



Environmental, Planning, and Engineering Consultants

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May 7, 2024

Bryan T. Healy
Village Manager
Village of Croton-on-Hudson
1 Van Wyck Street
Croton-on-Hudson, NY 10520

**Re: Proposal for Shoreline Resiliency and Flood Mitigation Consulting Services
Croton-Harmon Train Station Parking Lot, Village of Croton-on-Hudson, New York**

Dear Mr. Healy:

AKRF Inc. (“AKRF” or the “Consultant”) is pleased to present this proposal to provide the Village of Croton-on-Hudson (“the Village” or the “Client”) with flood mitigation consulting services for the Croton-Harmon Train Station Parking Lot (the “Project”) located within the Village of Croton-on-Hudson. It is our understanding that the area, and specifically Parking Lot I, has experienced significant tidally-induced flooding, resulting in reduced parking capacity and increased risk to vehicular and property damage. Above-normal tides can trigger flooding that can occur on sunny days and in the absence of storms. However, as experienced at the Project site, more severe flooding has occurred when high tides coincide with heavy rains and strong winds. As sea levels continue to rise, the Project site will experience more frequent high tide flooding. Figure 1 is an image showing the Project site that includes approximate limits of flooding inundation as noticed by Village staff during and after storm events. This project will evaluate flooding conditions at the Project site under current and projected sea level rise conditions, identify alternatives to mitigate the risk of flooding, and propose a recommendation for the Village to advance into design.

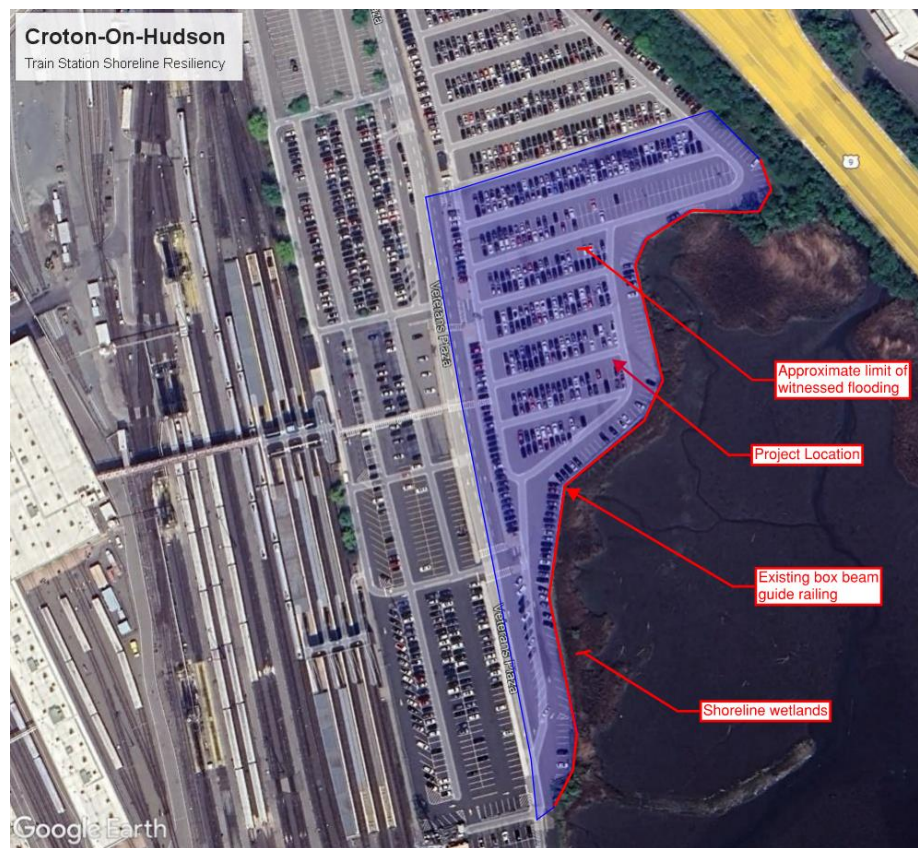


Figure 1. Croton-On-Hudson train station project location.

