

NARRATIVE REPORT

1.0 BUILDING INFORMATION

Engineering

This building now
named Engineering

Architecture was originally constructed in 1965; the building has had no major renovations.

~~Architecture~~ is a two-story, 17,632 ft² building which primarily serves as classroom and office space for architecture and engineering personnel. Ehly Hall (A084) is attached to the east side of Architecture and is reported separately. In addition, Dolve Hall (A018) and Engineering Administration (A063) are attached via skyways to the northwest corner of Architecture and are reported separately; the skyways do not contain suspect asbestos containing materials.

The interior floor finishes included floor tile, carpet, concrete, and epoxy flooring; the interior wall finishes included concrete, gypsum wallboard, plaster, brick, and concrete; and the interior ceiling finishes included ceiling tile, concrete, and metal. The roofing system is a flat rubber-membrane roof and the exterior of the structure is brick.

The piping systems were insulated; fiberglass insulation (both with and without hard fittings) and mag block insulation (with hard fittings) are located in the building. Several tanks are located in room 205 with hard insulation. Steam and domestic water enter the building in the west end of the tunnels below 1st floor. HVAC systems located in the building consisted of steam radiators and a forced air furnace equipped with heating/cooling coils.

2.0 ASBESTOS SURVEY INFORMATION

Architecture was surveyed as part of a larger project on NDSU's Fargo, ND Campus. This report is part of "Volume 6" of a nine volume series. This report includes building specific information only; please refer to the opening section of "Volume 6" for methodologies, definitions, and other pertinent supporting information.

A total of 78 samples were collected from suspect asbestos-containing materials (ACM) from Architecture on June 29, 2007 and an additional 8 samples were collected on February 26, 2008. Laboratory analysis results indicate **31 of these samples tested positive for asbestos.**

2.1 Suspect Materials Identified and Sampled

Hard Plaster- Skimcoat (2 types)	Hard Plaster- Basecoat (2 types)
Joint Compound (2 types)	Gypsum Wallboard (2 types)
Rock Lattice	Wall Fill Material
Gray Sink Undercoating (2 types)	Spray-On Fireproofing (on beams)
Baseboard Adhesive (3 types)	Carpet Mastic
Stair Tread Adhesive	Floor Tile (2 types)
Floor Tile Mastic (2 types)	Wall Texture
Ceiling Tile (7 types)	Hard Fittings on Fiberglass Insulation
Rainleader Bowl Insulation	Tank Insulation (2 types)
Mag Block Pipe Insulation	Exterior Window Caulk
Hard Fittings on Mag Block Pipe Insulation	Exterior Window Glazing (2 types)
Exterior Panel Caulk (above/below windows)	Exterior Building Seam Caulk
Exterior Door Caulk	Exterior Penetration Putty
Transite Panels (above/below windows)	Window Glazing (3 types)
Hard Pack on Fiberglass Insulation (2 types)	Window Sill Material

The Asbestos Bulk Sample Results Table includes asbestos sampling data.

2.2 **Asbestos Containing Materials**

Mastic for 12" Gray/White Mottled Floor Tile
 2'x4' Ceiling Tile with Large and Small Pinholes
 2'x2' Ceiling Tile with Pinholes
 Hard Fittings on Fiberglass Insulation
 Rainleader Bowl Insulation
 Hard Fitting on Mag Block Insulation
 Mag Block Pipe Insulation
 Tank Insulation (2 types)
 Exterior Window Glazing
 Transite Panels (above/below windows)
 Gray Sink Undercoating (1 type)
 Window Glazing (3 types)
 Hard Pack on Fiberglass Insulation (2 types)
 Window Sill Material
 9" Floor Tile and Mastic (assumed)

The ACM Locations/ Friable Materials Assessments Table includes ACM locations data.

2.3 **Cost Estimates**

Legend Technical Services Inc. estimates abatement costs (removal & disposal) of ACM for Architecture as follows:

ACM	QUANTITY	UNIT COST	TOTAL COST
Asbestos Floor Tile and/or Mastic	14,438 ft ²	\$4.00/ft ²	\$57,752.00
Asbestos Ceiling Tile	3,244 ft ²	\$5.00/ft ²	\$16,220.00
Asbestos Transite Panels	48 ea	\$50.00/ea	\$2,400.00
Asbestos Hard Fittings on Fiberglass Insulation	464 ea	\$60.00/ea	\$27,840.00
Asbestos Rainleader Bowl Insulation	3 ea	\$60.00/ea	\$180.00
Asbestos Mag Block Pipe Insulation	83 ft	\$25.00/ft	\$2,075.00
Asbestos Hard Fitting on Mag Block Insulation	28 ea	\$25.00/ea	\$700.00
Asbestos Tank Insulation (all types)	36 ft ²	\$10.00/ft ²	\$360.00
Asbestos Sink Undercoating	2 ea	\$150.00/ea	\$300.00
Asbestos Window Glazing (all types)	46 ea	\$225.00/ea	\$10,350.00
Asbestos Window Sill Material	28 ea	\$150.00/ea	\$4,280.00
Asbestos Hard Pack on Fiberglass Insulation	11 ea	\$60.00/ea	\$660.00
Total Estimated Abatement Costs:			\$123,117.00

