Asbestos Survey

for Victoria Park Community Homes
at Various Sites Throughout Hamilton, Waterdown, Burlington, Milton, Brantford and Kitchener/Waterloo, Ontario

Prepared March 20, 2008

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Kleinfeldt Consultants Limited

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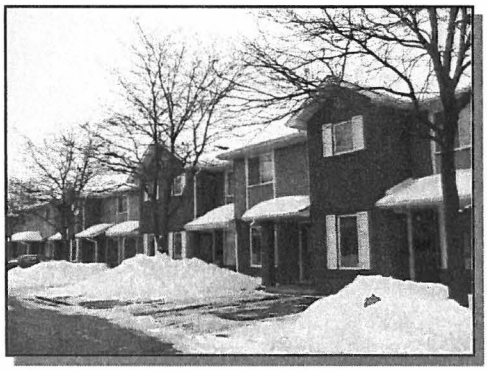

Photo 1: Exterior view of 588 Greenfield

After concluding our inspection of the housing units, January 25th, 2008 to March 17th, 2008, Kleinfeldt Consultants Limited (KCL) has identified areas within the buildings where Asbestos Containing Materials (ACM) are present. These materials are either friable or non-friable in nature and are in varying conditions of state. The inspection and report are required under Ontario Regulation 278/05.

The ACMs are limited to the portions of texture ceilings, vinyl floor tile, linoleum, sealants, cementious coatings, duct heat shields, miscellaneous pipe fitting insulation and gypsum wallboard compound.

It is recommended that asbestos abatement (removal) proceed in areas where pipe fitting insulation and heat shields occur. Textured ceilings and vinyl tile flooring where in fair to good condition (and otherwise in an areas with low risk to damages) should be maintained. Vinyl tile containing ACM is typically encapsulated with another layer of flooring material or in fair to good condition which can also be maintained. Plaster walls susceptible to damage or in poor condition are recommended to be encapsulated with gypsum wallboard materials.

Any materials containing ACMs which is either damaged or in such a location as to be susceptible to damages (high risk) should be removed as soon as possible. A more detailed listing of those areas containing, or suspected to contain, ACM can be found in Section 5 and Appendix B of the Report.

Areas containing friable ACMs include:

- 40 Century Street;
- 2 Greig Street;
- 120 Locke Street North;
- 23 Niagara Street;
- 196 Emerald Street North;
- 249 Prospect Street South;
- 95 - 103 Cheever Street;
- 33 Kimberly Drive;
- 10 Techumseh Street;
- 141, 171, 201 Caledon Avenue;
- 195 Limeridge Road West;
- 15 - 27 Lotus Avenue:
- 75-91 Caledon Avenue;
- 1 Hamilton Street South;
- 138 Queen Street North; and
- 85 Bonadventure Drive.

Now knowing the bulk sample results, the next phase is to establish an Asbestos Management Plan to ensure best practices are in place when there is the likelihood that asbestos containing material will be disturbed.

Abatement or encapsulation costs, as discussed in Section 7, for the housing portfolio are in the range of $1,423,800. This includes the removal/encapsulation and reinstatement of similar materials.

2. Introduction

Photo 2: Exterior view of 349 - 353 MacNab

Kleinfeldt Consultants Limited has been authorized by Victoria Park Community Homes (VPCH) to conduct a survey of the various residential buildings of their portfolio located within Hamilton, Waterdown, Burlington, Milton and Brantford, Ontario. The purpose of the investigation is to identify the presence and location of Asbestos Containing Material (ACM) within the various buildings and to ascertain the extent and condition of any such material found, following the requirements of the Ontario Regulation 278/05 - *Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations made under the Occupational Health and Safety Act.*

The basis of the review is to provide an asbestos survey of the building as per our December 7th, 2007 proposal. The proposal is in reference to the VPCH's written email request for proposal dated November 27, 2007.

This report does not establish detailed asbestos management or training plans and is not intended as a specification for repair or removal of ACM.

The inspections were completed through the period of January 25th, 2008 to March 17th, 2008. Each accessible room and area within the buildings was surveyed. The buildings were inspected using visual and non-intrusive methods. Limited inspection occurred in ceiling spaces where piping, duct work, cables and abandoned ceiling systems are present. Samples were taken of materials to confirm the presence or absence of asbestos materials.

A total of one thousand five hundred and fifty-one (1551) representative bulk samples were collected throughout the survey. The samples were submitted to approved laboratories for analysis. The reduction in the number of bulk samples analysed versus those collected is a result of sample of guidelines set forth by Ontario Regulation 278/05 defining the ACM bulk samples testing procedure and thus eliminating various bulk samples known to contain asbestos. "Asbestos-Containing Material" means material that contains 0.5 per cent or more asbestos by dry weight. The samples were analysed using Polarized Light Microscopy Results (PLM) and dispersion staining techniques in accordance with EPA 600/R-93/116 method, quantitation using 400 Point Count Procedure. The results of the bulk sampling is presented both on the individual Asbestos Survey Forms (where applicable) found in Appendix B, and in tabular format as Appendix C. Findings were extrapolated over the total building area on multiple unit sites to derive a total quantity estimate for each particular site.

