

Data for: Pavement Design for Local Roads and Streets

Dataset available at: <https://doi.org/10.7910/DVN/0BCWHA>

(This dataset supports report **Pavement Design for Local Roads and Streets**)

This U.S. Department of Transportation-funded dataset is preserved by the Center for Advanced Infrastructure and Transportation (CAIT) in the CAIT Dataverse, which is a part of the Harvard Dataverse repository (<https://dataverse.harvard.edu/>), and is available at <https://doi.org/10.7910/DVN/0BCWHA>.

The related final report **Pavement Design for Local Roads and Streets**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/6187>.

Metadata from the Harvard Dataverse Repository record:

Dataset Persistent ID: doi:10.7910/DVN/0BCWHA

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Title: Data for: Pavement Design for Local Roads and Streets

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Description: Low-volume roads (LVRs) make up more than half the centerline mileage in the United States, most of which are not designed. The Cornell University Local Roads Program worked with local highway agencies New York State to develop a mechanistic-empirical pavement design tool that overcomes the limitations of expertise and time of most LVR highway officials but takes advantage of the knowledge of their own LVRs. The tool developed, RoadPE: LHI, uses two common pavement fatigue criteria, surface tensile strain and subgrade vertical strain, with simplified inputs, and built-in trend analysis to determine the thickness of the asphalt layers for overlaid, mill and filled, rehabilitated, and reconstructed LVRs.

Subject: Engineering

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Dataset description:

This dataset contains 1 file collection, described below.

Pavement Design for Local Roads and Streets_Data.zip:

- ChevLay3.exe
- Cornell Spring Thaw Predictor 2018.xlsm
- D1S1a_Materials Table.pdf
- Fatigue2.xls
- Frost Model Spreadsheet Tool. Ithaca NY (2019).xlsx
- Frost Tool Help File.docx

- LVR Lit Review.docx
- Pavement Design AASHTO93.xls
- Pavement Design Model Draft Jan14.xls
- ROADBC VER5P1.XLS
- RoadPE LHI 2019-11-21.xlsm
- RoadPE LHI 2020-06-08 saratoga development 2021.xlsm
- RoadPE LHI 2020-06-08 Steuben 2021 WindTrucks only.xlsm
- RoadPE LHI 2020-06-08 Steuben 2021.xlsm
- RoadPE LHI 2020-06-08.xlsm
- RoadPE LHI 2020-07-22.xls
- RoadPE LHI 2020-07-22.xlsm
- RoadPE LHI 2020-08-14.xlsm
- RoadPE LHI Template.xlsx
- RoadPE_LHI Instuctions.pdf
- Seasonal Layer Model Final Dec 14 - Fire Lane.xls
- Seasonal Model Lifespan May 1.xlsm
- Seasonal Model Lifespan.xlsm
- Thawing Days Avg.pdf
- Transfers with MEPDG.pdf
- Transfers with MEPDG.xls
- Wheel Wander.xlsx

File Type Descriptions:

- The exe file extension is traditionally used for program executable file since the time of first DOS. There are several versions of this file format, but all serve the same purpose - to start a program (for more information on .exe file and software, please visit <https://www.file-extensions.org/exe-file-extension>).
- The file extension xlsm is associated with Microsoft Excel, one of the most popular and powerful tool you can use to create format spreadsheets, graphs and much more. They serve the same purpose as the.xlsx Microsoft Excel Open XML workbook files, but also contain additional macros and VBA scripts. These files also use the new file extensions and file formats for Excel Spreadsheets based on Open XML data format. xlsm files use ZIP compression for smaller file sizes (for more information on .xlsm files and software, please visit <https://www.file-extensions.org/xlsm-file-extension>).
- The .pdf file format is an Adobe Acrobat Portable Document Format (PDF) file and can be opened with the Adobe Acrobat software.
- The .xlsx and .xls file types are Microsoft Excel files, which can be opened with Excel, and other free available software, such as OpenRefine.
- 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.

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://doi.org/10.7910/DVN/0BCWHA> on 2022-05-25. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.