

# ASBESTOS MANAGEMENT PLAN REPORT

CDB - PROJECT NUMBER -- 910-010-093

NORTHERN ILLINOIS UNIVERSITY  
1425 WEST LINCOLN HIGHWAY  
WEST HEATING PLANT  
C.D.B. BUILDING #U1110  
NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
DEKALB, DEKALB COUNTY, ILLINOIS 60115

STATE OF ILLINOIS  
**CAPITAL DEVELOPMENT BOARD**  
SPRINGFIELD, ILLINOIS

BY:  
CARNOW, CONIBEAR & ASSOC., LTD.  
333 WEST WACKER DRIVE, SUITE 1400  
CHICAGO, ILLINOIS 60606  
(312)782-4486



DATE OF SUBMITTAL: June 27, 2000

DATE SIGNED: June 27, 2000  
EXP. DATE: May 15, 2001  
(A/E LICENSE)  
IDPH LICENSE: 100-4543



# ASBESTOS MANAGEMENT PLAN REPORT

NORTHERN ILLINOIS UNIVERSITY  
1425 WEST LINCOLN HIGHWAY  
WEST HEATING PLANT  
C.D.B. BUILDING #U1110  
NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
DEKALB, DEKALB COUNTY, ILLINOIS 60115

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## TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
I.	COVER	
II.	TABLE OF CONTENTS	II.1 - II.2
III.	BUILDING INVENTORY FORM	III.1
IV.	INTRODUCTION	IV.1 - IV.4
V.	NARRATIVE DESCRIPTION	V.1 - V.4
VI.	SUMMARY OF FINDINGS	VI.1 - VI.15
VII.	SITE PLAN WITH KEY	VII.1 - VI.3
VIII.	FLOOR PLANS	VIII.1 - VIII.5
IX.	INSPECTION REPORT (Included for each area: Report Form, Floor Plan, Lab Analysis, Photo, Response Action, Cost Estimate)	
	TFA - Boiler Stack Insulation on Boiler #1 and #2 (Original Building - 1962)	IX.TFA.1 - IX.TFA.8
	TFB - Boiler Stack Insulation on Boiler #3 (Addition #1 - 1964)	IX.TFB.1 - IX.TFB.8
	TFC - De-aerator Stack Insulation (Addition #1 - 1964)	IX.TFC.1 - IX.TFC.9
	TJA - Fittings on Fiberglass Pipe Insulation (Original Building - 1962)	IX.TJA.1 - IX.TJA.10

**Table of Contents**  
**Page 2**

TJB - Fittings on Fiberglass Pipe Insulation (Addition #1 - 1964)	IX.TJB.1 - IX.TJB.8
TJD - Fittings on Mag-block Pipe Insulation (Original Building - 1962)	IX.TJD.1 - IX.TJD.10
TJE - Fittings on Mag-block Pipe Insulation (Addition #1 - 1964)	IX.TJE.1 - IX.TJE.9
TJF - Fittings on Mag-block Pipe Insulation (Addition #2 - 1966)	IX.TJF.1 - IX.TJF.9
TPA - Mag-block Pipe Insulation (Original Building - 1962)	IX.TPA.1 - IX.TPA.10
TPB - Mag-block Pipe Insulation (Addition #1 - 1964)	IX.TPB.1 - IX.TPB.8
TPC - Mag-block Pipe Insulation (Addition #2 - 1966)	IX.TPC.1 - IX.TPC.9
TTA - De-aerator Tank Insulation (Addition #1 - 1964)	IX.TTA.1 - IX.TTA.9
TTB - Receiver Tank Insulation (Addition #1 - 1964)	IX.TTB.1 - IX.TTB.8
MMA - Fire Door Insulation	IX.MMA.1 - IX.MMA.6
MMB - Gaskets on Boilers #1 and #2 (Original Building - 1962)	IX.MMB.1 - IX.MMB.6
MMC - Gaskets on Boiler #3 (Addition #1 - 1964)	IX.MMC.1 - IX.MMC.6
MMD - Gaskets on Boiler #4 (Addition #2 - 1966)	IX.MMD.1 - IX.MMD.6
MME - Built-up Roof (Original Building - 1962)	IX.MME.1 - IX.MME.6
MMF - Built-up Roof (Addition #1 - 1964)	IX.MMF.1 - IX.MMF.6
MMG - Built-up Roof (Addition #2 - 1966)	IX.MMG.1 - IX.MMG.6
MMH - Built-up Roof (Addition #3 - 1979)	IX.MMH.1 - IX.MMH.6
TJC - Fittings on Fiberglass Pipe Insulation (Addition #2 - 1966)	IX.TJC.1 - IX.TJC.7
TJG - Black Pipe Fitting (Patch)	IX.TJG.1 - IX.TJG.5
MSA - 4" x 7" Fire Brick	IX.MSA.1 - IX.MSA.6
MSB - 12" x 12" Fire Brick	IX.MSB.1 - IX.MSB.6
X. COST SUMMARY	X.1 - X.3
XI. CHAIN OF CUSTODY	XI.1 - XI.3
XII. LICENSES AND ACCREDITATIONS	XII.1 - XII.31
XIII. STANDARD O & M PLAN	XIII.1 - XIII.39

**CAPITAL DEVELOPMENT BOARD  
BUILDING INVENTORY FORM 3**

C.D.B.  
BLDG. #: U1110 BUILDING NAME: WEST HEATING PLANT

USING  
AGENCY: NORTHERN ILLINOIS UNIVERSITY LOCATION: NORTHERN ILLINOIS UNIVERSITY-DEKALB CAMPUS

BLDG. ADDRESS: 1425 WEST LINCOLN HIGHWAY CITY: DEKALB

ZIP: 60115 COUNTY: DEKALB HOUSE/SENATE DISTRICT: 070/35

YEAR GROSS TOTAL FLOORS BELOW  
CONSTRUCTED: 1962 SQ. FT. 27,430 FLOORS: 3 GRADE: 1

USE OF BUILDING / WHEN CURRENT PRIMARY CURRENT SECONDARY  
CONSTRUCTED (C): HEATING PLANT USE (P): BACKUP HEATING PLANT USE (S): BACKUP HEATING PLANT

PREDOMINATE  
CONSTRUCTION TYPE: CINDERBLOCK AND CONCRETE

FOR AGENCY  
USE ONLY: \_\_\_\_\_

BUILDING NOTES: \_\_\_\_\_

(FOR C.D.B. USE ONLY  
ASBESTOS STATUS): \_\_\_\_\_

# FORM 4

## INTRODUCTION TO THE MANAGEMENT PLAN

### A. Policy Statement:

This Management Plan is intended to be a working document which will serve as a guide to staff, employees, occupants and visitors in minimizing the risk of exposure to asbestos fibers. The State of Illinois recognizes the serious health hazards associated with asbestos fibers. The State has conducted an inspection of this facility in order to determine whether asbestos is present, and if so, where the asbestos is located.

The Management Plan sets forth the recommended response actions for the ACM (asbestos containing material) within this facility. Further, where required, an Operations and Maintenance (O&M) Program has been established which will be implemented by the facility staff.

This Plan has been reviewed by CDB, the Contracting Agency and the Using Agency, and represents the policies and procedures to be implemented with respect to any ACM within this facility.

Dated: \_\_\_\_\_  
Capital Development Board Representative

Dated: \_\_\_\_\_  
Agency (Designated Person)

Dated: 6-27-00  
Christie Procke  
Management Planner

**B. Applicable Standards:**

This Management Plan was developed in accordance with CDB's A/E Manual of Procedures for Asbestos Inspections and Management Plans. The IDPH Rules are the minimum standard referenced herein.

**C. Asbestos as a Health Hazard:**

The adverse health effects of asbestos were first noted in the early 1900s. The early reports describes asbestosis, a form of generalized scarring in the lungs, in workers occupationally exposed to asbestos. Later, in 1935, attention was also directed to lung cancer associated with asbestos exposure and, after a report from South Africa in 1960, it became apparent that exposure to asbestos was also associated with mesothelioma, a formerly very rare and unusual cancer of tissues lining the chest and abdominal cavity.

Currently, five important health effects have been associated with asbestos exposure. They are: lung cancer, mesothelioma, gastrointestinal cancer, asbestos-related pleural disease, and asbestosis.

Lung Cancer - Lung cancer is now the most common cause of cancer in both men and women in the United States and cigarette smoking is clearly the major risk factor. Numerous epidemiological studies have demonstrated an unequivocal relationship of lung cancer with asbestos exposure in the work place. Thirty-two studies of different occupationally exposed groups have demonstrated significant association between asbestos exposure and of lung cancer. Furthermore, an increase in asbestos exposure, expressed as concentration of asbestos fibers and duration of exposure in the workplace, appears to increase lung cancer rates. These data suggest that the dose response relationship is probably linear, but it is not yet known whether or not a threshold level of exposure exists below which no increased risk is found.

Of great importance is the observation that cigarette smoking appears to interact with asbestos in a multiplicative manner as to greatly increase the risk of developing lung cancer. Workplace asbestos exposure alone may increase the risk of lung cancer by 5 times. Asbestos exposure plus smoking, however, appears to increase the risk by 50 times.

It has been shown that the greatest risk of developing lung cancer occurs at 20 or more years after the initial asbestos exposure. The existence of this latent period or lag time indicates that asbestos associated lung cancers will continue to occur in the future from exposures which happened in the past.

Mesothelioma - Mesothelioma is a cancer of the membranes lining in the chest and abdominal cavity. Years ago, mesothelioma was a medical curiosity because it was so rare. When malignant mesothelioma is seen today, asbestos exposure is likely to have previously occurred.

The data linking asbestos exposure to mesothelioma is based upon many of the same epidemiological studies of workers that demonstrated an association between asbestos exposure and lung cancer. The findings are somewhat different than for lung cancer. Lower non-occupational exposures have also been associated with mesothelioma in addition to occupational exposure. Therefore, lower levels of exposure to asbestos as found in some non-occupational settings may give rise to mesothelioma. Secondly, the nature of the dose response relationship may be different from that of lung cancer. The risk continues to increase as the number of years since first exposure increases. In many cases, a latent period of more than 40 years has been described.

Gastrointestinal Cancer - Several of the epidemiological studies of workers occupationally exposed to asbestos have shown increased risks of gastrointestinal cancer including cancer of the colon, rectum, stomach and esophagus. The risk, however, does not appear to be as great as for lung cancer. To date, no association has been found between asbestos in drinking water and gastrointestinal cancer.

Asbestos-Related Pleural Disease - This category of health effects include fibrous and sometimes calcified plaques as well as diffuse thickening of the pleura and the pleural effusion. These are non-cancerous changes of the membranes surrounding the lungs and commonly occur many years after asbestos exposure. The presence of plaques suggests prior asbestos exposure but usually does not cause any symptoms or respiratory impairment.

Asbestosis - Asbestosis is a disabling lung disorder consisting of generalized scarring of the lungs which causes shortness of breath on exertion. Asbestosis has been described almost exclusively in workers with occupational exposure to high concentrations of asbestos-containing dusts. In asbestosis, there appears to be a very strong dose response relationship in that the greater the concentration of asbestos fibers, and the longer the duration of exposure, the greater the likelihood and severity of asbestosis.

As with the other asbestos-related health effects, there is usually a time lag or latent period of several years before the development of disease. Once acquired, asbestosis tends to progress slowly, sometimes for years after asbestos exposure has ended.

ACCREDITATION OF MANAGEMENT PLANNER(S)

I, Christie Mosko, prepared or supervised the preparation of this Asbestos Management Plan for West Heating Plant - U1110 at the Northern Illinois University Facility.

I am licensed as a Management Planner by the State of Illinois and have attached verification of such below.

Signature: Christie Mosko Date: 6-27-00

IDPH LICENSE NO.: 100-7669

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.

ISSUED UNDER THE AUTHORITY OF STATE OF ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Christie Mosko

State of Illinois A 106396  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	ID NUMBER
05/15/2001	5319	100-7669

CHRISTIE

MOSKO

MANAGEMENT PLANNER



## NARRATIVE DESCRIPTION

**Using Agency:** NORTHERN ILLINOIS UNIVERSITY

**Building Name:** WEST HEATING PLANT

**CDB Building #:** U1110

**Building Address:** NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

**Date of Inspection:** JANUARY 19, 2000

**Year Constructed:** 1962

**Renovations:** NO DOCUMENTATION FOUND

**Additions:** 1964, 1966 & 1979

**No. of Floors:** 3

**Area:** 27,430 SQUARE FEET

**Building Use:** SECONDARY HEATING PLANT

**Building Occupancy:** 5

**Exterior Surface Materials:** CINDERBLOCK AND CONCRETE

**Type of Roof:** BUILT-UP (ORIGINAL + 3 ADDITIONS)

**Condition of Roof:** GOOD

**Type of Mechanical System:** STEAM BOILER HEATING SYSTEM

**Condition of Mechanical System:** GOOD

**Non-ACM Types of Pipe Insulation:** FIBERGLASS

**History of Previous Asbestos Detection and Abatement:**  
No documentation was found of any previous inspections or renovation projects for this building.

## Narrative Description

### Page 2

#### **Extent of ACM in West Heating Plant, CDB Bldg. #U1110:**

Twenty-five (25) suspect asbestos containing building materials were identified during this inspection as follows: TFA - boiler stack insulation on boiler #1 and #2 (original building - 1962), TFB - boiler stack insulation on boiler #3 (addition #1 - 1964), TFC - de-aerator stack insulation (addition #1 - 1964), TJA - fittings on fiberglass pipe insulation (original building - 1962), TJB - fittings on fiberglass pipe insulation (addition #1 - 1964), TJC - fittings on fiberglass pipe insulation (addition #2 - 1966), TJD - fittings on mag-block pipe insulation (original building - 1962), TJE - fittings on mag-block pipe insulation (addition #1 - 1964), TJF - fittings on mag-block pipe insulation (addition #2 - 1966), TJG - black pipe fitting (patch), TPA - mag-block pipe insulation (original building - 1962), TPB - mag-block pipe insulation (addition #1 - 1964), TPC - mag-block pipe insulation (addition #2 - 1966), TTA - de-aerator tank insulation (addition #1 - 1964), TTB - receiver tank insulation (addition #1 - 1964), MMA - fire door insulation, MMB - gaskets on boilers #1 and #2 (original building - 1962), MMC - gaskets on boiler #3 (addition #1 - 1964), MMD - gaskets on boiler #4 (addition #2 - 1966), MME - built-up roof (original building - 1962), MMF - built-up roof (addition #1 - 1964), MMG - built-up roof (addition #2 - 1966), MMH - built-up roof (addition #3 - 1979), MSA - 4" x 7" fire brick, MSB - 12" x 12" fire brick.

The following materials were sampled and proven to contain asbestos: TFA - boiler stack insulation on boiler #1 and #2 (original building - 1962), TFB - boiler stack insulation on boiler #3 (addition #1 - 1964), TFC - de-aerator stack insulation (addition #1 - 1964), TJD - fittings on mag-block pipe insulation (original building - 1962), TJE - fittings on mag-block pipe insulation (addition #1 - 1964), TJF - fittings on mag-block pipe insulation (addition #2 - 1966), TJA - fittings on fiberglass pipe insulation (original building - 1962), TJB - fittings on fiberglass pipe insulation (addition #1 - 1964), TPA - mag-block pipe insulation (original building - 1962), TPB - mag-block pipe insulation (addition #1 - 1964), TPC - mag-block pipe insulation (addition #2 - 1966), TTA - de-aerator tank insulation (addition #1 - 1964), and TTB - receiver tank insulation (addition #1 - 1964).

TFA - boiler stack insulation on boiler #1 and #2 (original building - 1962) and TFC - de-aerator stack insulation, are damaged and need to be repaired. There is approximately 10 square feet of debris on the floor around boiler #3 which needs to be cleaned up by an IDPH licensed asbestos worker.

TJA - fittings on fiberglass pipe insulation (original building - 1962), TJB - fittings on fiberglass pipe insulation (addition #1 - 1964) and TFC - de-aerator stack insulation (addition #1 - 1964), TJD - fittings on mag-block pipe insulation (original building - 1962), TJE - fittings on mag-block pipe insulation (addition #1 - 1964), TJF - fittings on mag-block pipe insulation (addition #2 - 1966), are damaged and need to be repaired. One fitting of TJE - fittings on mag-block pipe insulation (addition #1 - 1964), has fallen and broken

## Narrative Description

### Page 3

under the de-aerator piping which needs to be cleaned up by an IDPH licensed asbestos worker.

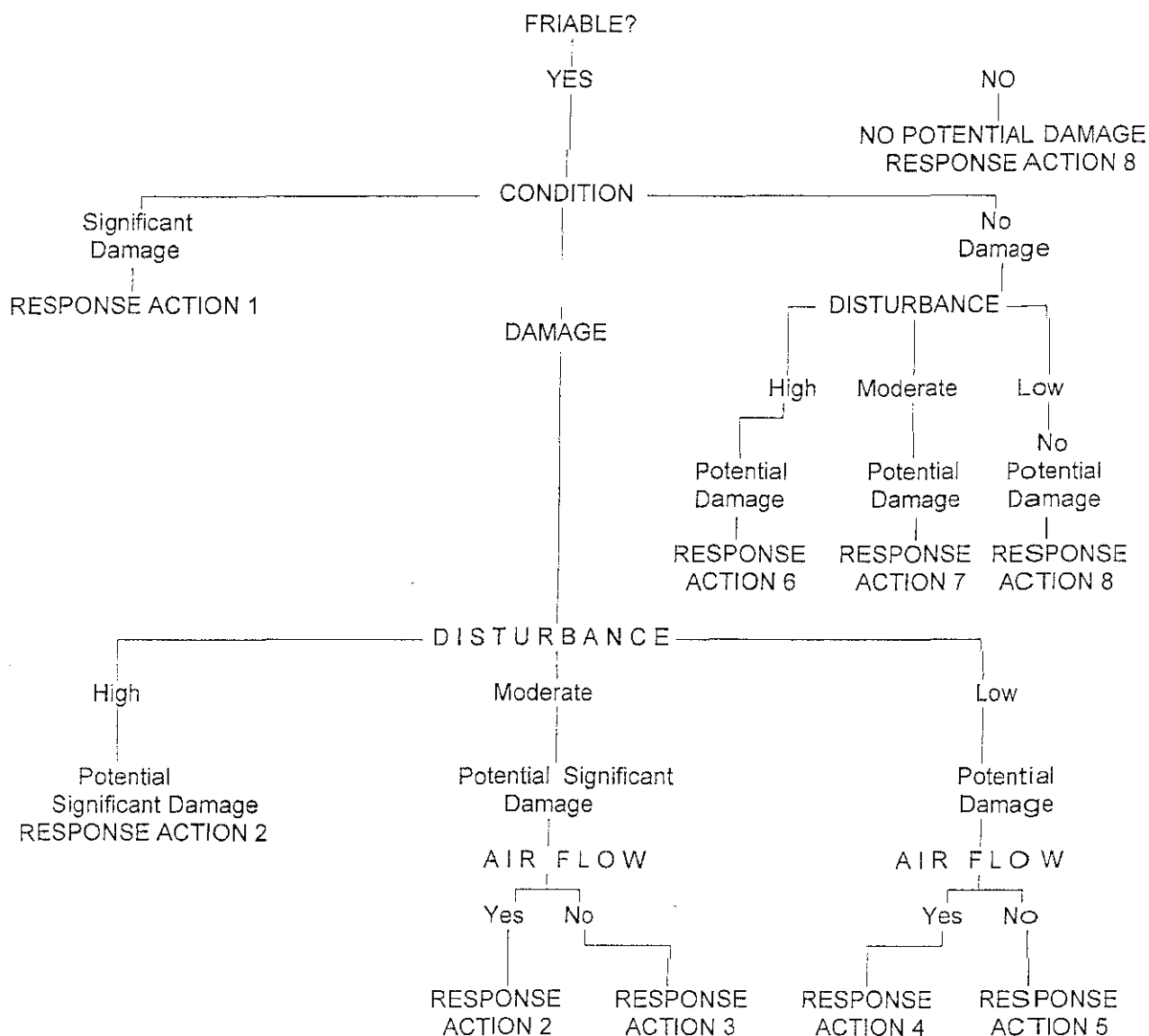
TTA - the de-aerator tank insulation (addition #1 - 1964) has a 5' split on the bottom side of the tank which is pulling away from the tank and poses a significant potential hazard of dropping to the floor, causing fibers to be released into the air. The area over the electric panel is broken and there is visible debris which needs to be cleaned up and repaired by an IDPH licensed asbestos worker.

There is approximately 4 sq. ft. of TTB - receiver tank insulation (addition #1 - 1964) where the covering has come off. The insulation is currently in good shape but it should be repaired.

TJC - fittings on the fiberglass pipe insulation (addition #2 - 1966), and TJG - black pipe fitting (patch) were proven to contain no asbestos.

MMA - fire door insulation, MME - built-up roof (original building - 1962), MMF - built-up roof (addition #1 - 1964), MMG - built-up roof (addition #2 - 1966), MMH - built-up roof (addition #3 - 1979), MMB - gaskets on boilers #1 and #2 (original building - 1962), MMC - gaskets on boiler #3 (addition #1 - 1964), MMD - gaskets on boiler #4 (addition #2 - 1966) MSA - 4" x 7" fire brick, and MSB - 12" x 12" fire brick, were assumed to contain asbestos. These materials are not friable and pose no threat to the health of the building occupants as long as they remain in good condition.

## FORM 5 DECISION TREE



### RESPONSE ACTIONS KEY

- |      |  |
|------|--|
| 1.   | Isolate area and restrict access. Remove as soon as possible.  |
| 2.   | Continue O & M. Repair or remove as soon as possible, or reduce potential for disturbance.                                     |
| 3-5. | Repair, continue O & M. Number indicates priority if all repairs cannot be done immediately.                                   |
| 6-7. | Continue O & M. Take preventive measures to reduce disturbance. Number indicates priority for removal.                         |
| 8.   | Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change. |

Note: An O&M program may include enclosure and encapsulation, where appropriate to increase the effectiveness of O&M. Removal is always an option.

## SUMMARY OF FINDINGS

### PHASE I - INSPECTION REPORT

NORTHERN ILLINOIS UNIVERSITY  
 1425 WEST LINCOLN HIGHWAY  
 WEST HEATING PLANT  
 C.D.B. BUILDING #U1110  
 NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 DEKALB, DEKALB COUNTY, ILLINOIS 60115

#### C.D.B. PROJECT # 910-010-093

HOMO AREA	DESCRIPTION	QUANTITY	NUMBER SAMPLES RECOMMENDED	REMOVAL COST ESTIMATE
TFA	Boiler Stack Insulation on Boiler #1 and #2 (Original Building - 1962)	500 sf	3	<\$25,000.00
TFB	Boiler Stack Insulation on Boiler #3 (Addition #1 - 1964)	250 sf	3	<\$25,000.00
TFC	De-Aerator Stack Insulation (Addition #1 - 1964)	350 sf	3	<\$25,000.00
TJA	Fittings on Fiberglass Pipe Insulation (Original Building - 1962)	24 fittings	3	<\$25,000.00
TJB	Fittings on Fiberglass Pipe Insulation (Addition #1 - 1964)	26 fittings	3	<\$25,000.00
TJC	Fittings on Fiberglass Pipe Insulation (Addition #2 - 1966)	35 fittings	3	<\$25,000.00
TJD	Fittings on Mag-Block Pipe Insulation (Original Building - 1962)	30 fittings	3	<\$25,000.00
TJE	Fittings on Mag-Block Pipe Insulation (Addition #1 - 1964)	20 fittings	3	<\$25,000.00
TJF	Fittings on Mag-Block Pipe Insulation (Addition #2 - 1966)	2 fittings	3	<\$25,000.00
TJG	Black Pipe Fitting (Patch)	1 fitting	1	<\$25,000.00
TPA	Mag-Block Pipe Insulation (Original Building - 1962)	450 lf	3	<\$25,000.00
TPB	Mag-Block Pipe Insulation (Addition #1 - 1964)	275 lf	3	<\$25,000.00

## SUMMARY OF FINDINGS

### PHASE I - INSPECTION REPORT

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 DEKALB, DEKALB COUNTY, ILLINOIS 60115

Page 2

C.D.B. PROJECT # 910-010-093

HOMO AREA	DESCRIPTION	QUANTITY	NUMBER SAMPLES RECOMMENDED	REMOVAL COST ESTIMATE
TPC	Mag-Block Pipe Insulation (Addition #2 - 1966)	150 lf	3	<\$25,000.00
TTA	De-Aerator Tank Insulation (Addition #1 - 1964)	500 sf	3	<\$25,000.00
TTB	Receiver Tank Insulation (Addition #1 - 1964)	500 sf	3	<\$25,000.00
MMA	Fire Door Insulation	4 doors	0- Assumed	<\$25,000.00
MMB	Gaskets on Boilers #1 and #2 (Original Building - 1962)	50 lf	0- Assumed	<\$25,000.00
MMC	Gaskets on Boiler #3 (Addition #1 - 1964)	25 lf	0- Assumed	<\$25,000.00
MMD	Gaskets on Boiler #4 (Addition #2 - 1966)	25 lf	0- Assumed	<\$25,000.00
MME	Built-up Roof (Original Building - 1962)	4,860 sf	0- Assumed	<\$25,000.00
MMF	Built-up Roof (Addition #1 - 1964)	2,160 sf	0- Assumed	<\$25,000.00
MMG	Built-up Roof (Addition #2 - 1966)	7,800 sf	0- Assumed	<\$25,000.00
MMH	Built-up Roof (Addition #3 - 1979)	3,780 sf	0- Assumed	<\$25,000.00
MSA	4" x 7" Fire Brick	200 sf	1	<\$25,000.00
MSB	12" x 12" Fire Brick	100 sf	1	<\$25,000.00

## SUMMARY OF FINDINGS

### PHASE II - SAMPLING REPORT

NORTHERN ILLINOIS UNIVERSITY  
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#### C.D.B. PROJECT # 910-010-093

HOMO AREA	DESCRIPTION	QUANTITY	ACM			NOTES
			ASSUMED	POS	NEG	
TFA	Boiler Stack Insulation on Boiler #1 and #2 (Original Building - 1962)	500 sf		3		Slight damage at the bottom of Boiler #1 stack is allowing asbestos debris to fall on the floor.
TFB	Boiler Stack Insulation on Boiler #3 (Addition #1 - 1964)	250 sf		3		Approximately 6 square feet of this insulation has fallen beside the boiler.
TFC	De-aerator Stack Insulation (Addition #1 - 1964)	350 sf		3		There is damage at the bottom of the stack above the electric panel which is leaking debris on top of the receiver. There is a 2 square feet significantly damaged area on the back side of this stack approximately 30' up.
TJA	Fittings on Fiberglass Pipe Insulation (Original Building - 1962)	24 fittings		2	1	Three (3) fittings are significantly damaged.
TJB	Fittings on Fiberglass Pipe Insulation (Addition #1 - 1964)	26 fittings		2	1	Approximately 4 square feet of the cover over this insulation has come off. Approximately 1 square foot of damage.
TJD	Fittings on Mag-Block Pipe Insulation (Original Building - 1962)	30 fittings		3		

## SUMMARY OF FINDINGS

### PHASE II - SAMPLING REPORT

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Page 2

C.D.B. PROJECT # 910-010-093

HOMO AREA	DESCRIPTION	QUANTITY	ACM			NOTES
			ASSUMED	POS	NEG	
TJE	Fittings on Mag-Block Pipe Insulation (Addition #1 - 1964)	20 fittings		3		A mag-block fitting from the feed pump piping under the de-aerator has fallen to the floor and shattered.
TJF	Fittings on Mag-Block Pipe Insulation (Addition #2 - 1966)	2 fittings		3		
TPA	Mag-Block Pipe Insulation (Original Building - 1962)	450 lf		3		
TPB	Mag-Block Pipe Insulation (Addition #1 - 1964)	275 lf		3		
TPC	Mag-Block Pipe Insulation (Addition #2 - 1966)	150 lf		3		
TTA	De-Aerator Tank Insulation (Addition #1 - 1964)	500 sf		3		There is a 5' split on the bottom side of this tank which is pulling away from the tank and has a significant potential for damage.



## SUMMARY OF FINDINGS

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Page 3

C.D.B. PROJECT # 910-010-093

HOMO AREA	DESCRIPTION	QUANTITY	ACM			NOTES
			ASSUMED	POS	NEG	
TTB	Receiver Tank Insulation (Addition #1 - 1964)	500 sf		3		There is approximately 4 square feet on the side of this tank where the material over the insulation has come off and expose the insulation.
MMA	Fire Door Insulation	4 doors	X			
MMB	Gaskets on Boilers #1 and #2 (Original Building - 1962)	50 lf	X			
MMC	Gaskets on Boiler #3 (Addition #1 - 1964)	25 lf	X			
MMD	Gaskets on Boiler #4 (Addition #2 - 1966)	25 lf	X			
MME	Built-up Roof (Original Building - 1962)	4,860 sf	X			
MMF	Built-up Roof (Addition - #1 -1964)	2,160 sf	X			
MMG	Built-up Roof (Addition - #2 -1966)	7,800 sf	X			
MMH	Built-up Roof (Addition - #2 -1979)	3,780 sf	X			
TJC	Fittings on Fiberglass Pipe Insulation (Addition #2 - 1966)	35 fittings			3	

**SUMMARY OF FINDINGS**

**PHASE II - SAMPLING REPORT**

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**Page 4**

**C.D.B. PROJECT # 910-010-093**

HOMO AREA	DESCRIPTION	QUANTITY	ACM			NOTES
			ASSUMED	POS	NEG	
TJG	Black Pipe Fitting (Patch)	1 fitting			1	
MSA	4" x 7" Fire Brick	200 sf			1	
MSB	12" x 12" Fire Brick	100 sf			1	

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TFA	Boiler Stack Insulation on Boiler #1 and #2 (Original Building - 1962)	5- 30	0- 30				X					X	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.
TFB	Boiler Stack Insulation on Boiler #3 (Addition #1 - 1964)	2-5	0- 45				X					X	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.
TFC	De-Aerator Stack Insulation (Addition #1 - 1964)	3- 25.5	2.75				X					X	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S T O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	N U M B E R	RESPONSE ACTION
														DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TTB	Receiver Tank Insulation (Addition #1 - 1964)	5- 10				X						X	3	Continue O & M. Schedule removal when practical and cost effective, or reduce disturbance.
TJA	Fittings on Fiberglass Pipe Insulation (Original Building - 1962)	0- 25	0- 10			X					X		6	Continue O & M. Take preventive measures to reduce disturbance.
TJB	Fittings on Fiberglass Pipe Insulation(Addition #1 - 1964)	0- 10				X					X		6	Continue O & M. Take preventive measures to reduce disturbance.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TJE	Fittings on Mag-Block Pipe Insulation (Addition #1 - 1964)	5- 5.25				X					X		6	Continue O & M. Take preventive measures to reduce disturbance.
TTA	De-Aerator Tank Insulation (Addition #1 - 1964)	3-5				X					X		6	Continue O & M. Take preventive measures to reduce disturbance.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TPA	Mag Block Pipe Insulation (Original Building - 1962)	5- 10	5- 60			X					X		8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
TJD	Fittings on Mag-Block Pipe Insulation (Original Building - 1962)	2- 40	0- 20			X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TJF	Fittings on Mag-Block Pipe Insulation (Addition #2 - 1966)	4.75- 5				X					X		8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
TPB	Mag-Block Pipe Insulation (Addition #1- 1964)	10- 25				X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
TPC	Mag-Block Pipe Insulation (Addition #2 - 1966)	5- 20	10- 40			X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
MMA	Fire Door Insulation				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.



FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
MMB	Gaskets on Boilers #1 and #2 (Original Building - 1962)				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
MMC	Gaskets on Boiler #3 (Addition #1 - 1964)				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

FORM 6 SUMMARY OF FINDINGS

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
MMD	Gaskets on Boilers #4 (Addition #2 - 1966)				X					X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
MME	Built-up Roof (Original Building - 1962)				X					X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

FORM 6 SUMMARY OF FINDINGS

**MANAGEMENT PLAN PHASE III**

LIST IN ORDER OF RESPONSE ACTIONS NUMBER

C.D.B. PROJECT NO. 910-010-093

BUILDING NAME WEST HEATING PLANT

C.D.B. BUILDING NUMBER U1110

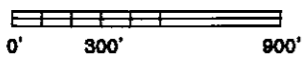
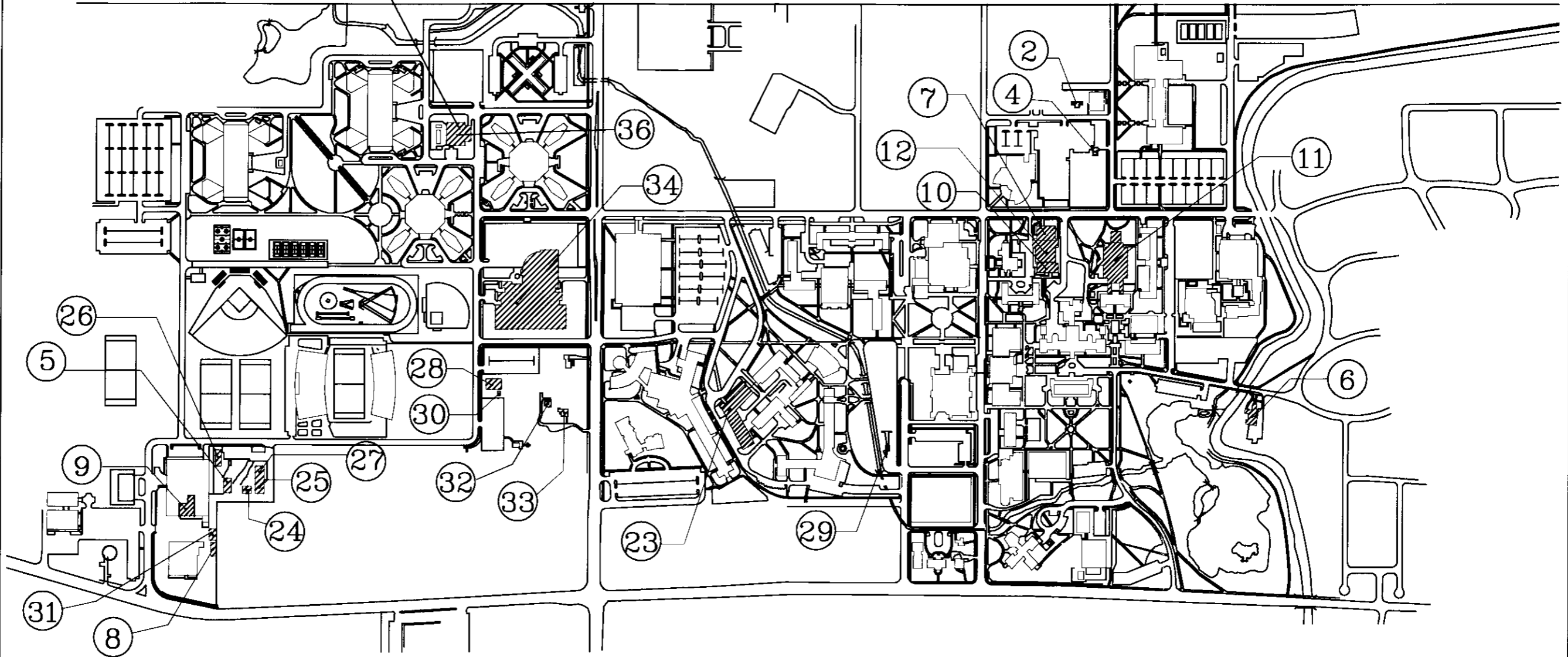
H O M O G E N E O U S  A R E A	MATERIAL DESCRIPTION	ACM CONTENT (%)				DAMAGE ASSESSMENT								
		C H R Y S O T I L E	A M O S I T E	O T H E R	A S S U M E D  A C M	N O  D A M A G E	S A L I E N T	D A M A G E	S I G N  D A M A G E	N O  P O T  D A M A G E	P O T  D A M A G E	P O T  S I G N  D A M A G E	RESPONSE ACTION	
													N U M B E R	DESCRIPTION (I.E. REMOVE, REPAIR, ENCLOSURE, ENCAPSULATE, OR O & M)
MMF	Built-up Roof (Addition #1 - 1964)				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
MMG	Built-up Roof (Addition #2 - 1966)				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
MMH	Built-up Roof (Addition #3 - 1979)				X	X				X			8	Continue O & M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

NORTHERN ILLINOIS UNIVERSITY  
DEKALB, ILLINOIS

	<u>CDB No.</u>	<u>Building Name</u>
1	U100S	STEAM LINES
2	U1019	JACOBS HOUSE/FAMILY CENTER
3	U1023	PRESIDENT'S HOUSE
4	U1025	POTTENGER HOUSE
5	U1036	GROUND'S BUILDING B
6	U1041	KISHWAUKEE HALL
7	U1044	SPEECH AND HEARING
8	U1047	PHYSICAL PLANT STORAGE
9	U1050	CENTRAL RECEIVING
10	U1055	TELEPHONE AND SECURITY
11	U1056	WIRTZ HALL
12	U1058	HEALTH CENTER
13	U1062	TAFT HOUSE
14	U1063	POLEY HOUSE
15	U1066	MAINTENANCE GARAGE
16	U1067	DIRECTOR'S HOUSE
17	U1068	GROVER HOUSE
18	U1069	ARTS AND CRAFTS
19	U1072	BROWNE HOUSE
20	U1073	DICKERSON HOUSE
21	U1074	CLARKSON DORM
22	U1075	DINING HALL
23	U1076	DUSABLE HALL
24	U1081	GROUND'S BUILDING C
25	U1082	GROUND'S BUILDING D
26	U1083	GREENHOUSE
27	U1085	GROUND'S SHOP BUILDING G
28	U1086	TV CENTER
29	U1087	PARKING BOOTH
30	U1088	MOTORCYCLE BUILDING
31	U1097	MORTON 48 X 81
32	U1102	ODEKIRK CARRIAGE HOUSE
33	U1103	ODEKIRK HOUSE
34	U1111	RECREATION BUILDING
35	U1024	NURSING BUILDING
36	U1110	WEST HEATING PLANT

U1110  
WEST  
HEATING  
PLANT

MATCH THIS LINE TO LINE ON MAP SHEET 2

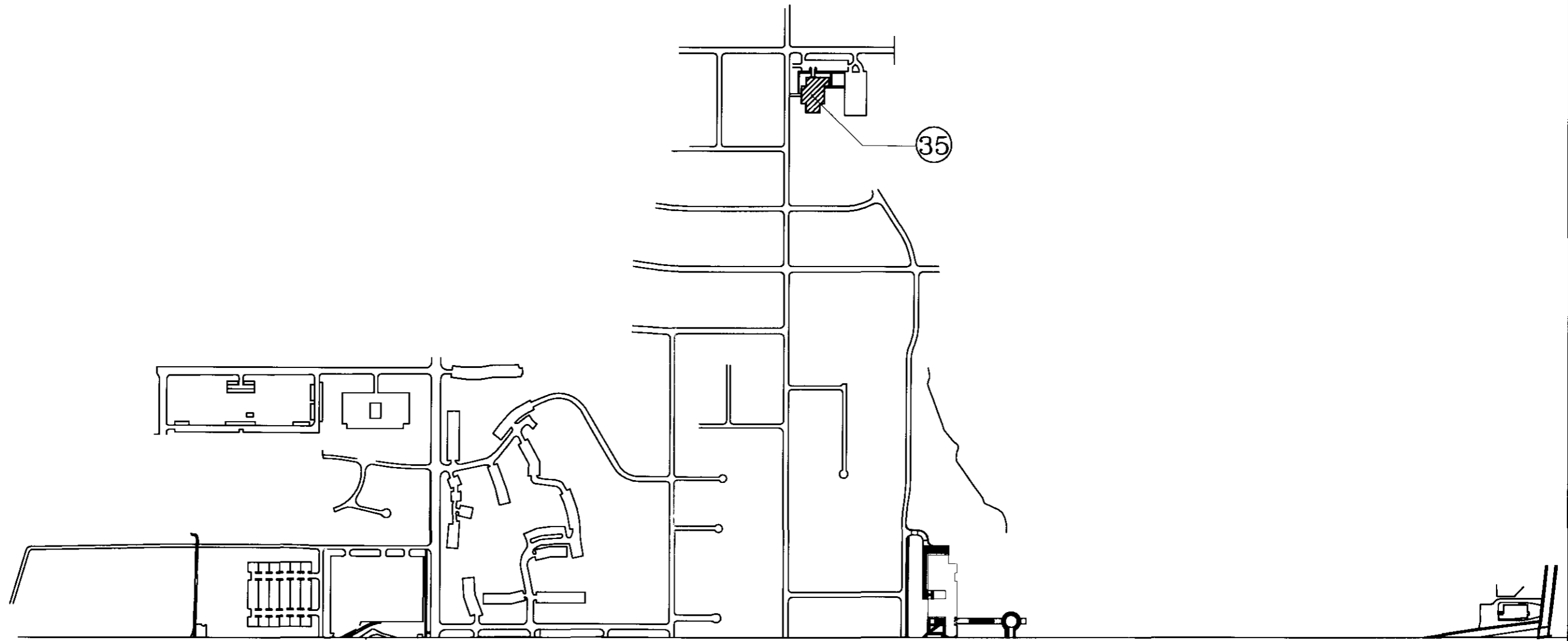


**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
333 WEST WACKER DRIVE, STE. 1400  
CHICAGO, ILLINOIS 60606

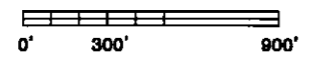


CAMPUS MAP  
WEST HEATING PLANT  
NORTHERN ILLINOIS UNIVERSITY  
DEKALB, DEKALB COUNTY, ILLINOIS  
CDB BUILDING # U1110 VII.2

PROJ. NO.  
910-010-093  
DATE 4/7/00  
SHEET 1 OF 2  
**MAP**



MATCH THIS LINE TO LINE ON MAP SHEET 1

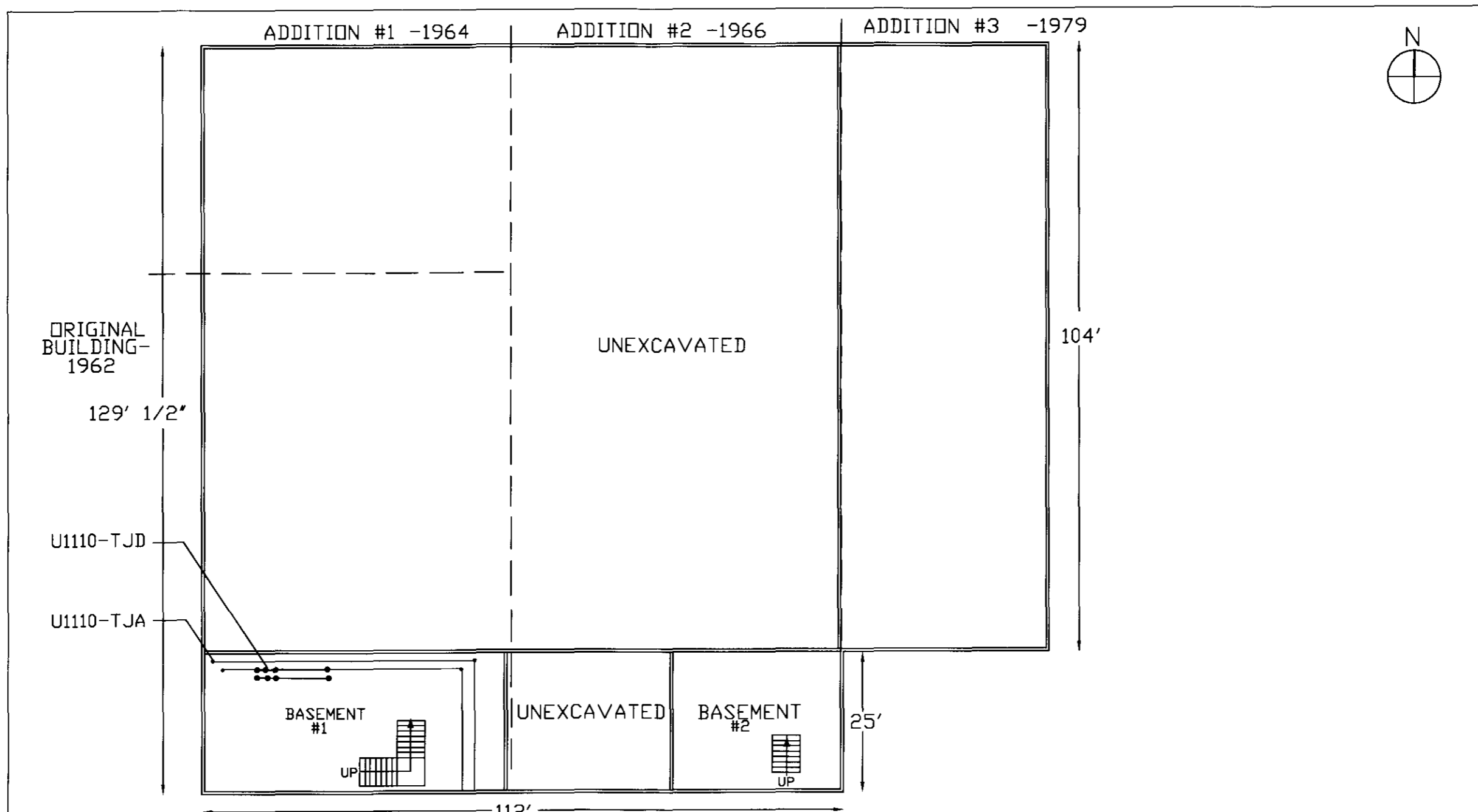


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**CAMPUS MAP**  
**WEST HEATING PLANT**  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110 VII.3

PROJ. NO.  
 910-010-093  
 DATE 4/7/00  
 SHEET 2 OF 2  
**MAP**

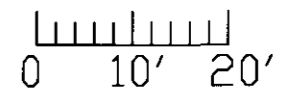


THERMAL SYSTEM INSULATION



TJA-RESPONSE ACTION IX.TJA.9  
 (FITTINGS ON FIBERGLASS PIPE INSULATION - ORIGINAL BUILDING-1962)  
 TJD-RESPONSE ACTION IX.TJD.9  
 (FITTINGS ON MAG BLOCK PIPE INSULATION - ORIGINAL BUILDING-1962)

SCALE: 1" = 20'



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



BASEMENT  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110


PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 FLOOR PLAN  
 OF 5

# MATERIAL IDENTIFICATION FOR FIRST FLOOR PLAN


## THERMAL SYSTEM INSULATION


TJE-RESPONSE ACTION IX.TJE.7   
 (FITTINGS ON MAG BLOCK PIPE  
 INSULATION-ADDITION #1-1964)


TTA-RESPONSE ACTION IX.TTA.7   
 (DE-AERATOR TANK INSULATION  
 -ADDITION #1-1964)


TTB-RESPONSE ACTION IX.TTB.7   
 (RECEIVER TANK INSULATION  
 -ADDITION #1-1964)


TJD-RESPONSE ACTION IX.TJD.9   
 (FITTINGS ON MAG BLOCK PIPE  
 INSULATION-ORIGINAL BLDG.-1962)

TPA-RESPONSE ACTION IX.TPA.9   
 (MAG BLOCK PIPE INSULATION-  
 ORIGINAL BLDG.-1962)

TPB-RESPONSE ACTION IX.TPB.7   
 (MAG BLOCK PIPE INSULATION-  
 ADDITION #1-1964)


TJF-RESPONSE ACTION IX.TJF.7   
 (FITTINGS ON MAG BLOCK PIPE  
 INSULATION ADDITION #2-1966)

TFB-RESPONSE ACTION IX.TFB.7   
 (BOILER STACK INSULATION ON  
 BOILER #3-ADDITION #1-1964)

TFC-RESPONSE ACTION IX.TFC.8   
 (DE-AERATOR STACK INSULATION  
 -ADDITION #2-1966)

## THERMAL SYSTEM INSULATION


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 FITTINGS ON FIBERGLASS PIPE  
 INSULATION ORIGINAL BUILDING-1962)


TFA-RESPONSE ACTION IX.TFA.7   
 (BOILER STACK INSULATION ON  
 BOILER #1 AND #2-ORIGINAL BLDG.  
 1964)


## MISCELLANEOUS MATERIALS

MMB-RESPONSE ACTION IX.MMB.5  
 (GASKETS ON BOILERS #1 AND #2-  
 ORIGINAL BUILDING-1962)

MMA-RESPONSE ACTION IX.MMA.5  
 (FIRE DOOR INSULATION) 

MMD-RESPONSE ACTION IX.MMD.5  
 (GASKETS ON BOILER #4   
 -ADDITION #2-1966)

MMC-RESPONSE ACTION IX.MMC.5  
 (GASKETS ON BOILER #3   
 -ADDITION #1-1964)

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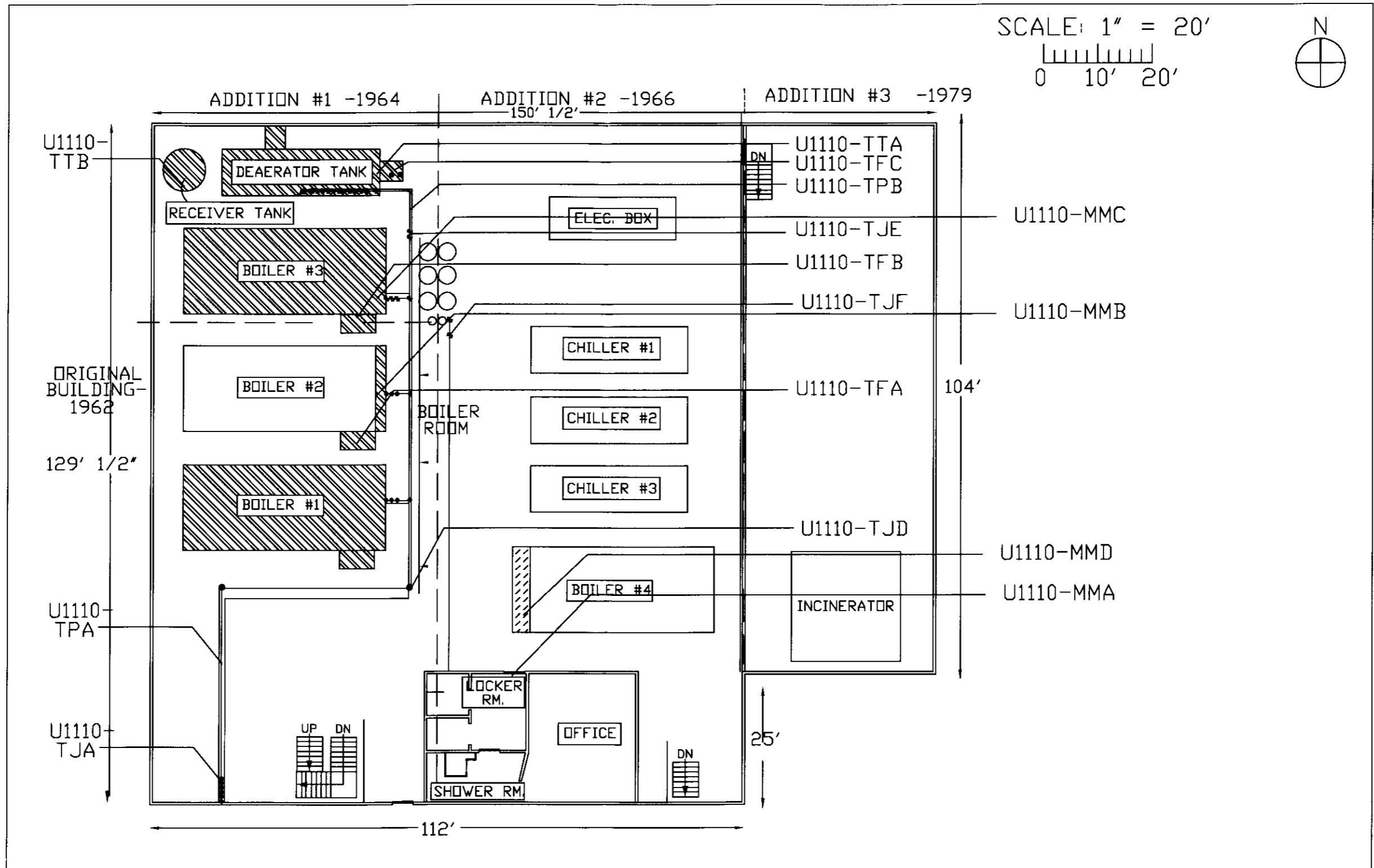
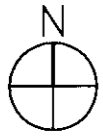
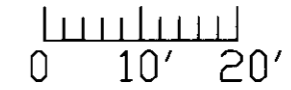


FIRST FLOOR MATERIAL LIST  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 2  
 FLOOR PLAN  
 OF 5



SCALE: 1" = 20'

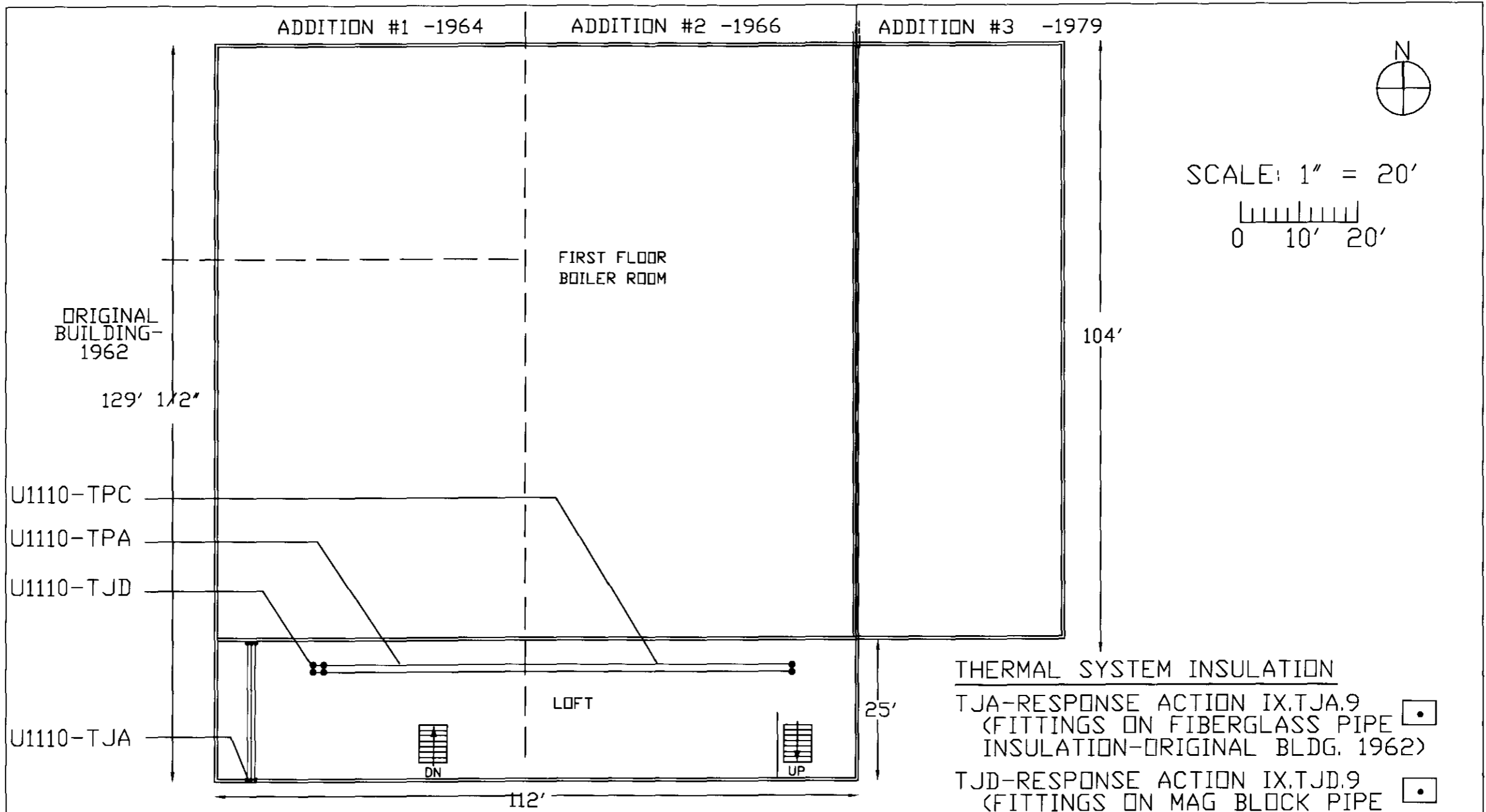


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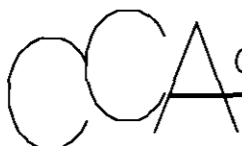
FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 3  
 FLOOR PLAN  
 OF 5



**THERMAL SYSTEM INSULATION**  
 TPC-RESPONSE ACTION IX.TPC.8 (MAG BLOCK PIPE INSULATION -ADDITION #2-1966) 

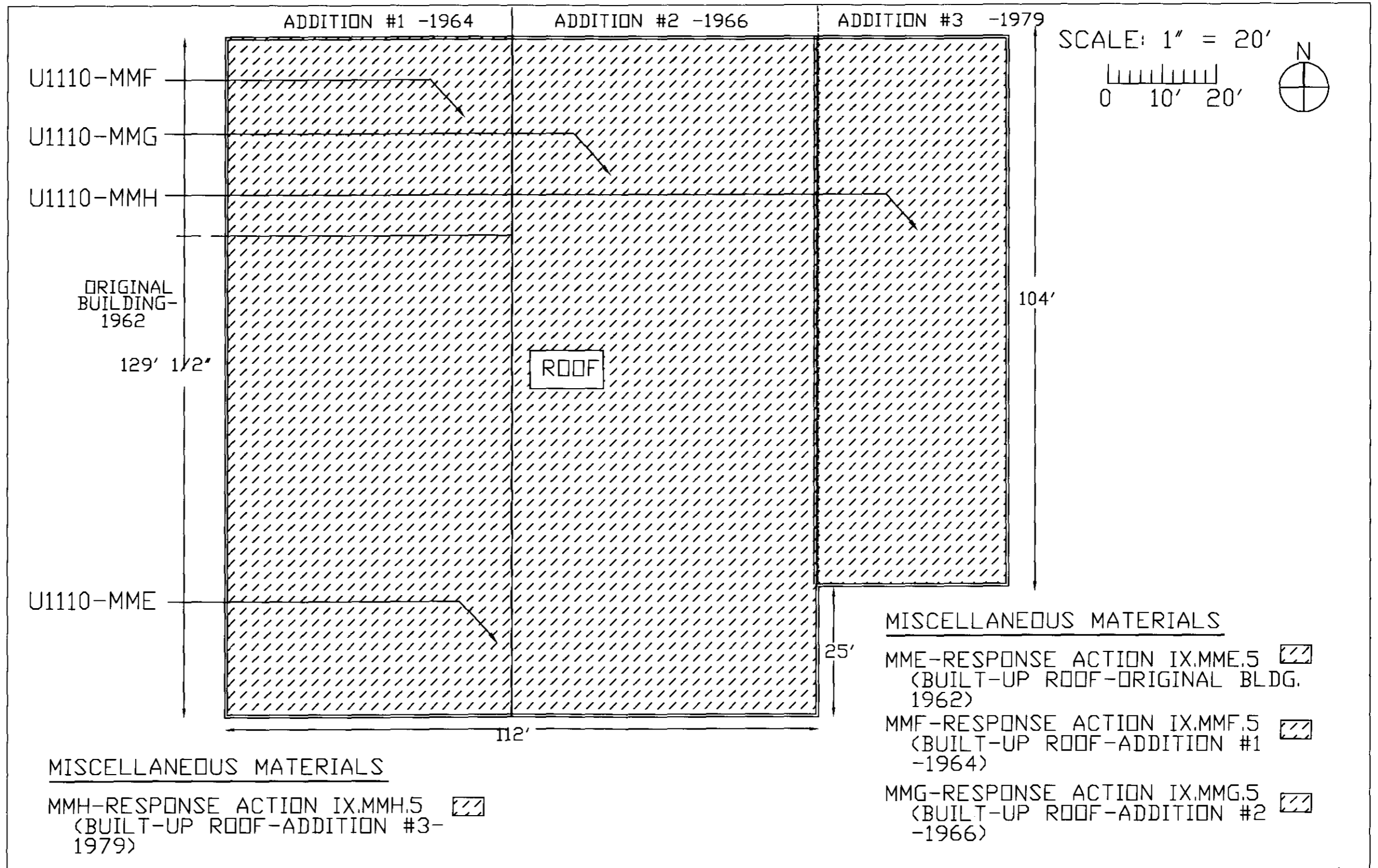
**THERMAL SYSTEM INSULATION**  
 TJA-RESPONSE ACTION IX.TJA.9 (FITTINGS ON FIBERGLASS PIPE INSULATION-ORIGINAL BLDG. 1962)   
 TJD-RESPONSE ACTION IX.TJD.9 (FITTINGS ON MAG BLOCK PIPE INSULATION-ORIGINAL BLDG. 1962)   
 TPA-RESPONSE ACTION IX.TPA.9 (MAG BLOCK PIPE INSULATION -ORIGINAL BLDG. 1962) 

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 CHICAGO, ILLINOIS 60606



SECOND FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 4  
 FLOOR PLAN  
 OF 5



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
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 CHICAGO, ILLINOIS 60606



ROOF PLAN

WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS

CDB BUILDING # U1110

PROJ. NO.  
 910-010-093

DATE  
 JANUARY 19, 2000

SHEET 5  
 FLOOR PLAN  
 OF 5

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGNEOUS AREA: TFA  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM - ORIGINAL BUILDING

MATERIAL DESCRIPTION: BOILER STACK INSULATION ON BOILER #1 AND #2 (ORIGINAL BUILDING - 1962)  
(common designation - i.e. air cell)  
 TYPE OF SYSTEM: BOILER EXHAUST  
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes X No \_\_\_\_\_ Pipe Diameter \_\_\_\_\_ inches  
 TOTAL QUANTITY: 500 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.  
 QUANTITY IN: Occupied X Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

ROOM FINISHES:  
 CEILING CONCRETE  
 WALLS CONCRETE AND CINDER BLOCK  
 FLOOR CONCRETE

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% _____	1-25% <u>X</u>	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 If yes, describe \_\_\_\_\_

WATER DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes X No \_\_\_\_\_ Description THE BOTTOM OF THE STACK ON BOILER #1 NEEDS TO BE REPAIRED  
 AGE DETERIORATION Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TFA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 0-25 ft.  
 AREA ABOVE ROOF  
 AREA ADJACENT MECHANICAL AREAS  
 OCCUPANCY (#) 0  1-2  3-10  10+   
 FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+   
 UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1  1-5  >5  VIBRATION Yes  No   
 MECHANICAL < 1  1-5  >5  MECHANICAL (MOTOR) Yes  No   
 PIPING < 1  1-5  >5  PLUMBING (KNOCKING) Yes  No   
 OTHER  < 1  1-5  >5  OTHER  Yes  No

BARRIERS Yes  No   
 SUSPENDED CEILING Yes  No   
 ENCAPSULATION Yes  No   
 ENCLOSURE Yes  No   
 OTHER  Yes  No

AIR MOVEMENTS Yes  No   
 (IF YES) Low  Moderate  Heavy

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes  No  20 FT. \_\_\_\_\_  
 EXHAUST FAN Yes  No  40 FT. \_\_\_\_\_  
 GRAVITY VENT Yes  No  \_\_\_\_\_  
 SUPPLY AIR Yes  No  \_\_\_\_\_  
 RETURN AIR Yes  No  \_\_\_\_\_  
 OTHER  Yes  No  \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage \_\_\_\_\_ Potential For Damage \_\_\_\_\_  
 Potential for Significant Damage

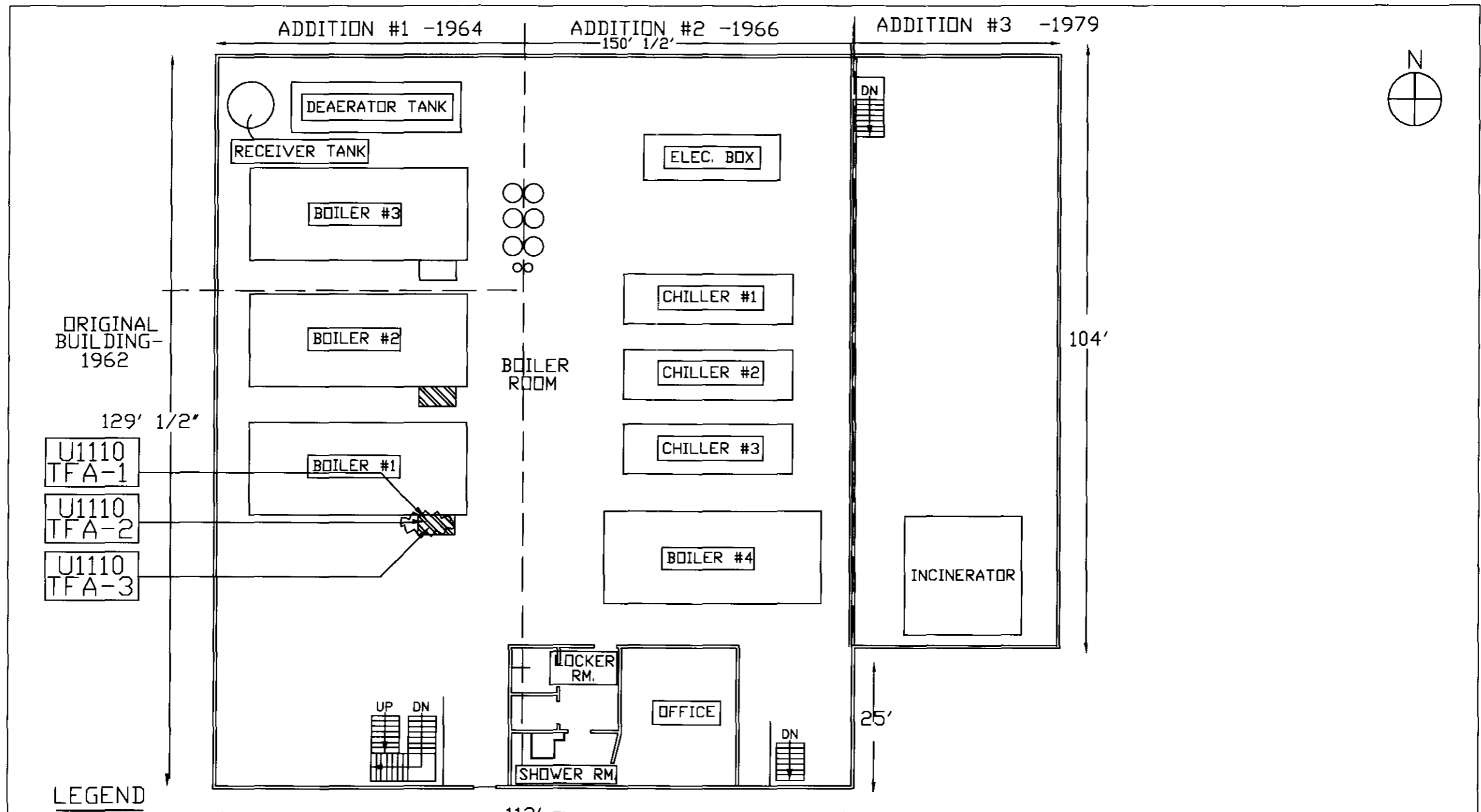
EXPLANATION OF ASSESSMENT (REQUIRED) THIS BOILER STACK JACKET IS DAMAGED, WHICH CAN ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

DAMAGE PREVENTION MEASURES REPAIR BOILER STACKS #1 AND #2. MAINTAIN THIS STACK IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.



COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (CB) DATE 6/27/00  
 SAMPLE NUMBERS U1110-TFA-1, U1110-TFA-2, U1110-TFA-3  
 (Sampling Phase)

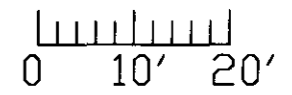
ACBM Yes  No  Assumed





**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA TFA-BOILER STACK INSULATION ON BOILERS #1 AND #2 (ORIGINAL BUILDING-1962)
-  INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 PF 1 TFA

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

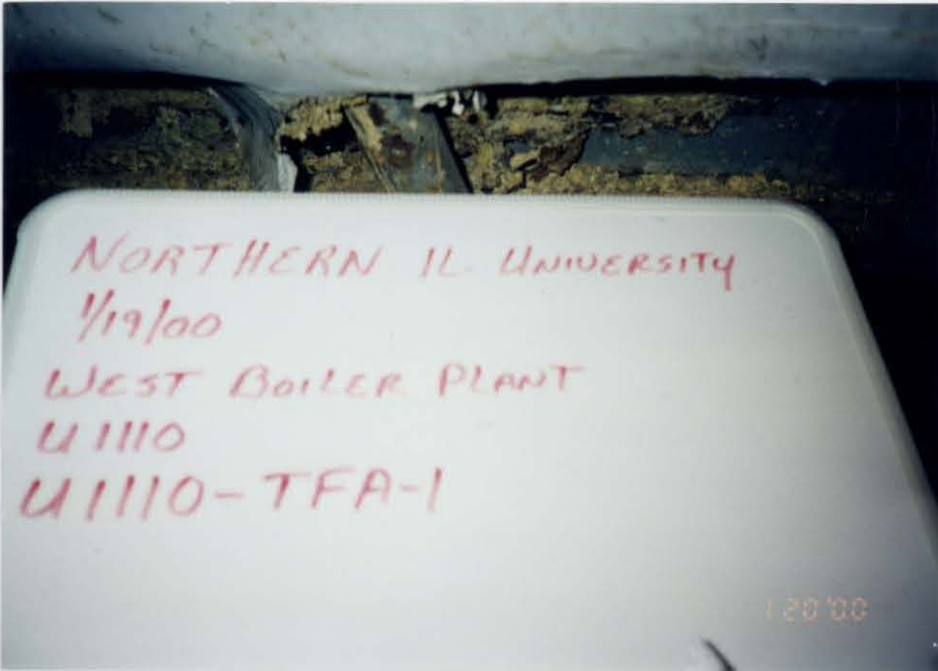
1. FACILITY: Northern Illinois University      2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant              4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus                      6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TFA

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

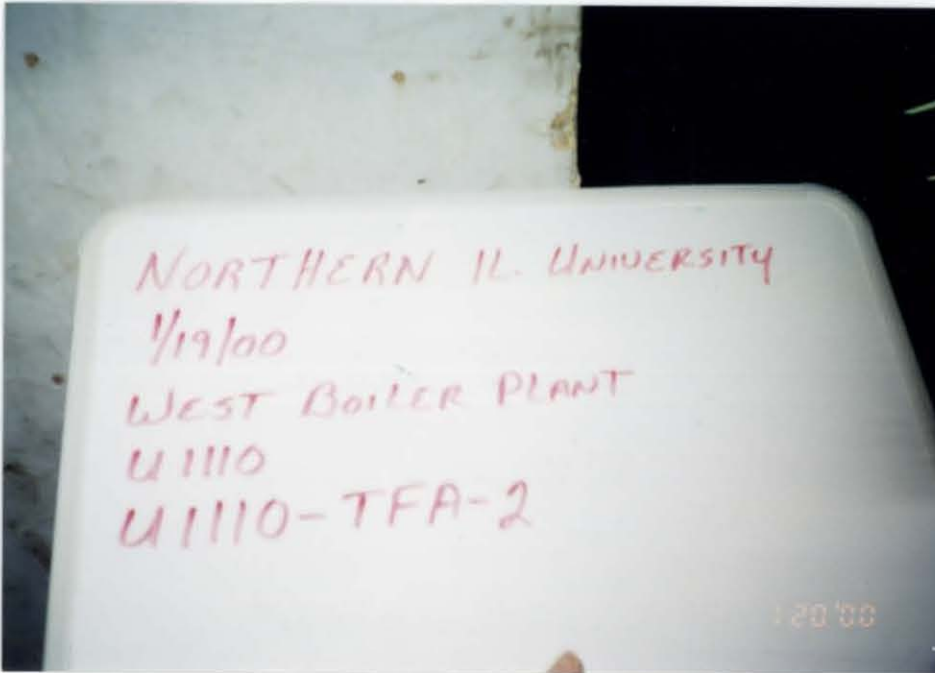
8. Location	Stack On Boiler #1	Stack On Boiler #1	Stack On Boiler #1
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TFA-1	U1110-TFA-2	U1110-TFA-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1117	1118	1119
13. Color?	Yellow	Grey/White	White
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	2	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	30%	10%
Amosite		10%	30%
Crocidolite			
Other			
Total Asbestos %	5%	40%	40%
18. Other Material %			
Fibrous Glass			
Cellulose		2%	
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	95%	58%	60%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger*      22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

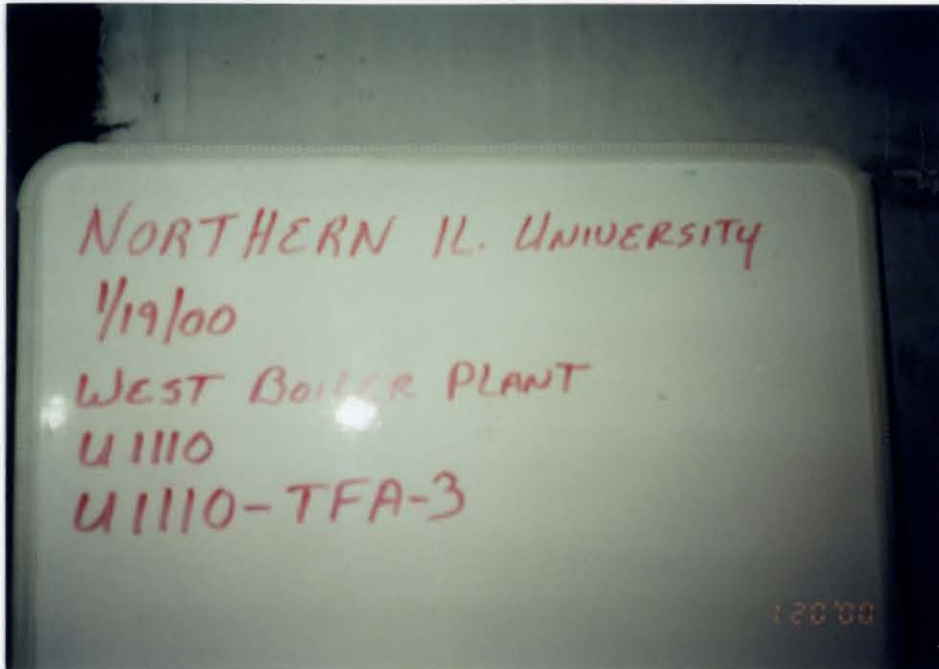


U1110 - TFA - 1  
BOILER STACK  
INSULATION ON  
BOILER #1 AND #2  
(ORIGINAL  
BUILDING - 1962)



U1110 - TFA - 2  
BOILER STACK  
INSULATION ON  
BOILER #1 AND #2  
(ORIGINAL  
BUILDING - 1962)





U1110 - TFA - 3  
BOILER STACK  
INSULATION ON  
BOILER #1 AND #2  
(ORIGINAL  
BUILDING - 1962)

FORM 13

CDB

A.1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA TFA **DESCRIPT** BOILER STACK INSULATION ON  
BOILER #1 AND #2 (ORIGINAL BUILDING - 1962)  
**RESPONSE ACTION** 2 - CONTINUE O & M. REMOVE AS SOON AS POSSIBLE OR  
REDUCE POTENTIAL FOR DISTURBANCE.

A.2.a. **EXIST. COND.** BOTTOM OF STACK ON BOILER #1 IS CURRENTLY DAMAGED.

**POT. FOR DAMAGE** MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER  
DAMAGE LIKELY.

A.2.b. **FRIABLE** YES **CONDITION** DAMAGED  
**DISTURBANCE** LOW **AIR FLOW** LOW

A.3.a.(1) **WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE**  
**FIBERS TO BE RELEASED INTO THE AIR.**

A.3.a.(2) **PREVENTATIVE MEASURES** DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER. PATCH DAMAGED AREA OR SCHEDULE  
REMOVAL.

A.3.b. **O & M PROCEDURES** COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10" FOR THERMAL  
SYSTEM REPAIRS, OR SECTION C - 10.11 FOR LARGE DISTURBANCE  
PROCEDURES. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. **HEALTH & SAFETY** COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

# COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TFA  
**MATERIAL:** BOILER STACK INSULATION ON BOILER #1 AND #2  
(ORIGINAL BUILDING - 1962)  
**QUANTITY:** 500 SF

## A. COST ESTIMATE FOR REMOVAL

1.	Removal:	500 sf @ \$12.00 / sf	\$6,000.00
2.	Replacement:	500 sf @ \$25.00 / sf	\$12,500.00

**SUBTOTAL** \$18,500.00

3.	Design Fee: 10% or minimum \$500.00	\$1,850.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$20,955.00

7.	5% indemnification	\$1,048.00
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**TOTAL COST** \$22,003.00

## B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

## C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and annual administration \$ 100.00

**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGENEIOUS AREA: TFB  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM - ADDITION #1

**MATERIAL DESCRIPTION:** BOILER STACK INSULATION ON BOILER #3 (ADDITION #1 - 1964)  
(common designation - i.e. air cell)

**TYPE OF SYSTEM:** BOILER EXHAUST  
(i.e. hot water)

**COLOR-TEXTURE, ETC.:** WHITE - MODERATE TEXTURE

**FRIABLE:** Yes  No  Pipe Diameter \_\_\_\_\_ inches

**TOTAL QUANTITY:** 250 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

**QUANTITY IN:** Occupied  Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

**CEILING** CONCRETE

**WALLS** CONCRETE AND CINDER BLOCK

**FLOOR** CONCRETE

**DAMAGE ASSESSMENT:**

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% _____	1-25% <input checked="" type="checkbox"/>	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, describe \_\_\_\_\_

**WATER DAMAGE** Yes \_\_\_\_\_ No  Description \_\_\_\_\_  
**PHYSICAL DAMAGE** Yes  No \_\_\_\_\_ Description BOTTOM OF BOILER IS DAMAGED AND  
**AGE DETERIORATION** Yes \_\_\_\_\_ No  Description APPROX. 10 SF OF MAG BLOCK IS ON THE FLOOR

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TFB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0-25 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 X >5
MECHANICAL < 1 1-5 X >5
PIPING < 1 X 1-5 >5
OTHER < 1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS Yes X No
(IF YES) Low X Moderate Heavy

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No
DISTANCE TO FRIABLE MATERIAL
15 FT.
45 FT.

INSPECTOR'S ASSESSMENT No Potential for Damage Potential For Damage
Potential for Significant Damage X

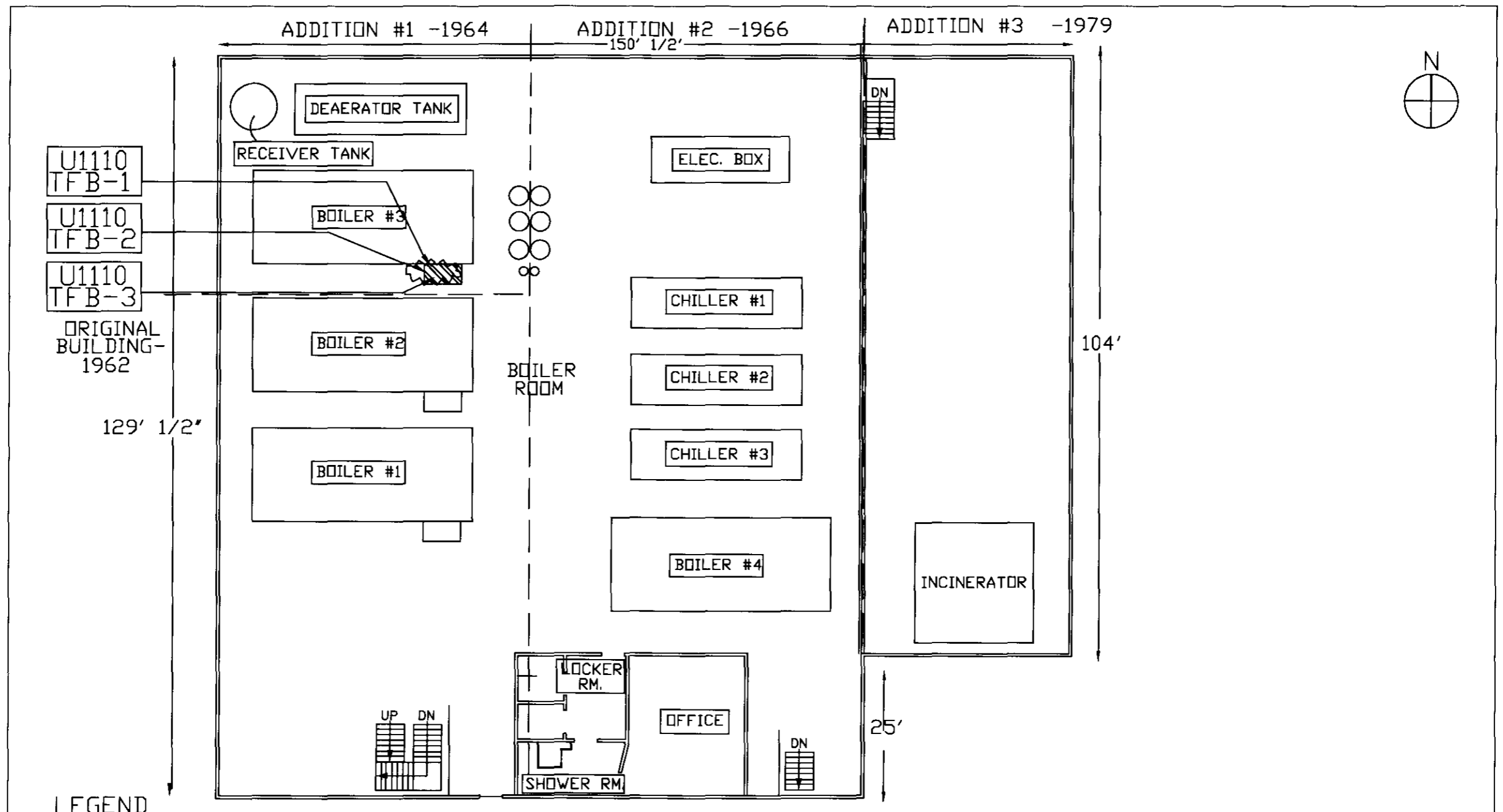
EXPLANATION OF ASSESSMENT (REQUIRED) THIS BOILER STACK JACKET IS DAMAGED, WHICH CAN ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

DAMAGE PREVENTION MEASURES REPAIR BOILER STACK #3 AND CLEAN UP DEBRIS. MAINTAIN THIS STACK IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.




COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (CH) DATE 6/27/00
SAMPLE NUMBERS U1110-TFB-1, U1110-TFB-2, U1110-TFB-3
(Sampling Phase)

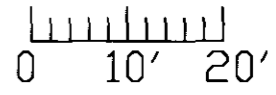
ACBM Yes X No Assumed



**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  INDICATES LOCATION OF DAMAGE
-  TFB-BOILER STACK INSULATION ON BOILER #3 (ADDITION #1-1964)

SCALE: 1" = 20'



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 PF 1 TFB

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TFB  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

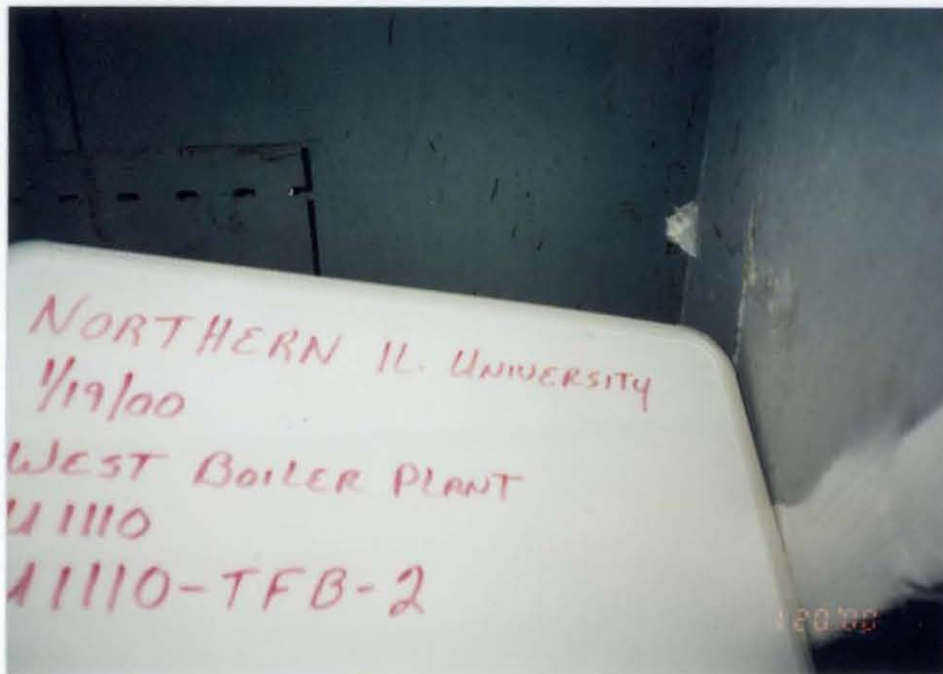
8. Location	Stack On Boiler #3	Stack On Boiler #3	Stack On Boiler #3
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TFB-1	U1110-TFB-2	U1110-TFB-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1123	1124	1125
13. Color?	Grey	Grey/Brown	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	2%	5%
Amosite	45%		45%
Crocidolite			
Other			
Total Asbestos %	50%	2%	50%
18. Other Material %			
Fibrous Glass		93%	
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	50%	5%	50%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, COMBEAR & ASSOC., LTD (CCA)



U1110 - TFB - 1  
BOILER STACK  
INSULATION ON  
BOILER #3  
(ADDITION #1 -  
1964)  
(Picture is incorrect.  
Material designation  
was changed to  
TFB.)



U1110 - TFB - 2  
BOILER STACK  
INSULATION ON  
BOILER #3  
(ADDITION #1 -  
1964)





U1110 - TFB - 3  
BOILER STACK  
INSULATION ON  
BOILER #3  
(ADDITION #1 -  
1964)  
(Picture is incorrect.  
Material designation  
was changed to  
TFB.)

FORM 13

CDB

A.1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA TFB DESCRIPT BOILER STACK INSULATION ON  
BOILER #3 (ADDITION #1 - 1964)  
RESPONSE ACTION 2 - CONTINUE O & M. REMOVE AS SOON AS POSSIBLE OR  
REDUCE POTENTIAL FOR DISTURBANCE.

A.2.a. EXIST. COND. BOTTOM OF STACK ON BOILER #3 IS CURRENTLY DAMAGED AND  
MAG BLOCK INSULATION HAS FALLEN TO THE FLOOR.

POT. FOR DAMAGE MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER  
DAMAGE LIKELY.

A.2.b. FRIABLE YES CONDITION DAMAGED  
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE  
FIBERS TO BE RELEASED INTO THE AIR.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER. PATCH DAMAGED AREA OR SCHEDULE  
REMOVAL.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10" FOR THERMAL  
SYSTEM REPAIRS, OR SECTION C - 10.11 FOR LARGE DISTURBANCE  
PROCEDURES AND FIBER RELEASE EPISODES. FOLLOW PREVENTATIVE  
MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TFB  
**MATERIAL:** BOILER STACK INSULATION ON BOILER #3  
(ADDITION #1 - 1964)  
**QUANTITY:** 250 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	250 sf @ \$12.00 / sf	\$3,000.00
2.	Replacement:	250 sf @ \$25.00 / sf	\$6,250.00

**SUBTOTAL** \$9,250.00

3.	Design Fee:	10% or minimum \$500.00	\$925.00
4.	No. of days:	1	
5.	APM/ASP:	\$500.00/day x 1	\$500.00
6.	Air Samples:	7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$10,780.00

7.	5% indemnification		\$539.00
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**TOTAL COST** \$11,319.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGNEOUS AREA: TFC  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: DE-AERATOR STACK INSULATION (ADDITION #1 - 1964)  
(common designation - i.e. air cell)

TYPE OF SYSTEM: DE-AERATOR EXHAUST  
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes  No  Pipe Diameter \_\_\_\_\_ inches

TOTAL QUANTITY: 350 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

QUANTITY IN: Occupied  Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

**DAMAGE ASSESSMENT:**

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% _____	1-25% <input checked="" type="checkbox"/>	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 If yes, describe \_\_\_\_\_

WATER DAMAGE Yes \_\_\_\_\_ No  Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes  No \_\_\_\_\_ Description \_\_\_\_\_

THERE IS DAMAGE AT THE BOTTOM OF THE STACK ABOVE THE ELECTRIC PANEL WHICH IS LEAKING DEBRIS ON THE RECEIVER AND A 2 SF DAMAGED AREA ON THE BACK SIDE OF THE STACK APPROX. 20' UP.

AGE DETERIORATION Yes \_\_\_\_\_ No  Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TFC

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 0-25 ft.  
 AREA ABOVE ROOF  
 AREA ADJACENT MECHANICAL AREAS  
 OCCUPANCY (#) 0 \_\_\_\_\_ 1-2 \_\_\_\_\_ 3-10  10+ \_\_\_\_\_  
 FREQUENCY OF USE (Hrs) 0 \_\_\_\_\_ 1-2 \_\_\_\_\_ 3-10  10+ \_\_\_\_\_  
 UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1 \_\_\_\_\_ 1-5  >5 \_\_\_\_\_  
 MECHANICAL < 1 \_\_\_\_\_ 1-5  >5 \_\_\_\_\_  
 PIPING < 1  1-5 \_\_\_\_\_ >5 \_\_\_\_\_  
 OTHER \_\_\_\_\_ < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 \_\_\_\_\_

VIBRATION Yes  No   
 MECHANICAL (MOTOR) Yes  No   
 PLUMBING (KNOCKING) Yes  No   
 OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

BARRIERS Yes \_\_\_\_\_ No   
 SUSPENDED CEILING Yes \_\_\_\_\_ No   
 ENCAPSULATION Yes \_\_\_\_\_ No   
 ENCLOSURE Yes \_\_\_\_\_ No   
 OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

AIR MOVEMENTS Yes  No \_\_\_\_\_  
 (IF YES) Low  Moderate \_\_\_\_\_ Heavy \_\_\_\_\_

EXTERIOR DOOR Yes  No \_\_\_\_\_  
 EXHAUST FAN Yes  No \_\_\_\_\_  
 GRAVITY VENT Yes \_\_\_\_\_ No   
 SUPPLY AIR Yes \_\_\_\_\_ No   
 RETURN AIR Yes \_\_\_\_\_ No   
 OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

DISTANCE TO FRIABLE MATERIAL  
 10 FT. \_\_\_\_\_  
 50 FT. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage \_\_\_\_\_ Potential For Damage \_\_\_\_\_  
 Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS STACK IS DAMAGED, WHICH COULD ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

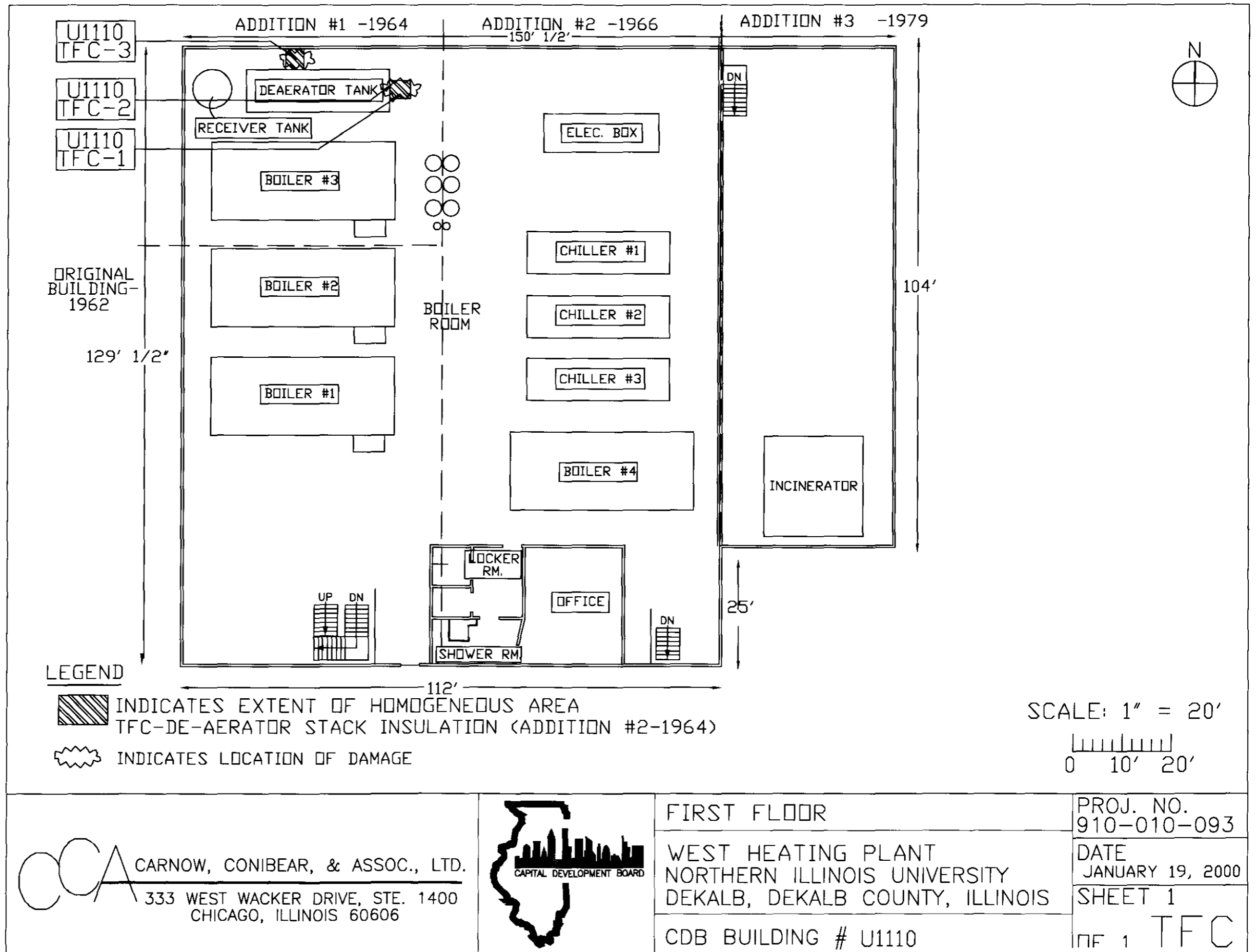
DAMAGE PREVENTION MEASURES REPAIR THE STACK AND CLEAN UP DEBRIS. MAINTAIN THIS STACK IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

COMMENTS




INSPECTOR'S SIGNATURE Terry Bassett (H) DATE 6/27/00

SAMPLE NUMBERS U1110-TFC-1, U1110-TFC-2, U1110-TFC-3  
 (Sampling Phase)

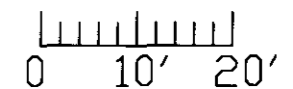
ACBM Yes  No \_\_\_\_\_ Assumed \_\_\_\_\_



**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  TFC-DE-AERATOR STACK INSULATION (ADDITION #2-1964)
-  INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 PF 1 TFC

## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TFC  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	De-Aerator	De-Aerator	De-Aerator
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TFC-1	U1110-TFC-2	U1110-TFC-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1126	1127	1128
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	3%	3%	5%
Amosite			
Crocidolite			
Other			
Total Asbestos %	3%	3%	5%
18. Other Material %			
Fibrous Glass	70%	70%	5%
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	27%	27%	90%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *DBorger* 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

POINT COUNTING LABORATORY ANALYSIS REPORT

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E) CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TFC

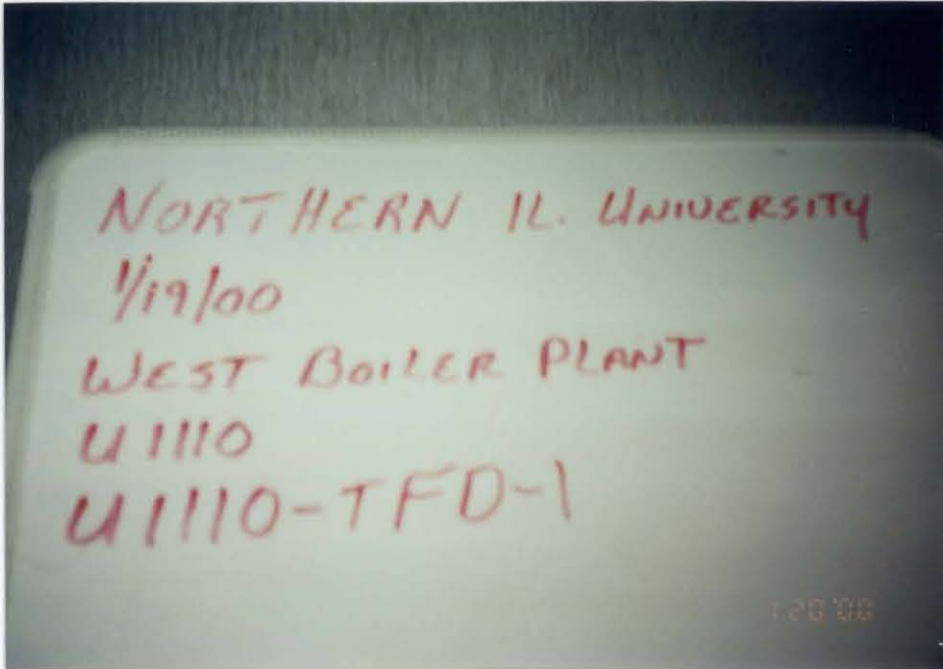
(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	DE-AERATOR		DE-AERATOR		DE-AERATOR	
9. Date Collected	01/19/00		01/19/00		01/19/00	
10. Sample No.	U1110-TFC-3		U1110-TFC-2		U110-TFC-1	
11. Date Received	08/04/00					
12. Lab Sample No.	211454-04					
13. Color?	Grey					
14. Fibrous?	Yes					
15. Layers?	1					
16. Contains Asbestos?	Yes					
17. TYPE AND % ASBESTOS						
Chrysotile	25.50%					
Amosite	2.75%					
Crocidilite						
Other						
Total Asbestos %	28.25%					
18. NO. OF SLIDES	8					
	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd
Slide 1	15	35				
Slide 2	10	40				
Slide 3	17	33				
Slide 4	13	37				
Slide 5	22	28				
Slide 6	16	34				
Slide 7	9	41				
Slide 8	11	39				
19. Comments			N/A		N/A	
20. Date Analyzed	8/04/00					
21. Analyzed By	Albio Marquez					

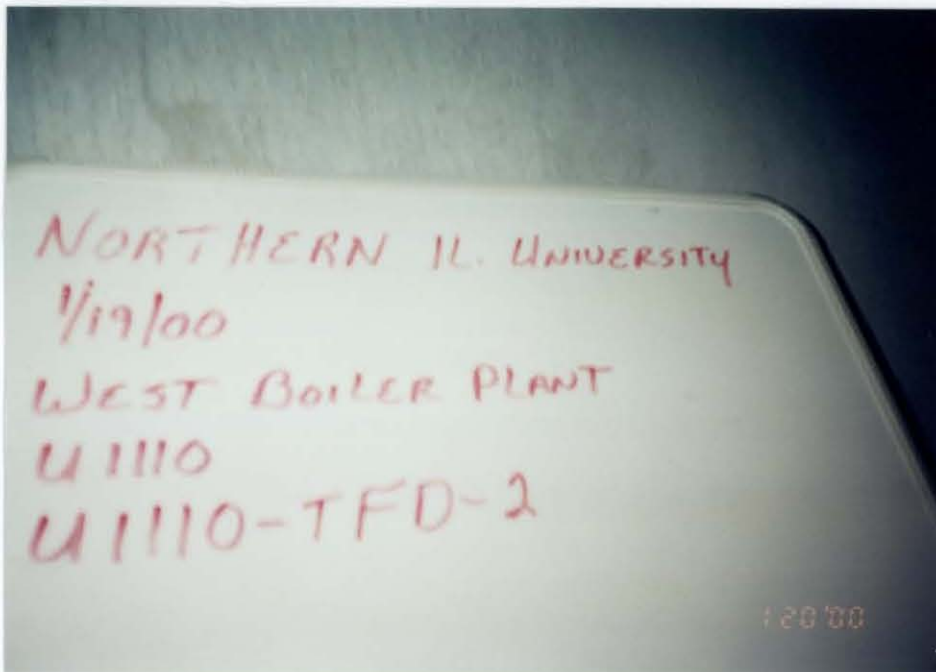
22. Report Approved By: S Singh 23. Date: 2/11/00  
 (Signature)

24. Laboratory Name: Stat Analysis Corporation

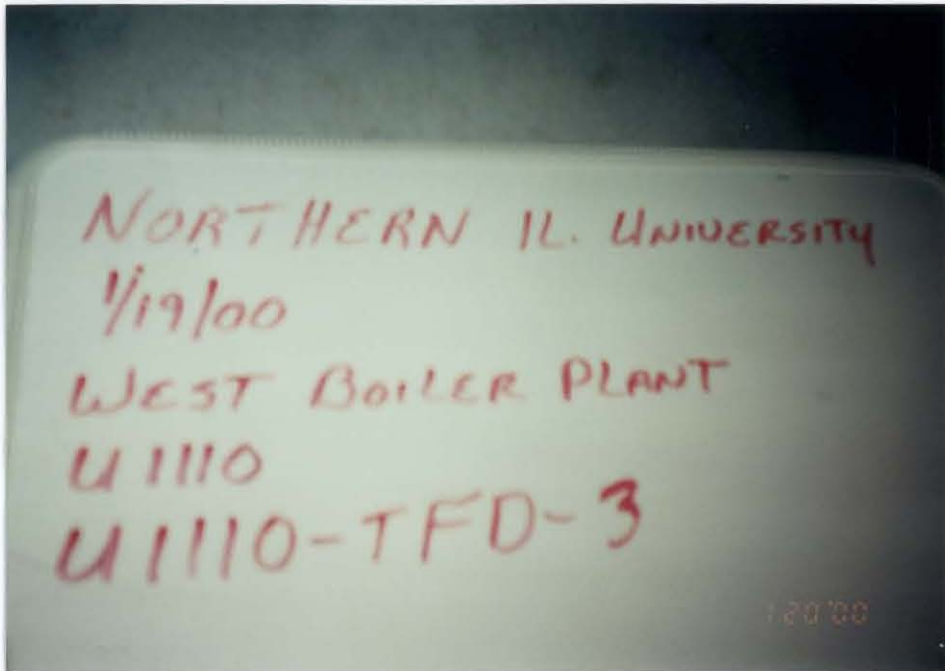




U1110 - TFC - 1  
DE-AERATOR  
STACK INSULATION  
(ADDITION #1 -  
1964)  
(Picture is incorrect.  
Homogeneous area  
changed to TFC.)



U1110 - TFC - 2  
DE-AERATOR  
STACK INSULATION  
(ADDITION #1 -  
1964)  
(Picture is incorrect.  
Homogeneous area  
changed to TFC.)



U1110 - TFC - 3  
DE-AERATOR  
STACK INSULATION  
(ADDITION #1 -  
1964)  
(Picture is incorrect.  
Homogeneous area  
changed to TFC.)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA TFC DESCRIPT DE-AERATOR STACK INSULATION  
(ADDITION #1 - 1964)

RESPONSE ACTION 2 - CONTINUE O & M. REMOVE AS SOON AS POSSIBLE OR  
REDUCE POTENTIAL FOR DISTURBANCE.

A.2.a. EXIST. COND. THE DE-AERATOR STACK IS CURRENTLY DAMAGED IN 2 LOCATIONS.

POT. FOR DAMAGE MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER  
DAMAGE LIKELY.

A.2.b. FRIABLE YES CONDITION DAMAGED  
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE  
FIBERS TO BE RELEASED INTO THE AIR.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER. PATCH DAMAGED AREA OR SCHEDULE  
REMOVAL.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10" FOR THERMAL  
SYSTEM REPAIRS, OR SECTION C - 10.11 FOR LARGE DISTURBANCE  
PROCEDURES AND FIBER RELEASE EPISODES. FOLLOW PREVENTATIVE MEASURES  
LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110

**HOMO AREA:** TFC

**MATERIAL:** DE-AERATOR STACK INSULATION (ADDITION #1 - 1964)

**QUANTITY:** 350 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	350 sf @ \$12.00 / sf	\$4,200.00
2.	Replacement:	350 sf @ \$25.00 / sf	\$8,750.00

**SUBTOTAL** \$12,950.00

3.	Design Fee: 10% or minimum \$500.00		\$1,295.00
4.	No. of days: 1		
5.	APM/ASP: \$500.00/day x 1		\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample		<u>\$105.00</u>

**SUBTOTAL** \$14,850.00

7.	5% indemnification		\$743.00
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**TOTAL COST** \$15,593.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJA  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: WEST BASEMENT, FIRST AND SECOND FLOORS  
 ROOMS: BOILER ROOM, - ORIGINAL BUILDING

MATERIAL DESCRIPTION: FITTINGS ON FIBERGLASS PIPE INSULATION (ORIGINAL BUILDING - 1962)  
*(common designation - i.e. air cell)*

TYPE OF SYSTEM: STEAM HEATING SYSTEM  
*(i.e. hot water)*

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes X No \_\_\_\_\_ Pipe Diameter 3 inches  
 TOTAL QUANTITY: \_\_\_\_\_ Sq. ft. \_\_\_\_\_ Lin. ft. 24 Ea.  
 QUANTITY IN: Occupied X Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

ROOM FINISHES:

CEILING CONCRETE  
 WALLS CONCRETE AND CINDER BLOCK  
 FLOOR CONCRETE

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% _____	1-25% _____	> 25% _____
DISTRIBUTED	<1% <u>X</u>	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes X No \_\_\_\_\_  
 If yes, describe THREE FITTINGS HAVE SIGNIFICANT DAMAGE AND NEED TO BE REPAIRED.

WATER DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes X No \_\_\_\_\_ Description THREE FITTINGS NEED TO BE REPAIRED.  
 AGE DETERIORATION Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TJA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No

MAINTENANCE PERSONNEL Yes  No

HEIGHT FROM FLOOR 10-25 ft.

AREA ABOVE ROOF

AREA ADJACENT MECHANICAL AREAS

OCCUPANCY (#) 0  1-2  3-10  10+

FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+

UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)

ELECTRICAL < 1  1-5  >5

MECHANICAL < 1  1-5  >5

PIPING < 1  1-5  >5

OTHER < 1  1-5  >5

VIBRATION Yes  No

MECHANICAL (MOTOR) Yes  No

PLUMBING (KNOCKING) Yes  No

OTHER Yes  No

BARRIERS Yes  No

SUSPENDED CEILING Yes  No

ENCAPSULATION Yes  No

ENCLOSURE Yes  No

OTHER Yes  No

AIR MOVEMENTS Yes  No

(IF YES) Low  Moderate  Heavy

EXTERIOR DOOR Yes  No

EXHAUST FAN Yes  No

GRAVITY VENT Yes  No

SUPPLY AIR Yes  No

RETURN AIR Yes  No

OTHER Yes  No

DISTANCE TO FRIABLE MATERIAL

15 FT.

5 FT.

4 FT.

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage

Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) IF THESE FITTINGS BECOME DAMAGED, THEY WILL ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

DAMAGE PREVENTION MEASURES REPAIR DAMAGED FITTINGS. THEN, MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

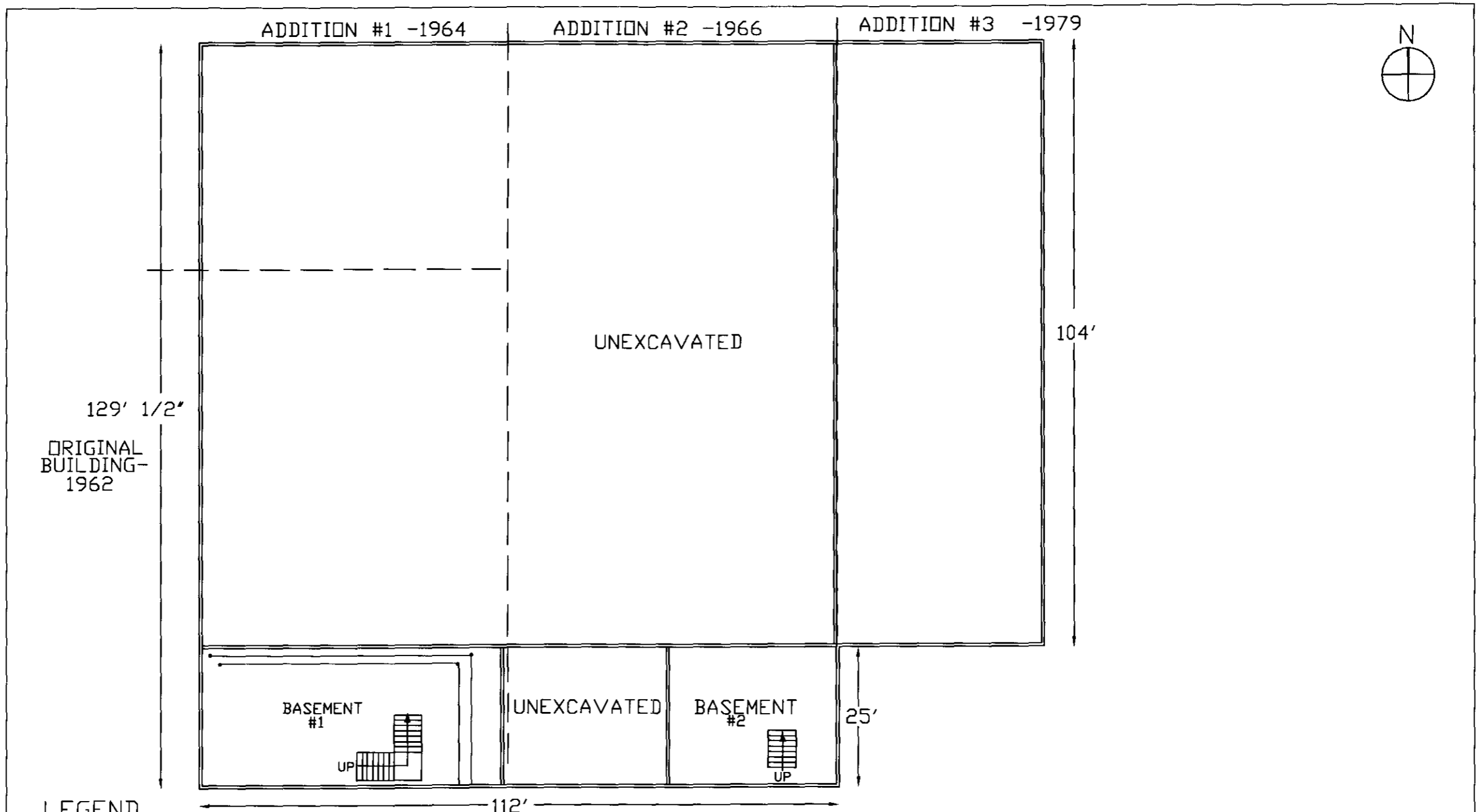
COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (w) DATE 6-27-00

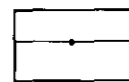
SAMPLE NUMBERS U1110-TJA-1, U1110-TJA-2, U1110-TJA-3

(Sampling Phase)

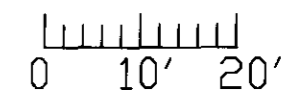
ACBM Yes  No  Assumed





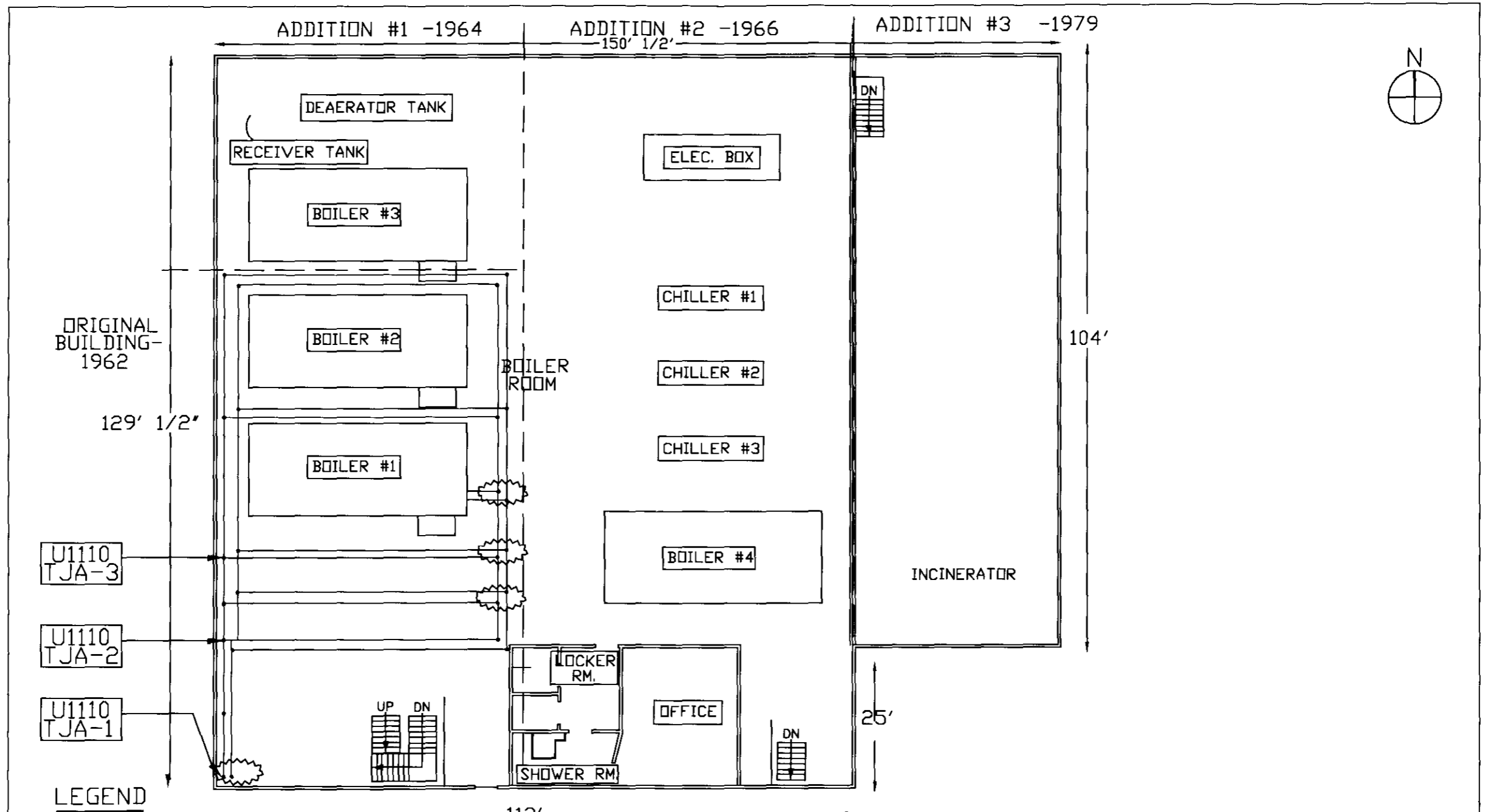
**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJA-FITTINGS ON FIBERGLASS PIPE INSULATION  
 (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'



 CARNOW, CONIBEAR, & ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	BASEMENT	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 TJA






U1110  
TJA-3

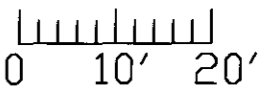
U1110  
TJA-2



U1110  
TJA-1

**LEGEND**

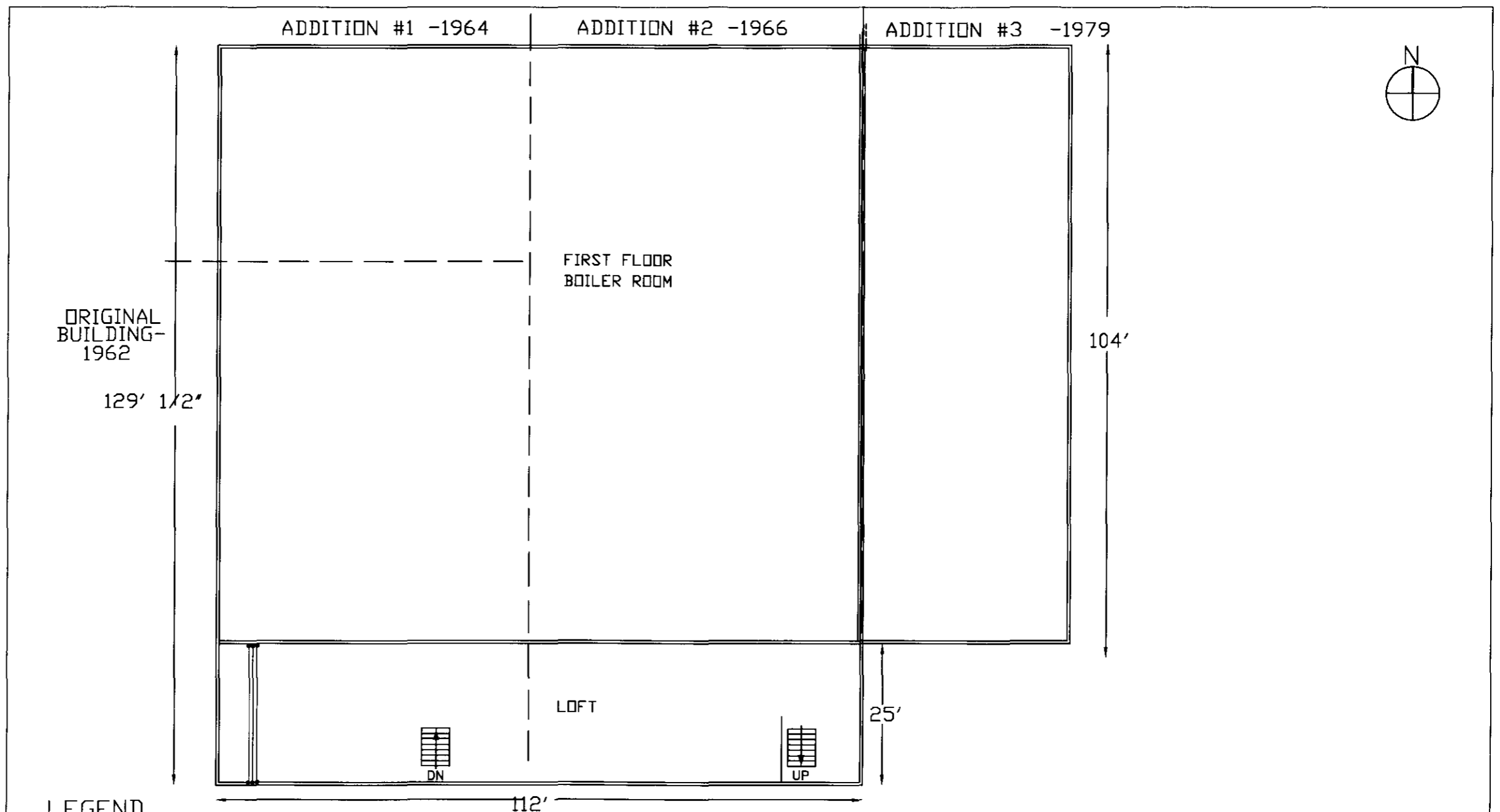
-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  TJA-FITTINGS ON FIBERGLASS PIPE INSULATION (ORIGINAL BUILDING-1962)
-  INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'




 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110 IX.TJA.4	SHEET 2 OF 3 TJA

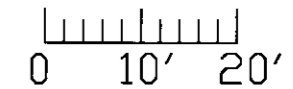






**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJA-FITTINGS ON FIBERGLASS PIPE INSULATION  
 (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD.          333 WEST WACKER DRIVE, STE. 1400          CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	SECOND FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 3 OF 3 TJA

## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJA

(A/E COMPLETE ITEMS 1-10 &amp; PROVIDE TO LABORATORY.)

