## THE NATIONAL ACADEMIES
NATIONAL ACADEMY OF SCIENCES
NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

### SYNTHESIS STUDY

**CONTRACT NO.**

**CONTRACTOR NAME:** Legal name of organization per Representations & Certifications

**PURCHASE ORDER NUMBER:**

**PROJECT/ACTIVITY NOS.**

**ADDRESS:** Mailing address

**PRINCIPAL INVESTIGATOR:** Technical contact for the contractor (xxx) xxx-xxxx

**AUTHORIZED NEGOTIATOR:** Business official for the contractor (xxx) xxx-xxxx

**CONTRACT TYPE:** Fixed-Price

**TOTAL CONTRACT AMOUNT:** $___

**EFFECTIVE DATE:**

**EXPIRATION DATE:**

**NAS PROGRAM OFFICER:** RSO Name (202) 334-xxxx

**NAS CONTRACT ADMINISTRATOR:** Name (202) 334-xxxx

### TITLE OF THE WORK

___ In Italic ___

This contract is entered into by and between the National Academy of Sciences (hereinafter called the "Academy") and _________ (hereinafter called the "Contractor"). This contract is supported by Cooperative Agreement No. DTFH61-08-H-000035, dated October 1, 2008.
TABLE OF CONTENTS

SECTION I: STATEMENT OF WORK AND SCHEDULE OF DELIVERABLES AND PAYMENTS

<table>
<thead>
<tr>
<th>SCHEDULE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article I: Statement of Work</td>
<td>3</td>
</tr>
<tr>
<td>Article II: Period of Performance/ Extensions</td>
<td>3</td>
</tr>
<tr>
<td>Article III: Deliverables and Payments</td>
<td>3</td>
</tr>
<tr>
<td>Article IV: Termination</td>
<td>3-4</td>
</tr>
<tr>
<td>Article V: Technical Direction</td>
<td>4-5</td>
</tr>
<tr>
<td>Article VI: Data Rights and Publication</td>
<td>5</td>
</tr>
<tr>
<td>Article VII: Contractor Liability</td>
<td>5-6</td>
</tr>
<tr>
<td>Article VIII: Insurance</td>
<td>6</td>
</tr>
<tr>
<td>Article IX: Subcontracting and Assignments</td>
<td>6-7</td>
</tr>
<tr>
<td>Article X: Records and Audit Requirements</td>
<td>7</td>
</tr>
<tr>
<td>Article XI: Disputes</td>
<td>7</td>
</tr>
<tr>
<td>Article XII: Jurisdiction</td>
<td>7</td>
</tr>
<tr>
<td>Article XIII: Entire Agreement</td>
<td>7</td>
</tr>
</tbody>
</table>

ATTACHMENT A: STATEMENT OF WORK AND SCHEDULE OF DELIVERABLES AND PAYMENTS
ATTACHMENT B: BILLING INSTRUCTIONS AND SAMPLE INVOICE VOUCHERS
ATTACHMENT C: STATEMENT ON GENERAL AND SEXUAL HARASSMENT
ATTACHMENT D: REQUIREMENTS INCORPORATED BY REFERENCE and APPLICABLE FLOW-DOWN REQUIREMENTS

ORDER OF PRECEDENCE:
The rights and obligations of the parties to this contract shall be subject to and governed by this contract, which consists of a cover page, this page, the Schedule and signature page, and the applicable Contract Clauses. Should there be any inconsistency between the Schedule and the Contract Clauses and any specifications or other provisions which are made part of this contract by reference or otherwise, the Schedule and Contract Clauses shall control. Should there be any inconsistency between the Schedule and the Contract Clauses, the Schedule shall control. All applicable clauses under this award shall be supported by the Contractor's certified Representations and Certifications.
ARTICLE I - STATEMENT OF WORK

The Contractor will furnish all necessary materials, facilities, equipment, qualified personnel, and deliverables to perform the services described in the attached Statement of Work and Schedule of Delivery and Payments (Attachment A). The Contractor may modify the plan and procedures for the purpose of more effective execution of the work hereunder, provided such modified plans and procedures are consistent with the objectives set forth above, and provided such modifications have the advance approval in writing of the NAS Program Officer. The Contractor’s performance is under the technical direction of the individual identified as the NAS Program Officer on the cover page of this contract.

