

Memorandum of Agreement

For

The Tottenville Dune Project & Living Breakwaters Project

Between

**The New York City Department of
Parks & Recreation**

And

New York State Governor's Office of Storm Recovery

THIS AGREEMENT is entered into by and between New York City acting by through the Department of Parks & Recreation ("Parks") and the New York State Governor's Office of Storm Recovery ("GOSR"), collectively known as the "Parties".

WHEREAS, GOSR is the agency charged with administering Grantee State of New York's allocation of Community Development Block Grant – Disaster Recovery (CDBG-DR) funding allocated by Congress through Public Law 113-2 to recover from the effects of Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee;

WHEREAS, as part of this responsibility, GOSR is responsible for the administration and implementation of the New York Rising Tottenville Dune Project ("Dune Project") and the Rebuild by Design Living Breakwaters Project ("Living Breakwaters"), both funded by the CDBG-DR allocation to Grantee State of New York, and further described below; and;

WHEREAS, GOSR oversees the New York Rising Community Reconstruction program, which assists communities in identifying resilient and innovative reconstruction projects and communities successfully completing a recovery plan are eligible to receive funds to support the implementation of projects and activities; and

WHEREAS, the Dune Project was conceived through the New York Rising planning process, and as described in the East & South Shores Staten Island New York Rising Community Reconstruction Plan (March 2014). The Dune Project is proposed as a hardened dune system from Brighton Street to Joline Avenue, located on Parks property, that would consist of constructed dunes having a reinforced core with a sand cap, and is the primary on-shore component of the layered approach to risk reduction in Tottenville; and

WHEREAS, as part of the Dune Project vegetation will be planted to stabilize the dunes with root structure that would bind the sand, helping to reduce wind and water erosion, while promoting enlargement of the dunes by accretion; and

WHEREAS, New York State proposes to use approximately \$6,350,000 of CDBG-DR program funds to design and construct the Dune Project; and

WHEREAS, GOSR is also overseeing the planning, design and implementation of the Breakwaters Project as currently best described in the *Coastal and Social Resiliency Initiatives for Tottenville Shoreline, Staten Island, NY Environmental Impact Statement Draft Scope of Work*, dated April 1, 2015; and

WHEREAS, the main component of the Breakwaters Project is an ecologically-enhanced off-shore breakwater system to address wave energy and shoreline erosion at Tottenville; and

WHEREAS, an on-shore community center, known as the Water Hub is proposed to be located on lands under Park's jurisdiction; and

WHEREAS, the Breakwaters Project is located in the same geographic region as the Dune Project and will be coordinated to create a layered approach to shoreline resilience; and

WHEREAS, GOSR may administer and implement CDBG-DR projects directly, or by entering into subrecipient agreements with other governmental entities to administer and implement all or part of a CDBG-DR project; and

WHEREAS, GOSR is currently implementing the design of the Living Breakwaters project directly, and GOSR is currently implementing the design of the Tottenville Dune Project through a subrecipient agreement with the Dormitory Authority of the State of New York (DASNY); and

WHEREAS DASNY, at the direction of GOSR has procured consultant, Stantec, to design the Dune Project; and

WHEREAS, GOSR and Parks share the mutual goals of encouraging long-term resilience of both the Tottenville Dune Project and Living Breakwaters Project, to meet the needs of a 21st century park system; and

WHEREAS Parks and GOSR shall be mutually responsible for the review and approval of the design of the Tottenville Dune Project and any on-shore portion(s) of the Living Breakwaters Project that may be constructed on property under Parks' jurisdiction; and

WHEREAS, the goal of this Agreement is for GOSR and Parks to outline process and coordination procedures whereby the Parties can mutually develop and implement the design and construction of both the Dunes Project and Breakwaters Project; and

WHEREAS, Parks' primary interests lie with the physical structures (including buildings, plantings and earthworks), construction activities, maintenance and operations activities, access, and visible impacts of onshore and offshore elements contained within and occurring on lands under Parks' jurisdiction; and

WHEREAS, the Parties wish to enter into this Agreement to establish their respective responsibilities in coordinating the design, environmental review, permitting, and construction of the Dune and Breakwater Projects;

NOW THEREFORE IT IS AGREED AMONG THE PARTIES AS FOLLOWS:

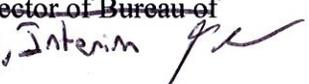
A. Acknowledgement of Statutory Requirements Concerning Expenditures of CDBG-DR Funding Under Public Law 113-2

1. The Parties acknowledge and understand that the CDBG-DR funding for the Dune Project and the Living Breakwaters is subject to expenditure deadlines set forth in Public Law 113-2. Under these requirements all CDBG-DR funding must be obligated by September 2017, and be expended by September 2019. Therefore, the Parties will use best efforts to expeditiously perform the coordination efforts set forth in this MOA so as to meet the statutory obligation and expenditure deadlines.
2. The Parties also acknowledge that CDBG-DR budgets for the Dune Project and the Breakwaters Projects are fixed and that there currently are no additional local, State, or federal funds available to administer and implement these projects. Therefore, the Parties will use best efforts to develop efficient, cost effective strategies to meet the existing budgets for each Project component.

B. General Project Coordination

1. GOSR, directly or through its subrecipient agreement, shall develop a project design scope of work for the Dunes Project and any on-shore portions of the Breakwaters Project (“Scope”) and provide it to Parks. Within two weeks of the Scope, Parks will respond to the scope of work, which shall include the following:
 - a. design and location of the dune(s), access points, public signage, and impacts to existing Parkland, including trees;
 - b. encroachments (i.e. NYCDOT right-of-way at Surf Avenue);
 - c. internal drainage impacts;
 - d. potential wetland mitigation measures;
 - e. Community outreach strategy;
 - f. All necessary federal, state and city permits; and
 - g. Breakwaters Project impacts and elements, including the location of the Water Hub (see Section C for additional information on Water Hub design coordination).
2. All comments and approvals by Parks shall be communicated in writing.
3. Along with the Scope, GOSR will provide a project schedule for the Dunes Project (“Schedule”), including key milestones and deliverables such as design review

periods for Parks. Relevant milestones for the Breakwaters Project will also be included in the project schedule.

