RESOLUTION AUTHORIZING THE CHAIRMAN TO SIGN THE APPLICATION FOR THE NEBRASKA OFFICE OF HIGHWAY SAFETY (NOHS) MINI-GRANT FOR THE SARPY COUNTY SHERIFF'S OFFICE TRAFFIC CRASH RECONSTRUCTION CLASS

WHEREAS, pursuant to Neb. Rev. Stat. §23-104(6) (Reissue 2012), the County has the power to do all acts in relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. §23-103 (Reissue 2012), the powers of the County as a body are exercised by the County Board; and,

WHEREAS, a grant is available to the Sarpy County Sheriff’s Office for a Traffic Crash Reconstruction Class; and,

WHEREAS, the grant application must be signed by the Authorized Official; and,

WHEREAS, Sarpy County is committed to and supports grant funding for the Traffic Crash Reconstruction Class referenced in the attached memo; and;

NOW, THEREFORE, BE IT RESOLVED, By the Sarpy County Board of Commissioners that the Board Chairman is hereby authorized to sign the mini-grant application for the Sarpy County Sheriff’s Office.

The above Resolution was approved by a vote of the Sarpy County Board of Commissioners at a public meeting duly held in accordance with applicable law on the 28th day of June, 2016.

Sarpy County Board Chairman

County Clerk
MEMO

To: Sarpy County Board

From: Lisa A. Haire

Re: Nebraska Office of Highway Safety (NOHS) Mini-Grant for Traffic Crash Reconstruction Analysis Class

On June 28, 2016 the County Board will be asked to authorize the Chairman to sign the Mini-Grant Application offered through the Nebraska Office of Highway Safety (NOHS) for a Traffic Crash Reconstruction Analysis Class.

The grant will request $13,000 from NOHS for a Traffic Crash Reconstruction class taught by the Institute of Police Technology and Management which will be uses in investigations by the Sarpy County Sheriff’s Office, other members of the South Metro Crash Response Team (SMCRT), and surrounding metro agencies within priority counties.

Please do not hesitate to contact Deputy Kyle Percifield if you have comments or questions.

June 24, 2016

cc: Mark Wayne
    Brian Hanson
    Scott Bovick
    Sheriff Davis
    Deputy Kyle Percifield
    Deb Houghtaling

Lisa A. Haire
593-1565
Please Type: Sarpy County Sheriff's Office

Address: 8335 Platteview Road

City, State, Zip: Papillion, NE 68046

Telephone: 402-578-5461 Federal I.D. No.: 

Email: kpercifield@sarpy.com

Starting Date: October 10, 2016 Completion Date: October 14, 2016

Project Description: This reimbursement Mini-Grant Contract provides funding assistance for individuals to attend training/workshops/conferences. Complete items 1 – 4 along with copies of the training/workshop/conference agenda/description and your agency's current seat belt and drug-free workplace policy and submit to NOHS for consideration.

1. Description of training/workshop/conference to be attended. Include dates and location.
   - Course Title: Energy Methods and Damage Analysis in Traffic Crash Reconstruction
   - Dates: October 10, 2016 - October 14, 2016
   - Location: Sarpy County Sheriff's Office; Papillion, NE

2. Itemized breakdown of all expenses associated with the training/workshop/conference:
   - Registration Fee/Tuition: $13,000.00 Lodging: $__________ Airfare: $__________ Total Request: $13,000.00

3. Justification of why the training/workshop/conference is needed:
   Please see attached memo.

4. Name of individual(s) attending the training/workshop/conference:
   - Crash Investigators from the Sarpy County Sheriff's Office and the South Metro Crash Response Team (LaVista PD, Papillion PD, Bellevue PD, Ralston PD, Plattsmouth PD). There are 30 available seats, so other seats would be offered to other agencies in the local area/priority counties.
   - Within sixty (60) days from the conclusion of the training the reimbursement request form must be submitted. After sixty (60) days, reimbursements may not be honored. THE NOHS WILL ONLY PROCESS REIMBURSEMENTS TO AN AGENCY, ORGANIZATION, ETC. (NOT TO INDIVIDUALS).
   - The applicant must 1) receive approval of the Mini-Grant Contract from the NOHS prior to incurring any costs; 2) pay the expenses; 3) request reimbursement for the amount awarded on a "Mini-Grant Contract Claim for Reimbursement (CR) form; and 4) attach the required supporting documentation as prescribed below.
     a) Itemize each expenditure on the Claim for Reimbursement form.
     b) Attach copies of check(s) paid by the applicant for the expenses.
     c) Attach copies of receipts – one copy of each receipt that corresponds with each expense listed on the CR form.
     d) Attach a completed Grant Funded Training/Conference Evaluation Report Form.
     e) If applicable, attach copies of the course completion certificate(s) if the course was pass/fail.

