

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE of PAGES 1 81
2. CONTRACT NO.	3. SOLICITATION NO. DTFH61-08-R-00028	4. TYPE OF SOLICITATION SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED	6. REQUISITION/PURCHASE NO. 42-04-08012	
7. ISSUED BY Federal Highway Administration Office of Acquisition Management 1200 New Jersey Ave., SE, Mail Stop E65-101 Washington, DC 20590		CODE: HAAM-40	8. ADDRESS OFFER TO (If other than Item 7)		

NOTE: In sealed bid solicitation "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and electronic copy (Aimee.Drewry@dot.gov) for furnishing the supplies or services in the Schedule will be received at the place specified in Item 7 until **4:00 pm** Washington, D.C. Time **August 19, 2008**.

CAUTION - LATE Submission, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE (NO COLLECT CALLS)			C. E-MAIL ADDRESS
	Aimee S. Drewry Carl Rodriguez	AREA CODE 202 202	NUMBER 366-4211 366-4240	EXT.	

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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	Calendar Days (%)
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14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER		
15B. TELEPHONE NO.		15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE	17. SIGNATURE	18. OFFER DATE
AREA CODE	NUMBER			

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION			
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: 10 U.S.C. 2304(c) ()	41 U.S.C. 253(c) ()	23. SUBMIT INVOICES TO ADDRESS	ITEM		
24. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY	CODE		
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA (Signature of Contracting Officer)	28. AWARD		

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is unusable

STANDARD FORM 33 (REV. 9-97)
Prescribed by GSA - FAR {48 CFR} 53.214(c)

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

The Contractor shall furnish all facilities, materials, and personnel, and shall perform all services necessary to complete this project entitled, “Advanced Crash Analysis to Improve Safety and Security.”

This is an Indefinite-Delivery-Indefinite-Quantity (IDIQ) contract utilizing cost-plus-fixed-fee (CPFF) and firm-fixed-price (FFP) Task Orders in accordance with FAR 16.500. In accordance with the table below, the maximum potential value of all orders placed against this contract shall not exceed an amount ***to be negotiated*** over five-years (24-month base period and three 12-month option periods). The distribution of this amount between cost and fee shall be determined based upon the individual Task Orders awarded. The guaranteed minimum is \$1,000,000 for the base period and \$500,000 per option period if exercised.

INDEFINITE-DELIVERY-INDEFINITE-QUANTITY MINIMUM AND MAXIMUM AMOUNTS

Item	Supplies/Services	Maximum Amount	Minimum Amount
CLIN 0001 <i>(Base Period)</i>	Advanced Crash Analysis to Improve Safety and Security – 24 month Base Period	<i>To be filled in at award</i>	\$1,000,000
CLIN 0002 <i>(option 1)</i>	Advanced Crash Analysis to Improve Safety and Security – Option Year 1	<i>To be filled in at award</i>	\$500,000
CLIN 0003 <i>(option 2)</i>	Advanced Crash Analysis to Improve Safety and Security – Option Year 2	<i>To be filled in at award</i>	\$500,000
CLIN 0004 <i>(option 3)</i>	Advanced Crash Analysis to Improve Safety and Security – Option Year 3	<i>To be filled in at award</i>	\$500,000

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

BACKGROUND

The National Crash Analysis Center (NCAC) was established in 1992 to house a library of vehicle and roadside hardware crash test films/videos and to conduct analysis and modeling of crashes. Under this Request for Proposal (RFP) the Federal Highway Administration (FHWA) intends to issue a contract for continued advanced crash analyses for vehicles, roadside hardware, and security barriers as well as conducting related research for up to a five year period.

The NCAC has become a globally unique entity that focuses on advancing new technologies and tools for crash analysis. The NCAC primarily supports the U.S. Department of Transportation’s

(USDOT) strategic goal to reduce fatalities and injuries on the Nation's roadways, but also serves to enhance efforts to improve safety worldwide. The missions of the NCAC include:

- o improving safety by expanding researchers' knowledge about crashes;
- o developing and sharing the detailed vehicle and hardware models; and
- o leading efforts to apply computer simulation tools to enable researchers to study the complex interactions associated with crashes.

The resources at the NCAC help researchers quantify and understand the crash performance of vehicles, the effects of a vehicle's performance on drivers and passengers, and the compatibility of vehicles with each other and with roadside hardware during crashes. Using the data and information collected by the NCAC, researchers can optimize the safety of vehicle and hardware designs, formulate guidelines for more effective deployment of safety features, and develop innovative safety treatments to avoid crashes or minimize the impact of crashes. Similarly, the NCAC serves to apply advanced crash analysis technologies to improve the physical security of facilities, particularly related to threats posed by vehicle impacts.

The NCAC's mission supports the USDOT goals by expanding the knowledge of the causes of crashes, advancing the use of crash simulations for the analysis of problems, and applying these to develop novel solutions.

Since 1992, the NCAC has compiled a long list of achievements. These include:

- The compilation of a crash library that has more than 20,000 films and videos as well as reports and data;
- The development of detailed finite elements (FE) models for more than a dozen passenger cars, SUVs, or pick-up trucks. These can all be used for simulation of frontal crashes and many can be used for side-impact analyses;
- The development of FE models to single-unit trucks and a tractor-trailer combination;
- The development of FE models for guardrails, concrete safety shapes, transitions, end treatments, sign supports, breakaway devices, cable barriers, mailboxes, and other roadside hardware;
- The application of the FE models in crash simulation software for the analyses of vehicle to barriers or roadside hardware crashes as well as vehicle-to-vehicle crashes;
- The establishment of a website for convenient dissemination of these models to other researchers. Much of the crash simulation work around the world uses the NCAC developed models;
- The improvement of the techniques and internal material models for crash simulations using LS DYNA;
- The establishment of protocols for model validation using full scale crash tests;

- The operation of the FHWA Federal Outdoor Impact Laboratory (FOIL) located in McLean, VA to capture crash performance measures to enhance models or validate them;
- Addressing security needs by using models to develop various anti-ram barriers; and
- Conducting numerous workshops and seminars to exchange ideas and develop consensus on crash analysis methods.

From this point forward, efforts will be conducted under the new name, “Advanced Crash Analysis Program” (ACAP) rather than under the former name “NCAC.” This change results from an increase in the breadth of the program with revised emphasis on certain areas and new approaches to manage the program anticipated under this award.

CONTRACT OBJECTIVES

The objective of this contract is to develop and promote knowledge and technologies for advanced crash analyses to improve highway and vehicle safety and infrastructure security. Achieving this objective will involve the following efforts:

- Conducting advanced crash research to assist researchers and engineers in resolving transportation safety and security issues;
- Applying advanced research methods and techniques for the development and evaluation of vehicles, road features and hardware, and infrastructure protection systems to improve safety and security;
- Advancing the state-of-the-art in crash analysis methods and technologies;
- Maintaining FHWA and NHTSA crash test videos/films and documentation into a national library and enhancing access to it;
- Conducting crash and impact testing to validate computer models and produce relevant data for crash analysis to improve highway and vehicle safety and physical security.
- Disseminating the findings of the research and the applications of the advanced technologies to foster increases in data and knowledge and the application of improved tools for addressing safety and security issues; and
- Supporting multifaceted information sharing and educational opportunities to practitioners, students, decision makers and others to enhance awareness of safety and security issues and advanced means to develop and deploy means to mitigate them

A key aspect in achieving these objectives is expected to be a continued sharing of the resources, findings, data, models, and technologies with others to expedite the ability to address complex safety and security problems. This may involve efforts to adapt approaches used in other fields or forming new partnerships to expand the capabilities in the application of advanced crash analysis.

SCOPE

Under this contract, the Contractor shall perform advanced crash analysis in support of the missions of the FHWA, National Highway Traffic Safety Administration (NHTSA), Department of State (DOS), and potentially other Government agencies. The Contractor shall analyze technical, deployment, logistical, and administrative issues and provide technical advice, recommendations, and support to the FHWA.

The Contractor shall develop and apply modeling and other analytical techniques in response to the various Task Orders issued under this contract. These efforts may involve considerations of all types of vehicles, different roadway and roadside conditions, varying impact conditions (e.g., speed and angle of crash), and various occupants. In addition, the Contractor shall work with the COTR to maintain and expand the repository of knowledge that has been compiled, and shall support and coordinate programs and activities related to the following: developing Finite Element (FE) models, crash simulations, and other items to analyze the potentials for new design concepts for safety hardware; product engineering; conducting field tests and evaluations; marketing; and delivering safety products and technologies.

DELINEATION OF TASK AREAS

All work under this contract shall be directed through the issuance of task orders within the scope of the following task areas:

Task Area 1 – Develop, Validate, & Maintain FE Models of Vehicles & Hardware

The Contractor shall develop, validate, and maintain FE models of vehicles, roadside hardware, testing equipment, other roadway elements, and various physical security barriers. These efforts shall involve building increasingly more detailed models (i.e, recent vehicle models have had 800,000 to one million elements) that include effective representations of active components (e.g., steering and suspension systems) with appropriate characterizations of the material properties and contact surface interactions for all elements.

The Contractor shall build FE models for use with the LS Dyna software to facilitate comparison with previously generated results. Model building shall be undertaken in a manner that will provide the opportunities for varied applications of the models over time. This implies a strong need for effective documentation of the models and a process for continual improvement of the models. The Contractor shall support an on-line database (i.e., website) to make all models developed under previous awards as well as new models available to potential users. Provisions will be made to move all data previously developed models to the Contractor for this effort.

Work under Task Area 1 may involve varying amounts of effort related to:

1. Model Development - It is expected that several new vehicle and hardware FE models will be developed over the duration of the contract. The Contractor shall provide solid capabilities in reverse engineering of vehicles using methods that allow accurate but rapid capture of element geometries and connection details. Skills in meshing elements and verifying completeness are required. The Contractor shall implement strategies that will allow the reverse engineering process to support various applications of the models (e.g., frontal and side impacts with other vehicles and oblique impacts into roadside barriers) as well as creating “reduced models for special applications.” The Contractor shall conduct coupon tests of material samples from the reverse engineering process, component testing, non-destructive tests, comparisons of results from full-scale crash tests, and other efforts to validate the models.

2. Model Verification & Validation – The Contractor shall validate the FE models to the levels required in Task Order(s). This validation is essential to the credibility of the crash simulation results derived from the application of the FE models. The FHWA supports efforts to formulate formal model verification and validation procedures and would expect that all supported models would need to be brought into compliance with any procedures that may be adopted during this contract.

3. Strategic Reduction of Models – Efforts to develop detailed vehicle models have been shown to increase the breadth of applications of the models. The Contractor shall undertake efforts to create strategically reduced models. These models shall be created by merging elements from areas of detailed models in a manner that will reduce the number of elements the computer has to process for each time steps while leaving sufficient detail for the type of crash being analyzed (e.g., for oblique impacts into roadside barriers only the front right quadrant of the vehicle needs to be represented by small elements while the rest can be merged to form larger elements). Protocols for this process have been proposed, but there is not a consensus on these protocols. It is anticipated that the Contractor may be tasked to play a role in formalizing the protocols under this award.

4. Model Documentation – The Contractor shall provide complete documentation of the structure, element characteristics, contacts, materials properties, specification of the LS Dyna functions used, and modeling assumptions for each newly developed models. These efforts shall be conducted in coordination with the technical writers and technology transfers specialists assigned to the team.

5. Model Maintenance and Support - The Contractor shall provide on-going maintenance for those previously developed models (i.e., that is the 16 vehicles models and approximately 25 hardware and testing models as directed by the COTR) as well as any new models developed under this contract. The support shall include effort, as directed by the COTR, toward resolving problems discovered in new applications or enhancing

model features (e.g., last year an active suspension was added to the GeoMetro FE model to increase its suitability as the 1100kg surrogate vehicle for roadside hardware crashworthiness analysis). Task Orders for updates to documentation and posting of revised versions of the models are expected under this task area.

Special Notes:

- Currently, available FE models and the associated documentation can be downloaded by anyone from the NCAC website (www.ncac.gwu.edu). Several other models are under final development and/or exist in archives. Provisions will be made to transfer the full array of models which will be held at FHWA to the new contractor.
- A Faro Laser Scanning device procured by the FHWA and used in recent model development efforts will be made available to the contractor.
- The FHWA is interested in creating a process for tracking the distribution of models and how they are applied. In addition, additional applications are desired, particularly to fix or improve models and identify needs for other models or features.
- Ideas for improving the vehicle modeling process and/or opportunities to acquire additional models through collaboration with the auto industry or other groups are strongly encouraged.
- All websites created under this award must conform to DOT and FHWA standards. IT resources used are subject to periodic security reviews including vulnerability scanning.

Task Area 2 – Conduct Detailed Analyses of Highway & Roadside Crashes

Background: The application of crash analysis models and software has been shown to be useful in the analysis of roadside crashes and the development of improved roadside features. These models range from the early impact tools (e.g., Guard, Barrier VII) to modern, detailed analytic methods and commercially available software (e.g., LS Dyna, CarSim). Over the last five years FHWA-supported research has made use of LS Dyna (from LSTC Corporation, Livermore, CA), HVE vehicle dynamics software (from Engineering Dynamics Corporation, Beaverton, OR), and other software to study the safety performance of portable concrete barriers, sign supports, breakaway poles and structures, mailboxes, w-beam guardrails, cable median barriers, and other common roadside hardware. These efforts have been geared towards developing deeper insight into the performance of these devices, recommending modifications to improve the performance, and/or assessing criteria for evaluating them. These have led to the compilation of an archive of hardware models, considerable amounts of performance data, improvements in hardware design, and better guidance for the design and placement of roadside safety hardware. Continued work in this area is expected.

The Contractor shall apply these various analytical tools or variations of them (e.g., crash simulation, vehicle dynamics) or new tools for the analysis of roadside crashes. The Contractor may be tasked to conduct analyses by the State Departments of Transportation (DOTs) to analyze difficult roadside crash issues they face (e.g., a past effort used models to analyze

backside impacts of w-beam guardrail in search of explanations for an unusual multi-fatality crash.) Directives to conduct any such analyses will be provided by the COTR.

Task Orders issued under Task Area 2 may involve effort related to:

1. Synthesis of past research – New research efforts should start with an effort to synthesize past efforts and findings to serve as a basis for approaching the problem, providing validation data, and focusing on critical aspects.
2. Development of analysis and testing plans – A plan shall be generated that will describe the scope of each research effort, the factors to be considered, the associated measures, and the planned approach. This plan shall ensure a systematic effort that leads to useful results. Revisions to the plan may be appropriate when preliminary results differ from expectations.
3. Conduct of analyses using appropriate methods and software tools. A considerable amount of the roadside crash analysis involves applying FE models and crash simulation software to provide a detailed representation of a crash event. Other software, such as vehicle dynamics tools, have been shown to provide important insights in less time. The Contractor shall propose the tools and the manner in which they will be applied and then prepare the necessary inputs to execute them.
4. Data analysis and interpretation – Various software tools can be useful for generating data for the crash scenarios being analyzed, but summarizing the data and effectively presenting and comparing data are a challenge that must be addressed by the Contractor. Assessments made under this task area shall be consistent with accepted crashworthiness practices and use appropriate measures of performance.
5. Documentation – The Contractor shall provide documentation of efforts and information sharing materials.

