fire resistant wall cladding
- UL Class A roofing
- Fire resistant materials around fireplace, and in kitchen
- Smoke alarm (combination type, battery powered)
- Lightning rod and grounding system
- Residential sprinkler system
- Planned extinguisher mounting locations

**Hail and Freeze Hazards**
- Hail resistant roofing (UL Class 4)
- All plumbing in heated space or well insulated
- Pressure relief exterior faucets
- Pex piping (flexible)

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**Termite Resistance**
- No untreated wood left in soil or stored near structure
- Moisture managed construction (See Moisture Control section)
- Professional soil treatment under foundation
- Termite barriers at hidden pathways
- Best: no untreated structural wood or vulnerable insulation
  - Borate-treated wall/roof framing, cellulose insulation, foams
  - Pressure-treated (not borate) or composite wood decking
- Masonry, concrete or steel construction

**Slab foundation:**
- Monolithic poured slab
- Slab specifications to minimize cracking
- Steel mesh epoxied pipe collars within slab
- Consider treatment of control joints and cracks
- No wood forms, stakes, etc. left in ground

**Raised foundations:**
- No hollow concrete blocks below grade
- Hollow block foundation walls capped with concrete
- Piers are solid, resistant material
- Termite shields between foundation and framing to force termite exposure
- Floor joists >18 in. above ground

**All foundations:**
- No vulnerable foam insulation under ground (below grade)
- Min. 8-in. clearance between siding and finished grade
- Min. 6-in. clearance between wooden steps and soil

Foundations detailed for ease of inspection and detection
- Porches, terraces not filled with soil
- Porch supports separated from house min. 2 in.

**Other:**
- Downspouts, sprinklers, drain lines discharge >2 ft. from house
- Plantings placed min. 3 feet from foundation
- No mulch near house or only termite resistant types
- Plumbing and conduit off the ground, no wood supports
**Good Indoor Air Quality**

**Control of Mold, Dust Mites, Other Biological Pollutants**
- Moisture control construction methods (see Durable)
- Air infiltration control (See Energy-efficiency)

**Ventilation and dehumidification**:
- Right-sized air conditioner (Manual J calculation)
- Controlled, filtered fresh air supply AND dehumidification to maintain RH < 60% and slight positive pressure via:
  - Dehumidifying whole house supply ventilation system, OR
  - Fresh air inlet with automatic flow controller to return plenum plus a separate dehumidifier, OR
  - Variable capacity air conditioner with fresh air duct and controller
- Air tight duct system (sealed connections)
- No attic power vent
- 50-80 cfm bathroom exhaust fans with timer or humidistat control
- 100-400 cfm cooktop hood exhaust to outside; hood covers all burners; make-up air for high cfm units
- Pleated HVAC filter (8-10 MERV rating)

For households with allergies, asthma:
- Central vacuum system or HEPA portable vacuum
- 11-12 MERV HVAC filter
- No carpeting in bedroom, family room
- Dehumidifier capacity to keep RH below 50%
- Entry designed for large doormats, washable rug
- Planned outdoor space for pets

**Control of Combustion Pollutants**
- Carport or detached garage
- OR, attached garage air sealed from living space
- Garage attic isolated from home attic
- No unvented combustion source
- Carbon monoxide detector

**Protection from backdrafting**:
- When located in unvented attic or other indoor space, only electric or direct vent, sealed-combustion type furnace, fireplace, and water heater
- Bedroom return-air grilles or ducts
- Dampered fresh air intake in laundry room

**Control of Other Indoor Pollutants**
- Integrated pest management
- Low VOC paints, stains, sealants, adhesives, cleaning products, etc.
- Low-formaldehyde materials (or seal them)
- Low emission labeled carpet, aired before installation
- Finishes free of lead arsenic, mercury, etc.
- Modern mud room at family entry (shoe bins)
- Radon home test
- Soil gas prevention system
- If hypersensitive, minimize PVC, electromagnetic field, dyes, etc.

**Universal Design**

Safe, functional throughout lifecycle; accommodates various ages, heights, needs, abilities and changes.