AKRF is intimately familiar with the implementation of resilient design and flood mitigation strategies required for this project. AKRF currently leads the design and permitting of climate resiliency projects, including NYC's largest coastal resiliency project East Side Coastal Resiliency (ESCR) and the Staten Island Living Breakwaters, both currently in construction. Our experience extends to leading implementation of urban climate resiliency programs, including NYC Climate Resiliency Design Guidelines (CRDG) Pilot Program, which applies climate-resilient design principles to 40 projects around NYC including waterfront buildings, parking lots, public open spaces, and esplanades. We have also supported municipalities in Westchester County including Greenburgh and Larchmont with the successful application of flood studies for various State and Federal grants.

Our proposal for the Croton-Harmon Train Station Parking Lot is based on discussion with the Village on April 11, 2024, and subsequent emails from your office.

SCOPE OF WORK

AKRF's scope of work will include the following:

Task 1 – Exposure Screening and Vulnerability Analysis

AKRF will review available information, tide data, and sea level rise projections to characterize tidal and flooding risk at the Project site under current and projected future sea level rise conditions.

a. Due Diligence

- Review reports and data available publicly (e.g., LIDAR and USGS tide stations) and from the Village (e.g., relevant, reports, and plans).
- Perform one site visit to document site conditions and verify information received; the site visit will be performed after a flooding event where timing and conditions

permit to benchmark observations from photos, water marks, and site drainage against available tidal and weather data.

b. Exposure Screening

- Evaluate tidal levels and sea level rise projections under the conditions listed below.
- Present day tidal fluctuations, to the Mean Higher High Water (MHHW) level
- Sea level rise projections (e.g., 2040, 2050, and 2080); these projections will be added to the present day MHHW elevation to represent sea level rise-adjusted future water elevations that will impact the Project site.
- 1% annual chance storm; planned for reference to this floodplain, and not currently intended to serve as a design criterion)

Note: Potential flooding caused by rain events (i) with no tidal influence or (ii) with tidal influence (i.e., coincident events) is not included, but can be performed as an additional service upon request by the Village.

c. Vulnerability Analysis

- Quantify the extent of the Project site impacted by future tidal conditions to establish project limits and assets at risk.
- In coordination with the Village, AKRF will select up to three (3) elevations to establish options for the design flood elevation (DFE) for the Project site (i.e., elevations tied to extent of protection).
- Identify the Project site assets (e.g., Parking Office, parking ticket kiosks, number of parking sites, etc) that are within the areas of the current and future sea level rise-adjusted tidal flood elevations.
- Document physical constraints (e.g., elevations that tie into assets and facilities not under the jurisdiction of the Village) and permitting constraints (e.g., Metro North requirements, time of year restrictions for the parking lot, or NYSDEC permits) that may influence the viability of alternatives.
- In coordination with the Village, AKRF will identify one (1) DFE to advance as the key design criterion to develop concepts to mitigate flooding.

Task 2 – Development of Recommended Alternative

AKRF will develop alternatives to mitigate flooding to the selected DFE and identify one to advance to schematic design.

a. Development of Alternatives

- Identify options to mitigate flooding, which may include but are not limited to bulk regrading, a new bulkhead, kneewall, berm, adjustments to drainage, outfall protection and redesign.
- Identify up to three (3) alternatives that combine options noted above, inclusive of the “do nothing” alternative, to mitigate flood risk.
- Compare alternatives and identify a recommended solution based on criteria: the amount of risk reduction, capital costs, constructability or ease of implementation, environmental impacts and permitting, operations and maintenance (O&M), reliability (e.g., passive flood mitigation vs active that requires human intervention), adaptability (i.e., to improvements that protect to flood risks at future/higher flood elevations), other co-benefits, as applicable.

b. Develop Schematic Design for Selected Alternative

- Develop up to four (4) plan and profile schematic drawings using available base maps to represent the recommended solution.
- Develop an AACE Class 5 estimate of cost for the recommended solution. It’s assumed that the cost will be based on available constructed project costs as provided by the Village and other examples to the extent feasible.