4. GOSR shall organize regular (not less than monthly, and more frequently if needed) coordination meetings between the Parties, DASNY, and the necessary consultants, to work together in good faith to establish a review process pertaining to the design of the Dunes Project. GOSR and Parks shall also establish a standing weekly call to confer on project issues and schedules. The Parties shall meet on an as-needed basis to resolve all details regarding the scheduling, location, content, and operations of the Dune Project. Standing point of contacts for purposes of discussing and resolving coordination matters are as follows and may be substituted upon written notice by either party:
 - a. Grace Tang, Project Manager (Parks)
 - b. Owen Wells, Director of Environmental Review (Parks)
 - c. Todd Mitchell, Design Review (Parks)
 - d. John Kilcullen, Staten Island Borough (Parks)
 - e. Carrie Grassie, City Coordination (ORR)
 - f. Alessandro G. Olivieri, General Counsel (Parks)
 - g. Sarah Kogel-Smucker, Senior Counsel (City Law)
 - h. Kris VanOrsdel, Director, Infrastructure (GOSR)
 - i. Kate Dineen, Director, Community Reconstruction (GOSR)
 - j. Alex Zablocki, Community Reconstruction, Project Manager (GOSR)
 - k. Chris McNamara, Infrastructure, , Project Manager (GOSR)
 - l. Daniel Greene, ~~Deputy General Counsel and Director of Bureau of Environmental Review and Assessment (GOSR)~~, *Interim* 
5. GOSR shall establish monthly progress meetings with agency and consultant staff for both the Dune Project and the Breakwaters Project, and Parks' Project Manager, and other Park staff as necessary, shall attend monthly meetings.
6. GOSR will coordinate the design of the Dune Project with elements of the Breakwaters Project, including the location and impacts of any property under Parks' jurisdiction that is within the Breakwaters Project.
7. The Parties will coordinate the exchange of any data concerning the property, which is in either Party's jurisdiction, including but not limited to building plans, conditions assessments, legal descriptions, surveys and any other information to aid in design of the Dune Project, and any Parks property portions of the Breakwaters Project. Parks will be provided access to the GOSR Sharepoint database to facilitate the exchange of project information and deliverables.
8. GOSR and/or its subrecipient must apply for and receive Parks Construction Permits (Capital Division) and Parks Research Permits (Natural Resources Division), as applicable, prior to initiating any site investigation work for the Dune Project and on-shore and on Parks Land Under Water portions of the Breakwaters Project.

9. GOSR shall be responsible for the initiation of all actions and applications, including all follow up meetings, which are required to resolve all questions and concerns necessary to obtain any and all required approvals for the Dune Project and any Parks property portions of the Breakwaters Project.
10. All design submissions (listed below) must abide by Parks standards as set forth in Appendix A. The list of design submissions does not include permits, environmental review reports, and other project-required documentation, if any.

C. Design Process

1. GOSR will develop alternatives for the Dune Project that will meet different design storm criteria through local stakeholder input. Provided that there is sufficient funding and technical basis, storm design criteria may include the 10, 50, 100, 250, and 500-year flooding event. Additionally, GOSR shall evaluate the feasibility of potential dune tie-in measures on property under Parks' jurisdiction along Brighton Street, Billop Avenue, and Swinnerton Street that aligns with the chosen design criteria. Parks will review and provide approval of the final design storm criteria, with the understanding that the selected design criteria must be feasible within the Dune Project Budget.
2. The following is a list of design submissions for the Dune Project that GOSR and/or its subrecipient shall submit for Parks' review and approval prior to construction:
 - a. Final Schematic Plan and Cost Estimate, described in Appendix A,
 - b. Preliminary Construction Documents and Cost Estimate, described in Appendix A, and
 - c. Final Construction Documents and Cost Estimate, described in Appendix A.

All required design submissions (listed above) for the Dune Project shall be made formally, in writing, with a copy of the letter of transmittal being sent to Parks Project Manager. The submissions shall be processed and coordinated for review and approval by all affected public and private agencies, as required for the successful completion of the project.

3. Upon completion of the Dune Project's Final Schematic Plan, and again at the completion of the Final Construction Documents, GOSR will coordinate with Parks and provide project and design materials for Parks' standard design approval process, which consists of several rounds of the following reviews:
 - a. Parks internal reviews:
 - i. Borough
 - ii. In-House

- b. External and/or advisory reviews, including but not limited to:
 - i. Community board;
 - ii. Landmarks;
 - iii. Public Design Commission (PDC) – Concept, Preliminary, & Final
4. Each review may necessitate design changes. GOSR and/or its subrecipient shall incorporate feedback from review, and provide updated documents for Parks approval.
5. GOSR and/or its subrecipient will coordinate with Parks to revise the design and costs, as necessary, to align with the allocated Dune Project budget.

D. Water Hub

The Water Hub (the on-shore portion of the Breakwaters Project) is a proposed new building which would serve as a community center for marine education and water-based activities (e.g. kayaking), and includes amenities such as bathrooms, water fountains, and observation decks. It ideally should be located on-land adjacent or in proximity to the proposed breakwaters, with accessible waterfront. Currently, there is neither capital funding for construction of the Water Hub, nor a budget for ongoing maintenance and operations. The Water Hub has been identified in the Draft Scope for the EIS, and some members of the community have expressed interest in the facility particularly, with regard to its programming potential. In order for Parks to agree to the implementation of the Water Hub, GOSR must demonstrate its feasibility as stated below.

1. GOSR shall work with Parks to identify the following concurrently with completion of Schematic Design Submission:
 - a. Funding sources and/or strategies for construction;
 - b. Funding sources and/or mechanisms for operations and maintenance activities, including partner organization(s), roles and responsibilities;
 - c. Alternatives for location, access points, and public transportation routes;
 - d. Community engagement strategy to understand the range of programming needs and desires, and manage community expectations considering capital and Maintenance and Operations (M&O) funding is not currently available;
 - e. Partner organizations to undertake programming;
 - f. Building's finished floor elevation;

- g. Schematic level design of the building, including massing studies, sections, and renderings;
 - h. Alternatives to the currently proposed Water Hub structure, which minimizes capital and M&O costs, including an option which eliminates a permanent Water Hub structure but focuses on programming only; and
2. GOSR and/or its subrecipient shall communicate to the public that the Water Hub is contingent on capital and M&O funding.
 3. Parks shall have the right to deny the advancement of the Water Hub design beyond Schematic Design and subsequent construction on property under Parks' jurisdiction if GOSR and Parks do not agree to the items specified above, particularly D(1)(a). and b.

