OSWEGO
STATE UNIVERSITY OF NEW YORK

STATE UNIVERSITY OF NEW YORK AT OSWEGO

WEST CAMPUS DINING HALL
BUILDING SHELL IMPROVEMENTS

FEASIBILITY STUDY ▪ MAY 10, 2011

WOOLLEY ARCHITECTS MORRIS

Klepper, Hahn & Hyatt
STRUCTURAL ENGINEERING
LANDSCAPE ARCHITECTURE
BUILDING SCIENCE

Dormitory Authority
State of New York

RAVI ENGINEERING & LAND SURVEYING, P.C.

INTRODUCTION

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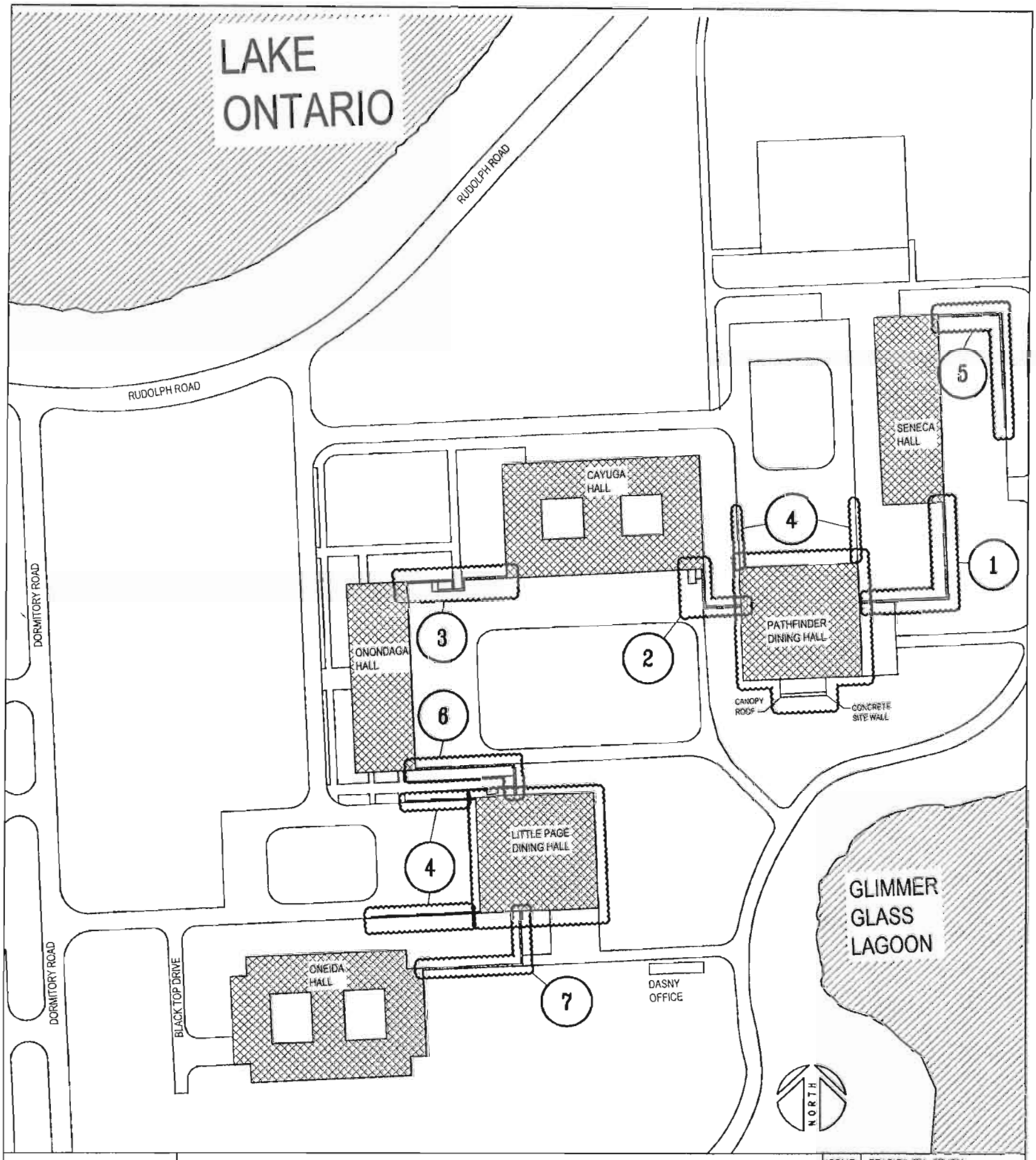
In accordance with our Proposal to the Dormitory Authority State of New York, authorized on October 18, 2010, we submit this Feasibility Study encompassing two dining halls, Pathfinder and Littlepage Halls, and associated connecting tunnels, retaining walls and exterior stairs. This study examines the condition of the exterior walls, roofs, fenestration, associated mechanical, plumbing and electrical, and extent of related asbestos abatement, and recommends the extent and type of repair and/or replacement of components in a cost effective manner, optimizing the life of each system.

Woolley Morris Architects, the prime consultant for the report's preparation, focused on the fenestration systems and project coordination. Klepper, Hahn & Hyatt provided façade and roof services, C&S Companies provided MEP services, and Ravi Engineering assisted with asbestos inspection, sampling, and asbestos cost estimating. All observations and recommendations are included in this study.

The extent of the report is limited to those specific systems as identified for analysis by SUNY Oswego as outlined above. In addition, the following areas are specifically noted as outside the limits of the report's investigation, and include:

- Analysis of life safety systems and potential violations thereof.
- Any requirements for OSHA compliance for employee roof access, including guardrails, tie offs for fall protection devices, ladders and safety cages, etc.
- Design and construction administration services relating to the design of repairs or development of schemes to address the conditions observed in this study.

If any of these systems have not been assessed by the Campus recently, their need should be determined, and then the in-place conditions should be reviewed, assessed, and any deficiencies addressed.



WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

Klepper, Hahn & Hyatt

OSWEGO STATE UNIVERSITY OF NEW YORK

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

ISSUE:	FEASIBILITY STUDY
DATE:	12-15-10

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SITE PLAN LOCATION KEY

F-00-01

REVIEW CRITERIA

REVIEW CRITERIA

EXTENT OF OBSERVATIONS, SITE ANALYSIS, AND REVIEW OF DOCUMENTS:

ROOF:

Klepper, Hahn & Hyatt spent several days onsite performing limited visual review of the buildings' roofs. A roofer was engaged to perform test cuts and repairs on the buildings' roofs.

The campus provided Klepper, Hahn & Hyatt with copies of design drawings of both buildings, which were reviewed for information relative to the roofing assessment and structural information for snowdrift loading analyses.

FAÇADE:

Klepper, Hahn & Hyatt spent multiple days onsite performing limited visual review and hammer sounding of nearly 100% of the building façades from the ground, roofs and from a 50' scissors lift.

The purpose of the Façade Condition Review section is to perform a limited observation of the façade elements, and to develop a professional opinion of the cause of any distress, damage, and deterioration observed. This report includes a description of observations, descriptions of mechanisms that are believed to be the cause oh the observed distress, damage, and deterioration, as well as recommendations for remedial work.

This review was limited to the visual described here in only. Klepper, Hahn & Hyatt did no physical testing of structural elements, or mathematical structural analysis of the elements' capacities. Site observations of the existing conditions were not exhaustive, and there have been some significant conditions which were not visible.

Klepper, Hahn & Hyatt was not made aware of, nor encountered to their knowledge, the presence of any hazardous or toxic materials. These materials include, but are not limited to, asbestos, combustible materials and gases, PCB's, radioactive materials, and hazardous waste.

The campus provided Klepper, Hahn & Hyatt with copies of design drawings of the buildings, which we rereviewed for the limited purpose of the detailing of the facade and the structure's possible effect on the performance of the facade.

WINDOWS:

Woolley Morris Architects spent several days on site performing close range visual inspections of the window systems, entrance storefronts and exterior doors of both dining halls and adjacent tunnels, with the aid of a 50' scissors lift. Available drawings, representing original construction and subsequent renovation scopes, were also analyzed.

Information derived during investigative demolition of windows at Onondaga, Oneida and Cayuga Halls during previous renovation projects helped to ascertain whether typical windows can be replaced without impacting interior finishes and convectors at the buildings covered under the present study.

ASBESTOS AND PCB:

Non-analytical documentation of past asbestos sampling conducted within the dining halls was reviewed prior to the inspection. In addition, as-built record drawings were also reviewed prior to the inspection. Window sections from these drawings indicate an asbestos cement backer board on the bottom window panels within the two tunnels attached to each of the two dining halls, and vinyl asbestos floor tile. Suspect asbestos and PCB containing materials not previously identified or sampled which have the potential to be impacted by this

study were sampled and analyzed for asbestos and PCB content determination. The AHERA and DASNY sampling protocol (for asbestos) were not utilized for the feasibility study. Areas of inspection were limited to potential areas of impact with regards to the feasible options of the window, façade and roof renovations. Roof materials have been sampled and the results indicate the presence of ACM.

CODE REFERENCES:

ROOF:

- 2010 Existing Building Code of New York State

Campus specific presents wind uplift design values (Figure 1608.2 of NYS Building Code) :

Building	Design Snow Loads, psf	Roof Load
All	55 psf = P_G	42.4 psf = P_F

Importance factor, wind – I_W 1.15
Importance factor, snow – I_S 1.10

Since all of the subject buildings were built before 1980, the roof structures should be evaluated for load capacity prior to any reroofing project where the roof insulation will be increased, or the vapor retarder will accumulate much less snow and ice loading over the course of a winter season than a well insulated roof. Prior to the mid-1970's, the NYS code did not require roofs to be designed to support drifting snow.

Design Uplift, Highest Main Area

Building	Main	Perimeter	Corner
Pathfinder	45		
Littlepage	45		

Design "R' Values all roofs, thermal insulation, based on Table 802.2(5), Energy Code, concrete decks, climate zone 14a, 25% to 40% glass wall coverage. The actual values given below are exclusive of deck, ceilings, if any, and interior air film values – added "R" values can be expected, generally, from 5% to 10%. Isocyanurate insulation is calculated at a conservative 5.88 per inch (C-0.17).

Building	Design New	Actual Calculated
Pathfinder	"R" = 23	"R" = Unknown
Littlepage	"R" = 23	"R" = Unknown

Seismic Review: The 2010 Existing Building Code of New York State, Section 506 Structural 506.1 General applies only to buildings built after January 1, 2006.

There are no unreinforced masonry parapets on the buildings in this project.

FAÇADE:

- 2010 Existing Building Code of New York State – Section 402 Repairs and Chapter 5 Repairs.

Review Criteria:

1. Observation and hammer sounding of cast in place concrete façade elements.

2. Inspection and documentation of deteriorated elements including sealant joints, exposed aggregate pre-cast concrete façade panels, exterior attachments of electrical conduit, lights, vent stacks, rails, plumbing fixtures, etc.

3. Observation and hammer sounding of cast in place concrete retaining walls, concrete railing elements and link tunnel concrete façade elements for concrete delaminating and spalling that require repair.

Evidence of mechanisms occurring which accelerate the deterioration of the façade or other systems.

WINDOWS AND DOORS:

- 2010 Existing Building Code of New York State – Section 403 Alteration – Level 1 and Chapter 6 Alterations – Level 1.

- 2010 Energy Conservation Construction Code of New York State – Section 101.

Section 602 Building Elements and Materials, Paragraph 602.3 Materials and Methods states that all new work shall comply with materials and methods requirements of the 2010 Building Code of New York State that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

Section 604 Means of Egress, Paragraph 604.1 General states that repairs shall be done in a manner that maintains the level of protection provided for the means of egress.

Section 605 Accessibility, Paragraph 605,1 states that a building, facility or element that is altered shall comply with the applicable provisions in Sections 605.1.1 through 605.1.12 of the Existing Building Code of New York State, Chapter 11 of the Building Code of New York State and ICC/ANSI A117.1 unless it technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent that is technically feasible.

ASBESTOS:

Asbestos related work shall be performed in accordance with New York State Industrial Code Rule 56, 40 CFR 61 and 29 CFR 1926. Contractors who disturb asbestos containing materials must maintain a current license pursuant to New York State Department of Labor and Department of Environmental Conservation. All asbestos related work must be completed by workers who have a valid NYS asbestos handling or supervisor certificate pursuant to Industrial Code Rule 56.

PCB containing materials shall be removed, handled and disposed of in accordance with current Federal, State and Local requirements. Contract specifications should be developed and included within Contract Documents when this project progresses to the point to do so.

MECHANICAL, ELECTRICAL, PLUMBING:

Existing devices will be removed and installed to account for the installation/replacement of the window and door assemblies. All work shall be performed in accordance to the following codes:

- 2010 Mechanical Code of New York State.

- 2010 Plumbing Code of New York State

- 2008 National Electrical Code NFPA 70.

- 2010 Existing Building Code of New York State.

PATHFINDER HALL

PATHFINDER HALL

BUILDING DESCRIPTION:

Pathfinder Hall is a cast-in-place concrete framed building of two stories, built from drawings dated 1965. The building is square in plan with 127'-4" sides, giving it a footprint of 16,200 square feet. The façade consists of exposed cast-in-place concrete columns, and spandrel beams that extend out proud of the plane of the façade. The bays formed by the concrete beams and columns are in-filled with glass curtain wall on the south elevation and the central half of the east and west elevations. Exposed aggregate precast concrete wall panels fill out the ends of the east and west elevations and all of the north elevation. Window and entrance door systems are composed of narrow profile bronze anodized aluminum curtain wall framing, single pane glazing at upper sash, spandrel glazing at lower sash, and matching entrance storefront systems.

Both floors of the building are above grade on the south elevation and two thirds of the east and west elevations. Enclosed tunnels extend from the lower level to adjacent dormitory buildings from both the east and west. The tunnels are cast in place concrete with the south façades exposed concrete with punched window openings. The tunnel structures function as retaining walls allowing the grade to step up leaving only the top floor above grade at the north elevation, the higher grade continues around on the east and west elevations over the tunnels. The link tunnels are covered in detail in the "Connecting Tunnels & Retaining Walls" section of this Feasibility Study.

A loading dock is centrally located on the north elevation. Two low retaining walls extending north from the northeast and northwest corners of the building border a paved parking/loading dock access lot that slopes toward the building.

The University Police Department occupies most of the lower level with the entrance centrally located on the south side of the building.

ROOF:

Number of stories: 2.

The building roof is flat, essentially square, with an area of 16,000 square feet. (See Photo R-31-01).

A one story centrally located penthouse is above the main roof. The penthouse is rectangular measuring 19'-4" north-south and 38'-6" in the east-west axes.

Dining Hall kitchen ventilation duct work occupies a space north of the penthouse. (See Photo R-31-01).

The roof perimeter is terminated on the top of a low cast in place concrete parapet capped with a metal gravel stop flashing. The EPDM membrane extends up the interior face, over the top of the low parapet and terminates at the top outer edge of the gravel stop flashing. (See Photo R-31-02).

On the south side of the building there is an entrance canopy roof over the first floor entrance doors, constructed in 2000 when the lower level was renovated for the UPD occupancy. (See Photo R-31-03).

- **System Description**

The roof is comprised of a black single ply EPDM membrane adhered to a tapered polyisocyanurate rigid insulation board system hot mopped to a vapor retarder to the concrete deck. Four roof drains are centrally located.

The roof membrane extends up the interior face of the low concrete parapet, across the top, and terminates on a metal gravel stop flashing bent over the outside face extending down the outside face about 4 inches.

A lightening protection system is situated around the perimeter of the main roof and the penthouse roof.

The penthouse roof is flat with a 2" raised roof edge. The roof membrane appears to be of the same material as the main roof. Drainage is via one roof drain centrally located along the east edge.

