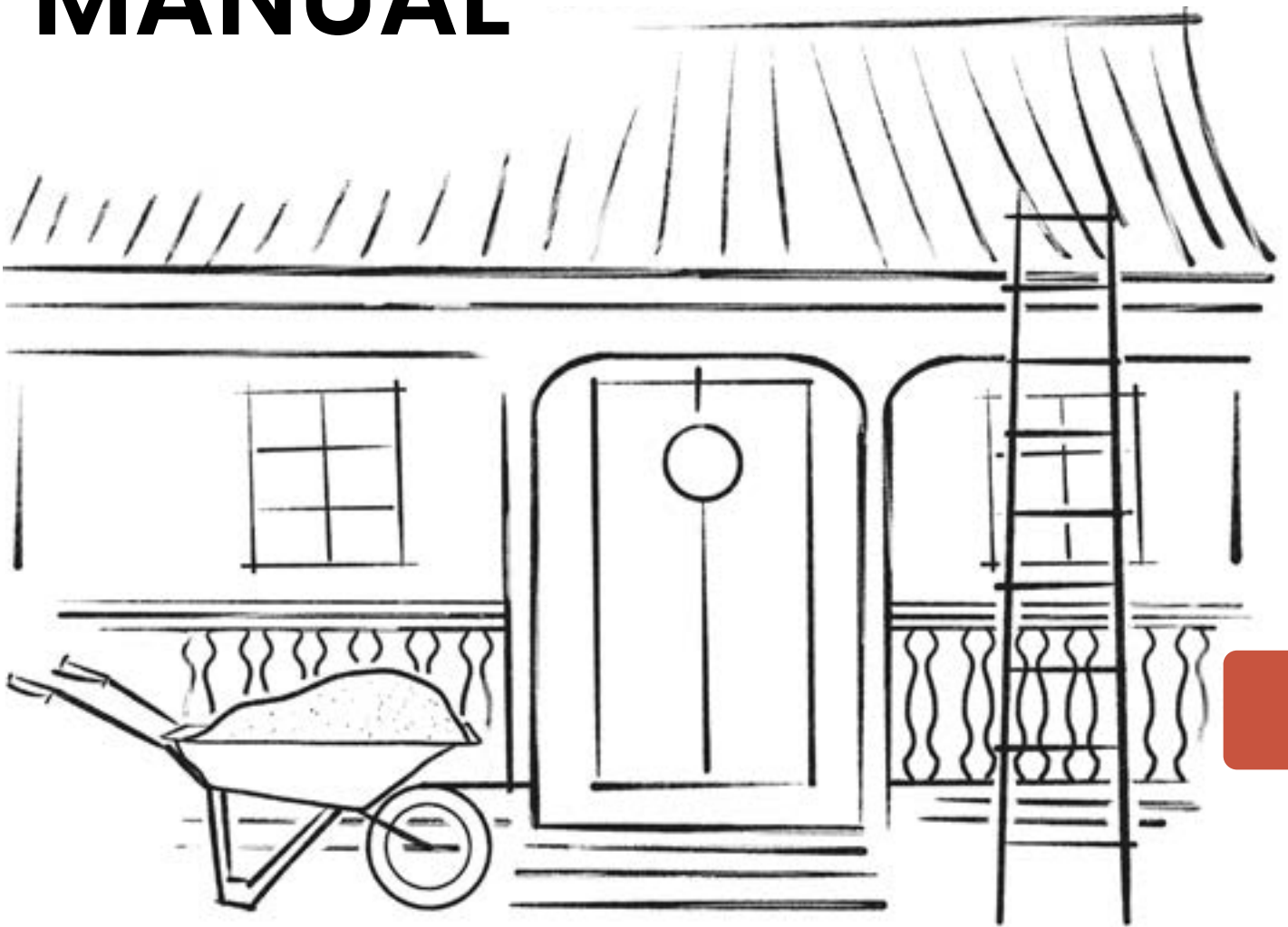


# HOME RETROFIT CONSTRUCTION SUPERVISION MANUAL



This manual was developed as part of the 2025 Data and Systems for Resilient Housing in Dominica project. The project was led by the Ministry of Housing and Urban Development with funding from the Coalition for Disaster Resilient Infrastructure ([www.cdri.world](http://www.cdri.world)) and technical assistance from Build Change ([www.buildchange.org](http://www.buildchange.org)). Graphic design was by Petrea Honychurch Seaman.

The authors extend their gratitude to the Governments of India, Australia, and the United Kingdom, and to the European Union, for their financial support through the Coalition for Disaster Resilient Infrastructure's Infrastructure Resilience Accelerator Fund (CDRI IRAF) Dominica Ministry of Housing.

| Version No. | Issue Date   | Comments    |
|-------------|--------------|-------------|
| 1           | January 2026 | First Issue |

**Copyright © COALITION FOR DISASTER RESILIENT INFRASTRUCTURE (CDRI), January 2026.** All rights reserved. This report is published by Build Change under license from CDRI. Copyright and all intellectual property rights in this publication remain vested in CDRI. The findings, analyses, interpretations, and conclusions expressed in this publication are those of the author(s) and contributors and do not necessarily reflect the views of CDRI.

**Rights and Permissions:** This work is available under the Creative Commons Attribution Non-Commercial (CC BY-NC) IGO License. Users are solely responsible for obtaining any necessary permissions for use by any third-party content contained in this publication, including materials protected by copyright or other proprietary rights. Nothing herein shall constitute or be construed as a waiver, express or implied, of any privileges and immunities of CDRI, all of which are expressly reserved.

## Welcome to the Dominica Home Retrofit Construction Supervision Manual!

*This manual is part of a series of guidance for home retrofitting for increased resilience* against natural and climate hazards in Dominica. It should be read together with the Dominica Home Retrofit Guide, which provides details of how to evaluate existing buildings and design effective retrofit interventions.

*Anyone supervising a housing retrofit construction site may find this manual useful*, including builders, contractors, engineers, architects, development control officers, and homeowners. For further information on any of the definitions used or retrofit techniques described, refer to the Dominica Home Retrofit Guide.

*The information is structured as a checklist, comprising eight key sections:*

1. Preconstruction activities
2. Health and Safety
3. Material specifications quality control and storage
4. Foundations
5. A. Masonry houses
6. B. Timber houses
7. Lightweight roofs
8. Appendages
9. Construction progress and completion

Each section can be printed separately and taken to site as a convenient reference guide.

