

**Town+Gown Request for Proposals for
Climate Vulnerability, Impact, and Adaptation Analysis (VIA RFP)
under the Consortium Contract**

I. General Items

A. Invitation to Submit Proposals in Response. The New York City Department of Citywide Administrative Services (DCAS), with the Mayor's Office of Climate Resiliency (MOCR) (the Requestor) invites the Consultants under the Town+Gown Master Academic Consortium Contract (the "Consortium Contract"), to submit Proposals in Response to this Request for Proposals for Climate Vulnerability, Impact, and Adaptation Analysis (VIA RFP), pursuant to the terms and provisions of the Consortium Contract and this VIA RFP. Terms used herein but not defined have the meanings assigned to them in the Consortium Contract.

B. Due Date for Receipt of Proposals in Response. Consultants shall submit their Proposals in Response ONLY via email, no later than 5:00 P.M., January 28, 2022, to Nyesha Hughes, Procurement Analyst, at Nhughes@dcas.nyc.gov. **Please note that there is a 10 MB file size limit.** If a Consultant chooses not to submit a Proposal in Response, such Consultant shall submit a No Bid Response form (which is attached to this document as Attachment A for the purpose of convenience and is downloadable from the Town+Gown website at (<http://www1.nyc.gov/site/ddc/about/town-gown-advisory-council.page>) no later than 5:00 P.M., January 28, 2022, to Nyesha Hughes, Procurement Analyst, at Nhughes@dcas.nyc.gov.

C. Inquiries and Requests from Consultants for Clarification or Explanation. If a Consultant wishes to make an inquiry or request a clarification or explanation with respect to this VIA RFP, such Consultant must make such inquiry or request in writing sent via email ONLY to Nyesha Hughes, Procurement Analyst, at Nhughes@dcas.nyc.gov, no later than 5:00 P.M., January 7, 2022. In the event the Requestor determines that it is necessary to respond to such inquiry or request in writing, such response will be furnished as an addendum to this VIA RFP (an Addendum) and will be sent to all Consultants as described below. If the Requestor deems it necessary, it may arrange a meeting or conference call with all interested parties prior to the submission date to address questions or concerns.

D. Addenda to Town+Gown RFP. If the Requestor determines that it is necessary to respond to an inquiry or request for clarification or explanation from a single or several Consultants in writing, such writing will be in the form of an Addendum to this VIA RFP, which will become part of the requirements for such VIA RFP, and sent by Town+Gown/DDC to all the Consultants to which the VIA RFP was issued. In addition, it will be necessary for such Consultants to acknowledge receipt of an Addendum to a VIA RFP by attaching an original signed copy of the Addendum to its Proposal in Response.

E. The Name and Contact Information of the Requestor's Procurement Process Contact. All Proposals in Response, Inquiries or Requests for Clarification or Explanation, and receipts of any Addenda, shall be sent via email ONLY to:

Nyeshia Hughes
Procurement Analyst, DCAS
Nhughes@dcas.nyc.gov

II. Scope of Work

A. General Research Project Description.

New York City (NYC) is already experiencing climate change. Higher seas and heavier rains cause some neighborhoods to flood as many as 25 times per year. Warming of the atmosphere causes more frequent and severe heat waves. Structural inequalities cause some people to experience these impacts more often or more severely than others. For many communities, issues like employment, affordable housing, and education are longstanding concerns that eclipse climate change. Even where climate change is a high priority, those same communities call for policy and action before climate research. The problem is that climate change alters the context for policy and action in ways that are not always widely known or understood. Consequently, new research questions arise, where scientific data and information are needed to: understand the problem; refine response options; and/or make clear the tradeoffs associated with various course of action.

In 2021, MOCR initiated an engagement process, called the Climate Knowledge Exchange (CKE), to align research with climate resiliency and adaptation efforts. Over the past decade of responding to climate change, community organizations, government agencies, and scientists in NYC have amassed a wealth of climate knowledge, applying scientific and local information and learning from experience. Scientists and researchers want to support governmental and non-governmental organizations in the fight against climate change and inequity. To do that, it helps to understand what the City staff and climate advocates know, do not know, and need to know about climate change. The CKE was also intended to inform the development of the New York City Panel on Climate Change (NPCC).

The NPCC is a Mayor-appointed, multi-year board of advisors with expertise across a range of scientific, policy, design, engineering, communications, and planning disciplines pertaining to climate change. NPCC's main charge, as articulated in Local Law 42 of 2012 (Admin Code § 3-122) (LL-42), is to provide a credible source of scientific information on future climate change and its potential impacts to inform decision-making by the City. NPCC evaluates the strength of scientific evidence in areas relevant to resiliency and adaptation. Over the summer of 2021, MOCR used the themes identified in the CKE process to provide input to NPCC to pinpoint specific data and analytical gaps that, when addressed, could enhance the credibility, legitimacy, and salience of NPCC's next assessment.

The goal of the Research Project under this VIA RFP is to develop data and analysis on future climate conditions and the socio-economic impacts of climate risks. Specifically, Consultants will:

- Provide research project management and coordination;
- Develop climate projections for the NYC region that complement, enhance, and are consistent with the New York State Climate Impacts Assessment (NYSCIA) - NYC region (defined as the NYC border);
- Perform a systematic assessment of health-related economic costs from recent, multi-hazard climate-sensitive events in NYC;
- Characterize current and future extreme heavy rainfall in NYC; and
- Develop a Coastal Flooding Vulnerability Index for NYC.

B. Client Team

Over the past decade, NPCC has had an immeasurable impact on the City's response efforts, providing actionable information to a range of City stakeholders. MOCR is the primary convener and liaison for NPCC. However, because climate response efforts span many City agencies and non-governmental organizations, the Climate Change Adaptation Task Force (CCATF) was established as both a coordinating body and key stakeholder of NPCC's climate assessments. The CCATF consists of over 60 different organizations including city, state, and federal agencies, private organizations, and entities responsible for managing the City's public health, natural systems, critical infrastructure, buildings, and economy. In February 2020, the Mayor convened an inaugural Environmental Justice Advisory Board (EJAB) that is convened by the Mayor's Office of Climate and Sustainability (MOC&S). Collectively, these entities share a commitment to equity and climate justice, a critical component of which is coordinating and seeking integration of these respective governmental and non-governmental climate response efforts.

Given the broad remit of and large number of organizations that comprise CCATF and EJAB, MOCR established an Interagency Climate Assessment Team (ICAT) consisting of 13 people from seven City agencies. Co-chaired by MOCR, the ICAT includes representatives from the following other City agencies: the MOC&S, New York City Emergency Management, the Department of Environmental Protection, the Department of Health and Mental Hygiene, the Department of City Planning, the Department of Parks and Recreation, and the Department of Transportation. Specifically, MOC&S is represented by MOC&S' Senior Advisor for Environmental Justice to strengthen connections between NPCC and EJAB. The ICAT's primary goal is to strengthen the relevance of NPCC climate assessments to agency policy and decision-making by coordinating and supporting interactions between NPCC Working Groups (WG) and City staff. Additional objectives include:

- Promote cross-agency dialogue and coordination;
- Serve as a central point of contact for each NPCC WG;
- Facilitate access to City data wherever possible;
- Develop a database of City contacts for different systems, or sectors; and
- Support the City review process for the final NPCC report.

While the clients for this Research Project are ultimately DCAS and MOCR, the Consultant should consider the ICAT as members of the Client Team. The NPCC WGs will also play a vital role in reviewing deliverables and providing advice and guidance to the Client Team. The proposed work will directly support NPCC's fourth climate assessment but is not considered the assessment itself. The City anticipates a separate procurement as discussed below in C. Civic Engagement and the Process of Assessment.

