

SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION

ITEM 2305-21: Approving the Selection of Michael Baker International as the Consultant for the Regional Vulnerability Framework Study

PROPOSAL

At its May 8, 2023 meeting, the Technical Advisory Committee recommended that the Policy Board approve the selection of Michael Baker International in association with Binera, Inc. (DBE/ESBE) for the Regional Vulnerability Framework technical study.

BACKGROUND

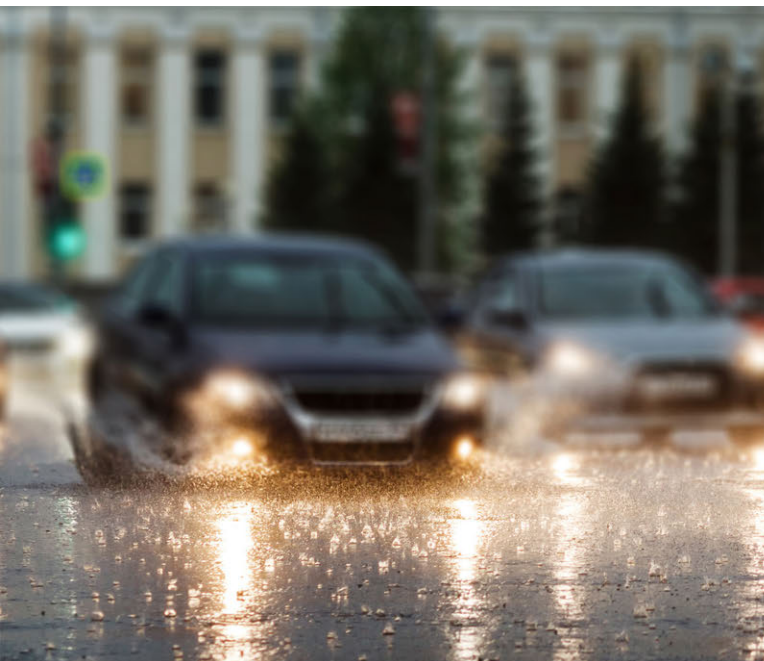
The Regional Vulnerability Framework technical study effort will help define how SJTPO, and its regional partners, will create a more considerable effort to build resiliency through innovative solutions to aid current and future infrastructure planning, development, and design.

An RFP was released on February 1, 2023, with digital proposals due on March 7th. The Notice of Availability of Requests was sent to approximately 280 contacts.

Two (2) proposals were received through the open and competitive process. The TAC-designated Consultant Selection Committee, consisting of SJTPO staff, Atlantic County, Cape May County, the City of Vineland, and the NJ Office of Planning Advocacy, reviewed the proposals and has determined the Michael Baker International team proposal best met the needs of the region to advance the Regional Vulnerability Framework technical study. A revised scope of work was provided by Michael Baker International based on the feedback from the Consultant Selection Committee. An interview was not deemed necessary.

The total proposed cost is \$125,000 with a DBE/ESBE participation of 18.70%, which will exceed the set 13.23% goal. The anticipated project completion date is June 30, 2024.

This project is included in SJTPO's FY 2024 UPWP as Task 24/401 Regional Vulnerability Framework with a budget of \$125,000.



REVISED
PROPOSAL

..... FOR

REGIONAL VULNERABILITY FRAMEWORK

April 21, 2023

PROPOSAL SUBMITTED TO:

South Jersey Transportation
Planning Organization

PROPOSAL SUBMITTED BY:

Michael Baker

I N T E R N A T I O N A L



SCOPE OF WORK NARRATIVE

The Michael Baker International, Inc. (Michael Baker) team is excited by the opportunity to develop a Regional Vulnerability Framework for South Jersey Transportation Planning Organization (SJTPO). This framework will validate the current effectiveness of transportation infrastructure, bring up to date any possible shortcomings, as well as provide a quantifiable value to support changes to best practices in the region. Michael Baker understands transportation infrastructure is vulnerable to the impacts of climate change, including but not limited to, extreme heat, increased precipitation, severe winter weather, sea level rise, and wildfire. Michael Baker will conduct an analysis of existing conditions, disturbance extent, adaptation potential, identification of assets, and impact of change based on current and future conditions in the SJTPO region to identify innovative solutions to aid current and future infrastructure planning, development, and design.

The Regional Vulnerability Framework will complete a systematic review of the region for weaknesses in its transportation infrastructure to provide a comprehensive framework for a future Regional Vulnerability Assessment.

