



*\*In order to be recognized by the program, each home must be verified, under the process established by the program, to meet either the following requirements or the Silver Level of the NAHB National Green Building Program.*

*\*Applicable building codes, as they are written or interpreted by the jurisdiction in which the home is constructed, take precedence over any provision contained herein.*

## Site Management and Waste Reduction

1. Obtain TCEQ Storm Water Permit, when required, and follow best management practices.
2. Implement a tree protection plan or fully comply with established local ordinance regarding tree protection.

### **Select one (1) of the following waste reduction strategies:**

Strategy #1: Minimize construction waste and maximize opportunities to reuse material by implementing any or all of the following waste reduction strategies:

- Reuse form board on slabs and flatwork
- Optimize building dimensions to correspond to standard lumber dimensions.
- Develop detailed framing layouts to avoid waste when ordering lumber.
- Set aside lumber and plywood/OSB cut-offs that can be used later as fire blocking, spacers in header construction, etc.
- Use larger pieces of leftover lumber (6' or more in length) for other jobs or donate them to Habitat for Humanity.
- Order drywall in optimal dimensions to minimize cut-off waste. Drywall is available in different lengths, and designed dimensions should correspond to standard sizes.
- Set large drywall scraps aside during hanging for use as filler pieces in areas such as closets.
- Estimate masonry material needs carefully to avoid waste.
- Salvage usable bricks, blocks, slate shingles, tile and other masonry materials from remodeling and construction. Store for future jobs or divert to salvage operations.

Strategy #2: Recycle material waste. Include strategies for recycling lunch trash as well as construction and demolition debris.

- Consult listing of recycling facilities and the materials they accept in the technical review manual.
- Separate waste
- On-site grinding of wood to mulch

# Water Efficiency

1. Install rain and freeze sensors on sprinkler system or weather forecast based (ET) irrigation controller.
2. Limit landscape & turf plantings to drought-tolerant varieties (must survive stage 3 drought restrictions).
3. Install 2" deep mulch in landscape beds.
4. Select water efficient toilets that work with first flush (min. 250 grams).
5. Locate water heater within 30 ft. of fixtures, install hot water on demand system, or install parallel piping system that originates from a central manifold (i.e. PEX Home-Run).

**Select any two (2) of the following water conservation strategies or install rainwater catchment system to provide for a minimum of 50% of landscape irrigation needs:**

Strategy #1: Install an ENERGY STAR dishwasher.

Strategy #2: Select high performance fixtures. Choose any **two (2)** of the following:

- All lavatory faucets rated at less than 2.0 gpm.
- All kitchen & utility faucets rated at less than 2.2 gpm.
- All showerheads rated at less than 2.5 gpm.

Strategy #3: Zone irrigation system separately for turf and slab/bedding areas.

Strategy #4: Install a low-volume, non-spray irrigation system. Choose any one (1) of the following:

- Drip irrigation
- Bubblers
- Drip emitters
- Soaker hose
- Subsurface irrigation
- Use no irrigation system

# Indoor Air Quality

1. Perform Manual J calculation based on actual house design, specifications and orientation and ensure that installed equipment matches Manual J calculations (or approved software). Verify proper refrigerant level and HVAC commissioning per manufacturer's specifications. Maintain documentation through warranty period.
2. Seal ducts during construction at vent entry and exit.
3. Provide ducted mechanically controlled fresh air in-take system that meets the fresh air needs of the house.
4. If gas furnaces and/or water heaters are located within conditioned space they must be sealed combustion or vented to the outside.
5. Install continuous drainage plane on exterior walls behind cladding material.
6. No vapor barrier on inside of exterior walls.
7. Ensure proper flashing at windows and doors.
8. Avoid attached garage or isolate garage from the living space by providing a tightly sealed, gasketed door between the garage and conditioned space and provide a continuous air barrier between walls and ceilings separating the garage from the conditioned living space.

9. Provide combustion air for wood-burning fireplaces from outside.
10. Use no fiberglass duct board unless sealed properly with low toxic mastic.
11. Install return air ducts, jump ducts, or transfer grills in all bedrooms.
12. Install vapor barrier under slab.
13. Use minimum MERV 8 filters for AC return.

**Select any two (2) of the following strategies to enhance indoor air quality:**

Strategy #1: Select carpets, padding, and adhesives that are compliant with emission levels in accordance with the Carpet and Rug Institute's (CRI) Green Label or Green Label Plus indoor air quality program.

Strategy #2: Use zero-VOC architectural coatings as determined by EPA Method 24 (VOC content below the detection limit for the method).

Strategy #3: Use low-VOC adhesives and sealants (per NAHB 901.9.1)

Strategy #4: Install capillary break under bottom plate.

Strategy #5: Install equipment to maintain Relative Humidity at or below 60% (i.e. central HVAC with dehumidification mode or other dehumidification system).

Strategy #6: Install ENERGY STAR programmable thermostats with humidity control.

Strategy #7: Install one carbon monoxide (CO) detector, compliant with Section 5.2.3 of NFPA Standard 720, per 1,000 square feet of living space or minimum one per floor.

Strategy #8: Install central vacuum (canister unit) outside conditioned space.

Strategy #9: Install kitchen and bath vanity cabinets that contain no added urea formaldehyde.

Strategy #10: Install kitchen range hood to vent range to the outside (at least 100 CFM)

Strategy #11: Install glass door on wood-burning fireplace.

Strategy #12: Upgrade AC return filtration to minimum 4-inch pleated or MERV 11 (in lieu of item #13).

## Energy Efficiency

1. Each home must obtain ENERGY STAR certification with a HERS Index of 83 or below.

# Materials

1. Use engineered lumber products to maximum extent possible to include trusses, joists, and finger-jointed dimensional lumber.
2. Use exterior cladding materials with minimum 25-year warranty.
3. Provide gutter downspout extensions or concrete splashguards and positive drainage away from house.
4. Employ advanced framing techniques to reduce waste. Choose any **one (1)** of the following techniques:
  - 19.2-inch or 24-inch on-center framing for floor system and/or load bearing walls.
  - 24-inch on-center framing for roof systems and/or interior partitions.
  - Single top plate walls.
  - Advanced wall systems such as SIPs or ICF.
  - Steel framing as long as thermal bridging is mitigated by foam core panels on the outside or blown in foam insulation that covers the studs.
  - Right-sized headers or insulated (box) headers (where required).
  - Eliminate headers in non-bearing walls.
  - Ladders blocking at interior-wall-to-exterior wall intersections (i.e. Ladder T's at perpendicular wall intersection) and double rim joist in lieu of header (2X6 or deeper wall framing).
  - Two-stud corner framing or California Corners.
  - Engineered frame design.

## Select any two (2) of the following strategies to enhance building material durability:

Strategy #1: Provide minimum 12-inch roof overhangs based over at least 90 percent of exterior walls to protect the building envelope.

Strategy #2: Install metal drip edge at eaves and gable roof edges.

Strategy #3: Install a continuous, physical, non-chemical foundation termite barrier.

Strategy #4: Use termite-resistant materials for structural components and exterior claddings of walls, floors, or exterior decks.

Strategy #5: Install a minimum of # 30 roofing felt on entire roof for secondary moisture protection.

Strategy #6: Use minimum class 4 roofing material.

# Homeowner Education

1. Provide homeowner with operations and maintenance kit and perform walk-through.
2. Provide homeowner with information on local recycling programs, green energy service providers, and ENERGY STAR certification process contained in the Green Built North Texas Homeowner Education Document.