2.4 **Survey Notes**

The exterior windows have panels installed above and below them. The panels are small ceramic tile over transite panels over foam insulation. The transite panels below the ceramic tile contain asbestos.

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 99 (Tunnel) Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	164 fittings	Friable TSI	Good	Physical	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	6	The hard fittings on fiberglass insulation run along the entire tunnel.
Hard Pack on Fiberglass Insulation (around valve)	15% Amosite	1 valve	Friable TSI	Good	Physical	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	6	The asbestos hard packed insulation around valve is on the southwest corner of the tunnel.
Hard Pack on Fiberglass Insulation (on hangers)	5% Chrysotile 10% Amosite	10 hangers	Friable TSI	Damaged	Physical	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	1	The asbestos hard packed insulation on hangers is along the west side of the tunnel.

Room 102

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	16 fittings	Friable TSI	Good	Physical	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the north wall
Abated July 2013								
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	728 ft ²	Friable Surfacing	Good	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	None.
Abated July 2013								
9" Floor Tile and Mastic	Assumed	728 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Abated Fall 2015								
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the north window.
Abated Fall 2015								

Room 104 Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	7 fittings	Friable TSI	Good	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	The hard fittings on fiberglass insulation run along the west wall.
					Air Erosion	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		
					Vibration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 106

Hard Fittings on Fiberglass Insulation Abated Fall 2015	0-15% Chrysotile 2-20% Amosite	12 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the north wall.
9" Floor Tile and Mastic Abated December 2013	Assumed	632 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic (under carpet) were assumed to be ACMs.
Window Sill Material Abated Fall 2015	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the north window.

Room 106A

Hard Fittings on Fiberglass Insulation Abated Fall 2015	0-15% Chrysotile 2-20% Amosite	5 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings are on fiberglass insulation (above ceiling tile) that runs along the north and east walls.
9" Floor Tile and Mastic Abated December 2013	Assumed	220 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic (under carpet) were assumed to be ACMs.
Window Sill Material Abated Fall 2015	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the north window.

Room 106B

9" Floor Tile and Mastic Abated December 2013	Assumed	84 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material Abated Fall 2015	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the north window.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 108 Abated Fall 2015

9" Floor Tile and Mastic	Assumed	273 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Gray Sink Undercoating	15% Chrysotile	1 sink	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos sink undercoating is on the west side.

Room 114 Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	13 fittings	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6	The hard fittings on fiberglass insulation run along the north and east walls.
9" Floor Tile and Mastic	Assumed	756 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the north window.

Room 116 Abated Fall 2015

9" Floor Tile and Mastic	Assumed	48 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
-------------------------------------	---------	--------------------	------------------------------	------	------	--	------	---

Room 118 Abated Fall 2015

9" Floor Tile and Mastic	Assumed	256 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
-------------------------------------	---------	---------------------	------------------------------	------	------	--	------	---

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 118A Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	5 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south and east walls.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	204 ft ²	Friable Surfacing	Good	Physical Air Erosion Vibration	□□■ □■□ ■□□	6	None.
9" Floor Tile and Mastic	Assumed	204 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Gray Sink Undercoating	15% Chrysotile	1 sink	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos sink undercoating is on the west side.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south window.

Room 118B Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical Air Erosion Vibration	□□■ □■□ ■□□	6	None.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south window.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	-----------------------------	-------

Room 118C Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical Air Erosion Vibration	□□■ □■□ ■□□	6	None.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south window.

Room 118D Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical Air Erosion Vibration	□□■ □■□ ■□□	6	None.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south window.

Room 118E Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical Air Erosion Vibration	■□□ ■□□ ■□□	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
---	-----------------------------------	------------	----------------	------	--------------------------------------	-------------------	---	---

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	None.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N/A*	The asbestos window sill material is on the south window.

Room 118F Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	None.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N/A*	The asbestos window sill material is on the south window.

Room 118G Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	3 fittings	Friable TSI	Good	Physical	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	The hard fittings on fiberglass insulation (above ceiling tile) run along the south wall.
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	N/A*	The 9" floor tile and mastic were assumed to be ACMs.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the south window.