Michael Baker is an industry leader in hazard mitigation and resilience planning within New Jersey and is the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Champion in all of FEMA's regions across the United States. FEMA looks to Michael Baker as a thought leader in providing updates to their national guidance documents on hazard mitigation planning. The State of New Jersey Office of Emergency Management (NJOEM) has also recognized Michael Baker's expertise and selected our team to update both the 2019 and the 2024 New Jersey State Hazard Mitigation Plan (State HMP). Part of the 2024 update to the State HMP includes the inclusion of climate change and equity considerations in the risk assessment.

The experience that Michael Baker brings to this study will enable our staff to hit the ground running and focus the planning effort on the priorities of SJTPO and its stakeholders. Our team has the following essential assets:

Familiar Project Manager: Jessica Jahre, AICP, CFM has over 12 years of experience working throughout New Jersey on vulnerability assessments, resilience planning, and community outreach. She is currently the Project Manager of the 2024 State HMP which includes an innovative state-wide standard risk assessment.

In-Depth Knowledge of New Jersey: Our team knows New Jersey's hazards, risks, threats, and capabilities and is well versed in the many planning objectives being driven by Federal Emergency Management Agency (FEMA), United States Department of Transportation (DOT), and the U.S. Department of Housing and Urban Development (HUD). We will develop a thorough Regional Vulnerability Framework using the best available hazard data in order to create short-term and long-term goals for regional resiliency.

Value-Added Solutions: Michael Baker will bring new analysis and outreach techniques to develop the Regional Vulnerability Framework, including an innovative flooding analysis by state and national experts and outreach tailored to the SJTPO region.

TASK 1. COORDINATION AND ADMINISTRATIVE TASKS

Michael Baker understands the administrative requirements set forth in the Request for Proposal (RFP) and are in general agreement with the General Terms and Conditions within the RFP. Team members are planning professionals that have moral and business integrity and reliability, which will assure good faith performance as required by this project. The Michael Baker team will consistently meet and strive to exceed SJTPO's expectations through strong project management.

TASK 1.A. PROJECT MANAGEMENT

Michael Baker, led by Project Manager Jessica Jahre, AICP, CFM, has considerable experience with developing vulnerability assessment, hazard mitigation plans, and resilience studies. Ms. Jahre is a certified and licensed professional planner with a background in climate resilience and adaptation, flood risk management, and water resources planning. She has a strong background in program and project management, communication, and strategic planning.

Ms. Jahre's experience leading collaborative design projects across the globe helps Michael Baker reinforce how 'We Make a Difference' in providing unmatched planning and design services. Ms. Jahre will be supported by a tier of qualified staff, including our subconsultant, **Binera, Inc. (Binera)**, a DBE firm certified firm. Our team includes experts in environmental, transportation and resilience planning and community and stakeholder engagement. The included organization chart lists key elements of your RFP and a corresponding staff member with experience in this area to deliver a Regional Vulnerability Framework Report and interactive map. These members of the team provide Ms. Jahre the ability and flexibility to oversee multiple simultaneous assignments. Additionally, Ms. Jahre has the capability to enlist the support of over 200 local staff or additional experienced



personnel from Michael Baker offices across the country and assign multiple levels of staff to the project. Michael Baker is an organization designed to provide Mrs. Jahre and her team with a vast amount of resources and staff to satisfy the SJTPO's needs.

TASK 1.B. COMMUNICATION AND MEETING MATERIALS

Michael Baker will be in regular communication with the SJTPO project manager and will document and deliver communications to the SJTPO. Michael Baker recommends setting up a cloud or web-based project management platform, such as Microsoft Teams, to share files efficiently with the SJTPO project manager. Shared files will include detailed meeting summaries and follow-up emails for phone conversations, which will be uploaded/delivered within three (3) business days, as well as any revisions or updates to the schedule.

Meeting summaries will include items discussed, data gathered, and the next steps. Michael Baker will also conduct any necessary follow-up communication with municipal representatives or stakeholders. If this occurs, the SJTPO project manager will be copied on correspondence and emails and provide the SJTPO project manager with a written summary of items discussed and decisions made.

Biweekly status check-ins will occur between Michael Baker and the SJTPO project manager, including status updates and completed tasks within the past two weeks, upcoming tasks for the next four weeks, any delays that affect the schedule of the project, and any assistance that will be needed from SJTPO or other stakeholders in the coming weeks. If an unforeseen delay does occur, Michael Baker will produce and update a detailed project schedule, including the expected meeting dates, task completion dates, and other tasks and milestones to the SJTPO project manager. The biweekly check-in will also include a status update of our subconsultant, as Michael Baker will have weekly internal meetings with the project team. These updates will also include a note on the status of our subconsultant, Binera, in achieving their goals and highlight any concerns about achieving that goal as soon as it becomes apparent.