Special Notes:

- The models and data used in past analysis efforts are considered to provide a basis for future applications. For example, the model of w-beam guard rails was initially developed to show that it was possible to study specific design features (e.g., routed vs. non-routed blockouts), but it has served as the basis for studies of backside hits, guardrail height issues, and the development of new forms of guardrail.
- The FHWA has a vision that the application of the crash simulation can expand the evaluation of crashworthiness over a greater range of vehicle types, placement, terrain, and impact conditions.
- It is expected that analyses will make use of available knowledge of roadside safety hardware and its evolution including the crashworthiness standards and crash testing requirements that were used to assess performance.
- Interaction with the Transportation Research Board (TRB), the American Association of State Highway and Transportation Officials (AASHTO), and other groups addressing roadside safety issues should be considered a vital part of these efforts to disseminate findings and solicit feedback.

Task Area 3 – Apply Models & Simulation for the Analyzing Vehicle Safety

Background: NHTSA and FHWA have supported research that has addressed a range of issues related to vehicle and occupant safety using advanced crash analysis. These efforts have included studies of vehicle-to-vehicle crash compatibility, developing protocols for testing under the New Car Assessment Program (NCAP), the analysis of crash forces on occupants, and the assessment of the effectiveness of air bags and child safety seats. Continued effort addressing such issues is expected. The partnership with NHTSA helps distribute the costs of developing models, as well as provides insights on evolving innovations in automotive design and their impacts on safety.

The NHTSA efforts have often required that the models include representations of vehicle interiors for effective study of the translation of crash forces to the occupants. This has involved analysis of data from anthropomorphic dummies and human body models under varying restraint conditions. A variety of tools including LS Dyna and Madymo (from TNO, The Netherlands) have been used for these analyses.

Task Orders issued under Task Area 3 may involve effort related to:

1. Synthesis of past research - New research efforts shall start with an effort to synthesize past efforts and findings to serve as a basis for approaching the problem, providing validation data, and focusing on critical aspects.
2. Development of analysis and testing plans - A plan shall be generated that will describe the scope of each research effort, the factors to be considered, the associated measures, and the planned approach. This plan shall ensure a systematic effort that leads to useful results. Revisions to the plan may be appropriate when preliminary results differ from expectations.
3. Analyses using appropriate methods and software tools - Perform vehicle crash analysis applying FE models and crash simulation software to provide a detailed representation of a crash event. The FE models can be applied in many ways and, based upon the nature of crash evaluation needed, varying types of measurement and analyses may be needed. An example of this is recent work that has involved efforts to understand the vehicle to barrier interface on sloped terrain to assess its effectiveness in catching an errant vehicle. This required adding accelerometers to measure vertical displacement of the vehicle's suspension (on both test vehicles and the modeled versions) as well as the use of special formulations of graphics software to generate traces of the vertical displacements of suspension components and the bumper relative to the barrier. Measurements of yaw, pitch, and roll are common in the analyses, but new crashworthiness standards may require other measurements. The Contractor shall have the ability to conduct required measures needed for any type of crash analysis;

4. Data analysis and interpretation - The Contractor shall weigh effectiveness against Federal Motor Vehicle Safety Standards (FMVSS), the New Car Assessment Program (NCAP), or other measures.
5. Documentation - The Contractor shall provide documentation of efforts and information sharing materials.

Special Notes:

- Past NHTSA efforts in this area have involved working with the auto industry, other academic institutions, and hospital trauma centers in the analyses of occupant trauma resulting from crashes.
- Efforts to analyze the compatibility between vehicles and roadside hardware and to improve the evaluation of occupant risk to highway and roadside crashes are expected.

Task Area 4 – Maintenance and Support Services of the NCAC Library

Work under Task Area 4 may involve task orders for effort related to:

1. Maintaining and updating the items in the current collection - The Contractor shall provide a temperature and humidity controlled environment for the films and associated materials contained in the current library. Librarians shall be provided to catalog and label crash test films, 35mm slides, videotapes, photographic materials, and crash test reports according to the directions given in the NCDL Maintenance and User Guide. The Contractor shall maintain and update the NCDL catalog using appropriate software and provide an on-line version (i.e. website) to facilitate access to information contained in the Library. The website shall have the capability to conduct searches and order material.
2. Completing the conversion of all materials to electronic (digital) formats - Efforts have begun to convert the library to an all-electronic format. It is likely that the process will be 40% complete by the effective date of the contract. The Contractor shall complete the conversion process under this award.
3. Service Information Requests - The Contractor shall respond to user inquiries and perform query searches upon request from DOT officials, researchers, and approved agencies as appropriate. The FHWA will screen and approve all requests made by those outside of the FHWA. The librarians will keep a record of all materials released, particularly loaned items. The library shall continue providing certified copies of materials under established protocols. Requests for records certification shall be handled following DOT, FHWA, and NHTSA policy (applicable policies can be found at DOT Order 1000.14A located at <http://isddc.dot.gov/OLPFiles/DOT/007634.pdf> and FHWA Order M1100.1A located at http://www.fhwa.dot.gov/legsregs/directives/orders/m11001a/doa_ch04.htm#sec2o. A fee structure can be set for these services subject to FHWA approval and the contractor will be expected to charge, collect, and account for all revenues derived from services rendered.

4. Improve the accessibility of the library resources - The library staff will be expected to work with the COTR to implement a plan for improved accessibility and usefulness of the library. This may entail improving the cross-referencing of the various collections current in the library, and/or expanding the role of the library to serve as repository for data resources (e.g., crash data from National Cooperative Research Projects (NCHRP) projects).
5. Support information sharing efforts to enhance the use of library resources – The Contractor shall participate in information sharing efforts including explaining the new features and functionality of the library, and developing informational brochures.
6. Adding data repository – It is expected that the library will expand to include other crash related materials (e.g., detailed dataset collected in research studies by others).

It is expected that a large portion of the collection of original materials will be moved to the National Archives and Records Administration (NARA) once they have been converted to electronic formats. The Contractor shall support efforts for that transfer and periodically send materials to NARA. It is envisioned that this will involve packing the materials in boxes provided by NARA and appending a catalog for information and then shipping it to the NARA facility in College Park, MD. Shipments of materials ready for the Archives are expected to occur every six months.

Special Notes:

- Since the 1980's, FHWA and NHTSA have supported a national crash library as a single repository of test films/videos, data, and reports. These efforts have led to the accumulation of approximately 20,000 films and videos and about 4,000 printed documents in the National Crash Data Library (NCDL). Approximately, 300 requests for copies are processed annually by the librarians with many more requests for information satisfied through the website or calls to the librarians.
- The NCDL that has been operated and maintained under NCAC contracts since 1992. The collection includes a variety of crash testing related materials in film, video, electronic, and printed formats. The collections include:
 - Roadside Safety Library (RSL) Library
 - Crash films (derived from research & marketing)
 - Roadside documents (about 2000 reports)
 - NHTSA Vehicle Crash Library
 - Office of Crash-worthiness Research Series
 - NHTSA Compliance Series
 - NHTSA Defect Investigations
 - NHTSA New Car Assessment Program (TRD/Docket)
 - NHTSA Intelligent Cruise Control Field Operation Tests

- Biomechanics Library
 - NHTSA Biomechanics Tests
 - Federal Motor Vehicle Safety Standard No. 213 Child Restraint Systems

The library currently occupies a 30x30 foot climate controlled space and has two offices for the librarians and a work room for copying films and videos, conducting detailed motion analysis from the films, and public viewing of the contents. Current policy makes all of the materials available for viewing in the library, but only certain parts of the collection can be copied and released. The librarians have cataloged the entire collection and this information is maintained in an access database. Two major pieces of equipment will transfer with the library contents. One is a high-quality film to digital conversion device acquired in late 2007. The other is a motion analyzer used for accurate stop frame measurements from the crash films. The mechanical shelves and other file cabinets and office furnishings do not transfer.

- A high-quality film to digital conversion device was procured in 2007 to convert the large number of films in the library. This device will be transferred to the Contractor to complete the conversion and convert any new materials received in film format.
- Library materials converted to electronic formats shall be made fully Section 508 compliant.
- The release of library materials shall conform to Freedom of Information Act provisions.
- The library shall comply with all provisions of the Federal Records Act.
- All websites created under this award shall conform to DOT and FHWA standards. IT resources used are subject to periodic security reviews including vulnerability scanning.

Task Area 5 – Detailed Analyses of Crash Data

The collection and analysis of detailed crash data from police reports, DOT highway inventories, maintenance records, hospital records, and other sources is an important aspect in understanding crash events and finding effective means to mitigate them. Prior analyses have included investigations of motorcycle crashes into barriers, low-velocity change, oblique angle vehicle-to-vehicle crashes, trauma to child occupants by seating position, and correlations of vehicle frontal stiffness to crash severity. These efforts have involved in-depth, clinical analysis of the data, as well as the linkages to results from modeling of similar crashes. The Contractor shall provide the capabilities to undertake such studies as the needs are identified.

It is expected that the NCDL will expand to include detailed data from various research studies by others. The Contractor shall undertake various longitudinal and clinical analyses of that data to expand the insights on crashes, but also to enhance the familiarity with these resources. Other such data sets or analyses may be defined in task orders issued under this contract.

Work under Task Area 5 may involve task orders for effort related to:

1. Synthesizing past efforts and findings for the topic under study - New research efforts should start with an effort to synthesize past efforts and findings to serve as a basis for approaching the problem, providing validation data, and focusing on critical aspects.
2. Developing hypotheses, data acquisition and linkage, and analysis plans; such plans shall reflect the findings of past efforts and the needs of the study.
3. Various data sources including Fatality Analysis Reporting System (FARS), General Estimates System (GES), National Accident Sampling System Crashworthiness Data System (NASS/CDS), police crash reports, Model Minimum Uniform Crash Criteria (MMUCC), Minimum Inventory of roadway Elements (MIRE), Crash Outcomes Data Evaluation System (CODES), and other collected data may be used in these efforts.
4. Applying appropriate statistical methods to determine correlations; trends, and/or significance with appropriate controls.
5. Generating data and summaries reflecting the findings; and
6. Documenting of efforts and the preparation of information sharing materials.

Special Notes:

- Efforts under this task area may involve efforts to collect data from sources outside the library and/or in the field.
- Past efforts have involved linking empirical data to the data generated by crash simulations.

Task Area 6 – Conduct Investigations into Occupant Risks

The Contractor shall provide biomechanical and vehicle systems engineering services in support of medical injury research teams designated by the FHWA and NHTSA. The work shall include crash simulation modeling, accident data and film analysis, and the creation of reports summarizing crash injury investigations from the files of the hospital based studies, the NASS/CDS and the NHTSA special accident investigation studies.

The Contractor shall undertake occupant risk analyses of vehicle designs, restraint systems, and/or highway safety improvements as specified in Task Orders issued under this contract. In addition, the Contractor shall provide studies to explore vehicle safety performance (e.g., crush zone functionality, restraint system deployment) and the resulting injuries that occur in the elements of the fleet as specified.

Work under Task Area 6 may involve task orders for efforts related to:

1. Synthesizing past efforts and findings - New research efforts shall start with an effort to synthesize past efforts and findings to serve as a basis for approaching the problem, providing validation data, and focusing on critical aspects;

2. Developing analysis and testing plans - A plan shall be generated that shall describe the scope of each research effort, the factors to be considered, the associated measures, and the planned approach. This plan shall ensure a systematic effort that leads to useful results. Revisions to the plan may be appropriate when preliminary results differ from expectations;
3. Applying multi-body models and crash simulation software to quantify forces imposed on vehicle occupants in crashes;
4. Generating data and summaries reflecting the findings; and
5. Documenting efforts and the preparation of information sharing materials.

Special Notes:

- The current FE models library includes models of anthropomorphic dummies and the human body and specific parts from past crash analyses.
- Some of the vehicle models in the array include details for interiors elements making them particularly suitable for occupant risk analyses.
- Recent efforts have led to the development of models for various test sleds and test protocols for using them (e.g., Takata sled) that will be available for future occupant risk analyses.

Task Area 7 – Analyze and Develop Systems for Physical Protection and Infrastructure Security

The Contractor shall undertake analyses and testing to develop and evaluate systems for physical protection and security of the infrastructure. A considerable amount of past effort was devoted to developing various types of anti-ram barriers for the DOS. The process involved the use of FE models and crash simulation to evaluate existing barrier designs, evaluate improvement options, develop and assess new concepts, plan validation tests, and/or determine feasibility in specific applications. Past efforts have looked at bollards, knee walls, super fences, street planters, cable fences, and other types barriers. The use of advanced analyses techniques is seen as a powerful means to determine the effectiveness of security measures under a broad range of conditions.

The Contractor shall conduct tests as necessary to validate the results of the advanced analysis. The tests shall be conducted in conformance with DOS and American Standards for Testing & Materials (ASTM) [www.astm.org] standards as directed by the COTR. These involve tests with trucks at various speeds. Impact testing of barrier components has played an integral part of past evaluations.

Support efforts under this task involve the oversight of the construction of barriers for the tests.

Work under Task Area 7 shall involve task orders for varying amounts of effort (similar to those noted above) related to:

1. Synthesizing past efforts and findings - New research efforts shall start with an effort to synthesize past efforts and findings to serve as a basis for approaching the problem, providing validation data, and focusing on critical aspects;
2. Developing analysis and testing plans that reflect the range of conditions that infrastructure protection must function to provide strong assurances of effectiveness.;
3. Applying FE models, crash simulation and/or vehicle dynamics software; to evaluate existing forms of infrastructure protection, and/or developing concepts for innovative designs.
4. Generating data and summaries reflecting the findings; and
5. Documenting efforts.

Special Notes:

- It is likely that future efforts may involve other agencies such as the Department of Homeland Security or local and regional agencies.
- Documentation in the form of a report shall be submitted upon completion of each research effort.

Task Area 8 – Conduct Crash and Impact Tests and Testing to Characterize Material Properties

Crash and impact tests of vehicles and roadside hardware and their components and subassemblies have been conducted at the FHWA's FOIL located in McLean, Virginia for over 20 years. These tests and the data generated supported efforts to develop and validate of FE models of vehicles and hardware as well as provide quantitative measures for the evaluation of safety devices. Testing has included full-scale vehicle and pendulum tests at different impact speeds, angles, and critical impact points as needed. The outcome of this series of test shall be material behavior and component failure data that would be incorporated in existing vehicle and roadside hardware FE models.

The Contractor shall conduct crash and impact tests to evaluate vehicle safety performance, roadside hardware crashworthiness, verify the adequacy or response of components, and/or demonstrate that security treatments to meet the requirements of the task orders. The Contractor shall undertake other efforts such as the analysis of films, processing of crash test data, and correlation of crash data to computer modeling results under the task orders.

The FHWA prefers that Contractor's personnel conduct crash and impact tests at the FOIL to the extent possible to make full use of the investments in that facility and allow agency staff to observe the tests. Contractor personnel shall be responsible for test set-up, vehicle preparations, and other efforts needed to conduct a test, and provide the maintenance of the facility.

The FOIL facility has a hydraulically-driven looped cable accelerator system capable of getting a 15,000 vehicle to 60 miles per hour, and a pendulum impactor with 1800 and 4500 pound weights that can replicate impacts at about 20 miles per hour. The facility is equipped with a full range of data sensors and seven high-speed, digital cameras for capture crash event data. A computer system is available in the control center to execute the tests, capture data, and store the results. A three-bay vehicle prep building with a full set of tools and equipment is also part of the facility. Other equipment is available from the resources of the TFHRC. Two to three full time technicians have been employed at the FOIL in the past under the direction of a Contractor appointed FOIL manager. In 2007, 31 full-scale tests and 57 pendulum tests were conducted at the FOIL.

