Tioga County Soil and Water Conservation District (SWCD)

Request for Proposals

for

Engineering Design, Bidding and Construction Management and Inspection Services

For

REGIONAL SUSQUEHANNA RIVER INITIATIVE FLOODPLAIN MANAGEMENT AND STREAM RESTORATION

GAYLORD ROAD STREAM CROSSING PROJECT

September 17, 2020

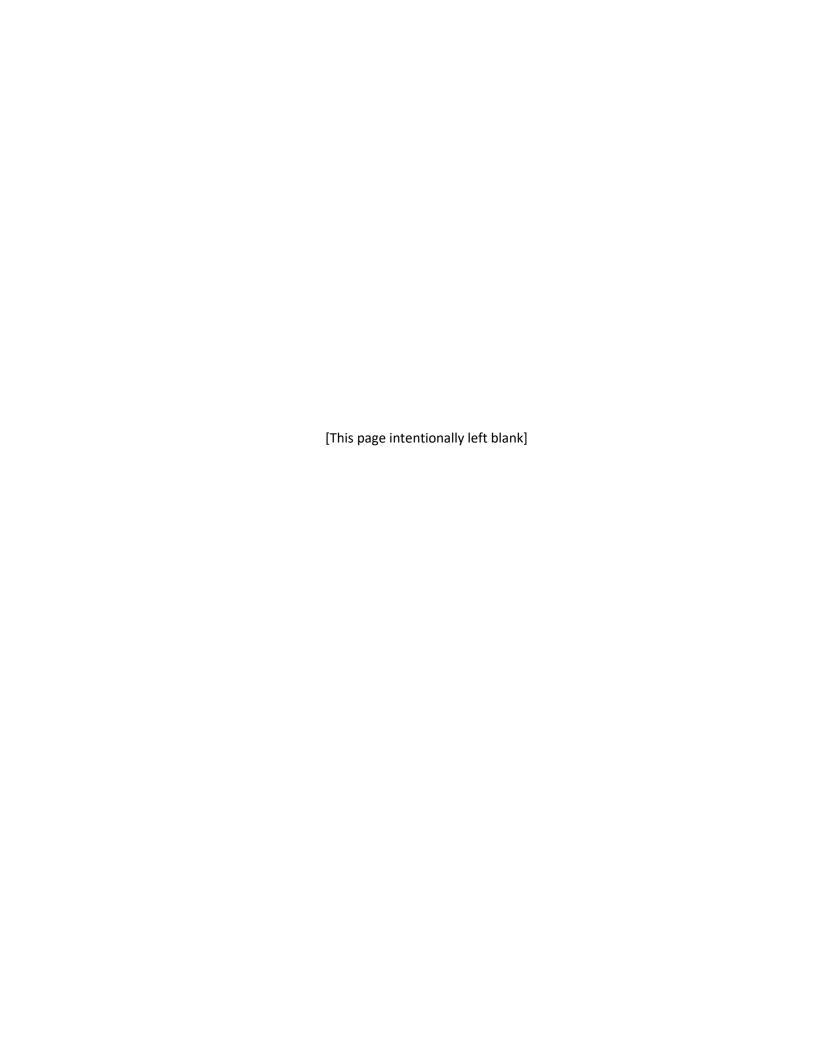
A project funded by and conceived through the NY Rising Community Reconstruction Program of the Governor's Office of Storm Recovery

Responses must be received by:

12:00p.m. (Eastern), October 14, 2020

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Request for Proposals

1 Introduction and Overview

Tioga County Soil and Water Conservation District (SWCD), "Subrecipient", is eligible to apply for U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant–Disaster Recovery (CDBG-DR) funding for long-term recovery and resiliency projects. Funding will be delivered through the NY Rising Community Reconstruction (NYRCR) Program of the New York State Governor's Office of Storm Recovery (GOSR). Accordingly, Respondents are obligated to comply with applicable federal and state laws and regulations set forth in Exhibit A (Supplementary Contract Conditions), as well as with the SWCD's Procurement Policy and Procedures. In addition, Respondents are obligated to comply with all municipal codes, ordinances, and regulations. This project is funded by and conceived through the GOSR NYRCR Program.

Agreements and contracts resulting from this Request for Proposals (RFP), including lower-tiered subcontracts, must include the following language:

"All attachments and exhibits to this Contract are hereby incorporated by reference into the Contract and are considered a material part of this Contract. Should any provision(s) of this Contract (including any terms in any of the attachments and/or exhibits thereto and amendments thereof) be deemed to be in conflict with any other provision(s), the provisions shall be applied pursuant to the priority set forth in the Order of Precedence section of the Governor's Office of Storm Recovery Supplementary Conditions for Contracts."

Only responsible vendors who have the technical and financial competence to perform as well as an exemplary record of integrity will be selected under this procurement. Before selecting a vendor, SWCD intends to review the federal and state lists of vendors excluded from procurement. Contracts shall not be awarded to debarred, suspended, or otherwise ineligible vendors. Accordingly, responses to this Request for Proposals must include a completed NYS Vendor Responsibility Questionnaire and notarized certification, along with verification that a completed NYS Vendor Responsibility Questionnaire has been filed with the NYS Office of the State Comptroller: http://www.osc.state.ny.us/vendrep/.

Elation Systems, Inc. is a provider of cloud-based diversity and labor compliance reporting and management services. GOSR has adopted this web-based compliance management system to help all of its Contractors, Subrecipients, and Subrecipient's Contractors receiving federal funds to adhere to Labor Compliance (Davis-Bacon), Minority and Women Owned Business (M/WBE) and Section 3 reporting requirements. The selected firm must comply with instructions from GOSR on how and when to meet all reporting requirements, and how to utilize Elation to satisfy those requirements.

In accordance with New York State General Municipal Law Section 104-b, this RFP is designed to identify New York State licensed professional architectural and engineering (A/E) firms best qualified to provide the services necessary the project consistent with the requirements of the CDBG-DR funding stream. Respondents will be reviewed on the basis of their eligibility and ability to provide services in a manner

¹ U.S Department of Housing and Urban Renewal (HUD) Community Development Block Grant-Disaster Recovery ("CDBG-DR") funds appropriated by the Disaster Relief Appropriations Act ("PL 113-2").

sensitive to specific requirements and timetables established by federal law. Not all qualified Respondents will be selected to provide these services.

SWCD will select a qualified architectural and engineering firm of the highest caliber that employ adequate staff and possess the financial management capacity to be able to focus immediate attention on the project.

Through its Evaluation Team, SWCD will select the Respondent whose proposal receives the greatest number of points. The Evaluation Team will only open or evaluate Cost Proposals from those firms that it has determined are qualified on the basis of the Technical Factors listed below. After the firms that are qualified have been identified, the Evaluation Team will factor in the cost of the qualified proposals using the formula set forth below under "6. Selection Process." The Cost Proposal is included as Schedule IV: Cost Proposal.

SWCD reserves the right to negotiate the distribution of the A/E fee. SWCD reserves the right to reject any and all proposals either in whole or in part. The Subrecipient, Tioga County SWCD, reserves the right to: 1. amend, modify, or withdraw this solicitation; 2. revise any requirement of this solicitation; 3. require supplemental statements or information from any responsible party; 4. extend the deadline for submission of responses hereto; 5. negotiate or hold discussions with any firm and to correct deficient responses which do not conform to the instructions contained herein; 6. cancel, or reissue in whole or in part, this solicitation, if Subrecipient determines in its sole discretion that it is its best interest to do so; and 7. extend the term of any agreement on terms consistent with this procurement.

Subrecipient makes no representations or warranties regarding the accuracy of any information provided in this RFP and will have no liability or obligation with regards to its contents.

Respondents will not be reimbursed for costs incurred in the preparation of the proposal.

The funding level anticipated for the project for construction is: \$1,097,460.00

2 Project Description

Project 2: GAYLORD ROAD STREAM CROSSING PROJECT

Tioga County Soil and Water Conservation District has requested CDBG-DR funds for upgrades and replacement of the existing Gaylord Road culvert crossing of an unnamed tributary to Appalachian Creek in the Town of Owego, Tioga County, New York. The existing pipe arch culvert is hydraulically undersized and significantly narrower than the bankfull width, severely constricting the stream and making the crossing susceptible to blockage and washout. The concrete block headwalls and wingwalls are in critical structural condition and the culvert outlet is perched and undermined, limiting or restricting aquatic passage. The stream channel and banks upstream and downstream of the crossing are severely eroded, threatening adjacent residential properties and structures.

Thirty percent design and engineering for this project was performed in another New York Rising Community Reconstruction Project by the Subrecipient. Some of the design recommendations includes the following:

- Replacement of the existing 11-foot wide by 8.5-foot high corrugated metal pipe arch culvert with a precast reinforced concrete open-bottom, three-sided frame with a larger opening;
- Grade controls;
- Embankment regrading and stabilization;
- Channel widening; and
- Temporary bypass road

The residents and property owners along Gaylord Road will benefit from this project by having a sustainable culvert to channel flood waters from disrupting traffic utilizing the road and provide potential flood reduction for high-risk flood areas to support community resilience to future storms and flooding. Failure to execute the project would keep the neighborhood at a greater risk for repeated flooding from future major storm events.

Alternative interventions, specifically green infrastructure solutions, should be explored as well if applicable.

See Schedule I for additional details.

The successful Respondent will assist SWCD with all basic services necessary for 100% design development and geotechnical investigation; permitting; 100% construction documents and technical specifications (draft and final project manual); bid phase services (pre-bid site visit, responses to RFIs and addenda); and construction management and inspection services in accordance with HUD and GOSR requirements and timetables.

SWCD reserves the right to modify the project description.

3 Deadlines and Completion Date

The Technical Proposal and Cost Proposal must be delivered **in separate envelopes** to the Tioga County Soil and Water Conservation District in accordance with Schedule II: Deadline Schedule. Proposals are due on October 14, 2020. Subrecipient reserves the right to extend receipt of submissions beyond October 14, 2020.

4 Scope of Work

SWCD reserves the right to modify the Scope of Work.

Modifications to this scope of work by a Respondent to this RFP shall not be permitted unless approved by the Subrecipient.

To avoid duplication of efforts, unless otherwise specified by GOSR in writing, the selected A/E firm will not conduct environmental review activities. It is presumed that GOSR will serve as lead agency for the purposes of NEPA and SEQRA. The selected A/E firm will be required to coordinate with GOSR and its contractors in support of any environmental review activity. Notwithstanding the above, Subrecipients will be responsible for complying with all applicable, local, state and federal permits.

- The selected A/E firm must abide by GOSR's environmental requirements, including but not limited to elevation design standards adapted to address impacts of climate change. Updated copies of these environmental requirements are available at www.stormrecovery.ny.gov/environmental-docs.
- The successful Respondent should familiarize themselves with the existing 30% design report, meet and work with the Subrecipient to determine more detailed program requirements for the project, and shall refine and complete the program in a form acceptable to the SWCD. (Refer to Exhibit B for 30% Design Report) At the time of award, the 30% design drawings, Preliminary Geotechnical Foundation Recommendations, Test Boring Location Plan, USGS Local Geology Test Boring Logs Gradation, and Test Reports will be made available to the successful vendor of the project.
- Design the Projects so that the actual Total Project Construction Cost does not exceed the Approved Construction Budget. In the event it is discovered at any phase of design that the estimated Total Project Construction Cost of the work is in excess of the Approved Construction Budget, or the bids received are in excess of the Approved Construction Budget, the Respondent shall revise, at its own cost and expense, all or any part of the Schematic Deliverables, the Design Development Deliverables, the Construction Documents or the Bid Documents necessary to bring the estimated Total Project Construction Cost within the Approved Construction Budget. In order to reduce the estimated Total Project Construction Cost to the Approved Construction Budget, the Respondent shall, in addition to the above, at the Subrecipient request and at no additional cost to the Subrecipient, (i) provide value engineering to reduce the estimated Total Project Construction Cost to the Approved Construction Budget; (ii) assist the Subrecipient in redefining the scope of the Project; (iii) incorporate all scope reductions and Project modifications into the modified Schematic Deliverables, Design Development Deliverables, Construction Documents or Bid Documents; and (iv) develop and incorporate bid alternates into the Construction Documents and Bid Documents.
- Prepare, at a minimum, the following deliverables for each project: 1) Design Development or 60% design; 3) Draft final or 90% design and 4) 100% construction documents or Final Contract Documents. At each submission, Respondent agrees to provide an opinion of probable cost. Respondent shall also prepare a detailed schedule in 30 calendar days of each deliverable.
- Prepare a complete set of Final Contract Documents (drawings, specifications, and calculations), including an estimate of probable construction costs for use as the basis for advertising the construction projects for bid within <u>120</u> calendar days of the executed design contract.
- Prepare and submit any and all required permit applications.
- Prepare boundary surveys and legal descriptions related to necessary property acquisition including permanent and temporary construction easements. Provide assistance to the Subrecipient and GOSR in the process for obtaining easements.
- Assist SWCD during the construction bid process by attending the pre-bid site meeting(s), responding to bidder questions, distributing documents to prospective bidders by mail or email and maintaining a list of prospective bidders, issuing any necessary addenda, and reviewing bids received to determine technical responsiveness and bidder experience and qualification to perform the work.
- Recommend to the Subrecipient, award to the lowest, responsive, responsible bidder and assist the Subrecipient in the preparation of the Notice of Award.
- Review the low bidder's submittals of bonds and insurance certificates and assist the Subrecipient in the preparation of the Notice to Proceed.
- Conduct the pre-construction meeting and prepare meeting minutes.
- Review submittals for contract document compliance.

- Answer Requests for Information within 5 business days.
- Prepare agendas and conduct regular construction progress meetings in accordance with SWCD's requests. Prepare meeting minutes. Meetings shall be held weekly, biweekly or monthly depending on the duration and complexity of the construction.
- Conduct regular construction observation and inspections to ensure contract compliance, design
 intent, quality of workmanship, and material acceptance. The frequency of inspections will be
 based on the duration and complexity of the construction and the level of construction activity.
- Prepare and issue Field Orders and Change Orders.
- At Substantial Completion, conduct Substantial Completion Inspection and prepare a punch list of work to be completed.
- At Final Completion, conduct Final Completion Inspection and prepare Certification of Final Completion
- Collect contract closeout documents from all prime contractors, this includes but is not limited to lien and claim releases from all subcontractors and vendors, Consent of Surety to Final Payment, and equipment warranties, if applicable.
- Prepare Record (as-built) drawings
- If applicable, prepare Operation and Maintenance Manual
- Coordinate project activities with the activities of the Subrecipient and other parties.

5 SUBMITTAL CONTENT

Respondent must supply two (2) hard copies and electronic version of its submission to the attention of Tioga County Soil and Water Conservation District's RFP Coordinator no later 12:00 p.m. on October 14, 2020.