E. Environmental Review

1. GOSR will act as lead agency for the preparation and delivery of the environmental review of the Dune Project pursuant to the National Environmental Policy Review Act (NEPA), the New York State Environmental Quality Review Act (SEQRA) and using the methodology from the City Environmental Quality Review (CEQR) Technical Manual guidance where appropriate. The environmental review will be undertaken in concert with, and incorporated into the environmental review documentation for the Breakwaters Project.
2. GOSR and its Subrecipient shall provide Parks an opportunity to review and comment on a full draft of the Dune Project Draft EIS (DEIS) at least one month prior to issuance of notice of completion of the DEIS and public circulation of it. However, GOSR may issue the notice of completion of the DEIS and conduct the public circulation at the end of the thirty days, even if Parks has not submitted comments. As an Involved Agency Parks may submit additional comments as necessary during the public comment period.
3. GOSR and its Subrecipient shall provide Parks an opportunity to review and comment on a full draft the Dune Project Final EIS (FEIS), including the draft response to comments, 30 days prior to issuance of notice of the FEIS. However, GOSR may issue the notice of the FEIS and conduct the public circulation at the end of the thirty days, even if Parks has not submitted comments.

F. Public Outreach

1. GOSR, in conjunction with a Community Advisory Committee, shall lead in creating a public outreach strategy for the Dune Project and Breakwaters Project. GOSR will prepare all materials for outreach events and meetings in consultation with Parks.
2. GOSR and its Subrecipient shall incorporate reasonable input received from the

public workshop when possible, in coordination with Parks.

3. Public input must be received prior to obtaining Preliminary Design approval from the Public Design Commission for components of the project constructed on City property. Parks will make efforts to facilitate early coordination with PDC given the time restrictions imposed by Public Law 113-2.

G. Permitting / Bidding / Construction

1. GOSR and/or its subrecipient will be responsible for the bidding and execution of the construction contract for the Dune Project and Breakwaters Project either by doing so directly, or entering into a subrecipient or similar agreement with a governmental entity capable of procuring and implementing the construction phase. As such, GOSR or its subrecipient will also be responsible for permitting, as described in this section.
2. If GOSR and/or its subrecipient conducts the construction phase through a subrecipient, GOSR shall engage discussions jointly between GOSR, its subrecipient, and Parks to outline roles and responsibilities. GOSR or its subrecipient will still be responsible for permitting, as described in this section.
3. GOSR will lead the coordination and acquisition of all project approvals and permits from all relevant agencies, including but not limited to, DOB and/or SBS, and NYSDEC for the Dunes Project and any on-shore portions of the Breakwaters Project. Parks will also be a permitting agency (“Permitter”) and shall review and approve all permit applications and associated documents prior to submission to respective agencies and/or entities.
4. GOSR or its subrecipient will prepare the construction bid package for the Dunes Project, in accordance with GOSR’s standards for procuring construction contractors. The final selection of a contractor(s) shall be decided by GOSR.
5. GOSR and/or its Subrecipient shall provide construction administration services throughout the construction of the Dunes Project and any on-shore portions of the Breakwaters Project, and shall be responsible for all submittal and shop drawing review and approval, change orders, among other things. Parks shall provide a designated staff for project coordination support including, but not limited to the following:
 - a. Attendance of key meetings including construction kick-off, project status updates, and closeout;
 - b. Adjacent property encroachment curing and coordination; and
 - c. Construction schedule review.

- d. GOSR and/or its subrecipient shall ensure a mechanism is in place to prevent or address cost overruns during construction. Parks shall not be responsible for any cost overruns.
6. Upon completion of construction of the Dune Project, GOSR or its subrecipient will furnish to Parks and to any other agency having jurisdiction over GOSR's Work, as-built drawings and any applicable warranty and maintenance manuals of such character showing accurately and distinctly the location, size and type of construction, and complete dimensions of the work erected or installed, as well as the location and dimensions of all substructures encountered during the progress of the work. As-built drawings shall conform to Parks' drawing standards, outlined in Appendix A.

H. Maintenance & Operations

The Parties will work together during the design phase of the Dunes and Breakwaters Projects to discuss roles, responsibilities, and funding of various M&O issues. A separate agreement may be required to outline specific roles, responsibilities, and funding, of various M&O issues which may include but not be limited to, the following:

1. M&O Tasks:

- a. Debris removal from dunes and breakwater structures, at least quarterly but pending final design and location
- b. Management of dunes (inspection, monitoring, and evaluation), including dune grasses, sand, barriers (permanent or temporary for establishment of dune grasses)
- c. Repair of dunes post storm event, including sand nourishment
- d. Vegetation management for plantings
- e. Maintenance of public signage
- f. Management of off-shore structures (breakwaters, oyster revetments, etc.)
- g. Safety and patrol of:
 - i. On-shore structures - particularly for the Breakwaters Project's Water Hub
 - ii. Off-shore structures - agreement with Coast Guard and NYPD/Harbor Unit is needed, as Parks does not have resources (i.e. boats) or expertise/capability to patrol or maintain off-shore structures like breakwaters

2. Equipment & Resources:

- a. Vehicles
 - b. Cleaning/maintenance equipment
 - c. Plants (dune grasses) and sand for dune nourishment
 - d. Staff training for all M&O tasks
 - e. Staff training for equipment use
3. **Schedule & Frequency** - will depend on the availability of capital and expense funds, structure, location, and anticipated public use/access



4. Management of the Breakwaters Project's Water Hub

- a. Establish the entit(ies) responsible for M&O of the facility;
- b. Establish what resources/funds will be available for M&O tasks at the facility.

I. Amendment or Termination

This agreement may be amended, modified, or superseded in writing by the Parties. This agreement may also be unilaterally terminated at will by either Party with or without cause. However, if either Party elects to terminate this agreement it shall, as a show of good faith, provide thirty days written notice of the termination and, if the other party so requests, attend at least one meeting to meet and confer regarding the termination in order to attempt to resolve differences between the Parties. If no resolution occurs following the meet and confer, the agreement shall terminate on the 31th day following the written notice.

THE PARTIES HERETO HAVE EXECUTED THIS AGREEMENT ON THE DATES APPEARING OPPOSITE THEIR RESPECTIVE SIGNATURES:

New York City Department of Parks & Recreation

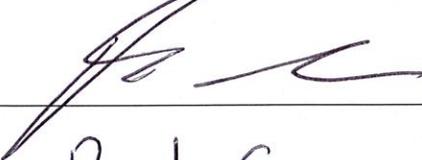
By: 

Name: Therese Braddick

Title: Deputy Commissioner

Date: 6/17/15

New York State Governor's Office of Storm Recovery

By: 

Name: Daniel Greene

Title: General Counsel, Interim

Date: 7/3/15

APPENDIX A

I. TASKS

1. Schematic Design Phase

- a. GOSR and/or its subrecipient shall be directed to prepare schematic plans for review and approval by Parks prior to beginning Preliminary Construction Documents.
- b. GOSR and its Subrecipient shall prepare as many schematic-plans and studies as may reasonably be required until the Parks shall accept one such study. Each shall be accompanied by a cost estimate.
- c. The schematics shall provide and describe the best possible combination of layout, site design and any other elements required by the Agency which may include but not be limited to structural, orientation and configuration and other pertinent design elements.

