

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T201653101.01

WILMINGTON ADMIN SITE ASBESTOS REMEDIATION

NEW CASTLE COUNTY

ADVERTISEMENT DATE: October 26, 2015

PROSPECTIVE BIDDERS ARE ADVISED THAT THERE WILL BE A MANDATORY PRE-BID MEETING THURSDAY NOVEMBER 5, 2015 AT 12:00 P.M. AT THE FOLLOWING ADDRESS: DELAWARE TRANSIT CORPORATION, 119 LOWER BEECH STREET, WILMINGTON, DELAWARE, 19805

COMPLETION TIME: 90 Calendar Days

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
DELAWARE DEPARTMENT OF TRANSPORTATION
AUGUST 2001

Bids will be received in the Bidder's Room at the Delaware Department of Transportation's Administration Building, 800 Bay Road, Dover, Delaware until 2:00 P.M. local time November 24, 2015

**WILMINGTON ADMIN SITE ASBESTOS REMEDIATION
NEW CASTLE COUNTY**

GENERAL DESCRIPTION

LOCATION

These improvements are located in NEW CASTLE County more specifically shown on the Location Map(s) of the enclosed Plans.

DESCRIPTION

The improvements consist of furnishing all labor and materials for Wilmington Admin Site Asbestos Remediation, and other incidental construction in accordance with the location, notes and details shown on the plans and as directed by the Engineer.

COMPLETION TIME

All work on this contract must be complete within 90 Calendar Days. It is the Department's intent to issue a Notice to Proceed such that work starts on or about January 20, 2016.

PROSPECTIVE BIDDERS NOTES:

1. QUESTIONS regarding this project are to be e-mailed to dot-ask@state.de.us no less than six business days prior to the proposal opening date in order to receive a response. Please include T201653101.01 in the subject line. Responses to inquiries are posted on-line at <http://www.bids.delaware.gov>.
2. Each proposal must be accompanied by a deposit of either surety bond or security for a sum equal to at least 10% of the bid.
3. No retainage will be withheld on this contract.
4. The Department's External Complaint Procedure can be viewed on DelDOT's Website at; <http://www.deldot.gov/information/business/>, or you may request a copy by calling (302) 760-2555.
5. **SPECIFICATIONS:** Supplemental Specifications to the August 2001 Standard Specifications were issued November 24, 2014 and apply to this project. They can be [viewed here](#).
6. In accordance with 29 Del. C. §6962(d)(10)a, a **Mandatory Pre-Bid Meeting** will be held to select the subcontractor categories to be included in the bids for performing the work required for this contract. In accordance with Title 29 Del. C. §6962(d)(10)b of the Delaware Code, a penalty of \$2,000.00 will be withheld from the successful bidder for each occurrence for the failure to utilize any or all of the Subcontractors submitted with the bid.

The Pre-Bid Meeting will be held Thursday November 5, 2015 at 12:00 p.m. at the following address: Delaware Transit Corporation, 119 Lower Beech Street, Wilmington, Delaware, 19805.

All bidders must be represented at the Mandatory Pre-Bid Meeting for this contract. The bidder's representative must sign-in and identify the name of the bidder they represent. Failure to sign-in with the bidder's company name at the Mandatory Pre-Bid Meeting will result in the bidder being found non-responsible and non-responsive, and their bid will be rejected.

For safety purposes all attendees should come with a hard hat and flashlight.

7. Must be a Certified Asbestos Abatement Contractor, in accordance with the Delaware Department of Natural Resources and Environmental Control.

**STATE OF DELAWARE
CONSTRUCTION ITEMS UNITS OF MEASURE**

English Code	English Description	Multiply By	Metric Code	Metric Description	Suggested CEC Metric Code
ACRE	Acre	0.4047	ha	Hectare	HECTARE
BAG	Bag	N/A	Bag	Bag	BAG
C.F.	Cubic Foot	0.02832	m ³	Cubic Meter	M3
C.Y.	Cubic Yard	0.7646	m ³	Cubic Meter	M3
EA-DY	Each Day	N/A	EA-DY	Each Day	EA-DY
EA-MO	Each Month	N/A	EA-MO	Each Month	EA-MO
EA/NT	Each Night	N/A	EA-NT	Each Night	EA/NT
EACH	Each	N/A	EA	Each	EACH
GAL	Gallon	3.785	L	Liter	L
HOUR	Hour	N/A	h	Hour	HOUR
INCH	Inch	25.4	mm	Millimeter	MM
L.F.	Linear Foot	0.3048	m	Linear Meter	L.M.
L.S.	Lump Sum	N/A	L.S.	Lump Sum	L.S.
LA-MI	Lane Mile	1.609	LA-km	Lane-Kilometer	LA-KM
LB	Pound	0.4536	kg	Kilogram	KG
MFBM	Thousand Feet of Board Measure	2.3597	m ³	Cubic Meter	M3
MGAL	Thousand Gallons	3.785	kL	Kiloliter	KL
MILE	Mile	1.609	km	Kilometer	KM
S.F.	Square Foot	0.0929	m ²	Square Meter	M2
S.Y.	Square Yard	0.8361	m ²	Square Meter	M2
SY-IN	Square Yard-Inch	0.8495	m ² -25 mm	Square Meter-25 Millimeter	M2-25 MM
TON	Ton	.9072	t	Metric Ton (1000kg)	TON
N.A.*	Kip	4.448	kN	Kilonewton	N.A.*
N.A.*	Thousand Pounds per Square Inch	6.895	MPa	Megapascal	N.A.*

*Not used for units of measurement for payment.

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GENERAL NOTICES

SPECIFICATIONS:

The specifications entitled "Delaware Standard Specifications, for Road and Bridge Construction, August, 2001", hereinafter referred to as the Standard Specifications, Supplemental Specifications, the Special Provisions, notes on the Plans, this Bid Proposal, and any addenda thereto shall govern the work to be performed under this contract.

CLARIFICATIONS:

Under any Section or Item included in the Contract, the Contractor shall be aware that when requirements, responsibilities, and furnishing of materials are outlined in the details and notes on the Plans and in the paragraphs preceding the "Basis of Payment" paragraph in the Standard Specifications or Special Provisions, no interpretation shall be made that such stipulations are excluded because reiteration is not made in the "Basis of Payment" paragraph.

ATTESTING TO NON-COLLUSION:

The Department requires as a condition precedent to acceptance of bids a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract. The form for this sworn statement is included in the proposal and must be properly executed in order to have the bid considered.

QUANTITIES:

The quantities shown are for comparison of bids only. The Department may increase or decrease any quantity or quantities without penalty or change in the bid price.

PREFERENCE FOR DELAWARE LABOR:

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (4)b

"In the construction of all public works for the State or any political subdivision thereof, or by firms contracting with the State or any political subdivision thereof, preference in employment of laborers, workmen or mechanics shall be given to bona fide legal citizens of the State who have established citizenship by residence of at least 90 days in the State. Each public works contract for the construction of public works for the State or any political subdivision thereof shall contain a stipulation that any person, company or corporation who violates this section shall pay a penalty to the Secretary of Finance equal to the amount of compensation paid to any person in violation of this section."

EQUALITY OF EMPLOYMENT OPPORTUNITY ON PUBLIC WORKS:

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (7)

"a. As a condition of the awarding of any contract for public works financed in whole or in part by State appropriation, such contracts shall include the following provisions:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex or national origin. The contractor will take positive steps to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting agency setting forth this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex or national origin.'

TAX CLEARANCE:

As payments to each vendor or contractor aggregate \$2,000, the Division of Accounting will report such vendor or contractor to the Division of Revenue, who will then check the vendor or contractor's compliance with tax requirements and take such further action as may be necessary to insure compliance.

LICENSE:

A person desiring to engage in business in this State as a contractor shall obtain a license upon making application to the Division of Revenue. Proof of said license compliance to be made prior to, or in conjunction with, the execution of a contract to which he has been named.

CONTRACTOR / SUBCONTRACTOR LICENSE: 29 DEL. C. §6967:

(b) No agency shall accept a proposal for a public works contract unless such contractor has provided a proper and current copy of its occupational and/or business license, as required by Title 30, to such agency.

(c) Any contractor that enters a public works contract must provide to the agency to which it is contracting, within 30 days of entering such public works contract, copies of all occupational and business licenses of subcontractors and/or independent contractors that will perform work for such public works contract. However, if a subcontractor or independent contractor is hired or contracted more than 20 days after the contractor entered the public works contract the occupational or business license of such subcontractor or independent contractor shall be provided to the agency within 10 days of being contracted or hired.

DIFFERING SITE CONDITIONS,

SUSPENSIONS OF WORK and SIGNIFICANT CHANGES IN THE CHARACTER OF WORK:

Differing site conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the engineer will investigate the conditions, and if he/she determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the

contract modified in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

No contract adjustment will be allowed under their clause for any effects caused on unchanged work.

Suspensions of work ordered by the engineer: If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

Significant changes in the character of work: The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

The term "significant change" shall be construed to apply only to the following circumstances:

- (A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or
- (B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

RIGHT TO AUDIT

The Department shall have the right to audit the books and records of the contractor or any subcontractor under this contract or subcontract to the extent that the books and records relate to the performance of the contract or subcontract. The books and records shall be maintained by the contractor for a period of 3 years from the date of final payment under the prime contract and by the subcontractor for a period of 3 years from the date of final payment under the subcontract (29 Del.C. §6930)

PREVAILING WAGES

Included in this proposal are the minimum wages to be paid various classes of laborers and mechanics as determined by the Department of Labor of the State of Delaware in accordance with Title 29 Del.C. §6960, relating to wages and the regulations implementing that Section.

REQUIREMENT BY DEPARTMENT OF LABOR FOR SWORN PAYROLL INFORMATION

Title 29 Del.C. §6960 stipulates;

(b) Every contract based upon these specifications shall contain a stipulation that the employer shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the specifications, regardless of any contractual relationship which may be alleged to exist between the employer and such laborers and mechanics. The specifications shall further stipulate that the scale of wages to be paid shall be posted by the employer in a prominent and easily accessible place at the site of the work, and that there may be withheld from the employer so much of accrued payments as may be considered necessary by the Department of Labor to pay to laborers and mechanics employed by the employer the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and rates of wages received by such laborers and mechanics to be remitted to the Department of Labor for distribution upon resolution of any claims.

(c) Every contract based upon these specifications shall contain a stipulation that sworn payroll information, as required by the Department of Labor, be furnished weekly. The Department of Labor shall keep and maintain the sworn payroll information for a period of 6 months from the last day of the work week covered by the payroll.

Bidders are specifically directed to note the Department of Labor's prevailing wage regulations implementing §6960 relating to the effective date of the wage rates, at Part VI., Section C., which in relevant part states:

"Public agencies (covered by the provisions of 29 Del.C. §6960) are required to use the rates which are in effect on the date of the publication of specifications for a given project. In the event that a contract is not executed within one hundred twenty (120) days from the date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project."

Contractor may contact:

Department of Labor
Division of Industrial Affairs
4425 No. Market Street
Wilmington, DE 19802
Telephone (302) 761-8200

STATE OF DELAWARE
DEPARTMENT OF LABOR
DIVISION OF INDUSTRIAL AFFAIRS
OFFICE OF LABOR LAW ENFORCEMENT
PHONE: (302) 451-3423

Mailing Address:
225 CORPORATE BOULEVARD
SUITE 104
NEWARK, DE 19702

Located at:
225 CORPORATE BOULEVARD
SUITE 104
NEWARK, DE 19702

PREVAILING WAGES FOR HEAVY CONSTRUCTION
EFFECTIVE MARCH 13, 2015 - AMENDED JULY 15, 2015

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
ASBESTOS WORKERS	21.14	18.60	40.43
BOILERMAKERS	73.62	30.73	56.37
BRICKLAYERS	44.98	22.19	23.83
CARPENTERS	51.86	51.86	41.22
CEMENT FINISHERS	43.00	23.30	16.00
ELECTRICAL LINE WORKERS	62.75	26.30	62.75
ELECTRICIANS	63.60	63.60	63.60
GLAZIERS	19.54	16.96	11.48
INSULATORS	53.38	53.38	53.38
IRON WORKERS	60.12	60.12	55.78
LABORERS	40.95	40.95	40.95
MILLWRIGHTS	65.23	65.23	51.80
PAINTERS	75.26	75.26	75.26
PILEDRIVERS	71.17	37.64	29.30
PLASTERERS	18.40	15.97	10.80
PLUMBERS/PIPEFITTERS/STEAMFITTERS	76.78	76.78	17.12
POWER EQUIPMENT OPERATORS	59.81	59.81	59.81
SHEET METAL WORKERS	29.40	18.23	17.13
SPRINKLER FITTERS	31.68	11.99	9.93
TRUCK DRIVERS	28.34	19.72	21.40

CERTIFIED :

8/7/15

BY:

[Signature]
ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

NOTE: THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 451-3423.

NON- REGISTERED APPRENTICES MUST BE PAID THE MECHANICS RATE.

Re: T201653101 Wilm Admin Site Asbestos Remediation, New Castle County

**SUPPLEMENTAL SPECIFICATIONS
TO THE
AUGUST 2001
STANDARD SPECIFICATIONS**

**EFFECTIVE AS OF THE ADVERTISEMENT
DATE OF THIS PROPOSAL
AND INCLUDED BY REFERENCE**

**The Supplemental Specifications can be viewed and printed from
the Department's Website.**

To access the Website;

- in your internet browser, enter; <http://www.deldot.gov>
- on the left side of the page under 'INFORMATION', Click; 'Publications'
- scroll down under 'MANUALS' and Click; "Standard Specifications 2001"

The full Website Link is;

http://www.deldot.gov/information/pubs_forms/manuals/standard_specifications/index.shtml

Printed copies of the Supplemental Specifications are available upon request. A printed copy of the above referenced Supplemental Specifications will be included in the final contract documents upon award.

The Contractor shall make himself aware of these revisions and corrections (Supplemental Specifications), and apply them to the applicable item(s) of this contract.

SUMMARY OF WORK

SECTION 01013 - SUMMARY OF THE WORK - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A.** DTC Beech Street Facility Asbestos Management Services
Buildings 2, 5, 8, 12, and Associated Outbuildings
119 Lower Beech Street
Wilmington, Delaware
 - 1. Owner: Delaware Transit Corporation (DTC)

- B. Contract Documents:**

Conditions that are indicated on the Contract Documents include but are not limited to the following:

- 1. Master Specification for the Delaware Department of Transportation, dated March 1, 2011 and approved on March 4, 2011;
- 2. Specification Addenda.

Notices & Permits:

- 1. Job Site Notices & Permits:
 - a. Equal Employment Opportunity
 - b. Material Safety Data Sheets
 - c. Federal Environmental Protection Agency (EPA) 10-day Notification; if required
 - d. State of Delaware (DNREC) 10-day Notification; if required
 - e. Prevailing Wage Determination
 - f. Emergency Planning Procedures
 - g. Sub-Contractors List

Work to be performed subsequent to work under this contract: Although this DTC property is subject for demolition, only asbestos-containing material (ACM) or ACM contaminated materials are to leave the site. All other building materials will be inventoried to ensure that nothing else leaves the site.

Water, electricity, and sanitary facilities shall not be available for abatement activities onsite and must be provided by the contractor for all removal activities. Contractor will also be responsible for following all Occupational Health and Safety Administration (OSHA) guidelines for the duration of the project.

- C. The Work** consists of the partial demolition of non- asbestos-containing materials to access the following asbestos-containing materials for proper removal:

Roofing Materials

1. Asbestos-containing roofing step block (black) associated with building 12 roof – estimated 15 square feet (10% chrysotile).
2. Asbestos-containing roofing flashing (black) and associated asphalt built-up roofing material (black) associated with the building 12 flat stone roof – estimated 660 square feet (18% & 20% chrysotile, respectively).
3. Asbestos-containing original asphalt built-up roofing material (black) and associated roofing felt (black) located underneath roofing membrane on building 2 A-frame roof – estimated 3,200 square feet (20% chrysotile).
4. Asbestos-containing roofing felt (black) and asbestos-containing roofing flashing (black) associated with asphalt rolled roofing in southwest corner of building 2 roof – estimated 1,750 square feet (40% & 25% chrysotile, respectively).
5. Asbestos containing roofing felt (black) located between corrugated roofing on building 8 roof – estimated 7,500 square feet (30% chrysotile).
6. Asbestos-containing original asphalt built-up roofing (black) located on the building 8 east side lower roof underneath roofing membrane and insulation – estimated 2,000 square feet (20% chrysotile).
7. Asbestos-containing asphalt rolled roofing (black), associated roofing felt (black), and roofing flashing (black) located in the center of the building 8 roof – estimated 8,200 square feet (5%, 25% & 20% chrysotile, respectively).
8. Asbestos-containing corrugated metal roofing brushcoat (black) located on both sides of corrugated metal roofing panels over main portion of Building 5 – estimated 4,141 square feet (30% chrysotile).
9. Asbestos-containing silver roof coat (silver) as coating over the top side corrugated metal roofing brushcoat associated with main portion of Building 5 – estimated 4,141 square feet (10% chrysotile).
10. Asbestos-containing roofing flashing (black) associated with Building 5 corrugated metal roof seams, penetrations, and kneewall – estimated 4,141 square feet (7% chrysotile).
11. Asbestos-containing soffit wrap material (black/white) as covering over Building 5, main building soffit – estimated 852 square feet (15% chrysotile).
12. Asbestos-containing roofing flashing/concrete deck sealer (black) associated with Building 5 small, south, red brick outbuilding between concrete deck and fiberglass roofing material – estimated 25 square feet (7% chrysotile).

