



# CALAMBA WATER DISTRICT

Lakeview Subdivision, Halang, Calamba City, Laguna  
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[www.cwd.com.ph](http://www.cwd.com.ph)



Project: Supply and Delivery of Materials for Restoration Works

Subject: Materials Specifications

Location: Lower BPS, Calamba City

Date: April 14, 2026

## I. MATERIALS

### 1. Portland Cement

Cement shall be ASTM C150-22, Type 1 or commonly called as general purpose cement.

2. Aggregates: All aggregates used for concreting shall conform to ASTM-33 and shall be checked daily for any variances in moisture content. Said variances shall be corrected and/or taken into consideration for each batch.

a. Coarse Aggregates: Shall be uniformly and evenly graded for each application in accordance to A.C.I. Standard 318. Unless otherwise approved, aggregate shall be sound, crushed, angular granitic stone. Smooth or rounded stone (river rock) shall not be acceptable.

b. Fine Aggregates: Shall consist of natural sand (S1), manufactured sand or a combination thereof.

### 3. Asphalt

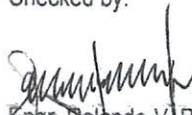
Asphalt Cold Mix shall be composed of coarse mineral aggregates, fine mineral aggregates, mineral fillers and chemically bonding bitumen. Shelf Life: 1 year when stored in dry cool condition.

- ° Coarse Aggregates: AASHTO Specification M 79
- ° Fine Aggregates: AASHTO M 29 or ASTM d 1073
- ° Mineral Fillers: ASTM Designation D 242.b
- ° Emulsified Asphalt: AASHTO Specification M82, M140 or M208 (ASTM Designation D 2397)
- ° Asphalt Cement: Grade 60/70 penetration grade

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