

Project 0-6658: Task 4 - Data Collection Plans

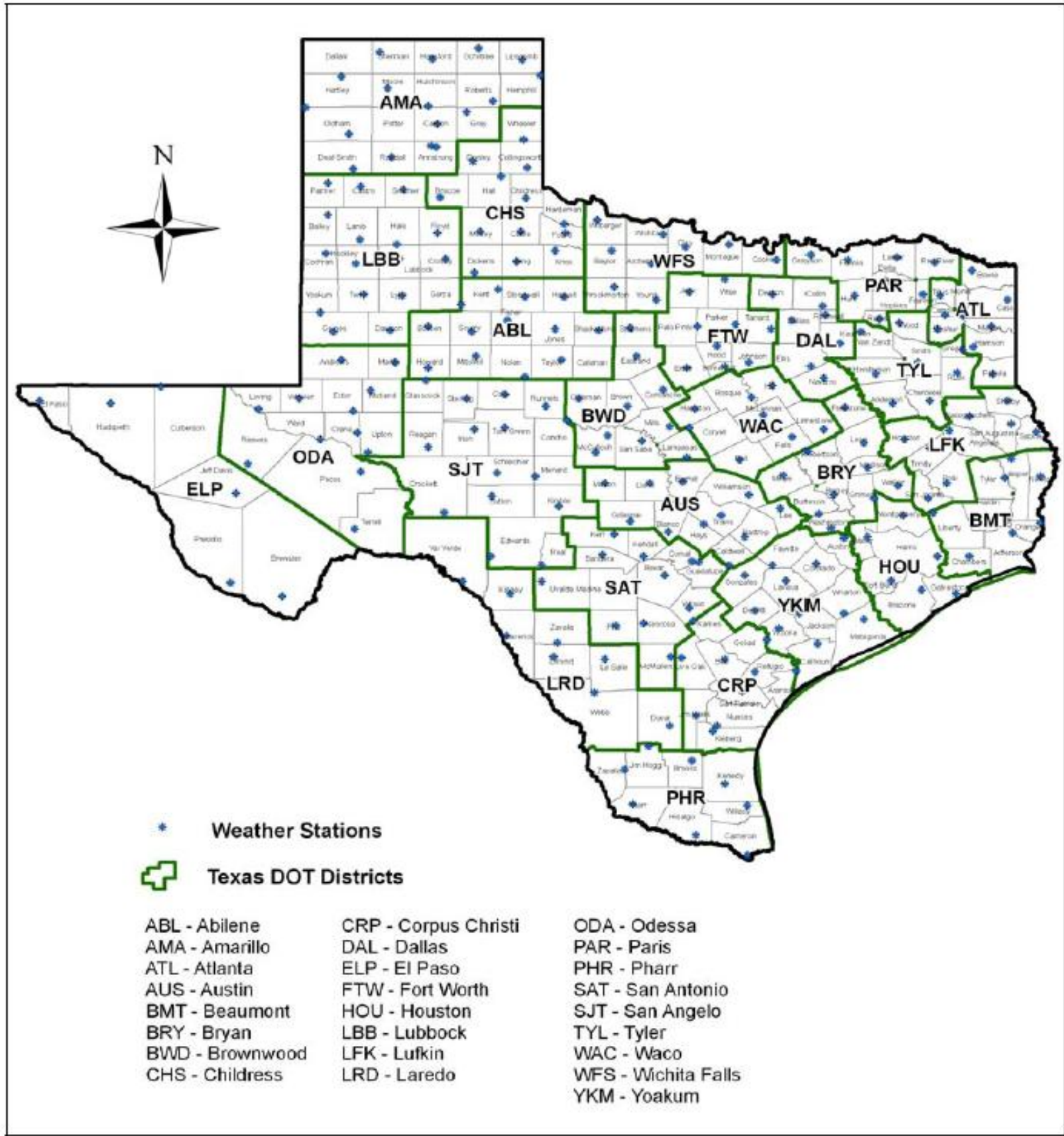
**TRAFFIC AND CLIMATIC DATA COLLECTION**

#	Item	Data Description	Source	Analysis- Output Data & Parameters to Report (Raw Data Files will also be Provided to TxDOT)	Reporting Format (ACCESS??)
1	Traffic data	Speed limit (posted), classification, ADT by class, yearly %age change, axle load distribution factors, etc	1	Manual Counts (volumes, classification, distribution) over 2 summer weekdays period (i.e., 48 hrs)	Under discussion
			2	WIM stations (where available or if nearby)	
			3	PMIS	
			4	Liaison with other traffic related projects.	
			5	TxDOT TPP	
			6	Existing literature & databases	
			7	Posted limits can be determined from on site inspection of signage.	
2	Environmental and climatic data	Date, hours, latitude, longitude, temperature, precipitation, wind speed, %age sunshine, water table depth, etc.	1	Local weather stations	Use MEPDG generated files
			2	EICM model	
			3	Geological, soil, & moisture maps	
			4	Existing literature & databases. There are a couple of on-line ground water databases, such as the Texas Water	

**Note:**  
For all thel items listed above, the following information will also be collected:

- Highway name
- Date open to traffic
- Latitude and longitudinal location (both start and end points)
- Lane direction
- Layer ID

Climatic Data - Texas Weather Stations



Reference: 5-4519-01-1 report by Fernando, 2010

**MEPDG** summarizes climatic data by monthly basis on the following parameters:

- Min/max temperature
- Average temperature
- Precipitation
- Average wind speed
- Average sunshine
- Number of wet days
- Maximum frost

\*63 weather stations data are available from [Texas Asphalt Concrete Overlay Design and Analysis System](#), which is identical to the climate data incorporated into the M-E PDG

- Evaluate weather data quality to remove or adjust abnormal data points
- Note: To use available climatic database, Longitudinal & Latitude should be identified from individual test section!!**
- Establish the groundwater table depth
  - Generate weather data at a specific location if the available database cannot accommodate the location using data resources such as:
    1. National Climatic Data Center (NCDC) – <http://www7.ncdc.noaa.gov>
    2. National Water Information System - <http://waterdata.usgs.gov/nwis/>