ARTICLE II - PERIOD OF PERFORMANCE/CONTRACT EXTENSIONS

The period of performance for this contract is detailed on the cover page. All requests to extend the period of performance of this contract must be submitted in writing to the NAS Contract Administrator no less than 30 days prior to the expiration date of the contract. Any work performed beyond the expiration date of the contract without authorization from the NAS Office of Contracts and Grants will be at the Contractor's own risk. Extensions to the period of performance will be accomplished by modification to the contract.

ARTICLE III – DELIVERABLES/PAYMENTS

Upon satisfactory performance of the services under this contract, NAS will pay Contractor the firm fixed price detailed on the cover page for completion of all activities described in the Statement of Work and Schedule of Delivery and Payments (Attachment A). Payment will be made within thirty (30) days of receipt and acceptance by NAS of invoice(s) for services rendered. Additional Billing Instructions and a Sample Invoice Voucher are included as Attachment B. The Contractor will be paid in accordance with the Schedule of Delivery and Payments detailed in Attachment A to this contract.

ARTICLE IV – TERMINATION

A. For Cause: This contract may be terminated for cause at any time, in whole or in part, by NAS upon written notice to Contractor whenever it is determined that Contractor has failed to comply with the terms and conditions of the contract.

B. For Convenience: This contract may be terminated for convenience by written notice, in whole or in part, by the NAS, provided the NAS provides thirty (30) days written notice to the other party. If this contract is terminated, the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated, will be provided in the notice.

C. Termination Procedures: Upon receipt of, and in accordance with, a termination notice as specified in either paragraph above, Contractor will take immediate action to stop work and minimize all expenditures and obligations financed by this contract. Contractor will also cancel unliquidated
THE NATIONAL ACADEMIES
NATIONAL ACADEMY OF SCIENCES
NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM
SYNTHESIS STUDY

obligations whenever possible. The NAS agrees to reimburse Contractor for work completed and authorized work in progress on behalf of NAS.

ARTICLE V - TECHNICAL DIRECTION

The Contractor agrees to obtain the written approval of the NAS Program Officer prior to the assignment of the Principal Investigator’s responsibilities to another individual.

A. Performance of the work under this contract is subject to the technical direction of the NAS Program Officer designated to maintain scientific or technical liaison with the Contractor. The term "Technical Direction" includes:

1. Directions to the Contractor which redirect the contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to accomplish the contractual statement of work.

2. Provision of information to the Contractor which assists in the interpretation of specifications or technical portions of the work description.

3. Review and, where required by the contract, approval of technical information to be delivered by the Contractor to NAS under this contract.

B. Technical direction must be within the general scope of work stated in this contract. The NAS Program Officer does not have the authority to and may not issue any technical direction which (1) constitutes an assignment of additional work outside the general scope of this contract; (2) constitutes a change as defined in the clause of the contract Clauses titled “Changes”; (3) in any manner causes an increase or decrease in the total cost of the time required for performance; or (4) changes any of the expressed terms, conditions, or specifications of the contract.

C. All technical directions will be issued in writing by the NAS Program Officer, or shall be confirmed by the NAS Program Officer in writing, as promptly as practicable.

D. The Contractor will proceed promptly with the performance of technical directions duly issued by the NAS Program Officer in the manner prescribed by this Article and within the NAS Program Officer’s authority under the provision of this Article.