Full capabilities of the FOIL (as described above) are expected for the next two years. Due to prior arrangements, the accelerator for the full-scale tests may not continue to be available. All other equipment will be available to allow pendulum testing. Options for future testing will be weighed with the Contractor after this period and task orders involving crash and impact testing will be formulated accordingly.

Work under Task Area 8 may involve task orders for varying amounts of effort (similar to those noted above) related to:

1. Develop test plans;
2. Prepare vehicles and test articles for testing;
3. Install instrumentation;
4. Execute tests;
5. Document results; and
6. Maintain the facility.

Special Notes:

- Under the contract, testing at other facilities will be an option, particularly when the nature of the test or the FOIL testing schedule makes it necessary. The Contractor shall make arrangements to conduct testing at an alternate location if it becomes necessary or advantageous to do so, after approval by the COTR.
- Documented protocols for conducting tests and operating the FOIL exist, but regular updates and improvements will be necessary.
- New requirements for lab certification are emerging. The Contractor may be directed to acquire and maintain the certification of the FOIL, if the decision is made to maintain full capabilities of the facility. The Contractor may be directed via task orders to participate in activities designated by the COTR related to establish lab certification requirements, such as inter-lab testing and comparisons of data, processing protocols, or crashworthiness evaluation.

Task Area 9 – Advancement of Modeling and Analyses Strategies and Techniques

Supporting advanced crash analyses is an important goal of this contract. For example, there have been some efforts to:

- Apply “meshless modeling” methods to enhance the computer representation of soil materials;
- Use vehicle dynamics analysis to provide new insights on vehicle-to-barrier interfaces;
- Promote non-destructive tests of new FE models (e.g., bump and terrain response of vehicle suspension systems) for improved validation of model representation of these suspension systems;
- Analyze fluid movements in fuel tank to understand the potentials for failures in impacts; and
- Material testing to understand the effects of cracks or tears in guardrails to understand their performance in secondary crashes.

These efforts provided useful insights on the safety performance in crash events and demonstrate new approaches that could be used by researchers and practitioners, but these approaches have yet to be widely applied.

Further opportunities exist for continued advancement of modeling, simulation, and analysis. For example, the need exists to formulate viable modeling verification and validation procedures, for testing and analyses for the development of improved tire models (including side wall friction and response), the applications of tractor-trailer models in crash investigations, and/or investigations to establish a generic means to assess vehicle-to-hardware compatibility. Over the longer term, efforts are anticipated to develop new materials models, enhance material failure models (e.g., crack propagation), the application of motorcycle models, and/or formulation of methods to incorporate optimization into crash analyses.

Work under Task Area 9 may involve task orders for efforts related to:

1. Undertaking studies to formulate or validate new modeling or analysis techniques;
2. Testing new versions of software and/or features of software packages to determine their usefulness to advanced crash analyses;
3. Assessing the feasibility of new applications of modeling, crash simulation, and other analyses techniques through benchmark and other tests;
4. Applying statistical techniques to new compilations of data for clinical analyses of empirical crash data;
5. Investigating the sensitivity of various model formulations for realism, accuracy, run times, and other measures to develop improved analyses strategies;
6. Participating in inter-lab testing and/or data analyses to develop and refine testing and analysis protocols; and
7. Documenting efforts in research papers for critical peer review and promotion of new approaches.

Special Notes:

- Work under this task area may be used to support various advanced research projects. For example, FOIL tests might be needed to provide the data to support efforts to develop a more sophisticated tire to surface model with failure modes that have been proposed under the advanced research program. This may necessitate novel types of dynamic tests. It is intended that these efforts will involve more than just the documentation of the innovative modeling and analyses strategies and techniques. Other efforts might include interaction in international forums, supporting visiting scholars, and conducting demonstration projects to advance the state-of-the-art.

Task Area 10 – Research Reporting, Information Sharing, and Collaboration

The Contractor shall have a dedicated staff for research reporting, information sharing, and collaboration. It is intended that increased emphasis on documenting the advanced crash analysis efforts will be pursued under this contract. Task Orders issued under this contract will require multifaceted efforts to disseminate findings to a broad audience to increase awareness and understanding of crash events, to provide means to analyze or predict outcomes, effectively apply advanced crash analysis techniques, and ultimately to make better safety and security decisions.

Work under Task Area 10 may involve task orders for efforts related to:

1. Preparation of technical reports with appropriate documentation of background, approach, assumptions, analysis plans, instrumentations, data gathered, statistical analyses, interpretations, conclusions, and references. The use of web distribution of materials and the application of emerging technologies is encouraged.
2. Generation of technical and executive summaries, topical articles, program summaries, presentations, and research papers associated with each of the research efforts undertaken.
3. Maintenance of a website for sharing data and providing access to the materials generated under this contract.
4. Formulating and delivering information sharing programs including those to support the FHWA's Centers of Excellence (COE) program, and distribution of materials to AASHTO, TRB, and other groups.
5. Generation of quarterly newsletters and distribution to safety researchers and professionals.
6. Support for Pooled Fund Studies and other efforts aimed at reducing the number and severity of road departure crashes.
7. Support for visiting scholars, industry information sharing, workshops, and other programs aimed at promoting both the results from advanced crash analyses and the

increased application of the methods and models in both private and public sectors (e.g., increased efforts to publish within the Society of Automotive Engineers).

Special Notes:

- All reports, presentation materials, and other documents produced under this contract must be Section 508 compliant. The website must also conform with Section 508 requirements.
- Given the nature of the work and the tools used, the efforts will involve the extensive incorporation of videos and animations.
- All websites created under this award must conform to DOT and FHWA standards. IT resources used are subject to periodic security reviews including vulnerability scanning by the DOT.

REQUIREMENTS FOR IMPLEMENTING SECTION 508 STANDARDS

In addition to the work requirements specified in this statement of work, vendors must ensure that all electronic documents that they prepare will meet the requirements of Section 508 of the Rehabilitation Act. The act requires that all electronic products prepared for the Federal Government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments. Vendors can view [Section 508 of the Rehabilitation Act](http://www.access-board.gov/508.htm) <http://www.access-board.gov/508.htm> and the [Federal IT Accessibility Initiative \(Home Page\)](http://section508.gov/) <http://section508.gov/> for detailed information.

The FHWA has determined that the accessibility requirements contained in the Electronic and Information Technology Accessibility Standards, Section 1194.22, “Web-based intranet and internet information and applications,” apply to this work. The standards are available at www.access-board.gov/sec508/508standards.htm. The following paragraphs summarize the requirements for preparing FHWA reports in conformance with Section 508 for eventual posting by FHWA to an FHWA-sponsored website. If you have further questions, please contact the FHWA contracting officer’s technical representative listed in this statement of work.

Electronic documents with images

Provide a text equivalent for every non-text element in all publications prepared in electronic format. Use descriptions (such as, "alt" and "longdesc") for all non-text images or place them in element content. For all documents prepared, vendors must prepare one standard HTML format (as described in this statement of work) AND one text format that includes descriptions for all non-text images. “Text equivalent” means text sufficient to reasonably describe the image. For example, an image that is merely decorative requires only a very brief “text equivalent” description. However, if the image conveys information that is important to the content of the report, then text sufficient to reasonably describe that image and its purpose within the context of the report must be provided.

Electronic documents with complex charts or data tables

When preparing tables that are heavily designed, provide adequate alternate information so that assistive technologies can read them out. Identify row and column headers for data tables. Provide the information in a non-linear form. Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

Electronic documents with forms

When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

Minimum Requirements for FHWA Web Pages

In an effort to achieve greater quality, usability and consistency, the Information Technology Division has established these minimum technical standards that must be met by all FHWA web pages. Web documents that do not meet these standards will not be posted.

1. FHWA Web Pages will be encoded to conform to HTML 4.01 Transitional or higher, as defined by the World Wide Web Consortium.
2. File names will not exceed 20 characters in length. File names will be lower case, consist solely of letters, numbers and the underscore and will not contain slashes, spaces, tildes or hyphens. File extensions are to be 3 characters or less whenever possible (i.e. .htm instead of .html).
3. All web pages will have a title in the head section of HTML documents. The title should be unique (to the server), brief, and descriptive - not to exceed 150 characters in length.
4. Web pages must be free of broken links or missing images. All links to pages within the server will be relative.
5. Web pages posted on the public Internet will have a standard header and footer. Web pages posted on StaffNet must have a standard footer.
6. FHWA web pages will comply with Section 508 web accessibility standards as established by the Architectural Transportation Barriers Compliance Board.
7. All textual files posted on the FHWA Internet server will be available in HTML format. All other formats (PDF, Word, Excel, PowerPoint, etc.) will have HTML equivalents.
8. The bodies of web pages will use sans-serif fonts, e.g., Arial or Helvetica.
9. Internet web pages will feature "exit doors" on links to non-government web sites (anything other than a Federal, State, or local government).
10. All entry point web pages on the Internet will feature a privacy policy statement (or a link to the Agency privacy policy statement on the main server).
11. Web pages that collect survey information from the public must be approved by the Office of Management and Budget, in accordance with the Paperwork Reduction Act.
12. New FHWA Web sites must be approved by the FHWA CIO before posting.

13. The use of "persistent" cookies on FHWA web sites is forbidden. "Sessions" cookies are permitted, subject to approval on a case-by-case basis.

SECTION D - PACKAGING AND MARKING

There are NO articles for this section.

SECTION E - INSPECTION AND ACCEPTANCE

All work hereunder shall be subject to review by the Government.

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

<http://www.acqnet.gov/far/>.

- 52.246-4 Inspection of Services- Fixed Price (AUG 1996)
- 52.246-5 Inspection of Services - Cost-Reimbursement (APR 1984)
- 52.246-7 Inspection of Research and Development- Fixed Price (AUG 1996)
- 52.246-16 Responsibility for Supplies (APR 1984)

SECTION F - DELIVERIES OR PERFORMANCE

PERIOD OF PERFORMANCE

All work and services required hereunder shall be completed on or before 24 months from the effective date of the contract. Should the Government elect to exercise any of its options for additional services under this contract, the total contract period of performance shall be completed within the time frame specified in that option. In no event shall the total contract performance exceed 60 months. Notwithstanding the provisions of FAR Clause 52.217-9, the contract will be for a base period of 24 months, with a Government option for 3 additional 12 month periods.

52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor within 30 days; provided that the Government gives the Contractor a

preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The contract will be for a base period of 24 months, with a Government option for 3 additional 12 month periods. A review will be conducted prior to the completion of the base contract and before the Government's determination to exercise its option. The total duration of this contract, including the exercise of any options under this clause, shall not exceed 60 months.

TASK ORDER ISSUANCE

All work and services required hereunder shall be completed on or before the date specified in the individual Task Orders. Should the Government elect to exercise any of its options for additional services under this contract, the total contract period of performance shall be completed within the time frame specified in that option. Task Orders may be issued up to the final day of this contract, and the contract will remain in force to allow for *completion* of all Task Orders *issued*. However, no *new* Task Orders shall be issued after the final day of the contract. Performance shall begin on the effective date of the contract.

TRANSITION ACTIVITIES

The Contractor may be required to provide services needed to assist in a smooth and orderly transition between the incumbent Contractor and a successor Contractor to ensure minimum disruption to vital Government business. These services may include, but are not limited to: data and other file transfer, material transfer, equipment transfer, coordination with existing Contractor, and other activities to assist in an orderly transfer and establishment of continued operation of the contract services. The Contractor is expected to cooperate fully in the transition.

PLACE OF PERFORMANCE

Unless otherwise specified in individual Task Orders, all work performed under this contract shall be performed at the selected Contractor's facilities and/or at FHWA Turner-Fairbank Highway Research Center (TFHRC).

SPECIFICATIONS GOVERNING CONDUCT OF WORK REQUIREMENTS FOR ON-SITE PARTICIPATION

In the event that work is performed at the TFHRC in McLean, Virginia, access to laboratory testing facilities and all equipment necessary for the performance of each Task Order will be

provided by the Government. The normal reporting location for contract employees providing services at TFHRC shall be 6300 Georgetown Pike, McLean, VA 22101. Normal working hours at TFHRC are 8:30 am until 4:30 pm.

PLACE OF DELIVERY

All deliverables and a copy of the quarterly reports (See Section G) under the contract shall be delivered F.O.B. Destination, under transmittal letter, to the following address:

Federal Highway Administration
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101
Attention: to be filled in at time of award

The quarterly progress reports and other items as specified shall be delivered by email to the Contract Specialist (CS) at the following address:

Federal Highway Administration
Office of Acquisition Management
HAAM-40F, Mail Stop E65-101
1200 New Jersey Ave., SE
Washington, D.C. 20590
Attention: To be filled in at time of award
Email: To be filled in at time of award

SCHEDULE OF WORK

All tasks set forth in the Statement of Work shall be performed in accordance with the work schedule as delineated in each Task Order. Performance shall begin on the effective date of each Task Order.

52.242-15 STOP-WORK ORDER (AUG 1989) -- ALTERNATE I (APR 1984)

- (a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days

after a stop-work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either:

- (1) Cancel the stop-work order; or
- (2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if:

- (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
- (2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; *provided*, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

52.247-34 F.O.B. DESTINATION (NOV 1991)

SECTION G - CONTRACT ADMINISTRATION DATA

TASK ORDER PROCEDURES

All funds expended under this contract shall be incurred and accounted for under individual task orders.

Within the direct productive labor hours specified in the level of effort chart provided under Section L of this contract, the Contractor shall incur costs under this contract in the performance

of Task Orders and Task Order modifications issued in accordance with this ordering procedure. No other costs are authorized without the express written consent of the Contracting Officer (CO).

Performance under this contract is subject to the following ordering procedure:

- a. From time to time during the terms of this contract, the COTR will issue Task Order Proposal Requests (TOPR) to the Contractor. Each TOPR will indicate the objectives or results desired by the Government. These objectives shall be within the scope, period, and maximum value of the contract.
- b. The TOPR may be placed by written communications or electronic means. Each TOPR will state the due date for proposal submission.
- c. Each TOPR will contain, as a minimum, the following information:
 - (1) Name of the COTR;
 - (2) Contract number, TOPR number, due date and time, and number of copies required;
 - (3) Description of work;
 - (4) Maximum number of contract labor hours and other resources authorized;
 - (5) Documentation requirements;
 - (6) Delivery/performance schedule;
 - (7) Quality assurance standards, as appropriate; and
 - (8) Travel authorized.
 - (9) Whether a firm-fixed price or cost reimbursement task order is anticipated.
- d. Proposals shall be delivered, on or before the due date, both to the COTR and to the Contract Specialist (CA) at the following addresses:

Deliveries to the COTR shall be sent to the following address:

Federal Highway Administration
Turner-Fairbank Highway Research Center

6300 Georgetown Pike
McLean, VA 22101
Attention: (to be filled in at award)

Deliveries to the CA shall be sent to the following address:

Federal Highway Administration
Office of Acquisition Management
HAAM-40F, Mail Drop: W36-481
1200 New Jersey Avenue, SE
Washington, D.C. 20590
Attention: (to be filled in at award)

- e. The proposal shall outline the Contractor's overall approach for completing the Task Order and shall, at a minimum, include:
- (1) The contract number and the TOPR number at the top of the proposal;
 - (2) Signed cover letter stating that this is the Task Plan to the TOPR;
 - (3) Discussion of technical approach for performing the work;
 - (4) Estimated date of commencement of work, and any changes proposed to the schedule of performance;
 - (5) Direct labor hours, by applicable labor category, and the total direct labor hours, including those in (6) below, estimated to complete the task; direct labor costs, by labor category, and applicable indirect costs; and identification of specific staff, including new or updated resumes, as necessary;
 - (6) Travel and material costs estimates;
 - (7) An estimate for subcontractors and consultants, including the direct labor hours, if applicable;
 - (8) Other pertinent information, such as indirect costs, as cited in this section;
 - (9) The total estimated cost and fixed fee for completion of the Task Order; and
 - (10) The cost share that will be contributed by the Contractor, as applicable.