Michael Baker will support the SJTPO project manager in arranging, scheduling, and attending meetings throughout the project. Michael Baker will prepare meeting notices, agendas, meeting materials, promotional content, background information, electronic slide show presentations, meeting summaries and/or other such items deemed necessary to accomplish the study objectives and provide them to the SJTPO project manager at least one (1) full week in advance of the scheduled meetings.

TASK 1.C. QUALITY MANAGEMENT

Michael Baker is fully committed to Quality Management and has a Quality Assurance (QA)/Quality Control (QC) Policy in place that emphasizes completing projects that meet our clients' scope, schedule, budget, and technical quality requirements. **Rebecca (Becky) Lyne, PWS, CE** serves as the Director of Quality Management for the Michael Baker New Jersey Operations. Becky brings 18 years of experience in environmental planning and documentation, including numerous transportation, resiliency, and environmental restoration projects. As an environmental specialist, Becky has successfully delivered numerous complex projects by applying Michael Baker's company-wide Quality Management System and implementing the NJ Operations' policies developed specifically to address our local clients' needs. Michael Baker has established a standard structured project delivery process for all projects ("The Michael Baker Way"). This process addresses every aspect of the project and is the foundation for delivering a quality product.

TASK 1 DELIVERABLES:

1.a - Bi-weekly Email Updates: Michael Baker will provide an email to SJTPO's project manager on a bi-weekly basis as described above.

1.b - Meeting and Discussion Summaries: Michael Baker will provide minutes of meetings and email summaries of conversations, including a summary of talking points and decisions made, within three (3) business days.

1.c - Project Schedule: Michael Baker will provide a schedule that will include expected meeting dates, task completion dates, and a bi-weekly conference call schedule, to be updated as needed.

TASK 2. STAKEHOLDER INVOLVEMENT

Michael Baker understands that a strong planning process and engagement plan is a key factor for the success of a project. Michael Baker has extensive experience facilitating public outreach efforts and community engagement for the development of a multi-jurisdictional plan. Ms. Jahre is a certified and licensed professional planner with 12 years of planning experience. She has significant experience leading stakeholder and public outreach efforts to inform planning, policy, and design projects. She is also a Hazard Mitigation Planning Manager on the FEMA Community Engagement and Risk Communication (CERC) contract which increases awareness and understanding of flood risks and the value of flood hazard mapping. Ms. Jahre is equipped to meet with the SJTPO stakeholders to fully understand



local issues and areas of concerns in evaluating the trail development and connectivity concepts.



TASK 2.A. ADVISORY COMMITTEE

Michael Baker will work alongside the SJTPO project manager to regularly meet with the Technical Advisory Committee (TAC) in order to inform committee members of the development of the framework and provide an opportunity for their feedback through bimonthly meetings. The Michael Baker team will recommend when the SJTPO project manager should update the TAC as the team hits project milestones. Michael Baker will provide updates in a memo format to the SJTPO project manager prior to sending to the TAC as tasks are completed, as well as respond to any concerns or questions from the TAC in a Q&A Memo. Michael Baker will lead a virtual SJTPO TAC Workshop to share findings and garner consensus with various stakeholders.

TASK 2.B. PUBLIC OUTREACH PLAN

To gather opinions from professionals with relevant subject matter background, the Michael Baker team will create a Public Outreach Plan. The Plan will provide a detailed timeline of outreach needed to engage interagency stakeholders, including leading and scheduling no less than two (2) and no more than five (5) virtual interagency stakeholder meetings. Michael Baker will provide relevant materials, documents, and meeting notes for these meetings. Michael Baker will work with the stakeholder group to build consensus on defining risk or associated criteria.

The interagency group will include, but not be limited to New Jersey Department of Environmental Protection (NJDEP), New Jersey Office of Planning Advocacy, county, and municipal staff, as well as academics or non-profit organizations. A list of potential municipal, county, and regional stakeholders to engage for the Interagency Group is listed below.

Potential Interagency Stakeholders to Engage:

- New Jersey Department of Transportation
- New Jersey Turnpike Authority
- New Jersey Transit

- Delaware Valley Regional Planning Commission (DVRPC)
- Rutgers University
- Stockton University
- New Jersey Audubon
- New Jersey Pinelands Commission
- Office of Planning Advocacy
- Pinelands Preservation Alliance
- South Jersey Transportation Authority
- Sustainable Jersey

In addition to engaging interagency stakeholders, Michael Baker will host two (2) public workshops and develop a public survey. Michael Baker will use the first public meeting to report on the findings on Task 4 – Impact on Change on Environmental Conditions and Task 6 – Identifying Systematic Best Practices and gather public feedback to ensure the framework is comprehensive in reflecting the public's priorities and concern. The second public workshop will include a presentation of the draft framework for review and comment.