Task 3 – Flood Mitigation Technical Memorandum

AKRF will summarize approach, findings, alternatives, and recommendations from Task 1 and Task 2 in a brief technical memorandum for use as a basis of design report. The report will also serve as supporting technical documentation required to pursue external funding opportunities. One draft and one final deliverable will be produced.

EXCLUSIONS & ASSUMPTIONS

- This proposal does not include the preparation of any detailed design drawing documents (plans, sections, details, or specification).
- The following are not anticipated or required: topographical and utility surveys, CCTV, subsurface investigations, or environmental investigations.
- Up to two (2) meetings with the Village are included to review approach, results, and recommendations.
- With the exception of the 100-yr coastal storm, analysis of other coastal storm conditions will not be performed as part of this project.

FEE SCHEDULE

AKRF will complete the above-referenced scope of work as shown in Table 1 below. All work will be completed in accordance with Appendix A-Standard Terms and Conditions. Out-of-pocket expenses, such as copying or overnight delivery, will be billed separately at actual cost. Fees paid for client's invoicing system is considered to be reimbursable and will be billed at cost. Invoices will be billed monthly on a percentage-completed basis. Work is anticipated to be completed within approximately 18 weeks from notice to proceed.

Table 1 – Scope of Services

Scope of Services	Fee
1. Exposure Screening and Vulnerability Analysis	\$13,000
2. Development of Recommended Alternative	\$13,000
3. Flood Mitigation Technical Memorandum	\$12,000
Total	\$38,000

This proposal does not include changes that will require AKRF to redo work already performed. If any out-of-scope work not mentioned in the proposal above, becomes necessary, AKRF will submit a separate fee proposal for your review and written approval, prior to conducting additional work.

Please call me at (917) 232-5895 if you have any questions or comments. We appreciate the opportunity to submit this proposal and look forward to working with you on this project.

Sincerely,



Patrick Parault, P.E.
Senior Vice President
AKRF, Inc.

cc: J. Tyros, J. Seeney, P. Feroe (AKRF)

ACKNOWLEDGED AND ACCEPTED:

Name

Title

Company

Date

Signature

APPENDIX A

STANDARD TERMS AND CONDITIONS

1. Services.

- a. Subject to the terms and conditions hereof, the Client hereby engages the Consultant to perform the Services, furnishing the agreed-upon reports, drawings and/or other work product described in the attached Scope of Work and the Consultant hereby agrees to provide the same. The rendering of Services hereunder is premised on the Consultant receiving full and timely access to the Site and Client's personnel as well as receipt of all information from the Client and its agents relating to the Project as reasonably requested by the Consultant from time to time.
- b. The Services are limited to those tasks specified in the Scope of Work. If the Client directs the Consultant to perform, or instructs the Consultant to undertake, work or provide Deliverables that are beyond those specified in the annexed Scope of Work and/or Services described in the Scope of Work (collectively, "Additional Work"), the Consultant may in its discretion agree to undertake to perform the same, but the Client shall pay compensation for such Additional Work separate from and in addition to the compensation provided for Services herein. In the absence of written agreement to the contrary, all Additional Work provided by the Consultant from time to time relating to the Project shall be provided for compensation on a time and material basis at the Consultant's then current standard hourly rates in effect from time to time, but otherwise upon and subject to the terms and conditions of this Agreement.
- c. The Consultant shall determine the continued adequacy of this Agreement in light of occurrences or discoveries that were not originally contemplated by or known to the Consultant. Should the Consultant call for contract renegotiation, the Consultant shall identify the changed conditions necessitating renegotiation, and the Consultant and the Client shall promptly and in good faith enter into renegotiation of this Agreement. If terms cannot be agreed to, then either party has the absolute right to terminate this Agreement by delivery of ten (10) days prior written notice.
- d. Notwithstanding any other provision of this Agreement or any other agreement entered into by Consultant with respect to the Project, Consultant shall not have control or charge of, and shall not be responsible for, construction means, methods, techniques, sequences or procedures, for safety precautions and programs in connection with work or activities at the project site, for the acts or omissions of any contractor, subcontractors or any other persons performing any work or undertaking any activities at the project site, or for the failure of any of them to carry out any work or perform their activities in accordance with their contractual obligations, including, but not limited to, the requirements of any drawings, specifications or other documents prepared by Consultant.