PATHFINDER HALL

- **Observations**

Multiple membrane laps seam laps are de-bonding along the field and perimeter of the roof. (See Photo R-31-04).

Multiple patches and evidence of previous repairs were observed. Building staff indicated that interior leaks have been reported.

Drains were generally clear with adjacent tapered insulation crickets providing some drainage; however, large areas of water ponding was evident below mechanical equipment. One of the roof drains was missing a strainer cover. (See Photo R-31-05).

Walkway pads are missing and others are freely blowing in the wind.

Parapet membrane flashings around the roof perimeter are in poor condition, and have failed in numerous locations.

Lack of positive membrane adhesion to the insulation boards is evident. During the inspection, membrane flutter was observed over several large areas.

The taper substrate is questionable at multiple locations under foot, suggesting that the insulation boards have been exposed and/or are wet. The membrane lacks a positive bond to the insulation board in multiple locations and was observed fluttering during the inspection.

The metal top and sides of the large metal ventilation duct plenum on the roof are heavily rusted. (See Photo R-31-06).

Base flashing around the perimeter of all roof penetrations are showing signs of deterioration.

Test cuts indicate that the roof assembly is wet and has been exposed to water previously. Typical roof assembly consists of:

- 60 mil EPDM membrane adhered to,
- Polyisocyanurate taper board hot mopped to,
- 3 ½" Polyisocyanurate board, hot mopped to,
- 3 ply vapor retarder hot mopped to,
- concrete deck.

- **Conclusions**

The lack of membrane bond and extensive wind fluttering is a concern. Numerous nail holes, rips and tears in the membrane are possible sources of water entry. Perimeter terminations need to be replaced. Large areas of ponding indicate poor drainage and remain a risk for water entry.

- **Recommendations**

It is recommended that membrane and roof assembly be removed to the vapor retarder and replaced. Replace existing roof drain strainers with lockable type or cast iron to reduce the risk of blow off. Replace walkway pads with fully bonded pads and add walk pads below equipment and wiring currently draped across the membrane surface.

We recommend the following temporary measures be taken as soon as possible to improve the likelihood of the roof remaining serviceable until it can be replaced.

- Provide and install ballast in the form of a 2' by 2" concrete pavers over the areas of debonded membrane.

- Closely inspect the roof, particularly the parapet membrane flashings around the roof perimeter, and repair and reinforce existing tears, nail punctures, tents, splits, and seams judged to be inadequate.

We recommend careful inspections of the roof every three or four months until the roof can be replaced.

Reference Drawings:
Roof plan drawing: R-31-1A
Roof plan drawing, drainage spacing:
Roof plan drawing, inspection cut locations:

Reference Photos: R-31-2A, 01 through 06

FAÇADE:

- **System Description**

The façade consists of exposed cast-in-place concrete columns, and spandrel beams that extend out proud of the plane of the façade. The bays formed by the concrete beams and columns are in-filled with glass curtain wall on the south elevation and the central half of the east and west elevations. Exposed aggregate precast concrete wall panels fill out the ends of the east and west elevations and all of the north elevation.

- **Observations**

General: Many of the observations for this building are similar to those documented in the Littlepage Dining Hall report.

There are numerous locations on the concrete façade elements where areas of the concrete surface have spalled, broken, cracked, or deteriorated. These areas can be categorized as follows:

- Small spalls at rusted reinforcing bars - frequently beam stirrups. (See Photo F-31-01).
- Surface deterioration of rubbed and parged surfaces. (See Photo F-31-02).
- The top surfaces of concrete façade elements have considerable mosey and liken vegetative growth. (See Photo F-31-03).

The rustication strips in the soffits of the spandrel beams which are transverse to the beam span, that is, perpendicular to the building façade, allow water to run from the face of the spandrel to the surface of the window wall. This is evidenced by staining of the spandrel soffit and the intersecting area of the window wall.

Many of the sealant joints around the window wall areas and exposed aggregate panels are deteriorated. Deterioration includes gaps, adhesive failure, cohesive failure.

Some of the shallow rustication strips in the concrete façade elements have been filled with elastomeric sealant.

None of the exposed aggregate panels were in a condition that required remediation. On approximately 10 percent of the panels there was rust staining. This is likely due to the presence of discrete iron-rich aggregates.

Vertical movement joint between the Tunnel connecting link from the east side of Pathfinder and Seneca Hall is open. The cap flashing on the top appears to have been installed as an interim solution to an apparent water leak. (See Photo F-31-04).

A canopy roof and a concrete site wall were relatively recently added to the south entrance of the building, adorning the University Police headquarters. Both elements are in good condition. (See Photo F-31-05).

- **Conclusions**

The building's original construction had imperfections, which have led to deterioration. These imperfections include:

- Areas of inadequate concrete cover over reinforcing bars
- Over-rubbed surfaces, and excessive parging

The transverse rustication strip at the midspan of the spandrel beam soffits deliver precipitation to the beam

soffit and to the window wall, erasing the benefit of the lateral drip edge rustication strip. This leads to staining, acceleration of beam soffit deterioration, and amplifies any window or sealant condition which could cause leakage.

The parapet has a cold construction joint running horizontally through it, at the roof slab elevation. This has apparently been a location of flexure and/or moisture mitigation that has resulted in a line of cracking and distress.

Nearly forty years of exposure to environmental conditions has deteriorated the surfaces of the cast-in-place concrete façade elements. They are absorbing precipitation and condensation moisture at an increasing rate over time.

The building has experienced a multitude of sealant campaigns, presumably to address water intrusion issues. Some of this work has been done without complete removal of the previous sealant, some of the work has adhesive failure, some sealant was improperly or excessively installed, and some sealant has been installed where none is required or should be, such as in the rustication joints and possibly covering window weeps.

The loading dock on the north side of the building is exhibiting deterioration due to environmental exposure, presumably including the application of deicing chemicals.

- **Recommendations**

Patch deteriorated, spalled, and missing sections of cast-in-place concrete façade. This should be done to mitigate the ongoing deterioration of the distressed areas. (Estimate 200 sf.) Saw cut adjacent to exposed steel reinforcing with inadequate concrete cover, remove concrete behind the steel reinforcing allowing it to be pounded in below the surface providing space for additional concrete cover over the existing steel reinforcing.

Fill the portion of the transverse spandrel soffit rustication strips from the existing drip channel to the face of the building with concrete repair mortar, in order to mitigate the travel of rainwater running in to the face of the wall and window walls. (Estimate 40 locations.)

Prepare and coat all exposed cast-in-place concrete façade surfaces. This should be done to mitigate the ongoing deterioration of the distressed areas. (Estimate 8000 sf.)

Remove and replace all sealant joints in the façade which require sealant - not the joints that should not be sealed. (Estimate 650 lf.)

The removal and replacement of sealant joints and backer rod material around the windows is covered in the Windows section of this Report.

Prepare, prime and paint all expose steel on the building exterior including, hand rails, steel angles at the loading dock, pipes, bollards, roof top HVAC units, conduit, grills, stairs, etc.

Apply urethane traffic membrane coating to the top surface of the loading dock.

Reference Drawings: Facade drawings: F-31-1A and F-31-1B

Reference Photos: F-31-2A, 01 through 05

WINDOWS AND DOORS:

- **System Description**

The original window system construction at both upper and lower levels consisted of 7-1/2" deep aluminum curtain wall framing with single pane glazing and matching narrow profile entrance doors. Sill framing was 7-

1/2" high, while intermediate mullions, head and jamb members were 2-1/2" wide framing. With the exception of the entrance storefront framing, sill, mullion, jamb and head framing members incorporated structural steel reinforcing. Finishes throughout were bronze anodized aluminum.

Upper level dining hall windows featured floor-to-ceiling fixed glass, with large upper vision glazing over lower spandrel glazing backed with rigid insulation and a reinforced porcelain enamel panel interior finish. Lower level office / lounge windows featured full height fixed vision glazing with an integral plastic laminated steel crash bar. (See Photo W-31-01).

The rear (north) loading door featured a pair of swinging hollow metal doors surmounted by painted metal insulated panels. Two fixed louvers with matching bronze anodized aluminum finish were installed in the west and east supporting walls of the loading dock.

Upper level curtain wall systems remain as originally installed, with the exception of entrance storefronts, which have been replaced in their entirety with a slightly modified framing layout, insulated sash, and a bronze anodized aluminum finish darker than the original units. (See Photo W-31-02).

Lower level curtain wall systems have experienced more significant replacement, particularly as a result of a 2000 renovation during which the University Police Department was relocated to this level. As at the upper floor, entrance storefronts at the east and west elevations were replaced in their entirety with a slightly modified framing layout, insulated sash, and a bronze anodized aluminum finish darker than the original units. In addition, modifications at the east, south and west elevations resulted in the selective replacement of original full-height glazing bays with aluminum sliders over opaque aluminum panels and, in one bay, a new glazed aluminum exit door. In general, these replacement units feature the slightly darker bronze anodized aluminum finish. (See Photo W-31-01). However, the central south bay replacements, at the main entrance to UPD, feature a dissimilar blue aluminum finish. In order to achieve a coordinated appearance on the interior, original aluminum framing members were wrapped in aluminum break metal of the matching blue finish. (See Photo W-31-04).

- **Observations**

Original curtain wall units, due to single glazed sash and lack of thermal breaks in framing available at the time of construction, are inherently energy inefficient. Anecdotal evidence from SUNY Oswego attests to the drafty characteristics of these units; further, wind-driven rain can penetrate the sealant locations to interior finishes.

Despite some fade and color variation between panel and frame, the original duranodic finish on the aluminum, now almost forty-five years old, has held up remarkably well, preserving unit integrity.

Analysis of original construction details raises some questions as to the integral connection of the curtain wall unit and adjacent interior wall finishes, and whether curtain wall units can be replaced without impacting interior finishes and attached heating convectors. (See Photos W-31-05 and W-31-06). In addition, previous investigation revealed the absence of cavity wall insulation, blocking, and closed cell backer rod behind perimeter sealants.

Perimeter sealants between window frame and adjacent aggregate wall panels have failed typically, despite successive applications, as noted in Façade Observations.

Removal of existing curtain wall systems and related sealants, and the design of replacement systems, will need to be coordinated closely with asbestos abatement procedures, based on results of asbestos sampling and analysis (Refer to Asbestos Abatement section).

- **Conclusions**

Pathfinder and Littlepage Dining Halls are part of a six-building complex (four residence halls and two dining halls), designed and construction of similar scale, materials and colors, and intended to read as a single large composition. Constructed from the late 1960's to early 1970's, they currently fall outside the time period triggering review by the State Historic Preservation Office (SHPO). However, given the overall scale and integrity of the building complex and the importance that fenestration plays in defining the character of these buildings, fenestration replacement should maintain or redefine a consistent imagery throughout the complex.

Original curtain wall units, while maintaining sash and frame finish integrity, provide substandard thermal performance due to single glazed sash, absence of thermal breaks in framing members and poorly insulated

wall cavities. These should be replaced with aluminum framed, insulated sash units capable of providing thermal performance that meets or exceeds current energy code requirements.

Investigative demolition undertaken at Onondaga, Oneida and Cayuga Halls during previous window replacement projects (representative of similar construction methods throughout West Campus dorms) revealed the likelihood that window replacement can be undertaken with minimal additional impact to interior finishes and attached heating convectors. However, since interior finishes were usually applied up to the curtain wall framing, compatible aluminum trim components may be required to be designed and detailed.

Based on previous west campus fenestration replacement projects undertaken, replacement of curtain wall systems will afford an opportunity to address original construction problems such as inadequate cavity wall insulation and sealant application.

An analysis of the performance of some previous window replacement units throughout the campus, and the effects of the inherently severe weather conditions, dictate curtain wall replacement systems offering superior performance requirements and finishes. In addition, curtain wall replacements should be carefully designed so as to provide optimum attachment, and sized to correctly apply perimeter sealants and back-up materials. A sealant system should be designed and installed that anticipates the need to periodically remove and reinstall subsequent applications while not jeopardizing system integrity.

- **Recommendations**

Remove all existing curtain wall and door systems, including exterior and interior entrance storefront units. Provide temporary protection as necessary. (Refer to Asbestos Abatement Section.)

Remove all previous perimeter sealant applications. (Refer to Asbestos Abatement Section.)

Provide cavity wall insulation as necessary following exposure of wall interior construction.

Install new high-performance aluminum-framed curtain wall systems with fluoropolymer finish (AAMA 2605), narrow profile frames, insulated sash and compatible spandrel panels. Per campus directive, investigate the use of selective operable sash to provide natural ventilation to main dining hall, utilizing narrow profile operable sash framing within curtain wall framing in order to minimize sash frame profiles.

Install new aluminum-framed entrance storefronts at exterior and interior entry vestibules with insulated sash, medium stile door profiles and matching fluoropolymer finish.

Replace rear loading door, matching existing type, with painted finish to match proposed curtain wall framing finish. Existing metal panels above shall remain, painted to match proposed curtain wall framing finish.

Replace all louvers with new fixed units, painted to match proposed curtain wall framing finish.

Provide polyurethane foam joint filler and new sealant system throughout.

At the previous West Campus dorm fenestration replacement projects, the campus recommended that the entrance storefront systems be replaced with a dark green finish. Since the entrance storefronts at the dining hall are asymmetrically placed on the building elevations (unlike adjacent residence halls, where they are centered), it is recommended that their finish match that of adjacent curtain wall replacement systems.

Provide new interior window treatments to match existing throughout.

Reference Drawings:
Elevation drawings: W-31-1A and W-31-1B
Window type elevations: W-31-2A through W-31-2C

Reference Photos: W-31-3A, 1 through 5

PATHFINDER HALL

ASBESTOS AND PCBs

- **System Description**

The window, roof and façade scopes will impact asbestos and PCB containing materials.

- **Observations**

The upper windows on the west end of the south elevation have a caulk on the far left and right side of the five window unit, full height. This caulk was inaccessible for sampling and is therefore assumed to be asbestos and PCB containing.

The roof is an EPDM system. Suspect asbestos-containing materials were sampled and the results are outlined below.

- **Conclusions/Recommendations**

A reputable contractor in accordance with New York State Industrial Code Rule 56, and all applicable codes, rules and regulations must abate asbestos containing materials impacted by the scopes of this study.

Removal of PCB containing caulk generates a regulated hazardous waste. PCB containing materials shall be removed, handled and disposed of in accordance with current Federal, State and Local requirements. Contract specifications should be developed and included within Contract Documents when this project progresses to the point to do so.

Windows:

It is recommended that the center upper window unit (7 windows in unit), west elevation, be removed by the abatement contractor and disposed of as asbestos containing, due to the presence of asbestos containing caulk located along the bottom and half way up the far left and right side of the unit.
It is recommended that the upper windows on the west end of the building, south elevation, be removed by the abatement contractor and disposed of as asbestos containing, due to the presence of assumed asbestos containing window caulk located on the far left and right side of the unit, full height.

Roof:

It has been determined by laboratory analysis that the curb/penetration flashing cement associated with the roof mounted mechanical equipment and ductwork is asbestos containing. It is recommended that the abatement contractor remove the asbestos-containing roof curb/penetration flashing cement in its entirety and dispose of as asbestos containing material if this material will be impacted by planned renovations.

MECHANICAL, ELECTRICAL, PLUMBING:

- **System Description**

The heating system has a radiant fin tubing feed from the existing boiler system. The fin tubing is located along the wall assembly below the windows.

- **Observations**

The radiant heat tubing runs along the entire wall assembly. In some locations, the interior wall shows signs of damage. Wall heating assembly is wall mounted.

PATHFINDER HALL

Electrical outlets were found located below the existing fin tubing assembly. The outlets are fed from a riser in the wall column, and are then surface-mounted around the room.