C. Civic Engagement and the Process of Assessment

MOCR and NPCC strive to situate assessment of scientific evidence in a broader context of climate justice with timely consideration of ongoing resiliency and adaptation decisions. Scientific knowledge is one form of knowledge and can complement cultural, place-based, and historical knowledge. Moreover, participation and engagement between diverse experts and actors often leads to more actionable findings that support both governmental and non-governmental adaptation. NPCC WGs use collaborative engagements like workshops and external review to encourage participation and external input to their assessments. More recently, the CKE offers additional, ongoing forms of engagement, such as discussion groups, forums, and in-depth discussion of barriers to adaptation. MOCR plans CKE interactions with community organizers, City partners, and NPCC, including groups already familiar with climate and groups less familiar with climate

issues. While the CKE is broadly inclusive, proactive engagement is focused on communities made vulnerable by climate change and racial inequity, as identified by factors that contribute to social vulnerability and racial inequity, such as income levels, age, disability status, language, and neighborhood. Over time, the CKE will continue to complement NPCC by facilitating stronger participation in successive assessment efforts. MOCR aims for NPCC and CKE work to collectively support a more inclusive, diverse, and sustained assessment process that strengthens the evidence base for equitable climate adaptation.

The City anticipates a separate procurement to support the NPCC assessment process, including engagement planned by the NPCC WGs and supplemented by the CKE (Sustained Assessment RFP). For the purposes of delineating and distinguishing the scope of the Research Project under this VIA RFP from the potential scope of a research project under the Sustained Assessment RFP, the objectives of the research project under the Sustained Assessment RFP are likely to (1) support assessment products, data and information sharing, and publication of reports, as examples, and (2) plan and execute engagement efforts related to NPCC. The awardee of the Sustained Assessment RFP is likely to work in a collaborative manner and with a Client Team and NPCC that will be similar to the Research Project under this VIA RFP but may not be the same. Regardless, the Consultants responding to this VIA RFP should expect to work with the Client Team and the NPCC for the Sustained Assessment RFP and the Consultant awarded the Task Order to the Sustained Assessment RFP (collectively MOCR, NPCC, ICAT, and the Sustained Assessment consultants) to incorporate engagement with relevant parties in the work for this Research Project as described below.

In its Proposal in Response, Consultants should describe engagement efforts that they believe are integral to the scope of each of Tasks 1 – 5 below, which engagement efforts would be covered by the Sustained Assessment RFP. As an example, for Task 5 (the development of a Coastal Vulnerability Index), it may be advantageous to engage residents and community leaders in frequently flooded areas to understand their view of what makes them most vulnerable. However, Consultants should assume that the successful applicant to the Sustained Assessment RFP will organize and manage engagement processes. Consultants developing their Proposals in Response to this VIA RFP should not include the cost of organizing and executing the engagement process but should include advising the successful applicant to the Sustained Assessment RFP and participating in engagement processes. The component for future engagement activities is subject to award and negotiation, including price, of the Sustained Assessment RFP and availability of funds at that time.

D. Research Project Objectives

Task 1. Project Management, Coordination, and Engagement

The Consultant shall perform project management work throughout the entire duration of the Research Project. The Consultant shall coordinate with the Client Team and the NPCC WGs for whatever actions are necessary to advance the overall work of the individual tasks. The Consultant will draw on expertise from both the ICAT, the NPCC WGs, and other relevant experts as deemed by the Client Team. The Consultant will coordinate with the Client Team on monthly meeting agendas and shall also prepare materials, presentations, and summaries for those meetings as necessary. To facilitate input and feedback, the Consultant will meet with the Client Team on a monthly basis and join the NPCC Quarterly meeting with the ICAT, NPCC Executive Committee, and all NPCC WG Co-Chairs. The Consultant shall also prepare a Project management plan and schedule that includes progress meetings/calls, preparation of associated monthly progress reports, the facilitation of internal meetings, and an organizational chart for the Project team including an overall Project manager. The Consultant will review all methods, assumptions, and data with the Client Team and is expected to make all data generated as a result of this Research Project available to the Client Team and the NPCC. Within three (3) months of the Notice to Proceed, the Consultant will

produce a memo outlining all data required for the Research Project (except for Task 3.2) for review by the NPCC WGs and approval by the Client Team. Within six (6) months of the Notice to Proceed, the Consultant will produce a memo outlining all data required for Task 3.2 for review by NPCC WGs and approval by the Client Team. The ICAT will help the Consultant to secure access to data to relevant City-maintained data. Per Section C above, the Consultant will work with the Sustained Assessment Consultant and its client team, and the Sustained Assessment RFP is expected to include a task for creating an internal website or platform for data access and sharing among all NPCC WGs and the ICAT.

Deliverables

1. Project management plan, as described above, including detailed plan and schedule (e.g., Gantt chart) two (2) weeks after the Notice to Proceed is issued. The plan should include dates for all meetings and deliverables, as well as an organizational chart identifying the names, titles, and roles of Project team members, areas of responsibility and expertise, including any subcontractors
2. For all Project management meetings, the Consultant will provide meeting materials including agendas, PowerPoint slides or read ahead materials, notes, virtual meeting access and recordings (if the latter is deemed necessary), and all other logistical planning support for meetings.
3. The Consultant will produce monthly progress reports with brief summaries of the status of all outstanding tasks and deliverables, and any unanticipated barriers to completion with proposed steps to mitigate those barriers.
4. A memo outlining all data required for the Research Project, except Task 3.2 as described above, within three (3) months after the Notice to Proceed for review by the NPCC WGs and approval by the Client Team.
5. A memo outlining all data required for Task 3.2 within six (6) months after the Notice to Proceed for review by the NPCC WGs and approval by the Client Team.

Task 2 - Develop climate projections for NYC region.

LL-42 requires NPCC to review the science on current and future climate and identify the climate projections of record for NYC. Over the past decade, climate projections have been woven into nearly every dimension of the City's resiliency and adaptation efforts, from the Climate Resiliency Design Guidelines to heat reduction measures. The completion and publication of the [Coupled Model Intercomparison Project – Phase 6 \(CMIP6\)](#), a globally-coordinated, climate modeling effort, offers a number of potential improvements to climate projections, including higher resolution outputs, new methods for bias correction, and cascading, compounding, and low probability-high consequence scenarios. Reviewing new developments in future climate data is critical for helping NPCC determine where to recommend changes in climate projections to the City and its partners in New York State (NYS).

MOCR and NPCC have been partnering closely with the New York State Energy and Research Development Authority (NYSERDA) to coordinate the development of the NYSCIA and NPCC's fourth assessment. A critical coordination need is to ensure that changes to climate projections do not disrupt ongoing climate resiliency and adaptation efforts, especially where there are small discrepancies in projections that are a fraction of the range of scientific uncertainty. The NYSCIA redrew its regions, making New York City a region unto itself. This change presents an exciting opportunity for collaboration between the ICAT, NPCC, NYSERDA, and the NYSCIA Project Advisory Committee (NYSCIA PAC) to identify and adopt consistent climate projections for the NYC region.

In early 2022, MOCR will organize a workshop (the Workshop) with partners in ICAT, NPCC, NYSERDA, and the NYSCIA PAC to review the current state of climate science for the NYC region. The primary purpose of the workshop will be to determine what additional climate analysis would complement and enhance the climate projections developed for the NYSCIA.

