SCOPE OF WORK

Boiler Replacement

NJDOT Lafayette Maintenance Facility Lafayette, Sussex County, NJ

Project No. T0693-00

STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor Honorable Tahesha L. Way, Lt. Governor

DEPARTMENT OF THE TREASURY

Elizabeth Maher Muoio, Treasurer



DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Christopher Chianese, Director

Date: November 13, 2023

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I. OBJECTIVE

The objective of this project is to remove and replace the existing oil fired boiler with a new high efficiency gas fired boiler at the NJ Department of Transportation Lafayette Maintenance Yard.

II. CONSULTANT QUALIFICATIONS

A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

• P020 Boiler/Steam Lines/High Pressure Systems

The Consultant shall also have in-house capabilities or Sub-Consultants pre-qualified with DPMC in:

- P002 Electrical Engineering
- P005 Civil Engineering
- P037 Asbestos Design
- P038 Asbestos Safety Control Monitoring
- P065 Lead Paint Evaluation/Inspection

As well as, **any and all** other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

III. PROJECT BUDGET

A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is \$300,000.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is \$468,500.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the client agency's financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change in Scope of Work through a Contract amendment.

C. CONSULTANT'S FEES

The construction cost estimate for this project *shall not* be used as a basis for the Consultant's design and construction administration fees. The Consultant's fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

IV. PROJECT SCHEDULE

A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations.

PROJECT PHASE ESTIMATED DURATION (Calendar Days)

1.	Site Access Approvals & Schedule Design Kick-off Meeting	14
2.	 Design Development Phase Project Team & DPMC Plan/Code Unit Review & Comment 	42 14
3.	 Froject Team & DFMC Flan/Code Onli Review & Comment Final Design Phase Project Team & DPMC Plan/Code Unit Review & Approval 	42 14
4.	 Final Design Re-Submission to Address Comments Project Team & DPMC Plan/Code Unit Review & Approval 	7 14
5.	DCA Submission Plan Review	30
6.	 Permit Application Phase Issue Plan Release 	7
7.	Bid Phase	42
8.	Award Phase	28

9. Construction Phase	120
10. Project Close Out Phase	30

B. CONSULTANT'S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit 'A'**. The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

V. PROJECT SITE LOCATION & TEAM MEMBERS

A. PROJECT SITE ADDRESS

The location of the project site is:

NJDOT Lafayette Maintenance Yard SR-94 Lafayette, NJ

See Exhibit 'B' for the project site location map.

B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

1. DPMC Representative:

Name:	Michael Ryan, Design Project Manager
Address:	Division of Property Management & Construction
	20 West State Street, 3 rd Floor
	Trenton, NJ 08608-1206
Phone No:	(609) 984-5062
E-Mail:	michael.ryan3@treas.nj.gov

2. Department of Transportation:

Name:	George Schwarz, Principal Engineer
Address:	Department of Transportation
	1035 Parkway Avenue, 1 st Floor E&O
	Ewing, New Jersey 08618
Phone No:	609-963-2169
E-Mail:	george.schwarz@dot.nj.gov

VI. PROJECT DEFINITION

A. BACKGROUND

The New Jersey Department of Transportation (DOT) manages many maintenance facilities throughout the state to provide material storage, vehicle repairs and maintenance to State and Interstate highways. One of these maintenance facilities is located in Lafayette, New Jersey.

B. FUNCTIONAL DESCRIPTION OF THE BOILER

The existing oil fired boiler is a Weil McLain Model BL-888SW. It is located on the second floor mezzanine level of the building in the mechanical equipment room. There is an access door nearby to the outside of the building that should facilitate easy access for removal and replacement.

Recently, Elizabethtown Gas installed gas lines in the road just outside the facility. As a result, the new boiler will be gas fired. It will not be dual fueled. At this time, only the boiler will be using the natural gas. However, when designing and sizing the new gas line, consideration shall be given to future expanded use of natural gas onsite. The existing oil tank will remain to supply

other equipment at the site, such as the emergency generator. See Exhibit 'C' for photographs of the existing boiler.

The carbon monoxide (CO) detection system shall be upgraded as necessary to achieve code compliance for the boiler replacement project.