13. Asbestos-containing roofing flashing (black) as residual brushcoat and penetration sealer associated with roof over Building 5 small, south, red brick outbuilding – estimated 462 square feet (4% chrysotile).

Thermal System Insulation

1. Asbestos-containing paper fire door insulation (white) located in all fire doors associated with buildings 2, 12, and 8 – estimated 16 doors (60% chrysotile).
2. Asbestos-containing pipe insulation (white) located throughout buildings 2, 12, and 8, associated with the original water line – estimated 750 linear feet (20% amosite).
3. Asbestos-containing corrugated paper pipe insulation (brown) located in the building 8 men's room above the drop ceiling – estimated 20 linear feet (30% chrysotile).
4. Asbestos-containing duct coat associated with duct located in building 8 – estimated 36,000 square feet (15% chrysotile).
5. Asbestos-containing exterior duct insulation (black) located adjacent to building 12 roof – estimated 25 linear feet (10% chrysotile).

Miscellaneous

1. Asbestos-containing sheet good (white/gray) located in the stair tower landing on the east side of building 8, under 12"x12" floor tile, over 9"x9" floor tile – estimated 140 square feet (30% chrysotile).
2. Asbestos-containing 12"x12" floor tile (dark gray) and associated mastic adhesive (black) located in room #5 of building 8 – estimated 300 square feet (12% & 8% chrysotile, respectively).
3. Asbestos-containing 12"x12" floor tile (gray) and associated mastic adhesive (black) located throughout buildings 2, 12, and 8 – estimated 35,685 square feet (5% & 8% chrysotile, respectively).
4. Asbestos-containing base cove mastic (yellow) located throughout buildings 2, 12, and 8 – estimated 3,000 linear feet (<1% anthophyllite & 3% chrysotile).
5. Asbestos-containing 9"x9" floor tile (gray) and associated mastic adhesive (black) located in the equipment room and tool crib – estimated 2,800 square feet (8% & 5% chrysotile).
6. Asbestos-containing sheet good mastic adhesive (yellow) associated with blue/green sheetgood material located in building 8 2nd floor bathrooms – estimated 650 square feet (5% chrysotile).
7. Asbestos-containing 9"x9" floor tile (green) and associated mastic adhesive (black) located throughout 3rd floor of building 2 – estimated 13,850 square feet (12% & 10% chrysotile, respectively).
8. Asbestos-containing cementitious deck and wall panels (gray) associated with building 2 3rd floor walls and above drop ceiling across entire deck – estimated 10,480 square feet (50% chrysotile).
9. Asbestos-containing window caulk and glaze (gray) associated with original metal framed windows throughout buildings 2, 8, & 12 – estimated 33 windows (5% chrysotile). Note: an

estimated additional 20 windows may be located under the siding associated with the 2nd floor of building 8.

10. Asbestos-containing 9”x9” floor tile (red) and associated mastic adhesive (black) located in the northern guard shack to building 8 – estimated 300 square feet (10% & 8% chrysotile, respectively).
11. Asbestos-containing exterior paneling (gray) associated with the compressor room, east and south sides of building 8 and north side of building 8 on roof – estimated 10,500 square feet (40% chrysotile).
12. Asbestos-containing exterior substrate to metal siding panels (black) located on the east side of building 8 – estimated 3,500 square feet (25% chrysotile).
13. Asbestos-containing window caulk (gray) associated with Building 5 original metal framed windows – estimated 10 window units (8% chrysotile).
14. Asbestos-containing gasket material (black) associated with Building 5 water, steam, gas, and product lines throughout Building 5 – approximately 60 gaskets (35% chrysotile).
15. Asbestos-containing 9”x9” floor tile (white) located in the Building 5 office area, entrance foyer and as 3rd layer in the furniture storage area – estimated 1,558 square feet (3% chrysotile).
16. Asbestos-containing HVAC duct sealer (black) associated with blue foam duct in Building 5 furniture storage area – estimates 984 square feet (8% chrysotile).

D. Removal Procedures:

Removal of asbestos-containing roofing materials and exterior cementitious siding panels (miscellaneous):

- 1. Please note: Abatement activities cannot begin or be completed without the Owner’s licensed Project Monitor present.**
2. Install a remote 3-stage decontamination unit with shower adjacent to the work area (Section 01563).
3. An established regulated areawill be established using asbestos danger tape (red in color). Two layers of 6-mil polyethylene sheeting will be placed on the surface below the asbestos-containing roofing material.
4. Material that is not consider asbestos-containing or can be segregated from the asbestos-containing material in a manner that the material is free of asbestos-containing debris, may be removed and staged for disposal by others.
5. Once an approval to commence is received from the Owners’ representative, the roofing materials associated with the structure shall be removed in a manner preventing the materials from becoming friable. The Owners’ representative will not tolerate the free fall of any asbestos-containing roofing materials during abatement activities. Amended water shall be

used during the duration of the removal procedures. Dry removal of any asbestos-containing materials will not be tolerated.

6. A thorough visual inspection will be performed to evaluate if the area has been sufficiently cleaned of ACM and all visible debris.
7. During abatement activities, the Owner's representative may collect phase contrast microscopy air samples to evaluate if the Contractor is removing materials in a non-friable manner.

**Removal of asbestos-containing Thermal Systems Insulation (TSI):
Method 1: Wrap and Cut/Tented Glove Bag**

- 1. Please note: Abatement activities cannot begin or be completed without the Owner's licensed Project Monitor present.**
2. Install a remote 3-stage decontamination unit with shower that is adjacent to the work area (Section 01563).
3. Install and run high efficiency particulate absolute (HEPA) air filtration devices in each work area. Establish and maintain a pressure differential of -0.02 inches of water measured on a strip chart recorder or other approved method in each work area. The Owners' representative shall inspect and record the pressure differential at least 2 times per 8-hour shift. The Contractor shall supply a pressure differential manometer that is capable of monitoring and recording on a strip chart, pressure differential of 0.005 inches of water. The manometer shall be equipped with an automatically activated alarm system that will sound if the pressure differential drops below the pre-set value. The Owner's representative may request that all strip charts be turned at the completion of the project phase. Work shall not commence until an adequate pressure differential is achieved and maintained in each work area.
4. Establish a tent enclosure around the pipe insulation area utilizing one layer of 6-mil polyethylene sheeting. In addition install a floor consisting of 6-mil polyethylene sheeting under the asbestos-containing pipe insulation. Please note this work may require separate tent enclosures depending on the obstructions from building materials limiting access.
5. Once the tent enclosure has been erected and approved by the owner's licensed Project Monitor, adequately wet the pipe insulation utilizing amended water and wrap the pipe insulation with two layers of 6-mil polyethylene sheeting. If necessary utilize glove bag methods in accordance with Section 01529 to create access points on the pipe to cut the section of pipe out of the structure.
6. Upon removal of the wrapped pipe from the work areas, the contractor shall sufficiently clean the work area utilizing a HEPA vacuum cleaner and deconstruct the tent enclosure, Section 01711. All asbestos-containing materials are to be properly labeled and removed from the work area to the waste trailer. After this procedure is completed and a visual inspection has passed, the contractor shall deconstruct the tent enclosure.

7. HEPA filtered air filtration devices shall remain in use until the tent enclosure has been completely deconstructed.
8. After this procedure is completed and a visual inspection has passed, final clearance sampling will be performed by the Owner's representative. Final Clearance shall be conducted by phase contrast microscopy (PCM) analysis using EPA approved protocol.
9. HEPA filtered air filtration devices shall remain in use until final analytical clearance has been established.

**Removal of asbestos-containing Thermal Systems Insulation (TSI):
Method 2: Type C Gross Removal**

- 1. Please note: Abatement activities cannot begin or be completed without the Owner's licensed Project Monitor present.**
2. Please note in the event that the gross removal technique is utilized, abatement activities will be completed under Type "C" Supplied Air Respiratory Protection, as described in Section 01562 – Respiratory Protection. Each work area shall establish the following guidelines.
3. Install 3-stage decontamination unit with shower that is attached to the work area (Section 01563). The decontamination unit will be erected in such a manner as to allow for a separate equipment room/bag-out. In no instance will the personal decontamination unit be used as a bag-out/equipment passage unless there is only one entry way into the work area and the method has been approved by the Owner's Project Monitor present.
4. Install and run high efficiency particulate absolute (HEPA) air filtration devices in each work area. Pre-clean the entire work area. Install critical barriers within the individual work areas. Install a minimum of 2 layers of 6-mil polyethylene sheeting to walls and floors, and 1 layer of 6-mil polyethylene sheeting to ceilings of work area. Please note that all critical barriers be sealed for the entire area.
5. Establish and maintain a pressure differential of -0.02 inches of water measured on a strip chart recorder or other approved method in each work area. The Owners' representative shall inspect and record the pressure differential at least 2 times per 8-hour shift. The Contractor shall supply a pressure differential manometer that is capable of monitoring and recording on a strip chart, pressure differential of 0.005 inches of water. The manometer shall be equipped with an automatically activated alarm system that will sound if the pressure differential drops below the pre-set value. The Owner's representative may request that all strip charts be turned at the completion of the project phase. Work shall not commence until an adequate pressure differential is achieved and maintained in each work area.
6. A pre-commencement inspection shall be conducted by the abatement Contractor's supervisor and the Owner's representative; when approval from the Owner's representative is received the abatement activities may commence. The asbestos-containing materials shall be adequately wetted with amended water during the abatement process. Dry removal of any asbestos-

containing materials will not be tolerated. The asbestos-containing building materials shall be continuously wetted and immediately placed into 6-mil. asbestos disposal bags for proper disposal, according to Section 02081 of the Master Specification.

7. Once an approval to commence is received from the owners' representative, the thermal system insulation shall be removed. After removal of all thermal system insulation within the work area is complete, the area must be thoroughly cleaned and encapsulated. Amended water shall be used during the duration of the removal procedures. Dry removal of any asbestos-containing materials will not be tolerated.
8. After this procedure is completed and a visual inspection has passed, final clearance sampling will be performed by the Owner's representative. Final Clearance shall be conducted by phase contrast microscopy (PCM) analysis using EPA approved protocol.
9. HEPA filtered air filtration devices shall remain in use until final analytical clearance has been established.

Removal of asbestos-containing interior cementitious siding panels, asbestos-containing flooring materials, asbestos-containing gasket material, and asbestos-containing HVAC duct sealer (miscellaneous):

1. **Please note: Abatement activities cannot begin or be completed without the Owner's licensed Project Monitor present.**
2. Install 3-stage decontamination unit with shower that is attached to the work area (Section 01563). The decontamination unit will be erected in such a manner as to allow for a separate equipment room/bag-out. In no instance will the personal decontamination unit be used as a bag-out/equipment passage unless there is only one entry way into the work area and the method has been approved by the Owner's Project Monitor present.
3. Install and run high efficiency particulate absolute (HEPA) air filtration devices in each work area. Pre-clean any areas needing critical barriers and install critical barriers within the individual work areas. Please note that all critical barriers consist of 2 layers of 6-mil polyethylene sheeting. Critical barriers must be sealed for the entire work area.
4. Establish and maintain a pressure differential of -0.02 inches of water measured on a strip chart recorder or other approved method in each work area. The Owners' representative shall inspect and record the pressure differential at least 2 times per 8-hour shift. The Contractor shall supply a pressure differential manometer that is capable of monitoring and recording on a strip chart, pressure differential of 0.005 inches of water. The manometer shall be equipped with an automatically activated alarm system that will sound if the pressure differential drops below the pre-set value. The Owner's representative may request that all strip charts be turned at the completion of the project phase. Work shall not commence until an adequate pressure differential is achieved and maintained in each work area.
5. A pre-commencement inspection shall be conducted by the abatement Contractor's supervisor

and the Owner's representative; when approval from the Owner's representative is received the abatement activities may commence. The asbestos-containing materials shall be adequately wetted with amended water during the abatement process. Dry removal of any asbestos-containing materials will not be tolerated. The asbestos-containing building materials shall be continuously wetted and immediately placed into 6-mil. asbestos disposal bags for proper disposal, according to Section 02081 of the Master Specification.

6. Once an approval to commence is received from the owners' representative, the cementitious panels and/or flooring materials shall be removed in a manner preventing the materials from becoming friable. BrightFields will not tolerate the free fall of any asbestos-containing cementitious panels during abatement activities. Amended water shall be used during the duration of the removal procedures. Dry removal of any asbestos-containing materials will not be tolerated
7. After this procedure is completed and a visual inspection has passed, final clearance sampling will be performed by the Owner's representative. Final Clearance shall be conducted by phase contrast microscopy (PCM) analysis using EPA approved protocol.
8. HEPA filtered air filtration devices shall remain in use until final analytical clearance has been established.

E. The following inspections shall be performed during the project phases indicated:

1. Pre-Cleaning: A visual inspection of all pre-cleaned surfaces must be performed by the Contractors' on-site supervisor and the Owners' representative together prior to any abatement activities.
2. Daily Project Inspections: An inspection of the integrity of the work area shall be performed a minimum of twice daily by the Owners representative.
3. Final Visual Inspection (air clearance): A final visual inspection of the work area shall be performed by the Contractors' on-site supervisor and Owners' representative prior to aggressive final air clearance sampling.
4. Project Completion Inspection (post air clearance): A final visual inspection of the work area shall be performed by the Contractors' on-site supervisor and Owners' representative after aggressive final air clearance sampling has passed and containment system has been demobilized, prior to turning the area (s) over to the Owner.

Minimum Respiratory protection for this project shall include **full face Powered Air Purifying Respirators (PAPR)** for set up and removal of the asbestos-containing materials. In the event that the Contractor chooses to remove the thermal system insulation via "method 2", Type "C" Supplied Air Respiratory Protection will be required.

As previously mentioned, electric and water shall not be available onsite and/or provided by the Owner. The contractor will be responsible for providing temporary electric and water sources for

the duration of the project.

All existing electric power in the work area shall be confirmed de-energized by the abatement Contractor and temporary power shall be brought to the work area from outside – **see Section 01503** of the Specification. The Owner shall not supply temporary utilities. It is the Contractors' responsibility to comply with all OSHA requirements.

All workers must have their current State of Delaware Asbestos Worker/Supervisor Badge and current medical information available daily for verification and recording purposes by the Owners' representative in order to work on the project. **NO EXCEPTIONS SHALL BE TOLERATED.**

The abatement Contractor shall supply extra, new respirators (PAPR or Type "C"), respirator cartridges, disposable coveralls (w/head and foot covers) at the decontamination unit for use by authorized visitors as well as the Owners' representative at all times. All decontamination procedures shall be strictly followed and enforced. A signed copy of the Workers' Acknowledgment shall be obtained from each worker - Section 01301 of the Specification.

Measurements provided in this Section are approximate and it is understood that ALL measurements must be verified by the Contractor and reported to the Owners' representative.

1. All work shall be performed in accordance with the requirements of the specification and all applicable Federal, State and local regulations.
2. Related Specifications – Master Specification for Asbestos Abatement/Decontamination for Delaware Department of Transportation.
 - a. Division 1 – General Requirements:

- 01013 Summary of Work - Asbestos Abatement
- 01028 Application for Payment - Asbestos Abatement
- 01043 Project Coordination - Asbestos Abatement
- 01097 Reference Standards and Definitions - Asbestos Abatement
- 01098 Codes, Regulations and Standards - Asbestos Abatement
- 01301 Submittals - Asbestos Abatement
- 01310 Schedule
- 01503 Construction Facilities and Temporary Controls - Asbestos Abatement
- 01513 Temporary Pressure Differential & Air Circulation System
- 01526 Temporary Enclosures
- 01527 Regulated Areas
- 01528 Entry into Controlled Areas
- 01529 Mini Enclosures and Glove bags
- 01560 Worker Protection - Asbestos Abatement
- 01562 Respiratory Protection
- 01563 Decontamination Units
- 01601 Materials and Equipment - Asbestos Abatement
- 01632 Product Substitutions - Asbestos Abatement

01701 Contract Closeout - Asbestos Abatement
01711 Project Decontamination
01712 Cleaning and Decontamination Procedures

b. Division 2 – Site Work:

02061 Building Component Demolition - Asbestos Abatement
02062 Non-Asbestos Demolition
02063 Removal of Asbestos Contaminated Materials
02081 Removal of Asbestos Containing Material
02084 Disposal of Regulated Asbestos Containing Material
02085 Resilient Floor Covering Manufacturers' Recommended Work Practices
02086 Hazardous Waste Management
02087 Resilient Flooring Removal - Aggressive Asbestos Abatement
02088 Removal of Asbestos Roofing Materials

c. Division 9 – Finishes:

09805 Encapsulation of Asbestos-Containing Materials

3. Submittals: Prior to starting work, submit the following to the Owners' representative for review. Do not begin without the approval of the Owners' representative.

- a. Scope of Work - Submit a detailed plan of the procedures to be used in complying with the requirements of this specification. Include the location and layout of decontamination unit(s), the sequencing of work, the interfacing of other trades, methods to be used to assure the safety of the building occupants and visitors, detailed disposal plan and a detailed description of the methods to be used to control pollution. The plan shall be submitted at the pre-work meeting and approved by the Owners' representative prior to starting work.

4. Inspection: Prior to starting work, inspect work areas. Prepare a list of damages to the structure, surfaces and equipment of surrounding areas of the building that may be construed as damage caused by the work. Photograph or videotape existing conditions as necessary to document these conditions. Submit to the Owners' representative prior to starting work.

1.3 WORK SEQUENCE

- A. All work shall be coordinated so as not to interfere with the Owner or other contractors onsite. It is anticipated that certain portion of the scope can be completed concurrently with asbestos abatement activities. The contractor shall inform the DTC in writing of their planned sequence of activities before beginning the work.
- B. Perform work between the hours of 7 a.m. and 5 p.m. prevailing time during normal work weekdays. No work will be performed during nights or on weekends without written permission from the Owner to do so.

