

The following samples were collected from the JFK Library, rooms/areas:

- Lower Level
  - L03, L05, L23, L25, L37, and L37B
- Main Level
  - M04 suite, M14, M18 (two samples), M20, M22, M23 suite, M26, M28
  - Central area on the main level (see map at end of document for locations):
    - Collections
    - Circulation
    - Reference
    - Advising Desk (Adv Desk)
    - Writing Center Desk (WC Desk)
    - Plus Time Clock (Plus Time CK)

- Upper Level

- o U02 suite, U04, U08, U12A, U18  
(two samples)

## LABORATORY REPORT

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**SUBJECT:** Particle Identification  
**SPECIMEN:** Twelve Sets of Three Tapelifts  
**REFERENCE:**

### INTRODUCTION

Twelve sets of three tapelifts each were received for analysis. The primary concern was that the surfaces were clean and free of glass fiber. The tapelifts were labeled as follows.

TAPELIFTS	
L 35	L 03
L 37	L 05
L 37 B	L 23
U 12 A	U 04
U 18 A	U 06
U 18 B	U 08
U 02	M 23
U 02 B	M 23 A
U 02 C	M 23 C
M 04	M 22
M 04 C	M 26
M 04 D	M 28
Collections	Adv Desk
Reference	Plus Time CK
Circulation	WC Desk
M 18	M 04 A
M 18 a	M 04 E
M 20	M 14

The tapelifts were placed on clean microscope slides and immersed in acetone for about two hours and then removed. The slides with the tapelifts were rinsed with clean acetone as they were removed from the immersion tank. The tapelifts were allowed to dry for twenty minutes in a laminar flow Clean Work Station and then mounted using a synthetic resin (Shurmount). The completed mounts

were analyzed using analytical light microscopy. The materials identified are listed in decreasing order of frequency, the most common materials first. The significance of a material's location in the list is not necessarily related to its health impact because some materials have a greater health impact at low levels than other materials do at high levels.

## RESULTS

All of the tapelifts were from surfaces that had been very recently cleaned. The total particle loading was very low for all tapelifts. The particles typically seen on these tapelifts included skin flakes, paper fiber, clothing fiber, natural minerals, plant parts, tire wear, starch, shoe wear, pollen, charred plant material, fungal spores, insect debris, cleaning debris, pet dander, feather barbules, wear metals, wood sawdust, rust particles, HVAC agglomerates, paint flakes, paint spheres, dry-erase ink, cosmetics, and glass fiber. The total number of glass fibers found on all thirty-six tapelifts was 58.

The tapelifts from the "L" area; L 03, L 05, L 23, L 35, L 37, and L 37B, contained only one glass fiber. That one glass fiber was on tapelift L 03. That is one glass fiber in six square inches of surface area. That is at background level. The "L" area is clean.

The tapelifts from the "U" area; U 02, U 02B, U 02C, U 04, U 06, U08, U 12A, U 18A, and U 18B, contained 32 glass fibers in nine square inches. This area had been cleaned but some areas were still well above the background level though below the level normally associated with health complaints. Tapelifts U 02, U 02C and U 18A contained no glass fibers. Tapelift U 12A contained 2 per square inch. Tapelifts U 02B (4 glass fibers), U 04 (9 glass fibers), U 06 (3 glass fibers), U 08 (6 glass fibers), and U 18B (8 glass fibers).

The tapelifts from the "M" area; M 04, M 04A, M 04C, M 04D, M 04E, M 14, M 18, M 18A, M 20, M 22, M 23, M 23A, M 23C, M 26, and M 28, contained a total of 12 glass fibers in fifteen square inches. This area was clean with the exception of tapelifts M 04C and M 04E. These two tapelifts were above the background level though still below the level associated with health complaints. Tapelift M 04E was the highest at 8 glass fibers per square inch. This tapelift was very clean so it had been cleaned but the glass fiber level was well above the background level. Tapelift M 04C contained 3 glass fibers per square inch. The only other tapelift in this area that contained a glass fiber was M 23A. It contained only one glass fiber per square inch.

At specific "Desks"; "Collections", "References", "Circulation", "Adv. Desk", "Plus Time CK", and "WC Desk", there was a total of 11 glass fibers in six square inches of surface area. There were no glass fibers on the tapelift from "Collections". There were 3 each per square inch on the "Reference", "Plus Time Ck", and "WC Desk" tapelifts. "Circulation" and "Adv. Desk" each had 1 glass fiber per square inch.

All of the glass fiber appears to have the same source. The glass fibers are associated with a highly mineral filled clear resin. The source could be identified with reference samples from these areas.

## CONCLUSION

All of the areas have been cleaned but there are still issues at some locations. Area “L” is essentially glass fiber free.