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. BOILER

1. General:

The Consultant shall provide design, specification, bid/award and construction administration services to remove and replace the boiler with a new gas fired boiler, including related support equipment, piping, valves and control systems at the NJDOT Lafayette Maintenance Yard.

A new natural gas line shall be constructed and brought onsite for the new boiler. Consideration shall be given to future expanded use of natural gas onsite when designing the new gas line infrastructure.

The Consultant shall provide for upgrading of the carbon monoxide detection system as required to achieve code compliance.

Provide an emergency shut off switch for the boiler at the proper location as required by code.

2. Removal and Replacement:

Ensure that all items to be removed are identified on the demolition drawing and coordinated with the delivery dates of any new equipment to be installed. The drawings shall identify materials, equipment and systems, if any, that are to be returned to the Client Agency.

Investigate and provide a design that allows the equipment to be removed and new equipment installed in the designated area of the facility considering door, corridor, and ceiling clearances, material handling issues, building structural demolition requirements, and potential disassembly and assemble of equipment components. All building finishes affected by the removal of the equipment must be restored to their original condition.

3. Heating Load Calculations:

Provide three (3) sets of signed and sealed heating load calculations to the DPMC Design & Code Review Unit that will substantiate the recommended size/capacity of the new heating boiler.

4. Boiler Design Criteria:

Provide a design for the new boiler concrete pads and/or foundations, if required, and insure their orientation allows access for unit maintenance. Provide three (3) sets of signed and sealed structural calculations that verify either the existing concrete pads and foundations or the new concrete pads and foundations will support the load of the new boilers.

All electrical components of the new boiler, controls, and related systems shall be designed to provide the proper temperature levels in the various rooms of the building. Investigate and provide room exhaust fans with temperature controls if appropriate. Wiring schematics shall be provided that indicate the proper tie-in of the electrical components to the existing or upgraded electrical supply (if required).

Ensure that all piping, valve supports, and hangers comply with area seismic requirements. Piping shall be insulated where appropriate and include ID tags, labels, thermometers, gages, isolation valves, etc.

Ensure that the boiler room has the appropriate amount of make-up air circulation by providing properly sized air louvers and motorized damper interlocks if required.

Ensure all DEP permits and approvals are obtained in a timely manner to meet the appropriate project milestone dates.

5. Drawing Details:

The drawings shall identify the appropriate locations for the new boiler and other ancillary equipment required for this project. Piping and wiring schematics shall indicate the most efficient methods to connect the unit and related components to the existing piping and electrical systems. All patching and restoration work of the interior room finishes shall be part of this project, as required.

6. Boiler Stack:

The Consultant shall verify the condition of the existing stack and determine if it can be reused or if it needs to be replaced.

Determine the NJDEP emissions controls and monitoring requirements for the new boiler and provide a design for the same.

Prepare and submit an Air Quality Permit to the NJDEP for review and approval. Copies of the approved permit shall be submitted to the Manager of the DPMC Design & Code Review Unit for record. Fees shall be paid from the Consultant's Permit Allowance.

7. Boiler Controls & Systems:

The boiler shall have state of the art microprocessor based controls, panels, instrumentation, etc. and interfaced to all appropriate equipment and systems.

The boiler shall be tied into the emergency generator.

8. Construction Coordination:

The building will be occupied and will require the daily operation of the facility to be maintained at all times. All equipment demolition and installation procedures will have to be described in the design documents including, but not limited to: allowable utility shutdown and switchover durations, requirements for temporary bypass piping and isolation valves, temporary power and utility backup systems, phased construction milestone dates ensuring the heating equipment is installed during the appropriate season, etc.

9. Utility Coordination:

Utility shutdown and switchover schedule must be coordinated and approved by the Client Agency. This information shall be included in Division 1 of the specifications for Contractor reference during construction.

10. Boiler Training:

Require that the Contractor make provisions for a training session to the Client Agency Facility Engineers and other interested personnel to demonstrate the proper operation of the boiler, ancillary equipment, and controls. The Contractor shall use the boiler manufacturer's representative or approved representative to conduct the training session. The training time required shall be estimated by the Consultant and approved by the Client Agency.