2. Preliminary Construction Documents

- a. Upon receipt or approval of the schematic design study, GOSR and/or its Subrecipient shall prepare and submit to the Agency the following documents:
 - i. Preliminary plans, studies and drawings, including (if applicable to the project), but not necessarily limited to:
 1. Plans, types of foundations, floor plans, elevations and sections indicating types of structural framing, typical sections, and any additional documents necessary to fully illustrate the intent of the design.
 2. Calculations to support the design. Submit calculations on separate 8 1/2"x11" sheets.
 3. Legal grades, existing and proposed contours, preliminary spot elevations and spot elevations where unusual grade conditions exist adjacent to the building or facility to be developed. Layout and grading plans are to be drawn with Engineer's Scale.
 4. Description of adjacent buildings and existing facilities on site, i.e., buildings, subsurface utilities, light poles, vaults, trees, subways, transit tunnels, fences, curbs, walks, walls and hidden foundations where the area was a demolition site, existing utilities in adjacent streets, i.e., sewers, gas, electric, manholes, hydrants, etc.
 5. Standard specifications and Outline custom specifications.
 6. Preliminary detailed estimate of cost.
 7. A list of all required City, State and Federal Agency approvals.

3. Final Construction Documents

- a. Final contract documents shall include final designs, complete and detailed drawings and specifications, a detailed cost estimate for each prime contract, data necessary for preparation of a proposal for bids and a bid form, all satisfactory to the Agency.

- b. The drawings, design and specifications shall include, but shall not be limited to, layout and grading plans and details of pavements, fences, walls, curbs, benches, play equipment, utilities and drainage structures, planting and park furniture.
- c. These final contract drawings and specifications shall be prepared with construction details completely shown and with figure dimensions given and specifications completely stated so as to enable prospective bidders to make accurate and reliable estimates of the quantities, materials required to erect and complete the Project and to install the equipment therein in a first-class workmanlike manner to accomplish adequately the purposes and uses intended for the Project.
- d. Where applicable the drawings, design and specifications shall also include, but shall not be limited to, all drawings, designs, specifications and calculations for heating, ventilating, air-conditioning, plumbing, sanitary equipment, electrical equipment, communicating equipment, elevator equipment, refrigeration, structural and foundation work, lighting fixtures and all necessary machines and appliances. GOSR and/or its Subrecipient shall inform the Agency in writing, immediately of any adjustments to the last approved estimate of the total construction cost of the Project as indicated by changes in the Work Order Letter.
- e. All drawings, before being submitted to the Agency for final acceptance, shall bear the stamps of approval and be accompanied by all necessary applications, certificates, or permits of all City, State or Federal agencies having jurisdiction over any phase of work. The Agency shall apply for the final approval of the Public Design Commission and landmarks, after the delivery of the drawings and documents described above. The Agency shall facilitate consultation with the Public Design Commission early in the design process so as to avoid delays that would impede compliance with the funding time limitations set forth in Public Law 113-2.
- f. GOSR and/or its Subrecipient shall prepare composite sections, drawn accurately to scale, which shall show the work of all trades in equipment rooms, corridors and all other areas involving the work of more than one trade. Drawings of these composite sections shall indicate whether equipment etc., is to be hung from above or supported from below. These drawings shall be included as part of the contract drawings for each trade in addition to the regular drawings with their own usual details and sections.
- g. If in the opinion of the Agency, the drawings are not sufficient in number or content to demonstrate the feasibility of the mechanical installation, he may order that an additional drawing or drawings be prepared.
- h. Submittal of Final Contract Drawings and Documents: GOSR or its Subrecipient shall deliver to the Agency the following:
 - i. All sets of construction documents as approved by each required government Agency.
 - ii. All final drawings shall conform to comments by the Agency, bearing all required stamps of approval including the seal and signature of GOSR and its Subrecipient. The final drawings and specifications shall be prepared in accordance with the items listed in Section II – Deliverables.
 - iii. A number of sets, as specified below, and final estimates to include:
 - 1. A summary giving estimated cost for each construction contract.

2. A quantity breakdown containing items of work, quantities, unit-prices and amount, including such information for each prime contract. When alterations as well as new additions to existing structure are involved in the same contract, estimates shall be separated accordingly.
3. Typical plans, suitable for small-scale reproduction and publication. These documents shall not be deemed to have been accepted until the Agency has notified GOSR and its subrecipient in writing.
- iv. Materials and color samples for non-standard items. Samples must be labeled with type of material, finish, manufacturer or supplier and project title and contract number. Color scheme must be approved by the department.

II. DELIVERABLES

1. **Final Schematic Plan** - Upon selection of the Final Schematic and in conformance with the schedule established in this Contract, GOSR or its subrecipient shall deliver to the Agency the following documents for review:
 - a. Two (2) copies of the Final Schematic Design drawings, together with an estimate of cost.
 - b. A park location plan shown on the Schematic Plan.
 - c. A plan of existing site and off-site conditions.
 - d. Elevations, sketches and sections, as necessary, to fully explain the design.

2. **Preliminary Construction Documents** - In conformance with the schedule established in this Contract, GOSR or its subrecipient shall deliver to the Agency the following documents for review:
 - a. Two (2) copies of CADD design files on CD-ROM in AUTOCAD 2014 format (.DWG files).
 - b. Two (2) complete sets of black-line prints of the plans, specifications and cost estimates.
 - c. Two (2) complete sets of the specification and cost estimates.
 - d. Preliminaries will not be accepted until Consultant has furnished evidence that, preliminary data relating to incoming service of electricity, gas, water and sewers have been submitted to the appropriate departments as well as proof of the filing of plans with the Department of Buildings for the approval of zoning, stairs and exits, and the preliminary approval of the Public Design Commission and Landmarks Preservation Commission, as applicable.
 - e. All drawings must be pre-checked and initialed by GOSR and its Subrecipient's Principal-in-Charge prior to submission.