RFP Coordinator:

Wendy Walsh District Manager Tioga County SWCD 183 Corporate Drive Owego, NY 13827

Phone: 607-687-3553

Email: walshw@co.tioga.ny.us

While there is no specific page limit, brevity, whenever practical, is <u>strongly</u> encouraged and will be considered in evaluation responses. The Proposal must contain the following information and documentation:

- **Firm.** Respondent's legal structure, areas of expertise, length of time in business, number of employees and detailed contact information for the person authorized to contractually obligate the Respondent and for the person administratively responsible for the Proposal.
- Subconsultants. Identify any Subconsultants, including a summary of the organization, experience and technical skills. Respondent shall not employ, contract with, or use the services of any consultant for the work of this Contract (except such third parties which may be used by

the Respondent in the normal course of business, such as couriers, imaging services, etc.) without obtaining the prior written approval of GOSR.

- Disclosure. Disclose all allegations or claims of substandard work, unethical or illegal practices or debarment or suspension from state- or federally-funded projects, and provide documentation as to the resolution of these matters. Respondent must not be suspended or debarred from participation in state- or federally-funded projects. Include a completed NYS Vendor Responsibility Questionnaire and notarized certification, along with verification that a completed NYS Vendor Responsibility Questionnaire has been filed with the NYS Office of the State Comptroller: http://www.osc.state.ny.us/vendrep/. Failure to complete and submit the NYS Vendor Responsibility Questionnaire may be cause for a proposal to be rejected.
- Relevant Experience. Previous projects that demonstrate relevant experience and identify public sector clients for whom Respondent has provided similar work in the past five years. For each project described, provide current contact information for the individual with whom Respondent worked.
- **Approach and Methodology.** Respondent's understanding of the scope, including a detailed work plan to complete the requested services.
- **Staffing Plan.** Respondent's capacity to provide services in the required timeframe, and key personnel to provide services and the proposed staffing plan. Outline the resumes of key personnel who will be assigned to the project, including their years of experience and functions on this project.
- Ability to Conform to the Subrecipient's Deadline Schedule. Describe firm's workload and the impact on its current capacity to perform services on this project, and describe specifically how the firm will comply with the required delivery schedule set forth in Schedule II.
- Commitment to Comply with All Applicable Federal, State, and Local Regulations, including Minority and Women-Owned Business Enterprise (M/WBE) and Section 3. Describe firm's commitment to and plan for complying with all applicable federal, state, and local regulations, including, as described below, M/WBE obligations and hiring requirements under Section 3 of the Housing and Community Development Act. Include a completed M/WBE Utilization Plan, (See Exhibit V) demonstrating the extent to which the firm will utilize M/WBE Subconsultants on this project. This is a factor for firm selection, and Respondents who demonstrate a commitment to comply will receive the most points (as described herein under "6. Selection Process").
- **Iran Divestment Act.** Respondent must attach a signed statement on company letterhead that is affirmed as true under penalty of perjury.
- Costs. Complete the Cost Proposal (Schedule IV) by providing a, not-to-exceed, lump sum price
 [and itemized cost breakdown, by task, showing estimated manhours and hourly rates] for
 completing this project. Also provide a schedule of hourly billing rates for all labor classifications
 that could be involved in the work. The Cost Proposal must be included in a separate sealed
 envelope.
- Attachments. Resumes and material helpful to the technical evaluation may also be attached (short project descriptions, brochures).

6 SELECTION PROCESS

Technical Proposals responsive to the requirements of this RFP will be evaluated and scored in accordance with the Subrecipient's internal evaluation criteria. **After evaluation of the Technical Proposals, Cost Proposals will be scored for cost.**

During or after the review of responses, SWCD may submit written questions and requests for clarification, and may conduct interviews. Respondents must comply with the calendar identified in Schedule II: Deadline Schedule, which may be adjusted if necessary.

The Subrecipient shall evaluate each respondent in terms of:

| Technical Factors <u>Maximu</u> | m Points |
|---|----------|
| 1. Relevant Experience | 20 |
| 2. Approach and Methodology | 20 |
| 3. Staffing Plan | 15 |
| 4. Ability to Conform to Subrecipient's Deadline Schedule | 20 |
| 5. Commitment to Comply with all Applicable Federal, State | |
| and Local Regulations including M/WBE and Section 3 | 10 |
| Total Technical Points | 85 |
| | |
| Total Cost Points | 15 |
| Maximum Points (Total Technical Points + Total Cost Points) | 100 |

The Subrecipient's Evaluation Team will conduct a technical evaluation of the non-cost elements as described in the RFP prior to opening the Cost Proposals. No more than 85 technical total points will be awarded to any Respondent.

The Cost Proposal will remain sealed until completion of the technical evaluation and will only be considered for the best qualified firms. No more than 15 points will be awarded to any Respondent.

Cost points will be awarded as follows:

• The lowest priced qualifying technical proposal will be awarded the full 15 points. Other bidders will be awarded as follows:

Total cost points for bidder X = (lowest bidder cost/bidder X's cost) x 15

• Subrecipient will weigh the technical and cost evaluation results of each submittal as two components, which together will have a maximum total score of 100 points. The contract will be awarded to the respondent with the highest total score.

After evaluation of selected Technical Proposals and Cost Proposals, Subrecipient reserves the right to award without delay. Subrecipient will issue a Letter of Intent to Award and a Notice to Proceed when costs are negotiated and accepted by the Subrecipient and approved by GOSR.

7 Specific Legal Obligations

7.1 PROCUREMENT

SWCD is committed to providing all prospective respondents with accurate, consistent and timely information to ensure that the procurement is conducted with full and open competition. Written questions from prospective respondents about the RFP are accepted by email at walshw@co.tioga.ny.us due by October 14, 2020. Questions may only be addressed to the RFP Coordinator as identified in Section 5 (Submittal Content).

In accordance with General Municipal Law Section 104-b(2)(f) and State Finance Law Section 139-j(2)(a), SWCD must identify the individual responsible for purchasing and the individual who is the sole point of contact during the procurement.

In accordance with State Finance Law Sections 139-j and 139-k, this RFP imposes restrictions on communications between the Subrecipient, GOSR, New York State Housing Trust Fund (HTFC) and Respondents during the procurement. Respondent is restricted from making contact from the earliest notice of intent to solicit offers through final award (the restricted period) with [Subrecipient]'s staff other than the RFP Coordinator unless it is a contact included among expressly provided statutory exceptions set forth in State Finance Law Section 139-j(3)(a). Respondent is also restricted during this period from making contact with any employee of GOSR or HTFC.

The RFP Coordinator is identified in Section 5 (Submittal Content).

Subrecipient employees also are required to obtain certain information when contacted during the restricted period and make a determination of responsibility of the Respondent pursuant to these two statutes. Certain findings of non-responsibility can result in the rejection for contract award and in the event of two (2) findings within a four-year period the Respondent is debarred from obtaining governmental procurement contracts.

7.2 DIVERSITY AND INCOME REQUIREMENTS

7.2.1 Minority and Women Owned Businesses (M/WBE)

Subrecipient is committed to awarding a contract(s) to firms that will provide high quality services and that are dedicated to diversity and to containing costs. Subrecipient strongly encourages Respondents that are certified by New York State, any other city or state, or the federal government, as M/WBE firms, as well as Respondents that are not yet certified but have applied for certification, to submit responses to

this RFP. All New York State-certified M/WBE firms submitting proposals to this RFP should be registered as such with New York State Empire State Development (ESD). For M/WBE firms that are not certified but have applied for certification, Respondents must provide evidence of filing including filing date.

Subrecipient is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 (M/WBE Regulations). Subrecipient strongly encourages joint ventures of M/WBE firms with majority firms and M/WBE firms with other M/WBE firms. For purposes of this solicitation, Subrecipient hereby establishes an overall goal of [30]% for M/WBE participation, [15]% for minority-owned business enterprises (MBE) and [15]% for women-owned business enterprises (WBE).

Responders must submit a MWBE Utilization Plan with their proposal (See Schedule V).

7.2.2 Section 3

In addition to the above diversity requirements, and pursuant to Section 3 of the Housing & Community Development Act (HCDA), Subrecipient is committed to ensuring that employment and other economic opportunities generated by HUD financial assistance shall, to the greatest extent feasible and consistent with existing federal, state and local laws and regulations, be directed to Section 3 residents and businesses.

A "Section 3 resident" is: 1) a public housing resident; or 2) a low- or very low-income person residing in the metropolitan area or non-metropolitan county where the Section 3 covered assistance is expended. For the purposes of Section 3 of the HCDA, low-income persons are defined as families (including single persons) whose incomes do not exceed 80% of the median income for the area, and very low-income persons are defined as families (including single persons) whose incomes do not exceed 50% of the median income for the area.

A "Section 3 business" is a business that can provide evidence that it meets one of the follow criteria: 1) 51% or more owned by Section 3 residents; or 2) at least 30% of its full time employees include persons who are currently Section 3 residents, or were Section 3 residents within three years of the date of first hire; or 3) provides evidence, as required, of a commitment to subcontract in excess of 25% of the dollar award of all subcontracts to business concerns that meet one of the preceding two qualifications.

In their submittals, Respondents should demonstrate their commitment to advancing Subrecipient's Section 3 goals, which include the following: 30% of new hires associated with the CDBG-DR funded project shall be Section 3 residents, 10% of new construction contracts shall be awarded to Section 3 businesses, and 3% of non-construction contracts shall be awarded to Section 3 businesses.

7.3 IRAN DIVESTMENT ACT

Every Proposal made to Subrecipient pursuant to a competitive solicitation must contain the following statement, signed by the Respondent on company letterhead and affirmed as true under penalty of perjury:

"By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law."

The list in question is maintained by the Office of General Services. Responses that fail to certify compliance with this requirement may not be accepted as responsive.

7.4 New York Law and Venue

This contract shall be construed under the laws of the State of New York. All claims, actions, proceedings, and lawsuits brought in connection with, arising out of, related to, or seeking enforcement of this contract shall be brought in the Supreme Court of the State of New York, Tioga County.

SCHEDULE I: DETAILED PROJECT DESCRIPTION

The consultant will provide a schedule of deliverables to include a minimum of the following data. Additional data may be provided at the consultant's discretion.

| Schedule of Deliverables | | | | | | |
|--------------------------|--|---------|--|--|--|--|
| 60% Design | | 1/22/21 | | | | |
| 90% Design | Design ready for GOSR review (See Schedule VI) | 2/21/21 | | | | |
| 100% Design | See Schedule VI | 3/23/21 | | | | |
| | | | | | | |

Subrecipient reserves the right to modify the project description.

SCHEDULE II: DEADLINE SCHEDULE

A. Date for Publication of Notice: September 17, 2020

B. Date for Questions from Respondents: September 30, 2020

C. Date for Response to Respondents' Questions: October 5, 2020

D. Date for Submission of Proposals: October 14, 2020

E. Date for Evaluation of Proposals: October 21, 2020

F. Date for Contingent Award: October 23, 2020

G. Date for Initial Meeting between Selected Firm, Subrecipient, and GOSR: October 30, 2020

H. Date for Receipt of Draft Contract from Selected Firm: November 6, 2020

I. Date for Execution of Contract with Notice to Proceed: November 23, 2020

March 23, 2021

J. Date for Receipt of Deliverable I (See Schedule 1): (100%)

Subrecipient reserves the right to modify this Deadline Schedule as necessary. All Submittals shall be submitted in hard and soft copies, signed in the original, and received and date stamped by Subrecipient on or before 12:00 p.m. on October 14, 2020.

Respondent is responsible for meeting all deadlines. The selected firm will be responsible for submitting a draft A/E contract that includes a scope of services or scope of work and cost proposal within one (1) week of the initial meeting (G). Failure to meet this deadline may result in the Subrecipient exercising its right to terminate negotiations with the selected firm.

SCHEDULE III: INSURANCE REQUIREMENTS

- A. Unless otherwise directed by GOSR, Contractor shall procure and maintain without interruption, at its sole cost and expense, during the term of this Agreement (or any extensions thereof) and for a period of two years thereafter, insurance of the type, and with limits and deductibles, as follows:
 - a. <u>Commercial General Liability Insurance and Excess Liability Insurance</u>. Providing both bodily injury (including death) and property damage insurance with limits in the aggregate and per occurrence in accordance with the following table:

| Contract Value | Commercial General Liability in combination with Excess | | | |
|----------------------|---|--------------|--|--|
| (Umbrella) Liability | | | | |
| | Each Occurrence General Aggregate | | | |
| <\$10M | \$2,000,000 | \$2,000,000 | | |
| >\$10M - \$50M | \$5,000,000 | \$5,000,000 | | |
| >\$50M | \$10,000,000 | \$10,000,000 | | |

Such insurance is to be written on an occurrence basis with defense outside of limits. New York State, the New York State Housing Trust Fund Corporation, and the Subrecipient shall each be named as an additional insured. The minimum required level of insurance may be provided through a combination of commercial general liability and umbrella and/or excess liability policies.

- b. <u>Automobile Liability and Property Damage Insurance</u>. In an amount not less than One Million Dollars (\$1,000,000) combined single limit for both Bodily Injury and Property Damage.
- c. <u>Professional Liability</u>. If the Contractor is engaged in providing professional services under this Agreement, professional errors and omissions coverage with a limit not less than Two Million Dollars (\$2,000,000) in the aggregate and One Million Dollars (\$1,000,000) per occurrence. If the Contractor is not engaged in providing professional services under this Agreement, this professional errors and omissions coverage is not required.
- d. <u>Worker's Compensation</u>. Covering workers' compensation and employers' liability and disability benefits as required by the State of New York.
- B. In addition to the foregoing, Contractor and any subcontractors shall procure and maintain any and all insurance which is required by any applicable current or future law, rule, regulation, ordinance, permit, license, order or other legal requirement.
- C. All insurance shall be primary and non-contributory and shall waive subrogation against GOSR and the Subrecipient and all of either of their former, current, or future officers, directors, and employees. No deductible of more than \$50,000 shall be permitted without advance written approval by GOSR, which GOSR may withhold, condition or deny in its sole and exclusive discretion.