The target audience for the survey will be community residents and businesses within the SJTPO region. Public engagement during the framework development will ensure the parameters of the framework reflect the public's priorities and concerns, while building awareness of the issues. Given the timeframe of the project, Michael Baker recommends holding two workshops on in Fall 2023 and in Spring 2024, with a public survey in between.

TASK 2 DELIVERABLES:

2.a - Stakeholder Outreach: Michael Baker will develop and lead a Public Outreach Plan to engage interagency stakeholders and the public. Michael Baker will lead and schedule no less than two (2) and no more than five (5) virtual interagency stakeholder meetings and host two (2) public workshops and develop a public survey.

2.b - SJTPO TAC Workshop: The consultant will lead one (1) virtual Workshop with the TAC to share findings and garner consensus with various stakeholders.

2.c - TAC Meeting Updates: The consultant will provide updates in a memo format to be provided to the SJTPO TAC as tasks are completed, as well as respond to any concerns or questions presented in a Q&A Memo.

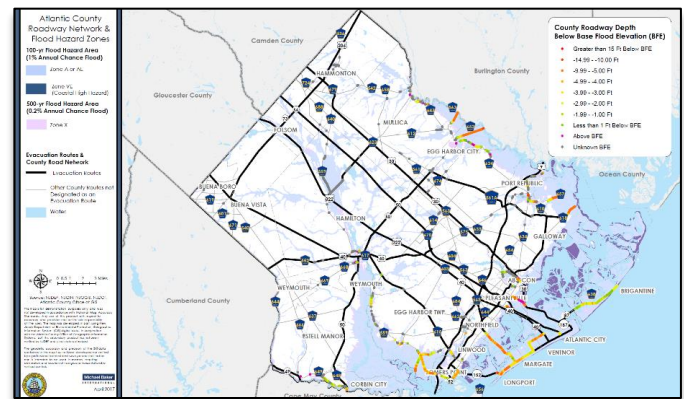


TASK 3. PERFORM A GAP ANALYSIS

Michael Baker understands that a key part of developing a vulnerability framework is understanding existing data gaps to identify existing resiliency issues within the region. This includes a review of existing studies and assessments for the region that identify current resiliency issues and **coastal and inland vulnerable assets**. This also involves review of concepts or recommendations from local and state vulnerability assessments, resiliency plans, or other documents. The review will help inform the establishment of vulnerable assets and resiliency goals for the SJTPO region.

Michael Baker will work with the various stakeholders to identify any ongoing or planned studies, frameworks or guidance that may be relevant to developing the framework for or in the execution of this vulnerability assessment. Michael Baker recognizes the importance of not replicating work that has been done or is planned. By having a firm understanding of the work already completed, the region can then build upon existing knowledge and refine future assessments and recommendations. This also includes a firm understanding of existing available asset and hazard data, with an understanding of metrics and data that represent future predictions due to climate change.

Michael Baker is deeply familiar with many federal and state tools that assess climate trends in the region. Michael Baker worked alongside NJDEP to develop the Resilient NJ Climate Change Toolkit. Michael Baker has completed many vulnerability assessments with consideration of climate change and are very familiar with national and state climate change predictions. We realize that climate change data outliers require special consideration to ensure regional stakeholder's continued project support. Based on this extensive review of studies and assessments, Michael Baker will compile climate trend data to develop a baseline for use in future assessments and evaluation of projects. To complete this, Michael Baker will identify existing vulnerable components and compile a table reviewing those that may impact infrastructure. This table will consider the various climate components and include detailed existing data and metrics of each. Michael Baker understands that a firm's comprehension of the region's vulnerable components is key to understanding how they impact the region's vulnerability, both currently and in the future. Finally, Michael Baker has experience creating maps, figures, and StoryMaps in support of vulnerability assessments, including an interactive StoryMap integrated with ArcGIS online for the Columbia Association Regional Vulnerability Assessment.





software, Google Maps, Google Earth, and NJDOT Straight-Line Diagrams (SLDs).

In the inventory effort, the Michael Baker team will document:

- Type of asset – anticipated to include roadways, bridges, rail, ferry, port, and power/support facilities
- General description – roadway functional classification, etc.
- Location – municipalities, counties
- Vulnerable limits – mileposts, landmarks, etc.
- Ownership – state, county, municipal, etc.