Within each section, there are a number of **statements describing the correct status** for each element or aspect of construction. For each statement, supervisors can use the assessment column to note whether what they see on site meets the required status or not. **Each statement can be assessed as follows:**

|           |                         |
|-----------|-------------------------|
| <b>C</b>  | <b>conforms</b>         |
| <b>NC</b> | <b>does not conform</b> |
| <b>NA</b> | <b>not applicable</b>   |

In cases where the assessment does not conform with the requirements, there is space for the supervisor to add notes with details of the non conformity and any necessary corrective action.

The guidance presented here is based on international best practices and the Dominica Building Regulations 2022. Should there be any discrepancy, supervisors should always defer to the approved drawings and specifications or consult the designer. The checks in this manual do not replace the inspections by the Authority, Special Inspector or Check Consultant listed in Section 112 of the Building Regulations 2022.

# 1. PRECONSTRUCTION ACTIVITIES

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Assessment                                                                      | Notes |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>1.1</b> | <b>PERMITS AND FORMS:</b><br><br>A building permit (if required, refer to Chapter 5 of the Dominica Home Retrofit Guide) has been issued by the Physical Planning Division.                                                                                                                                                                                                                                                                                                         | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>1.2</b> | <b>SITE PREPARATION:</b><br><br>The house is emptied of furniture, appliances and all other personal belongings that could be damaged or create a hazard during construction. In cases where the retrofit does not affect the whole house, the owner and inhabitants are aware of which rooms will be unaffected and do not need to be cleared. Unaffected rooms are sealed off and locked. The site should be fenced and only accessible to workers while construction is ongoing. | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>1.3</b> | <b>REVIEW DRAWINGS/CONSTRUCTION SCOPE:</b><br><br>The house has not changed significantly since the design phase (for example, the level of damage has not increased, or the house has not been expanded) and the planned retrofit scope of work is clear and necessary.                                                                                                                                                                                                            | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>1.4</b> | <b>MATERIAL PROCUREMENT:</b><br><br>The necessary construction materials have been aquired and are safely and securely stored on site, and/or a plan exists of how materials will be aquired during the project to meet the planned timeline.                                                                                                                                                                                                                                       | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Assessment                                                                                     | Notes |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|
| <b>1.5</b> | <p><b>PERSONNEL RESPONSIBLE:</b></p> <p>A contractor/builder has been appointed to execute the works under a written agreement that is acceptable to both the homeowner and the builder. As a minimum, the contract should include the contractor/builder's obligations (to build the approved or agreed scope of works, to follow the specified construction standards, to do so for a specified amount of money in a specified amount of time), the schedule and times the builder will have access to the site, the client's obligations (to pay the agreed sum of money in the agreed timeframe), the procedures for making changes to the contract, and the procedures for resolving disputes.</p> | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <b>1.6</b> | <p><b>WORKING CONDITIONS:</b></p> <p>Construction workers are of legal age and have the appropriate training, experience and certifications necessary to carry out the assigned tasks.</p> <p>Refer to the Labour Standards Act, the Labour Contracts Act, and the Employment of Women, Young Persons and Children Act if any concerns regarding working conditions.</p>                                                                                                                                                                                                                                                                                                                                | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <b>1.7</b> | <p><b>NEIGHBOURING PROPERTIES:</b></p> <p>The owners and inhabitants of neighboring properties have been alerted to the scope and schedule of the works. If access to neighbouring properties is required to perform the works, written permission has been obtained from the owners of all affected properties and the inhabitants have been informed.</p> <p>Photos and written documentation of the condition of neighbouring properties has been obtained prior to construction start to provide a record to support dispute resolution in case of suspected damage during the works.</p>                                                                                                           | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |

|     |                                                                                                                                                                                                                                                                                                                                                                                                      | Assessment                                                                   | Notes |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
| 1.8 | <b>SITE UTILITIES AND SANITATION AND WASTE FACILITIES</b><br><br>There is an agreement between the builder/contractor and the home owner regarding the use of electricity and water, and sanitation and waste disposal facilities on the site during the works that clearly states whether or not the builder/contractor will supply their own power, water, and/or sanitation and waste facilities. | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |       |

## 2. HEALTH AND SAFETY

*Under Clause 601.5 of the 2022 Building Regulations, it is the responsibility of the builder to ensure that all operatives in his/her employ are appropriately trained and that they can operate the equipment safely. It is also his/her responsibility to ensure that no member of the public is exposed to a hazardous act. All accidents or dangerous occurrences that occur on the site must be reported under the 1951 Accidents and Occupation Diseases (Notification) Act.*

### Assessment Notes

#### 2.1 CONSTRUCTION MONITORING:

- All workers are wearing the minimum required PPE (helmet, boots, gloves)
- The following additional PPE is used when required for specific activities:
  - Ear protection
  - Eye protection
  - Fall protection when working at height

● C  
● NC  
● NA

#### 2.2 WORKING AT HEIGHT:

- Safe platforms and guard rails are provided for work at any height
- Fall protection via a rope or an all-body harness connected to a safe anchor point is provided for work above 6ft (1.8m)
- Ladders are in good condition and properly supported
- Workers always maintain three points of contact on ladders: two feet and one hand, or two hands and one foot.

● C  
● NC  
● NA

#### 2.3 CLEANLINESS, SAFETY, AND ORDER:

- Work areas are kept clean and clear at all times.
- Tools and equipment are stored in an orderly manner after use.
- Electrical equipment and cables are elevated off the ground on a stable and secure surface.
  - Tools are not used in the rain or in wet areas.
  - The work area remains free of lit cigarettes or other fire hazards.
- Fuel and other toxic substances are stored in leak proof containers that are clearly labeled on a stable base located well in the shade and away from ignition sources.

● C  
● NC  
● NA

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Assessment                                                                      | Notes |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>2.4</b> | <b>FIRE PROTECTION:</b> <ul style="list-style-type: none"> <li>■ In accordance with the 2022 Building Regulations Section 623, combustible materials are not stored near welding areas or in areas of the house that have not been fireproofed. Formwork is stripped and safely disposed of in a timely manner.</li> <li>■ At least one approved hand pump, tank or portable chemical extinguisher is provided and maintained in an accessible location.</li> </ul>                                                                                                                                                                                                                                            | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>2.5</b> | <b>SAFETY OF THE PUBLIC:</b> <ul style="list-style-type: none"> <li>■ Adequate measures are in place to protect the public in accordance with the 2022 Building Regulations Section 6, including: safe excavation, scaffolds, hoisting, storage, and alternate access routes; mitigation measures against noise and dust, adequate sanitation and waste disposal facilities; and fire precautions.</li> </ul>                                                                                                                                                                                                                                                                                                  | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>2.6</b> | <b>DISASTER PREPAREDNESS:</b> <ul style="list-style-type: none"> <li>■ The contractor/builder has an emergency plan in place that covers fire, hurricanes, earthquakes and floods. The plan includes monitoring of weather and early warning systems. In the event that the site will be left unattended for long periods of time or 24-48hrs before a predicted hurricane, the contractor plans to: secure loose tools; tie down all materials and portable structures; reinforce and brace partially completed structural elements; turn off water, electricity and gas at source; cover exposed openings; suspend all construction activities; and ensure all personnel have evacuated the site.</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

