

PROPOSAL

FOR INFORMATIONAL PURPOSES ONLY-DO NOT USE FOR BIDDING

TO BE COMPLETED BY CONTRACTOR SUBMITTING

A BID ON

CONTRACT NO. S35123-L38H

ITEM NO.	APPROXIMATE QUANTITIES	ITEMS WITH UNIT PRICE WRITTEN IN WORDS				
1	Lump Sum	Base Bid for furnishing all Labor, Materials and Equipment required for all work at Bay Park Sewage Treatment Plant CONTAMINATED SOIL HAULING AND DISPOSAL as specified.	N/A	N/A		
2	372 Cubic Yards	For all work associated with hauling and disposal of RCRA Hazardous, NON TSCA PCB Containing Soils.				
3	745 Cubic Yards	For all work associated with hauling and disposal of NON RCRA Hazardous, TSCA PCB Containing Soils.				
4	6333 Cubic Yards	For all work associated with hauling and disposal of NON RCRA Hazardous, NON TSCA PCB Containing Soils.				

PROPOSAL

5	Allowance	For all work associated with hauling and disposal of RCRA Hazardous, TSCA PCB Contaminated Soil.	N/A	N/A	\$200,000	00
		<u>Two Hundred Thousand</u> No				
6	Allowance	For all work associated with additional asphalt and/ or curb repair or replacement as directed by the County.	N/A	N/A	\$100,000	00
		<u>One Hundred Thousand</u> No				

PROPOSAL

TO BE COMPLETED BY CONTRACTOR SUBMITTING A BID ON

CONTRACT NO. S35123-L38H

**BAY PARK
SEWAGE TREATMENT PLANT
CONTRACT S35123-L38H
CONTAMINATED SOIL HAULING & DISPOSAL**

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<u>Specification No.</u>	<u>Specification Title</u>	
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SECTION 01010

SUMMARY OF WORK

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. The Work to be done under this Contract and in accordance with these Specifications consists of furnishing of equipment, superintendence, labor, skill, material and all other items necessary for the hauling and disposal of approximately 7450 cubic yards of potentially contaminated soil which includes soil, concrete and general construction debris that is currently stockpiled at the southwest corner of the Bay Park Sewage Treatment Plant, Nassau County, New York, as described in the Contract Documents, Contract No. S35123-L38H. The Contractor shall perform all Work required in accordance with the Contract Documents and subject to the terms and conditions of the Contract, complete and ready for use.
- B. The principal features of the Work to be performed and equipment to be provided for this Project under this Contract includes:
 - 1. All labor, equipment, fees, permits, and other related costs necessary for
 - a. Hauling and disposal of approximately 7450 cubic yards of potentially contaminated soil.
 - b. Preparation of a sampling and disposal plan in accordance with requirements of the selected disposal facilities.
 - c. Meeting the requirement of the selected disposal facility.
 - d. Removing the jersey barriers surrounding the soil pile.
 - e. Removing the brick and mortar that plug the pipes and clean the catch basins indicated on the drawings.
 - f. Repairing or replacing damaged curb, as directed by the County.
 - g. Repairing or replacing damaged asphalt, as directed by the County.
 - h. Establish landscaping.
 - i. Site restoration.
 - 2. See Drawings GEN-001, 002, 003 and 004 attached to this Specification.
 - 3. The 7450 cubic yards of potentially contaminated soil which includes soil, concrete and general construction debris that is currently stockpiled in the southwest corner of the Bay Park Sewage Treatment Plant shall be profiled in the following three categories:
 - a. RCRA Hazardous, NON TSCA PCB Containing Soils
 - b. NON RCRA Hazardous, TSCA PCB Containing Soils
 - c. NON RCRA Hazardous, NON TSCA PCB Containing Soils

4. The foregoing stated in Paragraph 1.1.B.1 is a general description only and shall not be construed as a complete description of the Work to be performed for this Project.
 5. The Contractor shall provide parking for work force off site at the Contractor's expense. No on-site parking will be allowed. No staging of vehicles on-site will be allowed.
- C. Delays due to lack of available labor, supervision, equipment, etc. will not be acceptable.
 - D. The existing Plant will be maintained in continuous operation by the County during the entire construction period. Work under this Contract shall be so scheduled and conducted by the Contractor that such Work will not impede any treatment process, reduce the quality of the Plant effluent or cause odor or other nuisance. In performing the Work shown and specified, the Contractor shall plan and schedule his Work to meet the Plant and collection system operating requirements.
 - E. The construction sequence, as described in Section 01700, Maintenance of Plant Operations, must be maintained so that the County will meet the appropriate State Pollutant Discharge Elimination System Permit.
 - F. Additional details concerning storm water permit compliance and pollution prevention plans can be found in the Federal Regulations 40 CFR 122 & 123.

1.2 GENERAL

- A. The Instructions to Bidders, Agreement, General Conditions, and Division 1, General Requirements, specifications shall apply to all Work under the Contract for this Project.
- B. Where articles of the Instructions to Bidders, Agreement, and General Conditions are repeated in the Sections of Division 1, General Requirements, it is intended to elaborate or qualify such articles. It is not intended that other articles of the above documents shall be omitted or that additional requirements set forth in the above documents and noted herein shall be excluded from Contract requirements unless specifically noted as such hereinafter.
- C. Where the words "Contract" and "Contractor" are used in Sections of Division 1, General Requirements, they shall apply equally to all parties entering into agreements with the County to perform Work specified herein and to all Contracts derived from said agreements.

1.3 CONTRACT DOCUMENTS

- A. The Contract Documents consist of the Notice and Instructions to Bidders, Bid Bond, Proposal, Agreement, General Conditions, the Technical Specifications, and the Contract Drawings.

1.4 TIME OF WORK

- A. Overtime work by the Contractor necessary to conform to the requirements of Division 1, General Requirements, Section 01700, Maintenance of Plant Operations, shall be considered as normal procedure under this Contract, and the Contractor shall make no claims for extra compensation as a result thereof. The Contractor shall be prepared to work around the clock and supply multiple work crews as necessary to complete the Work including testing and acceptance as specified, within the specified time frame and the time of completion set forth in the Contract Documents.
- B. The normal working hours for the project are between 7:00 AM and 3:30 PM Monday through Friday. When required to meet the Contract Completion dates, the Contractor is advised that they shall work scheduled overtime or second shifts as needed. The Contractors shall have sufficient construction materials, labor, equipment, tools and supervision to support scheduled overtime or second shifts when required.
- C. It is understood that the Contractor has reviewed the schedule and has included in their bid sufficient monies to meet the schedule and will make no claim for extra compensation because of additional costs to meet scheduled dates.
- D. The Contractor is advised that they will be directed to take remedial action as necessary to recover lost time on any critical items as determined from the Construction Schedule.
- E. If it shall become imperative to perform Work at night, the County shall be informed at least 24 hours in advance of Work done during off hours. Temporary lighting and all other necessary facilities for performing and inspecting the Work shall be provided as required and as specified in Division 1, Section 01500, Temporary Facilities and Controls, or as directed by the Engineer.
- F. Unless otherwise specifically permitted, all Work that would be subject to damage shall be stopped during inclement, stormy or freezing weather. Only such work that will not cause injury to workmanship or materials will be permitted. The Contractor shall carefully protect his Work against damage or injury from the weather, and when Work is permitted during freezing weather, he/she shall provide and maintain approved facilities for heating the materials and for protecting the finished Work.
- G. The Contractor shall require permission, in writing, to perform contractual work outside the regular County working hours of 7:00 AM to 3:30 PM, Monday through Friday, or on official County holidays. This written request should be

received by the County 24 hours in advance of beginning the work. The Contractor is responsible for coordination with the County Engineer and/or his duly authorized representative, prior to the start of the work to determine the dates of observance of the official County holidays that may occur during the course of the Contract. The official County holidays are:

- New Year's Day
- Martin Luther King, Jr. Day
- Lincoln's Birthday
- Washington's Birthday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Election Day
- Veteran's Day
- Thanksgiving Day
- Friday after Thanksgiving Day
- Christmas Day

Failure of the Contractor to consider official County holidays during the preparation of their work plans and schedules shall not be cause for a delay claim against the County.

- H. Contractor shall obtain permission from Owner, Owner's Representative and/or Plant management and staff prior to prosecuting any portion of the Work beyond the standard working days or hours. Should circumstances arise during the course of the Contract, where the Contractor works outside of the County's regular working hours (7:00 am to 3:30 pm, or as otherwise established for the project) or on weekends or official County holidays, regardless if this work is performed as a result of the Contractor's request or as required by the contract documents, or as required by the approved baseline schedule (resource loaded); the Contractor will reimburse the County for the cost of providing inspection and/or plant assistance, at the rate of \$175 per hour per staff member. The Owner, Owner's Representative and Plant management and staff will review the scope of the operations and determine on a case-by-case basis the extent of construction oversight that may be required. Furthermore, failure of the Contractor to have considered such contingency cost in his bid price shall not be cause for an additional cost claim to the County.

1.6 WORK BY OTHERS

- A. County will perform the following work:
1. Operate all potable, protected water, effluent water system and all other pertinent existing plant valves and plant functions.

1.7 REGULATORY AGENCY ACCESS TO CONSTRUCTION SITE

- A. Whenever construction work is in progress or preparation, the Contractor shall permit access and inspection and shall provide proper and necessary facilities to the representatives of the County, Engineer and Regulatory Agencies including, but not limited to, the New York State Department of Environmental Conservation and the New York State Environmental Facilities Corporation.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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1
GEN-002

PHOTO NO. 1



2
GEN-002

PHOTO NO. 2



3
GEN-002

PHOTO NO. 3



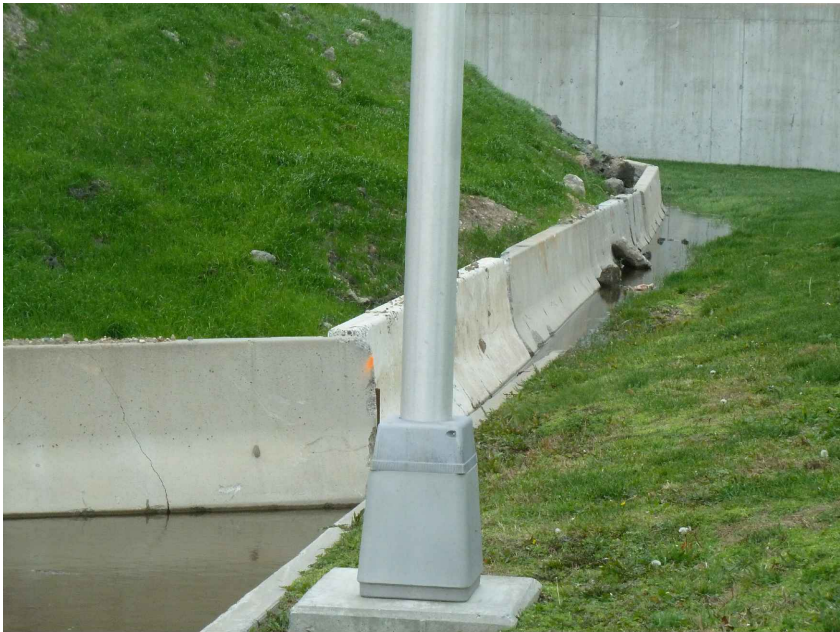
4
GEN-002

PHOTO NO. 4



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GEN-002

PHOTO NO. 5



6
GEN-002

PHOTO NO. 6

SEALS



NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC
WORKS

CONTAMINATED SOIL
HAULING & DISPOSAL

BAY PARK
SEWAGE TREATMENT PLANT
CONTRACT NO. S35123-L38H

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: 2013 HAZEN AND SAWYER/
ARCADIS A JOINT VENTURE

DATE: JANUARY 2021
PROJECT NO.: S35123-L38H
FILE NAME: GEN-003
DESIGNED BY: A. KOPERA
DRAWN BY: A. KOPERA
CHECKED BY: M. DIOQUINO

SHEET TITLE

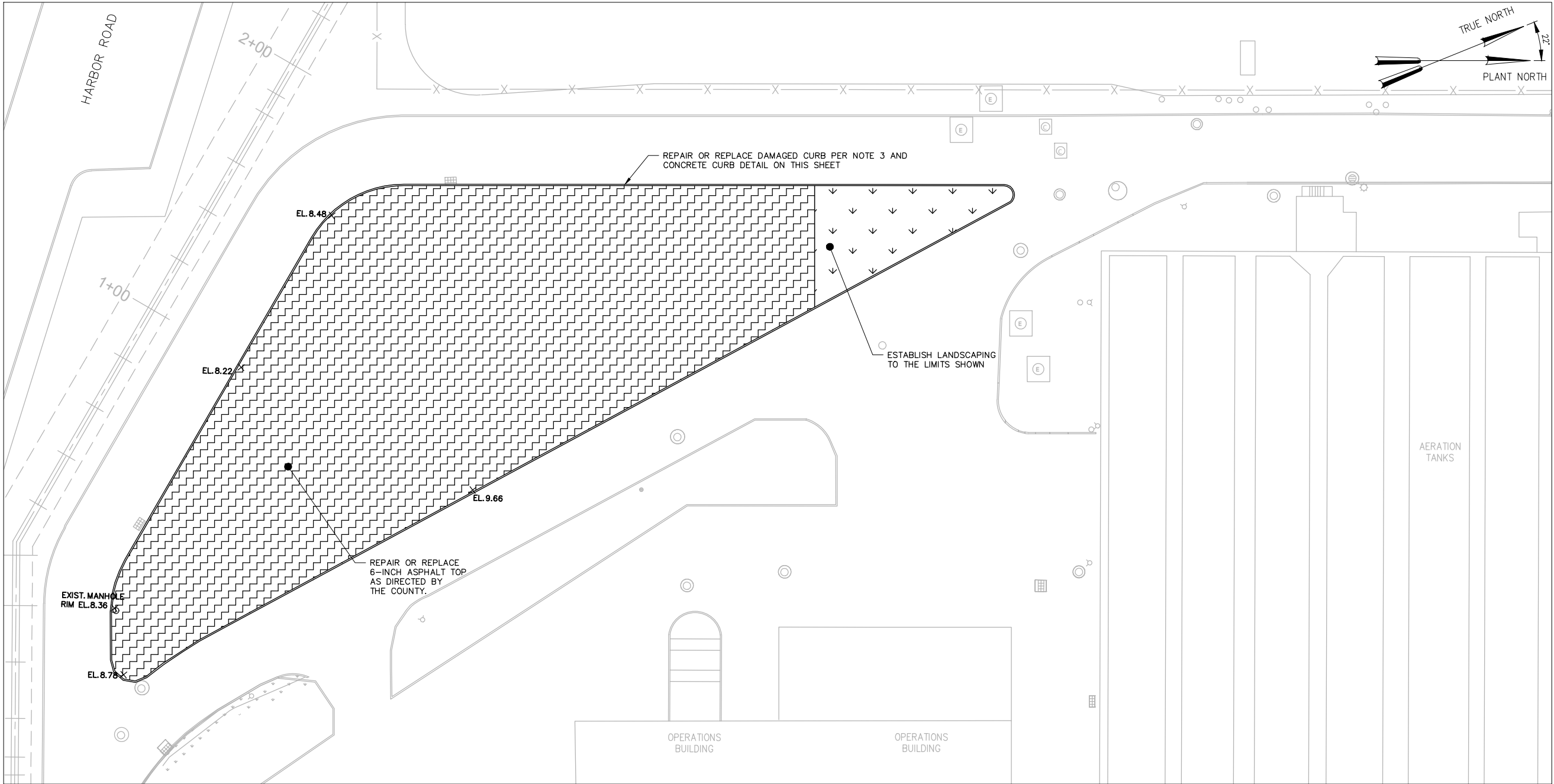
SITE PHOTOS

SCALE: 1" = 20'