2. Compensation, Invoicing and Payment.

- a. The Client shall promptly reimburse the Consultant for the expenses incurred of the type, and in the manner, described in the Scope of Work. Invoices shall be submitted by the Consultant monthly, are due upon presentation and shall be paid in full within 30 calendar days after the applicable invoice date. If payment is not received in full on or before the applicable due date then the Consultant shall have the right to charge interest on any unpaid amount from the due date in an amount equal to the lesser of 1-1/2% per month or the maximum amount permitted by applicable law, calculated on a daily basis. Payments will be credited first to interest and then to principal. Consultant shall be entitled to recover any and all costs incurred, including reasonable attorneys' fees ("Collection Costs") in connection with its efforts to collect past due sums. The minimum amount of such Collection Costs is agreed to be the lesser of (1) ten percent (10%) of the past due amount, or (2) the maximum amount allowed by law.
- b. The Client shall pay all taxes, fees, assessments and charges applicable to the Services and any Additional Work and any other pass-through charges (other than taxes imposed upon the net income of the Consultant) including, without limitation, all sales, use, gross receipts, excise, transaction, consumption, Valued Added ("VAT"), Goods and Services ("GST"), utility, message, personal property, intangible tax and any other federal, state and local taxes, fees and charges applicable to the Services and Additional Work provided hereunder, including interest and other charges thereon chargeable by the taxing authorities.

3. Performance Standards.

- a. The Consultant shall use reasonable commercial efforts to render the Services, any Additional Work and all other obligations under this Agreement in accordance with (i) the standard of care and skill ordinarily used by reputable members of the same profession practicing under similar circumstances at the same time and in the same locale and (ii) all applicable codes, regulations, ordinances, and laws in effect as of the date of the execution of this Agreement (collectively, "Laws"). Neither the Consultant's entering into this Agreement nor any performance hereunder by the Consultant, or any affiliate or subcontractor thereof, or any of their respective officers, directors, owners or employees or agents shall create any fiduciary obligation owed to the Client or any other person or entity. Client or any other person or entity and any such obligation is hereby fully and expressly disclaimed.
- b. EXCEPT AS EXPRESSLY SET FORTH HEREIN, THE CONSULTANT IS MAKING NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY, ACCURACY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE SERVICES, ADDITIONAL WORK OR ANY DELIVERABLES.
- c. The Consultant shall not be responsible for the acts or omissions of any subcontractor, supplier or other personnel based on interpretations or clarifications of the Project or the Services or Additional Work to be rendered hereunder by the Client without confirmation thereof by the Consultant.
- d. In the event of an emergency affecting the health or safety of persons or property, the Consultant may act, in its reasonable discretion, to prevent threatened damage, injury or loss to person or property notwithstanding that it may be outside the scope of the Services or Additional Work or not approved in advance by the Client.

