



University of Nevada, Reno



January 16, 2019  
Amit Kothari  
Technical Committee Chair  
ITE Western District

Dear Mr. Kothari,

Attached, please find the Institute of Transportation Engineers at University of Nevada, Reno Student Chapter (UNITE)'s proposal for the ITE Western District Data Collection Fund. We propose to collect trip generation and parking demand data at the Mount Rose Mini Storage in Reno, Nevada, which represents a unique land use (mini-warehouse) with limited availability of current data.

This proposal contains the scope of service, mentoring for this project, a proposed schedule, the anticipated level of effort in person-hours to complete the project, and the project management information. An agreement to hold harmless is also included as requested.

Thank you for the opportunity to submit this proposal, and for considering this proposal to complete the data collection project and receive data collection funds. UNITE values this opportunity after a number of attempts since last being selected in 2011. We are confident that we will perform the data collection and report summary in a consistent and high-quality manner upon selection this year.

Please feel free contact me by email at [aobowang@nevada.unr.edu](mailto:aobowang@nevada.unr.edu) or by telephone at (775)737-6920 if you have any questions about this proposal.

Sincerely,

President  
UNR ITE Student Chapter

## 2019 Data Collection Proposal

# Trip Generation and Parking Demand Data Collection for Mount Rose Mini Storage

University of Nevada, Reno ITE Student Chapter

### 1. Data Collection Scope of Service

The University of Nevada, Reno ITE Student Chapter (UNITE) submits this proposal for collecting trip generation and parking data at Mount Rose Mini Storage in Reno, Nevada. The data collection will generate relevant data for the transportation engineering profession. Through this process, UNITE members will have an opportunity to learn hands-on and demonstrate to other UNR Transportation Engineering students basic traffic data collection procedures taught in the classroom.

#### 1.1 Background

Mini warehouses are one of the requested land uses listed in 2019 Data Collection Projects request for proposals. UNITE proposes to collect trip generation and parking demand data at the Mount Rose Mini Storage which corresponds to the ITE land use code 151, “mini-warehouse”.

#### 1.2 Site Information

The proposed data collection site, Mount Rose Mini Storage, is located at 105 Herz Boulevard, Reno, NV 89511. It includes 17 warehouse buildings and over 40 parking storage units. There is only one access drive on Herz Boulevard. The site map is shown in Figure 1.

#### 1.3 Collection of Trip and Parking Generation Data

UNITE will manually collect the number of trips, vehicle occupancy, and parked vehicles. Vehicles, motorcycles/bicycles, trucks, pedestrians will be recorded in the data collection. Vehicle occupancy will be used to determine person trips, not just vehicle trips.



Figure 1. Data Collection Site Map

The proposed data collection will include two weekday and one weekend or holiday counts in February, 2019. The data collection will occur in a period of 7:00 a.m. – 9:00 p.m. (The gate hours: 7 a.m. – 9 p.m.). All the trip generation data and parking data will be collected and recorded for 14 consecutive hours, in accordance with ITE’s *Trip Generation Manual, 10<sup>th</sup> Edition* and ITE’s *Parking Generation, 4<sup>th</sup> Edition*.

UNITE is actively contacting the managers and gathering the information such as number of employees to determine the number of employees and staff parking spaces. An approval for conducting data collection at the selected site will be obtained before the data collection date.

### 2. Mentoring

UNITE’s professional mentor is Devin Moore, PE, PTOE, with Kimley-Horn in Reno, NV. Mr. Moore will serve as a technical resource providing training to those who will be involved in the data collection, for troubleshooting any post data collection issues that may arise and reviewing the draft final report. He will also be responsible for all correspondence with the ITE Western District on behalf of UNITE.

Dr. Zong Tian, Professor in the Civil and Environmental Engineering Department at the University of Nevada, Reno serves as the faculty advisor of UNITE and will provide guidance as needed.

### 3. Schedule

A preliminary schedule that outlines the dates for critical milestones of the proposed effort is shown in Table 1.

**Table 1. Work Schedule**

<i>Work to be Completed</i>	<i>Date</i>
<b>Selection of Awarded Grants</b>	January 3, 2019
<b>Training and Preliminary Observation</b>	January 28 – 30, 2019
<b>Data Collection</b>	February 14 – 16, 2019
<b>Data Reduction and Analysis</b>	March 5, 2019
<b>Write Summary and Report</b>	March 15 – 18, 2019
<b>Submit Draft Report and Data</b>	March 20, 2019
<b>Committee Comments</b>	April 9, 2019
<b>Submit Final Report and Data</b>	Wednesday, April 24, 2019
<b>Upload Data to ITE’s Trip Gen Portal</b>	Friday, May 10, 2019

### 4. Level of Effort

UNITE anticipates spending approximately 80 man-hours on this project. At least 20 students (5 UNITE members and 15 undergraduate volunteers) are expected to participate in this project. The estimated hours allocated for field and lab work are summarized in Table 2.

**Table 2. Anticipated Effort**

<i>Activity</i>	<i>Total man-hours</i>
<b>Training</b>	10
<b>Data Collection</b>	42
<b>Data Reduction and Analysis</b>	13
<b>Report Writing</b>	8
<b>Report Review</b>	3
<b>Report Revision</b>	4
<b>TOTAL</b>	<b>80</b>

The data collection training will be conducted by Mr. Moore to provide the necessary background, skill development, and safety education. UNITE members will spend effort on supervising the data collection and documenting the results in the form of draft and final reports. Dr. Tian and Mr. Moore will provide support and feedback throughout the process.

The data collection will be led by UNITE members as a student chapter activity and integrated into undergraduate and graduate coursework. The University of Nevada, Reno offers the undergraduate courses; Transportation Engineering (CEE362), Transportation Operations (CEE463/663), and Capstone (CEE427), which will benefit from this data collection effort. Furthermore, this data collection project will be open to other interested undergraduate students, which may help them gather project experience.

### 5. Project Management

The project management team consists of the following gentlemen:

- **Mentor:** Devin Moore, PE, PTOE, Kimley-Horn, 5370 Kietzke Lane, Suite 100, Reno NV 89511, (775)200-1965, [devin.moore@kimley-horn.com](mailto:devin.moore@kimley-horn.com).
- **Student Coordinator:** Aobo Wang, PhD student, 1664 N Virginia St. Univ. of Nevada, Reno/MS258, Reno, NV 89557, (775)737-6920, [aobowang@nevada.unr.edu](mailto:aobowang@nevada.unr.edu).
- **Faculty Member:** Dr. Zong Tian, PE, Professor, 1664 N Virginia St. Univ. of Nevada, Reno/MS258, Reno, NV 89557, (775)784-1232, [zongt@unr.edu](mailto:zongt@unr.edu), 775(784)-1232

The grant will be used to fund chapter members’ attendance of the ITE Intermountain Section meeting and ITE Western District annual meeting, and to promote the chapter at student recruitment events.

### 6. Agreement to Hold Harmless

The University of Nevada, Reno Institute of Transportation Engineers Student Chapter (UNITE) holds harmless and indemnifies ITE from any and all liability associated with the conduct and completion of this proposal, data collection and associated activity.