GEN-003
SHEET 3 OF 4
425

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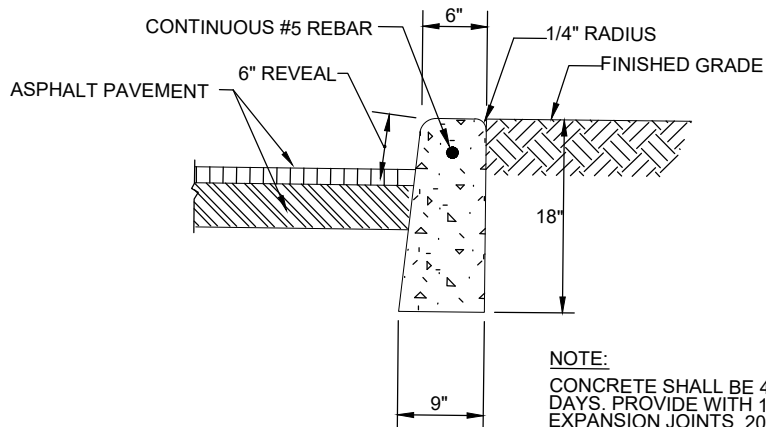


NOTES

- EXISTING ELEVATIONS SHOWN ARE APPROXIMATE AND REFER TO THE NAVD1988 VERTICAL DATUM.
- THE CONTRACTOR SHALL REPLACE DAMAGED CURB, SIDEWALK, ROADWAY OR LANDSCAPING TO THE SATISFACTION OF THE ENGINEER. DAMAGED LANDSCAPING SHALL BE REPLACED WITH 6" OF TOPSOIL AND SEEDING.
- ALL NEW CURBS SHALL MEET EXISTING CURB ELEVATIONS WHERE THEY MEET. PROVIDE 1/2" THICK TAR IMPREGNATED FELT EXPANSION JOINT AT CUTOFF POINT.
- CONTRACTOR SHALL SAW-CUT BITUMINOUS AND CONCRETE SURFACES AT LIMITS OF REPLACEMENTS AS REQUIRED TO ACHIEVE A SMOOTH TRANSITION BETWEEN EXISTING SURFACES (TO REMAIN) AND NEW SURFACES. APPLY/INSTALL TACK COATS AND EXPANSION JOINTS AS REQUIRED. IN ADDITION TO REPAIRING EXISTING DAMAGED SURFACES, ALL EXISTING SURFACES NOT PREVIOUSLY DAMAGED OR DETERIORATED AND DAMAGED BY CONTRACTOR SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

LEGEND

- GRASS
- ASPHALT



NOTE:
CONCRETE SHALL BE 4000 PSI AT 28 DAYS. PROVIDE WITH 1/2" BITUMINOUS EXPANSION JOINTS 20'-0" O.C.

CONCRETE CURB DETAIL

SCALE: N.T.S.

SEALS



NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC
WORKS

CONTAMINATED SOIL
HAULING & DISPOSAL

BAY PARK
SEWAGE TREATMENT PLANT
CONTRACT NO. S35123-L38H

NO.	DATE	ISSUED FOR	BY
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ARCADIS A JOINT VENTURE

DATE: JANUARY 2021
PROJECT NO.: S35123-L38H
FILE NAME: GEN-004 V1
DESIGNED BY: A. KOPERA
DRAWN BY: A. KOPERA
CHECKED BY: M. DIOQUINO

SHEET TITLE

SITE RESTORATION

SCALE: 1" = 20'

GEN-004

SHEET 4 OF 4

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SECTION 01020

ALLOWANCES

PART 1 – GENERAL

1.1 DESCRIPTION

- A. General: The Allowances described below shall be included in the Contractor's total bid. Any amounts not expended prior to completion of the Project shall be deducted from the final payment made to the Contractor.

1.2 SCHEDULE OF ALLOWANCES

- A. General Construction Contract:
 - 1. Item No. 5: An allowance of Two Hundred Thousand Dollars, No Cents (\$200,000) for costs associated with all work associated with hauling and disposal of RCRA Hazardous, TSCA PCB Contaminated Soil.
 - 1. Item No. 6: An allowance of One Hundred Thousand Dollars, No Cents (\$100,000) for costs associated with all work associated with additional asphalt and/ or curb repair or replacement as directed by the County.

1.3 BASIS FOR PAYMENT

- A. General Construction Contract:
 - 1. Item No. 5 and 6: The amount of compensation to be paid to the contractor under the allowance for Item No. 5 and 6, as directed or authorized by the County, shall be determined (1) by such applicable unit prices, if any, as are set forth in the Contract; or, (2) by lump sum or unit prices mutually agreed upon by the Commissioner and the Contractor; or, (3) the cost may be determined by the actual cost of labor and materials, plus overhead and profit, cost to be determined as the work progresses in the manner specified in Agreement Article XXII, ("Extra Work"), paragraph C. Any funds remaining at the end will be eliminated by a credit change order.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

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SECTION 01045

CUTTING AND PATCHING

PART 1 – GENERAL

1.1 GENERAL

- A. This Section is supplementary to the requirements of the General Conditions, Article GC-29, "Cutting and Patching" and includes all cutting and patching of all Work under construction, completed Work and facilities installed by others, in order to accommodate the coordination of Work, install other Work, uncover Work for access, inspection or testing, or similar purposes. Demolition, removals and modifications work" is specified in Section 01039, Demolition and Removal of Existing Structures and Equipment. Execute all cutting and patching, including excavation, backfill and fitting required to:
 - 1. Remove and replace defective Work or Work not conforming to requirements of the Contract Documents.
 - 2. Remove samples of installed Work as required for testing.
 - 3. Remove all constructions required to provide for specified alteration or addition to Work by others.
 - 4. Uncover Work to provide for the Engineer's inspection of covered Work or inspection by regulatory agencies having jurisdiction.
 - 5. Connect to completed Work that was not accomplished in the proper sequence.
 - 6. Remove or relocate utilities and pipes installed by others which obstruct the Work to which connections must be made.
 - 7. Make connections or alterations to new facilities or facilities installed by others.
- B. Restore all Work by others to a state equal to that which it was in prior to cutting and restore new Work to the standards of these Specifications.
- C. Submittals:
 - 1. Prior to cutting, which may affect the integrity and design function of the Project, County's operations, or Work of another Contractor, submit written notice to the Engineer, requesting consent to proceed with cutting, including:
 - a. Identification of the Project.
 - b. Description of affected Work of Contractor and Work of others.
 - c. Necessity for cutting.
 - d. Effect on other Work and on structural integrity of the Project.
 - e. Description of proposed Work. Designate:
 - 1) Scope of cutting and patching.
 - 2) Contractor, Subcontractor or trade to execute Work.
 - 3) Products proposed to be used.
 - 4) Extent of refinishing.
 - 5) Schedule of operations.

- f. Alternatives to cutting and patching, if any.
 - g. Designation of party responsible for cost of cutting and patching.
 - 2. Should conditions of Work, or schedule, indicate change of materials or methods, submit written recommendation to the Engineer, including:
 - a. Conditions indicating change.
 - b. Recommendations for alternative materials or methods.
 - c. Submittals as required for substitutions.
 - 3. Submit written notice to the Engineer, designating the time Work will be uncovered, to provide for observation. Do not begin cutting or patching operations until authorized by the Engineer.
- D. Provide shoring, bracing and support as required to maintain structural integrity of the Project and protect adjacent Work from damage during cutting and patching.
- E. Conform to all applicable Specifications for application and installation of materials used for patching.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01050

FIELD ENGINEERING

PART 1 – GENERAL

1.1 GENERAL

- A. The General Construction Contractor shall establish at least two bench marks for use by all Contractors, in accordance with the General Conditions, Article GC 28, "Layout and Levels" and the Agreement, Article XXIX, "Character and Competency" and Article XXX, "Superintendence". The Contractor shall comply with this article.
- B. Contractor shall:
 - 1. Provide civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
 - 2. Develop and make all detail surveys and measurements needed for construction including slope stakes, batter boards, piling and pier layouts and all other working lines, elevations and cut sheets.
 - 3. Keep a transit and leveling instrument on the Site at all times and a skilled instrument man employed or obtained whenever necessary for layout of the Work.
 - 4. Provide all material required for benchmarks, control points, batter boards, grade stakes, and other items.
 - 5. Be solely responsible for all locations, dimensions, and levels. No data other than written orders of the Engineer shall justify departure from the dimensions and levels required by the Drawings.
 - 6. When requested by Engineer, provide such facilities as may be necessary for the Engineer to check line and grade points placed by the Contractor. The Contractor shall do no excavation, backfill or embankment Work until all cross sectioning necessary for determining pay quantities has been completed and checked by the Engineer.

1.2 CONTRACTOR'S FIELD ENGINEER

- A. The Contractor shall employ and retain at the Site of the Work a field engineer capable of performing all engineering tasks required of the Contractor. Tasks included are:
 - 1. A projection of Work to be completed the following day must be submitted to the Engineer by 4:00 PM of the preceding workday. This projection must include:
 - a. Location of all areas in which construction will be done, including the Contractor and his Subcontractors.
 - b. Major construction equipment utilized.
 - c. Work to be performed.
 - 2. Provide all surveying equipment required including transit, level, stakes and

- required surveying accessories.
3. Furnish all required lines and grades for construction of operations.
 4. Check and coordinate Work for conflicts and interference and immediately advise the Engineer of all discrepancies noted.
 5. Cooperate with the Engineer in field inspections, as required

1.3 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. A qualified engineer or registered land surveyor, acceptable to the Engineer.

1.4 RECORDS

- A. Maintain a complete, accurate log of all control and survey Work as it progresses.
- B. On completion of foundation walls and major Site improvements, prepare a certified survey showing all dimensions, locations, angles and elevations of construction.

1.5 SUBMITTALS

- A. When requested by the Engineer, submit a certificate signed by a registered Engineer or surveyor certifying that elevations and locations of Work are in conformance with the Contract Documents. Explain all deviations.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01072

REFERENCE STANDARDS

PART 1 – GENERAL

1.1 GENERAL

- A. When a reference standard is specified, comply with the requirements and recommendations stated in that standard, except when they are modified by the Contract Documents, or when applicable laws, ordinances, rules, regulations or codes establish stricter standards. The latest provisions of applicable standards shall apply to the Work, unless otherwise specified. Reference standards include, but are not necessarily limited to, the following:

AMCA- Air Moving and Conditioning Association, Inc.

AASHTO - American Association of State Highway and Transportation Officials.

ABMA- American Boiler Manufacturers' Association

ACI - American Concrete Institute.

ACIFS- American Cast Iron Flange Standards.

AFBMA- Anti-Friction Bearing Manufacturers Association.

AGA- American Gas Association.

AGMA- American Gear Manufacturers Association.

AIA- American Institute of Architects.

AISC- American Institute of Steel Construction.

AISI- American Iron and Steel Institute.

ANSI - American National Standards Institute.

APA- American Plywood Association.

API- American Petroleum Institute.

ASCE- American Society of Civil Engineers.

ASME- American Society of Mechanical Engineers.

ASTM- American Society for Testing and Materials.

AWPA- American Wood Preservers Association.

AWS- American Welding Society.

AWWA- American Water Works Association.

CGA- Compressed Gas Association.

CRSI- Concrete Reinforcing Steel Institute.

CMAA- Crane Manufacturers' Association of America.

DIPRA- Ductile Iron Pipe Research Association.

EEI- Edison Electric Institute.

EJMA- Expansion Joint Manufacturers' Association.

Fed Spec - Federal Specifications.

FM- Factory Mutual.

HMI- Hoist Manufacturers' Institute.

IEEE- Institute of Electrical and Electronic Engineers.

IPCEA- Insulated Power Cable Engineers Association.

NACE- National Association of Corrosion Engineers.

NB- National Board of Boiler Pressure Vessels.

NBS- National Bureau of Standards.

NEC- National Electric Code.

NEMA- National Electrical Manufacturers Association.

NFPA- National Fire Protection Association.

NYSDEC – New York State Department of Environmental Conservation

NYSDOT - New York State Department of Transportation.

OSHA- Occupational Safety and Health Act.

PCA- Portland Cement Association.

PCI- Pre-stressed Concrete Institute.

RMA- Rubber Manufacturers' Association.

SMACCNA - Sheet Metal and Air Conditioning Contractors National Association.

SPI- Society of Plastics Industry.

SSPC- Steel Structures Painting Council.

STI- Steel Tank Institute

UL- Underwriters' Laboratory.

USDOT – United States Department of Transportation

USEPA – United States Environmental Protection Agency

- B. The Contractor shall, when required, furnish evidence satisfactory to the Engineer that materials and methods are in accordance with such standards where so specified.
- C. In the event any questions arise as to the application of these standards or codes, copies shall be supplied on Site by Contractor.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++

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SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The items listed below, beginning with Article 1.3, refer to and are the same pay items listed in the Bid Schedule. They constitute all of the pay items for the completion of the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant services, Contractor's or Engineer's field offices, layout surveys, job signs, sanitary requirements, testing, safety devices, approval and Record Drawings, water supplies, power, maintaining traffic, removal of waste, watchmen, Bonds, insurance, and all other requirements of the Agreement, General Conditions and the Special Conditions. Compensation for all such services, items and materials shall be included in the prices stipulated for the lump sum and unit pay items listed herein. Unless otherwise specified, no separate payment will be made for stored equipment.

1.2 RELATED PROVISIONS SPECIFIED ELSEWHERE

- A. Payments to the Contractor: Refer to the Agreement and the General Conditions.

1.3 CONTRACT NO.S35123-L38H– GENERAL CONSTRUCTION

- A. Item 1 – General Construction Contract:
1. Payment for Item 1 will be the lump sum bid under this item and will be full compensation for completing the Work described in Section 01010, Summary of Work, as shown on the Contract Drawings, and as specified under Divisions 1 through 2.
- B. Allowance Item 5 and 6 inclusive are described in the Proposal Section and in Section 01020. The total cost for these items shall be included in the total price.
- C. Unit Price Items 2 through 4 inclusive are described in the Proposal Section. The total cost for these items shall be included in the total price.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies the general methods and requirements of submissions applicable to Shop Drawings, Product Data, Samples, Mock Ups, Construction Photographs, Construction or Submittal Schedules. Detailed submittal requirements are specified in the technical Sections.
- B. All submittals shall be clearly identified by reference to Section Number, Paragraph, Drawing Number or Detail as applicable. Submittals shall be clear and legible and of sufficient size for presentation of data.

1.02 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

- A. Shop Drawings
 - 1. Shop drawings as specified in individual Sections include, custom-prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports including performance curves and certifications, as applicable to the work.
 - 2. All shop drawings submitted by subcontractors shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.
 - 3. Check all subcontractor's shop drawings regarding measurements, size of members, materials and details to make sure that they conform to the intent of the Drawings and related Sections. Return shop drawings found to be inaccurate or otherwise in error to the subcontractors for correction before submission thereof.
 - 4. All details on shop drawings shall show clearly the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.

B. Product Data

1. Product data as specified in individual Sections include, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing and printed product warranties, as applicable to the work.

C. Samples

1. Samples specified in individual Sections include, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols and units of work to be used by the Engineer or Owner for independent inspection and testing, as applicable to the work.

