

Delaware River Basin Commission

25 Cosey Road
P.O. Box 7360
West Trenton, New Jersey 08628-0360
Phone: (609)883-9500 Fax: (609)883-9522

Steven J. Tambini
Executive Director

REQUEST FOR PROPOSALS (RFP)

**COMMISSION OFFICE CEILING TILE ASBESTOS ABATEMENT
AND REPLACEMENT PROJECT**

INFORMATION AND INSTRUCTIONS

1. BACKGROUND

The Delaware River Basin Commission ("Owner," "DRBC," or "Commission") is seeking a qualified contractor to provide ceiling tile asbestos abatement and replacement in the Commission's office building in West Trenton, New Jersey.

Any changes to this RFP will be in the form of an addendum, which will be posted on the Commission's website, www.drbc.gov.

The successful contractor will be selected based upon responsive Proposals received during the procurement process.

The DRBC reserves the right to reject any or all submittals and to be the sole judge of the merits of the respective submittals received.

All bidders are required to attend a mandatory pre-bid meeting and site walk-through at the Commission's office building in West Trenton, New Jersey, on Thursday, September 28, 2023, at 8:00 a.m. Eastern Time. The Owner will provide a ladder, as needed; please bring any other tools you need to fully visualize the job.

Technical questions should be directed to Kristen Bowman Kavanagh, PE, at 609-414-3302 or kristen.b.kavanagh@drbc.gov.

2. REQUIRED QUALIFICATIONS

Bidders must have a minimum of three (3) years of experience in asbestos abatement and shall be certified and licensed by the New Jersey Department of Labor. Additionally, the selected contractor shall have successfully completed at least three (3) projects of similar or larger size and dollar value to this project and shall not have defaulted on an asbestos abatement project within the last three (3) years. The selected contractor will work directly with the Commission's consultant, Accredited Environmental Technologies, Inc. ("AET," or "Environmental Consultant"), to complete the asbestos abatement and ceiling tile replacement project.

3. PROJECT SCOPE

The Commission's Environmental Consultant, AET, will oversee the selected contractor's removal of asbestos-containing ceiling tiles from the Commission's West Trenton, New Jersey office building, and replacement of such ceiling tiles with non-asbestos-containing ceiling tiles (the "Project").

The selected contractor will be responsible for ascertaining the extent, nature and location of the work and general and local conditions that may affect its completion, including, but not limited to, the need to work around existing office furniture, as well as the cost and timing of the work. Any failure by the selected contractor to properly ascertain relevant information will not relieve the contractor from the responsibility for successfully completing the Project without additional expense to the Commission or AET.

To assist potential bidders in responding to this RFP, the following reference documents are attached and incorporated in their entirety into this RFP. Unless otherwise noted, each was prepared by AET:

- Attachment A – Asbestos bulk sampling report for the project, dated November 2022;
- Attachment B – Environmental remediation and ceiling tile replacement specifications and scopes of work for the Project;
- Attachment C – Environmental remediation scope drawings; and
- Attachment D – Contractor Insurance Requirements (prepared by DRBC).

Additional Project information and requirements:

- Smoke and Carbon Monoxide (CO) Alarms – Isolation of smoke and CO alarms will be handled by the Owner, with zoning and phasing of work to be reviewed prior to project mobilization.
- Metal Suspension Systems – The existing metal suspension systems are believed not to require replacement. All metal suspension systems must be wiped clean after abatement.
- Main Lobby – The building's Main Lobby is located at the east building entrance. The rectangular ceiling tiles (2 ft x 4 ft) in the Main Lobby require abatement and replacement as part of the Project. The square ceiling tiles (2 ft x 2 ft) in the Main Lobby do not require abatement or replacement and are not part of the Project.
- Permits – The selected contractor will be responsible for obtaining any necessary permits; permit fees will be reimbursed by Owner at cost.

Proposals must also consider the following phasing/staging needs, and work in the associated areas must be scheduled in advance with the Commission and AET for accessibility. See the drawings in Attachment C for room locations.

- Server Room – The computer servers in the Server Room must be in continuous operation and cannot be relocated during the project. The Server Room is controlled by a dedicated heating and cooling system (*i.e.*, a "mini split"), and the room must remain accessible in the event of physical, cyber-security or other emergencies. Abatement and replacement of the ceiling tiles in the Server Room must be planned and staged in a manner that avoids equipment damage, limits the duration of inaccessibility, and avoids excessively cold (less than 60°F) or hot (greater than 80°F) temperatures that could damage the equipment. The

Owner will maintain a remote thermometer in the Server Room to monitor temperatures during the Project.

- Goddard Conference Room – The Goddard Conference Room (“Goddard Room”) is located adjacent to the building’s Main Lobby and is normally accessed through double doors leading from the Goddard Room into the lobby. The Goddard Room can also be accessed via a single door connected to a small vestibule that leads to the adjacent parking lot (via a single exterior door) and to a storage closet (via a single door into a storage space with access to the building’s main south hallway). The Goddard Room is served by a dedicated heating and cooling system. Abatement and replacement of the ceiling tiles in the Goddard Room are *not* part of the scope of work of the Project; however, as detailed above, abatement and replacement of certain ceiling tiles in the Main Lobby are part of the scope of work of the Project. The Goddard Room must remain accessible to Commission staff via the double doors between the Goddard Room and the Main Lobby, and a minimum 4 ft wide access from these doors to and through the building’s main entrance must be maintained. Access to the Goddard Room through the Main Lobby may not be inhibited for more than two (2) days total during the Project. The exterior door between the parking lot and the small vestibule accessible from the Goddard Room must remain clear for the duration of the Project, and the Goddard Room must *always* be safe for occupancy by Commission staff throughout the duration of the Project.

4. COST/PAYMENT TERMS

The selected firm will be paid based upon the total lump sum amount in the agreement and according to the following payment schedule: 30% upon delivery of materials, 30% upon completion of abatement, 30% upon completion of carpentry, and 10% upon final approval of Owner. The total project budget may not be exceeded without prior written authorization by the Commission.

5. AGREEMENT TERMS

In accordance with Section 15.1(i) of the Delaware River Basin Compact, all laborers and mechanics employed by Contractor or any subcontractor in connection with this project must be paid wages at rates not less than those prevailing in the area for the type of work to be performed as determined by the United States Secretary of Labor, and all such workers must receive compensation at a rate of not less than one and one-half times their basic rate of pay for all hours worked in any work week in excess of eight hours in any work day or forty hours in any work week.

The selected contractor must comply with all applicable provisions of State and Federal laws.

The Commission intends to enter into an agreement with the selected contractor that is substantially similar to the American Institute of Architect’s standard agreement A105-2017 and which incorporates the above requirements, the payment terms described in Section 4, and the insurance requirements in Attachment D.

6. SUBMITTAL REQUIREMENTS/ PROPOSAL CONTENTS

All bidders are required to attend a mandatory pre-bid meeting and site walk-through at the Commission’s office building in West Trenton, New Jersey, on Thursday, September 28, 2023, at

8:00 a.m. Eastern Time. The Owner will provide a ladder, as needed; please bring any other tools you need to fully visualize the job.

Each bidder must submit a Proposal and a *separate* Cost Proposal.

Proposal

The Proposal must include the following:

- Summary of relevant firm experience regarding asbestos abatement and ceiling tile removal and replacement, including three (3) recent examples of projects of similar or larger size and dollar value to this Project. Additionally, the bidder must clearly state in the proposal that they have the required number of years of experience and are certified and licensed by the New Jersey Department of Labor.
- Statement that the contractor has not defaulted on an asbestos abatement project within the last three (3) years.
- Statement that the contractor will comply with the specifications and conditions in this RFP.
- Statement that the contractor will meet the minimum insurance requirements detailed in Attachment D.
- Proposed schedule of completion, including an expected total timeframe of the period of performance and the expected staffing per shift for abatement and carpentry services for the Project.
- Any exceptions to the scope of the work as described in Section 3 of this RFP, Attachment B, or the above requirements must be clearly described in the Proposal.
- Identification and contact information for a point of contact for the bidder.

Cost Proposal

The Cost Proposal must include the following:

- Proposed lump sum, not-to-exceed cost for all elements of completing the Project (excluding permit fees) as described in this RFP and the accompanying attachments, including, but not necessarily limited to, time for all required personnel, equipment, and materials.
- Statement that the proposed not-to-exceed lump sum cost represents the total price the bidder offers to complete the Project according to this RFP and any subsequent addendums.
- Standard rate schedule for potential overages covering labor, materials, and other miscellaneous costs reasonably foreseeable to arise in connection with the Project.
- Standard unit rates for additional work not contemplated in this RFP, including, but not limited to: re-mobilization/demobilization and abatement via removal and replacement of any asbestos-containing pipe insulation or mastic.

There is no page minimum or page limit in responding to this RFP. However, submittals should be efficient and brief. Any requested terms, conditions, or qualifications for the Commission to accept a Proposal or Cost Proposal submittal should be noted. Any alternative recommendations as to how

fees for the services to be performed should be structured to achieve the Project objectives should be included in the submittal.

7. PERIOD OF PERFORMANCE

The selected contractor will commence work on the Project within ten (10) business days of execution of the agreement between the Commission and the contractor, with the work presently expected to begin on or around November 2, 2023, unless the Commission agrees to a later commencement date. Once commenced, the Project should be completed within the schedule of completion stated in the agreement. The agreement may be modified by mutual agreement in writing (including by email) to provide for additional time to complete the Project if required.

8. SUBMITTAL INSTRUCTIONS

Proposal

Interested bidders should send an electronic (PDF) file of their Proposal (*excluding* Cost Proposal) that includes the requirements outlined in Section 6 – Proposal via email to: DRBC.Proposals@drbc.gov.

Cost Proposal

The Cost Proposal, including the requirements outlined in Section 6 – Cost Proposal, should be submitted in hard copy only, in a sealed envelope clearly marked "Cost Proposal" and addressed to:

Elba Deck, Director of Finance and Administration
Delaware River Basin Commission
25 Cosey Road
West Trenton, NJ 08628

Deadline

Proposals – both the emailed Proposal (PDF format) and sealed Cost Proposal (hard copy) – must be received no later than 4:00 p.m. Eastern Time, on Thursday, October 5, 2023. Proposals received after this time will not be considered. The Commission reserves the right to reject any submittal for any reason.

9. PROPOSAL SELECTION AND AWARD PROCESS

Proposals will be evaluated by a committee comprised of DRBC staff members and the Environmental Consultant. Evaluation committee members may not speak with bidder representatives regarding pending proposals submitted in response to this RFP between the time of submission and the Commission's selection of a bidder.

Accepted proposals will be reviewed by the evaluation committee and scored against stated criteria. The committee may review references, request interviews/presentations (on-site or virtual), or request demonstrations or additional details. The resulting information will be used to score the proposals. The evaluation committee's scoring will be tabulated, and proposals ranked based on the numerical scores received. The proposals will be scored using the following criteria:

Description	Points
Contractor Qualifications	30
Project Proposal	20
Cost Proposal	20
Proposed Schedule of Completion	30
Total	100

10. LIST OF ATTACHMENTS

- A. Asbestos bulk sampling report for the project, dated November 2022 (by AET).
- B. Environmental remediation and ceiling tile replacement specifications and scopes of work for the project (by AET).
- C. Environmental remediation scope drawings (by AET).
- D. Contractor insurance requirements (by DRBC).

Attachment A

Asbestos Bulk Sampling Report

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Accredited Environmental Technologies, Inc.

November 8, 2022

Ms. Kristen Kavanagh
Deputy Executive Director
Delaware River Basin Commission
PO Box 7360, 25 Cosey Road
West Trenton, NJ 08628

sent via email: Kristen.b.kavanagh@drbc.gov

RE: Asbestos Bulk Sampling Report
25 Cosey Rd, West Trenton, NJ 08628
AET Project #: 10-22-14738

Dear Ms. Kavanagh,

This letter report is to document the results of asbestos bulk sampling conducted by Accredited Environmental Technologies, Inc. (AET) at the above referenced location. Sample collection was conducted on 10/28/22 to confirm/dismiss the presence of Asbestos Containing Material (ACM) on client designated materials only, at the property located at 25 Cosey Road in West Trenton, NJ.

A total of **seventeen (17) samples** were identified for sample analysis based on planned work activities and client delineated sample locations (in six (6) homogenous areas). Samples were collected by penetrating the material to its applied substrate. Each sample was placed in individual sealed containers and labeled with an identifying code. Material description along with sample location was incorporated into a sampling log and chain of custody for each sample was documented.

Results of the sampling identified the following:

1. Smooth fissure 2x4 associated with homogeneous area sample number 2 was found to contain trace amounts of ACM. These materials are classified as non-regulated asbestos containing materials in accordance with the State of New Jersey and EPA NESHAP regulations. These materials would be specifically regulated under OSHA's Asbestos Construction Standard 29 CFR 1926.1101.
2. Deep fissure 2x4 associated with homogeneous area sample number 4 was found to contain trace amounts of ACM. These materials are classified as non-regulated asbestos containing materials in accordance with the State of New Jersey and EPA NESHAP regulations. These materials would be specifically regulated under OSHA's Asbestos Construction Standard 29 CFR 1926.1101.