Although we were not mandated to conduct life safety assessments onsite, it was noted that life safety issues were present and are identified within this report. These items were previously identified at the time of their discovery at the individual sites.

3. Background Information

Types of Asbestos
There are three types of asbestos minerals used commercially in Ontario. The most common is chrysotile, the "white" asbestos from the serpentine family of minerals. The others are amosite, or "brown" asbestos and crocidolite or "blue" asbestos, both from the amphibole family. All of the asbestos material identified at the buildings during this inspection contain chrysotile type asbestos.

Ontario Regulation 278/05
As required by Section 8 of the O.Reg. 278/05, the owner shall:

- Prepare and keep on the premises a record containing the location of the suspect or verified asbestos containing materials, whether the material is friable or non-friable, if material is known to contain asbestos and is friable, the type of asbestos and in any other case to treat the material as an asbestos other than chrysotile;
- Update the record once in each 12-month period and whenever changes are brought about. Notification of all effected persons as prescribed in the Regulation; and
- Establish and maintain, for the training and instruction of every worker employed by the owner who works in the building and may do work on the material or in close proximity to the effected material, a program dealing with,
  - The hazards of asbestos exposure;
  - The use, care and disposal of protective equipment and clothing to be used and worn when doing the work;
  - The personal hygiene to be observed when doing the work;
  - The measures and procedures prescribed by the Regulation; and
  - Inspect the material mentioned in the record at reasonable intervals in order to determine it's condition.

Definitions
Asbestos containing material means material that contains 0.5 % or more asbestos by dry weight.

Friable material means material that when dry, can be crumbled or powdered by hand pressure or is crumbled, pulverized or powdered.

Homogeneous material means material that is uniform in colour and texture.

Testing
U.S. Environmental Protection Agency Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June 1993.

Minimum number of bulk material samples collected from an area of homogeneous material is
- Surfacing materials <90sm: 3
- Surfacing materials >90sm and <450sm: 5
- Surfacing materials >450 sm: 7
- Thermal insulation, any size: 3
- Thermal insulation patch, less than 2 lm or 0.5 sm: 1
- Other material, any size: 3

Abatement

Removal of asbestos can be done under Type 1, Type 2 or Type 3 procedures. For example:

Type 1 Removing less than 1 sm of gypsum board in which joint-filling compounds that are ACM have been used.

Type 2 Removing 1 sm or more of gypsum board in which joint-filling compounds that are ACM have been used. Enclosing a friable ACM.

Type 3 The spray application of a sealant to friable ACM.

An operation that is not mentioned in Type 2 paragraphs 1 to 10 of the Regulation, may expose a worker to asbestos and is not classified as Type 1 or 3, is also considered a Type 2 operation.

A constructor, in the case of a project, or the employer, in any other case, may vary a measure or procedure required by this Regulation if the following conditions are satisfied:

- The measure or procedure, as varied, affords protection for the health and safety of workers that is at least equal to the protection that would be provided by complying with the Regulation.
- The constructor or employer gives written notice of the varied measure or procedure, in advance, to the joint health and safety committee or the health and safety representative, if any, for the workplace.

The Ministry of Labour must be notified for all Type 3 projects and certain Type 2 projects.

4. Survey Criteria

The assessments of the buildings were carried out by Melissa Woods and Willy Meyer, with the assistance of John Kirkpatrick, of Kleinfeldt Consultants Limited. There were a total of four (4) high-rise apartments, forty-four (44) townhouses and rowhouses, six (6) maisonettes, two (2) duplexes and fourteen (14) single-family homes. Refer to Appendix A. For a detailed list of all buildings inspected.

Reviewed Documentation
There was no previous survey reports provided for our review. Property description pages were provided and utilized for quantity takeoffs.

Inspection Process
KCL entered all areas of the buildings that were accessible during the inspection period. Access to was limited by random inspections in areas above lay-in tile ceilings and to unoccupied spaces. Physical removal of gypsum board or plaster finishes to gain access to concealed chases was not performed.

Through the inspection process survey forms for all buildings/properties were completed and are included in Appendix B.

Sample for the properties was limited to 5% of the total number of units per complex (includes townhouses, maisonettes and apartments), 50% of all row houses and duplexes and 100% of all detached single-family dwellings. Sampling protocol was based on homogeneous areas with similar vintage and similar building materials. In all buildings the sampling was extrapolated to cover all homogeneous areas with the intent of complying with the new Ontario Regulation 278/05. The resulting lab analysis was then extrapolated to cover similar building groups within a site.

Our bulk sampling strategy was limited where sampling would cause damage to the integrity of a structural or building envelope system (ie. roof membranes, roof felts, caulking etc.). The sampling of materials were conducted in inconspicuous locations to avoid visible damage to finishes.

5. Evaluation Criteria

Our evaluation criteria is generally based on the current Ontario Regulation and our experience. In summary, the condition of the material and it's accessibility to occupants or service personnel are the main factors in determining if a material will be disturbed and become airborne.

The following condition and accessibility definitions are used in our survey:

- Good - ACMs that show no sign of damage and are encapsulated.
- Fair - ACMs that show 5% damage or otherwise are nearing the end of their useful life.
- Poor - Damage is greater than 5% to any ACM material.