Six (6) sets of drawings, equipment specifications, operating manuals, recommended spare parts lists, warranties, and all other relevant information shall be bound in a binder and forwarded to the DPMC Project Manager.

11. Boiler Spare Parts:

Identify and provide any manufacturer's recommended spare parts and special tools or instruments needed for the operation or maintenance of the equipment.

12. Warranty & Service Agreement:

The boiler manufacturer shall provide a five (5) year warranty against defects in materials and workmanship after the units are installed, tested, and approved.

The Consultant shall include provisions for a one (1) year extended maintenance agreement as part of the contract, including parts, labor and semi-annual testing. The costs for this agreement shall be paid in full as part of the contract at project closeout. Any maintenance agreement beyond one (1) year will be the responsibility of the Client Agency.

B. HAZARDOUS BUILDING MATERIALS

Consultant shall survey the building(s) and, if deemed necessary, collect samples of materials that will be impacted by the construction/demolition activities and analyze them for the presence of hazardous materials including:

- 1. Asbestos in accordance with N.J.A.C. 5:23-8, Asbestos Hazard Abatement Subcode.
- 2. Lead in accordance with N.J.A.C. 5:17, Lead Hazard Evaluation and Abatement Code.
- 3. PCB's in accordance with 40 CFR 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. Consultant shall engage a firm certified in the testing and analysis of materials containing PCB's.

Consultant shall document their procedure, process and findings and prepare a "Hazardous Materials Survey Report" identifying building components impacted by construction activities requiring hazardous materials abatement. Consultant shall provide three copies of the "Hazardous Materials Survey Report" to the Project Manager.

Consultant shall estimate the cost of hazardous materials sample collection, testing, analysis and preparation of the Hazardous Materials Survey Report and include that amount in their fee proposal line item entitled **"Hazardous Materials Testing and Report Allowance"**, refer to paragraph XI.B.

Based on the Hazardous Materials Survey Report, Consultant shall provide construction documents for abatement of the hazardous materials impacted by the work in accordance with the applicable code, subcode and Federal regulations.

Consultant shall estimate the cost to prepare construction documents for hazardous materials abatement and include that amount in their fee proposal line item entitled **"Hazardous Materials Abatement Design Allowance"**, refer to paragraph XI.C.

Consultant shall estimate the cost to provide "Construction Monitoring and Administration Services" for hazardous materials abatement activities and include that amount in their fee proposal line item entitled **"Hazardous Materials Construction Administration Allowance"**, refer to paragraph XI.D.

There shall be no "mark-up" of subconsultant or subcontractor fees if subconsultants or subcontractors are engaged to perform any of the work defined in paragraph VII.B "Hazardous Building Materials". All costs associated with managing, coordinating, observing and administrating subconsultants and subcontractors performing hazardous materials sampling, testing, analysis, report preparation, hazardous materials construction administration services shall be included in the consultant's lump sum fee proposal.

C. DESIGN MEETINGS & PRESENTATIONS

1. Design Meetings:

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: Contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

2. Design Presentations:

The minimum number of design presentations required for each phase of this project is identified below for reference:

Design Development Phase: One (1) oral presentation at phase completion.

Final Design Phase: One (1) oral presentation at phase completion.

D. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DPMC Project A0824-08: Closure, Removal, Replacement and Remediation of Underground Storage Tank Systems for the State of New Jersey, June 2000, URS Greiner Woodward Clyde
- DBC Project T0019-00: New Maintenance Facility, As-Built 9 Feb 1979, Hellmuth, Obata & Kassabaum, P.A.
- DBC Project T0254-01: Ventilation Improvements to NJDOT Repair Garages at Lafayette, 12/23/1992, Technical Associates, Inc.

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

VIII. PERMITS & APPROVALS

A. NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT

The project construction documents must comply with the latest adopted edition of the NJ Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

http://www.state.nj.us/dca/divisions/codes/codreg/

1. NJ Uniform Construction Code (NJUCC) Plan Review

Consultant shall estimate the cost of the NJUCC Plan Review by DCA and include that amount in their fee proposal line item entitled **"Plan Review and Permit Fee Allowance"**, refer to paragraph X.A.