1.03 CONTRACTOR'S RESPONSIBILITIES

A. Review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:

1. Field measurements
2. Field construction criteria
3. Catalog numbers and similar data
4. Conformance with related Sections

B. Each shop drawing, sample and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor: "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements." The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the Resident Project Representative a copy of each transmittal sheet for shop drawings, product data and samples at the time of submittal to the Engineer.

C. The Contractor shall utilize a 9 character submittal identification numbering system in the following manner:

1. The first five digits shall be the applicable Section Number.
2. The next three digits shall be the numbers 001 to 999 to sequentially number each initial separate item or drawing submitted under each specific Section Number.

3. The last character shall be a letter, A to Z, indicating the submission, or resubmission of the same Drawing, i.e., "A=1st submission, B=2nd submission, C=3rd submission, etc. A typical submittal number would be as follows:

03300-008-B

03300 = Section for Concrete

008 = The eighth initial submittal under this section

B. = The second submission (first resubmission) of that particular shop drawing]

- D. Notify the Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents. All cost associated with any deviations shall be borne by the Contractor.
- E. The review and approval of shop drawings, samples or product data by the Engineer shall not relieve the Contractor from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Engineer will have no responsibility therefor.
- F. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall not be permitted. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- G. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.

1.04 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule and in such sequence as to cause no delay in the Work or in the work of any other contractor.
- B. Contractor shall reference the General Conditions for additional submission requirements.
- C. Number of submittals required:
1. Shop Drawings: See Article 1.05 below.
 2. Product Data: See Article 1.05 below.
 3. Samples: Submit the number stated in the respective Sections.
- D. Submittals shall contain:
1. The date of submission and the dates of any previous submissions.
 2. The Project title and number.
 3. Contractor identification.

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4. The names of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
5. Identification of the product, with the section number, page and paragraph(s).
6. Field dimensions, clearly identified as such.
7. Relation to adjacent or critical features of the work or materials.
8. Applicable standards, such as ASTM or Federal Standards numbers.
9. Identification of deviations from Contract Documents.
10. Identification of revisions on resubmittals.
11. A blank space suitably sized for Contractor and Engineer stamps as defined in the General Conditions.
12. Where calculations are required to be submitted by the Contractor, the calculations shall have been checked by a qualified individual other than the preparer. The submitted calculations shall clearly show the names of the preparer and of the checker.

1.05 ELECTRONIC DATA SUBMITTAL FORMAT

- A. Files shall be electronically searchable based on Owner and Engineer established standard file naming convention.
- B. Quality and Legibility: Electronic submittal files shall be made from the original and shall be clear and legible. Do not provide scans of faxed copies. Electronic file shall be made at the full size of the original paper documents. All pages shall be properly oriented for reading on a computer screen without rotating.
- C. Organization and Content:
 1. Each electronic submittal shall be one electronic file. Do not divide and submit individual submittals into multiple electronic files unless directed by Engineer.
 2. When submittal is large or contains multiple parts, provide PDF file with bookmark for each section of submittal.
 3. Submittal content shall include Contractor's letter of transmittal and Contractor's review and stamp.
- D. Electronic file format:

PDF (Portable Document Format): .pdf, Adobe PDF documents; created through electronic conversion rather than optically scanned whenever possible.

1.06 REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The review of shop drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
 1. as permitting any departure from the Contract requirements;

2. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 3. as approving departures from details furnished by the Engineer, except as otherwise provided herein.
- B. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- C. If the shop drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or Contract Time, the Engineer may return the reviewed drawings without noting an exception.
- D. Submittals will be returned to the Contractor under one of the following codes.
- Code 1 - "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
- Code 2 - "APPROVED AS NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
- Code 3 - "APPROVED AS NOTED/CONFIRM". This combination of codes is assigned when a confirmation of the notations and comments IS required by the Contractor. The Contractor may, at his own risk, release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the Engineer within 14 calendar days of the date of the Engineer's transmittal requiring the confirmation.
- Code 4 - "APPROVED AS NOTED/RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Engineer within 14 calendar days of the date of the Engineer's transmittal requiring the resubmittal.
- Code 5 - "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be

necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.

Code 6 - "COMMENTS ATTACHED" is assigned where there are comments attached to the returned submittal which provide additional data to aid the Contractor.

Code 7 - "SUBMITTED FOR THE RECORD" is assigned when the contractor has submitted information for record purposes.

Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.

- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall identify all revisions made to the submittals, either in writing on the letter of transmittal or on the shop drawings by use of revision triangles or other similar methods. The resubmittal shall clearly respond to each comment made by the Engineer on the previous submission. Additionally, the Contractor shall direct specific attention to any revisions made other than the corrections requested by the Engineer on previous submissions.
- F. Partial submittals may not be reviewed. The Engineer will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor and will be considered "Not Approved" until resubmitted. The Engineer may at his option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
- G. Repetitive Review
 - 1. Shop drawings and other submittals will be reviewed no more than three times at the Owner's and Engineer's expense. All subsequent reviews will be performed at times convenient to the Owner and Engineer and at the Contractor's expense, based on the Owner's and Engineer's then prevailing rates. The Contractor shall reimburse the Owner and Engineer for all such fees invoiced to the Owner by the Engineer as defined in Article GC-18 of the General Conditions. Submittals are required until approved.
 - 2. Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to extension of the Contract Time.
- H. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Engineer at least 7 working days prior to release for manufacture. If such notice is not received within 7 day the Contractor will not be eligible for a claim against the County for additional compensation.

- I. When the shop drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.

1.07 DISTRIBUTION

- A. Distribute reproductions of approved shop drawings and copies of approved product data and samples, where required, to the job site file and elsewhere as directed by the Engineer. Number of copies shall be as directed by the Engineer but shall not exceed six.

1.08 MOCK UPS

- A. Mock Up units as specified in individual Sections, include but are not necessarily limited to, complete units of the standard of acceptance for that type of work to be used on the project. Remove at the completion of the work or when directed.

1.09 CONSTRUCTION PHOTOGRAPHS

- A. Requirements for job photographs are provided in Article GC-37 of the General Conditions.

1.10 PROFESSIONAL ENGINEER (P.E.) CERTIFICATION FORM

- A. If specifically required in other related Sections, submit a P.E. Certification for each item required, in the form attached to this Section, completely filled in and stamped.

1.11 ADDITIONAL SUBMITTAL REQUIREMENTS

- A. Additional Contractor submission requirements are included in Article GC-14 of the General Conditions.

1.12 GENERAL PROCEDURES FOR SUBMITTALS

- A. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the Work.

++ END OF SECTION ++

P.E. CERTIFICATION FORM

The undersigned hereby certifies that he/she is a Professional Engineer registered in the State of New York and that he/she has been employed by

_____ to design
(Name of Contractor)

(Insert P.E. Responsibilities)

in accordance with Section _____ for the

(Name of Project)

The undersigned further certifies that he/she has performed the design of the
_____,
(Name of Project)

that said design is in conformance with all applicable local, state and federal codes, rules, and regulations, and that his/her signature and P.E. stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all original design drawings and calculations available to the

Nassau County Department of Public Works
(Insert Name of Owner)

or Owner's representative within seven days following written request therefor by the Owner.

P.E. Name

Contractor's Name

Signature

Signature

Address

Title

Address

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SECTION 01355

HAZARDOUS MATERIALS CONTROL

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope

1. This section describes the minimum health, safety, and emergency response requirements for the activities at the site. Site activities may involve worker exposure to potentially hazardous materials.
2. Contractor shall implement health and safety criteria and practices sufficient to protect onsite personnel, the public, and the environment from physical and chemical hazards particular to each site.
3. The Contractor shall furnish all labor, materials, equipment and incidentals to remediate any hazardous materials discovered during the performance of the work in this Contract.

B. References: Where conflicts arise between requirements of the regulatory requirements listed below, the most restrictive of the requirements shall be followed.

1. 29 CFR 1910 OSHA Standards; General Industry
2. 29 CFR 1910.120 OSHA Standards; Hazardous Waste Operations and Emergency Response
3. 29 CFR 1926 OSHA Standards; Construction Industry
4. DOT Standards and Regulations 49 CFR 171 Hazardous Materials Regulations; General Information, Regulations, and Definitions
5. DOT Standards and Regulations 49 CFR 172 Hazardous Materials Tables and Military Standards
6. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, ACGIH
7. Guide to Occupational Exposure Values, ACGIH

C. Related Specifications

1. Section 01356, Safe and Healthful Working Conditions.

1.2 REMEDIAL ACTION FOR UNFORESEEN HAZARDOUS MATERIAL

- ###### A.
- When remedial action is necessary for unforeseen hazardous materials, the Design Engineer will submit the scope of work in writing to the Contractor. The Contractor shall then obtain proposals for the work, including prices, from three separate County approved certified hazardous material remediation specialists, and submit them in writing to the Engineer within ten (10) consecutive calendar days of receiving the scope of work. The Engineer may select one proposal and direct the Contractor to engage the selected remediation specialist as a Subcontractor. Remediation work shall not commence until the Contractor

receives written notice from the Engineer to proceed with the work. All remediation work shall be performed by the certified remediation specialist.

- B. Some of the remediation work may be critical to maintaining construction schedules. When this occurs, a time of completion shall be indicated in the scope of work submitted to the Contractor by the Engineer, and the work shall be subject to liquidated damages as set forth in the Agreement, Article XIV, "Liquidated Damages."
- C. Disposal of wastes generated by remediation work will be based on the results of the testing performed by the Contractor. Disposal of remediated hazardous material must be at a site approved by the County and applicable state agency to accept such waste. The Contractor shall notify the Engineer at least fourteen (14) days prior to removal of the containers of hazardous material to allow for inspection of the containers and the hazardous waste manifest.
- D. The Contractor shall submit written evidence that the receiving waste treatment, storage, or disposal facility to receive such waste by the EPA, DEC and State or local regulatory agencies. The Contractor shall also submit copies of the complete manifest, signed and dated by the initial transporter, in accordance with Federal and State requirements. Completed and signed manifests from treatment or disposal facility shall be provided to the County within seven (7) days of disposal.

PART 2 – PRODUCTS

2.1 HEALTH AND SAFETY PLAN

- A. The Contractor shall have a Health and Safety Plan (HASP) prepared, prior to the start of any construction. The HASP shall be available to workers on site and be submitted to the Engineer and County at least two weeks before the beginning of any field work. Copies of the plan shall be provided to the Contractors' insurers and their risk managers, if any, by the Contractor.
 - 1. The Contractor will abide by the work specific Health and Safety requirements as directed by the County.
 - 2. The provisions of the site HASP in no way relieves the Contractor of his primary obligation to provide for the safety of his employees and to ensure that all operations under this Contract are carried out so as to protect persons and property on the site and in the surrounding work area.
- B. These minimum health and safety requirements are based on the potential for physical, biological, and chemical hazards associated with the work activities, including the potential exposure to hazardous materials that may be present. The HASP shall be prepared by a Certified Industrial Hygienist (CIH) who is qualified by training and experienced to perform this work. The HASP shall be submitted to the Engineer and County for review. The purpose of the HASP is to establish site-specific health and safety requirements for protecting the health and safety of

the Contractor and subcontractor personnel and visitors during all activities conducted on-site.

1. Construction activities which need to be addressed in the HASP include, but are not limited to:
 - a. Soil excavation and grading.
 - b. Demolition.
 - c. Paving
 2. The HASP shall include as a minimum the following items tabulated in Paragraph 2.1.E through Paragraph 2.1.S, below.
- C. The Contractor shall identify an individual who shall serve as the Site Safety Officer for this project. The individual shall:
1. Have a working knowledge of pertinent federal, state, and local health and safety regulations, program development and implementation, and air monitoring techniques.
 2. Be certified as having completed training in first aid and CPR by a recognized, approved organization, such as the American Red Cross.
 3. Be continuously onsite during all operations covered by this Contract.
 4. Be familiar with the Site Health and Safety Plan and its requirements and be responsible for the Plan's implementation.
 5. The Site Safety Officer may designate an alternate to assist him, provided his alternate meets all of the above requirements. The Contractor shall submit the name, qualifications (education summary and documentation), and work experience of the Site Safety Officer, and any alternates to the Engineer prior to commencement of work at the site.
- D. Personnel Qualifications (CIH): The Contractor shall identify an individual who shall serve as the CIH for this project. This individual shall:
1. Have a minimum of three (3) years experience in tank removal or hazardous waste field.
 2. Be familiar with all applicable OSHA, USEPA, and NYSDEC standards.
- E. Standards and Regulations: The HASP shall be developed in accordance with the Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (29 CFR 1910 and 1926) and all pertinent laws, rules, and regulations existing at the time of the work, including, but not limited to:
1. Hazardous Waste Management System, Title 40 CFR 261-264.
 2. OSHA Standards, Hazardous Waste Operations and Emergency Response, Title 29 CFR 1910.120.
 3. OSHA Standards, Asbestos Regulations, Title 29 1910.1001.
 4. OSHA Standards, Subpart Z, Toxic and Hazardous Substance, Title 29 CFR 1926.58.
 5. OSHA Standards, Title X, Lead in Construction, 1926.62.
 6. EPA National Emission Standard for Hazardous Air Pollutants, National Emission Standard for Asbestos, Title 40 CFR, Part 51, Subpart M.

7. OSHA Standards, Hazard Communication, Title 29 CFR 1926.59.
8. OSHA Standards, Access to Employee Exposure and Medical Records, Title 29 CFR 1910.20.
9. OSHA Standards, Personal Protective Equipment, Title 29 CFR 1910.133.
10. OSHA Standards, Record Keeping, Title 29 CFR 1910.20.
11. OSHA Standards, Respiratory Protection, Title 29 CFR 1910.134.
12. The American National Standard Institute (ANSI) Practices for Respiratory Protection, ANSI Z38.2.
13. OSHA Standards, Ventilation, Title 29 CFR 1910.94.
14. ANSI Fundamentals Governing the Design and Operation of Local Exhaust System, ANSI Z9 2.
15. Hazardous Waste Management System, Title 6 NYCRR Parts 370-373.
16. Asbestos Safety Program Requirements, NYCRR Chapter 11, Title 10, Part 73.
17. Industrial Code Rule 56, NYCRR Title 12, Part 56.
18. Transportation Act, Title 49 CFR Parts 106, 107, 171-179.
19. New York State Solid Waste Hauling and Disposal Regulations, NYCRR Title 6, Parts 360 and 364.

F. Identification of Key Health and Safety Personnel and Alternates:

1. List key personnel and alternates for site health and safety on a project responsibility chart, which includes phone numbers.
2. Identify roles and responsibilities of key personnel.

G. Project Task/Operation Health and Safety Risk Analysis:

1. Identify and describe the project tasks.
2. Provide a hazard assessment of each project task, which shall include descriptions of potential chemical, biological, and physical hazards associated with the performance of the activity.
3. Provide a description of health and safety mitigative actions for each project task which shall include, but not be limited to, administrative control, engineering control, safe work practice controls and personal protective equipment.

H. Personnel Training Requirements:

1. Confirm that personnel are adequately trained to conduct their job responsibilities and handle the specific hazardous situations they may encounter during the project.
2. Provide, as required, certification of personnel training and First Aid/Cardio-Pulmonary Resuscitation (CPR).
3. Establish procedures and training for Hazard Communication Program in accordance with 29 CFR 1910.1200.
4. Provide information regarding training and experience of the person who will oversee excavation activities.