- D. The Contractor shall provide Certificates of Insurance to GOSR and the Subrecipient prior to the commencement of work and shall provide full and complete copies of the actual policies and all endorsements upon request. Subcontractors under this Agreement shall be required to maintain insurance meeting all of the requirements set forth in Section A above for items a-d; however Contractor shall require subcontractors to maintain greater limits and/or other or additional insurance coverages if greater limits and/or other or additional insurance coverages are (a) generally imposed by the Contractor given its normal course of business for subcontracts for similar work or services to those being provided by the subcontractor at issue; or (b) reasonable and customary in the industry for similar work or services to those anticipated hereunder.
- E. If the above insurance requirements are potentially excessive because they exceed the type and/or amount of insurance which is reasonable and customary for similar work or services in the same general geographic area, Contractor shall, within fifteen (15) calendar days of the execution of this Agreement, provide written notice of the same to GOSR, along with a written summary of the type and amount of insurance Contractor believes is reasonable and customary for similar work or services in the same general geographic area. GOSR may, in GOSR's sole and exclusive discretion, but is under no obligation to, waive, decrease, or otherwise alter or amend the insurance requirements in light of this notice. However, notwithstanding anything to the contrary herein, nothing in this paragraph requires or shall be deemed to require GOSR to waive, decrease, alter or amend, in whole or in part, any insurance requirements as a result of the foregoing notice from Contractor or for any other reason, and no waiver, decrease, alteration or amendment shall be made except as approved in advance and in writing by GOSR.
- F. If the above insurance requirements are potentially inadequate because they do not meet or exceed the type and/or amount of insurance which is reasonable and customary for similar work or services in the same general geographic area, Contractor shall, within fifteen (15) calendar days of the execution of this Agreement, provide written notice of the same to GOSR, along with a written summary of the type and amount of insurance Contractor believes is reasonable and customary for similar work or services in the same general geographic area. GOSR may, in GOSR's sole and exclusive discretion, but is under no obligation to increase, supplement, expand, or otherwise alter or amend the insurance requirements in light of this notice. However, notwithstanding anything to the contrary herein, nothing in this paragraph requires or shall be deemed to require GOSR to increase, supplement, expand, or otherwise alter or amend, in whole or in part, any insurance requirements as a result of the foregoing notice from Contractor or for any other reason, and no increase, supplement, expansion or other alteration or amendment shall be made except in an amendment to this Agreement, as approved in advance and in writing by GOSR.

SCHEDULE IV: COST PROPOSAL

Gaylord Road Stream Crossing Project

| NAME OF P | ROPOSER: | | |
|------------------|---------------|--|--|
| • | MP SUM NOT TO | | |
| | | | |
| \$ In Figures | | | |

All fees to be included in the lump sum

Please include the names, titles and hourly rates for each individual to be associated with this Project.

Reimbursable expenses to be invoiced at actual cost and must be included in the lump sum.

SCHEDULE V: MINORITY AND WOMEN OWNED BUSINESSES (MWBE) UTILIZATION PLAN

M/WBE UTILIZATION PLAN

INSTRUCTIONS: This form is submitted at the time of bid or procurement submission, or at the time of contract execution, or within a reasonable time thereafter as outlined in procurement submission instructions. This Utilization Plan must contain a detailed description of the supplies and/or services to be provided by each certified Minority and Women-owned Business Enterprise (M/WBE) under the contract. Attach additional sheets if necessary.

| Subrecipient Name: | Project Name: | |
|------------------------|-------------------------------------|--|
| Offeror's Name: | Federal ID Number: | |
| Address: | Contract Number (if applicable): | |
| City State & Zip Code: | Phone: | |
| Location of Work: | | |

| | M/WBE Target (| Goal | ı | Proposed M/WBE Pai | ticipation |
|----------|----------------|--------|----------|--------------------|------------|
| Category | Percentage | Amount | Category | Percentage | Amount |
| MBE: | % | \$ | MBE: | % | \$ |
| WBE: | % | \$ | WBE: | % | \$ |
| Totals: | % | \$ | Totals: | % | \$ |

| Certified M/WBE Subcontractors/Suppliers Information: | | (Choose.One Only) | | Federal ID No. : | Detailed Description of Work: | Dollar Value of Subcontractors/ Supplies/Services | Intended performance dates on each component of |
|---|----------|----------------------|-----|------------------|-------------------------------|---|--|
| | | MBE | WBE | | | | the contract |
| Α | Name: | | | | | | |
| | Address: | | | | | | |
| | Email: | | | | | | |
| | Phone: | | | | | | |
| В | Name: | | | | | | |
| | Address: | | | | | | |
| | Email: | | | | | | |
| | Phone: | | | | | | |
| С | Name: | | | | | | |
| | Address: | | | | | | |
| | Email: | | | | | | |
| | Phone: | | | | | | |
| D | Name: | | | | | | |
| | Address: | | | | | | |
| | Email: | | | | | | |
| | Phone: | | | | | | |

| Contractor Use: |
|-----------------------|
| Name of Preparer: |
| Authorized Signature: |
| Date: |
| Email: |
| Phone: |

VI. GUIDANCE FOR THE DEVELOPMENT OF PLANS AND SPECIFICATIONS

Governor's Office of Storm Recovery ■ NY Rising Community Reconstruction Program

Guidance for the Preparation of Plans and Specifications

Plans and Specifications must be submitted to the Governor's Office of Storm Recovery (GOSR) for review as a requirement of the NY Rising Community Reconstruction program. Because the NY Rising Community Reconstruction Program is funded with Community Development Block Grant Disaster Recovery (CDBG-DR) funds, projects assisted with these funds must meet certain CDBG-DR requirements as well as other Federal cross-cutting authorities (laws and executive orders). Therefore, Community Reconstruction projects must be bid and contracts awarded in accordance with applicable Federal laws and regulations as well as New York State laws and regulations related to public contracts. Plans and Specifications along with executed Bid/Contract Documents will be reviewed to verify that CDBG-DR and State requirements will or have been followed during the bidding and award process.

GOSR's review and acceptance does not ensure that the project is in compliance with all State and local requirements. The information contained in this guide is overview of Federal and State bidding requirements and should not be construed as legal advice or exhaustive coverage of the topic. It is the responsibility of the design professional and the subrecipient's legal counsel to know and follow all applicable regulations regarding the bidding and award process.

SUBMITTAL REQUIREMENTS

The Plans and Specifications submittal must comply with the following:

- One (1) Set of detailed Plans and Specifications must be submitted to GOSR. A registered
 professional architect or engineer, licensed to practice in the State of New York, must stamp the
 plans and specifications.
- The Plans and Specifications should be submitted at least 30 days prior to the desired date for the publication of the advertisement for bids.
- The preferred format is Adobe pdf format.

DESIGN REQUIREMENTS

Plans and Specifications must comply with all State and local code requirements. In addition, where applicable Plans and Specifications should conform to GOSR's environmental guidance. GOSR is committed to promoting sustainability through resilient and green design in building and infrastructure projects funded through the NY Rising Community Reconstruction program. Designers should incorporate sustainability measures and green infrastructure practices into the proposed design where possible.

Any portion of the project that does not meet CDBG-DR eligibility requirements cannot be funded through GOSR. If any portions of the project are not eligible, these should be listed separately and identified as ineligible in the bid proposal.

REQUIRED PROVISIONS

The following provisions must be incorporated directly in the Project Specifications:

- 1. GOSR Supplementary Conditions for Contracts
- 2. Federal Labor Standards Provisions (HUD Form 4010)
- 3. GOSR project sign requirements
- 4. NYS General Municipal Law Section 103-d Non-Collusive Bidding certification
- 5. NYS General Municipal Law Section 103-g Iranian Energy Sector Divestment certification
- 6. NYS General Municipal Law Section 105 Time period for holding bids

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Guidance for the Preparation of Plans and Specifications

- 7. NYS General Municipal Law Section 108 Workmen's Compensation
- 8. NYS General Municipal Law Section 109 Assignment of Contract
- 9. NYS Labor Law Section 220 Work Hours
- 10. NYS Labor Law Section 220-e Discrimination in Employment
- 11. NYS Labor Law Section 220-h OSHA Safety Course (applicable to contracts over \$250,000.)

Note: Non-governmental entities should consult legal counsel regarding applicability of New York State General Municipal Law and New York State Labor Law requirements to their project.

REQUIRED FORMS

The following forms are necessary for compliance with program requirements and must be included in or incorporated by reference in the Project Specifications.

- NYS Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) This form must be submitted by the apparent low bidder as a condition of contract award.
- 2. M/WBE Utilization Plan All bidders must submit a M/WBE Utilization Plan.
- Section 3 Plan A Section 3 Plan must be submitted by the apparent low bidder as a condition of contract award.

ADVERTISEMENT FOR BIDS

The Advertisement (Invitation) for Bids must include the following language:

"This project is being financed by the NYS Governor's Office of Storm Recovery. Attention of bidders is particularly called to Section 3 requirements, M/WBE goals, Federal labor standards and wage rates, online reporting requirements using Elation System, Inc. and GOSR Supplementary Contract Conditions."

INSTRUCTIONS TO BIDDERS

The Instructions to Bidders must include the language similar to the following:

M/WBE

"Special attention is directed to the M/WBE requirements contained in the GOSR Supplementary Conditions for Contracts. The Contractor shall make a good faith effort to solicit active participation by enterprises identified in the New York State Minority and Women-Owned Business Enterprises Directory of Certified Firms in order to promote and assist the participation of certified M/WBEs in an amount equal to fifteen (15%) minority-owned business enterprises ("MBE") and fifteen percent (15%) women-owned business enterprise ("WBE") of the total dollar value of the contract. The Contractor agrees to be bound by the provisions of Section 316 of Article 15-A of the Executive Law, which pertain to enforcement of Article 15-A.

All bidders must submit a M/WBE Utilization Plan with their bid."

SECTION 3

"Special attention is directed to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly person who are

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Guidance for the Preparation of Plans and Specifications

recipients of HUD assistance for housing. A sample Section 3 Plan is included in the Project Specifications. The successful bidder will be required to submit a Section 3 Plan as a condition of contract award."

REPORTING

"Special attention is called to GOSR reporting requirements. GOSR has adopted the Elation Systems, Inc. web-based compliance management system to assist with Labor Compliance (Davis-Bacon), Minority and Women Owned Business (M/WBE) and Section 3 reporting requirements. The Contractor and its subcontractors must utilize the Elation Systems to satisfy reporting requirements. To this end the Contractor and its subcontractors will be required to register with Elation Systems, Inc. and to attend online training on the use of the system."

INSURANCE

"Special attention is called to GOSR insurance requirements contained in the GOSR Supplementary Conditions for Contracts."

PREVAILING WAGES

"This project includes both State and Federal prevailing wages. If Federal Davis-Bacon wage rates differ from the New York State prevailing wage rates, then the higher of the two rates shall be paid."

VENDOR RESPONSIBILITY

"The New York State Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) shall be submitted by the apparent low bidder to the Owner as a condition of contract award."

BONDING

Contracts that exceed \$150,000 must comply with the following minimum bonding requirements:

- A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.
- A performance bond on the part of the contractor for 100 percent of the contract price. A
 "performance bond" is one executed in connection with a contract to secure fulfillment of all the
 contractor's obligations under such contract.
- 3. A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

LABOR COMPLIANCE

The Project Specifications must include both a Davis-Bacon Federal Wage Decision and, if applicable, a New York State Wage Schedule. Davis-Bacon Wage Decisions may be downloaded from http://www.wdol.gov/ and clicking on "Selecting DBA WDs". New York State Wage Schedules may be downloaded from https://wpp.labor.state.ny.us/wpp/publicViewPWChanges.do?method=showlt.

The Davis Bacon Wage Decisions must be re-verified within ten days before bid opening, and if it has been

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Guidance for the Preparation of Plans and Specifications

revised, the revised version must be issued to bidders as an Addendum. Additionally, if a contract is not awarded within 90 days after the bid opening an updated Davis-Bacon Wage Decision must be obtained.

PERFORMANCE REQUIREMENTS AND PENALTIES

The Project Specifications must include a fixed time for performance in either calendar days or working days and must include provisions for damages for failure to complete the work on time.

COMPARABLE PRODUCTS ("Or Equal" Clause)

The Project Specifications must include a statement similar to one of the following:

"Whenever a material, article or piece of equipment is identified on the drawings or in the specifications by reference to manufacturers' or vendors' names, trade names, catalogue number, or make, said identification is intended to establish a standard. Any material, article or equipment of other manufacturers and vendors which performs satisfactorily the duties imposed by the design intent may be considered equally acceptable provided that, in the opinion of the Design Professional, the material, article or equipment so proposed is of equal quality, substance and function. The Contractor shall not provide, furnish or install any said proposed material, article or equipment without the prior written approval of the Design Professional."

or

"Whenever any product is specified by the name, trade name, make or catalog number or any manufacturer or supplier, the intent is not to limit competition but to establish a standard of quality which the Design Professional has determined is necessary. The words "or equal" shall be deemed inserted in each instance. The Contractor may use any product equal to that named in the Contract Documents which is approved by the Design Professional and which meets the requirements of the Contract Documents, providing the Contractor gives timely notice of his/her intent in accordance with the submittal requirements of the Contract Documents."

UNIFORM FEDERAL ACCESSIBILITY STANDARDS

Design, construction, or alteration of building must conform to the Uniform Federal Accessibility Standards (UFAS). The project architect must execute a certification that the design is in conformance with UFAS.

PAYMENT PROVISIONS

The payment provisions in the Project Specifications should allow the Owner a minimum of 45 days to make payment to the Contractor after the Design Professional has issued a certificate for payment.

PROJECT SIGN

All projects receiving funding through GOSR are required to have a weatherproof outdoor project sign. This must be clearly stated in the Project Specifications. The sign must be displayed conspicuously in a prominent location on-site throughout the entire construction phase. Electronic graphic file versions of the emblems used in the sign are available by request from GOSR. Following are some general details regarding specifications for the outdoor project sign and the sign template, which are to be filled out by the Contractor. Only one Project Sign is required per project.

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WICKS LAW (GENERAL MUNICIPAL LAW SECTION 101)

When the entire cost of a contract for the erection, construction, reconstruction or alteration of a public building exceeds certain thresholds, the design professional must prepare the plans and specifications to allow for the independent and separate bidding and award of contracts for plumbing trade work, HVAC trade work and electrical trade work. In addition a general construction trade contract is normally separated as well.

Currently, the Wicks Law's threshold amounts triggering the requirement of multiple prime contractors are:

- 1. \$3 million in the counties of the Bronx, Kings, New York, Queens, and Richmond;
- 2. \$1.5 million in the counties of Nassau, Suffolk and Westchester; and
- 3. \$500,000 in all other counties.

In accordance with the provisions of Labor Law Section 222, projects that utilize a Project Labor Agreement are exempt from the multiple prime contracts requirements of the Wicks Law.

For contracts that do not meet the Wicks Law threshold, the Project Specifications must require bidders to submit a separate sealed list that names each plumbing, HVAC and electrical subcontractor that the bidder will use in performance of the contract and the amount to be paid to each. This list is opened after the low bid is announced. After bid, the contractor may seek to change any listed subcontractor upon a showing of legitimate need.

REQUIRED DOCUMENTS

The following documents are available from GOSR and/or online:

- 1. GOSR Supplementary Conditions for Contracts
- 2. Federal Labor Provisions HUD Form 4010 https://www.hudexchange.info/resource/2490/hud-form-4010-federal-labor-standards-provisions/
- NYS Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) https://www.osc.state.ny.us/vendrep/forms_vendor.htm
- 4. Sample Section 3 Plan format
- M/WBE Utilization Plan (PROC-2)
- 6. UFAS certification form

EXHIBIT A: SUPPLEMENTARY CONDITIONS FOR CONTRACTS

"GOSR": Governor's Office of Storm Recovery and its successors and assigns, as well as the Housing
Trust Fund Corporation and its successors and assigns, and its parent entities and their successors and assigns.