The following action recommendations are presented in our survey:

- Abatement (removal) - restrict access to area containing damaged ACM. Where ACM cannot be repaired or controlled, proceed with removal Type 1, 2 or 3 in accordance to the Ontario Regulation requirements including notification.
- Repair - restrict access to area containing damaged ACM. Where ACM can be repaired and controlled, proceed with repairs with Type 1 or 2 procedures in accordance to the Ontario Regulation requirements including notification.
- Encapsulate (contain) - if deemed necessary, restrict access to area containing ACM. Proceed with encapsulation in accordance to best practices.
- Maintain - continue the conditional reviews of the ACM materials on an as-required basis. Document all observations and record in the Asbestos Management report.
- Take additional bulk samples in areas of repair or otherwise take the necessary precautions under the Ontario Regulation with the assumption that the material does contain asbestos.

6. Findings

Location and Extent of Asbestos Materials:
The inspection of the various buildings concluded that ACM is located within the following materials:

1. Textured coating on ceilings;
2. Textured coating or coating on foundation walls;
3. Gypsum wallboard compound;
4. Plaster finish or base;
5. Vinyl floor tile;
6. Linoleum;
7. Mechanical pipe fitting insulation;
8. Ductwork heat shields; and
8. Caulking/mastic.

Summary of Findings Per Building Site:

ID	Address	ACM Present (Y/N)	Friable or Non-Friable Material(s)	ACMs
VP03	19 - 23 Woodbine Crescent	No	-	-
VP04	1 McNeil Street	Yes	Non-friable	Vinyl tile and caulking/mastic
VP05	2344 Barton Street East	Yes	Non-friable	Vinyl tile and compound
VP07	169A & B Mary Street	No	-	-
VP09	18 Century Street	No	-	-
VP09	40 Century street	Yes	Friable	Heat shield, linoleum
VP09	152 Locke Street North	No	-	-
VP10	2 Greig Street	Yes	Friable	Heat shield
VP12	65 Oxford Street	No	-	-
VP13	95 - 103 Cheever Street	Yes	Friable & Non-friable	Linoleum, texture, compound and heat shield
VP14	120 Locke Street North	Yes	Friable	Plaster finish, heat shield
VP14	187 a & b Napier Street	Yes	Non-friable	
VP15	23 Niagara Street	Yes	Friable & Non-friable	Vinyl tile, foundation coating, textured ceiling
VP15	349 MacNab Street North	Yes	Non-friable	Vinyl tile
VP16	351 MacNab Street North	-	Refer to 349 MacNab Street	
VP17	353 MacNab Street North	-	Refer to 349 MacNab Street	
VP22	196 Emerald Street North	Yes	Friable	Heat shield
VP22	11, 418 & 422 James Street North	Yes	Non-friable	Sealant/mastic
VP22	138 Macaulay Street East	No	-	-

ID	Address	ACM Present (Y/N)	Friable or Non-Friable Material(s)	ACMs
VP22	249 Prospect Street South	Yes	Friable	Heat shield
VP22	26 & 28 Ruth Street	No	-	-
VP25	151 Queen Street North	Yes	Non-friable	Vinyl tile
VP26	40 Oxford Street	No	-	-
VP27	33 Kimberly Drive	Yes	Friable & Non-friable	Texture and sealant/mastic
VP28	125/155 Queen Victoria Drive	Yes	Non-friable	Vinyl tile and linoleum
VP29	2 – 12 Ferrie Street	No	-	-
VP29	446, 448, 450 & 454 James Street North	No	-	-
VP29	1-13 Simcoe Street East	Yes	Non-friable	Vinyl tile
VP29	10 Techumseh Street	No	Friable & Non-friable	Vinyl tile & Heat shield
VP29	15 Wood Street	Yes	Non-friable	Sealant/mastic
VP30	9-17, 35, 37 Burlington Street West	Yes	Non-friable	Compound
VP30	240 & 242 Emerald Street North	No	-	-
VP30	593, 595, 597 John Street North	Yes	Non-friable	Sealant/mastic
VP30	138 Queen Street North	Yes	Friable & Non-friable	Vinyl tile and heat shield
VP30	6 Simcoe Street East	Yes	Non-friable	Vinyl tile
VP30	16 Simcoe Street East	No	-	-
VP34	831 Queenston Road	Yes	Non-friable	Vinyl tile
VP01	175 Limeridge Road West	Yes	Non-friable	Vinyl tile
VPO8	141, 171, 201 Caledon Avenue	Yes	Friable & Non-friable	Compound and textured ceiling
VP10	1247 – 1255 Fennell Avenue East	Yes	Non-friable	Vinyl tile, compound and foundation coating.
VP18	195 Limeridge Road West	Yes	Friable & Non-friable	Linoleumx2, vinyl tile, plaster finish, foundation walls, texture on gypsum
VP19	85 Bonadventure Drive	Yes	Friable & Non-friable-	Vinyl tile and foundation wall texture
VP20	381-391, 399 Queen Victoria Drive & 25 Rochelle Avenue	Yes	Non-friable	Compound and sealant/mastic
VP22	14, 26, 36 & 38 Silvervine Drive	Yes	Non-friable	Compound
VP23	273 Limeridge Road West	No	-	-

