THE TEXAS A&M UNIVERSITY SYSTEM
INTRASYSTEM COOPERATION CONTRACT

THIS CONTRACT AND AGREEMENT is entered into by and between the members of The Texas A&M University System shown below as Contracting Parties.

I. CONTRACTING PARTIES:

Receiving Party: Texas Division of Emergency Management
                (party paying funds/receiving services)

Performing Party: Texas A&M Transportation Institute
                  (party receiving funds/performing services)

II. STATEMENT OF SERVICES TO BE PERFORMED:

The Performing Agency will provide personnel, equipment, and supplies to conduct the responsibilities, projects, and associated tasks for a program of hazardous materials (hazmat) transport emergency planning projects and activities. This Agreement will cover work to be performed during Fiscal Year 2020 in relation to two hazmat transport emergency planning projects to be conducted over multiple years (Multi-Year Projects 1 and 2). The responsibilities of both Parties are detailed in the Scopes of Work in Attachments A and B, which are hereby incorporated into this Contract. Each Scope of Work includes an overview of the associated multi-year project, as well as specific details of the portion of the work to be performed for that project in the current fiscal year.

III. REPORTS AND DELIVERABLES

The Performing Agency must submit the following reports to Receiving Agency by email to the TDEM Technological Hazards Unit at TechHaz@tdem.texas.gov.

A. Quarterly Progress Reports. No later than 30 days after the end of each fiscal year quarter, the Performing Agency must submit a progress report. The report must include what progress has been made on the project during the quarter, what problems were encountered, what actions were taken to solve these problems, what are the impending problems of this project, and what actions are being taken to resolve these problems, what actions are planned for the next quarter, and what percentage of the project has been accomplished.

B. End of Contract Report. No later than 30 days after the end of this Contract, the Performing Agency must submit a final progress report, comparing actual work performed with the projected accomplishments and milestones described in the Statement of Work for Projects 1 and 2. In addition, the Performing Agency must provide the Receiving Agency a copy of the final report for each Project under this Contract.

IV. BASIS FOR CALCULATING REIMBURSABLE COSTS:

The basis for calculating reimbursable costs is a negotiated fee based on cost estimates for individual Projects that the Performing Agency will provide to the Receiving Agency. The cost estimates include all materials, services, indirect costs and travel expenses of the performing agency for this Contract.

V. CONTRACT AMOUNT:

The total amount of this Contract shall not exceed One Hundred Seventy-Six Thousand Dollars ($176,000.00), exclusive of matching funds described in Section VII.
VI. PAYMENT FOR SERVICES:

Receiving Party shall pay for services received from appropriation items or accounts of Receiving Party from which like expenditures would normally be paid, based upon special vouchers drawn by Receiving Party, or through electronic transactions, payable to Performing Party.

Payments for service performed shall be billed monthly.

Payments received by Performing Party shall be credited to its current appropriation items(s) or account(s) from which the expenditures of that character were originally made.

VII. MATCHING FUNDS:

Performing Party shall provide $22,000.00 Matching Funds for Projects 1 and 2, in accordance with the budget in Attachment C. Matching Funds must be: (i) verifiable from institutional records; (ii) necessary and reasonable for proper and efficient accomplishment of project or program objectives; (iii) allowable under Uniform Guidelines; and must not be: (i) paid by the Federal Government under another award, except where authorized by Federal statute to be used for cost-sharing or matching; or, (ii) included as contributions for any other Federally-assisted project or program.

VIII. TERM OF CONTRACT:

This Contract is to begin October 1, 2019 and shall terminate September 30, 2020, unless extended, renewed or terminated by mutual written agreement. If Department of Transportation grant funds are withdrawn, or not received, this Contract may be terminated with written notice to the Performing Party. Either Party may terminate this agreement for convenience with a thirty (30) day written notice to the other Party. Upon termination, Receiving Party shall be obligated to reimburse Performing Party for all costs and non-cancelable commitments incurred in the performance of the Projects up to the date of termination, such reimbursement not to exceed the total amount specified in V. Contract Amount.