- C. Contractor is to conduct removal activity beginning at building 8 and work their way through buildings 8 and 12. After completing the removal of materials in buildings 8 and 12, the Contractor shall be required to perform removal of materials in buildings 2 and 5 concurrently.
- D. All HAZMAT/universal waste should be removed from each work area prior to beginning asbestos abatement procedures (See Section 17001 Summary of the Work – HAZMAT/Universal Waste Disposal).
- E. Roofing and windows shall be the last materials removed from each building in order to keep the buildings secure and weather-tight for as long as possible, without interrupting the demolition schedule.
- F. The Work will be conducted in one phase. The following materials shall be removed in an order concurrent with Section 1.3 (A-D) of this Summary of the Work:

Roofing Materials

1. Asbestos-containing roofing step block (black) associated with building 12 roof – estimated 15 square feet (10% chrysotile).
2. Asbestos-containing roofing flashing (black) and associated asphalt built-up roofing material (black) associated with the building 12 flat stone roof – estimated 660 square feet (18% & 20% chrysotile, respectively).
3. Asbestos-containing original asphalt built-up roofing material (black) and associated roofing felt (black) located underneath roofing membrane on building 2 A-frame roof – estimated 3,200 square feet (20% chrysotile).
4. Asbestos-containing roofing felt (black) and asbestos-containing roofing flashing (black) associated with asphalt rolled roofing in southwest corner of building 2 roof – estimated 1,750 square feet (40% & 25% chrysotile, respectively).
5. Asbestos containing roofing felt (black) located between corrugated roofing on building 8 roof – estimated 7,500 square feet (30% chrysotile).
6. Asbestos-containing original asphalt built-up roofing (black) located on the building 8 east side lower roof underneath roofing membrane and insulation – estimated 2,000 square feet (20% chrysotile).
7. Asbestos-containing asphalt rolled roofing (black), associated roofing felt (black), and roofing flashing (black) located in the center of the building 8 roof – estimated 8,200 square feet (5%, 25% & 20% chrysotile, respectively).
8. Asbestos-containing corrugated metal roofing brushcoat (black) located on both sides of corrugated metal roofing panels over main portion of Building 5 – estimated 4,141 square feet (30% chrysotile).
9. Asbestos-containing silver roof coat (silver) as coating over the top side corrugated metal roofing brushcoat associated with main portion of Building 5 – estimated 4,141 square feet (10% chrysotile).
10. Asbestos-containing roofing flashing (black) associated with Building 5 corrugated metal roof seams, penetrations, and kneewall – estimated 4,141 square feet (7% chrysotile).
11. Asbestos-containing soffit wrap material (black/white) as covering over Building 5, main building soffit – estimated 852 square feet (15% chrysotile).

12. Asbestos-containing roofing flashing/concrete deck sealer (black) associated with Building 5 small, south, red brick outbuilding between concrete deck and fiberglass roofing material – estimated 25 square feet (7% chrysotile).
13. Asbestos-containing roofing flashing (black) as residual brushcoat and penetration sealer associated with roof over Building 5 small, south, red brick outbuilding – estimated 462 square feet (4% chrysotile).

Thermal System Insulation

1. Asbestos-containing paper fire door insulation (white) located in all fire doors associated with buildings 2, 12, and 8 – estimated 16 doors (60% chrysotile).
2. Asbestos-containing pipe insulation (white) located throughout buildings 2, 12, and 8, associated with the original water line – estimated 750 linear feet (20% amosite).
3. Asbestos-containing corrugated paper pipe insulation (brown) located in the building 8 men's room above the drop ceiling – estimated 20 linear feet (30% chrysotile).
4. Asbestos-containing duct coat associated with duct located in building 8 – estimated 36,000 square feet (15% chrysotile).
5. Asbestos-containing exterior duct insulation (black) located adjacent to building 12 roof – estimated 25 linear feet (10% chrysotile).

Miscellaneous

1. Asbestos-containing sheet good (white/gray) located in the stair tower landing on the east side of building 8, under 12"x12" floor tile, over 9"x9" floor tile – estimated 140 square feet (30% chrysotile).
2. Asbestos-containing 12"x12" floor tile (dark gray) and associated mastic adhesive (black) located in room #5 of building 8 – estimated 300 square feet (12% & 8% chrysotile, respectively).
3. Asbestos-containing 12"x12" floor tile (gray) and associated mastic adhesive (black) located throughout buildings 2, 12, and 8 – estimated 35,685 square feet (5% & 8% chrysotile, respectively).
4. Asbestos-containing base cove mastic (yellow) located throughout buildings 2, 12, and 8 – estimated 3,000 linear feet (<1% anthophyllite & 3% chrysotile).
5. Asbestos-containing 9"x9" floor tile (gray) and associated mastic adhesive (black) located in the equipment room and tool crib – estimated 2,800 square feet (8% & 5% chrysotile).
6. Asbestos-containing sheet good mastic adhesive (yellow) associated with blue/green sheetgood material located in building 8 2nd floor bathrooms – estimated 650 square feet (5% chrysotile).
7. Asbestos-containing 9"x9" floor tile (green) and associated mastic adhesive (black) located throughout 3rd floor of building 2 – estimated 13,850 square feet (12% & 10% chrysotile, respectively).

8. Asbestos-containing cementitious deck and wall panels (gray) associated with building 2 3rd floor walls and above drop ceiling across entire deck – estimated 10,480 square feet (50% chrysotile).
9. Asbestos-containing window caulk and glaze (gray) associated with original metal framed windows throughout buildings 2, 8, & 12 – estimated 33 windows (5% chrysotile). Note: an estimated additional 20 windows may be located under the siding associated with the 2nd floor of building 8.
10. Asbestos-containing 9”x9” floor tile (red) and associated mastic adhesive (black) located in the northern guard shack to building 8 – estimated 300 square feet (10% & 8% chrysotile, respectively).
11. Asbestos-containing exterior paneling (gray) associated with the compressor room, east and south sides of building 8 and north side of building 8 on roof – estimated 10,500 square feet (40% chrysotile).
12. Asbestos-containing exterior substrate to metal siding panels (black) located on the east side of building 8 – estimated 3,500 square feet (25% chrysotile).
13. Asbestos-containing window caulk (gray) associated with Building 5 original metal framed windows – estimated 10 window units (8% chrysotile).
14. Asbestos-containing gasket material (black) associated with Building 5 water, steam, gas, and product lines throughout Building 5 – approximately 60 gaskets (35% chrysotile).
15. Asbestos-containing 9”x9” floor tile (white) located in the Building 5 office area, entrance foyer and as 3rd layer in the furniture storage area – estimated 1,558 square feet (3% chrysotile).
16. Asbestos-containing HVAC duct sealer (black) associated with blue foam duct in Building 5 furniture storage area – estimates 984 square feet (8% chrysotile).

1.4 ASBESTOS-CONTAINING MATERIALS:

- A. The work** of this contract involves activities that will disturb asbestos-containing materials. The location and type of asbestos-containing materials known to be present at the worksite is set forth in the “Schedule of Asbestos-Containing Materials” at the end of this Section. If any other asbestos-containing materials or suspect asbestos-containing materials are found, notify the Owner, other employers and employees about the location and quantity of the asbestos-containing materials or suspect asbestos-containing materials within 24 hours of the discovery.

The following asbestos-containing materials are known to be present at the worksite. If any other materials are found that are suspected of containing asbestos, notify the Owners’ representative immediately.

Roofing Materials

1. Asbestos-containing roofing step block (black) associated with building 12 roof – estimated 15 square feet (10% chrysotile).

2. Asbestos-containing roofing flashing (black) and associated asphalt built-up roofing material (black) associated with the building 12 flat stone roof – estimated 660 square feet (18% & 20% chrysotile, respectively).
3. Asbestos-containing original asphalt built-up roofing material (black) and associated roofing felt (black) located underneath roofing membrane on building 2 A-frame roof – estimated 3,200 square feet (20% chrysotile).
4. Asbestos-containing roofing felt (black) and asbestos-containing roofing flashing (black) associated with asphalt rolled roofing in southwest corner of building 2 roof – estimated 1,750 square feet (40% & 25% chrysotile, respectively).
5. Asbestos containing roofing felt (black) located between corrugated roofing on building 8 roof – estimated 7,500 square feet (30% chrysotile).
6. Asbestos-containing original asphalt built-up roofing (black) located on the building 8 east side lower roof underneath roofing membrane and insulation – estimated 2,000 square feet (20% chrysotile).
7. Asbestos-containing asphalt rolled roofing (black), associated roofing felt (black), and roofing flashing (black) located in the center of the building 8 roof – estimated 8,200 square feet (5%, 25% & 20% chrysotile, respectively).
8. Asbestos-containing corrugated metal roofing brushcoat (black) located on both sides of corrugated metal roofing panels over main portion of Building 5 – estimated 4,141 square feet (30% chrysotile).
9. Asbestos-containing silver roof coat (silver) as coating over the top side corrugated metal roofing brushcoat associated with main portion of Building 5 – estimated 4,141 square feet (10% chrysotile).
10. Asbestos-containing roofing flashing (black) associated with Building 5 corrugated metal roof seams, penetrations, and kneewall – estimated 4,141 square feet (7% chrysotile).
11. Asbestos-containing soffit wrap material (black/white) as covering over Building 5, main building soffit – estimated 852 square feet (15% chrysotile).
12. Asbestos-containing roofing flashing/concrete deck sealer (black) associated with Building 5 small, south, red brick outbuilding between concrete deck and fiberglass roofing material – estimated 25 square feet (7% chrysotile).
13. Asbestos-containing roofing flashing (black) as residual brushcoat and penetration sealer associated with roof over Building 5 small, south, red brick outbuilding – estimated 462 square feet (4% chrysotile).

Thermal System Insulation

1. Asbestos-containing paper fire door insulation (white) located in all fire doors associated with buildings 2, 12, and 8 – estimated 16 doors (60% chrysotile).
2. Asbestos-containing pipe insulation (white) located throughout buildings 2, 12, and 8, associated with the original water line – estimated 750 linear feet (20% amosite).

3. Asbestos-containing corrugated paper pipe insulation (brown) located in the building 8 men's room above the drop ceiling – estimated 20 linear feet (30% chrysotile).
4. Asbestos-containing duct coat associated with duct located in building 8 – estimated 36,000 square feet (15% chrysotile).
5. Asbestos-containing exterior duct insulation (black) located adjacent to building 12 roof – estimated 25 linear feet (10% chrysotile).

Miscellaneous

1. Asbestos-containing sheet good (white/gray) located in the stair tower landing on the east side of building 8, under 12"x12" floor tile, over 9"x9" floor tile – estimated 140 square feet (30% chrysotile).
2. Asbestos-containing 12"x12" floor tile (dark gray) and associated mastic adhesive (black) located in room #5 of building 8 – estimated 300 square feet (12% & 8% chrysotile, respectively).
3. Asbestos-containing 12"x12" floor tile (gray) and associated mastic adhesive (black) located throughout buildings 2, 12, and 8 – estimated 35,685 square feet (5% & 8% chrysotile, respectively).
4. Asbestos-containing base cove mastic (yellow) located throughout buildings 2, 12, and 8 – estimated 3,000 linear feet (<1% anthophyllite & 3% chrysotile).
5. Asbestos-containing 9"x9" floor tile (gray) and associated mastic adhesive (black) located in the equipment room and tool crib – estimated 2,800 square feet (8% & 5% chrysotile).
6. Asbestos-containing sheet good mastic adhesive (yellow) associated with blue/green sheetgood material located in building 8 2nd floor bathrooms – estimated 650 square feet (5% chrysotile).
7. Asbestos-containing 9"x9" floor tile (green) and associated mastic adhesive (black) located throughout 3rd floor of building 2 – estimated 13,850 square feet (12% & 10% chrysotile, respectively).
8. Asbestos-containing cementitious deck and wall panels (gray) associated with building 2 3rd floor walls and above drop ceiling across entire deck – estimated 10,480 square feet (50% chrysotile).
9. Asbestos-containing window caulk and glaze (gray) associated with original metal framed windows throughout buildings 2, 8, & 12 – estimated 33 windows (5% chrysotile). Note: an estimated additional 20 windows may be located under the siding associated with the 2nd floor of building 8.
10. Asbestos-containing 9"x9" floor tile (red) and associated mastic adhesive (black) located in the northern guard shack to building 8 – estimated 300 square feet (10% & 8% chrysotile, respectively).
11. Asbestos-containing exterior paneling (gray) associated with the compressor room, east and south sides of building 8 and north side of building 8 on roof – estimated 10,500 square feet (40% chrysotile).

12. Asbestos-containing exterior substrate to metal siding panels (black) located on the east side of building 8 – estimated 3,500 square feet (25% chrysotile).
13. Asbestos-containing window caulk (gray) associated with Building 5 original metal framed windows – estimated 10 window units (8% chrysotile).
14. Asbestos-containing gasket material (black) associated with Building 5 water, steam, gas, and product lines throughout Building 5 – approximately 60 gaskets (35% chrysotile).
15. Asbestos-containing 9”x9” floor tile (white) located in the Building 5 office area, entrance foyer and as 3rd layer in the furniture storage area – estimated 1,558 square feet (3% chrysotile).
16. Asbestos-containing HVAC duct sealer (black) associated with blue foam duct in Building 5 furniture storage area – estimates 984 square feet (8% chrysotile).

1.5 ASBESTOS HEALTH RISK:

- A. The disturbance or dislocation of asbestos-containing materials may cause asbestos fibers to be released into the atmosphere, thereby creating a potential health risk to workers. Apprise all workers, supervisory personnel, subcontractors and consultants who will be at the job site of the seriousness of the risk and of proper work procedures which must be followed.
- B. Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified asbestos-containing materials, take appropriate continuous measures as necessary to protect all building occupants from the risk of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

1.6 CONTRACTOR RESPONSIBILITIES AND USE OF PREMISES

- A. **General:** During the abatement period the Contractor shall have limited use of the premises for abatement operations.
- B. **Use of the Site:** Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 1. **Owner Occupancy:** Allow for Owner occupancy and Owner’s representative.
 2. **Driveways and Entrances:** Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site. All Contractor vehicle parking and equipment/material staging shall be limited to areas identified by the Owner (see Figure 1).
 3. **Sidewalk/Road Closures:** Contractor shall be responsible for all costs associated with

sidewalk and traffic lane closures required during roofing/exterior abatement/removal activities. The Contractor must coordinate lane closures as per DelDOT/DTC requirements including, but not limited to MOT protocols. Lane closures shall only be in effect between 0930 and 1700 hours.

- C. **Use of the Existing Building:** Maintain the existing building in a weather tight condition throughout the construction period. Take all precautions necessary to secure the building during the construction period.
 - 1. **Smoking:** Smoking or open fires will not be permitted on the property.
 - 2. **Sanitary Facilities:** Use of onsite toilets will not be permitted. The Contractor shall be responsible for providing temporary sanitary facilities throughout the duration of the project. Temporary sanitary facilities must be onsite prior to the start of the project (Section 01503).
 - 3. **Site Utilities:** The Contractor shall be responsible to provide all necessary temporary utilities required to facilitate the work throughout the project including, but not limited to electric and water, as well as all permits and associated costs to provide temporary utilities. Temporary utilities shall be installed by licensed and insured contractors.

1.7 OWNER RESPONSIBILITIES

- A. Owner shall be responsible for all disconnection and de-energizing of utilities prior to the start of the abatement/removal activities. Utilities include, but are not limited to electric, gas, water, and phone.

1.8 OCCUPANCY REQUIREMENTS

- A. **Partial Owner Occupancy:** The Owner reserves the right to occupy and to place and install equipment in completed areas of the building prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 - 1. The Owners' representative will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner occupancy.

1.9 AIR MONITORING BY THE OWNER:

- A. **The Owner has contracted for air monitoring.** Air monitoring may be conducted both outside and inside of the work area during the work, and for clearance sampling at the end of the project
 - 1. **Outside of the Work Area:** The Owner's air monitoring firm may sample air outside of the Work Area to detect faults in the Work Area isolation such as:
 - a. Contamination of the building outside of the Work Area with airborne asbestos fibers,
 - b. Failure of filtration or rupture in the differential pressure system,
 - c. Contamination of air outside the building envelop with airborne asbestos fibers.

2. **Inside the Work Area:** The Owners' air monitoring firm may monitor airborne fiber counts in the Work Area. The purpose of this air monitoring is to detect airborne asbestos concentrations which may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.
- B. Work area clearance:** Clearance air sampling by the Owners' air monitor at the completion of asbestos abatement work is described in Section 01711 Project Decontamination.
- C. Air monitoring** required by OSHA is work of the Contractor and is not covered in this Section. Contractor shall comply with all applicable regulatory sampling requirements as well as all monitoring requirements detailed in the Section.

1.10 SCHEDULE OF AIR SAMPLES BY OWNER:

- A. Sample cassettes:** Samples will be collected on 25 mm. cassettes as follows:
1. **PCM:** 0.8 micrometer mixed cellulose ester.
- B. Number and Volume of Samples:** The number and volume of air samples given in the schedules is approximate. The exact number and volume of samples collected by the Owner may vary depending upon job conditions and the analytical method used.
- C. Sample Volume and Sensitivity:**
1. **PCM:** The sample volumes collected by the Owners' air monitor will be determined by the following formula:

$$\frac{(\# \text{ Fibers in sample} - \text{fibers in blank}) 385\text{mm squared}}{(\text{Vol. Liters}) (1000) (0.00785\text{mm squared}) (\# \text{ fields})} = \text{fibers/cc}$$

Where:

- Number of fibers = 5.5 fibers/100 fields, based on a limit of detection (LOD) of 7 fibers/mm² on the filter
- Area of 100 fields = 0.785mm²
- Total Filter Area = 385mm²
- Limit Value = as specified in the schedules of samples below

- a. For purposes of this specification, the sample volume calculated above will be considered to be of sufficient size so that there is a 95% level of confidence that the value measured by each individual sample at the limit of detection (LOD) is less than or equal to the limit values specified below.
- b. For purposes of this specification, the Limit of Detection (LOD) is defined as 7 fibers/mm² on the filter or 5.5 fibers/100 fields.