Upon approval of the Final Design Phase Submission by DPMC, the Consultant shall submit the construction documents to the Department of Community Affairs (DCA), Bureau of Construction Project Review to secure a complete plan release.

As of July 25, 2022, the Department of Community Affairs (DCA) is only accepting digital signatures and seals issued from a third party certificate authority. The DCA ePlans site can be found at:

https://www.nj.gov/dca/divisions/codes/offices/ePlans.html

Procedures for submission to the DCA Plan Review Unit can be found at:

https://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_app_guide.pdf

Consultant shall complete the "Project Review Application" and include the following on Block 5 as the "Owner's Designated Agent Name":

Joyce Spitale, DPMC PO Box 235 Trenton, NJ 08625-0235 Joyce.Spitale@treas.nj.gov 609-943-5193

The Consultant shall complete the NJUCC "Plan Review Fee Schedule", determine the fee due and pay the NJUCC Plan Review fees, refer to Paragraph X.A.

The NJUCC "Plan Review Fee Schedule" can be found at:

http://www.state.nj.us/dca/divisions/codes/forms/pdf bcpr/pr fees.pdf

2. NJ Uniform Construction Code Permit

Upon receipt of a complete plan release from the DCA Bureau of Construction Project Review, the Consultant shall complete the NJUCC permit application and all applicable technical subcode sections. The "Agent Section" of the application and certification section of the building sub-code section shall be signed. These documents, with six (6) sets of DCA approved, signed and sealed construction documents shall be forwarded to the DPMC Project Manager. The Consultant may obtain copies of all NJUCC permit applications at the following website:

http://www.state.nj.us/dca/divisions/codes/forms/

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

3. Prior Approval Certification Letters:

The issuance of a construction permit for this project may be contingent upon acquiring various "prior approvals" as defined by N.J.A.C. 5:23-1.4. It is the Consultant's responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control, Water & Sewer Treatment Works Approval, Coastal Areas Facilities Review, Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B, Pinelands Commission, Highlands Council, Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D, Certification that all utilities have been disconnected from structures to be demolished, Board of Health Approval for Potable Water Wells, Health Department Approval for Septic Systems. It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

4. Multi-building or Multi-site Permits:

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

5. Special Inspections:

In accordance with the requirements of the New Jersey Uniform Construction Code N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

http://www.state.nj.us/dca/divisions/codes/publications/pdf_bulletins/b_03_5.pdf

a. Definition:

Special inspections are defined as an independent verification by a certified special inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the Contractor and responsible to the Consultant so that there is no possible conflict of interest.

Special inspectors shall be certified in accordance with the requirements in the New Jersey Uniform Construction Code.

b. Responsibilities:

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant's Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, **"Permit Fee Allowance."**

The Consultant may refer to the Division of Property Management and Construction "Procedures for Architects and Engineers Manual", Paragraph "9. **REGULATORY AGENCY APPROVALS**" which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

IX. ENERGY REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project qualify for approved rebates and incentives.

The Consultant shall review the programs available on the "New Jersey's Clean Energy Program" website at: <u>http://www.njcleanenergy.com</u> as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer's specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of the programs and utility companies to obtain the entitled financial incentives and rebates for this project.

All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

X. ALLOWANCES

A. PLAN REVIEW AND PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

1. Permits:

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

2. Permit Costs:

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJ Uniform Construction Code permit) and include that amount in its fee proposal line item entitled **"Plan Review and Permit Fee Allowance"**. A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJ Uniform Construction Code permit is excluded since it will be paid for by the State.

3. Applications:

The Consultant shall complete and submit all permit applications to the appropriate permitting authorities and the costs shall be paid from the Consultant's permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

4. Consultant Fee:

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal under the "Permit Phase" column.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

B. HAZARDOUS MATERIALS TESTING AND REPORT ALLOWANCE

Consultant shall estimate the costs to complete the hazardous materials survey, sample collection, testing and analysis and preparation of a "Hazardous Materials Survey Report" noted in paragraph VII.B.1 and enter that amount on their fee proposal line item entitled **"Hazardous Materials Testing and Report Allowance"**. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include, but not be limited to, the following information:

- Description of tasks and estimated cost for the following:
 - Sample collection
 - Sample testing
 - Preparation of an Hazardous Materials Survey Report

Any funds remaining in the Hazardous Materials Testing and Report Allowance will be returned to the State at the close of the project.