## 3. MATERIAL SPECIFICATIONS QUALITY CONTROL AND STORAGE

### 3.1 Concrete and Mortar

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Assessment                                                                      | Notes |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| 3.1.1 | <b>CEMENT (PER BUILDING REGULATIONS 1502.4 AND 1603.2):</b> <ul style="list-style-type: none"> <li>■ Cement bags are stacked in piles of no more than 10 bags, kept away from walls and 4" (10cm) above the floor, and protected from the weather.</li> <li>■ The packaging is fully sealed and labeled as Type 1 Portland cement, , or otherwise in accordance with the design specification.</li> <li>■ Cement is not left exposed after the bag has been opened.</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| 3.1.2 | <b>SAND (PER BUILDING REGULATIONS 1603.3):</b> <ul style="list-style-type: none"> <li>■ Sand is stored on a clean, flat surface and covered to prevent contamination, or it being washed or blown away.</li> <li>■ Sand is river sand (NOT beach sand) that is clean and free from mud, organic matter, or rubbish.</li> </ul>                                                                                                                                                 | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| 3.1.3 | <b>GRAVEL (PER BUILDING REGULATIONS 1502.4 AND 1603.3):</b> <ul style="list-style-type: none"> <li>■ Gravel is stored on a clean, flat surface and covered with a tarp to prevent contamination.</li> <li>■ Gravel is crushed and angular (not round), clean and free from mud, organic matter, or rubbish.</li> <li>■ Sized between 1/4" (0.5cm) to 3/4" (20mm) in diameter.</li> </ul>                                                                                       | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| 3.1.4 | <b>WATER (PER BUILDING REGULATIONS 1603.34):</b> <ul style="list-style-type: none"> <li>■ There is water available on site that is colorless, clean in appearance, and free of oils, acids, salts, organic materials, or any other substances that could compromise the quality of the concrete or the integrity of the reinforcement.</li> <li>■ If water is stored on site, the containers are free from materials that could alter its composition.</li> </ul>              | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Assessment                                                                      | Notes |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| 3.1.5 | <b>MORTAR MIX (PER BUILDING REGULATIONS 1502.4 AND 1603.3):</b> <ul style="list-style-type: none"> <li>■ Mortar mix is minimum 1:3 cement:sand, or greater as per design. Including lime in the mix (2:1:9 cement:lime:sand) is encouraged to improve durability, moisture control and workability.</li> <li>■ Water content does not exceed two thirds the cement content (example: if three buckets of cement are added, maximum two buckets of water can be added).</li> <li>■ The mix is prepared on a clean surface, free of impurities that could affect its quality.</li> </ul>                                                                                                                                                             | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| 3.1.6 | <b>CONCRETE MIX (PER BUILDING REGULATIONS 1603.4):</b> <ul style="list-style-type: none"> <li>■ Concrete mix reflect the correct cement-sand-gravel proportion of 1:2:4.</li> <li>■ Water content does not exceed two thirds the cement content (example: if three buckets of cement are added, maximum two buckets of water can be added).</li> <li>■ The mix is prepared on a clean surface, free of impurities that could affect its quality.</li> <li>■ For critical structural elements, including suspended beams and slabs, columns and ring beams, it is strongly recommended that samples are tested to verify the mix meets the minimum compressive strength required (3,000 psi (20MPa) or as per the design specification).</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

# 3.1 Concrete and Mortar

|                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment                         | Notes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|
| <p><b>3.3.1 REBAR:</b></p> <ul style="list-style-type: none"> <li>■ The steel is new, deformed, and free of rust and corrosion.</li> <li>■ The mill markings on the bars and the accompanying mill certificate match the requirements in the design specification.</li> <li>■ Bars are stored in a covered area, raised 4" (10cm) off the ground.</li> <li>■ Bars are bent around safe bending diameters (= 6 times the bar diameter)</li> </ul> | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <p><b>3.3.2 STEEL MESH:</b></p> <ul style="list-style-type: none"> <li>■ The mesh is new, deformed, without bends, and free of rust and corrosion.</li> <li>■ The mesh diameter ranges from 4 mm to 5 mm (15x15 cm spacing).The mix is prepared on a clean surface, free of impurities that could affect its quality.</li> </ul>                                                                                                                 | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |

### 3.3 Masonry Units

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Assessment                                                                                                                                    | Notes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>3.3.1 MORTAR UNIT:</b> <ul style="list-style-type: none"> <li>■ Masonry units have a minimum compressive strength of at least 1000psi (7MPa) over net block area.</li> <li>■ Masonry units are in good condition, free of cracks and spalling.</li> <li>■ The minimum block width is 6" (15 cm).</li> <li>■ Blocks are stored on a firm, flat surface free of irregularities or dirt.</li> <li>■ Masonry units can be stacked up to a height of 8 courses (1.60 m).</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> C</li> <li><input type="radio"/> NC</li> <li><input type="radio"/> NA</li> </ul> |       |

### 3.4 Stones

|                                                                                                                                                                             |                                                                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>3.4.1 STONES:</b> <ul style="list-style-type: none"> <li>■ Stones for mass foundations or retaining walls have an angular cut and a maximum size of 20-25 cm.</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> C</li> <li><input type="radio"/> NC</li> <li><input type="radio"/> NA</li> </ul> |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|