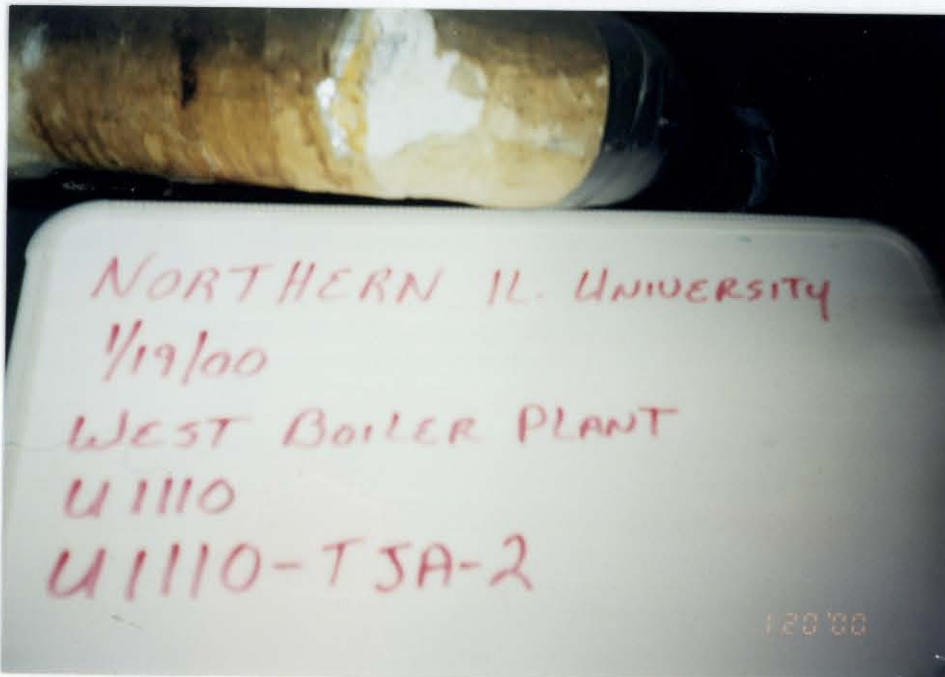
8. Location	Original Const.	Original Const.	Original Const.
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TJA-1	U1110-TJA-2	U1110-TJA-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1135	1136	1137
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	No	Yes	Yes
17. Type and % Asbestos?			
Chrysotile			25%
Amosite		10%	5%
Crocidolite			
Other			
Total Asbestos %	0%	10%	30%
18. Other Material %			
Fibrous Glass	70%	60%	20%
Cellulose	10%		
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	20%	30%	50%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TJA - 1  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TJA - 2  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TJA - 3  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)

NORTHERN IL. UNIVERSITY  
1/19/00  
WEST BOILER PLANT  
U1110  
U1110-TJA-3

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TJA **DESCRIPT** FITTINGS ON FIBERGLASS PIPE INSULATION (ORIGINAL BUILDING - 1962)

**RESPONSE ACTION** 6 - CONTINUE O & M. TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE.

A.2.a. **EXIST. COND.** THREE FITTINGS ARE DAMAGED AND IN NEED OF REPAIR.

**POT. FOR DAMAGE** MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER DAMAGE LIKELY.

A.2.b. **FRIABLE** YES **CONDITION** DAMAGED  
**DISTURBANCE** LOW **AIR FLOW** LOW

A.3.a.(1) **WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE FIBERS TO BE RELEASED INTO THE AIR.**

A.3.a.(2) **PREVENTATIVE MEASURES** DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. REPAIR DAMAGED AREAS OR SCHEDULE REMOVAL.

A.3.b. **O & M PROCEDURES** COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10" FOR THERMAL SYSTEM REPAIRS. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. **HEALTH & SAFETY** COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TJA  
**MATERIAL:** FITTINGS ON FIBERGLASS PIPE INSULATION  
(ORIGINAL BUILDING - 1962)  
**QUANTITY:** 24 EA

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	24 ea @ \$100.90 / ea	\$2,422.00
2.	Replacement:	24 ea @ \$25.00 / ea	\$600.00

**SUBTOTAL** \$3,022.00

3.	Design Fee: 10% or minimum \$500.00		\$500.00
4.	No. of days: 1		
5.	APM/ASP: \$500.00/day x 1		\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample		<u>\$105.00</u>

**SUBTOTAL** \$4,127.00

7.	5% indemnification		\$206.00
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**TOTAL COST** \$4,333.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGNEOUS AREA: TJB

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #1 - 1964) (common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM (i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes X No Pipe Diameter 3 inches

TOTAL QUANTITY: Sq. ft. Lin. ft. 26 Ea

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR DISTRIBUTED damage percentages.

If <1% damage, is salient present? Yes X No If yes, describe THERE IS ONE SIGNIFICANTLY DAMAGED FITTING.

WATER DAMAGE Yes No X Description PHYSICAL DAMAGE Yes X No Description ONE FITTING NEEDS TO BE REPAIRED. AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 10-25 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 X >5
MECHANICAL < 1 1-5 X >5
PIPING < 1 X 1-5 >5
OTHER < 1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS Yes X No
(IF YES) Low X Moderate Heavy

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No
DISTANCE TO FRIABLE MATERIAL
10 FT
50 FT

INSPECTOR'S ASSESSMENT No Potential for Damage Potential For Damage X
Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) ONE FITTING IS CURRENTLY DAMAGED, WHICH WILL ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

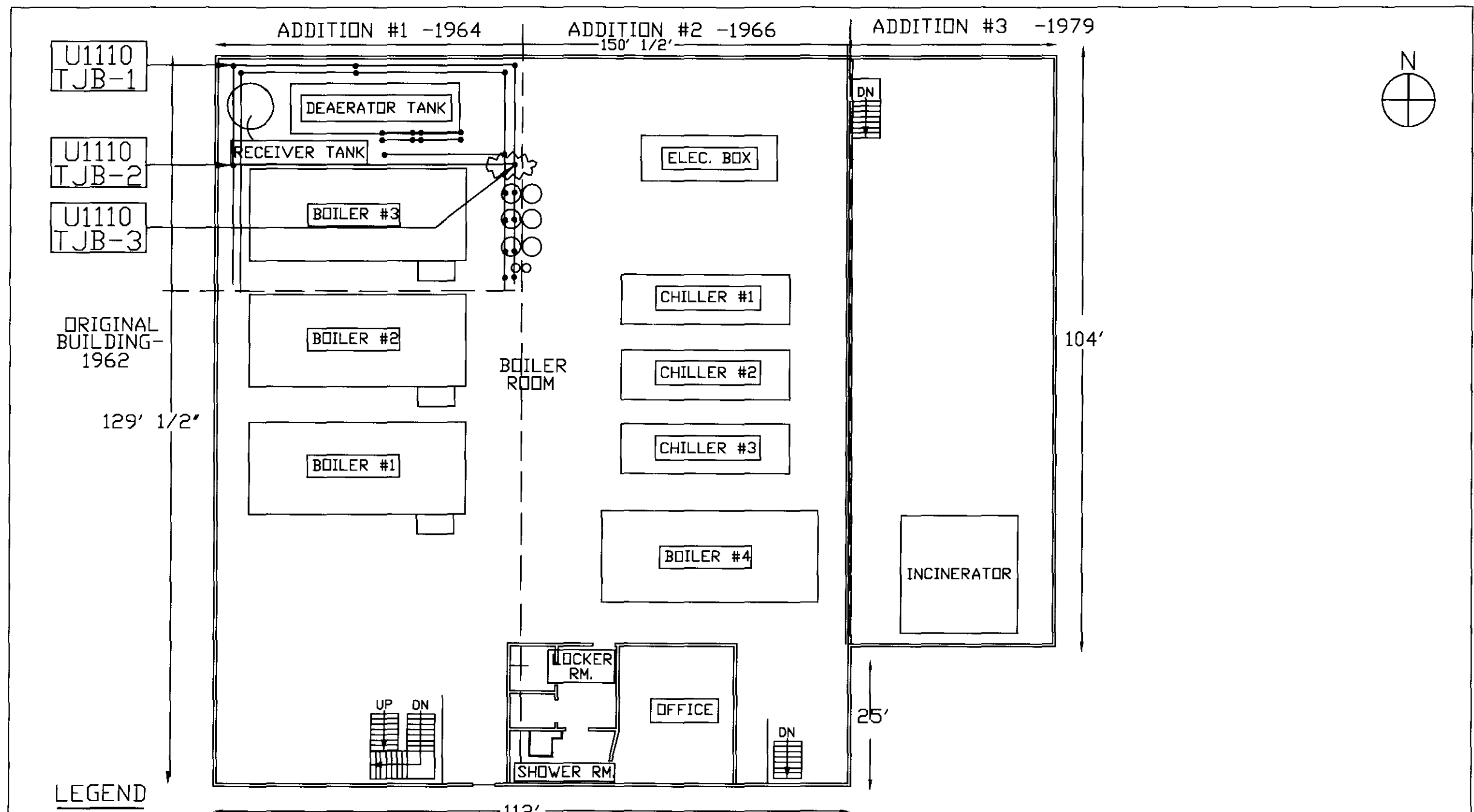
DAMAGE PREVENTION MEASURES REPAIR DAMAGED FITTING. MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

COMMENTS



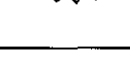
INSPECTOR'S SIGNATURE Jerry Bauitt (U) DATE 6/27/00
SAMPLE NUMBERS U1110-TJB-1, U1110-TJB-2, U1110-TJB-3
(Sampling Phase)

ACBM Yes X No Assumed

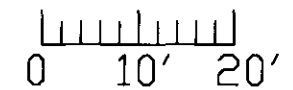




**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  TJB-FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #1-1964)
-  INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 OF 1 TJB

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

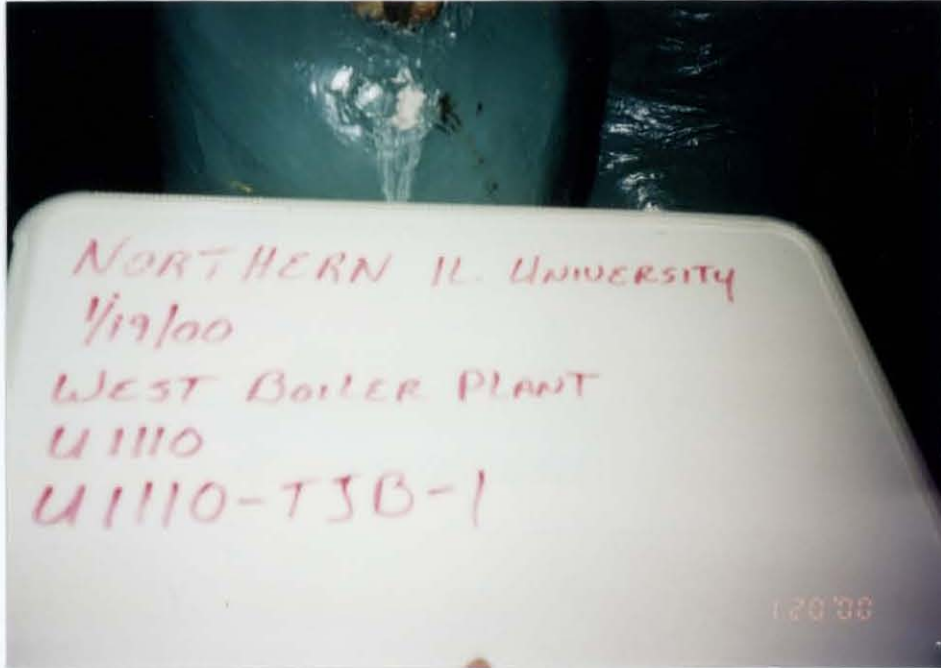
1. FACILITY: Northern Illinois University      2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant              4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus                      6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJB

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

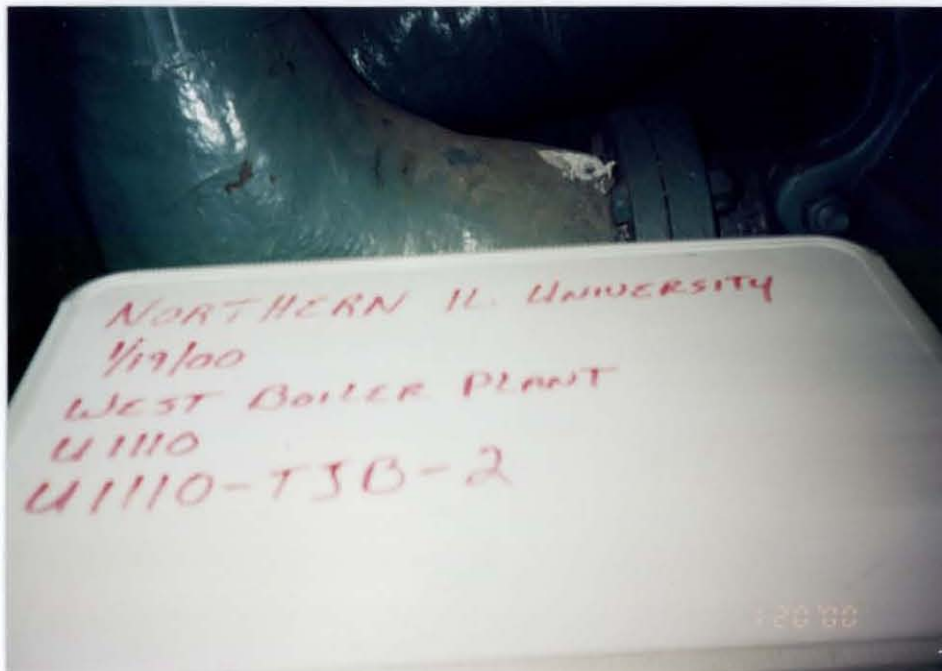
8. Location	Addition #1	Addition #1	Addition #1
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TJB-1	U1110-TJB-2	U1110-TJB-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1138	1139	1140
13. Color?	Green/Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	2	1	1
16. Contains Asbestos?	Yes	Yes	No
17. Type and % Asbestos?			
Chrysotile	5%	10%	
Amosite			
Crocidolite			
Other			
Total Asbestos %	5%	10%	0%
18. Other Material %			
Fibrous Glass	30%	40%	60%
Cellulose	5%		5%
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	60%	50%	35%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

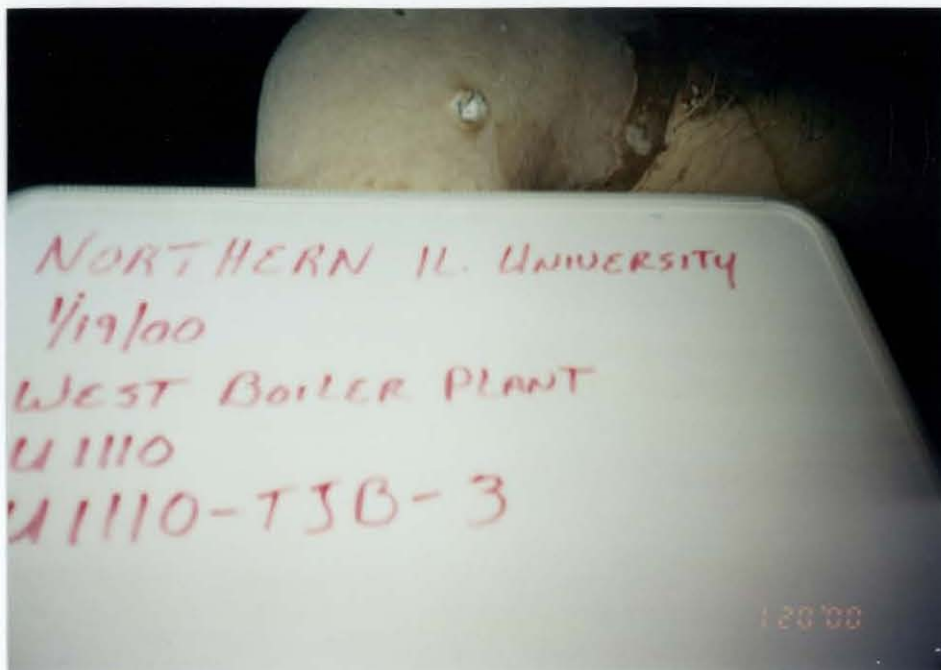
21. Report Approved By: Denise Borger      22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TJB - 1  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TJB - 2  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TJB - 3  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #1 -  
1964)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TJB DESCRIPT FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #1 - 1964)

RESPONSE ACTION 6 - CONTINUE O & M. TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE.

A.2.a. EXIST. COND. ONE FITTING IS DAMAGED AND IN NEED OF REPAIR.

POT. FOR DAMAGE MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER DAMAGE LIKELY.

A.2.b. FRIABLE YES CONDITION DAMAGED DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE FIBERS TO BE RELEASED INTO THE AIR.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. REPAIR DAMAGED AREAS OR SCHEDULE REMOVAL.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10" FOR THERMAL SYSTEM REPAIRS. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

**COST ESTIMATE**

**BUILDING NO.:** U1110  
**HOMO AREA:** TJB  
**MATERIAL:** FITTINGS ON FIBERGLASS PIPE INSULATION  
(ADDITION #1 - 1964)  
**QUANTITY:** 26 EA

**A. COST ESTIMATE FOR REMOVAL**

1.	Removal:	26 ea @ \$100.90 / ea	\$2,623.00
2.	Replacement:	26 ea @ \$25.00 / ea	\$650.00

**SUBTOTAL** \$3,273.00

3.	Design Fee:	10% or minimum \$500.00	\$500.00
4.	No. of days:	1	
5.	APM/ASP:	\$500.00/day x 1	\$500.00
6.	Air Samples:	7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$4,378.00

7.	5% indemnification		\$219.00
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**TOTAL COST** \$4,597.00

**B. COST OF RECOMMENDED RESPONSE ACTION**

Excluding O & M \$ 0.00

**C. O & M COST ESTIMATE**

Clean, repair, periodic surveillance, and annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJD

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: WEST BASEMENT, FIRST AND SECOND FLOORS

ROOMS: BASEMENT 1, LOFT, AND BOILER ROOM - ORIGINAL BUILDING

MATERIAL DESCRIPTION: FITTINGS ON MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING - 1962)
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes [X] No [ ] Pipe Diameter [ 3 - 10 ] inches

TOTAL QUANTITY: [ ] Sq. ft. [ ] Lin. ft. [ 30 ] Ea.

QUANTITY IN: Occupied [X] Restricted [ ] Unoccupied [ ]

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage types.

If <1% damage, is salient present? Yes [ ] No [X]
If yes, describe [ ]

Table for WATER DAMAGE, PHYSICAL DAMAGE, and AGE DETERIORATION with Yes/No options and Description fields.

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJD

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No       
 MAINTENANCE PERSONNEL Yes X No       
 HEIGHT FROM FLOOR 10-25 ft.  
 AREA ABOVE ROOF, BOILER ROOM AND LOFT - ORIGINAL BUILDING  
 AREA ADJACENT MECHANICAL AREAS  
 OCCUPANCY (#) 0      1-2      3-10 X 10+       
 FREQUENCY OF USE (Hrs) 0      1-2      3-10 X 10+       
 UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1      1-5 X >5      VIBRATION Yes X No       
 MECHANICAL < 1      1-5      >5 X MECHANICAL (MOTOR) Yes X No       
 PIPING < 1 X 1-5      >5      PLUMBING (KNOCKING) Yes X No       
 OTHER      < 1      1-5      >5      OTHER      Yes      No     

BARRIERS Yes      No X  
 SUSPENDED CEILING Yes      No X  
 ENCAPSULATION Yes      No X  
 ENCLOSURE Yes      No X  
 OTHER      Yes      No     

AIR MOVEMENTS (IF YES) Yes X No       
 Low X Moderate      Heavy     

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes X No      12 FT.  
 EXHAUST FAN Yes X No      2 FT.  
 GRAVITY VENT Yes      No X       
 SUPPLY AIR Yes      No X       
 RETURN AIR Yes      No X       
 OTHER      Yes      No          

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage       
 Potential for Significant Damage     

EXPLANATION OF ASSESSMENT (REQUIRED) THESE FITTINGS ARE AT AN INACCESSIBLE HEIGHT MAKING DAMAGE UNLIKELY.

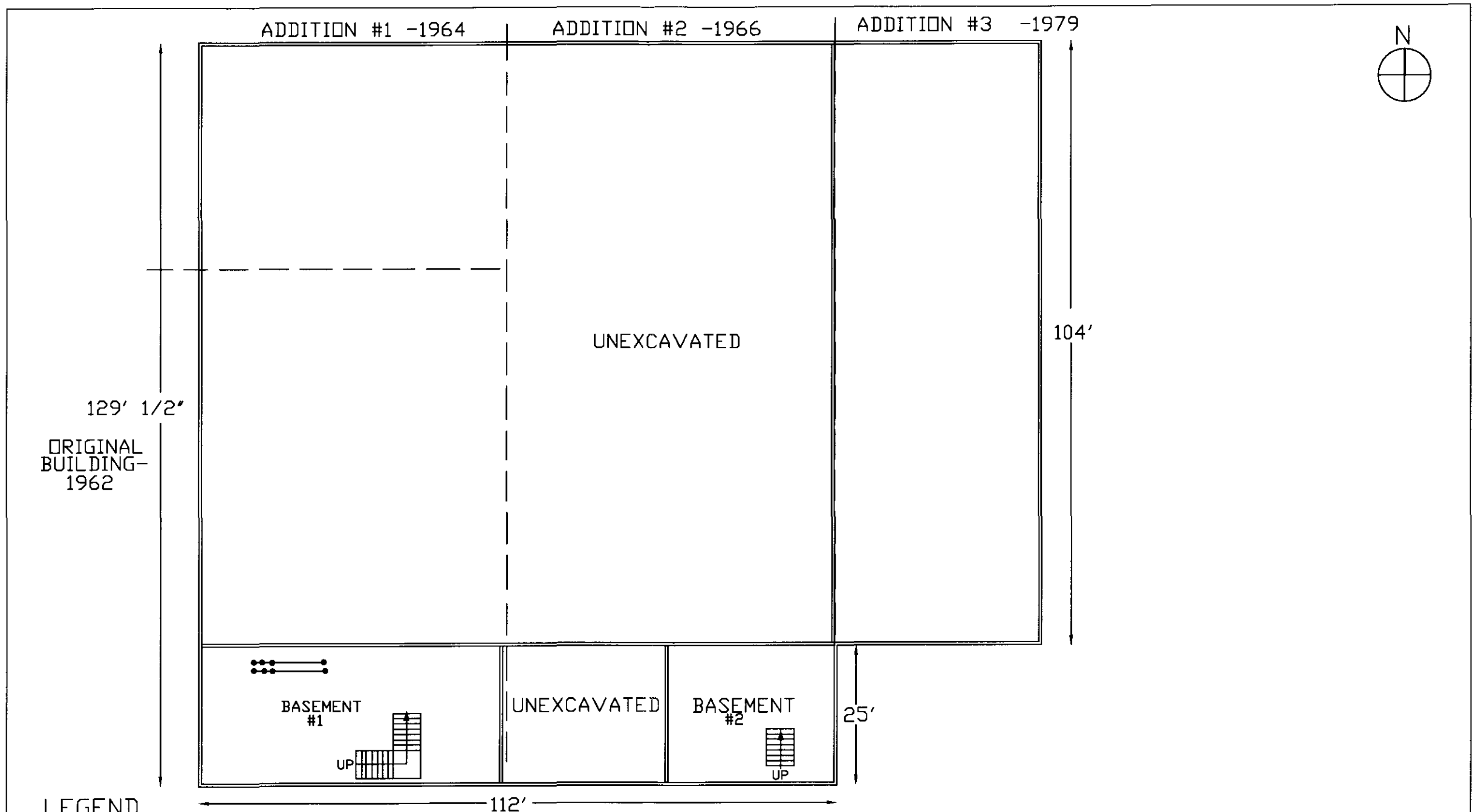
DAMAGE PREVENTION MEASURES MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

COMMENTS     

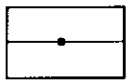
INSPECTOR'S SIGNATURE Jerry Bassett (CA) DATE 6-27-00  
 SAMPLE NUMBERS U1110-TJD-1, U1110-TJD-2, U1110-TJD-3  
 (Sampling Phase)

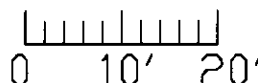
ACBM Yes X No      Assumed





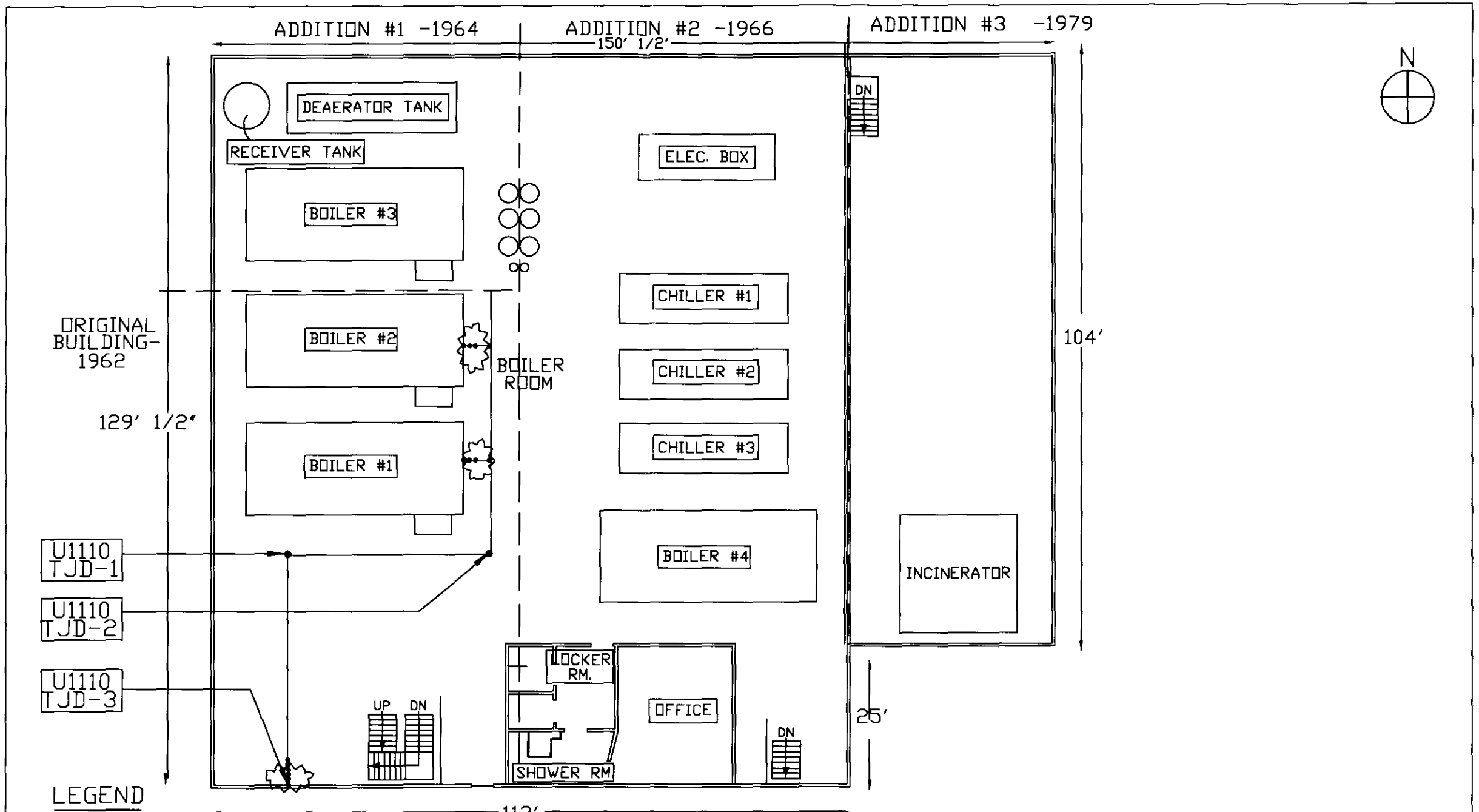


**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJD-FITTINGS ON MAG BLOCK PIPE INSULATION  
 (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'  


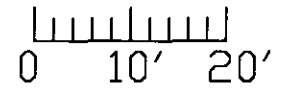
 CARNOW, CONIBEAR, & ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	BASEMENT	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 3 TJD





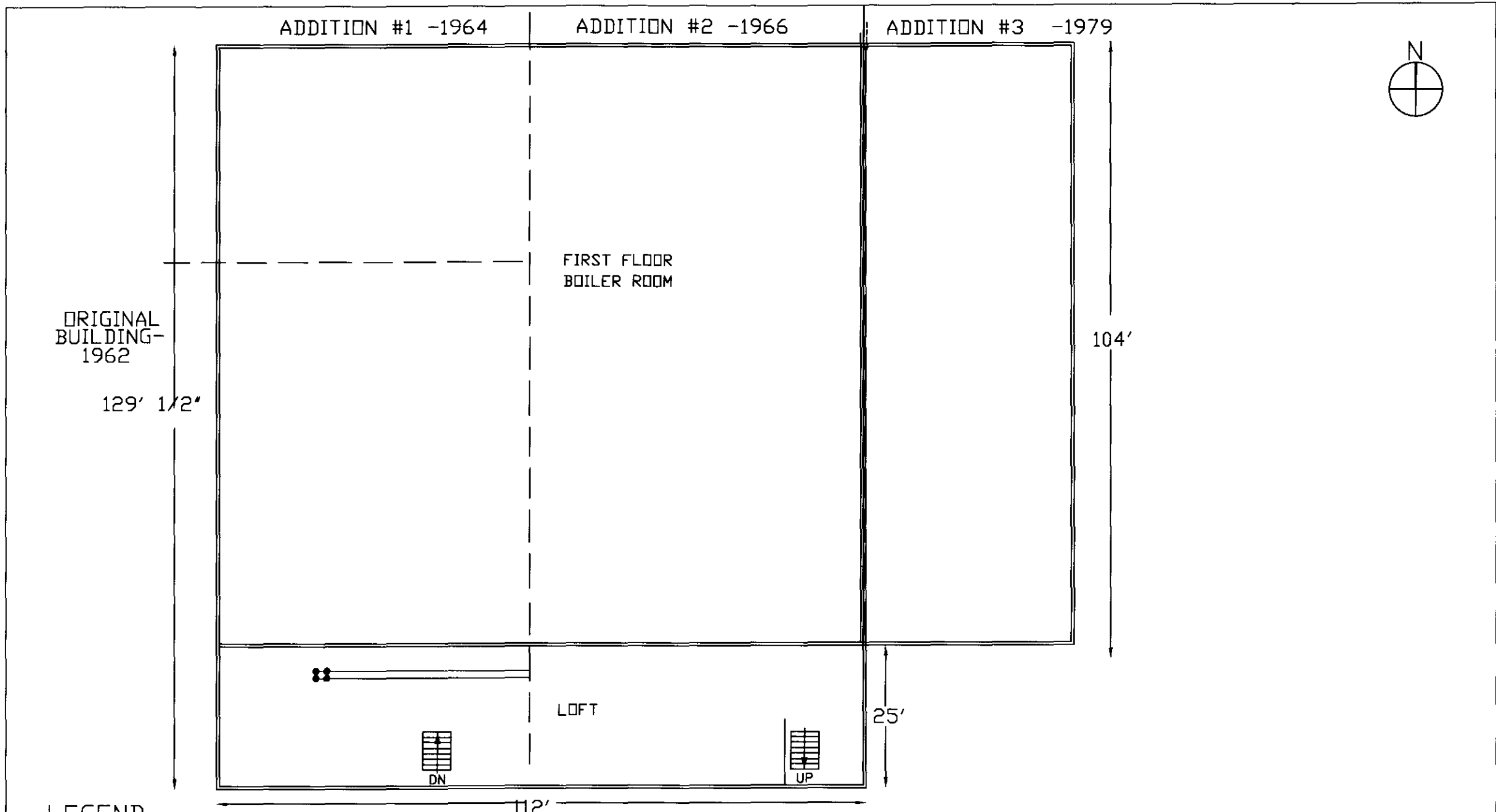
**LEGEND**

- INDICATES EXTENT OF HOMOGENEOUS AREA
- TJD-FITTINGS ON MAG BLOCK PIPE INSULATION (ORIGINAL BUILDING-1962)
- INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'

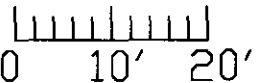



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 2 OF 3 TJD



**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJD-FITTINGS ON MAG BLOCK PIPE INSULATION  
 (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'  



**CARNOW, CONIBEAR, & ASSOC., LTD.**  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



SECOND FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 3  
 OF 3 TJD

FORM 11

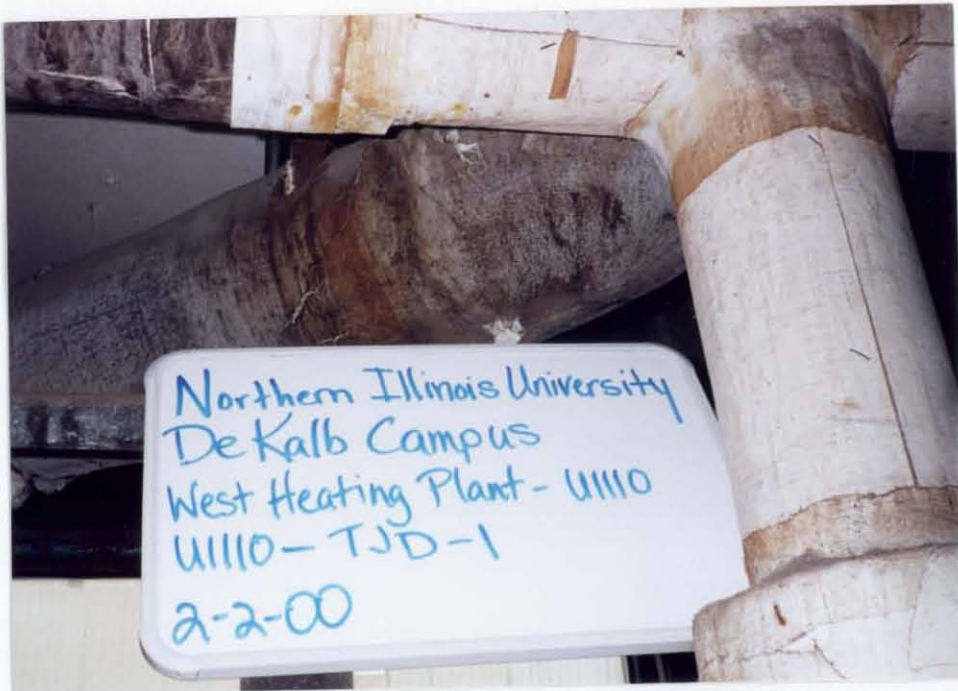
**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJD  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

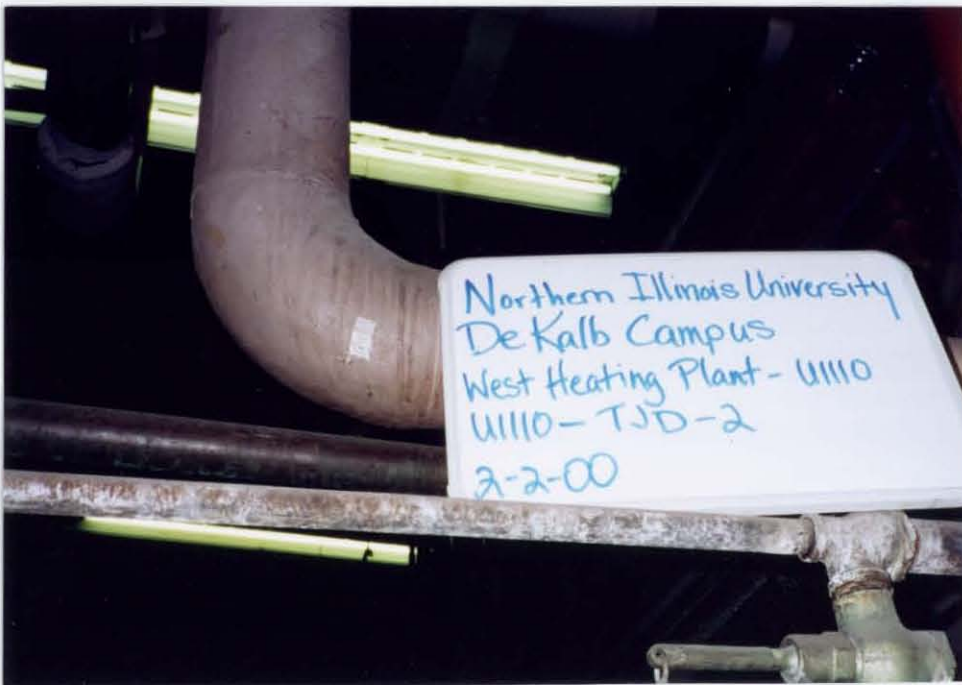
8. Location	Original Building	Original Building	Original Building
9. Date Collected	02/02/00	02/02/00	02/02/00
10. Sample No.	U1110-TJD-1	U1110-TJD-2	U1110-TJD-3
11. Date Received	02/07/00	02/07/00	02/07/00
12. Lab Sample No.	1379	1380	1381
13. Color?	Tan	Tan	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	2%	25%	40%
Amosite		20%	10%
Crocidolite			
Other			
Total Asbestos %	2%	45%	50%
18. Other Material %			
Fibrous Glass	5%		
Cellulose		5%	
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	93%	50%	50%
Total	100%	100%	100%
19. Date Analyzed	02/14/00	02/14/00	02/14/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

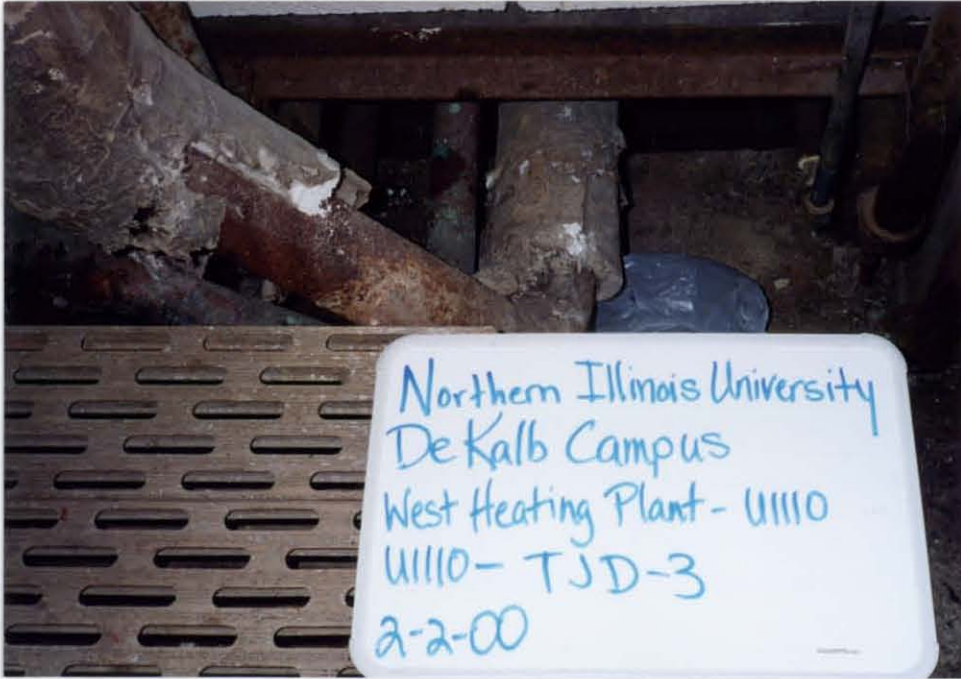
21. Report Approved By: Denise Borger *D. Borger* 22. Date: 02/14/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TJD - 1  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TJD - 2  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TJD - 3  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TJD DESCRIPT FITTINGS ON MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING - 1962)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE ALTHOUGH IT IS LOCATED AT ACCESSIBLE HEIGHTS, THIS MATERIAL IS CURRENTLY IN GOOD CONDITION

A.2.b. FRIABLE YES CONDITION GOOD
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, BUT AT HEIGHTS EASILY ACCESSIBLE TO MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TJD  
**MATERIAL:** FITTINGS ON MAG-BLOCK PIPE INSULATION  
(ORIGINAL BUILDING - 1962)  
**QUANTITY:** 30 EA

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	30 ea @ \$100.90 / ea	\$3,027.00
2.	Replacement:	30 ea @ \$25.00 / ea	\$750.00

**SUBTOTAL** \$3,777.00

3.	Design Fee: 10% or minimum \$500.00	\$500.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$4,882.00

7.	5% indemnification	\$244.00
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**TOTAL COST** \$5,126.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00



FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJE

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: FITTINGS ON MAG-BLOCK PIPE INSULATION (ADDITION #1 - 1964)
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes [X] No [ ] Pipe Diameter 3 inches

TOTAL QUANTITY: [ ] Sq. ft. [ ] Lin. ft. 20 Ea.

QUANTITY IN: Occupied [X] Restricted [ ] Unoccupied [ ]

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage percentages.

If <1% damage, is salient present? Yes [X] No [ ]
If yes, describe A FITTING FROM THE FEED PUMP PIPING (UNDER THE DE-AERATOR) HAS FALLEN AND SHATTERED.

WATER DAMAGE Yes [ ] No [X] Description [ ]
PHYSICAL DAMAGE Yes [X] No [ ] Description A FITTING HAS FALLEN AND SHATTERED
AGE DETERIORATION Yes [ ] No [X] Description [ ]

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TJE

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No

MAINTENANCE PERSONNEL Yes  No

HEIGHT FROM FLOOR 2-25 ft.

AREA ABOVE ROOF

AREA ADJACENT MECHANICAL AREAS

OCCUPANCY (#) 0  1-2  3-10  10+

FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+

UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)

ELECTRICAL < 1  1-5  >5

MECHANICAL < 1  1-5  >5

PIPING < 1  1-5  >5

OTHER < 1  1-5  >5

VIBRATION Yes  No

MECHANICAL (MOTOR) Yes  No

PLUMBING (KNOCKING) Yes  No

OTHER Yes  No

BARRIERS Yes  No

SUSPENDED CEILING Yes  No

ENCAPSULATION Yes  No

ENCLOSURE Yes  No

OTHER Yes  No

AIR MOVEMENTS Yes  No

(IF YES) Low  Moderate  Heavy

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes  No

EXHAUST FAN Yes  No

GRAVITY VENT Yes  No

SUPPLY AIR Yes  No

RETURN AIR Yes  No

OTHER Yes  No

10 FT. \_\_\_\_\_

12 FT. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage \_\_\_\_\_ Potential For Damage

Potential for Significant Damage \_\_\_\_\_

EXPLANATION OF ASSESSMENT (REQUIRED) ONE FITTING IS CURRENTLY DAMAGED, AND SOME OF THE OTHERS ARE LOCATED AT ACCESSIBLE HEIGHTS.

DAMAGE PREVENTION MEASURES PICK UP DEBRIS FROM FALLEN FITTING. REPAIR DAMAGED FITTING. MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

COMMENTS

INSPECTOR'S SIGNATURE

*Jerry Bassett (W)*

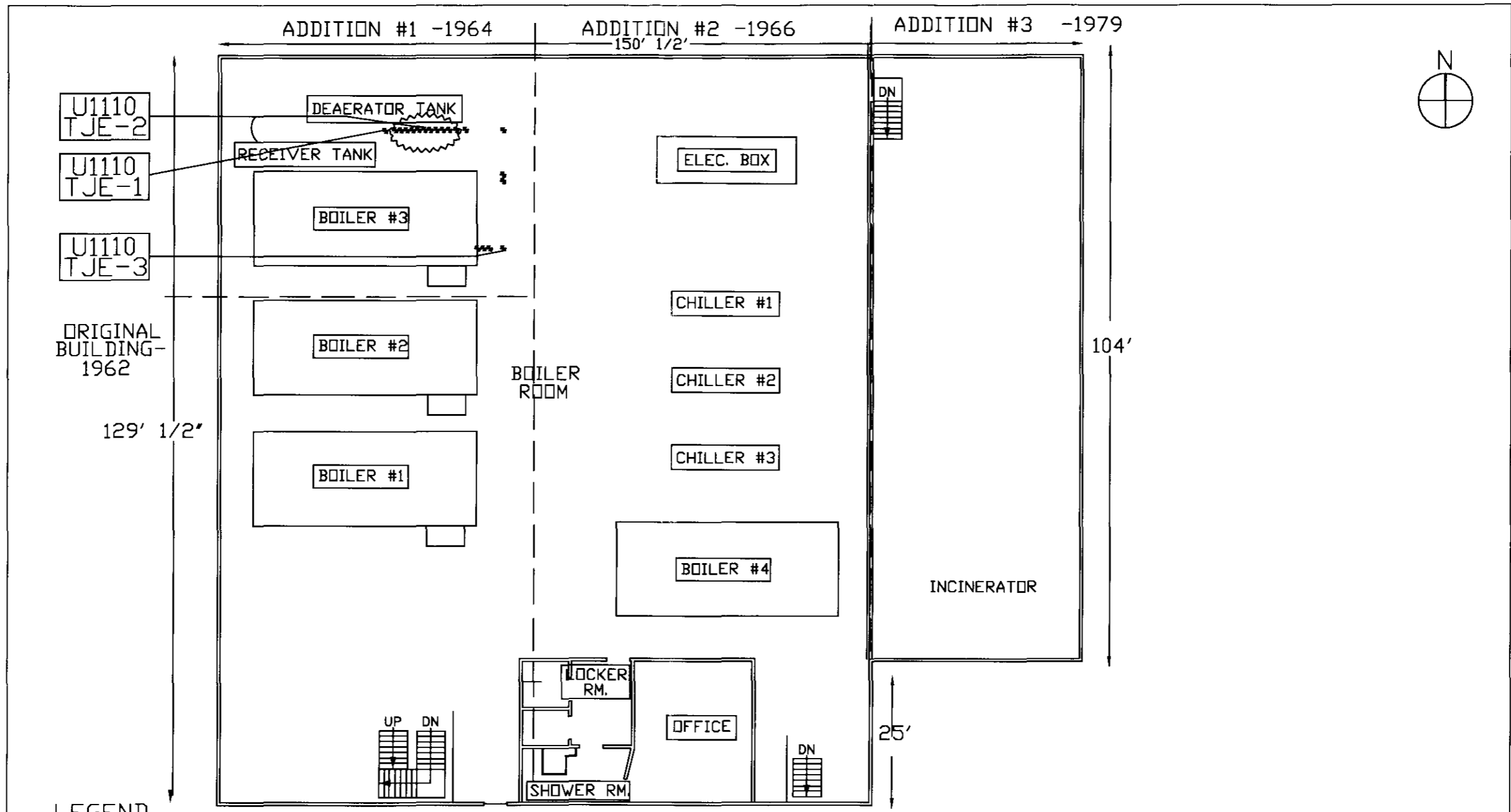
DATE 6-27-00

SAMPLE NUMBERS

U1110-TJE1, U1110-TJE-2, U1110-TJE-3

(Sampling Phase)

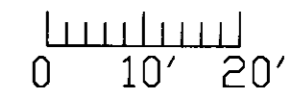
ACBM Yes  No  Assumed





**LEGEND**

- INDICATES EXTENT OF HOMOGENEOUS AREA
- TJE-FITTINGS ON MAG-BLOCK PIPE INSULATION (ADDITION #1-1964)
- INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 TJE

## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJE  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	1 <sup>st</sup> Addition At Deaerator	1 <sup>st</sup> Addition At Deaerator	1 <sup>st</sup> Addition At Deaerator
9. Date Collected	02/02/00	02/02/00	02/02/00
10. Sample No.	U1110-TJE-1	U1110-TJE-2	U1110-TJE-3
11. Date Received	02/07/00	02/07/00	02/07/00
12. Lab Sample No.	1382	1383	1384
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	5%	5%
Amosite			
Crocidolite			
Other			
Total Asbestos %	5%	5%	5%
18. Other Material %			
Fibrous Glass	70%	70%	90%
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	25%	25%	5%
Total	100%	100%	100%
19. Date Analyzed	02/14/00	02/14/00	02/14/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger* 22. Date: 02/14/00

23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

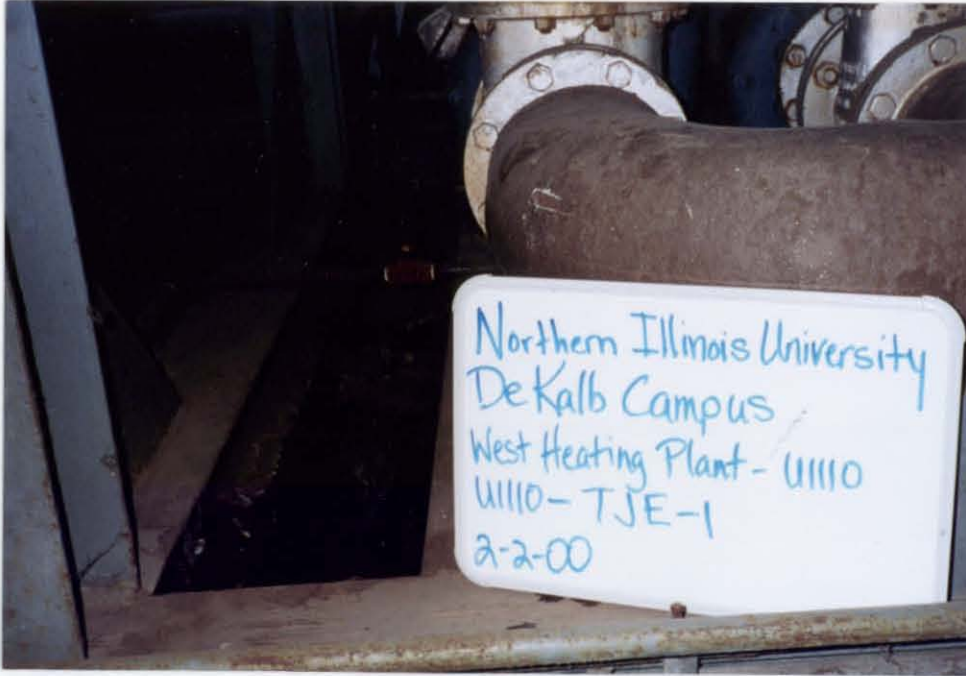
POINT COUNTING LABORATORY ANALYSIS REPORT

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E) CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJE  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

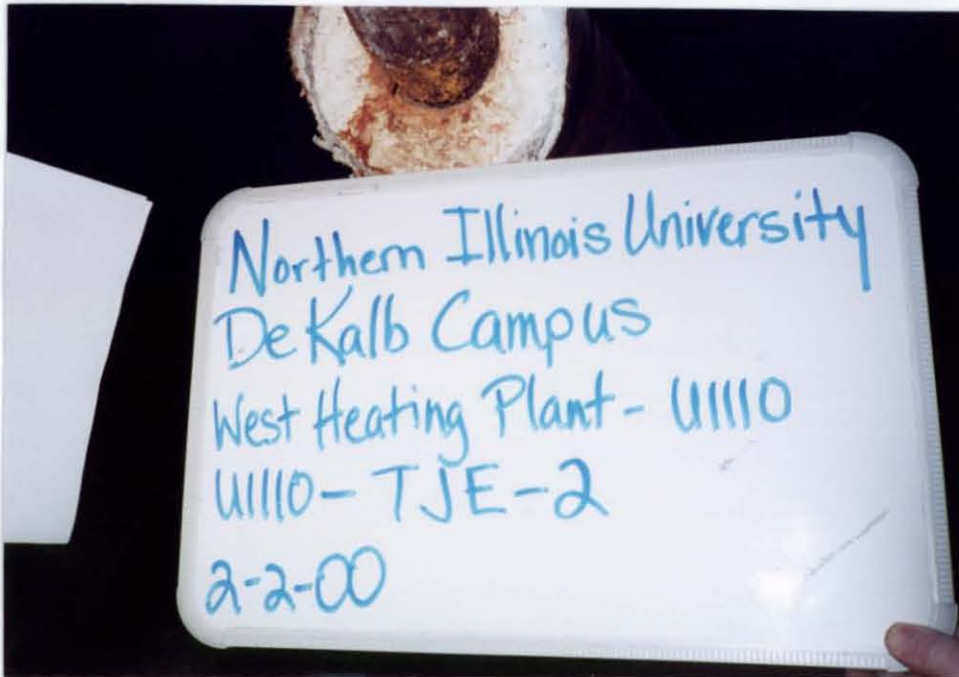
8. Location	1 <sup>ST</sup> Add at De-Aerator	1 <sup>ST</sup> Add at De-Aerator	1 <sup>ST</sup> Add at De-Aerator
9. Date Collected	02/02/00	02/02/00	02/02/00
10. Sample No.	U1110-TJE-1	U1110-TJE-2	U1110-TJE -3
11. Date Received	08/04/00		
12. Lab Sample No.	211624-02		
13. Color?	Grey		
14. Fibrous?	Yes		
15. Layers?	1		
16. Contains Asbestos?	Yes		
17. TYPE AND % ASBESTOS			
Chrysotile	5.25%		
Amosite			
Crocidilite			
Other			
Total Asbestos %	5.25%		
18. NO. OF SLIDES	8		
	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts
			Nonempty Pts Ctd
			Asbestos Counts
			Nonempty Pts Ctd
Slide 1	2	48	
Slide 2	2	48	
Slide 3	6	44	
Slide 4	1	49	
Slide 5	3	47	
Slide 6	0	50	
Slide 7	4	46	
Slide 8	3	47	
19. Comments			N/A
20. Date Analyzed	8/04/00		
21. Analyzed By	Albio Marquez		

22. Report Approved By: S. Smith 23. Date: 8/11/00  
 (Signature)

24. Laboratory Name: Stat Analysis Corporation



U1110 - TJE - 1  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TJE - 2  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TJE - 3  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)

FORM 13

CDB

1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TJE DESCRIPT FITTINGS ON MAG-BLOCK PIPE  
INSULATION (ADDITION #1 - 1964)

RESPONSE ACTION 6 - CONTINUE O & M. TAKE PREVENTIVE MEASURES TO  
REDUCE DISTURBANCE.

A.2.a. EXIST. COND. ONE FITTING HAS FALLEN AND SHATTERED BENEATH THE DE-  
AERATOR.

POT. FOR DAMAGE MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER  
DAMAGE LIKELY.

A.2.b. FRIABLE YES CONDITION DAMAGED  
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE  
FIBERS TO BE RELEASED INTO THE AIR.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER. CLEAN-UP DAMAGED FITTING.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.11 FOR FIBER RELEASE  
EPISODES. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.



# COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TJE  
**MATERIAL:** FITTINGS ON MAG-BLOCK PIPE INSULATION  
(ADDITION #1 - 1964)  
**QUANTITY:** 20 EA

## A. COST ESTIMATE FOR REMOVAL

1.	Removal:	20 ea @ \$100.90 / ea	\$2,018.00
2.	Replacement:	20 ea @ \$25.00 / ea	\$500.00

**SUBTOTAL** \$2,518.00

3.	Design Fee: 10% or minimum \$500.00	\$500.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$3,623.00

7.	5% indemnification	\$181.00
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**TOTAL COST** \$3,804.00

## B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

## C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and annual administration \$ 100.00

# FORM 9

## HOMOGENEOUS AREA INSPECTION REPORT

**CDB BUILDING #:** U1110 **HOMOGENEOUS AREA:** TJF  
**INSPECTION DATE:** JANUARY 20, 2000 **CDB PROJECT NO.:** 910-010-093  
**CONTROLLING AGENCY:** NORTHERN ILLINOIS UNIVERSITY  
**FACILITY:** NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
**BUILDING NAME:** WEST HEATING PLANT  
**BUILDING ADDRESS:** 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
**A/E FIRM:** CARNOW, CONIBEAR & ASSOC., LTD.  
**INSPECTOR:** TERRY BASSETT **IDPH LICENSE NO.:** 100-3487  
**LOCATION:** FIRST FLOOR  
**ROOMS:** BOILER ROOM - ADDITION #2

**MATERIAL DESCRIPTION:** FITTINGS ON MAG-BLOCK PIPE INSULATION (ADDITION #2 - 1966)  
(common designation - i.e. air cell)

**TYPE OF SYSTEM:** STEAM HEATING SYSTEM  
(i.e. hot water)

**COLOR-TEXTURE, ETC.:** WHITE - MODERATE TEXTURE

**FRIABLE:** Yes  No  Pipe Diameter 3 inches

**TOTAL QUANTITY:** \_\_\_\_\_ Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ 2 Ea.

**QUANTITY IN:** Occupied  Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

**CEILING** CONCRETE  
**WALLS** CONCRETE AND CINDER BLOCK  
**FLOOR** CONCRETE

**DAMAGE ASSESSMENT:**

	No Damage	Damaged	Significant Damage
<b>LOCALIZED OR</b>	<1% <input checked="" type="checkbox"/>	1-25% _____	> 25% _____
<b>DISTRIBUTED</b>	<1% _____	1-10% _____	> 10% _____
	If <1% damage, is salient present? Yes _____ No <input checked="" type="checkbox"/>		
	If yes, describe _____		

<b>WATER DAMAGE</b>	Yes _____	No <input checked="" type="checkbox"/>	Description _____
<b>PHYSICAL DAMAGE</b>	Yes _____	No <input checked="" type="checkbox"/>	Description _____
<b>AGE DETERIORATION</b>	Yes _____	No <input checked="" type="checkbox"/>	Description _____

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEIOUS AREA: TJF

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 10-25 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 X >5
MECHANICAL < 1 1-5 >5 X
PIPING < 1 X 1-5 >5
OTHER < 1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes No X
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS Yes X No
(IF YES) Low X Moderate Heavy

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage Potential For Damage X
Potential for Significant Damage

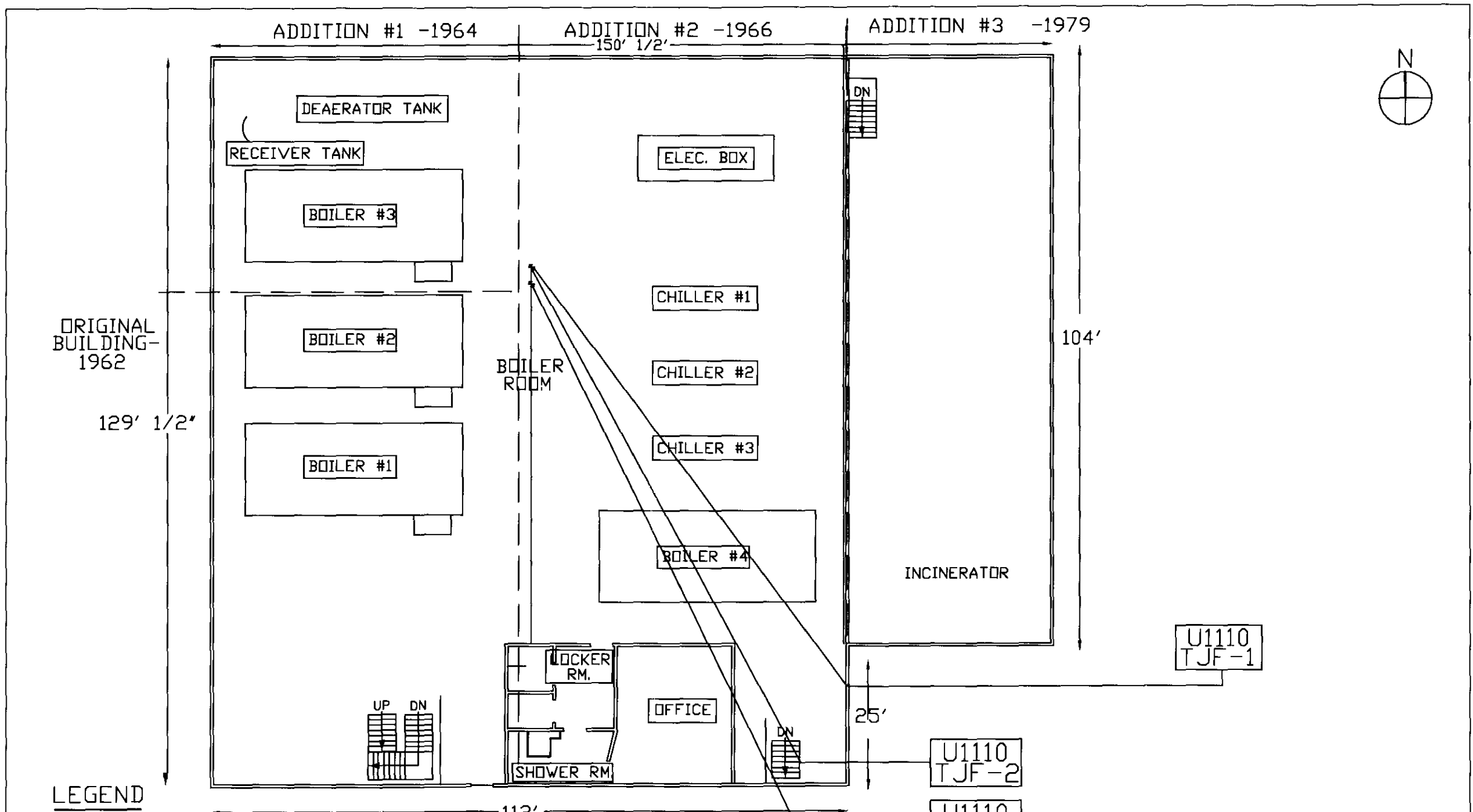
EXPLANATION OF ASSESSMENT (REQUIRED) THESE FITTINGS ARE LOCATED AT HEIGHTS WHICH ARE GENERALLY INACCESSIBLE.