Area “U” still has some issues. The following tapelifts in this area were essentially free of glass fiber: U 02, U 02C, U 12A, and U 18. The other five tapelifts in this area were well above the background level.

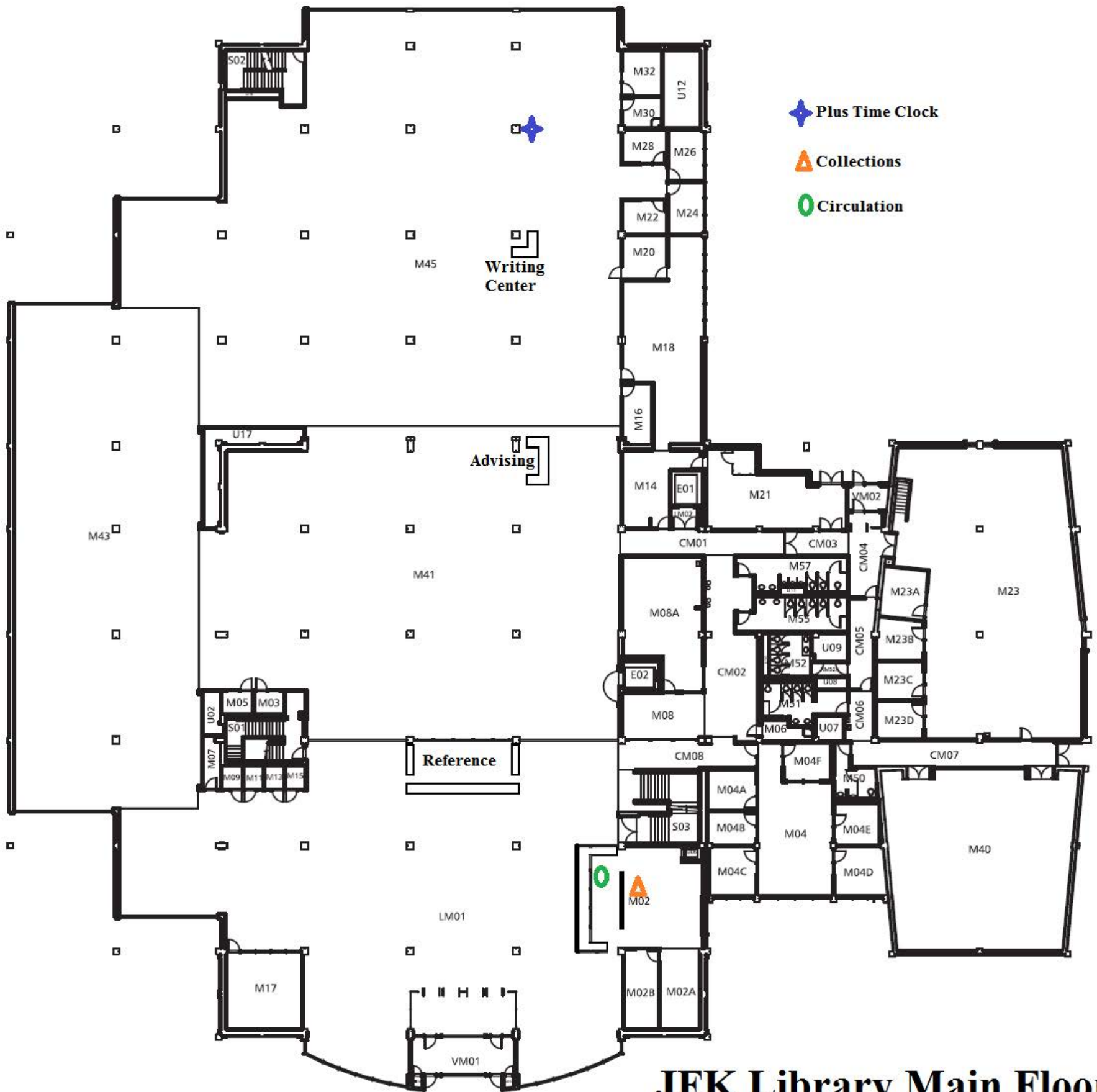
Area “M” was clean as a group but two tapelifts contained glass fiber above the background level: M 04C (3 glass fibers) and M 04E (8 glass fibers).

The individual “Desk” areas contained 11 glass fibers in a total area of twelve square inches. Three of the tapelifts were clean: “Collections”, “Circulation”, and “Adv. Desk”. The other three tapelifts; “Reference”, “Plus Time CK”, and “WC Desk”, each contained 3 glass fibers per square inch.

The glass fiber appears to all have the same source. Reference samples of glass fiber containing materials in these areas would assist in identifying the source.

Thank you for this opportunity to be of service. If I can provide any further assistance please contact me.

Signed: *Russ Crutcher*  
E. R. Crutcher, Consultant



**JFK Library Main Floor**