3. **Final Contract Drawings** - GOSR or its subrecipient shall deliver to the Agency the following documents for review:
 - a. Two (2) CD-ROM's each containing CADD design files, specifications, and the Engineer's Estimate. CADD files shall be minimum AUTOCAD 2014 (.DWG) or Agency standard upon receipt of the order to Work. GOSR and subrecipient shall verify the Agency standard with the project manager upon receipt of the order to work. Specifications shall be prepared in Microsoft Word format. The CD's shall be submitted in individual plastic —Jewel cases. The cases shall be labeled with the Contract Number and version of AUTOCAD.
 - b. Two (2) complete sets of black-line prints of the final plans, specifications, cost estimates.
 - c. Two (2) copies of the list of shop drawings required for the project. One (1) copy shall be separate. GOSR and its Subrecipient shall include the second copy in the Construction Specifications. The list shall be of all required shop drawings and certificates of approval with language to the effect "that shop drawings and certificates of approval are required but not limited to the following".

- d. Two (2) complete sets of the final specifications and cost estimates, 8 ½"x 11" single-sided, unbound.
- e. Two (2) copies of the color schedule including required paint color chips.
- f. Where applicable, the submission of final documents shall include the following for review and approval of the Landmarks Preservation Commission and the Public Design Commission:
 - a. Two (2) sets of black-line prints of complete final contract drawings,
 - b. Material samples as directed including type and color to be used. Samples shall be labeled with type of material, finish, manufacturer or supplier and project title and contract number.
 - c. Duplicate Public Design Commission presentations.
- g. Compliance Review Documents: If a review of the final documents by the Agency reveals the need for revisions, GOSR and its Subrecipient will be required to deliver to the Agency:
 - i. Two (2) CD-ROM's each containing CADD design files, specifications, and the Engineer's Estimate. CADD files shall be minimum AUTOCAD 2014 (.DWG) or Agency standard upon receipt of the order to Work. GOSR and its Subrecipient shall verify the Agency standard with the project manager upon receipt of the order to work. Specifications shall be prepared in Microsoft Word format. The CD's shall be submitted in individual plastic —Jewel cases. The cases shall be labeled with the Contract Number and version of AUTOCAD.
 - ii. Two (2) complete sets of black-line prints of the revised plans, specifications and cost estimates.
 - iii. One (1) set of black-line prints of written replies to the final review comments.

4. Final Documents for Agency Acceptance

- a. Within ten (10) consecutive calendar days after date of written approval of the final documents, GOSR and/or its subrecipient shall deliver the following documents for Acceptance of the Agency:
 - i. Two (2) CD-ROM's each containing CADD design files, specifications, and the Engineer's Estimate. CADD files shall be minimum AUTOCAD 2014 (DWG) or Agency standard upon receipt of the order to Work. GOSR and/or its subrecipient shall verify the Agency standard with the project manager upon receipt of the order to work. Specifications shall be prepared in Microsoft Word format. The CD's shall be submitted in individual plastic Jewel cases. The cases shall be labeled with the Contract Number and version of AUTOCAD.
 - ii. One (1) set of original drawings.
 - iii. One (1) set of specifications with list of shop drawings required, (legals are not required to be included).
 - iv. Cost estimates typed on 8 1/2" x 11".
 - v. Two (2) copies of the color schedule.

- vi. One (1) complete set of black-line prints of the plans, specifications and cost estimates.
- b. When applicable, a summary giving estimated cost for each construction contract of the Project. (All estimates shall include the cost for temporary heat).
- c. A quantity breakdown containing items of work, quantities, unit-prices and amount, including such information for each prime contract. When alterations as well as new additions to existing structures are involved in the same contract, estimates shall be separated accordingly.

III. PARKS STANDARDS

1. Topographic Survey

- a. GOSR and/or its Subrecipient are responsible for obtaining such boundary and topographical surveys, test borings and subsurface information as required for the execution of this agreement, and for the guidance of GOSR and its Subrecipient. Such furnishing shall in no way diminish GOSR and/or its Subrecipient's responsibility to avail themselves of all other documents, data and information necessary to properly accomplish the work of each project.
- b. When required, GOSR and/or its subrecipient shall contract directly with a Licensed New York State Surveyor for a Topographic Survey of the project covered by this agreement.
- c. Tasks required for projects including survey work shall include but not be limited to the following:
 - i. Definition of the Survey area.
 - ii. Obtaining the cost proposal and contracting with the prospective surveyor.
 - iii. Reviewing the Survey for completeness and general accuracy.
 - iv. Reviewing the Survey original documents for final acceptance.
- d. Drawings shall comply with the Requirements for the Preparation of Construction Drawings and Specifications. The title shall be in the form approved by the Department of Parks Recreation. The title block shall be offset eight (8) inches to the left of the lower right corner of the drawing. Title to contain the survey number, the name of the project, the location of the site and borough, scale, and the date of completion of filed survey. The signature and seal of Surveyor on record must also be included.
- e. Survey shall be drawn to a scale of 1" =20' unless otherwise directed.
- f. Total square foot area of site is to be indicated.
- g. Points of the compass shall be indicated. Use letters "N" for North. Where practical, north point should be toward top of drawings.
- h. Give block, lot and house numbers of property. Lot numbers to be shown on each individual parcel. Block numbers to be prominently located within site boundaries.
- i. All dimensions and elevations shall be in feet, tenths and hundredths of a foot. Elevations of hard surfaces (pavement, walls, curbs, etc.) shall be to the nearest hundredth of a foot Elevations on earth, grass etc. shall be to the nearest tenth of a foot.

- j. Provide dimensions and angles of street and record lines. Curved street and record lines shall have the tangent and chord angles indicated. All angles shall be given so that the record lines will close. For sites in locations where there are no street, curbs, sidewalks, adjacent buildings, monuments or other physical means of easily recognizing the location, substantial corner stakes are to be driven and left for future use by the department for locating the site. Where practical, these corner stakes are to be referenced to nearby physical features such as manholes, catch basins, curbs, etc.
- k. Street and Avenue lines shall be indicated, giving widths and present names. If they have been renamed, give the old name in parenthesis.
- l. Where streets are to be closed a note to that effect shall be placed within the streets. Where such a street is within the site, an overall dimension shall be given, including the street.
- m. Demonstrate any proposed changes in street or sidewalk widths. Present curb lines shall be indicated with distance from street lines.
- n. Indicate radius of curbs at street intersections.
- o. Partly paved sidewalks shall be indicated, widths given and located in relation to street line. Elevation of such paved area to be given.
- p. Provide the material and condition (good, fair, or poor) of streets, sidewalks and curbs.
- q. Indicate materials and condition of areas within site. G. Show the date of when title was vested.
- r. For projects where Builders Pavement Permits are required the survey shall include such information as may be required by the NYC Department of Transportation.
- s. Where changes or additions are required after survey has been completed, they shall be made by the surveyor. On the margin near the title, the survey shall be marked "Revised" with date and initials of the Surveyor, and nature of revisions indicated. Original information shall not be erased but shall be crossed out and the new information added adjacent to the old.
- t. The Survey shall indicate the tidal and freshwater wet-lands boundaries in accordance with the rules and regulations of the N.Y. State Environmental Conservation Law.