I. Personnel Protective Equipment (PPE) and PPE Reassessment Program:

1. Describe the protective clothing and equipment to be worn by personnel during task-specific operations of the project.
 2. Describe the PPE reassessment program for the upgrading/downgrading of PPE levels associated with the task-specific operations of the project.
 3. Provide a written respiratory protection program and reassessment program, which shall be implemented during task-specific operations. The written program must include the procedure for proper selection and use of respirators, instructions on proper cleaning, storage, and inspection of respirators.
- J. Medical Surveillance:
1. Describe the program for medical monitoring for each task-specific activity.
 2. Confirm and provide documentation, as applicable, that all project personnel are currently under a medical surveillance program.
 3. Provide documentation, as applicable, that all project personnel have respiratory clearance.
- K. Site Control Measures:
1. Define site control methods and site communications and include a site map delineating the control areas, if appropriate.
 2. Delineate the work area, including an exclusion zone (EZ), contamination reduction zone (CRZ) and the support zone, and describe the activities allowed in each zone.
- L. Engineering Control Measures:
1. Identify methods to control the generation of airborne particulates and volatile organic vapors during excavation of potentially contaminated soils.
 2. Identify engineering control of generation of lead-containing airborne particulates when impacting materials coated with lead paint.
 3. Identify engineering controls (e.g., tent enclosure, wetting of surfaces) to control generation of dusts when conducting dust-generating activities indoors (e.g., demolition of concrete foundations).
- M. Decontamination Program:
1. Establish decontamination procedures for personnel and equipment.
 2. The decontamination plan shall include provisions for hand wash facilities, and lunch/break areas, and a description of proper housekeeping practices.
- N. Air Monitoring Program:
1. Describe the area air monitoring program to be conducted during all intrusive site work, soil handling, and below-grade equipment installation, when works may be exposed to potentially contaminated soils. Minimum air monitoring requirements must include continuous real time measurements for volatile organic vapors, hydrogen sulfide, dust, and LEL (methane).
 2. Describe the area air monitoring program to be conducted during equipment removal and demolition affecting materials coated with lead paint when airborne dusts may be generated.

3. The air monitoring programs shall identify the analytical methodology required for each task-specific activity to ensure regulatory compliance.
- O. Emergency Response/Contingency Plan:
1. Describe instruction and procedures for evacuation of personnel.
 2. Describe instructions and procedures for methods of reporting fires. If the Contractor will be conducting activities such as welding, hot cutting or burning, or working with flammable materials such as paints, glues, and solvents, the Contractor shall provide a minimum of two Class ABC fire extinguishers (minimum 10 pounds) in the work area. The Contractor shall obtain a "Hot Works Permit" from the agency having authority and submit copies to the Engineer.
 3. Describe instructions and procedures for medical emergencies, including emergency notification and response procedures and a description of the route to the hospital.
 4. The medical emergency contingency plan shall include provisions for a minimum of two first aid kits (minimum 24-unit industrial first aid kit).
 5. Describe procedures addressing emergencies and equipment failures and barrier failures during work activities.
- P. Surveillance Methods:
1. Describe safety surveillance methods.
 2. Provide schedules of both walk-through surveys and in-depth safety audits to be performed on site.
- Q. Safety Inspection Sheets:
1. Provide safety inspection check-off sheets to be used on a regular basis in evaluation the site work and methods.
- R. Safety Evacuation Drill: A quarterly evacuation drill shall be held in coordination with the existing plan alarm signal under the control of the Plant Chief. Conducting the safety drill shall be coordinated during regular scheduled work hours, but timed to minimize disruption of major contract work. Upon evacuation, the Contractor shall immediate notify the Plant Chief and/or Resident Engineer that all personnel have evacuated.
- S. Accident Prevention: An Accident Prevention Plan and description of work-phase safety plan shall be developed and written by a CIH. Each phase of the Accident Prevention Plan shall include a description of the work activity, probable hazards related to the work, and positive precautionary measures to be taken to safeguard against and reduce or eliminate each particular hazard. In the event of an accident/injury, the Contractor shall immediately notify the Engineer. Within two working days of any reportable accident, the Contractor shall complete and submit to the Engineer an Accident Report.

PART 3 – EXECUTION

3.1 HAZARDOUS MATERIALS

- A. There may be materials present at the project site that may pose chemical hazards to site workers during construction activities.
- B. The Contractor shall be responsible for identifying suspect hazardous materials as they are encountered. Indication of the presence of hazardous materials, including odorous or stained soils and liquids, shall be immediately reported to the Engineer. If it is determined that the presence of hazardous material is not a threat to the health and safety of County to Contractor personnel, the Contractor shall continue planned work activities. Otherwise, the Contractor will be directed to take additional health and safety precautions as appropriate.
- C. All non-disposable equipment that has been in contact with contaminated soils, lead-containing debris, or other hazardous materials, shall be cleaned prior to leaving the site. Equipment decontamination shall be performed in an area to be directed by the Engineer. The Contractor shall be responsible for containing all procedures within the perimeter of the designated decontamination area.
 - 1. The solid materials and rinse water collected as the result of the decontamination procedures shall be stored in appropriate containers on-site prior to disposal. Disposal of the wastes will be based on the results for testing performed by the Contractor, and will be classified as non-hazardous or hazardous waste.
 - 2. Rinse water that does not meet the criteria for discharge to a POTW, shall be disposed of at an appropriate treatment and/or disposal facility.

3.2 MEDICAL SURVEILLANCE

- A. Physical examinations for personnel working onsite shall be provided prior to project start-up. The examinations shall address the chemical and physical hazards to which the employees will be exposed. The medical examination results shall be evaluated by a physician practicing occupational medicine to determine that the individual is medically qualified to wear a respirator and is physically fit for the work to be performed. The physician must certify that no physical condition or disease could be aggravated by exposure to the identified hazards. The results of the medical surveillance program shall be provided to the Engineer upon request.

3.3 PERSONNEL TRAINING

- A. Personnel employed to sample tank residuals, perform hazardous materials remediation, and supervisors shall be trained and thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this project. This training shall be documented in detail and recorded in the project's records.

3.4 FIRST AID AND EMERGENCY RESPONSE EQUIPMENT AND PROCEDURES

- A. The Contractor shall provide for appropriate emergency first aid equipment (including ANSI-approved eye wash stations, a portable stretcher, and an industrial-type first aid kit) suitable for treatment of exposure to site physical and chemical hazards. Additionally, two ABC-rated fire extinguishers shall be maintained on site as well absorbent material of sufficient quantity to as collect any spill which might occur during this project. A listing of emergency phone numbers and of contact for fire, hospital, police, ambulance, and other necessary contacts shall be points posted the Contractor's site. A route map detailing the directions to the nearest hospital also shall be posted.

3.5 HEAT AND COLD STRESS

- A. The Contractor shall monitor all personnel for signs of heat or cold stress, as dictated by weather conditions. In addition, all field personnel shall be instructed to observe for symptoms of heat or cold stress in themselves and fellow workers and methods to control them. The Contractor shall adhere to guidelines provided in the Threshold Limit Values and Biological Exposure Indices published by the ACGIH for heat and cold extremes.

3.6 ILLUMINATION

- A. Work areas shall be illuminated to a minimum of 10 foot-candles. Lighting shall be sufficient to determine whether material spills have occurred.

3.7 ELECTRICAL SAFETY

- A. All electrical services must be grounded and equipped with and use ground fault circuit interrupter (GFCI) protected outlets. Where applicable, portable lights shall be suitable for hazardous locations and shall be connected to extension cords equipped with connectors or switches approved for hazardous locations. Such equipment, when used, shall be inspected to ensure it will not be a source of ignition. All air monitoring instrumentation shall be rated as intrinsically safe for Class I, Division I, Group D atmospheres.

3.8 SITE CONTROL AND WORK ZONES

- A. Personnel not directly involved with this project shall not be permitted to enter the work zone. For purposes of this Contract, the "Work zone" and Contractor's staging areas shall be the areas as shown on the drawings. The initial minimum level of PPE shall be in accordance with these Specifications. The boundary of the work zone shall be demarcated and posted clearly by the Contractor.

3.9 EXCAVATION SAFETY

- A. All demolition and excavating work shall be conducted in strict conformance with, at a minimum, 29 CFR 1926.650 through 29 CFR 1926.653, including requirements for sloping or shoring found in 29 CFR 1926.652. If the excavation must remain open during periods when the work site is unoccupied (i.e., overnight, over a weekend, and other similar off periods) barricades shall be placed around the excavation in such a manner to alert personnel to the danger and prevent them from falling into the trench (i.e. using road plates and barriers.)

3.10 CONFINED SPACE ENTRY

- A. If any person is required to enter the tank or an excavation greater than 4 feet, it is considered a confined space entry. The medical surveillance shall ensure that the worker is capable of entering a confined space. Workers required to enter confined space shall have the specialized training required under CFR 1910. 146 (Vol. 58, No. 9, January 14, 1993).

3.11 EATING, DRINKING, SMOKING

- A. No eating, drinking, smoking, chewing of tobacco or gum, or other hand-to-mouth activities shall be permitted in any of the work areas during the course of this project.

3.12 IGNITION SOURCES

- A. Ignition sources (e.g., cigarette lighters, matches, or other flame producing items) not required for the completion of the project, shall not be permitted in the work zones. Before any work is done that might release vapors, work areas shall be barricaded and posted, and burning or other work shall be eliminated from the area where flammable vapors may be present or may travel. No work shall be done if the direction of the wind might carry vapors into areas where they might produce a hazardous condition, or when an electrical storm is threatening the site of work. Sparks caused by friction of electrostatic effects also may be a source of ignition in flammable atmospheres, especially at low humidity. Proper grounding of metal objects and/or electrical equipment, together with the use of sparkless tools and localized adjustment of humidity, may reduce this hazard.

3.13 BREAK AREA AND SUPPORT ACTIVITIES

- A. All eating, drinking, smoking, and break facilities, as well as the Contractor's equipment storage, parking, and office shall be located outside the work zones as determined by the Site Safety Officer and approved by the Engineer.

3.14 SANITATION

- A. The Contractor shall ensure that all onsite personnel have ready access to soap and clean water for washing and toilet facilities.

3.15 UNFORSEEN HAZARDS

- A. Should any unforeseen or site-specific safety-related threat, hazard, or condition become evident during the performance of work at this site, it shall be the Contractor's responsibility to bring such conditions to the attention of the Engineer both verbally and in writing as quickly as possible, for resolution. In the interim, the Contractor shall take prudent action to establish and maintain working conditions and to safeguard employees, the public, and the environment.

3.16 TERMINATION

- A. Any disregard for the provisions of these Specifications shall be deemed just and sufficient cause for termination of the Contractor or any Subcontractor without compromise or prejudice to the rights of the Contractor.

+ + END OF SECTION + +

SECTION 01356

SAFE AND HEALTHFUL WORKING CONDITIONS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This section describes the requirements for safe and healthful working conditions.

1.2 RELATED SPECIFICATIONS

- A. Section 01355, Hazardous Materials Control

1.3 PAYMENT

- A. No separate payment for the item "Safe and Healthful Working Conditions" will be made. The costs of same will be included in the Base Bid.

1.4 DEFINITIONS

- A. Safety staff shall mean the safety professional and his safety representative(s) or the safety person.

1.5 SPECIAL CONDITIONS

- A. In prosecuting the work of this Contract, the Contractor shall provide working conditions on each operation that shall be as safe and healthful as the nature of that operation permits. The various operations connected with the work shall be so conducted that they will not be unsafe or injurious to health; and the Contractor shall comply with all regulations and published recommendations of the New York State Department of Labor and all provisions, regulations and recommendations issued pursuant to the Federal Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as amended, and with laws, rules, and regulations of other authorities having jurisdiction, with regard to all matters relating to safe and healthful working conditions. Compliance with governmental requirements is mandated by law and considered only a minimum level of safety performance. All work shall also be performed in accordance with safe work practice.
- B. The Contractor shall be responsible for the safety of the Contractor's employees, the public and all other persons at or about the site of the work. The Contractor shall be solely responsible for the adequacy and safety of all construction methods, materials, equipment and the safe prosecution of the work.
- C. The Contractor shall employ a properly qualified safety professional familiar with all work under this contract whose duties shall be to initiate, review and cause implementation of measures for the protection of health and prevention of

accidents. The Contractor shall also employ full- time safety representative(s) whose sole duties shall be to work under the direct supervision of the safety professional, to implement the safety program for the work under this Contract.

- D. The safety staff shall be provided with an appropriate office on the job site to maintain and keep available safety records, up-to-date copies of all pertinent safety rules, regulations and governing legislation, material safety data sheets, and the site safety plan including information concerning foreseeable emergency conditions, location of emergency and telephone contacts for supportive actions.
- E. The Contractor shall stop work whenever a work procedure or a condition at a work site is deemed unsafe by the safety staff.
- F. The Contractor and subcontractors shall be required to issue Photo Identification badges for each employee required to be on site. Badge shop drawings and updated logs showing employee names and badge numbers shall be issued to the Engineer for approval.

1.6 SUBMITTALS

- A. The Contractor shall submit a Health and Safety Plan (HASP) as described in Section 01355, Hazardous Materials Control.
- B. Within 30 days of receiving a Notice to Proceed, the Contractor shall submit the name of a safety professional, employed by the Contractor, responsible for project safety management, and of the safety representative(s) who will work under his direction.
- C. A resume, along with other qualifications, of the safety person or the safety professional and the safety representative(s), must be submitted to the Engineer for review and approval. The resume shall include such items as: experience, education, special safety courses completed, safety conferences attended and certification and registrations. Documentation and/or personal references confirming the qualifications may also be required. The persons proposed as safety person, safety professional or safety representative(s) may be rejected by the Engineer for failure to have adequate qualifications or other cause.

1.7 QUALIFICATIONS

- A. Safety Professional: Recognition as a safety professional shall be based on a minimum of: Certification by the Board of Certified Safety Professionals as a Certified Safety Professional and five years of professional safety management experience in the types of construction and conditions expected to be encountered on the site.
- B. Safety Representative: Qualifications of the safety representative(s) shall include a minimum of: five years of relevant construction experience, three years of

which were exclusively in construction safety management, successful completion of a 30 Hour OSHA Construction Safety and Health training course, 40 Hour OSHA Hazardous Materials training course, Confined Space training, and at least one year membership in the American Society of Safety Engineers.

- C. Safety Person: Qualifications of the safety person must include a minimum of five years of relevant construction experience, two of which are related to safety management.
- D. The safety staff shall be completely experienced with and knowledgeable of all applicable health and safety requirements of all governing laws, rules and regulations as well as of good safety practice. The safety staff shall not include the project manager, engineer, or superintendent, or anyone else working on the project. The safety staff shall have no other duties except those directly related to safety.

PART 2 – PRODUCTS

2.1 HEALTH AND SAFETY PLAN

- A. The Contractor shall commit to writing a specific site health and safety plan before the start of any construction in accordance with Section 01355, Hazardous Materials Control.

2.2 ACCIDENT REPORTS

- A. The Contractor shall promptly report to the Engineer all accidents involving injury to personnel or damage to equipment and structures, investigate these accidents and prepare required reports and submit a monthly summary of these accidents. The Contractor must submit a preliminary accident report to the Resident Engineer by the following day at the latest.
 - 1. The summary report, due by the 10th day of the following month, shall include descriptions of corrective actions to reduce the probability of similar accidents.
 - 2. In addition, the Contractor shall furnish to the Engineer a copy of all accident and health or safety hazard reports received from OSHA or any other government agency within one day of receipt.
- B. In addition to the reports which the Contractor is required to file under the provision of the Workmen's Compensation Law, he shall submit to the Engineer on or before the tenth day of each month a report giving the total force employed on his Contract in man-days during the previous calendar month, the number and character of all accidents resulting in loss of time or considered recordable by OSHA, and any other information on classification of employees, injuries received on the work, and disabilities arising therefrom that may be required by the Engineer.