- **Conclusions**

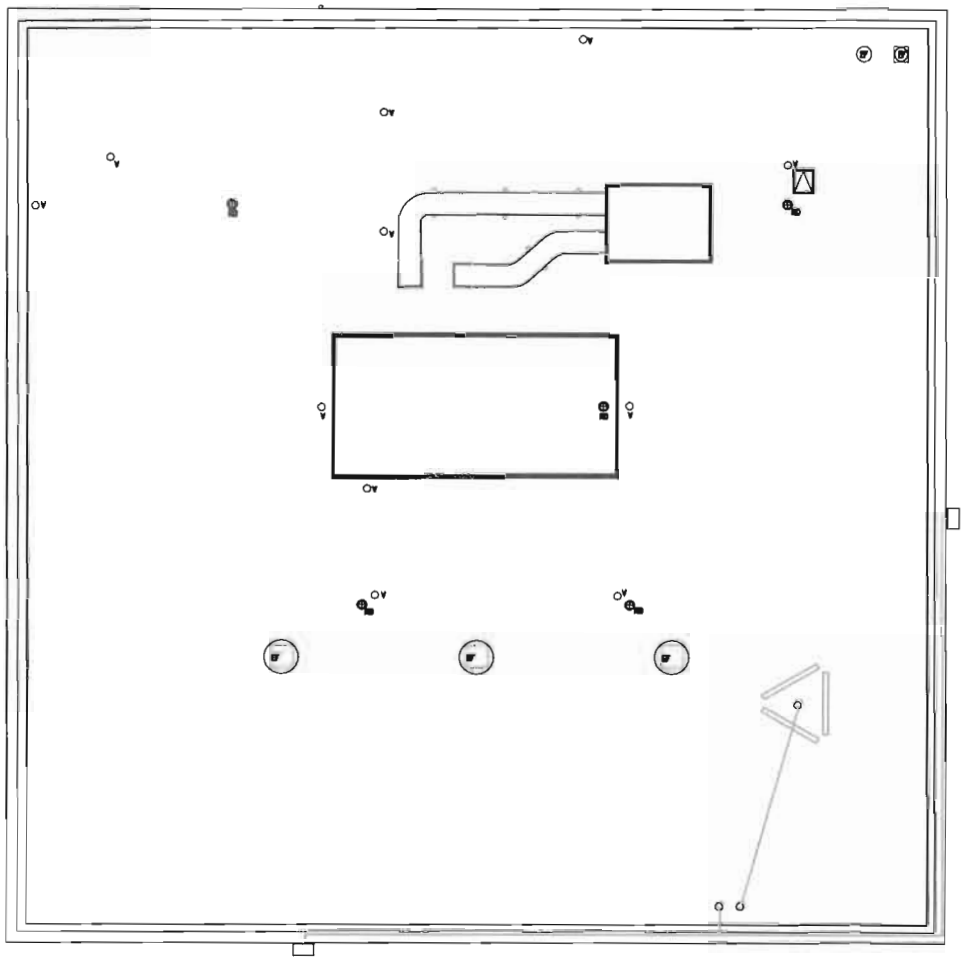
The existing heating system will need to be removed and reinstalled to avoid damage, and simplify the replacement of the curtain wall assemblies.
The existing wall outlets will need to be removed and reinstalled. All existing raceway may be reused.

- **Recommendations**

Replace with existing fin tubing enclosures to match.

Reference Drawings: Building plans: M-31-1A and M-31-1B

NORTH



PATHFINDER ROOF

SCALE: 1" = 25'

WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

OSWEGO STATE UNIVERSITY OF NEW YORK

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

ISSUE:	FEASIBILITY STUDY – DRAFT
DATE:	1-28-11

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PATHFINDER HALL ROOF PLAN

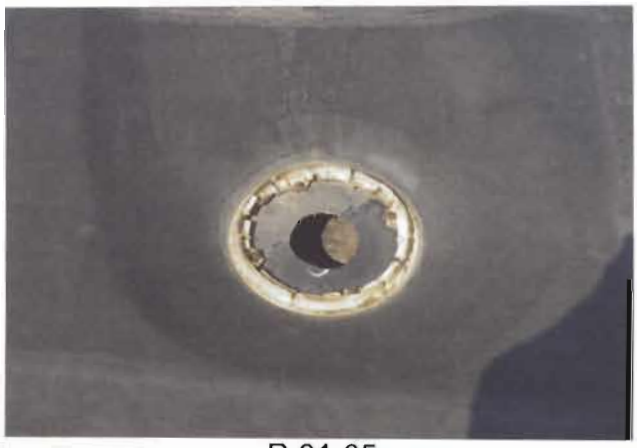
R-31-1A

R-31-01

R-31-02

R-31-03

R-31-04



R-31-05

R-31-06

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WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

Klepper, Hahn & Hyatt

OSWEGO STATE UNIVERSITY OF NEW YORK

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ISSUE:	FEASIBILITY STUDY – DRAFT
DATE:	01–28–11

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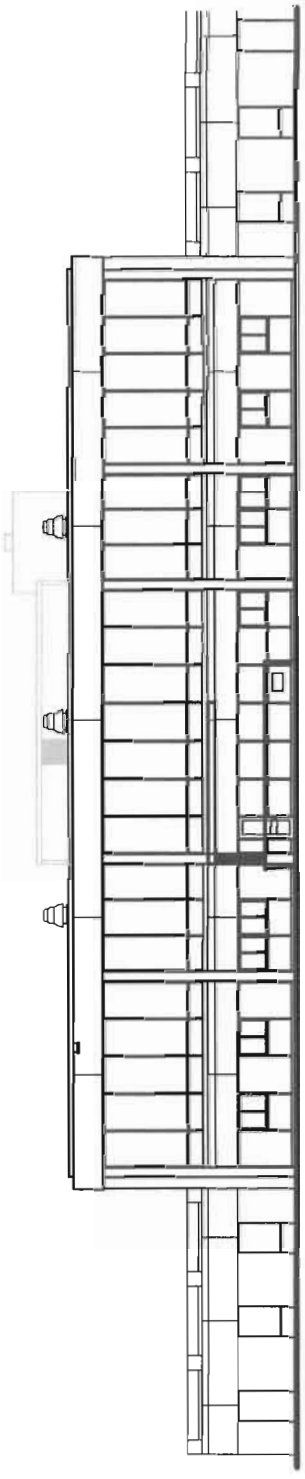
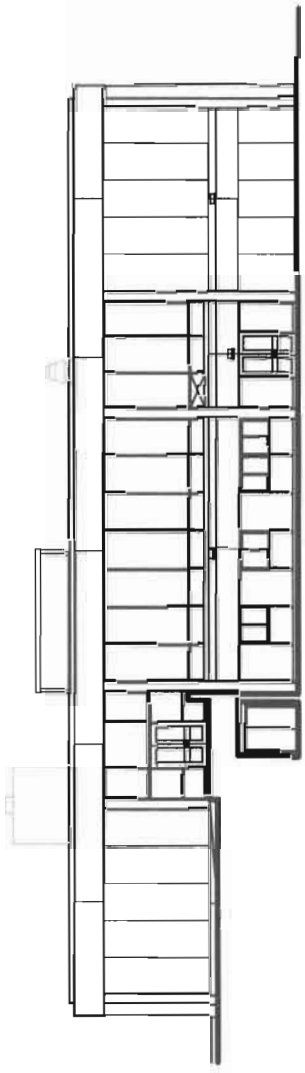
PATHFINDER

R-31-2A



PATHFINDER SOUTH ELEVATION



PATHFINDER WEST ELEVATION

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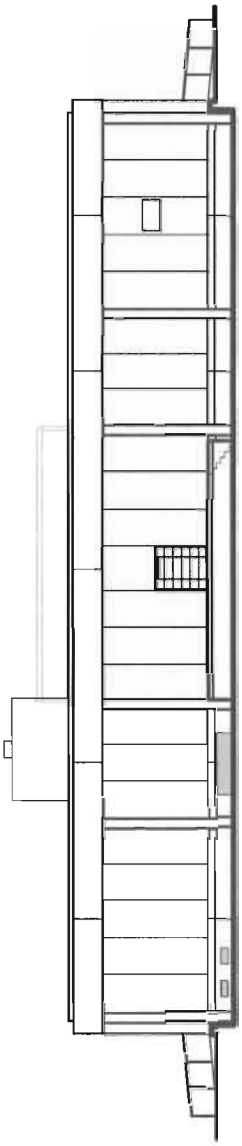
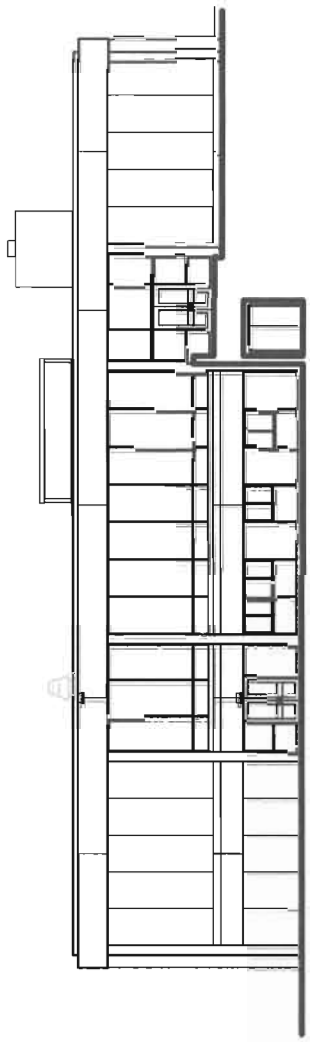
PATHFINDER HALL EXTERIOR ELEVATIONS

F-31-1A



PATHFINDER NORTH ELEVATION

PATHFINDER LOADING DOCK ELEV's



PATHFINDER EAST ELEVATION

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PATHFINDER HALL EXTERIOR ELEVATIONS

F-31-1B

F-31-01

F-31-02

F-31-03

F-31-04

F-31-05

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PATHFINDER

F-31-2A

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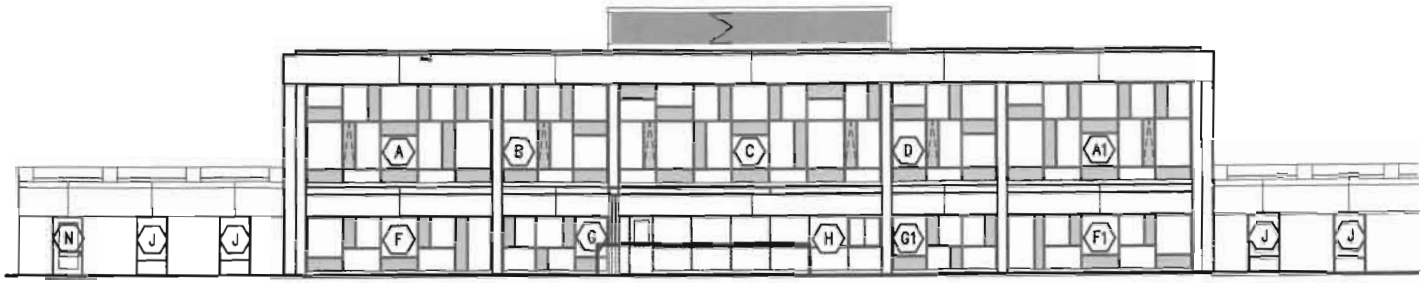
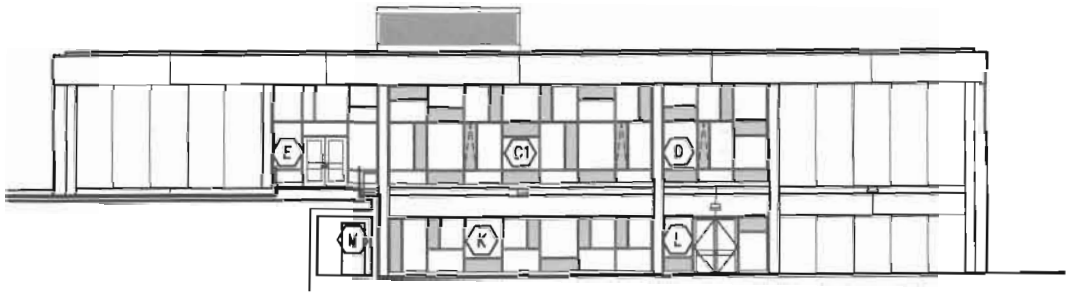


PATHFINDER SOUTH ELEVATION



PATHFINDER WEST ELEVATION

ASBESTOS NOTE

AR-W1 UNLESS OTHERWISE NOTED, ALL WINDOWS, DOORS, AND DOOR SYSTEMS CONTAIN ASBESTOS (CAULKING, GLAZING, OR PANELS) AND MUST BE ABATED BY A NYSDOL LICENSED ASBESTOS ABATEMENT CONTRACTOR IN ACCORDANCE WITH NEW YORK STATE INDUSTRIAL CODE RULE 56 AND ALL APPLICABLE CODES, RULES, AND REGULATIONS.

ELEVATION LEGEND

⟨C⟩ WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

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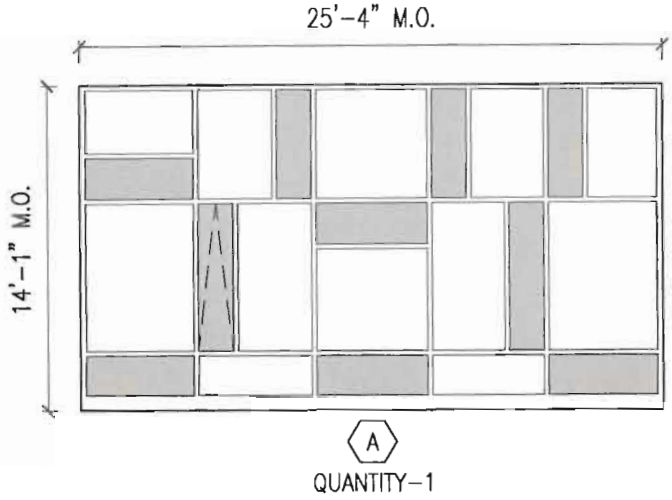
PATHFINDER HALL
PROPOSED
ELEVATIONS

W-31-1A



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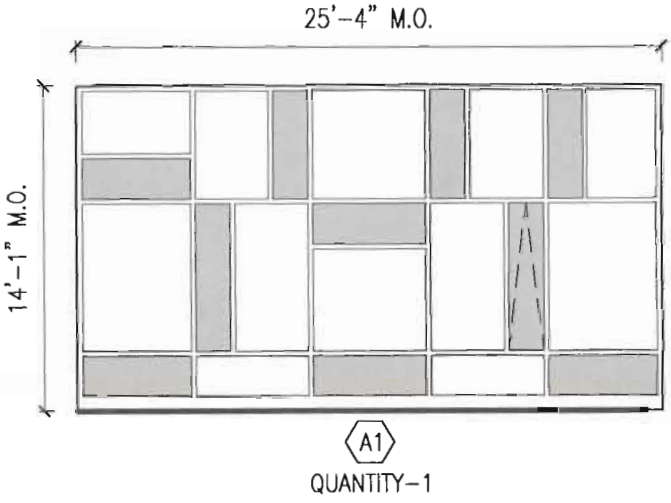

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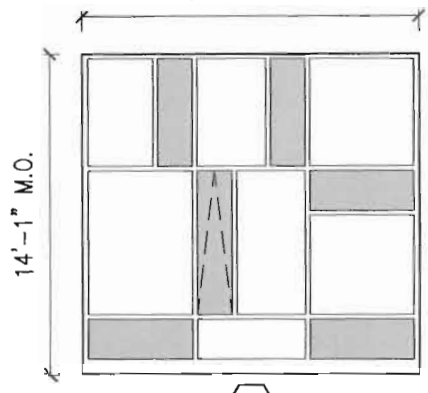