- f. The CA will secure an approval signature from the CO and issue a notice to proceed to the Contractor when the Task Order has been approved. The Contractor shall not commence work on a Task Order until the notice to proceed has been issued.
- g. The CO may modify Task Orders in the same manner as they are issued.
- h. In the event that there is a conflict between the requirements of the Task Order and the Contractor's work plan, the Task Order shall prevail.
- i. If the Contractor, either at the time of receipt of a Task Order or at any time during work assignment performance, has reason to believe that the cost or number of labor hours will exceed the estimates set forth in the Task Order, the Contractor shall immediately notify the CO in writing and suggest a revised estimate for completion of the work required there under. The CO will make the final determination of the approved cost and number of direct productive labor hours for each work assignment.
- j. The Contractor shall not exceed the estimated level of effort and cost specified in each Task Order without written authorization of the CO.
- k. The Limitation of Funds or Limitation of Costs clauses apply to each cost reimbursable task order individually. Therefore, the Contractor is required to notify the Contracting Officer by each individual task order in accordance with clauses 52.232-22, Limitation of Funds, and 52.232-20, Limitation of Costs, as applicable. Any questions please contact the CO.

NOTE: Task Orders issued under this contract may be either Cost-Plus-Fixed-Fee, Cost Sharing, or Firm-Fixed-Price depending on the nature of the work requested and the CO's determination.

QUARTERLY PROGRESS REPORT

The Contractor shall furnish an electronic copy of a quarterly progress report (see sample format in Section J) to the COTR (To be filled in at award) and one to the Contract Specialist (To be filled in at award) on or before the 15th of the month following the three calendar months being reported. Each report shall contain concise statements covering the activities relevant to the statement of work, including:

- (a) A clear and complete account of the work performed under each Task Order.

- (b) An outline of the work to be accomplished during the next report period.
- (c) A description of any problem encountered or anticipated that will affect the completion of any individual Task Order within the time and fiscal constraints as set forth in the Task Orders, together with recommended solutions to such problems; or, a statement that no problems were encountered.
- (d) A tabulation of the planned, actual and cumulative person-hours expended by the personnel identified in the Professional Staffing of each task order.
- (e) A chart showing current and cumulative expenditures by quarter versus planned expenditures.
- (f) A tabulation of the planned, actual, and cumulative cost share, if applicable, for each task order.
- (g) Preliminary or interim results, conclusions, trends, or other items of information that the Contractor feels are of timely interest to the FHWA.

FUNDS AVAILABLE

- (a) Currently, funds in the amount of \$_____ are obligated to this contract.
- (b) The balance of funding under this contract (\$_____) will be obligated subject to availability of funds and formal modification to this contract by the CO.
- (c) The clause entitled "LIMITATION OF FUNDS" applies to this contract. Any notification required on the part of the Contract shall be made in writing to the CO. In the event that the contract is not funded beyond the estimated cost set forth in the schedule, the Contractor shall deliver to the CO the data collected and the material produced or in process or acquired in connection with the performance of the project provided herein together with a summary report in five copies of its progress and accomplishments to date.

PAYMENT – COST REIMBURSEMENT (Cost Reimbursement Task Orders)

- (a) The Contractor may be reimbursed for direct and indirect costs incurred in the performance hereof as are allowable under the provisions of Part 31 of the Federal Acquisition Regulation in the not-to-exceed amount of \$_____ (to be negotiated) subject to the Limitation of Funds Clause.
- (b) For Cost-Plus-Fixed-Fee task orders, the Contractor may request monthly interim payments for costs incurred during the performance of each specific task order. See the "Invoices"

section for submittal instructions. A statement of costs incurred by the Contractor in the performance of Cost-Plus-Fixed-Fee task orders issued under this contract and claimed to constitute allowable costs shall support each monthly interim payment request. Each monthly interim payment request shall be submitted in accordance with "The FHWA Billing Instructions for Cost Reimbursement Contracts" (See Section J, Attachment 6) to be considered proper for payment. Prior approval of the CO is required if the Contractor wishes to use a different payment request format. Any payments hereunder will be made upon determination by the CO that the requirements of the contract are being met.

- (c) In accordance with clause 52.232-25, "Prompt Payment", monthly interim payments will be made by the 30th day following receipt of proper request for payment by the designated billing office, unless audit or other review is considered necessary to ensure compliance with the terms and conditions of the contract. All interim payments hereunder will be made upon further determination by the CO that the Contractor is making adequate progress toward successful contract completion.
- (d) Final invoice payment shall be made upon the CO's determination that all contract requirements have been completed. The payment due date for final invoice shall be established in accordance with the clause 52.232-25.

PAYMENT OF FIXED FEE (Cost Type Task Orders)

The actual amount of fixed fee payable under this IDIQ contract will be established through the issuance of Cost-Plus-Fixed-Fee task orders under the contract. The Contractor may request payment of fixed fee, by submission of a separate invoice, upon the successful completion of each Cost-Plus-Fixed-Fee task order. The Government will pay the fixed fee amount for each Task Order based on the CO's determination that all work under the Task Order has been satisfactorily completed.

PAYMENT OF FIRM-FIXED-PRICE TASK ORDERS

For Firm-Fixed-Price task orders, unless otherwise specified in the individual task order, the Contractor may request payment for the Firm-Fixed-Price specified in the task order upon the Government's acceptance of all work under that task order. Satisfactory completion and acceptance of the task order will be made by the CO.

INDIRECT COSTS (Applies Only to Cost Type Task Orders)

Pending the establishment of final indirect cost rates which shall be negotiated based on audit of actual costs as provided in Subpart 42.7 of the Federal Acquisition Regulation, the Contractor shall be reimbursed for allowable indirect costs hereunder at the billing rate of [__TO BE NEGOTIATED__]. This INDIRECT COST provision does not operate to waive the LIMITATION

OF FUNDS Clause. The Contractor's audited final indirect costs are allowable only insofar as they do not cause the Contractor to exceed the total estimated costs for performance of the contract listed on page 2 (SECTION B) and under the PAYMENT provision above.

BILLING RATES

The provisional indirect rates negotiated under this contract for billing purposes shall remain in effect until revised rates have been approved in writing by the CO. The Contractor shall request new provisional billing rates in writing.

INVOICES

Submit all invoices to one of the following invoice addresses:

All invoices and required supporting documents shall be sent via e-mail to the following e-mail address: 9-AMC-AMZ-FHWA-Invoices@faa.gov.

- (a) Include the invoice as an attached PDF document
- (b) Include in the e-mail subject line the following:
 - (i) Invoice No. #
 - (ii) Contract/Agreement Number
 - (iii) Name of your Company/Organization
 - (iv) Attention: [Contract Specialist Name]

Example: Invoice No. 35 – DTFH61-08-C-00001 – ABC Company –
Attention: John Doe

If the invoice and supporting documents exceed 8 MB as an e-mail attachment, the contractor must select one of the other submission options presented below:

Invoices submitted via an overnight service must use the following physical address:

MMAC
FHWA/AMZ-150
6500 S. MacArthur Blvd
Oklahoma City, OK 73169
Attention: [Contract Specialist Name]
Express Delivery Point of Contact: April Grisham, 405 954-8269

Invoices may be submitted via regular U.S. Postal Service to the following address:

Federal Highway Administration
Markview Processing
P.O. Box 268865

Oklahoma City, OK 73126-8865
Attention: [Contract Specialist Name]

All invoices, regardless of submission method, must identify [Contract Specialist Name] as the invoicing point of contact.

An invoice submitted to an address other than those identified above will be returned to the vendor as non-conforming.

CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)

The Contracting Officer may designate a Technical Representative (COTR) to assist in monitoring the work under this contract. The COTR is responsible for the technical administration of the contract and technical liaison with the Contractor. The COTR **is not authorized** to change the scope of work or specifications as stated in the contract and in any Task Order, to make any commitments or otherwise obligate the Government or authorize any changes which affect the contract price, delivery schedule, period of performance, or other terms or conditions.

The Contracting Officer is the only individual who can legally commit or obligate the Government for the expenditure of public funds. The technical administration of this contract shall not be construed to authorize the revision of the terms and conditions of this contract and any Task Orders issued. The Contracting Officer shall authorize any such revisions in writing.

SUBCONTRACTS - ADVANCE NOTIFICATION AND CONSENT

Under this contract, the requirements of FAR 44.2, CONSENT TO SUBCONTRACTS, have been fulfilled for the following subcontracts:

[as negotiated]

Any future change or revision to the Statement of Work or other applicable aspects of this contract shall include the subcontract(s) only to the extent that performance of the subcontract(s) is directly affected by the change or revision.

KEY PERSONNEL

The Contractor has designated the following as the key personnel under this contract:

Position	Staff Member
[to be inserted at award]	

In the event that any key personnel become unavailable to continue in the performance of this contract, the appointment of a replacement shall be subject to prior approval of the Contracting Officer.

PROFESSIONAL STAFFING

The Contractor agrees to assign the following professional staffing to this contract work:

Position	Staff Member
[to be inserted at award]	

In the event the Contractor finds it necessary to replace any of the assigned personnel during the performance of the contract, the Contracting Officer shall be notified in advance.

CONTRACTOR SUPERVISION

The Contractor shall provide total supervision of its staff. Government personnel are not authorized or permitted to supervise any Contractor personnel. The Contractor's Principal Investigator/Director and Program Managers for this contract are: [to be inserted], who shall communicate with the COTR to determine the Government's work requirements as set forth in the Statement of Work and shall assure that these requirements are fulfilled. In the event the designated Principal Investigator/Director and Program Managers are incapacitated due to illness or injury or otherwise is to be removed by the Contractor during the contract performance, replacement of the incumbent Principal Investigator/Director and Program Managers shall be subject to the approval of the Contracting Officer.

RESTRICTIONS AND STANDARDS OF CONDUCT

The Contractor and his/her employees shall conduct only business covered by this contract during periods paid for by the FHWA and shall not conduct any other business on Government premises. Contractor personnel shall abide by the normal rules and regulations applicable to the FHWA premises, including any applicable safety and security regulations.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

1252.237-70 QUALIFICATIONS OF CONTRACTOR EMPLOYEES (APR 2005)

- a. Definitions. As used in this clause- "Sensitive Information" is any information that, if subject to unauthorized access, modification, loss, or misuse, or is proprietary data, could adversely affect the national interest, the conduct of Federal programs, or the privacy of individuals specified in The Privacy Act, 5 U.S.C. 552a, but has not been specifically

authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy.

- b. Work under this contract may involve access to sensitive information which shall not be disclosed, by the contractor unless authorized in writing by the contracting officer. To protect sensitive information, the contractor shall provide training to any contractor employees authorized to access sensitive information, and upon request of the Government, provide information as to an individual's suitability to have authorization.
- c. The Contracting Officer may require dismissal from work those employees deemed incompetent, careless, insubordinate, unsuitable, or otherwise objectionable, or whose continued employment is deemed contrary to the public interest or inconsistent with the best interest of national security.
- d. Contractor employees working on this contract must complete such forms, as may be necessary for security or other reasons, including the conduct of background investigations to determine suitability. Completed forms shall be submitted as directed by the Contracting Officer. Upon the Contracting Officer's request, the Contractor's employees shall be fingerprinted, or subject to other investigations as required.
- e. The Contractor shall ensure that contractor employees are:
 - (1) Citizens of the United States of America or an alien who has been lawfully admitted for permanent residence or employment (indicated by immigration status) as evidenced Bureau of Citizenship and Immigration Services documentation; and
 - (2) Have background investigations according to DOT Order 1630.2B, Personnel Security Management.
- f. The Contractor shall immediately notify the contracting officer when an employee no longer requires access to DOT computer systems due to transfer, completion of a project retirement or termination of employment.
- g. The Contractor shall include the substance of this clause in all subcontracts at any tier where the subcontractor may have access to Government facilities, sensitive information, or resources.

**1252.239-70 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION
TECHNOLOGY RESOURCES (APR 2005)**

- (a) The Contractor shall be responsible for Information Technology security for all systems connected to a Department of Transportation (DOT) network or operated by the Contractor

for DOT, regardless of location. This clause is applicable to all or any part of the contract that includes information technology resources or services in which the Contractor has physical or electronic access to DOT's sensitive information that directly supports the mission of DOT. The term "information technology", as used in this clause, means any equipment or interconnected system or subsystem of equipment, including telecommunications equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. This includes both major applications and general support systems as defined by OMB Circular A-130. Examples of tasks that require security provisions include:

- (1) Hosting of DOT e-Government sites or other IT operations;
 - (2) Acquisition, transmission or analysis of data owned by DOT with significant replacement cost should the contractor's copy be corrupted; and
 - (3) Access to DOT general support systems/major applications at a level beyond that granted the general public, e.g. bypassing a firewall.
- (b) The Contractor shall develop, provide, implement, and maintain an IT Security Plan. This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The plan shall describe those parts of the contract to which this clause applies. The Contractor's IT Security Plan shall comply with applicable Federal Laws that include, but are not limited to, 40 U.S.C. 11331, the Federal Information Security Management Act (FISMA) of 2002 and the E-Government Act of 2002. The plan shall meet IT security requirements in accordance with Federal and DOT policies and procedures, as they may be amended from time to time during the term of this contract that include, but are not limited to:
- (1) OMB Circular A-130, Management of Federal Information Resources, Appendix III, Security of Federal Automated Information Resources;
 - (2) National Institute of Standards and Technology (NIST) Guidelines;
 - (3) Departmental Information Resource Management Manual (DIRMM) and associated guidelines; and
 - (4) DOT Order 1630.2B, Personnel Security Management.
- (c) Within 30 days after contract award, the contractor shall submit the IT Security Plan to the DOT Contracting Officer for acceptance. This plan shall be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of

this contract and in compliance with the requirements stated in this clause. The plan, as accepted by the Contracting Officer, shall be incorporated into the contract as a compliance document. The Contractor shall comply with the accepted plan.

- (d) Within 6 months after contract award, the contractor shall submit written proof of IT Security accreditation to the DOT for acceptance by the DOT Contracting Officer. Such written proof may be furnished either by the Contractor or by a third party. Accreditation must be in accordance with DOT Order 1350.2, which is available from the Contracting Officer upon request. This accreditation will include a final security plan, risk assessment, security test and evaluation, and disaster recovery plan/continuity of operations plan. This accreditation, when accepted by the Contracting Officer, shall be incorporated into the contract as a compliance document, and shall include a final security plan, a risk assessment, security test and evaluation, and disaster recovery/continuity of operations plan. The contractor shall comply with the accepted accreditation documentation.
- (e) On an annual basis, the contractor shall submit verification to the Contracting Officer that the IT Security Plan remains valid.
- (f) The contractor will ensure that the following banners are displayed on all DOT systems (both public and private) operated by the contractor prior to allowing anyone access to the system:

Government Warning

****WARNING**WARNING**WARNING****

Unauthorized access is a violation of U.S. Law and Department of Transportation policy, and may result in criminal or administrative penalties. Users shall not access other user's or system files without proper authority. Absence of access controls IS NOT authorization for access! DOT information systems and related equipment are intended for communication, transmission, processing and storage of U.S. Government information. These systems and equipment are subject to monitoring by law enforcement and authorized Department officials. Monitoring may result in the acquisition, recording, and analysis of all data being communicated, transmitted, processed or stored in this system by law enforcement and authorized Department officials. Use of this system constitutes consent to such monitoring.