DAMAGE PREVENTION MEASURES MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett DATE 6-27-00
SAMPLE NUMBERS U1110-TJF-1, U1110-TJF-2, U1110-TJF-3
(Sampling Phase)

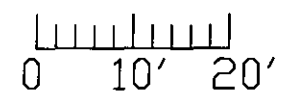
ACBM Yes X No Assumed





**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJF-FITTINGS ON MAG BLOCK PIPE INSULATION (ADDITION #2-1966)

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD.          333 WEST WACKER DRIVE, STE. 1400          CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 TJF

## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJF  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	2 <sup>nd</sup> Addition At Boiler	2 <sup>nd</sup> Addition At Boiler	2 <sup>nd</sup> Addition At Boiler
9. Date Collected	02/02/00	02/02/00	02/02/00
10. Sample No.	U1110-TJF-1	U1110-TJF-2	U1110-TJF-3
11. Date Received	02/07/00	02/07/00	02/07/00
12. Lab Sample No.	1385	1386	1387
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	5%	5%
Amosite			
Crocidolite			
Other			
Total Asbestos %	5%	5%	5%
18. Other Material %			
Fibrous Glass	75%	75%	75%
Cellulose	5%	5%	5%
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	15%	15%	15%
Total	100%	100%	100%
19. Date Analyzed	02/14/00	02/14/00	02/14/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger 22. Date: 02/14/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

POINT COUNTING LABORATORY ANALYSIS REPORT

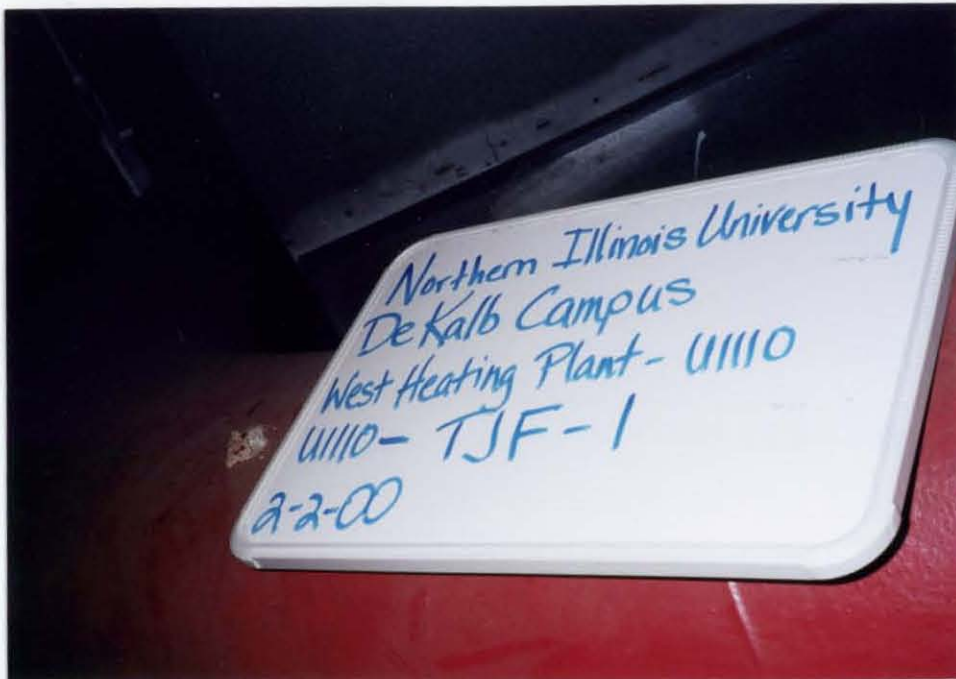
1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E) CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJF

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

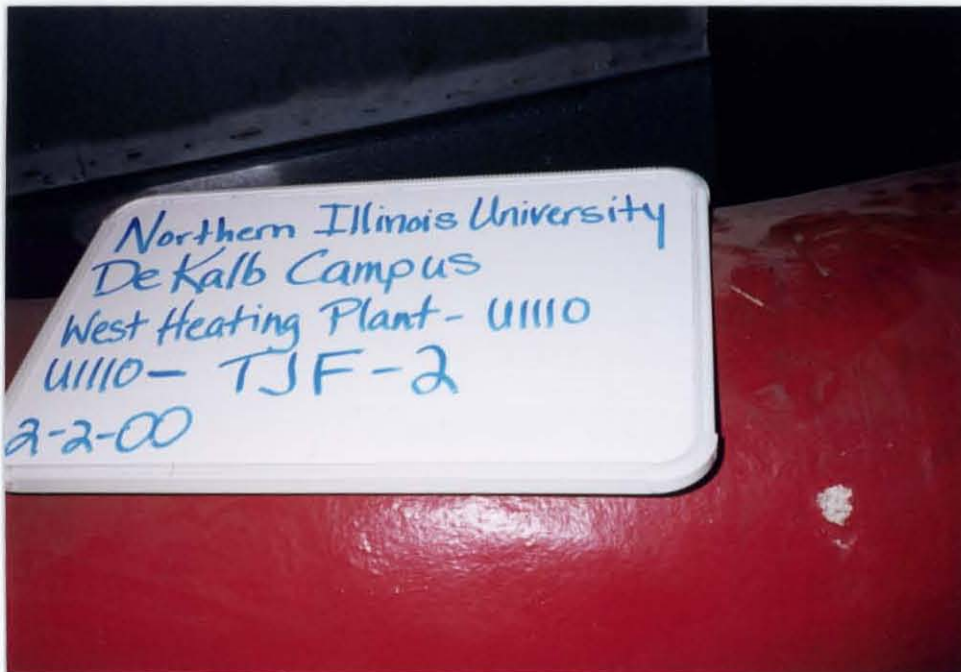
8. Location	2 <sup>ND</sup> Addition at Boiler		2 <sup>ND</sup> Addition at Boiler		2 <sup>ND</sup> Addition at Boiler	
9. Date Collected	02/02/00		02/02/00		02/02/00	
10. Sample No.	U1110-TJF-1		U1110-TJF-2		U1110-TJF-3	
11. Date Received	08/04/00					
12. Lab Sample No.	211454-03					
13. Color?	Grey					
14. Fibrous?	Yes					
15. Layers?	1					
16. Contains Asbestos?	Yes					
17. TYPE AND % ASBESTOS						
Chrysotile	4.75%					
Amosite						
Crocidilite						
Other						
Total Asbestos %	4.75%					
18. NO. OF SLIDES	8					
	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd
Slide 1	2	48				
Slide 2	2	48				
Slide 3	0	50				
Slide 4	1	49				
Slide 5	4	46				
Slide 6	6	44				
Slide 7	3	47				
Slide 8	1	49				
19. Comments			N/A		N/A	
20. Date Analyzed	8/04/00					
21. Analyzed By	Albio Marquez					

22. Report Approved By: S. Singh 23. Date: 8/14/00  
 (Signature)

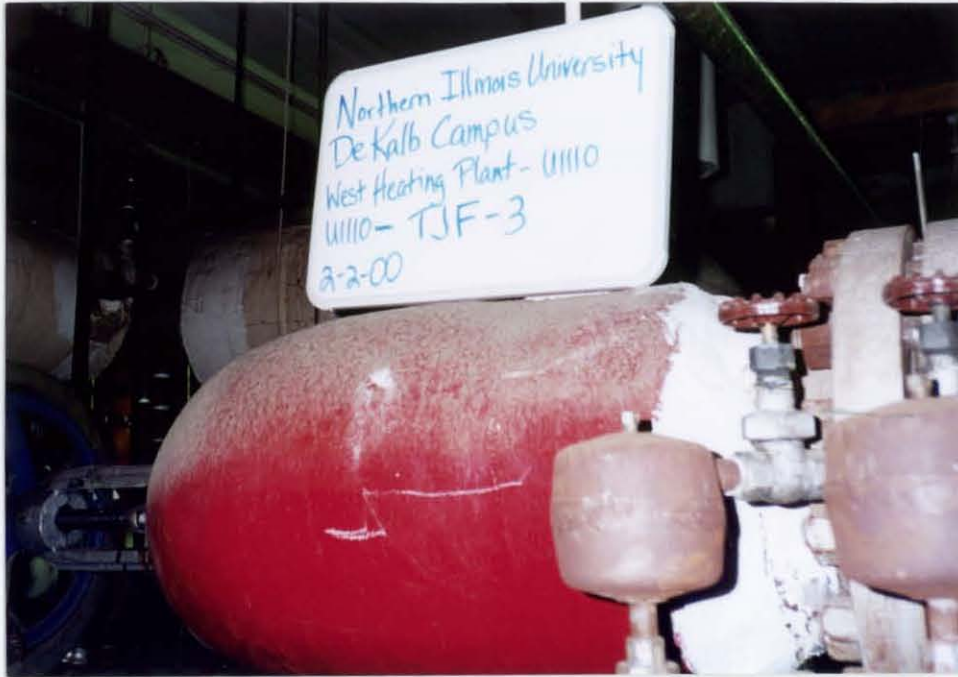
24. Laboratory Name: Stat Analysis Corporation



U1110 - TJF - 1  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - TJF - 2  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - T.J.F. - 3  
FITTINGS ON  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)



FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TJF DESCRIPT FITTINGS ON MAG-BLOCK PIPE INSULATION (ADDITION #2 - 1966)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE ALTHOUGH IT IS LOCATED AT ACCESSIBLE HEIGHTS, THIS MATERIAL IS CURRENTLY IN GOOD CONDITION.

A.2.b. FRIABLE YES CONDITION GOOD DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, BUT AT HEIGHTS EASILY ACCESSIBLE TO MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TJF  
**MATERIAL:** FITTINGS ON MAG-BLOCK PIPE INSULATION  
(ADDITION #2 - 1966)  
**QUANTITY:** 2 EA

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	2 ea @ \$100.90 / ea	\$202.00
2.	Replacement:	2 ea @ \$25.00 / ea	\$50.00

**SUBTOTAL** \$252.00

3.	Design Fee: 10% or minimum \$500.00	\$500.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$1,357.00

7.	5% indemnification	\$68.00
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**TOTAL COST** \$1,425.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TPA  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: WEST BASEMENT, FIRST AND SECOND FLOORS  
 ROOMS: BASEMENT 1, BOILER ROOM, AND LOFT - ORIGINAL BUILDING

**MATERIAL DESCRIPTION:** MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING - 1962)  
(common designation - i.e. air cell)

**TYPE OF SYSTEM:** STEAM HEATING SYSTEM  
(i.e. hot water)

**COLOR-TEXTURE, ETC.:** WHITE (UNDER VARIOUS COLORS OF PAINT) - MODERATE TEXTURE

**FRIABLE:** Yes  No  Pipe Diameter 3 AND 10 inches

**TOTAL QUANTITY:** \_\_\_\_\_ Sq. ft. 450 Lin. ft. \_\_\_\_\_ Ea.

**QUANTITY IN:** Occupied  Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

**CEILING** CONCRETE

**WALLS** CONCRETE AND CINDER BLOCK

**FLOOR** CONCRETE

**DAMAGE ASSESSMENT:**

	<b>No Damage</b>	<b>Damaged</b>	<b>Significant Damage</b>
<b>LOCALIZED OR</b>	<1% _____	1-25% _____	> 25% _____
<b>DISTRIBUTED</b>	<1% <input checked="" type="checkbox"/>	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No   
 If yes, describe \_\_\_\_\_

**WATER DAMAGE** Yes \_\_\_\_\_ No  Description \_\_\_\_\_  
**PHYSICAL DAMAGE** Yes \_\_\_\_\_ No  Description \_\_\_\_\_  
**AGE DETERIORATION** Yes \_\_\_\_\_ No  Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TPA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No     

MAINTENANCE PERSONNEL Yes X No     

HEIGHT FROM FLOOR 2-25 ft.

AREA ABOVE ROOF, BOILER ROOM, LOFT - ORIGINAL BUILDING

AREA ADJACENT MECHANICAL AREAS

OCCUPANCY (#) 0      1-2      3-10 X 10+     

FREQUENCY OF USE (Hrs) 0      1-2      3-10 X 10+     

UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)

ELECTRICAL < 1      1-5 X >5     

MECHANICAL < 1      1-5      >5 X

PIPING < 1 X 1-5      >5     

OTHER      < 1      1-5      >5     

VIBRATION Yes X No     

MECHANICAL (MOTOR) Yes      No X

PLUMBING (KNOCKING) Yes X No     

OTHER      Yes      No     

BARRIERS Yes      No X

SUSPENDED CEILING Yes      No X

ENCAPSULATION Yes      No X

ENCLOSURE Yes      No X

OTHER      Yes      No     

AIR MOVEMENTS Yes X No     

(IF YES) Low X Moderate      Heavy     

DISTANCE TO FRIABLE MATERIAL

10 FT.     

12 FT.     

EXTERIOR DOOR Yes X No     

EXHAUST FAN Yes X No     

GRAVITY VENT Yes      No X

SUPPLY AIR Yes      No X

RETURN AIR Yes      No X

OTHER      Yes      No     

INSPECTOR'S ASSESSMENT No Potential for Damage      Potential For Damage X

Potential for Significant Damage     

EXPLANATION OF ASSESSMENT (REQUIRED) THE INSULATION IS FRIABLE AND LOCATED AT ACCESSIBLE HEIGHTS.

DAMAGE PREVENTION MEASURES MAINTAIN THIS INSULATION IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

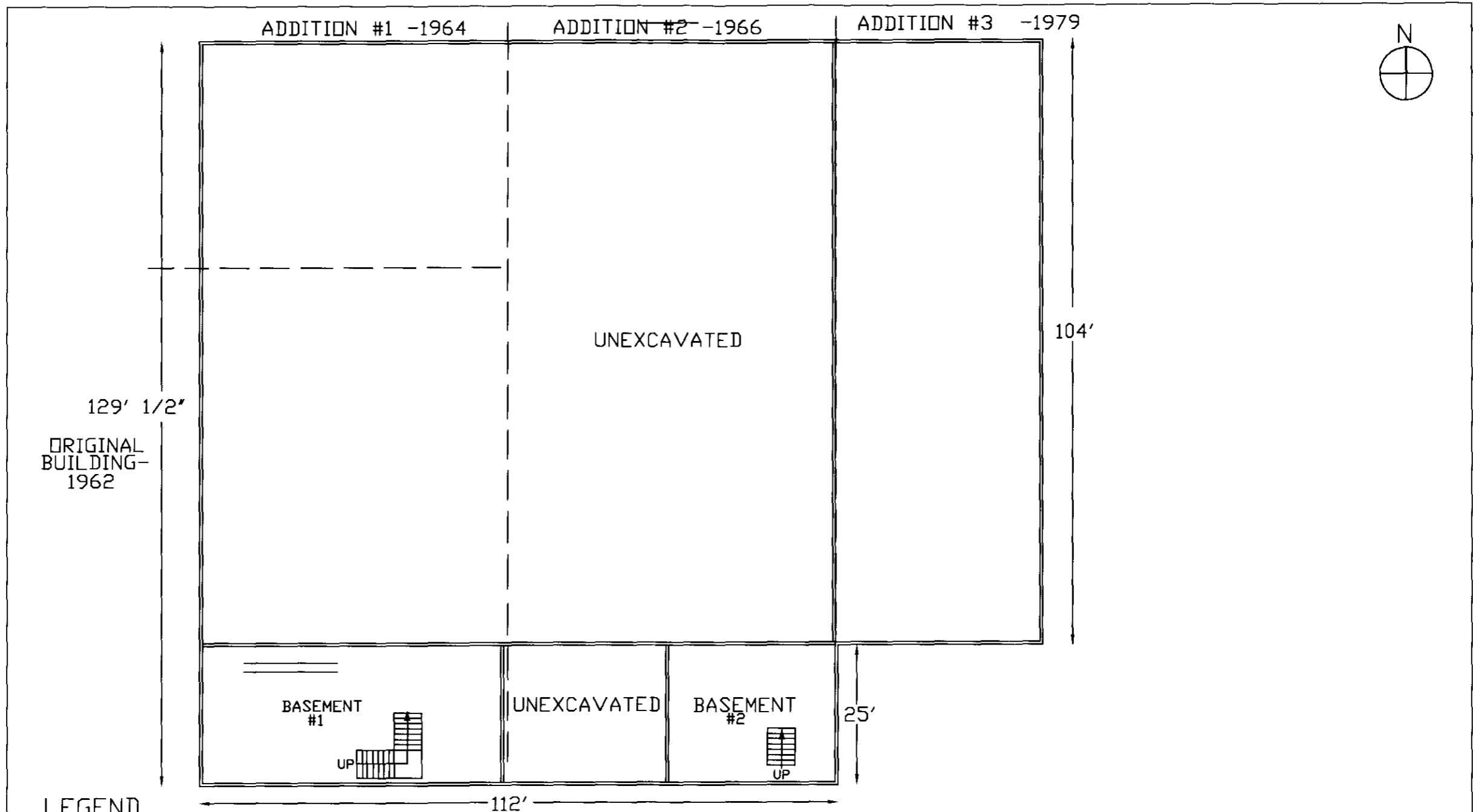
COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (M) DATE 6-27-00

SAMPLE NUMBERS U1110-TPA-1, U1110-TPA-2, U1110-TPA-3

(Sampling Phase)

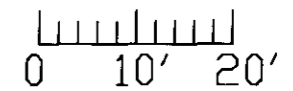
ACBM Yes X No      Assumed



**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TPA-MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'

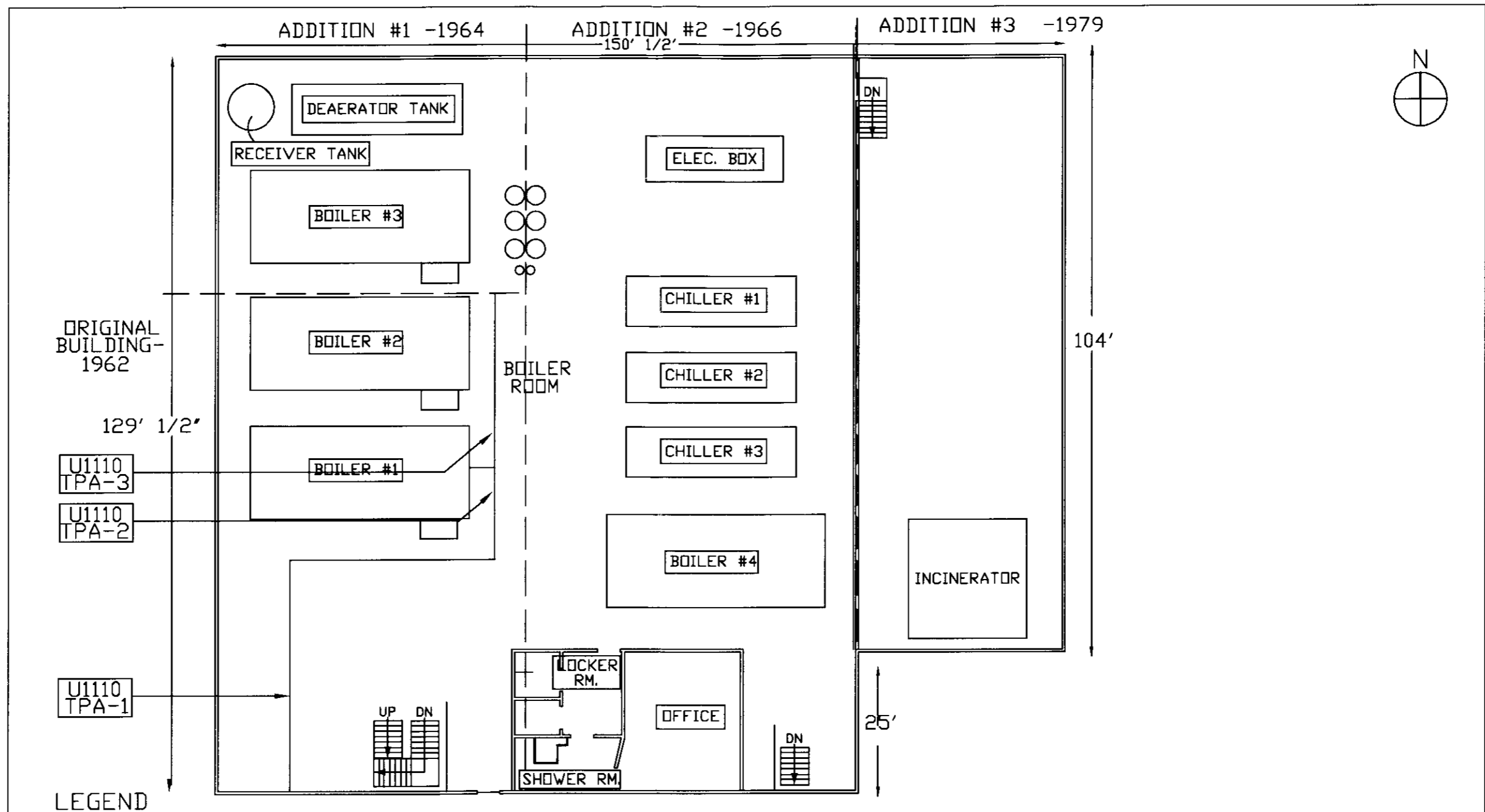


**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



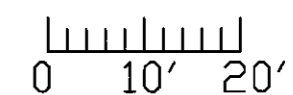
BASEMENT  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110



PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 OF 3 TPA

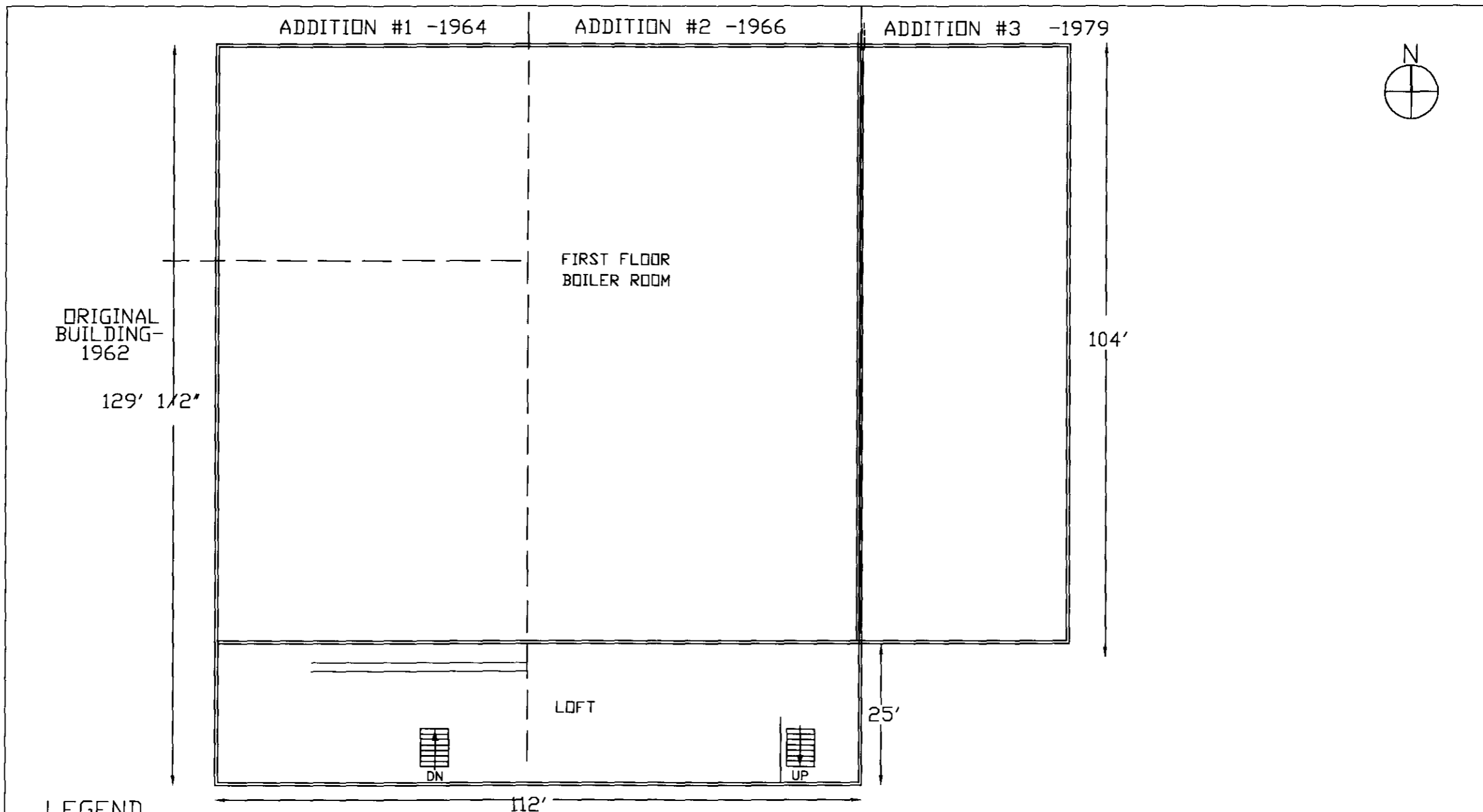


**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TPA-MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'  


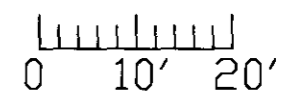
 CARNOW, CONIBEAR, & ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 2 OF 3 TPA





**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TPC-MAG BLOCK PIPE INSULATION (ORIGINAL BUILDING - 1962)

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD.        333 WEST WACKER DRIVE, STE. 1400        CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	SECOND FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 3 OF 3 TPA

## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TPA

(A/E COMPLETE ITEMS 1-10 &amp; PROVIDE TO LABORATORY.)

8. Location	Original Construction	Original Construction	Original Construction
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TPA-1	U1110-TPA-2	U1110-TPA-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1144	1145	1146
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	10%	5%
Amosite	60%	5%	60%
Crocidolite			
Other			
Total Asbestos %	65%	15%	65%
18. Other Material %			
Fibrous Glass		5%	
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	35%	80%	35%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

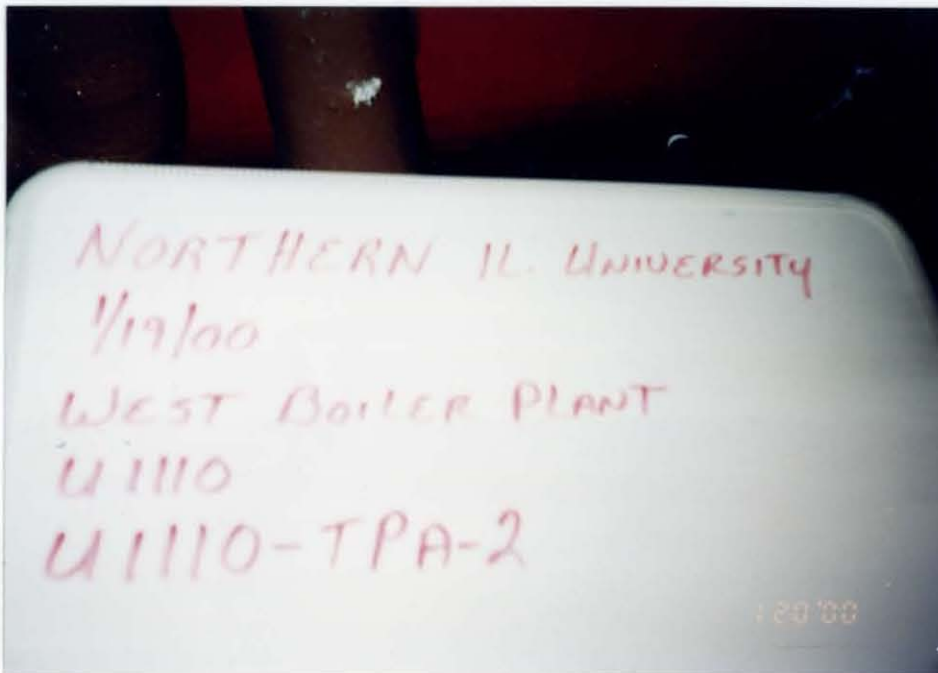
All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *Denise Borger* 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

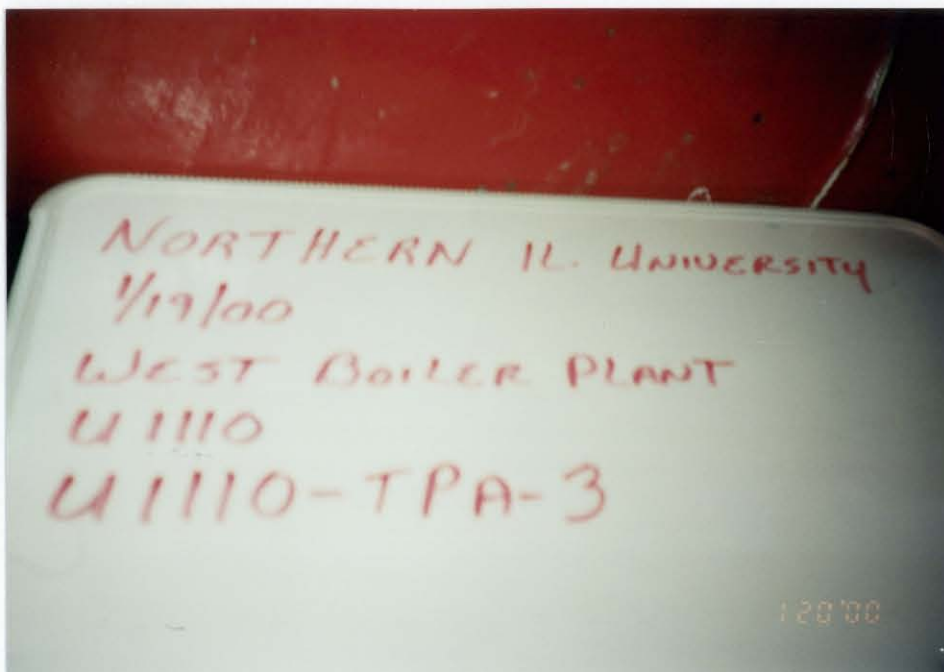




U1110 - TPA - 1  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TPA - 2  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)



U1110 - TPA - 3  
MAG-BLOCK PIPE  
INSULATION  
(ORIGINAL  
BUILDING - 1962)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TPA DESCRIPT MAG-BLOCK PIPE INSULATION  
(ORIGINAL BUILDING - 1962)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE ALTHOUGH IT IS LOCATED AT ACCESSIBLE HEIGHTS, THIS  
MATERIAL IS CURRENTLY IN GOOD CONDITION.

A.2.b. FRIABLE YES CONDITION GOOD  
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, BUT AT HEIGHTS EASILY  
ACCESSIBLE TO MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110

**HOMO AREA:** TPA

**MATERIAL:** MAG-BLOCK PIPE INSULATION (ORIGINAL BUILDING - 1962)

**QUANTITY:** 450 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	450 lf @ \$55.30 / lf	\$24,885.00
2.	Replacement:	450 lf @ \$25.00 / lf	\$11,250.00

**SUBTOTAL** \$36,135.00

3.	Design Fee: 10% or minimum \$500.00	\$3,614.00
4.	No. of days: 2	
5.	APM/ASP: \$500.00/day x 2	\$1,000.00
6.	Air Samples: 7 samples x 2 @ \$15.00/sample	<u>\$210.00</u>

**SUBTOTAL** \$40,959.00

7.	5% indemnification	\$2,048.00
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**TOTAL COST** \$43,007.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TPB

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: MAG-BLOCK PIPE INSULATION (ADDITION #1 - 1964)
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE (UNDER VARIOUS COLORS OF PAINT) - MODERATE TEXTURE

FRIABLE: Yes [X] No [ ] Pipe Diameter [3] inches

TOTAL QUANTITY: [ ] Sq. ft. [275] Lin. ft. [ ] Ea.

QUANTITY IN: Occupied [X] Restricted [ ] Unoccupied [ ]

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage types.

If <1% damage, is salient present? Yes [ ] No [X]
If yes, describe [ ]

WATER DAMAGE Yes [ ] No [X] Description [ ]
PHYSICAL DAMAGE Yes [ ] No [X] Description [ ]
AGE DETERIORATION Yes [ ] No [X] Description [ ]

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TPB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 2-25 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 X >5
MECHANICAL < 1 1-5 >5 X
PIPING < 1 X 1-5 >5
OTHER < 1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes No X
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low X Moderate Heavy

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No
DISTANCE TO FRIABLE MATERIAL
25 FT.
25 FT.

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

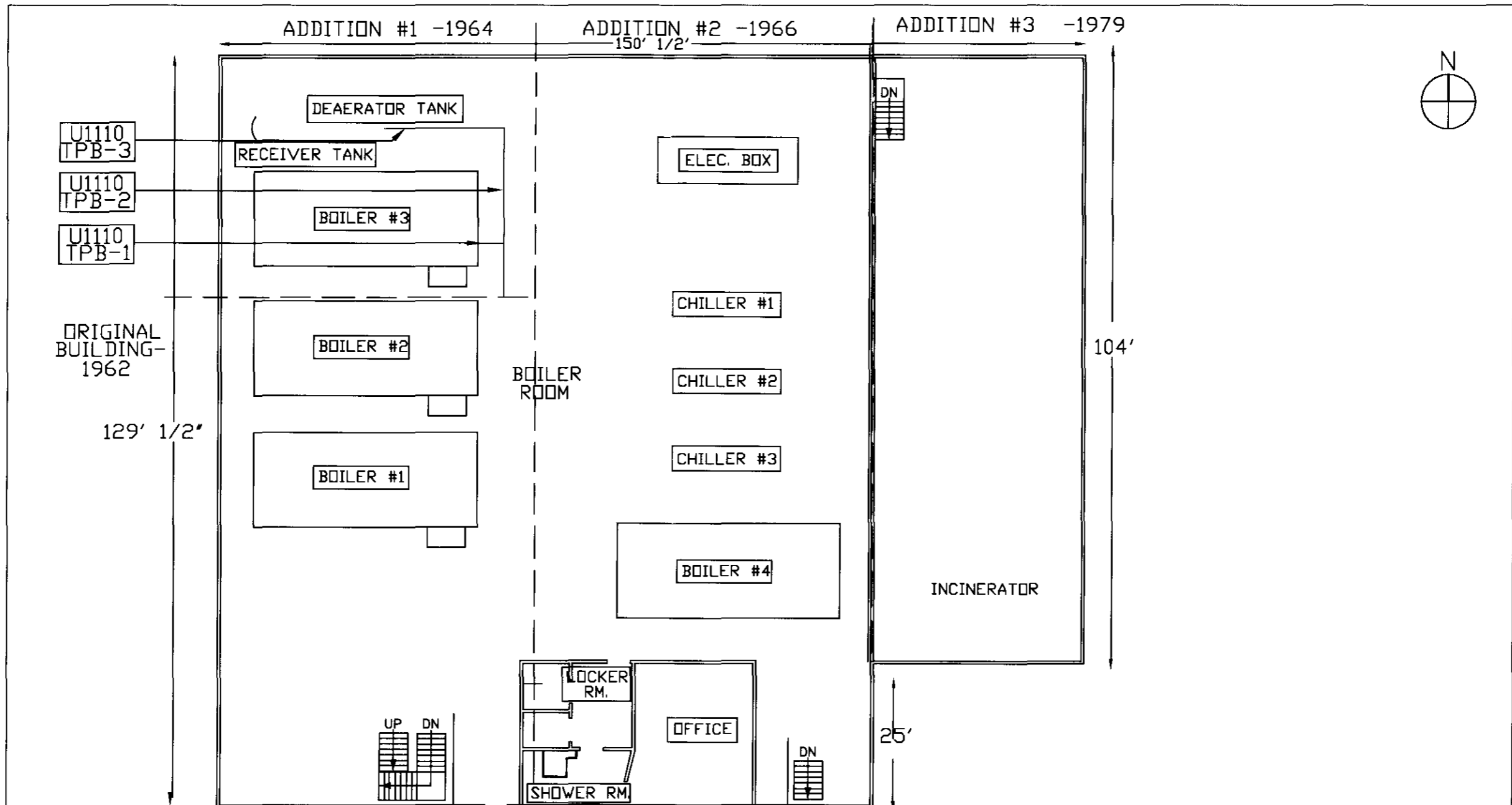
EXPLANATION OF ASSESSMENT (REQUIRED) THE INSULATION IS CURRENTLY IN GOOD CONDITION, BUT IS FRIABLE AND LOCATED AT ACCESSIBLE HEIGHTS.

DAMAGE PREVENTION MEASURES MAINTAIN THIS INSULATION IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

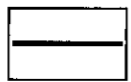
COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (CA) DATE 6-27-00
SAMPLE NUMBERS U1110-TPB-1, U1110-TPB-2, U1110-TPB-3
(Sampling Phase)

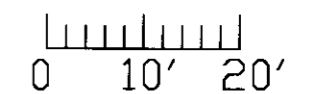
ACBM Yes X No Assumed

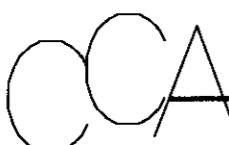



**LEGEND**


 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TPB-MAG-BLOCK PIPE INSULATION (ADDITION #1-1964)

SCALE: 1" = 20'



 CARNOW, CONIBEAR, & ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 TPB

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TPB

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

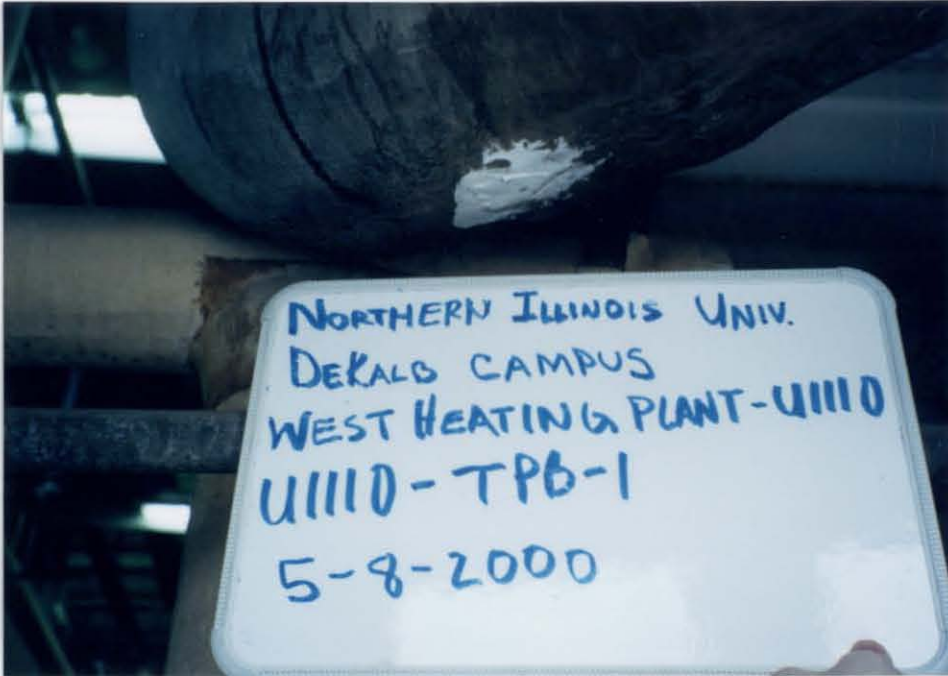
8. Location	Addition #1	Addition #1	Addition#1
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TPB-1	U1110-TPB-2	U1110-TPB-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1147	1148	1149
13. Color?	Tan/White	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	10%	25%	15%
Amosite			
Crocidolite			
Other			
Total Asbestos %	10%	25%	15%
18. Other Material %			
Fibrous Glass	5%	60%	60%
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	85%	15%	25%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

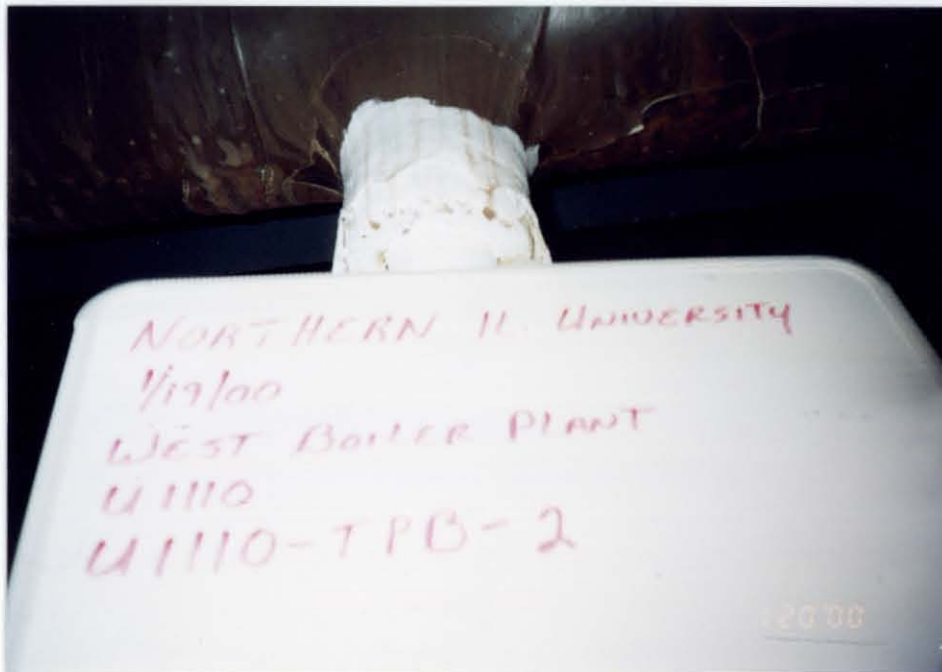
21. Report Approved By: Denise Borger *KBorger* 22. Date: 01/24/00

23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

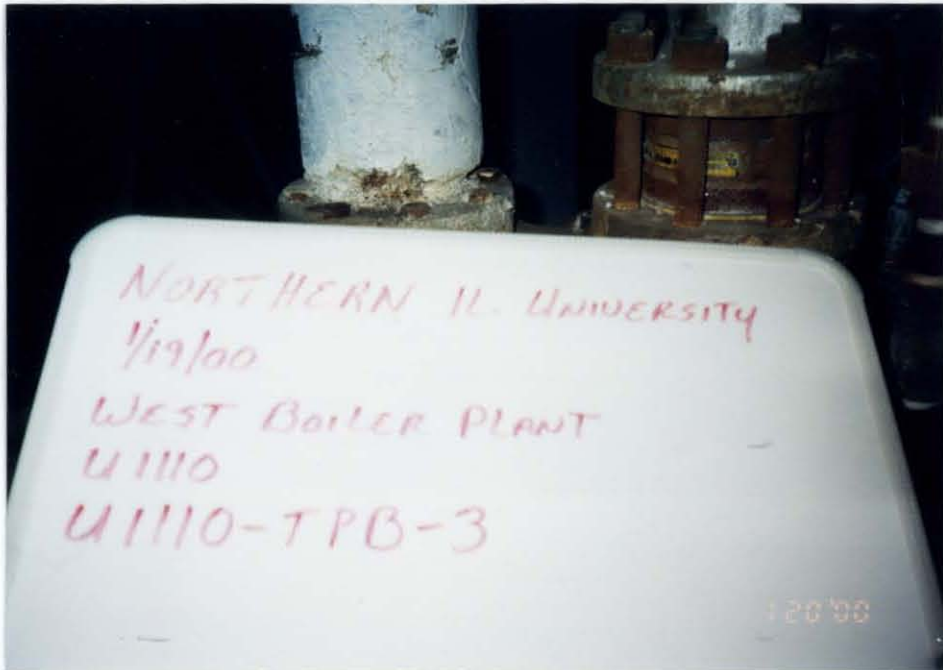




U1110 - TPB - 1  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TPB - 2  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TPB - 3  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #1 -  
1964)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA TPB DESCRIPT MAG-BLOCK PIPE INSULATION  
(ADDITION #1 - 1964)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE ALTHOUGH IT IS LOCATED AT ACCESSIBLE HEIGHTS, THIS  
MATERIAL IS CURRENTLY IN GOOD CONDITION.

A.2.b. FRIABLE YES CONDITION GOOD  
DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, BUT AT HEIGHTS EASILY  
ACCESSIBLE TO MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TPB  
**MATERIAL:** MAG-BLOCK PIPE INSULATION (ADDITION #1 - 1964)  
**QUANTITY:** 275 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	275 lf @ \$32.95 / lf	\$9,061.00
2.	Replacement:	275 lf @ \$25.00 / lf	\$6,875.00

**SUBTOTAL** \$15,936.00

3.	Design Fee: 10% or minimum \$500.00		\$1,594.00
4.	No. of days: 1		
5.	APM/ASP: \$500.00/day x 1		\$500.00
6.	Air Samples: 7 samples x1 @ \$15.00/sample		<u>\$105.00</u>

**SUBTOTAL** \$18,135.00

7.	5% indemnification		\$907.00
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**TOTAL COST** \$19,042.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00



FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TPC

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No \_\_\_\_\_

MAINTENANCE PERSONNEL Yes X No \_\_\_\_\_

HEIGHT FROM FLOOR 20-25 ft.

AREA ABOVE ROOF, BOILER ROOM, LOFT - ADDITION #2

AREA ADJACENT MECHANICAL AREAS

OCCUPANCY (#) 0 \_\_\_\_\_ 1-2 \_\_\_\_\_ 3-10 X 10+ \_\_\_\_\_

FREQUENCY OF USE (Hrs) 0 \_\_\_\_\_ 1-2 \_\_\_\_\_ 3-10 X 10+ \_\_\_\_\_

UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)

ELECTRICAL < 1 \_\_\_\_\_ 1-5 X >5 \_\_\_\_\_

MECHANICAL < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 X

PIPING < 1 X 1-5 \_\_\_\_\_ >5 \_\_\_\_\_

OTHER \_\_\_\_\_ < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 \_\_\_\_\_

VIBRATION Yes X No \_\_\_\_\_

MECHANICAL (MOTOR) Yes \_\_\_\_\_ No X

PLUMBING (KNOCKING) Yes X No \_\_\_\_\_

OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

BARRIERS Yes \_\_\_\_\_ No X

SUSPENDED CEILING Yes \_\_\_\_\_ No X

ENCAPSULATION Yes \_\_\_\_\_ No X

ENCLOSURE Yes \_\_\_\_\_ No X

OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

AIR MOVEMENTS Yes X No \_\_\_\_\_

(IF YES) Low X Moderate \_\_\_\_\_ Heavy \_\_\_\_\_

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes X No \_\_\_\_\_

EXHAUST FAN Yes X No \_\_\_\_\_

GRAVITY VENT Yes \_\_\_\_\_ No X

SUPPLY AIR Yes \_\_\_\_\_ No X

RETURN AIR Yes \_\_\_\_\_ No X

OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

10 FT. \_\_\_\_\_

12 FT. \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage \_\_\_\_\_

Potential for Significant Damage \_\_\_\_\_

EXPLANATION OF ASSESSMENT (REQUIRED) THE INSULATION IS FRIABLE BUT LOCATED AT HEIGHTS WHICH ARE GENERALLY INACCESSIBLE.

DAMAGE PREVENTION MEASURES MAINTAIN THIS INSULATION IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

COMMENTS

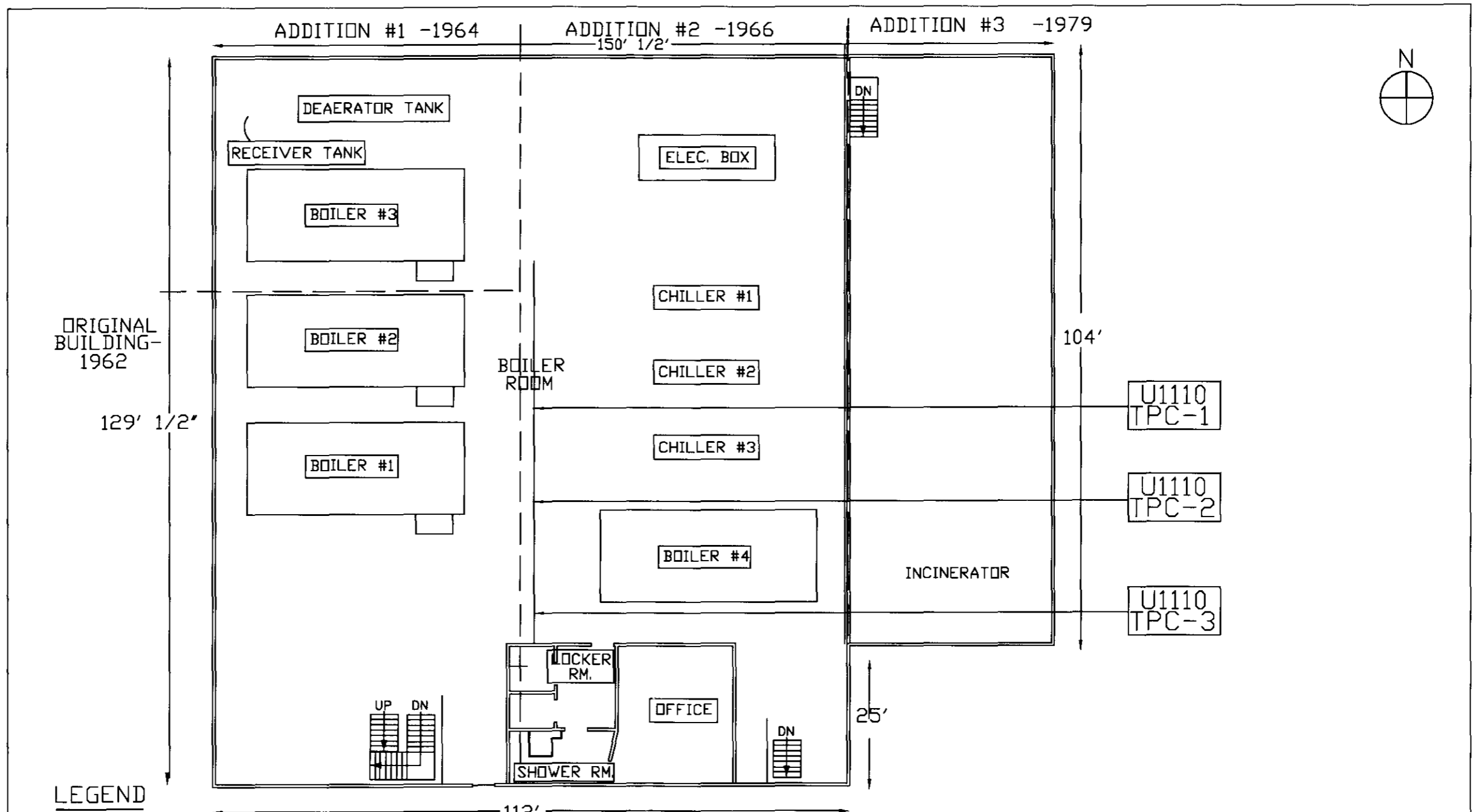
INSPECTOR'S SIGNATURE Jerry Basutt (A)

DATE 6-27-00

SAMPLE NUMBERS U1110-TPC-1, U1110-TPC-2, U1110-TPC-3

(Sampling Phase)

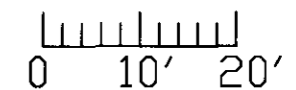
ACBM Yes X No \_\_\_\_\_ Assumed \_\_\_\_\_





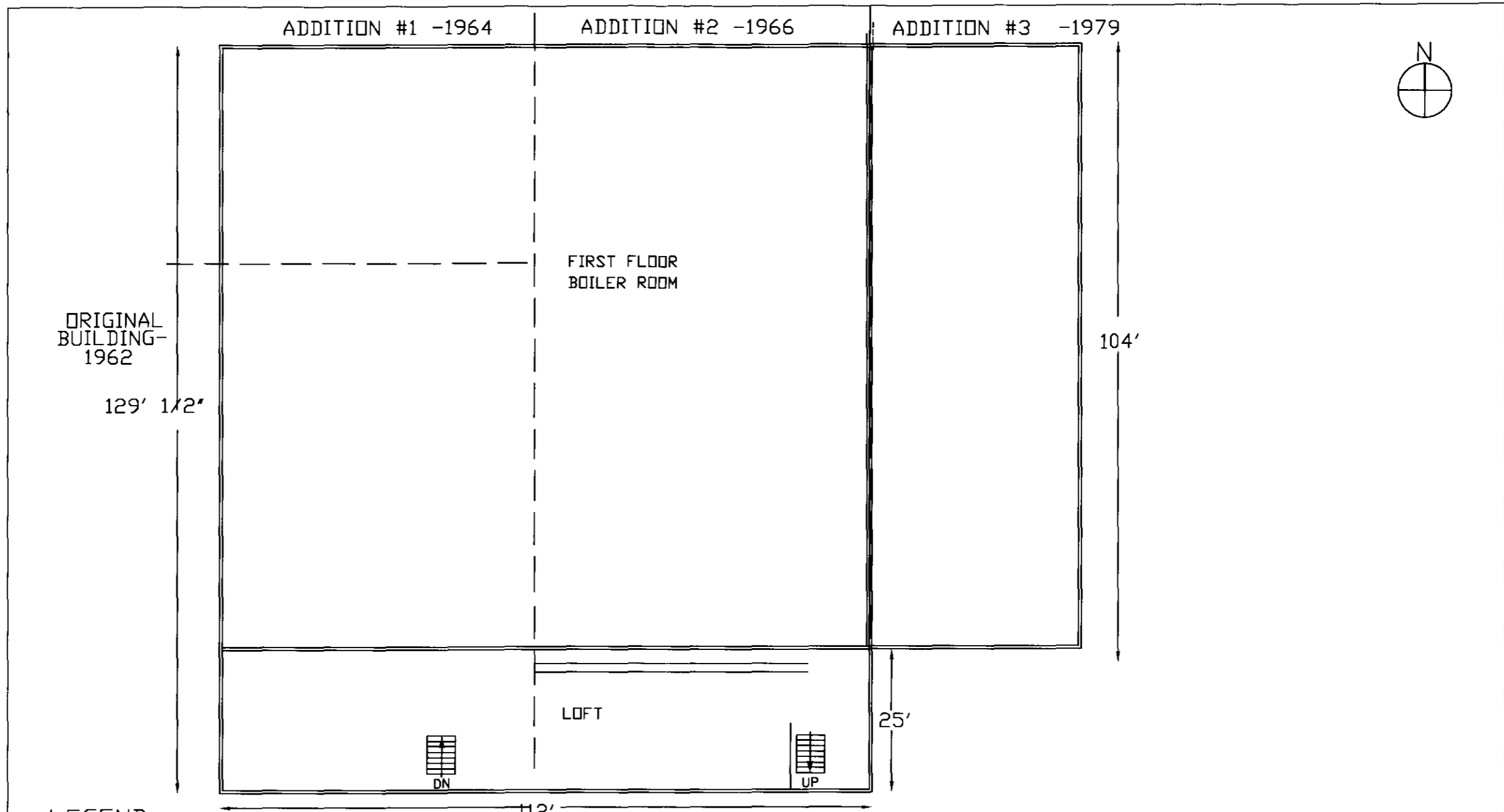
**LEGEND**

INDICATES EXTENT OF HOMOGENEOUS AREA  
 TPC-MAG BLOCK PIPE INSULATION (ADDITION #2-1966)

SCALE: 1" = 20'



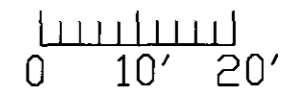
 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 2 TPC



**LEGEND**

- INDICATES EXTENT OF HOMOGENEOUS AREA
- TPC-MAG BLOCK PIPE INSULATION (ADDITION #2-1966)

SCALE: 1" = 20'



<p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	<p>CAPITAL DEVELOPMENT BOARD</p>	SECOND FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 2 OF 2 TPC



FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TPC

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	Addition #3	Addition #3	Addition #3
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TPC-1	U1110-TPC-2	U1110-TPC-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1150	1151	1152
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	5%	20%
Amosite	40%	40%	10%
Crocidolite			
Other			
Total Asbestos %	45%	45%	30%
18. Other Material %			
Fibrous Glass	5%	5%	5%
Cellulose	5%	5%	5%
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	45%	45%	60%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

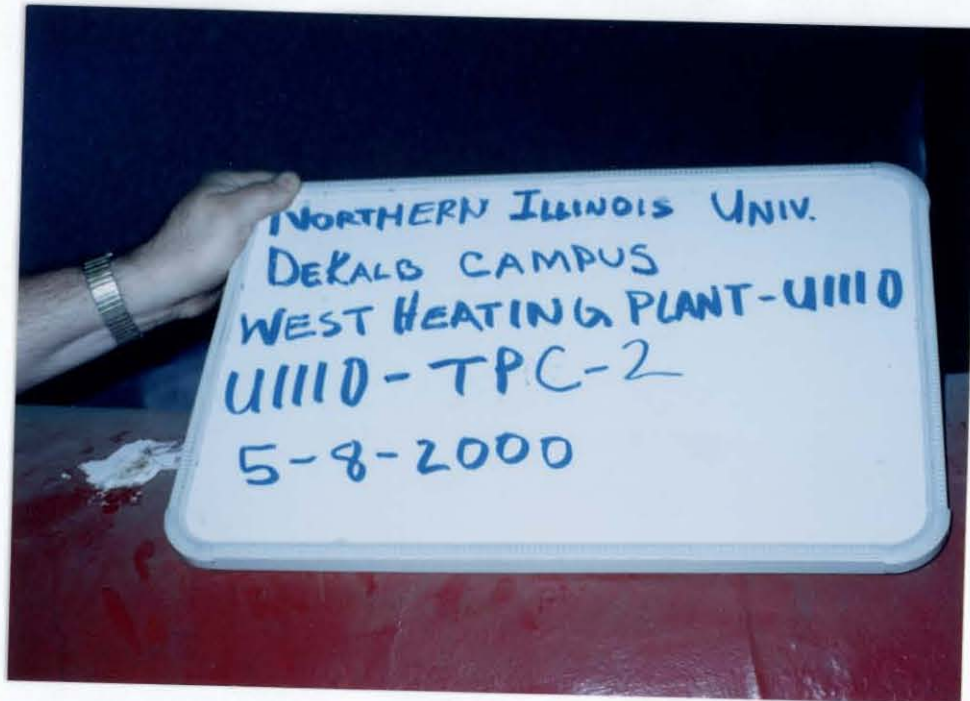
All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *(Signature)* 22. Date: 01/24/00

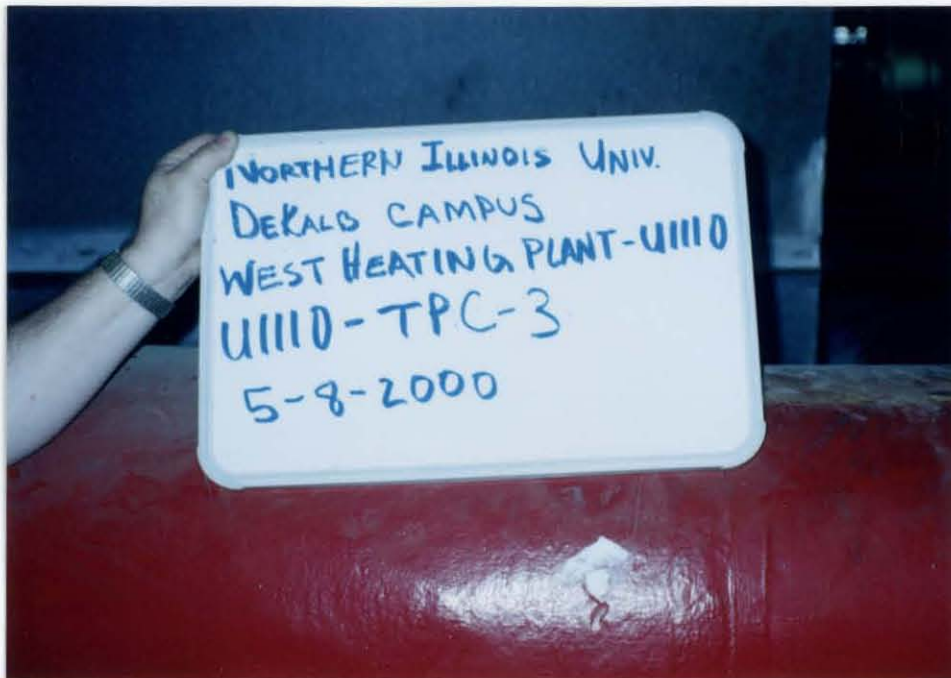
23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TPC - 1  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - TPC - 2  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - TPC - 3  
MAG-BLOCK PIPE  
INSULATION  
(ADDITION #2 -  
1966)

FORM 13

CDB

1

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TPC DESCRIPT MAG-BLOCK PIPE INSULATION (ADDITION #2 - 1966)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL IS CURRENTLY IN GOOD CONDITION, AND LOCATED AT HEIGHTS INACCESSIBLE TO MAINTENANCE PERSONNEL.