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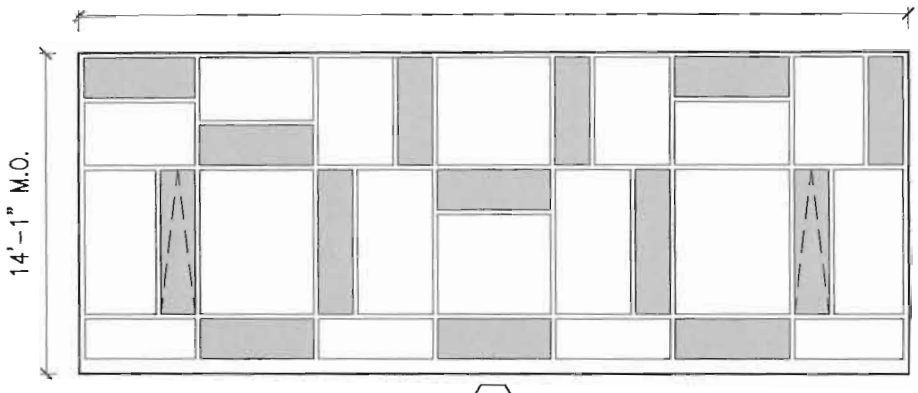

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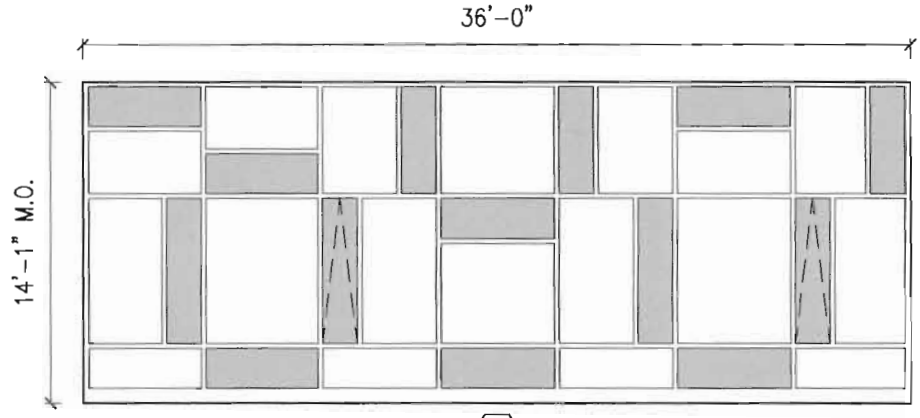

C1
QUANTITY-1

NOTES:
1. DIMENSIONS ARE FOR ESTIMATING PURPOSES ONLY
2. SHADED WINDOWS INDICATE TINTED GLAZING

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PATHFINDER HALL
PROPOSED
WINDOWS

W-31-2A

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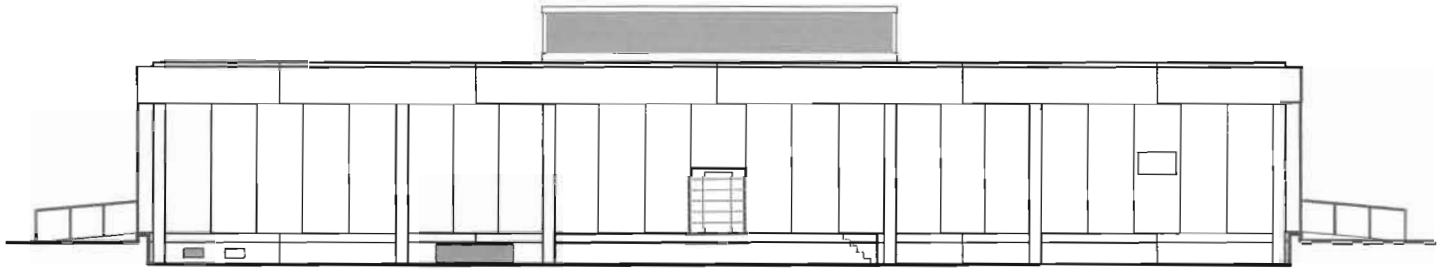
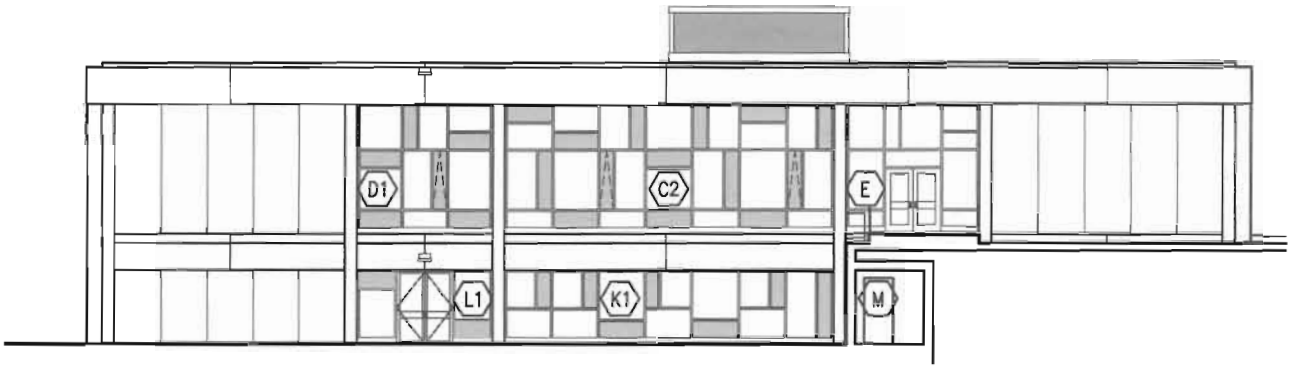


PATHFINDER NORTH ELEVATION



PATHFINDER EAST ELEVATION

ASBESTOS NOTE

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ELEVATION LEGEND

(C) WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
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ISSUE: FEASIBILITY STUDY - DRAFT
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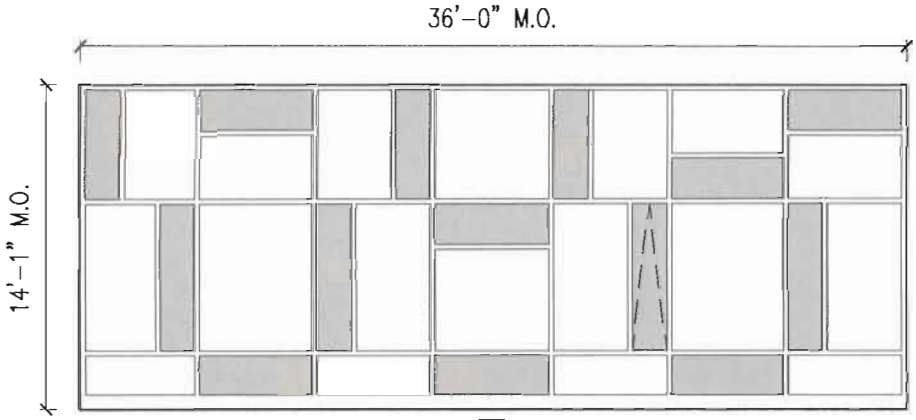
PATHFINDER HALL
PROPOSED
ELEVATIONS

W-31-1B



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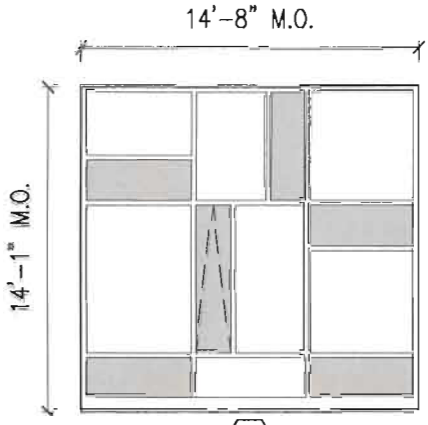

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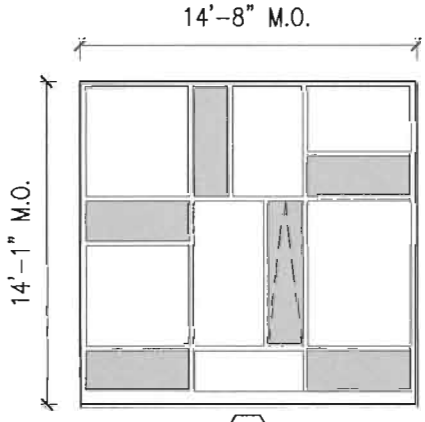
QUANTITY-2



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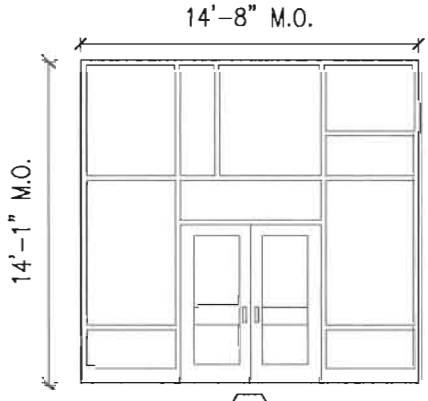
QUANTITY-1



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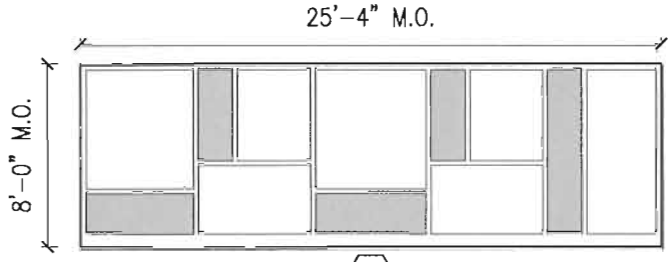

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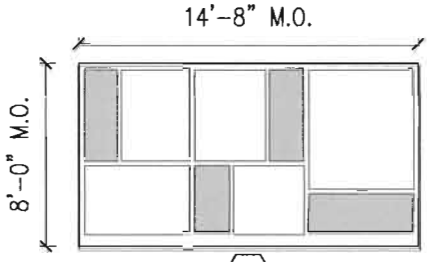

G
QUANTITY-1

NOTES:
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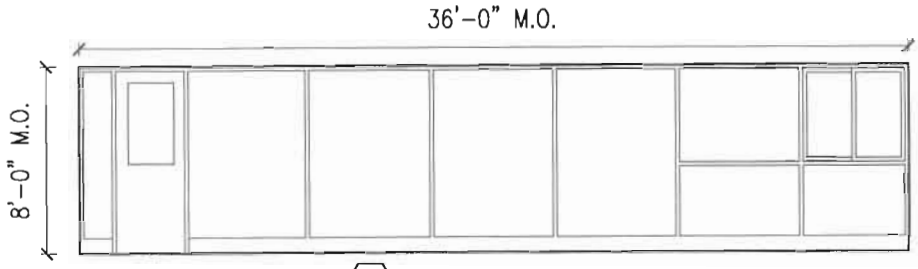
PATHFINDER HALL
PROPOSED
WINDOWS

W-31-2B



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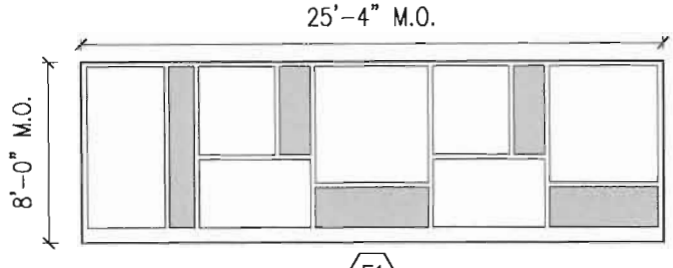
QUANTITY-1



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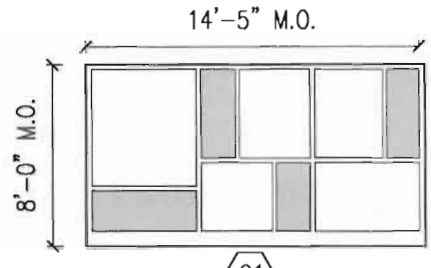

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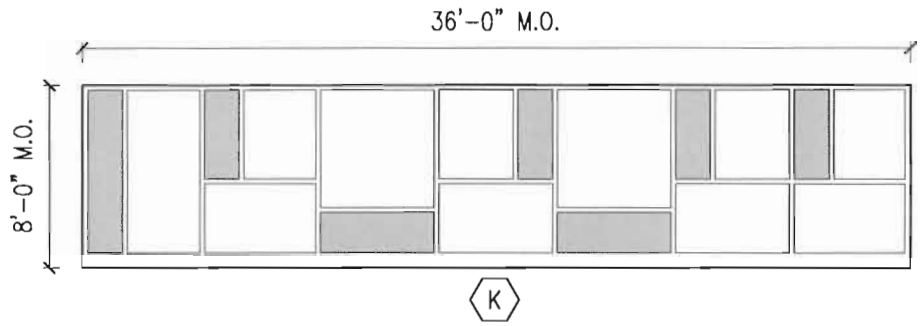
QUANTITY-1



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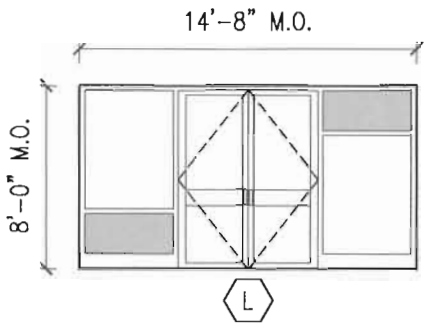

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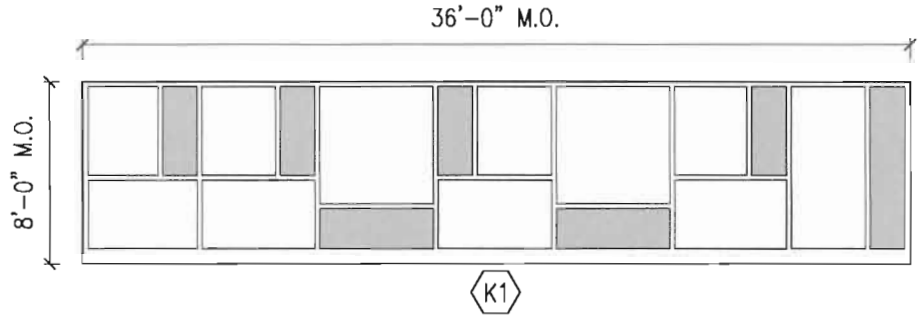

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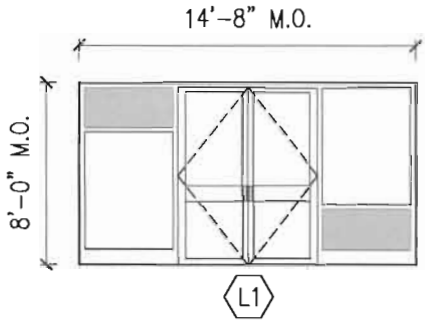

L1

QUANTITY-1

NOTES:

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PATHFINDER HALL
PROPOSED
WINDOWS