Specific sample locations along with results can be found on the attached tables.

BRANCH OFFICES

BRIDGEWATER, NJ
LECANTO, FL

CORPORATE OFFICE

28 N. Pennell Rd., Media, PA 19063
1-800-9696-AET / (610) 891-0114
FAX (610) 891-0559
www.aetinc.biz

SERVICE OFFICES

PITTSBURGH, PA
WILMINGTON, NC

Nationwide Environmental Services

Accredited Environmental Technologies, Inc.

Conclusion: Asbestos containing materials were identified within the planned work area locations. Prior to disturbance, these materials should require removal by trained licensed workers utilizing specific work practices in accordance with EPA, State of New Jersey and OSHA asbestos regulations.

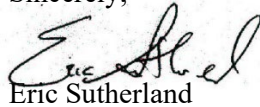
Sample analysis was performed by Polarized Light Microscopy in accordance with EPA Method 600/R-93/116 at EMSL Analytical Laboratory in Cinnaminson, New Jersey.

Reliance: This report has been prepared for the exclusive use of the Delaware River Basin Commission (Client). AET's findings, conclusions and recommendations contained herein are AET's best judgement and decision-making for the completion of AET's/Client agreed upon scope of services (project intent) based on visual observations and testing data available at the time of site reconnaissance.

This report is inclusive of reported factual information provided by the client and others regarding past/present site conditions including specific health-related concerns or complaints. AET does not warrant against such inaccuracies or information/facts not fully disclosed to AET. Any use of this report by a third party is at the party's sole risk. Every report has site specific restrictions/limitations which may require interpretation or clarification. AET welcomes such inquiries and prompt response will be provided with client approval. Contact AET at 610-891-0114 and reference the project number.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Sutherland", is written over a light gray rectangular background.

Eric Sutherland
Vice President

attachments



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042227106

Customer ID: ACCR50

Customer PO: 14738

Project ID:

Attention: Eric Sutherland

Accredited Environmental Tech (AET)

28 North Pennell Road

Media, PA 19063

Phone: (610) 891-0114

Fax: (610) 891-0559

Received Date: 10/28/2022 2:20 PM

Analysis Date: 11/02/2022

Collected Date:

Project: 14738 - Delaware River Basin Commission

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1A 042227106-0001	Lobby Center - 2x2 Rough Fissure	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
2A 042227106-0002	Lobby Center - 2x4 Smooth Fissure	Gray/White/Pink Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	<1% Amosite <1% Chrysotile
2B 042227106-0003	Corridor 137 East - 2x4 Smooth Fissure	Gray/White/Pink Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	<1% Amosite <1% Chrysotile
2C 042227106-0004	Room 128 - 2x4 Smooth Fissure	Gray/White Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	None Detected
2D 042227106-0005	Library - 2x4 Smooth Fissure	Gray/White/Pink Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (Other)	<1% Amosite <1% Chrysotile
2E 042227106-0006	Hallway Outside Of Room 113 - 2x4 Smooth Fissure	Gray/White/Pink Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	<1% Amosite <1% Chrysotile
3A 042227106-0007	Room 173 - 2x2 Drywall	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
4A 042227106-0008	Hallway Outside Of Room 170 - 2x4 Deep Fissure	Gray/White Fibrous Homogeneous	20% Cellulose 65% Min. Wool	15% Non-fibrous (Other)	None Detected
4B 042227106-0009	Room 164 - 2x4 Deep Fissure	Gray/White/Pink Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (Other)	<1% Chrysotile
4C 042227106-0010	Room 145 - 2x4 Deep Fissure	Gray/White/Pink Fibrous Homogeneous	70% Min. Wool	30% Non-fibrous (Other)	<1% Chrysotile
4D 042227106-0011	Room 129 - 2x4 Deep Fissure	Gray/White/Pink Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	<1% Chrysotile
4E 042227106-0012	Room 106 - 2x4 Deep Fissure	Gray/White/Pink Fibrous Homogeneous	65% Min. Wool	35% Non-fibrous (Other)	<1% Chrysotile
5A 042227106-0013	Hallway Outside Of Room 172 - 2x4 Smooth Horizontal Fissure	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
5B 042227106-0014	Room 158 - 2x4 Smooth Horizontal Fissure	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
5C 042227106-0015	Library - 2x4 Smooth Horizontal Fissure	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
6A 042227106-0016	Room 167 - 2x4 Dotted	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected

Initial report from: 11/02/2022 11:47:32



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042227106

Customer ID: ACCR50

Customer PO: 14738

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
6B	Lunch Room - 2x4	Gray/White	50% Cellulose	20% Non-fibrous (Other)	None Detected
	Dotted	Fibrous	30% Min. Wool		
042227106-0017		Homogeneous			

Analyst(s)

Christopher Ratcliffe (13)

Michelle Quach (4)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 11/02/2022 11:47:32

Accredited Environmental Technologies, Inc.

PHOTO LOG

CLIENT: DELAWARE RIVER BASIN COMMISSION

AET PROJECT #: 10-22-14738

LOCATION: 25 COSEY DRIVE
WEST TRENTON, NJ



DRBC – 2x4 Dotted (HA#6)



DRBC – 2x4 Smooth, Horizontal Fissure (HA#5)

Accredited Environmental Technologies, Inc.

PHOTO LOG

CLIENT: DELAWARE RIVER BASIN COMMISSION

AET PROJECT #: 10-22-14738

LOCATION: 25 COSEY DRIVE
WEST TRENTON, NJ



DRBC – 2x4 Deep Fissure (HA#4)



DRBC – 2x4 Smooth Fissure (HA#2)

Accredited Environmental Technologies, Inc.

PHOTO LOG

CLIENT: DELAWARE RIVER BASIN COMMISSION

AET PROJECT #: 10-22-14738

LOCATION: 25 COSEY DRIVE
WEST TRENTON, NJ



DRBC – 2x2 Rough Fissure (HA#1)



DRBC – 2x2 Drywall Ceiling Tile (HA#3)

Attachment B

Environmental Remediation and Ceiling Tile Replacement Specifications and Scopes of Work

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Accredited Environmental Technologies, Inc.

EXISTING HAZARDOUS/REGULATED MATERIALS INFORMATION

DELAWARE RIVER BASIN COMMISSION – 25 COSEY ROAD, WEST TRENTON, NEW JERSEY **ENVIRONMENTAL REMEDIATION AND CEILING TILE REPLACEMENT SPECIFICATIONS AND** **SCOPES OF WORK**

PART 1 – GENERAL TERMS & REGULATIONS

1.00 GENERAL

- A. This document and its referenced specifications and drawings are included in the Request for Proposal (RFP) for Project as they provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations.

They are made available for Bidders' convenience and information and are not a warranty of existing conditions. All Bidders will receive the following reference documents:

- 1) An asbestos bulk sampling report for the Project, prepared by Accredited Environmental Technologies Inc., dated November 2022, is included as Attachment A of the RFP.
 - 2) Environmental remediation scope drawings are included as part of the drawing set as Attachment C of the RFP, prepared by Accredited Environmental Technologies Inc.
- B. Contractor shall be responsible for ascertaining the extent, nature and location of the work and the general and local conditions which can or shall affect the work, the cost or timing thereof. Any failure by Contractor to do so shall not relieve Contractor from the responsibility for successfully performing the work without additional expense to AET and/or Owner.
- C. Contract period anticipated to commence during October 2023, but is subject to change.

1.01 REGULATIONS

- A. Regulations and general terms listed within this section shall reference mandatory and applicable federal, state and local regulations relating to the procedures during impact, removal, control actions and other required actions required for the successful completion of the project regarding regulated and hazardous materials. Deviations from the listed regulations shall require approval from the enforcing regulatory agency, AET and Delaware River Basin Commission. Associated regulations, standards, laws and site references cited herein have further technical guidance for performance of the work listed herein and shall be required for the successful completion of the project.

Accredited Environmental Technologies, Inc.

- B. Regulations cited herein are not inclusive. The Contractor shall be fully responsible to comply with all applicable federal, state and local regulations, standards, laws and ordinances in the performance and completion of the required work.

1.02 DEFINITIONS & TERMINOLOGY

- A. **Amended Water:** Water containing a wetting agent of surfactant.
- B. **Area Monitoring:** Stationary air sampling within the work area and outside the work area which is representative of the airborne concentrations which may reach the breathing zone.
- C. **Asbestos:** A class of magnesium silicate minerals that occur in fibrous form. Minerals that are included in this group are chrysotile, crocidolite, amosite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos. For the purpose of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.
- D. **Asbestos Abatement Contractor (Contractor):** Any person or entity who contracts with the Bidder to perform the asbestos abatement project. Asbestos Abatement Contractor is responsible for the proper completion of project activities in accordance with the contract specifications. This includes all subcontractors that have been retained to perform the actual abatement work.
- E. **Asbestos Containing Material (ACM):** Material composed of asbestos of any type and in any amount, either alone or mixed with other fibrous or non-fibrous materials.
- F. **Asbestos Project:** Any activity involving the removal, enclosure, or encapsulation of asbestos materials or any renovation, repair or demolition which disturbs asbestos materials.
- G. **Asbestos Waste Material:** Any material which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.
- H. **Class I Asbestos Work:** means activities involving the removal of TSI and surfacing ACM and PACM
- I. **Class II Asbestos Work:** means activities involving the removal of ACM which is not TSI or surfacing material. This includes, but not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.
- J. **Class III Asbestos Work:** means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.
- K. **Class IV Asbestos Work:** means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities
- L. **Clean Room:** An uncontaminated area or room which is part of the worker decontamination enclosure system, with provisions for storage of workers' street clothes and protective equipment. Also known as the "Change Room."

Accredited Environmental Technologies, Inc.

- M. **Containment Construction Materials:** Approved noncombustible or flame-resistant materials used in the construction of temporary enclosures. Fabrics and plastic films shall be certified to conform to National Fire Protection Association (NFPA) Standard 701, "Standard Methods of Fire Tests for Flame-Resistant Textiles and Films."
- N. **Curtained Doorway:** A device to allow ingress and egress from one room to another while minimizing air movement between the rooms. Typically constructed by placing three (3) overlapping sheets of plastic over an existing or temporarily framed doorway and securing each along the top of the doorway, with the vertical edge of one along one vertical side of the doorway, and the vertical edge of the other along the opposite vertical side. Two curtained doorways spaced in a minimum of three feet apart for an airlock.
- O. **Decontamination Enclosure System:** An enclosed area adjacent and connected to the work area and consisting of a series of connected rooms, with curtained doorways (i.e. equipment room, shower area, and clean room) which is used for decontamination of workers, materials, and equipment. A decontamination enclosure system always contains airlocks/curtained doorways.
- P. **Demolition Contractor/Lead Abatement Contractor:** The Contractor of record responsible for the work. The Contractor shall maintain OSHA trained employees relating to lead or be an EPA RRP firm working with a Certified Lead Renovator and Non-Certified Lead Renovation Workers with training (as applicable to the standard). The Contractor is responsible for providing the Certified Lead Renovator and Non-Certified Lead Renovation Workers with training as part of the work.
- Q. **Disposal Bag:** Six (6) mil thick leak-tight plastic bags used for transporting regulated waste from the work area to the disposal site.
- R. **Encapsulate:** The process whereby an encapsulant is applied to ACM to control the release of asbestos fibers into the air.
- S. **Encapsulant (Sealant):** A liquid material which can be applied to ACM and which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- T. **Enclosure:** The construction of an airtight, impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.
- U. **Environmental Consultant:** Shall refer to Accredited Environmental Technologies, Inc. (AET).
- V. **Equipment Decontamination Enclosure System:** A decontamination enclosure system for materials and equipment, typically consisting of a designated area of the work area, a washroom, and an uncontaminated area.
- W. **Equipment Room:** A contaminated area or room which is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment. See Decontamination Enclosure System.
- X. **Friable Asbestos Material:** Material that contains greater than or equal to one (1) percent asbestos by weight (for the purposes of this project) which can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

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- Y. **Glove bag:** A single use bag (typically constructed of six (6) mil thick transparent polyethylene or polyvinylchloride plastic) with two inward projecting long sleeve gloves, which are designed to enclose an object from which an asbestos containing material is to be removed.
- Z. **HEPA Filtered Equipment:** High Efficiency Particulate Air (HEPA) filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining asbestos fibers. Filters shall be of 99.97 percent efficiency for retaining 0.3 micrometer diameter particles.
- AA. **Industrial Hygienist (IH):** An individual who will provide independent oversight and monitoring of the asbestos project and serves as the Owner's on-site representative.
- BB. **Lockdown:** A procedure whereby the surface of an asbestos work area is coated with latex paint or other suitable sealant, using an airless sprayer, after successful completion of the visual clearance from the industrial hygienist, to fix in place and render non-friable, any microscopic (non-visible) asbestos material that may remain.
- CC. **Mastic Remover (Chemical):** A low odor, chemical base, solvent used for the removal of adhesive mastics. All mastic remover must be low odor and pre-approved by the Environmental Consultant prior to the initiation of the project. The Contractor shall be responsible for complete cleaning of any residual mastic remover chemical, odor along with any lingering effects.
- DD. **Medical Examinations:** Examinations whose content is consistent with 29 CFR 1926.1101. This examination is not required if adequate records show the employee has been examined as required by 29 CFR 1926.1101 within the past year. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within 30 calendar days before or after the termination of employment in such occupation. Interpretation and classification of x-ray films shall be conducted in accordance with Appendix E, 29 CFR 1926.1101.
- EE. **Medical Records:** Records as required by 29 CFR 1926.1101 and 29 CFR 1926.62 of employees' medical examinations for a period of at least 30 years after termination of employment.
- FF. **Non-friable Asbestos Material:** Material that contains asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and may not release fibers in excess of the action level during any appropriate use, handling, storage, transportation, or processing. Non-friable asbestos material is considered regulated during removal, transportation and disposal procedures.
- GG. **Owner:** Shall refer to Delaware River Basin Commission.
- HH. **Permissible Exposure Limit (Asbestos):** Means employee exposure, without regard to the use of respirators, to an airborne concentration of asbestos of 0.1 f/cc calculated as an 8-hour Time-Weighted Average (TWA) (29CFR 1926.1101).
- II. **Personal Monitoring:** Occupational exposure sampling within the breathing zone of an worker.
- JJ. **Prior Experience:** Experience required of the Contractor/Industrial Hygienist on asbestos projects of similar nature and scope to ensure capability of performing the asbestos removal in a satisfactory manner. Similarities shall be in areas related to material composition, project size, number of employees and the engineering work practice and personal protection controls required.