Room 118H Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	8 fittings	Friable TSI	Good	Physical <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Air Erosion <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6	The hard fittings are on fiberglass insulation (above ceiling tile) run along south wall.
9" Floor Tile and Mastic	Assumed	224 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the south window.

Room 120 Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	18 fittings	Friable TSI	Good	Physical <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Air Erosion <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6	The hard fittings are on fiberglass insulation (above ceiling tile) that runs along the hallway.
2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	810 ft ²	Friable Surfacing	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6	None.
9" Floor Tile and Mastic	Assumed	1,098 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	3 sills	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the south windows.
Window Glazing	5% Chrysotile	1 window	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window glazing is on the north wall by the entry door.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Hallway 188 Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	95 fittings	Friable TSI	Good	Physical	■□□	6	The hard fittings are on fiberglass insulation (above ceiling tile) that runs along the entire hallway.
9" Floor Tile and Mastic	Assumed	896 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Glazing	5% Chrysotile	6 windows	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The asbestos window glazing is on the west and east windows.

East Entry Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	29 fittings	Friable TSI	Good	Physical	■□□	6	The hard fittings on fiberglass insulation are above the ceiling tile.
9" Floor Tile and Mastic	Assumed	627 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Glazing	5% Chrysotile	5 windows	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The asbestos window glazing is on the windows in the north vestibule.

West Entry Abated Fall 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	21 fittings	Friable TSI	Good	Physical	■□□	6	The hard fittings on fiberglass insulation are above the ceiling tile.
9" Floor Tile and Mastic	Assumed	648 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Glazing	5% Chrysotile	5 windows	Non-Friable Miscellaneous	N/A*	N/A*	■□□	N/A*	The asbestos window glazing is on the windows in the north vestibule.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 201 Now Room 202

2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite Abated June 2015	532 ft ²	Friable Surfacing	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	None.
9" Floor Tile and Mastic	Assumed Abated June 2015	460 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Mastic for 12" Gray w/ White Mottled Floor Tile	10% Chrysotile Abated June 2015	72 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The floor tile mastic contains asbestos, the floor tile does not.
Window Sill Material	2% Chrysotile Abated June 2015	1 sill	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south window.

Room 202 Now Room 299U

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite Abated June 2015	1 fitting	Friable TSI	Good	Physical Air Erosion Vibration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	The hard fitting on fiberglass insulation is above the ceiling tile.
Rainleader Bowl Insulation	10% Chrysotile 10% Amosite Abated July 2007	1 each	Friable TSI	Good	Physical Air Erosion Vibration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	6	The hard packed insulation around the rain leader is above the ceiling tiles in the middle of the room.
9" Floor Tile and Mastic	Assumed Abated June 2015	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.

Room 203 (including the area between rooms 204 and 205) Now Rooms 206, 212, 218 (incl. between 208, 212, 216, 218 and 222)

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite Abated June 2015	8 fittings	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	The hard fittings on fiberglass insulation (above ceiling tile) run between rooms 204 and 205.
9" Floor Tile and Mastic	Assumed Abated June 2015	2,644 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
Window Sill Material Abated June 2015	2% Chrysotile	5 sills	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the north windows.

Room 204 **Now Room 208** **Abated June 2015**

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	16 fittings	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		6	None
Mag Block Pipe Insulation	20% Amosite	20 ft	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		6	None
Hard Fittings on Mag Block Insulation	20-50% Chrysotile 2-5% Amosite	5 fittings	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		6	None

Room 205 **Now Room 216** **Abated June 2015**

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	15 fittings	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		6	None
Mag Block Pipe Insulation	20% Amosite	35 ft	Friable TSI	Damaged	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		1	None
Hard Fittings on Mag Block Insulation	20-50% Chrysotile 2-5% Amosite	12 fittings	Friable TSI	Damaged	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		1	None
Rainleader Bowl Insulation Abated July 2007	10% Chrysotile 10% Amosite	1 each	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		6	None.
Tank #64-205-02 Insulation	20% Amosite	25 ft ²	Friable TSI	Good	Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		6	Tank #64-205-02 is in the southwest corner of the room.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	-----------------------------	-------

Tank Insulation (small vertical tank)	15% Amosite	11 ft ²	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	6	The small vertical tank is in the southwest corner of the room.
---	-------------	--------------------	----------------	------	--------------------------------------	---	---	---