****WARNING**WARNING**WARNING****

- (g) The contractor will ensure that the following banner is displayed on all DOT systems that contain Privacy Act information operated by the contractor prior to allowing anyone access to the system:

This system contains information protected under the provisions of the Privacy Act of 1974 (Public Law 93-579). Any privacy information displayed on the screen or printed shall be protected from unauthorized disclosure. Employees who violate privacy safeguards may be subject to disciplinary actions, a fine of up to \$5,000, or both.

- (h) Contractor personnel requiring privileged access or limited privileged access to systems operated by the Contractor for DOT or interconnected to a DOT network shall be screened at an appropriate level in accordance with DOT Order 1630.2B, Personnel Security Management, as it may be amended from time to time during the term of this contract.
- (i) The Contractor shall ensure that its employees, in performance of the contract performing under this contract, receive annual IT security training in accordance with OMB Circular A-130, FISMA, and NIST requirements, as they may be amended from time to time during the term of this contract, with a specific emphasis on rules of behavior.
- (j) The Contractor shall afford the Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of DOT data or to the function of information technology systems operated on behalf of DOT, and to preserve evidence of computer crime.
- (k) The Contractor shall incorporate the substance of this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.
- (l) The contractor shall immediately notify the contracting officer when an employee terminates employment that has access to DOT information systems or data.

(End of clause)

1252.239-71 INFORMATION TECHNOLOGY SECURITY PLAN AND ACCREDITATION (APR 2005)

All offers submitted in response to this solicitation must address the approach for completing the security plan and accreditation requirements in TAR clause [1252.239-70](#).

52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing

labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed six months. The CO may exercise the option by written notice to the Contractor within fifteen days prior to contract expiration.

POST AWARD EVALUATION OF CONTRACTOR PERFORMANCE

- (a) Contractor Performance Evaluations Interim and final evaluations of contractor performance will be prepared on this contract in accordance with FAR 42.15 (or FAR 36.201 for construction, or FAR 36.604 for Architect-Engineering). The final performance evaluations will be prepared at the time of completion of work.

Interim and final evaluations will be provided to the contractor as soon as practicable after completion of the evaluation. The Contractor can elect to review the evaluation and submit additional information or a rebuttal statement. The contractor will be permitted thirty days to respond. Contractor response is voluntary and is not mandatory. Any disagreement between the parties regarding an evaluation will be referred to an individual at a level above the CO, whose decision is final. Copies of the evaluations, contractor responses, and review comments, if any, will be retained as part of the contract file, and may be used to support future award decisions.

- (b) Electronic Access to Contractor Performance Evaluations FAR 42.15 (or FAR 36.201 for construction, or FAR 36.604 for architect-engineering) require agencies to prepare interim and final evaluations of contractor performance. The U.S. Department of Transportation utilizes the National Institutes of Health (NIH) Contractor Performance System (CPS) to record and maintain past performance information.

Contractors that have Internet capability may access evaluations through a secure Web site for review and comment by completing the registration form that can be obtained at the following URL: <https://cpscontractor.nih.gov/>. The registration process requires the contractor to identify an individual that will serve as a primary contact and who will be authorized access to the evaluation for review and comment. In addition, the contractor will be required to identify a secondary contact who will be responsible for notifying the cognizant contracting official in the event the primary contact is unavailable to process the evaluation within the required 30-day time period. Once the contractor is registered and a performance evaluation has been prepared and is ready for comment, the CPS will send an email to the contractor representative notifying that individual that a performance evaluation is electronically available for review and comment.

GOVERNMENT FURNISHED OR ACQUIRED PROPERTY

The following Government furnished or Contractor acquired property is provided to the Contractor for performance under this contract, and shall be accounted for as provided in 1252.245-70, paragraph _____, below:

[As Required by Task Orders]

1252.245-70 GOVERNMENT PROPERTY REPORTS (OCT 1994)

- (a) The Contractor shall prepare an annual report of Government property in its possession and the possession of its Subcontractors.
- (b) The report shall be submitted to the Contracting Officer not later than September 15 of each calendar year on Form DOT F 4220.43, Contractor Report of Government Property.

CONTROL AND DISPOSAL OF HAZARDOUS CHEMICALS

The Contractor shall comply with the Occupational Safety and Health Administration (OSHA) regulations 29 CFR Parts 1910 and 1926. Attention is directed to the control of hazardous material, Section 1910.1200 of the OSHA regulations and the Environmental Protection Agency regulations concerning the disposal of hazardous waste [Solid Waste Disposal Act, as amended by the Resources Conservation Act of 1976, as amended (42 U.S.C. 6901 et seq.)].

RECORDS MANAGEMENT

The Contractor shall comply with all Federal and DOT records management regulations regarding Federal recordkeeping requirements including the creation, maintenance and use, and disposition of records in all media (paper, electronic, audiovisual, Web sites, etc.).

Federal requirements can be located in Title 44, United States Code (USC), Chapter 31, at <http://www.archives.gov/about/laws/fed-agencies.html>, 44 USC Chapter 33 at <http://www.archives.gov/about/laws/disposal-of-records.html>, and Title 36, Code of Federal Regulations (CFR), Subchapter B, at <http://www.archives.gov/about/regulations/subchapter/b.html>.

DOT requirements can be located in DOT Order 1350.2, Departmental Information Resource Management Manual (DIRMM), at <http://cio.ost.dot.gov/portal/site/cio/dirmm/>, particularly Chapter 9, Departmental Records Management Program, at <http://cio.ost.dot.gov/DOT/OST/Documents/files/chapter9.doc>.

PART II

SECTION I - CONTRACT CLAUSES

FH.01 PRINTING RESTRICTIONS

All printing funded by this contract must be done in conformance with Joint Committee on Printing regulations as prescribed in Title 44, United States Code, and Section 308 of Public Law 101-163, and all applicable Government Printing Office and Department of Transportation regulations.

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

- (a) The Contractor shall make the following notifications in writing:
 - (1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.
 - (2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.
- (b) The Contractor shall -
 - (1) Maintain current, accurate, and complete inventory records of assets and their costs;
 - (2) Provide the ACO or designated representative ready access to the records upon request;
 - (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and
 - (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.
- (c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

**52.215-21 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION
OTHER THAN COST OR PRICING DATA—MODIFICATIONS (OCT 1997)**

(a) *Exceptions from cost or pricing data.*

(1) In lieu of Submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may Submit a written request for exception by Submitting the information described in the following paragraphs. The CO may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable-

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or Subcontracts for commercial items.

(A) If (1) The original contract or Subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or Subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or Subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or Subcontract from a contract or Subcontract for the acquisition of a commercial item to a contract or Subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the

reasonableness of the price of the modification. Such information may include-

- (1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being Submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.
 - (2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.
 - (3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.
- (2) The Contractor grants the CO or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.
- (b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:
- (1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.
 - (2) As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall Submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

- (a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed [\$ 0] or the overtime premium is paid for work:
 - (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;
 - (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
 - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
 - (4) That will result in lower overall costs to the Government.

- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall:
 - (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;
 - (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;
 - (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and
 - (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION (OCT 2003)

(a) *Method of payment.* (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either -

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) *Contractor's EFT information.* The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) *Mechanisms for EFT payment.* The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) *Suspension of payment.* If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract-financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) *Liability for uncompleted or erroneous transfers.* (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for -

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and -

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) *EFT and prompt payment.* A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) *EFT and assignment of claims.* If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register separately in the CCR database and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to subpart 32.8, is not permitted. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) *Liability for change of EFT information by financial agent.* The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(i) *Payment information.* The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAR 2007)

a) *Definitions.* As used in this clause--

“Commercial item” has the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

“Subcontract” includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) (1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2)(3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceed \$550,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sep 2006) (38 U.S.C. 4212(a));

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).

(v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201). (Flow down a required in accordance with paragraph (g) of FAR clause 52.222-39.)

(vi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of Clause)

1252.223-73 SEAT BELT USE POLICIES AND PROGRAMS (MAY 2005)

In accordance with Executive Order 13043, Increasing Seat Belt Use in the United States, dated April 16, 1997, the contractor is encouraged to adopt and enforce on-the-job seat belt use policies and programs for its employees when operating company-owned, rented, or personally-owned vehicles. The National Highway Traffic Safety Administration (NHTSA) is responsible for providing leadership and guidance in support of this Presidential initiative. For information on how to implement such a program or for statistics on the potential benefits and cost-savings to your company or organization, please visit the *Buckle Up America* section of NHTSA's website at www.nhtsa.dot.gov. Additional resources are available from the Network of Employers for Traffic Safety (NETS), a public-private partnership headquartered in the Washington, D.C. metropolitan area, and dedicated to improving the traffic safety practices of employers and employees. NETS is prepared to help with technical assistance, a simple, user friendly program kit, and an award for achieving the President's goal of 90 percent seat belt use. NETS can be contacted at 1-888-221-0045 or visit its website at www.trafficsafety.org.

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the CO will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <http://www.acqnet.gov/far>.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

- 52.202-1 Definitions (JUL 2004)
- 52.203-3 Gratuities (APR 1984)
- 52.203-5 Covenant Against Contingent Fees (APR 1984)
- 52.203-6 Restrictions on Subcontractor Sales to the Government (SEP 2006)
- 52.203-7 Anti-Kickback Procedures (JUL 1995)
- 52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
- 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
- 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (SEP 2007)
- 52.204-2 Security Requirements (AUG 1996)
- 52.204-4 Printed or Copied Double-Sided on Recycled Paper (AUG 2000)
- 52.204-7 Central Contractor Registration (JUL 2006)
- 52.209-6 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (SEP 2006)
- 52.215-2 Audit and Records - Negotiation (JUN 1999)
- 52.215-8 Order of Precedence - Uniform Contract Format (OCT 1997)
- 52.215-10 Price Reduction for Defective Cost or Pricing Data (OCT 1997)
- 52.215-12 Subcontractor Cost or Pricing Data (OCT 1997)

- 52.215-14 Integrity of Unit Prices (OCT 1997)
- 52.215-15 Pension Adjustments and Asset Reversions (OCT 2004)
- 52.215-18 Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other Than Pensions (JUL 2005)
- 52.215-20 Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data (OCT 1997)
- 52.215-21 Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data – Modifications (OCT 1997)
- 52.216-7 Allowable Cost and Payment (DEC 2002)
The designated payment office will make interim payments for contract financing on the “30th” day after the designated billing office receives a proper payment request.
- 52.216-8 Fixed Fee (MAR 1997)
- 52.216-18 Ordering (OCT 1995) Fill in: *60 months from the effective date of the contract*
- 52.216-19 Order Limitations (OCT 1995) Fill in:
Paragraph (a) insert “\$10,000”
Paragraph (b) (1) insert “\$1,000,000”
Paragraph (b) (2) insert “\$5,000,000”
Paragraph (b) (3) insert “45”
Paragraph (d) insert “15”
- 52.216-22 Indefinite Quantity (OCT 1995)
- 52.217-9 Option to Extend the Term of the Contract (MAR 2000)
Paragraph (a) insert “60 days of the expiration date of the contract”
Paragraph (c) insert “6 months”
- 52.219-4 Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JUL 2005)

Note: The factor in paragraph (b) is 10 percent. If the offeror elects to waive the price evaluation adjustment check this box [].

- 52.219-8 Utilization of Small Business Concerns (MAY 2004)
- 52.219-9 Small Business Subcontracting Plan (APR 2008) Alternate II (OCT 2001)
- 52.219-14 Limitations on Subcontracting (DEC 1996)
- 52.219-16 Liquidated Damages-Subcontracting Plan (JAN 1999)
- 52.222-1 Notice to the Government of Labor Disputes (FEB 1997)
- 52.222-2 Payment for Overtime Premiums (JUL 1990) Fill in:
Paragraph (a) insert "\$0"
- 52.222-3 Convict Labor (JUN 2003)
- 52.222-21 Prohibition of Segregated Facilities (FEB 1999)
- 52.222-26 Equal Opportunity (MAR 2007)
- 52.222-29 Notification of Visa Denial (JUN 2003)
- 52.222-35 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006)
- 52.222-36 Affirmative Action for Workers with Disabilities (JUN 1998)
- 52.222-37 Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006)
- 52.222-39 Notification of Employee Rights Concerning Payment of Union Dues or Fees. (DEC 2004)
- 52.223-6 Drug-Free Workplace (MAY 2001)
- 52.223-13 Certification of Toxic Chemical Release Reporting (AUG 2003)
- 52.223-14 Toxic Chemical Release Reporting (AUG 2003)
- 52.224-1 Privacy Act Notification (APR 1984)
- 52.224-2 Privacy Act (APR 1984)

- 52.225-13 Restrictions on Certain Foreign Purchases (FEB 2006)
- 52.226-1 Utilization of Indian Organizations and Indian Owned Economic Enterprises (JUN 2000)
- 52.227-1 Authorization and Consent (DEC 2007) - Alternate I (APR 1984)
- 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (DEC 2007)
- 52.227-14 Rights in Data - General (DEC 2007)
- 52.227-16 Additional Data Requirements (JUN 1987)
- 52.227-23 Rights to Proposal Data (Technical) (JUN 1987)
- 52.228-7 Insurance - Liability to Third Persons (MAR 1996)
- 52.230-2 Cost Accounting Standards (APR 1998)
- 52.230-3 Disclosure and Consistency of Cost Accounting Practices (APR 1998)
- 52.230-6 Administration of Cost Accounting Standards (APR 2005)
- 52.232-9 Limitation on Withholding of Payments (APR 1984)
- 52.232-17 Interest (JUN 1996)
- 52.232-20 Limitation of Cost (APR 1984)
- 52.232-22 Limitation of Funds (APR 1984)
- 52.232-23 Assignment of Claims (JAN 1986)
- 52.232-25 Prompt Payment (OCT 2003)
- 52.232-33 Payment by Electronic Funds Transfer - Central Contractor Registration (OCT 2003)
- 52.233-1 Disputes (JUL 2002)
- 52.233-3 Protest after Award (AUG 1996) - Alternate I (JUN 1985)

- 52.233-4 Applicable Law for Breach of Contract Claim (OCT 2004)
- 52.239-1 Privacy or Security Safeguards (AUG 1996)
- 52.242-1 Notice of Intent to Disallow Costs (APR 1984)
- 52.242-2 Production Progress Reports (APR 1991)
- 52.242-3 Penalties for Unallowable Costs (MAY 2001)
- 52.242-4 Certification of Final Indirect Costs (JAN 1997)
- 52.243-1 Changes – Fixed Price (Aug 1987) – Alternate III (APR 1984)
- 52.243-2 Changes - Cost-Reimbursement (Aug 1987) – Alternate V (APR 1984)
- 52.242-13 Bankruptcy (JUL 1995)
- 52.244-2 Subcontracts - Alternate I (JUN 2007)
- 52.244-5 Competition in Subcontracting (DEC 1996)
- 52.244-6 Subcontracts for Commercial Items (MAR 2007)
- 52.245-1 Government Property (JUN 2007)
- 52.245-9 Use and Charges (JUN 2007)
- 52.246-24 Limitation of Liability - High-Value Items (FEB 1997)
- 52.246-25 Limitation of Liability- Services (FEB 1997)
- 52.249-2 Termination for Convenience (MAY 2004)
- 52.249-6 Termination (Cost-Reimbursement) (MAY 2004)
- 52.249-8 Default (Fixed Price Supply and Service) (APR 1984)
- 52.249-14 Excusable Delays (APR 1984)
- 52.253-1 Computer Generated Forms (JAN 1991)

**II. DEPARTMENT OF TRANSPORTATION ACQUISITION REGULATIONS
(48 CHAPTER 12) CLAUSES**

- 1252.235-70 Research Misconduct (APR 2005)
- 1252.242-71 Contractor Testimony (OCT 1994)
- 1252.242-72 Dissemination of Contract Information (OCT 1994)
- 1252.245-70 Government Property reports. (OCT 1994)

ALTERATIONS IN CONTRACT (APR 1984)

Portions of this contract are altered as follows:
None.