THE UNDERSIGNED CONTRACTING PARTIES do hereby certify that: (1) the services specified above are necessary and authorized for activities that are properly within the statutory functions and programs of the affected members of The Texas A&M University System, and (2) the services, materials, or equipment contracted for are not required by Section 21 of Article XVI of the Constitution of Texas to be supplied under contract given to the lowest responsible bidder.

Each Party further certifies that it has the authority to contract for the above services by authority granted in Texas Education Code, Section 88.

The undersigned parties bind themselves to the faithful performance of this contract.

RECEIVING PARTY:

Nim Kidd
Authorized Signature
Chief
Title
11/21/2019
Date

PERFORMING PARTY:

Julie A. Bishop
Authorized Signature
Associate Executive Director, SRS
Title
11/13/19
Date
MULTI-YEAR PROJECT 1:
Enhancing Emergency Operations Planning in Texas Schools for Hazmat Transport

Scope of Work (Multi-Year Project 1)

Project 1 Overview

Texas schools are collectively responsible for ensuring the safety of the state’s student population while students are in their care. Transport of hazardous materials is one of the more significant threats faced by many communities, and recent Texas legislation requires that schools adopt and implement multi-hazard emergency operations plans that address prevention, mitigation, preparedness, response, and recovery. However, planning for hazardous materials transport emergencies has not always been on the radar of all local school officials, and in many communities they may have gaps in knowing what to plan for and how to plan for it.

From the overall problem statement, “How can local school officials enhance emergency planning for hazardous materials transport incidents?” the following questions are derived:
- What modes are used to transport hazmat in proximity to Texas schools?
- What types and quantities of hazmat are transported and which are priorities for school emergency planning?
- How should local school emergency operations plans address hazmat transport across the planning spectrum?
- What examples and resources can schools use for exercising their plan?
- How can schools engage local responders, elected officials, students, and parents about their hazmat transport emergency plans?

Project 1 Tasks and Activities:

Task 1. Recruit project panel. A panel of 6-8 members to include representatives such as school emergency officials, local responders, transport carriers, elected officials, state agency officials, etc. will be recruited to provide input and feedback on project tasks and outcomes.

Task 2. Identify school district risk profiles. Identify locations of hazmat transport corridors in Texas and corresponding school proximities using Geographic Information Systems. Use existing data to estimate hazmat transport profiles by material class along those corridors. A subset of schools will be initially selected by type and/or region of the state.
Task 3. Collect input from school officials. Hold up to three focus groups with school officials in different regions of the state to discuss emergency planning with particular attention to hazmat transport.

Task 4. Develop emergency planning recommendations. Using input from local officials and state and national planning guidance, and develop a set of recommendations and criteria for school officials to incorporate hazmat transport into their emergency plans.

Task 5. Identify preparedness examples. Document real-world examples about how schools can train and exercise their emergency operations plan with special attention to hazmat transport. A short guide will describe what they can do and how they can do it.

Task 6. Develop engagement action plans. Identify steps that school officials can take to engage responders, other community and state officials, students, and parents about emergency planning including for hazmat transport.

Task 7. Communicate findings. Deliver information to each school district in the project area the information about hazmat transport in proximity to school locations, and recommendations, examples and engagement action plans they can use for incorporating hazmat transport into their multi-hazard emergency operations plans.

Tasks to be completed in Fiscal Year 2020:

The focus for FY 20 is to complete Task 1, Task 3, and Task 4.

Tasks to be initiated in FY 20 include Task 2 (Task 2 depends in part on rail hazmat transport information which will be obtained in CPR 05), Task 5, and Task 6.

Tasks will proceed generally in parallel.