C. HAZARDOUS MATERIALS ABATEMENT DESIGN ALLOWANCE

Consultant shall estimate the costs to prepare construction documents for hazardous materials abatement noted in paragraph VII.B and enter that amount on their fee proposal line item entitled **"Hazardous Materials Abatement Design Allowance"**. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations.

The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

Any funds remaining in the Hazardous Materials Abatement Design Allowance will be returned to the State at the close of the project.

D. HAZARDOUS MATERIALS CONSTRUCTION ADMINISTRATION ALLOWANCE

Consultant shall estimate the cost to provide Construction Monitoring and Administration Services for hazardous materials abatement as noted in paragraph VII.B and enter that amount on their fee proposal line item entitled **"Hazardous Materials Construction Administration Allowance"**. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

Any funds remaining in the Hazardous Materials Construction Administration Allowance will be returned to the State at the close of the project.

XI. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The client agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW APPROVED BY: James Wright 11/13/2023 JAMES WRIGHT, MANAGER DATE **DPMC PROJECT PLANNING & INITIATION**

SOW APPROVED BY: Dennis W. Meszaros 11/14/2023

DENNIS MESZAROS, MANAGER DEPARTMENT OF TRANSPORTATION DATE

SOW APPROVED BY: Michael Ryon	11/14/2023
MICHAEL RYAN JR., PROJECT MANAGER	DATE
DPMC PROJECT MANAGEMENT GROUP	

SOW APPROVED BY:

11/14/23

CHRISTOPHER GEARY, ASST. DEPUTY DIRECTOR DATE **DIV PROPERTY MGT & CONSTRUCTION**

XII. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled "Procedures for Architects and Engineers," 3.0 Edition, dated September 2022 available at <u>https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf</u> for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the "Procedures for Architects and Engineers" are provided.

Note that the Deliverables Checklist may include submission items that are "S.O.W. Specific Requirements". These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as "Required by S.O.W" on the Deliverables Checklist:

- DESIGN DEVELOPMENT PHASE
- FINAL DESIGN PHASE
- PERMIT APPLICATION PHASE
- BIDDING AND CONTRACT AWARD
- CONSTRUCTION PHASE
- PROJECT CLOSE-OUT PHASE

XIII. EXHIBITS

- A. SAMPLE PROJECT SCHEDULE FORMAT
- B. PROJECT SITE LOCATION MAP
- C. PHOTOS

END OF SCOPE OF WORK

Deliverables Checklist Design Development Phase

A/E Name: _____

A/E Manual		Requi S.O	red by .W.		iously nitted	Encl	osed
Reference	Submission Item	Yes	No	Yes	No	Yes	No
14.4.1.	A/E Statement of Site Visit						
14.4.2.	Narrative Description of Project						
14.4.3.	Building Code Information Questionnaire						
14.4.4.	Space Analysis						
14.4.5.	Special Features						
14.4.6.	Catalog Cuts						
14.4.7.	Site Evaluation						
14.4.8.	Subsurface Investigation						
14.4.9.	Surveys						
14.4.10.	Arts Inclusion						
14.4.11.	Design Rendering						
14.4.12.	Regulatory Approvals						
14.4.13.	Utility Availability						
14.4.14.	Drawings (6 Sets)						
14.4.15.	Outline Specifications (6 Sets)						
14.4.16.	Current Working Estimate/Cost Analysis						
14.4.17.	Project Schedule						
14.4.18.	Formal Presentation						
14.4.19.	Plan Review/Scope of Work Compliance Statement						
14.4.20.	Design development Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements	·					

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Deliverables Checklist Final Design Phase