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- KK. **Regulated Area:** An area where asbestos removal operations are performed which is isolated by physical boundaries (i.e. barriers) to prevent the spread of asbestos dust, fibers, or debris.
- LL. **Shower Room:** A room constituting an airlock, between the clean room and the equipment room in the worker decontamination enclosure system, with hot and cold or warm running water suitably arranged for complete showering during decontamination. See Decontamination Enclosure System.
- MM. **Training (asbestos):** Specific state and/or EPA certification, that an employee has received approved training in the proper handling of materials that contain asbestos; understands the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of the respiratory equipment to be used; understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment; and understands engineering and other hazard control techniques and procedures.
- NN. **Warning Signs (Asbestos):** Signs in accordance with OSHA 1926.1101 used to demarcate regulated areas and displayed at each location where asbestos levels may be in excess of the PEL. Signs shall be posted at such a distance from such a location that an employee may read the signs and take necessary protective steps before entering the Regulated Area marked by the signs.
- OO. **Work Area:** Designated rooms, spaces or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions (aka Regulated Area)
- PP. **OSHA Asbestos in Construction Standard 29 CFR 1926.1101:** The definition regulation defined by OSHA governing worker protection during impact of asbestos containing building materials and the impact of trace asbestos containing building materials (<1% asbestos by weight).

PART 2 – GENERAL CONDITIONS, GUIDANCE AND PRACTICES FOR THE REMOVAL OF ASBESTOS CONTAINING MATERIALS AND IMPACTING OF ASBESTOS CONTAINING MATERIALS

2.00 STIPULATIONS

- A. The procedures specified herein are guidelines required to be incorporated in the Contractor's Action Plan for minimum performance. The Asbestos Abatement Contractor is responsible for its own methods of operations and conformance to regulatory codes, rules and guidelines. The Asbestos Abatement Contractor is required to obtain all permits, licenses and approvals to perform the work, including any rights to use patented systems. If a conflict exists between this specification and any applicable regulatory code, rule or guideline, the most stringent provision shall apply.

2.01 SCOPE OF WORK

- A. The scope of work for this project has been determined based on the potential impact of discovered material to be treated as ACM within 25 Cosey Road, the property owned by the Delaware River Basin Commission. Architectural drawings have been utilized as a reference to locations where regulated asbestos containing materials (ACM) exist or are expected to exist within the confines of the selective demolition and abatement project.

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- 1) Based on AET's asbestos bulk sampling for 25 Cosey Road, the following material shall be treated as ACM, following all applicable regulations. The material listed below shall be abated as part of the Contractor's scope of work.
 - i. Approximately 25,000 square feet of ceiling tile.
 - 2) Listed quantities of ACM are approximations only. The Contractor shall assess quantities of ACM and interpret the abatement of all ACM based on actual quantities present. The Contractor is responsible to determine their own measured quantities. This document, and any attachments thereto, does not imply that the approximate listings are actual quantities, but rather a general interpretation of visible materials.
 - 3) Estimated quantities and specific sampling locations can be found within Attachment A of the RFP.
- B. The scope of work to be conducted by the Contractor for this project shall cover the supplying of all labor, tools, materials, equipment, services and appurtenances to accomplish the work specified and required to successfully complete the project. The work shall be performed to the complete satisfaction of the Environmental Consultant and Owner in accordance with the current EPA and OSHA regulations, applicable State Labor and Industry and Department of Environmental Protection regulations and any other applicable State and Local regulations. Note: Locations and materials where ACM were identified are supplied in Attachment A of the RFP.
- C. The Contractor, as part of their bid preparation/submission process, must make an independent personal examination of the site with respect to the actual quantities of ACM and evaluated conditions/limitations which shall affect their work and associated costs. Activities which expose previously unidentified building materials in concealed areas must be controlled and suspended until additional sampling can be completed to confirm/deny asbestos content in these building materials. Acceptance of work by the contractor shall be "AS IS".
- D. Prior to mobilization the Contractor shall submit an Action Plan, which describes specifically how the defined abatement work is to be completed for each abatement location. At a minimum, the Action Plan shall address work area preparation, work practices, decontamination system location, estimated completion dates, respiratory protection, and disposal. Approval of the Action Plan must be obtained through the Owner and the Environmental Consultant prior to the start of work. Procedures outlined in the Action Plan must be followed throughout the abatement phase. Any changes in Action Plan shall be approved by the Owner and AET.

2.02 **CONTROL OF WORK**

- A. All work which does not conform to the requirements of the contract, plans and specifications will be considered unacceptable.
- B. Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be corrected immediately and replaced in an acceptable manner.
- C. The Contractor shall inspect each and every area of work at the site prior to bidding to determine breadth and scope of the work, access needs, mobilization requirements,

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potential hindrances along with any and all project conditions which may affect the work. The Contractor shall account for all these items in preparing its bid.

- D. If the Owner or AET finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications (resulting in an unacceptable finished product) the affected work or material shall be removed and replaced or otherwise corrected by, and at the expense of, the Contractor.
- E. The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the plans, contract and specifications. The term shall not be construed as waiving the Owner's right to insist on strict compliance with the requirements of the contract, plans and specifications during the Contractor's prosecution of the work, when, in the Owner's opinion and judgment, such compliance is essential to provide an acceptable finished work product.

2.03 QUALITY ASSURANCE

A. Asbestos Abatement Contractor Experience:

- 1) The Contractor shall have a minimum of three (3) years' experience in the asbestos abatement business. The Contractor shall have successfully completed three (3) projects of similar or larger size and dollar value to this project and shall not have defaulted on an asbestos abatement project within the last three (3) years. The Contractor shall be certified and licensed by the New Jersey Department of Labor.

B. Worker Certification:

- 1) The Contractor shall furnish proof that its employees have had instruction on the dangers of asbestos exposure, on respirator use, decontamination and current OSHA and EPA regulations.
- 2) Documentation of workers' medical exams, consist of x-rays and pulmonary function shall be submitted and as may be required by current OSHA and EPA regulations and any applicable State and Local Government regulations.
- 3) There must be on site at all times, an EPA Certified Asbestos Abatement Supervisor. The Asbestos Abatement Supervisor shall have successfully completed a 5-day EPA Certified Practices and Procedures Course as per 40 CFR, Part 763, Subpart E, Appendix C-EPA Model Accreditation Plan (must provide a copy of certificate from EPA approved course). All asbestos workers shall have successfully completed a 4-day EPA Certified Practices and Procedures Course as per 40 CFR, Part 763, Subpart E, Appendix C-EPA Model Accreditation Plan. The Contractor must provide copies of certificates from the New Jersey Department of Labor for all workers and supervisors, as required by regulation.
- 4) When required by the State of New Jersey the Asbestos Abatement Contractor, Abatement Supervisor, and Abatement Workers shall be licensed by the State of New Jersey. Each worker/supervisor shall have a current photo identification issued by The State of New Jersey available on request by the Department when required.

2.04 POSTING OF REGULATIONS

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- A. The Contractor will have at all times in its possession at its office one (1) copy and in view at the job site one (1) copy, current OSHA Regulations 29 CFR 1926.1101, Asbestos and current Environmental Protection Agency 40 CFR Part 61, Subpart M: National Emission Standard for Hazardous Air Pollutants as related to asbestos stripping, emissions, notification, work practices and disposal of asbestos waste.

2.05 REGULATORY SUBMITTALS

- A. The Contractor is required to notify the State of New Jersey in writing ten (10) days prior to starting work for notification and instructions concerning proper disposal of asbestos waste material.

2.06 AIR TESTING AND MONITORING

Environmental Consultant

- A. Air sampling of the work areas and surrounding environment shall be conducted during the performance of this contract by AET so as to ensure abatement procedures are in compliance with all codes, regulations, ordinances and this specification.
- B. The Contractor shall fully cooperate with AET and all others responsible for testing and inspecting the work.
- C. Air testing and analyses shall be in accordance with current EPA guidelines and requirements of Section 29 CFR 1926.1101 of the current OSHA Regulations, as a minimum. Analysis shall be performed by Phase Contrast Microscopy per NIOSH 7400 Method and/or Transmission Electron Microscopy (TEM) per EPA Level II (AHERA) analytical procedures.
- D. Air tests taken prior to start of work (background) and at completion (clearance) shall be analyzed by PCM-Phase Contrast Microscopy.
- E. AET shall give verbal notification to the Owner of each test within twenty-four (24) hours of the time the samples were delivered to the laboratory. AET shall confirm the results in writing within three (3) days thereafter. A microscope on site for PCM analyses is acceptable to facilitate a faster turn-around time.
- F. Prompt reports are necessary so that, if required, modifications to work methods and/or practices shall be implemented as soon as possible.
- G. Representatives of AET shall have access to the work areas at all times. The Contractor shall provide facilities for such access in order that AET shall properly perform its function.
- H. Sampling equipment and personnel shall be provided by AET.
- I. Air sampling shall be performed in each work area prior to commencement of the work at that location. The highest fiber count reading during final clearance monitoring shall be lower than the background readings established by pre-job monitoring or 0.01 f/cc, whichever is lower.
- J. Air sampling conducted during abatement shall be completed within the given time frame of the project schedule so as not to cause any delay in Contractor's work. Changes in

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schedule by the Contractor which affect the tasks of AET shall be made with a minimum 48-hours advance notification. Contractor work shall be conducted, visually inspected and tested at completion of each shift to facilitate re-occupancy the following morning.

- K. Air samples shall be taken in accordance with, but not necessarily limited to, the following schedule:

AREA	WHEN	NUMBER	MINIMUM VOLUME (liters)	FLOW RATE (liters/min.)
Background (PCM)	Prior to job start	2	1500	2-10
Perimeter (PCM)	During area isolation	2 Daily	480-960	1-3
Work Area-Inside (PCM)	During abatement work	1 Daily	480-960	1-3
Perimeter-Exterior (PCM)	During abatement work	3 (minimum)	1000	1-3
Clearances (PCM)	Upon work completion	3 (minimum) Aggressive for NPE	1200	2-10

NOTES: Consecutive daily air samples shall be collected for the duration of the work shift for each active work area (aka Regulated Area). Perimeter work area(s) samples shall be collected daily at the decontamination system clean room entrance, waste load out exits, and any area(s) adjacent to work area(s) that are occupied or shall be re-occupied.

- L. Work area clearance testing yielding acceptable results shall be completed before work site demarcating barriers are removed.
- M. The Contractor is responsible for exposure assessment monitoring on the asbestos workers during asbestos work in accordance with 29 CFR 1926.1101. Both 8-hour TWA breathing zone samples and thirty (30) minute Excursion Limit air sampling must be collected on a daily basis until a Negative Exposure Assessment is documented.

2.07 AIR FILTERING

- A. Negative air HEPA ventilation system shall be installed and operated in accordance with ANSI Z9.2. AFDs shall be in sufficient quantity to provide a minimum of four (4) air exchanges per hour and a pressure differential of 0.02 inches of water. The local exhaust system shall be operated continuously, 24 hours a day, until the enclosure of the asbestos control area is removed. All negative air shall be exhausted outdoors. Where outdoor exhaust cannot be facilitated, an alternate plan shall be submitted by the abatement contractor for approval by the Environmental Consultant and applicable regulatory entities. Note: Pressure differential recordings for each work day shall be reviewed by AET and documented by contractor supplied manometer. AET shall notify the owner immediately of any variance in the pressure differential which would cause exposure of adjacent unsealed areas to asbestos fiber concentrations in excess of 0.01f/cc.