Contract Amount for Tasks Completed in Fiscal Year 2020:

$96,000 will be paid to Performing Party for work performed during Fiscal Year 2020 for Project 1, as further detailed in the Estimated Budget, incorporated herein as Attachment A-1.
## ESTIMATED BUDGET FOR THE TEXAS A&M TRANSPORTATION INSTITUTE

Estimated Budget through 9/30/2020

Enhancing Emergency Operations Planning in Texas Schools for Hazmat Transport

Principal Investigator: David Biering

<table>
<thead>
<tr>
<th>A. Direct Costs</th>
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<tbody>
<tr>
<td><strong>1. Salaries and Wages</strong>&lt;sup&gt;(1)&lt;/sup&gt;</td>
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<tr>
<td>Professional Services</td>
<td>3.10 staff-mo</td>
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<tr>
<td>Professional Services (wages)</td>
<td>3.68 staff-mo</td>
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<tr>
<td>Students (Undergraduate)</td>
<td>3.68 staff-mo</td>
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<tr>
<td><strong>TOTAL SALARIES AND WAGES</strong></td>
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<tr>
<th>2. Fringe Benefits&lt;sup&gt;(2)&lt;/sup&gt;</th>
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<tr>
<td>18.2% of Salaries and Wages (Staff)</td>
<td>$4,981</td>
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<tr>
<td>10.7% of Salaries and Wages (Staff)</td>
<td>$1,900</td>
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<tr>
<td>3.0% of Salaries and Wages (Students)</td>
<td>$120</td>
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<td>$746 Health Insurance (Staff person/month)</td>
<td>$2,313</td>
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<td><strong>TOTAL FRINGE BENEFITS</strong></td>
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<th>3. Expendable Goods/Supplies</th>
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<td><strong>TOTAL SUPPLIES</strong></td>
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<th>4. Travel&lt;sup&gt;(3)&lt;/sup&gt; (Out of State or Country travel may require special approval.)</th>
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<tr>
<td><strong>TOTAL TRAVEL</strong></td>
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<tr>
<th>5a. Other Operating Expenses</th>
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<tr>
<td><strong>SUB-TOTAL OTHER OPERATING EXPENSES</strong></td>
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<tr>
<th>5b. Other Operating Costs (NO INDIRECT)</th>
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<tr>
<td>Computer Operations&lt;sup&gt;(4)&lt;/sup&gt;</td>
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<tr>
<td><strong>SUB-TOTAL OTHER OPERATING EXPENSES (No Indirect)</strong></td>
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<tr>
<td><strong>TOTAL OTHER OPERATING EXPENSES</strong></td>
<td></td>
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<tr>
<td><strong>TOTAL DIRECT COSTS</strong></td>
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<th>B. Administrative Costs</th>
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<tr>
<td>50.0% MODIFIED TOTAL DIRECT COST&lt;sup&gt;(5)&lt;/sup&gt;</td>
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<tr>
<td><strong>TOTAL ADMINISTRATIVE COSTS</strong></td>
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<tr>
<td><strong>NET COST TO SPONSOR</strong></td>
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All facilities and equipment necessary to accomplish the required work are available.

The Texas A&M University System serves people of all ages, regardless of socioeconomic level, race, color, sex, religion, disability or national origin.

1. Salaries are estimated to include any expected pay increases during the contract period. Except for the Program Manager and Other Experts, salary rates are estimated based on a pool of available personnel. Reimbursement will be based on actual costs per employee in accordance with the Performing Agency’s payroll policy and salary rate.

2. Clerical Staff are directly charged as the support required is significantly greater than the routine level of services provided by academic departments.

3. Fringe benefits rates are estimates only. Reimbursement will be based on actual cost per employee.

4. The Performing Agency shall bill the Receiving Agency for travel expenses not to exceed the limits reimbursable under state law. Travel M&E is calculated at 75% on the first and last days of travel. Trips shown are estimates only.