Acceptance of Conditions: The Mini-Grant Contract Award recipient agrees to comply with all applicable federal and state laws, rules and regulations, and certification and assurances located in Attachment A of the Grant Contract Proposal Guide and Policies and Procedures. The Guide and forms can be found on the NOHS website at www.transportation.nebraska.gov/nohs/contract.html. Failure to comply with these conditions may result in termination of this Grant Contract Award. All Awards are subject to availability of Federal Funding.

Authorized Signature of Agency: 

Date: 6/28/16

Print or Type Name and Title: Don Kelly, Chairman

Fred E Zwonechek, Administrator

Return completed form to: Nebraska Office of Highway Safety
P.O. Box 94612
Lincoln, Nebraska 68509-4612

Phone (402) 471-2515
Fax (402) 471-3865

TO BE COMPLETED BY NOHS

Funding Assistance: The NOHS will provide reimbursement for the following expenditures:

Registration Fee/Tuition $__________, Lodging $__________, and Airfare $__________.

Total Reimbursement not to exceed $__________.

Project No.: 

SB: [ ] DF: [ ] RA: [ ] Contract Approval Date:

The Catalog of Federal Domestic Assistance (CFDA) number assigned to this Mini-Grant Contract is ____________

Revised 2/2016 TTS
I am writing to express a request for full funding to host a class titled "Energy Methods and Damage Analysis in Traffic Crash Reconstruction," taught by the Institute of Police Technology and Management, with the University of North Florida to use in traffic crash investigation for the Sarpy County Sheriff's Office, other members of the South Metro Crash Response Team (SMCRT), and surrounding metro agencies within priority counties.

The Sarpy County Sheriff's Office has a Crash Response Unit (CRU) that is comprised of Deputies who have achieved a "Reconstruction Level" of training. Additionally, the CRU is a part of a joint-agency team called the South Metro Crash Response Team (SMCRT). This joint-agency team has members from six different adjacent law enforcement agencies, covering areas in Sarpy, Douglas, and Cass Counties in Nebraska. When combined, the size of the three counties is 1,154 square miles, and has a combined population of 701,191 (US Census 2010). Within this coverage area, there are approximately 40 miles of Interstate 80 going through the three counties, and hundreds of miles of other state highways, major county and city roadways.

Since 2012, the CRU and SMCRT have responded to over 60 "call outs" for critical injury and fatality crashes. Since 2010, Sarpy County has had 43 fatalities (Nebraska Office of Highway Safety (NOHS)), Cass County has had 28 fatalities from 2010-2014, and Douglas County had 151 fatalities (NOHS). It is noted that Douglas County has many crashes investigated by the Omaha Police. While 2015 data has not been completely compiled as of the writing of this memo, there were 242 total fatalities in Nebraska for 2015.

These fatality crashes require complete investigation and reconstruction for proper legal recourse, identifying roadway issues, and provide the families of the deceased with the best investigation possible. To do this, the Sarpy County Sheriff's Office utilizes forensic mapping software and a total station mapping system to document points of evidence, as well as roadway characteristics at the scene of the crash. However, with increased technology in vehicles, some roadway evidence is lacking, thus providing a need for other methods to investigate crashes.

Energy Methods and Damage Analysis is sometimes referred to as "crush analysis," where the damage created by an object or vehicle striking another, a speed range can be determined when other evidence is not present. This specifically applies to antilock braking systems, which limits the amount of skids present at accident scenes. Prior to ABS, the skids left on scene provided definite evidence that could be used in determining vehicle speed, among other pieces of information. This type of
training is not covered in the basic, intermediate, advanced, technical, or even reconstruction levels of traffic crash investigation. Therefore, it is necessary to seek an outside source to provide the training to equip Crash Investigators with the skills to apply these principles.

The total cost for the 30-seat training class is $13,000, which includes all instruction, all student reference materials, and certificate of completion for the course. The first seats would be provided to members of the South Metro Crash Response Team, however, the remaining seats would be given free of charge to Crash Investigators in the neighboring priority counties. This training would not only benefit the Sarpy County Sheriff’s Office, but all the local agencies we work in close proximity with, most notably those within the SMCRT. Additionally, the Sarpy County Sheriff’s Office is committed to working closely with other law enforcement agencies requesting the assistance of our Office and Investigators, if we were graciously awarded funding for the purchase of this training.

The Sarpy County Sheriff’s Office is committed to adapting to the changing methods of investigation, in order to achieve goals of current law enforcement and roadway safety measures. In order to do so, training on the latest methods of crash investigation is necessary to provide investigators with the right tools for the job. If awarded this funding, the Sarpy County Sheriff’s Office can be a leader in the local, state, and regional area in up-to-date and well-rounded traffic crash investigations.