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2.08 ALTERNATIVE AIR FILTERING METHODS

- A. In cases of non-friable removal where OSHA Class II Work is to be conducted, alternate air filtering methods can be utilized. Proposed alternative air filtration methods shall be supplied in writing in the Action Plan to be reviewed for approval by the Owner and Environmental Consultant.

2.09 PLACEMENT OF WARNING SIGNS AND LABELS

- A. The Contractor shall furnish and place warning signs at all approaches to asbestos work areas containing concentrations of airborne asbestos fibers. Locate warning signs at such a distance that personnel shall read the warning sign and take the necessary protective action required before entering the area. Warning signs shall be in place for the duration of the work. The Contractor shall furnish and attach caution labels to all disposal containers holding asbestos materials, scrap waste, debris and other products contaminated with asbestos.
- B. Warning Signs: Provide warning signs conforming to 29 CFR 1926.1101 with the following legend:

**DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE
REQUIRED IN THIS AREA**

- C. Caution Labels: Attach label to the outside of all disposal bags and containers which hold asbestos contaminated materials and are to be removed from the site. Caution labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible and shall display the following legend:

**DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

- D. Identification Labels: Attach label to the outside of all disposal bags and containers which hold asbestos contaminated materials and are to be transported off facility site. Identification labels shall display the following legend:

Waste Generator Name: Delaware River Basin Commission

Generator Location: 25 Cosey Road, West Trenton, New Jersey

2.10 PRODUCTS

2.10.1 EQUIPMENT AND MATERIALS

- A. The list of Contractor required materials shall include, but is not necessarily limited to the following:
 - 1) Respirators: Provide respiratory protection in accordance with OSHA Regulation 29 CFR 1926.1101 and appendices ANSI Z88.2-1980. Respiratory protection regardless of negative exposure assessments. There shall be NO EXCEPTION

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to this requirement. As minimum protection, negative pressure air purifying respirators shall be worn. Contractor shall select the appropriate respirator based on an initial exposure assessment or exposure monitoring results. No employee or visitor shall enter any area without this protection until clearance has been obtained. Employees or visitors shall wear a respirator. Respirators shall be NIOSH approved. Ensure proper filters are worn using a HEPA as a minimum.

- 2) Protective Clothing:
 - i. Disposable Clothing – such as Tyvek® by DuPont. Clothing shall consist of coverall, head cover and foot cover. Gloves shall be worn for hand cover as needed.
- 3) Wetting Agents - The asbestos material shall be sprayed with water containing an additive to enhance penetration. The additive, or wetting agent, shall be polyoxyethylene at a concentration of one (1) ounce per five (5) gallons of water or as otherwise specified by manufacturer. A fine spray of this solution must be applied to prevent fiber disturbance proceeding the removal of the asbestos material. The asbestos shall be sufficiently saturated to prevent emission of airborne fibers in excess of the exposure limits prescribed in the current OSHA standards referenced in these specifications.
- 4) Polyethylene sheeting: Six (6) mil thick, for protection of floor surfaces, interior walls, windows, and critical barriers. All “plastic” sheeting utilized shall be rated “fire retardant.”
- 5) Polyethylene bags (with warning labels) six (6) mil thick minimum for disposal. Asbestos that is removed shall be double bagged. Glove Bags shall also be double bagged.
- 6) Tape: High quality vinyl or fabric duct tape. Paper masking tape shall not be permitted.
- 7) Airless Spray Equipment: Electric airless spray equipment for saturating and mist fiber control. Low pressure (500 psi) equipment must be available on-site and utilized as required.
- 8) Vacuum: Commercial quality HEPA filtered rated for environmental surface cleaning and housekeeping.
- 9) Hand Tools: Brooms, plastic shovels, scrapers, brushes, etc., in sufficient quantity to ensure the appropriate level of housekeeping.
- 10) Water Filtration System: Shower and contaminated water filtration system.
- 11) GFI Equipment: All electrical connections in the work area must be through “ground fault” protected outlets/circuits.
- 12) Penetrating Encapsulant: Penetrating encapsulants to be used on this project are International Cellulose Corporation SK-13 Asbestos Encapsulant, International Protective Coatings Corporation Serpiflex Shield, Fiberlock Technology ABC Asbestos Binding Compound Concentrate, and others listed as acceptable in the Environmental Protection Agency - Battelle Laboratory Encapsulant Study, or approved equal.

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- 13) Bridging Encapsulant: Bridging encapsulants to be used on this project are American Coatings Corporation Cable Coating 2B, Decadex Laboratories Firecheck, Fiberlock Technology ABC Asbestos Binding Compound Concentrate, or approved equal.
- B. The Contractor shall have at all times in its possession at the job site Safety Data Sheets (SDS) for wetting agents, encapsulants, solvents, strippers, and any other potentially hazardous materials.

2.10.2 **PERSONNEL PROTECTION**

- A. Personnel protection is required for laborers, mechanics, supervision, and visitors at the work site during the set-up and abatement operations.
- B. Each worker shall be supplied with a minimum of two (2) complete protective work clothes and respirator filter changes per day for the complete duration of the project. Hard hats shall be available as appropriate which meet ANSI Z-89.1 standards. Safety toe footwear shall be worn underneath the disposable shoe covers and must meet the requirements and specifications in ANSI Z-41.1. Eye wear and face protection must meet the standards and specifications of ANSI Z-87.1.
- C. In addition to sets of protective work clothes for workers, the Contractor shall have on hand two (2) additional sets of disposable work clothes, per day and respirators for personnel who are authorized to inspect the work site. Hard hats shall be available as appropriate which meet ANSI Z-41.1. Eye wear and face protection must meet the standards and specifications of ANSI Z-87.1.
- D. Respirators approved for asbestos use and protective work clothes shall be worn by laborers and others as a minimum level of protection during set-up operations.
- E. Appropriate respirators shall be worn by all personnel in the active work area.
- F. Upon leaving an active work area, all personnel must proceed to the decontamination unit where respirators shall be cleaned in disinfectant solution and clean water rinse.
- G. Clean respirators shall be stored in plastic bags when not in use.
- H. Respirators shall be inspected daily for broken, missing, or deteriorated parts.

2.11 **EXECUTION**

2.11.1 **AREA PREPARATION**

- A. It is anticipated that all ACM to be abated under the scope of this project is accessible from the interior of the Delaware River Basin Commission. Therefore, work area preparation shall be designed to comply with OSHA's requirements for Class I Work Activity conducted indoors. Movable items shall be removed from the designated work areas prior to commencement of abatement. Remaining items shall be covered. Note: Doors to remain within each work area shall be either covered or removed prior to abatement. This task shall be conducted by the Contractor.
- B. Any heating and/or ventilating system servicing the abatement floors of 25 Cosey Road shall be shut down prior to starting any work.

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- C. Create regulated work areas by construction of critical barriers on all windows, egress doors, and openings. Critical barriers shall consist of a minimum of 2 independent layers of 6 mil thick plastic.
- D. The work area shall incorporate at minimum two layers of 6 mil thick plastic on floors where applicable. Plastic sheeting shall be taped securely in place to protect lower floors from asbestos contamination. Ceiling of critical barriers to prevent water migration shall be incorporated utilizing approved spray foam where applicable. Such use must be described in the Contractor's Action Plan.
- E. The Contractor shall build decontamination enclosure system(s) to be connected to each work area for entrance to or exit from the work area. Remote decontamination chambers can be utilized. Description of locations and use must be provided in contractor supplied Action Plan and approved.
- F. The Contractor shall cover any interior fixed items and equipment in the confines of the demarcated work areas with plastic sheeting taped securely in place.
- G. Duct tape, staples, and other methods shall be used appropriately to attach vertical plastic barriers to walls and to ground surfaces. All edges, where applicable, of plastic material shall overlap the adjoining sheet a minimum of twelve inches. All joints (vertical and horizontal) to be continuously sealed with duct tape.
- H. Where interior walls are not smooth and cleanable, two layers of 6 mil thick plastic shall be utilized to prevent damage to underlying surfaces.

2.11.2 DECONTAMINATION ENCLOSURE SYSTEM

- A. The Asbestos Abatement Contractor shall construct a decontamination enclosure system consisting of a serial arrangement of rooms as delineated below, in a location adjacent to the designated entrance to each demarcated work area.
 - 1) Clean Room: in this room, the worker leaves all street clothes and dresses in clean working clothes (usually disposable coveralls). Respiratory protection equipment is also stored in this area. No asbestos contaminated items shall enter this room. Workers enter this room either from outside the structure dressed in street clothes (when entering the work area), or naked from the showers, after showering (when exiting the work area).
 - 2) Shower Area: This is a separate room used for transit by cleanly dressed workers entering the job from the outside room or by workers headed for the showers after undressing in the equipment room.
 - 3) Equipment Room (contaminated area): Work equipment, footwear, additional contaminated work clothing is left here. This is a change and transit area for workers.

Decontamination chambers require temporary services. Verify during bidding period the availability for temporary hook up. Mobilization, hook-up and demobilization, disconnection costs shall be the responsibility of the Asbestos Abatement Contractor. Installation of temporary services during demolition shall be per current EPA and OSHA regulations.
 - 4) Work Areas: Each demarcated work area shall be separated by polyethylene barriers from the equipment room of the decontamination unit. If the airborne asbestos level in the work area is expected to be high an additional intermediate

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cleaning space shall be required to be constructed between the equipment room and the work area. Isolation of the work areas, as required, is necessary to prevent contamination and fiber dispersal to other areas of the building or outdoors during work and clean-up operations.

2.11.3 WORK AREA ENTRANCE/EXIT

- A. All workers involved in the removal of asbestos shall utilize the following procedures for work area entrance and exit.
- B. Each worker enters the outside room and removes clothing, puts on clean coveralls, gloves and respirator. Protective clothing sleeves shall be taped to gloves and protective clothing legs shall be taped to foot covers. The neck collar, zipper seam, wrists and ankles of protective clothing shall be taped closed.
- C. Worker proceeds via shower room to equipment room. Any additional clothing and equipment left in equipment room and required by worker is put on. This includes additional warm garments workers usually provide themselves when the work area is too cold for coveralls only. These must be treated as contaminated clothing and left in the decontamination area.
- D. Worker proceeds to work area.
- E. Before leaving the work area, the worker shall remove all gross contamination and debris from the protective clothing, by vacuuming down the clothes with a vacuum cleaner with a HEPA filter. In practice, this is carried out by one worker assisting another.
- F. The worker proceeds to equipment room and removes all clothing except respiratory protection equipment. Extra work clothing shall be stored in contaminated end of the area.
- G. Disposable protective clothing is placed in a bag for disposal. The worker then proceeds into the shower area. Respiratory protection equipment shall only be removed after wetting in shower to prevent inhalation of fibers. Ensure that employees shower every time upon exiting the work area and before entering the clean room.
- H. After showering, the worker moves to the clean room and dresses in either new protective clothes for another entry, or street clothes if leaving. Respirator filters are sealed with tape or discarded, and respirator body is thoroughly cleaned and stored in the clean room.
- I. Workers shall not eat, drink, smoke, chew gum, or chew tobacco in the work area. To eat, drink or smoke, workers shall exit the work area following the decontamination procedure outlined above.
- J. All footwear shall be left inside work area until completion of the job, then cleaned or discarded.

2.11.4 METHOD OF REMOVAL

- A. Remove and dispose of all asbestos-containing materials (ACM), as defined herein, in accordance with the methods and procedures outlined in the United States Department of Labor, Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Codes of Federal Regulations Title 29, Part 1926, Section 1926.1101. All materials included in the scope of this Project are treated for the purposes of this Project as either RACM or Category I Non-Friable materials as defined by the EPA. Work practices must

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comply with OSHA Class I Abatement Procedures for indoor abatement. All work must be continuously supervised by someone meeting OSHA's definition of a "Competent Person".

- B. Work of this section shall be performed in the following manner:
 - 1) Engineering controls shall include, but not be limited to, the use of wet methods of abatement, prompt cleanup of abated materials as asbestos waste is generated, and the use of a HEPA filtered vacuum to cleanup all visible debris immediately as it is generated.
 - 2) Asbestos containing materials shall be removed in a schedule designated by the Contract and approved by owner and/or environmental consultant.
 - 3) All work shall be conducted following a predetermined shift schedule designated by the owner.
 - 4) Asbestos containing materials within areas to be abated shall be removed during assigned abatement hours and dates.
 - 5) Location of asbestos dumpsters shall be approved by the Owner. All dumpsters to be utilized for asbestos abatement must be covered and lockable.

2.11.5 HOUSEKEEPING

- A. Throughout the work period, the Contractor shall maintain the building and site in a standard of cleanliness as specified throughout these specifications.
- B. Contaminated disposable clothing, respirator filters and other debris shall be bagged, properly labeled and sealed at the end of each workday.
- C. All asbestos waste shall be bagged, properly labeled, and sealed at the end of each workday.
- D. Respirators shall be thoroughly cleaned at the end of each workday and stored for the next day's use.
- E. Retain all stored items in an orderly arrangement allowing maximum access, not impeding traffic, and providing the required protection of materials.
- F. Do not allow the accumulation of scrap, debris, waste material, and other items not required for completion of this work.
- G. At least weekly, and more often if necessary, completely remove all scrap, debris and waste material from the job site.
- H. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the ecology.
- I. Maintain the site in a neat and orderly condition at all times.
- J. Compressed air shall not to be used for cleaning purposes.