A/E Name: _____

A/E Manual		-	red by .W.		ously nitted	Encle	osed
Reference	Submission Item	Yes	No	Yes	No	Yes	No
15.4.1.	A/E Statement of Site Visit						
15.4.2.	Narrative Description of Project						
15.4.3.	Building Code Information Questionnaire						
15.4.4.	Space Analysis						
15.4.5.	Special Features						
15.4.6.	Catalog Cuts						
15.4.7.	Site Evaluation						
15.4.8.	Subsurface Investigation						
15.4.9.	Surveys						
15.4.10.	Arts Inclusion						
15.4.11.	Design Rendering						
15.4.12.	Regulatory Approvals						
15.4.13.	Utility Availability						
15.4.14.	Drawings (6 Sets)						
15.4.15.	Outline Specifications (6 Sets)						
15.4.16.	Current Working Estimate/Cost Analysis						
15.4.17.	Project Schedule						
15.4.18.	Formal Presentation						
15.4.19.	Plan Review/Scope of Work Compliance Statement						
15.4.20.	Final Design Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements		1			1	1

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Deliverables Checklist Permit Application Phase

A/E Name: _____

A/E Manual		Required by S.O.W.				Previously Submitted		Enclosed	
Reference	Submission Item	Yes	No	Yes	No	Yes	No		
16.1.	N.J. UCC Permit Application								
16.4.	Drawings, Signed and Sealed (6 Sets)								
16.5.	Specifications, Signed and Sealed (6 Sets)								
16.6.	Current Working Estimate/Cost Analysis								
16.7.	Project Schedule								
16.8.	Plan Review/Scope of Work Compliance Statement								
16.9.	Permit Application Phase Deliverables Checklist								
S.O.W. Reference	S.O.W. Specific Requirements			1		I			
Reference									
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This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC Project Manager the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

Deliverables Checklist Bidding and Contract Award Phase

A/E Name: _____

A/E Manual		Requi S.O	-	Previ Subm	ously nitted	Encl	osed
Reference	Submission Item	Yes	No	Yes	No	Yes	No
17.1.1.	Notice of Advertising						
17.1.2.	Bid Proposal Form						
17.1.3.	Bid Clearance Form						
17.1.4.	Drawings (6 Sets)						
17.1.5.	Specifications (6 Sets)						
17.1.6.	Construction Schedule						
17.3	Pre-Bid Conference/Mandatory Site Visit						
17.3.1.	Meeting Minutes						
17.4	Bulletins						
17.5	Post Bid Meeting						
17.6.	Contract Award "Letter of Recommendation"						
17.8.	Bid Protests - Hearings						
17.9.	Bidding and Contract Award Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements	-					
		+					
		+					

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

Deliverables Checklist Construction Phase

A/E I	Name:
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A/E Manual			red by .W.		ously nitted	Encle	osed
Reference	Submission Item	Yes	No	Yes	No	Yes	No
18.2.	Pre-Construction Meeting						
18.3.	Submittal Log						
18.4.	Construction Schedule						
18.5.	Project Progress Meetings						
18.7.	Contractor's Invoicing and Payment Process						
18.8.	Contractor Submittals						
18.10.	Testing						
18.11.	Shop Drawings (6 Sets)						
18.12.	As-Built & Record Set Drawings (6 Sets)						
18.13.	Change Orders						
18.14.	Construction Photographs						
18.15.	Field Observations						
18.17.	Construction Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements	·					
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This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Deliverables Checklist Project Close-Out Phase

A/E Manual			red by .W.		ously nitted	Encle	osed
Reference	Submission Item	Yes	No	Yes	No	Yes	No
19.3.	Development of Punch List and Inspection						
	Reports						
19.5.	Determination of Substantial Completion						
19.6.	Correction/Completion of Punch List						
19.7.	Submission of Close-Out Documentation						
19.7.1.	As-Built and Record Sets of Drawing (6 Sets)						
19.8.	Final Payment						
19.9.1.	Contractors Final Payment						
19.9.2.	A/E's Final Payment						
19.10.	Project Close-Out Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
		1					
		1			İ		

