Section 07 31 13 – Asphalt Shingles

PART 1 GENERAL - Technical Specifications

1.1 SECTION INCLUDES

.1 Materials, removal and installation of asphalt shingles and roll roofing.

1.2 RELATED SECTIONS

- .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.
- .6 Section 07 62 00 Sheet Metal Flashing and Trim.

1.3 REFERENCES

- .1 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-37.4, Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing.
 - .2 CAN/CGSB-37.5, Cutback Asphalt Plastic Cement.
 - .3 CAN/CGSB-51.32, Sheathing, Membrane, Breather Type.
 - .4 CAN/CGSB-51.34, Vapour Barrier Polyethylene Sheet, for Use in Building Construction.
- .2 Canadian Roofing Contractors' Association (CRCA).
 - .1 CRCA Roofing Specification Manual.
- .3 Canadian Standards Association (CSA).
 - .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 Provide maintenance materials in accordance with Section 01 78 00 Closeout Submittals.
- .2 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.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Asphalt shingles: to CSA A123.1/A123.5.
 - .1 Type: self-seal, standard, pattern rectangular
 - .2 Mass: minimum 33 kg/3m²
 - .3 Colours: as selected by Owner's 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 cm²/m net free vent area, capable of accepting 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.
- Owner's 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 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.

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- .4 Install bottom step flashing (soaker base flashing) interleafed between shingles at vertical junctions.
- .5 Install asphalt shingles on roof slopes 1:3 and steeper in accordance with CAN3-A123.51 supplemented as follows:
- .6 Install asphalt shingles on roof slopes 1:6 to less than 1:3 in accordance with CAN3-A123.52 supplemented as follows.

END OF SECTION

Issued 2008/03/18