The NYSCIA projections are based on an ensemble of 35 global climate models (GCMs) for changes in mean temperature and precipitation and an ensemble of 16 GCMs for extreme events. Results from the model ensemble were selected for two forcing scenarios – shared socioeconomic pathway (SSP) 2 (commensurate with Representative Concentration Pathway (RCP) 4.5) and SSP 5 – RCP 8.5. The GCM data was downscaled for the NYC region using the delta method, where the source of local climate data was the Central Park station. All projected climate variables are relative to the base period from 1981 – 2010 to reflect the latest climate normal from the National Oceanic and Atmospheric Administration (NOAA).

The NYSCIA climate projections are calculated for the 2030s, 2040s, 2050s, 2060s, 2070s, and 2080s. Mean changes in temperature and precipitation are extended to 2100. Results are presented in percentiles (10th, 25th, 75th, 90th) of the probability distribution of the model ensemble for each SSP. Projected annual, monthly, and seasonal changes are available. For metrics of extreme temperature and precipitation, the NYSCIA uses a method known as 'quantile mapping' (QM). QM adjusts a model value by mapping percentiles of the model's distribution onto percentiles of the observations. This method applies a change factor to observed data to get a synthetic time series for an event and then calculate threshold exceedances in the future. The following climate variables, among others, are anticipated as part of the NYSCIA work:

- Mean temp
- Hot days ($\geq 90F$, $95F$)
- Cold days ($< 32F$)
- Heat waves (frequency and duration)
- Heat index (heat and humidity)
- Mean precipitation (% change)
- Wet days (days with precipitation ≥ 1 inch, ≥ 2 inches, ≥ 4 inches)

Because GCMs cannot predict changes in extreme weather events, climate projection data and expert judgment provide a general sense of whether increases or decreases can be expected for various types of events, such as extratropical cyclones (including storm track, frequency, and intensity), winter precipitation, tropical cyclones (storm track, winds, frequency), and drought.

Building on the NYSCIA, it is expected that topics of the Workshop will include, among other things:

- Confirming key underlying elements of the NYSCIA projections, including forcing scenarios, time slices, risk-based framing, station data for bias correction, and base period;
- A review of the science related to sea level rise (SLR) and the current state of coastal flood mapping and vulnerability and impact analysis in NYC;
- A review of heat risk metrics to support heat hazard and resiliency measures, including relationship between heat and humidity, discrepancies between indoor and outdoor air temperatures, wet bulb temperature, and any developments in the ability to estimate prolonged heat waves;
- Discussion of the state of atmospheric science on the polar vortex and its influence on weather variability, including especially rapid shifts in temperature and prolonged temperature extremes (i.e., long cold snaps during the winter and heat waves during the summer);

- Changing storm climatology (i.e., changing frequency and magnitude for the full range of storm types described in NPCC 2019 and likely co-occurring or correlated extremes);
- Compound risks associated with extreme events (both climate and non-climatic extremes) including the likelihood of different combinations of extreme events and decision-relevant thresholds over relevant temporal and spatial scales;
- A review of GCM skill relative to projecting changes in maximum wind gusts.; and
- Information described in Task 3 (below) as applicable.

MOCR will ensure that recordings and notes from the Workshop presentations and break out groups will be made available to the Consultant. MOCR will prepare a workshop report summarizing the key decisions and findings from the Workshop and providing final scope of work for extending the work of the NYSCIA (Final Workshop Report). In the scope of work prepared in response to this VIA RFP, the Consultant, based on its qualifications and expertise should make recommendations for analyses in addition to those listed below. All proposed methodologies should be complementary to the NYSCIA climate projections. The Client Team anticipates analyses discussed and agreed to at the Workshop may include:

- High resolution heat risk and exposure projections, such as projected number of Heating and Cooling Degree Days;
- Graphs and tables of projected sea level rise out to 2150;
- Storm surge risk analysis or assessment for different storm types¹;
- Tables of water levels (feet NAVD) for (top) 100-year floods and (bottom) 500-year floods at The Battery for the 10th – 90th percentile sea level rise projections using static superposition with unchanged storm climatology;
- Description of changes in storm climatology for NYC metro area;
- Static coastal flood mapping for future Mean Monthly High Water (MMHW), the future 100- and 500-year floods (pending changes to SLR projections and/or the state of science on changing storm climatology per the previous bullet), and/or compound flood risks²; and
- Projected likelihood of compound climate and non-climate risks (e.g., heat and humidity, surge and rainfall flooding).

Because the Final Workshop Report is not yet available, as part of its Proposal in Response to this VIA RFP, the Consultant shall prepare a cost estimate for conducting analyses as outlined in the bullets above, with any proposed work beyond the analyses outlined above noted and estimated separately.

Deliverables

6. Digital files with all raw and processed data for the climate projections, as well as all spatial data layers and full metadata.

Task 3. Characterize current and future extreme heavy rainfall in New York City.

¹ We assume this potential item will be informed by discussion of changing storm climatology (i.e. changing frequency and magnitude for the full range of storm types described in NPCC 2019 and likely co-occurring or correlated extremes).

² The City is initiating a separate effort to create a first generation compound flood risk map that integrates models of coastal flooding, groundwater, and extreme precipitation. Here, we refer to compound flood risk maps to include the integration of coastal flood and groundwater data in static maps, not an integrated modeling effort.

Following the tragic floods caused by the remnants of Hurricane Ida, the City is making additional investments in stormwater infrastructure to minimize future impacts from heavy rainfall. Changing rainfall patterns remain one of the most complex climate-related processes facing NYC. While average annual precipitation is expected to increase in NYC and the Northeast US, there remains substantial uncertainty about how changing storm patterns will affect the intensity, duration, and frequency (IDF) of rainfall events. Yet, engineers need to quantify those three factors to plan and design stormwater infrastructure.

The Requestor seeks proposals to develop one or more engineering applications for stormwater infrastructure design and implementation. GCMs are useful for projecting changes in temperature and other important atmospheric processes affecting global to regional changes in precipitation. However, NYC experiences heavy rain as a result of several different types of storms, ranging from convective thunderstorms to tropical cyclones to extratropical cyclones. For the purpose of this VIA RFP, 'heavy rain' or 'heavy rainfall' means an intensity exceeding one inch of rain falling in one hour or a total exceeding of three inches in a 24-hour period. Part of the work proposed for this VIA RFP will be to determine and adopt more consistent terminology regarding critical thresholds for current and future rainfall and stormwater flooding. How the frequency and magnitude of these storms will change on decadal timescales is not well resolved by GCMs, and even in the current day, some of these storms are more easily forecast than others. For example, while meteorologists provide thunderstorm warnings and watches for the five boroughs, it can be hard to predict where those thunderstorms will occur within the overall forecast area. As a different example, in 2007, an extratropical storm, or Nor'easter, shattered rainfall records across the NYC metro area, but Nor'easters remain a challenge to forecast further than 24 hours in advance. One challenge with developing credible IDF curves that account for future risk is understanding how atmospheric processes have changed and may change in the future. Despite these challenges, there remains a need to provide engineers with the best available information based on our current understanding of rainfall patterns, while working to improve understanding of changes in extreme weather.