4. Indemnification.

- a. The Consultant agrees, to the fullest extent permitted by law, to indemnify and hold the Client, its subsidiaries and affiliates and their respective officers, directors, employees, owners, subcontractors and agents (collectively, the "Client Parties") harmless from any damage, liability, or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by the Consultant's negligence. The indemnification obligation created by this Paragraph is subject in every respect to the limitation of liability provisions in Paragraph 5 of this Agreement.
- b. The Client agrees, to the fullest extent permitted by law, to indemnify and hold the Consultant, its subsidiaries and affiliates and their respective officers, directors, employees, owners, subcontractors and agents (collectively, the "Consultant Parties") harmless from any damage, liability, or cost (including reasonable attorneys' fees and costs of defense) to the extent: caused by the Client's negligence, or arising from or attributable to the failure of the Client to timely and/or properly implement or adhere to recommendations, designs, specifications, work plans or other items specifying or outlining the construction and/or implementation of future work beyond the Scope of Work, Services or Additional Work provided by Consultant in Deliverables.
- c. As a condition precedent to claiming any indemnification hereunder, the applicable indemnified party (i) shall promptly provide the applicable indemnifying party with written notice of any claim sufficiently promptly and in sufficient detail to avoid prejudicing the defense of such claim; (ii) shall not settle or compromise any such claim without the indemnifying party's written consent, which shall not be unreasonably withheld or delayed; and (iii) shall promptly provide reasonable cooperation relating to defending such claim. The indemnified party may, at its own expense, assist in the defense if it so chooses, but shall not be permitted to control such defense or any negotiations relating to the settlement of any such claim so long as the party responsible for indemnification hereunder is actively defending such claim. Notwithstanding clause (ii) above, if the party responsible for indemnification hereunder refuses or fails to timely defend the claim or abandons such defense, the indemnified party (parties) may settle such claim without the prior consent of the indemnifying party and the indemnifying party shall remain fully liable to indemnify the indemnified party (parties) to the extent that the indemnified party (parties) are otherwise entitled to indemnification for such claim under this Section 4.

- d. No party shall be liable for any claim or cause of action seeking indemnification of any kind under this Section 4, regardless of the type or nature of the damage, liability, claim or cause of action for which indemnification is sought (the “Underlying Claim”), if such indemnification action or claim is brought or asserted more than three years after the Underlying Claim accrued.
- e. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH IN THIS AGREEMENT OR IN ANY DOCUMENT SIGNED BETWEEN THE PARTIES REGARDING THE SUBJECT MATTER OF THIS AGREEMENT, EITHER PRIOR OR SUBSEQUENT TO THIS AGREEMENT, OR PROVIDED UNDER APPLICABLE LAW, NEITHER PARTY, OR ANY OFFICER, DIRECTOR, OWNER, EMPLOYEE, SHAREHOLDER OR AGENT THEREOF, SHALL BE LIABLE TO THE OTHER, EITHER IN CONTRACT OR IN TORT, FOR ANY LOSS OR INACCURACY OF DATA OR MATERIAL OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION ANY DELAY DAMAGES, LOSS OF FUTURE REVENUE, INCOME OR PROFITS, OR ANY DIMINUTION OF VALUE, FINANCING COSTS, OR COST OF LOST OPPORTUNITIES, RELATING TO THIS AGREEMENT, EVEN IF THE SAME HAS BEEN SPECIFICALLY ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES, EXCEPT TO THE EXTENT THAT ANY SUCH DAMAGES ARE PAYABLE BY ONE OF THE PARTIES HERETO TO A THIRD PARTY AND THE CLAIM IS ONE FOR WHICH THE PARTY REQUIRED (WHETHER BY JUDGMENT, SETTLEMENT OR OTHERWISE) TO PAY SUCH DAMAGES IS ENTITLED TO INDEMNIFICATION UNDER THIS SECTION 4.

5. Limitation of Liability.

In recognition of the relative risks and benefits of the Project to both the Client and the Consultant, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of the Consultant Parties hereunder to the Client Parties and to all construction contractors, subcontractors on the Project and others under the Client’s control for any and all claims, suits, demands, judgments, payments, losses, costs, damages of any nature whatsoever, or expenses from any cause or causes, regardless of the nature or type of action, so that the total aggregate liability of the Consultant Parties shall be limited to and in no event exceed the compensation actually paid to Consultant for services rendered on this Project under this Agreement, or \$100,000, whichever is greater.