E. If, in the opinion of the Contractor, any instruction or direction issued by the NAS Program Officer is within one of the above categories as defined in paragraph B above, the Contractor shall not proceed but shall instead notify the NAS Contract Administrator in writing within five (5) working days after receipt of any such instruction or direction. Upon receiving such notification from the Contractor, and after consultation with the NAS Program Officer, the NAS Contract Administrator shall either issue an appropriate contract modification or advise the Contractor in writing that, in the opinion of the NAS Program Officer, the technical direction is within the scope of this Article and does not constitute a change under the “Changes” clause. The Contractor shall thereupon
proceed immediately with the direction given. A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect thereto shall be subject to the “Disputes” article of this contract.

ARTICLE VI - DATA RIGHTS AND PUBLICATION

A. Definition
The term "Subject Data" as used herein includes all data, written materials, photographs, drawings, computer software, data bases and other information created or generated under this contract regardless of the media on which said data or information may be recorded, and whether delivered under this contract or not. The term does not include financial records, accounting records, and other information incidental to contract administration.

B. Data and Copyright Ownership
All Subject Data and the copyrights therein, shall be owned by the Academy.

C. Publication of Results by the Academy
The Academy may publish Subject Data delivered to the Academy or may authorize others to do so, and may assign or license the copyright in such Subject Data to Contractor or others, including the right to develop and publish derivative works.

D. Publication by Contractor
The Academy encourages publication, dissemination, and other use of Subject Data by Contractors. Subject Data may be published, disseminated or otherwise utilized by Contractor under a nonexclusive, irrevocable, royalty-free license, in accordance with the following conditions:

1. No Notification or Authorization Required. The Contractor is not required to notify or obtain authorization from the Academy when the Contractor uses Subject Data solely for the internal purposes of Contractor, including the furtherance of academic research or studies, provided such Subject Data is not marketed or sold by Contractor or any officer, employee, or agent of Contractor.

2. Written Notification. Except as provided in paragraph D.1 above, the Contractor is required to provide written notification to the Academy of any intended publication, use, or dissemination of Subject Data for non-commercial purposes.

3. Written Authorization. Except as provided in paragraph D.1 and in addition to the notification requirements of D.2, the Contractor is required to obtain the prior written authorization of the Academy when the Subject Data is intended to be published, disseminated, or otherwise used by the Contractor under any of the following circumstances:

   (a) The Subject Data is to be published or disseminated prior to the publication of the Subject Data by the Academy;
THE NATIONAL ACADEMIES
NATIONAL ACADEMY OF SCIENCES
NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM
SYNTHESIS STUDY

(b) The Subject Data is to be published, disseminated, or otherwise used for commercial purposes; or

(c) The Subject Data to be published or disseminated includes substantial excerpts from material that is intended for adoption or publication by the American Association for State Highway and Transportation Officials (AASHTO).

E. **Government License**
   With respect to all Subject Data, the United States Government reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use such Subject Data for Government purposes.

F. **Disclaimer**
   Articles or works reporting on the Subject Data hereunder or on portions which are published or are caused to be published by Contractor in accordance with Paragraph (D) shall contain in the forward, preface, or footnote a statement to the effect that publication of the article or work does not necessarily indicate acceptance by the Academy, the Federal Highway Administration, or by AASHTO of the findings, conclusions or recommendations either inferred or specifically expressed therein.

G. **Retention of Data**
   All Subject Data and other information or data collected or used by Contractor during contract performance shall be retained by Contractor during the term of this contract and for two years thereafter. The Contractor shall deliver such Subject Data or other information to the Academy upon written request, and the Academy may, to the extent permitted by law, duplicate, use and disclose such Subject Data or other information in any manner and for any purpose whatsoever, or may authorize others to do so.

**ARTICLE VII – CONTRACTOR LIABILITY**

To the fullest extent permitted by law, Contractor will indemnify and hold harmless the NAS from any and all claims, damages, lawsuits, attorney’s fees, court costs, defense costs or any other costs arising out of the negligence, breach of this contract, or wrongful acts on the part of Contractor.

The term “wrongful act” as used herein includes any tortious act or omission, willful misconduct, failure to comply with Federal or state governmental requirements, copyright or patent infringement, libel, slander, or other defamatory or disparaging statement in any written deliverable required under this contract, or any false or negligent or wrongful acts or omission made by the Contractor in its proposal to NAS.