- c. For purposes of this specification overloaded samples will be considered as exceeding the applicable limit value.

D. Base Line:

1. **Before Start of Work:** The owners' representative may secure air samples to establish a base line.
2. **Base Line:** a level expressed in fibers per cubic centimeter which is twenty-five percent greater than the largest of the following:
 - a. Average of the PCM samples collected outside each Work Area
 - b. Average of the PCM samples collected outside the building
 - c. 0.01 fibers per cubic centimeter
3. **Samples collected for Transmission Electron Microscopy (TEM) analysis** will be held without analysis. These samples will be analyzed under the conditions and terms set forth in "Fibers Counted" and "Affect on Contract Sum".

4. **PCM Samples**

Location Sampled	Number of Samples	Limit Value (Fibers/cc)	Approx. Volume (Liters)	Rate (Liters/Minute)
Each Work Area	5	0.01	1200	1-10
Outside Each Work Area	5	0.01	1200	1-10
Outside Building	5	0.01	1200	1-10

5. **TEM Samples:**

Location Sampled	Number of Samples	Analytical Sensitivity (Struct. /cc.)	Approx. Volume (Liters)	Rate (Liters/Minute)
Each Work Area	1	0.005	1,200	1-10
Outside Each Work Area	1	0.005	1,200	1-10
Outside Building	1	0.005	1,200	1-10

E. Daily:

1. **From start of work** of Section 01526 Temporary Enclosures through the work of Section

01711 Project Decontamination, the Owner may take samples.

2. **Sample volume and sensitivity:** inside the work area may vary depending upon conditions in the work area. If samples are overloaded at the sample volume required for a limit value equal to the “Stop Action Levels” or “Immediate Stop Action Levels” given later in this Section, the level is considered to have been exceeded.
3. **PCM Samples:**

Location Sampled	Number of Samples	Limit Value (Fibers/cc)	Approx. Volume (Liters)	Rate (LPM)
Each Work Area	2	0.01	1000	1-10
Outside Each Work Area at Critical Barrier	1	0.01	1000	1-10
Clean Room	1	0.01	1000	1-10
Equipment Decon	1	0.01	1000	1-10
Outside Building	1	0.01	1000	1-10
Output of Pressure Differential System	1	0.01	1000	1-10

- F. **Additional samples** may be taken at the Owner's or Owners’ representatives’ discretion. If airborne fiber counts exceed allowed limits additional samples may be taken as necessary to monitor fiber levels.

1.11 ANALYTICAL METHODS USED BY THE OWNER:

- A. The following methods will be used by The Owner in analyzing filters used to collect air samples. Sampling rates may be varied from printed standards to allow for high volume sampling.
 1. Phase Contrast Microscopy (PCM) will be performed using the NIOSH 7400 method.
 2. Transmission Electron Microscopy (TEM) will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A (when applicable).

1.12 LABORATORY TESTING BY OWNER:

- A. **The services of a testing laboratory** may be employed by the Owner to perform laboratory analyses of the air samples. A technician will be at the job site, and samples will be sent daily by

carrier for next day delivery, so that verbal reports on air samples can be obtained within 24 hours.

- B. A complete record** of all air monitoring and results will be furnished to the Owners' representative, the Owner, and the Contractor.
- C. The Contractor will have access** to all air monitoring tests and results upon request.
- D. Written Reports:** of all air monitoring tests will be posted at the job site on a daily basis.

1.13 FIBERS AND STRUCTURES

- A. Fibers Counted:** The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts.
 - 1. **Large Fibers:** "Airborne Fibers" referred to above include all fibers regardless of composition as counted by phase contrast microscopy (PCM), unless additional analysis by transmission or scanning electron microscopy demonstrates to the satisfaction of the Owners' representative that non-asbestos fibers are being counted. "Airborne Fibers" counted in samples analyzed by transmission electron microscopy shall be asbestos fibers, greater than 5 microns in length.

For purposes of stop action levels, subsequent to analysis by electron microscopy, the number of "Airborne Fibers" shall be determined by multiplying the number of fibers, regardless of composition, counted by PCM by the proportion of fibers that are asbestos as determined by TEM (a number equal to, asbestos fibers counted, divided by all fibers counted in the electron microscopy analysis).

- 2. **Small Structures:** "Airborne Fibers" referred to above include asbestos structures (fibers, bundles, clusters or matrices) of any diameter and any length greater than 0.5 microns.

1.14 ADDITIONAL TESTING:

- A. The Contractor may conduct** air monitoring and laboratory testing. If Contractor elects to do this the cost of such air monitoring and laboratory testing shall be at no additional cost to the Owner. The Contractor is required to provide Owner with results of all air monitoring and testing within 3 days of receiving results.

1.15 PERSONAL MONITORING:

- A. Owner will not perform** air monitoring for the Contractor to meet Contractor's OSHA requirements for personal sampling or any other purpose.

1.16 MISCELLANEOUS PROVISIONS

- A. None.**

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 STOP ACTION LEVELS:

- A. Inside Work Area:** Maintain an average airborne count in the work area of less than the Stop Action Level given below for the type of respiratory protection in use. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any work shift or 8 hour period exceeds the Stop Action Level, stop all work except corrective action, leave pressure differential and air circulation system in operation and notify Owners' representative. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by Owners' representative.

STOP ACTION LEVEL (F/cc)	IMMEDIATELY STOP LEVEL (F/cc)	MINIMUM RESPIRATOR REQUIRED	PROTECTION FACTOR
0.1	0.5	Half face	10
0.5	2.5	PAPR	1,000
1.0	5.0	Supplied Air Pressure Demand	1,000

- 1. If airborne fiber counts exceed Immediate Stop Level given above for type of respiratory protection in use for any period of time cease all work except corrective action. Notify the Owners' representative. Do not recommence work until fiber counts fall below Stop Action Level given above for the type of respiratory protection in use. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by the Owners' representative.

- B. Outside Work Area:** If any air sample taken outside of the Work Area exceeds the base line established in Part 1 of this Section, immediately and automatically stop all work except corrective action. The Owners' representative will determine the source of the high reading and so notify the Contractor in writing.

C. Corrective Action:

- 1. If the high reading was the result of a failure of Work Area isolation measures initiate the following actions:
 - a. Immediately erect new critical barriers as set forth in Section 01526 Temporary Enclosures to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, and floor).
 - b. Decontaminate the affected area in accordance with Section 01712 Cleaning &

Decontamination Procedures.

- c. Require that respiratory protection as set forth in Section 01562 Respiratory Protection be worn in affected area until area is cleared for re-occupancy in accordance with Section 01711 Project Decontamination.
 - d. Leave Critical Barriers in place until completion of work and insure that the operation of the pressure differential system in the Work Area results in a flow of air from the balance of the building into the affected area.
 - e. If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a decontamination facility consisting of a Shower Room and Changing Room as set forth in Section 01563 Decontamination Units at entry point to affected area.
 - f. After Certification of Visual Inspection in the Work Area remove critical barriers separating the work area from the affected area. Final air samples will be taken within the entire area as set forth in Section 01711 Project Decontamination.
2. If the high reading was the result of other causes initiate corrective action as determined by the Owners' representative.

- D. Effect on Contract Sum:** Complete corrective work with no change in the Contract Sum if high airborne fiber counts were caused by Contractor's activities. The Contract Sum and schedule will be adjusted for additional work caused by high airborne fiber counts beyond the Contractor's control.

3.2 STOP WORK:

- A. If the Owner or Owners' representative** presents a written stop work order, immediately and automatically conform to that stop work order, while maintaining temporary enclosures and pressure differential. Do not recommence abatement work until authorized in writing by Owner or Owners' representative.
- B. Immediately initiate the following actions:** After being presented with a stop work order immediately:
1. Cease all asbestos removal activities, or any other activities that disturbs asbestos-containing materials.
 2. Repair any fallen, ripped or otherwise failed work area isolation measures.
 3. Maintain in operation all work area isolation measures including those required by Sections 01526 Temporary Enclosures, 01513 Temporary Pressure Differential & Air Circulation System, 01563 Decontamination Units.
 4. Maintain all worker protections including those required by Sections 01560 Worker Protection - Asbestos Abatement, and 01562 Respiratory Protection.
 5. Fog the air in the work area with a mist of amended water to reduce airborne fiber levels.

C. Do not recommence work until authorized in writing by the Owner or Owners' representative.

3.3 SCHEDULE OF ASBESTOS-CONTAINING MATERIALS:

Quantities are estimations only and need to be field verified by Contractor. In the event that the actual quantity varies by more than 10% above or below the estimated quantities presented in this Section 01013, the individual prices will be used to calculate an add/deduct cost on the Bid Form.

APPROXIMATE QUANTITIES AND LOCATIONS

CONTRACTOR MUST VERIFY ALL QUANTITIES AND LOCATIONS OF ASBESTOS-CONTAINING MATERIALS

DTC Beech Street Facility, 119 Lower Beech Street, Wilmington, Delaware

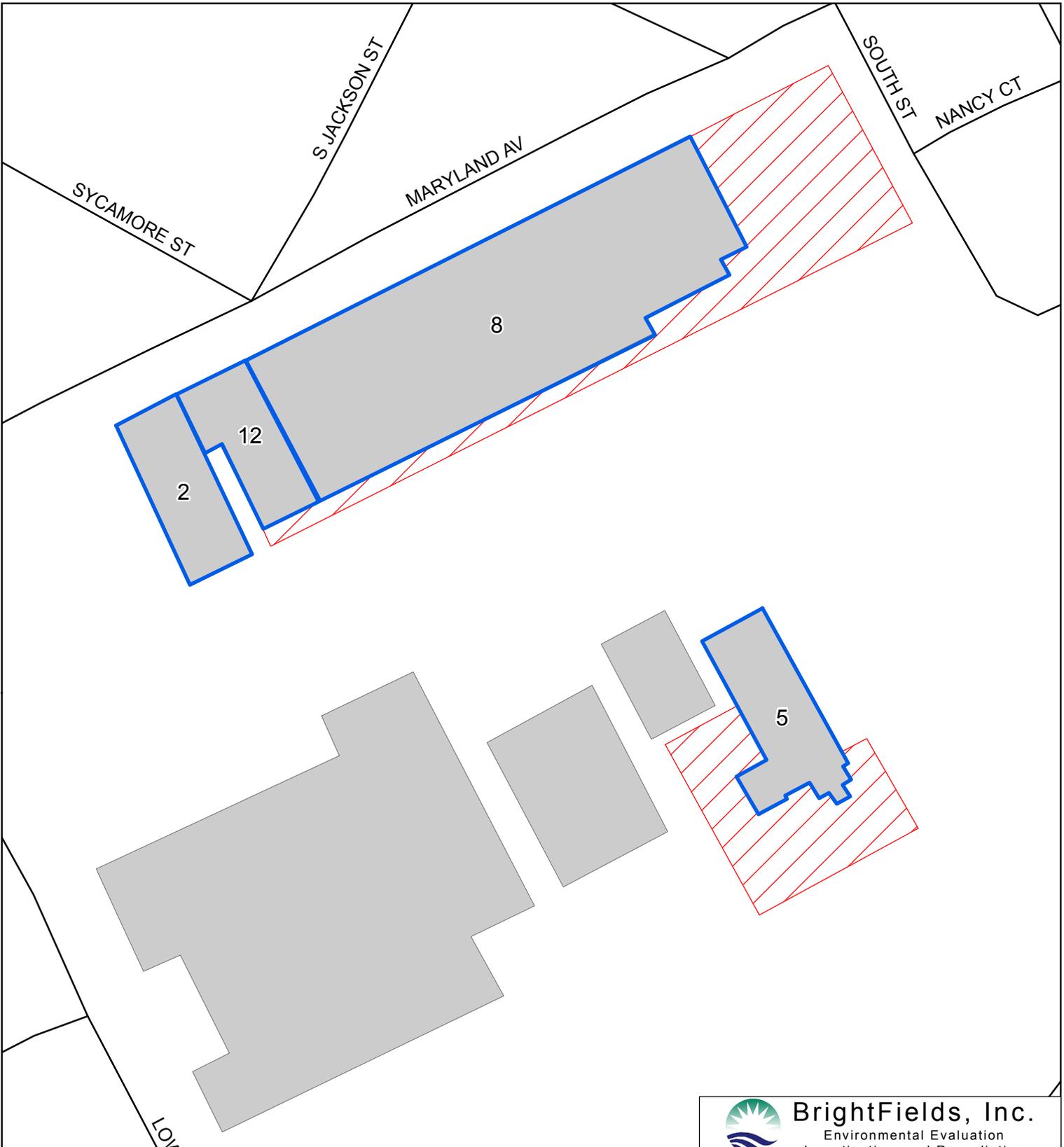
Type	Location	Material	Estimated Quantity	% Asbestos
Roofing Material	Building 12 roof	Roofing step block (black)	15 square feet	10% chrysotile
	Building 12 flat stone roof	Roofing flashing (black)	660 square feet	18% chrysotile
		Asphalt built-up roofing material (black)	660 square feet	20% chrysotile
	Building 2 A-frame roof	Original asphalt built-up roofing material (black)	3,200 square feet	20% chrysotile
		Roofing felt (black)	3,200 square feet	20% chrysotile
	Southwest corner of building 2 roof, associated with asphalt rolled roofing	Roofing felt (black)	1,750 square feet	40% chrysotile
		Roofing flashing (black)	1,750 square feet	25% chrysotile
	Building 8 roof, between corrugated roofing	Roofing felt (black)	7,500 square feet	30% chrysotile
	Building 8 east side lower roof underneath roofing membrane and insulation	Original asphalt built-up roofing (black)	2,000 square feet	20% chrysotile

Type	Location	Material	Estimated Quantity	% Asbestos
Roofing Material (cont.)	Center of the building 8 roof	Asphalt rolled roofing (black)	8,200 square feet	5% chrysotile
		Roofing felt (black)	8,200 square feet	25% chrysotile
		Roofing flashing (black)	8,200 square feet	20% chrysotile
	Building 5, main corrugated metal roof	Corrugated metal roofing brushcoat (black)	4,141 square feet	30% chrysotile
		Silver roof coat (silver)	4,141 square feet	10% chrysotile
		Roofing flashing (black)	4,141 square feet	7% chrysotile
		Soffit wrap material (black/white)	852 square feet	15% chrysotile
	Building 5, outbuilding concrete/fiberglass roof	Roofing flashing/concrete deck sealer (black)	25 square feet	7% chrysotile
		Roofing flashing (black)	462 square feet	4% chrysotile
	Thermal System Insulation	Throughout buildings 2, 12, and 8, associated with the original water line	Pipe insulation (white)	750 linear feet
Building 8 men's room above the drop ceiling		Corrugated paper pipe insulation (brown)	20 linear feet	30% chrysotile
Duct located in building 8		Duct coat (black)	36,000 square feet	15% Chrysotile
Adjacent to building 12 roof		Exterior duct insulation (black)	25 linear feet	10% chrysotile
All fire doors associated with buildings 2, 12, & 8		Paper fire door insulation (white)	16 doors	60% chrysotile
Miscellaneous Material	stair tower landing on the east side of building 8, under 12"x12" floor tile, over 9"x9" floor tile	Sheet good (white/gray)	140 square feet	30% chrysotile
	Building 8, room 5	12"x12" floor tile (dark gray)	300 square feet	12% chrysotile
		Mastic adhesive (black)	300 square feet	8% chrysotile

Type	Location	Material	Estimated Quantity	% Asbestos
Miscellaneous Material (cont.)	Throughout buildings 2, 12, and 8	12"x12" floor tile (gray)	35,685 square feet	5% chrysotile,
		Mastic adhesive (black)	35,685 square feet	8% chrysotile
		Base cove mastic (yellow)	3,000 linear feet	<1% anthophyllite & 3% chrysotile
	Equipment room and tool crib	9"x9" floor tile (gray)	2,800 square feet	8% chrysotile
		mastic adhesive (black)	2,800 square feet	5% chrysotile
	Building 8, 2 nd floor bathrooms	Sheet good mastic adhesive (yellow)	650 square feet	5% chrysotile
	Throughout building 2, 3 rd floor	9"x9" floor tile (green)	13,850 square feet	12% chrysotile
		Mastic adhesive (black)	13,850 square feet	10% chrysotile
	Building 2, 3 rd floor walls and above drop ceiling across entire deck	Cementitious deck and wall panels (gray)	10,480 square feet	50% chrysotile
	Original metal framed windows	Window caulk and glaze (gray)	33 (+20) windows	5% chrysotile
	Northern guard shack to building 8	9"x9" floor tile (red)	300 square feet	10% chrysotile
		mastic adhesive (black)	300 square feet	8% chrysotile
	Compressor room, east and south sides of building 8, and north side of building 8 on roof	Exterior paneling (gray)	10,500 square feet	40% chrysotile
	East side of building 8	Exterior substrate to metal siding panels (black)	10,500 square feet	25% chrysotile