Room 206 Now Room 222 Abated June 2015

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	1 each	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	The hard packed insulation around the rain leader is on the east end.
Mag Block Pipe Insulation	20% Amosite	28 ft	Friable TSI	Damaged	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1	None
Hard Fittings on Mag Block Pipe Insulation	20-50% Chrysotile 2-5% Amosite	11 fittings	Friable TSI	Damaged	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1	None

Room 207 (including the area between rooms 205 and 206) Now Rooms 214 & 220 (Incl. between 218 & 222)

Hard Fittings on Fiberglass Insulation	0-15% Chrysotile 2-20% Amosite	10 fittings	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	The hard fittings on fiberglass insulation (above ceiling tile) run between rooms 205 and 206.
9" Floor Tile and Mastic	Assumed	2,226 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material	2% Chrysotile	4 sills	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The asbestos window sill material is on the south windows.

Room 207A Now Room 210

9" Floor Tile and Mastic	Assumed	404 ft ²	Non-Friable Miscellaneous	N/A*	N/A*	N/A*	N/A*	The 9" floor tile and mastic were assumed to be ACMs.
---	---------	---------------------	------------------------------	------	------	------	------	---

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSES. CAT. ¹	NOTES
Window Sill Material Abated June 2015	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the south window.
Room 207A1 Now Room 210A								
9" Floor Tile and Mastic Abated June 2015	Assumed	168 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Sill Material Abated June 2015	2% Chrysotile	1 sill	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window sill material is on the south window.
Room 207A2 Now Room 210B Abated June 2015								
9" Floor Tile and Mastic	Assumed	220 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Room 208 Now Room 224 Abated June 2015								
9" Floor Tile and Mastic	Assumed	54 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Room 209 Now Room 226								
Hard Fittings on Fiberglass Insulation Abated June 2015	0-15% Chrysotile 2-20% Amosite	2 fittings	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	The asbestos hard fittings are on fiberglass insulation along the east and north walls.
Rainleader Bowl Insulation Abated July 2007	10% Chrysotile 10% Amosite	1 each	Friable TSI	Good	Physical Air Erosion Vibration	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	None.

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

Room 210 Now Room 228 Abated June 2015

2'x4' Ceiling Tile with Large and Small Pinholes	5% Amosite	140 ft ²	Friable Surfacing	Good	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6	None.
					Air Erosion	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		
					Vibration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.

Rooms 212 and 218 see Room 206

Hallway 288

2'x2' Ceiling Tile	5% Chrysotile	140 ft ²	Friable Surfacing	Damaged	Physical	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2	None.
					Air Erosion	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		
					Vibration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
9" Floor Tile and Mastic	Assumed	140 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
Window Glazing	5% Chrysotile	5 windows	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window glazing is on the north windows.

2nd Floor East Hallway (by rooms 224, 226, 228 Abated June 2015

9" Floor Tile and Mastic	Assumed	200 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
-------------------------------------	---------	---------------------	---------------------------	------	------	--	------	---

East Stairway (1st to 2nd Floor) Landing Abated June 2015

9" Floor Tile and Mastic	Assumed	36 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
-------------------------------------	---------	--------------------	---------------------------	------	------	--	------	---

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
ARCHITECTURE (BUILDING A064)

ROOM/ ACM	ASBESTOS TYPE	EST. QUANTITY	ACM TYPE	MATERIAL CONDITION	DAMAGE POTENTIAL	LOW MOD HIGH	ASSESS. CAT. ¹	NOTES
--------------	---------------	------------------	----------	-----------------------	---------------------	--------------------	------------------------------	-------

West Stairway (1st to 2nd Floor) Landing

9" Floor Tile and Mastic	Assumed Abated June 2015	36 ft ²	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The 9" floor tile and mastic were assumed to be ACMs.
---	------------------------------------	--------------------	------------------------------	------	------	--	------	---

Exterior

Window Glazing	5% Chrysotile Abated June 2015	24 windows	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The asbestos window glazing is on all exterior windows.
Transite Panels	25% Chrysotile Abated June 2015	48 windows	Non-Friable Miscellaneous	N/A*	N/A*		N/A*	The transite panels are located under the black ceramic tiles/ wood boards above and below the exterior windows.

Panels removed whole and disposed Summer 2007/08--5 remain on N Side

¹Assessment Categories:

- | | |
|---|---|
| 1) Damaged or Significantly Damaged TSI ACM | 5) ACM with Potential for Damage |
| 2) Damaged Friable Surfacing ACM | 6) ACM with Potential for Significant Damage |
| 3) Significantly Damaged Friable Surfacing ACM | 7) Any Remaining Friable ACM or Friable Suspected ACM |
| 4) Damaged or Significantly Damaged Friable Miscellaneous ACM | |

End