"Subrecipient":

"Contractor":

When these Supplementary Conditions are attached to any lower tier contract (e.g., a contract between Contractor (as defined above) and any subcontractor, or between Contractor's direct or indirect subcontractors), references herein to "Subrecipient" shall be deemed to refer to the party seeking products and/or services, and references to "Contractor" shall be deemed to refer to the party providing products and/or services, and references to the "Agreement" or "Contract" or "contract" shall be deemed to refer to the agreement between such subcontracting parties.

ORDER OF PRECEDENCE

In the event of a conflict between the terms of these Supplementary Conditions and the terms of the remainder of the contract (including any other attachments thereto and amendments thereof), the terms of these Supplementary Conditions shall control.

In the event of a conflict among the requirements found in these Supplementary Conditions, which conflict would make it impossible to comply with all of the requirements set forth herein, the provisions shall be applied with the following priority:

- (1) Part I: Required Federal Provisions; then
- (2) Part II: Required State Provisions;

and the remaining requirements shall be interpreted in a manner so as to allow for the terms contained therein to remain valid and consistent with such superseding provisions. If any provision of these Supplementary Conditions relates to a matter embraced by another provision(s) of these Supplementary Conditions, but is not in conflict therewith, all such provisions shall apply. Any question as to which requirements control in a particular instance which cannot be resolved by Contractor and Subrecipient shall be submitted in writing (indicating the issue and the applicable provisions) by Subrecipient to GOSR, which shall decide the applicable question.

The following terms and conditions apply to any contract for which any portion of the funding is derived from a grant made by the United States Department of Housing and Urban Development ("HUD").

GENERAL CONDITIONS

- 1. PROVISIONS REQUIRED BY LAW DEEMED INSERTED. Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.
- 2. <u>STATUTORY AND REGULATORY COMPLIANCE</u>. Contractor shall comply with all laws and regulations applicable to the Community Development Block Grant-Disaster Recovery funds appropriated by the Disaster Relief Appropriations Act, 2013 (Pub. L. 113-2), including but not limited to the applicable Office of Management and Budget Circulars, which may impact the administration of funds and/or set forth certain cost principles, including the allowability of certain expenses.
- **3. BREACH OF CONTRACT TERMS.** The Subrecipient and GOSR reserve their rights to all administrative, contractual, or legal remedies, including but not limited to suspension or termination of this contract, in instances where the Contractor or any of its subcontractors violate or breach any contract term. If the Contractor or any of its subcontractors violate or breach any contract term, they shall be subject to such sanctions and penalties as may be appropriate. The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- **REPORTING REQUIREMENTS.** The Contractor shall complete and submit all reports, in such form and according to such schedule, as may be required by the Subrecipient and GOSR. The Contractor shall cooperate with all Subrecipient and GOSR efforts to comply with HUD requirements and regulations pertaining to reporting, including but not limited to 2 CFR Part 200 and 24 C.F.R. § 570.507.

5. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT.

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the federal government, GOSR, and the Subrecipient in any resulting invention in accordance with 37 C.F.R. Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by HUD.

- **DEBARMENT, SUSPENSION, AND INELIGIBILITY.** The Contractor represents and warrants that it and its subcontractors are not debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs subject to 2 C.F.R. Part 2424. The Contractor shall notify the Subrecipient and GOSR should it or any of its subcontractors become debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs subject to 2 C.F.R. Part 2424.
- 7. CONFLICTS OF INTEREST. The Contractor shall notify the Subrecipient as soon as possible if this contract or any aspect related to the anticipated work under this contract raises an actual or potential conflict of interest (as described in 2 CFR Part 200). The Contractor shall explain the actual or potential conflict in writing in sufficient detail so that the Subrecipient is able to assess such actual or potential conflict. The Contractor shall provide the Subrecipient any additional information necessary for the Subrecipient to fully assess and address such actual or potential conflict of interest. The Contractor shall accept any reasonable conflict mitigation strategy employed by the Subrecipient, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict. If requested by GOSR, Contractor shall sign a certification affirming that it has no conflict of interest arising from performance of work on a specific task.
- **8. SUBCONTRACTING.** The Contractor represents to the Subrecipient that all work shall be performed by personnel experienced in the appropriate and applicable profession and areas of expertise, taking into account the nature of the work to be performed under this contract.

The Contractor will include these Required Federal Provisions in every subcontract issued by it so that such provisions will be binding upon each of its subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors.

- **9.** <u>ASSIGNABILITY.</u> The Contractor shall not assign any interest in this contract and shall not transfer any interest in the same (whether by assignment or novation) without prior written approval of the Subrecipient.
- **10.** <u>INDEMNIFICATION.</u> The Contractor shall indemnify, defend, and hold harmless the Subrecipient, GOSR, and their agents and employees from and against any and all claims, actions, suits, charges, and judgments arising from or related to the negligence or willful misconduct of the Contractor in the performance of the services called for in this contract.
- 11. TERMINATION FOR CAUSE (Applicable to contracts exceeding \$10,000). If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his obligations under this contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this contract, the Subrecipient shall thereupon have the right to terminate this contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under this contract shall, at the option of the Subrecipient, become the Subrecipient's property and the Contractor shall be entitled to receive just and equitable

compensation for any work satisfactorily completed hereunder. Notwithstanding the above, the Contractor shall not be relieved of liability to the Subrecipient for damages sustained by the Subrecipient by virtue of any breach of the contract by the Contractor, and the Subrecipient may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the Subrecipient from the Contractor is determined.

12. TERMINATION FOR CONVENIENCE (Applicable to contracts exceeding \$10,000).

The Subrecipient may terminate this contract at any time by giving at least ten (10) days' notice in writing to the Contractor. If the contract is terminated by the Subrecipient as provided herein, the Contractor will be paid for the time provided and expenses incurred up to the termination date.

- **13.** LOBBYING (Applicable to contracts exceeding \$100,000). The Contractor certifies, to the best of his or her knowledge and belief, that:
 - A. No federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
 - B. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - C. The Contractor shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

14. BONDING REQUIREMENTS (Applicable to construction and facility improvement contracts exceeding \$100,000). The Contractor shall comply with New York State bonding requirements, unless they have not been approved by HUD, in which case the Contractor shall comply with the following minimum bonding requirements:

- A. A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- B. A performance bond on the part of the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the Contractor's obligations under such contract.
- C. A payment bond on the part of the Contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.
- 15. <u>ACCESS TO RECORDS.</u> The Subrecipient, GOSR, HUD, the Comptroller General of the United States, or any of their duly authorized representatives, shall have, at any time and from time to time during normal business hours, access to any work product, books, documents, papers, and records of the Contractor which are related to this contract, for the purpose of inspection, audits, examinations, and making excerpts, copies and transcriptions.
- **MAINTENANCE/RETENTION OF RECORDS.** Contractor shall retain all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement (collectively, the "Records") (i) for three (3) years from the time of closeout of HUD's grant to the State or for the period provided in the CDBG regulations at 24 CFR 570.487 (or other applicable laws and program requirements) and 24 CFR 570.488, or (ii) for six (6) years after the closeout of a CDBG-DR funded project pursuant to 42 USC 12707(a)(4) and New York Civil Practice Law and Rules § 213, whichever may be longer, provided that Section 1 of the Required State Provisions herein is also satisfied.

CIVIL RIGHTS AND DIVERSITY PROVISIONS:

17. SMALL AND MINORITY FIRMS, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS. The Contractor will comply with the small and minority firms, women's business enterprise, and labor surplus area requirements as set forth at 2 CFR Part 200. Contractor will use its best efforts to afford small businesses, minority business enterprises, and women's business enterprises the maximum practicable opportunity to participate in the performance of the contract. As used in these Required Federal Provisions, the terms "small business" means a business that meets the criteria set forth in Section 3(a) of the Small Business Act, as amended (15 U.S.C. § 632), and "minority and women's business enterprise" means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, "minority group members" are Afro-Americans, Spanish-speaking, Spanish surnamed, or Spanish-heritage Americans, Asian Americans, and American Indians. Subrecipient may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

The Contractor will take necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used in subcontracting when possible. Steps include:

- A. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- B. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- C. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- D. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- E. Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

18. TITLES VI AND VIII OF THE CIVIL RIGHTS ACT OF 1964 AND EXECUTIVE

ORDER 11063. The Contractor shall comply with the provisions of Titles VI and VIII of the Civil Rights Act of 1964 and with Executive Order 11063. No person shall, on the grounds of race, color, religion, sex, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. No person shall, on the grounds of race, color, religion, sex, or national origin, be discriminated against in the sale, rental, or financing of dwellings. To the extent that any such sale, lease or other transfer of land shall occur, Contractor, in undertaking its obligation to carry out the Program assisted hereunder, will not itself so discriminate.

19. <u>SECTION 109 OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF</u>

1974. The Contractor shall comply with the provisions of Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title. Section 109 further provides that discrimination on the basis of age under the Age Discrimination Act of 1975 or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, as amended, is prohibited.

20. SECTION 504 OF THE REHABILITATION ACT OF 1973 AND THE

AMERICANS WITH DISABILITIES ACT OF 1990. The Contractor shall comply with section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794), as amended, and any applicable regulations, and with the Americans with Disabilities Act of 1990 (42 U.S.C. § 126), as amended, and any applicable regulations

The Contractor agrees that no qualified individual with handicaps shall, solely on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives federal financial assistance from HUD.

21. <u>AGE DISCRIMINATION ACT OF 1975.</u> The Contractor shall comply with the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), as amended, and any applicable regulations. No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving federal financial assistance.

22. <u>NONDISCRIMINATION.</u>

The Contractor shall comply with the non-discrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 C.F.R. § 570.607. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act of 1974 are still applicable. The Contractor shall comply with all other federal statutory and constitutional non-discrimination provisions. During the performance of this contract, the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- D. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided

advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- E. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- G. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- H. The Contractor will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (H) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

With respect to construction contracts and subcontracts exceeding \$10,000, The Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967; Executive Order 11478 of August 8, 1969; Executive Order 12107 of December 28, 1978; Executive Order 12086 of October 5, 1978; and as supplemented in Department of Labor regulations (41 C.F.R. Part 60). Subrecipient shall include the following Specifications, which are required pursuant to 41 CFR 60-4.3 in all federally assisted contracts and subcontracts. For the purposes of the Equal Opportunity Construction Contract Specifications and Clause below, the term "Construction Work" means the construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.

Standard Federal Equal Employment Opportunity Construction Contract Specifications for Contracts and Subcontracts in Excess of \$10,000. (Federal Notice Required by 41 CFR 60-4.3)

- 1. As used in these specifications:
- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
- (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
- (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
- (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 2. Whenever the contractor or any subcontractor at any tier, subcontracts a portion of the work involving any Construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Agreement resulted.
- 3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- 4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from

which this Agreement resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each Construction trade in which it has employees in the covered area. Covered Construction contractors performing Construction Work in geographical areas where they do not have a Federal or federally assisted Construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

- 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each Construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor may have taken.

- d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where Construction Work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of Construction Work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- 1. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

- n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female Construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the Program are reflected in the contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 11. The contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246 or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs.
- 12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- 13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal

employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

- 14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, Construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for hiring of local or other areas residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
- **23.** CERTIFICATION OF NONSEGREGATED FACILITIES (Applicable to construction contracts exceeding \$10,000). The Contractor certifies that it does not maintain or provide for its establishments, and that it does not permit employees to perform their services at any location, under its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for employees any segregated facilities at any of its establishments, and it will not permit employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the nondiscrimination clause of this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason.

The Contractor further agrees that (except where it has obtained for specific time periods) it will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the nondiscrimination clause; that it will retain such certifications in its files; and that it will forward the preceding notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).

- **24.** <u>SECTION 503 OF THE REHABILITATION ACT OF 1973 (Applicable to contracts exceeding \$10,000).</u> The Contractor shall comply with section 503 of the Rehabilitation Act of 1973 (29 U.S.C. § 793), as amended, and any applicable regulations.
 - A. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:
 - 1. Recruitment, advertising, and job application procedures;
 - 2. Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 - 3. Rates of pay or any other form of compensation and changes in compensation;
 - 4. Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - 5. Leaves of absence, sick leave, or any other leave;
 - 6. Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 - 7. Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - 8. Activities sponsored by the Contractor including social or recreational programs; and
 - 9. Any other term, condition, or privilege of employment.
 - B. The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
 - C. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
 - D. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The Contractor must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual or may lower the posted notice so that it might be read by a person in a wheelchair).
 - E. The Contractor will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.

F. The Contractor will include the provisions of this clause in every subcontract or purchase order in excess of \$10,000, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to section 503 of the act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

25. <u>SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968</u> (Applicable to contracts exceeding \$100,000 in value for housing construction, rehabilitation, or other public construction).

- A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- B. The parties to this contract agree to comply with HUD's regulations in 24 C.F.R. Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
- C. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, the availability of apprenticeship and training positions, the qualifications for each, the name and location of the person(s) taking applications for each of the positions, and the anticipated date the work shall begin.
- D. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. Part 135. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. Part 135.
- E. The Contractor will certify that any vacant employment positions, including training positions, that are filled: (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 C.F.R. Part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. Part 135.

- F. Noncompliance with HUD's regulations in 24 C.F.R. Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- G. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible: (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).
- H. Irrespective of any applicable federal reporting requirements as noted in the statutory language above or otherwise, Contractor shall submit quarterly reports along with any supporting documentation, in a form acceptable to Subrecipient, of its Section 3 compliance efforts to Subrecipient. Contractor may be required to consolidate all reports received from subcontractors and lower-tiered subcontractors into a single report or several reports as reasonably requested by Subrecipient. Notwithstanding the provision of such reports and supporting documentation, Contractor shall maintain copies of all reports and supporting documents as set forth in these Supplementary Conditions.

26. FAIR HOUSING ACT. Contractor shall comply with the provisions of the Fair Housing Act of 1968 as amended. The act prohibits discrimination in the sale or rental of housing, the financing of housing or the provision of brokerage services against any person on the basis of race, color, religion, sex, national origin, handicap or familial status. Contractor shall comply with the provisions of the Equal Opportunity in Housing Act, which prohibits discrimination against individuals on the basis of race, color, religion, sex or national origin in the sale, rental, leasing or other disposition of residential property, or in the use or occupancy of housing assisted with federal funds.

LABOR PROVISIONS

27. COPELAND "ANTI-KICKBACK" ACT (Applicable to all construction or repair contracts). Salaries of personnel performing work under this contract shall be paid unconditionally and not less often than once a month without payroll deduction or rebate on any account except only such payroll deductions as are mandatory by law or permitted by the applicable regulations issued by the Secretary of Labor pursuant to the Copeland "Anti-Kickback Act" of June 13, 1934 (48 Stat. 948; 62 Stat. 740; 63 Stat. 108; 18 U.S.C. § 874; and 40 U.S.C. § 276c). The Contractor shall comply with all applicable "Anti-Kickback" regulations and shall insert appropriate provisions in all subcontracts covering work under this contract to ensure compliance by subcontractors with such regulations, and shall be responsible for the submission of affidavits required of subcontractors thereunder except as the Secretary of Labor may specifically provide for variations of or exemptions from the requirements thereof.

28. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (Applicable to construction contracts exceeding \$2,000 and contracts exceeding \$2,500 that involve the employment of mechanics or laborers). The Contractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-330) as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

All laborers and mechanics employed by contractors or subcontractors shall receive overtime compensation in accordance with and subject to the provisions of the Contract Work Hours and Safety Standards Act, and the contractors and subcontractors shall comply with all regulations issued pursuant to that act and with other applicable federal laws and regulations pertaining to labor standards.

29. DAVIS-BACON ACT AND OTHER LABOR COMPLIANCE (Applicable to construction contracts exceeding \$2,000 when required by federal program legislation). The Contractor shall comply with the Davis Bacon Act (40 U.S.C. §§ 276a to 276a-7) as supplemented by Department of Labor regulations (29 C.F.R. Part 5), and all other applicable federal, state, and local laws and regulations pertaining to labor standards insofar as they apply to the performance of this agreement. In addition, Contractor shall comply with the Federal Labor Standards Provisions set forth in Form HUD-4010, available at http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_12586.pdf.

All laborers and mechanics employed by contractors or subcontractors, including employees of other governments, on construction work assisted under this contract, and subject to the provisions of the Federal acts and regulations listed in this paragraph, shall be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis Bacon Act. The Contractor shall maintain documentation that demonstrates compliance with hour and wage requirements of this part. Such documentation shall be made available to Subrecipient and GOSR for review upon request.

If Contractor is engaged under a contract in excess of \$2,000 for construction, renovation, or repair work financed in whole or in part with assistance provided by GOSR, Contractor agrees, except with respect to the rehabilitation or construction of residential property containing less than eight (8) units, to comply and to cause all subcontractors engaged under such contracts to comply with federal requirements adopted by GOSR pertaining to such contracts and with the applicable requirements of the Department of Labor under 29 C.F.R. Parts 1, 3, 5, and 7 governing the payment of wages and ratio of apprentices and trainees to journey workers; provided that, if wage rates higher than those required under the regulations are imposed by state or local law, nothing hereunder is to relieve Contractor of its obligation, if any, to require payment of the higher wage. Contractor shall cause or require to be inserted in full, in all such contracts subject to such regulations, provisions meeting the requirements of this paragraph.

- **30. ENERGY EFFICIENCY.** The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the New York State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).
- 31. SOLID WASTE DISPOSAL. Pursuant to 2 CFR § 200.322, Contractor must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (codified at 42 USC § 6962). The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

32. <u>CERTIFICATION OF COMPLIANCE WITH ENVIRONMENTAL LAWS.</u>

The Contractor and all subcontractors agree to comply with the following requirements (and their state and/or local counterparts or analogues, if any) insofar as they apply to the performance of this Agreement as any of the following may hereinafter be amended, superseded, replaced, or modified:

- A. Executive Order 11988, Floodplain Management, May 24, 1977 (42 FR 26951, 3 C.F.R., 1977 Comp., p. 117, as interpreted at 24 C.F.R. Part 55), and Executive Order 11990, Protection of Wetlands, May 24, 1977 (42 FR 26961, 3 C.F.R., 1977 Comp., p. 121);
- B. Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1451 et seq.);
- C. Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300(f) et seq., and 21 U.S.C. § 349, as amended), and EPA regulations for Sole Source Aquifers (40 C.F.R. Part 149);
- D. Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.);
- E. Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. § 1271 et seq.);
- F. Clean Air Act, as amended (42 U.S.C. § 7401 et seq.);
- G. EPA regulations for Determining Conformity of Federal Actions to State or Federal Implementation Plans (40 C.F.R. Parts 6, 51, and 93);
- H. Farmland Protection Policy Act of 1981 (7 U.S.C. § 4201 *et seq.*), and USDA regulations at 7 C.F.R. Part 658;
- I. HUD criteria and standards at 24 C.F.R. Part 51;

- J. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Feb. 11, 1994 (59 FR 7629, 3 C.F.R., 1994 Comp. p. 859);
- K. Flood Disaster Protection Act of 1973, as amended (42 U.S.C. § 4001-4128);
- L. National Flood Insurance Reform Act of 1994 (42 U.S.C. § 5154a);
- M. Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 (16 U.S.C. § 3501);
- N. Runway Clear Zone regulations (24 C.F.R. Part 51);
- O. Federal Water Pollution Control Act, as amended (33 U.S.C. § 1251, *et seq.*), commonly known as the Clean Water Act, and all regulations and guidelines issued thereunder;
- P. Environmental Protection Agency ("EPA") regulations at 40 C.F.R Part 50, as amended;
- Q. HUD regulations at 24 C.F.R. Part 51, Subpart B, and New York State and local laws, regulations, and ordinances related to noise abatement and control, as applicable;
- R. HUD regulations at 24 C.F.R. Part 51 Subpart C regarding siting of projects near hazardous operations handling conventional fuels or chemicals of an explosive or flammable nature;
- S. HUD and EPA regulations related to asbestos-containing material and lead-based paint, including but not limited to Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York Department of Labor (12 NYCRR 56), the National Emission Standard for Asbestos (40 C.F.R. § 61.145), the National Emission Standard for Asbestos (40 C.F.R. § 61.150), and 24 C.F.R. Part 35 Subparts B, H, and J; and
- T. All other applicable environmental laws that may exist now or in the future.

Further, Contractor shall abide by any conditions or requirements set forth in any environmental review performed pursuant to 24 C.F.R. Part 58, which are HUD's regulations for Responsible Entities implementing the National Environmental Policy Act.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the Subrecipient, the following:

A. A stipulation by the Contractor or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the Excluded Party Listing System pursuant to 40 C.F.R. Part 32 or on the List of Violating Facilities issued by the EPA pursuant to 40 C.F.R. Part 15, as amended.

- B. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. § 1857 c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 U.S.C. § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- C. A stipulation that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the Excluded Party Listing System or the EPA List of Violating Facilities.
- D. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraphs A through D of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the government may direct as a means of enforcing such provisions.

PART II: REQUIRED STATE PROVISIONS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "Contract") agree to be bound by the following clauses which are hereby made a part of the Contract.

1. ACCOUNTING RECORDS. The Contractor shall establish and maintain complete Records, including accurate books, records, documents, accounts and other evidence directly pertinent to performance of work done for the Subrecipient under this Contract consistent with generally accepted bookkeeping practices. Subrecipient shall retain the Records, including all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement (i) for three (3) years from the time of closeout of HUD's grant to the State or for the period provided in the CDBG regulations at 24 CFR 570.487 (or other applicable laws and program requirements) and 24 CFR 570.488, or (ii) for six (6) years after the completion of a CDBG-DR funded project pursuant to 42 USC 12707(a)(4) and New York Civil Practice Law and Rules § 213, whichever may be longer, provided that Section 16 of the Required Federal Provisions herein is also satisfied. The Subrecipient, GOSR, and any person or entity authorized to conduct an examination shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The Subrecipient and GOSR shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform the Subrecipient and GOSR, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the Subrecipient's or GOSR's right to discovery in any pending or future litigation.

- **NON-ASSIGNABILITY.** This Contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or disposed of without the previous consent in writing of the Subrecipient and GOSR, and any attempts to assign the Contract without such written consent are null and void. However, this Contract shall be binding upon and inure to the benefit of the Subrecipient and GOSR, and their successors and assigns.
- 3. <u>INDEMNITY</u>. The Contractor shall indemnify and hold New York State and the Housing Trust Fund Corporation and their employees, officers, Members and Directors (collectively, the "Indemnities") harmless from and against all claims, demands, liability, loss, cost, damage or expense, including attorney's fees, which may be incurred by the Indemnities because of negligence or malfeasance on the part of the Contractor arising out of this Contract.
- **NON-DISCRIMINATION.** To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other state and federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status, domestic violence victim status, pregnancy, religious practice, presence of a service animal, or criminal conviction. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Contract. Contractor is subject to fines of \$50 per person per day for any violation of Section 239 as well as possible termination of this Contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

If directed to do so by the State Commissioner of Human Rights ("Commissioner"), the Contractor will send to each labor union to which the Contractor is bound a notice provided by the Commissioner advising of this provision. The Contractor will keep posted in conspicuous places notices of the Commissioner regarding laws against discrimination. The Contractor will state in all advertisements for employees that all qualified applicants will be afforded equal opportunities without discrimination because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status.

If the Contractor has fifteen or more employees, it is an unlawful employment practice for the Contractor to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to the individual's compensation, terms, conditions, or privileges of employment, or to limit, segregate, or classify employees or applicants for employment in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect an individual's status as an employee, because of such individual's race, color, religion, sex, or national origin, or because an individual opposed any practice made unlawful by Title VII of the Civil Rights Act of 1964, as amended, or because he or she made a charge, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under that Title, and that it shall be an unlawful employment practice to print or publish or cause to be printed or published any notice or advertisement relating to employment indicating any preference, limitation, specification, or discrimination on the basis of race, color, religion, sex, or national origin.

If the Contractor has fifteen or more employees, the Contractor: (1) will make and keep such records relevant to the determinations of whether unlawful employment practices have been or are being committed; (2) will preserve such records for such periods as the Equal Employment Opportunity Commission ("EEOC") shall prescribe by regulation; (3) will make such reports therefrom as the EEOC shall prescribe by regulation or order; (4) must post and keep posted in conspicuous places upon its premises where notices to employees and applicants for employment are customarily posted a notice prepared or approved by the EEOC setting forth excerpts from, or summaries of, pertinent provisions of Title VII of the Civil Rights Act of 1964, as amended, and information pertinent to the filing of a complaint.

To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other state and federal statutory and constitutional non-discrimination provisions, the Contractor will comply with all non-discriminatory employment practices, will furnish all information deemed necessary by the Commissioner, and will permit the Commissioner access to its records to ascertain compliance. The Contractor will bind all subcontractors hired to perform services in connection with this Contract to the requirements of this section, take such action for enforcement as the Commissioner may direct, and notify the Commissioner if such action results in litigation. This Contract may be terminated by Subrecipient upon the Commissioner's finding of non-compliance with this section, and the Contractor may be declared ineligible for future contracts with an agency of the state or a public authority until the Contractor satisfies the Commissioner of compliance.

5. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.

In accordance with Section 312 of the Executive Law and 5 NYCRR 143, if this Contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00, whereby the Agency or Agencies, is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the Agency or Agencies, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

- A. The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on Subrecipient's contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;
- B. At the request of the Subrecipient or GOSR, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or

- representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and
- C. The Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of this Contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of A through C above in every subcontract. Section 312 does not apply to: (i) work, goods or services unrelated to this Contract; or (ii) employment outside New York State. Subrecipient and GOSR shall consider compliance by a Contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The Subrecipient and GOSR shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, Subrecipient and GOSR shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

6. OPPORTUNITIES FOR MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISES. Contractor shall make a good faith effort to solicit active participation by enterprises identified in the New York State Minority and Women-Owned Business Enterprises Directory of Certified Firms in order to promote Subrecipient's obligation to make good-faith efforts to promote and assist the participation of certified M/WBEs through the use of contractors and their subcontractors in an amount equal to fifteen percent (15%) minority-owned business enterprises ("MBE") and fifteen percent (15%) women-owned business enterprises ("WBE").

Contractor agrees to be bound by the provisions of Section 316 of Article 15-A of the Executive Law, which pertain to enforcement of Article 15-A.

7. PROPRIETARY INFORMATION. All memoranda, analyses, spreadsheets and other pertinent documents or writings, including reports and financial statements developed or prepared by, or for, the Contractor in connection with the performance of this Contract are "Proprietary Information" and shall be, and remain, the property of the Subrecipient. All original documents constituting Proprietary Information shall be delivered to the Subrecipient by the Contractor, or any subcontractor, or any other person possessing them, upon the termination of this Contract or upon the earlier request of the Subrecipient, except that the Contractor may retain copies for its files. Proprietary Information may not be utilized, disclosed or otherwise made available to other persons by the Contractor without the prior written approval of the Subrecipient. The provisions of this section shall be in addition to, and not in derogation of, any duty imposed upon the Contractor by any law, regulation or rule governing professional conduct respecting confidentiality.

- 8. <u>COPYRIGHT.</u> If this Agreement results in any copyrightable material or inventions, the Subrecipient, GOSR, and/or HUD reserve the right to royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes. This clause shall survive indefinitely the termination of this Agreement for any reason.
- 9. <u>ENVIRONMENTAL LAWS.</u> Contractor shall comply with any and all applicable New York State and local environmental laws, including all permits and approvals issued thereunder. Additionally, Contractor shall comply with any and all conditions or requirements set forth in an environmental review performed pursuant to the State Environmental Quality Review Act.
- **10. SECTION HEADINGS.** The caption of sections in this Contract are inserted solely for convenience of reference and are not intended to define, limit, or describe the scope of this Contract or any provision hereof or to otherwise affect this Contract in any way. The section headings shall not be considered in any way in construing this Contract.
- 11. <u>COUNTERPARTS.</u> This Contract may be executed in any number of counterparts. Each such counterpart shall be deemed to be a duplicate original. All such counterparts shall constitute but one and the same instrument.
- 12. <u>GOVERNING LAW.</u> This Contract has been executed and delivered in and shall be construed and enforced in accordance with the laws of, the State of New York. In the event of conflict between New York State law and federal laws and regulations, the latter shall prevail.
- 13. <u>WORKERS' COMPENSATION.</u> This Contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this Contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.
- 14. <u>NO ARBITRATION.</u> Disputes involving this Contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.
- Practice Law & Rules ("CPLR"), the Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service of process hereunder shall be complete upon the Contractor's actual receipt of process or upon the Subrecipient's receipt of the return thereof by the United States Postal Service as refused or undeliverable. The Contractor must promptly notify the Subrecipient, in writing, of each and every change of address to which service of process can be made. Service of process by the Subrecipient to the last known address shall be sufficient. The Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

- 16. NON-COLLUSIVE BIDDING CERTIFICATION. If this Contract was awarded based upon the submission of a bid or proposal, the Contractor affirms, under penalty of perjury, that the prices in its bid or proposal were arrived at independently, without collusion, consultation, communication, or agreement, for the purpose of restricting competition, or as to any matter relating to such prices with any other Contractor or with any competitor.
- 17. LOBBYING REFORM LAW DISCLOSURE. If the procurement of the goods or services provided herein were applicable to Lobbying Reform Law Disclosure as pursuant to State Finance Law §§139-j and 139-k, the Subrecipient reserves the right to terminate this Contract in the event it is found that the certification filed by the Offerer/Bidder in accordance with New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, the Subrecipient may exercise their termination right by providing written notification to the Contractor.
- **MACBRIDE FAIR EMPLOYMENT PRINCIPLES.** In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.
- **19. GENERAL RESPONSIBILITY LANGUAGE.** The Contractor shall at all times during Contract term remain responsible. The Contractor agrees, if requested by Subrecipient or GOSR, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

For purposes of this Agreement, Contractor responsibility generally means that the Contractor has the integrity to justify the award of public dollars and the capacity to perform the requirements of this Contract fully. In connection herewith, to the extent that the Subrecipient may make certain determinations with respect to Contractor responsibility, wherein the Subrecipient determines whether it has reasonable assurances that a Contractor is responsible, is an important part of the procurement process, promoting fairness in contracting, mitigating contract issues, and protecting the Contractor and the Subrecipient against failed contracts. In making such a responsibility determination, the Subrecipient shall evaluate the Contractor's responsibility with respect to four factors: (i) financial and organizational capacity; (ii) legal authority to do business in New York State; (iii) integrity; and (iv) previous performance.