Both parties agree to give prompt notice to each other upon learning of the assertion of any claim, or the commencement of any action or legal proceeding, in respect of which a claim may be sought. Both parties further agree to cooperate in the defense of any claim, action, or legal proceeding arising out of or
resulting from Contractor’s performance of the work required under this contract, but each party will control its own defense.

The obligations of this clause to indemnify and hold harmless NAS shall not extend to claims, damages, losses, liabilities, costs, and expenses to the extent they arise out of the negligent or wrongful acts or omissions of NAS.

The obligations under this clause survive the termination, expiration, or completion of performance under this contract.

ARTICLE VIII – INSURANCE (Revised June 2011)

A. **Insurance:** The Contractor will maintain insurance during the performance of this contract at its own expense with coverage and limits not less than specified below, or required by law, whichever is greater:

1. Commercial general liability insurance, or its equivalent, for bodily injury (including death), personal and advertising injury, and property damage (including loss of use) with limits of not less than $1,000,000 per occurrence or claim, $2,000,000 general aggregate, $2,000,000 products and completed operations aggregate;

2. Workers compensation insurance, or its equivalent, with statutory benefits as required by law, including standard “other states” coverage; employers’ liability insurance, or its equivalent;

3. Business automobile liability insurance, or its equivalent, with limits of not less than $1,000,000 per occurrence for each accident, if vehicles will be used in the performance of the contract.

Contractor will furnish evidence of insurance to the NAS by transmitting original certificates of insurance signed by authorized representatives of the insurers.

B. **Limits of Liability:** It is expressly understood that insurance protection required by this clause in no way limits the Contractor’s obligations under the clause, “Contractor Liability,” nor will it be construed to relieve Contractor of liability in excess of insurance policy coverage.

D. **Waiver:** Contractor waives all rights of recovery against the NAS for any claims, damages, costs or expenses covered by any required insurance policies carried by the Contractor and for any damage or loss of use of personal property owned or leased by the Contractor. The required insurance shall include a waiver of subrogation in favor of the NAS.

Contractor will furnish evidence of insurance to the NAS, if requested, by transmitting original certificates of insurance signed by authorized representatives of the insurers.

E. In lieu of insurance coverage provided for in this clause, Contractor may, with the prior written approval of the Academy, satisfy the requirements of this clause by submitting proof that Contractor
is a self-insurer under the applicable self-insurance laws of its State. Alternatively, if Contractor is a State Entity, it may, with the prior approval of the Academy, satisfy the requirements of this clause by submitting proof that Contractor is a self-insurer under the self-insurance statutes or regulations governing such entities in that State, or if self-insurance is not provided for under State law, such Contractor may submit a statement that such insurance is not available and a certified copy of an audited financial statement showing net total assets of at least fifty million dollars, and cash, cash equivalents, and liquid investments totaling at least 25 million dollars. Such proof must be submitted to the Academy for review in sufficient time to permit completion of the review prior to the commencement of performance of work under the contract.

ARTICLE IX- SUBCONTRACTING AND ASSIGNMENTS

No portion of this contract will be subcontracted, assigned, or otherwise disposed of except with the written consent of the NAS Contract Administrator. The Contractor will forward for prior approval the proposed subcontract, which will include the terms and conditions, scope of work, and budget with supporting documentation.

In the event the Contractor subcontracts or assigns any or all of the performance of this contract, the Contractor remains contractually responsible for the complete and full performance of all the work, duties, covenants, and obligations of the Contractor under this contract. The Contractor will enter into no subcontract or assignment which is inconsistent with its obligations under this contract. NAS’s consent to any subcontract or assignment will not be deemed a waiver of its rights under this contract, nor shall it create any privity of contract between NAS and any lower-tier subcontractor or assignee.