ID	Address	ACM Present (Y/N)	Friable or Non-Friable Material(s)	ACMs
VP24	18 Carson Drive & 10 Locheed Drive	Yes	Non-friable	Compound
VP31	1049 Rymal Road East	No	-	-
VP32	525 Stone Church Road East	No	-	-
VP36	1616 Upper Gage Avenue	No	-	-
VP38	408 Rymal Road East	No	-	-
VP39	1517 Upper Wentworth Street	No	-	-
VP40	450 Rymal Road East	No	-	-
VP41	80 Gilcrest Street	No	-	-
VP01	175 Limeridge Road West	Yes	Non-friable	Vinyl tile
VP11	15-27 Lotus Avenue	Yes	Friable & Non-friable	Compound and textured ceiling
VP11	75-91 Caledon Avenue	Yes	Friable & Non-friable	Vinyl tile, compound and textured ceiling
VP35	1 Hamilton Street South	Yes	Friable & Non-friable	Vinyl tile, plaster finish and fittings
VP42	2461 Whittaker Drive	Yes	Non-friable	Vinyl tile
TP01	4090 Millcroft Park Drive	No	-	-
VP43	154 Bronte Street	No	-	-
VP33	401-427 Dunsdon Street	Yes	Non-friable	Vinyl tile
VP45	454-470 Grey Street	No	-	-
VP21	101 Tuerr Drive	No	-	-
VP37	209 Springfield Crescent	No	-	-
VP44	39 Paulander Drive	No	-	-
KA01	588 Greenfield Avenue	No	-	-
KA02	60 Westmont Road West	No	-	-
KA03	11 Monte Carlo Street	No	-	-
KA04	63 Connaught Place	No	-	-
KA05	200 Chandler Drive	No	-	-

7. Evaluation of Findings

All asbestos material collected throughout the portfolio was of the chrysotile type, the most commonly used in building materials.

Friable Asbestos
Materials containing asbestos for this project that are considered friable are heat shields and textured ceilings.

One out of the four (4) apartment buildings inspected contained pipe insulation where previous abatement had been conducted in the past. All boiler rooms inspected contained newer fiberglass pipe wrap and/or PVC coverings. Based on the conditions of present materials and equipment, ACM removals have been conducted in the past.

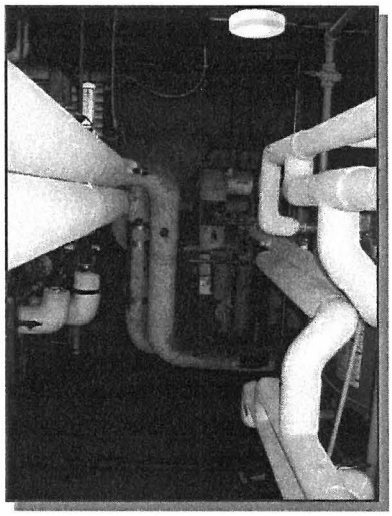

Photo 3: ACM pipe insulation present at PH Mechanical Room - 1 Hamilton Street South

Textured ceilings in many of the buildings contain asbestos fiber although the percentage make-up of the material is small (0.5% to 1.8%). Most texture was in fair-to-good condition with no loose or falling debris noted.

Heat shields were observed at many of the single family homes, and some row housing units, around furnace plenums, duct runs between floor joists and at boot fittings that penetrated wood floors. This material is extremely friable. There may be a possibility that this material exists in other concealed location in the same dwellings. Caution should be exercised during renovation.

Older incandescent ceiling fixtures are presumed to contain asbestos containing heat shields. Re-lamping and replacement to be executed in a manner so as not to disturb the material. Where disturbance is likely, removal should be undertaken as a Type 1 type removal.

Non-Friable Asbestos
Materials containing asbestos for the project that are considered non-friable include vinyl floor tile, plaster finish or base, cementious coatings, linoleum, sealants and wall/ceiling joint compound.

Gypsum wallboard used for walls was generally free of asbestos. Gypsum compound was typically found to contain ACMs. As it is difficult to differentiate between the gypsum board and compound materials during removal, both would typically be removed under controlled conditions, if renovations were to take place.

Where either the top coat of the plaster (finish layer) or base coat (brown "scratch" layer) was found to contain asbestos, the removal procedure would normally dictate following controlled conditions with both layers being removed and disposed of.

Observations made onsite suggests that older flooring materials were not always completely removed prior to the installation of newer flooring. Therefore, it is expected that asbestos may be present in the vinyl tile/linoleum flooring and adhesive laid beneath newer flooring materials. Samples were taken of these older flooring materials where accessible from forced-air duct registers. Access was limited to sample these materials (as they were concealed and not to damage finishes) and in some cases insufficient materials were obtained.

8. Conclusions and Recommendations

This Asbestos Survey Report was prepared under the requirements of Ontario Regulation 278/05 - *Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations - made under the Occupational Health and Safety Act.*

We have determined that some of the buildings contain an assortment of friable and non-friable asbestos containing materials. Some of the material is damaged and needs to be removed while other materials can be encapsulated or otherwise maintained in it's present state.

