



Geotextile Installation

Location

St. Albert, AB

Owner

The Real Canadian Superstore

Contractor

M.J. Kichton Contracting Co. Ltd.

Consultant

Agra Earth and Environmental Ltd.

Project Details

The construction of a new 10,000m² Superstore located in St. Albert required the use of a non-woven geotextile. The material was used for grade separation under the floor. The project required separation between the sub-base and 75mm minus granular material. Twenty-eight rolls of non-woven geotextile were placed over the entire site. Twelve tonnes of 75mm granular material were placed in a single lift directly over the geotextile. The granular material was compacted to 100% Standard Proctor Density. The floor was completed with a concrete slab being poured over the compacted granular base.

SUPERSTORE
REQUIRED
NON-WOVEN
GEOTEXTILE

On-Site Installation

To ensure that a geotextile functions as intended, proper installation techniques must be performed.

- **Sub-Grade Preparation** - the site was cleared of any sharp objects that could puncture the fabric. Care was taken not to disturb the subgrade. This was achieved by the use of light weight equipment.
- **Fabric Placement** - the geotextile was rolled out in line with the placement of the new aggregate. On a soft subgrade, the fabric was placed on the firmest soil to create an anchor point. Rolls were placed from this point as smoothly as possible. Sandbags were placed on the fabric to prevent lifting or damage due to windy conditions. Parallel rolls of geotextile were overlapped 600mm on this project. On a firm subgrade (CBR>1) it is recommended to overlap 600mm to 900mm. On very soft subgrades (CBR 0.5-1) overlap should be at least 900mm. If the CBR <0.5, avoid overlapping altogether and have the geotextile pre-sewn. All roll ends require an overlap of 900mm.
- **Aggregate Placement** - the aggregate was end dumped on to the fabric. The aggregate was then spread to a thickness slightly greater than the target thickness to allow for subsequent compaction. Compaction was parallel to the geotextile alignment. Turning was not be permitted on the first lift of subgrade aggregate. All remaining lifts of subgrade aggregate were placed and compacted to the specified density.



CBR - California Bearing Ratio

British Columbia

Dawson Creek

Genelle

Langley

Prince George

Alberta

Edmonton

Grande Prairie

Ponoka

Saskatchewan

Regina

Saskatoon

Manitoba

Winnipeg

Ontario

Orangeville

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