

## **Developing Implementable Climatic Input Data and Moisture Boundary Conditions for Pavement Analysis and Design Dataset**

Dataset available at: [https://digitalcommons.lsu.edu/transet\\_data/60/](https://digitalcommons.lsu.edu/transet_data/60/)

(This dataset supports report **Developing Implementable Climatic Input Data and Moisture Boundary Conditions for Pavement Analysis and Design**)

This U.S. Department of Transportation-funded dataset is preserved by the Transportation Consortium of South-Central States (TRAN-SET) in the LSU Digital Commons Repository (<https://digitalcommons.lsu.edu>), and is available at [https://digitalcommons.lsu.edu/transet\\_data/60/](https://digitalcommons.lsu.edu/transet_data/60/)

The related final report **Developing Implementable Climatic Input Data and Moisture Boundary Conditions for Pavement Analysis and Design**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/61698>.

### **Metadata from the LSU Digital Commons Repository record:**

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Document Type: Data Set

Publication Date: 8-1-2019

Abstract: Corresponding data set for Tran-SET Project No. 18POKS03. Abstract of the final report is stated below for reference: "The main objective of this study is to develop a practical and implementable numerical model for predicting the moisture (suction) regime within the pavement subgrade system. The research quality and uniformly-dispersed climate data over short distances from Oklahoma Mesonet and the Mitchell based moisture (suction) prediction methods establish the main background of the research study. The study involved numerical modeling and statistical analysis of climatic weather data. The proposed moisture variation model predicts the suction distribution throughout the soil subgrade by solving the diffusion equation and incorporates the measured suction from the Oklahoma Mesonet to estimate the diffusion coefficient. The research study resulted in a practical prediction model that could be used to determine the moisture boundary conditions within the pavement structure."

Comments: Tran-SET Project No. 18POKS03

### **Recommended citation:**

Bulut, R., & Javid, A. H. (2019). Developing Implementable Climatic Input Data and Moisture Boundary Conditions for Pavement Analysis and Design. Retrieved from [https://digitalcommons.lsu.edu/transet\\_data/60/](https://digitalcommons.lsu.edu/transet_data/60/)

### **Dataset description:**

This dataset contains 1 file described below.

### **TranSET\_18POKS03\_Data.zip:**

- Dataset.xlsx

- Data\_Notes.docx

File Type Descriptions:

- The .docx file is a Microsoft Word file, which can be opened with Word and other free word processor programs, such as Kingsoft Writer, OpenOffice Writer, and ONLYOFFICE.
- The .xlsx and .xls file types are Microsoft Excel files, which can be opened with Excel, and other free available software, such as OpenRefine.

**National Transportation Library (NTL) Curation Note:**

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://ntl.bts.gov/public-access>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at [https://digitalcommons.lsu.edu/transet\\_data/60/](https://digitalcommons.lsu.edu/transet_data/60/) on 2022-05-19. If, in the future, you have trouble accessing this dataset at the host repository, please email [NTLDataCurator@dot.gov](mailto:NTLDataCurator@dot.gov) describing your problem. NTL staff will do its best to assist you at that time.