5. Includes computer equipment usage fee and network support services.
MULTI-YEAR PROJECT 2:
Railroad Transportation of Hazardous Materials in the State of Texas

Scope of Work (Multi-Year Project 2)

Project 2 Overview

The transport of hazardous materials is important for the economies of the State of Texas and the nation. It also results in risks to populations located along transport corridors and the environment through exposure to hazardous materials due to incidents or other releases. Local and state officials should account for these risks in developing emergency and disaster plans and enhancing preparedness. The State of Texas seeks to evaluate the risks, vulnerabilities, and associated needs for local and state preparedness associated with rail hazmat transport. A full project on this topic will integrate existing and new data on rail hazmat transport, identify local response capabilities, assess risks and vulnerabilities along rail hazmat corridors, and identify priorities (e.g., locations, activities) for enhancing planning and preparedness. It will also include an assessment of anticipated near-term developments that may affect rail transport of hazardous materials in Texas. A project panel to include representatives of public and private stakeholders will be recruited to provide input and feedback on project activities and findings.

From the overall problem statement, “What are the rail hazmat transport risks, vulnerabilities, and preparedness needs in Texas?” the following questions are derived:

- What is rail hazmat transport activity by corridor in Texas?
- What locations are most at-risk or vulnerable?
- How are local communities prepared, especially in at-risk locations?
- What locations could most benefit from enhanced planning and preparedness?

Project 2 Overall Tasks and Activities:

Task 1. Recruit project panel. A panel of 4-6 members to include subject matter expert representatives from public and private sectors, for example, entities such as TXDOT, TDEM, or TCEQ, a Class I railroads, local emergency managers, and emergency/disaster planning or response organizations.

Task 2. Compile existing data

Compile existing information on rail hazmat transport from previous commodity flow study projects, rail waybill data samples with the assistance of the Texas Department of Transportation, and other existing sources.
Task 3. Obtain new data. In coordination with the Texas Department of Transportation and Texas Division of Emergency Management, obtain new data on rail transport of hazardous materials from Class I railroads as required under the Texas Transportation Code.

Task 4. Compile existing and new data. Integrate multiple data sources using Geographic Information Systems to develop rail hazmat transport profiles by railway corridors in Texas, including merging of reported traffic levels across multiple railroads over the same lines.

Task 5. Identify community risk. Use information about rail hazmat transport to identify communities with higher risk (by quantities or special response considerations) for hazmat transport.

Task 6. Assess community preparedness. Use the Texas fire department hazmat survey data, and additional data collection for communities not represented by the current survey data, to identify response capability and preparedness (staffing, equipment, mutual aid, etc.) for railway hazmat incidents in at-risk communities.

Task 7. Develop preparedness recommendations. Identify locations for enhanced planning and preparedness initiatives for railway hazmat transport incidents, and associated recommendations for those initiatives with special attention to incident size-up and defensive operations and incident command in conjunction with carrier and contractor responders who will be carrying out offensive operations.

Tasks to be Completed in Fiscal Year 2020:

The focus for FY 20 is to complete Task 1 and Task 2, and initiate Task 3 and Task 6.

Tasks will proceed generally in parallel.

Contract Amount for Tasks Completed in Fiscal Year 2020:

$80,000 will be paid to Performing Party for work performed during Fiscal Year 2020 for Project 2, as further detailed in the Estimated Budget, incorporated herein as Attachment B-1.
## Estimated Budget for the Texas A&M Transportation Institute

Estimated Budget through 9/30/2020  
Railroad Transportation of Hazardous Materials in the State of Texas  
Principal Investigator: David Bierling

### A. Direct Costs

1. **Salaries and Wages**
   - Professional Services  
   - Students (Undergraduate)  

   **TOTAL SALARIES AND WAGES**
   - 4.18 staff-mo  
   - 3.68 staff-mo  
   - $ $35,926  
   - $ $6,000  
   - $ $41,926  

2. **Fringe Benefits**
   - 18.2% of Salaries and Wages (Staff)  
   - 3.0% of Salaries and Wages (Students)  
   - $746 Health Insurance (Staff person/month)  