Type	Location	Material	Estimated Quantity	% Asbestos
Miscellaneous Material (cont.)	Building 5, main building	Window caulk (gray)	10 window units	8% chrysotile
		Gasket material (red)	Approx. 60 gaskets	35% chrysotile
		9"x9" floor tile (white)	1,558 square feet	3% chrysotile
		HVAC duct sealer (black)	984 square feet	8% chrysotile

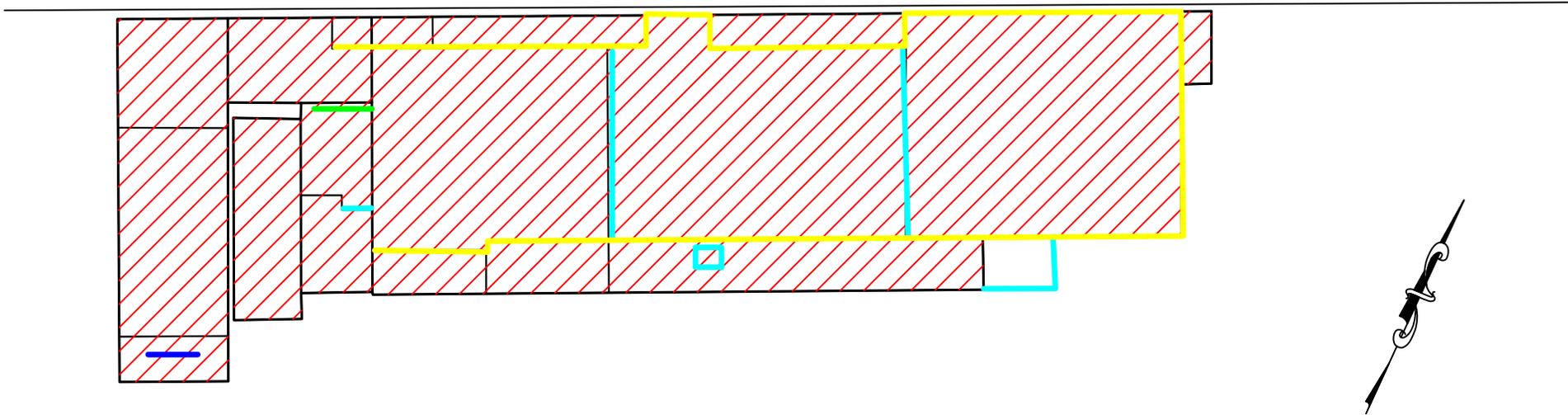
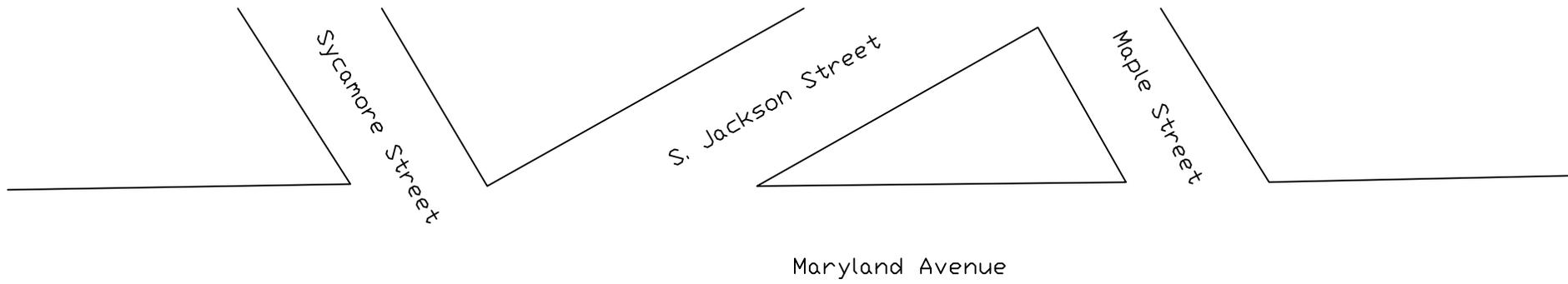
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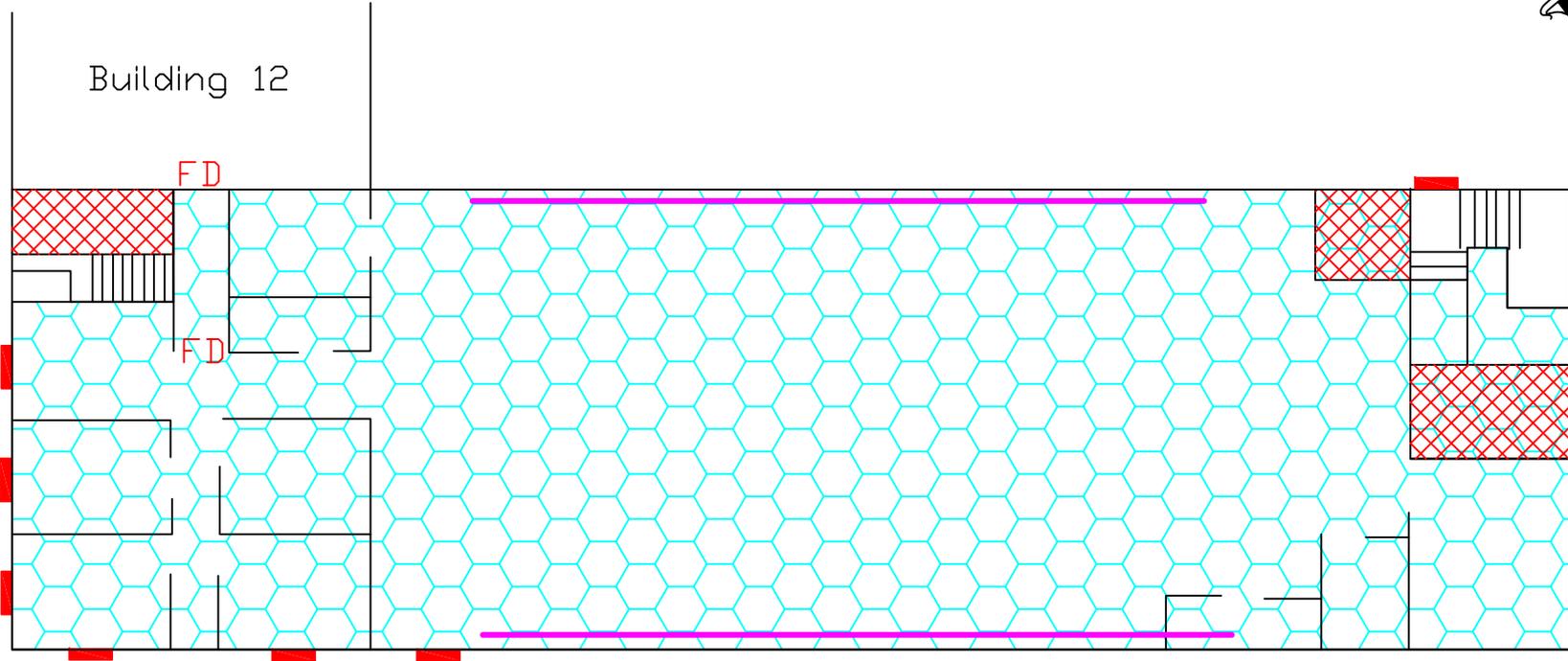
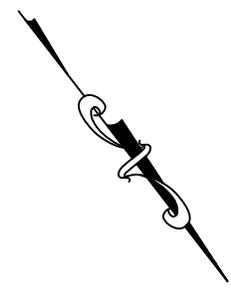
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-  DTC Buildings
-  Contractor Staging Area
-  NCC Roads

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Project #	1057.35.74			
				



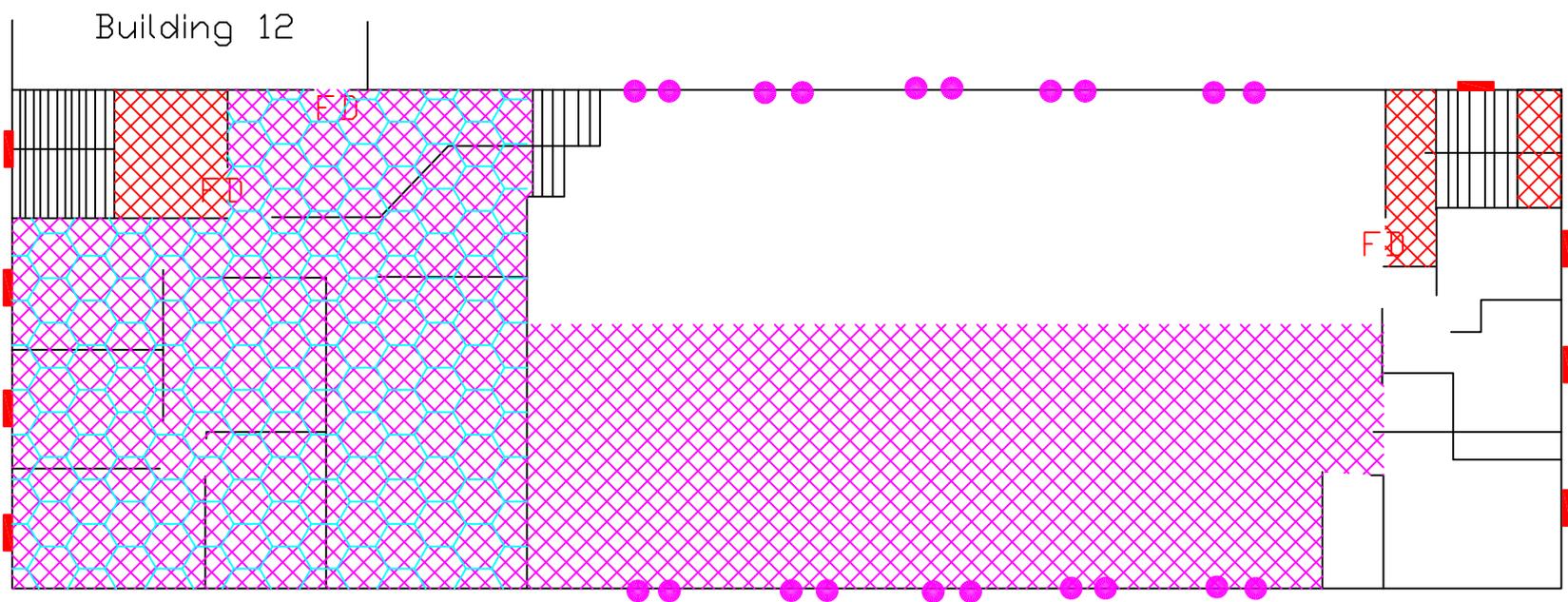
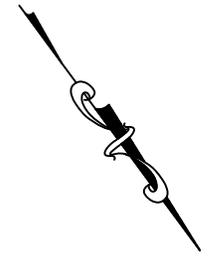
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-  Asbestos-containing Exterior Duct Insulation
-  Asbestos-containing Cementitious Exterior Siding Panels
-  Asbestos-containing Roofing Step Blocks
-  Asbestos-containing Exterior Substrate to Metal Siding

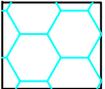
		BrightFields, Inc. Environmental Evaluation, Investigation, and Remediation		
		801 Industrial Street, Suite 1 Wilmington, Delaware 19801		302 656-9600 302 656-9700 fax
Building 2, 8, & 12 Roof ACM Locations 508 Maryland Avenue Wilmington, Delaware				
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PROJECT #	1057.35.74		Figure 2	0



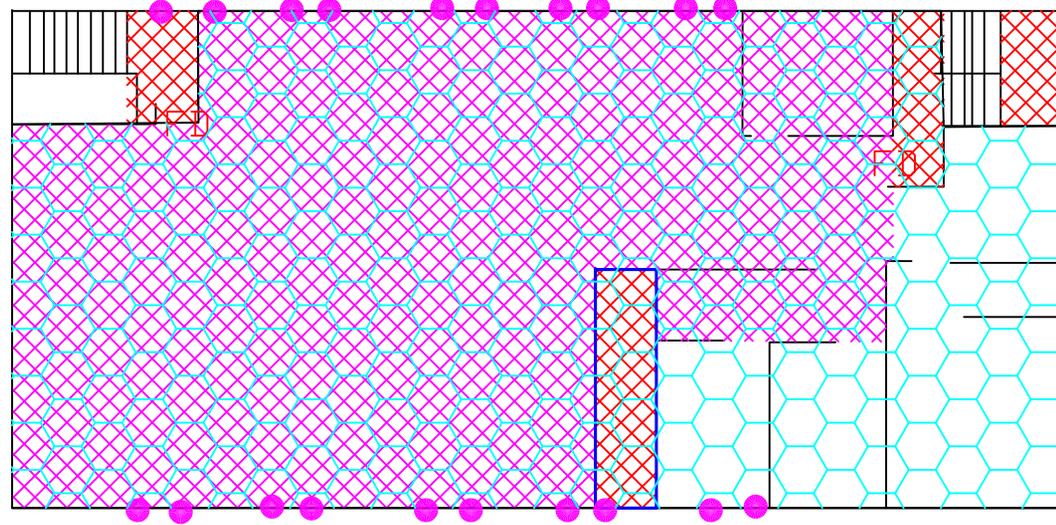
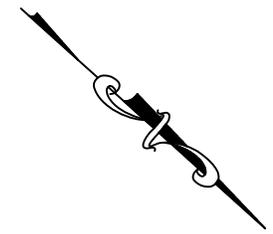
-  Asbestos-containing Floor Tile and Mastic
-  Asbestos-containing Cementitious Deck Panel
-  Asbestos-containing Window Caulk and Glaze
-  Asbestos-containing Fire Door
-  Asbestos-containing Pipe Insulation

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801 Industrial Street, Suite 1 Wilmington, Delaware 19801		302 656-9600 302 656-9700 fax		
Building 2 - 1st Floor ACM Locations 508 Maryland Ave Wilmington, Delaware				
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PROJECT #	1057.35.74		Figure 3	0



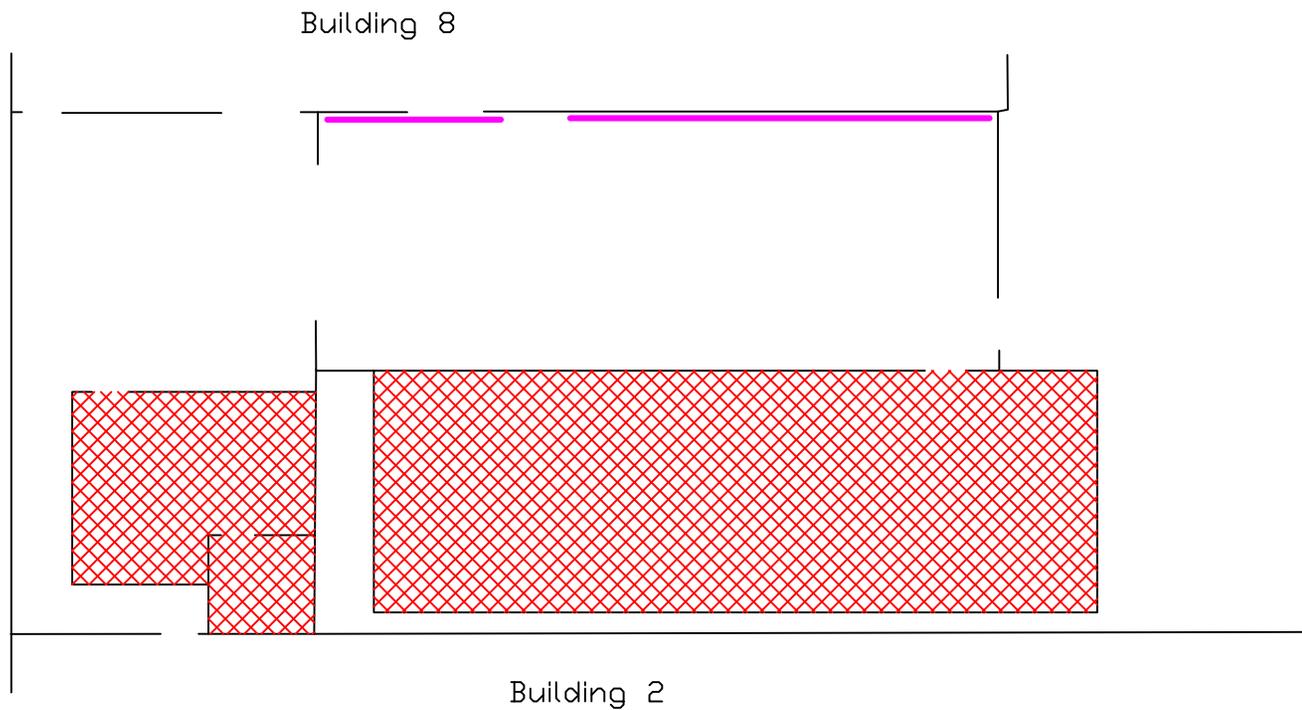
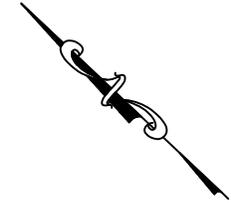
-  Asbestos-containing Floor Tile and Mastic (under carpet)
-  Asbestos-containing Floor Tile and Mastic
-  Asbestos-containing Cementitious Deck Panel
-  Asbestos-containing Window Caulk and Glaze
-  Asbestos-containing Pipe Insulation on risers
-  Asbestos-containing Fire Door

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Building 2 - 2nd Floor ACM Locations 508 Maryland Avenue Wilmington, Delaware					
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PROJECT #	1057.35.74		Figure 4	0	



-  Asbestos-containing Floor Tile and Mastic (under carpet)
-  Asbestos-containing Floor Tile and Mastic
-  Asbestos-containing Cementacious Deck Panel
-  Asbestos-containing Window Caulk and Glaze
-  Asbestos-containing Pipe Insulation at riser
-  Asbestos-containing Fire Door
-  Asbestos-containing Cementacious Wall Panel