Task 3.1 Develop IDF curves and other decision criteria for designing and implementing stormwater infrastructure to account for future conditions

The Consultant will work with the Client Team, NPCC, and all relevant agencies to develop IDF curves for future rainfall for the NYSCIA time slices outlined in Task 2, as well as any additional decision tools useful for planning interdependent infrastructure. For the purpose of this VIA RFP, 'decision tools' refer broadly to criteria, approaches, or technologies to incorporate scientific information into stormwater design and planning (e.g., design criteria and policies, spreadsheet models for engineering calculations, or thresholds for maintaining anticipated levels of service). To understand the decision context for stormwater planning in NYC, the Consultant will work with the Client Team and NPCC to form a collaborative sub-committee or sub-working group specifically focused on stormwater and rainfall (the stormwater sub-committee). It is expected that this group will involve relevant City and NYS agencies who use IDF curves and other decision tools as part of stormwater management in NYC. The primary function of this group will be to review, approve, and adopt IDF curves for NYC based on the best available science.

The Water Utility Climate Alliance (WUCA), including the NYC Department of Environmental Protection (DEP), is currently undertaking an assessment of the state of practice for using climate projections in stormwater and wastewater resilience planning for major water utilities across the United States (US). Pending approval by WUCA, results of this assessment will be made available to the Consultant, including interview and survey data with infrastructure operators regarding their use of climate projections and relevant engineering needs (expected early spring 2022).

The Consultant will supplement the WUCA data with additional interview and survey data explicitly focused on NYC stormwater decisions. Specifically, it will help to understand barriers and limitations to using IDF curves among the stormwater sub-committee members and their agencies, such as risk tolerance, operational flexibility, and capital and financial constraints. Similarly, it will also help to understand barriers and limitations to implementing stormwater infrastructure improvements among communities in areas most vulnerable to stormwater flooding. For the purposes of this VIA RFP, the Consultant will work with the stormwater sub-committee, ICAT, and NPCC to determine those areas most vulnerable to stormwater flooding. It is anticipated that these areas will be identified by comparing maps of areas impacted by Hurricane Ida, the City Stormwater maps, the CDC Social Vulnerability Index, environmental justice areas (in coordination with the EJAB), and other spatially explicit data.

Using the Final Workshop Report, notes from the stormwater sub-committee discussions, and analysis of the interview and survey data, the Consultant will produce preliminary IDF curves for NYC, recommendations for other decision tools, and a scope of work for climate modeling and analysis to improve the preliminary IDF curves. These products will be presented to a subset of the Workshop participants.

Deliverables

7. Survey and interview data including the interview protocol, transcripts, and coded or synthesized results.
8. Preliminary IDF curves for NYC – raw and processed data for time horizons to be determined with the Client Team under Task 2.
9. A report detailing the background, methodology for producing the preliminary IDF curves, the preliminary IDF curves, and recommendations for other decision tools, climate modeling and analysis to improve the preliminary IDF curves.
10. A scope of work for performing climate modeling and analysis to better characterize and, wherever possible, reduce uncertainty associated with the preliminary IDF curves

Task 3.2 Refine IDF curves through climate modeling and analysis

Both GCMs and downscaled climate data lack temporal and spatial resolution for stormwater planning and design. Specifically, sub-daily and sub-hourly rainfall intensity is particularly important for sizing and design of stormwater systems. In NYC, most surfaces are impervious, which reduces the time from when rain falls on the ground to when it drains into the stormwater system. The overall effect is that water can collect in the stormwater system faster, especially when there are temporary blockages from debris or elevated water levels along the waterfront where the stormwater system drains. New climate analysis methods may be better suited to quantify or estimate the risk of sub-hourly and sub-daily rainfall. For example, in San Francisco, IDF curves were developed for infrastructure providers by using a combination of regional scale modeling and empirical relationships between temperature and atmospheric moisture. In addition to better estimating future extreme precipitation, the City aims to incorporate emerging updates to the [National Oceanic and Atmospheric Administration \(NOAA\) – Atlas 14 – Volume 10](#) (when available) to ensure our current IDF curves are based on climate variability in recent decades, and our understanding of how the frequency and magnitude of various storms in NYC, including convective thunderstorms, tropical, and extratropical cyclones, may change in the future. In summary, the Consultant will evaluate methodological advances in climate and hydrologic science to refine the scope of work and preliminary IDF curves produced in Task 3.1.

Building on the work in Task 2 to describe the state of science regarding changing storm climatology in NYC and on an analysis of observed rainfall, the Consultant will perform an analysis of changes to near-term recurrence intervals for different individual storm types or likely combinations of storms and weather patterns. For example, it would help to understand how recent decadal changes in weather variability over the newly revised climate normal (1991 – 2020) for the Northeast would change recurrence intervals for extreme precipitation and/or whether the observed or likely changes in wind shear or changes in the jet stream can be reasonably quantified and factored into recurrence intervals.

Based on the work in Task 3.1 and the review of existing science and data on rainfall, the Consultant will perform climate modeling and analysis to refine the preliminary IDF curves. It is anticipated that this work may involve experimenting with regional scale models, semi-empirical approaches like those used in San Francisco, or other analysis and re-analysis approaches, whichever best capture the climate of the Northeast region. The climate analysis should be developed to directly support refinement of the IDF curves, including but not limited to sub hourly refinement from durations from 0 minutes to 24 hours.

Prior to conducting the analysis, the Consultant will engage the Client Team and the stormwater sub-committee to gather and incorporate feedback on different methodologies and reach agreement on a preferred method for climate analysis. The Consultant should plan on periodic check-ins with the stormwater sub-committee. The Consultant will produce a report for peer review by the stormwater sub-committee and revise the report based on comments. It is anticipated that the main findings of the report will address the extent to which adjustments need to be made to the preliminary IDF curves.

If adjustments are warranted to take into account a risk-based approach to decision-making under uncertainty, the Consultant team shall plan and organize a workshop with relevant members of the stormwater sub-committee to review the revised IDF curves. Based on feedback at the workshop, the Consultant team will prepare a report detailing the revised IDF curves and the methodology for producing them. The Consultant team should anticipate one round of technical review by members of the stormwater sub-committee.

Deliverables

11. Meeting agendas, materials, presentations, and summaries for all regular meetings and all workshops with the stormwater subcommittee
12. A report summarizing the state of science regarding changing precipitation in NYC and an analysis of observed rainfall, including but not limited to:
 - A table of observed heavy rainfall events in NYC including a ranked list of top 10 most significant rainfall events over period of record and all data summarized in the table
 - Analysis of current and anticipated near-term (2020s – 2050s) recurrence intervals for heavy rainfall in NYC and all data used to calculate recurrence intervals
 - a. Recommendations for climate modeling and analysis to refine estimates of heavy rainfall in NYC
13. A report providing refinements to IDF curves, explaining the revised IDF curves, and detailing the methodology for both climate analysis and the revised IDF curves.
 - Climate model data – raw and processed – including percentile changes in heavy rainfall (metrics to be determined through engagement in Tasks 3.1 and 3.2)
 - IDF curve data – raw and processed

Task 4. Perform a systematic assessment of health-related economic costs from climate-sensitive events in New York City.

Previous NPCC assessments built a strong foundation for understanding physical climate hazards and explored the vulnerability of New Yorkers, including those made vulnerable by climate change and racial inequity. Additionally, tragic events like Hurricane Sandy, Hurricane Ida, and the combined effect of the COVID-19 pandemic coupled with crippling heat waves have laid bare that low-income communities and communities of color are disproportionately impacted by climate change. Equity and climate justice were central themes among the CKE discussion groups with government agency staff, community-based organizations, and environmental advocates. Specifically, participants routinely noted the need to relate the science related to climate change to the lives and livelihoods of New Yorkers.