2.11.6 FINAL DECONTAMINATION OF WORK AREA

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- A. Following careful double bagging of all removed asbestos material by the Asbestos Abatement Contractor, label bags as required.
- B. Bags shall be wiped with clean damp cloths prior to transportation to disposal site in accordance with a disposal manifest approved by AET.
- C. With critical barriers in place, sheet plastic on critical barriers and floor surfaces, the Contractor shall carry out the first cleaning, using a damp cleaning cloth to wipe surfaces of plastic. Use each surface of a cleaning cloth one time and then dispose of as contaminated waste.
- D. Continue this cleaning until there is no visible debris from removed material or residue on plastic sheeting. This first cleaning shall extend to include the Equipment Room (Dirty Room) in the decontamination unit.
- F. Pre-Encapsulation visual inspection of substrate is performed by AET to ensure removal and cleaning of the substrate is adequate. The Contractor shall accompany this inspection. If during the inspection, the substrate or plastic sheeting isn't cleaned to the satisfaction of AET, additional re-cleaning shall be required to meet the satisfaction of AET.
- G. Encapsulate substrate and all remaining plastic sheeting within the work area. A colored encapsulant shall be used on non-finished surfaces.
- H. After encapsulant has dried, remove exterior wall and floor surface plastic carefully by folding inwards into bundles and bagging for disposal. **NOTE:** Final barriers shall not be removed until work is completed.
- I. All surfaces are to be left visually clean.
- J. Pre-Testing visual inspection of work area is performed by AET. The Contractor shall accompany this inspection. If during the inspection, the work area isn't cleaned to the satisfaction of AET, additional re-cleaning shall be required to meet the satisfaction of AET. Upon acceptance AET and Contractor shall complete a Certification of Visual Inspection form.
- K. AET shall take final clearance samples as specified in the Air Sample Schedule, as soon as feasible but no longer than twenty-four (24) hours after successful completion of the pre-testing visual inspection and all cleaning work.
- L. If clearance criteria are not met, repeat final cleaning until additional tests indicate acceptable levels have been achieved. Costs associated with additional cleaning and testing shall be borne by the Contractor.

2.11.7 DISPOSAL OF ASBESTOS WASTE

- A. All ACM, ACM debris, and associated waste shall be transported to the predesignated disposal site in accordance with the guidelines of the U.S. Environmental Protection Agency, Title 40, Part 61, Subpart M, and all local agencies' regulations. Ensure all waste bags/leak tight container have facilities name, address, and contact person as required by EPA NESHAP Regulations
- B. Workers loading/unloading the asbestos materials and machinery operators shall wear respirators and disposable work clothing when handling material at the project and disposal site. Asbestos warning signs shall be posted on vehicle as required by regulation.

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- C. If drums are used to transport the ACM bags, the bags shall be dumped from the drums into the burial site. The drums shall be reused. However, if a bag is broken or damaged, the entire drum shall be buried.
- D. The landfill area used for dumping shall be certified to receive and bury materials contaminated by asbestos.
- E. Obtain completed Waste Shipment Record (WSR) for all ACM. WSR must also indicate amount of waste in cubic yards. Submit signed WSR with final report/Project Close-out.

2.11.8 INSPECTIONS

- A. All work procedures detailed in this specification shall be strictly adhered to and meet or exceed all current EPA, OSHA, DEP and State of New Jersey regulations and ASTM Guidelines.
- B. All work shall meet with the approval of AET and Owner. Work which does not meet with the approval shall be determined to be unsatisfactory.

2.11.9 IMPACT OF REGULATED MATERIALS DURING CONSTRUCTION

- A. In the event of an impact of a ACM causing a fiber release episode during the course of construction the procedures detailed within OSHA's Asbestos in Construction Standard shall be applied in all cases.
- B. In cases of impact of materials that are unknown to be ACM the following procedure shall be followed;
 - 1) Work shall stop and the direct supervisor or Owner/Environmental Consultant shall be contacted without delay. Suspect materials shall be identified and described to the onsite Supervisor. Equipment and other tools used to impact the suspect ACM shall remain in place in the impacted area.
 - 2) Notification to the Environmental Consultant shall be conducted for the purposes of determining asbestos content (through sample collection) and for the determination of response action required within the defined area.

PART 3 – CEILING TILE REPLACEMENT

3.00 RELATED DOCUMENTS

- A. Drawings and general provisions included in the RFP and in Part 1 of this document apply to this Section.

3.01 ACTION SUBMITTALS

- A. Product Data: For each type of product, the Contractor shall submit product data from manufacturer's brochures describing each of the products to be used.
- B. Samples:
 - 1) The Contractor shall submit samples of commercial ceiling materials for review before ordering any materials.

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C. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.

- 1) Ceiling Tile: 1 full-size sample of each type, color, pattern, and texture.
- 2) Exposed Moldings and Trim: Set of 6-inch long samples of each type and color.

3.02 MAINTENANCE MATERIAL SUBMITTALS

A. Maintenance Stock: The Contractor shall furnish not less than 1 unopened bundle of each type of commercial ceiling units for future maintenance. Distribute quantities in approximate proportion to the different types of units installed. Deliver to location on site designated by Owner.

3.03 QUALITY ASSURANCE

- A. Qualifications of Installers: The Contractor shall use only personnel who are thoroughly trained and experienced in the installation of the selected systems.
- B. Installation Standards: The Contractor shall comply with recommendations of the current Regulations and Manufacturer's Standards except as specified otherwise hereinafter.

3.04 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall deliver commercial tiles, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing commercial tiles, the Contractor shall permit them to reach room temperature and a stabilized moisture content.
- C. The Contractor shall handle acoustical tiles carefully to avoid chipping edges or damaging units in any way.

3.05 FIELD CONDITIONS

A. Environmental Limitations: The Contractor shall not install commercial tile ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

3.06 WARRANTIES

A. Ceiling Panels: Where so specified herein below, products shall be warranted to be free from defects in materials and workmanship for a period of 10 years from date of purchase when subjected to the conditions of temperature and humidity specified.

3.07 EXAMINATION

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- A. The Contractor shall examine substrates, areas, and conditions, including structural framing and substrates to which acoustical tile ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. The Contractor shall examine commercial tiles before installation and reject commercial tiles that are wet, moisture damaged, or mold damaged.
- C. The Contractor shall proceed with installation only after unsatisfactory conditions have been corrected.

3.08 PREPARATION

- A. The Contractor shall utilize the existing tile layout and metal suspension system for the installation of the non-asbestos containing replacement ceiling tiles.

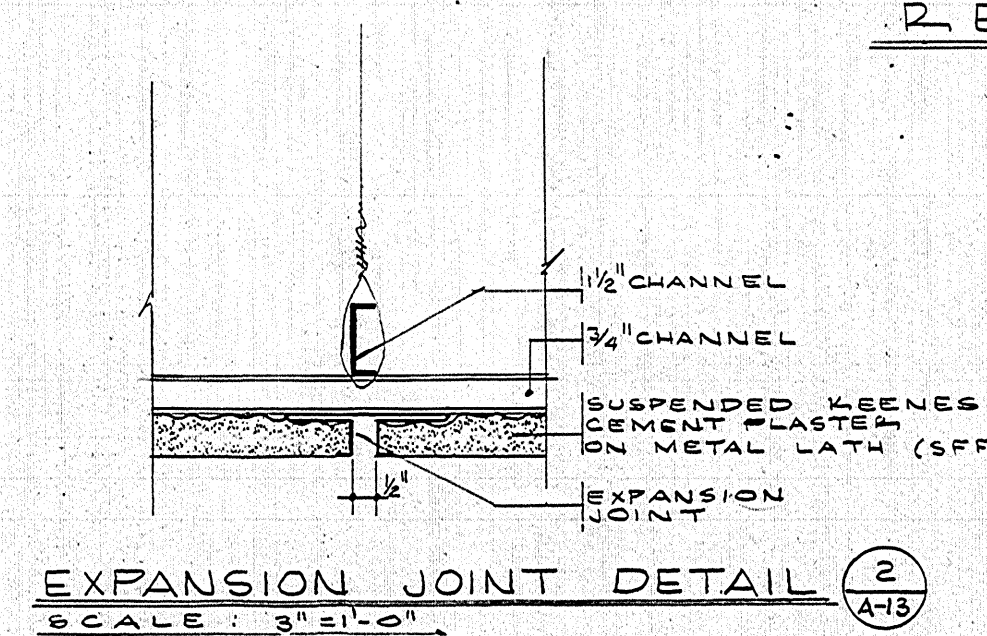
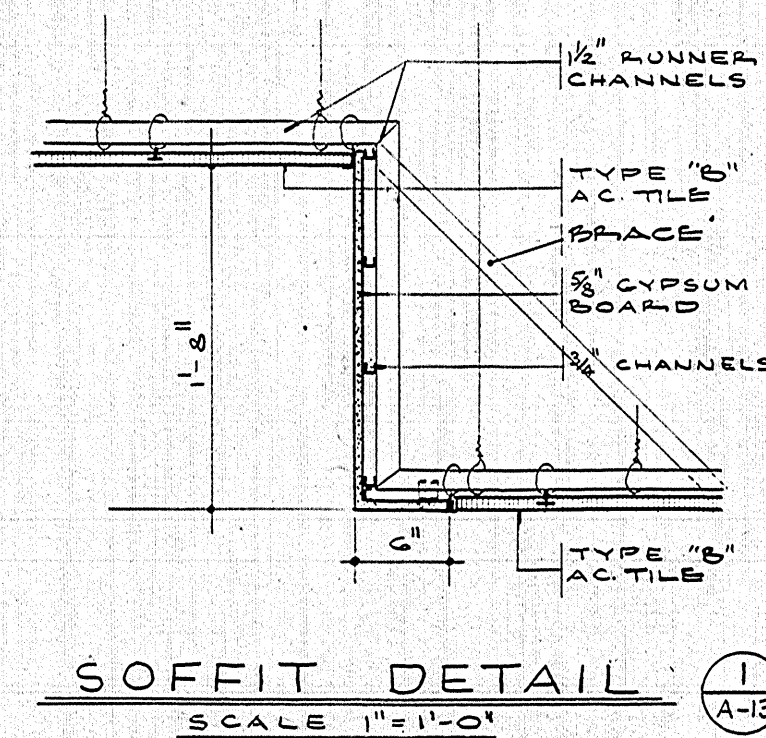
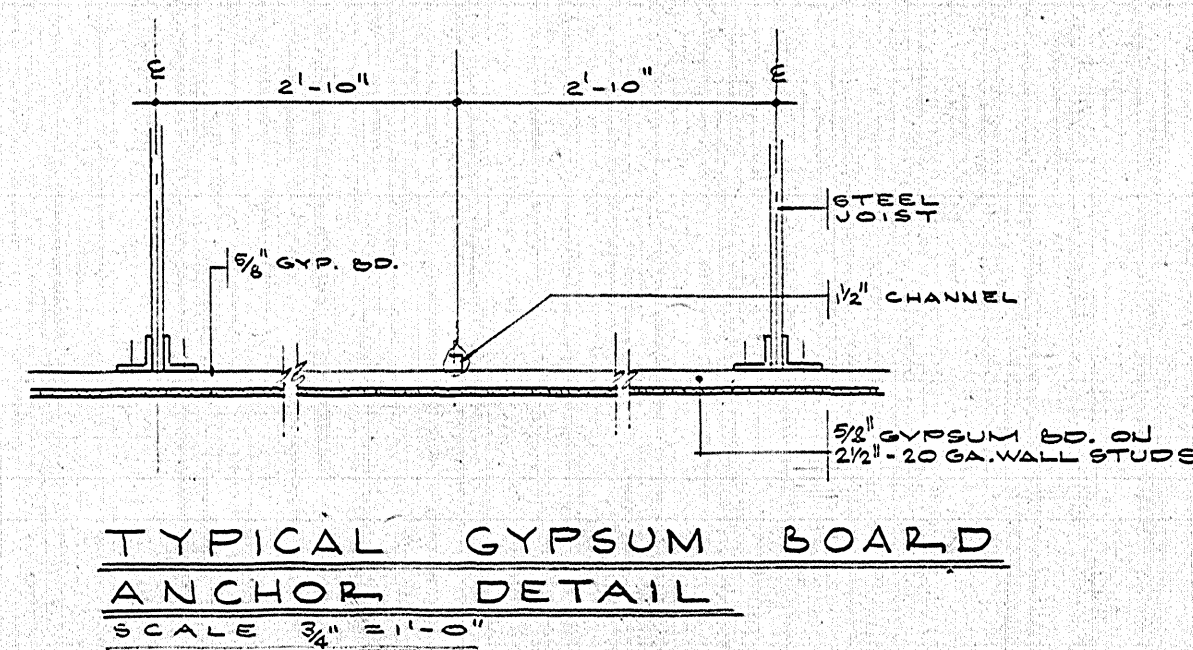
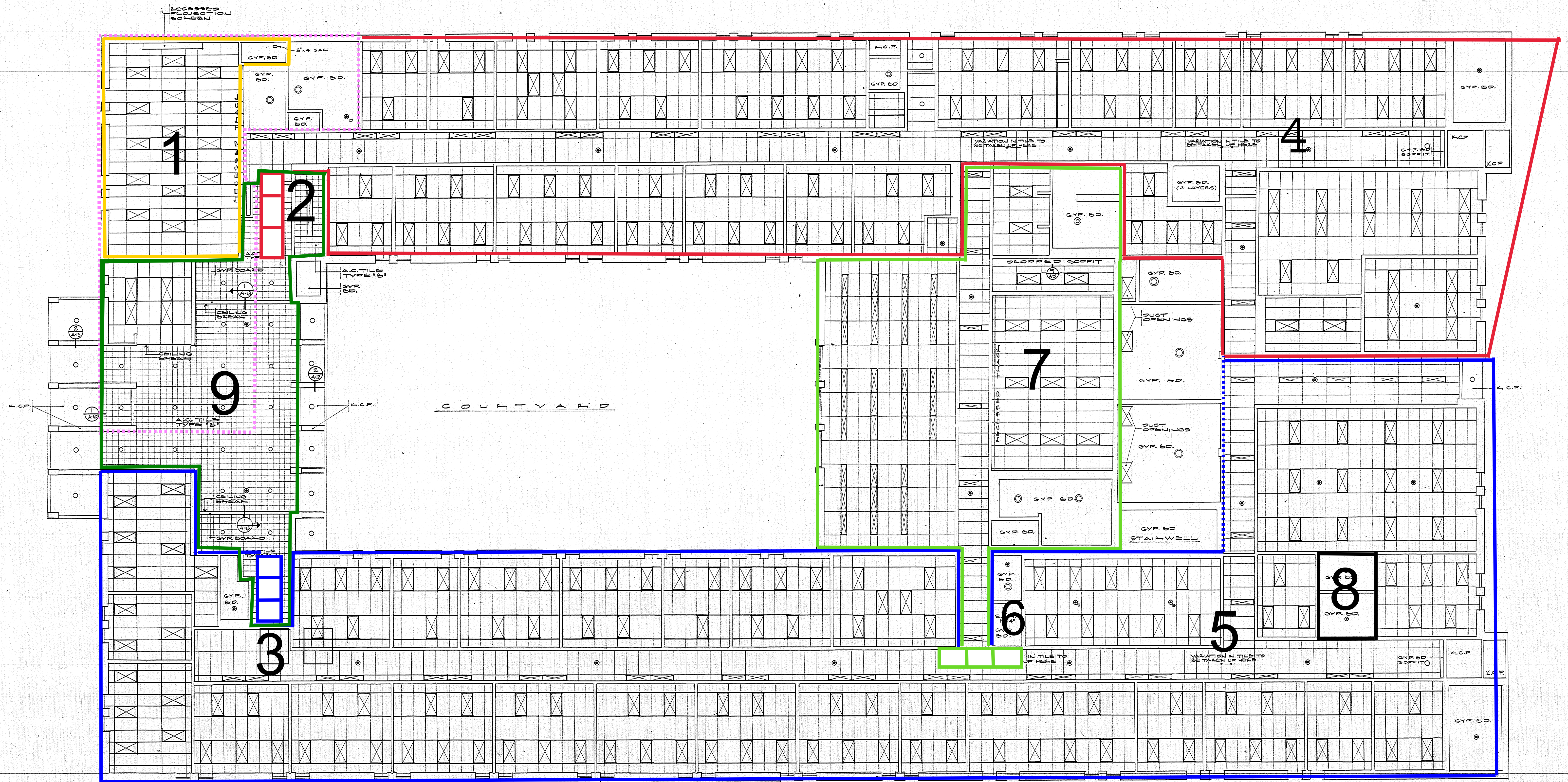
3.09 INSTALLATION OF SUSPENDED ACOUSTICAL TILE CEILINGS