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		302 656-9600 302 656-9700 fax		
Building 2 - 3rd Floor ACM Locations 508 Maryland Avenue Wilmington, Delaware				
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PROJECT #	1057.35.74		Figure 5	0



Asbestos-containing Floor tile and Mastic



Asbestos-containing Pipe Insulation



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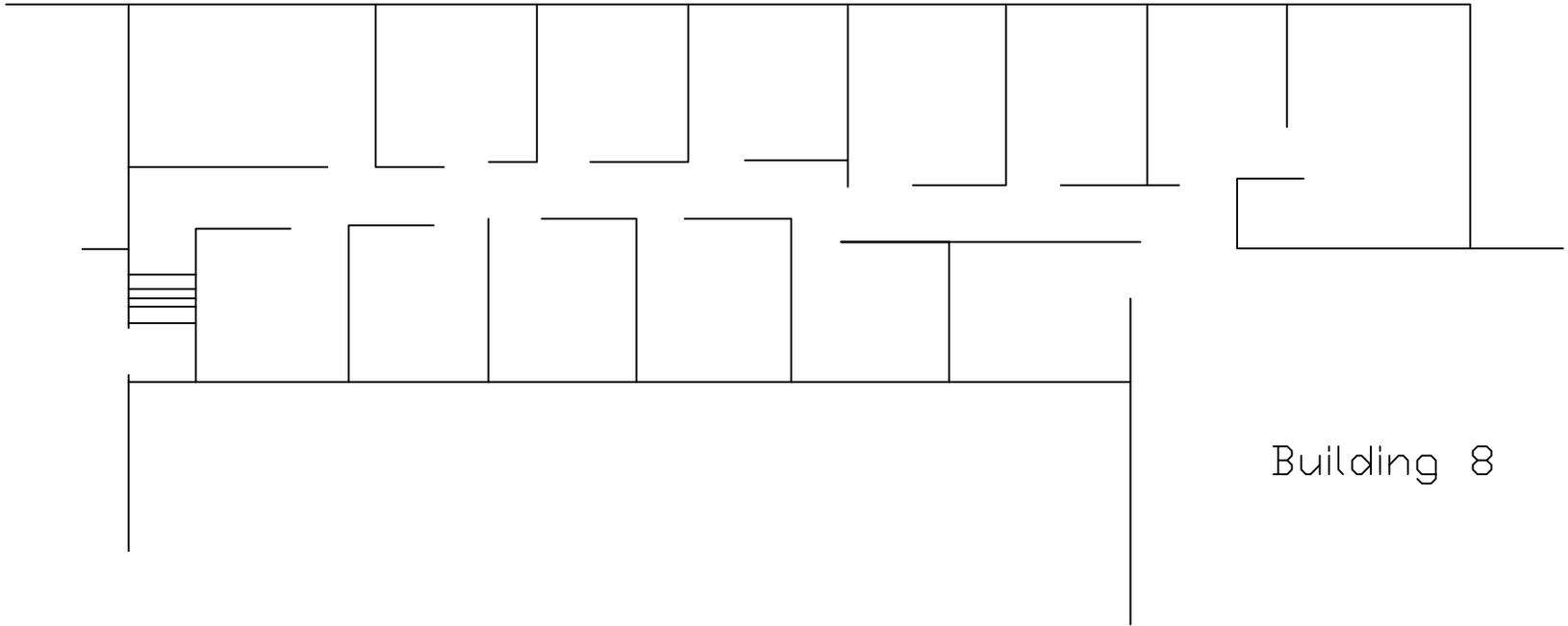
801 Industrial Street, Suite 1
Wilmington, Delaware 19801

302 656-9600
302 656-9700 fax

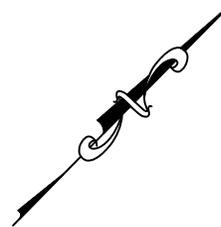
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Wilmington, Delaware

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PROJECT #	1057.35.74		Figure 6	0

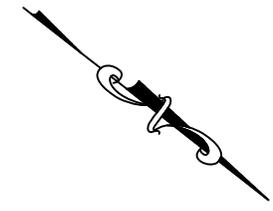
Building 2



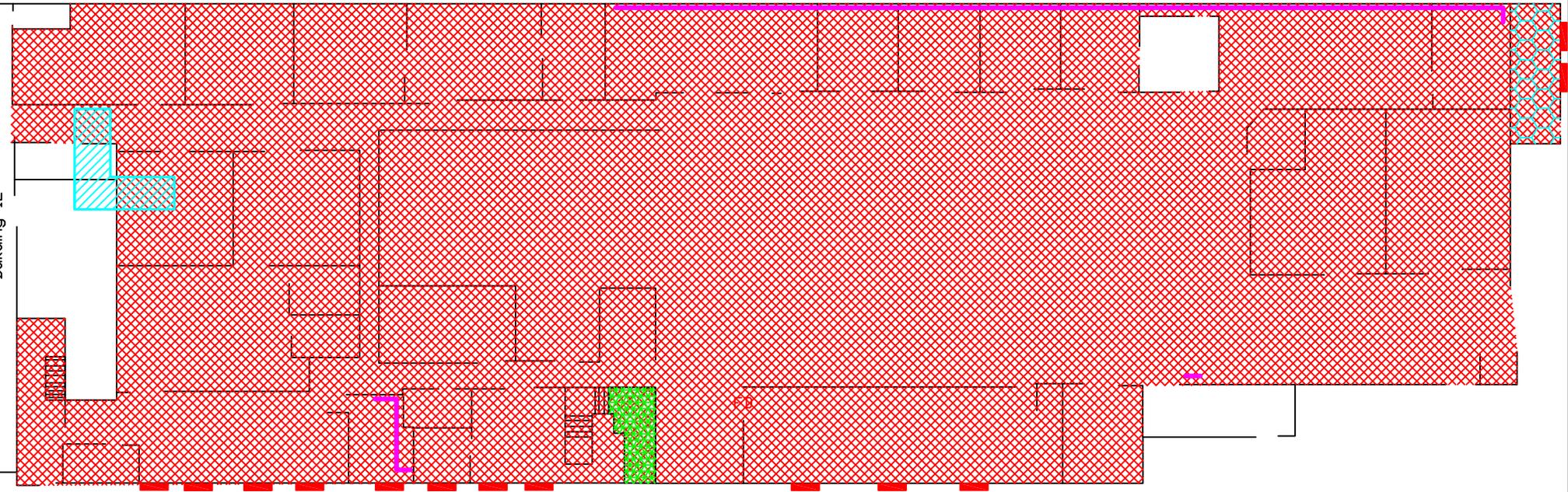
Building 8



		BrightFields, Inc. Environmental Evaluation, Investigation, and Remediation			
801 Industrial Street, Suite 1 Wilmington, Delaware 19801		302 656-9600 302 656-9700 fax			
Building 12 - 2nd Floor ACM Locations 508 Marland Avenue Wilmington, Delaware					
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PROJECT #	1057.35.74		Figure 7		0

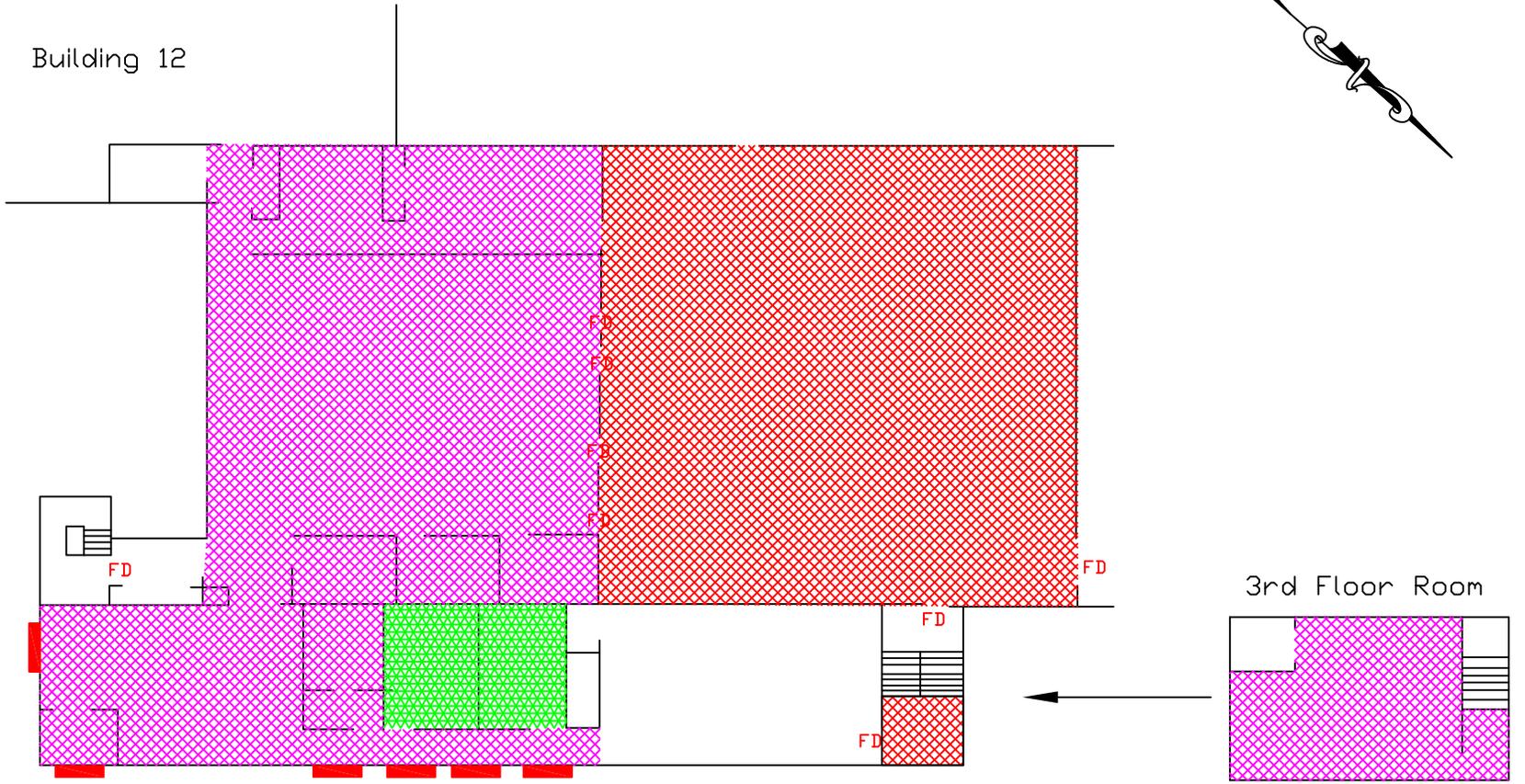


Building 12



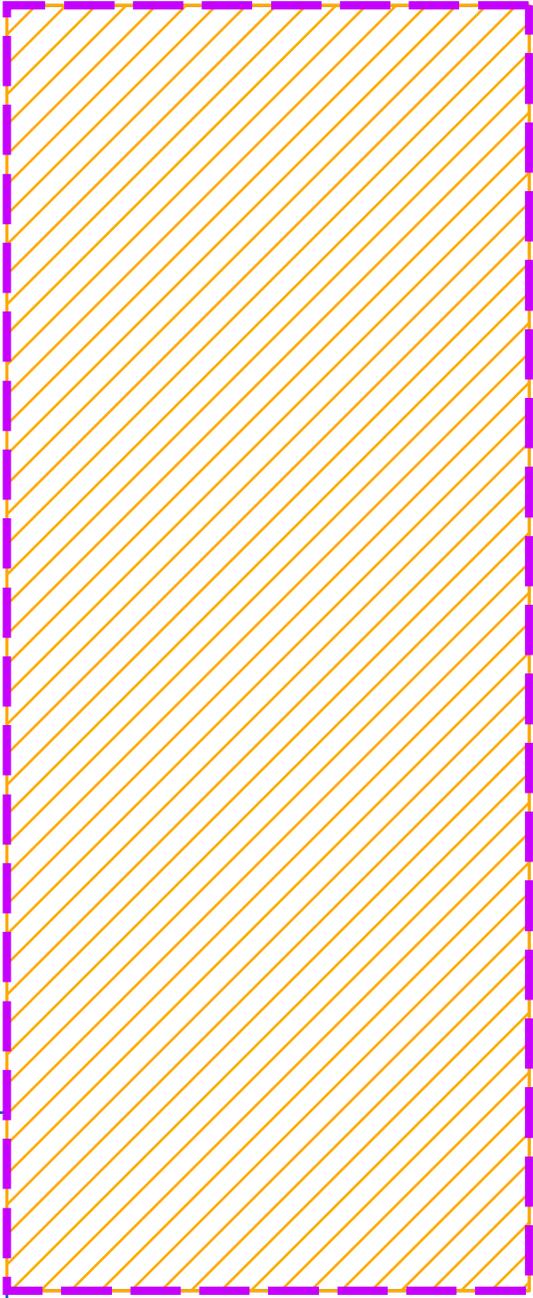
-  Asbestos-containing Floor Tile and Mastic and associated Base Cove Molding Mastic
-  Asbestos-containing Cementitious Deck Panels
-  Asbestos-containing Sheetgoods
-  Asbestos-containing Duct Coat
-  Asbestos-containing Window Caulk and Glaze
-  Asbestos-containing Pipe Insulation
-  Asbestos-containing Fire Door

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		302 656-9600 302 656-9700 fax		
Building 8 - 1st Floor ACM Locations 508 Maryland Avenue Wilmington, Delaware				
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PROJECT #	1057.35.74		Figure 8	0



-  Asbestos-containing Floor Tile and Mastic
-  Asbestos-containing Floor Tile and Mastic (under carpet)
-  Asbestos-containing Mastic associated with Sheetgoods
-  Asbestos-containing Window Caulk and Glaze
- FD** Asbestos-containing Fire Door

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		302 656-9600 302 656-9700 fax		
Building 8 - 2nd/3rd Floors ACM Locations 508 Maryland Avenue Wilmington, Delaware				
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DRAWN	JWS	9/22/2015	1: 360	508 MD Ave
CHECKED	SAS	9/22/2015	DWG. NO.	REV.
PROJECT #	1057.35.74		Figure 9	0



-  Building Roof
-  Asbestos-Containing Corrugated Metal Roofing Brushcoat Silvercoat and Roof Flashing (HA05/06/07)
-  Asbestos-Containing Roofing Flashing/Concrete Deck Sealer (HA11/14)
-  Asbestos-Containing Soffit Wrap (HA08)



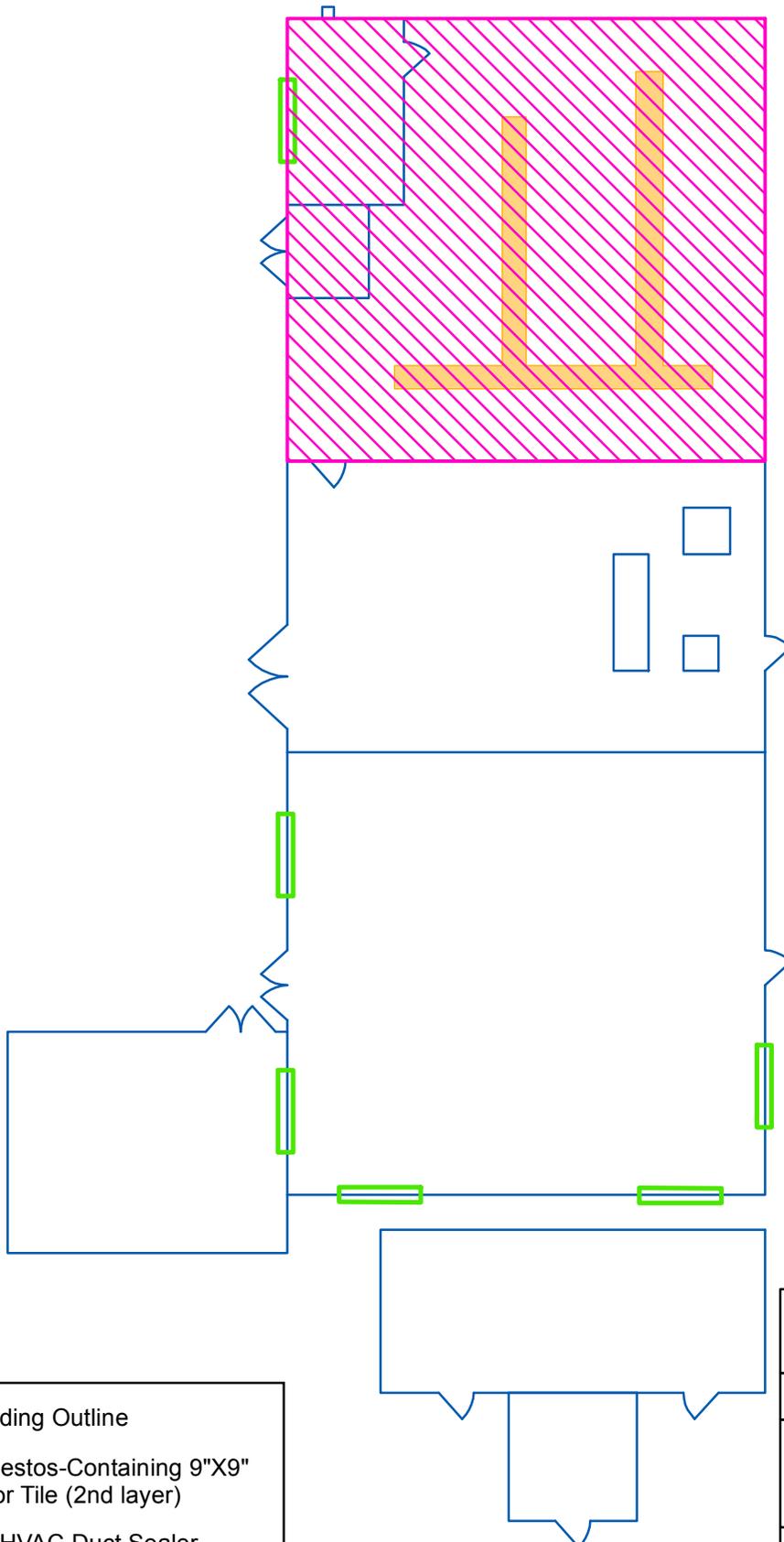
BrightFields, Inc.
 Environmental Evaluation
 Investigation, and Remediation

801 Industrial Street, Suite 1 302-656-9600
 Wilmington, Delaware 19801 302-656-9700 fax

Building 5 Roof ACM Locations
 DTC Beech St
 Wilmington, Delaware

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Checked	SAS	9/28/2015	Fig. No.	
Project #	1057.35.74		Figure 10	





- Building Outline
- Asbestos-Containing 9"X9" Floor Tile (2nd layer)
- AC/HVAC Duct Sealer (HA37/39)
- Asbestos-Containing Window Caulk (HA01)

BrightFields, Inc.
Environmental Evaluation
Investigation, and Remediation

801 Industrial Street, Suite 1 Wilmington, Delaware 19801		302-656-9600 302-656-9700 fax	
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Building 5 ACM Locations
DTC Beech St
Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn: KEP	9/28/2015	1:180	Fig11Bldg5Layout.mxd
Checked	SAS	9/28/2015	Fig. No.
Project #	1057.35.74		Figure 11

0 7.5 15

Feet

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Attachment 3

Section 17001 – Summary of the Work – HAZMAT/Universal Waste Disposal

SECTION 17001 – SUMMARY OF THE WORK – HAZMAT/UNIVERSAL WASTE DISPOSAL

PART 1.0 GENERAL

1.1 RELATED DOCUMENTS

- A. Performance of the scope of work in accordance with all local, state and federal regulations. The scope of work includes the safe collection, packaging and offsite recycling/disposal of universal waste and hazardous materials (Hazmats) for the Delaware Transit Corporation Beech Street Facility Buildings 2, 5, 8, & 12 (Site). The work will be performed in conjunction with the asbestos abatement of the buildings prior to site demolition.