W-31-2C

W-31-3A-1

W-31-3A-2

W-31-3A-3

W-31-3A-4

W-31-3A-5

W-31-3A-6

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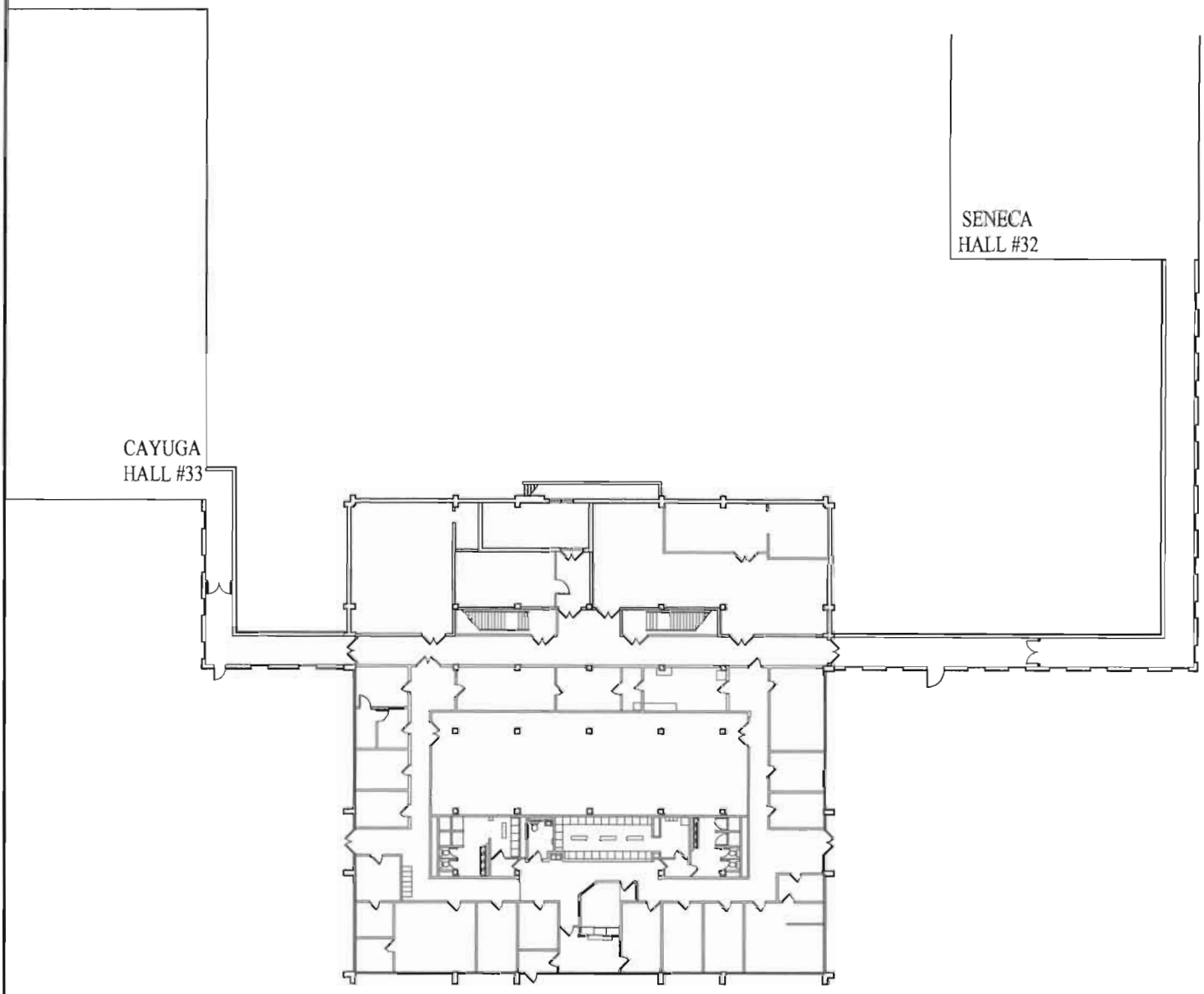
PATHFINDER

W-31-3A



LOWER LEVEL PLAN

SCALE: 1"=40'

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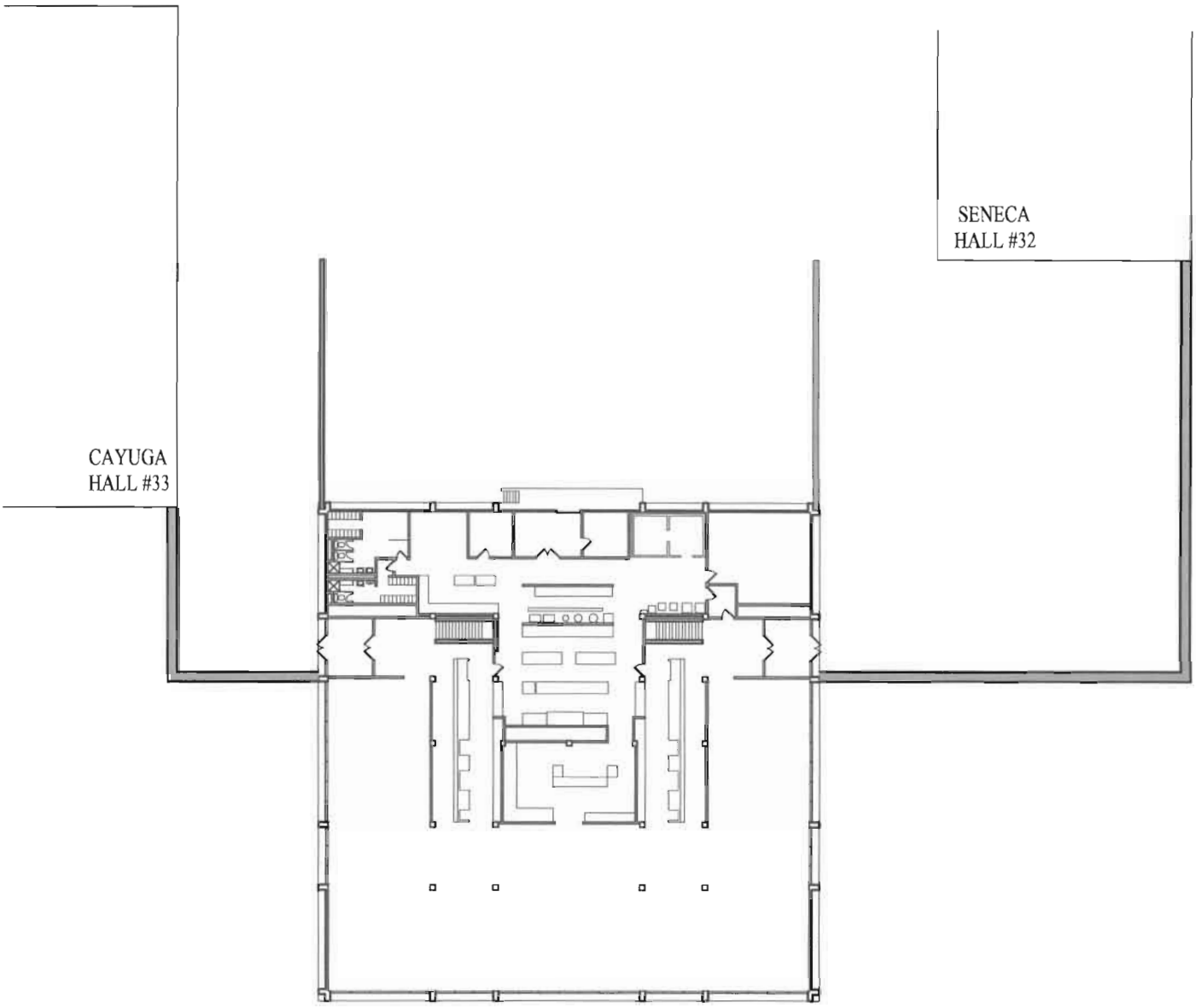
PATHFINDER HALL
LOWER LEVEL PLAN

M-31-1A



UPPER LEVEL PLAN

SCALE: 1"=40'

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PATHFINDER HALL
UPPER LEVEL
PLAN

M-31-1B

LITTLEPAGE HALL

LITTLEPAGE HALL

BUILDING DESCRIPTION:

Littlepage Hall is a cast-in-place concrete framed building of two stories, built from drawings dated 1966. The building is square in plan with 127'-4" sides, giving it a footprint of 16,200 square feet. The façade consists of exposed cast-in-place concrete columns, and spandrel beams that extend out proud of the plane of the façade. The bays formed by the concrete beams and columns are in-filled with glass curtain walls on the south elevation and the central half of the east and west elevations. Exposed aggregate precast concrete wall panels fill out the ends of the east and west elevations and all of the north elevation. Window and entrance door systems are composed of narrow profile bronze anodized aluminum curtain wall framing, single pane glazing at upper sash, spandrel glazing at lower sash, and matching entrance storefront systems.

Both floors of the building are above grade on the south elevation and two thirds of the east and west elevations. Enclosed tunnels extend from the lower level to adjacent dormitory buildings from west ends of both the north and south elevations. The tunnels are cast in place concrete with the south façades exposed concrete with punched window openings. The tunnel structures function as retaining walls allowing the grade to step up leaving only the top floor above grade at the north elevation, the higher grade continues around on the east and west elevations over the tunnels. The link tunnels are covered in detail in the "Connecting Tunnels & Retaining Walls" section of this Feasibility Study.

A loading dock is centrally located on the west elevation. Two low retaining walls extending west from the northwest and southwest corners of the building border a paved parking/loading dock access lot that slopes toward the building.

ROOF:

Number of stories: 2.

The building roof is flat, essentially square with an area of 16,000 square feet. Access to the roof is through a 30" square roof hatch.

A one story centrally located penthouse is above the main roof. The penthouse is rectangular, measuring 19'-4" east-west and 38'-6" in the north-south axes. (See Photo R-35-01).

Dining Hall kitchen ventilation duct work occupies a space north of the penthouse. (See Photo R-35-02).

The roof perimeter is terminated on the top of a low cast in place concrete parapet capped with a metal gravel stop flashing. The EPDM membrane extends up the interior face, over the top of the low parapet and terminates at the top outer edge of the gravel stop flashing. (See Photo R-35-03).

- **System Description**

The roof is comprised of a black single ply EPDM membrane adhered to a tapered polyisocyanurate rigid insulation board system hot mopped to a vapor retarder to the concrete deck. Four roof drains are centrally located.

The roof membrane extends up the interior face of the low concrete parapet, across the top and terminates on a metal drip edge flashing over the outside face extending down the outside face about 4 inches.

A lightening protection system is situated around the perimeter of the main roof and the penthouse roof.

The penthouse roof is flat with a 2" raised roof edge. The roof membrane appears to be of the same material as the main roof. Drainage is via one roof drain centrally located along the north edge.

- **Observations**

Many membrane seam laps are debonded along their edges. (See Photos R-35-04 and R-35-05).

LITTLEPAGE HALL

The metal top and sides of the large metal ventilation duct plenum on the roof are heavily rusted.

Base flashing around the perimeter of all roof penetrations are showing signs of deterioration.

Some walkway pads appear to be missing.

Parapet membrane flashings around the roof perimeter are in poor condition, and show signs of possible failure.

Test cuts indicate that the roof assembly is dry and in good condition. The typical roof assembly consists of:

- 60 mil EPDM membrane adhered to,
- Polyisocyanurate taper board hot mopped to,
- 3 ½" Polyisocyanurate board, hot mopped to,
- 3 ply vapor retarder hot mopped to,
- concrete deck.

- **Conclusions**

Generally, the roof appears to be in fair condition but needs ordinary repairs of the seam laps and perimeter flashings. All building components require maintenance and repairs; this existing roof is no exception. Additional membrane life can be expected from this roof with proper maintenance and repairs.

- **Recommendations**

Replace all perimeter parapet wall flashings and edge metals. Inspect and re-seam membrane lap joints with a compatible repair material. Replace existing roof drain strainers with lockable type or cast iron to reduce the risk of blow off. Replace walkway pads with fully bonded pads and add below equipment and wiring. Repair penetration flashings as needed. Recommend twice annual inspections.

Reference Drawings:
Roof plan drawing: R-35-1A
Roof plan drawing, drainage spacing:
Roof plan drawing, inspection cut locations:

Reference Photos: R-35-2A, 01 through 05

FAÇADES:

- **System Description**

The façade consists of exposed cast-in-place concrete columns, and spandrel beams that extend out proud of the plane of the façade. The bays formed by the concrete beams and columns are in-filled with glass curtain walls on the west elevation and the central half of the north and south elevations. Exposed aggregate precast concrete wall panels fill out the ends of the north and south elevations and all of the east elevation.

- **Observations**

General: Many of the observations for this building are similar to those documented in the Pathfinder Dining Hall report.

There are numerous locations on the concrete façade elements where areas of the concrete surface have spalled, broken, cracked, or deteriorated. These areas can be categorized as follows:

- Small spalls at rusted reinforcing bars - frequently beam stirrups. (See Photo F-35-01).
- There are a number of areas where the cast-in-place concrete façade surfaces have been extensively rubbed, or parged, during the original construction. Much of the surfaces have thin hairline cracking or other evidence of superficial distress. (See Photo F-35-02).

- The top surfaces of concrete façade elements have considerable mosey and liken vegetative growth.

The rustication strips in the soffits of the spandrel beams which are transverse to the beam span, that is, perpendicular to the building façade, allow water to run from the face of the spandrel to the surface of the window wall. This is evidenced by staining of the spandrel soffit and the intersecting area of the window wall. (See Photo F-35-03).

Many of the sealant joints around window walls, exposed aggregate panels, and adjacent on grade concrete are deteriorated. Deterioration includes gaps, adhesive failure, cohesive failure and improper recoating of existing sealants without proper preparation.

Exposed aggregate panels are generally in good condition. On approximately 10 percent of the panels there was rust staining. This is likely due to the presence of discrete iron-rich aggregates. (See Photo F-35-03).

The concrete entrance walk at the base of the ramp on the south side upper level has settled where it abuts the concrete ramp leaving a one inch or better lip that presents a trip hazard. (See Photo F-35-04).

At grade along the west elevation, the concrete splash strip has settled and cracked and now slopes toward the building. (See Photos F-35-05 and F-35-06).

Loading dock stairs originally had a side light flush mounted in a recess cast into the concrete wall. The fixture box has completely corroded. (See Photo F-35-07).

There is general concrete deterioration at the loading dock. A large vent grill in the north end of the loading dock would seem to support the belief that there is open space below some or all of the loading dock. (See Photo F-35-08).

A gray coating or paint has been applied to the lower half of three concrete columns on the north half of the east elevation. The same coating was applied to the exposed foundation wall below the horizontal spandrel beam. (See Photo F-35-09).

Vertical joints between the Link tunnels and Littlepage are at the end of their service life. The cap flashing on the top appears to have been installed as an interim solution to an apparent water leak.

- **Conclusions**

The building's original construction had imperfections, which have led to deterioration. These imperfections include:

- Areas of inadequate concrete cover over reinforcing bars
- Over-rubbed surfaces, and excessive parging

The transverse rustication strip at the midspan of the spandrel beam soffits deliver precipitation to the beam soffit and to the window wall or building facade, erasing the benefit of the lateral drip edge rustication strip. This leads to staining, acceleration of beam soffit deterioration, and amplifies any window or sealant condition which could cause leakage.

Nearly 44 years of exposure to increasing detrimental environmental conditions has deteriorated the surfaces of the cast-in-place concrete façade elements. They are absorbing precipitation and condensation moisture at an increasing rate over time.

The building has experienced a multitude of sealant campaigns, presumably to address water intrusion issues. Some of this work has been done without complete removal of the previous sealant, some of the work has adhesive failure, some sealant was improperly or excessively installed, and some sealant has been installed where none is required or should be, such as in the rustication joints and possibly covering window weeps.

The loading dock on the east side of the building is exhibiting deterioration due to environmental exposure, presumably including the application of deicing chemicals.

LITTLEPAGE HALL

The concrete entrance walk on the west side of the upper level has settled where it abuts the concrete ramp leaving a one inch or better lip that presents a trip hazard.

- **Recommendations**

Patch deteriorated, spalled, and missing sections of cast-in-place concrete façade. This should be done to mitigate the ongoing deterioration of the distressed areas. (Estimate 200 sf.) Saw cut adjacent to exposed steel reinforcing with inadequate concrete cover; remove concrete behind the steel reinforcing, allowing it to be pounded in below the surface providing space for additional concrete cover over the existing steel reinforcing.

Fill the portion of the transverse spandrel soffit rustication strips from the existing drip channel to the face of the building with concrete repair mortar, in order to mitigate the travel of rainwater running in to the face of the wall and window walls. (Estimate 40 locations.)