   **TOTAL FRINGE BENEFITS**
   - $ $6,538  
   - $ $180  
   - $ $3,118  
   - $ $9,836  

3. **Expendable Goods/Supplies**

   **TOTAL SUPPLIES**
   - $ $0  

4. **Travel** *(Out of State or Country travel may require special approval.)*

   **TOTAL TRAVEL**
   - $ $944  

5a. **Other Operating Expenses**

   **SUB-TOTAL OTHER OPERATING EXPENSES**
   - $ $0  

5b. **Other Operating Costs (NO INDIRECT)**

   **SUB-TOTAL OTHER OPERATING EXPENSES (No Indirect)**
   - $ $941  

   **TOTAL OTHER OPERATING EXPENSES**
   - $ $941  

   **TOTAL DIRECT COSTS**
   - $ $53,647  

### B. Administrative Costs

- 50.0% MODIFIED TOTAL DIRECT COSTS

**TOTAL ADMINISTRATIVE COSTS**

**NET COST TO SPONSOR**

All facilities and equipment necessary to accomplish the required work are available.

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1. Salaries are estimated to include any expected pay increases during the contract period. Except for the Program Manager and Other Experts, salary rates are estimated based on a pool of available personnel. Reimbursement will be based on actual costs per employee in accordance with the Performing Agency's payroll policy and salary rate.

2. Clerical staff are directly charged as the support required is significantly greater than the routine level of services provided by academic departments.

3. Fringe benefit rates are estimates only. Reimbursement will be based on actual cost per employee.

4. The Performing Agency shall bill the Receiving Agency for travel expenses not to exceed the limits reimbursable under state law. Travel M&E is calculated at 75% on the first and last days of travel. Tips shown are estimates only.

5. Includes computer equipment usage fee and network support services.
# ESTIMATED MATCH BUDGET FOR THE TEXAS A&M TRANSPORTATION INSTITUTE

**Estimated Budget through 9/30/2020**

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<tr>
<th>Principal Investigator: David Bierling</th>
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**CPR 04 and 05 Match**

| Maestro Proposal No: 2001311 |

**A. Direct Costs**

1. **Salaries and Wages**
   - **Professional Services**
     - 0.84 staff-mo
     - $11,771
     - TOTAL SALARIES AND WAGES: $11,771

2. **Fringe Benefits**
   - 18.2% of Salaries and Wages (Staff)
   - $748 Health Insurance (Staff person/month)
   - $2,142
   - $2,627
   - TOTAL FRINGE BENEFITS: $2,769

3. **Expendable Goods/Supplies**
   - TOTAL SUPPLIES: $0

4. **Travel**
   - (Out of State or Country travel may require special approval.)
   - TOTAL TRAVEL: $0

5a. **Other Operating Expenses**
    - SUB-TOTAL OTHER OPERATING EXPENSES: $0

5b. **Other Operating Costs (NO INDIRECT)**
    - **Computer Operations**
      - $190
      - SUB-TOTAL OTHER OPERATING EXPENSES (No Indirect): $190

**TOTAL OTHER OPERATING EXPENSES**: $190

**TOTAL DIRECT COSTS**: $14,730

**B. Administrative Costs**

- 50.0%
- MODIFIED TOTAL DIRECT COSTS: $14,540
- $7,270

**TOTAL ADMINISTRATIVE COSTS**: $7,270

**NET COST TO TTI**: $22,000

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2. Fringe benefit rates are estimates only. Reimbursement will be based on actual cost per employee.

3. All costs are estimated only. Reimbursement will be based on actual cost per employee.

4. The Performing Agency shall bill the Receiving Agency for travel expenses not to exceed the limits reimbursable under state law. Travel M&E is calculated at 75% on the first and last days of travel. Trips shown are estimates only.

5. Includes computer equipment usage fee and network support services.