1. The submittal shall also contain an audit report for the prior month, including the safety training conducted, the above equipment logs, records of the condition of the work areas, safety and health records, OSHA and ANSI Z16.1 incidence rates for frequency and severity of recordable accidents, and an evaluation of the effectiveness of the HASP with any changes necessary.
2. The safety professional (G) or safety person (E) and the Contractor shall sign this audit report. The Engineer will review these reports for Contractor's compliance with the safety provisions of the Contract.

2.3 SAFETY AND RESCUE EQUIPMENT

- A. The Contractor shall have proper safety and rescue equipment, adequately maintained and readily available, for any foreseeable contingency. This equipment shall include such applicable items as: proper fire extinguishers, first aid supplies, safety ropes and harnesses, stretchers, water safety devices, oxygen breathing apparatus, resuscitators, gas detectors, oxygen deficiency indicators, combustible gas detectors, etc.
- B. This equipment should be kept in protected areas and checked at scheduled intervals. A log shall be maintained indicating who checked the equipment, when it was checked, and that it was acceptable. This equipment log shall be updated monthly and be submitted with the monthly report. Equipment that requires calibration shall have copies of dated calibration certificates on site.
- C. Substitute safety and rescue equipment must be provided while primary equipment is being serviced or calibrated.

2.4 PROTECTIVE EQUIPMENT

- A. All personnel employed by the Contractor or his subcontractors or any visitors whenever entering the job site shall be required to wear appropriate personal protection equipment required for that area. The Contractor shall continuously provide all necessary personal protective equipment as requested by the Engineer for his designated representatives.

2.5 IDENTIFICATION BADGES

- A. The Contractor shall submit shop drawings of Identification Badge to the Engineer for approval.

PART 3 – EXECUTION

3.1 SAFETY STAFF DUTIES

- A. The safety professional shall visit and audit all work areas as frequently as necessary (a minimum of once a week) and shall be available for consultation whenever necessary. The safety staff shall have full authority to implement and enforce the health and safety plan to take immediate action to correct unsafe, hazardous or unhealthful conditions.
- B. A member of the safety staff must be at the job site full time (a minimum of 8 hours per working day) whenever work is in progress. When multiple shift work is in progress more than one safety representative may be required.
- C. The safety staff shall as a minimum:
 - 1. Schedule and conduct safety meetings and safety training programs as required by law, the safety plan, and good safety practice. A specific schedule of dates of these meetings and an outline of materials to be covered shall be provided with the safety plan. The Engineer shall be advised in advance of the time and place of such meetings. County personnel shall be invited to attend the meetings. All employees shall be instructed on the recognition of hazards, observance of precautions, of the contents of the safety plan and the use of protective and emergency equipment.
 - 2. Determine that operators of specific equipment are qualified by training and/or experience before they are allowed to operate such equipment.
 - 3. Develop and implement emergency response procedures. Post the name, address and hours of the nearest medical doctor, name and address of nearby clinics and hospitals, and the telephone numbers of the appropriate ambulance service, fire, and the police department.
 - 4. Post all appropriate notices regarding safety and health regulations at locations, which afford maximum exposure to all personnel at the job site.
 - 5. Post appropriate instructions and warning signs in regard to all hazardous areas or conditions, which cannot be eliminated. Identification of these areas shall be based on experience, on site surveillance, and severity of hazard. Such signs shall not be used in place of appropriate workplace controls.
 - 6. Ascertain by personal inspection that all safety rules and regulations are enforced. Make inspections at least once a shift to ensure that all machines, tools and equipment are in a safe operating condition; and that all work areas are free of hazards. Take necessary and timely corrective actions to eliminate all unsafe acts and/or conditions, and submit to the Engineer each day a copy of his findings on the inspection check list report forms established in the safety plan.
 - 7. Submit to the Engineer, copies of all safety inspection reports and citations from regulating agencies and insurance companies within one working day of receipt of such reports.
 - 8. Provide safety training and orientation to authorized visitors to ensure their safety while occupying the job site.
 - 9. Perform all related tasks necessary to achieve the highest degree of safety that the nature of the work permits.

+ + END OF SECTION + +

SECTION 01370

SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Submit a Schedule of Values allocated to the various portions of the work, within 21 days after the effective date of the Agreement.
- B. Upon request of the Engineer, support the values with data which will substantiate their correctness.
- C. The accepted Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

1.2 RELATED REQUIREMENTS

- A. General Conditions of the Construction Contract

1.3 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Contractor's standard forms and automated printout will be considered for approval by the Engineer upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Engineer and Project number.
 - 3. Name and Address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission.
- B. Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Identify each line item with the number and title of the respective Section.
- D. For each major line item list sub-values of major products or operations under the item.

- E. For the various portions of the work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for County approved stored materials, break down the value into:
 - 1. a. The cost of the materials, delivered and unloaded, with all taxes paid. Paid invoices are required for materials upon request by the Engineer.
 - 2. b. The total installed value.
- F. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.4 SUBSCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a sub-schedule of unit costs and quantities for:
 - 1. Products on which progress payments will be requested for County approved stored products.
- B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.
- C. The unit quantity for bulk materials shall include an allowance for normal waste.
- D. The unit values for the materials shall be broken down into:
 - 1. Cost of the material, delivered and unloaded at the site with all taxes paid.
 - 2. Copies of invoices for component material shall be included with the payment request in which the material first appears.
 - 3. Paid invoices shall be provided with the second payment request in which the material appears or no payment shall be allowed and/or may be deleted from the request.
- E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01400

PROTECTION OF UTILITIES

PART 1 – GENERAL

1.1 WORK INCLUDES

- A. Work includes all labor, materials, equipment and incidentals required to mark out and protect all public or private utilities, including concrete encased piping, within or adjacent to the Contract area.
- B. The Contractor is specifically directed to become familiar with the existence of aerial, surface or subsurface structures of municipal and other public or private service corporations within the construction site.
- C. A careful search has been made, in good faith, and known public or private utilities within or adjacent to the Contract area are shown in their approximate locations on the Contract Plans. However, there is no guarantee that all existing utilities have been found. All utilities may not be shown on the Contract Drawings.
- D. The Contractor's attention is also directed to the fact that during the life of the plant, the County and operators of utilities may make changes in their facilities.
- E. The Contractor shall determine the exact locations and elevations of all pertinent structures, utilities and facilities before construction work and new installations commence.
- F. Conflict between existing structures, utilities and facilities and new work shall be ascertained by the Contractor and called to the attention of the Engineer.
- G. The Contractor shall cooperate with the County and public utility corporations whose structures (aerial, surface or subsurface) are within the limits of or along the outside of the construction areas to make it possible for them to maintain uninterrupted service.
- H. The Contractor shall conduct operations in such a way as to delay or interfere as little as practicable with the work of utility corporations.
- I. The Contractor shall give the County and public utility corporations involved reasonable notice, but not less than 48 hours in advance of operations, which may or will affect their structures.
- J. The Contractor shall protect, in a suitable manner, all utilities encountered, including concrete encased piping, and shall repair any damage to structures, utilities and facilities caused by operations.
 - 1. If the nature of the damage is such as to endanger the satisfactory

functioning of the utilities and necessary repairs are not immediately made by the Contractor, the work may be done by the respective owning companies and the cost thereof charged against the Contractor.

- K. The Contractor shall take these conditions into consideration in making up the bid.
- L. It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances and that no additional compensation will be allowed for any delays, inconveniences or damage sustained by him due to any interference from the utility appurtenances.

1.2 PUBLIC AND PRIVATE UTILITY MARKOUTS

- A. The Contractor shall be required to provide utility markouts for all private and public utilities. The limits for these markouts shall be the project limit shown on the Engineering Drawings. The Contractor shall submit the proposed utility subcontractor for approval.

1.3 MEASUREMENT AND PAYMENT

- A. No separate payment for the items "Protection of Utilities" will be made. The costs of same shall be included in the Base Bid.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01410

JOB PHOTOGRAPHS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope of Work:

1. The Contractor shall engage the services of an experienced photographer, approved by the County, to take color job photographs and video as detailed under these specifications.
2. The photographer will be required to take preliminary photographs of the site prior to the commencement of work as directed by the Engineer.
3. Subsequent photographs as determined by the Engineer shall be taken during the construction phase.
4. The photographer shall visit the site prior to the start of construction, then weekly as the work progresses, additional visits may be required.
5. The quantities of job photographs specified herein supersede the quantities specified in the General Conditions, Article GC-37, Photographs.

1.2 MEASUREMENT AND PAYMENT

- A. No separate payment for the item “Job Photographs” will be made. The costs of same shall be included in the Base Bid.
- B. If less than 100 photographs are required, the Contractor shall credit the County fifteen dollars (\$15.00) for each photograph under 100 photographs; should more than 100 photographs be required, the Contractor will be paid fifteen dollars (\$15.00) for each photograph over 100 photographs.

PART 2 – PRODUCTS

2.1 PHOTOGRAPHS

- A. A photograph shall be defined as one exposure.
- B. A total of 100 photographs at the site shall be taken.
- C. The County shall reserve the right to reject any photograph that is not clear or definitive. Any photograph so rejected shall be subtracted from the total exposures before computations for payment or credit under this section.
- D. The prints, slides and negatives shall be suitably mounted and labeled in loose-leaf type binders, which have protective covers for the prints, slides and negatives.

- E. The prints shall have indelibly printed on their reverse side of the following:
1. Project Number
 2. Project Name
 3. Contract Number and Description
 4. Job Number
 5. Photo Number
 6. View and description indicating location of camera, general description of what photograph represents, and whether this is a preliminary or construction photograph.
(A plot plan shall be submitted by the Contractor indicating location and photo number of all preliminary of all preliminary photographs.)
 7. Date picture was taken.
 8. Name of photographer.
- F. An electronic copy containing all photos taken at the site shall be supplied on CD and submitted to the Engineer for approval.

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01495

SPILL PREVENTION AND CONTROL

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Scope:
 - 1. This section covers the Contractor's responsibilities with respect to spill prevention and control.
- B. References: Where conflicts arise between requirements of the above-listed regulatory requirements, the most restrictive of the requirements shall be followed.
 - 1. USEPA Remedial Action at Waste Disposal sites EPA/625/6-B5/006
 - 2. 40 CFR Part 300 national Oil and Hazardous Substances Pollution Contingency Plan
 - 3. 40 CFR Protection of Environment
 - 4. ASTM E119 Fire Resistance Directory

1.2 SUBMITTALS

- A. A Spill Prevention and Control Plan shall be provided to the Engineer.

1.3 GENERAL REQUIREMENTS

- A. The Contractor shall prepare and implement a Spill Prevention and Control Plan and maintain appropriate containment and/or diversionary structures, materials and equipment to prevent and control the maximum spillage of any specific item within the Scope of Work. All materials and equipment used in connection with this project shall be included. The plan shall include inspection and test procedures performed to ensure compliance.
- B. Laws and Regulations: The Contractor shall not pollute any area with any manmade or natural harmful materials. It is the sole responsibility of the Contractor to investigate and comply with all applicable Federal, State, County and municipal laws and regulations concerning the Spill Prevention and Control Plan.
- C. A Project Telephone Directory shall be incorporated into the plan.
- D. Written Discussions: In addition to the minimal prevention standards listed, the Plan shall include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures, or if more stringent, with the State rules, regulations and guidelines.
 - 1. Facility Drainage
 - 2. Bulk Storage

3. Facility Transfer operations, pumping, and conveying materials
 4. Truck loading/unloading rack
- E. Design and Specifications: The Contractor shall provide a Spill Prevention and Control Plan with the following designs and specifications:
1. Appropriate containment and/or diversionary structures or equipment to prevent discharge of materials to the environment
 2. Dikes sufficiently impervious to contain spill materials
 3. Curbing
 4. Culverts, gutters, or other drainage systems
 5. Weirs, booms, or other barriers
 6. Sorbent materials
 7. Curbing drip pans
 8. Sumps and collection systems
- F. Inspections and Records: Inspections required by this Scope of Work shall be in accordance with written procedures developed for the facility of the Contractor. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, shall be part of the Spill Control and Prevention Plan, and shall be maintained during the project and submitted to the Engineer for final closeout.
- G. Facility Lighting: Facility lighting shall be commensurate with the type and location of the facility. Consideration shall be given to the following:
1. Discovery of spills, occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (security personnel, the general public, local police, etc.)
 2. Prevention of spills occurring through acts of vandalism.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 GENERAL

- A. If materials are released, the Contractor shall provide a written description of the event, corrective action taken, and plans for preventing a recurrence, as well as a written commitment of manpower, equipment, and materials required to expedite control and removal of any harmful quantity of materials released.
- B. The Contractor shall notify the New York State Department of Environmental Conservation, Nassau County Department of Health, Nassau County Department of Public Works, and the Engineer within two hours of the release or spill.

3.2 TRAINING

- A. Personnel Training and Spill Prevention Procedures: The Contractor shall be responsible for properly instructing his personnel regarding applicable pollution control laws, rules, and regulations; and in the operation and maintenance of equipment to prevent the discharge of materials.
- B. Briefings: The Contractor shall schedule and conduct Spill Prevention Briefings for its operating personnel at intervals frequent enough to assure adequate understanding of the Spill Prevention and Control Plan for this project. Such briefings shall highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.
- C. Evacuation Routes shall be marked on the project site.

3.3 TESTING

- A. Facility communication or alarm systems and spill control equipment must be tested and maintained by the Contractor as necessary to assure proper operation in time of emergency.

+ + END OF SECTION + +

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SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. Temporary facilities and controls shall be provided in the manner designated hereinafter. These temporary facilities shall be provided at the Bay Park Sewage Treatment Plant worksite.
- B. Contractor shall coordinate and install all temporary facilities and controls in accordance with the requirements of the local authorities or utility companies having jurisdiction and in accordance with all state, federal and local codes and regulations.
- C. At the completion of the Work, or when the temporary facilities and controls are no longer required, subject to the approval of the County, the temporary facilities and controls shall be removed and the facilities restored to their original conditions by the Contractor.
- D. Costs in connection with the temporary facilities and controls including but not limited to, installation, maintenance, relocation and removal shall be borne by the Contractor.

1.02 TEMPORARY WATER FACILITIES

- A. The Contractor shall provide and pay all costs for fire protection and for cleaning by all Contractors, Subcontractors, and their workmen. The Contractor shall make all arrangements with the County for connection and use of potable water from the plant system for purposes of supplying the work area. The Contractor shall provide and install a temporary system from this location as required for the execution of the work.
- B. The Contractor is responsible for his own bottled water needs.
- C. The Contractor and Subcontractors shall provide their own hoses, valves and containers as required to service their own work force. The Contractor shall inspect the site and assess the existing conditions. The cost for designing and installing a temporary water system shall be included in the lump sum price.
- D. In the event that the Contractor requires more potable water than is available through the plant system, then the Contractor shall pay all costs for obtaining and providing the additional water from the local water company.

- E. The Contractor shall provide any and all backflow prevention devices as required by the County when connecting the temporary water system to the County's water system.
- F. The Contractor shall install an isolation valve and remove the temporary city water connection in its entirety at the end of the project.
- G. Additional Facilities:
 - 1. Should any portion of any Contractor's work require light or power in addition to that supplied by the temporary general lighting system herein described, he shall furnish, install and maintain such additional temporary lighting and power facilities at his own expense. Additional temporary lighting shall be sufficient for safe access to and egress from such work, and for safe expeditious construction.
 - 2. The installation of additional facilities shall comply with all applicable requirements of the National Electric Code and any other codes of enforcing bodies having jurisdiction, and shall be in-stalled so as not to interfere with the work of other Contractors.
 - 3. Upon completion of the work under his contract, the Contractor responsible shall remove all additional facilities installed by him.