Remove existing concrete coatings, prepare and coat all exposed cast-in-place concrete façade surfaces. This should be done to mitigate the ongoing deterioration of the distressed areas. (Estimate 8000 sf.)

Remove and replace all sealant joints in the façade which require sealant - not the joints that should not be sealed. (Estimate 650 lf.)

The removal and replacement of sealant joints and backer rod material around the windows is covered in the Windows and Doors section of this Report.

Remove and replace 10 feet of the concrete entrance walk at the south upper level entrance to eliminate the existing lip that presents a trip hazard.

Prepare, prime and paint all expose steel on the building exterior including, hand rails, steel angles at the loading dock, pipes, bollards, roof top HVAC units, conduit, grills, stairs, etc.

Apply urethane traffic membrane coating to the top surface of the loading dock.

Reference Drawings:
Facade drawings: F-35-1A and F-35-1B

Reference Photos: F-35-2A and 2B, 01 through 09

WINDOWS AND DOORS:

- **System Description**

Similar to Pathfinder Hall, Littlepage features 7-1/2" deep aluminum curtain wall framing with single pane glazing matching profiles and matching narrow profile entrance doors. With the exception of the entrance storefront framing, curtain wall framing members incorporated structural steel reinforcing. Finishes throughout were bronze anodized aluminum.

Upper level dining hall windows, as at Pathfinder, featured floor-to-ceiling fixed glass, with large upper vision glazing over lower spandrel glazing backed with rigid insulation and a reinforced porcelain enamel panel interior finish. Lower level office / lounge windows featured full height fixed vision glazing with an integral plastic laminated steel crash bar. (See Photo W-35-01).

The rear (west) loading door featured a pair of swinging hollow metal doors surmounted by painted metal insulated panels. (See Photo W-35-02). Two fixed louvers with matching bronze anodized aluminum finish were installed in the west and east supporting walls of the loading dock.

Upper level curtain wall systems remain as originally installed, with the exception of entrance storefronts, which have been replaced in their entirety with a slightly modified framing layout, insulated sash, and a bronze anodized aluminum finish darker than the original units. (See Photo W-35-03).

Lower level curtain wall systems have experienced significantly less replacement than at Pathfinder. All original curtain wall framing and glazing remains intact, including entrance storefronts. (See Photo W-35-04).

LITTLEPAGE HALL

- **Observations**

Littlepage Hall is essentially identical to Pathfinder Hall in original fenestration design, detailing and workmanship. Therefore, those comments noted for Pathfinder are common to Littlepage as well, and include the following in brief:

- Lack of thermal efficiency due to single glazing, and inadequate thermal break in curtain wall frame construction.
- Original aluminum finishes have maintained integrity over time.
- Original installation detailing provided inadequate cavity wall insulation and affords little through-wall protection against air infiltration.
- Perimeter sealants have failed typically and lack sufficient backup. (See Photo W-35-05).
- Original construction details indicate an integral connection between the curtain wall units and adjacent interior wall finishes and attached heating convectors. (See Photo W-35-06).
- Removal of existing curtain wall systems and related sealants, and the design of replacement systems, will need to be coordinated closely with asbestos abatement procedures, based on results of asbestos sampling and analysis (Refer to Asbestos Abatement section).
- Replacement fenestration at upper level entrance storefronts currently provides insulated sash.

- **Conclusions**

Original curtain wall units provide substandard thermal performance, and should be replaced with aluminum framed, insulated sash units capable of providing thermal performance that meets or exceeds current energy code requirements.

Curtain wall unit replacements can be undertaken with minimal additional impact to interior finishes and attached heating convectors. However, compatible aluminum trim components may be required to be designed and detailed.

Replacement of curtain wall systems will afford an opportunity to address original construction problems such as inadequate cavity wall insulation and sealant application.

Selected existing entry storefronts, although insulated sash replacements, should be replaced with new high-performance aluminum systems with finish to match new curtain wall units.

Curtain wall replacements should be carefully designed so as to provide optimum attachment, and sized to correctly apply perimeter sealants and back-up materials, including insulation. A sealant system should be designed and installed that anticipates the need to periodically remove and reinstall subsequent applications while not jeopardizing system integrity.

- **Recommendations**

Remove all existing curtain wall and door systems, including exterior and interior entrance storefront units. Provide temporary protection as necessary. (Refer to Asbestos Abatement Section.)

Remove all previous perimeter sealant applications. (Refer to Asbestos Abatement Section.)

Provide cavity wall insulation as necessary following exposure of wall interior construction.

Install new high-performance aluminum-framed curtain wall systems with fluoropolymer finish (AAMA 2605), narrow profile frames, insulated sash and compatible spandrel panels. Per campus directive, investigate the use of selective operable sash to provide natural ventilation to main dining hall, utilizing narrow profile operable sash framing within curtain wall framing in order to minimize sash frame profiles.

Install new aluminum-framed entrance storefronts at exterior and interior entry vestibules with insulated sash, medium stile door profiles and matching fluoropolymer finish.

Replace rear loading door, matching existing type, with painted finish to match proposed curtain wall framing finish. Existing metal panels above shall remain, painted to match proposed curtain wall framing finish.

LITTLEPAGE HALL

Replace all louvers with new fixed units, painted to match proposed curtain wall framing finish.

Provide polyurethane foam joint filler and new sealant system throughout.

Replace entrance storefront framing with a finish to match that of adjacent curtain wall replacement systems.

Provide new interior window treatments to match existing throughout.

Reference Drawings:
Elevation drawings: W-35-1A and W-35-1B
Window type elevations: W-35-2A through W-35-2C

Reference Photos: W-35-3A, 1 through 6

ASBESTOS AND PCBs:

- **System Description**

The window, roof and façade scopes will impact asbestos and PCB containing materials.

- **Observations**

The roof is an EPDM system. Suspect asbestos-containing materials were sampled and the results are outlined below.

- **Conclusions/Recommendations**

A reputable contractor in accordance with New York State Industrial Code Rule 56, and all applicable codes, rules and regulations must abate asbestos containing materials impacted by the scopes of this study.

Removal of PCB containing caulk generates a regulated hazardous waste. PCB containing materials shall be removed, handled and disposed of in accordance with current Federal, State and Local requirements. Contract specifications should be developed and included within Contract Documents when this project progresses to the point to do so.

Windows:
It is recommended that the windows in the work-out room in Littlepage Dining Hall be removed by the abatement contractor, due to the presence of asbestos containing window glaze around each window.

Roof:
It has been determined by laboratory analysis that the curb/penetration flashing cement associated with the roof mounted mechanical equipment and ductwork is asbestos containing. It is recommended that the abatement contractor remove the asbestos-containing roof curb/penetration flashing cement in its entirety and dispose of as asbestos containing material if this material will be impacted by planned renovations.

MECHANICAL, ELECTRICAL, PLUMBING:

- **System Description**

The heating system has a radiant fin tubing feed from the existing boiler system. The fin tubing is located along the wall assembly below the windows.

- **Observations**

The radiant heat tubing runs along the entire wall assembly. In some locations, the interior wall shows signs of damage. Wall heating assembly is wall mounted.

LITTLEPAGE HALL

Electrical outlets were found located below the existing fin tubing assembly. The outlets are fed from a riser in the wall column, and are then surface-mounted around the room.

- **Conclusions**

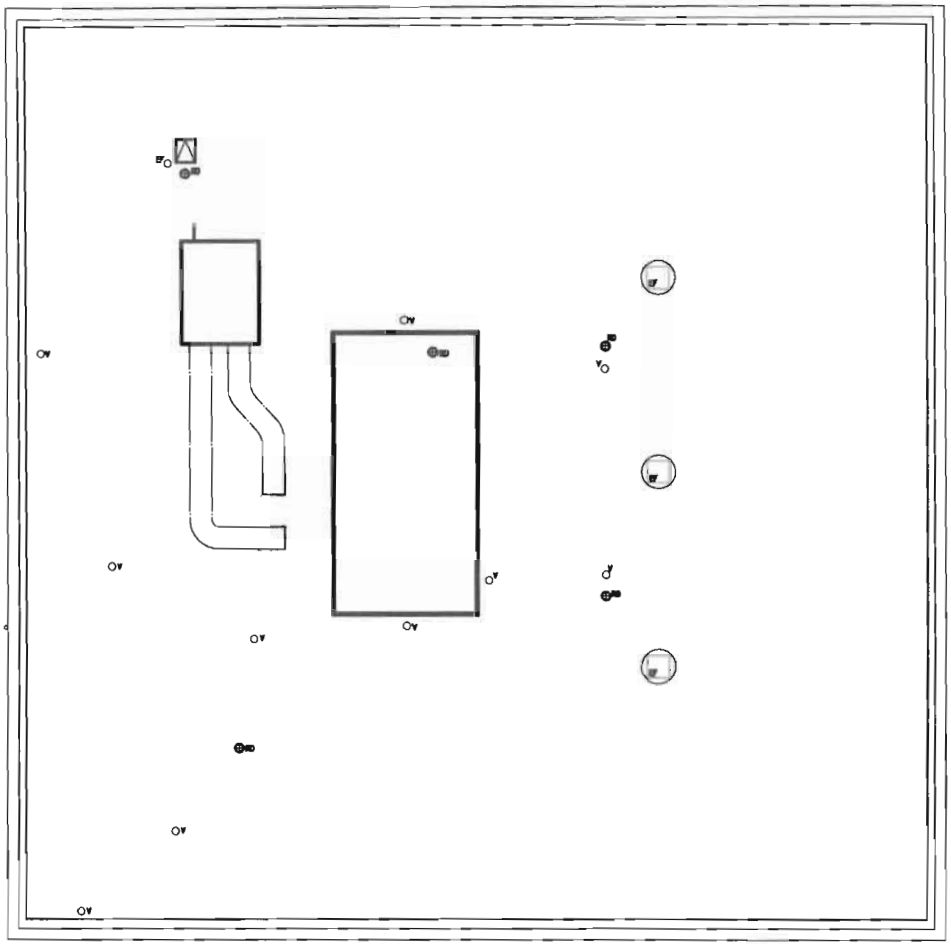
The existing heating system will need to be removed and reinstalled to avoid damage, and simplify the replacement of the curtain wall assemblies.
The existing wall outlets will need to be removed and reinstalled. All existing raceway may be reused.

- **Recommendations**

Replace with existing fin tubing enclosures to match.

Reference Drawings:
Building plans: M-35-1A and M-35-1B

NORTH



ROOF PLAN

SCALE: 1"= 25'

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LITTLEPAGE HALL
ROOF PLAN

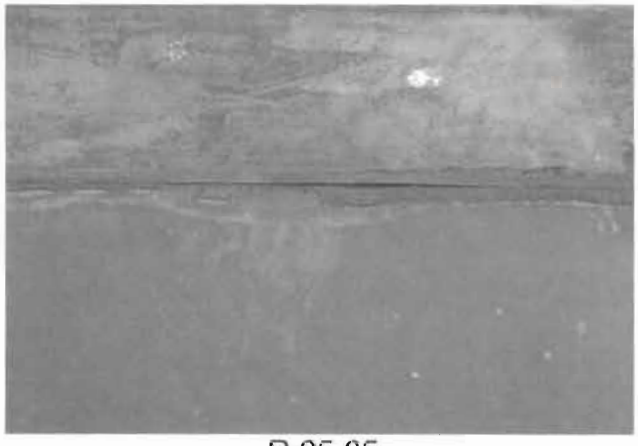
R-35-1A

R-35-01

R-35-02

R-35-03

R-35-04



R-25-05

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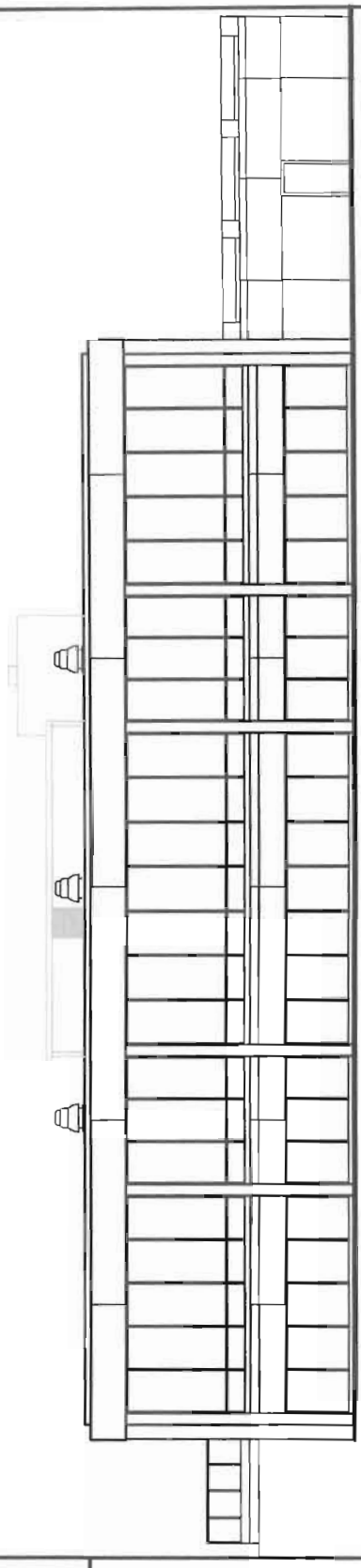

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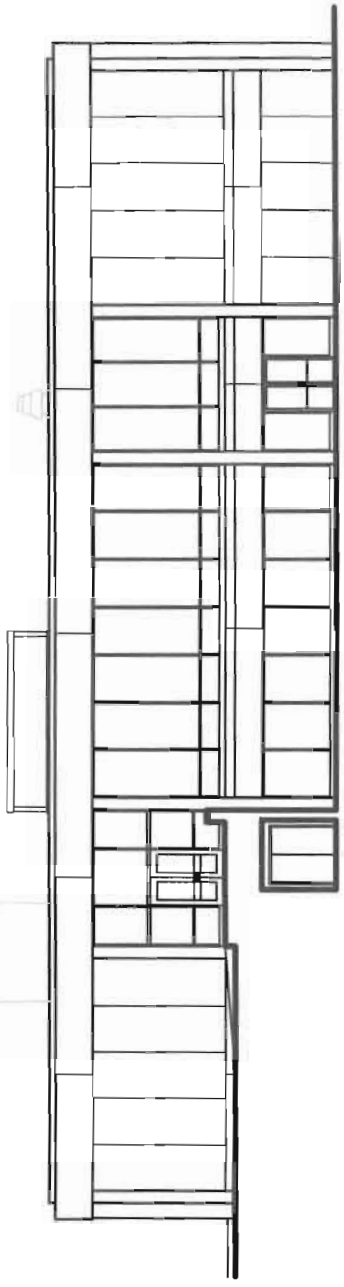

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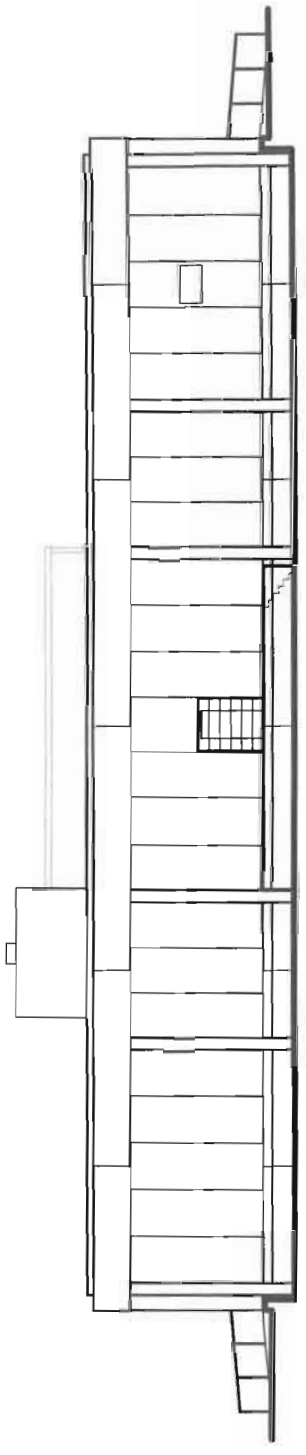
LITTLEPAGE HALL EXTERIOR ELEVATIONS