2. Elevations

- a. All elevations on site shall be given with reference to North American Vertical Datum of 1988. NAVD 88 shall be noted with reference to U.S. Coast and Geodetic Datum which will not be disturbed by any future construction and give its elevation with relation to NAVD 88.
 - i. Indicate the actual and theoretical (legal) elevations of curb lines at intersections, whether curbed or not at points where the curb lines are intersected, by 90 degree prolongation of street lines, property lines and/or curve chords. Include the ends of streets to be closed. All these points shall be located by dimension. Check closing of streets as to its effect on the established theoretical elevations at these streets.
- b. Any proposed change in adopted theoretical grades shall be noted.
- c. Grade changes shall be prominently noted and located and an actual elevation is to be given at that point, in addition to theoretical elevations. Such point to be marked "Grade Change".

- d. For sites occupying only part of the block, show existing grades of yards and retaining walls, (top and bottom) on the abutting property, for a distance of 10 feet from the lot line and 50 feet from the property line, along the street obtaining elevations at the property line, the top and bottom of street curb and the center line of the street. If the site or adjoining property is vacant, it shall be so indicated.
- e. Furnish such surface elevations as are essential to the preparation of estimates for excavating and grading and filling. Elevations shall be provided at a minimum 25 feet grid with sufficient additional elevations to reflect grade changes. Where there are marked depressions, old cellars, wells, vaults, privy vaults, cesspools, cisterns, embankments, hillocks, outcropping rock, etc., boundaries of these should be indicated by lines and such additional elevations as are necessary to give a clear indication of the actual site conditions shall be furnished. Contours of one foot intervals shall also be shown. Actual elevations shall be given at 25 feet intervals along curbs at both sides of the roadway, street lines and center line of street. Elevations shall extend 50 feet beyond the property line on both sides of the street, centerline and street lines. This shall apply whether curbs are built or proposed and streets are paved or unpaved.

3. Encroachments, Projections, and Encumbrances

- a. Locate by scale: lamp posts, fire hydrants, poles for electric and telephone lines, elevated road pillars, sidewalks, sub-structures, sewer catch basins, depressed curbs, traffic signals and signs, etc. 15A. Locate by scale, trees 6 inches in caliper or over which exist along the streets and on site. Give caliper, type and condition and an elevation at the base. Tree caliper should be measured 4 feet above ground.
- b. Indicate kind of buildings on site and locate them by scale outlines with elevations of the lowest floor, cellar, vaults, and sill elevation at all entrances. Areaways, retaining and fence walls, fences, cesspools, underground tanks, etc., within the site, shall be indicated by scale and dimension. Note condition.
- c. Furnish available information on buildings, which formerly occupied the site. Buildings shall be shown by scale with an elevation of the lowest floor. Date and source of data shall also be noted.
- d. Information about existing buildings on adjoining property which are clear of the record lines shall generally be the same as required for buildings on site.
 - i. Show all encroachment along the lines, such as buildings, retaining or fence walls, fence, etc. and indicate accurately the amount of encroachment by dimension at various points. Where walls, etc. are right with the lines, they shall be indicated as "Corr". Indicate by dimensions whether foundations of adjoining buildings, etc. on or close to the lot lines encroach on the park property. Material and conditions relating to lot line walls must be given. Indicate whether wall is independent, party wall, etc. Note condition.
 - ii. On sites where adjoining buildings are on or close to our lot line, the following information must be given to a distance of ten feet from said lot lines: Location of the building by dimension. Elevations of main and extension roofs, parapets, chimneys, exhaust vents, intakes, etc. Indicate whether walls are plumb and the amount of overhang on park property.

4. Sewers in Street and On Site

- a. Indicate source and date of utilities and subsurface information when it is obtained from other than field survey. Utility information shall be given for the full width of the street. Sewer lines shall be indicated by size, materials and location from street lines. Indicate manholes and catch basins with rim and invert elevation of each given. Extend information whether manholes are offset from centerline, of sewers and directions of branch pipes in manholes. Indicate whether sewers are sanitary, storm water or combines, if private, so state. Where there are no sewers in streets and sewers are proposed, show the same information as above, giving due consideration to the difference between the highway and sewer department data for invert and rim elevations.
 - i. All subsurface utility information is to be obtained and shown on the plan. These utilities are to be located by scale from street line, size and number. Manholes and vaults of such utilities are to be indicated. The utilities include gas, water, electric, telephone, telegraph and steam mains. Indicate any information regarding other substructures. Indicate which if any utilities are not in the street.
 - ii. Dead Ends of all utilities shall be located by dimensions from street lines and marked "Dead End", capped or plugged.
 - iii. Water Mains shall be indicated. Give size and locations by dimensions from street lines. If water lines are privately owned, give name of owner. If high pressure, so state.
- b. Where applicable, the following note shall be shown on the survey signed by the surveyor "This is to certify that there are no streams or natural water courses in the property as shown on this survey.
- c. Whenever subway lines are on or near site boundaries, the following information must be obtained and indicated on the survey drawing.
 - i. Location by dimension of subway wall nearest to street lines.
 - ii. Location by dimension of subway shafts and appurtenances and entrance and exit stairways and escape hatches.
 - iii. Elevation of Base of rail and top and bottom of concrete enclosure.
- d. Furnish available information regarding old streams, ponds and low areas that have been filled in regarding subsurface conditions that might require an unusual type of foundation or waterproofing.
- e. Upon completion of the survey, three (3) prints shall be submitted for approval. Along with this, a copy of the specification should be submitted and marked to indicate the applicable data on the survey. Where any requirements have not been met, the surveyor shall state the reasons for not doing so in his transmittal.
- f. FINAL SUBMISSION. Consultant shall deliver two (2) sets of the topographic survey prepared per this specification.
 - i. One (1) Original ink on Polyester film (i.e. Mylar).
 - ii. One (1) Duplicate set prepared either as ink on mylar or right reading camera-photo wash-off mylar.
- g. SURVEYOR SEAL & SIGNATURE - Original seal & signature must appear on both original ink polyester and the camera-photo wash-off mylar.

5. Borings

- a. GOSR and/or its subrecipient shall, if necessary, determine subsurface conditions, secure boring data, exploratory probes, and select specimen soil samples for analysis by Laboratory tests necessary for the development of the work, subject to authorization by the Agency.