A.2.b. FRIABLE YES CONDITION GOOD DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, AND AT HEIGHTS NOT EASILY ACCESSIBLE TO MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. CLEAN-UP DAMAGED FITTING.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TPC  
**MATERIAL:** MAG-BLOCK PIPE INSULATION (ADDITION #2 - 1966)  
**QUANTITY:** 150 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	150 lf @ \$55.30 / lf	\$8,295.00
2.	Replacement:	150 lf @ \$25.00 / lf	\$3,750.00

**SUBTOTAL** \$12,045.00

3.	Design Fee: 10% or minimum \$500.00	\$1,205.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$13,855.00

7.	5% indemnification	\$693.00
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**TOTAL COST** \$14,548.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TTA  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM, - ADDITION #1

MATERIAL DESCRIPTION: DE-AERATOR TANK INSULATION (ADDITION #1 - 1964)  
 (common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM  
 (i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes X No \_\_\_\_\_ Pipe Diameter \_\_\_\_\_ inches

TOTAL QUANTITY: 500 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

QUANTITY IN: Occupied X Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% <u>X</u>	1-25% _____	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes X No \_\_\_\_\_

If yes, describe THERE IS A 5' SPLIT IN THE INSULATION ON THE UNDERSIDE OF THIS TANK WHICH IS PULLING AWAY FROM THE TANK - IF IT PULLS AWAY ENOUGH, IT WILL FALL TO THE FLOOR.

WATER DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes X No \_\_\_\_\_ Description SPLIT ON UNDERSIDE OF TANK  
 AGE DETERIORATION Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TTA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 4-10 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 X 1-5 >5
MECHANICAL < 1 1-5 >5 X
PIPING < 1 X 1-5 >5
OTHER < 1 1-5 >5

VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low X Moderate Heavy

DISTANCE TO FRIABLE MATERIAL
10 FT.
12 FT.

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage Potential For Damage X
Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS INSULATION IS CURRENTLY DAMAGED.

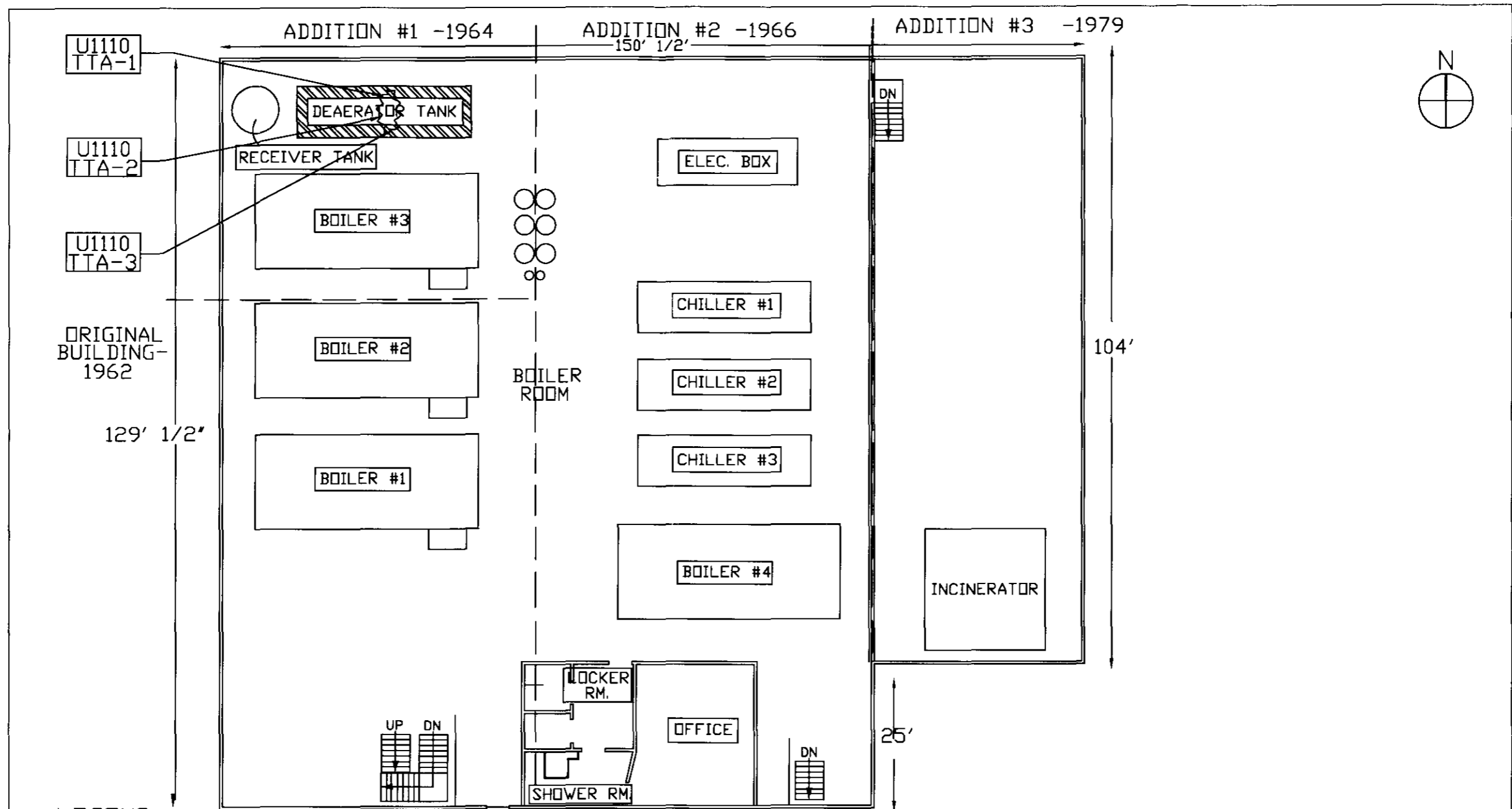
DAMAGE PREVENTION MEASURES REPAIR THE SPLIT IN THIS INSULATION. TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

COMMENTS




INSPECTOR'S SIGNATURE Terry Bassett (CH) DATE 6-27-00

SAMPLE NUMBERS U1110-TTA-1, U1110-TTA-2, U1110-TTA-3
(Sampling Phase)

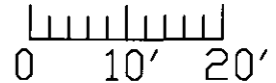
ACBM Yes X No Assumed





**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  TTA-DE-AERATOR TANK INSULATION (ADDITION #1-1964)
-  INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 PF 1 TTA



## FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TTA

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	De-Aerator	De-Aerator	De-Aerator
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TTA-1	U1110-TTA-2	U1110-TTA-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1129	1130	1131
13. Color?	Grey	Grey	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	3%	5%
Amosite			
Crocidolite			
Other			
Total Asbestos %	5%	3%	5%
18. Other Material %			
Fibrous Glass	90%	92%	90%
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	5%	5%	5%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger* 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)

POINT COUNTING LABORATORY ANALYSIS REPORT

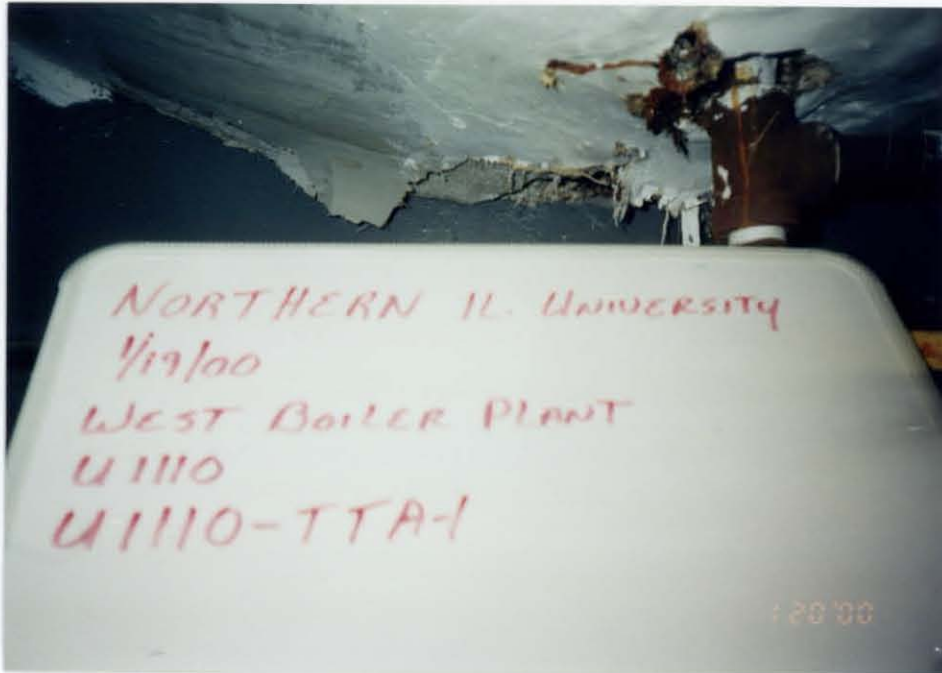
1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E) CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TTA

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

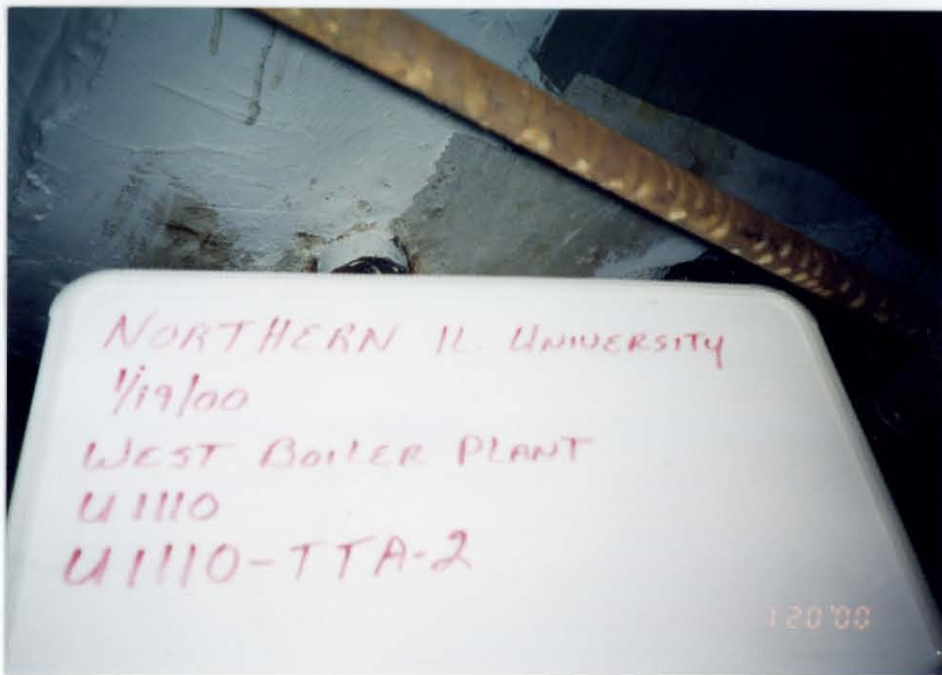
8. Location	DE-AERATOR		DE-AERATOR		DE-AERATOR	
9. Date Collected	01/19/00		01/19/00		01/19/00	
10. Sample No.	U1110-TTA-1		U1110-TTA-2		U100S-TPF-3	
11. Date Received	08/04/00					
12. Lab Sample No.	211454-01					
13. Color?	Grey					
14. Fibrous?	Yes					
15. Layers?	1					
16. Contains Asbestos?	Yes					
17. TYPE AND % ASBESTOS						
Chrysotile	4.25%					
Amosite						
Crocidilite						
Other						
Total Asbestos %	4.25%					
18. NO. OF SLIDES	8					
	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd	Asbestos Counts	Nonempty Pts Ctd
Slide 1	3	47				
Slide 2	1	49				
Slide 3	0	50				
Slide 4	0	50				
Slide 5	5	45				
Slide 6	3	47				
Slide 7	2	48				
Slide 8	5	45				
19. Comments			N/A		N/A	
20. Date Analyzed	8/04/00					
21. Analyzed By	Albio Marquez					

22. Report Approved By: S. Singh 23. Date: 8/14/00  
 (Signature)

24. Laboratory Name: Stat Analysis Corporation



U1110 - TTA - 1  
DE-AERATOR TANK  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TTA - 2  
DE-AERATOR TANK  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TTA - 3  
DE-AERATOR TANK  
INSULATION  
(ADDITION #1 -  
1964)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TTA DESCRIPT DE-AERATOR TANK INSULATION (ADDITION #1 - 1964)

RESPONSE ACTION 6 - CONTINUE O & M. TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE.

A.2.a. EXIST. COND. THERE IS SPLIT IN THE INSULATION ON THE UNDERSIDE OF THE DE-AERATOR.

POT. FOR DAMAGE MATERIAL IS CURRENTLY DAMAGED, MAKING FURTHER DAMAGE LIKELY.

A.2.b. FRIABLE YES CONDITION DAMAGED DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1) WHY ANY DISTURBANCE TO THIS DAMAGED, FRIABLE MATERIAL WILL CAUSE FIBERS TO BE RELEASED INTO THE AIR.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. REPAIR SPLIT IN INSULATION.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.10 FOR THERMAL SYSTEM REPAIRS. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TTA  
**MATERIAL:** DE-AERATOR TANK INSULATION  
(ADDITION #1 - 1964)  
**QUANTITY:** 500 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	500 sf @ \$20.00 / sf	\$10,000.00
2.	Replacement:	500 sf @ \$20.00 / sf	\$10,000.00

**SUBTOTAL** \$20,000.00

3.	Design Fee: 10% or minimum \$500.00		\$2,000.00
4.	No. of days: 1		
5.	APM/ASP: \$500.00/day x 1		\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample		<u>\$105.00</u>

**SUBTOTAL** \$22,605.00

7.	5% indemnification		\$1,130.00
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**TOTAL COST** \$23,735.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TTB  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: RECEIVER TANK INSULATION (ADDITION #1 - 1964)  
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM  
(i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes  No  Pipe Diameter  inches

TOTAL QUANTITY:  500  Sq. ft.  Lin. ft.  Ea.

QUANTITY IN: Occupied  Restricted  Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% <input type="checkbox"/>	1-25% <input checked="" type="checkbox"/>	> 25% <input type="checkbox"/>
DISTRIBUTED	<1% <input type="checkbox"/>	1-10% <input type="checkbox"/>	> 10% <input type="checkbox"/>

If <1% damage, is salient present? Yes  No   
 If yes, describe 4 SF OF THIS JACKETING IS MISSING AND THIS INSULATION IS EXPOSED.

WATER DAMAGE Yes  No  Description   
 PHYSICAL DAMAGE Yes  No  Description THERE ARE MANY SMALL DAMAGED AREAS WHICH NEED TO BE REPAIRED.  
 AGE DETERIORATION Yes  No  Description

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: TTB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0-20 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 >5
MECHANICAL < 1 1-5 >5
PIPING < 1 1-5 >5
OTHER < 1 1-5 >5

VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes X No
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low X Moderate Heavy

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

DISTANCE TO FRIABLE MATERIAL
10 FT.
12 FT.

INSPECTOR'S ASSESSMENT No Potential for Damage Potential For Damage
Potential for Significant Damage X

EXPLANATION OF ASSESSMENT (REQUIRED) THIS INSULATION IS DAMAGED, WHICH WILL ALLOW FRIABLE ASBESTOS DEBRIS TO FALL ON THE FLOOR WHICH WILL BE SPREAD WHEN THE FLOORS ARE SWEEPED AND FIBERS BECOME AIRBORNE.

DAMAGE PREVENTION MEASURES REPAIR THE DAMAGED AREAS OF THIS INSULATION. RECOVER THE AREA OF INSULATION WHICH IS EXPOSED. MAINTAIN THIS INSULATION IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

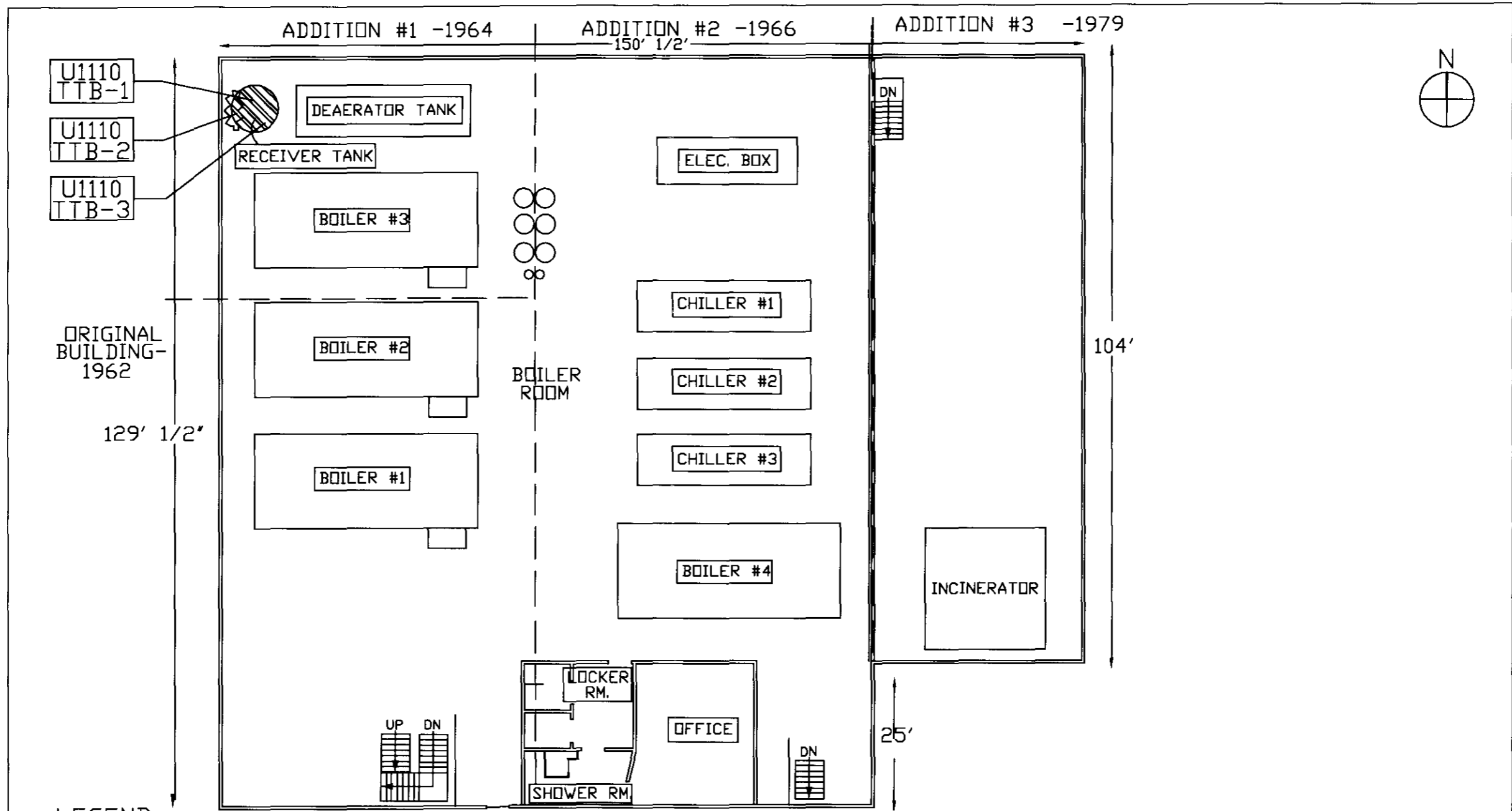
COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett DATE 6-27-00

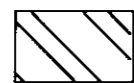
SAMPLE NUMBERS U1110-TTB-1, U1110-TTB-2, U1110-TTB-3 (Sampling Phase)

ACBM Yes X No Assumed





**LEGEND**

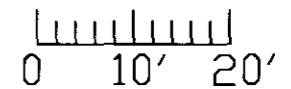


INDICATES EXTENT OF HOMOGENEOUS AREA  
TTB - RECEIVER TANK INSULATION (ADDITION #1-1964)



INDICATES LOCATION OF DAMAGE

SCALE: 1" = 20'



CARNOW, CONIBEAR, & ASSOC., LTD.  
333 WEST WACKER DRIVE, STE. 1400  
CHICAGO, ILLINOIS 60606



FIRST FLOOR  
WEST HEATING PLANT  
NORTHERN ILLINOIS UNIVERSITY  
DEKALB, DEKALB COUNTY, ILLINOIS  
CDB BUILDING # U1110

PROJ. NO.  
910-010-093  
DATE  
JANUARY 19, 2000  
SHEET 1  
OF 1 TTB

FORM 11

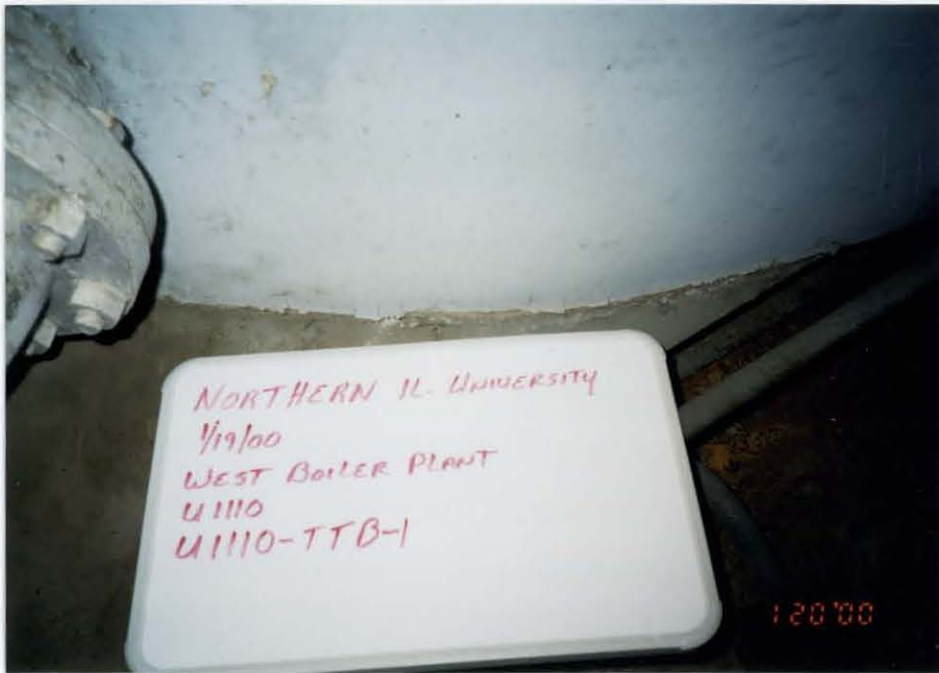
**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TTB  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	Receiver Tank	Receiver Tank	Receiver Tank
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TTB-1	U1110-TTB-2	U1110-TTB-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1132	1133	1134
13. Color?	Grey	Grey/Brown	Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	1	1	1
16. Contains Asbestos?	Yes	Yes	Yes
17. Type and % Asbestos?			
Chrysotile	5%	10%	5%
Amosite			
Crocidolite			
Other			
Total Asbestos %	5%	10%	5%
18. Other Material %			
Fibrous Glass	90%		90%
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	5%	90%	5%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger* 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TTB - 1  
RECEIVER TANK  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TTB - 2  
RECEIVER TANK  
INSULATION  
(ADDITION #1 -  
1964)



U1110 - TTB - 3  
RECEIVER TANK  
INSULATION  
(ADDITION #1 -  
1964)

FORM 13

CDB

A.1

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA TTB DESCRIPT RECEIVER TANK INSULATION (ADDITION #1 - 1964)

RESPONSE ACTION 3 - CONTINUE O & M. SCHEDULE REMOVAL WHEN PRACTICAL AND COST EFFECTIVE, OR REDUCE DISTURBANCE.

A.2.a.

EXIST. COND. THIS INSULATION IS EXPOSED DUE TO A MISSING SECTION OF THE JACKET, AND IS DAMAGED IN SEVERAL OTHER AREAS.

POT. FOR DAMAGE THIS MATERIAL IS CURRENTLY DAMAGED AND IS LOCATED AT ACCESSIBLE HEIGHTS.

A.2.b.

FRIABLE YES CONDITION DAMAGED DISTURBANCE LOW AIR FLOW LOW

A.3.a.(1)

WHY MATERIAL IS LOCATED IN A RESTRICTED AREA, BUT AT HEIGHTS EASILY ACCESSIBLE TO MAINTENANCE PERSONNEL, AND IS CURRENTLY DAMAGED.

A.3.a.(2)

PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. CLEAN-UP DAMAGED FITTING.

A.3.b.

O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM, AND C - 10.10 FOR THERMAL SYSTEM REPAIRS. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c.

HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** TTB  
**MATERIAL:** RECEIVER TANK INSULATION (ADDITION #1 - 1964)  
**QUANTITY:** 500 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	500 sf @ \$20.00 / sf	\$10,000.00
2.	Replacement:	500 sf @ \$20.00 / sf	\$10,000.00

**SUBTOTAL** \$20,000.00

3.	Design Fee:	10% or minimum \$500.00	\$2,000.00
4.	No. of days:	1	
5.	APM/ASP:	\$500.00/day x 1	\$500.00
6.	Air Samples:	7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$22,605.00

7.	5% indemnification		\$1,130.00
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**TOTAL COST** \$23,735.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMA

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM, LOCKER ROOM, SHOWER ROOM

MATERIAL DESCRIPTION: FIRE DOOR INSULATION (common designation - i.e. air cell)

TYPE OF SYSTEM: WALL (i.e. hot water)

COLOR-TEXTURE, ETC.: UNKNOWN - MATERIAL IS ENCLOSED IN THE DOORS

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: Sq. ft. Lin. ft. 4 Ea.

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage percentages.

If <1% damage, is salient present? Yes No X If yes, describe

WATER DAMAGE PHYSICAL DAMAGE AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 0-6 ft.  
 AREA ABOVE ROOF  
 AREA ADJACENT MECHANICAL AREAS  
 OCCUPANCY (#) 0  1-2  3-10  10+   
 FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+   
 UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1  1-5  >5  VIBRATION Yes  No   
 MECHANICAL < 1  1-5  >5  MECHANICAL (MOTOR) Yes  No   
 PIPING < 1  1-5  >5  PLUMBING (KNOCKING) Yes  No   
 OTHER  < 1  1-5  >5  OTHER  Yes  No

BARRIERS Yes  No   
 SUSPENDED CEILING Yes  No   
 ENCAPSULATION Yes  No   
 ENCLOSURE Yes  No   
 OTHER  Yes  No

AIR MOVEMENTS (IF YES) Yes  No   
 Low  Moderate  Heavy

EXTERIOR DOOR Yes  No  DISTANCE TO FRIABLE MATERIAL N/A  
 EXHAUST FAN Yes  No  N/A  
 GRAVITY VENT Yes  No   
 SUPPLY AIR Yes  No   
 RETURN AIR Yes  No   
 OTHER  Yes  No

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage   
 Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS INSULATION IS COMPLETELY CONTAINED IN THE FIRE DOORS.

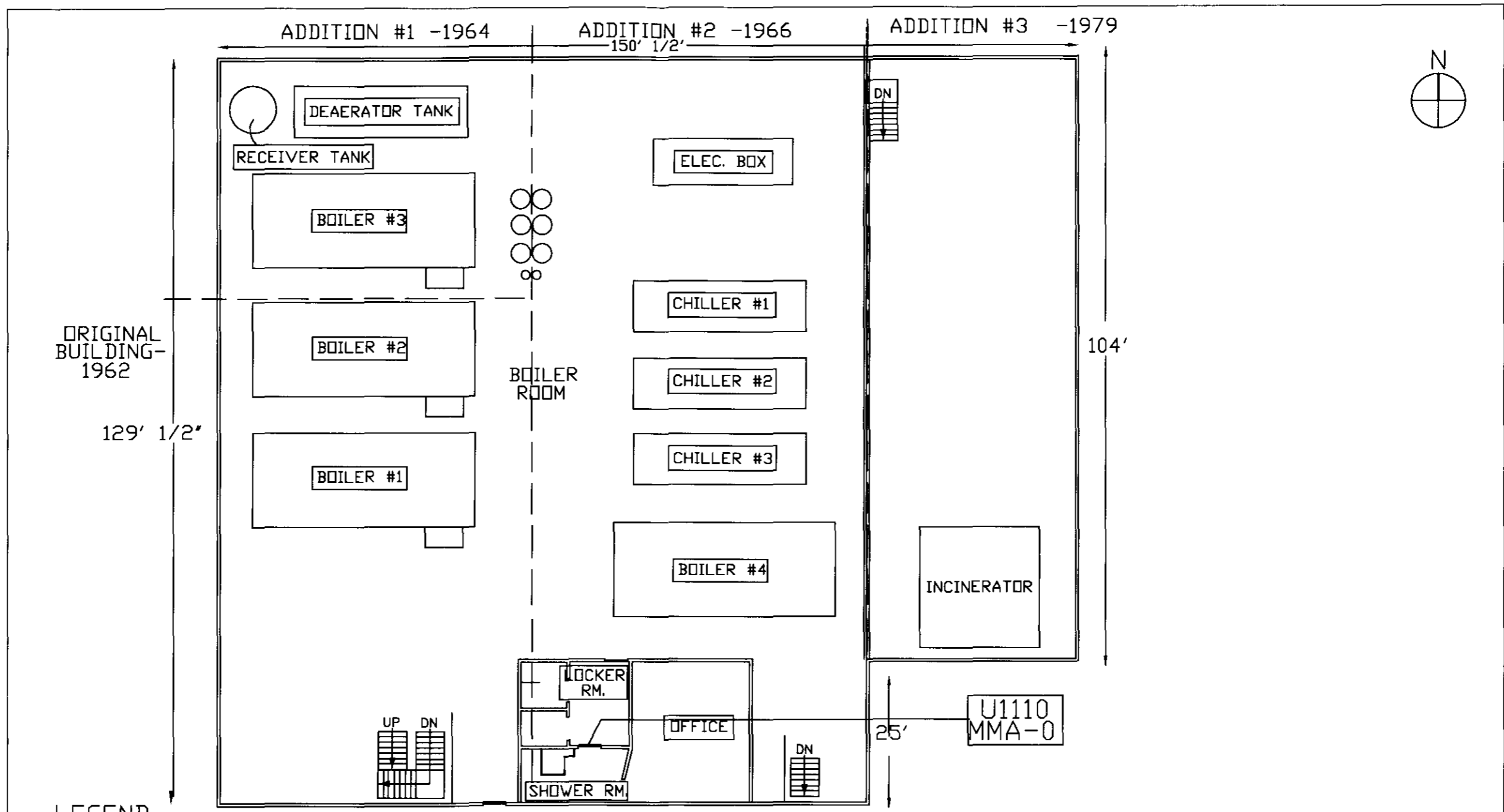
DAMAGE PREVENTION MEASURES MAINTAIN THESE DOORS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPLACE THEM IMMEDIATELY.

COMMENTS \_\_\_\_\_

INSPECTOR'S SIGNATURE Terry Barrett (CA) DATE 6-27-00  
 SAMPLE NUMBERS U1110-MMA-0  
 (Sampling Phase)

ACBM Yes  No  Assumed

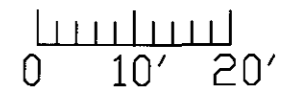





**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 MMA-FIRE DOOR INSULATION

SCALE: 1" = 20'




**CARNOW, CONIBEAR, & ASSOC., LTD.**  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR

WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS

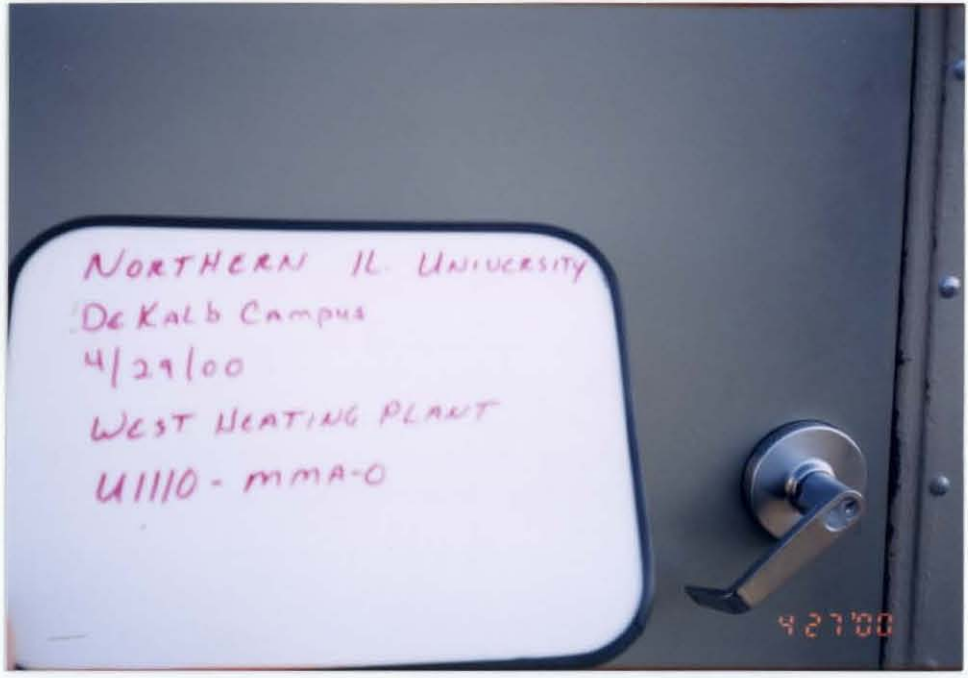
CDB BUILDING # U1110

PROJ. NO.  
 910-010-093

DATE  
 JANUARY 19, 2000

SHEET 1

OF 1 MMA



U1110 - MMA - 0  
FIRE DOOR  
INSULATION

FORM 13

CDB

.1

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMA DESCRPT FIRE DOOR INSULATION  
RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE BECAUSE  
IT IS ENCLOSED IN THE DOORS.

A.2.b. FRIABLE NO CONDITION GOOD  
DISTURBANCE LOW AIR FLOW NONE

A.3.a.(1) WHY MATERIAL IS ENCLOSED INSIDE THE DOORS.

.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMA  
**MATERIAL:** FIRE DOOR INSULATION  
**QUANTITY:** 4 EA

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	4 ea @ \$500.00 / ea	\$2,000.00
2.	Replacement:	4 ea @ \$300.00 / ea	\$1,200.00

**SUBTOTAL** \$3,200.00

3.	Design Fee: 10% or minimum \$500.00	\$500.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$4,305.00

7.	5% indemnification	\$215.00
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**TOTAL COST** \$4,520.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMB

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ORIGINAL BUILDING

MATERIAL DESCRIPTION: GASKETS ON BOILERS #1 AND #2 (ORIGINAL BUILDING - 1962)
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM
(i.e. hot water)

COLOR-TEXTURE, ETC.: COULD NOT OPEN BOILER TO INSPECT GASKETS AS THE BOILERS ARE IN OPERATION.

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: Sq. ft. 50 Lin. ft. Ea

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

No Damage Damaged Significant Damage

LOCALIZED OR <1% X 1-25% > 25%

DISTRIBUTED <1% 1-10% > 10%

If <1% damage, is salient present? Yes No X
If yes, describe

WATER DAMAGE Yes No X Description
PHYSICAL DAMAGE Yes No X Description
AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: MMB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No

MAINTENANCE PERSONNEL Yes  No

HEIGHT FROM FLOOR 3-8 ft.

AREA ABOVE ROOF

AREA ADJACENT MECHANICAL AREAS

OCCUPANCY (#) 0  1-2  3-10  10+

FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+

UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)

ELECTRICAL < 1  1-5  >5

MECHANICAL < 1  1-5  >5

PIPING < 1  1-5  >5

OTHER < 1  1-5  >5

VIBRATION Yes  No

MECHANICAL (MOTOR) Yes  No

PLUMBING (KNOCKING) Yes  No

OTHER Yes  No

BARRIERS Yes  No

SUSPENDED CEILING Yes  No

ENCAPSULATION Yes  No

ENCLOSURE Yes  No

OTHER Yes  No

AIR MOVEMENTS Yes  No

(IF YES) Low  Moderate  Heavy

EXTERIOR DOOR Yes  No

EXHAUST FAN Yes  No

GRAVITY VENT Yes  No

SUPPLY AIR Yes  No

RETURN AIR Yes  No

OTHER Yes  No

DISTANCE TO FRIABLE MATERIAL

N/A

N/A

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage

Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) GASKETS ARE ENCLOSED IN THE BOILERS.

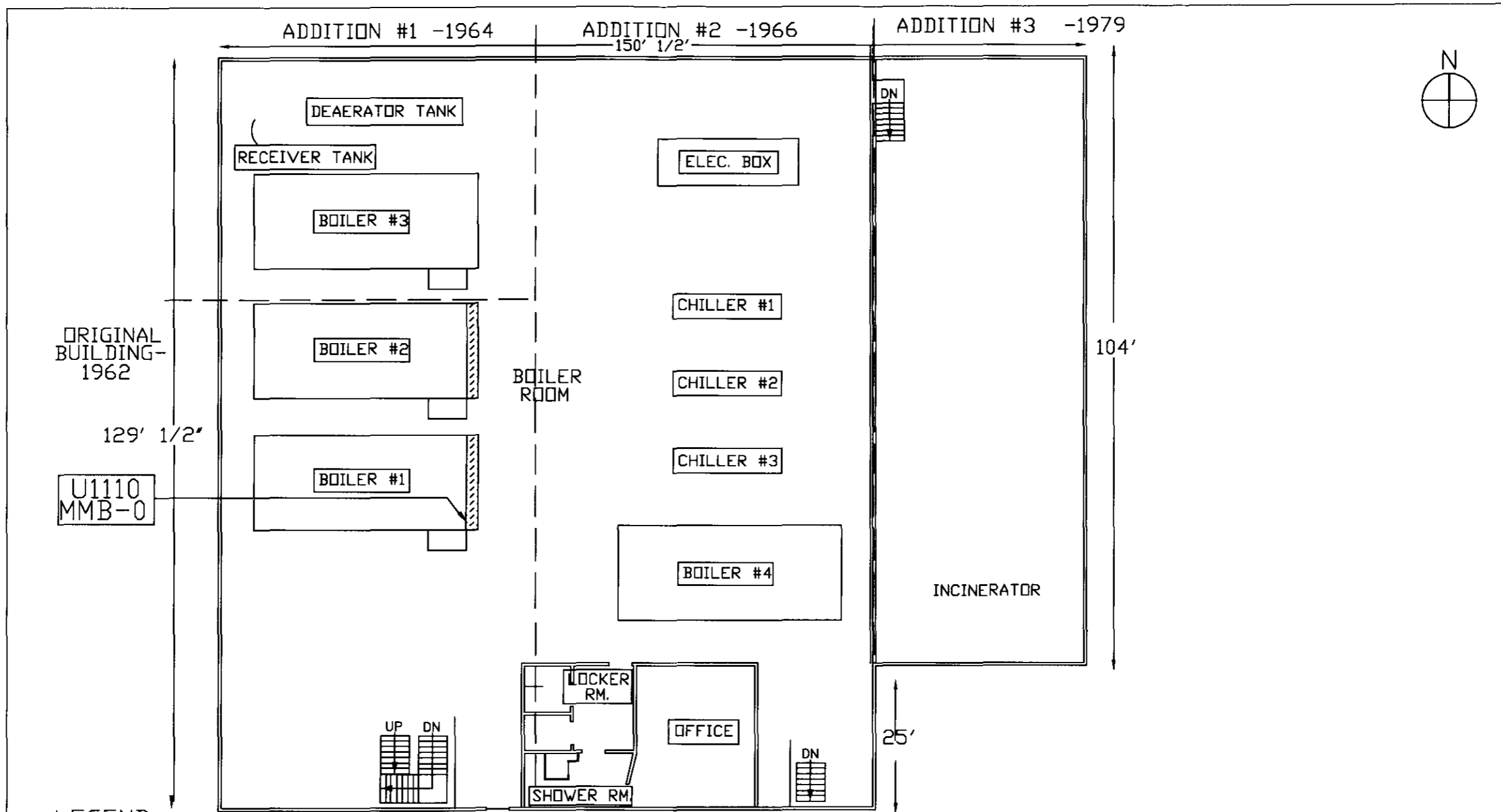
DAMAGE PREVENTION MEASURES TAKE CARE NOT TO DAMAGE GASKETS DURING MAINTENANCE ACTIVITIES.

COMMENTS

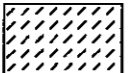
INSPECTOR'S SIGNATURE Jerry Bassett (M) DATE 6-27-00

SAMPLE NUMBERS U1110-MMB-0 (Sampling Phase)

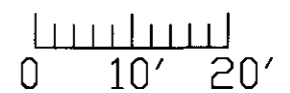
ACBM Yes  No  Assumed





**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 MMB-GASKETS ON BOILERS #1 AND #2 (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'



 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 MMB



U1110 - MMB - 0  
GASKETS ON  
BOILERS #1 AND #2  
(ORIGINAL  
BUILDING - 1962)



FORM 13

CDB

1.1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMB DESCRIPT GASKETS ON BOILERS #1 AND #2  
(ORIGINAL BUILDING - 1962)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO  
ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD  
DISTURBANCE LOW AIR FLOW NONE

A.3.a.(1) WHY MATERIAL IS LOCATED INSIDE THE BOILERS.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER. DO NOT DISTURB GASKETS DURING ROUTINE  
BOILER MAINTENANCE.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMB  
**MATERIAL:** GASKETS ON BOILERS #1 AND #2 (ORIGINAL BUILDING - 1962)  
**QUANTITY:** 50 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	50 lf @ \$20.00 / lf	\$1,000.00
2.	Replacement:	50 lf @ \$4.00 / lf	\$200.00

**SUBTOTAL** \$1,200.00

3.	Design Fee:	10% or minimum \$500.00	\$500.00
4.	No. of days:	1	
5.	APM/ASP:	\$500.00/day x 1	\$500.00
6.	Air Samples:	7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$2,305.00

7.	5% indemnification		\$115.00
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**TOTAL COST** \$2,420.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMC

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: GASKETS ON BOILER #3 (ADDITION #1 - 1964)
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM
(i.e. hot water)

COLOR-TEXTURE, ETC.: COULD NOT OPEN BOILER TO INSPECT GASKETS AS THE BOILERS ARE IN OPERATION

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: Sq. ft. 25 Lin. ft. Ea

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR, DISTRIBUTED, and a note about <1% damage.

WATER DAMAGE PHYSICAL DAMAGE AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMC

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 3-8 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 X 1-5 >5
MECHANICAL < 1 X 1-5 >5
PIPING < 1 1-5 >5 X
OTHER < 1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes No X
OTHER Yes No

BARRIERS Yes X No
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes No X
Low Moderate Heavy

DISTANCE TO FRIABLE MATERIAL

N/A
N/A

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

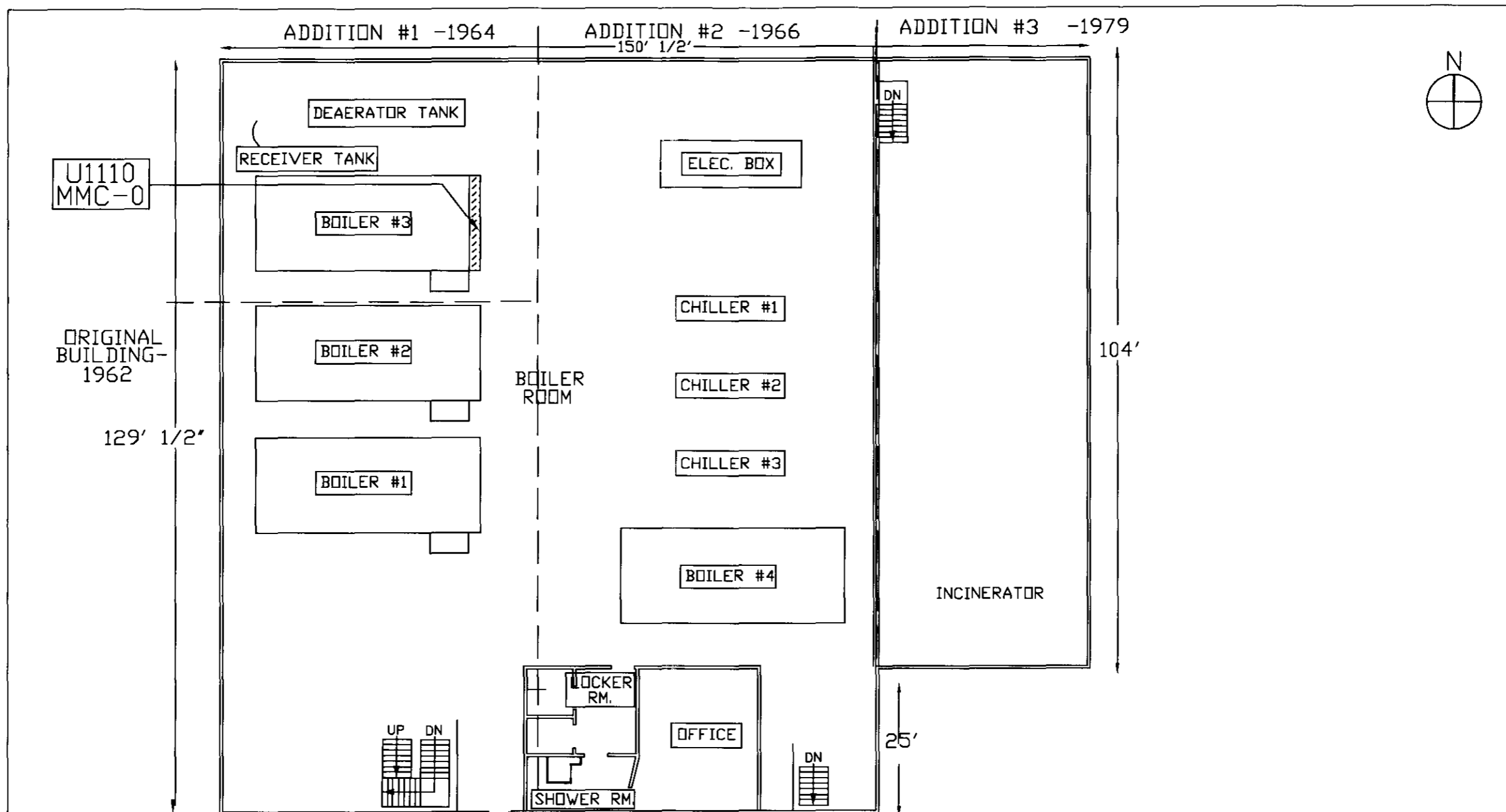
EXPLANATION OF ASSESSMENT (REQUIRED) THESE GASKETS ARE COMPLETELY CONTAINED IN THE BOILER.

DAMAGE PREVENTION MEASURES TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE DURING MAINTENANCE ACTIVITIES.


COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett DATE 6-27-00
SAMPLE NUMBERS U1110-MMC-0
(Sampling Phase)

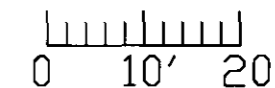
ACBM Yes No Assumed X



**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 MMC-GASKETS ON BOILER #3 (ADDITION #1-1964)

SCALE: 1" = 20'



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 1  
 OF 1 MMC



U1110 - MMC - 0  
GASKETS ON  
BOILER #3  
(ADDITION #1 -  
1964)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMC DESCRIPT GASKETS ON BOILERS #3 (ADDITION #1 - 1964)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD  
DISTURBANCE LOW AIR FLOW NONE

A.3.a.(1) WHY MATERIAL IS LOCATED INSIDE THE BOILER.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. DO NOT DISTURB GASKET DURING ROUTINE BOILER MAINTENANCE.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMC  
**MATERIAL:** GASKETS ON BOILER #3 (ADDITION #1 - 1964)  
**QUANTITY:** 25 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	25 lf @ \$20.00 / lf	\$500.00
2.	Replacement:	25 lf @ \$4.00 / lf	\$100.00

**SUBTOTAL** \$600.00

3.	Design Fee: 10% or minimum \$500.00	\$500.00
4.	No. of days: 1	
5.	APM/ASP: \$500.00/day x 1	\$500.00
6.	Air Samples: 7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$1,705.00

7.	5% indemnification	\$85.00
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**TOTAL COST** \$1,790.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00



FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGNEOUS AREA: MMD

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #2

MATERIAL DESCRIPTION: GASKETS ON BOILER #4 (ADDITION #2 - 1966) (common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM (i.e. hot water)

COLOR-TEXTURE, ETC.: COULD NOT OPEN BOILER TO INSPECT GASKETS AS THE BOILERS ARE IN OPERATION.

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: Sq. ft. 25 Lin. ft. Ea.

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage types, and a note about salient damage.

WATER DAMAGE PHYSICAL DAMAGE AGE DETERIORATION Yes/No X Description

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMD

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 3-8 ft.
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL <1 X 1-5 >5
MECHANICAL <1 X 1-5 >5
PIPING <1 1-5 >5 X
OTHER <1 1-5 >5
VIBRATION Yes X No
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes No X
OTHER Yes No

BARRIERS Yes X No
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes No X
Low Moderate Heavy

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes X No N/A
EXHAUST FAN Yes X No N/A
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

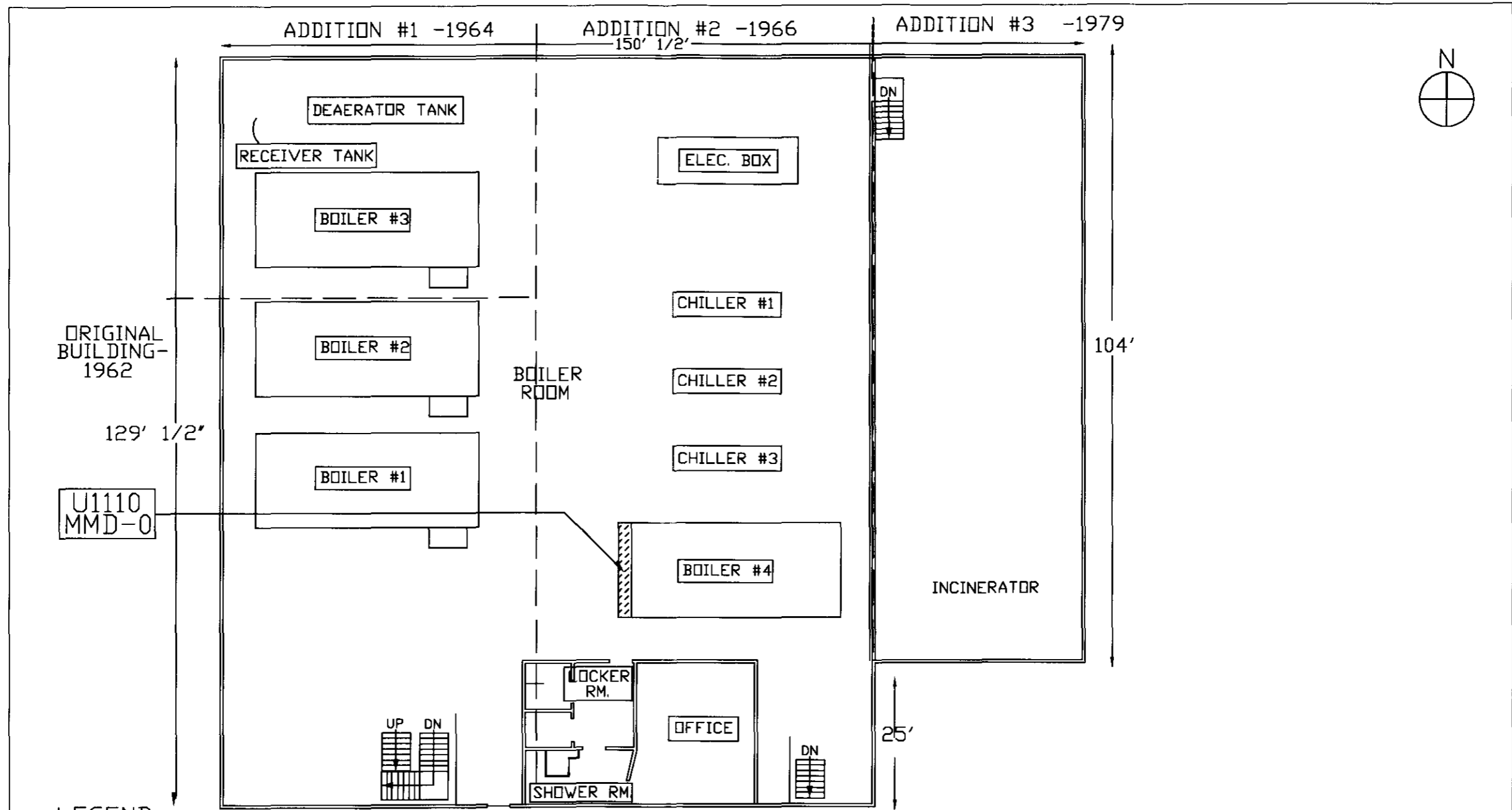
EXPLANATION OF ASSESSMENT (REQUIRED) THESE GASKETS ARE COMPLETELY CONTAINED IN THE BOILER.

DAMAGE PREVENTION MEASURES TAKE PREVENTIVE MEASURES TO REDUCE DISTURBANCE DURING MAINTENANCE ACTIVITIES.


COMMENTS

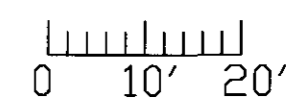
INSPECTOR'S SIGNATURE Terry Bassett DATE 6 27 80
SAMPLE NUMBERS U1110-MMD-0
(Sampling Phase)



ACBM Yes No Assumed X

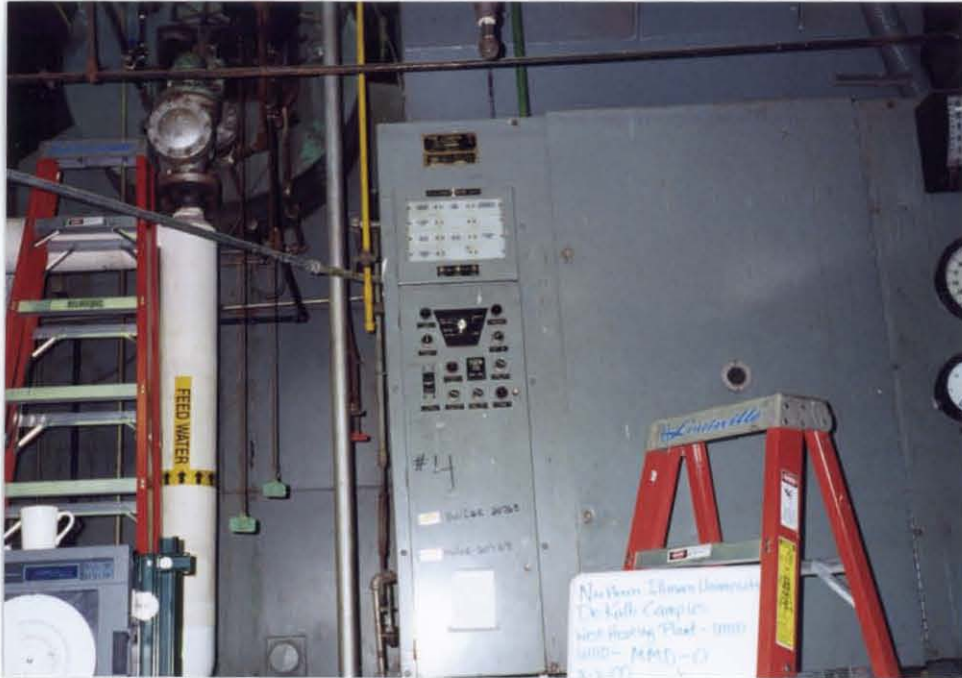


**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 MMD-GASKETS ON BOILER #4 (ADDITION #2-1966)

SCALE: 1" = 20'  


 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606		FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 MMD



U1110 - MMD - 0  
GASKETS ON  
BOILER #4  
(ADDITION #2 -  
1966)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA MMD DESCRIPT GASKETS ON BOILERS #4 (ADDITION #2 - 1966

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD DISTURBANCE LOW AIR FLOW NONE

A.3.a.(1) WHY MATERIAL IS LOCATED INSIDE THE BOILER.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER. DO NOT DISTURB GASKET DURING ROUTINE BOILER MAINTENANCE.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMD  
**MATERIAL:** GASKETS ON BOILER #4 (ADDITION #2 - 1966)  
**QUANTITY:** 25 LF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	25 lf @ \$20.00 / lf	\$500.00
2.	Replacement:	25 lf @ \$4.00 / lf	\$200.00

**SUBTOTAL** \$700.00

3.	Design Fee:	10% or minimum \$500.00	\$500.00
4.	No. of days:	1	
5.	APM/ASP:	\$500.00/day x 1	\$500.00
6.	Air Samples:	7 samples x 1 @ \$15.00/sample	<u>\$105.00</u>

**SUBTOTAL** \$1,805.00

7.	5% indemnification		\$90.00
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**TOTAL COST** \$1,895.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGNEOUS AREA: MME  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: ROOF  
 ROOMS: N/A

**MATERIAL DESCRIPTION:** BUILT-UP ROOF (ORIGINAL BUILDING - 1962)  
(common designation - i.e. air cell)

**TYPE OF SYSTEM:** ROOFING  
(i.e. hot water)

**COLOR-TEXTURE, ETC.:** GRAY-BLACK

**FRIABLE:** Yes \_\_\_\_\_ No X Pipe Diameter \_\_\_\_\_ inches

**TOTAL QUANTITY:** 4,860 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

**QUANTITY IN:** Occupied \_\_\_\_\_ Restricted \_\_\_\_\_ Unoccupied X

**ROOM FINISHES:**

**CEILING** N/A

**WALLS** N/A

**FLOOR** N/A

**DAMAGE ASSESSMENT:**

	<b>No Damage</b>	<b>Damaged</b>	<b>Significant Damage</b>
<b>LOCALIZED OR</b>	<1% <u>X</u>	1-25% _____	> 25% _____
<b>DISTRIBUTED</b>	<1% _____	1-10% _____	> 10% _____
	If <1% damage, is salient present? Yes _____ No <u>X</u>		
	If yes, describe _____		

**WATER DAMAGE** Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
**PHYSICAL DAMAGE** Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
**AGE DETERIORATION** Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MME

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes No X
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0 ft.
AREA ABOVE EXTERIOR
AREA ADJACENT EXTERIOR
OCCUPANCY (#) 0 X 1-2 3-10 10+
FREQUENCY OF USE (Hrs) 0 X 1-2 3-10 10+
UTILIZATION OF AREA ROOF

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 >5 X VIBRATION Yes No X
MECHANICAL < 1 1-5 >5 X MECHANICAL (MOTOR) Yes X No
PIPING < 1 1-5 >5 X PLUMBING (KNOCKING) Yes No X
OTHER < 1 1-5 >5 OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low Moderate Heavy X

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes No X
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AND NOT GENERALLY ACCESSIBLE TO OCCUPANTS.

