

CASE HISTORY

Rev:01, Date : 09.11.2020

SUBGRADE STABILIZATION AND PAVING OVERLAY FOR NH-150 FROM KM. 459.930 TO KM. 462.150 UNDER NATIONAL HIGHWAYS DIVISION NO-III FOR A LENGTH OF 2.20KM, IN THE STATE OF MANIPUR
MANIPUR, INDIA



Pavement Stabilization

Client:	Products used & Quantity supplied:
GOVERNMENT OF MANIPUR, PUBLIC WORKS DEPARTMENT	• TFI BIAXIAL GEOGRID TGB 30/20 - 66,000 SQM. • TFI PP NONWOVEN TECHGEO PR 20 - 66,000 SQM. • TFI PAVING FABRIC TECHPAVE C040 - 30,800 SQM.
Authority:	
MINISTRY OF TRANSPORT ; ATIRA	
Manufacturer & Supplier:	Year of construction:
TECHFAB (INDIA) INDUSTRIES LTD.	2015

Approach Length: 2.2 km

Project description:

The project was to expand the existing road from km 459.930 to km 462.150 on NH-150 along with other activities like construction of culverts, approach culverts and pucca drain. It was required to build a durable road over not so good foundation conditions. It was also required to restrict the percolation of water through pavement.

Solution:

Techfab (India) Industries Ltd submitted a proposal of using Geosynthetics to strengthen the pavement against heavy vehicular impacts & also restrict the percolation of water. For construction of such desired type of pavements, the various products as suggested below shall be used to cater the needs of high stresses developed by heavy vehicles.

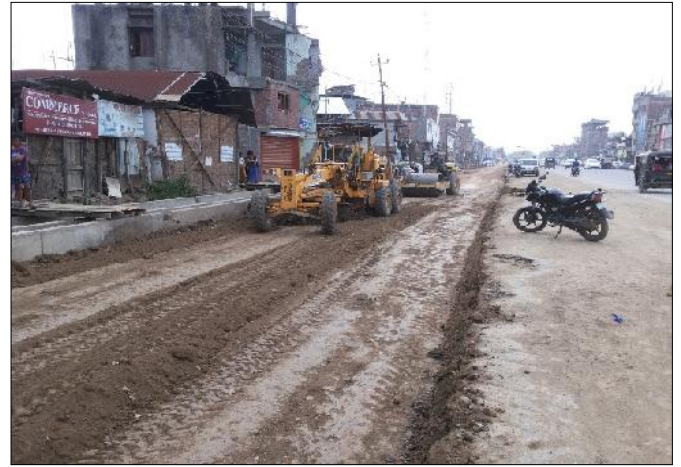
- TechGeo PR series Nonwoven Geotextile is strong, flexible and dimensionally stable fabric structure, with optimum pore sizes and high permeability. TechGeo PR Geotextile can be used as a separator, filter & drainage purpose.
- TechGrid Geogrid TGB Series having with high tenacity, high tensile modulus, low creep and low shrinkage. The PVC coated grids shows a protective cover enhancing the dimensional stability of the geogrid, resistance to installation damage and protection from the environment act as an area stabilization & reinforcement for the granular road base & sub base.



Please find below the photographs for the execution of pavement with the proposed Geosynthetic materials under the guidance of site engineer:



Preparation of sub-base for Road Expansion



Preparation of subgrade for Road Expansion



Laying of Nonwoven Geotextile TechGeo PR20 Fabric on subgrade



Laying of Biaxial Geogrid TFI TGB 30/20 on Subgrade



Demonstration by Expert from ATIRA with Officials of PWD



Levelling and fixing of Geosynthetic material on Subgrade



Laying of GSB on Geosynthetic Material

Benefits of TechGeo Nonwoven Geotextile:

- Acts as a “Filter” by preventing the backfill material from being washed out through Gabion face.
- Acts as a “Separator” between the backfill material and the Gabion fascia and thereby prevents the mixing of the tow.

Advantage of Techgrid Geogrid Biaxial:

- Better Interlocking and load transfer, due to apertures and high interface frictional resistance between Geogrid and sand.
- It will minimize the differential settlement.

Benefits of Woven Geotextile –TFI 3000 Series

- It is used as a “basal reinforcement” of embankments on soft ground conditions.
- Act as a “Working Load Transfer Platform” to transfer vehicular/ impact loads deep into the soil safely.


GOVERNMENT OF MANIPUR
PUBLIC WORKS DEPARTMENT
 UNDER DIVISION NO. II, P.W.D., MANIPUR.

WORK COMPLETION CERTIFICATE DURING 2014-15

1	Name of Work	Purchase of Geo-textile Material for providing in the construction of road on NH-150 from km 428.930 to km 442.150 under National Highways Division No-II for a length of 2.20 km.
2	Job No.	Nil
3	Name of Agency	Techfab India Industries Ltd, Mumbai.
4	Nominated Sub-Contracter	Nil
5	Supply Order No.	SE/HHC/AM/2015-16/82, dt. 22/09/2015
6	Sanctioned Amount	Rs 91,82,800/-
7	Date of Commencement	22.09.2015
8	Stipulated Date of Completion	31.12.2015
9	Actual Date of Completion	31.12.2015
10	Up to date Physical Progress	100% Completed
11	Tendered Cost	Rs 91,82,800/-
12	Up to date total value of the work done	Rs 91,82,800/-

Scope of Work as per Agreement:-
Supply of Geo-textile materials.

General Remarks (Monitoring Litigation history if any and performance):-
The contractor has not been debarred from any contract work. His record of performance is satisfactory.

Signature of the Concerned Engineer in Charge


 (N.M. Singh)
 Executive Engineer,
 National Highways Division No. II,
 P.W.D. Manipur.
 Assistant Engineer
 National Highways Division No. II
 P.W.D. Manipur

Dated: Imphal
15th May 2017

Completion Certificate from Department

Conclusion:

The project was successfully completed in 2015.

For further details kindly contact :

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