### 3.5 Timber

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>3.5.1 FORMWORK:</b> <ul style="list-style-type: none"> <li>■ Formwork is made from sawn lumber or plywood, with adequate thickness and configuration to support the size of the pour.</li> <li>■ Any notches or perforations in the wood do not compromise its load bearing capacity.</li> <li>■ The wood is stored in a dry, ventilated area, avoiding direct contact with the ground and the elements.</li> <li>■ Formwork may be reused provided it continues to meet the above specifications.</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> C</li> <li><input type="radio"/> NC</li> <li><input type="radio"/> NA</li> </ul> |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Assessment                                                                                     | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|
| <p><b>3.5.2 STRUCTURAL TIMBER (PER BUILDING REGULATIONS 1403):</b></p> <ul style="list-style-type: none"> <li>■ All structural timber is Southern Pine grade 2 or higher, or equivalent, identified by Grade Mark and standard.</li> <li>■ All structural timber is pressure treated or has natural resistance to termites (eg greenheart, redwood, red cedar).</li> <li>■ Structural timber is dry (less than 19% moisture content), straight, with few knots and imperfections.</li> <li>■ Timber is stored in a dry and ventilated place, raised at least 4" (10cm) above the ground</li> <li>■ Timber may be reused provided it continues to meet the above specifications</li> </ul> | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <p><b>3.5.3 PLYWOOD (PER BUILDING REGULATIONS 1403.2(D) AND 1405.2):</b></p> <ul style="list-style-type: none"> <li>■ The minimum thickness of plywood is 3/8" (10mm), or greater according to design</li> <li>■ All plywood is identified by Grade Mark and standard.</li> <li>■ All plywood that is permanently exposed in outdoor locations is of exterior type.</li> <li>■ It must have at least three layers of veneer.</li> <li>■ The wood must be stored in a dry, ventilated area, avoiding direct contact with the ground and the elements.</li> </ul>                                                                                                                           | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <p><b>3.5.3 PROPS (SHORING):</b></p> <ul style="list-style-type: none"> <li>■ Floor slabs and overhead beams: A cross section of 4" x 4" (10 cm x 10 cm), with a maximum length of 2.30 m.</li> <li>■ Columns and walls: Cross section of 2" x 2" (5 cm x 5 cm) with a maximum length of 2.0 m.</li> <li>■ The wood is stored in a dry and ventilated area, avoiding direct contact with the ground and the elements.</li> </ul>                                                                                                                                                                                                                                                          | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |

## 3.6 Fasteners

Assessment Notes

- All fasteners (including nails, screws, clips and straps) are hot zip galvanized steel minimum. Stainless steel recommended for exterior applications.
- Fasteners are stored in a dry and ventilated place, avoiding direct contact with the ground and the elements.
- Fasteners are installed as per designer and manufacturer's specifications (size, spacing, number, location, orientation)

● C  
● NC  
● NA

## 3.7 Roof Coverings

### 3.7.1 SHEETS AND RIDGE CAP

- Galvanized metal sheets have a minimum gauge 24 (0.6mm).
- The roof sheets are not warped, deformed, scratched or perforated.
- Roof sheets are stored in packages of up to 50 units, with a maximum of three packages stacked in a dry, ventilated area, avoiding direct contact with the ground and exposure to the elements.

● C  
● NC  
● NA

### 3.7.2 ASPHALT SHINGLES:

Tile cap sheet compatible with tile roof assembly: ASTM D1970 self-adhering polymer modified bitumen or hot-mop an approved tile underlayment over the anchor sheet using asphalt in manufacturer specifications.

● C  
● NC  
● NA

## 4. FOUNDATIONS

Refer to Section 2.3.1 of the Dominica Home Retrofit Guide for details of the evaluation and design for foundations.

### 4A Foundation Retrofit and Repair

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Assessment                                                                      | Notes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>4A.1 EPOXY RESINS FOR CRACK REPAIR</b> <ul style="list-style-type: none"> <li>Surfaces to receive epoxy resin are clean; drilled holes have been blown out so they are free from all dust and debris.</li> <li>The epoxy used is appropriate for the intended purpose, base material (concrete or masonry), and anchorage material (threaded rod or rebar).</li> <li>Epoxy is installed strictly in accordance with manufacturer's specifications, particularly regarding: base material preparation, mixing, timing of use, temperature of use, fill levels, curing time and surface preparation (roughness).</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>4A.2 CEMENT MORTARS FOR CRACK REPAIR AND PLASTER</b> <ul style="list-style-type: none"> <li>Existing damaged plaster has been chipped away and the area has been brushed with a wire brush</li> <li>Mortar mix is 1:3 cement to sand by volume</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>4A.3 PIER OR COLUMN JACKETING</b> <ul style="list-style-type: none"> <li>Mesh reinforcement is minimum 4mm @ 6" (15cm), anchored with 3/8" dowels at 1ft (30cm) centres cast into a reinforced concrete foundation.</li> <li>Concrete is minimum 2" (5cm) thick on all sides of the pier/column</li> </ul>                                                                                                                                                                                                                                                                                                                | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>4A.4 INFILL WALLS</b> <ul style="list-style-type: none"> <li>Infill foundation walls are aligned with and have the same thickness as the first floor walls above</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

4A.4 Continued on next page →

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                             | Assessment | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|-------|
| <b>4A.4</b><br>(Cont.) <ul style="list-style-type: none"> <li>Length of infill walls is at least 70% of the length of walls above</li> <li>Infill walls are dowelled into existing piers or columns using epoxy resin and ¼" bars every three courses</li> <li>There are new, continuous foundation beams below all new infill walls. Foundation beams connect to existing pad foundations at each end.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |                                                                             |            |       |
| <b>4B</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>New Foundations</b>                                                      |            |       |
| <b>4B.1 EXCAVATIONS</b> <ul style="list-style-type: none"> <li>The base of all excavations is flat, well compacted (if soil), and free of organic matter and water.</li> <li>Any pockets of unsuitable material (clay) have been removed and backfilled with compacted granular material or 1:3:6 concrete.</li> <li>Excavations are straight with 90-degree corners.</li> <li>The minimum excavation depth is 3ft (90cm), or more to a good foundation layer (stiff soil or rock). Ensure that existing foundations are not undermined (includes foundations of neighbouring structures).</li> <li>Excavations deeper than 4ft (1.2m) are either protected by planks and horizontal struts or cut back to a slope of 1.5 horizontal:1 vertical</li> <li>Termite treatment has been applied.</li> </ul> | <ul style="list-style-type: none"> <li>C</li> <li>NC</li> <li>NA</li> </ul> |            |       |
| <b>4B.2 ALL FOOTINGS</b> <ul style="list-style-type: none"> <li>Concrete cover to reinforcement for all surfaces in contact with earth: min 3" (75mm)</li> <li>Footing dimensions, and reinforcement size and placement is in accordance with the design</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>C</li> <li>NC</li> <li>NA</li> </ul> |            |       |
| <i>4B.2 Continued on next page</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                             |            |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Assessment                                                                   | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
| <b>4B.2 ALL FOOTINGS</b><br>(Cont.) <ul style="list-style-type: none"><li>■ Concrete mix is as per design specification, with minimum 28 day concrete strength of 3,000 psi (21 MPa)</li><li>■ A vibrator is used for concrete compaction</li><li>■ Formwork remains in place and concrete is kept continuously wet for at least 3 days</li><li>■ Provisions are made for foundation walls and superstructure as per the design</li><li>■ A damp proof membrane is provided</li></ul> |                                                                              |       |
| <b>4B.3 TEMPORARY SUPPORT</b> <ul style="list-style-type: none"><li>■ Where new foundations are construction below existing walls, the existing building is adequate propped with temporary supports.</li></ul>                                                                                                                                                                                                                                                                       | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |       |