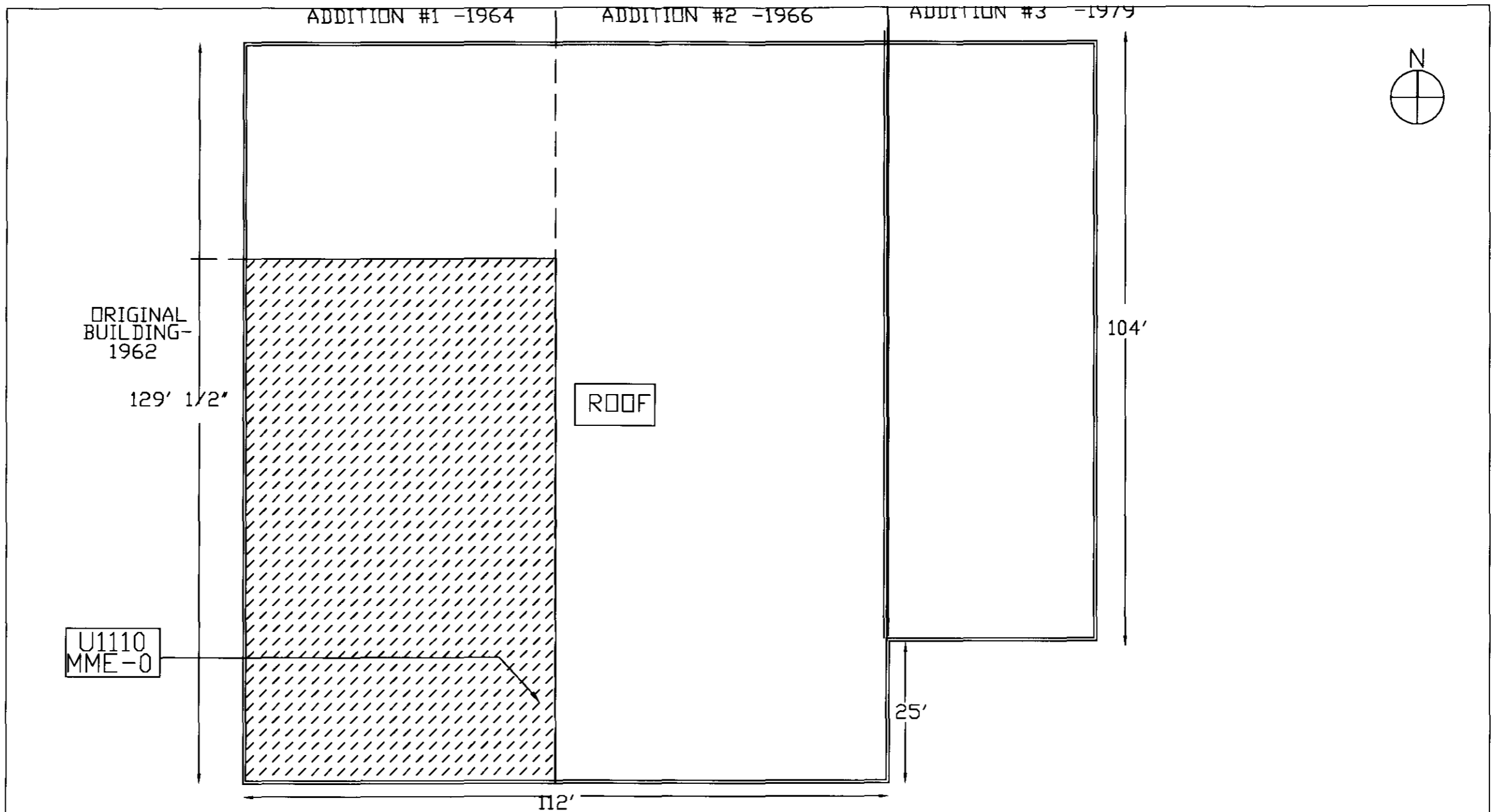
DAMAGE PREVENTION MEASURES MAINTAIN THIS MATERIAL IN GOOD CONDITION. IF IT BECOMES DAMAGED, IT COULD LEAK ASBESTOS FIBERS INTO THE BUILDING OR DAMAGE ASBESTOS-CONTAINING MATERIAL ALREADY IN THE BUILDING.

COMMENTS


INSPECTOR'S SIGNATURE Jerry Bassett (CW) DATE 6-27-00
SAMPLE NUMBERS U1110-MME-0
(Sampling Phase)

ACBM Yes No Assumed X

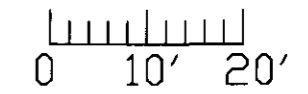






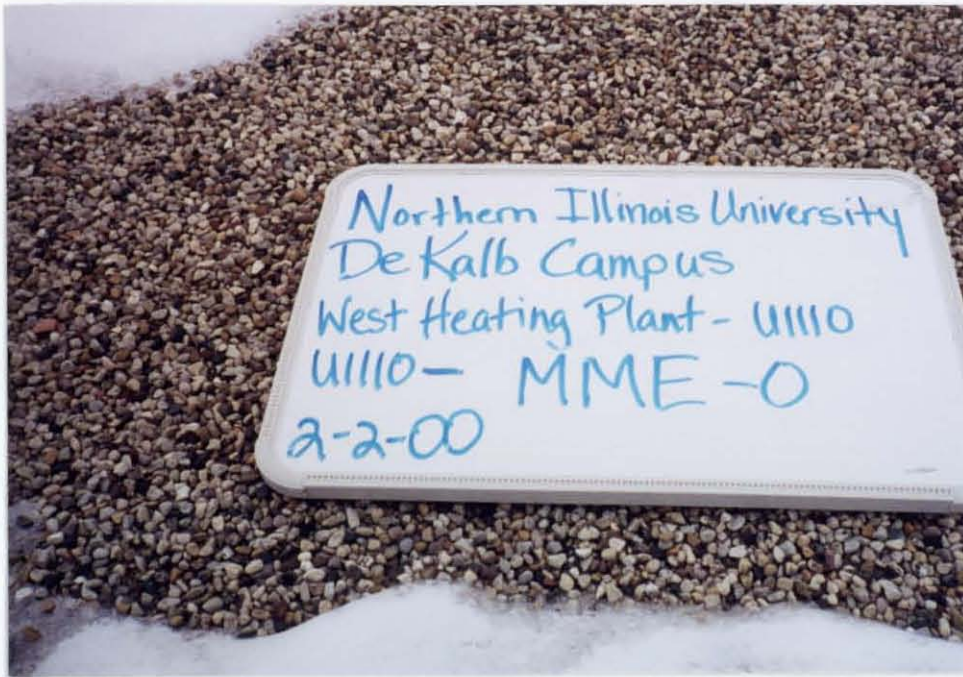
**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MME-BUILT-UP ROOF (ORIGINAL BUILDING-1962)

SCALE: 1" = 20'



 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	ROOF PLAN	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 MME



U1110 - MME - 0  
BUILT-UP ROOF  
(Original Building -  
1962)

FORM 13

CDB

BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110

HOMO AREA MME DESCRIPT BUILT-UP ROOF (ORIGINAL BUILDING - 1962)

RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD
DISTURBANCE LOW AIR FLOW HEAVY

A.3.a.(1) WHY MATERIAL IS LOCATED IN AN AREA NOT OFTEN FREQUENTED BY MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND MAINTENANCE PROGRAM AND 10.3 FOR REMOVAL OF INTACT NON-FRIABLE ACM. FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2 THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING, AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MME  
**MATERIAL:** BUILT-UP ROOF (ORIGINAL BUILDING - 1962)  
**QUANTITY:** 4,860 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	4,860 sf @ \$3.00 / sf	\$14,580.00
2.	Replacement:	4,860 sf @ \$25.00 / sf	\$121,500.00

**SUBTOTAL** \$136,080.00

3.	Design Fee: 10% or minimum \$500.00		\$13,608.00
4.	No. of days: 7		
5.	APM/ASP: \$500.00/day x 7		\$3,500.00
6.	Air Samples: 7 samples x 7 @ \$15.00/sample		<u>\$735.00</u>

**SUBTOTAL** \$153,923.00

7.	5% indemnification		\$7,696.00
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**TOTAL COST** \$161,619.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEIOUS AREA: MMF

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: ROOF

ROOMS: N/A

MATERIAL DESCRIPTION: BUILT-UP ROOF (ADDITION #1 - 1964) (common designation - i.e. air cell)

TYPE OF SYSTEM: ROOFING (i.e. hot water)

COLOR-TEXTURE, ETC.: GRAY-BLACK

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: 2,160 Sq. ft. Lin. ft. Ea.

QUANTITY IN: Occupied Restricted Unoccupied X

ROOM FINISHES:

CEILING N/A

WALLS N/A

FLOOR N/A

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage percentages.

If <1% damage, is salient present? Yes No X If yes, describe

WATER DAMAGE Yes No X Description PHYSICAL DAMAGE Yes No X Description AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMF

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0 ft.
AREA ABOVE EXTERIOR
AREA ADJACENT EXTERIOR
OCCUPANCY (#) 0 X 1-2 3-10 10+
FREQUENCY OF USE (Hrs) 0 X 1-2 3-10 10+
UTILIZATION OF AREA ROOF

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL <1 1-5 >5 X
MECHANICAL <1 1-5 >5 X
PIPING <1 1-5 >5 X
OTHER <1 1-5 >5
VIBRATION Yes No X
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes No X
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low Moderate Heavy X

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes No X
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

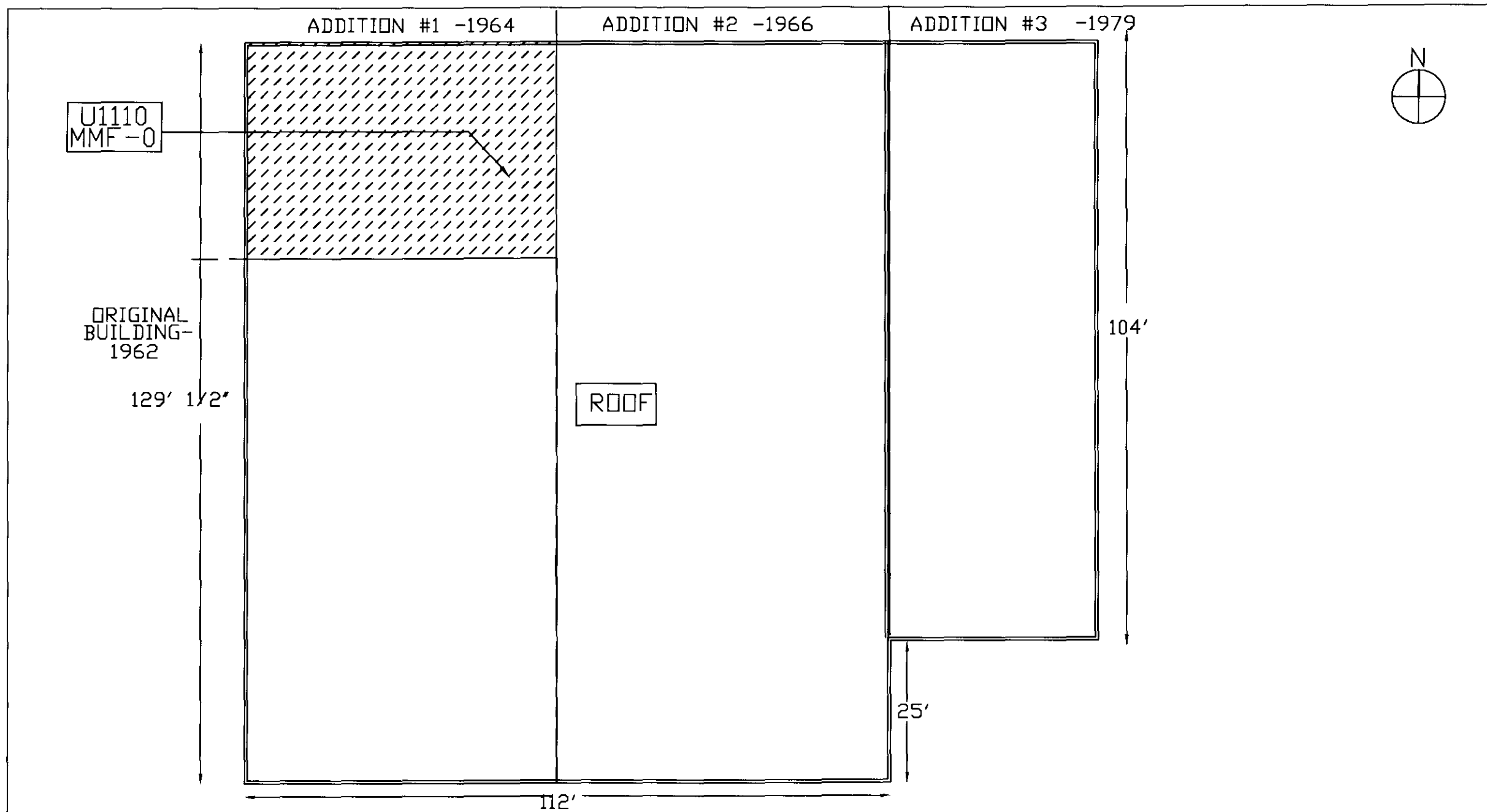
EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AND NOT GENERALLY ACCESSIBLE TO OCCUPANTS.

DAMAGE PREVENTION MEASURES MAINTAIN THIS MATERIAL IN GOOD CONDITION. IF IT BECOMES DAMAGED, IT COULD LEAK ASBESTOS FIBERS INTO THE BUILDING OR DAMAGE ASBESTOS-CONTAINING MATERIAL ALREADY IN THE BUILDING.

COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (M) DATE 6-27-00
SAMPLE NUMBERS U1110-MMF-0
(Sampling Phase)

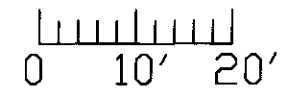
ACBM Yes No Assumed X





**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MMF-BUILT-UP ROOF ( ADDITION #1-1964)

SCALE: 1" = 20'



 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606		ROOF PLAN	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 PF 1 MMF



U1110 - MMF - 0  
BUILT-UP ROOF  
(Addition #1 - 1964)



FORM 13

CDB

1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMF DESCRIPT BUILT-UP ROOF (ADDITION #1 - 1964)  
RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO  
ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD  
DISTURBANCE LOW AIR FLOW HEAVY

A.3.a.(1) WHY MATERIAL IS LOCATED IN AN AREA NOT OFTEN FREQUENTED BY  
MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM AND 10.3 FOR REMOVAL OF INTACT NON-FRIABLE ACM.  
FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

**COST ESTIMATE**

**BUILDING NO.:** U1110  
**HOMO AREA:** MMF  
**MATERIAL:** BUILT-UP ROOF (ADDITION #1 - 1964)  
**QUANTITY:** 2,160 SF

**A. COST ESTIMATE FOR REMOVAL**

1.	Removal:	2,160 sf @ \$3.00 / sf	\$6,480.00
2.	Replacement:	2,160 sf @ \$25.00 / sf	\$54,000.00

**SUBTOTAL** \$60,480.00

3.	Design Fee: 10% or minimum \$500.00		\$6,048.00
4.	No. of days: 4		
5.	APM/ASP: \$500.00/day x 4		\$2,000.00
6.	Air Samples: 7 samples x 4 @ \$15.00/sample		<u>\$420.00</u>

**SUBTOTAL** \$68,948.00

7.	5% indemnification		\$3,447.00
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**TOTAL COST** \$72,395.00

**B. COST OF RECOMMENDED RESPONSE ACTION**

Excluding O & M \$ 0.00

**C. O & M COST ESTIMATE**

Clean, repair, periodic surveillance, and annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMG

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: ROOF

ROOMS: N/A

MATERIAL DESCRIPTION: BUILT-UP ROOF (ADDITION #2 - 1966)
(common designation - i.e. air cell)

TYPE OF SYSTEM: ROOFING
(i.e. hot water)

COLOR-TEXTURE, ETC.: GRAY-BLACK

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: 7,800 Sq. ft. Lin. ft. Ea.

QUANTITY IN: Occupied Restricted Unoccupied X

ROOM FINISHES:

CEILING N/A

WALLS N/A

FLOOR N/A

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR and DISTRIBUTED damage percentages.

If <1% damage, is salient present? Yes No X
If yes, describe

WATER DAMAGE Yes No X Description
PHYSICAL DAMAGE Yes No X Description
AGE DETERIORATION Yes No X Description

FORM 9- Page 2

CDB BUILDING #: U1110

HOMOGENEOUS AREA: MMG

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes \_\_\_\_\_ No X  
 MAINTENANCE PERSONNEL Yes X No \_\_\_\_\_  
 HEIGHT FROM FLOOR \_\_\_\_\_ ft.  
 AREA ABOVE EXTERIOR  
 AREA ADJACENT EXTERIOR  
 OCCUPANCY (#) 0 X 1-2 \_\_\_\_\_ 3-10 \_\_\_\_\_ 10+ \_\_\_\_\_  
 FREQUENCY OF USE (Hrs) 0 X 1-2 \_\_\_\_\_ 3-10 \_\_\_\_\_ 10+ \_\_\_\_\_  
 UTILIZATION OF AREA ROOF

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 X VIBRATION Yes \_\_\_\_\_ No X  
 MECHANICAL < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 X MECHANICAL (MOTOR) Yes X No \_\_\_\_\_  
 PIPING < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 X PLUMBING (KNOCKING) Yes \_\_\_\_\_ No X  
 OTHER \_\_\_\_\_ < 1 \_\_\_\_\_ 1-5 \_\_\_\_\_ >5 \_\_\_\_\_ OTHER Yes \_\_\_\_\_ No \_\_\_\_\_

BARRIERS Yes \_\_\_\_\_ No X  
 SUSPENDED CEILING Yes \_\_\_\_\_ No X  
 ENCAPSULATION Yes \_\_\_\_\_ No X  
 ENCLOSURE Yes \_\_\_\_\_ No X  
 OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

AIR MOVEMENTS (IF YES) Yes X No \_\_\_\_\_  
 Low \_\_\_\_\_ Moderate \_\_\_\_\_ Heavy X

DISTANCE TO FRIABLE MATERIAL

EXTERIOR DOOR Yes \_\_\_\_\_ No X  
 EXHAUST FAN Yes X No \_\_\_\_\_  
 GRAVITY VENT Yes \_\_\_\_\_ No X  
 SUPPLY AIR Yes \_\_\_\_\_ No X  
 RETURN AIR Yes \_\_\_\_\_ No X  
 OTHER \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage \_\_\_\_\_  
 Potential for Significant Damage \_\_\_\_\_

EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AND NOT GENERALLY ACCESSIBLE TO OCCUPANTS.

DAMAGE PREVENTION MEASURES MAINTAIN THIS MATERIAL IN GOOD CONDITION. IF IT BECOMES DAMAGED, IT COULD LEAK ASBESTOS FIBERS INTO THE BUILDING OR DAMAGE ASBESTOS-CONTAINING MATERIAL ALREADY IN THE BUILDING.

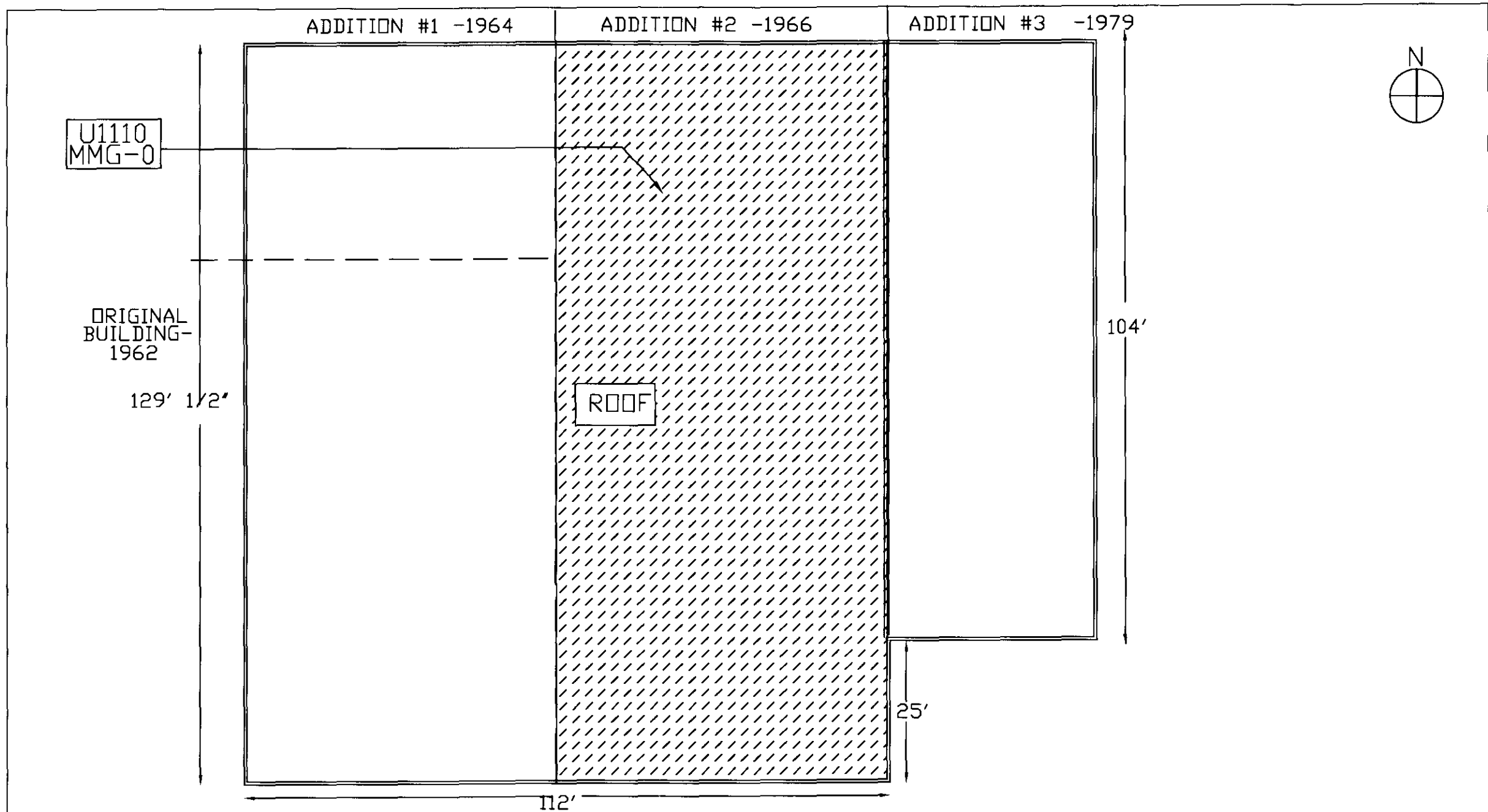
COMMENTS

INSPECTOR'S SIGNATURE  
 SAMPLE NUMBERS  
 (Sampling Phase)

*Jerry Bassett* (M)  
 U1110-MMG-0

DATE 6-27-00

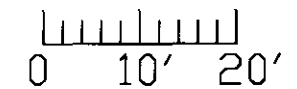
ACBM Yes \_\_\_\_\_ No \_\_\_\_\_ Assumed X





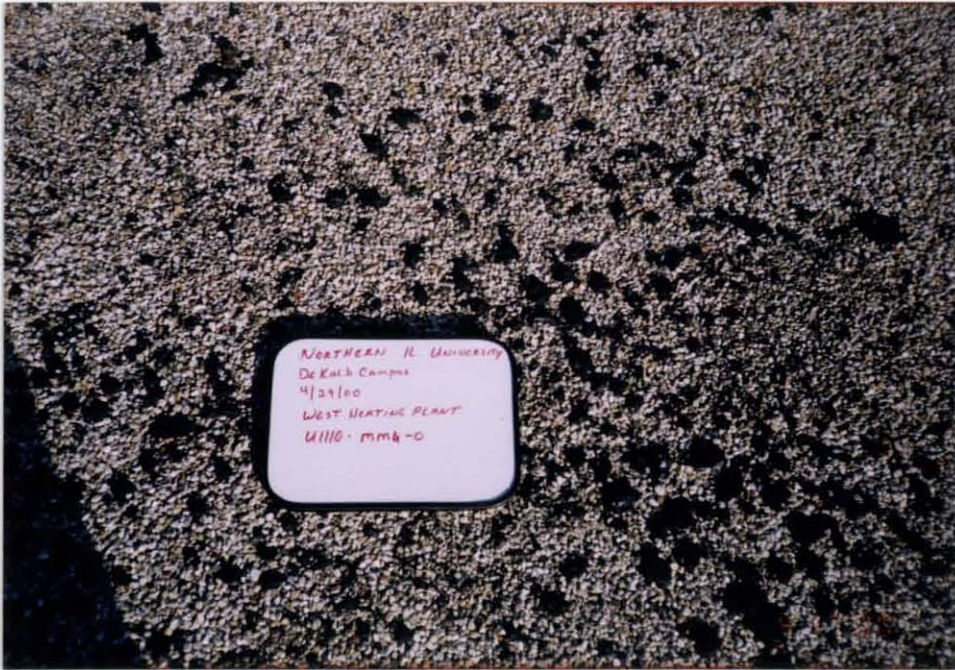
**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MMG-BUILT-UP ROOF (ADDITION #2-1966)

SCALE: 1" = 20'



 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	ROOF PLAN	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 PF 1 MMG



U1110 - MMG - 0  
BUILT-UP ROOF  
(Addition #2-1966)

FORM 13

CDB

A.1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMG **DESCRIPT** BUILT-UP ROOF (ADDITION #2 - 1966)  
**RESPONSE ACTION** 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. **EXIST. COND.** GOOD

**POT. FOR DAMAGE** THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO  
ITS NON-FRIABLE NATURE.

A.2.b. **FRIABLE** NO **CONDITION** GOOD  
**DISTURBANCE** LOW **AIR FLOW** HEAVY

A.3.a.(1) **WHY** MATERIAL IS LOCATED IN AN AREA NOT OFTEN FREQUENTED BY  
MAINTENANCE PERSONNEL.

A.3.a.(2) **PREVENTATIVE MEASURES** DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. **O & M PROCEDURES** COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM AND 10.3 FOR REMOVAL OF INTACT NON-FRIABLE ACM.  
FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. **HEALTH & SAFETY** COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMG  
**MATERIAL:** BUILT-UP ROOF (ADDITION #2 - 1966)  
**QUANTITY:** 7,800 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	7,800 sf @ \$3.00 / sf	\$23,400.00
2.	Replacement:	7,800 sf @ \$25.00 / sf	\$195,000.00

**SUBTOTAL** \$218,400.00

3.	Design Fee: 10% or minimum \$500.00		\$21,840.00
4.	No. of days: 12		
5.	APM/ASP: \$500.00/day x 12		\$6,000.00
6.	Air Samples: 7 samples x 12 @ \$15.00/sample		<u>\$1,260.00</u>

**SUBTOTAL** \$247,500.00

7.	5% indemnification		\$12,375.00
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**TOTAL COST** \$259,875.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00



**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMH  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: ROOF  
 ROOMS: N/A

MATERIAL DESCRIPTION: BUILT-UP ROOF (ADDITION #3 - 1979)  
(common designation - i.e. air cell)

TYPE OF SYSTEM: ROOFING  
(i.e. hot water)

COLOR-TEXTURE, ETC.: GRAY-BLACK

FRIABLE: Yes \_\_\_\_\_ No X Pipe Diameter \_\_\_\_\_ inches

TOTAL QUANTITY: 3,780 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

QUANTITY IN: Occupied \_\_\_\_\_ Restricted \_\_\_\_\_ Unoccupied X

ROOM FINISHES:

CEILING N/A

WALLS N/A

FLOOR N/A

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% <u>X</u>	1-25% _____	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No X

If yes, describe \_\_\_\_\_

WATER DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 AGE DETERIORATION Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MMH

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes No X
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0 ft.
AREA ABOVE EXTERIOR
AREA ADJACENT EXTERIOR
OCCUPANCY (#) 0 X 1-2 3-10 10+
FREQUENCY OF USE (Hrs) 0 X 1-2 3-10 10+
UTILIZATION OF AREA ROOF

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL <1 1-5 >5 X
MECHANICAL <1 1-5 >5 X
PIPING <1 1-5 >5 X
OTHER <1 1-5 >5
VIBRATION Yes No X
MECHANICAL (MOTOR) Yes X No
PLUMBING (KNOCKING) Yes No X
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low Moderate Heavy X

EXTERIOR DOOR Yes No X
EXHAUST FAN Yes X No
GRAVITY VENT Yes No X
SUPPLY AIR Yes No X
RETURN AIR Yes No X
OTHER Yes No
DISTANCE TO FRIABLE MATERIAL
N/A

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

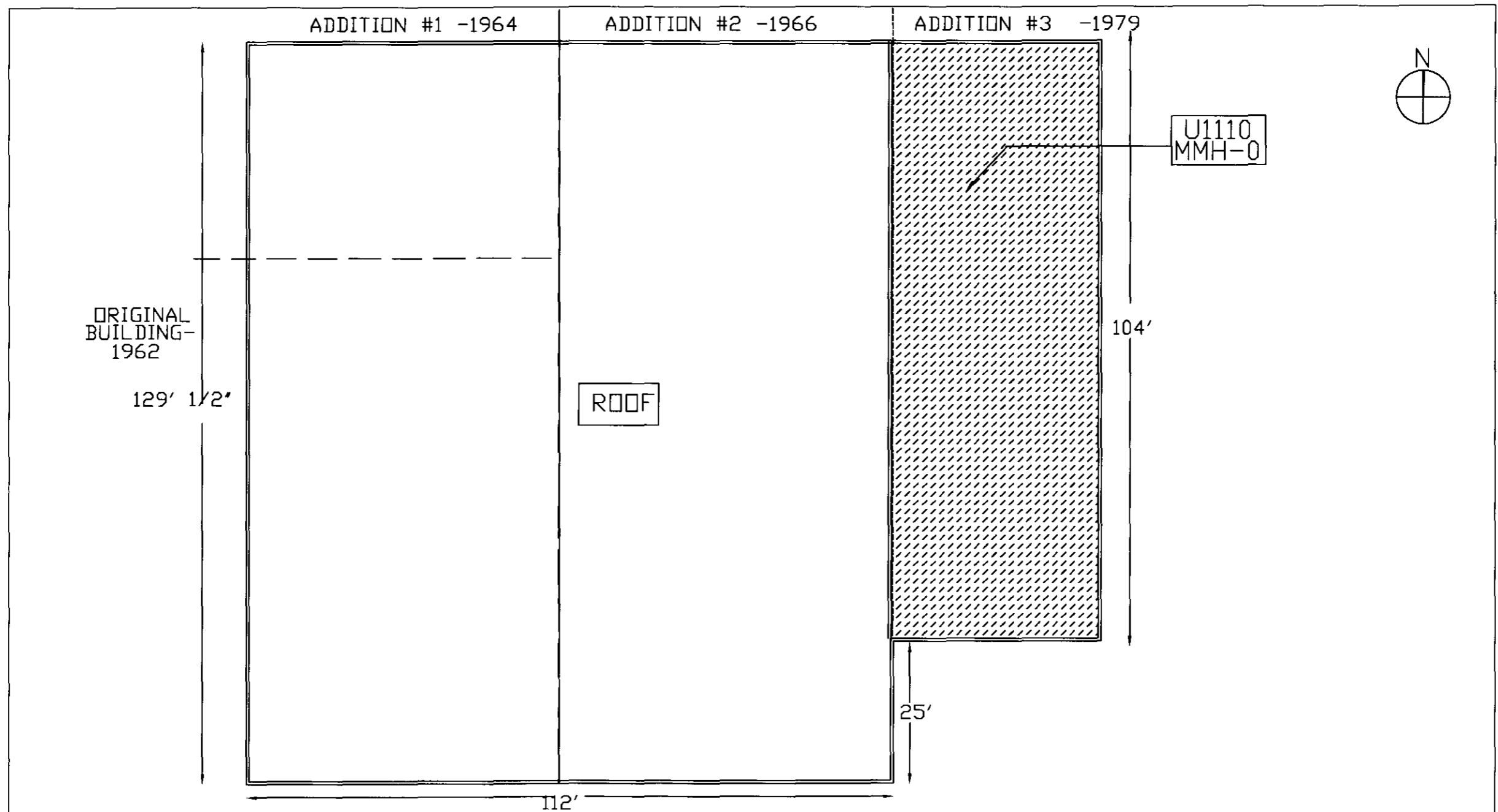
EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AND NOT GENERALLY ACCESSIBLE TO OCCUPANTS.

DAMAGE PREVENTION MEASURES MAINTAIN THIS MATERIAL IN GOOD CONDITION. IF IT BECOMES DAMAGED, IT COULD LEAK ASBESTOS FIBERS INTO THE BUILDING OR DAMAGE ASBESTOS-CONTAINING MATERIAL ALREADY IN THE BUILDING.

COMMENTS

INSPECTOR'S SIGNATURE Jerry Bassett (CH) DATE 6-27-00
SAMPLE NUMBERS U1110-MMH-0
(Sampling Phase)

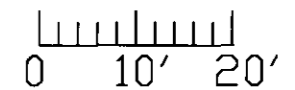
ACBM Yes No Assumed X



**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MMH-BUILT-UP ROOF (ADDITION #3-1979)

SCALE: 1" = 20'



**CCA** CARNOW, CONIBEAR, & ASSOC., LTD.  
333 WEST WACKER DRIVE, STE. 1400  
CHICAGO, ILLINOIS 60606



ROOF PLAN

WEST HEATING PLANT  
NORTHERN ILLINOIS UNIVERSITY  
DEKALB, DEKALB COUNTY, ILLINOIS

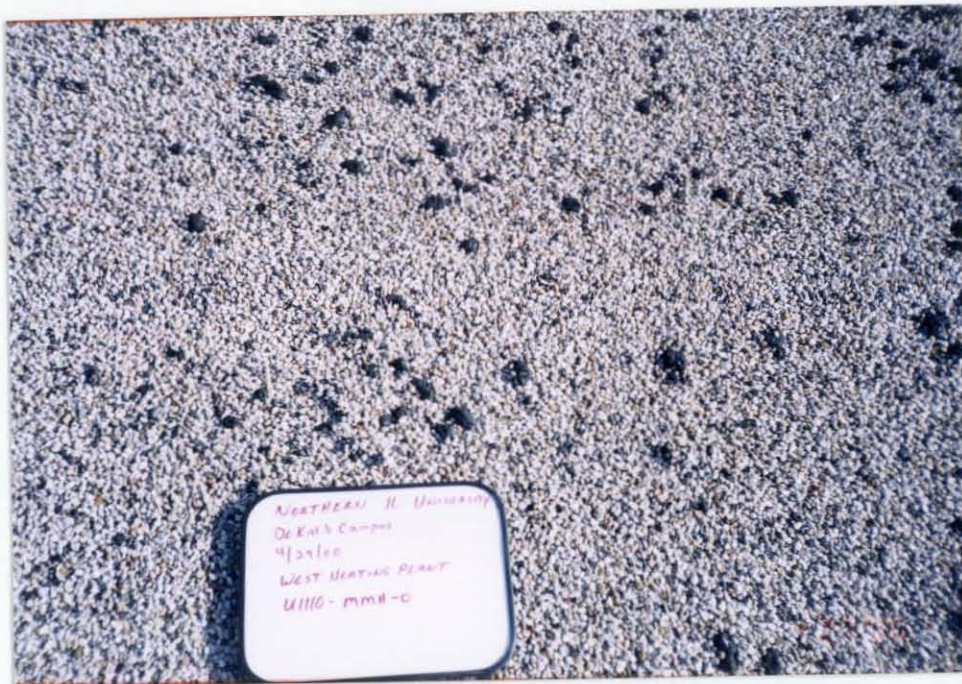
CDB BUILDING # U1110

PROJ. NO.  
910-010-093

DATE  
JANUARY 19, 2000

SHEET 1

OF 1 MMH



U1110 - MMH - 0  
BUILT-UP ROOF  
(Addition #3 - 1979)

FORM 13

CDB

.1 BLDG. NAME WEST HEATING PLANT BLDG. NO. U1110  
HOMO AREA MMH DESCRIPT BUILT-UP ROOF (ADDITION #3 - 1979)  
RESPONSE ACTION 8 - CONTINUE O & M UNTIL MAJOR DEMOLITION OR  
RENOVATION REQUIRES REMOVAL UNDER NESHAPS, OR UNTIL HAZARD  
ASSESSMENT FACTORS CHANGE.

A.2.a. EXIST. COND. GOOD

POT. FOR DAMAGE THIS MATERIAL HAS A LOW POTENTIAL FOR DAMAGE DUE TO  
ITS NON-FRIABLE NATURE.

A.2.b. FRIABLE NO CONDITION GOOD  
DISTURBANCE LOW AIR FLOW HEAVY

A.3.a.(1) WHY MATERIAL IS LOCATED IN AN AREA NOT OFTEN FREQUENTED BY  
MAINTENANCE PERSONNEL.

A.3.a.(2) PREVENTATIVE MEASURES DO NOT DISTURB IN A MANNER THAT WILL CREATE  
DUST SUCH AS DRILLING, CUTTING, SANDING, SAWING, ABRADING, OR  
PENETRATING IN ANY MANNER.

A.3.b. O & M PROCEDURES COMPLY WITH APPENDIX C, "STANDARD O & M  
PROGRAM FOR ASBESTOS CONTAINING MATERIAL". IN PARTICULAR, SEE "ACM  
DISTURBANCES AND PROCEDURE: SECTION X, PAGE C - 10.7 FOR OPERATIONS AND  
MAINTENANCE PROGRAM AND 10.3 FOR REMOVAL OF INTACT NON-FRIABLE ACM.  
FOLLOW PREVENTATIVE MEASURES LISTED ABOVE.

A.3.c. HEALTH & SAFETY COMPLY WITH APPENDIX C, STANDARD O & M PROGRAM  
FOR ASBESTOS CONTAINING MATERIAL". PARTICULARLY PAGES C - 4.2  
THROUGH C - 6.4 FOR INFORMATION CONCERNING WARNING LABELS, TRAINING,  
AND RESPIRATORY PROTECTION.

## COST ESTIMATE

**BUILDING NO.:** U1110  
**HOMO AREA:** MMH  
**MATERIAL:** BUILT-UP ROOF (ADDITION #3 - 1979)  
**QUANTITY:** 3,780 SF

### A. COST ESTIMATE FOR REMOVAL

1.	Removal:	3,780 sf @ \$3.00 / sf	\$11,340.00
2.	Replacement:	3,780 sf @ \$25.00 / sf	\$94,500.00

**SUBTOTAL** \$105,840.00

3.	Design Fee: 10% or minimum \$500.00		\$10,584.00
4.	No. of days: 5		
5.	APM/ASP: \$500.00/day x 5		\$2,500.00
6.	Air Samples: 7 samples x 5 @ \$15.00/sample		<u>\$525.00</u>

**SUBTOTAL** \$119,449.00

7.	5% indemnification		\$5,973.00
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**TOTAL COST** \$125,421.00

### B. COST OF RECOMMENDED RESPONSE ACTION

Excluding O & M \$ 0.00

### C. O & M COST ESTIMATE

Clean, repair, periodic surveillance, and  
annual administration \$ 100.00

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJC

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: BASEMENT AND FIRST FLOOR

ROOMS: BASEMENT #2 AND BOILER ROOM - ADDITION #2

MATERIAL DESCRIPTION: FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #2 - 1966) (common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM (i.e. hot water)

COLOR-TEXTURE, ETC.: WHITE - MODERATE TEXTURE

FRIABLE: Yes [X] No \_\_\_\_\_ Pipe Diameter 3 inches

TOTAL QUANTITY: \_\_\_\_\_ Sq. ft. \_\_\_\_\_ Lin. ft. 35 Ea.

QUANTITY IN: Occupied [X] Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% _____	1-25% _____	> 25% _____
DISTRIBUTED	<1% [X]	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No [X]  
If yes, describe \_\_\_\_\_

WATER DAMAGE	Yes _____	No [X]	Description _____
PHYSICAL DAMAGE	Yes _____	No [X]	Description _____
AGE DETERIORATION	Yes _____	No [X]	Description _____

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJC

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 10-25 ft.  
 AREA ABOVE ROOF, BOILER ROOM - ADDITION #2  
 AREA ADJACENT MECHANICAL AREAS  
 OCCUPANCY (#) 0  1-2  3-10  10+   
 FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+   
 UTILIZATION OF AREA MECHANICAL ACTIVITIES

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1  1-5  >5  VIBRATION Yes  No   
 MECHANICAL < 1  1-5  >5  MECHANICAL (MOTOR) Yes  No   
 PIPING < 1  1-5  >5  PLUMBING (KNOCKING) Yes  No   
 OTHER  < 1  1-5  >5  OTHER  Yes  No

BARRIERS Yes  No   
 SUSPENDED CEILING Yes  No   
 ENCAPSULATION Yes  No   
 ENCLOSURE Yes  No   
 OTHER  Yes  No

AIR MOVEMENTS Yes  No   
 (IF YES) Low  Moderate  Heavy

EXTERIOR DOOR Yes  No  DISTANCE TO FRIABLE MATERIAL  
 EXHAUST FAN Yes  No  1 FT. \_\_\_\_\_  
 GRAVITY VENT Yes  No  2 FT. \_\_\_\_\_  
 SUPPLY AIR Yes  No  \_\_\_\_\_  
 RETURN AIR Yes  No  \_\_\_\_\_  
 OTHER  Yes  No  \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage   
 Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THESE FITTINGS ARE LOCATED AT A HEIGHT NOT GENERALLY ACCESSIBLE TO OCCUPANTS.

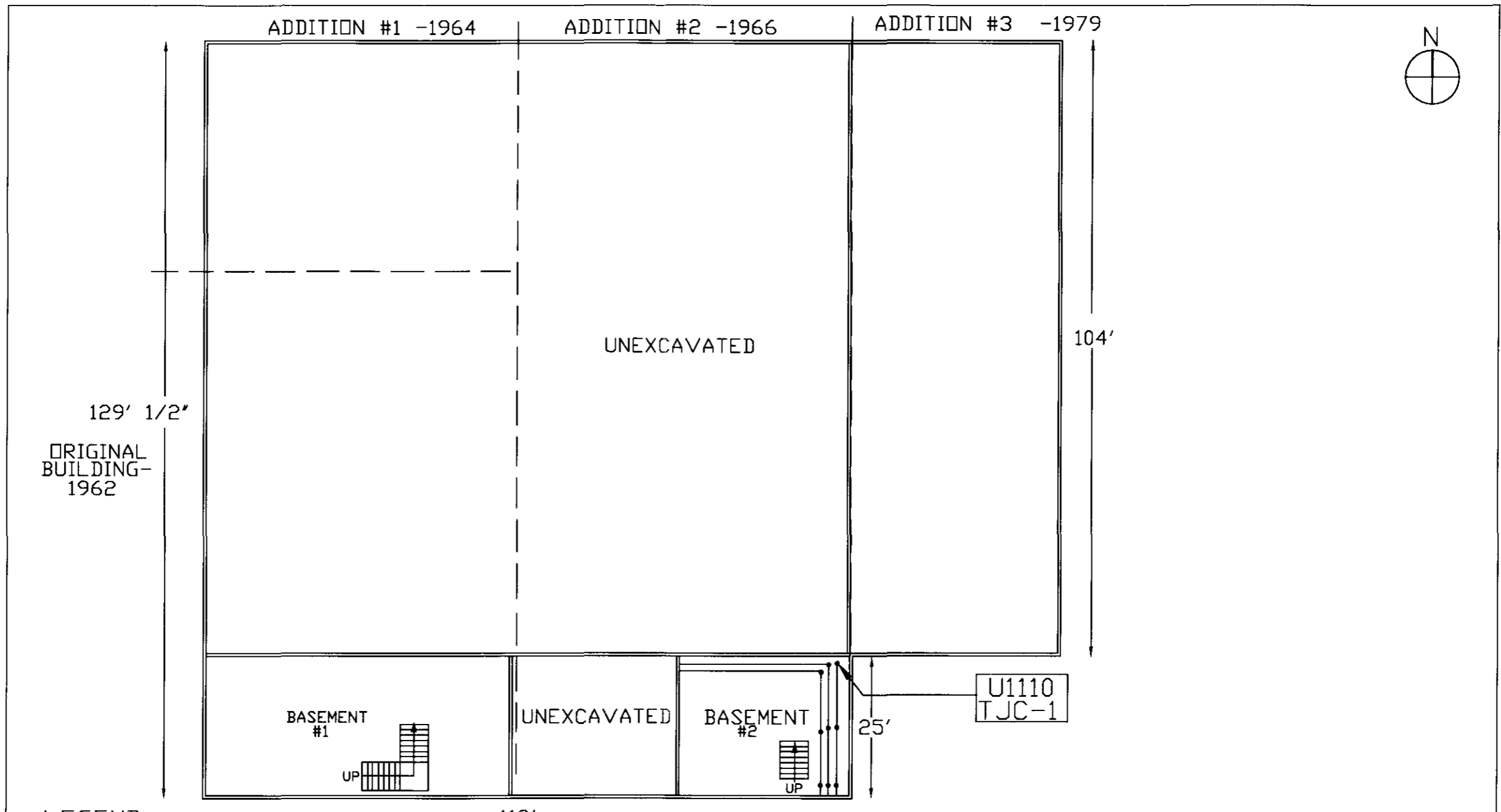
DAMAGE PREVENTION MEASURES MAINTAIN THESE FITTINGS IN GOOD CONDITION. IF THEY BECOME DAMAGED, REPAIR THEM IMMEDIATELY.

COMMENTS \_\_\_\_\_

INSPECTOR'S SIGNATURE Terry Bassett (M) DATE 6-27-00  
 SAMPLE NUMBERS U1110-TJC-1, U1110-TJC-2, U1110-TJC-3  
 (Sampling Phase)

ACBM Yes  No  Assumed

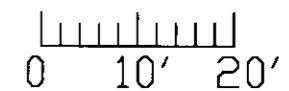






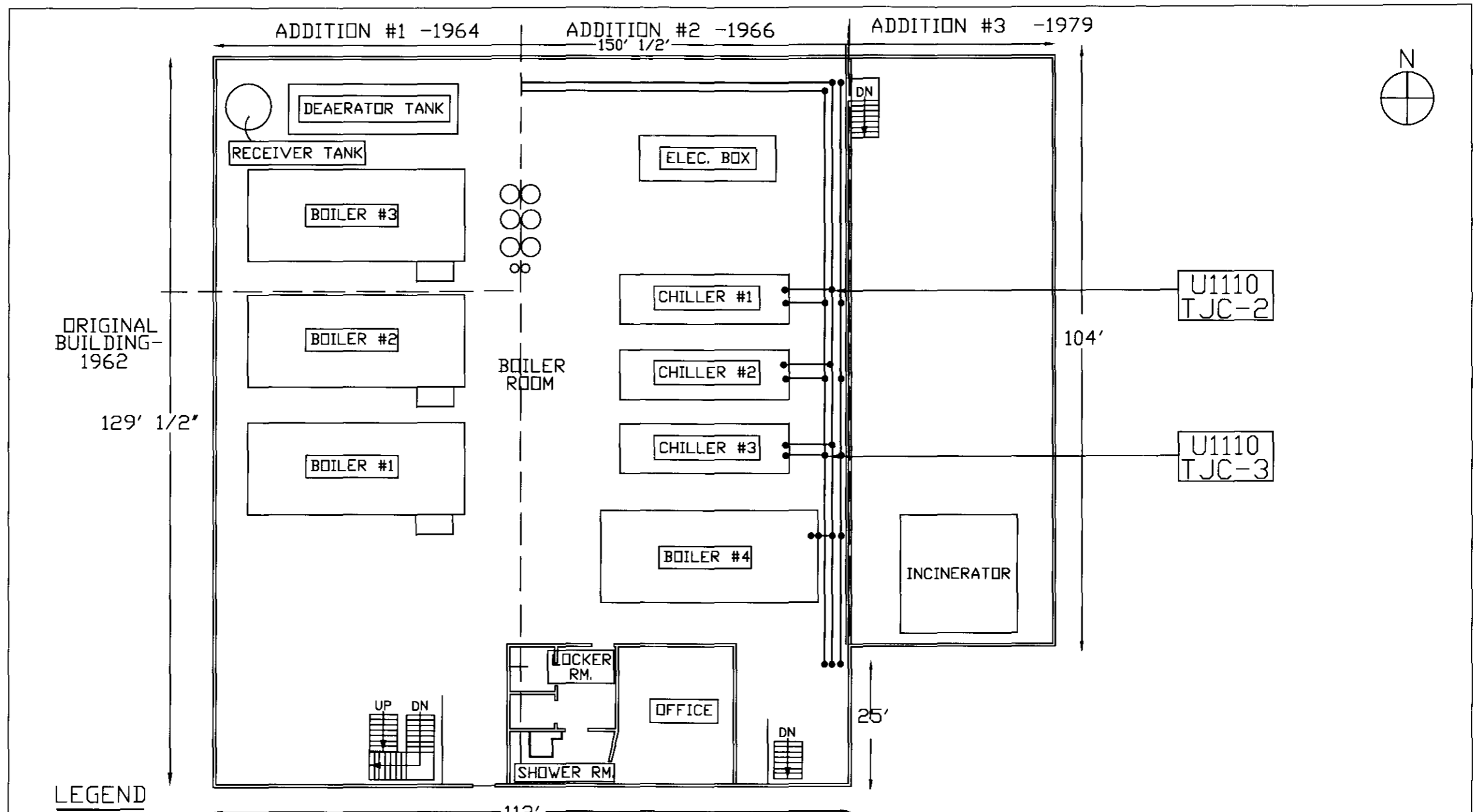
**LEGEND**

-  INDICATES EXTENT OF HOMOGENEOUS AREA
-  TJC-FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #2-1966)

SCALE: 1" = 20'



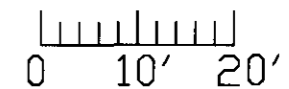
 <p>CARNOW, CONIBEAR, &amp; ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606</p>	 <p>CAPITAL DEVELOPMENT BOARD</p>	BASEMENT	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 2 TJC




**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 TJC-FITTINGS ON FIBERGLASS PIPE INSULATION (ADDITION #2-1966)

SCALE: 1" = 20'




**CARNOW, CONIBEAR, & ASSOC., LTD.**  
 333 WEST WACKER DRIVE, STE. 1400  
 CHICAGO, ILLINOIS 60606



FIRST FLOOR  
 WEST HEATING PLANT  
 NORTHERN ILLINOIS UNIVERSITY  
 DEKALB, DEKALB COUNTY, ILLINOIS  
 CDB BUILDING # U1110

PROJ. NO.  
 910-010-093  
 DATE  
 JANUARY 19, 2000  
 SHEET 2  
 PF 2 TJC

## FORM 11

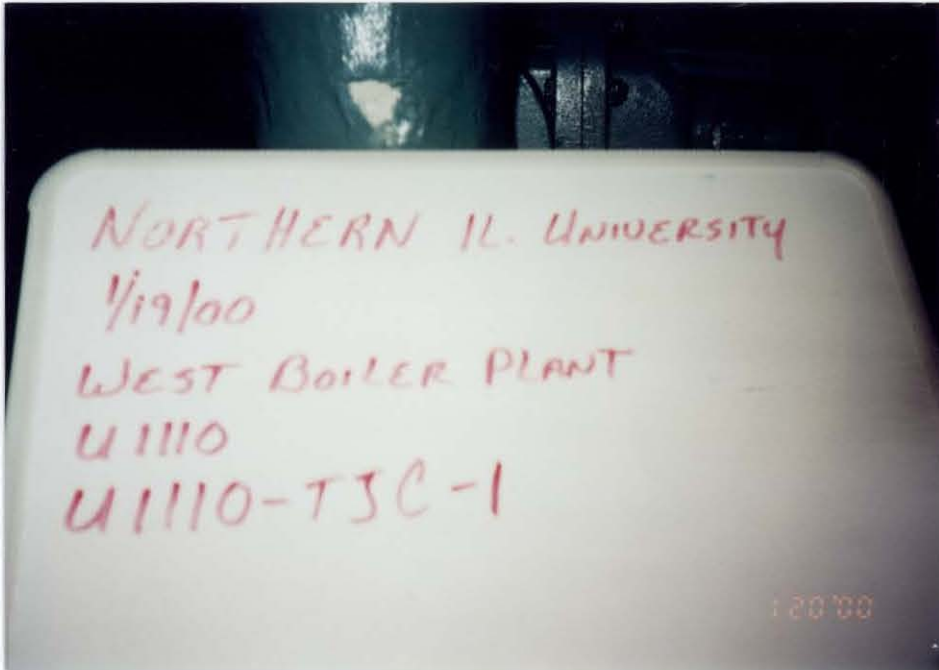
**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJC  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

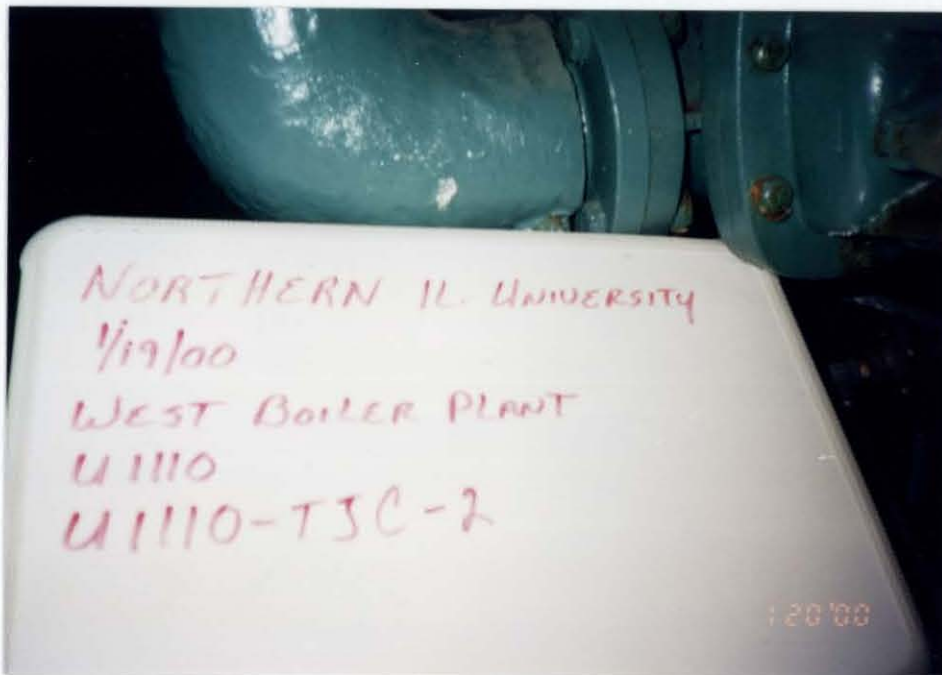
8. Location	Addition #2-Bsmt 2	Addition #2-Boiler Rm	Addition #2-Boilr Rm
9. Date Collected	01/19/00	01/19/00	01/19/00
10. Sample No.	U1110-TJC-1	U1110-TJC-2	U1110-TJC-3
11. Date Received	01/21/00	01/21/00	01/21/00
12. Lab Sample No.	1141	1142	1143
13. Color?	Green/Grey	Green/Grey	Green/Grey
14. Fibrous?	Yes	Yes	Yes
15. Layers?	2	2	2
16. Contains Asbestos?	No	No	No
17. Type and % Asbestos?			
Chrysotile			
Amosite			
Crocidolite			
Other			
Total Asbestos %	0%	0%	0%
18. Other Material %			
Fibrous Glass	60%	60%	60%
Cellulose	5%	5%	5%
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	35%	35%	35%
Total	100%	100%	100%
19. Date Analyzed	01/24/00	01/24/00	01/24/00
20. Analyzed By	D. Borger	D. Borger	D. Borger

All samples analyzed by polarized light microscopy with dispersion staining

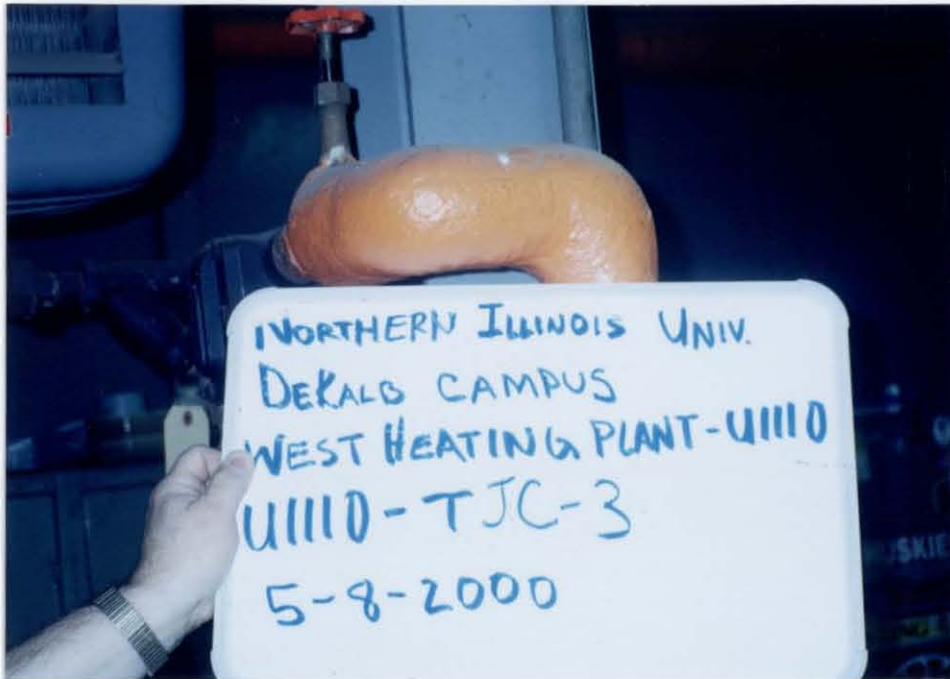
21. Report Approved By: Denise Borger 22. Date: 01/24/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TJC - 1  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - TJC - 2  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #2 -  
1966)



U1110 - TJC - 3  
FITTINGS ON  
FIBERGLASS PIPE  
INSULATION  
(ADDITION #2 -  
1966)

**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGENEEOUS AREA: TJG  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: SHOWER ROOM

MATERIAL DESCRIPTION: BLACK PIPE FITTING (PATCH)  
(common designation - i.e. air cell)

TYPE OF SYSTEM: STEAM HEATING SYSTEM  
(i.e. hot water)

COLOR-TEXTURE, ETC.: BLACK - MODERATE TEXTURE

FRIABLE: Yes \_\_\_\_\_ No X Pipe Diameter 3 inches

TOTAL QUANTITY: \_\_\_\_\_ Sq. ft. \_\_\_\_\_ Lin. ft. 1 Ea.