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

A/E Name: ______

Date

February 7, 1997 **Rev.**: January 29, 2002

Responsible Group Code Table

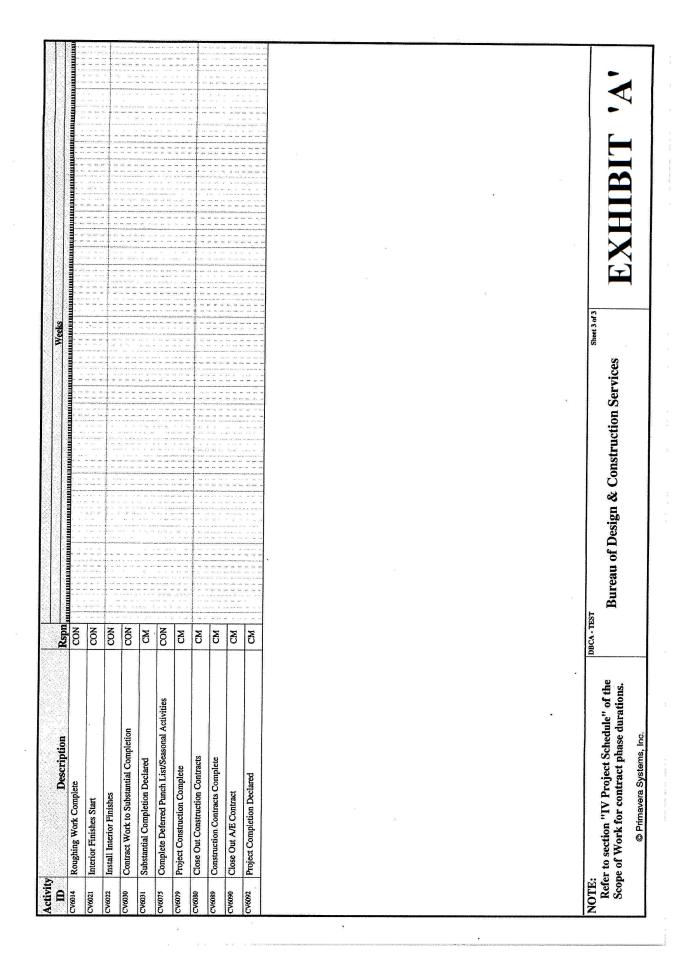
The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

CODE	DESCRIPTION	REPORTS TO ASSOCIATE DIRECTOR OF:
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

APROJ> Design Design CV3001 Schedule/Conduct Predesign/Project Kick-Off Mig. CV3020 Prepare Program Phase Submittal CV3021 Distribute Program Submittal for Review CV3021 Distribute Program Submittal for Review CV3022 Prepare & Submit Project Cost Analysis (DPMC-38) CV3023 Review & Approve Program Submittal CV3024 Review & Approve Program Submittal		
Schedule/Conduct Predesign/Project Kick-Off Mtg. Prepare Program Phase Submittal Distribute Program Submittal for Review Prepare & Submit Project Cost Analysis (DPMC-38) Review & Approve Program Submittal Review & Approve Program Submittal Review & Approve Program Submittal		
Schedule/Conduct Predesign/Project Kick-Off Mtg. Prepare Program Phase Submittal Distribute Program Submittal for Review Prepare & Submit Pròject Cost Analysis (DPMC-38) Review & Approve Program Submittal Review & Approve Program Submittal Review & Approve Program Submittal		
Prepare Program Phase Submittal Distribute Program Submittal for Review Prepare & Submit Project Cost Analysis (DPMC-38) Review & Approve Program Submittal		
Distribute Program Submittal for Review Prepare & Submit Pròject Cost Analysis (DPMC-38) Review & Approve Program Submittal Review & Approve Program Submittal Review & Approve Program Submittal		
Prepare & Submit Pròject Cost Analysis (DPMC-38) Review & Approve Program Submittal Review & Approve Program Submittal Review & Approve Program Submittal		
Review & Approve Program Submittal Review & Approve Program Submittal Review & Approve Program Submittal		
Review & Approve Program Submittal Review & Approve Program Submittal		
Review & Approve Program Submittal		
CV3025 Consolidate & Return Program Submittal Comments CM		
CV3030 Prepare Schematic Phase Submittal AE		
CV3031 Distribute Schematic Submittal for Review CM		
CV3037 Prepare & Submit Project Cost Analysis (DPMC-38) CM		
CV3032 Review & Approve Schematic Submittal CA		
CV3033 Review & Approve Schematic Submittal PR		
CV3034 Review & Approve Schematic Submittal CM		
CV3035 Consolidate & Return Schematic Submittal Comment CM		
CV3040 Prepare Design Development Phase Submittal AE		
CV3041 Distribute D. D. Submittal for Review CM		
CV3047 Prepare & Submit Project Cost Analysis (DPMC-38) CM		
CV3042 Review & Approve Design Development Submittal CA		
CV3043 Review & Approve Design Development Submittal PR		
CV3044 Review & Approve Design Development Submittal CM		
CV3045 Consolidate & Return D.D. Submittal Comments CM		
CV3050 Prepare Final Design Phase Submittal AE		
CV3051 Distribute Final Design Submittal for Review CM		
CV3052 Review & Approve Final Design Submittal CA		
CV3053 Review & Approve Final Design Submittal PR		
CV3054 Review Final Design Submitt for Constructability OCS		
NOTE: DBCA. TEST Refer to section "IV Project Schedule" of the	Bureau of Design & Construction Services	
Scope of Mork for Collitact pliase durations.	LA L	HIBII A

