NARRATIVE REPORT

1.0 **BUILDING INFORMATION**

Residence Life Facility Services was originally constructed in 1967; a 1968 addition extended the building to the west. There was a 2000 renovation throughout the building.

Residence Life Facility Services is a single-story, 3,283 ft² building which primarily serves as work and office areas for maintenance personnel.

The interior floor finishes included ceramic tile, wood, carpet, floor tile, and concrete; the interior wall finishes included gypsum wallboard, ceramic block, and wood; and the interior ceiling finishes included ceiling tile, concrete, and metal. The roofing system is a flat rubber-membrane roof over the east end of the building and a peaked metal roof over the west end of the building; the exterior of the structure is brick on the east end of the building and metal on the west end of the building.

The piping systems were insulated; fiberglass insulation (without hard fittings) is located throughout the building. Domestic water enters the building in room 101 inside a chase; steam enters the building via a tunnel into room 105A1. HVAC systems located in the building consisted of forced air furnaces equipped with heating/cooling coils and steam unit heaters.

2.0 **ASBESTOS SURVEY INFORMATION**

Residence Life Facility Services 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 49 samples were collected from suspect asbestos-containing materials (ACM) from Residence Life Facility Services on October 5, 2007. Laboratory analysis results indicate **5 of these samples tested positive for asbestos**.

2.1 Suspect Materials Identified and Sampled

Gypsum Wallboard (2 types)

Wall Texture (2 types)

Carpet Mastic (with residual black mastic)

HVAC Duct Caulk

Floor Filler

Penetration Cement Floor Tile Mastic (2 types)

Exterior Penetration Putty (4 types)

Roof Caulk (west end)

Joint Compound (2 types)

Ceiling Tile

Baseboard Adhesive (2 types)

Encapsulant on Fiberglass Insulation

Penetration Putty (2 types)

Floor Tile (2 types)

Window Caulk

Exterior Door Caulk

Roof Flashing (east end)

The Asbestos Bulk Sample Results Table includes asbestos sampling data.

2.2 <u>Asbestos Containing Materials</u>

Carpet Mastic (with residual black mastic) Exterior Penetration Putty (3 types)

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 Residence Life Facility Services as follows:

| ACM | QUANTITY | UNIT COST | TOTAL COST |
|--|-----------------------|-------------------------|------------|
| Asbestos Carpet Mastic | 1,238 ft ² | \$4.00/ ft ² | \$4,952.00 |
| Asbestos Penetration Putty (all types) | 4 ea | \$60.00/ ea | \$240.00 |
| Total Estimated Abater | \$5,192.00 | | |

2.4 **Survey Notes**

Using non-destructive sampling techniques, LEGEND pulls the carpet back in at least one corner (approx 6") in every room and randomly selects a few rooms to collect samples from. LEGEND noted residual black mastic mixed with new carpet mastic in rooms 100, 101, 101A, 102, 103, 104, and 105; this mix tested positive for asbestos (NDSU records indicate the residual black mastic should have been abated throughout the building). LEGEND recommends assuming all carpeted areas in these rooms to have ACM residual black mastic until a destructive survey can be conducted to verify if the residual black mastic is only in the corners/edges. At that time if the residual black mastic is only in the corners/edges, LEGEND recommends sampling the carpet mastic that does not have residual black mastic under it to verify if it is/isn't an ACM (LEGEND was unable to collect a sample of carpet mastic without the residual black mastic under it).

LEGEND TECHNICAL SERVICES, INC.

ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU) RESIDENCE LIFE FACILITY SERVICES (BUILDING A060)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE 5 S ± S POTENTIAL S S S S S S S S S S S S S S S S S S S | ASSESS. | NOTES |
|--|---------------|---------------------|------------------------------|--------------------|--|---------|--|
| Room 100 | | | | | | | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 255 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Room 101 | | | | | | | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 154 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Room 101A | | | | | | | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 119 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Room 102 | | | | • | | | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 240 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Room 103 | l | 1 | 1 | 1 | 1 | - | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 110 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Room 104 | • | • | , | , | | • | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 120 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |

^{* =} Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.

ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU) RESIDENCE LIFE FACILITY SERVICES (BUILDING A060)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE 5 S S S S S S S S S S S S S S S S S S | ASSESS. | NOTES |
|--|-----------------|---------------------|------------------------------|--------------------|--|---------|--|
| Room 105 | | | | | | | |
| Carpet Mastic (with residual black mastic) | 5% Chrysotile | 240 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | Appears to be residual mastic from a previous floor tile installation. Refer to section 2.4 Survey Notes for more information. |
| Exterior Repotration Butty (on | 200/ Chrysotile | 4.02 | Non Friable | N/A* | NI/A* | NI/A* | There is 1 on the east and 1 on the west and |
| Penetration Putty (on electric conduit) | 20% Chrysotile | 4 ea | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | There is 1 on the east end, 1 on the west end, and 2 in the center (between the metal and brick exteriors) of the building. |

¹Assessment Categories:

- 1) Damaged or Significantly Damaged TSI ACM
- 2) Damaged Friable Surfacing ACM
- 3) Significantly Damaged Friable Surfacing ACM
- 4) Damaged or Significantly Damaged Friable Miscellaneous ACM

- 5) ACM with Potential for Damage
- 6) ACM with Potential for Significant Damage
- 7) Any Remaining Friable ACM or Friable Suspected ACM

End