For these reasons and to continue to elevate equity and climate justice in the City's resiliency and adaptation efforts, the Consultant will rigorously review and synthesize health-related costs of climate-sensitive events. A substantial body of evidence has accumulated to quantify deaths and illness caused by heat waves, flooding, and power outages in NYC over the past 10 years. The economic costs of these health impacts must be better understood to account for them in valuing climate adaptation investments.

In consultation with the Client Team and the NPCC Health WG, and other relevant partners identified by the Client Team, the Consultant will estimate health-related costs of climate impacts in NYC. Methods to estimate and value health impacts may include statistical value of lives lost, direct healthcare charges, and indirect costs such as lost wages and/or other financial losses related to weather that may affect health using existing studies on mortality, morbidity, and mental health effects of climate-sensitive events in NYC.

The Consultant will perform this analysis in collaboration with the Client Team and NPCC. To facilitate such collaboration, the Consultant should plan to participate in monthly meetings with the NPCC Health WG. The City can provide certain datasets for this task, such as hyperlocal temperature and flood extent and depths. However, it is understood that the Consultant will secure additional data, if it is needed, to produce the task deliverables, coordinating data compilation and requests through the Client Team. If the Consultant has to acquire data from non-City sources, the Consultant should outline those in Task 1 deliverable 4 along with the expected timeline for getting the data, and coordinate data compilation with the Client Team.

The Consultants shall include, in their Proposals in Response to this VIA RFP, a description of health endpoints the Consultant plans to examine. Where possible, the Consultant will disaggregate analysis by race and ethnicity, which is critical to informing policies that seek to reduce racial inequities in impacts, along with income levels, age, disability status, citizenship status or place of birth, language, neighborhood, and other available variables that can help the City better understand the distribution of health-related costs. Where data and/or resource limitations exist, the Consultant will prioritize analysis by race and ethnicity and income. The Consultant will address direct and indirect climate-related hazards, including but not limited to: heat waves; coastal storms; flooding from heavy rain; regular flooding associated with high tides in low-lying areas; and cold snaps.

Deliverables

14. A report summarizing key findings and the results of the health impacts and costs analysis.
15. Digital files with raw and processed data with full metadata, including any spatial data.
16. Meeting materials for meetings with the Client Team and/or the NPCC Health WG including agendas, PowerPoint slides or read ahead materials, notes, and virtual meeting access and recordings (if the latter is deemed necessary).

17. Brief quarterly progress reports with brief summaries of the status of all outstanding tasks and deliverables, and any unanticipated barriers to completion with proposed steps to mitigate those barriers.

Task 5: Develop a Coastal Flooding Vulnerability Index for New York City

As sea levels rise, low-lying communities will experience more regular tidal or “sunny day” flooding and coastal storms are likely to cause flooding over a larger area and to cause areas already at-risk to flood more frequently than today. Although much work has been done to understand the spatial distribution of coastal flooding on NYC neighborhoods and the physical impacts to buildings and infrastructure, it is important to recognize that the impacts on communities are disproportionate, not only due to the differences in physical exposure but also by spatial variations in social vulnerabilities. Social vulnerability describes the socio-economic and demographic factors that influence the ability of a community to prepare for, respond to, and recover from a natural hazard.

The Requestor seeks proposals to develop a Coastal Flooding Vulnerability Index that combines a spatial understanding of flood risk with the social and economic indicators that reflect those groups most vulnerable to the impacts of coastal flooding. The Index will help the City to identify and better direct resources to those communities exposed to this compounding risk.

In consultation with the Client Team and the NPCC Flooding WG, and other relevant partners identified by the Client Team, the Consultant will:

- Research other examples of vulnerability indices for precedents, such as the social vulnerability indices developed by Cutter et al³, the Center for Disease Control (CDC)⁴, the [NYC Heat Vulnerability Index](#), Lane et al⁵, and Patrick⁶;
- Review the available qualitative and quantitative data and information on the demographic and socio-economic factors that lead to disproportionate impacts of coastal flooding, both chronic and episodic, on communities, including impacts to buildings and infrastructure;
 - The Client Team anticipates that some factors that lead to disproportionate impacts will be the same for both coastal and inland flooding, the latter driven, in some cases, by extreme rainfall more so than coastal storm surge or sea level rise. Wherever applicable, the Consultant will identify factors that may be applicable to both inland and coastal flooding;
- Develop a vulnerability index that:
 - Reflects the metrics and indicators most relevant to coastal vulnerability for tidal flooding and extreme flooding⁷;
 - Considers how to account for definitional ambiguities, specifically with regards to the differentiation between individual, household and community vulnerability; and

³ Cutter, S.L., B.J. Boruff & W. Shirley. 2003. Social vulnerability to environmental hazards*. *Social Science Quarterly*. 84: 242–261.

⁴ CDC SVI (Center for Disease Control Social Vulnerability Index). 2018. SVI publications, posters, presentations, and other materials. Agency for Toxic Substances & Disease Registry. <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>

⁵ Lane K, Charles-Guzman K, Wheeler K, Abid Z, Graber N, Matte T. 2013. Health effects of coastal storms and flooding in urban areas: a review and vulnerability assessment. *J Environ Public Health*.

⁶ Patrick, Lesley, "Health Exposure, Socio-Economic Vulnerability, and Infrastructure at Risk to Current and Projected Coastal Flooding in New York City" (2015). *CUNY Academic Works*.

https://academicworks.cuny.edu/gc_etds/1088

⁷ Here the term ‘nuisance flooding’ refers to the MHW metric produced by NPCC and extreme flooding refers to the 100- and 500-yr flood extents and, where known, depths.

- Employs a weighting methodology, for example a Principal Component Analysis (PCA), to reflect a more granular understanding of the magnitude of various metrics' effects on social vulnerability.
- Develop a spatial analysis tool that combines the physical characteristics of flooding (e.g., extent, depth, waves, etc.) with the relevant socio-economic indicators, including the role that buildings and infrastructure have on social vulnerability, at the appropriate localized scale and allows for comparison across spatial units;
 - Determine the number and size of exposure areas (surge and tidal) to evaluate;
 - Determine the appropriate scale for the vulnerability to best align with the spatial components of the various flood exposure areas; and
 - Integrate the coastal vulnerability index with the exposure areas to create a weighted vulnerability index based on the intersection of exposure intensity/likelihood with areas that are more or less socially vulnerable.

The Client Team will provide certain datasets for this work, such as coastal flood hazard layers. However, it is understood that the Consultant will secure additional data, as necessary, to produce the task deliverables, coordinating data compilation and requests through the Client Team. If the Consultant has to acquire data from non-City sources, the Consultant should outline those in Task 1 deliverable 4 and coordinate data compilation with the Client Team.

Deliverables:

18. Digital files with raw and processed data, including all GIS layers and full metadata.
19. A final report detailing methods, assumptions, results, recommendations, and further research needs.
20. Static maps with clear graphics that represent the spatial distribution of vulnerability to coastal flood risk (both surge and tidal).
21. Meetings with the Client Team and the NPCC Flooding WG until the task is complete (approximately a monthly basis or as often as is deemed necessary by the Client Team). For those meetings, the Consultant will provide meeting materials including agendas, PowerPoint slides or read ahead materials, notes, and virtual meeting access and recordings (if the latter is deemed necessary).
22. The Consultant will produce brief quarterly progress reports with summaries of the status of all outstanding tasks and deliverables, and any unanticipated barriers to completion with proposed steps to mitigate those barriers.

III. Format and Contents of the Proposal in Response

The Proposal in Response must be in a form that conforms to Appendix C to the Consortium Contract, which template form is attached to this document as Attachment B for the purpose of convenience. That template form is also downloadable from the Town+Gown website at (<http://www1.nyc.gov/site/ddc/about/town-gown-advisory-council.page>). The Consultants shall not make changes to the Proposal in Response template form since Appendix C anticipates the accepted Proposal in Response will form the basis of the Task Order.