F-35-1A



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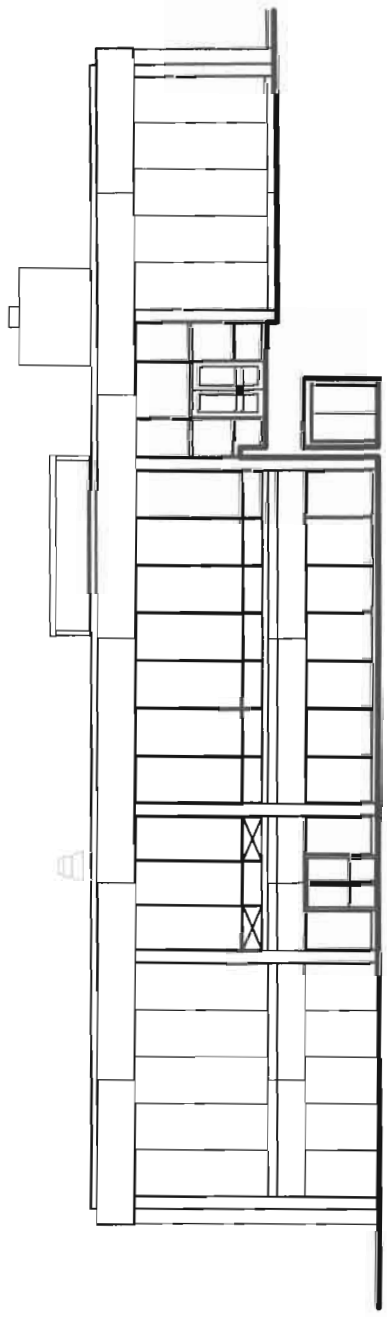

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LITTLEPAGE HALL EXTERIOR ELEVATIONS

F-35-1B

F-35-01

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LITTLEPAGE

F-35-2A

F-35-06

F-35-07

F-35-08

F-35-09

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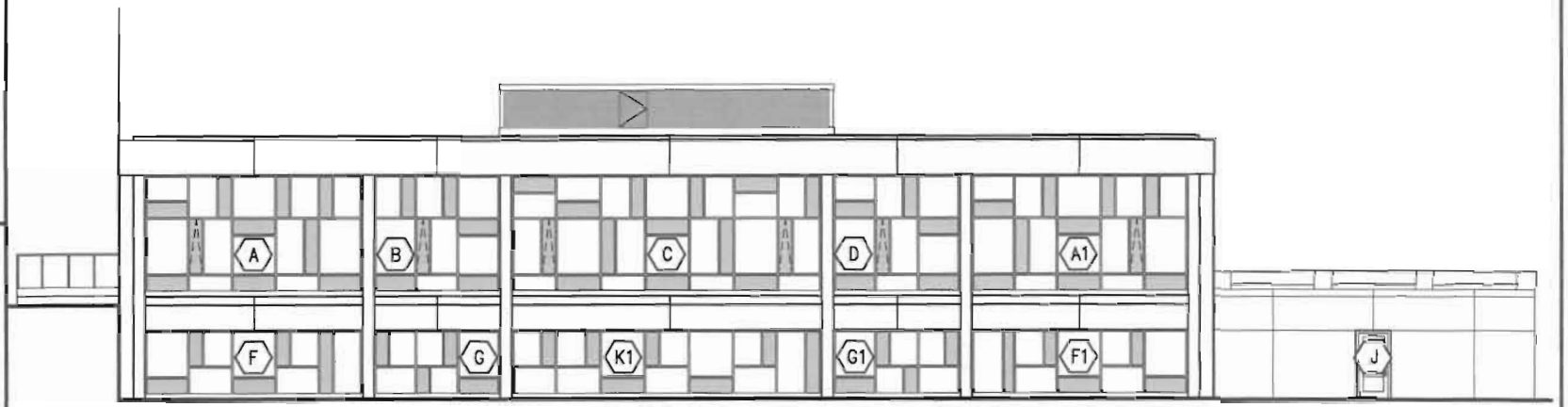

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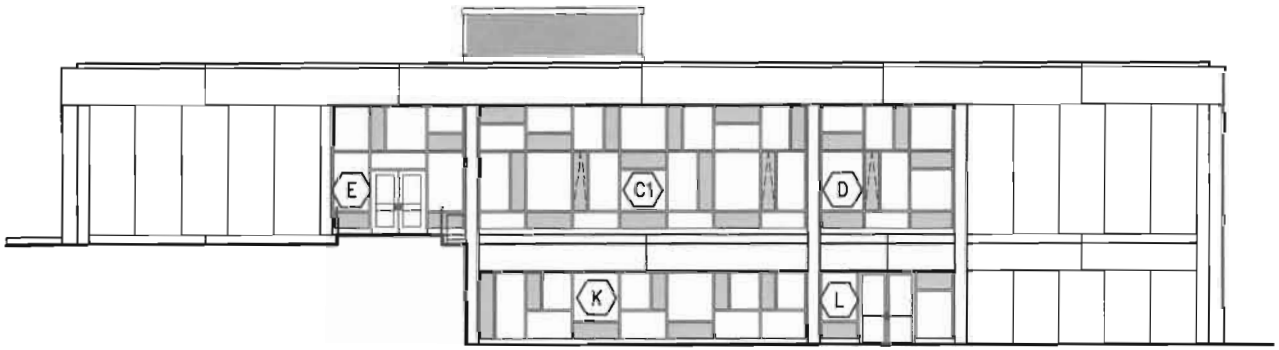

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ASBESTOS NOTE

AR-W1 UNLESS OTHERWISE NOTED, ALL WINDOWS, DOORS, AND DOOR SYSTEMS CONTAIN ASBESTOS (CAULKING, GLAZING, OR PANELS) AND MUST BE ABATED BY A NYSDOL LICENSED ASBESTOS ABATEMENT CONTRACTOR IN ACCORDANCE WITH NEW YORK STATE INDUSTRIAL CODE RULE 56 AND ALL APPLICABLE CODES, RULES, AND REGULATIONS.

ELEVATION LEGEND

⟨C⟩ WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

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LITTLEPAGE HALL
PROPOSED
ELEVATIONS

W-35-1A

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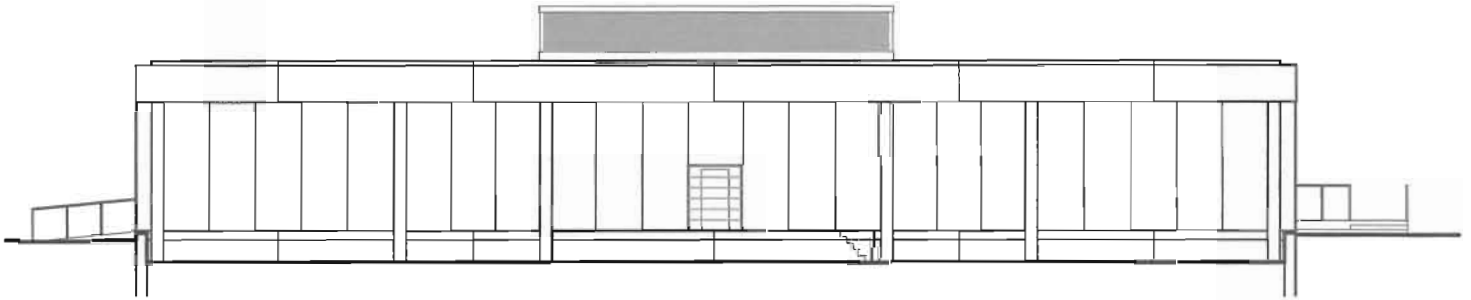

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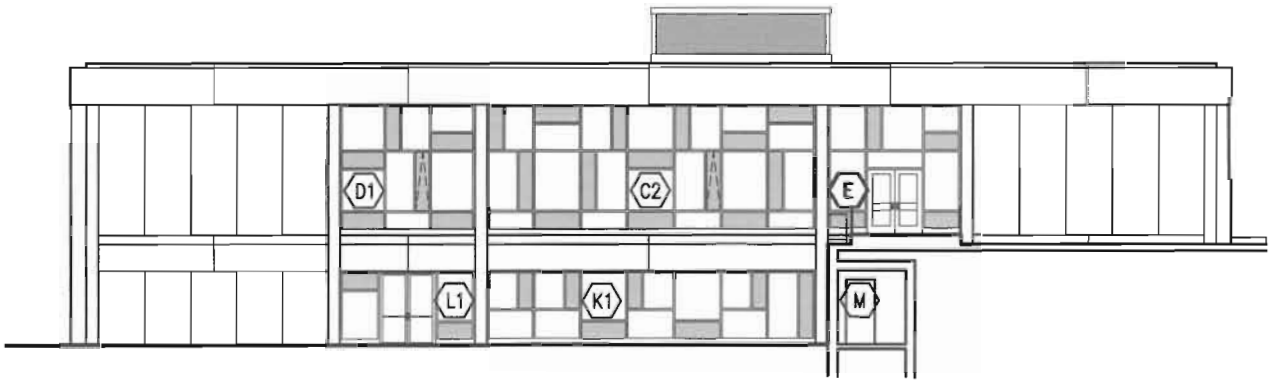

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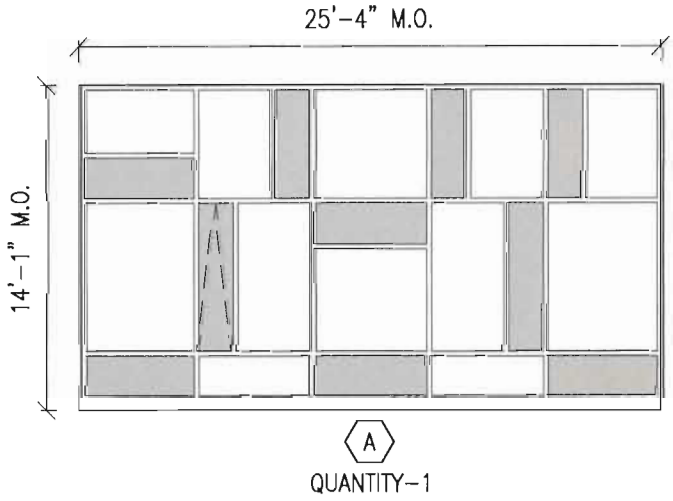
PROPOSED
ELEVATIONS

W-35-1B



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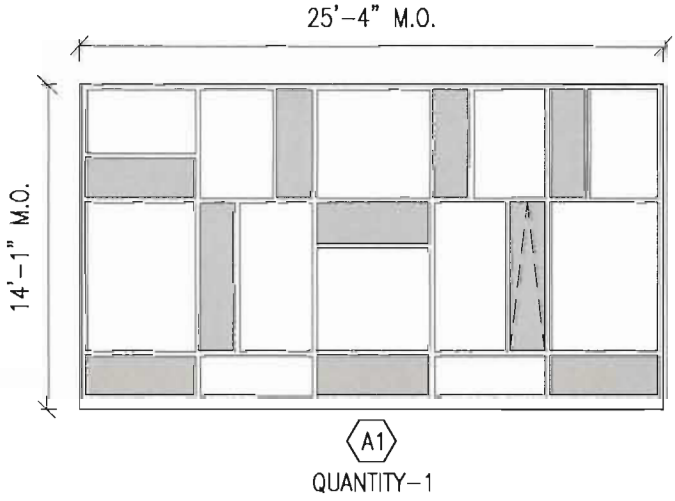

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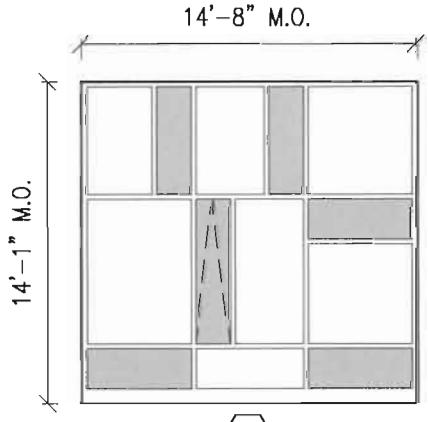

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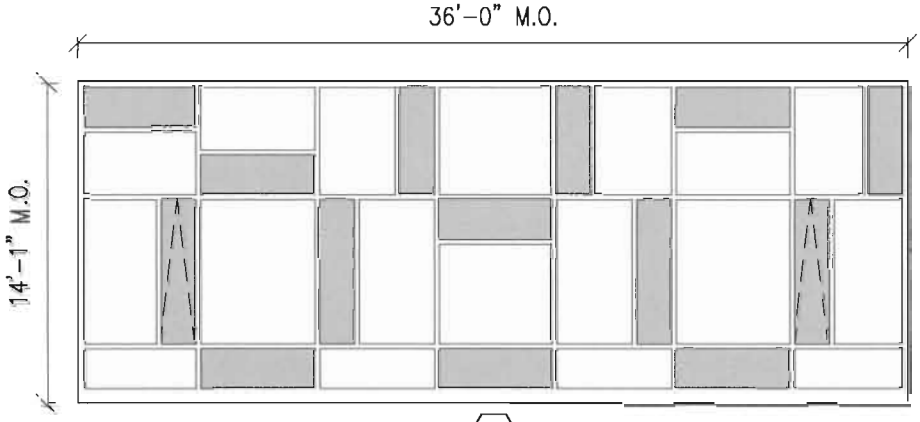

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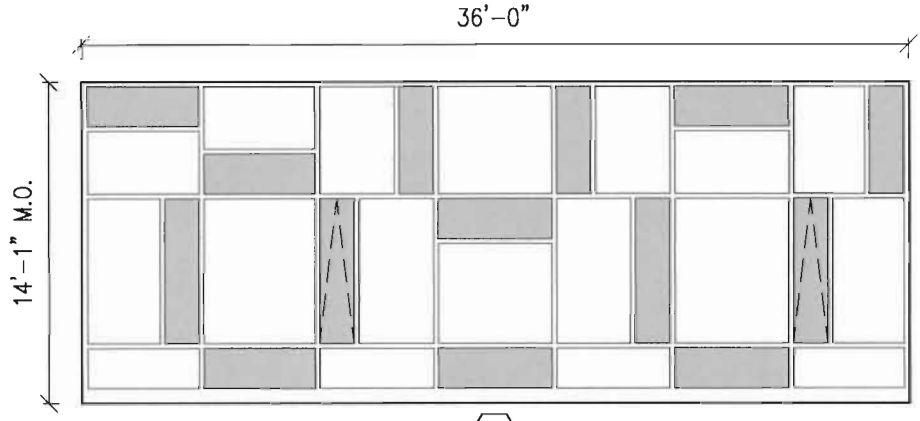