Accordingly, we recommend the following:

- remove insulation on pipe lengths or fittings where they still exist and are in good condition;
- remove heat shields at furnace ductwork at single family houses/row houses;
- maintain vinyl tile and linoleum which is in fair or good condition;
- maintain textured ceilings in good conditions with painting of the ceiling, as this has been conducted in the past and can encapsulate the materials. We observed no loose/fallen material at this time to warrant removal;
- encapsulate foundation wall texture if in poor condition or at high risk;
- abatement of foundation wall cementious coating if in poor condition or where at high risk;
- encapsulate plaster walls with gypsum wallboard poor conditions or where at high risk to damage;
- limit disturbance of gypsum wallboard and compound at all buildings until it can be categorically stated that the materials do not contain asbestos.
- conduct repairs on areas where compound has been damaged.
- prepare a Management Plan to coincide with the Survey findings. Include for awareness training.
- update the Survey Report as required by the Regulation.

The recommended course of action is to take additional bulk samples in areas of repair or otherwise take the necessary precautions under the Ontario Regulation with the assumption that the material does contain asbestos.

The Owner is to make this report available to all constructors, contractors, sub-contractors, or any persons who will access an area where ACM is present. Prior to asking for tenders for the demolition, alteration or repair of a building, or any part thereof, the Owner shall provide information that ACM's are present in the building.

Where friable material is discovered during any work and the friable material was **not** referred to in this report, the constructor or employer shall forthwith report the discovery, orally and in writing, to an inspector at the office of the Ministry of Labour nearest the workplace.

Ontario Regulation 278/05 - *Regulation respecting Asbestos - made under the Occupational Health and Safety Act* applies to, among others, every employer engaged in work on a building that is necessarily incidental to the repair, alteration or maintenance of machinery or equipment and to those workers of such an employer who are likely to inhale or ingest asbestos. This regulation does not apply to an employer to whom Regulation 837 of the Revised Regulations of Ontario, 1990 applies

in respect of those workers employed by the employer and engaged in the activities described if the employer has, on or before the 16th day of December 1985, put into effect and maintained measures and procedures to control the exposure of workers to asbestos and has incorporated the measures and procedures in an asbestos control program in accordance with this Regulation.

Ontario Regulation 837/90 states that the time-weighted average exposure of a worker to any forms of airborne asbestos, individually or collectively, is to be reduced to the lowest practical level and in any case shall not exceed 0.1 fibres per cubic centimeter of air. This is used as a maximum allowable concentration although lower, more stringent, levels of 0.05 f/cc or 0.01 f/cc are commonly used.

Where major renovation work to the building areas are to occur, removal or encapsulation would be required. The materials are not deemed hazardous if the ACM is in fair or good condition and is maintained with proper scheduled Operation and Maintenance procedures. Asbestos abatement (removal) should be considered for all units containing an ACM when they become vacant due to tenant turnover which would eliminate the possibility of future damage and otherwise eliminate the exposure or the likelihood of exposure.

All removals of asbestos materials are to be performed as Type 1, 2 or 3 as defined in Sections 12 to 18 of O.Reg. 278/05. All removals should be administered through proper specifications with project management, air testing and negative air enclosure requirements. This will ensure that the Owner has taken all necessary measures and procedures by means of engineering controls, work practices and hygiene practices and facilities. All removal(s) of asbestos material are to be performed by registered Asbestos Abatement Contractors.

In conclusion, all asbestos removal(s) shall be expedited and include for the combining of interrelated areas to minimize inconvenience to operations and as a measure of cost-effectiveness.

Costing

The basis of the following cost exercise is to provide Victoria Park Community Homes with an estimated cost for the removal and/or encapsulation of known asbestos containing materials found at each property. These costs are based on KCL's experience and judgement. Competitive tendering with increased volume of total work at any given time would bring these estimates down. In all instances, the abatement and/or encapsulation costs include the projected capital expenditure cost for the affected components.

All hard wall and ceiling boards (wallboard, plaster and associated compound) will last the useful life of the buildings estimated at 50 plus years. Allowances are made for $500/unit for gypsum board and $300/unit for compound to bring the materials into a good state-of-repair presently and then 10% of this annually thereafter for repairs. Encapsulating plaster in high risk areas included installing a layer of gypsum wallboard overtop the existing plaster base materials in accordance with Type 1 procedures at $6/sf (with the exclusion of removing cabinets and other wall-mounted items or tenant-relocation costs).

Heat shields, where present on old ducting and duct fittings, should be removed now at $1,200/unit. Asbestos insulated pipe fittings to be removed now at $500/fitting. Vinyl tile to be replaced now or

otherwise encapsulated at $3.20/sf to $4.90/sf (depending on underlayment requirement) where in poor condition or at high risk.