1.2 RELATED SECTIONS

- A. 02086 Hazardous Waste Management

1.3 DEFINITIONS

- A. Off-site disposal: this term is meant to represent the removal of any/all materials from the site to an offsite location properly licensed/permited to handle the material.
- B. Client/Owner: is the Delaware Transit Corporation (DTC)
- C. Engineer: represents the Owner's selected representative and/or firm which will be observing, directing and/or managing the site. BrightFields is the engineer for this project.
- D. PCBs: is meant to describe polychlorinated biphenyl typically found in dielectric fluids of transformers or light ballast.
- E. Permits: are defined as those items issued by a regulatory agency to ensure compliance with local, city and state ordinances.
- F. OSHA: is defined as the Occupational Safety & Health Administration
- G. EPA: is the Environmental Protection Agency

1.4 SUBMITTALS

- A. Bid forms submitted that are not completed may be deemed unresponsive and rejected by the DTC. All items on the bid forms must be completed.
- B. Schedule of activities indicating the total number of days to complete on bid form questionnaire.
- C. Any questions on the scope of work must be received in writing no later than a date set forth by the Owner.
- D. Prior to removal of any wastes, a Health & Safety Plan (2 bound copies) shall be prepared by the contractor and submitted to the DTC outlining at a minimum the following items:
 - a. Emergency contact and phone numbers,
 - b. Route to the nearest hospital,
 - c. Personal Protection Equipment required
 - d. Handling and storage procedures for identified wastes
 - e. Decontamination procedures
 - f. Material Safety Data Sheets
 - g. Sign-off page for all workers
- E. See Section 02086 for additional submittal requirements including:
 - a. Copy of state and local licenses for waste hauler.
 - b. U.S. EPA identification number of waste hauler.
 - c. Name and address of waste disposal facility.

- d. Specimen copy of Uniform Hazardous Waste Manifest form.
- e. Copy of EPA Notice of Hazardous Waste Activity form.
- f. Copy of forms required by state and local agencies.
- g. Sample of disposal label to be used.
- h. Test results, as required to characterize waste for segregation and packaging (as required by the work).
- i. Copies of ALL executed manifests and disposal site receipts must be submitted to the Designer.

1.5 QUALIFICATIONS

- A. Submit a copy of a current Delaware business license and current insurance certificate to Owner with bid form.
- B. For the environmental items of concern, please identify the company to perform the removal of items, including appropriate copies of training or licensed required and the proposed recycling or disposal facility. The awarded contractor will be required to provide copies of any licensing required. It is the goal of the DTC to recycle as much of the environmental items of concern as possible.

1.6 REGULATORY REQUIREMENTS

- A. All work must conform to all appropriate regulatory requirements under the Delaware Department of Natural Resources and Environmental Control (DNREC), the Occupational Safety and Health Administration (OSHA) and the U.S. Environmental Protection Agency (EPA), including the Resource Conservation and Recovery Act (RCRA), the Clean Air Act (CAA) and the Toxic Substances Control Act (TSCA).
- B. It will be the responsibility of the contractor to complete all necessary paperwork, including acquiring a waste generator identification number from the U.S. Environmental Protection Agency, if required, to track the waste generated.
- C. Obtain any required approvals from the owner.
- D. All fees for any required permits shall be borne by the contractor.

1.7 SCHEDULING SEQUENCE

- A. All work shall be coordinated so as not to interfere with the Owner or other contractors onsite. It is anticipated that certain portion of the scope can be completed prior to asbestos abatement activities. The contractor shall inform the DTC in writing of their planned sequence of activities before beginning the work.
- B. Perform work between the hours of 7 a.m. and 5 p.m. prevailing time during normal work weekdays. No work will be performed during nights or on weekends without written permission from the Owner to do so.
- C. Contractor is to conduct removal activity beginning at building 8 and work their way through buildings 8 and 12. After completing the removal of materials in buildings 8 and 12, the Contractor shall be required to perform removal of materials in buildings 2 and 5 concurrently.

1.8 OWNERS RESPONSIBILITIES

- A. Owner shall be responsible for all disconnection and de-energizing of utilities prior to the start of the abatement/removal activities. Utilities include, but are not limited to electric, gas, water, and phone.

1.9 CONTRACTORS RESPONSIBILITIES

- A. Contractor shall be responsible to provide all necessary temporary utilities required to facilitate the work throughout the project including, but not limited to electric and water, as well as all permits and associated costs to provide temporary utilities. Temporary utilities shall be installed by licensed and insured contractors.
- B. Use of onsite toilets will not be permitted. The Contractor shall be responsible for providing temporary sanitary facilities throughout the duration of the project. Temporary sanitary facilities must be onsite prior to the start of the project (Section 01503).
- C. The Contractor shall keep a detailed waste inventory onsite. The inventory shall be updated as wastes are collected and/or disposed.
- D. The contractor shall provide the Owner a copy of the detailed waste inventory and all waste disposal manifests and documentation as proof of proper disposal.
- E. The Contractor is responsible for proper labeling, tracking, and disposal of all materials as required by regulations.

PART 2.0 PRODUCTS

2.1 MATERIALS

- A. Under no circumstances are any wastes to be broken, damaged or otherwise released as part of this removal action. Except for items or materials indicated to be reused, salvaged, or otherwise indicated to remain the Owner's property, all wastes materials shall be removed from the site for disposal disposition at the contractors option.
- B. Regardless of ownership, the contractor will be responsible for all collection, segregation, packaging, transportation and recycling/disposal of items for recycling or disposal.

PART 3.0 EXECUTION

3.1 IDENTIFIED WASTES

- A. The following section describes the scope of work for this project. It is the goal of the DTC to award one contract for the safe collection, packaging, transportation and disposal of the identified waste on the site. This package supplements the asbestos abatement package and the entire scope of work will be awarded to one contractor by the DTC.
- B. BrightFields has performed a survey of the interior and exterior of buildings 2, 5, 8, and 12 for identification of the environmental items of concern. These items quantities are listed on the bid form, and quantities and locations are listed in the tables below. It is the goal of the DTC to have these items safely removed prior to any demolition activities.
- C. The following universal waste/ HAZMAT materials were identified at the Site:

- a. **Mercury-containing materials:** Fluorescent light bulbs, metal-halide light bulbs, and quartzaline lamps can be found throughout the buildings. Bulbs are either in fixtures for use or stored as stock. Care should be taken during the removal of all light bulbs so as not to damage any bulbs. Bulbs of like size should be safely stored in either fiber drums or cardboard tubes for shipment. Mercury switches will be removed in a manner that will not break the vial or container the material is contained within. In the event a vial or container of mercury is broken, it shall be the Contractor's responsibility to provide the necessary clean up and disposal measures of the spilled and contaminated material. The following mercury-containing materials were identified at the site:

Quantity	Item	Size	Location
432	Compact Fluorescent Light Bulbs	4 foot	Building 2 (Interior)
24	Compact Fluorescent Light Bulbs	2 foot U	
8	Mercury Thermostat Switch	unit	
516	Compact Fluorescent Light Bulbs	8 foot	Building 5 (Interior)
404	Compact Fluorescent Light Bulbs	4 foot	
25	Compact Fluorescent Light Bulbs	2 foot U	
60	Compact Fluorescent Light Bulbs	18 inch	
44	Compact Fluorescent Light Bulbs	12 inch	
45	Metal-halide Light Bulbs	unit	
2	Quartzaline Lamps	unit	
3	Mercury Thermostat Switch	unit	Building 5 (Exterior)
8	Metal-halide Light Bulbs	unit	
18	Compact Fluorescent Light Bulbs	12 foot	Building 8 (Interior)
1	Compact Fluorescent Light Bulbs	6 foot	
1,728	Compact Fluorescent Light Bulbs	4 foot	
98	Compact Fluorescent Light Bulbs	2 foot U	
65	Metal-halide Light Bulbs	unit	
19	Mercury Thermostat Switch	unit	Building 8 (Exterior)
2	Compact Fluorescent Light Bulbs	4 foot	
2	Metal-halide Light Bulbs	unit	
3	Box Light Fixtures (Large)	unit	
7	Box Light Fixtures	unit	Building 12 (Interior)
6	Compact Fluorescent Light Bulbs	6 foot	
272	Compact Fluorescent Light Bulbs	4 foot	
2	Metal-halide Light Bulbs	unit	
2	Mercury Thermostat Switch	unit	

- b. PCB-containing materials: Compact fluorescent light ballasts, transformer ballast, and transformers were identified throughout the interior and exterior of buildings 2, 5, 8, & 12. Compact fluorescent light ballasts are associated with the existing light fixtures throughout buildings 2, 5, 8, and 12, and stored as stock in building 5. The transformer ballast was identified in the building 5 stock room. Due to the age of the structures, it is anticipated that the majority of the light ballast and the transformer ballast may contain PCBs. All ballast shall be considered to contain PCBs unless the ballast is specifically stamped as “NO PCBs”, “PCB free”, or some language which indicates the same. The lack of any marking identifying the ballast as non-PCB will be handled as a PCB containing ballast. All ballast should be stored into 55-gallon steel drums, properly marked and secured when not in use. Additionally, any ballast found to be leaking should be placed into separate drums, so as not to contaminate non-leaking units. Transformers shall be considered to contain PCBs unless the transformer is specifically stamped as “NO PCBs”, “PCB free”, or some language which indicates the same. The lack of any marking identifying the transformer as non-PCB will be handled as a PCB-containing transformer. The Contractor is responsible for disposal of ALL transformers containing dielectric oil. PCB-containing transformers and non-PCB-containing transformers must be de-energized, removed and disposed/recycled appropriately. The following PCB-containing materials were identified at the site:

Quantity	Item	Size	Location
456	Compact Fluorescent Light Ballasts	unit	Building 2 (Interior)
1	Transformer	unit	
273	Compact Fluorescent Light Ballasts	unit	Building 5 (Interior)
1	Transformer Ballast	unit	
1,862	Compact Fluorescent Light Ballasts	unit	Building 8 (Interior)
5	Transformer	unit	
2	Transformer	unit	Building 8 (Exterior)
2	Compact Fluorescent Light Ballasts	unit	
284	Compact Fluorescent Light Ballasts	unit	Building 12 (Interior)

- c. Oil-containing Materials: Waste oil and oil-containing materials associated with various stock and equipment maintenance can be located in buildings 5 and 8. The Contractor is responsible for removal and recycling of oil-containing materials prior to site demolition. The following oil-containing materials were identified at the site:

Quantity	Item	Size	Location
1	Yellow Jacket Super Evac Oil	1 quart	Building 5 (Interior)
1	Compressor Oil (30wt)	5 gallon	Building 8 (Interior)
1	Residual Waste Oil	2 gallon	
1	Residual Waste Oil	5 gallon	
1	Hydraulic oil (Freight Elevator)	25 gallon	

- d. Lead-acid Batteries: Emergency light fixture batteries are estimated at one battery per unit with units throughout buildings 2, 5, 8, and 12. The Contractor is responsible for the removal and recycling of all emergency light fixture batteries prior to site demolition. The following emergency light fixtures were identified at the site and are assumed to contain lead-acid batteries:

Quantity	Item	Size	Location
21	Emergency Light Fixture	unit	Building 2 (Interior)
8	Emergency Light Fixture	unit	Building 5 (Interior)
42	Emergency Light Fixture	unit	Building 8 (Interior)
10	Emergency Light Fixture	unit	Building 12 (Interior)

- e. Flammable Materials: Flammable materials including solvents, spray paints, and compressed propane tanks were identified in building 5. The Contractor is responsible for the removal and recycling/disposal of all flammable materials prior to site demolition. Care should be taken in the removal, storage and transportation of flammable materials. Flammable materials should be stored in an area where there is no opportunity for ignition (i.e. open flames, sparks, etc.). Aerosol and compressed gas containers must be handled in a safe manner to avoid puncture. The following flammable materials were identified at the site:

Quantity	Item	Size	Location
3	Weld-on Primer Solvent	16 ounce	Building 5 (Interior)
3	Spray Paint	12 ounce	
1	Propane Tank	30 pound	

- f. Pesticide-containing Materials: Pesticide-containing materials including “Weed & Feed” are located in the building 5 storage area. The Contractor is responsible for removal and disposal of all pesticide-containing materials prior to site demolition. The following pesticide-containing materials were identified at the site:

Quantity	Item	Size	Location
1	Turf Builder Weed & Feed	43 pound bag	Building 5 (Interior)

- g. Refrigerant-containing Materials: Freon® associated with heating and air conditioning, and chiller units is present onsite. The contractor shall retain the services of a licensed HVAC company to remove and recycle the Freon® or any other refrigerant present onsite. The following refrigerant-containing materials were identified at the site:

Quantity	Item	Size	Location
1	Chiller Unit	13 pound	Building 2 (Exterior)
1	Window AC Unit (R-22)	12 pound	Building 5 (Interior)
2	Sanyo Ductless Air Conditioner	10 pound	Building 8 (Interior)
3	Window AC Unit (R-22)	12 pound	
1	Roof HVAC Unit (R-22)	4 pound	Building 8 (Exterior)
1	Roof HVAC Unit (R-22)	11 pound	
1	Compressor (R-22)	13 pound	
1	HVAC Chiller Unit (R-22)	13 pound	
1	Window AC Unit (R-22)	12 pound	
1	Roof HVAC Unit (R-22)	11 pound	Building 12 (Exterior)
1	Large Roof Chiller Unit (R-22)	13 pound	