PART III

SECTION J - LIST OF ATTACHMENTS

1. Sample Formats for Quarterly Progress Report – 1 page
2. FHWA Cost Reimbursement Billing Instructions – 5 pages
3. Sample Formats for - Price Proposal Budget Summary Format – 1 page
4. Standard Form LLL, Disclosure of Lobbying Activities – 4 pages
Can be obtained at <http://www.whitehouse.gov/omb/grants/sfillin.pdf>
5. OF 17, Important Notice to Offerors – 1 page
6. Past Performance Questionnaire – 3 pages

PART IV

**SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS
OF OFFERORS OR QUOTERS**

52.204-8 Annual Representations and Certifications (JAN 2006)

(b)

(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (c) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (c) applies.

(ii) Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) -
ALTERNATE I (APR 2002)

- (a) (1) The North American Industry Classification System (NAICS) code for this acquisition is 541712.
- (2) The small business size standard is 500 people.

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

(please show the RFP number and closing date on the forwarding envelope)

IMPORTANT DELIVERY INFORMATION

Please note that the FHWA Office of Acquisition Management has moved to the following location:

1200 New Jersey Avenue, SE
Mail Drop: E65-101, HAAM-40
Washington, DC 20590

NOTE: Security procedures prohibit non-uniformed couriers from delivering material directly to offices in the DOT building. Only uniformed couriers from FedEx and the United Parcel Service, who are dressed in a uniform bearing their organization's name and possessing official identification, may deliver proposals or sealed bids directly to the Office of Acquisition Management. **Bids/offers must be received by the Office of Acquisition Management by the time and date due, to be considered timely,** not just delivered to the mail room/visitor's center. To assist in expediting delivery, the outside of the envelope/package containing the offer must be marked with the completed Optional Form 17, Offer Label, available on line at <http://www.fhwa.dot.gov/aaa/forms.htm>.

Further, please be advised that all of our mail (items handled by the U.S. Postal Service) is sent out of town for scanning and irradiation prior to delivery to the building. This process can add several days to your mailing time, even from local addresses.

Please keep these factors in mind as you determine the best means to deliver your proposal so as to ensure delivery in the Office of Acquisition Management by no later than 4:00 PM Washington, DC time.

Please direct all questions to Ms. Aimee S. Drewry at email Aimee.Drewry@dot.gov or phone number (202) 366-4211.

NOTE: With respect to The Procurement Integrity Act requirements regarding "proprietary information," your attention is directed to FAR 3.104-4(d)(1), (2) and (3).

NOTE: Facsimile bids/proposals will not be considered for this solicitation.

52.204-6 Data Universal Numbering System (DUNS) Number (APR 2008)

NOTE: Pursuant to FAR 52.215-1 (JAN 2004), subparagraph (f)(4), the Government intends to evaluate proposals and make an award without discussions to the offeror that provides the overall best value to the Government. Therefore, the offeror's initial proposal should contain

the offeror's best terms from a cost and technical standpoint. The Government reserves the right to conduct discussions if the CO determines that they are necessary.

*******ALERT***** FRAUDULENT CCR LETTERS*******

Recently, current U. S. Department of Transportation (DOT) contractors and potential contractors have received fraudulent letters purporting to be issued by DOT. These fraudulent letters request that current or potential contractors register in the DOD Central Contractor Registration System (CCR). If you receive such a letter, please DO NOT complete the requested CCR worksheet that is attached to the letters and DO NOT release any information to the facsimile number cited in the letter. Please be aware that no Federal agency requires any confidential information to be submitted to verify CCR registration. The CCR is a legitimate government system. However, to register, contractors should go directly through the CCR website and never through a third party. There is no requirement to send information directly to any Federal agency. For information on how to register in the CCR, please visit website www.ccr.gov.

52.215-16 FACILITIES CAPITAL COST OF MONEY (JUN 2003)

- (a) Facilities capital cost of money will be an allowable cost under the contemplated contract, if the criteria for allowability in subparagraph 31.205-10(a)(2) of the Federal Acquisition Regulation are met. One of the allowability criteria requires the prospective Contractor to propose facilities capital cost of money in its offer.
- (b) If the prospective Contractor does not propose this cost, the resulting contract will include the clause Waiver of Facilities Capital Cost of Money.

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government intends to award an Indefinite Delivery/Indefinite Quantity contract (with both Firm-Fixed-Fixed price and Cost-Plus-Fixed-Fee task orders) as a result of this solicitation. The Government anticipates that only one contract will be awarded as a result of this solicitation.

THIS REQUIREMENT IS FULL AND OPEN TO ALL SOURCES.

INSTRUCTIONS FOR PREPARATION OF PROPOSALS

NOTE: The Government's evaluation criteria are delineated in Section M, herein. Offerors are advised to carefully review Section M in preparing their proposal submissions.

NOTE: For proposal preparation purposes, the Offeror should assume an estimated award date of November 1, 2008.

NOTE: The Offeror should indicate under Volume I of the proposal the name(s) and title(s) of the person(s) who actually wrote the proposal and his/her relationship to the offering company.

PROPOSAL FORMAT

All Offerors shall submit the following:

1. RFP Section A, Blocks 12 through 18 of Standard Form 33 must be filled in as appropriate, signed and returned with the offer.
2. In addition, the Offeror must submit an original and an electronic copy of the proposal volumes to Aimee.Drewry@dot.gov.

Proposal Submittal Location

The original proposal shall be submitted to the following address.

Mailing Address: Federal Highway Administration
Office of Acquisition Management
1200 New Jersey Ave., SE
HAAM-40F, Mail Stop E65-101
Washington, DC 20590
Attn: Aimee S. Drewry

VOLUME I - “TECHNICAL PROPOSAL” This volume shall consist of four parts:

- Part I – Technical Proposal
- Part II – Staffing Proposal
- Part III – Past Performance
- Part IV – Sample Task Order Proposals

The total page count for Part I – Technical Proposal shall not exceed 140 pages including text, figures, tables, appendices, and biographical summaries for key personnel. It is noted that biographic summaries (as described under Part I) shall be no more than 2 pages for each key personnel proposed. There is no page limitation for Part II – Staffing Proposal or Part III – Past Performance. The total page count for Part IV – Sample Task Order Proposals shall not exceed 60 pages. Each Sample Task Order Proposal shall not exceed 15 pages. Overall, the total page count for Volume I – TECHNICAL PROPOSAL shall not exceed 200 pages.

In the event an offeror exceeds the page limitations described above, the Government will evaluate only the pages of the proposal that fall within the specified page limitations.

VOLUME II - "BUSINESS AND COST/PRICE PROPOSAL." This volume shall be bound separately from VOLUME I and contains two parts. There is no page limitation for Volume II.

- Part I – Cost/Price Information
- Part II – Other Financial Information
- Part III - Offer

The format of the above proposal volumes shall be as follows:

1. Proposals shall be prepared on 8½ x 11 inch paper except for foldouts used for charts, tables or figures, which shall not exceed 11 x 17 inches. Foldouts shall not be used for text, and shall count as two pages.
2. A page is defined as one side of an 8 ½ by 11 inch paper. Therefore, a piece of paper with printing on both sides is considered two pages.
3. Text shall be printed using a font size no less than 12 cpi.
4. Page margins shall be a minimum of 1 inch top, bottom and each side.
5. No cost/price data shall be included in VOLUME I.

-----**VOLUME I - TECHNICAL CAPABILITIES**-----

PART I - TECHNICAL PROPOSAL

The technical proposal shall describe the offeror's approach for undertaking the types of activities under each task area identified in the Statement of Work located at Section C. Discuss the expertise and experience required to complete the task area, the processes and possible pitfalls associated with completing the task area, and the planned management scheme to successfully complete the task area. In addition, the proposal shall include, for each task area, the specific devices and software tools offeror's propose to use, the steps and procedures that the offeror plans to follow when conducting tests or analyses, where the work will be conducted, and the procedures in place for quality control and reporting.

Note: The total page count for Part I – Technical Proposal shall not exceed 140 pages including text, figures, tables, appendices, and biographical summaries for key personnel.

In addition, offerors shall include the following elements in the technical proposal (see also the Statement of Work located under Section C and the technical evaluation criteria located under Section M):

1. The proposal shall contain the level of effort anticipated from each staff member/consultant, and a sufficient indication of time availability or quick access by year and total for the potential five year period of performance. Note: Offerors shall address each task area by number or letter that corresponds with the numbers or letters in the Statement of Work found under Section C.
2. The proposal shall also contain biographical summaries of all Key Personnel proposed on the project. Key Personnel include the Principal Investigator (PI)/Director, Program Managers (PM), and other staff members who may lead or play a major role in any Task Area identified under Section C – Statement of Work.
3. The proposal shall identify and contain a detailed work plan that includes a management approach adequate for supporting the execution and performance of any Task Orders subsequently issued by the Government.
4. The proposal shall include a description of the offeror's facilities and location and location available for conducting reverse engineering, impact testing, high-level computer analyses, applying LS Dyna and other sophisticated software, managing information resources (including the library), and undertaking advanced research.
5. The offeror shall identify in its proposal how a high level of communication and interaction will be maintained under the award. The offeror shall identify how it plans to ensure that tests and analyses can be observed by the FHWA and other Government agencies whether in person or by other means.

PART II – STAFFING PROPOSAL

The Staffing Proposal shall consist of a clear description of the proposed staff's qualifications as they relate to the key specified positions and to the performance of this contract. Provide the names of all personnel and the positions they will occupy as related to this project. The estimated professional and technical staffing shall be provided in staff-hours. Resumes should be included for each person proposed under the contract by the labor categories listed below. Resumes for Graduate Students need not be included. The resumes shall clearly identify and describe the individual's education, experience, professional publications pertinent to the Statement of Work described under Section C, and length of service with the company as it relates to the performance of this contract and the desired qualifications identified for that individual's Labor Category. Provide evidence that all key personnel are available and committed to fulfill the annual estimated level-of-effort requirements specified for their labor category.

In addition, the Staffing Proposal shall include a Master Staffing Table that contains every proposed staffing person and the following information:

- a) The employee name and position as defined in the “Skill Requirements for Labor Categories” described below (an un-named staff person can be denoted as “to-be-determined”).
- b) The employee’s contract relationship as prime contractor, subcontractor, and/or consultant.
- c) The number of hours proposed for each of the potential 5 year period of performance for this contract, the proposed total number of estimated staff hours, and the number of estimated staff hours by Task Area as defined in the Statement of Work located at Section C. The 5 years include the Base Period Year 1, Base Period Year 2, the First Option Year, the Second Option Year, and the Third Option Year.
- d) The grand total number of staffing hours proposed for each particular Task Area of this Solicitation’s Statement of Work for all years.
- e) The grand total number of staffing hours proposed to be worked by each particular employee as counted across all of the Tasks on which that particular individual is being proposed to serve.

Skill Requirements for Labor Categories

- Principal Investigator/Director: The Principal Investigator/Director (PI) shall be responsible for overall technical direction and supervision of Program Managers and staff on all tasks under the contract. The PI shall have, as a minimum, a Masters degree in a field applicable to highway and vehicle safety, infrastructure security, and advanced crash analysis techniques and approximately 15 years of progressively responsible experience in highway and vehicle safety and advanced crash analyses related contract management and research. This experience shall include technical leadership of significant work in safety and advanced analyses.
- Program Managers: The Program Managers (PM) shall be responsible for overall management of the contract, including quality assurance for all products delivered to the Government and availability of resources to complete all task orders. The PM shall have experience in successfully managing five projects of similar content and size as the task orders expected under this contract. The PM shall have approximately 10 years experience in transportation related contract management, and research and development. The PM shall have demonstrated success in keeping programs involving multiple subcontractors on schedule and within budget, and in providing high quality products meeting the sponsor’s expectations.
- Research Scientists/Technical Experts: The term Research Scientist/Technical Expert includes engineers (i.e., civil, mechanical, biomedical, computer, automotive, electrical, systems, computer hardware and software specialists, instrumentation specialists, data analysts, occupant risk analysts, etc.) The Research Scientists/Technical Experts shall

have, as a minimum, a Master's degree in a subject area that is directly related to the performance of the contract and have approximately 10 years of experience. The experience shall be in a technical field relevant to the work required under this contract that reflects national recognition of expertise and technical accomplishments in the subject area. Junior Research Scientists/Technical experts may be considered with a master's degree and/or five years of experience.

- Statisticians – Statisticians shall be capable of identifying appropriate statistical techniques to be applied in the various types of research anticipated under this contract and assisting in conducting analyses and interpreting results. The Statisticians shall have experience in analyzing crash data from Federal and State sources, analyzing engineering measurements from tests and simulation runs, and effectively documenting the results.
- Lab Managers – Lab Managers shall have approximately five years experience in developing test plans, preparing vehicles and/or test articles, installing and verifying test instrumentation including high-speed digital video inputs, executing and documenting tests, as well as maintaining the lab and appropriate credentials or warranties associated with its equipment. Lab Managers will be responsible for providing information to the Program Managers and formulating plans for effective use of the lab facilities. Specialized experience is needed for the vehicle modeling, crash and impacts, and high performance computing labs.
- Lab Technicians – The Lab Technician shall be capable of performing mechanical, electrical, electronic, construction, video, instrumentation, and related skills for the set-up and execution of tests, the teardown of vehicles, the installation of test articles, the clean-up after tests, and the general maintenance of the labs.
- Software/Computer Engineer – Advanced crash analyses involve the use of sophisticated software tools and high-end graphics processing tools. The Software/Computer Engineer shall provide direct support in these areas and manage a high-performance computing facility. A minimum of five years experience in operating high performance computers and supporting advanced software is desired.
- Librarians – The Librarians shall have familiarity with crash test materials including films, videos, electronic media, printed documents, and digital datasets and effective means to catalog such materials as well as search and access them. The Librarian) shall have the capability to operate various types of equipment, such as motion analyzers or film to digital data conversion devices. Experience in managing an electronic library is desired.
- Technical Writer/Editors: The Technical Writer/Editors shall have, as a minimum, a Bachelor's degree plus approximately 2 years experience in writing and editing technical

material, preferably in the highway-engineering field (6 years of writing/editing experience may be substituted for the Bachelor's degree). The Technical Writer/Editors must be skilled in writing and editing documents of various lengths from 1 page to more than 100 pages, ensuring technical accuracy, proper grammar, consistency of style, and proper format.