**Visitability by Persons with Disabilities**
- A grade level or ramped entry path and doorway
- No steps into visiting areas and one bathroom
- Min. 32 in. wide doorways to visiting areas
- One accessible bathroom (5 ft. turning circle at toilet and sink)

**Universal Features**

**Throughout house**:
- No level changes on first story
- Thresholds ≤ 1/2 in. high
- All doorways ≥ 32 in. wide
- Hallways, paths ≥ 42 in. wide
- Lower switches (38-48 in. floor to operable part)
- Higher outlets (18 in. from floor to plug holes)
- Rocker switches or motion sensors
- Lever door handles, U-shaped cabinet pulls
- Single-lever faucet controls
- Easy to reach A/C filter
- Adjustable shelves, rods
- Rounded counter and cabinet corners
- Non-slip, no-glare, even flooring
- Contrasting color and texture visual aids
- Ample, variable light without glare, task lighting
- Space planned for “just in case” elevator shaft, if two-story
### Functional Design

*(See also Healthy/Universal Design section)*

- Appliances placed for safety and universal access
  - Microwave at counter height (36 in.)
  - Front-loading clothes washer
  - Cooktop controls at side
- 42 in. pathway clearances
- 5 ft. clear turning circle at sink, range, refrigerator
- Varied counter heights
- Seated work space in kitchen (30-32 in. high)
- No center stile on cabinets where knee space might be needed (sink, cooktop)
- Some outlets, switches on sides of counters
- Roll-out shelves, baskets, drawers; easy storage access

**One bedroom and bathroom** fully wheelchair accessible:
- On ground floor

### Convenient

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<th>Feature</th>
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<tr>
<td>36 in. wide doorways, no thresholds</td>
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<tr>
<td>24 in. space on latch side of doors</td>
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<tr>
<td>Doors open outward</td>
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<tr>
<td>5 ft. turning circle clear floor spaces</td>
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<tr>
<td>Bedroom has door to outside</td>
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<tr>
<td>Low windows and mirrors (max. 40 in. above floor)</td>
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<tr>
<td>No deep pile carpet or slick, shiny flooring</td>
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<tr>
<td>Knee space under lavatory (not obstructed by cabinet or plumbing)</td>
</tr>
<tr>
<td>Reinforced walls at toilet, tub, shower for grab bars</td>
</tr>
<tr>
<td>Non-slip decorative grab bars</td>
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<tr>
<td>Higher toilet, accessible (not enclosed)</td>
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<tr>
<td>Easy-transfer shower, tub with seat, or curbless shower</td>
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<tr>
<td>Single-lever bath valve, offset for easy reach</td>
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<tr>
<td>Higher cabinet toe space (9 in.)</td>
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<tr>
<td>Easily adaptable to changing needs</td>
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### Low Maintenance

- Long lasting materials and equipment
- Materials that need infrequent or no refinishing
- Mildew- and algae-resistant materials
- Heat, cold, sun and water resistant materials
- Scratch- and stain-resistant materials, finishes
- Easy to clean surfaces, appliances, etc.

### Advanced Wiring & Automation

- Structured wiring, central control
- High capacity cabling
- Easily upgradeable installation route
- Integrated multi-hazard and security systems
- Energy-management control system
- Home office equipped for telecommuting
- Automated lighting controls
- Whole house wireless networking
- Assistive technologies
- Design for technology

### Adaptable For Changing Needs

- Open planning of social zones
- Multi-purpose, adaptable room
- Usable attic space
- Expandable floor plan (future additions)
- Tandem rooms with movable partition
Practical

- Life-cycle cost-effective building systems, products
- Locally available or easily obtained products, installers, maintenance
- Reduces labor cost or construction time
- Enhances or protects market value

For explanations of each item on this checklist,
  basic building science concepts to avoid problems,
  more research-based information on housing topics,
  educational events and seminars,
  online training center,
  and a photo gallery of the high-performance features of

LaHouse
Home and Landscape Resource Center

visit
www.LSUAgCenter.com/LaHouse

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