## 5A. MASONRY HOUSES

*Refer to Section 2.3.2 of the Dominica Home Retrofit Guide for details of the evaluation and design of masonry walls.*

### 5A.1 Walls and Plasters

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Assessment                         | Notes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|
| <p><b>5A.1.1 DEMOLITION OF MASONRY WALLS</b></p> <ul style="list-style-type: none"> <li>Sections of masonry walls are deconstructed and carefully removed, without use of mechanical equipment, such that there is no damage to surrounding elements that are not scheduled for deconstruction.</li> <li>Demolition debris is deposited in a predefined area within the construction site that does not affect the safety of workers or the workflow. It is removed from the site and disposed of in accordance with environmental regulations.</li> </ul>                                                                                                                                                                                                   | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <p><b>5A.1.2 NEW MASONRY WALLS: GENERAL</b></p> <ul style="list-style-type: none"> <li>Width of masonry units is 6" (15cm) minimum.</li> <li>All horizontal and vertical joints between masonry units are completely filled with mortar and have a minimum thickness of 3/8" (1cm) and a maximum of 3/4" (2cm)</li> <li>Each block overlaps blocks in the course below by 1/3 to 2/3 of the block length, including at wall intersections</li> <li>The blocks used are no less than a standard half-block in length</li> <li>Walls are plumb (deviation up to 1/16", 15mm, over the full wall height permitted)</li> <li>Intersecting walls are perpendicular (check using the 3-4-5 triangle method)</li> <li>Walls are 12ft (3.6m) tall maximum</li> </ul> | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <p><b>5A.1.3 NEW MASONRY WALLS: REINFORCED MASONRY SYSTEM</b></p> <ul style="list-style-type: none"> <li>Vertical reinforcement: 1/2" bars at 32" (80cm) spacing, and at all junctions, window and door openings. Reinforcement is continuous from foundation to belt beam. 18" (45cm) laps.</li> <li>Horizontal reinforcement: (2) 3/8" dia bars (or brickforce) laid every three courses.</li> </ul>                                                                                                                                                                                                                                                                                                                                                       | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Assessment                                                                      | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>5A.1.4 NEW MASONRY WALLS: CONFINED MASONRY SYSTEM</b> <ul style="list-style-type: none"> <li>■ Masonry is constructed prior to concrete tie beams and columns</li> <li>■ Masonry is toothed adjacent to columns, or 3/8" bars are laid horizontally to connect the columns to walls.</li> <li>■ RC tie columns: Minimum 4 bars, deformed steel, size #4 (½" diameter) with 24" (60cm) straight bar laps and 90 degree hooks at intersections. #3 (3/8" diameter) links at 6" (15cm) centres throughout, increased to 4" (10cm) centres with 2ft (60cm) of intersections.</li> <li>■ All concrete 3000 psi minimum (21 KPa); 1:2:4 mix by volume</li> </ul>                       | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>5A.1.5 PLASTER:</b> <ul style="list-style-type: none"> <li>■ Prior to plastering, the wall surface is free from existing plaster in poor condition, stucco, paint, or any other material that could affect adhesion. The wall surface is wet.</li> <li>■ The plaster thickness is uniform across the wall, approximately 5/8" (1.5cm) thick</li> <li>■ The plaster does not crack as it cures.</li> <li>■ There is no evidence of the plaster coming loose due to lack of adhesion to the wall, nor are there any hollow or empty sounds when gently tapped.</li> <li>■ The plain plaster is plumb (deviation up to 1/16", 15mm, over the full wall height permitted)</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

## 5A. 2 Concrete Elements

### 5A.2.1 CONCRETE POURING AND CURING

- Concrete is placed within 1 hour of mixing.
- Slump test results are between 2"-4" (5-10 cm)

☐ C  
☐ NC  
☐ NA

5A.2.1 Continued on next page →

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Assessment                                                                      | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>5A.2.1</b><br>(Cont.) <ul style="list-style-type: none"> <li>■ Concrete elements are poured continuously until completion with no cold joints.</li> <li>■ Concrete is well vibrated using a vibrator or hammer and rod.</li> <li>■ After formwork is removed, concrete is cured by wetting five times per day for at least three days.</li> </ul>                                                                                                                                                                                                                                |                                                                                 |       |
| <b>5A.2.2 NEW RING BEAMS</b> <ul style="list-style-type: none"> <li>■ Ring beams are above all interior and exterior walls.</li> <li>■ Dimensions: height 8" (20cm), width 6" (15cm) minimum or greater to match thickness of the wall.</li> <li>■ (4) 1/2" longitudinal bars and ¼" closed links at 6" (15cm) typical spacing along ring beam and at 4" (10cm) spacing within 2ft (60cm) of all intersections and joints.</li> <li>■ 1 1/4" (3cm) concrete cover to all reinforcement.</li> </ul>                                                                                  | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>5A.2.3 CRACK REPAIR</b> <ul style="list-style-type: none"> <li>■ Surfaces to receive epoxy resin are clean; drilled holes have been blown out so they are free from all dust and debris.</li> <li>■ The epoxy used is appropriate for the intended purpose, base material (concrete or masonry), and anchorage material (threaded rod or rebar).</li> <li>■ Epoxy is installed strictly in accordance with manufacturer's specifications, particularly regarding: base material preparation, mixing, timing of use, temperature of use, fill levels, and curing time.</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>5A.2.4 HONEYCOMBING OR COVER REPAIR</b> <ul style="list-style-type: none"> <li>■ Loose material is removed, the surface is cleaned, roughened (if necessary), and wetted. Voids are fully filled with cement mortar.</li> </ul>                                                                                                                                                                                                                                                                                                                                                  | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment                                                                                                   | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------|
| <p><b>5A.2.5 SLAB ROOF WATERPROOFING</b></p> <ul style="list-style-type: none"> <li>■ Concrete screed has a minimum slope of 1/4" per foot and a maximum thickness of 2" (5cm).</li> <li>■ Roof drains are installed at all low points in the roof, 3" (8cm) diameter, with strainers on drains to prevent debris from clogging the drainage system.</li> <li>■ Where applicable, downpipes channel water away from the building's walls and foundation.</li> <li>■ Waterproof membranes are applied strictly in accordance with the manufacturer's specifications.</li> </ul>                                                                                                                                                                                                                                                   | <p> <input type="radio"/> C<br/> <input type="radio"/> NC<br/> <input type="radio"/> NA                 </p> |       |
| <p><b>5A. 3 Formwork and Shoring</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                              |       |
| <p><b>5A.3.1 FORMWORK</b></p> <ul style="list-style-type: none"> <li>■ Formwork is made from sawn lumber or plywood, with adequate thickness and configuration to support the size of the pour.</li> <li>■ Any notches or perforations in the wood do not compromise its load bearing capacity.</li> <li>■ Formwork is moistened with vegetable or mineral based agents or engine oil to prevent concrete adhesion.</li> <li>■ Formwork is plumb and level.</li> <li>■ The formwork remains in position after pouring for:                         <ul style="list-style-type: none"> <li>– Foundations, tie beams and columns: 3 days</li> <li>– Suspended beams (including lintels) and floor slabs: 14 days.</li> </ul> </li> <li>■ Formwork may be reused provided it continues to meet the above specifications.</li> </ul> | <p> <input type="radio"/> C<br/> <input type="radio"/> NC<br/> <input type="radio"/> NA                 </p> |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Assessment                                                                   | Notes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
| <b>5A.3.2 SHORING</b> <ul style="list-style-type: none"><li>■ <b>Walls:</b> Walls higher than 2ft (60cm) are stabilized using vertical planks every 10ft (3m) along the length of the wall. The planks are supported at the top of the wall by props inclined at 45 degrees and at the bottom with metal or wooden stakes firmly anchored to the ground.</li><li>■ <b>Suspended beams:</b> Wooden or metal props spaced at a maximum of 3ft (1m)</li><li>■ <b>Slabs:</b> The formwork for the suspended slab consists of 1" (2.5cm) wooden panels supported on metal trusses spaced no more than 1 meter apart. The vertical props, whether wood or metal, must be placed every 3ft (1m) in both directions.</li></ul> | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |       |

