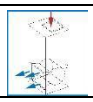
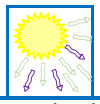
# Designer's and Builder's Durability Checklist

## Design Phase

| | Durability Driver | Responsible Party (D = Designer; B= Builder) |
|---|---|---|
| |  **Ground and Surface Water—Chapter 3** | |
| ☐ | Have gutters been sized and specified? | D |
| ☐ | Have downspout size, location, and outlet point been detailed? | D |
| ☐ | Does site have adequate slope to remove roof run-off? | D |
| ☐ | Has adequate foundation backfill material been specified? | D |
| ☐ | Is grade compaction specifically included in construction documents / contracts? | B |
| ☐ | Are ground clearances between framing, siding, and ground properly maintained? | B |
| ☐ | Is foundation drain specified with proper aggregate and filter fabric? | D |
| ☐ | Are drainpipes located below the top surface of the basement slab? | B |
| ☐ | Is the foundation drainage system properly installed to provide positive flow of foundation water away from the building? | B |
| ☐ | Is foundation drain outlet specified— either through daylighting or sump pump? | D |
| ☐ | Is ground vapor barrier specified to be placed directly below the concrete slab? | D |
| ☐ | Is foundation wall damp proofing or waterproofing specified as required? | D |
| ☐ | Have foundation wall insulation materials been specified to limit air leakage and allow inward drying? | D |
| | | |
| | | |
| | | |
| |  **Rain and Water Vapor—Chapter 4** | |
| ☐ | Have adequate roof overhangs been specified, considering rain protection, wind, and shading? | D |
| ☐ | Does the roof have adequate slope for the roofing material being used? | D |
| ☐ | Has valley flashing been adequately detailed? | D |
| ☐ | Has step/kickoff flashing been specified and detailed? | D |
| ☐ | Have all roofing penetrations been adequately flashed and detailed? | B |
| ☐ | Has roof drip edge been specified? | D |
| ☐ | Has attic vent location and design been specified? | D |
| ☐ | Has a secondary drainage plane been specified? | D |
| ☐ | Has eave ice flashing been specified, if required? | D |
| ☐ | Are the drainage plane and flashings at windows and doors properly detailed? | D |
| ☐ | Have window head, jamb, and sill flashing details been specified? | D |
| ☐ | Have door head flashing details been specified? | D |
| ☐ | Has siding corner detail been specified? | D |

| | | |
|---|---|---|
| ☐ | Has air barrier detailing been specified, taking into account if the barrier is interior, exterior, or both? | D |
| ☐ | Has the thermal envelope design been reviewed to ensure sufficient water vapor management and the ability to dry? | D |
| | | |
| | | |
| | | |
| |  **HVAC & Plumbing—Chapter 5** | |
| ☐ | Do HVAC plans and specs include a deliberate strategy for indoor RH control, including accurate load and equipment sizing, accurate duct design, and specified exhaust ventilation? | D |
| ☐ | Has whole-house ventilation been specified as necessary? If so, has the outside air flow been included in the load/equipment sizing? | D |
| ☐ | Has supplemental dehumidification been considered and specified as necessary? | D |
| ☐ | Have details been specified for plumbing located in exterior walls? | D |
| | | |
| | | |
| | | |
| |  **Sunlight—Chapter 6** | |
| ☐ | Has shading of the building been considered and planned? | D |
| ☐ | If reservoir cladding is used on exterior walls, have they been detailed to limit rain exposure and/or walls designed to manage inward vapor diffusion? | D |
| ☐ | Have UV resistant materials been specified for susceptible exterior components? | D |
| | | |
| |  **Insects—Chapter 7** | |
| ☐ | Are termite protection measures specified? | D |
| | | |
| |  **Decay & Corrosion—Chapter 8** | |
| ☐ | Is the minimum 8” clearance (or greater) to protect wood from ground moisture clearly specified and integrated into plans? | D |
| ☐ | Is treated lumber adequately specified (and field verified) given the exposure and the application? | D |
| | | |
| |  **Natural Hazards—Chapter 9** | |
| ☐ | Have the location-specific natural hazards been evaluated, with above minimum-code details included in the design to enhance long-term durability and disaster resistance? | B & D |

| Communications & Education | | |
|---|---|---|
| □ | Is the builder "taking credit" for their enhanced durability efforts in the form of third party labeling, at-a-glance communications products, etc.? See text box in Section 2.1. | |
| □ | Is the builder providing home buyers with clear maintenance-related educational materials and checklists? See Section 2.2 for resources. | |
| | | |
| | | |
| | | |