- Technology Transfer Specialists: The Technology Transfer (T2) Specialists shall have, approximately 5 years of experience in professional information sharing efforts that include coordination of research product development, workshop set-up and management, development of topical publications, website management, multi-media program development and research implementation or knowledge management. The T2 Specialists shall have, as a minimum, two years of experience in working for a public agency, private organization or industry group, through academic affiliations of other professional group. The T2 Specialists may be assigned the webmaster role to use the Internet as a means to share data and findings and shall have experience with video, multimedia, graphic arts, and distance learning.
- Administrative – Administrative personnel will have a range of responsibilities at senior and junior levels including the following: typist; receptionist; financial analyst; meeting planner; personnel manager; etc. Administrative personnel shall possess a college degree and/or four to five years of work experience in word processing, spreadsheet analysis, preparation of presentation materials, making logistical arrangements including travel, recording costs and expenditures, generating basis progress reports, coordinating staff activities, etc. Junior level administrative personnel may have only a subset of these skills.
- Researchers– Researchers shall be capable of undertaking the basic research tasks to assist in the completion of the tasks outlined in the Statement of Work under Section C above. Researchers shall be capable of literature reviews, model building, data analysis, conducting lab tests, and drafting reports and other documentation.
- Faculty – Faculty shall contribute specialized knowledge as needed to provide critical, high-level input in formulating plans, devising analyses approaches, interpreting data, and/or formulating guidelines.

ESTIMATED LEVEL OF EFFORT

The Government's maximum level of effort by labor category is shown below. Due to the uncertain nature of Task Orders that may be issued under this contract, offerors are directed to propose the direct productive labor hours listed below. The Government's estimate of hours contained below constitutes the maximum anticipated level of effort for this contract. The actual level of effort will be determined during Contractor performance through the issuance of Task

orders. Direct productive labor hours are defined as actual labor hours exclusive of vacation, holiday, and sick leave.

Disciplines	Base Years		-----Optional Years-----			Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
	Hours	Hours	Hours	Hours	Hours	Hours
Principal Investigator/Director	960	960	960	960	960	4,800
Program Managers	2,880	2,880	2,880	2,880	2,880	14,400
Research Scientists/Technical Experts	8,640	8,640	8,640	8,640	8,640	43,200
Statisticians	3,840	3,840	3,840	3,840	3,840	19,200
Lab Managers	2,160	2,160	2,160	2,160	2,160	10,800
Lab Technicians	7,680	7,680	7,680	7,680	7,680	38,400
Software/Computer Engineers	3,600	3,600	3,600	3,600	3,600	18,000
Librarians	3,360	3,360	3,360	3,360	3,360	16,800
Technical Writers/Editors	3,120	3,120	3,120	3,120	3,120	15,600
Technology Transfer Specialists	2,640	2,640	2,640	2,640	2,640	13,200
Administrative	4,800	4,800	4,800	4,800	4,800	24,000
Researchers	12,000	12,000	12,000	12,000	12,000	60,000
Faculty	360	360	360	360	360	1,800
TOTAL	56,040	56,040	56,040	56,040	56,040	280,200

NOTE: Of the 280,200 hours estimated for the performance of this contract, it is estimated that 31,200 hours will be off-site (at the FHWA Turner Fairbank Highway research Center). It is estimated that the remaining 249,000 hours will be performed at the Contractor site.

Key Personnel

Each offeror shall designate its proposed Key Personnel on a Task-by-Task basis, except for the Program Manager. An offeror's Program Manager will be assigned to each and every Task Area found in Section C. For each Task Area, the offeror shall designate at least one person as Key Personnel, *in addition to* the Program Manager. Each offeror shall base its Key Personnel and its non-key personnel tasking designations on the Task areas set forth in the RFP's Statement of Work, and on the staffing descriptions described above. *If* an offeror finds a need to propose any individual possessing expertise *other than* the expertise identified below in the staffing requirements, then the offeror shall *identify* such additional need and shall explain *why* that expertise and that individual are *required* in relation to the specific lettered Task(s) to which such individual is assigned.

PART III - PAST PERFORMANCE

In the original proposal, include a minimum of three completed Past Performance Questionnaires by the Offerors customers (See Section J, Attachment 4).

1. The completed questionnaires must be submitted by current (within the last three years) customers (both commercial and Government) involving similar or related services.
2. The completed questionnaires shall be from independent sources.
3. Offerors must submit each completed customer questionnaire in a separate envelope that has been sealed by the customer for confidentiality.
4. The Government may contact the customer point of contact (POC) for verification. POC telephone and facsimile numbers must be accurate and current.
5. Failure to provide complete information regarding previous similar and/or related contracts may result in eventual disqualification. The CO will consider such performance information along with other factors in determining whether the Offeror is to be considered responsible, as defined in FAR 9.101. The Offeror is responsible for ensuring the questionnaires are completed in a timely manner and are submitted with its proposal.

List any contract that was terminated for convenience of the Government within the past 3 years, and any contract that was terminated for default within the past 5 years. Briefly explain the circumstances in each instance.

PART IV - “SAMPLE TASK ORDER PROPOSALS.” The combined total page count of PART IV shall not exceed 60 pages. Each Sample Task Order Proposal submitted by the offeror shall consist of a total of 15 pages.

Each Sample Task Order Proposal shall include the following:

- Technical approach for coordinating and conducting the tasks identified in the Sample Task Order;
- Description of the offeror’s facilities that would be employed to conduct the Sample Task Order;
- Description of any computer software, equipment, and/or computer hardware that would be used to complete the Sample Task Order; and
- Chart showing the hours and staffing mix proposed to complete the Sample Task Order.

The following are four Sample Task Orders that the offeror shall submit Task Order proposals for within **VOLUME I – “Technical Proposal.”**

- **Sample Task Order 1 - Develop and Validate a Finite Element Model for Current Year Small Car**

Background – The FHWA and NHTSA have partnered over the last 15 years to develop finite element models of various motor vehicles. These have ranged from small cars to tractor-trailer trucks. The models are developed using reverse engineering since manufacturers do not release the FE models that have been created in their design and evaluation processes. The models have been developed to serve a multitude of crash simulation purposes, and for that reason detailed models (having close to one million elements) have been created. The need exists periodically to develop new vehicle models to reflect changes in the types of vehicles on the road as well as the changes in automotive technologies. The need exists to develop a new small car model to replace the Dodge Neon model since that vehicle is no longer in production.

Work Activities – Offeror’s Sample Task Order 1 proposal shall include a description on how the offeror proposes to complete the following items:

- Procure a small car that meets the specifications provided by the COTR.
- Develop a plan for the reverse engineering and validation of the model.
- Systematically undertake the teardown and modeling of the vehicle.
- Build the data file for the elements of the model that provides the necessary element definition, geometry, contacts, and material characterization.

- Mesh all elements applying appropriate documentation and quality control procedures.
- Validate the overall model and subsystems in accordance with the plan using New Car Assessment Program (NCAP) and other data.
- Undertake any refinements to the model that may be necessary to demonstrate that the finite element model is adequately validated.
- Document the model and validation results.

Sample Task Order 1 Notes:

- A detailed FE model is to be created with appropriate representation of suspension & steering subsystems. 600,000 to a million elements excluding interior elements is a target.
 - Identify the data management and quality control processes to be utilized.
 - Provide a step-by-step description of the modeling process through documentation and version management.
 - Describe the validation process and the source(s) of available data.
 - Describe the support tools that will be utilized.
 - Assume the duration of the effort will be one year.
 - Assume that the FHWA will provide a Faro laser scanning device for use in the process.
- **Sample Task Order 2 - Analyze NHTSA Data for Crashes Involving Mid-sized Sedans and Small Cars to Analyze the Relative Severity Levels for Occupants in Oblique Crashes**

Background: Empirical crash data that has been compiled by NHTSA provides many useful insights about highway and vehicle safety. NHTSA has compiled data on fatal crashes (FARS), conducted detailed investigations of some crashes (NASS CDS), and gathered data from controlled crashes under the New Car Assessment Program (NCAP). This data provide basic information about crash characteristics, the injuries sustained by vehicle occupants, and the relative safety of the various types of vehicles. Linking these datasets opens new opportunities to understand crash events and establish guidelines for improved safety decision making. Roadside crashes are typically angle or oblique crashes into barriers or roadside objects. This results in forces on vehicles at angles that are different from the frontal and side impacts that are addressed by Federal Motor Vehicle Safety Standards. While studies of the severity indices have been undertaken for frontal and side impacts, there have not been comparable efforts to develop robust severity indices for angle impacts. Such severity indices are needed for safety analysts to establish priorities for developing or selecting measures to improve safety. Current severities measures, have limited basis in empirical data. A more robust analysis of available data is needed to provide better estimates of severity.

Work Activities: – Offeror’s Sample Task Order 2 proposal shall include a description on how the offeror proposes to complete the following items:

- Develop a data analysis plan that isolates the factors from available data sources for crashes from 2001 to 2006. The plan needs to identify specific data items and define how these data items will be linked.
- Conduct a pilot study to verify the feasibility of the plan using a small subset the data from the available sources.
- Generate an interim report documenting the findings of the pilot analysis.
- Modify the plan and proceed to compile the needed data from the available sources.
- Conduct the appropriate statistical analyses and document the results.
- Systematically present to results of the statistical analyses for review.
- Interpret the results and their implications of safety practices.
- Document the efforts and results.
- Prepare a technical summary of the efforts and resulting crash severity measures.
- Identify the categorization of vehicles to be used.

Sample Task Order 2 Notes:

- Assume the duration of the effort will be one year
- **Sample Task Order 3 - Conduct a Crash Test of a 36’ High Reinforced Concrete Barrier Wall to Meet the Department of State (DOS) K-12 Crashworthiness Standard Impact Criteria**

Background: The physical security of buildings and other infrastructure has become a major concern for the United States. Under previous FHWA awards, various analyses and tests of anti-ram barriers have been conducted in the interest of national security. A test of a 36’ high reinforced concrete wall has been determined necessary to ascertain its capability to restrain a single unit truck in a 90 degree impact to meet the DOS K-12 crashworthiness standard impact criteria. This task order requires planning the test, procuring and preparing the test vehicle, installing the barrier, conducting the test according the established protocols, analyzing the data, and documenting the results.

Work Activities: – Offeror’s Sample Task Order 3 proposal shall include a description on how the offeror proposes to complete the following items:

- Procure a single unit truck car that meets the specifications provided by the COTR.
- Develop a plan for the test that includes scheduling of the facility and identifying the data and video views of the test that will be required.
- Review the plan with the COTR to secure approval to proceed.

- Build the concrete barrier according to specification and provide inspection as well as photographic information about its installation.
- Install all data acquisition equipment for the tests and verify their functionality as well as that of all communication links.
- Execute the test following normal protocols prior to and after the test.
- Conduct the appropriate statistical analyses and generate data plots.
- Document the test efforts and results.
- Generate data and video dumps for the client within one week of the test.
- Dispose of test debris.

Sample Task Order 3 Notes:

- The duration of the effort will be one year.
 - Identify the data management and quality control processes to be utilized.
 - The Federal Outdoor Impact Laboratory (FOIL) located at the FHWA Turner Fairbank Highway Research Center will be available to conduct of this test. The facility includes all of the equipment needed and has conducted other tests of this type.
 - The offeror should describe any alternative test facility other than the FOIL that would be used to conduct the test.
- **Sample Task Order 4 - Analyze the Effects of Driven Versus Socketed Posts for a Low-Tension Cable Median Barrier System as the Basis for Developing Guidelines**

Background: There has been a significant amount of interest in the use of cable median barrier systems as a means of mitigating the potential for crossover crashes on divided highways. A variety of generic and proprietary systems are available. These systems vary relative to post design and spacing, anchorages, number of cables, means to connect the cables to the posts, and so on. There is little information available on the influence of the method used to put the posts into the ground. Driven posts are pushed into the soil the required depth by specially designed hydraulic devices. “Socketed” posts are placed in a tube or “socket” that is embedded in a concrete footing. Socketed posts are more expensive, but it is argued that they greatly reduce the time and equipment needed to repair a cable barrier after a crash. In many cases, a given system offers the option of driven or socketed posts. There is no engineering data available to ascertain whether there are differences in the way a cable barrier system performs with these different types of post embedment. This task order aims to undertake analyses using one or more methods that will provide insights on this matter.

Sample Task Order 4 Notes: – Offeror’s Sample Task Order 4 proposal shall include a description on how the offeror proposes to complete the following items:

- Develop an analysis and testing plan to determine the differences in performance. The plan needs to identify the specific measures that will be considered and the influencing factors that will be considered for a specific range of median and impact conditions. The plan should reflect any relevant previous analysis on the subject and describe the specific method(s) that will be used.
- Submit the plan for review and approval to the COTR.
- Undertake an analysis, using any combination of appropriate methods, to gather data for the performance measures selected. Document the input data, variations of the method, and the associated assumptions.
- Conduct ancillary tests that may be needed to develop data needed for the model (e.g., pendulum tests to measure dynamic response of a component).
- Conduct the appropriate statistical analyses and document the results.
- Interpret the results and their implications of cable barrier design and placement.
- Document the efforts and results.
- Prepare a technical summary of the efforts and resulting crash severity measures.

Assumptions:

- Assume the duration of the effort will be one year.
- Describe any existing models that are used and their sources.
- Identify the data management and quality control processes to be utilized.
- Describe the support tools that will be utilized.

-----**VOLUME II - BUSINESS AND COST/PRICE PROPOSAL**-----

This volume shall include all pricing information and certain general financial/organizational information, as described below:

PART I - COST/PRICE INFORMATION

Your cost or price proposal shall be specific, complete in every detail, and separate from your technical and staffing proposals. Cost figures must not be shown in the forwarding letter or in Volume I – “Technical Proposal”.

This volume shall include all pricing information and certain general financial/organization information, as described below:

OFFER – SF-33: Blocks 12 through 18 of Standard Form 33 (Page 1 of this RFP) must be filled in as appropriate, signed and returned with the offer.

NOTE: Offeror’s DUNS number and TIN number shall be included on page 1 of the RFP.

NOTE: For pricing purposes, offerors shall assume that all task orders under the contract will be issued on a cost-plus fixed fee basis.

Small Business Subcontracting Plan

As prescribed by FAR 52.219-9, since the total contract price is expected to exceed \$550,000, the offeror shall include a statement in its offer relative to subcontracting opportunities under the proposed contract. The offeror shall state that there will be subcontracting, or that the offeror has determined that all work will be done in-house. If there will be subcontracting opportunities, the offeror shall submit with its proposal, a subcontracting plan as prescribed in FAR 52.219-9. If it is determined there will not be subcontracting opportunities, the offeror shall submit with its proposal, a statement of circumstances supporting this determination.

All subcontracting plans and statements supporting the absences of subcontracting opportunities must be acceptable to the Contracting Officer. Failure to submit and negotiate an acceptable subcontracting plan or a statement supporting the absence of subcontracting opportunities shall render the offeror ineligible for award of a contract. The subcontracting plan will become part of the contract.

Standard Form LLL

Disclosure of Lobbying Activities must be completed and submitted as a part of your cost/price proposal. The Form as revised in 1997 is available at:

<http://www.whitehouse.gov/OMB/grants/index.html> under the forms section.