Total costs projected based on the above are as follows:

VPM Project	Address	Estimated Costs ($)
VP03	19 - 23 Wood Crescent	$0
VP04	1 McNeil Street	$0
VP05	2344 Barton Street East	$17,400
VP07	169A & B Mary Street	$0
VP09	18 Century Street	$0
VP09	40 Century street	$1,200
VP09	152 Locke Street North	$0
VP10	2 Greig Street	$1,200
VP12	65 Oxford Street	$0
VP13	95 - 103 Cheever Street	$4,500
VP14	120 Locke Street North	$1,700
VP14	187 a & b Napier Street	$16,600
VP15	23 Niagara Street	$4,200
VP15	349 MacNab Street North	$0
VP16	351 MacNab Street North	$0
VP17	353 MacNab Street North	$0
VP22	196 Emerald Street North	$1,200
VP22	11, 418 & 422 James Street North	$0
VP22	138 Macaulay Street East	$0
VP22	249 Prospect Street South	$1,200
VP22	26 & 28 Ruth Street	$0
VP25	151 Queen Street North	$0
Vp26	40 Oxford Street	$0
VP27	33 Kimberly Drive	$0
VP28	125/155 Queen Victoria Drive	$0
VP29	2 – 12 Ferrie Street	$0
VP29	446, 448, 450 & 454 James Street North	$0
VP29	1-13 Simcoe Street East	$0
VP29	10 Techumseh Street	$1,200
VP29	15 Wood Street	$0
VP30	9-17, 35, 37 Burlington Street West	$2,100
VP30	240 & 242 Emerald Street North	$0
VP30	593, 595, 597 John Street North	$0
VP30	138 Queen Street North	$1,200
VP30	6 Simcoe Street East	$0
VP30	16 Simcoe Street East	$0

VPM Project	Address	Estimated Costs ($)
VP34	831 Queenston Road	$0
VP01	175 Limeridge Road West	$0
VPO8	141, 171, 201 Caledon Avenue	$13,500
VP10	1247 – 1255 Fennell Avenue East	$20,100
VP18	195 Limeridge Road West	$579,000
VP19	85 Bonadventure Drive	$100,800
VP20	381-391, 399 Queen Victoria Drive & 25 Rochelle Avenue	$24,000
VP22	14, 26, 36 & 38 Silvervine Drive	$1,200
VP23	273 Limeridge Road West	$0
VP24	18 Carson Drive & 10 Locheed Drive	$18,000
VP31	1049 Rymal Road East	$0
VP32	525 Stone Church Road East	$0
VP36	1616 Upper Gage Avenue	$0
VP38	408 Rymal Road East	$0
VP39	1517 Upper Wentworth Street	$0
VP40	450 Rymal Road East	$0
VP41	80 Gilcrest Street	$0
VP01	175 Limeridge Road West	$0
VP11	15-27 Lotus Avenue	$2,100
VP11	75-91 Caledon Avenue	$2,400
VP35	1 Hamilton Street South	$609,000
VP42	2461 Whittaker Drive	$0
TP01	4090 Millcroft Park Drive	$0
VP43	154 Bronte Street	$0
VP33	401-427 Dunsdon Street	$0
VP45	454-470 Grey Street	$0
VP21	101 Tuerr Drive	$0
VP37	209 Springfield Crescent	$0
VP44	39 Paulander Drive	$0
KA01	588 Greenfield Avenue	$0
KA02	60 Westmont Road West	$0
KA03	11 Monte Carlo Street	$0
KA04	63 Connaught Place	$0
KA05	200 Chandler Drive	$0
	TOTAL	**$1,423,800**

Note: Projected costs do not include permits, engineering, testing and tenant-relocation costs (where needed).

9. Disclaimer

All reasonable means have been implemented in the location, quantification and qualification of ACM and non-ACM throughout the buildings. There are areas that were not accessible for full inspection. Prior to any major renovation, these areas must be considered suspect until further physical testing indicates otherwise.

We caution the reader and end users of this report that although the testing was exhaustive in the established time frame, additional sampling should be undertaken in affected work areas prior to commencing repair, renovation or replacement activities that would otherwise disturb asbestos or suspect asbestos containing materials.

The statements made in this report are based solely on the information obtained to date as part of the above referenced assessment. Kleinfeldt Consultants Limited has used its professional judgement in assessing this information and formulating its opinions and recommendations. The mandate at Kleinfeldt Consultants Limited is to perform the tasks prescribed by the client with due diligence of the profession. No other warranty or representation is expressed or implied as to the accuracy of the information or recommendations included or intended in this report. Kleinfeldt Consultants Limited disclaims any liability or responsibility to any person or party for any loss, damage, expense, fine or penalty which may arise or result from the use of any information or recommendation contained in this report.

This completes our report and observations.

Prepared by:

KLEINFELDT CONSULTANTS LIMITED

Melissa Woods, B. Arch. Sci.
Architectural Technologist, Building Science

Reviewed by:

John Losak, B.Tech.(Arch.Sc.), MAATO, CRP, BCQ
Manager, Building Science

APPENDIX B

Asbestos Survey Forms

Asbestos Survey for Victoria Park Community Homes

Building Address: 1 Hamilton Street South
Inspector(s): John Kirkpatrick, Melissa Woods

ID No.: VP35
Date Inspected: 01/25/08

Kleinfeldt Consultants Limited

KCL File No.: 3030

A	General Building Description	Units	Type	Age (yrs)	Construction	Condition	ACM	Overall Priority
	Residential High-rise	100	Highrise	40	Concrete Frame	Fair	Yes	High

A **General Commentary and Relating Issues** Approximate Building Footprint: 14,000sf No. of Floors: 10 No. of Stairwells: 2

The building consists of bachelor, one bedroom, two bedroom and three-bedroom style units. The exterior walls are TTW brick (clad with metal at top 6 floors). The roof is flat/modified bitumen. Units inspected were 108, 410, 201, 506 1008. The building is equipped with a hydronic heating system. In 2007, abatement was conducted in the boiler room.