6. Suspension of Services or Additional Work.

If the Project is suspended for more than 30 calendar days in the aggregate (whether consecutive or non-consecutive), the Consultant shall be compensated for all Services and any Additional Work performed and charges incurred prior to receipt of notice to suspend and, if and when the Consultant resumes providing Services and/or Additional Work, a mutually agreed upon equitable adjustment in fees payable to the Consultant shall be made to accommodate the resulting demobilization and remobilization costs. In addition, there shall be a mutually agreed upon equitable adjustment in any applicable performance schedule relating to the Project based on the delay caused by the suspension.

7. Term.

Unless terminated earlier in accordance with Section 8 hereof, this Agreement shall have a term commencing on the date of this Agreement and ending, unless terminated earlier as provided herein, when the Services and any Additional Work relating to the Project are completed or as otherwise set forth in the Scope of Work.

8. Termination.

- a. Either party may terminate this Agreement by delivery of written notice to the other (i) if the other party commits a material breach of this Agreement and fails to remedy such breach within 30 days after receipt of written notice specifying the alleged breach in reasonable detail, (ii) if either party makes an assignment for the benefit of its creditors, or the filing by or against it of a voluntary or involuntary petition under any bankruptcy or insolvency law, under the reorganization or arrangement provisions of the United States Bankruptcy Code, or under the provisions of any law of like import, or the appointment of a trustee or receiver for such party or its property, or (iii) as provided by Section 1(c) hereof.
- b. If full payment is not received by the Consultant by the applicable due date, then the Consultant may, at its sole discretion and without liability to any Consultant Parties, terminate this Agreement or suspend any

Services or Additional Work to be performed hereunder upon 10 days prior written notice. If the Project is suspended for any reason for more than 60 calendar days in the aggregate (whether consecutive or non-consecutive), the Consultant may, at its discretion and without liability, terminate this Agreement.

- c. The termination of this Agreement by either party hereto shall not affect, restrict, diminish or remove any rights, obligations or remedies possessed by either party arising under the terms of this Agreement up to and through the effective date of termination hereof. In addition, the following provisions shall survive termination of this Agreement: Sections 4, 5 and 10 through 20, inclusive. The remedies available to each party hereunder are cumulative and termination of this Agreement shall be in addition to and not in lieu of any equitable remedies available.
- d. Upon termination the Consultant shall be paid in full in accordance with the terms of this Agreement for all Services and Additional Work rendered and reimbursable expenses incurred through the date of termination, including reasonable termination costs.

9. Force Majeure.

Except as provided in Section 6 or 7 hereof, neither party shall be liable for damages for any delay or failure to perform its obligations hereunder, if such delay or failure is due to reasons beyond the control of the concerned party or without its fault or negligence, including without limitation, strikes, riots, wars, terrorism, fires, epidemics, quarantine restrictions, unusually severe weather, earthquakes, explosions, acts of God or state or any public enemy or acts mandated by applicable laws, regulation or order, whether valid or invalid, of any governmental body.

10. Non-Solicitation.

Each party agrees that during the term of this Agreement and for one year thereafter it will not solicit, or attempt to solicit, for hire or engagement, directly or indirectly any of the other party's employees or other personnel who have been involved in the provision of Services or Additional Work under this Agreement or otherwise involved in the transactions contemplated hereby.

11. Assignment.

Neither party shall assign its rights, duties or obligations under this Agreement to any person or entity, in whole or in part, without the prior written consent of the other party hereto; provided, however, that either party may assign this Agreement in the event of a merger or consolidation or the sale of all or substantially all of its applicable line of business and Consultant may delegate any of its duties and obligations hereunder if it remains responsible for the performance thereof.