QUANTITY IN: Occupied X Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

**DAMAGE ASSESSMENT:**

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% <u>X</u>	1-25% _____	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____
If <1% damage, is salient present? Yes _____ No <u>X</u>			
If yes, describe _____			

WATER DAMAGE	Yes _____	No <u>X</u>	Description _____
PHYSICAL DAMAGE	Yes _____	No <u>X</u>	Description _____
AGE DETERIORATION	Yes _____	No <u>X</u>	Description _____

CDB BUILDING #: U1110 HOMOGENEOUS AREA: TJG

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 4 ft.  
 AREA ABOVE LOFT  
 AREA ADJACENT OFFICE, LOCKER ROOM  
 OCCUPANCY (#) 0  1-2  3-10  10+   
 FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+   
 UTILIZATION OF AREA SHOWER ROOM

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1  1-5  >5   
 MECHANICAL < 1  1-5  >5   
 PIPING < 1  1-5  >5   
 OTHER  < 1  1-5  >5

VIBRATION Yes  No   
 MECHANICAL (MOTOR) Yes  No   
 PLUMBING (KNOCKING) Yes  No   
 OTHER Yes  No

BARRIERS Yes  No   
 SUSPENDED CEILING Yes  No   
 ENCAPSULATION Yes  No   
 ENCLOSURE Yes  No   
 OTHER Yes  No

AIR MOVEMENTS Yes  No   
 (IF YES) Low  Moderate  Heavy

EXTERIOR DOOR Yes  No   
 EXHAUST FAN Yes  No   
 GRAVITY VENT Yes  No   
 SUPPLY AIR Yes  No   
 RETURN AIR Yes  No   
 OTHER Yes  No

DISTANCE TO FRIABLE MATERIAL  
 N/A  
 N/A  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage   
 Potential for Significant Damage

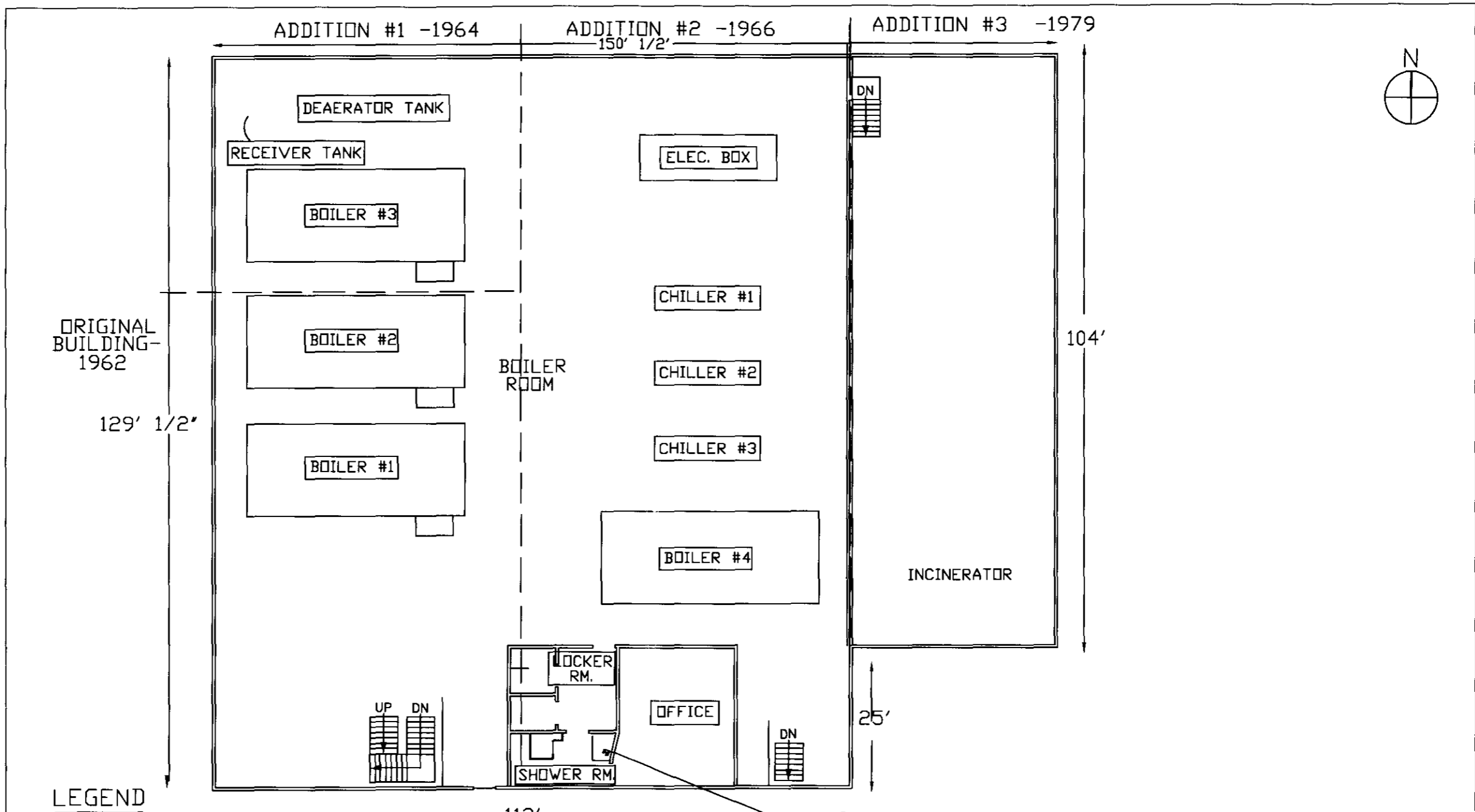
EXPLANATION OF ASSESSMENT (REQUIRED) THIS FITTING INSULATION IS NON-FRIABLE AND IN GOOD CONDITION.

DAMAGE PREVENTION MEASURES MAINTAIN THIS FITTING IN GOOD CONDITION. IF IT BECOMES DAMAGED, REPAIR IT IMMEDIATELY.

COMMENTS \_\_\_\_\_

INSPECTOR'S SIGNATURE Terry Bassett @ DATE 6-27-00  
 SAMPLE NUMBERS U1110-TJG-1  
 (Sampling Phase)

ACBM Yes  No  Assumed

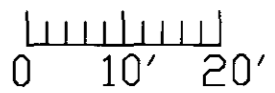




LEGEND

 INDICATES EXTENT OF HOMOGENEOUS AREA  
 T.J.G.-BLACK PIPE FITTING (PATCH)

U1110  
T.J.G.-1

SCALE: 1" = 20'



 CARNOW, CONIBEAR, & ASSOC., LTD. 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 T.J.G.



FORM 11

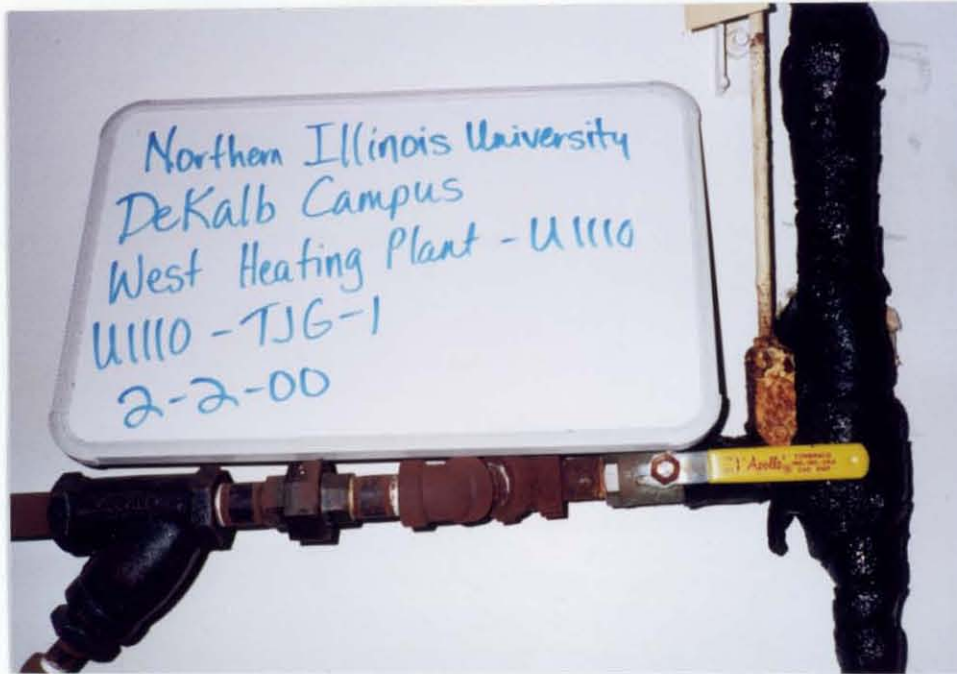
**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) TJG  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	Locker Room By Shower		
9. Date Collected	02/02/00		
10. Sample No.	U1110-TJG-1		
11. Date Received	02/07/00		
12. Lab Sample No.	1388		
13. Color?	Black		
14. Fibrous?	No		
15. Layers?	1		
16. Contains Asbestos?	No		
17. Type and % Asbestos?			
Chrysotile			
Amosite			
Crocidolite			
Other			
Total Asbestos %	0		
18. Other Material %			
Fibrous Glass			
Cellulose	5%		
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	95%		
Total	100%		
19. Date Analyzed	02/14/00		
20. Analyzed By	D. Borger		

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *(Signature)* 22. Date: 02/14/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - TJG - 1  
BLACK PIPE  
FITTING (PATCH)

FORM 9

HOMOGENEOUS AREA INSPECTION REPORT

CDB BUILDING #: U1110 HOMOGNEOUS AREA: MSA

INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093

CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY

FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS

BUILDING NAME: WEST HEATING PLANT

BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS

A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.

INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487

LOCATION: FIRST FLOOR

ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: 4" X 7" FIRE BRICK (common designation - i.e. air cell)

TYPE OF SYSTEM: N/A (i.e. hot water)

COLOR-TEXTURE, ETC.: BEIGE - ROUGH TEXTURE

FRIABLE: Yes No X Pipe Diameter inches

TOTAL QUANTITY: 200 Sq. ft. Lin. ft. Ea.

QUANTITY IN: Occupied X Restricted Unoccupied

ROOM FINISHES:

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

DAMAGE ASSESSMENT:

Table with 3 columns: No Damage, Damaged, Significant Damage. Rows for LOCALIZED OR, DISTRIBUTED, and a question about salient damage.

WATER DAMAGE, PHYSICAL DAMAGE, AGE DETERIORATION. Each row has Yes/No options and a Description field.

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MSA

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes X No
MAINTENANCE PERSONNEL Yes X No
HEIGHT FROM FLOOR 0-4 ft
AREA ABOVE ROOF
AREA ADJACENT MECHANICAL AREAS IN ADDITION #1 AND ORIGINAL BUILDING
OCCUPANCY (#) 0 1-2 3-10 X 10+
FREQUENCY OF USE (Hrs) 0 1-2 3-10 X 10+
UTILIZATION OF AREA MECHANICAL AREA

SERVICEABLE COMPONENTS (distance in ft. to)
ELECTRICAL < 1 1-5 X >5
MECHANICAL < 1 1-5 X >5
PIPING < 1 1-5 X >5
OTHER < 1 1-5 >5
VIBRATION Yes No X
MECHANICAL (MOTOR) Yes No X
PLUMBING (KNOCKING) Yes No X
OTHER Yes No

BARRIERS Yes No X
SUSPENDED CEILING Yes No X
ENCAPSULATION Yes No X
ENCLOSURE Yes No X
OTHER Yes No

AIR MOVEMENTS (IF YES) Yes X No
Low X Moderate Heavy

EXTERIOR DOOR Yes X No
EXHAUST FAN Yes No X
GRAVITY VENT Yes No X
SUPPLY AIR Yes X No
RETURN AIR Yes No X
OTHER Yes No
DISTANCE TO FRIABLE MATERIAL N/A

INSPECTOR'S ASSESSMENT No Potential for Damage X Potential For Damage
Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AS LONG AS IT REMAINS UNDISTURBED.

DAMAGE PREVENTION MEASURES MATERIAL SHOULD NOT BE OUT IN THE OPEN, BUT STORED PROPERLY IN A SEPARATE STORAGE ROOM.

COMMENTS

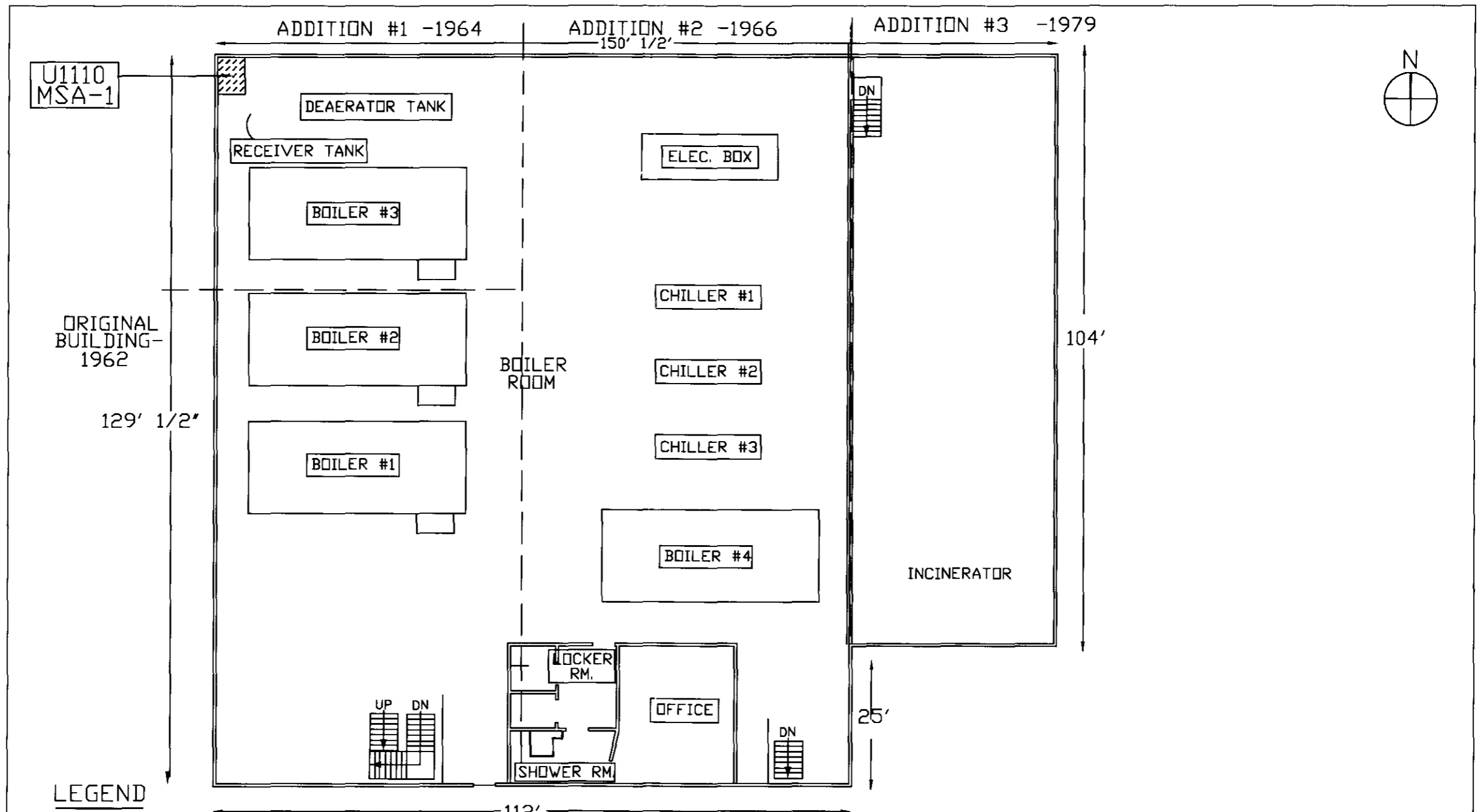
INSPECTOR'S SIGNATURE Jerry Bassett DATE 6-27-00
SAMPLE NUMBERS U1110-MSA-1
(Sampling Phase)

ACBM Yes No X Assumed

FORM 9A

STOCKPILED ACM INFORMATION

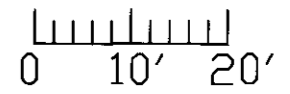
- 1. FACILITY NAME 1. NORTHERN ILLINOIS UNIVERSITY-DEKALB CAMPUS
- 2. BUILDING NAME 2. WEST HEATING PLANT
- 3. BUILDING ADDRESS 3. 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS
- 4. CDB BUILDING NO. 4. U1110
- 5. HOMOGENEOUS AREA 5. MSA
- 6. PRODUCT TYPE (USE) 6. BOILER REFRACTORY BRICK
- 7. PRODUCT NAME 7. FIRE BRICK (4" X 7")
- 8. SEALED CONTAINER? YES / NO / CONTAINER  
IF YES, SKIP QUESTIONS 9, 10, AND 11.  
DO NOT OPEN 8. NO CONTAINER
- 9. PRODUCT DESCRIPTION: SIZE 9. 4" X 7" X 2"
- 10. PRODUCT DESCRIPTION: OTHER 10. N/A
- 11. PRODUCT DESCRIPTION: OTHER 11. N/A
- 12. LOCATION 12. FIRST FLOOR
- 13. USE OF LOCATION (O, R, OR U) 13. OCCUPIED
- 14. SECURED AREA? YES / NO 14. NO
- 15. CONTENTS ORIGINAL? YES / NO / UNKNOWN 15. YES
- 16. IF YES, DOES CONTAINER STATE PRODUCT CONTAINS ASBESTOS? 16. NO
- 17. NUMBER OF CONTAINERS 17. 1
- 18. DOES CONTAINER STATE MANUFACTURER'S NAME AND ADDRESS? IF SO, LIST 18. BABCOCK & WILCOX
- 19. DID YOU SEE THIS PRODUCT IN PLACE IN THE FACILITY OR BUILDING? IF YES, PLEASE INDICATE BY BUILDING NUMBER, HOMOGENEOUS AREA OR OTHER SPECIFIC LOCATION INFORMATION. 19. NO
- 20. OTHER THAN BY CONTAINER, DO YOU KNOW THAT THIS PRODUCT CONTAINS ASBESTOS AND/OR THE MANUFACTURER? IF SO, PLEASE LIST AND EXPLAIN SOURCE OF KNOWLEDGE.  
THIS MATERIAL WAS SAMPLED AND FOUND NOT TO CONTAIN ASBESTOS.
- 21. OTHER COMMENTS:  
\_\_\_\_\_
- 22. INSPECTOR'S NAME 22. TERRY BASSETT
- 23. SIGNATURE 23. Terry Bassett (M)
- 24. DATE 24. 6-27-00





LEGEND

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MSA-4" X 7" FIRE BRICK

SCALE: 1" = 20'



 <b>CARNOW, CONIBEAR, &amp; ASSOC., LTD.</b> 333 WEST WACKER DRIVE, STE. 1400 CHICAGO, ILLINOIS 60606	 CAPITAL DEVELOPMENT BOARD	FIRST FLOOR	PROJ. NO. 910-010-093
		WEST HEATING PLANT NORTHERN ILLINOIS UNIVERSITY DEKALB, DEKALB COUNTY, ILLINOIS	DATE JANUARY 19, 2000
		CDB BUILDING # U1110	SHEET 1 OF 1 MSA

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University      2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant              4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus                  6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) MSA  
 (A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	1 <sup>st</sup> Addition		
9. Date Collected	02/02/00		
10. Sample No.	U1110-MSA-1		
11. Date Received	02/07/00		
12. Lab Sample No.	1391		
13. Color?	Tan		
14. Fibrous?	No		
15. Layers?	1		
16. Contains Asbestos?	No		
17. Type and % Asbestos?			
Chrysotile			
Amosite			
Crocidolite			
Other			
Total Asbestos %	0		
18. Other Material %			
Fibrous Glass			
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	100%		
Total	100%		
19. Date Analyzed	02/14/00		
20. Analyzed By	D. Borger		

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger*      22. Date: 02/14/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - MSA - 1  
4" X 7" FIRE BRICK



**FORM 9**

**HOMOGENEOUS AREA INSPECTION REPORT**

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MSB  
 INSPECTION DATE: JANUARY 20, 2000 CDB PROJECT NO.: 910-010-093  
 CONTROLLING AGENCY: NORTHERN ILLINOIS UNIVERSITY  
 FACILITY: NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS  
 BUILDING NAME: WEST HEATING PLANT  
 BUILDING ADDRESS: 1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS  
 A/E FIRM: CARNOW, CONIBEAR & ASSOC., LTD.  
 INSPECTOR: TERRY BASSETT IDPH LICENSE NO.: 100-3487  
 LOCATION: FIRST FLOOR  
 ROOMS: BOILER ROOM - ADDITION #1

MATERIAL DESCRIPTION: 12" X 12" FIRE BRICK  
(common designation - i.e. air cell)

TYPE OF SYSTEM: N/A  
(i.e. hot water)

COLOR-TEXTURE, ETC.: BEIGE - ROUGH TEXTURE

FRIABLE: Yes \_\_\_\_\_ No X Pipe Diameter \_\_\_\_\_ inches

TOTAL QUANTITY: 100 Sq. ft. \_\_\_\_\_ Lin. ft. \_\_\_\_\_ Ea.

QUANTITY IN: Occupied X Restricted \_\_\_\_\_ Unoccupied \_\_\_\_\_

**ROOM FINISHES:**

CEILING CONCRETE

WALLS CONCRETE AND CINDER BLOCK

FLOOR CONCRETE

**DAMAGE ASSESSMENT:**

	No Damage	Damaged	Significant Damage
LOCALIZED OR	<1% <u>X</u>	1-25% _____	> 25% _____
DISTRIBUTED	<1% _____	1-10% _____	> 10% _____

If <1% damage, is salient present? Yes \_\_\_\_\_ No X  
 If yes, describe \_\_\_\_\_

WATER DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 PHYSICAL DAMAGE Yes \_\_\_\_\_ No X Description \_\_\_\_\_  
 AGE DETERIORATION Yes \_\_\_\_\_ No X Description \_\_\_\_\_

FORM 9- Page 2

CDB BUILDING #: U1110 HOMOGENEOUS AREA: MSB

DISTURBANCE FACTORS:

ACCESSIBLE TO OCCUPANTS Yes  No   
 MAINTENANCE PERSONNEL Yes  No   
 HEIGHT FROM FLOOR 0-4 ft.  
 AREA ABOVE ROOF  
 AREA ADJACENT MECHANICAL AREAS IN ADDITION #1 AND ORIGINAL BUILDING  
 OCCUPANCY (#) 0  1-2  3-10  10+   
 FREQUENCY OF USE (Hrs) 0  1-2  3-10  10+   
 UTILIZATION OF AREA MECHANICAL AREA

SERVICEABLE COMPONENTS (distance in ft. to)  
 ELECTRICAL < 1  1-5  >5  VIBRATION Yes  No   
 MECHANICAL < 1  1-5  >5  MECHANICAL (MOTOR) Yes  No   
 PIPING < 1  1-5  >5  PLUMBING (KNOCKING) Yes  No   
 OTHER  < 1  1-5  >5  OTHER Yes  No

BARRIERS Yes  No   
 SUSPENDED CEILING Yes  No   
 ENCAPSULATION Yes  No   
 ENCLOSURE Yes  No   
 OTHER Yes  No

AIR MOVEMENTS (IF YES) Yes  No   
 Low  Moderate  Heavy

EXTERIOR DOOR Yes  No  DISTANCE TO FRIABLE MATERIAL N/A  
 EXHAUST FAN Yes  No   
 GRAVITY VENT Yes  No   
 SUPPLY AIR Yes  No  N/A  
 RETURN AIR Yes  No   
 OTHER Yes  No

INSPECTOR'S ASSESSMENT No Potential for Damage  Potential For Damage   
 Potential for Significant Damage

EXPLANATION OF ASSESSMENT (REQUIRED) THIS MATERIAL IS NON-FRIABLE AS LONG AS IT REMAINS UNDISTURBED.

DAMAGE PREVENTION MEASURES MATERIAL SHOULD NOT BE OUT IN THE OPEN, BUT STORED PROPERLY IN A SEPARATE STORAGE ROOM.

COMMENTS \_\_\_\_\_

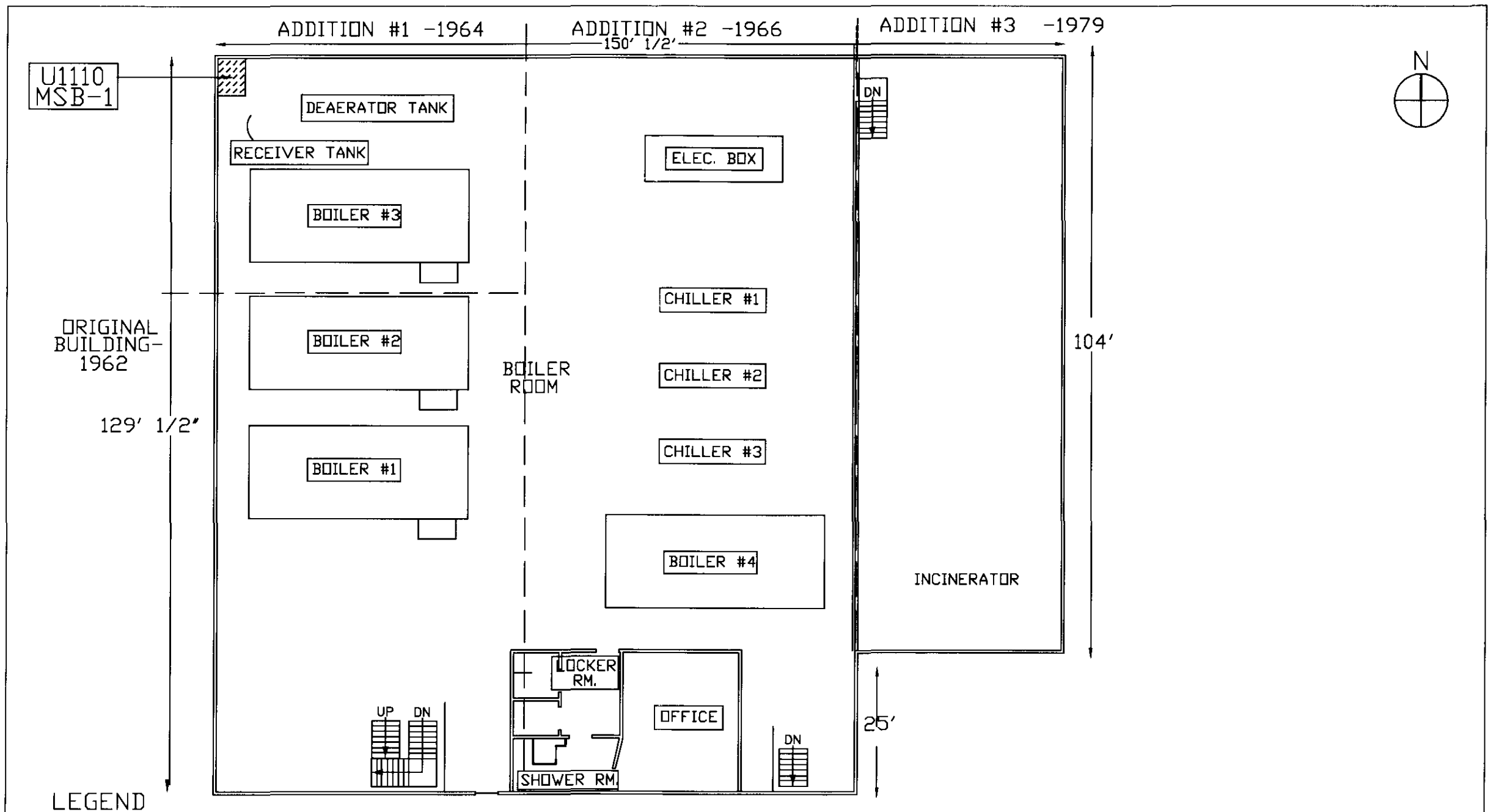
INSPECTOR'S SIGNATURE Jerry Bassett (M) DATE 6-27-00  
 SAMPLE NUMBERS U1110-MSB-1  
 (Sampling Phase)

ACBM Yes  No  Assumed

FORM 9A

STOCKPILED ACM INFORMATION

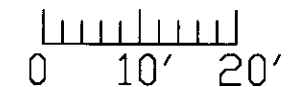
- |  |   |
|--|---|
| <p>1. FACILITY NAME</p> <p>2. BUILDING NAME</p> <p>3. BUILDING ADDRESS</p> <p>4. CDB BUILDING NO.</p> <p>5. HOMOGENEOUS AREA</p> <p>6. PRODUCT TYPE (USE)</p> <p>7. PRODUCT NAME</p> <p>8. SEALED CONTAINER? YES / NO / CONTAINER<br/>IF YES, SKIP QUESTIONS 9, 10, AND 11.<br/><u>DO NOT OPEN</u></p> <p>9. PRODUCT DESCRIPTION: SIZE</p> <p>10. PRODUCT DESCRIPTION: OTHER</p> <p>11. PRODUCT DESCRIPTION: OTHER</p> <p>12. LOCATION</p> <p>13. USE OF LOCATION (O, R, OR U)</p> <p>14. SECURED AREA? YES / NO</p> <p>15. CONTENTS ORIGINAL? YES / NO / UNKNOWN</p> <p>16. IF YES, DOES CONTAINER STATE PRODUCT CONTAINS ASBESTOS?</p> <p>17. NUMBER OF CONTAINERS</p> <p>18. DOES CONTAINER STATE MANUFACTURER'S NAME AND ADDRESS? IF SO, LIST</p> <p>19. DID YOU SEE THIS PRODUCT IN PLACE IN THE FACILITY OR BUILDING? IF YES, PLEASE INDICATE BY BUILDING NUMBER, HOMOGENEOUS AREA OR OTHER SPECIFIC LOCATION INFORMATION.</p> <p>20. OTHER THAN BY CONTAINER, DO YOU KNOW THAT THIS PRODUCT CONTAINS ASBESTOS AND/OR THE MANUFACTURER? IF SO, PLEASE LIST AND EXPLAIN SOURCE OF KNOWLEDGE.<br/><u>THIS MATERIAL WAS SAMPLED AND FOUND TO CONTAIN NO ASBESTOS.</u></p> <p>21. OTHER COMMENTS:</p> <hr/> <p>22. INSPECTOR'S NAME</p> <p>23. SIGNATURE</p> <p>24. DATE</p> | <p>1. <u>NORTHERN ILLINOIS UNIVERSITY - DEKALB CAMPUS</u></p> <p>2. <u>WEST HEATING PLANT</u></p> <p>3. <u>1425 WEST LINCOLN HIGHWAY, DEKALB, ILLINOIS</u></p> <p>4. <u>U1110</u></p> <p>5. <u>MSB</u></p> <p>6. <u>BOILER REFRACTORY BRICK</u></p> <p>7. <u>FIRE BRICK (1' X 1')</u></p> <p>8. <u>NO CONTAINER</u></p> <p>9. <u>1' X 1' X 2"</u></p> <p>10. <u>N/A</u></p> <p>11. <u>N/A</u></p> <p>12. <u>FIRST FLOOR</u></p> <p>13. <u>OCCUPIED</u></p> <p>14. <u>NO</u></p> <p>15. <u>YES</u></p> <p>16. <u>NO</u></p> <p>17. <u>1</u></p> <p>18. <u>NO</u></p> <p>19. <u>NO</u></p> <p>22. <u>TERRY BASSETT</u></p> <p>23. <u>Terry Bassett (CM)</u></p> <p>24. <u>6-27-00</u></p> |
|--|---|

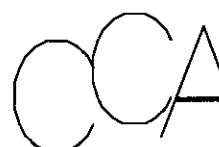


**LEGEND**

 INDICATES EXTENT OF HOMOGENEOUS AREA  
MSB-12" X 12" FIRE BRICK

SCALE: 1" = 20'



 **CARNOW, CONIBEAR, & ASSOC., LTD.**  
333 WEST WACKER DRIVE, STE. 1400  
CHICAGO, ILLINOIS 60606



FIRST FLOOR

WEST HEATING PLANT  
NORTHERN ILLINOIS UNIVERSITY  
DEKALB, DEKALB COUNTY, ILLINOIS

CDB BUILDING # U1110

PROJ. NO.  
910-010-093

DATE  
JANUARY 19, 2000

SHEET 1  
OF 1 MSB

FORM 11

**BULK SAMPLE LABORATORY ANALYSIS REPORT**

1. FACILITY: Northern Illinois University 2. CDB BUILDING # U1110  
 3. BUILDING: West Heating Plant 4. CLIENT (A/E): CCA  
 5. ADDRESS: DeKalb Campus 6. PROJECT # 910-010-093  
 7. HOMOGENEOUS AREA (ONLY 1 PER FORM) MSB

(A/E COMPLETE ITEMS 1-10 & PROVIDE TO LABORATORY.)

8. Location	1 <sup>st</sup> Addition		
9. Date Collected	02/02/00		
10. Sample No.	U1110-MSB-1		
11. Date Received	02/07/00		
12. Lab Sample No.	1394		
13. Color?	Tan		
14. Fibrous?	No		
15. Layers?	1		
16. Contains Asbestos?	No		
17. Type and % Asbestos?			
Chrysotile			
Amosite			
Crocidolite			
Other			
Total Asbestos %	0		
18. Other Material %			
Fibrous Glass			
Cellulose			
Synthetic Fibers			
Gypsum			
Calcite			
Quartz			
Perlite			
Vermiculite			
Others	100%		
Total	100%		
19. Date Analyzed	02/14/00		
20. Analyzed By	D. Borger		

All samples analyzed by polarized light microscopy with dispersion staining

21. Report Approved By: Denise Borger *D. Borger* Date: 02/14/00  
 23. Laboratory Name: CARNOW, CONIBEAR & ASSOC., LTD (CCA)



U1110 - MSB - 1  
12" X 12" FIRE  
BRICK

FORM 14  
COST SUMMARY

**BUILDING NAME:** WEST HEATING PLANT

**C.D.B. BUILDING NUMBER:** U1110

HOMO AREA	MATERIAL DESCRIPTION	RESPONSE ACTION		COST OF RESPONSE EXCL. O & M	COST OF ANNUAL O & M	COST OF REMOVAL
		NO.	DESCRIPTION			
TFA	Boiler Stack Insulation on Boiler #1 and #2 (Original Building - 1962)	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.	\$0.00	\$100.00	\$22,003.00
TFB	Boiler Stack Insulation on Boiler #3 (Addition #1 - 1964)	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.	\$0.00	\$100.00	\$11,319.00
TFC	De-Aerator Stack Insulation (Addition #1 - 1964)	2	Continue O & M. Remove as soon as possible or reduce potential for disturbance.	\$0.00	\$100.00	\$15,593.00
TTB	Receiver Tank Insulation (Addition #1 - 1964)	3	Continue O & M. Schedule removal when practical and cost effective, or reduce potential for disturbance.	\$0.00	\$100.00	\$23,735.00
TJA	Fittings on Fiberglass Pipe Insulation (Original Building - 1962)	6	Continue O & M. Take preventive measures to reduce disturbance.	\$0.00	\$100.00	\$4,333.00

# FORM 14

## COST SUMMARY

**BUILDING NAME:** WEST HEATING PLANT

**C.D.B. BUILDING NUMBER:** U1110

HOMO AREA	MATERIAL DESCRIPTION	RESPONSE ACTION		COST OF RESPONSE EXCL. O & M	COST OF ANNUAL O & M	COST OF REMOVAL
		NO.	DESCRIPTION			
TJB	Fittings on Fiberglass Pipe Insulation(Addition #1 - 1964)	6	Continue O & M. Take preventive measures to reduce disturbance.	\$0.00	\$100.00	\$4,597.00
TJE	Fittings on Mag-Block Pipe Insulation (Addition #1 - 1964)	6	Continue O & M. Take preventive measures to reduce disturbance.	\$0.00	\$100.00	\$3,804.00
TTA	De-Aerator Tank Insulation (Addition #1 - 1964)	6	Continue O & M. Take preventive measures to reduce disturbance.	\$0.00	\$100.00	\$23,735.00
TPA	Mag Block Pipe Insulation (Original Building - 1962)	8	CONTINUE O & M.	\$0.00	\$100.00	\$43,007.00
TJD	Fittings on Mag-Block Pipe Insulation (Original Building - 1962)	8	CONTINUE O & M.	\$0.00	\$100.00	\$5,126.00
TJF	Fittings on Mag-Block Pipe Insulation (Addition #2 - 1966)	8	CONTINUE O & M.	\$0.00	\$100.00	\$1,425.00
TPB	Mag-Block Pipe Insulation (Addition #1- 1964)	8	CONTINUE O & M.	\$0.00	\$100.00	\$19,042.00
TPC	Mag-Block Pipe Insulation (Addition #2 - 1966)	8	CONTINUE O & M.	\$0.00	\$100.00	\$14,548.00



# FORM 14

## COST SUMMARY

**BUILDING NAME:** WEST HEATING PLANT

**C.D.B. BUILDING NUMBER:** U1110

HOMO AREA	MATERIAL DESCRIPTION	RESPONSE ACTION		COST OF RESPONSE EXCL. O & M	COST OF ANNUAL O & M	COST OF REMOVAL
		NO.	DESCRIPTION			
MMA	Fire Door Insulation	8	CONTINUE O & M.	\$0.00	\$100.00	\$4,520.00
MMB	Gaskets on Boilers #1 and #2 (Original Building - 1962)	8	CONTINUE O & M.	\$0.00	\$100.00	\$2,420.00
MMC	Gaskets on Boiler #3 (Addition #1 - 1964)	8	CONTINUE O & M.	\$0.00	\$100.00	\$1,790.00
MMD	Gaskets on Boilers #4 (Addition #2 - 1966)	8	CONTINUE O & M.	\$0.00	\$100.00	\$1,895.00
MME	Built-up Roof (Original Building - 1962)	8	CONTINUE O & M.	\$0.00	\$100.00	\$161,619.00
MMF	Built-up Roof (Addition #1 - 1964)	8	CONTINUE O & M.	\$0.00	\$100.00	\$72,395.00
MMG	Built-up Roof (Addition #2 - 1966)	8	CONTINUE O & M.	\$0.00	\$100.00	\$259,875.00
MMH	Built-up Roof (Addition #3 - 1979)	8	CONTINUE O & M.	\$0.00	\$100.00	\$125,421.00
<b>TOTAL</b>				\$0.00	<b>\$2,100.00</b>	<b>\$822,197.00</b>

1. CDB Bldg. No.: U1110 2. Batch #: \_\_\_\_\_  
 3. Facility Name: NIU 4. CDB Project #: 910-010-093  
 5. Building Name: West Heating Plant 6. Date Samples Collected: 1/19/00  
 7. Name of Inspector: Terry Bassett 8. Project Name: Statewide Survey  
 9. License #: 100-3487 10. Sample Numbers: TFA-1,2,3; TFB-1,2,3;  
TFC-1,2,3; TJA-1,2,3; TJB-1,2,3; TJC-1,2,3; TPA-1,2,3; TPB-1,2,3;  
TPC-1,2,3; TTA-1,2,3; TTB-1,2,3  
 11. Total # Samples: 33

12. Sample numbers relinquished: 33  
 Relinquished by: Terry Bassett Representing: CCA  
 Signature: Terry Bassett  
 Method of Transmission: Hand  
 Date and Time: 1/21/00 12pm

Sample numbers received: 33  
 Received by: Denise Berger Representing: CCA Lab  
 Signature: Denise Berger  
 Condition of Sample Upon Receipt: good  
 Date and Time: 1/21/00 12pm  
 Reason for Obtaining Sample: Analysis

13. Sample numbers relinquished: 33  
 Relinquished by: Denise Berger Representing: CCA Lab  
 Signature: Denise Berger  
 Method of Transmission: Certified Mail  
 Date and Time: 5-12-00 4:00 pm

Sample numbers received: same as #10 above (33 samples)  
 Received by: [Signature] Representing: CCA  
 Signature: [Signature]  
 Condition of Sample Upon Receipt: Good  
 Date and Time: 5-12-00 4:00 pm  
 Reason for Obtaining Sample: Analysis

14. Sample numbers relinquished: SAME AS #10 ABOVE (33 SAMPLES)  
 Relinquished by: S. GRADNICK Representing: CDB  
 Signature: [Signature]  
 Method of Transmission: CERTIFIED MAIL NEXT DAY DELIVERY  
 Date and Time: 6/1/00 3:00pm

Sample numbers received: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Condition of Sample Upon Receipt: \_\_\_\_\_  
 Date and Time: \_\_\_\_\_  
 Reason for Obtaining Sample: \_\_\_\_\_

15. BLDG. # \_\_\_\_\_ 16. BATCH # \_\_\_\_\_ 17. PAGE # \_\_\_\_\_

18. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

19. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

20. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

Chain of Custody is completed with delivery of samples to a CDB Sample Custodian. Project Manager shall make arrangements for delivery.

CHAIN OF CUSTODY RECORD FOR ASBESTOS BULK SAMPLES

H102+2-0071  
1379-1396

1. CDB Bldg. No.: U1110 2. Batch #: \_\_\_\_\_  
 3. Facility Name: NIU 4. CDB Project #: 910-010-093  
 5. Building Name: West Heating Plant 6. Date Samples Collected: 2-2-2000  
 7. Name of Inspector: Derek Lantry 8. Project Name: NIU  
 9. License #: 100-8733 10. Sample Numbers: TJD-1, -2, -3;  
TJE-1, -2, -3; TJF-1, -2, -3; TJG-1; MSA-1;  
MSB-1  
 11. Total # Samples: 12

12. Sample numbers relinquished: 12  
 Relinquished by: Derek Lantry Representing: CCA  
 Signature: [Signature]  
 Method of Transmission: By Hand  
 Date and Time: 2-7-2000 @ 10:30 AM

Sample numbers received: 12  
 Received by: Denise Berger Representing: CCA Lab  
 Signature: [Signature]  
 Condition of Sample Upon Receipt: Good  
 Date and Time: 2-7-00 10:30 AM  
 Reason for Obtaining Sample: Analysis

13. Sample numbers relinquished: 12  
 Relinquished by: Denise Berger Representing: CCA Lab  
 Signature: [Signature]  
 Method of Transmission: Certified Mail  
 Date and Time: 5-12-00 4:00pm

Sample numbers received: SAME AS #10 Above (12 Samples)  
 Received by: S. GRALWICK Representing: CDB  
 Signature: [Signature]  
 Condition of Sample Upon Receipt: Good  
 Date and Time: 5/16/2000 12pm  
 Reason for Obtaining Sample: Storage

14. Sample numbers relinquished: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Method of Transmission: \_\_\_\_\_  
 Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Condition of Sample Upon Receipt: \_\_\_\_\_  
 Date and Time: \_\_\_\_\_  
 Reason for Obtaining Sample: \_\_\_\_\_

15. BLDG. # \_\_\_\_\_ 16. BATCH # \_\_\_\_\_ 17. PAGE # \_\_\_\_\_

18. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

19. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

20. Sample numbers relinquished: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Method of Transmission: \_\_\_\_\_  
Date and Time: \_\_\_\_\_

Sample numbers received: \_\_\_\_\_  
Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Condition of Sample Upon Receipt: \_\_\_\_\_  
Date and Time: \_\_\_\_\_  
Reason for Obtaining Sample: \_\_\_\_\_

Chain of Custody is completed with delivery of samples to a CDB Sample Custodian. Project Manager shall make arrangements for delivery.

CHAIN OF CUSTODY RECORD FOR ASBESTOS BULK SAMPLES

211454  
211453

- 1. CDB Bldg. No.: U1110
- 2. Batch #: 2
- 3. Facility Name: NORTHERN ILLINOIS UNIV.
- 4. CDB Project #: 910-010-093
- 5. Building Name: WEST HEATING PLANT
- 6. Date Samples Collected: 1/19/2000 AND 2/2/2000
- 7. Name of Inspector: TERRY BASSETT / DELEL
- 8. Project Name: STATEWIDE SURVEY
- 9. License #: 100-3487 / 100-8733 <sup>L ANTRVY</sup>
- 10. Sample Numbers: U1110-TFC-1,2,3;  
U1110-TJE-1,2,3; U1110-TJF-1,2,3; U1110-TTA-1,2,3

11. Total # Samples: 12

12. Sample numbers relinquished: 12  
 Relinquished by: CHRISTIE MOSKO Representing: CCA  
 Signature: Christie Mosko  
 Method of Transmission: Fed Ex  
 Date and Time: \_\_\_\_\_

Sample numbers received: 12  
 Received by: ALAN N MARQUEZ Representing: STAT LAB  
 Signature: [Signature]  
 Condition of Sample Upon Receipt: Good  
 Date and Time: 08-04-00 12:00 HR  
 Reason for Obtaining Sample: Testing

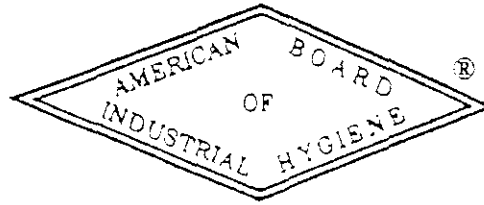
3. Sample numbers relinquished: 12  
 Relinquished by: ALAN N MARQUEZ Representing: STAT LAB  
 Signature: [Signature]  
 Method of Transmission: HAND  
 Date and Time: 8/14/00 12 PM

Sample numbers received: 12  
 Received by: C. MOSKO Representing: CCA  
 Signature: Christie Mosko  
 Condition of Sample Upon Receipt: good  
 Date and Time: 8-14-00  
 Reason for Obtaining Sample: transfer to CDB

14. Sample numbers relinquished: 12  
 Relinquished by: C. MOSKO Representing: CCA  
 Signature: Christie Mosko  
 Method of Transmission: Fed Ex  
 Date and Time: 8-22-00 6:30 PM

Sample numbers received: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Representing: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Condition of Sample Upon Receipt: \_\_\_\_\_  
 Date and Time: \_\_\_\_\_  
 Reason for Obtaining Sample: \_\_\_\_\_

The  
American Board of Industrial Hygiene  
ABIH<sup>®</sup>



organized to improve the practice of Industrial Hygiene  
proclaims that

**David Joseph Kedrowski**

having met all requirements through  
education, experience and examination,  
is hereby certified in the

COMPREHENSIVE PRACTICE  
of  
INDUSTRIAL HYGIENE

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH



June 19, 1998

date

Chair ABIH

CP 7652

certificate  
number

Secretary ABIH

# HINDS ENVIRONMENTAL, INC.

Certifies that

*David Kedrowski*  
318-76-0579

has completed the requisite training for asbestos accreditation under  
TSCA Title II entitled:

## PROJECT DESIGN INITIAL TRAINING COURSE

in accordance with 40 CFR Part 763 (AHERA)  
and successfully passed the exam with a score of 70% or above.

Course Date(s): *March 08, 09 & 10, 1999*

Exam Date: *March 10, 1999*

Expiration Date: *March 10, 2000*

Certificate No.: *PD10030*

*William S. Williams*

Course Instructor, William S. Williams

*Robert L. Hinds*

President, Robert L. Hinds

Accredited by the Illinois Department of Public Health

2975 Stanton Street ♦ Springfield, Illinois 62703-4345 ♦ (217) 585-8970



THE GREAT LAKES CENTER FOR OCCUPATIONAL & ENVIRONMENTAL  
SAFETY & HEALTH

The University of Illinois at Chicago, School of Public Health, 2121 West Taylor Street, Chicago, Illinois 60612 (312) 996-6904

Certifies that **DAVID KEDROWSKI, 318-76-0579**

has Attended

**ASBESTOS PROJECT DESIGNER REFRESHER**

(Accredited under TSCA, Title II by EPA)

which has been full approved and accredited by the Illinois Department of Public Health

and Successfully Passed the Competency Exam  
with a minimum score of at least 70%

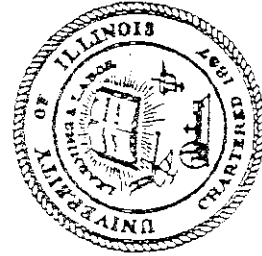
R8803

Date of Exam: 1/27/00

Course Date: 1/27/00

Date of Issuance: 1/27/00

Date of Expiration: 1/27/01



*David Kedrowski*  
Executive Director

*David Kedrowski*  
Director



State of Illinois

A 109583

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

Table with 3 columns: EXPIRATION DATE (05/15/2001), CATEGORY (5319), I.D. NUMBER (100-4543). Below the table, it lists DAVID J. KEDROWSKI with roles: PROJECT DESIGNER, PROJECT MANAGER, INSPECTOR, AIR SAMPLING PROFESSIONAL.

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE

ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

DAVID J. KEDROWSKI
333 W. WACKER DR., SUITE 1400
CHICAGO IL 60606

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COURSE CERTIFICATE IS NOT CURRENT

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State of Illinois A 109583  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2001	3619	100-4543

DAVID J.



KIEDROWSKI

PROJECT DESIGNER    PROJECT MANAGER  
INSPECTOR    AIR SAMPLING PROFESSIONAL

THE PERSON  
ON THIS SEATING  
OF THE ILLINOIS  
AND IS HEREBY  
INDICATED ON THE



THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.



SIGNATURE OF LICENSEE

ISSUED UNDER THE AUTHORITY OF  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC HEALTH

State of Illinois A 91423  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION

EXPIRATION DATE 01/01/2000	CATEGORY 5317	ID NUMBER 17-1107
-------------------------------	------------------	----------------------

David

Kedrowski

LEAD INSPECTOR, RISK ASSESSOR

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.



SIGNATURE OF LICENSEE

ISSUED UNDER THE AUTHORITY OF  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC HEALTH

State of Illinois A 90842  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE 06/15/2000	CATEGORY 5319	ID NUMBER 100-4848
-------------------------------	------------------	-----------------------

DAVID J.

KEDROWSKI

PROJECT DESIGNER PROJECT MANAGER  
INSPECTOR AIR SAMPLING PROFESSIONAL



State of Illinois

A 106396

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

Table with 3 columns: EXPIRATION DATE (05/15/2001), CATEGORY (5319), I.D. NUMBER (100-7869). Below the table, the name CHRISTIE MOSKO and title MANAGEMENT PLANNER are listed.

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE

ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

CHRISTIE MOSKO

5828 S WALNUT APT.#2A

DOWNERS GROVE IL 60516

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State of Illinois A 106396  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSEE

EXPIRATION DATE	CATEGORY	ID. NUMBER
05/15/2001	5819	100-7689

CHRISTIE

MORRO

MANAGEMENT PLANNER

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.

ISSUED UNDER THE AUTHORITY OF  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC HEALTH



# AMERISAFE TRAINING SERVICES

## ASBESTOS MANAGEMENT PLANNER INITIAL COURSE CERTIFICATE

IDPH APPROVED

This is to certify

**CHRISTIE MOSKO**  
**333-76-6650**

Has successfully completed the EPA/Approved Asbestos Management Planner Initial Training Course and passed the Examination for purposes of accreditation under section 206 of Title II of the Toxic Substances Control Act (TSCA). Conducted by Amerisafe Training Services, 2050 N. 15<sup>th</sup> Avenue, Melrose Park, IL. 60160. 1-708-681-1250.

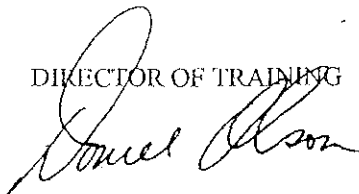
LOCATION MELROSE PARK, IL.

EXAMINATION JANUARY 28, 2000

COURSE DATES JANUARY 27-28, 2000

EXPIRATION JANUARY 28, 2001

DIRECTOR OF TRAINING



Certificate Number: ATS 200122

State of Illinois A 58196  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	ISSUE NO.
05/15/2000	6319	100-7669

CHRISTIE

MOSKO

INSPECTOR AIR SAMPLING PROFESSIONAL

I HEREBY CERTIFY THAT THE ABOVE NAMED PERSON IS QUALIFIED TO EXERCISE THE FUNCTIONS OF THE LICENSED PROFESSIONAL ASBESTOS INSPECTOR AND I HEREBY CERTIFY THAT THE INFORMATION INDICATED ON THE APPLICATION IS TRUE AND CORRECT.



DR. E. J. LEE, M.D., M.P.H.  
DIRECTOR  
DEPARTMENT OF PUBLIC HEALTH





State of Illinois A 98195

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

Table with 3 columns: EXPIRATION DATE (05/15/2000), CATEGORY (5319), ID NUMBER (100-1785). Content includes MARK SCHLEYER, MANAGEMENT PLANNER, INSPECTOR AIR SAMPLING PROFESSIONAL.

BUSINESS ADDRESS
ASBESTOS PROFESSIONAL LICENSE

ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

MARK SCHLEYER

12612 S MEADE AVE

PALOS HEIGHTS IL 60463

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XII.11

← DISPLAY THIS PART IN A
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Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION
ASBESTOS PROFESSIONAL LICENSE

Table with 3 columns: EXPIRATION DATE (05/15/2000), CATEGORY (5319), ID NUMBER (100-1785).

MARK SCHLEYER

MANAGEMENT PLANNER

INSPECTOR AIR SAMPLING PROFESSIONAL

04/22/99

MARK SCHLEYER

12612 S MEADE AVE

PALOS HEIGHTS IL 60463

State of Illinois A 98195  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2000	5319	100-1785

MARK

SCHLEYER

MANAGEMENT PLANNER

INSPECTOR AIR SAMPLING PROFESSIONAL

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.



ISSUED UNDER THE AUTHORITY OF  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC HEALTH

*Mark Schleyer*

SIGNATURE OF LICENSEE

AMERISAFE TRAINING SERVICES

# ASBESTOS MANAGEMENT PLANNER REFRESHER COURSE CERTIFICATE

IDPH APPROVED  
This is to certify

**MARK A. SCHLEYER**  
**357-62-8693**

Has successfully completed the EPA/Approved Asbestos Management Planner Refresher Training Course and passed the Examination for purposes of accreditation under section 206 of Title II of the Toxic Substances Control Act (TSCA). Conducted by Amerisafe Training Services, 2050 N. 15<sup>th</sup> Avenue, Melrose Park, IL. 60160. 1-708-681-1250.

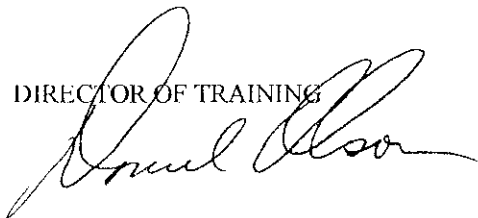
**LOCATION CHICAGO, IL.**

**EXAMINATION JANUARY 6, 2000**

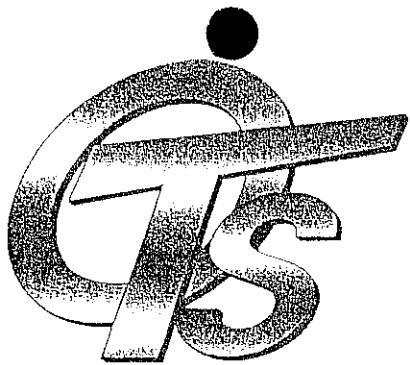
**COURSE DATES JANUARY 6, 2000**

**EXPIRATION JANUARY 6, 2001**

DIRECTOR OF TRAINING



AMERISAFE TRAINING SERVICES 200006-1



# Occupational Training & Supply, Inc.

12601 S. Springfield • Alsip, IL 60803 • 708/385-1325

## Mark A. Schleyer

357-62-8693

has successfully completed the 4 hour Asbestos Management Planner Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

## Asbestos Management Planner Refresher

Course Date: February 12, 1999  
Expiration Date: February 12, 2000

Exam Date: February 12, 1999  
Certificate: MPR9902120491

Kathy Nicholson, Director

XII.14

1999

State of Illinois A 98094  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	ID NUMBER
05/15/2000	5319	100-3487

TERRY

BASSETT

INSPECTOR

PROJECT MANAGER

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.



ISSUED UNDER THE AUTHORITY OF  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC HEALTH

SIGNATURE OF LICENSEE



State of Illinois

A 98094

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.  
DIRECTOR

Issued under the authority of  
The State of Illinois  
Department of Public Health

EXPIRATION DATE	CATEGORY	ID NUMBER
05/15/2000	5319	100-3487
TERRY BASSETT		
INSPECTOR		PROJECT MANAGER

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE

ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

TERRY BASSETT

8607 W 98 PLACE

PALOS HILLS IL 60465

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State of Illinois A 98094

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	ID NUMBER
05/15/2000	5319	100-3487

TERRY

BASSETT

PROJECT MANAGER

INSPECTOR

# AMERISAFE TRAINING SERVICES

## ASBESTOS BUILDING INSPECTOR REFRESHER COURSE CERTIFICATE

IDPH & IDEM APPROVED  
This is to certify

**TERRY BASSETT**  
**350-40-6394**

Has successfully completed the EPA/Approved Asbestos Building Inspector Refresher Training Course and passed the Examination for purposes of accreditation under section 206 of Title II of the Toxic Substances Control Act (TSCA). Conducted by Amerisafe Training Services, 2050 N. 15<sup>th</sup> Avenue, Melrose Park, IL. 60160. 1-708-681-1250.

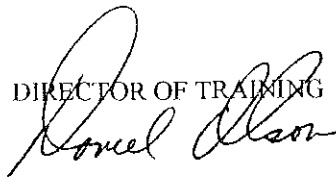
LOCATION CHICAGO, IL.

EXAMINATION JANUARY 6, 2000

COURSE DATES JANUARY 6, 2000

EXPIRATION JANUARY 6, 2001

DIRECTOR OF TRAINING



Certificate Number: ATS 200014

# Moraine Valley Community College Environmental Institute AHERA Accreditation

*This certificate is awarded to*

TERRY BASSETT

*In recognition of attending the required 24-hour training course and successfully passing the written examination, attaining a score of 70 percent or greater, for accreditation as a:*

## Building Inspector

XII.18

Course Date	Test Date	Expiration Date	Accreditation #
March 8 - 10, 1993	March 10, 1993	March 9, 1994	3931002

This course is fully approved by the U.S. EPA only for purposes of accreditation under section 206 of the Toxic Substance Control Act. This course is further accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management.



Moraine Valley  
Community College  
10900 South 88th Avenue  
Palos Hills, Illinois 60465  
(708) 974-5735

Bill Wendt  
Director



FINAL ASSESSMENT

TO: Medical Records/Employee/Company Management of CCA  
RE: Name TERRY BASSETT (Name of Company)  
(Employee Name)

1. This employee was examined on 12 / 2 / 99. I have reviewed the data available in the employee's record and I

- detected no medical conditions which would place this employee at increased risk of health impairment from the known duties and exposures of their job.
- detected medical condition(s) which may place this employee at increased risk of health impairment from the known duties and exposures of their job, specifically, he/she has \_\_\_\_\_
- find that further tests or evaluations need to be performed before a determination can be made as to whether this employee is at increased risk of health impairment from the known duties and exposures of their job.

2. Based on this examination, I find that this employee

- has no work related health problems.
- has the following health problems: \_\_\_\_\_  
which are sometimes associated with exposure to: \_\_\_\_\_

3.  has no medical conditions which will preclude him/her from wearing a properly fitted respirator.

- has medical conditions which preclude him/her from wearing a respirator: \_\_\_\_\_
- may wear a properly fitted respirator with the following restrictions or qualifications: \_\_\_\_\_
- Undetermined: see #4 for recommended further investigation.

4. Based on this examination, I recommend the following:

- no work restrictions.
- due to medical reasons, this employee should observe the following work restrictions: \_\_\_\_\_
- Additional comments and/or recommendations: \_\_\_\_\_
- Please arrange for retesting of: \_\_\_\_\_

Under these conditions: \_\_\_\_\_

(check) I have informed this employee of the results of this examination and my recommendations.

Date: 12 / 2 / 99

Physician's Name: AGNES D. LATTIMER, MD  
Physician's Signature: Agnes D. Lattimer (Print name) \_\_\_\_\_ M.D.

 CARNOW, CONIBEAR & ASSOC., LTD.



CARNOW, CONIBEAR & ASSOC., LTD.

Occupational and Environmental Health Consultants

333 West Wacker Drive, Suite 1400, Chicago, IL 60606, 312/782-4486

### RESPIRATOR FIT-TEST CERTIFICATION

On 12-15-99, Terry BASSETT was fit tested with a(n)  
(Date) (Name)

NORTH, 1/2 MASK, MEDIUM respirator.  
(Brand) (Model) (Size)

The fit-testing was accomplished using procedures outlined in OSHA regulations 29CFR1910.134 and other similar good industrial hygiene practices. He/She was exposed to Bitrex aerosol and iso-amyl acetate (fit-test ampules) while performing a positive and negative pressure fit test, moving through a series of movements and reciting various words and phrases. The positive and negative pressure fit tests were explained, demonstrated and performed for both testing substances.

The movements were designed to simulate the range of normal movements to be expected during respirator usage and were meant to insure that the respirator will provide a good seal in all circumstances.

I conducted the fit-test and certify that he/she met all the requirements of the test.