IV. Evaluation Criteria and Evaluation Procedures

A. Criteria. The Proposals in Response will be evaluated on the basis of criteria set forth below:

<i>Criteria</i>	<i>Weight</i>	<i>Explanation</i>
<i>Experience</i>	20%	Demonstrated qualifications include multi- and inter-disciplinary expertise ranging from physical to natural to social sciences, all with specific expertise related to climate change. Demonstrated expertise in physical climate processes, as well as climate vulnerability, impacts, mitigation, resiliency, and adaptation.
<i>Organizational Capability</i>	20%	Clearly defined roles and duties of the Project team members, as well as clear lines of communication among them. Clearly articulated experience a) working in teams; b) working on transdisciplinary climate assessment; c) synthesizing complex subject matter into actionable findings; and d) familiarity with climate resiliency and adaptation in New York City.
<i>Approach and Methodology</i>	50%	Whether the proposed approach is technically sound, if the methods are appropriate, and whether the stated objectives will be met. Whether the approach to working with the Client Team, NPCC, and external partners, including engagement with governmental and non-governmental organizations where applicable (i.e., the process) will improve the relevance of the information and products. Finally, how the proposed approach supports data transparency and accessibility, weights climate vulnerability in the analysis, and incorporates information on current socio-political and economic context in framing, including an explicit focus on climate justice and anti-racism in the design, execution, and deliverables of the proposed work.
<i>Cost</i>	10%	Cost proposals will be evaluated competitively. The Requestor has allocated a total of \$2,500,000.

B. Other Considerations.

1. *Insurance.* If awarded the Task Order resulting from this T+G RFP, the Consultant and all of its subconsultants must not commence performing any services under the resulting Task Order until all insurance required by this T+G RFP, and the resulting Task Order, is in effect and provided satisfactorily to DCAS and MOCR. The Consultant must ensure uninterrupted and continuous insurance coverage in the manner, form, and limits required by this T+G RFP, and the resulting Task Order, throughout the entire duration of the Task Order.

The Consultant must provide the insurance as indicated below:

Article 7 – Insurance	
Types of Insurance	Minimum Limits and Special Conditions
<ul style="list-style-type: none"> ■ Workers’ Compensation ■ Disability Benefits Insurance ■ Employers’ Liability 	Statutory amounts
<input type="checkbox"/> Commercial General Liability	\$_____ per occurrence \$_____ personal & advertising injury \$_____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____
<input type="checkbox"/> Commercial Auto Liability	\$_____ per accident combined single limit If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90
<input type="checkbox"/> Professional Liability/Errors & Omissions	\$_____ per claim

2. *Subcontracting.* The Consortium Contract, under which this VIA RFP has been issued, permits Consultants to join with one or more other Consultants to prepare a Proposal in Response (see Section 3.3 (b)) as well as to utilize Subcontractors (as defined in the Master Contract) as part of a Proposal in Response (see Sections 3.3(b) and 3.3(e)(8)). Consultants should refer to the Consortium Contract if they wish to consider joint proposals with researchers at other Academic Consortium institutions or include Subcontractors as part of their Proposal in Response. Individual researchers developing Proposals in Response should contact the Gown Advisory Council representative for the respective Academic Consortium institution to obtain a copy of the Consortium Contract, the form of which is also downloadable from the Town+Gown website (<http://www1.nyc.gov/site/ddc/about/town-gown-advisory-council.page>). Please note that Consultants wishing to subcontract with a Subcontractor as part of its Proposal in Response must disclose its intention to use the services of a Subcontractor in its Proposal in Response as provided in Section 3.3 (e) (8) of the Consortium Contract and Appendix C to the Consortium Contract.

C. *Basis of Award.* The Requestor will award the Research Project to the responsive and responsible Consultant whose Proposal in Response is determined to be the most advantageous to and in the best

interest of the City, taking into consideration all the criteria and considerations which are set forth above in this VIA RFP. Award of the resulting Task Order is subject to successful negotiation of terms of the Task Order as provided in the Master Contract and the PPB Rules.

Form of No Bid Response

NO BID RESPONSE

SUBMIT BY RFP RESPONSE DUE DATE

RFP NAME	REQUESTOR	PROPOSAL IN RESPONSE DUE DATE

To: [Requestor Agency]
 Secretary, Gown Advisory Council
 Town+Gown/DDC, as Master Contract Administrator

This is to certify that _____, a Consultant academic institution under the city-wide Town+Gown Master Academic Consortium Contract, will not be submitting a Proposal in Response to the above referenced solicitation document prepared by the listed Requestor.

REASON(S) FOR NO SUBMISSION:

UNAVAILABILITY OF REQUIRED RESOURCES

PRIOR COMMITMENTS

INADEQUATE ANTICIPATED FUNDING LEVEL

PROJECT DURATION

POTENTIAL CONFLICT OF INTEREST

DUPLICATION OF ONGOING EFFORT

OTHER (PLEASE EXPLAIN)

AUTHORIZED REPRESENTATIVE:

NAME: _____

TITLE: _____

SIGNATURE: _____

DATE: ___/___/20__

Form of Proposal in Response Template with Instructions Memo



Template for Town+Gown Proposal in Response.June 2018

As of June 2018

To: Researchers at Academic Consortium Institutions

From: Terri Matthews, Director, Town+Gown @ New York City Department of Design and Construction (DDC)

Re: Instructions for Use of Town+Gown Proposal in Response Template Form

If you are a researcher at one of the 15 academic institutions listed below that comprise the consortium (vendor) pool (the **Academic Consortium**) and are contemplating responding or responding to a Town+Gown RFP released to your Academic Consortium institution pursuant to Town+Gown/DDC's city-wide Town+Gown Master Academic Consortium Contract, for which Town+Gown/DDC acts as administrator (the **Consortium Contract**), you should use the following template form of the Town+Gown Proposal in Response for your Research Project proposal. All defined terms used but not defined have the meanings given them by the Consortium Contract.

- Brooklyn Law School
- City University of New York
- Columbia University
- Cornell University
- Drexel University
- Fordham University
- Manhattan College
- New York Institute of Technology
- New York University
- Pace University
- Pratt Institute
- State University of New York
- The Cooper Union
- The New School
- Tufts University

What follows is the template form of the Town+Gown Proposal in Response under the Consortium Contract, which contains instructions after the ***IMPORTANT NOTES*** icon. These instructions should be removed in the Town+Gown Proposal in Response you submit to the Requestor.

This memo and template form, which is downloadable at the Town+Gown website ([link to come](#)), is intended to provide all of the information you need to prepare a Town+Gown Proposal in Response to a Town+Gown RFP you have received. If you have any questions about the Town+Gown RFP to which you are responding or if you have any questions related to this template Town+Gown Proposal in Response form, please contact the Requestor’s procurement contact listed in the Town+Gown RFP. If you have questions related to the Consortium Contract, please contact your institution’s Academic Consortium representative, who should be the first person who initially disseminated the Town+Gown RFP you are considering at your institution. See also the Gown Advisory Council section of the Town+Gown website (<http://www1.nyc.gov/site/ddc/about/town-gown-advisory-council.page>). The  icon instructions should be removed in the Proposal in Response you submit to the Requestor.

In general, please be aware of the following issues, which are also noted as an  icon in the following template.