ARTICLE X- RECORDS AND AUDIT REQUIREMENTS

The Contractor will retain all financial records and other pertinent evidence pertaining to costs incurred and reimbursed hereunder for a period of three years after final payment under this award. The Contractor agrees to give NAS, the Comptroller General of the United States, or any of their authorized representatives, access to these records and any other pertinent books, documents, papers or other records, in order to conduct audits, examinations or produce excerpts and transcripts. Contract closeout does not alter these requirements.

Institutions of higher education and other non-profit recipients and subrecipients are required to meet the audit requirements of OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations.” Contractor will provide NAS with copies of any independent auditor report within thirty (30) days of receipt by Contractor. Should the audit report document findings of non-compliance with federal laws and regulations, Contractor will provide NAS with copies of management’s responses to the findings, as well as details on corrective action taken.

ARTICLE XI - DISPUTES

Both parties agree to enter into negotiation to resolve any dispute. Both parties agree to negotiate in good faith to reach a mutually agreeable settlement within a reasonable amount of time. If negotiations are not
successful, NAS and the Contractor agree to enter into binding arbitration. The American Arbitration Association (AAA) Commercial Arbitration Rules (most recent edition) would govern this Arbitration, which will take place in the District of Columbia. The Arbitrator will follow the applicable contract provisions and the District of Columbia law in adjudicating the dispute. It is agreed by both parties that the Arbitrator’s decision is final, and that neither party may take any action, judicial or administrative, to overturn this decision. The judgment rendered by the Arbitrator may be entered in any court having jurisdiction thereof.

ARTICLE XII – JURISDICTION

This contract is to be construed, interpreted and enforced in accordance with the laws of the District of Columbia.

ARTICLE XIII – ENTIRE AGREEMENT

This document, including the listed Attachments and the Contractor’s Representations and Certifications, constitutes the entire contract between the parties and no representation or promise not specifically set forth herein will be binding on the parties prior to its effective date. No modification or change to this contract will be effective unless set forth in writing and executed by both parties.

ACCEPTED FOR:

CONTRACTOR

THE NATIONAL ACADEMIES
NATIONAL ACADEMY OF SCIENCES

Signature ____________________________  Signature ____________________________
Name ________________________________  Name ________________________________
Title _________________________________  Title _________________________________
Date _________________________________  Date _________________________________
THE NATIONAL ACADEMIES  
NATIONAL ACADEMY OF SCIENCES  
Contractor Billing Instructions  
For  
Synthesis Contracts

1. The Contractor may bill using their firm’s invoice or letterhead as long as it contains the following information:
   a. Contract Number  
   b. Contractor Name and Address  
   c. Title of the Report  
   d. Identify the amount of the payment and the corresponding delivery item as specified in the Scope of Work and Schedule in the contract.

2. An authorized representative of your organization must sign, date and submit the voucher and any supporting information to the appropriate NAS Senior Program Officer, addressed as follows:

   The National Academies  
   National Academy of Sciences  
   500 Fifth Street, NW  
   Room  
   Washington, DC 20001  

   Attention:

   All invoices are payable within thirty (30) days of acceptance and written approval by the NAS Program Officer. Invoices that exceed either the period of performance or obligated amount of this contract may be considered improper and may be returned unpaid. Acceptance and payment by NAS of any improper invoices shall not be construed as a waiver of the NAS’ right to return future improper invoices. All communication with NAS regarding payment should be directed to the Senior Program Officer identified on the cover sheet of the contract and in these instructions.
THE NATIONAL ACADEMIES  
Statement on General Harassment and Sexual Harassment

PURPOSE:  
The intent of this statement is to inform all employees of the National Academies, all volunteers and others engaged in the work of the Academies, including, but not limited to, employees or representatives of vendors and sponsors that the National Academies will not condone or tolerate harassment in general nor sexual harassment in particular.

SCOPE:  
This policy applies in all settings and locations at which Academy work is performed, including committee meetings involving employees and other representatives of the institution and other work-related meetings, conferences, and any Academy activities involving volunteers and others engaged in the work of the Academies, including, but not limited to, employees or representatives of vendors and sponsors.

