

PART 1 - GENERAL

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| <u>1.1 SECTION INCLUDES</u> | .1 | Materials, removal and installation of fiberglass-reinforced asphalt shingles and roll roofing.   |
| <u>1.2 RELATED SECTIONS</u> | .1 | Section 01 33 00 - Submittal Procedures.  |
|                             | .2 | Section 01 45 00 - Quality Control.   |
|                             | .3 | Section 01 61 00 - Common Product Requirements.   |
|                             | .4 | Section 01 74 21 - Construction/Demolition Waste Management and Disposal.   |
|                             | .5 | Section 01 78 00 - Closeout Submittals.   |
| <u>1.3 REFERENCES</u>       | .1 | Canadian General Standards Board (CGSB).<br>.1 CAN/CGSB-37.4, Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing.<br>.2 CAN/CGSB-37.5, Cutback Asphalt Plastic Cement.<br>CAN/CGSB-51.32, Sheathing, Membrane, Breather Type.<br>.3 CAN/CGSB-51.34, Vapour Barrier Polyethylene Sheet, for Use in Building Construction. |
|                             | .2 | Canadian Roofing Contractors' Association (CRCA).<br>.1 CRCA Roofing Specification Manual.  |
|                             | .3 | Canadian Standards Association (CSA).<br>.1 CAN/CSA-A123.1/A123.5, Asphalt Shingles Made From Organic Felt and Surfaced With Mineral  |

Granules/Asphalt Shingles Made From Glass Felt and Surfaced With Mineral Granules.

.2 CSA A123.2, Asphalt-Coated Roofing Sheets.

.3 CAN/CSA-A123.3, Asphalt Saturated Organic Roofing Felt.

.4 CAN3-A123.51, Asphalt Shingle Application on Roof Slopes 1:3 and Steeper.

.5 CAN3-A123.52, Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3.

.6 CSA B111, Wire Nails, Spikes and Staples.

.4 National Research Council Canada (NRC)/Institute for Research in Construction (IRC) - Canadian Construction Materials Centre (CCMC).

.1 CCMC, Registry of Product Evaluations.

#### 1.4 EXTRA MATERIALS

.1 All unused shingles remain property of owner.

#### 1.5 SUBMITTALS

.1 Manufacturer's Instructions: Provide to indicate special handling criteria, installation sequence, cleaning procedures.

.2 Submit product data sheets for asphalt shingles. Include:

- .1 Product characteristics.
- .2 Performance criteria.
- .3 Installation instructions.
- .4 Limitations.
- .5 Colour and finish.

.3 Submit duplicate samples of full size specified shingles.

1.6 DELIVERY, STORAGE AND HANDLING .1 Deliver, handle, store and protect materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Provide and maintain dry, off-ground weatherproof storage.

.3 Remove only in quantities required for same day use.

1.7 WASTE MANAGEMENT AND DISPOSAL .1 Place materials defined as hazardous or toxic in designated containers.

.2 Ensure emptied containers are sealed and stored safely for disposal away from children.

.3 Use the least toxic sealants, and adhesives necessary to comply with requirements of this section.

.4 Close and seal tightly. Remove from site and dispose of all packaging materials at appropriate recycling facilities.

.5 Place used hazardous sealant tubes and adhesive containers in areas designated for hazardous materials.

1.8 WARRANTY .1 Provide a written guarantee, signed and issued in the name of the owner, stating the fiberglass-reinforced asphalt shingles shall remain free from defects in materials and workmanship for a period of twenty five (25) years from the date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- .1 Fiberglass-reinforced asphalt shingles: to CSA A123.1/A123.5.
  - .1 Type: self-seal, standard, pattern rectangular
  - .2 Mass: minimum 33 kg/3m<sup>2</sup>
  - .3 Colours: as selected by Departmental Representative
- .2 Roofing underlayment: self-adhesive, non-woven glass fibre matt coated with SBS modified bitumen, minimum thickness 1.8 mm, bottom surface release film, top surface sanded.
- .3 Continuous Ridge Vent: minimum 285 mm wide durable, copolymer plastic ridge vent, providing minimum 357 cm<sup>2</sup>/m net free vent area, capable of accepting fiberglass-reinforced asphalt shingle cap over for shingle finish.
- .4 Cement: Plastic cement: to CAN/CGSB-37.5.
- .5 Nails: to CSA B111, of galvanized steel, sufficient length to penetrate 19 mm into deck.

## PART 3 - EXECUTION

### 3.1 REMOVAL OF EXISTING ROOFING

- .1 Remove existing roofing, flashings and underlay, and expose sheathing or shingle lath of roof.
- .2 Withdraw existing shingle and flashing nails, set those which break off. Leave surfaces free from dirt and loose material.
- .3 Departmental Representative to inspect roof sheathing. Take up, cut

out, portion of sheathing boards affected by fungal or insect attack as directed on site by Owner's Representative.

- .4 Replace cut out portions of sheathing or lath with sheathing of equal sectional dimensions, and specified grade. Seat each end of board on rafter/truss, with 25mm bearing, and secure to rafter/truss.

### 3.2 APPLICATION

- .1 Do fiberglass-reinforced asphalt shingle work in accordance with CAN3-A123.51/CAN3-A123.52, NBC/CRCA Specification, except where specified otherwise.
- .2 Install layer of self-adhesive roof underlayment over the entire roof area.
- .3 Install drip edge along eaves, overhanging 12 mm, with minimum 50 mm flange extending onto roof decking. Nail to deck at 400 mm oc.
- .4 Install bottom step flashing (soaker base flashing) interleaved between shingles at vertical junctions.
- .5 Install fiberglass-reinforced asphalt shingles on roof slopes 1:3 and steeper in accordance with CAN3-A123.51 supplemented as follows:
- .6 Install fiberglass-reinforced asphalt shingles on roof slopes 1:6 to less than 1:3 in accordance with CAN3-A123.52 supplemented as follows.

3.3 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by asphalt shingles installation.