Michael Baker also understands the impacts that climate change and vulnerable components can have on many health and environmental assets within the region. These impacts include but are not limited to health (air quality, water quality, and gaps in medical facilities), water resource (flooding, drought, sinkholes, saltwater intrusion, and water supply), agriculture (crop yield changes and market impact), and ecosystem (carbon storage, wildfire, and loss of wildlife populations). Michael Baker is experienced in completing state, county, and local risk, and vulnerability assessments. A key part of these assessments is understanding local assets, the current and evolving hazards, and how vulnerable assets impact a region (including cascading impacts). Michael Baker will evaluate which vulnerable components are the largest threat to the region's assets and prioritize which vulnerable components should be addressed first for the region in future studies.

TASK 4 DELIVERABLES:

4.a – Memo: One (1) technical memorandum summarizing the finding of the ranked regional vulnerable components.

4.b – Memo: One (1) technical memorandum summarizing asset infrastructure asset characteristics and short-term and long-term effects.

TASK 5. COMPLETE A RISK ASSESSMENT

The Michael Baker team are leaders in the hazard risk management community and are familiar with the common methodologies and approaches to conducting multi-hazard risk assessments for transportation infrastructure. We have applied such methodologies at most major transportation agencies across the country and has reviewed many additional methodologies for accuracy and effectiveness. The team will leverage this knowledge to identify candidate methodologies, or parts of methodologies, that could effectively contribute to the risk assessment goals of Michael Baker International, Inc.

the SJTPO. The team will assess different approaches for quantifying each component of risk: threat, vulnerability, and impact.

Methods will be evaluated for accuracy and effectiveness, with a preference for identifying quantitatively approaches based on empirical data and/or detailed modeling. For the threat component, the team will identify and assess approaches that estimate frequency of occurrence of dissimilar hazards in a consistent, comparable manner, and which rely on the historical record. For the vulnerability component, we will identify and assess methods that evaluate asset specific characteristics, geography, or operations, and directly relate those features to vulnerability to different hazards. For the impact component, the team will identify and assess methodologies that allow for the estimation of a broad spectrum of potential impacts, including casualties, economic losses, and remediation costs. Special attention will be paid to identifying and evaluating methodologies that assess impacts from transportation hazards on disadvantaged communities, relating the physical impacts of hazard incidents to socio-economic consequences. The team has performed this type of analysis on other projects, specifically evaluating how incidents, such as rail and truck accidents, impacts surrounding neighborhoods.



As part of our program management role on DEP's Resilient NJ program, the Michael Baker team created program guidance on a regional planning process to build resilient response scenarios to climate change. These response scenarios included short- and long-term elements for the time horizons of 2030, 2050, and 2100. The goal of these scenarios is to improve regional resiliency while also creating equitable outcomes for socially vulnerable populations.



The Michael Baker team will recommend methodologies for each of the three (3) components of risk and will provide SJTPO with a description of why each method was selected, how it will improve the overall risk assessment, and the products for each component. The team will then produce a memo describing in detail the overall recommended risk assessment methodology.

TASK 5 DELIVERABLES:

5.a Risk Assessment Methodology Memo: This memo will provide a detailed description of the recommended Transportation Risk Assessment methodology. The memo will describe methodologies for each risk component, threat, vulnerability, and consequence, as well as for the calculation of overall risk. The memo will detail recommended data sources, calculations, and products. In addition, the memo will describe why each component was selected and why it is appropriate for implementation by SJTPO. Finally, the memo will detail the implementation process for the risk assessment, including how surveys would be conducted, how data would be collected, how risk would be calculated, and how risk results would be utilized.

5.b – Risk Assessment Data and Results: As part of the development of the risk methodology, the team will utilize risk data for a small number of representative assets to test the data collection and calculations and to produce example risk results. The team will deliver these example outputs to SJTPO to demonstrate the utility of those products. Products will include both tabular data, showing the quantitative risk, and GIS-based data.

TASK 6. IDENTIFYING SYSTEMIC BEST PRACTICES

The team will assess methods to identify best practices for mitigating identified risks and for assessing and comparing those best practices. Team members have been involved in managing risks to transportation infrastructure for agencies across the country. From this experience, they have become familiar with proposed and implemented concepts for hardening assets and improving resiliency. In many cases, they have previously assessed effectiveness and conducted cost-benefit analysis for these solutions. The team will leverage this experience in developing a formalized process to identify and assess best practices. The process for identifying measures will likely involve surveys and workshops with other agencies and stakeholders, reviews of implemented projects and resulting effectiveness, and expert workshop assessment of risk scenario risk results and gaps.