## 5B. TIMBER HOUSES

Refer to Section 2.4 of the Dominica Home Retrofit Guide for details of the evaluation and design for timber houses.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Assessment                                                                        | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| <b>5B.1.1 FRAMING GEOMETRY</b> <ul style="list-style-type: none"> <li>■ <b>Bottom plate:</b> Minimum 2"x4".</li> <li>■ <b>Studs:</b> Minimum 2"x4". Double 2"x4" or 4"x4" required at all wall intersections and ends, and either side of door and window openings.</li> <li>■ <b>Stud spacing:</b> 24" (60 cm) on centre</li> <li>■ <b>Top plate:</b> double 2"x4" or single 4"x4".</li> </ul>                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>● C</li> <li>● NC</li> <li>● NA</li> </ul> |       |
| <b>5B.1.2 CONNECTIONS OF FRAMING ELEMENTS:</b> <ul style="list-style-type: none"> <li>■ All studs are connected to the top and bottom plate with hurricane straps and metal connectors. Strap min. gauge 20, length 24" (60cm) with 6 + 6 8d nails.</li> </ul>                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>● C</li> <li>● NC</li> <li>● NA</li> </ul> |       |
| <b>5B.1.3 SHEAR WALL:</b> <ul style="list-style-type: none"> <li>■ <b>Material:</b> 3/8" plywood sheathing, 1/2" plywood sheathing, 5/8" plywood sheathing</li> <li>■ <b>Connection to wall frame:</b> The perimeter of the plywood sheathing is connected to structural framing with 10d nails x 2 1/2" long, spaced at 4" (10cm) along edges and at 12" (30cm) at the interior.</li> <li>■ <b>Material:</b> 1x6 diagonal lumber sheathing</li> <li>■ <b>Connection to wall frame:</b> Each diagonal pieces is nailed to wall studs, top plate, and bottom plate with (2) 10d nails</li> </ul> | <ul style="list-style-type: none"> <li>● C</li> <li>● NC</li> <li>● NA</li> </ul> |       |
| <b>5B.1.4 GEOMETRY</b> <ul style="list-style-type: none"> <li>■ <b>Height:</b> Timber walls have a maximum height of 8 feet (2.4m), measured from the underside of the sill plate to the top of the top plate.</li> <li>■ <b>Length:</b> Refer to Technical Manual for minimum shear wall lengths.</li> </ul>                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>● C</li> <li>● NC</li> <li>● NA</li> </ul> |       |

## 6. LIGHTWEIGHT ROOFS

Refer to Sections 2.2.1 and 2.2.2 of the Dominica Home Retrofit Guide for details of the evaluation and design of lightweight roofs.

### 6.1 Roof Panels

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment                                                                                     | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|
| <b>6.1.1 CGI SHEETS:</b> <ul style="list-style-type: none"> <li>■ <b>Thickness:</b> Minimum gauge 24 (0.6mm)</li> <li>■ <b>Fasteners type:</b> Roofing screws (wider head) type #9, 2 ½", with neoprene washer</li> <li>■ <b>Fasteners distance:</b> 6" (15cm) max in the internal area of roof and 3" (7.5cm) max at roof edges, overhang and ridge</li> <li>■ <b>Fasteners location:</b> Roofing screws are connected at the upper part of the CGI waves</li> <li>■ <b>Overlap of sheets:</b> Sheets are overlapped 6" (15cm) minimum</li> <li>■ <b>Cantilevering parts:</b> CGI sheets do not cantilever more than 2" (5cm) beyond the supporting timber structure</li> </ul> | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <b>6.1.2 ASPHALT SHINGLES:</b> <ul style="list-style-type: none"> <li>■ <b>Thickness:</b> Minimum 3/8" (recommended 1/2"</li> <li>■ <b>Fasteners type:</b> Anular ring or deformed shank roofing nails with a minimum diameter of 0.083" and 1" diameter button caps.</li> <li>■ <b>Fasteners distance:</b> 12" (30cm) max in the internal area of roof and 6" (15cm) max at roof edges, overgang and ridge.</li> <li>■ <b>Overlap of shingles:</b> vertical overlap = 6" (15cm) minimum; horizontal overlap = 4" (10cm) minimum.</li> </ul>                                                                                                                                     | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <b>6.1.3 RIDGE CAP:</b><br><u>Metal Ridge Cap:</u> <ul style="list-style-type: none"> <li>■ Minimum thickness of gauge 24 (0.6mm).</li> <li>■ Fastened to timber framing with roofing screws (wider head) type #9, 2 ½", with a neoprene washer.</li> <li>■ Segments overlap by a minimum of 6" (15cm)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |

