

**Part 1 General**

**1.1 SECTION INCLUDES**

- .1 Materials and installation of asphalt shingles roofing.

**1.2 RELATED SECTIONS**

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 74 19 – Construction/Demolition Waste Management And Disposal
- .3 Section 01 61 00 – Common Product Requirements
- .4 Section 07 46 13 – Preformed Metal Siding

**1.3 REFERENCES**

- .1 Canadian Standards Association (CSA International):
  - .1 CSA-A123.1/A123.5-05(R2010) – Asphalt Shingles Made From Organic Felt and Surfaced With Mineral Granules/Asphalt Shingles Made From Glass Felt and Surfaced With Mineral Granules.
  - .2 CAN/CSA-A123.3-05(R2010) – Asphalt Saturated Organic Roofing Felt.
  - .3 CAN3-A123.51-M85(R2006) – Asphalt Shingle Application on Roof Slopes 1:3 and Steeper.
  - .4 CSA B111-1974(R2003) – Wire Nails, Spikes and Staples.

**1.4 SUBMITTALS**

- .1 Submit product data and samples in accordance with Section 01 33 00.
- .2 Submit product data sheets for asphalt shingles, including:
  - .1 Product characteristics.
  - .2 Installation instructions.
  - .3 Colour and finish.
- .3 Submit duplicate samples of full size specified shingles.

**1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, handle, store and protect materials in accordance with Section 01 61 00.
- .2 Provide and maintain dry, off-ground weatherproof storage.
- .3 Remove only in quantities required for same day use.

**1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials in accordance with Section 01 74 19.

- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, and other packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Divert unused asphalt shingle materials from landfill to recycling facility.
- .6 Fold up metal banding, flatten and place in designated area for recycling.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Asphalt shingles: to CSA A123.1/A123.5, glass felt type to match existing.
  - .1 Type: self-sealing; three tab; square cut; rectangular pattern.
  - .2 Mass: 33 kg/3m<sup>2</sup>.
  - .3 Rating: 25 year.
  - .4 Colour: multiple brown tone to match existing, with final selection by Departmental Representative.
- .2 Roofing felt: to CSA A123.3, organic felt No. 15.
- .3 Prefinished sheet aluminum: minimum 0.6 mm thick (26 gauge); factory prefinished with factory applied silicone modified polyester coating on exposed side in white color to match existing.
- .4 Nails: to CSA B111, sufficient length to penetrate 19 mm into deck; galvanized steel to secure shingles in place and aluminum to secure drip and eave edge flashing in place.
- .5 Staples (as option for securing shingles in place): chisel point galvanized steel 25 mm crown, 1.5 mm thick; sufficient length to penetrate 20 mm into deck.

### **2.2 FABRICATION**

- .1 Fabricate eave edge, ridge edge and gable end flashings using prefinished sheet aluminum, matching existing profile.
  - .1 Fabricate to general requirements specified in Section 07 46 13 for fascias.
  - .2 Assume 100 mm wide deck flange, and 75 mm wide face flange.
  - .3 Fabricate flashings straight uniform edges, and free of distortion, ripples, dents, buckling and other visible non-repairable surface damage.

**Part 3            Execution**

**3.1                INSTALLATION**

- .1      Flashings.
  - .1      Install eave edge flashings along eaves, sufficient to flash over rainwater gutters and to match existing. Lap joins minimum 75 mm. Nail to deck at maximum 400 mm o.c.
  - .2      Install gable and ridge edge end flashings with overhanging portion in moderate contact with fascias. Lap joins minimum 75 mm. Nail to deck at maximum 400 mm o.c.
- .2      Asphalt shingles.
  - .1      Install in accordance with CAN3-A123.51, and to match existing.
  - .2      Blend new shingle roofing into existing shingle roofing, with junction weather tight and as inconspicuous as possible. Remove gable end cut portions of existing shingles so as to blend new shingle roofing into existing shingle roofing.
  - .3      Install one layer of roofing felt over entire area covered by shingles, as underlay. Lay perpendicular to slope of roof, with minimum 75 mm weather lapped edges, and weather lapped to existing roofing felt underlay of existing shingle roofing.
  - .4      Install felt underlay and shingles overhanging gutters and overhanging (eave and ridge) edges to match existing.
- .3      Flash in and seal watertight all mechanical items projecting through asphalt shingle roofing.

**END OF SECTION**