The team will also review methods for conducting cost-benefit analyses of identified solutions and will make a recommendation for a cost-benefit methodology to be implemented. The cost-benefit methodology will leverage the risk results that will be developed as part the risk methodology developed in Task 5. Using those risk results as a basis, the cost-benefit method will allow SJTPO to assess the potential risk reduction offered proposed measures. The team brings expertise in cost-benefit analysis methodology through our work on the Port Authority of New York and New Jersey's Multi-Hazard Risk Assessment that included a mitigation project cost-benefit data to substantiate an application for each facility.

In addition, the method will allow the cost of implementation for those proposed measures to be estimated. Potential costs would include direct implementation and recurring costs but could also include other indirect costs, such as impacts to local communities. The cost-benefit method will allow for analysis and of each identified solution, comparing achieved risk reduction with incurred cost, and will compare those results to the “no build” case.

TASK 6 DELIVERABLES:

6.a – Best Practices Identification and Cost-Benefit Analysis Memo: This memo will provide a detailed description of the recommended process to identify industry best practices for risk mitigation and will describe the recommended cost-benefit analysis methodology. The memo will describe how best practices will be collected from across a variety of industry sources and how they will be vetted to select potential projects for implementation. The memo will also detail the approach to cost-benefit analysis, including how risk reduction will be calculated and what costs, both direct and indirect, will be included. In addition, the memo will describe why the recommended methodology was selected and why it is appropriate for implementation by SJTPO.

TASK 7. LOOKING TO THE FUTURE

A fully developed vulnerability framework will pave the way for a regional vulnerability assessment. Michael Baker will work with the region to develop a scope of work for the next phase of the project. This includes a detailed vulnerability assessment, as well as project specific actions to address high-risk regional vulnerability components. Included in this analysis is modeling to consider impacts of climate change, both in the near and distant future. The end goal of the Regional Vulnerability Assessment is to develop current and future strategies that the



region can use to maintain resilience actions. Michael Baker is familiar with both modeling of future floodplains in light of climate change, as well as completion of vulnerability assessments with climate considerations. The team will utilize that experience and lessons learned when developing the tasks for the scope of work for the Regional Vulnerability Assessment to ensure the project is pushed forward in the most valuable way.

TASK 7 DELIVERABLES:

7.a – Memo: One (1) technical memorandum detailing the Scope of Work for the Regional Vulnerability Assessment

TASK 8. RECOMMENDATION AND FINAL PRODUCT

The Michael Baker team will produce a graphically illustrated Regional Vulnerability Framework Final Report and Executive Summary based on the findings of the technical study. As an appendix to the Final Report, Michael Baker will combine the memos from Task 3. Perform a Gap Analysis, Task 4. Impact of Change on Environmental Conditions, Task 5. Complete a Risk Assessment, and Task 6. Identifying Systemic Best Practices. The team will address comments from SJTPO staff, the TAC, and interagency stakeholders that arose from the memos throughout the development of the study.

The team will also produce a Final Interactive Map (in ArcGIS) and narrative that can be reviewed in a simple format on the SJTPO website. The map will include existing resilience issues, regional assets, findings from the risk assessment, and highlight the vulnerable components identified in Task 3. Impact of Change on Environmental Conditions. The map will be adaptable to build upon more detailed information as it is revealed to support the Regional Vulnerability Assessment.

TASK 8.A. DRAFT STUDY

Michael Baker will submit a draft report to the SJTPO project manager for review and comments. Feedback from the SJTPO will be incorporated into the final study and comments from the SJTPO will be addressed before the final document is completed.

TASK 8.B. FINAL STUDY

The Michael Baker team will bound two (2) hard copies of the Regional Vulnerability Framework Final Report and Executive Summary for the SJTPO, **in addition to providing digital copies of the Final Report and Executive Summary.** Data, documents, and publications collected by the team will be made available to

SJTPO at the conclusion of the Regional Vulnerability Framework. Files will be in an editable format for future use and will be published on the SJTPO website.



Michael Baker created an ArcGIS [StoryMap](#) for NJDEP's Resilient NJ program. The StoryMap is a toolkit for municipalities to meet the New Jersey's Municipal Land Use Law (MLUL) requirement to incorporate a climate change-related hazard vulnerability assessment into any master plan.

TASK 8 DELIVERABLES:

8.a - Final Interactive Map: Michael Baker will provide an ArcGIS Online interactive map and narrative, StoryMap, or another similar format that will map the findings of the Regional Vulnerability Framework. The final format shall be determined based on feedback and discussion with SJTPO.

8.b - Final Report: Michael Baker will complete a final report and executive summary. SJTPO will review the draft report with comments that must be addressed before the final document is completed.