- You must not change the form of the Town+Gown Proposal in Response template. The Proposal in Response accepted by the Requestor will form the basis of the Task Order, and it is important that this template *form* be unchanged. The Proposal in Response and the resulting Task Order must be in the form of Appendix C to the Master Contract to which the template form Task Order conforms. Appendix C is a combined Proposal in Response and Task Order form, which Town+Gown/DDC has turned into separate forms available at the Gown Advisory Council section of the Town+Gown website (<http://www1.nyc.gov/site/ddc/about/town-gown-advisory-council.page>).
- This is a Proposal in Response to a New York City procurement, not a grant program. The terms of the Proposal in Response that the Requestor selects for an award become the terms of the resulting Task Order, subject to further negotiation only as permitted by the city’s Procurement Policy Board rules.
- You will need to insert the FMS registration number for your institution’s Consortium Contract from the chart below:

Vendor	MMA1
Brooklyn Law School	20156201502
The Cooper Union	20166200107
Drexel University	20156201606
Fordham University	20146201444
Manhattan College	20146201441
The New School	20166200106
New York Institute of Technology	20146201445
Pratt Institute	20156201501
Tufts University	20156201503

State University of New York	20166200091
New York University	20146201446
Pace University	20146201443
City University of New York	20146201442
Trustees of Columbia University	20176200751
Cornell University	20176200781

[Consultant logo/letterhead here]

**Proposal in Response to [Name of Town+Gown RFP]
under the Consortium Contract**

*** IMPORTANT NOTE! *** CONSULTANTS MUST NOT CHANGE THE FORM OF THE PROPOSAL IN RESPONSE. The Proposal in Response accepted by the Requestor will form the basis of the Task Order, and it is important that this template form be unchanged. If you have questions, please contact the Requestor contact on the Town+Gown RFP or your institution's Gown Advisory Council representative.

*** IMPORTANT NOTE! *** This Proposal in Response form is related to a public procurement and not a grant program, and the terms of the Proposal in Response that the Requestor selects for an award become the terms of the resulting Task Order, subject to further negotiation only as permitted by the Consortium Contract and the City's Procurement Policy Board rules.

Prepared by [Consultant Name]
[Date]

Article 1. Agreement. This Proposal in Response has been prepared and submitted pursuant to the provisions of the Town+Gown Master Academic Consortium Contract, by and between [*** IMPORTANT NOTE! *** Insert your institution's name) (the Consultant), and the New York City Department of Design and Construction, registered with the Comptroller's Office [*** IMPORTANT NOTE! *** Insert registration number for Consortium Contract for your institution from chart on preceding memo] (the Consortium Contract). All capitalized terms used, but not defined, herein shall have the meanings ascribed to them in Article 1 of the Consortium Contract.

If this Proposal in Response is accepted by the Requestor, the awarded Research Project will be governed by a Task Order, negotiated and executed, pursuant to Section 3.4 of the Consortium Contract and the PPB rules, by the Consultant and the Requestor, which Task Order will define the contractual relationship between the Consultant (to become the Academic Partner) and the Requestor (to become the Practitioner Partner) for the duration of the Research Project. The provision of services under the Task Order will be further governed by the terms and conditions of the Consortium Contract, including but not limited to those in the Town+Gown RFP, complying with the provisions of Section 3.2 of the Consortium Contract, and those in the Consortium Contract as required and provided therein.

If this Proposal in Response is accepted by the Requestor, the Consultant agrees to accomplish the Project for which a Task Order will be executed and registered, on time and within budget. The nature of academic research requires some flexibility in the timing of performance, with unforeseeable obstacles and delays. Section 4.03(a) of the PPB Rules is analogous to the National Science Foundation's practice with respect to delays in academic research and is available as a method of providing extensions of time on Task Orders for performance due to the typical delays in academic research. The Academic Partner shall not perform services under the Consortium Contract until a Task Order has been executed and registered with the Comptroller.

Article 2. Proposal in Response to Town+Gown RFP.

*** IMPORTANT NOTE! *** Subject to the requirements of the Consortium Contract and the Town+Gown RFP issued by the Requestor, this Proposal in Response shall be organized in a manner so as to provide the types of

information as described below. Due to the standard of evaluation set forth in Section 4.3 of the Consortium Contract with respect to payment and the certification in Section 4.2 of this Proposal in Response, which will be repeated in the related Task Order, it is especially important that the Consultant be as detailed, as specific and as clear as possible with respect to the elements set forth below. After an award is made based on a particular Town+Gown RFP, these Article 2 elements of the Town+Gown RFP become the Academic Practitioner's obligations under the resulting Task Order.

2.1 Research Project Objectives

*** IMPORTANT NOTE! *** Describe the overall objectives and goals.

*** IMPORTANT NOTE! *** Describe the scope, listing and describing the research approaches, work to be performed and the phases of the work.

*** IMPORTANT NOTE! *** Describe the nature of the collaboration between staffs of the Requestor, as practitioner, and the Consultant, identifying the elements of practitioner experience that would be useful for the research, as well as any other research needs with which the Requestor could provide assistance.

2.2. Work Products and Deliverables

Describe the anticipated work products and deliverables for the Research Project, including interim reports if appropriate, with a sufficient level of detail, including the form and the nature of the content.

2.3. Project Plan and Estimated Duration of Project, including Schedule

*** IMPORTANT NOTE! *** Describe the plan for the Research Project, assigning time values for elements of the scope as a schedule for the Project. City agencies must use expense funds in the City fiscal year they are appropriated; they are not permitted to roll unexpended expense funds into the following City fiscal year, but must appropriate expense funds anew in each succeeding City fiscal year. Thus, for Research Project funded with City tax levy funds, it is important to demonstrate an alignment between the proposed schedule in the Project Plan and the Requestor's expressed expectation for the Project duration in the Town+Gown RFP. Payment requisitions pursuant to Article 4 of the Consortium Contract require, among other things, a status report to indicate the relation of the payment requisition to the Project Plan.

2.4. Project Staffing and Organization.

*** IMPORTANT NOTE! *** List the members of the Academic Team, the costs of whose work will be estimated in the chart in Section 2.5 below, and provide an organizational chart showing the Academic Team's organization for the Project.

*** IMPORTANT NOTE! *** One of the elements of Town+Gown's Organizational Character is supporting academic-practitioner collaborations by highlighting the importance of practice as a source of knowledge, with Academics and Practitioners as equal partners in knowledge creation. Thus, it is important to describe how the Academic Team members will interact with the Requestor's staff and other entities, including a narrative describing the organization and interactions as they

support the nature of the academic-practitioner collaboration in Section 2.1 above which will become part of the Project Plan. In such Project Plan, it will be important to anticipate how the Academic Partner will work with the Practitioner Partner on a Research Project as the equivalent of a peer reviewer on any Task Order-generated work product as contemplated by Section 6.01 of Appendix A.

*** IMPORTANT NOTE! *** The Consultant will estimate costs associated with the Academic Team pursuant to the provisions of Section 3.3 (d) and (e) of the Consortium Contract and show them on the chart in Section 2.5 below. The Consultant shall include a curriculum vitae or resume of no more than three (3) pages for each Senior Personnel member of the Academic Team, including any Subcontractors.