6.1.3 Continued on next page

## 6.2 Roof Drainage

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Assessment                                                                                     | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|
| <p><b>6.1.3</b> <u>Asphalt Shingles Ridge Cap:</u><br/>(Cont.)</p> <ul style="list-style-type: none"> <li>■ At the ridge, there is a 6" (15cm) min. overlap with folded shingles;</li> <li>■ Fastened with annular ring or deformed shank roofing nails with a minimum diameter of 0.083" and 1" diameter button caps every 6" (15cm) maximum;</li> </ul>                                                                                                                                                                                          |                                                                                                |       |
| <p><b>6.2.1 FASCIA BOARD</b></p> <ul style="list-style-type: none"> <li>■ Present and continuous along the whole roof perimeter</li> <li>■ Dimensions: 1" x 8" or 1" x 6"</li> <li>■ Connections: fascia board is connected at each intersection with roof rafters with 2 x 16d nails or 2 x #9 x 2 1/2" long screws</li> </ul>                                                                                                                                                                                                                    | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <p><b>6.2.2 FLASHING:</b></p> <ul style="list-style-type: none"> <li>■ Installed around the full perimeter of the roof to protect fascia board (eaves, and gable ends if present)</li> <li>■ Fastened every 8" (20cm) with 2 x 8d common nails along the rim board and supporting timber</li> </ul>                                                                                                                                                                                                                                                | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |
| <p><b>6.2.3 GUTTERS AND DOWNSPOUTS:</b></p> <ul style="list-style-type: none"> <li>■ Minimum diameter of 4" (10cm)</li> <li>■ Gutters are well positioned with a minimum slope of 0.5% (1/8" per foot)</li> <li>■ Gutters are supported on hangers fixed to the main roof structure every 18" (45cm) maximum</li> <li>■ Downpipes are well fixed to the walls with brackets at a maximum distance of 3ft (90cm)</li> <li>■ Downpipes correctly drain above ground level and channel water away from the building's walls and foundation</li> </ul> | <p><input type="radio"/> C</p> <p><input type="radio"/> NC</p> <p><input type="radio"/> NA</p> |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Assessment                         | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|
| <p><b>6.2.4 ROOF SLAB WATERPROOFING:</b></p> <ul style="list-style-type: none"> <li>Waterproof membrane is installed in accordance with manufacturer's instructions</li> <li>Drains are installed at all low points of slab</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <h2>6.3 Ring Beams and Top Plates</h2>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                    |       |
| <p><b>6.3.1 MASONRY HOUSE - CONSTRUCTION OF NEW R.C. RING BEAM:</b></p> <ul style="list-style-type: none"> <li><b>Dimensions:</b> Depth: min. 8" (20 cm); width to suit wall thickness, min 6" (15cm);</li> <li><b>Reinforcement:</b> Longitudinal: 4 x 1/2" (12mm); transverse: links 1/4" (6mm) every 4" (10cm) within 20" (50cm) of ends and either side of intersections and 6" (15cm) elsewhere;</li> <li><b>Links hooks:</b> links are closed with 135deg hooks. Hook location is alternated along the length of the beam.</li> <li><b>Cover:</b> 1 1/4" (30mm) cover to all sides; DO NOT have the cover be larger than 35mm"</li> <li><b>Spacers:</b> adequate spacers (concrete/mortar/stone) are placed every (2.5ft, 80cm).</li> </ul> | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <p><b>6.3.2 TIMBER HOUSES - TOP PLATE:</b></p> <ul style="list-style-type: none"> <li><b>Dimensions:</b> Double 2x4 (or 4x4)</li> <li><b>Splices:</b> <ul style="list-style-type: none"> <li>Aligned with studs;</li> <li>Not aligned with plywood/board edges;</li> <li>Done with a metal strap (min gauge 20);</li> <li>Min 4 + 4, 8d common nails on each side of plate;</li> </ul> </li> <li><b>Studs connections:</b> <ul style="list-style-type: none"> <li>Wall studs are connected to top plate with metal strap or specialised metal connector;</li> <li>Metal strap: min. gauge 20 wrapped over top plate nad with 6 + 6 8d nails on each side of stud.</li> </ul> </li> </ul>                                                          | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Assessment                                                                      | Notes |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>6.3.3</b> | <b>MASONRY HOUSE – ROOF CONNECTION TO RING BEAM VIA SILL PLATE:</b> <ul style="list-style-type: none"> <li>■ Sill plate dimension: minimum 2" x 4" (3" x 4" recommended);</li> <li>■ Sill plate connection: 1/2" (12mm) anchor bolt with 3" x 3" washer spaced at 24" (60cm) on centers cast into ring beam;</li> <li>■ Rafters or trusses to sill plate connection: 2 x hurricane clips per rafter (Simpson Strong Tie H2.5A or equivalent).</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>6.3.4</b> | <b>MASONRY HOUSE – ROOF CONNECTION TO RING BEAM VIA LEDGER:</b> <ul style="list-style-type: none"> <li>■ Ledger Dimensions: minimum 2"x 6";</li> <li>■ Ledger connection: 1/2" (12mm) anchor bolt spaced at 24" (60cm) on centre, post fixed to existing beam with epoxy resin;</li> <li>■ Rafters to ledger connection: 2 x hurricane clips per rafter (Simpson Strong Tie H2.5A or equivalent).</li> </ul>                                             | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>6.3.5</b> | <b>TIMBER HOUSE – ROOF CONNECTION TO TIMBER TOP PLATE:</b> <ul style="list-style-type: none"> <li>■ Rafters or trusses are connected to the top plate with 2 x hurricane clips (Simpson strong tie H2.5A or equivalent) placed as close as possible to wall studs (inside and outside wall);</li> <li>■ Clip specs and number of nails depend on manufacturer's specifications (Simpson Strong Tie H2.5A or equivalent).</li> </ul>                      | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

## 6.4

### Gable Walls

*Section 2.2.2 of Technical Manual*

|              |                                                                                                                                                                                     |                                                                                 |  |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--|
| <b>6.4.1</b> | <b>MASONRY GABLES:</b> <ul style="list-style-type: none"> <li>■ <b>Geometry:</b> Gable walls have a maximum height of 1.5m, thickness matches the supporting wall below;</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |  |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--|