8.c - Final Report, incorporating prior memos: Michael Baker will provide a report that addresses comments from SJTPO staff, Technical Advisory Committee (TAC), and interagency stakeholders that may have arisen from the memos in Task 3. Perform a Gap Analysis, Task 4. Impact of Change on Environmental Conditions, Task 5. Complete a Risk Assessment, and Task 6. Identifying Systemic Best Practices.

PROJECT SCHEDULE

Regional Vulnerability Framework

Task	Detail	Month #	0 (NTP)	1	2	3	4	5	6	7	8	9	10	11
			Jun '23	Jul '23	Aug '23	Sep '23	Oct '23	Nov '23	Dec '23	Jan '24	Feb '24	Mar '24	Apr '24	May '24
1	Coordination & Administrative Tasks													
	Bi-weekly check-ins, meeting summaries, and materials		◆											
2	Stakeholder Involvement													
	Develop Public Outreach Plan			◆										
	Interagency Meetings					●		●			●			
	TAC Workshop									●				
	TAC Meetings									●		●		●
	TAC Meetings Updates									◆		◆		◆
	Public Survey									◆				
	Public Workshops							●					●	
3	Perform a Gap Analysis													
	Literature Review (Existing Resiliency Issues)				◆									
	Vulnerable Components Analysis and Data Compilation				◆									
4	Impact of Change on Environmental Conditions													
	Identification of Assets and Consideration of Vulnerable Components						◆							
	Evaluation of Short and Long Term Effects on Infrastructure						◆							
5	Complete a Risk Assessment													
	Risk Assessment Framework, Matrix, and Data Compilation									◆				
6	Identifying Systemic Best Practices													
	Scenario Evaluation											◆		
7	Looking to the Future													
	Develop Scope of Work for the Regional Vulnerability Assessment													◆
8	Recommendation and Final Product													
	Map and Final Reports													◆

LEGEND

- Key meeting
- ◆ Deliverable



STAFFING PLAN

Staff	Title	Hours per Task								Billable Rate*	Total Hours	Total Labor Cost
		1 - Coordination & Administrative Tasks	2 - Stakeholder Involvement	3 – Perform a Gap Analysis	4 - Impact of Change on Environmental Conditions	5 - Complete a Risk Assessment	6 - Identifying Systemic Best Practices	7 - Looking to the Future	8 - Recommendation & Final Product			
Prime Consultant: Michael Baker International, Inc.												
Jessica Jahre	Project Manager	40	32	4	4	4	4	4	28		120	\$20,031.86
Rebecca “Becky” Lyne	Quality Manger	4	0	0	0	0	0	0	0		4	\$ 918.67
Anthony Durante	Senior Planner	0	0	32	40	0	0	16	0		88	\$16,404.42
Katherine Daly	Water Resources Engineer	0	0	32	40	0	0	40	32		144	\$20,269.88
Ashley Sidhu	Environmental Associate	0	0	0	0	0	0	0	60		60	\$6,262.42
Brittany Dremluk	Senior Planner	0	40	0	0	0	0	0	32		72	\$ 9,727.94
Caroline Martin	Planner	0	0	0	0	0	0	0	60		60	\$ 5,715.82
Jennifer Gutierrez	Planner	0	60	0	0	0	0	0	0		60	\$ 6,551.61
Jaime Phillips	Planner	0	60	0	0	0	0	0	0		60	\$5,826.35
Michael Baker International, Inc. Subtotal		44	192	68	84	4	4	60	212		668	\$91,708.98
Subconsultant: Binera, Inc. (DBE)												
James “Jeb” Benzing	Sr. Program Manager	0	0	0	0	4	4	0	0		8	\$1,504.00
Sergey Vinogradov	Program Manger	0	0	0	0	8	8	0	0		16	\$2,688.00
John Sinclair	Planner	0	0	0	0	100	60	0	0		160	\$15,040.00
Chel Stromgren	COO/Chief Scientist	0	0	0	0	4	4	0	0		8	\$2,044.00
Binera, Inc. Subtotal		0	0	0	0	116	76	0	0		192	\$21,276.00
Total		44	192	68	84	120	80	60	212		860	\$112,984.98

*Billable Rate includes direct labor plus overhead.

Note: This Staffing Plan does not include the 10% fee. For this breakdown, please refer to Breakdown of All Other Charges page. Additional staff identified in the proposal are available, if needed, to assist on project delivery.



TOTAL COSTS BY TASK

Task	Total Cost
Task 1 - Coordination & Administrative Tasks	\$7,595.88
Task 2 – Stakeholder Involvement	\$23,124.16
Task 3 - Perform a Gap Analysis	\$11,137.16
Task 4 - Impact of Change on Environmental Conditions	\$13,754.52
Task 5 - Complete a Risk Assessment*	\$13,185.72
Task 6 - Identifying Systemic Best Practices*	\$9,425.72
Task 7 - Looking to the Future	\$9,280.68
Task 8 - Recommendation & Final Product	\$25,481.14
Total Cost	\$112,984.98

*Binera (DBE) hours included in Task 5 and 6.