20. SUSPENSION OF WORK (for Non-Responsibility). The Subrecipient reserves the right to suspend any or all activities under this Contract, at any time, when the Subrecipient discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Subrecipient issues a written notice authorizing a resumption of performance under the Contract.

- **21.** TERMINATION (for Non-Responsibility). Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate Subrecipient staff, the Contract may be terminated by the Subrecipient at the Contractor's expense where the Contractor is determined by the Subrecipient to be non-responsible. In such event, the Subrecipient may complete the contractual requirements in any manner they deem advisable and pursue available legal or equitable remedies for breach.
- **22. IRAN DIVESTMENT ACT.** By entering into this Agreement, Contractor certifies in accordance with State Finance Law §165-a that it is not on the "Entities Determined to be NonResponsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012" ("Prohibited Entities List") posted at: http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the Subrecipient.

During the term of the Contract, should the Subrecipient receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, the Subrecipient will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the Subrecipient shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The Subrecipient reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

- G. Unless otherwise directed by GOSR, Contractor shall procure and maintain without interruption, at its sole cost and expense, during the term of this Agreement (or any extensions thereof) and for a period of two years thereafter, insurance of the type, and with limits and deductibles, as follows:
 - a. <u>Commercial General Liability Insurance and Excess Liability Insurance</u>. Providing both bodily injury (including death) and property damage insurance with limits in the aggregate and per occurrence in accordance with the following table:

| Contract Value | Commercial General Liability in combination with Excess | | |
|----------------|---|-------------------|--|
| | (Umbrella) Liability | | |
| | Each Occurrence | General Aggregate | |
| <\$10M | \$2,000,000 | \$2,000,000 | |
| >\$10M - \$50M | \$5,000,000 | \$5,000,000 | |
| >\$50M | \$10,000,000 | \$10,000,000 | |

Such insurance is to be written on an occurrence basis with defense outside of limits. New York State, the New York State Housing Trust Fund Corporation, and the Subrecipient shall each be named as an additional insured. The minimum required level of insurance may be provided through a combination of commercial general liability and umbrella and/or excess liability policies.

- b. <u>Automobile Liability and Property Damage Insurance</u>. In an amount not less than One Million Dollars (\$1,000,000) combined single limit for both Bodily Injury and Property Damage.
- c. <u>Professional Liability</u>. If the Contractor is engaged in providing professional services under this Agreement, professional errors and omissions coverage with a limit not less than Two Million Dollars (\$2,000,000) in the aggregate and One Million Dollars (\$1,000,000) per occurrence. If the Contractor is not engaged in providing professional services under this Agreement, this professional errors and omissions coverage is not required.
- d. <u>Worker's Compensation</u>. Covering workers' compensation and employers' liability and disability benefits as required by the State of New York.
- H. In addition to the foregoing, Contractor and any subcontractors shall procure and maintain any and all insurance which is required by any applicable current or future law, rule, regulation, ordinance, permit, license, order or other legal requirement.

- I. All insurance shall be primary and non-contributory and shall waive subrogation against GOSR and the Subrecipient and all of either of their former, current, or future officers, directors, and employees. No deductible of more than \$50,000 shall be permitted without advance written approval by GOSR, which GOSR may withhold, condition or deny in its sole and exclusive discretion.
- J. The Contractor shall provide Certificates of Insurance to GOSR and the Subrecipient prior to the commencement of work and shall provide full and complete copies of the actual policies and all endorsements upon request. Subcontractors under this Agreement shall be required to maintain insurance meeting all of the requirements set forth in Section A above for items a-d; however Contractor shall require subcontractors to maintain greater limits and/or other or additional insurance coverages if greater limits and/or other or additional insurance coverages are (a) generally imposed by the Contractor given its normal course of business for subcontracts for similar work or services to those being provided by the subcontractor at issue; or (b) reasonable and customary in the industry for similar work or services to those anticipated hereunder.
- K. If the above insurance requirements are potentially excessive because they exceed the type and/or amount of insurance which is reasonable and customary for similar work or services in the same general geographic area, Contractor shall, within fifteen (15) calendar days of the execution of this Agreement, provide written notice of the same to GOSR, along with a written summary of the type and amount of insurance Contractor believes is reasonable and customary for similar work or services in the same general geographic area. GOSR may, in GOSR's sole and exclusive discretion, but is under no obligation to, waive, decrease, or otherwise alter or amend the insurance requirements in light of this notice. However, notwithstanding anything to the contrary herein, nothing in this paragraph requires or shall be deemed to require GOSR to waive, decrease, alter or amend, in whole or in part, any insurance requirements as a result of the foregoing notice from Contractor or for any other reason, and no waiver, decrease, alteration or amendment shall be made except as approved in advance and in writing by GOSR.
- L. If the above insurance requirements are potentially inadequate because they do not meet or exceed the type and/or amount of insurance which is reasonable and customary for similar work or services in the same general geographic area, Contractor shall, within fifteen (15) calendar days of the execution of this Agreement, provide written notice of the same to GOSR, along with a written summary of the type and amount of insurance Contractor believes is reasonable and customary for similar work or services in the same general geographic area. GOSR may, in GOSR's sole and exclusive discretion, but is under no obligation to increase, supplement, expand, or otherwise alter or amend the insurance requirements in light of this notice. However, notwithstanding anything to the contrary herein, nothing in this paragraph requires or shall be deemed to require GOSR to increase, supplement, expand, or otherwise alter or amend, in whole or in part, any insurance requirements as a result of the foregoing notice from Contractor or for any other reason, and no increase, supplement, expansion or other alteration or amendment shall be made except in an amendment to this Agreement, as approved in advance and in writing by GOSR.

Elation Systems, Inc. is a provider of cloud-based diversity and labor compliance reporting and management services. The Governor's Office of Storm Recovery (GOSR) has adopted this webbased compliance management system to help all of its Contractors, Subrecipients, and Subrecipient's Contractors receiving federal funds to adhere to Labor Compliance (DavisBacon), Minority and Women Owned Business (MWBE) and Section 3 reporting requirements.

Contractors, Subrecipients, and Subrecipient's Contractors must comply with instructions from GOSR on how and when to meet all reporting requirements, and how to utilize Elation to satisfy those requirements.

To this end, all Contractors, Subrecipients, and Subrecipient's Contractors must register with Elation Systems and attend an online training on the use of this tool. GOSR offers a series of virtual training events. GOSR requires all parties receiving federal funds through GOSR programs to use the Elation Systems application to make reporting requirements easier, faster and simpler to complete.

Prior to participating in training, it is necessary to create an Elation account. An account may be created at https://www.elationsys.com/app/Registration/.

Questions related to reporting requirements should be directed to GOSR's Monitoring and Compliance team at stormrecovery.dl.gosr-monitoring&compliance@stormrecovery.ny.g

EXHIBIT B: SUPPLEMENTARY INFORMATION — 30% DESIGN REPORT

TO: Wendy Walsh, Tioga County Soil and Water Conservation District

FROM: Erik Mas, PE; Victoria Houle, PE; Stephen Andrzejewski, PE; Stuart Harris, PE; Brian

Opp, PE, Fuss & O'Neill, Inc.

DATE: December 23, 2019

Re: 30% Design Submission – Stream Crossing Replacement

Gaylord Road, Town of Owego, NY

Regional Susquehanna River Initiative Floodplain Management and Stream Restoration

Assessment and Design

EXECUTIVE SUMMARY

Fuss & O'Neill has developed a schematic design (30% design) for replacement of the existing Gaylord Road culvert crossing of an unnamed tributary to Apalachin Creek in the Town of Owego, Tioga County, New York. Based on desktop and field evaluations, the existing pipe arch culvert is hydraulically undersized and significantly narrower than the bank full width, severely constricting the stream and making the crossing susceptible to blockage and washout. The concrete block headwalls and wingwalls are in critical structural condition and the culvert outlet is perched and undermined, limiting or restricting aquatic passage. The stream channel and banks upstream and downstream of the crossing are severely eroded, threatening adjacent residential properties and structures.

The proposed replacement crossing is an open-bottom concrete structure with increased hydraulic capacity, designed to reduce the risk of blockage by woody debris and subsequent failure, improve public safety, and facilitate aquatic organism passage. The design also includes limited restoration of the streambanks upstream and downstream of the crossing.

1. Introduction

Inter-Fluve Engineering and project partners Fuss & O'Neill and Integrated Aquatic Sciences were contracted by Tioga County Soil and Water Conservation District (TCSWCD) to assess current conditions in the Apalachin Creek watershed, describe flood-related vulnerabilities, and identify opportunities for both infrastructure and natural systems options for mitigating flood impacts and increasing community resilience. As a part of this work, the Inter-Fluve team used a scoring procedure to rank recommended site-specific construction projects that would be eligible for implementation using the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funding secured by TCSWCD. A public meeting was hosted by Tioga County Soil and Water Conservation District in Owego, New York on March 4, 2019 to solicit feedback on a draft version of the assessment report, including a short list of recommended projects. The project described in this memorandum (ApGa-600) was selected based on ranking, available funding, and partner

and public feedback. The report was issued in January 2019 (Inter-Fluve Engineering 2019). Additional project background, information on the assessment process, and the full list of recommendations can be found in the report.

Inter-Fluve Engineering and project partners Fuss & O'Neill and Integrated Aquatic Sciences were contracted by Tioga County Soil and Water Conservation District (TCSWCD) to assess current conditions in the Apalachin Creek watershed, describe flood-related vulnerabilities, and identify opportunities for both infrastructure and natural systems options for mitigating flood impacts and increasing community resilience. As part of this work, Fuss & O'Neill conducted field and desktop assessment of selected stream crossing structures in the Apalachin Creek watershed, including the Gaylord Road crossing. The stream crossing assessments consisted of field surveys of individual stream crossings using established road-stream crossing assessment protocols, followed by analysis of the field data to assign vulnerability ratings to each crossing based on multiple factors including hydraulic capacity, structural condition, geomorphic risk, aquatic organism passage, transportation and emergency services, other flooding impacts, and climate change considerations. The vulnerability ratings were used to prioritize structures for replacement.

The Inter-Fluve team used the results of the watershed assessments, including the stream crossing assessments and prioritization, to rank recommended site-specific construction projects that would be eligible for implementation using the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funding secured by TCSWCD. A public meeting was hosted by Tioga County Soil and Water Conservation District in Owego, New York on March 4, 2019 to solicit feedback on a draft version of the assessment report, including a short list of recommended projects. The stream crossing replacement project described in this memorandum (ApGa-600) was selected for design based on ranking, available funding, and partner and public feedback. This memorandum provides a narrative and 30% design drawings for this proposed project.

2. NARRATIVE

The primary goal of the project is to replace the existing undersized culvert that conveys the unnamed tributary beneath Gaylord Road with a cost-effective open-bottom structure designed to increase hydraulic capacity, reduce flood/erosion risk, reduce the risk of blockage by woody debris, enable aquatic organism passage, and improve road user safety. The Gaylord Road culvert, which is owned by the Town of Owego, was replaced after debris blockage during the July 2017 flood caused substantial damage to the structure (Tetra Tech 2018). The crossing was replaced with the current corrugated metal pipe arch culvert, reportedly with a 50% larger opening than the previous crossing structure, and concrete block headwalls and wingwalls.

The existing stream crossing is an approximately 11-foot wide by 8.5-foot high by 36-foot long corrugated metal pipe arch culvert with an approximately 7.7% slope. The existing culvert is hydraulically undersized and significantly narrower than the stream's bankfull width, severely constricting the stream and making the crossing susceptible to blockage by debris. The concrete block headwalls and wingwalls are in critical condition. A sinkhole has developed between the road and one of the headwalls. The outlet of the structure is undermined and perched (Figure 1), with the culvert serving as a grade control for upstream reaches. Bank erosion in the reach downstream of the culvert is threatening a

resident's boiler structure and an outbuilding. Other residences and buildings sit close to the top of the bank both upstream and downstream of the culvert; the upstream banks are lined with large stacked stone and riprap.





Figure 1. Downstream side of the existing Gaylord Road culvert showing the perched outlet and poor condition of the concrete block headwall (left) and severe bank erosion on the left bank downstream of the culvert that is threatening residential structures (right).

Large rock revetments have been constructed along portions of the banks upstream of the crossing to stabilize the eroding banks. The downstream banks are severely eroded, threatening a resident's boiler structure and an outbuilding (Figure 1). Other residences and buildings sit close to the top of the bank both upstream and downstream of the culvert. The downstream property owner has secured separate funding to implement bank stabilization measures for a portion of the stream along their property downstream of the crossing. Stacked rock will be placed by the property owner from just downstream of the culvert crossing approximately 100 feet downstream on the left bank. Construction is expected to be completed this winter. A goal of the culvert replacement project is to tie into the planned bank stabilization measures on the left bank downstream of the crossing and to provide additional bank stabilization in the immediate vicinity of the replacement crossing structure and associated headwalls/wingwalls.

Project Site and Field Data Collection

The project site is located on Gaylord Road in the Town of Owego, Tioga County, New York. The crossing is within the Apalachin Creek watershed in the lower reach of an unnamed tributary of Apalachin Creek. The site is located in a residential area approximately 250 feet south of the intersection of Gaylord Road and Lillie Hill Road. Residential properties are located on both sides of the road upstream and downstream of the crossing. A project locus map is included in the design drawings in Attachment A. The unnamed tributary flows for approximately 600 feet downstream from the Gaylord Road crossing where it joins Apalachin Creek, which flows north to the Susquehanna River.

Topographical and stream survey of the project site was performed by Ravi Engineering & Land Surveying, P.C. in September 2019. The survey included relevant roadway, utility, and landmark features for a distance of approximately 500 feet upstream and downstream of the culvert and approximately 250 feet from the culvert in either direction along the road. Property ownership information and

approximate property boundaries, including the municipal right-of-way, were obtained from town parcel mapping and included on the survey plan.

Field reconnaissance and data collection was performed at the project site in October 2018 to collect information required for the road-stream crossing assessment phase and to support subsequent design of a replacement crossing. The field data collection procedures and forms were adapted from the North Atlantic Aquatic Connectivity Collaborative (NAACC) and similar standardized assessment protocols used in the northeastern U.S. In addition to the 2016 NAACC stream crossing survey protocol for assessing aquatic connectivity, the road-stream crossing survey methods used for this project also incorporated structural condition assessment protocols from the 2017 NAACC Culvert Condition Assessment Manual and collection of other field data for evaluating geomorphic vulnerability, hydraulic capacity, and potential flooding impacts to infrastructure and public services.