[Signature]  
(CCA employee signature)

12-15-99  
(Date)

[Signature]  
(Signature of person being fit-tested)

CCA  
(Employer)

12-2-99  
(Date of Medical Clearance)



August 18, 1999

Mr. David Kedrowski  
Carnow, Conibear & Associates Ltd.  
333 W. Wacker Drive, Suite 1400  
Chicago, IL 60606-1226

NVLAP Lab Code: 101039-0

Dear Mr. Kedrowski:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until September 30, 2000, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP logo in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Thomas R. Davis, Sr. Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

James L. Cigler, Chief  
Laboratory Accreditation Program

Enclosure(s)

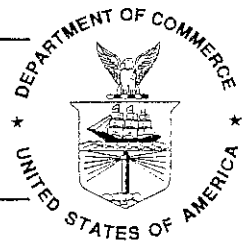
National Institute  
of Standards and Technology



National Voluntary  
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990  
ISO 9002:1987

## Scope of Accreditation



Page: 1 of 1

**BULK ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 101039-0**

**CARNOW, CONIBEAR & ASSOCIATES LTD.**

333 W. Wacker Drive, Suite 1400

Chicago, IL 60606-1226

Mr. David Kedrowski

Phone: 312-782-4486 Fax: 312-782-5145

*NVLAP Code*

18/A01

*Designation*

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk  
Insulation Samples

September 30, 2000

Effective through

A handwritten signature in black ink, appearing to read 'John L. Gylf', is written over a horizontal line.

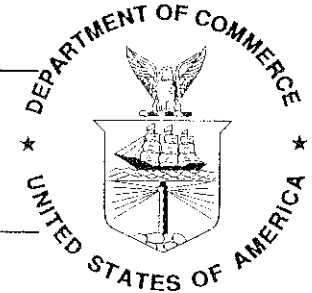
For the National Institute of Standards and Technology

United States Department of Commerce  
National Institute of Standards and Technology

**NVLAP**®

ISO/IEC GUIDE 25:1990  
ISO 9002:1987

**Certificate of Accreditation**



**CARNOW, CONIBEAR & ASSOCIATES LTD.**  
CHICAGO, IL

*is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:*

**BULK ASBESTOS FIBER ANALYSIS**

September 30, 2000

*Effective through*

A handwritten signature in black ink, appearing to read "Jan L. Gylb".

*For the National Institute of Standards and Technology*

NVLAP Lab Code: 101039-0

State of Illinois A 92813  
 Department of Public Health  
**LICENSE, PERMIT, CERTIFICATION, REGISTRATION**  
**ASBESTOS PROFESSIONAL LICENSE**

EXPIRATION DATE	CATEGORY	ID NUMBER
05/15/2000	531	100-8730

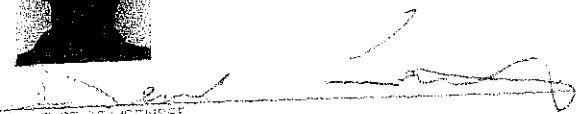
DENEK LANTRY

INSPECTOR

THE PERSON, FIRM OR CORPORATION WHOSE NAME APPEARS ON THIS CERTIFICATE HAS COMPLIED WITH THE PROVISIONS OF THE ILLINOIS STATUTES AND/OR RULES AND REGULATIONS AND IS HEREBY AUTHORIZED TO ENGAGE IN THE ACTIVITY INDICATED ON THE FACE OF THIS CARD.



ISSUED UNDER THE AUTHORITY OF  
 STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC HEALTH

  
 SIGNATURE OF LICENSEE

X11.25



State of Illinois A 92813

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.  
DIRECTOR

Issued under the authority of  
The State of Illinois  
Department of Public Health

EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2000	5319	100-8733
DEREK LANTRY		
INSPECTOR		

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE  
ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

DEREK LANTRY

4703 N. TALMON AVE.

CHICAGO IL 60625

THIS LICENSE IS NOT VALID IF YOUR IDPH  
COURSE CERTIFICATE IS NOT CURRENT

Printed by Authority of the State of Illinois • 2/91 •

← DISPLAY THIS PART IN A  
CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN  
IDENTIFICATION

State of Illinois A 92813  
Department of Public Health  
LICENSE, PERMIT, CERTIFICATION, REGISTRATION  
ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2000	5319	100-8733
DEREK LANTRY		
INSPECTOR		

01/19/99

DEREK

LANTRY

4703 N. TALMON AVE.

CHICAGO

IL 60625

# CERTIFICATE OF ACHIEVEMENT ASBESTOS ABATEMENT RECERTIFICATION

Accredited by the Illinois Department of Public Health

This is to certify that Derek Lantry SS# 047-58-1389 has completed the ASBESTOS INSPECTOR'S REFRESHER course and successfully passed the examination on December 13, 1999 with a minimum score of 70%.

Training was in accordance with U.S. E.P.A. 40 CFR 763 Subpart E, Appendix C, Asbestos Containing Materials in Schools: Model Accreditation Plan, TSCA II. Authorized by both AHERA & ASHARA.

December 13, 1999

Course Dates

December 12, 2000

Expires

9912BIR04

Certificate Number



**PUBLIC HEALTH & SAFETY inc.**

Environmental and Occupational Services

105 S. Ashland, Chicago, IL 60607

*Nichola P. Neff, Dr. PH*

Nichola P. Neff Dr. PH

Director of Training

FORM # A-010

(312) 421-7397



# CERTIFICATE OF COMPLETION

This is to certify that

**Derek Lantry**

047-58-1389

has completed the

**ASBESTOS INSPECTOR INITIAL TRAINING CLASS**

(and passed a test with a score of 70% or better)

Presented by

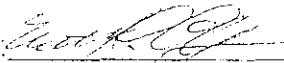
**Carnow, Conibear & Assoc., Ltd.**


Course Date: November 23-25, 1998

Examination Date: November 25, 1998

**Certificate Expiration Date: November 24, 1999**

Certificate Number: AIIT-11-98-006

Course Director:   
Willard C. Christoffer, CIH

Course Director:   
Oscar Figueroa

Carnow, Conibear & Assoc., Ltd.  
*Occupational and Environmental Health Consultants*  
333 West Wacker Drive, Phone (312) 782 - 4486  
Chicago, Illinois 60606

FINAL ASSESSMENT - ASBESTOS

TO: Medical Records/Employee/Company Management of CCA  
(Name of Company)  
RE: Name DEREK LANTRY  
(Employee Name)

1. This employee was examined on 11 / 16 / 99. I have reviewed the data available in the employee's record and I

detected no medical conditions which would place this employee at increased risk of health impairment from the known duties and exposures of their job.

detected medical condition(s) which may place this employee at increased risk of health impairment from the known duties and exposures of their job, specifically, he/she has \_\_\_\_\_

find that further tests or evaluations need to be performed before a determination can be made as to whether this employee is at increased risk of health impairment from the known duties and exposures of their job.

2. Based on this examination, I find that this employee

has no work related health problems.

has the following health problems: \_\_\_\_\_  
which are sometimes associated with exposure to: \_\_\_\_\_

3.  has no medical conditions which will preclude him/her from wearing a properly fitted respirator.

has medical conditions which preclude him/her from wearing a respirator: \_\_\_\_\_

may wear a properly fitted respirator with the following restrictions or qualifications: \_\_\_\_\_

Undetermined; see #4 for recommended further investigation.

4. Based on this examination, I recommend the following:

no work restrictions.

due to medical reasons, this employee should observe the following work restrictions: \_\_\_\_\_

Additional comments and/or recommendations: \_\_\_\_\_

Please arrange for retesting of: \_\_\_\_\_

Under these conditions: \_\_\_\_\_

(check) I have informed this employee of the results of this examination and my recommendations.  
 (check) I have informed this employee of the increased risk of lung cancer associated with cigarette smoking and asbestos exposure.

Date: 11/16/99

Physician's Name: AGNES D. LATTIMER, MD

Physician's Signature: Agnes D. Lattimer (Print name), M.D.



CARNOW, CONIBEAR & ASSOC., LTD.

Occupational and Environmental Health Consultants

333 West Wacker Drive, Suite 1400, Chicago, IL 60606. 312-782-4486

### RESPIRATOR FIT-TEST CERTIFICATION

On 01.03.00, Derek Lantry was fit tested with a(n)  
(Date) (Name)

North, 1/2 Mask, L respirator.  
(Brand) (Model) (Size)

The fit-testing was accomplished using procedures outlined in OSHA regulations 29CFR1910.134 and other similar good industrial hygiene practices. He/She was exposed to Bitrex aerosol and iso-amyl acetate (fit-test ampules) while performing a positive and negative pressure fit test, moving through a series of movements and reciting various words and phrases. The positive and negative pressure fit tests were explained, demonstrated and performed for both testing substances.

The movements were designed to simulate the range of normal movements to be expected during respirator usage and were meant to insure that the respirator will provide a good seal in all circumstances.

I conducted the fit-test and certify that he/she met all the requirements of the test.

[Handwritten Signature]  
(CCA employee signature)

01.03.00  
(Date)

[Handwritten Signature]  
(Signature of person being fit-tested)

CCA  
(Employer)

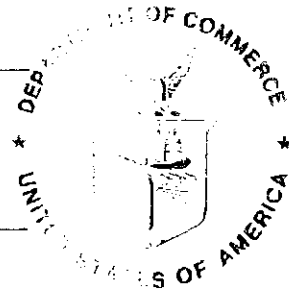
9-7-99  
(Date of Medical Clearance)

United States Department of Commerce  
National Institute of Standards and Technology

# NVLAP<sup>®</sup>

ISO/IEC GUIDE 25:1990  
ISO 9002:1987

## Certificate of Accreditation



**STAT ANALYSIS CORPORATION**  
CHICAGO, IL

*is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:*

**BULK ASBESTOS FIBER ANALYSIS**

June 30, 2000

Effective through

For the National Institute of Standards and Technology

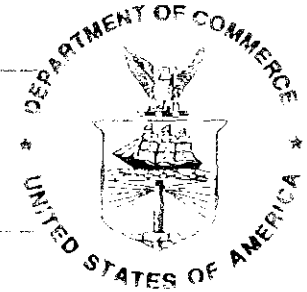
NVLAP Lab Code: 1000000000

United States Department of Commerce  
National Institute of Standards and Technology

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ISO 9002:1987

**Certificate of Accreditation**



**STAT ANALYSIS CORPORATION**  
CHICAGO, IL

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**BULK ASBESTOS FIBER ANALYSIS**

June 30, 2001

Effective through

*David E. Alderman*

For the National Institute of Standards and Technology

NVLAP Lab Code: 101202-0

APPENDIX C OF  
A/E MANUAL OF PROCEDURES FOR  
ASBESTOS INSPECTIONS & MANAGEMENT PLANS  
STATE OF ILLINOIS  
CAPITAL DEVELOPMENT BOARD  
ASBESTOS ABATEMENT AUTHORITY

**STANDARD O & M PROGRAM**  
**FOR**  
**ASBESTOS-CONTAINING MATERIALS**

June 1998

# TABLE OF CONTENTS

I.	Introduction	XIII.1 (C-1.1)
II.	Designated Person	XIII.2 (C-2.1-C-2.2)
III.	Notification	XIII.4 (C-3.1)
IV.	Warning Labels	XIII.5 (C-4.1)
V.	Training	XIII.6 (C-5.1)
VI.	Respirator Program	XIII.7 (C-6.1-C-6.5)
VII.	Inspections and Reinspections	XIII.12 (C-7.1)
VIII.	Periodic Surveillance	XIII.13 (C-8.1)
IX.	Cleaning Procedures	XIII.14 (C-9.1)
X.	ACM Disturbances	XIII.15 (C-10.1-C-10.12)
XI.	Records, Reports & Sample Forms	XIII.27 (C-11.1)
	Sample Letter	XIII.28 (C-11.2)
	Training & Medical	XIII.29 (C-11.3)
	Respirator Inspection/Fit Test Record	XIII.31 (C-11.4.1-C-11.4.2)
	Periodic Surveillance	XIII.33 (C-11.5)
	Cleaning Record	XIII.34 (C-11.6)
	Supplemental Conditions	XIII.35 (C-11.7)
	Maintenance and Renovation Work	XIII.36 (C-11.8.1-C-11.8.3)
	Fiber Release Episode	XIII.39 (C-11.9)

# I. INTRODUCTION

- A. The Federal Asbestos Hazard Emergency Response Act (AHERA) requires an Operation and Maintenance Program in all elementary and secondary school buildings which have been found to contain asbestos containing materials. The Operation and Maintenance Program contained herein is in accordance with AHERA and the Illinois Department of Public Health Rules and Regulations. Adherence to this program is mandatory for schools under Federal and State regulations.

The Capital Development Board recommends that this Operation and Maintenance Program be instituted by State agencies in all State-owned buildings.

- B. The responsibility for asbestos inspections and abatement in State owned buildings has been assigned by the Office of the Governor to the Capital Development Board. Under this authority, the O & M Plan for this facility has been prepared. Regulations include the Illinois Asbestos Abatement Act, chapter 22, para. 1401 and Rules and Regulations Title 77, chapter I, subchapter p part 855 Asbestos Abatement for Public and Private Schools in Illinois as amended and the USEPA NESHAP Regulations 40 CFR 61.140 dated November 20, 1990.



## II. DESIGNATED PERSON

A. The facility shall appoint a Designated Person to implement the Management Plan. If necessary, an assistant Designated Person may be appointed. The Designated Person shall:

1. Be in good health with no respiratory impairment, have an asbestos worker's medical exam and be approved by the agency fit to wear a respirator. It is preferable that the individual be a non-smoker.
2. Be knowledgeable about the building(s) and its mechanical systems.
3. Be the "Building Engineer" or "Head of Maintenance" or in a position to be informed about all repair and renovation activities within the building.
4. Be on call for emergencies which may occur after normal working hours.
5. Have successfully completed a Contractor Supervisor course and shall complete Form C-11.3.

B. The Designated Person for this facility is:

Name: \_\_\_\_\_ Date Appointed: \_\_\_\_\_  
Title: \_\_\_\_\_ Home Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Phone: \_\_\_\_\_

C. The Designated Person shall receive training concerning the following:

1. Health effects of asbestos
2. Methods of detecting, identifying and assessing ACM
3. Response actions
4. How to implement an asbestos management plan
5. Relevant Federal and State regulations concerning asbestos

D. The following are the duties of the Designated Person:

1. Ensure Management Plans are available for inspection and that notification is sent in accord with Section C-3.
2. Post warning labels in accord with Section C-4.
3. Ensure all custodial and maintenance employees are trained in accord with Sections C-5.

4. Document and maintain records of inspections and reinspections and implement response actions and Operations and Maintenance in accord with the Management Plan.
5. Maintain records in accord with Section C-6. Ensure that the facility's respirator program is enforced.
6. Schedule reinspections in accord with Section C-7.
7. Perform periodic surveillance in accord with Section C-8.
8. Ensure that cleaning is performed in accord with Section C-9.
9. Provide employees and workers who may come in contact with asbestos with information in accord with Section C-10.
10. Document and take appropriate action for any fiber release in accord with Section C-10.

### III. NOTIFICATION; AVAILABILITY OF PLAN

- A. The Designated Person is responsible for ensuring that employees, workers, and other building occupants (or their parents or legal guardians) are notified in writing that the Management Plan is available for inspection. The written notification shall be given at least once a year. See example in Section C-11.2.
- B. The Designated Person shall attach copies of the initial notification and each annual notification to the Management Plan as an Appendix titled "Notification". Include a written statement documenting the procedures taken to complete the notification; a list of individuals who received the notification; and a dated copy of the letter.
- C. All persons requiring notification, occupying the facility after the initial notification, shall be provided with notification at beginning of employment or occupancy.
- D. A copy of the Management Plan shall be maintained in the administrative office, in room \_\_\_\_\_ of the \_\_\_\_\_ Building. The Management Plan is available, during normal business hours, without cost or restriction, for inspection by representatives of EPA, the State, the public, and all persons notified. A reasonable fee may be charged for copies of the Management Plan.
- E. Copies of the Management Plan shall also be maintained at the Office of the Director of the Department of \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_, Illinois.

## IV. WARNING LABELS

- A. Permanently affix an approved warning label on or adjacent to any friable or non-friable ACM and assumed ACM located in routine maintenance areas.
- B. All labels shall be in prominent visible locations until the ACM is removed. The warning label shall read, in print which is readily visible because of large size or bright color, as follows either:
  - 1. **CAUTION: ASBESTOS. HAZARDOUS. DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT. (USEPA)**

OR

  - 2. **DANGER: CONTAINS ASBESTOS FIBERS. AVOID CREATING DUST. CANCER & LUNG DISEASE HAZARD. (OSHA)**
- C. Access to routine maintenance areas that contain ACM shall be limited to authorized trained individuals. Document placement of warning labels.

## V. TRAINING

- A. Different levels of training are required dependent on the employees' job classification and duties as they relate to possible asbestos exposure. All members of the maintenance and custodial staff who work in a building that contains ACM shall receive awareness training of at least two hours, whether or not they are required to work with the ACM. New custodial and maintenance employees shall be trained within 60 days after commencement of employment. As a minimum, training shall include:
1. Information regarding asbestos and its various uses and forms.
  2. Information on the health effects associated with asbestos exposure.
  3. Locations of ACM, identified throughout each building in which they work.
  4. Recognition of damage, deterioration and delamination of ACM.
  5. Name and telephone number of the Designated Person and the availability and location of the management plan.
- B. All maintenance and custodial staff who may disturb ACM shall complete an Asbestos Worker Training three-day course, pass the examination, and be licensed as asbestos workers by the Illinois Department of Public Health.
- C. All facilities having licensed workers shall also have a person trained and licensed as an asbestos supervisor. The Contractor/Supervisor Course is four days in length.

Complete Form C-11.3 in Section 11 for all trained personnel.

## VI. RESPIRATOR PROGRAM

- A. All employees required to wear respirators shall be involved in a respirator program. These procedures cover the selection and use of respirators. Where practicable, the respirators should be assigned to individual workers for their exclusive use. Respirators and protective clothing will be provided by the agency when requested by the employee or required by law. Respirators shall be suitable for the purpose intended. Employees shall use the provided respiratory protection and protective clothing in accordance with instructions and training received. All employees shall comply with the USEPA WORKER PROTECTION RULE 40 CFR 763 SUBPART G and OSHA ASBESTOS CONSTRUCTION STANDARD 29 CFR 1926.1101 as amended to date.
- B. MEDICAL SURVEILLANCE:
1. Any employee exposed to at least 0.1 fibers per cc of asbestos for 30 or more calendar days per year, or any employee required to wear a respirator, must be in a medical surveillance program in compliance with the OSHA Standard for the construction industry 29 CFR 1926.1101. The Medical Surveillance Program includes:
    - a. Mandatory medical questionnaires found in Appendix D of 29 CFR 1926.1101.
    - b. An annual physical examination with emphasis on cardiovascular and gastro-intestinal systems.
    - c. An annual pulmonary function test with forced vital capacity and forced expiratory volume.
  2. All employees who may be exposed to asbestos fibers during the course of their employment while performing duties such as asbestos cleaning, asbestos repairs, asbestos removal, making asbestos inspections or monitoring asbestos abatement projects must pass an annual medical exam and shall wear a respirator whenever conditions may subject the employee to asbestos fiber exposure or inside an area designated for respirator use. The agency shall schedule and document that each employee working in the asbestos area has an annual medical examination. The \_\_\_\_\_ shall review all medical reports for the physician's certification of the employee's fitness to wear a respirator. Persons should not be assigned to tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. All medical records shall become a part of the employee's permanent records and shall be maintained for thirty years from the employee's last date of employment by the agency.

C. RESPIRATOR SELECTION:

1. Respirators must be selected on the basis of the hazard to which the employee is expected to be exposed. Respirators are rated in multiples of the Personal Exposure Limit (PEL) 0.1 f/cc. Respirators shall be selected as follows:
  - a. Up to 10 x PEL (1 f/cc) - half mask air-purifying with dual filters.
  - b. Over 10 x but less than 50 x PEL (1 - 5 f/cc) - full face powered air-purifying respirator (PAPR).
  - c. Over 50 x PEL (5 f/cc) - pressure demand air-line respirators or self-contained breathing apparatus (SCBA).
2. Pressure demand air-line respirators or self-contained breathing apparatus may be used to substitute for lower protection type respirators or if other conditions warrant this type of protection. An employee may request a PAPR in lieu of a half mask air-purifying respirator.

The agency shall provide a powered air purifying respirator in lieu of any negative pressure respirator whenever an employee chooses to use this type of respirator and it will provide adequate protection for the employee.
3. Facial hair interferes with the use of some types of respirators. Any employee having facial hair shall not use any respirator requiring a facial seal. Such employees shall instead utilize a hooded type, powered air-purifying respirator (PAPR), and shall not enter any area where the exposure concentration can reasonably be expected to exceed 5 f/cc. Whenever a hooded type PAPR is used, the employee shall operate the unit at its highest rated airflow and shall immediately exit any contaminated area at the first sign of reduced airflow or upon a unit low-battery signal.
4. Any problems with respirators shall immediately be brought to the Designated Person's attention.

D. RESPIRATOR TRAINING:

1. All users of respirators shall be instructed in their selection, use and maintenance. Training shall include the opportunity to handle the respirator, have it fitted properly, test its face-piece-to-face seal, wear it in normal air for a familiarity period, and wear it in a test atmosphere. Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

2. It is the employee's responsibility to ensure a proper fit each time the respirator is worn. Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the face-piece, or temple pieces on glasses. Also, the absence of one or both dentures can seriously affect the fit of a face piece. The agency shall conduct respirator fit testing to ensure that the respirator issued to the employee is fitted properly. Either quantitative or qualitative fit testing shall be conducted initially and at least every six months thereafter for each employee who may wear a negative pressure respirator or whenever the facial configuration of the employee may change, such as:
  - a. Weight change of 20 pounds or more.
  - b. Significant facial scarring in the area of the face piece seal.
  - c. Significant dental changes; i.e., multiple extractions; without prosthesis, or acquiring dentures.
  - d. Reconstructive or cosmetic surgery.
  - e. Any other condition that may interfere with face piece sealing.

The Designated Person shall document all respirator fit testing and provide a copy for the employee's permanent records maintained by the agency's Personnel Representative. Fit testing procedures shall be in conformance with Appendix C of 20 CFR 1926.58. Respirator inspection, fit test, and use records shall be completed by the wearer and maintained by the Designated Person.

E. CORRECTIVE EYEWEAR:

Providing respiratory protection for individuals who wear corrective lenses is a serious problem. A proper seal cannot be established if the temple bars of eyeglasses extend through the sealing edge of the full face piece. Systems have been developed for mounting corrective lenses inside full face pieces. When a worker must wear corrective lenses as part of the face piece, the agency will furnish a face piece with lenses fitted by qualified individuals to provide good vision, comfort, and a tight seal.

F. MAINTENANCE AND CARE OF RESPIRATORS:

1. The program for maintenance and care of respirators shall be administered by the Designated Person and shall include the following: Inspection for defects (including a leak check), cleaning and disinfecting, repair, and storage. Equipment shall be properly maintained to retain its original effectiveness. All respirators shall be inspected by the employee before and after each use. A respirator that is not routinely used shall be inspected at least monthly.



2. Self-containing breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be fully charged according to the manufacturer's instructions. The employee shall determine that the regulator and warning devices function properly before and after each use.
3. Respirator inspection shall include a check of the tightness of connections and the condition of the face piece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration. Individually assigned respirators shall be cleaned and disinfected by the employee as frequently as necessary. A record shall be kept of inspection dates and findings for respirators maintained for emergency use. The Designated Person shall maintain all respirators for general and emergency use and will be responsible for instructing all employees in proper methods of cleaning and disinfecting the respirators.
4. Replacement or repairs shall be done only with parts designed for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations. Reducing or admission valves or regulators shall be returned to the manufacturer or to a manufacturer's certified technician for adjustment or repair.
5. Respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators for emergency use should be quickly accessible at all times and shall be stored in clearly marked compartments built for the purpose. Routinely used respirators, such as half mask respirators, may be placed in plastic bags. Respirators shall not be stored in such places as lockers or tool boxes unless they are in carrying cases or cartons. Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a normal position and function will not be impaired by the elastomer forced in an abnormal position.
6. The employee shall select proper respirator filters in accordance with the type of exposure expected. Dual protection filter canisters may be appropriate in some cases, e.g. asbestos dust (magenta) and organic vapors (black). The Designated Person shall maintain an adequate supply of filters.

G. RESPIRATOR USE:

1. In areas which have atmospheres immediately dangerous to life and health, there are additional mandatory requirements not contained in this program. Comply with the requirements of OSHA 29 CFR 1910.134.

2. Frequent random inspections shall be conducted by the Designated Person to assure that respirators are properly selected, used, cleaned and maintained.
  3. Employees shall wear a respirator and protective clothing whenever exposure to asbestos is probable and shall follow decontamination procedures in accord with the IDPH Rules.
- H. The respirator program shall be reviewed and evaluated by the Designated Person on a yearly basis to determine the continued effectiveness of the program.

## VII. INSPECTION & REINSPECTION

- A. An inspection must be conducted before any renovation or demolition. Contact the CDB Asbestos Coordinator. State agencies may be authorized to conduct asbestos inspections using IDPH licensed staff or IDPH licensed consultants if the following measures are strictly adhered to:
1. **Notification:** The Capital Development Board shall be notified in writing before any asbestos inspections are performed.
  2. **Inspectors:** All inspectors shall be licensed by the Illinois Department of Public Health.
  3. **Inspections:** Perform all inspections in accord with the CDB A/E Manual of Procedures for Asbestos Inspections and Management Plans.
  4. **Approval:** Six (6) copies of the inspection report must be forwarded to CDB with a cover letter. CDB shall approve this preliminary report before further action is taken.
- B. If no asbestos is found the agency may be authorized by CDB to proceed with demolition or renovation of the building without further testing. If the project costs exceed \$10,000, CDB must be the contracting agency.
- C. At least once every three years after the date of the Management Plan a reinspection shall be conducted. Licensed inspectors shall conduct the reinspections in accord with requirements in the CDB "Reinspection Protocol."

## VIII. PERIODIC SURVEILLANCE

- A. At least every six months, periodic surveillance shall be conducted of the facility. The periodic surveillance shall include a visual inspection of all areas that are identified as ACM or assumed ACM in the Management Plan. The individual conducting the periodic surveillance need not be a licensed inspector, but shall be trained to conduct the surveillance. Complete Form C-11.5 and include in the Management Plan.
- B. Evaluate the information from the periodic surveillance to determine if any change has occurred. The Designated Person shall contact a Management Planner if any change has occurred. All response actions shall be selected by licensed management planners and designed by licensed project designers.
- C. Additional periodic surveillance shall be conducted whenever repairs, renovations, or other activities are conducted in areas containing ACM or assumed ACM.

## IX. CLEANING PROCEDURES

- A. Clean all areas of the building where friable ACM, damaged or significantly damaged thermal system insulation ACM, or friable suspected ACM are present at least once after the completion of the inspection and before the initiation of any response action, other than O & M activities or repair.
- B. Additional cleaning shall be performed if recommended by the Management Planner as part of a response action.
- C. The cleaning procedures include the following:
  - 1. Licensed workers shall be equipped with ½ face dual-cartridge high efficiency air purifying respirators, at a minimum.
  - 2. Clean using a combination of wet mopping or wiping and HEPA vacuuming.
  - 3. Irregular surfaces, such as curtains, books, furniture and carpeting should be cleaned using HEPA equipped vacuum cleaners. Many manufacturers offer several "nozzles" to make HEPA vacuuming of irregular surfaces less difficult. Carpet may be steam cleaned.
  - 4. Dispose of waste generated during cleaning as ACM.
  - 5. Complete Form C-11.6 for each cleaning and include in the Management Plan.

## X. ACM DISTURBANCES AND PROCEDURES

EPA and OSHA have severe penalties for improper disturbance, removal or disposal of ACM. Therefore the following procedures shall be followed if materials are suspected to be ACM.

### A. Stockpiled Materials:

1. Agencies suspecting that stockpiled materials contain asbestos should:
  - a. not use such materials for facility maintenance.
  - b. not move or dispose of material until authorized to do so by CDB.
  - c. place **warning signs** in accord with Section C-4.
  - d. **cover** with one layer of 6-mil plastic sheeting.
  - e. **complete form 9A** in Appendix B and send to the CDB Asbestos Coordinator.
2. This includes 9" x 9" floor tile, 12" x 12" floor tile, ceiling panels, ceiling tile, boiler and fitting gaskets, roping for boiler gaskets, thermal insulations such as air cell or magnesium block, bags of asbestos insulation mix and transite asbestos cement board.
3. Depending on the size and circumstances CDB will either authorize trained personnel from the agency to properly dispose of the material or conduct an abatement project. In some instances CDB may instruct the agency to secure the asbestos in a storage area until the facility can be inspected.

### B. Asbestos Abatement Projects:

Any project exceeding \$10,000 must be conducted by CDB. For smaller projects it is appropriate for agencies to either contract for the abatement work or complete the work with staff. Unless the Agency has an IDPH licensed project designer on staff, project design shall be contracted for by CDB.

1. Must Notify EPA in accord with NESHAP.
2. Agencies classified as schools by IDPH must follow IDPH requirements.
3. All projects must be designed by a CDB prequalified IDPH licensed project designer and have CDB prequalified IDPH licensed asbestos project manager to observe the abatement and CDB prequalified IDPH licensed air sampling professional perform air sampling.
4. Projects not completed with staff requires a CDB prequalified IDPH licensed contractor.
5. Staff performing the work must be IDPH licensed workers and supervised by an IDPH licensed supervisor.

6. The agency must have a medical surveillance and respirator program in accord with Section C-6 for all employees working with asbestos.
7. The agency must provide staff with all appropriate tools, equipment, supplies, and personal protective equipment. A HEPA vacuum is required to be available for all abatement work.

C. Notification:

1. Projects involving abatement of greater than three linear feet or three square feet of asbestos containing material require prior written permission of the Capital Development Board. The Agency shall submit the following information to the CDB Asbestos Coordinator:
  - a. Building name and CDB building number.
  - b. Location and amount of ACM present.
  - c. Procedures for abatement.
  - d. Names and IDPH license numbers for all Design Professionals and asbestos Abatement contractors to be utilized by the Contracting Agency.
  - e. Location of proposed "Disposal" or storage site.
2. Exception to prior written approval - Emergency projects do not require prior written permission from the Capital Development Board. Emergency projects are those involving public health, public safety, or where immediate expenditure is necessary for repairs to State property in order to protect against further loss or damage to State property, to prevent or minimize serious disruption in State services or to insure the integrity of State records. For emergency projects the Contracting Agency shall verbally notify the Capital Development Board of abatement work as soon as possible, or within three working days after the start of the project.

D. Regulations:

1. Federal and Illinois laws and regulations that apply to asbestos abatement work are similar, regardless of the area size or the value of the work. State agencies that contract for asbestos abatement services under "local bidding" or "emergency" circumstances should not undertake such projects without assured quality control. These procedures are provided to assist in that regard.
  - a. All projects except small projects must be designed by a licensed Project Designer.
  - b. The contracting agency should follow all regulations in C-1.
  - c. All response actions, including enclosure or encapsulation of ACM must be conducted and supervised by IDPH licensed persons.
  - d. The Designated Person shall ensure that prior written notice is provided and notice to EPA.

- e. The Designated Person shall document all activities, including the Asbestos Project Manager's (APM) and Air Sampling Professional's (ASP) daily reports, and clearance air tests results and shall insert the record drawings which indicate the exact locations of any removal, encapsulation, or enclosure of ACM in the building's management plan.
  - f. The contracting agency shall provide CDB with written notification that the abatement work has been completed within 10 working days of its completion. Such notification shall include the date, location and nature of the work (emergency or other reason for abatement), the name and address of the contractor, the total value of the contract and a copy of the documentation described in e. above.
  - g. Include the Supplementary Conditions in accord with Section C-11 in the bidding and contract documents for all asbestos abatement projects.
  - h. The contracting agency should be thoroughly familiar with the Response Action Contractors' Indemnification Act.
2. **NOTE:** Any building regulated by IDPH (schools) must use an IDPH licensed abatement contractor to conduct any abatement except for roofing.

E. Removal of Intact Non Friable ACM:

1. Non friable materials when removed intact pose little danger of asbestos fiber release. These procedures are issued to ensure worker protection and emission control during removal of all non friable materials including the following materials: Transite type materials such as roofing, siding, piping, sheeting, and cooling tower baffles; fire brick; stucco siding; and floor tile and other miscellaneous floor coverings. Non friable projects do not require the use of licensed contractors, but it is required that a Designated Person supervise the project and the work be completed by licensed workers. Roofing projects do not require licensed workers.
2. Regulated Area: - The agency shall:
  - a. Establish a regulated area in all work areas where non-friable ACM materials are to be removed, renovated, or repaired. The regulated areas shall be demarcated in a manner that minimizes the number of persons within the area and protects persons outside the area from exposure to air-borne concentrations of asbestos in excess of the permissible exposure limit. Access to the regulated areas shall be limited to authorized persons.
  - b. Ensure that employees shall not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the regulated areas.



3. Tools:

All powered tools, or high speed abrasive disc saws must be equipped with engineering controls that eliminate dust before they can be used for work related to asbestos. Compressed air can be used to remove asbestos only when it is used in conjunction with an enclosed ventilation system designed to capture the dust created by the compressed air.

4. Air Monitoring:

- a. State and Federal regulations require that all employers ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1f/cc as an 8 hour time weighted average Personal Exposure Limit (PEL) or in excess of 1.0f/cc as averaged over a sampling period of 30 minutes Excursion Limit (EL).
- b. Air monitoring must be completed for each non-friable asbestos abatement project. The air monitoring shall be completed by an independent CDB prequalified IDPH licensed air sampling professional (ASP) employed by the A/E (where an A/E is involved) or by the contracting state agency.
  - (1) A minimum of three background samples shall be taken prior to the start of the work.
  - (2) Determinations of an employee's exposure shall be made from breathing zone air samples that are representative of both the 30 - minute short-term exposures (Excursion Limit) and the eight hour time weighted average of each employee.
    - (a) Representative 8-hour Time Weighted Average (TWA) employee exposure shall be determined on the basis of one or more samples representing full-shift exposure for employees in each work area.
    - (b) Representative 30-minute short-term employee exposures shall be determined on the basis of one or more samples representing 30-minute exposures associated with operations that are most likely to provide exposures above the excursion limit for employees in each work area.
  - (3) In addition to the breathing zone air samples, at least one sample each shall be taken daily in the following areas:
    - (a) Work area.
    - (b) Outdoors in a zone not suspected to be contaminated to be used as a background sample.
    - (c) If the material being removed is adjacent to an intake of a ventilation system that must remain in operation during the removal, two samples within the ventilated area.

- (d) If any interior work area air tests indicate an air-borne asbestos fiber level above 0.1f/cc, additional air samples shall be taken in any area where contamination is possible and work shall be stopped until the work methods have been reviewed and revised to control fiber release. If any of the samples taken in (c) or in possible contaminated areas exceed 0.1f/cc, these areas shall be cleaned by HEPA vacuum or wet wiping.
- c. If any of the interior air tests taken above indicate an air-borne asbestos fiber level above 0.01f/cc and are above the initial background levels, the ASP shall have the employees clean the area by wet wiping, and retest the area for clearance taking a minimum of two air samples. Once all tests fall below 0.01f/cc, the area may be reoccupied.
- d. Upon completion of the removal, interior work areas shall be cleaned using HEPA vacuum or wet methods. Clearance testing will not be required.

5. Respirators:

Any time the PEL or excursion limit is exceeded or upon request of the worker, the employer shall provide the worker with a respirator and protective clothing and must provide decontamination facilities. Whenever respirators are used or required the employer must be able to provide evidence of worker training and respirator and medical surveillance programs. Whenever the PEL is exceeded, the site shall be posted with the following information: DANGER, ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY, RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA.

6. Removal:

Materials shall be kept damp using a surfactant during removal, and shall be thoroughly wetted using a surfactant prior to disposal. Materials shall be handled to minimize breaking. Enclosed chutes may be used for lowering thoroughly wetted roofing materials to ground level.

7. Disposal:

All ACM except roofing shall be bagged in two layers of 6-mil poly and transported to an EPA approved landfill in an enclosed truck or dumpster. Bulk roofing materials, thoroughly wetted, may be transported in an enclosed truck or dumpster.

8. Licensed Personnel:

All non-friable asbestos abatement projects, except roofing projects, exceeding three square feet or 3 lineal feet where the material cannot be removed intact, must be designed by a licensed asbestos project designer and require a licensed asbestos project manager. In addition, workers must be licensed by the Illinois Department of Public Health and a contractor supervisor licensed by the Illinois Department of Public Health must be present. It is recommended that roofing projects not designed by a licensed project designer have an observer with a knowledge of asbestos abatement procedures.

F. Floor Tile:

1. Laboratory Analysis:

- a. The laboratory analysis for the asbestos content of floor tile samples may not accurately reflect the percentage of asbestos fibers actually in the floor tile. The US EPA and others have documented that many of the asbestos fibers utilized in the manufacturing process are not optically visible by the methods normally used by laboratories in analyzing samples.
- b. The Capital Development Board recommends that agencies assume all floor tile and all mastics contain asbestos fibers and follow the maintenance methods given below until proper testing confirms that asbestos fibers are not present. Contact the CDB Asbestos Coordinator for the proper testing methods. These methods utilize a sample preparation process designed to help remove the vinyl binder matrix and filler material interferences. Other methods of testing floor tile and mastic are not as accurate and shall not be utilized.

2. Hazard Assessment:

All floor tile and mastic which has not tested negative by the methods described above shall be handled as asbestos containing materials. The following steps by a Management Planner shall be used in assessing the hazard posed by these materials and the action that shall be taken:

- a. Determine the potential for asbestos fiber release - Floor tile, even if in a slightly broken condition, is non-friable (has a low potential for fiber release). Normal activities in the area should not generate a fiber release.
- b. Prioritize the hazard - Since floor tile and mastics are non-friable materials they do not usually pose a hazard.
- c. Determine the action - The action for these materials is a continued Operations & Maintenance Program, replacing broken floor tiles as required. Removal of floor tile and mastic may be an appropriate action if other asbestos containing materials are to be removed in the same area.

- d. Assistance - The Capital Development Board staff is available to assist agencies in determining the potential for fiber release, prioritizing hazards and determining the correct response action.

3. Operations and Maintenance Program:

- a. Floor tile shall have a wet maintenance and wax or sealer program to protect the base material from abrasion and to seal and encapsulate broken edges. This program shall consist of waxing or sealing at least three times per year. This schedule shall be adjusted if the finish is worn off prior to the application of a new finish.
- b. Sanding, drilling, sawing, or other high speed abrasion of these materials is prohibited. These types of actions can only be performed by a licensed asbestos worker using appropriate protective equipment and engineering controls.
- c. The following guidelines shall be followed when stripping the wax or finish coat from floor coverings:
  - (1) Avoid stripping floors. Stripping of floors shall be done infrequently, no more than twice a year depending on the circumstances. The frequency shall be carefully considered as floor maintenance schedules or contracts are written or renewed.
  - (2) Properly train staff. Custodial and maintenance staff who strip floors shall be trained to safely use machines, pads, and floor chemicals.
  - (3) Follow appropriate work practices. Custodial and maintenance staff who strip floors shall follow appropriate work practices such as those recommended here, under informed supervision. Directions from floor tile and floor wax product manufacturers on proper maintenance procedures shall be consulted.
  - (4) Strip floors while wet. The floor should be kept wet during the stripping. Do not perform dry stripping. Prior to machine operation, an emulsion of chemical stripper and water is applied to the floor with a mop to soften the wax or finish coat. After stripping and before application of new wax, the floor shall be cleaned using a wet mop. Mop heads used for this cleaning shall be washed for reuse or disposed of as asbestos containing material. The mop shall never be left to dry without washing.
  - (5) Run machines at low speed. If a variable speed machine is used to remove the wax or finish coat, use a slow speed of 175 to 190 rpm.
  - (6) Use the least abrasive pad to strip wax or finish from floors.
  - (7) Do not over strip floors. Stop stripping as soon as the old surface coat is removed. Over stripping can damage the floor and may cause the release of asbestos fibers. Do not operate a floor machine with an abrasive pad on unwaxed or unfinished floors.

(8) Conduct periodic surveillance in accord with Section C-8.

4. Removal:

- a. The US EPA and the Capital Development Board recommend asbestos containing floor tiles and mastics remain in place if the material is in good condition or can be adequately sealed. Removal of these materials should only be done at the end of the materials' life or whenever remodeling dictates. Improper removal of asbestos containing floor tiles and mastics could result in the release of asbestos fibers.
- b. Asbestos Floor Tile Removal Methods. Follow Small Disturbance procedures for area preparation. All ACM removed must be thoroughly wetted and double bagged in 6-mil properly labeled poly bags. Areas where the tile cannot be removed intact with methods such as given below must be completed as an asbestos abatement project.
  - (1) Heat  
This procedure is applicable for small areas or single tiles. Apply heat with propane torch or heat gun. Keep moving to prevent burning. Lift tile with wide blade putty knife. Heat mastic and scrape away excess.
  - (2) Dry Ice  
This procedure is applicable for small areas. CAUTION: thermal gloves are required for handling the dry ice to prevent frostbite. Apply large piece of dry ice to area to be removed. Move over tile to be removed. Popping sound indicates loosening of tile. Remove mastic with heat as above.
  - (3) Water  
This procedure is applicable for larger areas but may not be appropriate for wood floors. Prepare water by adding surfactant (wetting agent). Spray on area until heavy coverage occurs. Cover with plastic for 8 to 24 hours. Check for looseness. If not loose apply more water. If loose, raise tile with wide putty knife or long handled scraper using care not to break tiles. Remove mastic using heat.
- c. If it is necessary to remove mastic, extreme caution shall be utilized. Many mastic removers and solvents including the Citrus Turpene varieties, have a very low "Flash Point Rating" (less than 140 degrees Fahrenheit) and a very low "Lower Explosive Limit (less than one percent concentration in air). This means that less than one percent of the product's vapor needs to be in the air to create an explosive atmosphere. These products represent a fire and explosion hazard in confined spaces which normally occur during the removal of asbestos containing materials. Also, some solvents may be carcinogenic and may be solvent to the plastic bags usually used for containing asbestos waste. Some solvents have a strong odor and may cause nausea. Respirators may require both a vapor filter and an asbestos filter. All work utilizing

mastic removers shall be conducted while the building is unoccupied.

- d. It is recommended that the use of mastic removers and solvents be limited to very small quantities or only products that have a flash point of 200 degrees Fahrenheit or higher be used.
- e. Federal and State laws require all agencies to obtain the Material Safety Data Sheet of all products used. Agencies must also comply with employee right to know laws. Agencies may contact the Capital Development Board for assistance in selection of proper removal products and methods.

G. Small Disturbances:

Use the following procedures for small-scale maintenance activities (less than 3 linear or 3 square feet which repairs ACM, disturbs ACM dust or debris, or disturbance of ACM is possible).

1. Obtain approval from the Designated Person before beginning work, all work shall be performed by licensed workers and be supervised by a licensed supervisor.
2. Schedule the work after normal working hours (nights or weekends), if possible, or control access to the work area. Doors shall be locked from the inside and signs posted to prevent unauthorized persons from entering the work area (e.g., "MAINTENANCE WORK IN PROGRESS, DO NOT ENTER", or, if the asbestos levels are high enough to trigger the OSHA Rule (the PEL or higher), "DANGER - ASBESTOS: CANCER AND LUNG DISEASE HAZARD: AUTHORIZED PERSONNEL ONLY: RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THE AREA"). Note, emergency exits must remain in operation.
3. The air handling system shall be shut off or temporarily modified to prevent the distribution of fibers from the work site to other areas in the building. Be sure that the electrical system is disconnected prior to misting.
4. Workers shall wear NIOSH approved respirators with HEPA filters and protective clothing, including a body suit, hood, boots, and gloves. Workers must wear personal monitors as required by OSHA unless previous experience with the same ACM and similar operations indicates that fiber levels are likely to be less than the PEL.
5. A 6-mil polyethylene plastic dropcloth shall be placed beneath the location of the maintenance work, extending at least 10 feet beyond all sides of the work site. (In the case of entry into the space above a suspended ceiling, the work site would be the area of the panels moved to gain access.) Alternatively, a rectangular enclosure constructed of 6-mil plastic on a frame can be positioned underneath the maintenance area to inhibit the spread of fibers from fallen ACM. (Mobile enclosures of this type are available commercially.)

6. If entry to the space above a suspended ceiling is necessary, the panels shall be moved carefully with as little movement as possible. The air above the opening, the top of the moved panel and all panels surrounding the opening, and the ACM likely to be disturbed shall be misted with a fine spray of amended water. Misting of the air helps fibers to settle quickly. Cleaning ceiling panels with a HEPA vacuum cleaner is also effective as long as care is taken not to vibrate panels and disturb the ACM.
7. Thermal System Repairs:
  - a. Many times thermal insulation can be easily repaired to prevent further release of asbestos fibers. Repairs can be made as follows:
    - (1) Spray the damaged area with a light coating of penetrating encapsulant.
    - (2) Fill any gouges or depressions with fiberglass or palm grade encapsulant.
    - (3) Wrap or cover damaged area with a self setting lagging or lagging set in one coat of bridging encapsulant.
    - (4) Paint damaged area with two coats of bridging encapsulant.
  - b. Self setting lagging will not properly adhere if wetted with an amended water. These methods can also be utilized for repairing open ends of pipe insulation or repair of fitting insulation.
8. The maintenance renovation work form C-11.8 shall be completed for each area repaired. Air monitoring is required for any activity which approaches thirty minutes, unless all applicable procedures indicated in Appendix G of OSHA 1926.1101 - Work Practices and Engineering Controls for Small Scale, Short-Duration Asbestos Renovation and Maintenance Activities Non-Mandatory are followed.
9. Glovebag Procedures:
  - a. The asbestos-containing insulation on piping shall be removed using IDPH glove bag techniques as necessary for the repairs. Perform all glovebag procedures using a NIOSH approved PAPR respirator, mini-enclosures, and negative air.
  - b. If a bag is ruptured during the repairs, work shall stop, the area should be sealed off, and all procedures recommended for large-scale asbestos removal shall be followed.
  - c. Plastic sheets (6-mil polyethylene) shall be cut and taped around any thermal insulation which might be disturbed. The plastic shall be misted with amended water before taping it shut. The plastic shall be taped to itself to avoid damaging the insulation.
10. During the course of the work, small pieces of ACM shall be collected by the HEPA-vacuum. This is best accomplished by placing the vacuum hose adjacent to the ACM being disturbed. Larger pieces shall be placed in a labeled plastic bag.

11. Upon completion of the work, any visible debris on the top of the suspended ceiling, on the drop cloth, on the floor, or anywhere else shall be collected by cleaning with a HEPA vacuum.
12. All equipment and tools shall be wiped with damp cloths or HEPA-vacuumed.
13. The plastic sheet shall be wiped with a damp cloth, carefully folded, and discarded as asbestos waste.
14. All debris, cloths, vacuum bags, and filters shall be discarded in sealed and labeled plastic bags as asbestos waste.
15. Workers shall vacuum their disposable suits before leaving the work site (or remove and discard them as asbestos waste and put on a clean disposable suit), proceed to a shower facility, shower with their respirators on, and clean their respirators while in the shower.
16. Install non-asbestos containing material to replace removed ACM.

H. Large Disturbances:

Maintenance activities which involve removal of three linear or square feet or more of asbestos-containing materials (e.g. several valves need attention in a utility room or block insulation needs to be removed for boiler repair) are large disturbances and shall be performed by IDPH licensed Asbestos Contractors and designed by an IDPH licensed asbestos project designer.

I. Fiber Release Episodes:

1. Custodial and maintenance workers shall immediately report in writing to the Designated Person the presence of debris, water or physical damage to the ACM, or any evidence of possible fiber release. The Designated Person shall call an abatement contractor or assign a trained in-house team to clean up debris and make repairs as soon as possible. If a contractor is to be used, a company shall be selected and retained by contract for quick response action as needed. Complete Form C-11.9 for each fiber release episode.
2. Minor Episodes (less than three linear feet, three square feet): Follow the applicable procedures for small disturbances.
3. Major Fiber Release Episode:  
  
The Designated Person shall document that the procedures described below are followed in the event of a major fiber release episode (i.e. the falling or dislodging of more than three square or linear feet of friable ACM):



- a. Restrict entry into the area and post signs to prevent entry into the area by persons other than those necessary to perform the response action.
- b. Shut off or temporarily modify the air-handling system to prevent the distribution of fibers to other areas in the building.
- c. The response action for any major fiber release episode must be designed by an IDPH licensed project designer and conducted by a licensed asbestos abatement contractor.

## **XI. RECORDS, REPORTS & SAMPLE FORMS**

These sample forms are examples of the types of records that must be kept by the Designated Person. Agencies may modify these forms if all information on these forms is included.

**FACILITY LETTERHEAD**

**Date** \_\_\_\_\_

**SAMPLE LETTER**

Dear Parent/Employee:

The building(s) of (insert facility name and address) has (have) been inspected for asbestos-containing building materials by a licensed inspector. In addition, an Asbestos Management Plan has been prepared by a Licensed Management Planner. The Inspection Report and Management Plan are on file in the facility office and are available for public review during business hours.

The reports state that asbestos-containing materials have (have not) been found. The condition and type of the asbestos are shown in the individual reports.

Copies of these reports are available upon notification of the facility administrator and payment of a fee to cover copying costs.

Sincerely,

(Individual's Name)  
Designated Person

Note: Maintain this record indefinitely. Attach to the Management plan.

**TRAINING**

Facility Name: \_\_\_\_\_

Employee Name: \_\_\_\_\_

Employee Job Title: \_\_\_\_\_

Completion Date of Training: \_\_\_\_\_

Course Title: \_\_\_\_\_

Course Provider and Location of Training: \_\_\_\_\_  
\_\_\_\_\_

Number of Hours Completed in Training: \_\_\_\_\_

Signature of Employee: \_\_\_\_\_

Signature of Designated Person: \_\_\_\_\_

Date: \_\_\_\_\_

Attach copy of course completion certificate.

**MEDICAL**

Date: \_\_\_\_\_

Provider: \_\_\_\_\_

Approved for Respirator Use:    Yes [  ]    No [  ]

\_\_\_\_\_  
(authorized agency signature)

\_\_\_\_\_  
(employee's signature)

Note: Maintain these records for 30 years after employment ceases. Attach to the Management Plan.

## RESPIRATOR INSPECTION / FIT TEST RECORD

Date: \_\_\_\_\_

Type: \_\_\_\_\_ ID No. \_\_\_\_\_

<u>INSPECTION*</u>	Before Use	After Use	Comments
Face piece	_____	_____	_____
Inhalation Valve	_____	_____	_____
Exhalation Valve	_____	_____	_____
Headbands	_____	_____	_____
Cartridge Holder	_____	_____	_____
Cartridge/Canister	_____	_____	_____
Filter	_____	_____	_____
Harness	_____	_____	_____
Hose	_____	_____	_____
Gaskets	_____	_____	_____
Others	_____	_____	_____
Cleaned	_____	_____	_____
Disinfected	_____	_____	_____

Corrective Action Required: \_\_\_\_\_

FIT TEST (See Pg. 2, C-11.4.2 for fit test procedures.)

Positive Pressure \_\_\_\_\_ Negative pressure \_\_\_\_\_

Ampule Fit Test \_\_\_\_\_ Irritant Smoke Test \_\_\_\_\_

Fit Test By \_\_\_\_\_ Date \_\_\_\_\_

Hours used \_\_\_\_\_

\*Initial items completed

Employee Signature \_\_\_\_\_

## RESPIRATOR TEST PROCEDURES

### Positive Pressure Test:

- Exhalation valve or breathing tube, or both is closed off and wearer is instructed to exhale gently.
- The respirator has been properly donned if a slight positive pressure can be built up inside the Face piece without the detection of any outward leakage of air between the sealing surface of the Face piece and the wearer's face.
- For some respirators, this test method requires that the respirator wearer first remove the exhalation valve cover from the respirator and then replace it after completion of the test.

### Negative Pressure Test:

- The inlet opening of the respirator's canister(s), cartridge(s), or filter(s) is closed off by covering with the palm of the hand(s), by replacing the inlet seal on canister(s), or by squeezing a breathing tube or blocking its inlet so that it will not allow the passage of air.
- The wearer is instructed to inhale gently and hold his breath for at least 10 seconds.
- If the Face piece collapses slightly and no inward leakage of air into the Face piece is detected, it can be reasonably assured that the respirator has been properly donned and the exhalation valve and Face piece are not leaking.

### Banana Oil Ampule fit-test (or Irritant Smoke Ampule):

1. ATTACH ORGANIC VAPOR CARTRIDGES TO RESPIRATOR (for banana oil only)
2. Place subject in testing tent.
3. Pop out swab at swab base.
4. Crush swab between fingers (or break off tips of smoke tube).
5. Hold crushed swab 2" to 3" from where Face piece seals to face (or aim irritant smoke at seals).
6. Have subject do OSHA movements (see 29 CFR 1926.1101 Appendix C).

If the odor of "bananas" or "smoke" is detected, reposition Face piece or select another Face piece and test again.

## PERIODIC SURVEILLANCE OF ASBESTOS-CONTAINING MATERIALS

Building Name: \_\_\_\_\_ Room Number: \_\_\_\_\_

CDB Building Number: \_\_\_\_\_ Room Name: \_\_\_\_\_

Type of ACM:

1. Sprayed- or troweled on ceilings or walls
2. Sprayed- or troweled on structural members
3. Insulation on pipes, tanks, or boilers
4. Other (describe): \_\_\_\_\_

Has the material been encapsulated \_\_\_\_\_, enclosed \_\_\_\_\_, neither \_\_\_\_\_?

Assessment--Note location of ACM and any changes in condition:

**Photograph any areas that have changes and attach photo to this report.**

1. Air plenum, air shaft, or air stream: \_\_\_\_\_

2. Physical damage: \_\_\_\_\_

3. Water damage: \_\_\_\_\_

4. Deterioration: \_\_\_\_\_

5. Accessibility of the material: \_\_\_\_\_

6. Activity near the material: \_\_\_\_\_

7. Other observations (including the condition of the encapsulant or enclosure, if any):  
\_\_\_\_\_  
\_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
(Person completing surveillance)

NOTE: Retain this form for three years after the next reinspection. Attach to the Management Plan.



**CLEANING RECORD**

Building Name: \_\_\_\_\_ Room Number \_\_\_\_\_

CDB Building Number: \_\_\_\_\_ Room Name \_\_\_\_\_

1. Initial cleaning yes \_\_\_\_\_ no \_\_\_\_\_  
Periodic cleaning yes \_\_\_\_\_ no \_\_\_\_\_

2. Date: \_\_\_\_\_

3. Locations cleaned (within rooms): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Methods and equipment used to perform cleaning): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Special equipment used): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Name and Location of storage or disposal site of ACBM): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Type of worker protection used during cleaning): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Name of each person performing the cleaning:

PRINT	SIGNATURE	IDPH WORKERS LICENSE #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
(Designated Person)

NOTE: Retain this form for thirty years after employment separation of those involved. Attach to the Management Plan.

**ILLINOIS CAPITAL DEVELOPMENT BOARD**  
**Supplemental Conditions for Small and Emergency**  
**Asbestos Abatement Projects**

1. Bidders shall be licensed as Asbestos Abatement Contractors by the Illinois Department of Public Health (IDPH) and prequalified by the Capital Development Board.
2. All contractor's workers shall be licensed by IDPH. The contractor's supervisor shall be an IDPH licensed supervisor.
3. All work practices shall be in accordance with IDPH Rules and Regulations. All variances shall be approved by CDB. If the work affects an elementary or secondary school facility, CDB will obtain IDPH review of variance requests.
4. The contractor may not conduct any abatement work without authorization from the agency's designated Asbestos Project Manager (APM) who has the responsibilities and authority specified by the IDPH Rules and Regulations.
5. All air monitoring required by the contract or government regulation shall be conducted and paid for by the contractor. Laboratories shall meet IDPH standards and be prequalified by CDB.
6. All ACM wastes shall be properly disposed in an EPA approved landfill and the contractor shall furnish the contracting agency with written verification of the disposal.
7. This project is being conducted under the Response Action Contractors' Indemnification Act. The contracting agency may withhold 5% of each payment to the contractor in accord with the Indemnification Act. (Public Act 84-1445).

Agency: \_\_\_\_\_

Project #: \_\_\_\_\_

DATE: \_\_\_\_\_

Complete this form for each work order even if no asbestos is present.

## MAINTENANCE/RENOVATION WORK

Building Name: \_\_\_\_\_ Room Number: \_\_\_\_\_

CDB Building Number: \_\_\_\_\_ Room Name: \_\_\_\_\_

1. Exact location of area involved (homogeneous area(s), location within room, etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Starting Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

2. Is asbestos present in the area which you intend to do work?  
Yes \_\_\_\_\_ No \_\_\_\_\_ (If no complete page 1 only and attach to Management Plan.)

If yes: \_\_\_\_\_ Workers Initials \_\_\_\_\_

A. Worker informed ACM exist. \_\_\_\_\_

B. Type of ACM present. \_\_\_\_\_

C. Worker agrees to avoid damaging ACM in any way including but not limited to, drilling, abrading, cutting, etc. \_\_\_\_\_

3. Is area restricted? Yes No \_\_\_\_\_  
If yes:

A. Worker informed area contains friable damaged ACM. \_\_\_\_\_

B. Access restricted to persons wearing respiratory equipment at all times. \_\_\_\_\_

C. Worker understands that asbestos is a recognized health hazard and that asbestos fibers can cause lung disease and cancer. \_\_\_\_\_

D. Worker assumes full responsibility for own protection and welfare when entering the restricted area and will hold the Facility harmless from any injury claim related to asbestos exposure. \_\_\_\_\_

4. Asbestos control methods to be used (i.e., glove-bag, HEPA vacuum, wet methods, etc.): \_\_\_\_\_  
 \_\_\_\_\_
5. Protective equipment to be used (respirators, coveralls, etc.):  
 \_\_\_\_\_  
 \_\_\_\_\_
6. If ACM is to be removed, provide the name and location of storage or disposal site of the ACM. \_\_\_\_\_  
 \_\_\_\_\_

**7. NAMES OF EACH WORKER**

PRINT	SIGNATURE	IDPH WORKERS LICENSE #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**8. FOR WORK TO BE COMPLETED BY CONTRACTORS:**

Employer: \_\_\_\_\_

Address: \_\_\_\_\_

Print Name: \_\_\_\_\_

Worker's Signature: \_\_\_\_\_

9. Accepted by (Designated Person) \_\_\_\_\_ Date: \_\_\_\_\_

**Note:** Retain this form for thirty years after the completion of work. If asbestos is present, retain for thirty years after the worker's employment separation. Attach to the Management Plan.

10. Complete this part if air samples are required.

Name of ASP: \_\_\_\_\_ License # \_\_\_\_\_

Signature: \_\_\_\_\_

Locations of samples collected: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date samples collected: \_\_\_\_\_

Name and address of Laboratory: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date of Analysis: \_\_\_\_\_

Results of Analysis: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method of Analysis:  
PCM \_\_\_\_\_ TEM \_\_\_\_\_

Name of Analyst: \_\_\_\_\_

Signature: \_\_\_\_\_

Attach copy of NVLAP certification.

# FIBER RELEASE EPISODE REPORT

The presence of debris, water or physical damage to asbestos containing materials, or any evidence of fiber release shall be immediately reported to the Designated Person.

Building Name: \_\_\_\_\_ Room Number: \_\_\_\_\_

CDB Building Number: \_\_\_\_\_ Room Name: \_\_\_\_\_

1. Homogeneous area designation of fiber release. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Date: \_\_\_\_\_ Reported By (print): \_\_\_\_\_

3. Description of episode: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Was the ACM cleaned up according to IDPH approved procedures?  
Yes \_\_\_\_\_ No \_\_\_\_\_ Describe the cleanup:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Name and location of storage or disposal site of ACM: \_\_\_\_\_  
\_\_\_\_\_

6. Results of air clearance testing: \_\_\_\_\_  
Name of ASP: \_\_\_\_\_ IDPH License No. \_\_\_\_\_  
Complete Form C-11.8.3 if air samples are required.

## NAMES OF PEOPLE PERFORMING WORK:

PRINT	SIGNATURE	IDPH WORKERS LICENSE #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
(Designated Person)