- A. General: The Contractor shall install acoustical panel ceilings to comply with ASTM C 636, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
- B. Suspend ceiling hangers from building's structural members and as follows:
 - 1) Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or post installed anchors.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical tile ceiling area and where necessary to conceal edges of acoustical tiles.

Attachment C

Environmental Remediation Scope Drawings

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REFLECTED CEILING PLAN SCALE: 1/8" = 1'-0"

ALL CEILINGS TYPE 'A' ACOUSTICAL TILE UNLESS OTHERWISE NOTED

- KEY**
- ◻ ACCESSIBLE FLUORESCENT FIXTURE
 - ACCESSIBLE INCANDESCENT FIXTURE
 - ⊙ CEILING DIFFUSER
 - FIRE DETECTOR
 - ⊙ SURFACE MOUNTED
 - ⊙ DUST MOUNTED

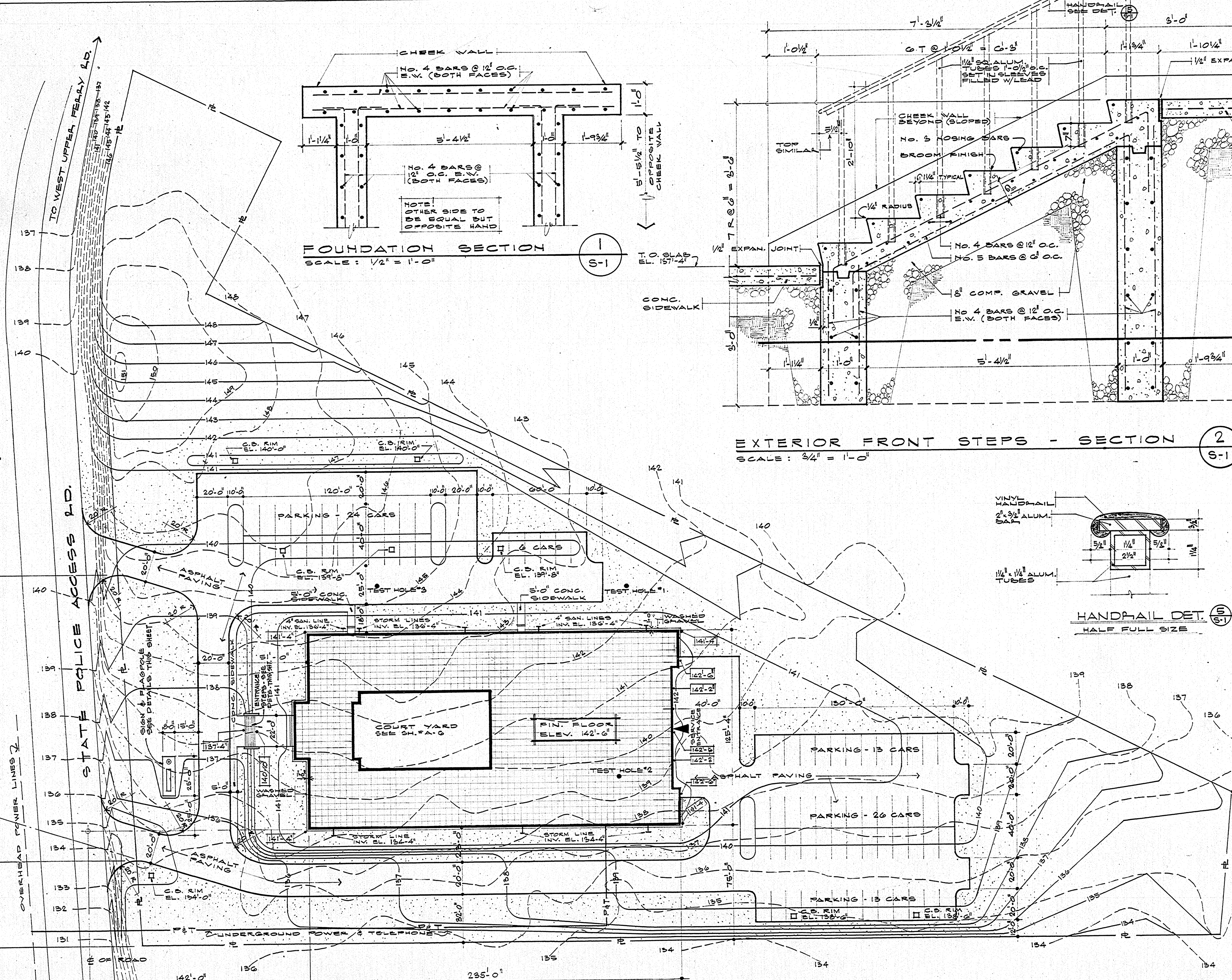
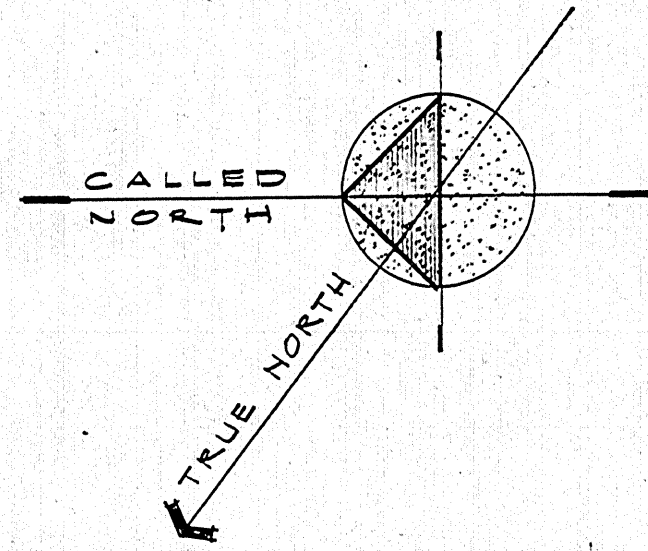
DATE		DRAWING NO.	
DELaware RIVER BASIN COMMISSION HEADQUARTERS		A-13	
EWING TOWNSHIP NEW JERSEY		DATE 4-10-69	
REFLECTED CEILING PLAN & DETAILS			
OFFICE OF EDWARD J. TOOLE ARCHITECT 55 GRANT AVENUE ALBANY NEW YORK			

Legend to Reflected Ceiling Plan

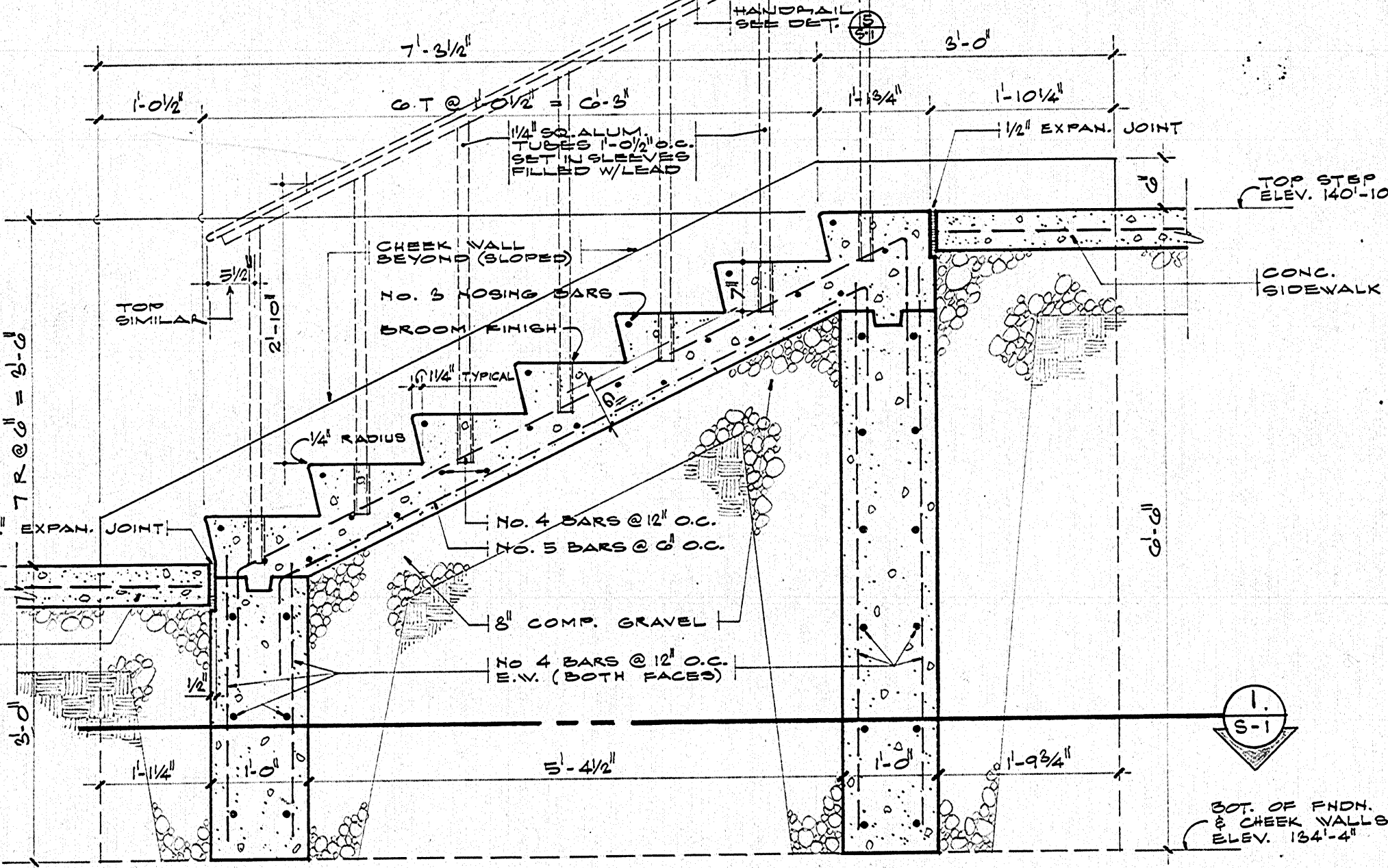
1. Goddard Room (located within Exclusion Zone - no stored materials; safe access to Goddard Room must be maintained through Lobby.)
2. Proposed Decontamination
3. Proposed Second Decontamination
4. Recommended Containment
5. Recommended Containment 2
6. Decontamination Library
7. Recommended Containment 3
8. Server Room
9. Main Lobby (includes square ceiling tiles that do not require abatement/replacement as well as some ceiling tiles that do require abatement/replacement; access to Goddard Room is through main entrance in Lobby)