6. Design Calculations

- a. For Preliminary and Final Construction Document submissions, GOSR and its Subrecipient will be required to submit calculations in order to complete HVAC, plumbing, electrical, drainage design, and major grading/cut and fill. Any submission not including the above calculations shall be considered incomplete.

7. Building Department Submission

- a. If necessary, GOSR and its Subrecipient shall submit one copy of the microfilm Building Department Submission to the Department of Parks and Recreation.

8. Site Visits

- a. GOSR and/or its Subrecipient shall be required to make as many visits to the individual project site as necessary during design, noting all conditions and implications of same pertaining to the completion of construction documents. He/she shall promptly bring to the attention of the Agency any inadequacy or uncertainty of facilities or utilities, or other impediments, which would prevent orderly and expeditious completion of the Project, and are reasonably discoverable by him/her and certify the same according to the following schedule:
 - i. During Preliminary Construction Documents Phase.
 - ii. Prior to Submission of Final Construction Documents.
 - iii. Prior to Bid.
- b. GOSR and its Subrecipient shall submit to the Agency field notes, taken at each site visit in accordance with the above-mentioned schedule within 10 days of the site visit. GOSR and its Subrecipient will require all sub-consultants hired for this project to submit field notes as part of each submission. No submission shall be deemed complete unless it is accompanied by the required field notes.

9. Design Calculations

- a. For Preliminary and Final Construction Document submissions, GOSR and its Subrecipient will be required to submit calculations in order to complete HVAC, plumbing, electrical, drainage design, and major grading/cut and fill. Any submission not including the above calculations shall be considered incomplete.

10. Building Department Submission

- a. If necessary, GOSR and its Subrecipient shall submit one copy of the microfilm Building Department Submission to the Department of Parks and Recreation.

11. Barrier Free Access

- a. GOSR and its Subrecipient shall design a Project which conforms to the requirements of the Americans with Disabilities Act (ADA), as well as the standards of design as stipulated in Local Law 58, The Department of Buildings and the Mayor's Office for People with Disabilities.

12. Building Code

- a. GOSR and its Subrecipient shall conform to the requirements of the New York City Building Code.

13. Services During Construction

- a. Shop Drawings and Certificates
 - i. GOSR and its Subrecipient shall interpret contract documents and make recommendations in writing according to the following procedures. These procedures shall be made expeditiously so as to avoid delays to the construction process:
 1. The Contractors shall submit to GOSR and its Subrecipient, seven black line prints and seven sets of catalog cuts, and, in the case of material samples, two. (The Contractor shall forward a copy of his transmittal letter to Parks and Recreation Construction Division Shop Drawing Unit.)
 2. For shop drawings that are —APPROVED or —APPROVED AS NOTED, the GOSR and its Subrecipient shall stamp the sepia (and mark-up if applicable) and return the black line prints to the Contractor with a letter stating or explaining his disposition. GOSR and its Subrecipient shall use his own company letterhead in making a direct reply to the Contractor and the letter shall be copied to the following:
 - Borough Director
 - Shop Drawing Unit (no copy)
 - FMFO/SD w/copy of drawing
 - Map File w/copy of drawing
 - Supervising Consultant *

** If there is a supervising Consultant, send copies of drawings to him/her; if supervised by Parks and Recreation, send copies to Borough Director.*

The first 4 above can be sent together to the attention of the Construction Division Shop Drawing Unit. NOTE: This procedure allows the designer the option of marking-up enough blueprints to accompany the above distribution list or to copy the marked sepia to meet the same objective.

3. When a submission is —DISAPPROVED or REVISE AND RESUBMIT, GOSR and its Subrecipient shall send a letter directly to the Contractor stating so. The black line print is to be marked accordingly and returned to the Contractor. (GOSR and its Subrecipient will probably wish to retain a copy for himself/herself. The balance of blueprints can be thrown away). The disapproval/ resubmit letter shall copy the following (with no attachments, except as noted):

- Borough Director (use name)
- Shop Drawing Unit (use name)

- FMFO/SD - with copy of submission
- Supervising Consultant - where applicable (use name)

The first three (3) above can be sent together to the attention of the Construction Division Shop Drawing Unit.

4. When a SAMPLE is approved, Consultant shall arrange for delivery of one sample to the field supervisor; the contractor may pick up his own sample but may not make delivery to the field.
5. **NOTE:** Contractors have been known to underbid projects and supply alleged "as equal" material which actually is inferior material to that which was specified. Therefore, if a contractor wishes to substitute a specified item, it must be submitted to GOSR and its Subrecipient for review under the procedures outlined herein and the material may be approved "with no change in contract price."

14. Reports and Investigations

- a. When directed by work order letter, GOSR and/or its Subrecipient shall provide to the Agency, a minimum of five (5) copies of any reports or investigations with original photographs and the negatives.
- b. All reports and investigations shall be stamped and signed with a New York State Professional Engineers stamp.

15. Requirements for the Preparation of Construction Drawings and Specifications

- a. This is intended to provide minimum drafting methods for the preparation of engineering and architectural drawings of archival quality as well as for microfilming and reduction.
- b. This recognizes the need for easily legible reduction and reproduction by both conventional methods and microfilm. It is understood and accepted that the quality of the original document is a vital part of the end product quality. Lines and characters must be black opaque and characters must be large enough for acceptable reproduction. Failure to recognize these basic drafting fundamentals can result in unacceptable microimages and reductions.
- c. Where specified, drawings shall be prepared in accordance with American National Standards Institute (ANSI) specifications. All required ANSI standards shall be the latest revision at date of contract.
- d. It shall be the responsibility of the preparer of the drawings and related documents to ensure adherence to these requirements. The preparer shall bear full responsibility for proper execution of this specification.

16. Drawing Requirements

- a. **DRAWING SHEET SIZE:** Drawing sheet size shall be **30" x 42"**. There shall be a one-inch (1") border on the left, a one-half inch (1/2") border on the top and bottom and a one-half inch (1/2") border on the right. Each sheet will be in one piece. Sheets that are taped together to conform with the drawing sheet size will not be accepted. On rare occasions a drawing (i.e. topographical survey or boring) obtained from Parks & Recreation will not conform. Such sheets shall be submitted as is.

17. Abbreviations

- a. Shall comply with American National Standard, ANSI Y1.1, Abbreviations.

18. Line Conventions and Lettering

- a. Line conventions and lettering shall be in accordance with ANSI Y.14.2 except as follows: Minimum character height of ANSI Y.14.2, of 5/32" for the body of the drawing may be reduced to 1/8" minimum.
- b. There shall be a 1/8" minimum space between lines and a 1/16" minimum space between characters.
- c. Typewritten characters: 10 pitch (10 characters per inch) minimum, upper case, opaque dense black ink are acceptable.
- d. Documents classified as cartographic, by mutual agreement between the agency and the contractor, need not meet ANSI Y14.2. Cartographic documents shall meet accepted industry standards for cartography.