Note:

B	Interior Unit Finishes	Type	Age (yrs)	Condition (G/F/P)	Sample	Location	Sample Area (sf)	ACM (Y/N)	Friable (Y/N)	Recommendation	Estimated Costs ($)
	Floor 1 - Wood grain vinyl tile	Vinyl Tile	40	F	4A,4B,4C	Varies	63,000	Yes	No	Maintain	$0
	Floor 2 - White/beige vinyl tile	Vinyl Tile	1	F	6A,6B	Kitchen	-	No	No	N/A	$0
	Floor 3 - White vinyl tile	Vinyl Tile	40	F	13A,13B,13C	Varies	8,500	Yes	No	Maintain	$0
	Floor 4 - Solid grey vinyl tile	Vinyl Tile	5	F	11A	Water Closet	-	No	No	N/A	$0
	Floor 5										
	Wall 1 - Plaster Finish	Plaster Finish	40	F	5A,5B	Varies	100,000	Yes	No	Encapsulate	$600,000
	Wall 2										
	Wall 3										
	Wall 4										
	Wall 5										
	Ceiling 1 - Plaster Finish	Plaster Finish	40	F	9A	Bedroom	-	No	No	N/A	$0
	Ceiling 2										
	Ceiling 3										
	Ceiling 4										
	Ceiling 5										

B Typ. Unit Finishes (350sf/unit for bachelor, 500sf/unit for one bedroom, 650sf-700sf/unit for two bedroom and 950sf/unit for three bedroom): Plaster walls and ceilings, original wood grain vinyl tile and original white vinyl tile in kitchens and water closets, some newer white/beige or grey vinyl tile in water closets.

C	Interior Unit Other										
	1 -										
	2 -										

C

D	Common Area Finishes										
	Floor 1 - Pink vinyl tile	Vinyl Tile	40	F	7A	Other	30	Yes	No	Abatement	$1,000
	Floor 2 - Grey vinyl tile	Vinyl Tile	8	F	10A,10B	Varies	-	No	No	N/A	$0
	Floor 3 - Grey patterned	Vinyl Tile	5	F	12A	Stairwell	-	No	No	N/A	$0
	Floor 4										
	Wall 1 - Plaster Finish	Plaster Finish	40	F	2A,2B	Stairwell	-	No	No	N/A	$0
	Wall 2										
	Wall 3										
	Wall 4										
	Ceiling 1 - Fiberglass Lay-in Tile	Lay-in Tile	10	F	3A,3B,3C,3D	Corridor	-	No	Yes	N/A	$0
	Ceiling 2 - Plaster Finish	Plaster Finish	40	F	8A,8B,8C,8D	Corridor	-	No	No	N/A	$0
	Ceiling 3 - Texture on Gypsum	Textured	10	G	14A,14B	Varies	-	No	Yes	N/A	$0
	Ceiling 4										
	1 -										
	2 -										
	3 -										

D Typ. Corridor Finishes (700sf/floor): Painted concrete block walls, carpet floors with ceramics at elevator lobbies and plaster ceilings. Lay-in tile ceiling at 10th floor. It was noted that newer uninsulated copper piping was present above the lay-in ceiling tiles on the 10th floor.
Typ. Stairwell Finishes: Plaster walls and ceilings. Typ. Main Lobby Finishes: Ceramic floors, plaster walls and ceiling. Lobby/Mail Room: Texture on gypsum walls.
East stair from Enfield Suite - Newer grey patterned vinyl tile (5 years old) present. North vestibule - Newer grey vinyl tile (8 years old) present.
Elevator Cab Finishes: Pink vinyl tile flooring.

E	Service Area Mechanical										
	1 - PH Mechanical Fittings	Fitting	40	F	1A,1B,1C	Serv. Rm	16 fittings	Yes	Yes	Abatement	$8,000
	2 -										
	3 -										
	4 -										
	5 -										
	6 -										
	7 -										
	8 -										
	9 -										

E Typ. Locker Room: Concrete finishes. All uninsulated hydronic piping present. Laundry: Plaster walls and ceilings with ceramic floors.
Typ. Penthouse Mechanical Room Finishes: Concrete finishes.
Typ. Main Electrical Room Finishes: Concrete finishes.

Totals	$609,000

APPENDIX D

Bulk Sample Analysis

emcscientific
INCORPORATED

Laboratory Analysis Report

To:

Melissa Woods
Kleinfeldt Consultants Ltd.
2400 Meadowpine Boulevard, Suite 102
Mississauga, Ontario
L5N 6S2

EMC LAB REPORT NUMBER: A7361
Job/Project Name: 1 Hamilton Street South
Analysis Methods: Polarized Light Microscopy – EPA 600
Date Received: Feb 22/08 **Date Analyzed:** Feb 27/08
Analyst: Katrina Kuzniar, M.Sc., *Laboratory Manager*

No. of Samples: 30
Job/Project No: 3030
Sample Type: Bulk
Date Reported: Feb 29/08