COST OR PRICE PROPOSAL

A. General.

1. The Government anticipates that the Contractor selected for this contract will receive substantial compensating benefits due to the unique nature of the safety research activities and access to library resources under this contract. Therefore, cost sharing is encouraged in proposals and will be considered in the Government's evaluation under the Cost/Price factor.
2. The Offeror shall submit a budget summary by cost category for the entire 60 months contract period of performance and a separate summary for each year of the project. Budget summaries shall clearly identify the following information as applicable:
 - a. Labor Rates - Direct labor, by labor categories, to include hour, rates and escalation. Anticipated promotions for any personnel shall be included with the escalation calculation. The annual direct labor escalation rate and its basis shall be clearly stated

with the proposal. Discuss your proposed rate as compared to historical experience and include when and how escalation will be calculated/implemented. State the number of any additional direct labor (new hires) that will be required during the performance period of this acquisition.

NOTE: Offerors must relate labor categories to the Government labor categories described above.

- b. Productive Hours – Detail how you define “direct productive hours” and how vacation, sick and other types of leave are accrued, accounted for, and charged.
- c. Indirect Rates – Discuss your proposed rates for all years. Identify all the various specific indirect rates including what they are (pool and base), and what they are based on (e.g., labor overhead based on direct labor dollars) and how they are applied/calculated.

Offerors must provide dollar values as well as percentages. What will the impact be to your indirect rates if awarded this contract?

- d. Subcontracting/Consultants: If subcontractors and/or individual consultants will be used in carrying out the requirements of this project, the following information concerning the Subcontractor shall be furnished:
 - (1) Name and address of the subcontractor or consultant.
 - (2) Identify the individual’s name, positions and the portion of work to be conducted by the subcontractor or consultant.
 - (3) Cost/price proposal (with supporting information as necessary).

NOTE: Prime Contractors/Offerors are responsible for performing a cost/price analysis on all their proposed subcontractors/consultants in accordance with FAR 15.404-3. *A cost/price analysis report must accompany each named subcontractor/consultant as defined at FAR 15.404-3.*

- (4) A letter or other statement from each proposed consultant and/or subcontractor indicating that they have been approached on the matter of participation in this project and are willing and able to do so in the terms indicated.
- e. Other Direct Costs: Offerors must provide a breakout of Other Direct Costs by category (travel, equipment, etc.)

** Assume travel costs in the amount of \$60,000 per year, for a maximum potential amount of \$300,000 for the duration of the award.

**Assume Other Direct Costs totaling \$548,000 per year, for a maximum potential amount of \$2,740,000 for the duration of the award. Other Direct Costs include the following: postage and shipping; vehicles, test articles and materials that will be used and discarded during research; student stipends; repairs and specialized services; computer costs; publication expenses; and experts from outside sources.

**The FHWA will cover the cost of moving the library under Task Area 4. Offerors need not include the cost in their budgets.

- f. Cost Share: If cost share is proposed, offerors must provide detail including any labor, indirect costs, other direct costs, etc. that are proposed for cost share. If proposing cost share contributed by a subcontractor, the offeror shall provide a letter from each proposed subcontractor indicating that they have been approached on the matter of participation in this project and are willing and able to do so in the terms indicated.
- g. Other Division: If other divisions, subsidiaries, a parent or affiliated companies, will perform work or furnish materials under this proposed contract, please provide the name and location of such affiliate and your inter company pricing policy.
- h. Right of Examination: By submitting your proposal, you, if selected for negotiation, grant the CO or an authorized representative the right to examine those books, records, documents, and other supporting data that will permit adequate evaluation of the proposed price. This right may be exercised at any time before award. The FHWA may use an independent Contractor for cost and price analyses.

NOTE: A budget summary by cost category shall be submitted for each year of the contract period and for the entire 60 months period in its entirety (see Attachment 2).

PART II - OTHER FINANCIAL/ORGANIZATIONAL INFORMATION

1. General Information. You must attach a supplemental sheet providing the following information:
 - a. Indicate your fiscal year period (provide month to month dates).
 - b. Indicate whether the proposed indirect cost rate(s) have been audited and accepted by any Federal audit agency. Give name, location and telephone number of the agency, and the date of acceptance. If no Federal audit has taken place, data supporting the proposed rates over the past three years must accompany the cost proposal. The data

shall include a breakdown of the items comprising overhead and G&A, and the base upon which the burdens are computed.

- c. Indicate whether your system of control of Government property has been approved by a Government agency. If so, provide the name, location and telephone number of the Government agency, and date of approval.
- d. Indicate whether written purchasing procedures exist, and whether your purchasing system has been approved by a Government agency. If so, provide the name, location and telephone number of the cognizant agency, and date of approval.
- e. Indicate whether your cost estimating system has been approved by any Government agency. If so, provide the name, location and telephone number of the cognizant agency, and date of approval.
- f. Indicate whether your cost accumulation system has been approved by any Government agency. If so, provide the name, location and telephone number of the cognizant agency, and date of approval.
- g. Attach a current financial statement, including a balance sheet and income statement for the last completed fiscal year. Specify resources available to perform the contract without assistance from any other source. If sufficient funds are not available, indicate the amount required and the anticipated source (i.e., bank loans, letter or lines of credit, etc.).

NOTE: The Offerors shall provide the information requested and described above under Volume II -Business and Cost/Price Proposal.

PART III – OFFER

The Offeror must show, in writing, that they agree to all of the terms and conditions of this solicitation, which consists of RFP Sections A through K, including all documents, exhibits, and other attachments that are incorporated therein by reference and made a part thereof or provide an explanation for any exceptions. Part I shall include the following:

1. RFP Section A, Standard Form (SF) 33, “SOLICITATION, OFFER, AND AWARD,” blocks 12 through 18;
2. RFP Section B, “SUPPLIES OR SERVICES AND PRICES/COSTS,” with the Offeror’s insertions of its proposed prices in the appropriate blank spaces for each period in which the Offeror is making a proposal. (Offeror should read solicitation provision FAR 52.215-1 as well as the other terms and conditions of this solicitation for

information about the rules and procedures for offer and acceptance in this procurement);

3. RFP Section G, “KEY PERSONNEL,” with the Offeror’s insertions of its proposed key personnel (be they prime or subcontractor personnel) in the appropriate space;
4. Statement, Briefly (not to exceed 1 page) state your agreement to all the terms and conditions of this solicitation, which consists of RFP Sections A through K, including all documents, exhibits, and other attachments that are incorporated therein by reference and made a part thereof.

Note: Offerors should not reproduce the entire contents of RFP Sections B through K. Only the specific pages necessary to include the items identified above.

The submission of these items in accordance with these instructions will, if the Government accepts the offer, contractually bind the Government and the successful Offeror to the terms and conditions of the solicitation (i.e. RFP sections A through K).

If an Offeror intends to make an alternate proposal of terms and conditions that differ from or supplement those contained in the solicitation, then the Offeror must state those alternate terms and conditions in a letter attached to the offer. The same representative of the Offeror who signed SF 33, block 17, must sign the letter. The Government warns Offerors that it reserves the right to award this contract without discussions in accordance with FAR 52.215-1. By making an alternate proposal, the Offeror may, either intentionally or inadvertently, render its proposal unacceptable, unless the RFP expressly states that the Government will entertain an alternative proposal with regard to a specific term or condition of the request for proposals. In the absence of discussions, the Government will give Offerors no opportunity to modify their proposals to eliminate deficiencies.

52.233-2 SERVICE OF PROTEST (AUG 1996)

- (a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the CO (addressed as follows) by obtaining written and dated acknowledgment of receipt from Mr. Frank Waltos, HAAM-10, Mail Stop E65-101, 1200 New Jersey Ave., SE, Washington, D.C. 20590.
- (b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

I. FEDERAL ACQUISITION REGULATIONS (48 CFR CHAPTER 1) SOLICITATION PROVISIONS**52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)**

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the CO will make their full text available. The Offerors is cautioned that the listed provisions may include blocks that must be completed by the Offerors and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the Offerors may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address: <http://www.arnet.gov/far> or <http://www.dot.gov/ost/m60>.

52.215-1 Instruction to Offerors-Competitive Acquisition (JAN 2004)**52.215-8 Order of Precedence Uniform Contract Format (OCT 1997)****I. DEPARTMENT OF TRANSPORTATION ACQUISITION REGULATION (48 CFR CHAPTER 12) SOLICITATION PROVISIONS****52.252-3 ALTERATIONS IN SOLICITATION (APR 1984)**

Portions of this solicitation are altered as follows: None.

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

- (a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.
- (b) The use in this solicitation of any Department of Transportation Acquisition Regulation (48 CFR Chapter 12) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the regulation.

SECTION M - EVALUATION FACTORS FOR AWARD

The Government's source selection decision will be based on the following three factors listed in order of descending importance: (A) Technical; (B) Cost/Price; and (C) Past Performance. When combined, (A) Technical and (C) Past Performance are significantly more important than (B) Cost/Price. The method of evaluation for each of these factors is described below. The ultimate award decision will be made based on a determination of overall best value, each of the three factors considered.

A. Technical

The technical proposal will be evaluated based on the following criteria listed in order of descending importance.

1. Resources Available To Complete the Statement of Work
Subcriteria are listed in order of descending importance. Subcriteria a. and b. are of equal importance. Subcriteria c. and d. are of equal importance.
 - a. Education, Experience, and Expertise of Key Personnel – Key Personnel include the Principal Investigator (PI)/Director, Program Managers (PM), and other staff members who may lead or play a major role in any Task Area identified under Section C – Statement of Work. The proposal demonstrates that the Key Personnel have education and experience in the following areas: highway and vehicle safety, road design, automotive engineering, security barriers, evaluation techniques, computer analyses, and related fields. The proposal demonstrates that the Key Personnel have specialized expertise in advanced analyses related to: crashes between vehicles and other vehicle or roadside hardware using FE models and simulation software, evaluation of the interactions of vehicle designs and road features, design & design of roadside hardware and barriers, statistical analyses of data, assessment of occupant risks, and other technical topics in the context of accepted scientific principles, standards of engineering practices, and systems analysis.
 - b. Facilities and Capabilities – The proposal demonstrates that the offeror has access to various facilities and has the capabilities to effectively use them to undertake reverse engineering, impact testing, high-level computer analyses, apply LS Dyna and other sophisticated software, manage information resources, and undertake advanced research.
 - c. Availability (based on other commitments) of Key Personnel - The proposal demonstrates that the Key Personnel have sufficient availability to successfully

complete the work outlined in the Statement of Work located under Section C of this document.

- d. Knowledge of Agencies, Organizations, and Firms - The proposal demonstrates that the offeror has knowledge of the agencies, organizations, and firms that are involved in safety and security efforts associated with the missions of the FHWA, NHTSA, and the DOS and the practices and regulations that govern their efforts.

2. Offeror's Technical Responses to the RFP Requirements as Reflected in the Proposal

Subcriteria are listed in order of descending importance with the exception of subcriteria b. and c. below which are of equal importance.

- a. Sample Task Order Proposals – The sample task order proposals provided by the offeror demonstrate a thorough approach, knowledge about the technical processes involved, and the understanding of data, tools, and procedures needed to undertake the sample task orders. The sample task order proposals demonstrate a sufficient staffing mix and level of effort to adequately complete the work outlined in the task order. All innovative approaches proposed in the sample task order are clearly defined. The written technical proposal is thorough and well organized to permit a clear understanding of the technical approach offered.

- b. Understanding of the Project – The proposal demonstrates an understanding and familiarity with the principles and concepts of highway design, operations, research, development, data, deployment, practices, logistics and guidelines relevant to highway safety and FHWA's relevant safety priority areas. Similarly, the proposal demonstrates an understanding and familiarity with automotive engineering, safety testing, occupant safety, new car assessments, Federal Motor Vehicle Safety Standards and other aspects relevant to the NHTSA's mission to improve vehicle and occupant safety. The proposal also demonstrates an understanding and familiarity with issues in physical security, design & deployment of fixed and moveable barrier systems, impact testing, and relevant protection standards related to the missions of the DOS.

- c. Application of Results – The proposal demonstrates that the offeror has the ability, knowledge, and experience in working with and supporting highway community organizations and their programs for the translation of research findings into useable materials. The proposal demonstrates that the offeror has experience in generating technical products including crash test reports, technical analysis reports, documentation of finite element models, technical summaries, presentations

involving videos and animations, technical papers, websites, newsletters, and training materials. The proposal demonstrates that the offeror has experience working with organizations such as Federal, state and local highway authorities, and public and private highway and highway safety organizations such as American Traffic Safety Services Association (ATSSA), the American Association of State Highway and Transportation Officials (AASHTO), the Transportation Research Board (TRB), and the Society of Automotive Engineers (SAE).

3. Program Management & Information sharing

Subcriteria are of equal importance.

- a. Innovation – The proposal demonstrates innovative approaches to accomplish contract objectives.
- b. Program Management Experience – The proposal demonstrates that the offeror has experience in managing a multifaceted research endeavor, monitoring efforts necessary to analyze, model, simulate, develop and evaluate safety and security topics, preparing an array of technical products, and undertaking effective information sharing programs to advance the state-of-the-art and increase the application of improved crash analysis method is critical. In addition, the project team is experienced in task and program management for effective quality control, timely delivery, and coordination in the use of limited resources.
- c. Information Sharing Experience – The proposal demonstrates that the offeror has experience documenting and disseminating research findings to researchers, practitioners, and decision makers, through technical reports, technical summaries, education, presentations and workshops, and other information sharing programs. The proposal demonstrates that the offeror has expertise in disseminating these products through traditional publication channels as well as innovative interactive and on-line media. The proposal demonstrates that the offeror has experience in effectively managing materials, particularly websites and updatable materials.
4. Coordination and Interaction – The proposal demonstrates that the offeror is capable of maintaining a high level of communication and interaction with FHWA and other Federal agencies and organizations throughout the duration of the award. The proposal clearly demonstrates how the tests and analyses can be observed by the FHWA and other Government agencies whether in person or by other means.

B. Cost/Price

In addition to the criteria listed above, relative cost, including any proposed cost share, will be considered in the ultimate award decision. Cost/Price proposals will be analyzed to assess realism and probable cost to the Government. The proposed costs may be adjusted, for the purpose of evaluation, based upon the results of the cost realism assessment.

Note: As indicated in Section L, the Government anticipates that the Contractor selected for this contract will receive substantial compensating benefits due to the unique nature of the safety research activities and access to library resources under this contract. Therefore, cost sharing is encouraged in proposals and will be considered in the Government's evaluation under the Cost/Price factor.

C. Past Performance

The Government will evaluate the relevant merits of each offeror's past performance on the basis of its reputation with its former customers. The Government may review all or some of the following areas regarding past performance. The lack of a performance record may result in an unknown performance risk assessment, which will neither be used to the advantage or disadvantage of the offeror.

- Timeliness;
- Delivery or Performance;
- Problem Responsiveness;
- Quality of Purchased Product or Services;
- Cost Control;
- Technical Support; and
- Delivered Quantities.

In evaluating Past Performance, the Government may consider information provided by offerors in their proposal submissions, as well as any other information available to the Government.

BASIS FOR AWARD - Relative Importance of the Evaluation Factors.

The Government will accept the offer that is considered the best value and most advantageous to the Government. The Government's award decision will be based on evaluation of the following factors listed in descending order of importance:

- (A) Technical
- (B) Cost/Price
- (C) Past Performance

When combined, Technical and Cost/Price are significantly more important than Past Performance.

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate Offerors for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).