Note: The table above does not include the 10% fee. Please refer to Breakdown of Other Costs on the next page for the Project Total cost.



BREAKDOWN OF OTHER COSTS

Michael Baker's billing procedures and rates follow NJDOT's determined overhead rate of 152.354 percent. **Total Project Cost is \$125,000.00.**

Labor Costs (*Personnel Services for Prime and Sub*)

Michael Baker Direct Labor	\$36,341.40
Michael Baker Overhead at 152.354%	\$55,367.58
Binera (DBE)	\$10,858.40
Binera (DBE) Overhead at 96%	\$10,417.60
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Subtotal Labor	\$112,984.98

Fixed Fee at 10% (<i>for both Prime and Sub</i>)	\$11,298.50
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Non-Salary, Other Direct Expenses (ODC) (*for both Prime only*)

Travel	\$500.00
Printing and Reproduction	\$178.50
Miscellaneous (postage, etc.)	\$38.02
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Subtotal Non-Salary Direct Expenses	\$716.52

TOTAL	\$125,000.00
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Sub: Binera (DBE)

DBE/ESBE Participation Subtotal + 10% fee	\$23,403.60
* DBE/ESBE Participation, % of Total	18.7%

* Exceeds 13.23% Goal

SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION

RESOLUTION 2305-21: Approving the Selection of Michael Baker International as the Consultant for the Regional Vulnerability Framework

WHEREAS, the South Jersey Transportation Planning Organization (SJTPO) is the Metropolitan Planning Organization (MPO) designated under Federal law for the southern region of New Jersey including Atlantic, Cape May, Cumberland, and Salem Counties; and

WHEREAS, the Fiscal Year 2024 SJTPO Unified Planning Work Program includes Federal Highway Administration planning funds for this project as Task 24/401 Regional Vulnerability Framework; and

WHEREAS, the Notice of Availability of Requests was sent to approximately 280 contacts on February 1, 2023; and

WHEREAS, the Request for Proposal (RFP) announcement and supplementary materials were also posted on the publicly accessible SJTPO website and the State of New Jersey Business Opportunities website; and

WHEREAS, two (2) proposals were received; and

WHEREAS, the SJTPO Technical Advisory Committee (TAC), at their January 9, 2023 meeting, vested consultant selection authority in a committee consisting of one representative from Atlantic County, Cape May County, the City of Vineland, and the NJ Office of Planning Advocacy, and SJTPO staff, which reviewed the proposal and evaluated it according with SJTPO's published criteria; and

WHEREAS, a revised scope of work was provided by Michael Baker International based on the feedback from the Consultant Selection Committee; and

WHEREAS, the SJTPO TAC, at their May 8, 2023 meeting, endorsed the recommendation of the Consultant Selection Committee and their selection of Michael Baker International in association with Binera, Inc. serving as the DBE/ESBE firm at a total project cost of \$125,000 with a DBE/ESBE participation of 18.70%; and

WHEREAS, the project work will be funded from Task 24/401 Regional Vulnerability Framework in SJTPO's State Fiscal Year 2024 SJTPO Unified Planning Work Program with a budget of \$125,000.

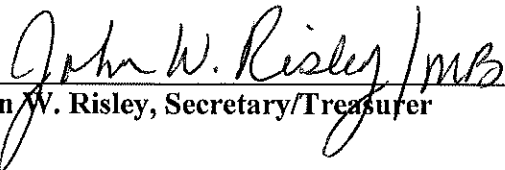
NOW THEREFORE BE IT RESOLVED, that the Policy Board of the South Jersey Transportation Planning Organization hereby approves the selection of Michael Baker International for the Regional Vulnerability Framework, with a maximum fee of \$125,000.

BE IT FURTHER RESOLVED, that the Policy Board authorizes the Executive Director to execute the scope of work and cost modifications to the original contract amount, provided that funding is available and such modifications have been approved by the NJDOT and the SJTPO.

BE IT FURTHER RESOLVED, that the Policy Board requests that the South Jersey Transportation Authority execute the appropriate contractual arrangements with the consultant on behalf of SJTPO.

Certification

I hereby certify that the foregoing is a correct and true copy of a resolution adopted by the Policy Board of the South Jersey Transportation Planning Organization at its meeting of May 22, 2023.


John W. Risley, Secretary/Treasurer