1.03 PROTECTION OF WORK AND MATERIALS

- A. Protection Requirements:
 - 1. During the progress of the Work and up to the date of Final Payment, the Contractor shall be solely responsible for the care and protection of all Work and materials covered by the Contract. In order to prevent damage, injury or loss, actions shall include, but not be limited to, the following:
 - a. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the work of any other contractor or utility service company.
 - b. Provide suitable storage facilities for all materials, which are subject to injury by exposure to weather, theft, breakage, or otherwise.
 - c. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
 - d. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the Site of the Work shall present a safe, orderly and workmanlike appearance.
 - e. Provide barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways and other dangerous areas as deemed necessary by Engineer.
 - 2. The Contractor shall protect the existing Work and material from damage by his workmen and shall be responsible for repairing any such damage at no additional cost to the County.
 - 3. The Contractor shall protect trees, shrubbery and other natural features or structures from being cut, trimmed, or injured in his areas of Work. Trees

adjacent to the Site of Work shall be protected and temporary supports provided for long branches. Stored materials and equipment shall be in cleared spaces, away from all trees and shrubs, and confined to areas as directed by the Engineer.

- a. Temporary fences or barricades shall be installed to protect trees and plants in areas subject to traffic.
 - b. No fires will be permitted at the Bay Park STP.
 - c. Within the limits of the Work, water trees and plants that are to remain, in order to maintain their health during construction operations.
 - d. Cover all exposed roots with burlap that shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run off or noxious materials in solution.
 - e. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by Engineer.
 - f. All damaged trees and plants that die or suffer permanent injury shall be removed when ordered by the Engineer and replaced by a specimen of equal or better quality.
4. All Work and materials shall be protected in accordance with the requirements of the Agreement, Article VI, "Protection"; General Conditions, Articles GC 17, "Materials and Equipment, Approvals Substitutions and Deviations", GC 21, "Protection Requirements", and GC 24, "Barricades, Warning Signs and Lights".

B. Maintenance of Egress:

1. During the course of demolition and construction Work of this Project, the Contractor shall maintain and keep free of debris, materials or equipment points of required egress in accordance with the requirements of the Nassau County Fire Commissioner and Fire Safety Regulations.
2. The Contractor in his particular area of Work shall maintain egress as herein specified.
3. In active process areas, the Contractor shall not be permitted to store or stockpile material. Debris or other material shall be removed daily which may obstruct plant personnel from operating or maintaining active equipment and piping.

C. Protection of Existing Structures:

1. Underground Structures:
 - a. Underground structures are defined to include, but not be limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
 - b. All underground structures known to the Engineer, except water, sewer, electric and telephone service are shown on the Drawings. This information is shown for the assistance of the Contractor in accordance

with the best information available, but is not guaranteed to be correct or complete.

- c. The Contractor shall explore ahead of his trenching and excavation Work and shall uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption of the services which such structures provide. If the Contractor damages an underground structure, he shall restore it to original condition at his expense.
 - d. Necessary changes in the location of the Work may be made by the Engineer, to avoid unanticipated underground structures.
 - e. If permanent relocation of an underground structure or other subsurface facility is required and is not otherwise provided for in the Contract Documents, the Engineer will direct the Contractor in writing to perform the Work, which shall be paid for under the provisions of the Agreement.
2. Surface Structures:
- a. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, piles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.
3. Protection of Underground and Surface Structures:
- a. The Contractor shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done by the Contractor in a careful manner and as required by the County. Before proceeding with the Work of sustaining and supporting such structure, the Contractor shall satisfy the Engineer that the methods and procedures to be used have been approved by the County.
 - b. The Contractor shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits to the Work. The Contractor shall be responsible for all damage and expense for direct or indirect injury caused by his Work to any structure. The Contractor shall repair immediately all damage caused by his Work to the satisfaction of the owner of the damaged structure.
4. All other existing surface facilities, including but not limited to guard rails, posts, guard cables, signs, poles, markers, and curbs, which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at Contractor's expense.

D. Protection of Installed Products and Landscaping:

1. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of Work.
 2. Control traffic to prevent damage to equipment, materials and surfaces.
 3. Provide covering to protect equipment and materials from damage.
 - a. Cover projections, wall corners, and jambs, sills and soffits of openings, in areas used for traffic and for passage of products in subsequent Work.
 4. Prohibit traffic of any kind across planted lawn and landscaped areas.
- E. Protection from Flood:
1. The Contractor shall not allow any areas turned over to him for commencement of Work, to flood. The Contractor shall keep all existing and new facilities within his Work area free of any accumulations of water. The Contractor shall provide, install, and operate sufficient pumps for this purpose. Continuous monitoring for floods and protection of structures from damage and flotation shall be provided. The Contractor shall install any combination of suitable dikes, well points, pumps, and the like to protect the Work until it is accepted.
- F. Emergency Repair Crews
1. In case the Contractor's operations disrupt plant operations, the treatment process or the operating facilities herein before described, at any time, he shall at his own cost immediately make all repairs or replacements and do all work necessary to restore the plant to operation to the satisfaction of the County. Such work shall progress continuously to completion on a 24-hour/day, 7-workday/week basis. The Contractor shall provide the services of emergency repair crews, available on call 24 hours per day.

1.08 ACCESS ROADS, PARKING, STAGING, STORAGE AND WORK AREAS

- A. Contractor's Staging and Storage Area
1. The Contractor shall construct a Contractor's Staging Area as shown on the Contract Drawings. The Staging Area shall be leveled, graded and seeded after completion of the Contract.
 2. The Staging Area shall be drained so that no ponding of runoff water shall occur in the Staging Area or adjacent areas.
 3. The Contractor shall provide pavement and utilities in the Staging Area and shall maintain all sections of the Staging Area in a suitable manner, including the cutting of grass, weeding and preventing the accumulation of debris. The Contractor shall provide electrical utilities in the Staging Area.
 4. At the completion of the project, the Contractor shall remove all debris not limited to gravel, grout, wood, etc., from the Staging Area off-site. The Contractor shall also grade the Staging Area level and furnish a minimum of six (6) inches of topsoil, which will be unloaded, graded and hydro-seeded as directed by the Engineer.

B. Access Roads:

1. Access roads will be provided by the Contractor in accordance with the requirements of the General Conditions, Article GC 22, "Access Roads and Parking Areas", the Drawings and the applicable Technical Specifications.
2. The Contractor shall take all necessary precautions to protect traffic, including but not limited to, complying with the requirements of the General Conditions, Articles GC 23, "Traffic Regulations" and GC 24, "Barricades, Warning Signs and Lights".
3. The Contractor shall post speed limit signs to be adhered to at all times in the vicinity of the staging and work areas.

C. Parking, Storage and Work Areas:

1. No on-site parking is permitted.
2. The Contractor shall construct and maintain suitable storage areas for his use within the staging area designated on the Drawings.
3. The Contractor will be required to arrange his Work and dispose of his materials in such manner as to cause the least interference with the Work of other Contractors working within the same area.
4. No Contractor shall claim exclusive occupancy of areas within or adjacent to the limits of his Work under this Contract. The County and its employees and the Contractors for other contracts shall also have access to these areas.
5. The Contractor shall modify any storage areas to cause minimum damage to the landscape and shall comply with the directions of the County. At the completion of the Work the surfaces of the land used for storage areas shall be restored by the Contractor to the satisfaction of the County and the Engineer.

1.09 NOISE CONTROL

- A. Wherever possible, Contractor shall locate all equipment as far away from residential areas as possible. The Contractor shall limit noise from his activities so that overall noise leaving the plant, as measured at the plant property line, is 65 dB(A) measured for any one hour from 7 am – 10 pm and to 55 dB(A) measured for any one hour from 10 pm – 7 am.
- B. Contractor shall provide noise suppression enclosures around the equipment. When the noise from equipment is greater than 80 dB at a distance of 5 feet from the noise source, the enclosures shall be provided with internal acoustic insulation.
1. Enclosures shall be constructed of a minimum of 3/8-inch plywood.
 2. The sound panels shall be minimum 4-inch thick, rated at STC-60, as manufactured by Industrial Acoustics Co. or approved equal.

3. The area shall remain operational during construction. Partitions provided by the Contractor to isolate the construction area shall provide internal acoustical isolation as define in the paragraphs above.

1.10 SECURITY

- A. It shall be the responsibility of the Contractor to make whatever provisions he deems necessary to safely guard all Work, materials, equipment and property from loss, theft, damage and vandalism. The Contractor's duty to safely guard property shall include the County's property and other private property from injury or loss in connection with the performance of the Contract.
- B. The Contractor may make no claim against the County for damage resulting from trespassing.
- C. The Contractor shall repair all damage to the property of the County and others arising from failure to provide adequate security.
- D. If existing fencing or barriers are breached or removed for purposes of obstruction, the Contractor shall provide and maintain temporary security fencing equal to the existing one, in a manner satisfactory to the Engineer and the County.
- E. Security measures taken by the Contractor shall be at least equal to those usually provided by the County to protect his existing facilities during normal operation.
- F. Maintain the security program throughout construction until the date of Substantial Completion and occupancy precludes need for Contractor's security program.
- G. The Contractor's employees shall be issued identification badges, which shall be displayed at all times, as per Section 01356, Safe and Healthful Working Conditions, Paragraph 1.5.F.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

NO TEXT ON THIS PAGE

SECTION 01560

ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.1 GENERAL

- A. Provide and maintain methods, equipment, and temporary construction, as necessary to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of Work.

1.2 NOISE CONTROL

- A. Contractor's vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the Work of the County or others.

1.3 DUST CONTROL

- A. The Contractor shall be responsible for controlling objectionable dust caused by his operation of vehicles and equipment, clearing or for any reason whatever, in accordance with the General Conditions Article GC-25, "Dust Control and Spillage."

1.4 PEST AND RODENT CONTROL

- A. Provide rodent and pest control as necessary to prevent infestation of construction or storage area.
 - 1. Employ methods and use materials, which will not adversely affect conditions at the Site or on adjoining properties.
- B. Provide seals in accordance with the General Conditions, Article GC-26, "Vermin Control."

1.5 WATER CONTROL

- A. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the Site, or adjoining properties.
 - 1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas; and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- B. Provide, operate and maintain equipment and facilities of adequate size to control surface water.

- C. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the Site or to adjoining areas and in conformance with all environmental requirements.
- D. All work must conform to the Storm Water Pollution Plan.

1.6 POLLUTION CONTROL

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
 - 1. Excavate and dispose of any contaminated earth off-site, and replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters.
 - 1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants.
 - 1. Prevent toxic concentrations of chemicals.
 - 2. Prevent harmful dispersal of pollutants into the atmosphere.
- E. Contractor's equipment used during construction shall conform to all current federal, state and local laws and regulations.

1.7 EROSION CONTROL

- A. Plan and execute construction work and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
 - 1. Hold the areas of bare soil exposed at one time to a minimum.
 - 2. Provide temporary control measures such as berms, dikes and drains.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

1.7 HAZARDOUS MATERIALS CONTROL

- A. Refer to Section 01355, Hazardous Materials Control.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

++ NO TEXT ON THIS PAGE ++

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 – GENERAL

1.1 GENERAL

A. Furnish and Install:

1. Where the words "furnish", "provide", "supply", "replace" or "install" are used, whether singly or in combination, they shall mean to furnish and install, unless specifically stated otherwise.
2. In the interest of brevity, the explicit direction "to furnish and install" has sometimes been omitted in specifying materials and/or equipment. Unless specifically noted otherwise, it shall be understood that all equipment and/or materials specified or shown on the Drawings shall be furnished and installed under the Contract as designated on the Drawings.

B. Concrete Work

1. Contractor, unless specifically noted otherwise, shall provide all concrete shown, specified or required under this Contract.

C. Contractor's Title to Materials:

1. No materials or supplies for the Work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the Work, free from all liens, claims or encumbrances.

D. "Buy American" Requirements of Financing Entity:

1. The Project is financed by the New York State Environmental Facilities Corporation under the New York State Clean Water Revolving Fund. Contractor shall comply with requirements of the financing entity relative to the Project, including submitting all required documentation.
2. Project financing is under the FY 2014 federal appropriations for the Clean Water State Revolving Fund (CWSRF). Comply with applicable requirements of the financing entity, including compliance with the FY 2014 CWSRF's "buy American" provisions.
3. All the iron and steel products incorporated into the Work shall be produced in the United States, in accordance with the FY 2014 CWSRF provisions of H.R. 3547, "Consolidated Appropriations Act, 2014" (Appropriations Act), enacted on January 17, 2014.
4. Under the Appropriations Act:
 - a. "Iron and steel products" are defined as the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe

- clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
- b. The word, "steel" means an alloy that includes at least 50 percent iron, between 0.02 and two percent carbon, and may include other elements. Production in the United States of the iron or steel used in the Project requires that all manufacturing processes take place in the United States, except metallurgical processes involving refinement of steel additives. This requirement does not apply to iron or steel used as components or subcomponents of manufactured goods used in the Project.
 - c. The words, "reasonably available quantity" mean that the quantity of iron, steel, or the relevant manufactured good is available or will be available at the time required on a schedule consistent with complying with the Contract Times and at the location place required, and in the proper form and quality as shown or indicated in the Contract Documents.
 - d. The words, "satisfactory quality" mean the quality of iron, steel, or the relevant manufactured good as shown or indicated in the Contract Documents.
5. Requirements for using United States iron and steel will not apply in any case or category of cases in which the Administrator of the U.S. Environmental Protection Agency (in this section referred to as the "Administrator") finds that:
 - a. applying the "buy American" provision for iron and steel would be inconsistent with the public interest
 - b. iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
 - c. inclusion of iron and steel products produced in the United States will increase the cost of the Project by more than 25 percent.
 6. Contractor shall submit information verifying compliance with the buy American requirements, certification of compliance with the buy American requirements, and when required information necessary to support applying for a waiver of the buy American requirements, as required by the Owner or the financing entity, under the provisions of the Appropriations Act and related guidance by authorities having jurisdiction over such funds and use thereof.
 7. Contractor shall pay damages incurred by Owner for Contractor's failure to comply with provisions of the financing entity's requirements, including "buy American" provisions. Notwithstanding other provisions of the Contract Documents, failure to comply with the buy American requirements allows Owner to recover as special damages against Contractor, and Contractor shall pay, costs for all claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred by Owner resulting from such failure by Contractor, including without limitation impairment or loss of Project

funding or financing, whether in whole or in part, from the financing entity, and damages incurred by Owner by Owner's obligations to the financing entity regarding Project funding or financing.

1.2 TRANSPORTATION AND HANDLING OF MATERIALS AND EQUIPMENT

- A. The Contractor shall make all arrangements for transportation, delivery and handling of equipment and materials required for prosecution and completion of the Work in accordance with Section 01610, Transportation and Handling of Materials and Equipment.

1.3 STORAGE OF EQUIPMENT AND MATERIALS

- A. The Contractor shall store his equipment and materials at the job Site in accordance with the requirements of the General Conditions, Article GC-17, "Materials and Equipment, Approvals, Substitutions and Deviations", and as hereinafter specified. All equipment and materials shall be stored in accordance with manufacturer's recommendations and as directed by the Engineer, and in conformity to applicable statutes, ordinances, regulations and rulings of the public authority having jurisdiction.
- B. The Contractor shall enforce the instructions of the County and the Engineer regarding the posting of regulatory signs for loading on structures, fire safety and smoking areas.
- C. The Contractor shall not store materials or encroach upon private property without the written consent of the owners of such private property.