LEGEND

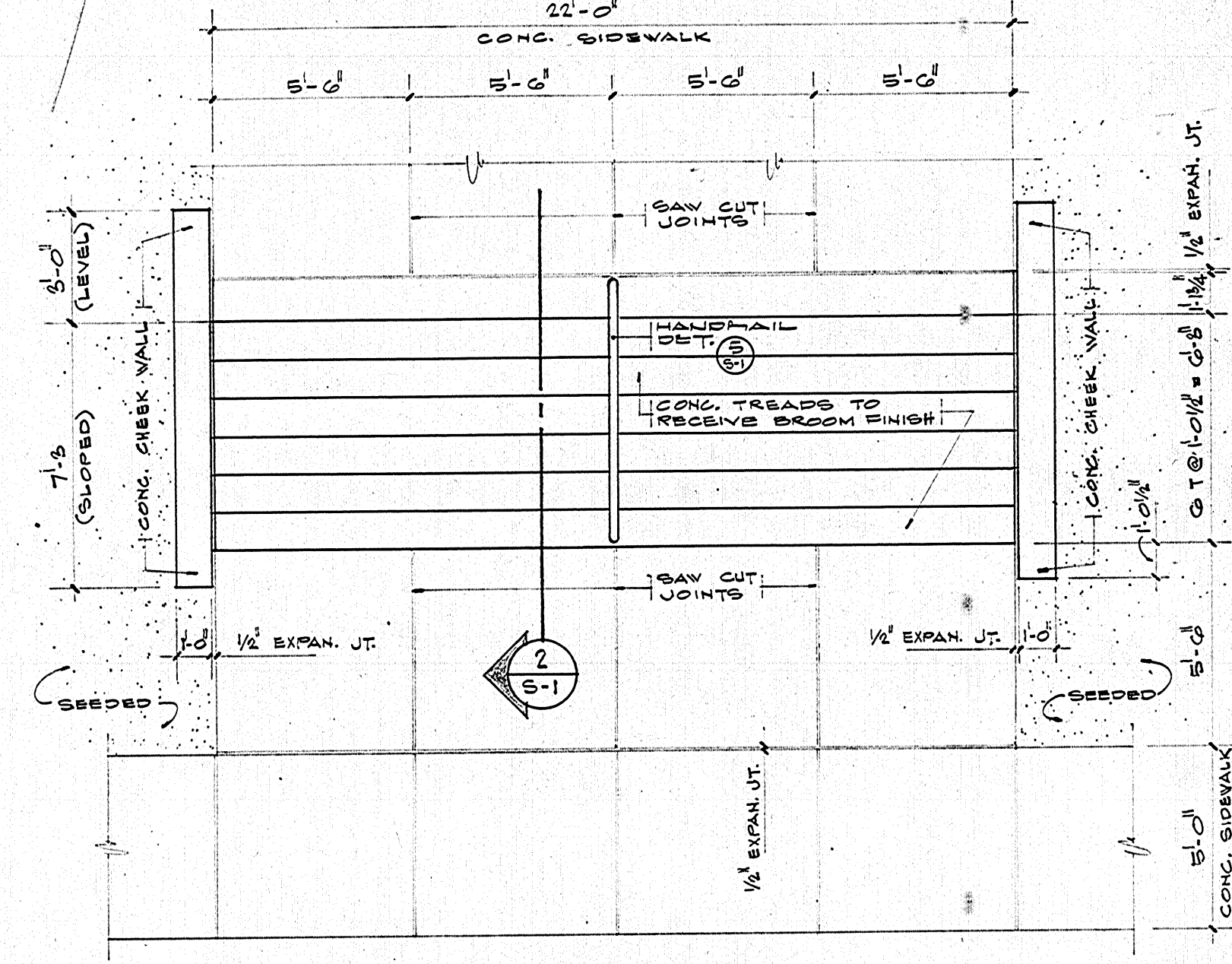
- PROPOSED BUILDING
- SEEDED AREA
- FINISHED GRADE ELEVATION
- PROPERTY LINE
- FINISHED CONTOUR
- EXISTING CONTOUR



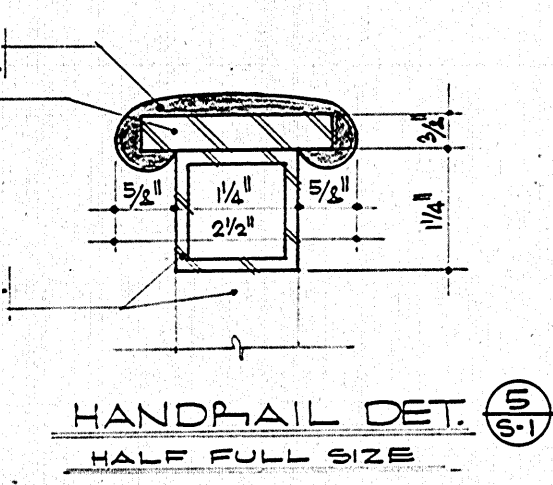
FOUNDATION SECTION
SCALE: 1/2" = 1'-0"



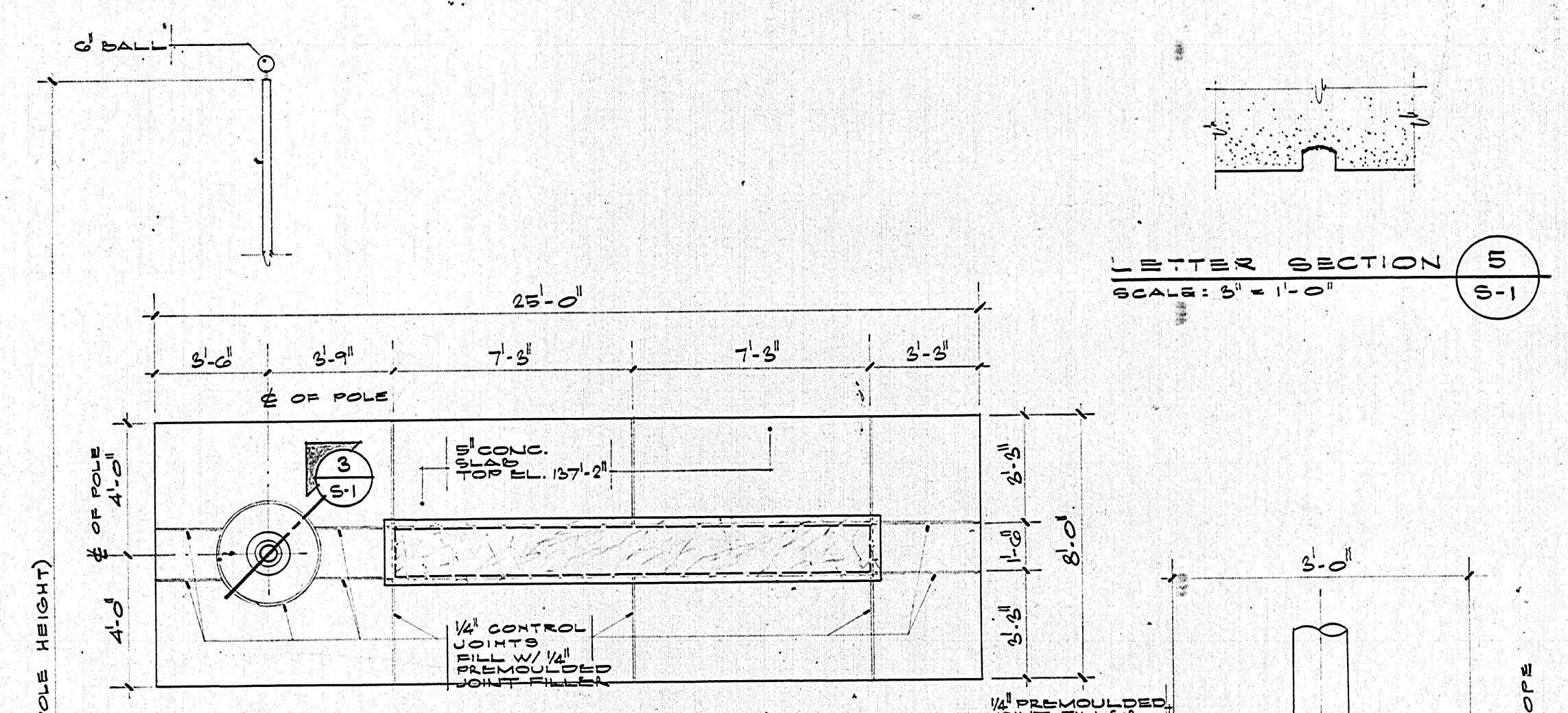
EXTERIOR FRONT STEPS - SECTION
SCALE: 3/4" = 1'-0"



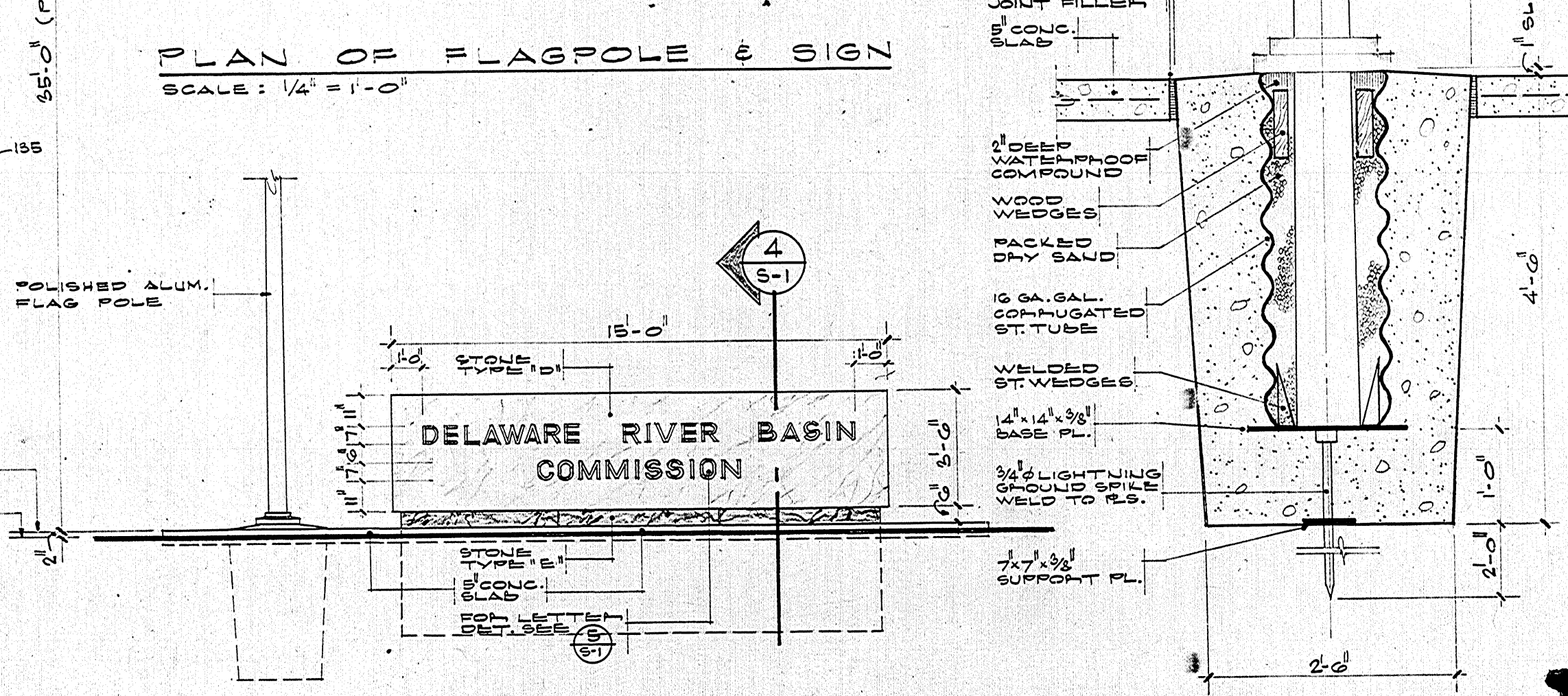
PLAN OF EXTERIOR FRONT STEPS
SCALE: 1/4" = 1'-0"