19. Linework

- a. For polyester (Mylar, Estar, etc.) sheet drafting, all linework shall be in opaque black ink or plastic film pencil.
- b. ACCEPTABLE INK BRANDS (Or Equal):
 - i. Gunther Wagner Pelikan "T", "TN"
 - ii. A.W. Faber-Castell Higgins, Black Magic Waterproof India Ink
 - iii. Rapid-O-Ink #3072
 - iv. Koh-I-Nor Rapiddraw #3084
 - v. Staedtler Mars 747T
- c. ACCEPTABLE PENCIL BRANDS (Or Equal) Ruwe #205
 - i. Berol Turquoise Filmograph
 - ii. A.W. Faber-Castell Dri Line #1915
 - iii. Staedtler Mars Dynagraph
 - iv. Eberhard Faber Microlar
 - v. Koh-I-Lar #1500M
 - vi. Dixon-Crucible FTR, FTR Matte
- d. HALF-TONE/DOT PATTERNS
 - i. Half-tone or dot patterns are prohibited. (Exception: On the removals plan, existing conditions may be screened).
- e. Drawing on both sides of a sheet is prohibited.
- f. COLOR CODE: The use of color code designation is prohibited.
- g. MICROFILM ALIGNMENT: Arrowheads to facilitate microfilm alignment shall be located in the margin, on all four sides of each sheet, midway between the edges. (Reference: See ANSI Y14.1, 1980, Figures 1 & 2.)
- h. RUBBER STAMPS and DECALS: The use of rubber stamps is prohibited. Stanpat decals or equal should be used instead of rubber stamps. (Exception: Consultant seal should be rubber stamp). **NOTE:** If adhesive backed information decals, lettering, symbols, dot pattern screens and/or transfer/rub-on lettering (typically Stanpat, Kroy

and Zipatone) are used, the final submission shall be fixed line photo on mylar per Section 3.

- i. **DRAWING IDENTIFICATION:** All sheets shall be properly identified with the contract number (i.e. M010-200M), date, scale, sheet number, total number of sheets, drawing title, etc. All sheets within a contract shall be consecutively numbered with the title sheet being number one.
- j. All consultant generated drawings shall have GOSR and/or its Subrecipient's seal and signature as well as the company name & address.
- k. **SCALE:** A graphic scale shall be placed on all drawings (Exception: Title Sheet). Ideally the scale shall be located at the bottom of the drawing, just left of the title block. The scale shall be kept simple, with the linework and lettering of sufficient weight and size to make the scale clearly legible when the drawing is reduced. Drawings with several details, sections, elevations, etc. on one sheet shall have a graphic scale for **each**, when drawn to different scales. Drawings, or portions thereof, that are "NOT TO SCALE" shall be clearly labeled as such.
- l. **CADD:** Drawings printed on a CADD system shall conform to all aspects of this specification. If the printing process uses powdered toners or developers as in laser, electrostatic or other methods the resulting documents will not be accepted. Acceptable plotting methods are those using ink (pen plotter or ink jet). Should a method of printing other than ink be used the final drawing submission shall be right reading fixed line photo on mylar (See Section 3).
- m. Revised and supplementary drawings shall conform to all aspects of this specification and shall be appropriately identified.
- n. Reference drawings and sketches included in specifications shall be limited to 8-1/2" x 11" paper. The name and address of the Agency or Firm preparing such documents shall appear on each page.

20. Final Drawings

- a. Final drawings shall be ink or plastic film pencil on minimum 4 mil mylar or right reading fixed line photo on minimum 4 mil mylar. The resultant camera negative may be retained by the contractor or discarded.
- b. The use of electrostatic and diazo sepia reproduction processes (i.e. sepia vellum, sepia polyester and xerographic type) to produce original equivalent drawings, including topographic surveys, borings and builders pavement plans is prohibited. In general, if the printing process uses powdered toners and/or developers the resulting drawings will not be accepted. Acceptable ink printing processes are pen & ink jet plotters.
- c. The use of reversed/mirror image fixed line photo mylar is prohibited.

21. Topographic Standards

- a. The original topographic survey shall be included in the contract drawings. The use of electrostatic and diazo sepia reproductions (i.e. sepia vellum, sepia polyester and xerographic type) is prohibited. Where required, a duplicate of the survey, prepared to Parks & Recreation drawing specifications, shall be submitted.

- b. Topographic Surveys shall be listed on the Title Sheet and shall be consecutively numbered within the set of final contract drawings.
- c. Topographic Surveys shall be prepared in conformance with Parks & Recreation specifications as presented in the Topographic Survey Contract.

22. Borings

- a. The original Boring Location Plan and Log shall be included in the set of final contract drawings. The use of electrostatic and diazo sepia reproductions is prohibited. Where required, a duplicate of the boring, prepared to Parks & Recreation drawing specifications shall be submitted.
- b. The Boring Plan and Log shall be listed on the Title Sheet and shall be a consecutively numbered item within the set of final contract drawings.
- c. The Boring Location Plan and Log shall be prepared in conformance with the Parks & Recreation Boring Specification as presented in the Boring Contract.

23. Specification Requirements

- a. PAPER: All pages shall be white, 20 lb. bond.
- b. IMPRINT: Opaque Black
- c. PRINT METHOD: Computer generated pages shall be printed in a letter quality setting & shall be compatible with Microsoft Word. The use of a draft setting is prohibited.
- d. FORMAT:
- e. Manuscript pages shall be 8-1/2" x 11".
- f. Reference drawings and sketches included in the specification shall be limited to 8-1/2"x11".
- g. All pages shall be printed on one side only.
- h. Lines shall be single spaced within paragraphs.
- i. The right margin may be justified or unjustified.
- j. Left, right and top margins shall be 1". The bottom margin shall be sufficient to allow page numbers.
- k. Page numbers shall be centered.
- l. END OF PAGE: Partial pages shall be designated "END OF PAGE" in capital letters as shown below. This shall be centered immediately below the last line of the last paragraph of each partial page.
- m. FONT: 12 Point, Times New Roman.

24. ANSI. American National Standards Institute

- a. Copies of the American National Standards may be obtained as follows:

American National Standards Institute
1430 Broadway

New York, New York 10018
(212) 642-4900

American Society of Mechanical Engineers
345 East 47th Street
New York, New York 10018
(212) 705-7722