1.4 INSTALLATION OF EQUIPMENT

- A. Equipment and materials shall be installed in accordance with the requirements of the General Conditions, Article GC-17, "Materials and Equipment, Approvals, Substitutions and Deviations".

1.5 SUBSTITUTIONS

- A. Requests for substitutions of equipment or materials shall conform to the requirements of the General Conditions, Article GC-17, "Materials and Equipment, Approvals, Substitutions and Deviations", and as hereinafter specified.
 - 1. The Contractor shall submit for each proposed substitution sufficient details, complete descriptive literature and performance data together with Samples of the materials, where feasible, to enable the County to determine if the proposed substitution is equal.
 - 2. The Contractor shall submit certified tests, where applicable, by an independent laboratory attesting that the proposed substitution is equal.

3. A list of installations where the proposed substitution is in satisfactory operation.
 4. Requests for substitutions shall include full information concerning differences in cost, and any savings in cost resulting from such substitutions shall be passed on to the County.
- B. Where the approval of a substitution requires revision or redesign of any part of the Work, all such revision and redesign, and all new Drawings and details required therefore, shall be provided by the Contractor at his own cost and expense, and shall be subject to the approval of the County.
- C. In the event that the Engineer or his consultants is required to provide additional services, the charges for such additional services shall be charged to the Contractor by the County in accordance with the requirements of the General Conditions, Article GC-18, "Contractor Costs for Engineering Services".
- D. Any modifications in Work required under other Contracts, to accommodate the changed design, will be incorporated in the appropriate Contracts and any resulting increases in Contract prices will be deducted by the County from payments otherwise due by the Contractor who initiated the changed design.
- E. In all cases the County shall be the judge as to whether a proposed substitution is to be approved. The Contractor shall abide by their decision when proposed substitute items are judged to be unacceptable and shall in such instances furnish the item specified or indicated. No substitute items shall be used in the Work without written approval of the County.
- F. In making request for substitution, the Contractor represents that:
1. The Contractor has investigated proposed substitution, and determined that it is equal to or superior in all respects to the product, manufacturer or method specified.
 2. The Contractor has verified that proposed substitution will coordinate with existing design.
 3. The Contractor will provide the same or better warranties or bonds for proposed substitution as for product, manufacturer or method specified.
 4. The Contractor waives all claims for additional costs or extension of time related to proposed substitution that subsequently may become apparent.
- G. Proposed substitutions will not be accepted if:
1. Acceptance will require substantial revision of the Contract Documents.
 2. They will change design concepts or Specifications.
 3. They will delay completion of the Work, or the work of other contractors.
 4. They are indicated or implied on a Shop Drawing and are not accompanied by a formal request for substitution from the Contractor.
- H. Approval of a substitution will not relieve the Contractor from the requirement for submission of Shop Drawings as set forth in the Contract Documents.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

++ NO TEXT ON THIS PAGE ++

SECTION 01710

CLEANING

PART 1 – GENERAL

1.1 GENERAL

- A. Execute cleaning, during progress of the Work, at completion of the Work, and as required by the General Conditions, Article GC-33, "Cleaning".
- B. Requirements of Regulatory Agencies:
 - 1. In addition to the requirements herein, maintain the cleanliness of the Work and surrounding premises within the Work limits so as to comply with federal, state, and local fire and safety laws, ordinances, codes and regulations.
 - 2. Comply with all federal, state and local anti-pollution laws, ordinances, codes and regulations when disposing of waste materials, debris and rubbish.
- C. Scheduling of Cleaning and Disposal Operations:
 - 1. So that dust, wash water or other contaminants generated during such operations do not damage or mar painted or finished surfaces.
 - 2. To prevent accumulation of dust, dirt, debris, rubbish and waste materials on or within the Work or on the premises surrounding the Work.
- D. Waste Disposal:
 - 1. Dispose of all waste materials, surplus materials, debris and rubbish off the plant Site.
 - 2. Do not burn or bury rubbish and waste materials on the plant Site.
 - 3. Do not dispose of volatile or hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 4. Do not discharge wastes into streams or waterways.
- E. Cleaning Materials:
 - 1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
 - 2. Use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.
 - 3. Use only materials which will not create hazards to health or property.
- F. During Construction:
 - 1. Keep the Work and surrounding premises within work limits free of accumulations of dirt, dust, waste materials, debris and rubbish, in accordance with the General Conditions, Article GC-33, "Cleaning."
 - 2. Keep dust generating areas wetted down.

3. Provide suitable containers for storage of waste materials, debris and rubbish until time of disposal.
 4. Dispose of waste, debris and rubbish off Site at legal disposal areas.
- G. When Project is Completed:
1. The Contractor shall clean and maintain the Site in accordance with Division 1, Section 01760, Project Closeout.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01760

PROJECT CLOSEOUT

PART 1 – GENERAL

1.1 FINAL CLEANING

- A. At the completion of the Work, the Contractor shall remove temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which he or any of his Subcontractors may have used in the performance of the Work.
- B. The Contractor shall broom clean paved surfaces and rake clean other surfaces of grounds.
- C. The Contractor shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces; dirty filters and burned-out lights replaced as required. The Contractor shall clean and polish all interior and exterior glass surfaces so as to leave glass surfaces in a clean and new appearing condition.
- D. The Contractor shall remove spatter, grease, stains, fingerprints, dirt, dust, labels, tags, packing materials, rubbish, and other foreign items or substances from interior and exterior surfaces, equipment, signs and lettering.
- E. Remove paint, clean and restore all equipment and material nameplates, labels and other identification markings.
- F. The Contractor shall maintain cleaning until Project, or portion thereof, is occupied by the County.

1.2 INSPECTIONS

- A. At the time of substantial completion an inspection shall be held in accordance with the requirements of the Agreement, Article XXXVI, "Substantial Completion Payment". At this time the Contractor shall also provide all necessary documentation as required by the above referenced Article.
- B. At the time of completion of all the Work a final inspection shall be held in accordance with the requirements of the Agreement, Article XXXVII, "Final Payment". The Contractor shall also provide all necessary documentation as required by the above referenced Article, and comply with all the requirements of the General Conditions, Article GC-38, "Project Closeout".
- C. Follow-up Inspection:
 - 1. At the time of the completion of the guarantee period as specified in the Agreement, Article XX, "Maintenance and Guarantee," the Engineer will

make arrangements with the County and the Contractor for a follow-up inspection and will send a written notice to said parties to inform them of the date and time of the inspection.

2. After the inspection, the Engineer will inform the Contractor of any corrections required.
3. When the corrections have been satisfactorily completed, the Engineer will forward a certificate for the release of Bonds.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope:

1. The Contractor shall perform all excavating, backfilling and disposing of earth materials as shown, specified, and required for the purpose of site preparation, erosion control, surface drainage, constructing pipelines, concrete work, installation and removal of sheeting and bracings, grading, and other facilities.
2. Also included is earthwork necessary for repair and replacement of roads, walks, pavements, grading, structures and other facilities as required to complete the Work as shown and specified. All materials necessary for fill, backfill, granular embedment and crushed stone are included.
3. This Section also includes providing all backfill materials, including select fill, common fill, granular embedment, topsoil, crushed stone, and the satisfactory disposal of surplus and unacceptable materials.
4. All necessary preparation of subgrade is included.
5. All temporary means needed to prevent discharge of sediment to water courses from dewatering systems or erosion are included.

B. Sources of Materials:

1. General fill materials shall be obtained from on-site excavation work.
2. Select fill materials shall be obtained from on-site sources.
3. Crushed stone materials shall be obtained from off-site sources.

1.02 QUALITY ASSURANCE

A. Permits and Regulations:

1. The Contractor shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Reference Standards: Comply with applicable provisions and recommendations of the following except as otherwise shown or specified.

1. ASTM A 36, Structural Steel.
2. ASTM A 328, Steel Sheet Piling.
3. ASTM D 422, Particle-Size Analysis of Soils.
4. ASTM D 698, Moisture-Density Relations of Soils, using 5.5 lb (2.5 kg) Rammer and 12-inch (304.8 mm) Drop.
5. ASTM D 1556, Density of Soil in Place by the Sand-Cone Method.

C. Tests:

1. The Owner will make tests and determine acceptability of the fill or material as listed below.

2. Required Tests:
 - a. Select Fill Samples: Gradation, ASTM D 422.
 - b. Compacted Select Fill: Compaction, ASTM D 698 and ASTM D 1556.
3. Testing laboratory will submit copies of the following reports directly to the Engineer with copy to the Contractor:
 - a. Gradation tests on borrow material.
 - b. Field density tests.
 - c. Optimum moisture-maximum density curve for each soil used for backfill.

1.03 SUBMITTALS

- A. Samples: Submit for approval the following:
 1. At least two weeks prior to the date of anticipated use, the Contractor shall submit, to the Owner, for approval, a representative sample of all on-site and off-site material required. The Contractor shall notify the Owner in writing of the source of each sample.
- B. Manufacturer's Data: Submit for approval the following:
 1. Manufacturer's specifications, performance characteristics and operating instructions for the compaction equipment.

1.04 JOB CONDITIONS

- A. Existing Structures:
 1. Shown in the Contract are certain utilities, surface and underground structures located on or adjacent to the Work. This information has been obtained from existing records. It is not guaranteed to be correct or complete and is shown for the convenience of the Contractor. The Contractor shall explore ahead of the required excavation to determine the exact location of all structures and utilities. They shall be supported and protected from injury by the Contractor. If they are broken or injured, they shall be restored immediately by the Contractor at no additional cost to the Owner.
 2. Prior to execution of the Work, the Contractor shall check and verify governing dimensions and elevations. The Contractor and the Owner shall jointly survey the condition of adjoining structures. Photographs and records shall be made of any prior settlement or cracking of structures, pavements, and the like, that may become the subject of possible damage claims.
- B. Existing Utilities:
 1. Provide adequate means of protection during earthwork operations.
 2. Should uncharted or incorrectly charted piping or utilities be encountered during excavation, consult Owner in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the Engineer.
 3. Do not interrupt existing utilities serving facilities occupied and used by the Owner or others, except when permitted in writing by the Engineer and then only after acceptable temporary utility services have been provided.

- C. Protection of Persons and Property:
1. Barricade open excavations occurring as part of this Work and post with warning lights. The Contractor shall provide "Jersey" type concrete barriers with reflective tape. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.
 3. Consult the Engineer and obtain his approval before removing, trimming, or disturbing trees, shrubs, plants, fences, rails, walks, structures or other facilities that are encountered on the line of the excavation.
 4. Structures, utilities, sidewalks, pavements and other facilities removed or disturbed shall be replaced to their original condition, unless otherwise shown, specified or directed.
- D. Dust Control: The Contractor shall conduct all of his operations and maintain the area of his activities, including sweeping and sprinkling of roadways, so as to minimize creation and dispersion of dust. In addition, the Contractor shall be responsible for controlling dust caused by his operation of vehicles and equipment, clearing or for any reason whatever, in accordance with Article GC-25 of the General Conditions.
- E. Roadways and Walks: Excavated material and materials of construction shall be so deposited, and the Work shall be so conducted, as to leave open and free for pedestrian traffic all crosswalks, and for vehicular traffic a roadway not less than 10 feet in width. Hydrants, valves, and other facilities which may require access during construction shall be kept accessible for use. During the progress of the Work, the Contractor shall maintain such crosswalks, sidewalks, and roadways in satisfactory condition and the Work shall at all times be conducted so as to cause a minimum of inconvenience to the Owner.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. Select Fill: Place select fill where shown or specified below and around structures, pipelines, roads, tanks, walks and other work. Well-graded granular material or bank run gravel, free from organic matter. Not more than 80 percent by weight shall pass through a No. 40 sieve; not more than 10 percent by weight through a No. 200 sieve; and 100 percent shall pass a 3-inch square sieve.
- B. General Fill (Common Fill): Provide approved soil materials for backfill and fill, free of organics, clay, rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials and other deleterious matter. No more than 30 percent by weight shall pass through a No. 200 sieve except for topsoils.

C. Granular embedment: Crushed rock or pea gravel with not less than 95 percent passing a 1/2-inch sieve, not less than 95 percent retained on a No. 4 sieve and maximum 5 percent passing a No. 10 sieve.

D. Crushed stone: Crushed rock conforming to the following gradation:

<u>Sieve Size</u>	<u>Percent Retained on Sieve</u>
2 inch	0
1-1/2 inch	0-10
1 inch	30-65
3/4 inch	85-100
3/8 inch	95-100

2.02 FILTER FABRIC:

A. Filter fabric shall be placed below or under the drainage material as shown on the Drawings.

B. Filter fabric shall be a non-woven polypropylene material, needle punched or spunbonded fabric.

C. Filter fabric material, of non-woven plastic cloth meeting the following requirements, shall be installed as shown on the Contract Drawings.

Equivalent Opening Size	80-100 (U.S. standard sieve)
Open Area (%)	20-40
Pore Size Range (MM)	0.10 to 0.18
Thickness (mils)	30
Grab Strength (lbs)	120 (minimum)
Grab Elongation (%)	70
Burst Strength (psi)	125
Trapezoid Tear Strength (lbs)	70
Water Permeability	
Coefficient (K-cm/sec)*	0.07
Water Flow Rate (gal/min-ft ²)	480
Weight (ms/m ²)	140 (minimum)

*According to CFMC-FFET-2, "Falling-Head Water Permeability of Filter Fabrics".

D. Filter fabric shall be Mirafi 140S as manufactured by the Celanese Fibers Marketing Company, Celanese Corporation, or equal.

PART 3 - EXECUTION

3.01 EROSION CONTROL

A. General:

1. In general, the construction procedures outlined herein shall be implemented to ensure minimum damage to the environment during construction.
2. Whenever possible, access and temporary roads shall be located and constructed to avoid environmental damage. Provisions shall be made to regulate drainage, avoid erosion and minimize damage to vegetation. Special care shall be taken to eliminate depressions that could serve as mosquito pools.
3. Where areas must be cleared for storage of materials or temporary structures, provisions shall be made for regulating drainage and controlling erosion, subject to the Engineer's approval.
4. In the event of any temporary work stoppage, the Contractor shall take steps to prevent any temporary or permanent environmental damage to the area undergoing construction.

B. Control Measures:

1. Temporary measures shall be applied to control erosion and to minimize the siltation of the existing drains, streambeds and natural ponding areas. Such measures shall include, but not be limited to, the use of berms, baled straw silt barriers, gravel or crushed stone, mulch, grasses, slope drains and other methods. These temporary measures shall be applied to erodible materials exposed by any activities associated with the construction of this Project.
2. Temporary measures shall be coordinated with the construction of permanent drainage facilities and other work to the extent practicable to assure economical, effective, and continuous erosion and siltation control.
3. The Contractor shall provide special care in areas with steep slopes. Disturbance of vegetation shall be kept to a minimum to maintain stability. Remove only those trees and shrubs and grasses that must be removed for construction. Protect the rest to preserve their aesthetic and erosion-control values.
4. Install erosion and sediment control practices as specified herein. The practices shall be maintained in effective working condition during construction and until the drainage area has been permanently stabilized.
5. Temporarily stabilize each segment of graded or otherwise disturbed land, including the sediment-control devices not otherwise stabilized by seeding and mulching or by mulching alone.

3.02 EXCAVATION

A. Unsuitable or Over-Excavation:

1. If any over-excavation occurs through error of the Contractor or for Contractor's convenience, it shall be refilled at the Contractor's expense with concrete, select fill or other material satisfactory to the Owner.
2. If the Contractor fails to properly dewater the excavation or trench, or disturbs the subgrade or otherwise fails or neglects to conduct the excavation work in a

manner that provides the surface of the subgrade in proper condition for construction, the Contractor shall remove all disturbed material and replace it with concrete, select fill, or other approved material at his own expense. The condition of the subgrade shall meet with the approval of the Owner before any work is placed thereon.