6.4.1 Continued on next page

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Assessment                         | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|
| <p><b>6.4.1</b><br/>(Cont.)</p> <ul style="list-style-type: none"> <li>■ <b>Stability:</b> A spine gable wall is present to stabilise perpendicular facade gables;</li> <li>■ <b>Confinement/reinforcement:</b> Gables walls are either; <ul style="list-style-type: none"> <li>– <b>Confined,</b> with tie-columns spaced at 7.5" (2.3m) maximum;</li> <li>– <b>Reinforced,</b> with vertically reinforced with 3/8" bars @ 2ft (24") centres, bent into the belt beam;</li> <li>– <b>Belt beam on top of all gable perimeter.</b> Minimum dimensions: depth 4" (10cm), width matching the gable thickness.</li> </ul> </li> </ul>                                       |                                    |       |
| <p><b>6.4.2</b> <b>TIMBER GABLES:</b></p> <ul style="list-style-type: none"> <li>■ <b>Vertical studs:</b> 2" x 4" at 2ft (60cm) centres maximum</li> <li>■ <b>Inclined top member (rafter):</b> double 2x4 (or 4x4).</li> <li>■ <b>Bottom plate:</b> min 2x4 connected to ring beam with 1/2" diameter anchor bolts and 3"x3" washers spaced at 24" (60cm);</li> <li>■ <b>Studs connection to inclined rafter:</b> metal strap with minimum 6 +6 8d common nails;</li> <li>■ <b>Gable surface:</b> plywood (1/2" min) or timber boards nailed to studs;</li> <li>■ <b>Stability:</b> Cross bracings are present to stabilize the roof and gables out-of-plane.</li> </ul> | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |
| <p><b>6.5</b> <b>Framing and Connections</b><br/><i>Section 2.2.2 of Technical Manual</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |       |
| <p><b>6.5.1</b> <b>RAFTERS:</b></p> <ul style="list-style-type: none"> <li>■ <b>Dimensions and spacings:</b> Based on the span, rafters meet the following requirements for minimum dimension and spacing:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>● C</p> <p>● NC</p> <p>● NA</p> |       |

6.5.1 Continued on next page →

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |             |               | Assessment                                                                   | Notes         |               |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|---------------|------------------------------------------------------------------------------|---------------|---------------|--------|
| 6.5.1<br>(Cont.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |             |               |                                                                              |               |               |        |
| SPACING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | 10' or less | 12'           | 14'                                                                          | 16'           | 18'           | 20'    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12" o.c.   | 2 x 6       | 2 x 6         | 2 x 6                                                                        | 2 x 8 / 3 x 6 | 2 x 8 / 3 x 6 | 2 x 10 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 16" o.c.   | 2 x 6       | 2 x 6         | 2 x 8 / 3 x 6                                                                | 2 x 8 / 3 x 6 | 2 x 10        | 2 x 10 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 19.2" o.c. | 2 x 6       | 2 x 8 / 3 x 6 | 2 x 8 / 3 x 6                                                                | 2 x 10        | 2 x 10        | None   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 24" o.c.   | 2 x 6       | 2 x 8 / 3 x 6 | 2 x 10                                                                       | 2 x 10        | None          | None   |
| <ul style="list-style-type: none"><li>■ <b>Material:</b> All timber elements conform to the material specifications in section 3.5.2 of this manual.</li><li>■ <b>Overhang:</b> Rafter overhangs are less than 2ft (60cm), measured horizontally from the exterior face of the wall.</li><li>■ <b>Connection to ridge:</b> There is a Simpson "LUS2x6" hanger or an "H2.5a" hurricane tie and a metal strap nailed over the ridge and rafters, see Dominica Home Retrofit Guide for specifications.</li></ul> |            |             |               |                                                                              |               |               |        |
| 6.5.2 <b>COLLAR TIES:</b> <ul style="list-style-type: none"><li>■ Minimum section size of 2" x 4";</li><li>■ Connected to rafters at each end with 4 8d 2.5" nails (or #8 screws);</li><li>■ Positioned within the top third of the roof height.</li></ul>                                                                                                                                                                                                                                                    |            |             |               | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |               |               |        |
| 6.5.3 <b>PURLINS:</b> <ul style="list-style-type: none"><li>■ <b>Dimensions and Spacing:</b> 2x3 flat spaced at 60cm centres (maximum);</li><li>■ <b>Connections to rafters or trusses:</b> hurricane clips or metal straps (4 + 4 nails); Alternatively, #9 screws (2 per connection);</li><li>■ <b>Max overhang beyond rafters:</b> 4" (10cm).</li></ul>                                                                                                                                                    |            |             |               | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |               |               |        |



# 7. APPENDAGES

*Refer to Section 2.3.2 of the Dominica Home Retrofit Guide for details of the evaluation and design of appendages.*

|                                                                                                                                                                                                                                                               | Assessment                                                                   | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
| <b>7.1 APPENDAGES</b> <ul style="list-style-type: none"><li>■ The adjacent structures are independent of the main structure of the dwelling, and the connections between their elements comply with the specifications in the construction details.</li></ul> | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |       |

## 8. CONSTRUCTION PROGRESS AND COMPLETION

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Assessment                                                                      | Notes |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|
| <b>8.1</b> | <b>CONSTRUCTION MONITORING:</b> <ul style="list-style-type: none"> <li>■ The contractor has designated a site manager to monitor the materials stored and used in construction activities.</li> <li>■ The manager completes the inventory forms for materials brought into the construction site and complies with the specifications in Chapter 2.</li> <li>■ The quantities of materials recorded in the inventories match those actually brought into the construction site.</li> <li>■ A weekly review of the control of materials used in construction activities is conducted, verifying that they are no longer part of the inventory of stored materials.</li> <li>■ The stored materials are sufficient to carry out the scheduled activities according to the construction schedule.</li> </ul> | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>8.2</b> | <b>CONSTRUCTION PROGRESS:</b> <ul style="list-style-type: none"> <li>■ Construction progress is as expected within the activity schedule.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |
| <b>8.3</b> | <b>CONSTRUCTION INSPECTIONS (AS PER 2022 BUILDING REGULATIONS, SECTION 112):</b> <ul style="list-style-type: none"> <li>■ Physical Planning Division are notified within 48 hours of all required inspection stages</li> <li>■ Copies of the approved drawings, development permission, inspection compliance certificates and other statutory approvals are available at the construction site during normal working hours for inspection</li> </ul>                                                                                                                                                                                                                                                                                                                                                     | <input type="radio"/> C<br><input type="radio"/> NC<br><input type="radio"/> NA |       |

|                                                                                                                                                                                                                                                                                                                                                          | Assessment                                                                   | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
| <b>8.4      COMPLETION OF WORKS:</b> <ul style="list-style-type: none"><li>■ Works and payments are completed as agreed in the contract.</li><li>■ Physical Planning of is notified of completion and a Certificate of Completion is issued.</li><li>■ Where indicated on the Certificate of Completion, a Certificate of Occupancy is issued.</li></ul> | <div><div></div> C</div> <div><div></div> NC</div> <div><div></div> NA</div> |       |