	D Description	Rspn	Weeks				
	Review & Approve Final Design Submittal	CM					(SILEN IN
	Consolidate & Return Final Design Comments						
	Prepare & Submit Permit Application Documents	AB					
CV3068	Prepare & Submit Bidding Cost Analysis (DPMC-38)	CM					
Plan Re	Plan Review-Permit Acquisition						
CV4001	Review Constr. Documents & Secure UCC Permit	K			· · · ·		
CV4010	Provide Funding for Construction Contracts	CA			· · · · · · · · · · · · · · · · · · ·		
CV4020	Secure Bid Clearance	S					
Advertis	Advertise-Bid-Award						
CV5001	Advertise Project & Bid Construction Contracts	B					
CV5010	Open Construction Bids	Ð					
CV5011	Evaluate Bids & Prep. Recommendation for Award	ß					
1	Evaluate Bids & Prep. Recommendation for Award						
CV5014	Complete Recommendation for Award						
CV5020	Award Construction Contracts/Issue NTP	A					
Construction	ction						
CV6000	Project Construction Start/Issue NTP	<u>S</u>					
CV6001	Contract Start/Contract Work (25%) Complete						
	Preconstruction Meeting	CM					
CV6003	Begin Preconstruction Submittals						
	Longest Lead Procurement Item Ordered	CON					
	Lead Time for Longest Lead Procurement Item						
CV6006	Prepare & Submit Shop Drawings	CON					
CV6007	Complete Construction Submittals	CON					
CV6011	Roughing Work Start	S					
CV6012	Perform Roughing Work	CON					
CV6010	Contract Work (50%+) Complete	CON					
CV6013	Longest Lead Procurement Item Delivered	CON					
CV6020	Contract Work (75%) Complete	CON					
NOTE		DBCA - TEST	Set 2 State			2 - 2 - 2 - 3	
Refe. Scop	Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.	Bureau of Design & Construction Services		ЕX			· V ·
	C Drimavera Systems Inc						





Project Site Location Map NJDOT Lafayette Maintenance Facility EXHIBIT 'B'



View of access door to mechanical room at DOT Lafayette Maintenance Facility.



View from access door. Natural gas line available in road (Route 94).

EXHIBIT 'C'



Mechanical room is on the left.



Boiler just inside of door to mechanical room.

EXHIBIT 'C'

EXHIBIT 'C'

More boiler photos.







Door to the outside is to the right in photo.



Exhaust stack and various piping connections.

EXHIBIT 'C'



Boiler exhaust stack.

Ð	MAX. W.P. STEAN	A 15 PSI R 50 PSI	CERTIFIED BY		
	MIN RELIEF VALVE CA			NET I=B=R	
9		ES	GROSS OUTPUT	TU	MB
	INPUT GAS 2396 MBH	он 16 б. срн	n ann ag an	/ WATER 1855 /	мвн 50-430-777

Boiler data plate.

EXHIBIT 'C'