HANDRAIL DET.
SCALE: 1/2" = 1'-0"

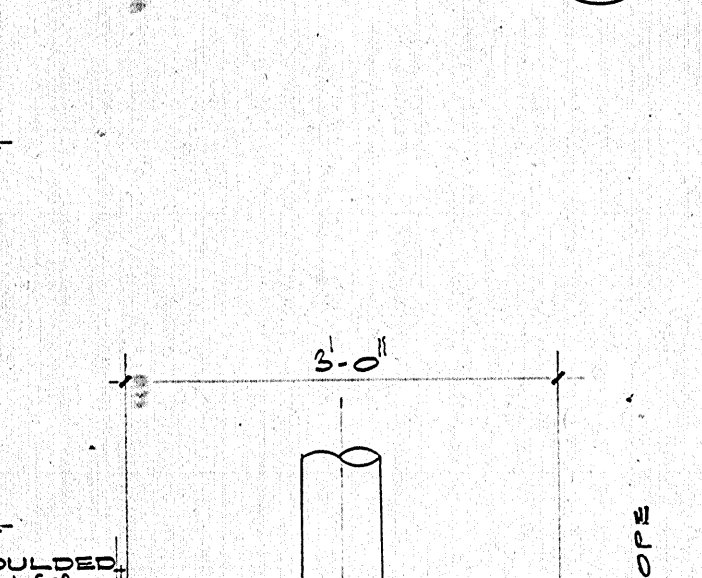


PLAN OF FLAGPOLE & SIGN
SCALE: 1/2" = 1'-0"



FLAGPOLE & SIGN ELEVATION
SCALE: 1/4" = 1'-0"

LETTER SECTION
SCALE: 3" = 1'-0"

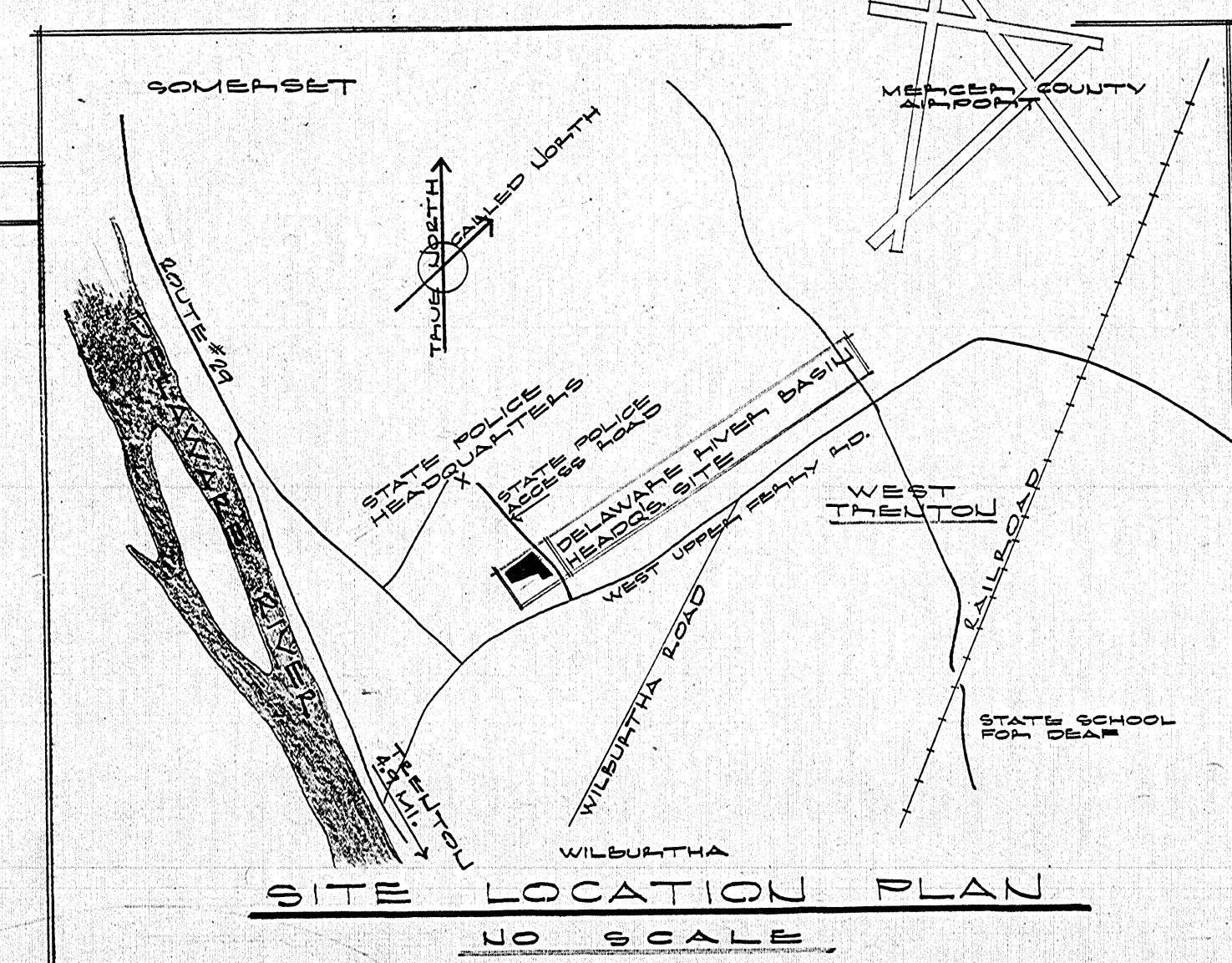


BORING DATA

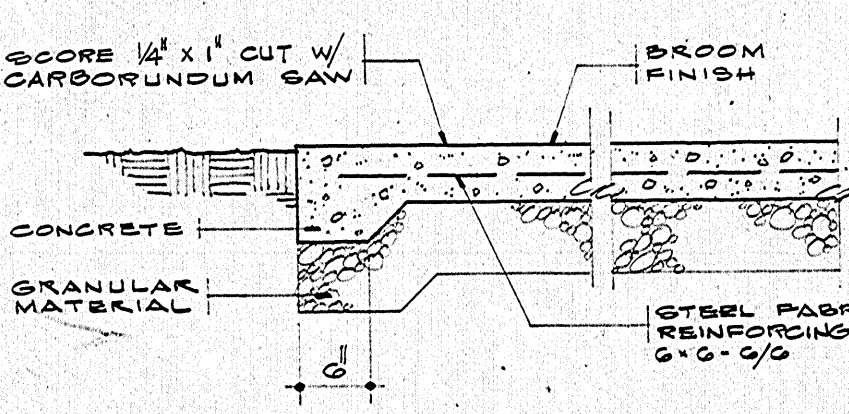
HOLE NO.	DEPTH	MATERIAL
1	12'	NATURAL SANDY SHALE
2	11'	NATURAL SANDY SHALE
3	11'	NATURAL SANDY SHALE

ABBREVIATION KEY

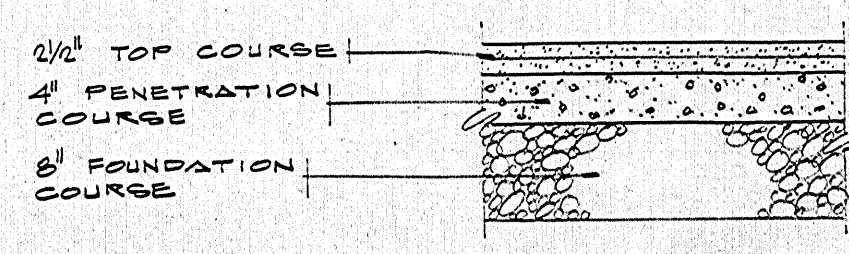
AC.T.	ACOUSTIC TILE	H.C.W.	HOLLOW CORE WOOD
ALUM.	ALUMINUM	H.M.S.	HOLLOW METAL STEEL
AV.T.	ASBESTOS VINYL TILE	INV.E.	INVERT ELEVATION
BR.	BRICK	K.C.P.	KEENE'S CEMENT PLASTER
B.S.	BRICK SHELF	M.O.	MASONRY OPENING
BTM.	BOTTOM	N.I.C.	NOT IN CONTACT
CS.	COURSES	P.W.C.	PLASTIC WALL COVERING
C.B.	CONCRETE BLOCK	R.D.	ROOF DRAIN
CERT.	CERAMIC TILE	R.H.	REINFORCED HEAD
CONC.	CONCRETE	R.O.	ROUGH OPENING
CONT.	CONTINUOUS	SUSP.	SUSPENDED
EL.	ELEVATION	S.C.W.	SOLID CORE WOOD
E.W.C.	ELECTRIC WATER COOLER	T.O.F.	TOP OF FOOTING
F.D.	FLOOR DRAIN	T.P.H.	TOILET PAPER HOLDER
F.O.	FINISHED OPENING	T.W.	TOP OF WALL
FIRE EX.	FIRE EXTINGUISHER	V.	VINYL
GA.	GAUGE		
G.B.	GYPSON BOARD		



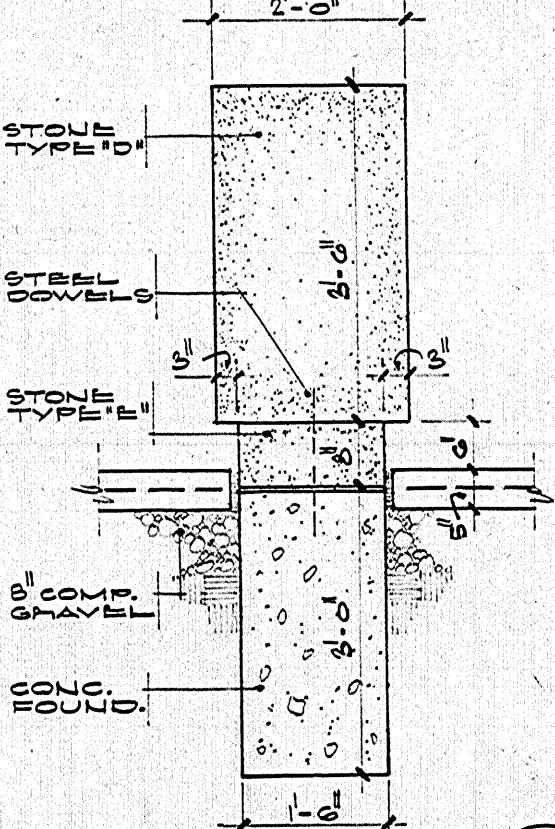
SITE LOCATION PLAN
NO SCALE



CONCRETE WALK DETAIL
SCALE: 3/4" = 1'-0"



NEW PAVEMENT DETAIL
SCALE: 3/4" = 1'-0"



SECTION 4
SCALE: 1/2" = 1'-0"

DELAWARE RIVER BASIN COMMISSION HEADQUARTERS
EWING TOWNSHIP NEW JERSEY

SITE PLAN & DETAILS

DATE: 4-10-69

OFFICE OF EDWARD J. TOOLE ARCHITECT
55 GRANT AVENUE ALBANY NEW YORK

DRAWING NO. S-1

Attachment D

Contractor Insurance Requirements

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Contractor Insurance Requirements

Insurance to be Provided by the Contractor. The agreement between the Contractor and the Commission ("Agreement") will require the former to provide insurance applicable to its operations as follows:

- (a) Worker's Compensation with statutory limits, and Employer Liability Insurance with a limit of \$1,000,000 per accident to provide for payment of Worker's Compensation benefits to the Contractor's employees and/or their dependents in connection with the services covered by this Agreement. Such benefits shall include, when required, Occupational Disease benefits in accordance with applicable law. Applicable law shall include but shall not be limited to the U.S. Longshoremen's and Harbor Workers' Compensation Act and the Jones Act.
- (b) Comprehensive General Liability Insurance on standard bureau form excluding professional liability but including Premises-Operations, Contractual Liability, Owner's and Contractor's Protective Liability, and Completed Operations Insurance, with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate, for bodily injury and/or personal injury, including death and property damage.
- (c) Comprehensive Automobile Public Liability Insurance (including owned, non-owned, and hired automobiles) with a combined single limit for bodily injury, death and property damage of \$1,000,000 per accident. This policy shall also provide coverage for Automobile Comprehensive, Fire and Theft insurance subject to a \$500 deductible and Collision insurance subject to a \$500 deductible on owned commercial vehicles.
- (d) Excess Liability Insurance in the amount of \$5,000,000.
- (e) Pollution Legal Liability (PLL) Insurance in the amount of \$1,000,000.
- (f) Products Completed Liability Insurance in the amount of \$1,000,000 with no time period exclusionary language.
- (g) The Contractor will provide the Commission, upon execution of this Agreement, the appropriate certificates of insurance, as outlined above, including the Commission as an additional insured for the term of this Agreement.