Client's Sample ID	Lab Sample No.	Sample Appearance	Description/Location	SAMPLE COMPONENTS (%)						
				Asbestos Fibres			Non-Asbestos Fibres			Non-fibrous Material
				Chrysotile	Amosite	Others	Cellulose	Mineral Wool	Others	
1A	A7361-1	H	Fitting – 10th mechanical serv. room	**75**	**ND**	**ND**	3	ND	5	17
1B	A7361-2		Fitting – 10th mechanical serv. room	**Not analyzed**						
1C	A7361-3		Fitting – 10th mechanical serv. room	**Not analyzed**						
2A	A7361-4	H	Plaster – top stair	**ND**	**ND**	**ND**	2	ND	1	97
2B	A7361-5	H	Plaster – top stair	**ND**	**ND**	**ND**	1	ND	1	98
3A	A7361-6	2 layers	Fibreglass LAT – 10th corridor @ 1001	**ND**	**ND**	**ND**	30	35	5	30
3B	A7361-7	2 layers	Fibreglass LAT – 10th corridor @ 1002	**ND**	**ND**	**ND**	35	35	5	25
3C	A7361-8	2 layers	Fibreglass LAT – 10th corridor @ 1006	**ND**	**ND**	**ND**	30	35	5	30
4A	A7361-9	H	Wood style VT – 1008 br closet	**5**	**ND**	**ND**	1	ND	2	92
4B	A7361-10		Wood style VT – 1008 hall closet	**Not analyzed**						

emcscientific
INCORPORATED

Laboratory Analysis Report

EMC LAB REPORT NUMBER: A7361
Client's Job Project Name: 1 Hamilton Street South
Analyst: Katrina Kuzniar, M.Sc., *Laboratory Manager*

Client's Sample ID	Lab Sample No.	Sample Appearance	Description/Location	SAMPLE COMPONENTS (%)						
				Asbestos Fibres			Non-Asbestos Fibres			Non-fibrous Material
				Chrysotile	Amosite	Others	Cellulose	Mineral Wool	Others	
4C	A7361-11		Wood style VT – 506 hall closet	**Not analyzed**						
5A	A7361-12	2 layers	Plaster finish – 1008 BR	**0.5**	**ND**	**ND**	2	ND	1	96.5
5B	A7361-13		Plaster finish – 506 LR	**Not analyzed**						
6A	A7361-14	H	White VT – 1008 kitchen	**ND**	**ND**	**ND**	1	ND	1	98
6B	A7361-15	H	White VT – 506 kitchen	**ND**	**ND**	**ND**	1	ND	1	98
7A	A7361-16	2 layers	Pink LIN – elev. cab	**20**	**ND**	**ND**	20	ND	10	50
8A	A7361-17	2 layers	Plaster – 9th corridor @ 908	**ND**	**ND**	**ND**	1	ND	2	97
8B	A7361-18	2 layers	Plaster – 9th corridor @ 902	**ND**	**ND**	**ND**	1	ND	1	98
8C	A7361-19	2 layers	Plaster – 8th elev. lobby	**ND**	**ND**	**ND**	1	ND	1	98
8D	A7361-20	2 layers	Gypsum texture – 7th corridor @ 702	**ND**	**ND**	**ND**	1	ND	1	98
9A	A7361-21	H	Plaster – 506 bedroom	**ND**	**ND**	**ND**	1	ND	2	97
10A	A7361-22	H	Grey VT – N vestibule @ grnd flr	**ND**	**ND**	**ND**	1	ND	1	98
10B	A7361-23	H	Grey VT – bsmt corridor @ dec. rm.	**ND**	**ND**	**ND**	1	ND	1	98
11A	A7361-24	H	Grey VT – #201	**ND**	**ND**	**ND**	1	ND	1	98

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INCORPORATED

Laboratory Analysis Report

EMC LAB REPORT NUMBER: A7361
Client's Job Project Name: 1 Hamilton Street South
Analyst: Katrina Kuzniar, M.Sc., *Laboratory Manager*

Client's Sample ID	Lab Sample No.	Sample Appearance	Description/Location	SAMPLE COMPONENTS (%)						
				Asbestos Fibres			Non-Asbestos Fibres			Non-fibrous Material
				Chrysotile	Amosite	Others	Cellulose	Mineral Wool	Others	
12A	A7361-25	H	Grey VT – east exit stair (enfield suite)	**0.75**	**ND**	**ND**	1	ND	1	97.25
13A	A7361-26	H	White VT – 108 kitchen	**1**	**ND**	**ND**	1	ND	2	96
13B	A7361-27		White VT – 108 WC	**Not analyzed**						
13C	A7361-28		White VT – 410 kitchen	**Not analyzed**						
14A	A7361-29	H	Gypsum texture – vestibule	**ND**	**ND**	**ND**	1	ND	1	98
14B	A7361-30	H	Gypsum texture – lobby / mail	**ND**	**ND**	**ND**	1	ND	1	98

Note:
1. Bulk samples were analyzed using Polarized Light Microscopy and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method with LOD 0.5% Asbestos.
2. Separate components (e.g. layers) are combined in proportion to their abundance with a single analysis provided for the sample.
3. TEM analysis is recommended for negative floor tile samples.
4. The results are only related to the samples analyzed. ND = None Detected, H – Homogeneous material, M – Multi layered.