12. Independent Contractor.

Notwithstanding any other provision of this Agreement, Consultant's status shall be that of an independent contractor and not that of a servant, agent, or employee of the Client. Neither party shall hold itself out as, nor claim to be, acting in the capacity of an officer, servant, agent, or employee of the other or that it is authorized to contractually bind the other in any way. The Consultant shall be free to choose the manner in which it performs the Services and Additional Work and furnishes the Deliverables and may delegate and use subcontractors, consultants and suppliers of its choice in satisfying any of its duties and obligations hereunder, provided that the Consultant shall be responsible for any breach of this Agreement by the same.

13. Governing Law; Consent to Jurisdiction.

The rights and obligations of the parties hereunder shall be governed by the laws of the State of New York, without regard to principles of conflicts of laws. Each of the parties hereby (a) irrevocably agrees that any legal or equitable action or proceeding arising under or in connection with this Agreement shall be brought exclusively in the courts of the State of New York in the County of New York and the United States District Court for the Southern District of New York, except that the foregoing venue shall be non-exclusive with respect to any application for injunctive relief pursuant to Section 18 hereof, (b) accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts and appellate courts thereof, (c) waives personal service of any summons, complaint or other process, and agrees that the service thereof may be made either (i) in the manner for giving of notices provided for in this Agreement or (ii) in any other manner permitted by law. The parties agree that this Agreement was negotiated and shall not be construed against the party which initially drafted the same.

14. Severability.

If any term or provision of this Agreement shall to any extent be determined to be illegal, invalid or unenforceable under law, regulations or ordinances of any federal, state or local governments to which this agreement is subject, such term or provision shall be deemed severed from this Agreement and the remaining terms and provisions shall remain unaffected thereby.

15. Third Party Claims.

Nothing in this Agreement shall create or shall give to third parties any claim or right of action against the Consultant, its officers, directors, owners, employees and agents.

16. Notices.

All notices required or permitted by this Agreement shall be in writing and shall be delivered personally, by certified or registered mail, return receipt requested, or nationally recognized overnight courier service to the respective addresses set forth above. Either party may, by notice given in the same manner set forth above, designate a different address or addresses to which subsequent notices shall be sent. Notice shall be deemed given upon receipt.

17. Amendment; Waiver.

- a. This Agreement may only be modified or amended by a writing that is signed by both authorized parties.
- b. Any right of any party hereunder may only be waived by a writing that is signed by the authorized party granting the waiver. No course of dealing or trade usage or custom and no course of performance shall be deemed a waiver of any right.
- c. The failure by either party to insist upon strict performance of any of the provisions of this Agreement will in no way constitute a waiver of its rights as set forth in this Agreement, at law or in equity, or a waiver of any other provisions or subsequent default by the other party in the performance or compliance with any of the terms and conditions set forth in this Agreement.

18. Injunctive Relief.

The parties agree that the violation or threatened violation by either party of any of the provisions of Section 10 of this Agreement shall cause immediate and irreparable harm to the other party. In the event of any breach or threatened breach of any of said provisions, each party consents to the entry of preliminary and permanent injunctions by a court of competent jurisdiction prohibiting such party from any violation or threatened violation of such provisions and compelling such party to comply with such provisions, without the requirement of posting any bond. This Section shall not affect nor limit, and any injunctive relief granted pursuant to this Section shall be in addition to, any other remedies available to the other party at law or in equity for any such violation or threatened violation by either party.

19. Entire Agreement.

This Agreement, including the Attachment and any Scope of Work, and any written agreements relating to Additional Work represents the entire Agreement between the parties concerning the subject matter hereof. This Agreement supersedes any other written or oral proposal, representation, communication, letter of intent or other agreement by or on behalf of the parties hereto relating to the subject matter hereof.

20. Counterparts.

This Agreement may be executed by facsimile and in one or more counterparts, each of which shall be deemed an original.