*** IMPORTANT NOTE! *** As provided in Section 3.3 (e) (8) of the Consortium Contract, the Consultant may include, in the Academic Team, entities providing services as Subcontractors. To the extent a Task Order includes the services of Subcontractors, the Consultant shall be responsible for the performance of Subcontract services. For the convenience of reference only, the Consultant should know that subcontracts shall comply with the requirements of Section 2.07, 3.02, 4.07, 7.03, 7.08, 7.09 and 13.06 of Appendix A. Further, expenses incurred by the Consultant in connection with furnishing Subcontractors for the performance of required services under a Task Order are deemed included in the payments to the Consultant as set forth in Article 4 of this Consortium Contract. While the Consultant may pay its Subcontractors first and then seek reimbursement pursuant to the applicable provisions of this Consortium Contract, in the event the Consultant does not pay its Subcontractors prior to seeking reimbursement, the Consultant shall pay its Subcontractors the full amount due them from their proportionate share of the requisition, as paid by the City. The Consultant shall make such payment not later than five Days after receipt of payment by the City.

2.5. Proposed Project Budget and Not to Exceed Amount

*** IMPORTANT NOTE! *** Using this chart as a template, provide a proposed Project budget, estimating the costs of each component of the Project as provided in Section 3.3(e) of this Consortium Contract, and providing any require additional justification. Please provide a copy of an effective negotiated indirect cost rate with federal agency bound by the provisions of OMB Circular A-21 or a proposed indirect cost calculation methodology pursuant to Section 3.3(e)(xi) of the Consortium Contract.

Principal Investigator/Project Director:				
Headings under Section 3.3 (e)	[columns for calculations]			Costs

<u>Not to Exceed Amount</u>				\$_____.

Article 3. Consultant’s Billing and Invoicing.

*** IMPORTANT NOTE! *** The general requirements of the Consortium Contract, including Article 4, and any specific requirements of the Town+Gown RFP will govern the billing and invoicing process from the Requestor’s perspective.

*** IMPORTANT NOTE! *** The Consultant should list the personnel responsible for billing and invoicing functions at the Consultant organization and related contact information.

Article 4. Representations and Warranties.

4.1. Accuracy and Completeness of Statements. The Consultant certifies that statements, representations and warranties contained in the Proposal in Response and the Consortium Contract, including Appendix A thereto, were true and complete as of the date they were made and are true and complete as of the date of this Proposal in Response.

*** IMPORTANT NOTE! *** For convenience of reference only, the Consultants should know that Sections 2.01 (procurement of contract/task orders), 2.03 (fair practices), 2.04 (VENDEX, now Passport), 2.07 (unlawful discriminatory practices), 3.02 (e) (subcontractor performance); 4.01 (independent contractor status), 4.02 (employees), 4.07 (E.O. 50), 6.01 (copyrights) and 7.08 (insurance certificate) contain specific representations and warranties.

4.2. The Project. The Consultant certifies that all elements of the work and costs necessary to perform the Project in a professional and competent manner according to the standards of the relevant field(s) and/or discipline(s), and to meet the requirements set forth in the Town+Gown RFP and in Section 4.3 of the Consortium Contract have been included in this Proposal in Response.

4.3. Academic Team Members. The Consultant represents and warrants that the members of the Academic Team possess the experience, knowledge and character necessary to qualify them individually for the particular services they will perform on the Project in a professional and competent manner pursuant to Section 4.3 of the Consortium Contract.

The submission of curriculum vitae and resumes for the Senior Personnel members of the Academic Team, whether they are the Consultant’s direct employees or Subcontractors, with the Proposal in Response, implies that such individuals will be available to perform the services on the Project. For the Consultant who is awarded the Task Order, it is expected that such members of the Academic Team will perform the services under the Task Order; provided, however, that such Consultant may replace members of the Academic Team on the Project during the term of the Task Order with personnel who possess qualifications substantially similar to those being replaced, with prior notice to the Practitioner Partner.

To the extent the Requestor believes a member of the Academic Team is unable to perform services in a professional and competent manner according to the standards of the relevant field(s) and/or discipline(s), it shall have the right to raise such concerns with the Consultant so that both parties have the opportunity to resolve such concerns in good faith, subject to the provisions of Section 10.02 of Appendix A.

4.4. Agreement to Comply with Terms of Task Order. The Consultant agrees to comply with the terms and conditions of the Task Order and the Consortium Contract under which it was issued.

4.5. Conflicts of Interest—Gown. The Consultant certifies that it has implemented and is enforcing a written policy on conflicts of interest, consistent with the provisions of the National Science Foundation’s AAG Chapter IV.A.; further, that, to the best of the undersigned Authorized Party’s knowledge, all financial disclosures required by the conflict of interest policy were made; and that conflicts of interest, if any, were, or prior to the institution's expenditure of any funds under the award, will be, satisfactorily managed, reduced or eliminated in accordance with the Consultant’s conflict of interest policy.

4.6. Training and Oversight. To the extent the Academic Team includes any postdoctoral researchers, graduate students or undergraduate students, the Consultant certifies that it has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers.

4.7. Affirmation. The Consultant affirms and declares that it is [*** IMPORTANT NOTE!** Insert description of status under State corporation law and federal income tax law], and, further, that it is not in arrears to the City upon debt, contract or taxes, it is not a defaulter, as surety or otherwise, upon obligation to the City, it has not been declared “not responsible” or disqualified, by any agency of the City, and that, to its knowledge, there is no proceeding pending relating to its responsibility or qualification to receive public contract except as indicated in the space below:

Article 5. Task Order Execution. Execution of a resulting Task Order by the Requestor shall be evidence of its approval of the following items, as explicitly noted above in this Proposal in Response:

- (1) subcontractors pursuant to Sections 3.3 (b) and (e)(8) of the Consortium Contract, subject to final compliance with PPB Rule requirements and Sections 2.07, 3.02 and 4.07 of Appendix A,
- (2) compensation beyond three months and/or utilizing a percentage equivalent of academic contract effort pursuant to Section 3.3(e)(1) of the Consortium Contract,
- (3) treating components of an Academic Partner’s facilities and administration as a direct cost pursuant to Section 3.3 (e)(2) of the Consortium Contract,

(4) the purchase of equipment and post-Project ownership of such equipment pursuant to Section 3.3 (e)(6) of the Consortium Contract,

(5) the incurrence of expenses related to long-distance travel pursuant to Section 3.3 (e)(7) of the Consortium Contract, to be reimbursed, in the case of City Agency Requestors, pursuant to the provisions of Article 4 of the Consortium Contract,

(6) the incurrence of expenses related to computer services pursuant to Section 3.3 (e)(9) of the Consortium Contract, and

(7) the application of the formula to determine indirect costs pursuant to Section 3.3(e)(10) of the Consortium Contract.

Article 6. Relation of Task Order to Consortium Contract.

6.1 Task Order Incorporates Terms of Consortium Contract. If the Requestor accepts this Proposal in Response, the resulting Task Order shall be deemed to incorporate all the terms and conditions of the Consortium Contract, including Appendix A thereto, even if such terms and conditions are not expressly reiterated in the Task Order.

6.2 Task Order Not an Amendment of Consortium Contract. Neither a Proposal in Response nor a Task Order may alter the terms and conditions of the Consortium Contract. The terms and conditions of the Consortium Contract Agreement can only be modified by the parties in an amendment pursuant to Section 6.4 of the Consortium Contract, and any provision of a Task Order that would have the effect of amending a term or condition of the Consortium Contract shall be null and void.

Any amendments, changes or modifications of this Task Order must comply with the provisions of Section 9.01 of Appendix A.

6.3 Conflict between Task Order and Consortium Contract. In the event of any conflict between any provision in a resulting Task Order and any provision of the Consortium Contract, including Appendix A thereto, the provision in the Consortium Contract shall control.

SUBMITTED BY:

By: _____

Name: _____

Title: _____

Date: _____