# Designer's and Builder's Durability Checklist

## Construction Phase

| Sitework | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Verify site has adequate slope to remove roof run-off. | **3** |
| ☐ | Verify shading of the building has been considered and planned. | **6** |
| ☐ | Proved termite protection measures when appropriate. | **7** |
| ☐ | | |
| ☐ | | |

| Foundation | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Verify adequate foundation backfill material is provided. | **3** |
| ☐ | Provide grade compaction as specified in construction documents. | **3** |
| ☐ | Provide adequate ground clearances between framing/siding and soil. | **3** |
| ☐ | Provide specified foundation drain with proper aggregate and filter fabric. | **3** |
| ☐ | Verify drainpipes are located below the top surface of the basement slab. | **3** |
| ☐ | Properly installed foundation drainage system to provide positive flow of foundation water away from the building. | **3** |
| ☐ | Verify foundation drain outlet goes either through daylighting or sump pump. | **3** |
| ☐ | Verify ground vapor barrier is placed directly below the concrete slab. | **3** |
| ☐ | Verify foundation wall damp proofing or waterproofing is as specified. | **3** |
| ☐ | Verify foundation wall insulation materials has installed as specified to limit air leakage and allow inward drying. | **3** |
| ☐ | Provide minimum 8" clearance (or greater) to protect wood from ground moisture. | **8** |
| ☐ | | |
| ☐ | | |

| Framing | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Verify attic vent locations as specified. | **4** |
| ☐ | Verify secondary drainage plane is installed as specified. | **4** |
| ☐ | Verify eave ice flashing in installed as specified. | **4** |
| ☐ | Verify the drainage plane and flashings at windows and doors are installed as specified. | **4** |
| ☐ | Verify window head, jamb, and sill flashing details are installed as specified. | **4** |
| ☐ | Verify air barrier construction is installed as specified. | **4** |
| ☐ | Verify building shading has been installed as specified. | **6** |
| ☐ | Verify treated lumber is installed as specified. | **8** |
| ☐ | | |
| ☐ | | |

| Roof | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Verify adequate roof overhangs are installed as specified. | **4** |
| ☐ | Verify the roof has adequate slope for the roofing material being used. | **4** |
| ☐ | Verify valley flashing has been installed as specified. | **4** |

| | | |
|---|---|---|
| ☐ | Provide step/kickoff flashing as detailed. | **4** |
| ☐ | Verify all roofing penetrations been adequately flashed. | **4** |
| ☐ | Provide roof drip edge as specified. | **4** |
| ☐ | Verify door head flashing details are installed as specified. | **4** |
| ☐ | | |
| ☐ | | |

| **Rough-in** | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Verify siding corner detail is installed as specified. | **4** |
| ☐ | Verify thermal envelope installation to ensure sufficient water vapor management and the ability to dry as specified. | **4** |
| ☐ | Verify equipment for indoor RH control, equipment sizes, installation of duct design, and specified exhaust ventilation are as specified. | **5** |
| ☐ | Verify whole-house ventilation installation if specified. If so, verify the outside air flow volume is as specified. | **5** |
| ☐ | Verify supplemental dehumidification is installed as specified. | **5** |
| ☐ | Verify construction details for plumbing located in exterior walls. | **5** |
| ☐ | | |
| ☐ | | |

| **Finishes** | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | When reservoir cladding is used on exterior walls, verify it is detailed to limit rain exposure and/or walls designed to manage inward vapor diffusion. | **6** |
| ☐ | Provide UV resistant materials for susceptible exterior components as specified. | **6** |
| ☐ | | |
| ☐ | | |

| **Landscaping** | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Provide gutters if sized and specified. | **3** |
| ☐ | Verify downspout sizes, locations, and outlet point(s) as specified. | **3** |
| ☐ | | |
| ☐ | | |

| **Miscellaneous** | | |
|---|---|---|
| | *Durability Driver* | *Ch. Reference* |
| ☐ | Insure the efforts for enhanced durability are recognized in form of third party labeling. See text box in Section 2.1. | **2** |
| ☐ | Provide home buyers with clear maintenance-related educational materials and checklists. See Section 2.2 for resources. | **2** |
| ☐ | Verify location-specific natural hazards been evaluated and above minimum-code details are included in the design to enhance long-term durability and disaster resistance. | **9** |
| ☐ | | |
| ☐ | | |