3.03 BACKFILL AND COMPACTION

- A. Fill excavations as promptly as Work permits, but not until completion of the following:
 - 1. Acceptance by the Engineer of all Work within the excavation.
 - 2. Inspection, testing approval, and recording of locations of underground utilities, connections, branches, structures and other facilities.
 - 3. Removal of temporary shoring and bracing and backfilling of voids with satisfactory materials.
 - 4. Removal of trash and debris.
- B. Excavation shall be kept dry during backfilling operations. Backfills around piping and structures shall be brought up evenly on all sides.
- C. General fill and select fill materials shall be placed in layers not exceeding 8 inches in thickness, and each layer shall be compacted as specified below.
- D. Crushed Stone Placement:
 - 1. Crushed stone shall be placed where shown on the Contract.
 - 2. Crushed stone shall be placed in hand tamped lifts not to exceed 6 inches.
- E. Compaction Density Requirements:
 - 1. Unless otherwise noted, the degree of compaction required for all types of fills shall be 95 percent in accordance with ASTM D 698. Material shall be moistened or aerated as necessary to provide the moisture content that will facilitate obtaining the specified compaction.
 - 2. Drainage stone shall be compacted with a vibratory plate compactor or vibratory rolling compactor. Three complete passes shall be made on each 8-inch thick loose layer of stone. Each pass shall overlap the adjacent previously compacted area a minimum of 20 percent. Density requirement for the drainage stone will be considered satisfactory upon completion of compaction.
 - 3. Owner's laboratory will perform tests necessary to provide data for selection and control of fill material placement and water content.
 - 4. Owner's laboratory will perform field density tests to insure that the specified density is being obtained during each day of compaction work. Number of tests will be determined by the Engineer.
 - 5. If the tests indicate unsatisfactory compaction, the Contractor shall provide the additional compaction necessary to obtain the specified degree of compaction. All additional compaction work shall be performed by the Contractor at no additional cost to the Owner until the specified compaction is obtained. This Work shall include complete removal of unacceptable fill areas and

replacement and recompaction until acceptable fill is provided, as determined by the Engineer.

- F. The Contractor shall repair any damage, at no additional cost to the Owner, after-settlement that occurs. He shall make all repairs and replacements necessary within 30 days after notice from the Engineer.

3.04 GRADING

- A. Uniformly grade areas within limits of the Work, including adjacent transition areas. Smooth subgrade surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- B. Turfed Areas: Finish areas to receive topsoil to within not more than 1 inch above or below the required subgrade elevations.
- C. Walks: Shape surface of areas under walks to the line, grade and cross-section shown, with finish surface not more than 1 inch above or below the required subgrade elevation.
- D. Pavements: Shape surface of areas under pavements to the line, grade and cross-section shown, with finish surface not more than 1/2 inch above or below the required subgrade elevation.
- E. Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 1/4 inch when tested with a 10-foot straightedge.
- F. Compaction: After grading, compact subgrade surfaces to the depth and percentage of maximum density required.

3.05 REMOVAL OF UNSUITABLE MATERIALS

- A. The Contractor shall remove and dispose off site all unsuitable organic and/or inorganic materials. Within thirty (30) consecutive days after Notice to Proceed, the Contractor shall submit to the Owner for review all required permits and a list of disposal sites for the unsuitable materials. If the disposal site is located on private property the submittal shall also include written permission from the Owner of record.
- B. All unsuitable materials shall be disposed of in locations and under conditions that comply with Federal, State and local laws and regulations.
- C. The Contractor shall obtain an off-site disposal area prior to beginning demolitions or excavation operations.

- D. All unsuitable materials shall be hauled in trucks of sufficient capacity and tight construction to prevent spillage. Trucks shall be covered to prevent the escape of odors and the propagation of dust.
- E. When all unsuitable material disposal operations are completed, the Contractor shall leave the disposal site in a condition acceptable to the Owner of the disposal site.
- F. The Contractor shall not dump soil onto those areas designated by the Owner as wetlands or waterways. Each Contractor shall not stockpile or store spoil, materials, tools or equipment on wetlands. Stockpiling of unsuitable organic material is not permitted on site.

3.06 RESTORING AND RESURFACING EXISTING ROADWAYS AND FACILITIES

- A. Pavement, gutters, curbs, walks, driveways and roadways disturbed or damaged by the Contractor's operations shall be restored or replaced by him to original or better condition.
- B. After all other work has been completed in each area, place and grade topsoil to a depth of not less than 6-inches.

+ + END OF SECTION + +

SECTION 02800

WASTE MOVEMENT, TRANSPORTATION, AND DISPOSITION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope:

1. The work shall include all labor, equipment, materials, services, and fees necessary to properly handle, sample, characterize, containerize, stage, transport and dispose of wastes generated during the work activities described in the Technical Specifications. The work shall include, but it not limited to:
 - a. Identification, demolition, sequencing, handling, segregation, stabilizing, and staging/ containerization of waste materials.
 - b. Identifying and complying with all applicable laws related to material transportation and disposition.
 - c. Processing materials if necessary to comply with disposition requirements.
 - d. Movement of materials.
 - e. Secure staging of materials prior to final disposition.
 - f. Transportation and off-site recycling or disposal of waste materials in accordance with applicable rules and regulations.
 - g. Thorough documentation and recordkeeping related to final disposition activities.

- ###### B.
- The Contractor shall be responsible for costs associated with the characterization and transportation of materials from the site to the recycling or disposal facility. The Contractor shall also be responsible for disposition costs.

C. Related Sections:

1. Section 02200, Earthwork.

1.02 SUBMITTALS

A. The Contractor shall submit the following information to the Design Engineer::

1. List of proposed disposal facilities for each waste stream generated during the work activities, including all applicable licenses and permits for each facility. All wastes designated for off-site disposal/treatment shall be disposed of at the facilities approved of by the Design Engineer. In addition, the Contractor shall provide a list of proposed recycling facilities, including all applicable licenses and permits. No waste materials will be allowed offsite until the proposed disposal facilities have been reviewed and approved by the Design Engineer.
2. List of proposed waste transporter(s) for each waste stream, including all applicable licenses and permits for each transporter. The waste transporters

- shall have valid New York Department of Transportation (NYDOT) transporter permits (and other state agencies, as applicable).
3. List of each waste stream that the Contractor anticipates will be generated (including the shipping name of the waste) along with the analytical data requirements that the disposal facility (or waste broker, if used) requires to profile the waste and provide disposal approval.
 4. Waste Management Plan that will include the following:
 - a. Means and Methods of the sampling, characterization, containerization, staging, transportation, disposal of wastes and documentation as required.
- B. At least 10 days prior to transport of any material for off-site disposal/treatment, the Contractor shall provide two copies (one copy shall remain on-site) of the following items to the Resident Engineer:
1. Notification of waste profile acceptance by treatment/disposal facility.
 2. Example Bills of Lading.
- C. Within 5 days after the last shipment of material from the site, the Contractor shall provide the following items to the Resident Engineer:
1. Completed signed Bills of Lading and Chain-of-Custody records.
 2. Trucking logs.
 3. Certification of Disposal/Treatment.
 4. Summary log to include bills of lading/manifest number, ship date and treatment/disposal facility.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. To be specified and supplied by the Contractor.
- B. The Contractor shall utilize the County's truck scale located at the Sludge Dewatering Building before leaving the site to ensure allowable load limits and to determine the weight of the contaminated soil to be disposed of.

2.02 CONTAINERS

- A. The Contractor shall provide U.S. Department of Transportation- (USDOT-) approved containers trucks for transporting waste materials for off-site disposal. Trucks shall be covered to prevent release of material during transport. The Contractor shall be responsible for safeguarding transportation equipment from leakage of materials in transport. Trucks shall be kept clean such that soil and debris are not present outside of containment.

PART 3 - EXECUTION

3.01 WASTE HANDLING, TRANSPORTATION AND DISPOSITION

- A. Waste Characterization:
 - 1. Prior to off-site transportation and disposal, the Contractor will characterize waste materials that have not been previously characterized. The soil, to the extents shown in the Contract, will be profiled for off-site disposal based on the sampling of the existing soil pile shown in the Contract.
 - 2. Waste characterization samples collected by the Contractor will be submitted for laboratory analysis per the requirements of the approved disposal facilities.
- B. Waste Movement/Segregation:
 - 1. The Contractor shall segregate all wastes in accordance with applicable Laws and Regulations and in accordance with these Technical Specifications.
 - 2. Waste streams having the same profile may be consolidated to facilitate transportation and disposal.
 - 3. Failure by the Contractor to keep waste streams appropriately segregated, resulting in new waste streams to be characterized and disposed, will not result in additional costs to the County.
 - 4. Waste material movement activities shall include collecting the waste materials generated, transferring the waste materials to on-site staging areas (if used by the Contractor), placing waste materials into appropriate USDOT-approved waste containers and processing wastes to satisfy transportation and disposal requirements.
 - 5. Excavated soil may be directly loaded into appropriate transport vehicles (e.g., lined dump trailers or roll-offs) for off-site transport and disposal (pending acceptable waste approval from disposal facilities).
- C. Transportation and Disposition – General Requirements
 - 1. The Contractor will be responsible for all costs associated with transportation and off-site recycling or disposal of waste materials.
 - 2. The Contractor shall be responsible for the following:
 - a. Whenever possible, minimize the amount of waste generated during the Work.
 - b. Store and transport hazardous wastes and other wastes designated for off-site disposal in USDOT-approved containers (if used). Alternatively, waste may be directly loaded for off-site transport/disposal, where possible. Waste additions to any on-site container shall be properly documented as required by applicable federal and state regulations.
 - c. Waste containers shall be clearly marked and labeled by the Contractor in accordance with applicable Laws and Regulations.
 - i. The Contractor shall propose waste disposal facilities and utilize the facilities approved by the Design Engineer.
 - ii. The Contractor shall select waste transporters for each waste stream. Selected waste transporters are subject to review by the Design Engineer.

- iii. The Contractor must identify and provide each waste stream that the Contractor anticipates will be generated (including the shipping name of the waste) along with the analytical data requirements that the disposal facility (or waste broker, if used) requires to classify the waste, profile the waste and provide disposal approval.
- iv. The Contractor shall coordinate with Resident Engineer. Waste characterization samples will be submitted for analysis by the Contractor. The County shall not be responsible for costs associated with analysis of waste characterization samples.
- v. The Contractor shall be responsible for all coordination and scheduling activities associated with the off-site transport and disposition of the waste.

D. Shipping and Disposal/Recycling Documents:

- 1. The Contractor shall be responsible for preparing waste profiles for each waste stream (as required by the approved waste disposal facilities), waste manifests (and Land Disposal Restriction Notification Forms, as appropriate) and/or bills of lading for each off-site shipment of waste material, and other waste transportation and disposal-related documents (as required by applicable rules and regulations). . The Contractor will review and sign the waste profiles, manifests and other documentation. The Resident Engineer will review and approve all paperwork prepared by the Contractor prior to submittal to the disposal site.
- 2. The Contractor shall prepare all waste manifests for each off-site shipment of waste material.
- 3. No shipment of waste or recyclable materials will be allowed to leave the site without inspection and review by the Resident Engineer.

E. Waste Transportation

- 1. The Contractor shall be responsible for coordinating the arrival and departure of waste transportation vehicles and shall consider access and space restrictions at the site.
- 2. Traffic control measures shall be implemented to facilitate safe and orderly execution of the waste transportation and other vehicular traffic entering and exiting the site. The traffic control measures may include flag personnel, police officer and other measures, as required and as appropriate to facilitate safe and orderly ingress to and egress to and from each site. The Contractor shall be responsible for these traffic control measures.
- 3. Only waste transporters licensed and permitted in accordance with the USDOT, the NYDOT and other state agencies (as applicable) to handle the type of waste material transported shall transport regulated materials.

F. Waste Disposal/Recycling

- 1. All solid and liquid waste materials shall be disposed of at a facility permitted to accept that waste and that is approved by the Design Engineer.
- 2. The Contractor shall follow up with the disposal, recycling and reclamation facilities and shall secure copies of fully executed waste manifests, bills of

lading, scale tickets, certificates of disposal/destruction/recycling/reclamation within time frames specified by applicable rules and regulations, but no later than within 20 calendar days of the acceptance of waste/recyclable materials by a disposal, recycling or reclamation facility. At a minimum, the waste manifests and bills of lading shall show the quantity of waste materials accepted by a final disposal facility and a certification that the waste has been disposed of/recycled/reclaimed in accordance with applicable rules and regulations. The Contractor shall supply the fully executed copies to the Resident Engineer in an orderly format.

3.02 STAGING AREAS:

- A. Wastes designated for off-site disposal may include materials classified as Resource Conservation and Recovery Act (RCRA) hazardous waste, asbestos-containing material or non-hazardous waste, and will be segregated for staging and disposal accordingly. In some cases, waste materials may be generated and stockpiled prior to sampling and appropriate disposal. Such staging piles will satisfy applicable requirements under 40 Code of Federal Regulations (CFR) § 264.554 and general facility standards under 40 CFR § 264.1(j).
- B. The locations of Staging Area are shown in the Contract.
- C. The Contractor shall construct on-site Staging Area. The Staging Area shall meet the following minimum requirements:
 - 1. The area to be used to stage the materials will be graded and sloped to a low point to form a collection sump as needed based on material type.
 - 2. The area will be compacted using a heavy drum roller to form a smooth surface with no protruding objects.
 - 3. A 12-inch high berm shall be constructed of gravel, Jersey barrier along the perimeter of the temporary soil staging area.
 - 4. The temporary staging area shall be lined with a layer of 40-mil HDPE liner. The liner shall be installed continuously along the bottom of the staging area and sloped to a HDPE-lined sump to allow for collection of liquids. If more than one HDPE panel is required in a staging area, the panels shall have a minimum 4-foot overlap with the exposed (overlapping) edge pointed downslope towards the sump. The liner shall be extended over the top and outside face of the berm. The outside face of the liner shall be adequately secured.
 - 5. In order to protect the integrity of the liner, a 16-ounce per square yard, non-woven geotextile fabric shall be installed on each side (bottom and top) of the liner. In addition, at least a 12-inch thick layer of Type "E" dense graded aggregate (DGA) shall be installed over the liner to promote flow of liquids to the collection sump and to provide additional protection of the liner.
- D. Waste material staging areas shall be covered with a low-permeability cover of 10-mil polyethylene sheeting whenever the waste material is not actively being placed into or removed from the staging areas, during overnight and/or weekend hours,

during periods of precipitation, or whenever directed by the Resident Engineer. The low-permeability cover shall be adequately anchored to prevent disturbance due to wind or other forces. Soil, debris or other waste materials shall not be used to anchor the cover.

- E. Liquids collected within waste material staging areas shall be collected for treatment and disposal.
- F. Following completion of the waste movement activities, staging areas shall be dismantled and materials of construction shall be characterized and disposed of accordingly.

3.03 MAINTAINING STAGING AREA CLEANLINESS:

- A. The Contractor shall keep the Staging Area clean while construction is in progress. The Contractor shall perform cleaning operations daily such that grounds are free from accumulations of waste materials and rubbish.
- B. The Contractor shall manage all wastes on the Staging Site such that they do not create a hazardous condition and are not a hazard to on-site personnel.
- C. The Contractor shall control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at regular intervals.
- D. The Contractor shall comply with all regulations pertaining to management of waste.

+ + END OF SECTION + +