DEFINITIONS:  
General Harassment  
General harassment is verbal or physical conduct directed at an individual because of the individual’s race, color, sex, national origin, religion, age, disability, citizenship, physical or mental disability, creed, veteran status, marital status, political opinion or affiliation, sexual orientation, personal appearance, or any other characteristic protected by applicable law, where such conduct has the effect of creating a hostile working environment.

Sexual Harassment  
Sexual harassment is one form of harassment based on gender. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, and any verbal or physical conduct of a sexual nature that has the purpose or effect of interfering with an individual’s work performance or of creating an intimidating, hostile, or offensive working environment. Sexual harassment is prohibited by law and regulation.

POLICY:  
The National Academies are committed to maintaining a workplace free of discrimination and will not tolerate instances of harassment in any form. We expect our managers, supervisors, employees, and volunteers and others engaged in the work of the Academies, including, but not limited to, employees or representatives of vendors and sponsors to understand the responsibility that we have, as an employer, to all employees to maintain a work environment free of harassment and intimidation. As representatives of the institution, all supervisors and managers share the institutional responsibility not to commit harassing acts, not to tolerate or ignore those of others, and to avoid knowingly placing employees in situations in which they may be harassed. The Academies will not condone or tolerate such harassment of our employees by fellow employees, volunteers or others engaged in the work of the Academies, including, but not limited to, employees or representatives of vendors and sponsors, or persons over whom we have control on our premises or any work site.

If any Academy employee becomes subject to or aware of conduct that involves behavior prohibited under the policy, he or she should inform the EEO Advisor or the Manager of Employee Relations in the Office of Human Resources to express a complaint immediately. Retaliation against any individual who has made a complaint of discrimination or against an individual who participates or assists in an investigation is a violation of the law and this institution’s policy regarding nondiscrimination. Any such complaints or problems will be investigated immediately, and corrective action will be taken if deemed appropriate in the judgment of management and Human Resources.

This statement uses the name “The National Academies” to refer to the National Academy of Sciences, National Academy of Engineering, Institute of Medicine and the National Research Council.
Requirements Incorporated By Reference and Applicable Flow-Down Requirements

A. In the performance of this contract, Contractor acknowledges and agrees that its performance is subject to the following requirements:

1. OMB Circular A-110 Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations, as implemented and codified by the U.S. Department of Transportation (US DOT) at 49 CFR Part 19.

2. The allowability of costs incurred under the contract shall be in accordance with OMB Circular A-110 Paragraph .27 and the applicable Federal principles for determining allowable costs referenced therein. Without limitation of the foregoing, all travel costs must be reasonable and comply with policies established by Contractor, which shall be made available to the Academy upon request.

3. OMB Circular A-133 Audits of States, Local Governments, and Non-Profit Organizations

B. In the event of a conflict between any provision of the foregoing requirements, and the terms of the contract, the terms of the contract (Section I, Schedule) shall be controlling and take precedence with respect to any conflicting term or condition in the above requirements.

C. Contractor agrees to flow-down the foregoing requirements to all lower-tier contractors, grantees, and agents of Contractor subject to the terms and conditions of the contract. In addition to, and without limitation of the foregoing, the Contractor agrees to flow-down the following provisions:


2. Contract Work Hours and Safety Standards Act - Where applicable, contracts awarded by recipients in excess of $2,000 for construction contracts and in excess of $2500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR part 5).

3. Clean Air Act and the Federal Water Pollution Control Act, as amended. Contracts and subgrants in excess of $100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Clean Water Act as amended (33 U.S.C. 1251 et seq.).

4. Lobbying Restrictions (31 U.S.C. 1352/49 CFR Part 20). Contractor and each of its subcontractors or grantees at any tier shall certify that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award. Such disclosures shall be forwarded from tier to tier to the Academy.

5. Debarment and Suspension. The Contractor shall comply with Subpart C of 49 CFR Part 29, Government Debarment and Suspension (Nonprocurement).