Stream bankfull width measurements were made at representative cross-sections outside of the influence of the existing culvert. Inter-Fluve conducted stream geomorphic assessments of various reaches along the unnamed tributary, including the stream segment through the Gaylord Road crossing, collecting information on upstream and downstream stream channel characteristics.

Scope of Work

The scope of work is shown on the schematic design drawings included in Attachment A. The project involves replacing the existing 11-foot wide by 8.5-foot high corrugated metal pipe arch culvert with a precast reinforced concrete open-bottom, three-sided frame with a larger opening, having dimensions of 29 feet wide, by approximately 12 feet high (maximum), by 25 feet in length, with an approximately 5.2 percent slope. The 29-foot wide open-bottom structure will span 1.25 times the estimated bankfull width of the stream and will be supported by shallow spread footings bearing on bedrock. The bottom of the stream channel through the replacement structure will be designed to approximate the slope, width, substrate, and water depth in the existing channel upstream and downstream of the crossing outside the influence of the crossing. The channel bottom will be roughened and armored to resist erosive velocities over a range of flows. The channel will be designed with appropriate grade controls upstream and downstream of the crossing since the existing crossing serves as grade control for upstream areas. The channel profile will also be regraded through the replacement crossing to reduce the slope of the existing structure to more closely approximate the channel slope within the overall stream reach.

The embankments on the upstream and downstream sides of the replacement crossing structure will be regraded and stabilized with large diameter stone (30-inch diameter heavy riprap minimum) at a 2:1 slope using natural streambed material and/or rocks from the existing stone revetments where possible, augmented by imported rock. Similar stabilization material and design will be used for limited areas of channel and bank stabilization upstream and downstream of the crossing. The existing channel on the upstream side of the crossing narrows as it transitions into the existing culvert. The channel will be widened on the upstream side of the crossing to more closely approximate the bankfull channel width and larger span of the replacement crossing. Grading impacts to adjacent properties on the upstream side of the crossing will be reduced by using flared wingwalls at the crossing inlet. The approximate extent of bank stabilization and typical cross section are provided in the design drawings in attachment A. The channel and bank stabilization design will be refined in future design phases.

The existing horizontal and vertical roadway alignment, as well as the width of the existing roadway, will be maintained. Double box beam bridge rail for low volume roads will be used on the headwalls and U-wingwalls along both sides of the structure, transitioning to guide rail on the upstream side of the crossing where flared wingwalls are proposed.

Due to the close proximity of residential properties to the existing crossing, a temporary bridge and bypass road cannot be constructed adjacent to the existing/replacement crossing without unacceptable impacts to the adjacent residential properties. An alternative is to construct a temporary crossing and bypass road through private property located approximately 1,200 feet to the east, near the location of an existing dirt road through a mowed field off of Lillie Hill Road and near the shortest distance between Gaylord Road and Lillie Hill Road. Construction of the temporary crossing and bypass road at this location would requiring tree clearing along the stream corridor and temporary easements for access onto private property. A traffic control plan would also be required for the crossing replacement construction site and the temporary bypass road. If necessary, the temporary bypass road location/ alignment and temporary bridge design will be developed in future design phases.

Land Acquisition/Easements

The proposed work will affect four or more privately-owned parcels of land upstream and downstream of the crossing. The replacement stream crossing structure, headwall, guide rail, and other appurtenances will be located primarily within the municipal right-of-way, with the exception of the upstream flared wingwalls and channel grading, which will extend outside of the right-of-way onto the adjacent residential properties. Other grading and bank stabilization activities may involve work outside of the municipal right-of-way on private property. Construction staging and the installation and use of a temporary stream crossing and bypass road during project construction will also require temporary easements. New easements will also be required for the Town of Owego to permanently maintain the crossing, including debris removal and inspection and maintenance of the crossing structure. Land acquisition/easements will be addressed in later phases of design.

Codes, Standards, and References

Design Standards and References

Geotechnical Evaluation and Foundation Design

Fuss & O'Neill conducted a geotechnical evaluation to assess the subsurface conditions at the proposed location of the replacement culvert and provide recommendations for foundation design and construction. The geotechnical evaluation scope of work consisted of a subsurface exploration program including two (2) geotechnical soil borings; engineering analyses to evaluate allowable bearing pressure, settlement, and seismic site classification; and development of design and construction recommendations. The geotechnical evaluation is described in a memorandum included as Attachment C.

The subsurface material in the vicinity of the site generally consists of a native glaciofluvial deposits over sedimentary bedrock. Bedrock in this area consists mainly of sandstone, shale, or siltstone. Fill was encountered at the surface in both of the explorations. The fill is likely associated with backfill against the existing culvert, headwalls, and wingwalls. Bedrock, which ranges from decomposed rock (i.e., residual soil) to competent bedrock with depth, was encountered beneath the fill. The bedrock consists of shale and generally becomes more competent with depth. In the boring on the north side of the stream (GRB-1), competent bedrock was encountered at a depth of 20 feet implied by auger refusal. Rock cores from this boring indicate highly weathered, poor quality bedrock quality. In the boring on the

south side of the stream (GRB-2), the boring terminated without refusal in the weathered bedrock at a depth of 42 feet.

Based on the soil/bedrock properties encountered at the site, the Seismic Site Classification is C in accordance with the 2016 Building Code of New York State (NYS Code) which incorporates the Seismic Design Category approach from the 2015 International Building Code (IBC). The site is not considered to be susceptible to liquefaction.

Based on the subsurface exploration program and local geology, we recommend the replacement culvert be supported on conventional shallow spread footings bearing on bedrock, the surface of which may be weathered, or properly compacted structural fill extending down to the suitable bedrock material. To protect against frost heave, footings should be founded a minimum of 48 inches below finished grade ground surface. However, if the foundation bears on competent bedrock, the minimum embedment does not apply. A detailed scour analysis will be performed during future design phases.

Structural Design

The design of the replacement crossing structure will conform to the requirements of the latest NYSDOT Bridge Manual, the NYSDOT LRFD Bridge Design Specifications, and the following:

- The bridge layout will minimize the structure footprint to maximize economy and to minimize impacts to the environment and adjacent properties
- The foundations will be designed as recommended in the geotechnical evaluation, as discussed
 - in Attachment C and in this section
- The bridge span and waterway opening will conform to the results of the hydraulic analysis, as described in this section
- The roadway section over the bridge will conform to NYSDOT design requirements for this roadway classification, as described in this section

A temporary stream crossing to be used during construction, if necessary, would be designed and constructed in accordance with the provisions of the NYSDOT Standard Specifications for Construction and Materials – Section 619 – Work Zone Traffic Control. Structural design of the temporary crossing would be addressed in a future design phase.

Roadway Design

State Line Road is classified as a Local Rural Road and has an ADT estimated as less than 1,000 vehicle trips per day. The proposed clear span width across the new culvert has been designed in accordance with both NYSDOT Highway Design Manual as well as the NYSDOT Bridge Manual. The clear span width proposed allows for 9-foot travel lanes with 2-foot shoulders on each side. A total of 4 inches of pavement is proposed on top of the proposed culvert. Full depth roadway reconstruction is also proposed on roadway approaches to both sides of the new culvert.

Construction phase traffic control measures will be designed and implemented in accordance with applicable criteria from the NYSDOT Work Zone Traffic Control, NYSDOT Highway Design Manual, and related design guidance. A temporary bypass road, if necessary, will be designed in accordance with applicable NYSDOT design criteria.

Geomorphology

The Apalachin Creek tributaries, including the Gaylord Road tributary, are characterized by steep channels that occupy narrow valleys incised into readily erodible glacial deposits and bedrock. The geology of the watershed consists of sedimentary rocks that break apart along shallow bedding planes resulting in flat rocks or "clasts" that are subject to relatively high lift forces and are therefore highly mobile (Inter-Fluve 2019).

In October 2018, Inter-Fluve conducted a field investigation of the Apalachin Creek watershed, including walked an approximately 2.6-mile length of the tributary. The middle reach of the Gaylord Road tributary, upstream of the Gaylord Road crossing, is characterized by a relatively steep confined channel with limited overbank areas. Bank erosion is common in this reach of the stream and threatens Gaylord Road in several places. Large rock revetments have been installed in along banks in some areas of this reach, including just upstream of the Gaylord Road crossing. The stream channel in the lower reach of the tributary has been straightened and dredged, and the culvert beneath Gaylord Road is perched with bank erosion occurring along the downstream banks (Inter-Fluve 2019).

Bankfull width measurements were taken upstream and downstream of the Gaylord Road crossing by both Fuss & O'Neill and Inter-Fluve. Bankfull width measurements at the site range from approximately 24 to 27 feet, although the measurements were taken in disturbed reaches of the stream and do not necessarily reflect natural or reference stream conditions. Regional regression equations developed for Central New York and for Pennsylvania based on USGS stream gage data (Mulvihill et al., 2009; Clune et al., 2018), adjusted to account for a 20% increase in peak flows based on climate adaptation guidance contained in the New York State Department of Environmental Conservation draft Flood Risk Management Guidance for the Implementation of the Community Risk and Resiliency Act, result in an estimated bankfull width of approximately 21-23 feet at the Gaylord Road crossing. A replacement crossing span of 29 feet was selected to meet or exceed 1.25 times the bankfull width of the stream (using the regional regression estimates), consistent with the New York State Department of Environmental Conservation (NYSDEC) Stream Crossing Guidelines and recommended environmental review guidance for projects funded by the Governor's Office of Storm Recovery (GOSR).

The channel bed within the structure will be designed to match or fall within the range of variability of the boulder and cobble stream substrate upstream and downstream of the crossing to the extent feasible. Boulders, cobbles, and other roughness elements will be placed within the structure to form the channel bed, banks, and riparian benches to allow passage by some terrestrial animals and semi-aquatic organisms such as frogs and turtles. The channel will be designed with appropriate grade controls upstream and downstream of the crossing since the existing crossing serves as grade control for upstream areas. The channel design will be developed in more detail in future design phases.

Hydrology and Hydraulics

Peak flows were estimated for a range of recurrence intervals using regional regression equations derived from stream gage data (United States Geological Survey's StreamStats program). Flood flows under future climate change were estimated using the NYSDEC-recommended 20% flow multiplier for Tioga County and consistent with NYSDOT hydraulic design criteria. Existing and projected future peak discharges at the Gaylord Road crossing are summarized in Table 1.

Table 1. Estimated peak discharge for Briggs Hollow tributary at Gaylord Road

| Recurrence Interval | USGS StreamStats Peak Discharge (cfs) | Future Peak Discharge Estimate (20% Flow Multiplier) (cfs) | |
|------------------------|--|---|--|
| 2-year | 204 | 240 | |
| 10-year | 480 | 580 | |
| 50-year | 812 | 970 | |
| 100-year | 972 | 1170 | |

A hydraulic model was developed to evaluate peak water surface elevations and flow velocities within the study area. The analysis was completed using the one-dimensional hydraulic model HEC-RAS (Hydrologic Engineering Center's River Analysis System). The model geometry was developed using data from the September 2019 topographic survey, augmented with LiDAR data as necessary. The model includes 12 cross sections that were derived from the survey data. Roughness coefficients (Manning's n values) were estimated based on field observations and published reference values. The Manning's n was estimated to be approximately 0.04 for the channel and 0.075 for overbank areas.

The existing conditions HEC-RAS model was modified to simulate the design and anticipated future hydraulic conditions within the study area following construction of the proposed replacement culvert. Peak water surface elevations and peak flow velocities for the existing and proposed conditions were analyzed and compared for various flood return frequencies (Table 2).

Table 2. Hydraulic analysis summary for Gaylord Road replacement crossing for future flow conditions

| Recurrence | Peak Water Surface Elevation (feet, NAVD88) | | Peak Flow Velocity (feet/second) | | |
|------------|---|-----------------|----------------------------------|-----------------|--|
| Interval | | Downstream of | | Downstream of | |
| | Upstream of Culvert | Culvert | | Culvert | |
| | (XSECT 1547.3) | (XSECT 1473.19) | Within Culvert (Max.) | (XSECT 1473.19) | |
| 2-year | | | | | |
| Existing | 958.2 | 950.3 | 15.1 | 4.7 | |
| Proposed | 955.8 | 951.0 | 7.0 | 7.0 | |
| 10-year | | | | | |
| Existing | 961.4 | 951.6 | 18.4 | 6.3 | |
| Proposed | 957.1 | 952.2 | 8.6 | 8.3 | |
| 50-year | | | | | |
| Existing | 962.4 | 952.7 | 19.2 | 7.5 | |
| Proposed | 958.3 | 953.1 | 10.2 | 9.6 | |
| 100-year | | | | | |
| Existing | 962.6 | 953.2 | 19.5 | 7.9 | |
| Proposed | 958.8 | 953.5 | 10.9 | 10.1 | |

According to the NYSDOT Bridge Manual, the hydraulic design criteria for permanent structures over a waterway are as follows:

- The proposed structure shall not raise the water surface elevations anywhere when compared to the existing conditions for both the 50-year and 100-year peak flows.
- The proposed low chord shall not be lower than the existing low chord.
- A minimum of 2 feet of freeboard for the projected 50-year peak flow is required for the
 proposed structure. The freeboard shall be measured at the lowest point of the
 superstructure between the two edges of the bottom angle for all structures.
- The projected 100-year peak flow shall pass below the proposed low chord without touching
 it

 The maximum skew of the pier to the flow shall not exceed 10 degrees. (Not applicable for this single span crossing)

Under the proposed condition for the assumed projected flow conditions, predicted water surface elevations upstream of the replacement culvert are reduced for the above return frequencies as a result of both the increased hydraulic capacity of the proposed structure as well as a proposed 2 foot lowering of the channel profile at the upstream faces of the existing/proposed crossings to address the present channel bed issues at the downstream side of Gaylord Road associated with the scour hole and perched culvert condition. Conversely, due to a proposed 2.7 foot increase in the streambed profile downstream of the structure, proposed water surface elevations are computed to be higher (0.3 to 0.7 feet higher) than existing conditions, although such increases are contained within the limits of the main channel and would not impact adjacent residential properties.

The proposed low chord elevation of the replacement structure is approximately 0.8 foot lower than the low chord elevation of the existing culvert which presently has insufficient cover. The replacement culvert provides approximately 2.5 feet of freeboard for the projected 50-year peak discharge and 2 feet of freeboard for the projected 100-year peak flow to the roadway low point located north of the crossing. The hydraulic opening was optimized by raising the low chord elevation to the extent feasible, while maintaining the existing vertical roadway alignment to avoid impacting the adjacent residences. The replacement crossing structure also maintains the alignment of the existing culvert, which is generally aligned with the flow direction.