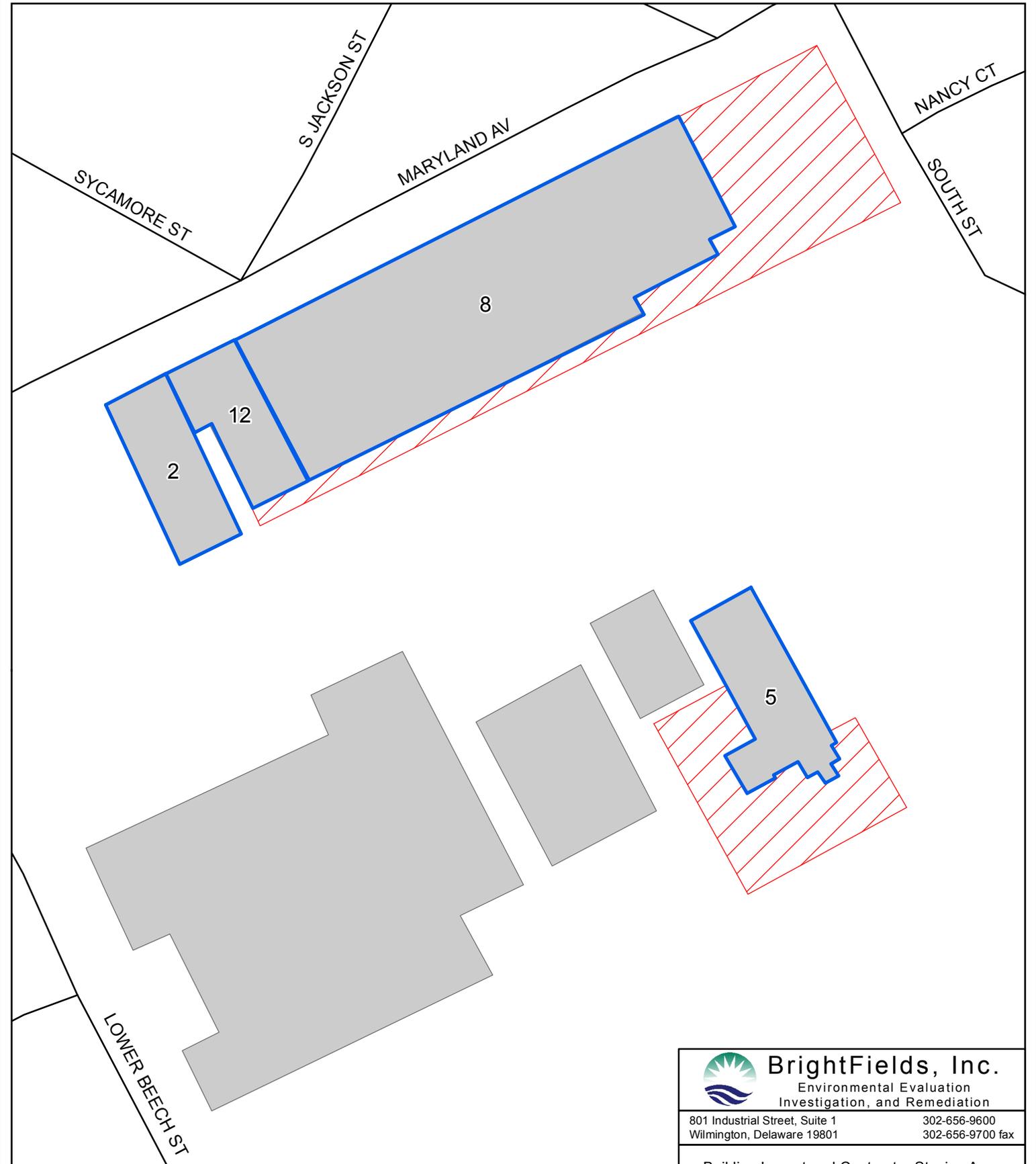
- h. Fire Extinguishers: Fire extinguishers were identified in buildings 5 and 8. Fire extinguishers shall be maintained onsite until all work is complete and shall be removed for recycling prior to site demolition. The following fire extinguishers were identified at the site:

Quantity	Item	Size	Location
1	Fire Extinguisher (Type C)	unit	Building 5 (Interior)
6	Fire Extinguisher (Type ABC)	unit	Building 8 (Exterior)

- i. Miscellaneous Materials: Miscellaneous materials including incandescent light bulbs and “ice melt” were identified in the building 5 storage area. The contractor is responsible for the removal and recycling/disposal of all miscellaneous materials prior to site demolition. The following miscellaneous materials were identified at the site:

Quantity	Item	Size	Location
120	Incandescent Light Bulbs	unit	Building 5 (Interior)
10	Concentrated Ice Melt	50 pound bag	
1	Tetraflake Calcium Chloride	50 pound bag	

END OF SECTION



-  NCC Roads
-  Inspection Areas
-  Contractor Staging Area
-  DTC Buildings

 BrightFields, Inc. Environmental Evaluation Investigation, and Remediation				
801 Industrial Street, Suite 1 Wilmington, Delaware 19801			302-656-9600 302-656-9700 fax	
Building Layout and Contractor Staying Area DTC Beech Street Site Wilmington, Delaware				
	By	Date	Scale:	File Name:
Drawn	KEP	9/28/2015	1:960	Fig1BldgLayout.mxd
Checked	SAS	9/28/2015	Fig. No.	
Project #	1057.35.74		Figure 1	
0 40 80  Feet				

BID PROPOSAL FORMS

CONTRACT T201653101.01

ASBESTOS ABATEMENT:

LINE ITEM	EST. QUANTITY	UNIT	MATERIAL	LOCATION	\$ AMOUNT
1	15	square feet	Roofing step block (black)	Building 12 roof.	
2	660	square feet	Roofing flashing (black) and asphalt built-up roofing material (black)	Building 12 flat stone roof.	
3	3,200	square feet	Original asphalt built-up roofing material (black) and associated roofing felt	Underneath roofing membrane on the building 2 A-frame roof.	
4	1,750	square feet	Roofing felt (black) and roofing flashing (black)	Southwest corner of building 2 roof, associated with asphalt rolled roofing.	
5	7,500	square feet	Roofing felt (black)	Building 8 roof, between corrugated roofing.	
6	2,000	square feet	Original asphalt built-up roofing (black)	Building 8 east side lower roof underneath roofing membrane and insulation.	
7	8,200	square feet	Asphalt rolled roofing (black), roofing felt (black), and roofing flashing (black)	Center of the building 8 roof.	
8	4,141	square feet	Corrugated metal roofing brushcoat (black), silver roof coat (silver), and roofing flashing (black)	Building 5, main corrugated metal roof. Note that brushcoat is located on both sides of corrugated metal roofing panels.	
9	852	square feet	Soffit wrap material (black/white)	Building 5, main building as covering over soffit.	
10	25	square feet	Roofing flashing/concrete deck sealer (black)	Building 5 small, south, red brick outbuilding between concrete deck and fiberglass roofing material.	
11	462	square feet	Roofing flashing (black)	As residual brushcoat and penetration sealer associated with roof over Building 5 small, south, red brick outbuilding.	
12	750	linear feet	Pipe insulation (white)	Throughout buildings 2, 12, and 8, associated with the original water line.	
13	20	linear feet	Corrugated paper pipe insulation (brown)	Building 8 men's room above the drop ceiling.	

ASBESTOS ABATEMENT:

LINE ITEM	EST. QUANTITY	UNIT	MATERIAL	LOCATION	\$ AMOUNT
14	36,000	square feet	Duct coat (black)	Duct located in building 8.	
15	25	square feet	Exterior duct insulation (black)	Adjacent to building 12 roof.	
16	140	square feet	Sheet good (white/gray)	Stair tower landing on the east side of building 8, under 12"x12" floor tile, over 9"x9" floor tile.	
17	300	square feet	12"x12" floor tile (dark gray) and associated mastic adhesive (black)	Building 8, room 5.	
18	35,685	square feet	12"x12" floor tile (gray) and associated mastic adhesive (black)	Throughout buildings 2, 12, and 8.	
19	3,000	linear feet	Base cove mastic (yellow)	Throughout buildings 2, 12, and 8.	
20	16	door units	Paper fire door insulation (white)	All fire doors associated with buildings 2, 12, & 8.	
21	2,800	square feet	9"x9" floor tile (gray) and associated mastic adhesive (black)	Equipment room and tool crib.	
22	650	square feet	Sheet good mastic adhesive (yellow)	Building 8, 2 nd floor bathrooms	
23	13,850	square feet	9"x9" floor tile (green) and associated mastic adhesive (black)	Throughout building 2, 3 rd floor.	
24	10,480	square feet	Cementitious deck and wall panels (gray)	Building 2, 3 rd floor walls and above drop ceiling across entire deck.	
25	53	window units	Window caulk and glaze (gray)	Building 2, 8, & 12 original metal framed windows.	
26	300	square feet	9"x9" floor tile (red) and associated mastic adhesive (black)	Northern guard shack to building 8.	
27	10,500	square feet	Exterior paneling (gray)	Compressor room, east and south sides of building 8, and north side of building 8 on roof.	
28	10,500	square feet	Exterior substrate to metal siding panels (black)	East side of building 8.	

ASBESTOS ABATEMENT:

LINE ITEM	EST. QUANTITY	UNIT	MATERIAL	LOCATION	\$ AMOUNT
29	10	window units	Window caulk (gray)	Building 5, main building	
30	Approx. 60	gaskets	Gasket material (red)	Building 5 water, steam, gas and product lines.	
31	1,558	square feet	9"x9" floor tile (white)	Building 5 office area, entrance foyer and as 3rd layer in furniture storage area.	
32	984	square feet	HVAC duct sealer (black)	Building 5 furniture storage area.	
				ASBESTOS ABATEMENT TOTAL:	\$

DELAWARE TRANSIT CORPORATION
BEECH STREET FACILITY – BUILDINGS 2, 5, 8, & 12
ASBESTOS ABATEMENT

BID FORM - PAGE #4

ASBESTOS ABATEMENT:

Removal and disposal of all asbestos-containing and asbestos-contaminated materials from all areas listed, but not limited to, those identified in this Bid Form and those listed within the Site Specific Section 01013 – Summary of the Work (Asbestos Abatement).

TOTAL AMOUNT ASBESTOS ABATEMENT:

\$ _____ **(Price in numbers)**

\$ _____ **(Price in words)**

HAZARDOUS/UNIVERSAL WASTE:

LINE ITEM	EST. QUANTITY	MATERIAL	UNIT	\$ AMOUNT
33	18	Compact Fluorescent Light Bulbs (12 foot)	bulb	
34	516	Compact Fluorescent Light Bulbs (8 foot)	bulb	
35	7	Compact Fluorescent Light Bulbs (6 foot)	bulb	
36	2,838	Compact Fluorescent Light Bulbs (4 foot)	bulb	
37	147	Compact Fluorescent Light Bulbs (2 foot U)	bulb	
38	60	Compact Fluorescent Light Bulbs (18 inch)	bulb	
39	44	Compact Fluorescent Light Bulbs (12 inch)	bulb	
40	122	Metal-halide Light Bulbs	bulb	
41	2	Quartzaline Lamps	lamp	
42	32	Mercury Thermostat Switch	unit	
43	3	Box Light Fixtures (Large)	unit	
44	7	Box Light Fixtures	unit	
45	2,877	Compact Fluorescent Light Ballasts	unit	
46	1	Transformer Ballast	unit	
47	8	Transformer	unit	
48	81	Emergency Light Fixture	unit	
49	124	Freon® Refrigerant	pounds	
50	38	Oil (hydraulic, residual, etc.)	gallon	
51	48	Weld-on Primer Solvent	ounce	
52	36	Spray Paint	ounce	
53	30	Propane Tank	pound	
54	43	Turf Builder Weed & Feed	pound	
55	7	Fire Extinguisher	unit	
56	120	Incandescent Light Bulbs	unit	
57	550	Concentrated Ice Melt	pound	
		HAZARDOUS/UNIVERSAL WASTE REMOVAL TOTAL:		\$

DELAWARE TRANSIT CORPORATION

BEECH STREET FACILITY – BUILDINGS 2, 5, 8, & 12
HAZARDOUS/UNIVERSAL WASTE REMOVAL

BID FORM - PAGE #6

HAZARDOUS/UNIVERSAL WASTE REMOVAL:

Removal and disposal of all hazardous and universal waste material from all areas listed, but not limited to, those identified in this Bid Form and those listed within the Site Specific Section 17001 – Summary of the Work (HAZMAT/Universal Waste Removal).

TOTAL AMOUNT HAZARDOUS/UNIVERSAL WASTE REMOVAL:

\$ _____ **(Price in numbers)**

\$ _____ **(Price in words)**

**DELAWARE TRANSIT CORPORATION
BEECH STREET FACILITY – BUILDINGS 2, 5, 8, & 12
ASBESTOS ABATEMENT AND
HAZARDOUS/UNIVERSAL WASTE REMOVAL
TOTAL BID - PAGE #7**

Name of Bidder:

**Delaware Business License
No.:**

Taxpayer ID No.:

(A Copy of Bidder's Delaware Business License must be attached to this form.)

(Other License Nos.):

Phone Number: () _____

Fax Number: () _____

_____, hereby proposes to furnish all labor, equipment, and materials described in the specifications in accordance with the General Conditions all other conditions and drawings for the Delaware Transit Corporation (DTC) Beech Street Facility – Buildings 2, 5, 8, & 12. In submittal, the firm listed as bidder has reviewed the site and is in total agreement with the project specifications.

BASE BID – Asbestos Abatement and Hazardous/Universal Waste Removal

The undersigned, representing that they have read and understand the Bidding Documents and that this bid is made in accordance therewith, visited the site and is familiar with the local conditions under which the Work is to be performed, and that the bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents, including, but not limited to limited demolition, for the lump sum itemized below:

Removal and disposal of all asbestos-containing materials and hazardous/universal wastes as described within this Bid Form and as identified within the Site Specific Section 01013 – Summary of the Work (Asbestos Abatement) and Section 17001 – Summary of the Work (HAZMAT/Universal Waste Removal).

TOTAL AMOUNT OF ASBESTOS ABATEMENT & HAZARDOUS/UNIVERSAL WASTE REMOVAL (combined) CONTRACT PRICE:

\$ _____ **(Price in numbers)**

\$ _____ **(Price in words)**

LIST OF BUILDING SUBCONTRACTORS

Contract No. T201653101.01

In accordance with 29 Del. C. S6962(d)10a and 10b., a Pre-Bid Meeting will be held to select the subcontractor categories to be included in the bids for performing the work required for this contract.

This proposal is based on work to be performed by the Subcontractors listed below for the categories selected at the Pre-Bid Meeting.

A bid submitted in the name of an individual should list the individual names followed by T/A and the name of the company.

EXAMPLE: John Doe, T/A Doe Contracting Company

In accordance with Title 29, Subsection 6962(d)(10)b of the Delaware Code, a penalty of \$2,000.00 will be withheld from the successful bidder for each occurrence for the failure to utilize any or all of the Subcontractors set forth below:

<u>CATEGORIES</u>	<u>SUBCONTRACTOR</u>	<u>ADDRESS CITY AND STATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

THIS PAGE WILL BE REPLACED
IN AN ADDENDUM WITH A
LISTING OF CATEGORIES
FOLLOWING THE MANDATORY
PRE-BID MEETING.

CERTIFICATION
Contract No. T201653101.01

The undersigned bidder, _____
whose address is _____
and telephone number is _____ hereby certifies the following:

I/We have carefully examined the location of the proposed work, the proposed plans and specifications, and will be bound, upon award of this contract by the Department of Transportation, to execute in accordance with such award, a contract with necessary surety bond, of which contract this proposal and said plans and specifications shall be a part, to provide all necessary machinery, tools, labor and other means of construction, and to do all the work and to furnish all the materials necessary to perform and complete the said contract within the time and as required in accordance with the requirements of the Department of Transportation, and at the unit prices for the various items as listed on the preceding pages.

The foregoing quantities are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the amount of any item or portion of the work as may be deemed necessary or expedient. Any such increase or decrease in the quantity for any item will not be regarded as a sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided in the contract.

Accompanying this proposal is a surety bond or a security of the bidder assigned to the Department of Transportation, for at least ten (10) percentum of total amount of the proposal, which deposit is to be forfeited as liquidated damages in case this proposal is accepted, and the undersigned shall fail to execute a contract with necessary bond, when required, for the performance of said contract with the Department of Transportation, under the conditions of this proposal, within twenty (20) days after date of official notice of the award of the contract as provided in the requirement and specifications hereto attached; otherwise said deposit is to be returned to the undersigned.

I/We are licensed, or have initiated the license application as required by Section 2502, Chapter 25, Title 30, of the Delaware Code.

By submission of this proposal, each bidder and each person signing on behalf of any bidder, certifies as to its own organization, under penalty of perjury, that to the best of each signer's knowledge and belief:

1. The prices in this proposal have been arrived at independently without collusion, consultation, communication, or Agreement with any other bidder or with any competitor for the purpose of restricting competition.
2. Unless required by law, the prices which have been quoted in this proposal have not been knowingly disclosed and will not knowingly be disclosed by the bidder, directly or indirectly, to any other bidder or competitor prior to the opening of proposals.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a proposal for the purpose of restricting competition.

I/We acknowledge receipt and incorporation of addenda to this proposal as follows:

No.	Date								
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

BIDDERS MUST ACKNOWLEDGE RECEIPT OF ALL ADDENDA

MUST INSERT DATE OF FINAL QUESTIONS AND ANSWERS ON WEBSITE: _____



AFFIRMATION:

Within the past five (5) years, has your firm, any affiliate, any predecessor company or entity, owner, Director, officer, partner or proprietor been the subject of a Federal, State, Local government suspension or debarment?

YES _____ **NO** _____ if yes, please explain _____

Sealed and dated this _____ day of _____ in the year of our Lord two thousand _____ (20__).

Name of Bidder (Organization)

Corporate
Seal

By: _____
Authorized Signature

Attest _____

Title

SWORN TO AND SUBSCRIBED BEFORE ME this ____ day of _____, 20 ____.

Notary
Seal

Notary

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____

of _____ in the County of _____ and State of _____
as **Principal**, and _____ of _____ in the County of _____
and State of _____ as **Surety**, legally authorized to do business in the
State of Delaware ("**State**"), are held and firmly bound unto the **State** in the sum of _____
Dollars (\$ _____), or _____ percent not to exceed _____

_____ Dollars (\$ _____) of amount of bid on
Contract No. T201653101.01, to be paid to the **State** for the use and benefit of its Department of
Transportation ("**DelDOT**") for which payment well and truly to be made, we do bind ourselves, our and
each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole
firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden **Principal**
who has submitted to the **DelDOT** a certain proposal to enter into this contract for the furnishing of
certain materiel and/or services within the **State**, shall be awarded this Contract, and if said **Principal**
shall well and truly enter into and execute this Contract as may be required by the terms of this Contract
and approved by the **DelDOT**, this Contract to be entered into within twenty days after the date of official
notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be
void or else to be and remain in full force and virtue.

Sealed with _____ seal and dated this _____ day of _____ in the year of our Lord
two thousand and _____ (20__).

SEALED, AND DELIVERED IN THE
presence of

Name of Bidder (Organization)

Corporate
Seal

By: _____
Authorized Signature

Attest _____

Title

Name of **Surety**

Witness: _____

By: _____

Title