Thank you for the opportunity to present this funding proposal. If you have any question, please do not hesitate to contact me at kpercifield@sarpy.com, or 402-593-1548.
May 8, 2016

Deputy Kyle Percifield  
Sarpy County Sheriff's Office  
8335 Platteview Road  
Papillion, NE 68406

Dear Dep. Percifield:

The Institute of Police Technology and Management (IPTM) is pleased to present a quote for the presentation of our “Energy Methods and Damage Analysis in Traffic Crash Reconstruction” training for the Sarpy County Sheriff’s Office.

The cost to host the course is $13,000 for a maximum of 30 students. Under the terms of this quote IPTM is responsible for providing all instruction, all student reference materials, a certificate of completion to each student who successfully completes the course and for handling details related to the administration of the program.

It is the responsibility of the Sarpy County Sheriff’s Office to select/recruit the students and to provide classroom facilities with appropriate audio/visual hardware.

Thank you for your interest in IPTM programs. If you have any questions concerning this quote, please contact our offices. If we here at IPTM can ever be of service on any other matter, please do not hesitate to call upon us.

Sincerely,

Andy James  
Off-Site Training Coordinator
Energy Methods and Damage Analysis in Traffic Crash Reconstruction (40 Hours)

For many traffic crash reconstructionists, the topic of energy can be intimidating, mysterious or downright scary. Because of this, reconstructionists shy away from utilizing energy methods in their analysis. This course will help de-mystify the concept of energy and present energy-based methods and techniques to use in analyzing traffic crashes.

During the course, you will learn to view and analyze crashes from an energy point of view. We will explore energy methods beginning with the basics and progressing to more advanced concepts. We will discuss the often-misunderstood topics of Equivalent Barrier Speed (EBS) and delta-V and you will learn different ways to analyze collisions, such as damage momentum, where a traditional conservation of linear momentum may not be the most appropriate analysis.

We will also explore the topic of crush. We will examine the basics of the three familiar energy equations that use crush measurements. Outside projects will provide you with "hands-on" experience in examining and measuring crash vehicles and then calculating damage energy and speeds.

This course will help you become more comfortable in utilizing energy-based methods in your analysis as we examine the underlying science that computer-based "crash" programs rely upon. It is an excellent complement to other training courses that teach you how to use "crash" software.

You should have a firm understanding of the topics of traffic crash reconstruction and conservation of linear momentum as well as strong basic math skills.

Topics include:
- Standards, measurements and dimensional analysis
- Understanding and using conversion factors
- Vectors
- Damage momentum and crush analysis
- Crush measuring protocol and measuring techniques
- Outdoor project - interpreting damage and measuring crush
- Energy concepts and analysis
- Determining appropriate post-impact drag factors
- Understanding EBS and delta-V
- Conservations of linear momentum and delta-V vectors
- Introduction to crush and Hooke's Law
- Collision analysis using damage momentum
- Understanding and determining stiffness coefficients
- Damage (crush) analysis
- Pole impacts and fracture energy
- Using simultaneous equations to solve in-line collisions

Prerequisite: You must have completed IPTM's Traffic Crash Reconstruction course or its equivalent.

Audience: Law enforcement and private traffic crash investigators, claims adjusters, engineers, attorneys, safety officers, military investigative personnel

Course Fee: $825

REGISTRATION AND FEES
Full payment must accompany all registrations. You may register online at www.iptm.org and pay with your Visa, MasterCard, Discover or American Express credit card, or you may download a registration form and mail it to IPTM with a check.

CANCELLATION/REFUND POLICY
Complete the Cancellation Request Form and return it to IPTM. No telephone cancellations will be accepted. A 20% administrative fee will be assessed to all refunds if the cancellation request is received within 7 days of the course start date. In lieu of a refund, student substitutions can be made or a credit can be issued for a future course. No refunds will be given for no-shows.

To register for this course online, please visit our website at: www.iptm.org

COURSE CONFIRMATIONS
A minimum number of registrations must be received for a class to run as scheduled. When the minimum criterion has been met, written notification confirming that the course will run as scheduled.

TRANSPORTATION AND LODGING
Most locations are served by several major airlines. Ground transportation, food and lodging are the responsibility of the student. However, hotels in the listed areas offer a special rate to IPTM program participants. For more information, please visit our website at www.iptm.org or call us at (904) 620-IPTM.

CONTINUING EDUCATION UNITS
This Energy Methods and Damage Analysis in Traffic Crash Reconstruction course is eligible for 40 ACTAR CEUs. IPTM Continuing Education Units (CEUs) are also available. Please call us at (904) 620-IPTM for details.