If needed, a temporary stream crossing will be designed to withstand scour resulting from the projected 50-year return frequency design flow. Properly designed stone fill will be used for a temporary structure. Design details for a temporary crossing and associated hydraulic analysis would be addressed in a future design phase.

Structure Type Selection

The choice of structure type often depends on cost considerations, site limitations and access, foundations, geographical location, geometric considerations and aesthetic or historic requirements. The following considerations were evaluated in the selection of the most cost-effective structure type that will meet the project objectives (i.e., increase hydraulic capacity, reduce the risk of blockage by debris, facilitate aquatic organism passage, and enhance flood resilience) and site conditions for the Gaylord Road crossing replacement.

Site Considerations – Common site considerations that affect the selection of an appropriate structure type include available roadway cover, vehicle traffic, utilities, and environmental resources. Key constraint at the Gaylord Road crossing include the relatively narrow and incised/confined nature of the stream channel in the vicinity of the existing crossing, the close proximity of the adjacent residential properties on both sides of the stream upstream and downstream of the crossing, and the relatively steep grade of the channel bottom and existing culvert, which reflects prior channel aggradation upstream of the crossing and scour downstream of the crossing due to the undersized nature of the exiting and previous culverts at this location. The use of a precast reinforced concrete structure allows for minimal roadway

cover to meet the minimum requirements for live truck (H-25) loading, thereby maximizing the hydraulic capacity of the structure.

- Hydraulic Considerations Hydraulic considerations include bankfull width, embedment
 and substrate, and water depth and velocity. Open-bottom structures with a substrate
 that matches the natural stream channel and flow characteristics are the preferred
 crossing type according to the New York State Stream Crossing Guidelines and the
 environmental review guidelines for GOSR-funded projects.
- Geotechnical Considerations Common geotechnical considerations include foundation design and vertical adjustment potential due to stream degradation and aggradation. According to design criteria contained in the NYSDOT Bridge Manual, all substructures of a bridge crossing water must be supported on deep foundations unless founded on competent bedrock. A three- sided structure with shallow spread footings bearing directly on bedrock is the most cost- effective option to meet this requirement for the Gaylord Road crossing. Potential degradation and scour are concerns with open-bottom structures; the foundations should be protected and set at the appropriate elevation. Both open-bottom and closed structures must account for aggradation to ensure the hydraulic opening will remain sufficient for passage of flows and debris. The channel will be designed with appropriate grade controls upstream and downstream of the crossing since the existing crossing serves as grade control for upstream areas. The channel profile will also be regraded through the replacement crossing to reduce the slope of the existing structure to more closely approximate the channel slope within the overall stream reach.

The recommended replacement structure for the Gaylord Road stream crossing is a 29 foot wide, by approximately 12 foot high (maximum), by 25 foot long precast reinforced concrete open bottom three-sided frame supported by shallow spread footings bearing directly on bedrock. This alternative is the preferred option for the site considering costs, site constraints, and hydraulic and geotechnical factors. Double box beam bridge rail for low volume roads will be used on the headwalls and wingwalls along both sides of the structure.

Environmental Considerations

Permitting Requirements

The following permits and approvals are anticipated to be required for this project:

- New York State Department of Environmental Conservation (NYS DEC) Protection of Waters (Stream Disturbance) Permit
- NYS DEC Section 401 Water Quality Certification
- U.S. Army Corps of Engineers Nationwide Permit
- Local Floodplain Development Permit
- NYSDOT design review.

Other permits or approvals related to cultural resources and threatened or endangered species may be required depending on the results of future design phase investigations.

Environmental Impacts and Mitigation

The proposed stream crossing replacement project will provide ecological benefits in addition to more resilient infrastructure and improved public safety. The replacement crossing is designed to improve stream continuity and aquatic organism passage. Although the stream is not a high-quality coldwater stream, the proposed project will benefit resident fish species, semi-aquatic organisms, and some terrestrial wildlife. The larger opening will increase the hydraulic capacity of the culvert and reduce the present flow restriction, thereby reducing the hydraulic and geomorphic failure risk and the potential for significant soil erosion in the event of a major failure.

Replacement of the culvert will require in-water construction activities including removal of the existing crossing structure, construction of the new culvert and associated bank stabilization, as well as installation of a temporary crossing if vehicle traffic cannot be detoured around the site during construction. Temporary construction-phase impacts will be mitigated through the implementation of:

1) an erosion and sedimentation control plan, 2) a dewatering and bypass system to successfully divert streamflow around the project and to handle storm flows without failure, and 3) a traffic control plan. Additional mitigation measures, including time of year restrictions, may be necessary to protect against impacts to threatened or endangered species.

Some tree clearing along the stream banks and riparian corridor may be required to re-grade the embankments adjacent to the replacement culvert, in areas proposed for streambank stabilization, and in the area of the temporary crossing and access road. Existing trees greater than 12 inches in diameter in the vicinity of the project site are shown on the design drawings in Attachment A. Trees that must be removed to accommodate construction will be incorporated into the planting plan for the project in a later design phase.

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MEMORANDUM

TO: Wendy Walsh, Tioga County Soil and Water Conservation District

FROM: Brian D. Opp, P.E., Senior Project Manager/Geotechnical Engineer

Fuss & O'Neill, Inc.

DATE: December 18, 2019

RE: Preliminary Geotechnical Foundation Recommendations

Stream Crossing Replacement - Gaylord Road, Town of Owego, NY

This memorandum summarizes Fuss & O'Neill, Inc.'s (Fuss & O'Neill) geotechnical subsurface exploration program for the replacement of the existing Gaylord Road culvert crossing of an unnamed tributary to Apalachin Creek in the Town of Owego, New York. This memorandum also provides preliminary recommendations for foundation design including bearing capacity and settlement and construction considerations for site and subgrade preparation.

The contents of this memorandum are subject to the attached limitations.

Objectives and Scope of Services

The objectives of Fuss & O'Neill's work were to assess the subsurface conditions at the proposed location of the new culvert and provide recommendations for foundation design and construction. To achieve the objectives of the project, Fuss & O'Neill completed the following scope of work:

- Performed a subsurface exploration program including two (2) geotechnical soil borings;
- Performed engineering analyses to evaluate allowable bearing pressure, settlement, and seismic site classification;
- Developed design and construction recommendations, and
- Prepared this Geotechnical Memorandum.

Fuss & O'Neill understands that the project will consist of the replacement of the existing culvert with a wider three-sided bottomless culvert to reduce impacts to the watercourse and retain the natural stream bottom for fish passage. The project also includes limited restoration of the streambanks upstream and downstream of the crossing.

Existing Site Conditions

The site is located on Gaylord Road, approximately 150 feet south of its intersection with Lillie Hill Road to the north. The existing culvert crossing consists of an approximately 8.5-foot long oblong

corrugated metal pipe with concrete block headwalls and wingwalls. The stream channel and banks upstream and downstream of the crossing are severely eroded.

Local Geology

A search of publically available subsurface geologic data within the general vicinity of the proposed site was performed utilizing the United States Department of Agriculture Natural Resources Conservation Service (NRCS) on-line spatial database. According to information provided by the NRCS, the subsurface material in the vicinity of the site generally consists of a native glaciofluvial deposit over bedrock. However, fill was encountered at the surface in both of the explorations. The fill is likely associated with backfill against the existing culvert, headwalls, and wingwalls. The NRCS specifies the bedrock in this area consists mainly of sandstone, shale, or siltstone. The results of this search are attached.

Subsurface Exploration Program

The subsurface exploration program consisted of two test borings, GRB-1 and GRB-2, performed to the north and south, respectively, of the existing headwall on the east side of Gaylord Road. Test borings were performed by SJB Services, Inc. of Cortland, New York using a Diedrich D-120 rubber tire rig on November 13 and 14, 2019. All test borings were advanced using Hollow Stem Augers (HSA) from ground surface to depths of approximately 20 and 42 feet, respectively. Competent bedrock was further sampled in GRB-1, below a depth of 20 feet, using an NX core barrel.

Relative density testing of the overburden soil was performed in accordance with the Standard Test Method for Standard Penetration Test and Split Barrel Sampling of Soils (ASTM D1586). The Standard Penetration Test (SPT) was performed at five foot intervals. SPTs were performed by driving a two foot long, 2-inch outer diameter split spoon 24 inches with a 140 pound hammer dropped 30 inches. The Standard Penetration Resistance or N-Value was calculated for each sample to determine the relative density or consistency of the soil. The N-Value is the sum of the blows from the second and third 6-inch increments of penetration and listed as blows per foot (bl/ft). Soils were classified in the field in accordance with the Standard Practice for Description and Identification of Soils Visual-Manual Procedures (ASTM D2488) and the Modified Burmister Classification System by a Fuss & O'Neill Geotechnical Engineer. Soil samples were obtained from each SPT. Upon completion, each test boring was backfilled with soil cuttings to ground surface. Test boring logs are attached and approximate locations are included on **Figure 1**.

Subsurface Conditions

Based on our explorations, the site subsurface conditions generally consist of topsoil underlain by fill over bedrock. The fill, which ranges in depth from 7 feet to 12 feet in GRB-1 and GRB-2 respectively, consists

of brown, silty/clayey sand with gravel, occasional cobbles and boulders. Soil densities in the fill ranged from loose to very dense with SPT N-values ranging from 7 bl/ft to 50 blows over three inches. Bedrock, which ranges from decomposed rock (i.e., residual soil) to competent bedrock with depth, was encountered beneath the fill in both borings. The residual soil, which is defined as bedrock that has weathered completely in-place to a soil-like consistency, was encountered beneath the fill in both borings and extends to depths of approximately 16.5 and 25 feet below existing ground surface. The residual soil generally consists of gray to brown, gravel- to boulder-sized pieces of fractured shale, some silty/clayey sand. Densities in the residual soil were dense to very dense with SPT N-values ranging from 49 bl/ft to 50 blows over four inches. With depth, the bedrock generally becomes more competent. In GRB-1, competent bedrock was encountered at a depth of 20 feet implied by auger refusal. The competent bedrock was cored from 20 to 35 feet using an NX2-sized core barrel in which Rock Quality Designation values (RQD) were obtained. The RQD value between depths 20 to 35 was 0 percent, respectively, indicating very poor bedrock quality. GRB-2 terminated without refusal in the weathered bedrock at a depth of 42 feet.

Groundwater was observed at depths 16.25 feet and 21.25 feet below existing grade in GRB-1 and GRB-2, respectively, at the time of our explorations. The residual soil is likely to have a low permeability. Therefore, a relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time of our explorations. Additionally, groundwater may become temporarily perched above silty/clayey layers and bedrock. Therefore, groundwater levels during construction or at other times in the life of the structures may be higher or lower than the levels indicated on the exploration logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for this project.

Seismic Site Class and Liquefaction Potential

Based on the soil/bedrock properties encountered at the site, as described above, it is our professional opinion that the Seismic Site Classification is C in accordance with the 2016 Building Code of New York State (NYS Code) which incorporates the Seismic Design Category approach from the 2015 International Building Code (IBC). The site is not considered to be susceptible to liquefaction.

Preliminary Foundation Design Recommendations

Based on this subsurface exploration program and local geology, the following preliminary recommendations may be applied to the foundation design for the proposed culvert. Our recommendations consider that foundations will bear on bedrock and that an in-depth scour analysis has not been performed.

However, scour will be evaluated before our final submission.

We recommend the culvert be supported on conventional shallow spread footings bearing on bedrock, the surface of which may be weathered. To protect against frost heave, footings should be founded a minimum of 48 inches below finished grade ground surface. However, if foundation bears on competent bedrock, the minimum embedment does not apply.

The recommended net allowable bearing pressure for the proposed culvert is 6,000 pounds per square foot. Total settlements below the footings are expected to be less than 1 inch and differential settlement across the site less than ½ inch. Foundation settlement will depend upon the variations within the subgrade soil/rock profile, the structural loading conditions, the embedment depth of the footing, the thickness of compacted fill, and the quality of the earthwork operations. Foundation settlement should be negligible if founded directly on competent bedrock or on minus 3/4-inch crushed stone placed over competent bedrock.

For foundations smaller than 3 feet in their least lateral dimension, the design bearing pressures should be one-third (1/3) of the allowable bearing pressure multiplied by the least lateral dimension in feet. Strip footings should be no smaller than 20 inches in width, and isolated footings should be at least 3 feet wide.

If unsuitable bearing material is encountered in footing excavations, the excavation could be extended deeper to suitable material and the footing could bear directly on this material at the lower level. As an alternative, the footings could also bear on properly compacted Structural Fill extending down to the suitable material. Lean concrete backfill placed in the excavations or Crushed Stone could also be used. Overexcavation for compacted Structural Fill placement below footings should extend laterally beyond all edges of the footings 12 inches per foot of overexcavation depth below footing base elevation. The overexcavation should then be backfilled up to the footing base elevation with well graded granular material placed in lifts of 8 inches or less in loose thickness and compacted to at least 95 percent of the modified Proctor maximum dry density (ASTM D1557, Method C).

Structural fill should not be placed directly above bedrock surfaces, since sand and silt particles can migrate into bedrock fractures over time. Either minus ³/₄-inch crushed stone should be used in place of Structural Fill if bearing directly on bedrock surfaces, or geo-separation fabric, such as Mirafi 140N or equivalent, should be placed on bedrock surfaces prior to placement of Structural Fill.

Retaining Wall Recommendations

We understand retaining walls proposed for the site will generally have an exposed height of no more than 6 feet and will be backfilled with compacted Structural Fill. We have assumed the compacted fill will have an internal angle of friction of 34 degrees and the backfill will be level. Recommended pressure coefficients for use in designing the walls are as follows:

| Parameter | Recommended Value |
|-----------|-------------------|
| Ka | 0.28 |
| K_p | 3.6 |
| K_0 | 0.44 |

Site Preparation Recommendations

The location of the proposed structures should be cleared of vegetation, with root systems grubbed, and the topsoil stripped for reuse. Construction debris from utility relocation or structures should be removed and properly disposed of.

After rough grades have been established, but before placement of compacted fill material, exposed surfaces should be visually inspected and probed. Frozen, wet, or loose soils and other deleterious materials should be removed. The exposed subgrade should be proof rolled with a minimum of 4 passes of a 10,000-pound static weight roller and any loose or soft areas should be excavated and replaced with compacted Structural Fill. Bedrock subgrades do not need to be proof rolled

Fill materials should consist of hard, durable, sands and gravels and should be free from ice and snow, roots, sod, rubbish, and other deleterious or organic matter. Structural Fill should consist of excavated site soils once cleansed of oversized materials and/or organics or imported sand and gravel which meets the limits of gradation given below. Any imported materials should be free of recycled concrete, asphalt, bricks, glass, and pyritic shale rock.

| Imported Structural Fill | | | |
|--------------------------|---------------|--|--|
| Sieve Size | Percent Finer | | |
| 3" | 100 | | |
| 1/4" | 30 to 75 | | |
| No. 40 | 5 to 40 | | |
| No. 200 | 0 to 10 | | |