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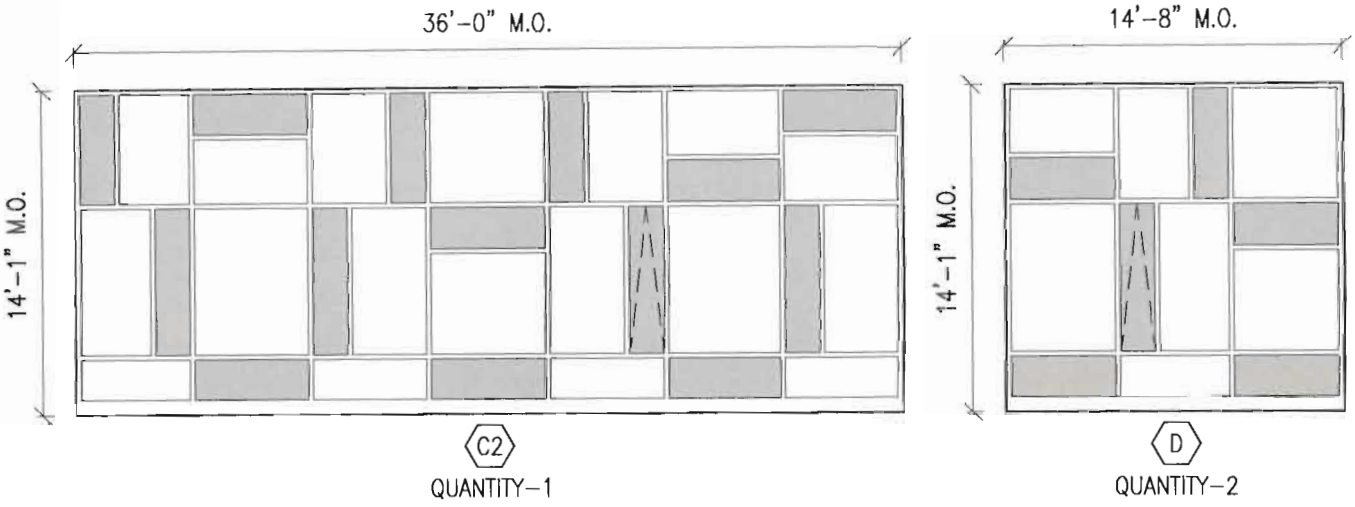
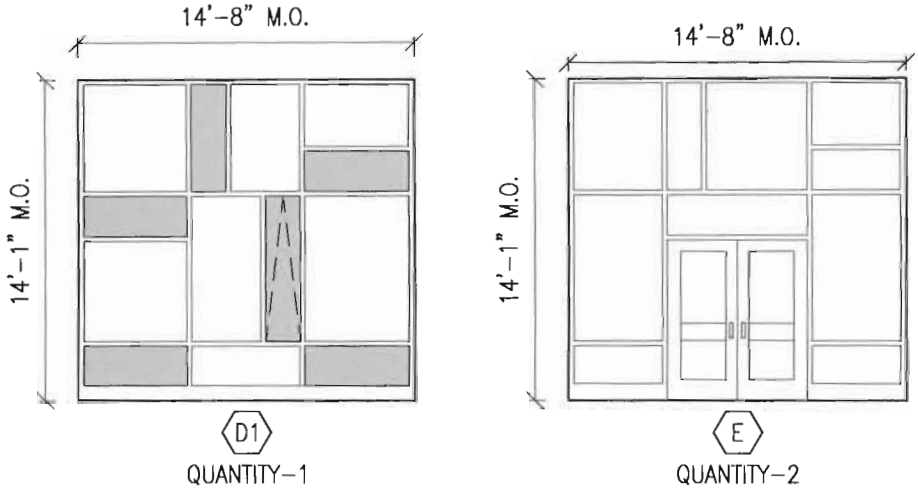
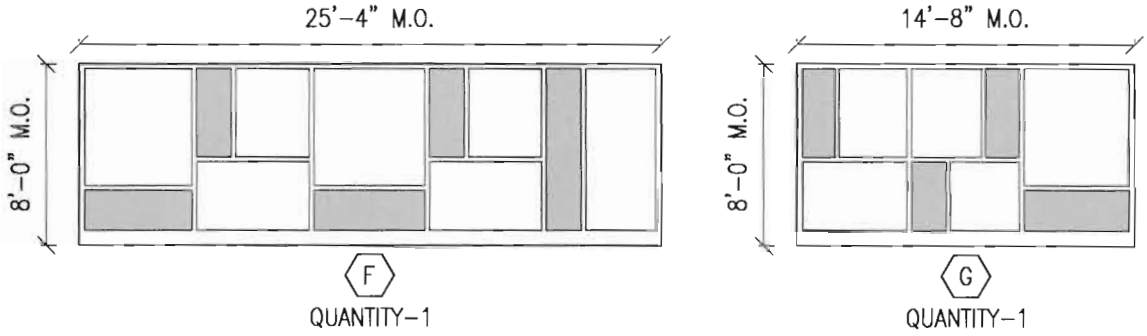
W-35-2A







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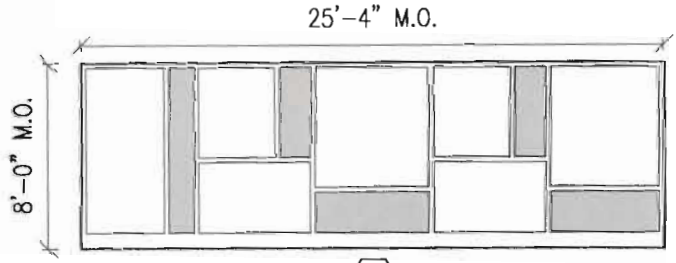
LITTLEPAGE HALL
PROPOSED
WINDOWS

W-35-2B



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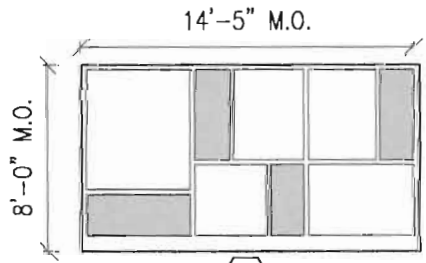

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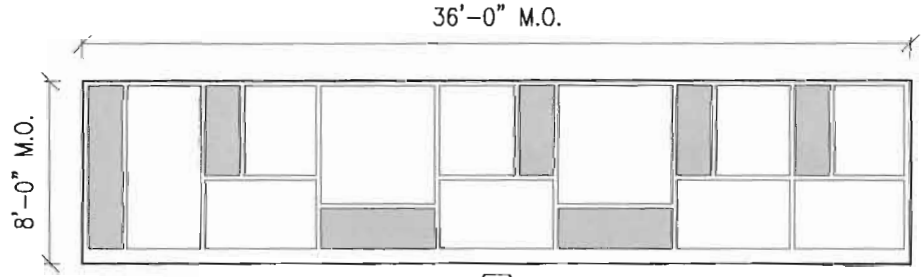

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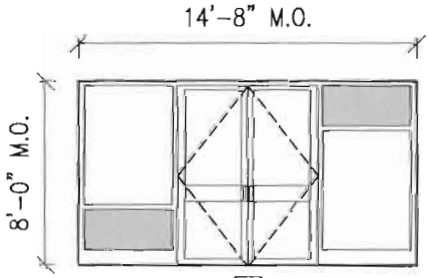

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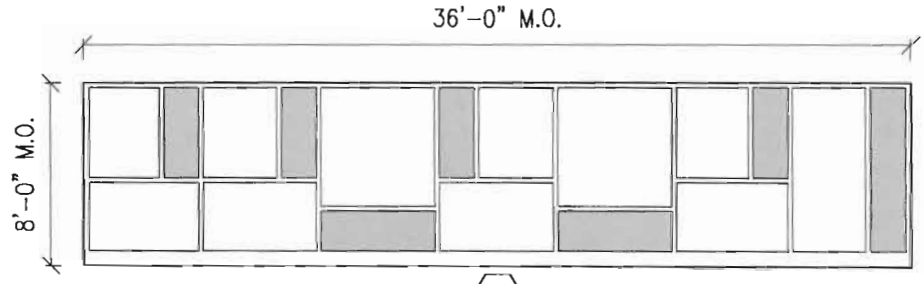

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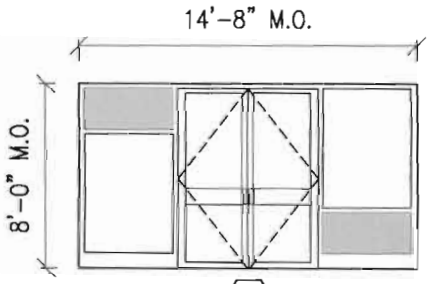

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QUANTITY-1

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LITTLEPAGE HALL PROPOSED WINDOWS

W-35-2C

W-35-3A-1

W-35-3A-2

W-35-3A-3

W-35-3A-4

W-35-3A-5

W-35-3A-6

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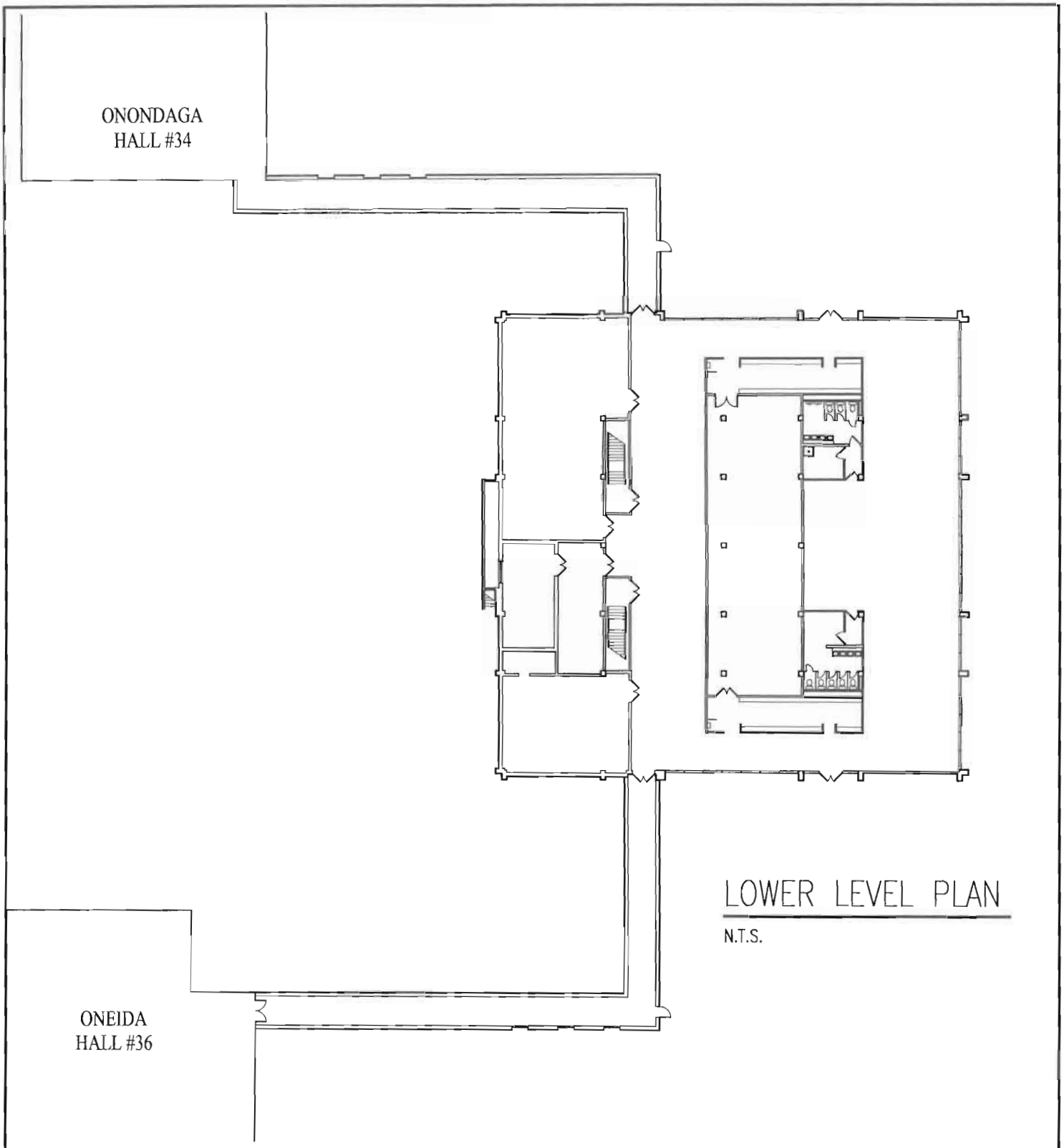
W-35-3A



LOWER LEVEL PLAN

N.T.S.

WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

OSWEGO STATE UNIVERSITY OF NEW YORK

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

ISSUE:	FEASIBILITY STUDY – DRAFT
DATE:	1-28-11

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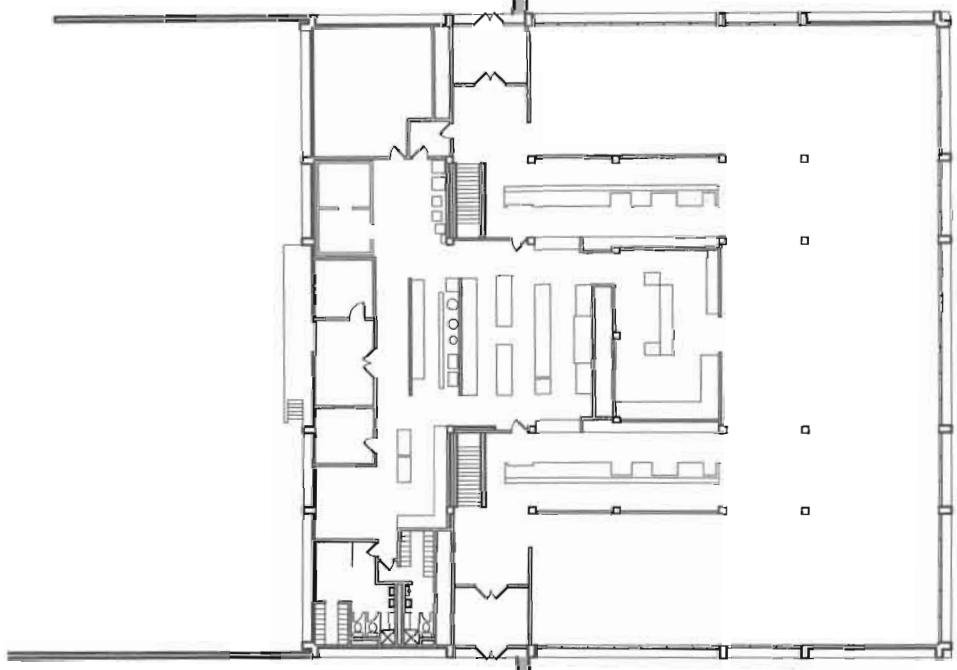
LITTLEPAGE HALL
LOWER LEVEL
PLAN

M-35-1A

ONONDAGA
HALL #34



ONEIDA
HALL #36

UPPER LEVEL PLAN

N.T.S.

WOOLLEY ARCHITECTS MORRIS

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LITTLEPAGE HALL
UPPER LEVEL
PLAN

M-35-1B

CONNECTING TUNNELS & RETAINING WALLS

CONNECTING TUNNELS AND RETAINING WALLS

SITE ELEMENT DESCRIPTION:

The four link tunnels included below all are cast-in-place concrete box structures built into grade, have one façade of exposed concrete with windows and doors, and all function as retaining walls.

ROOF:

The existing roof membrane material and condition is not known and is not within the scope of this study. No roof leaks were reported by the facility; see Conclusions below.

- **System Description**

Location -1: The link tunnel from Pathfinder's east elevation lower level to the south elevation of Seneca Hall extends from Pathfinder Hall east 98' and then north 110' connecting to Seneca Hall. The roof of the tunnel structure is cast in place concrete. An earth and grass plaza extends onto and covers the tunnel roof. (See Photo R-CT-01).

Location – 2: Link tunnel between Pathfinder's west elevation lower level extends west about 41' and then north 43' and abuts the east side of Cayuga Hall's southeast corner. The roof of the tunnel structure is cast in place concrete with a waterproof membrane and concrete walks and paver plaza above. (See Photo R-CT-02).

Location – 6: The link tunnel from Littlepage Dining Hall to Onondaga Hall extends from the Littlepage Hall's north façade, lower level, north 36' and then west 110' connecting to the southeast corner of Onondaga Hall. The roof of the tunnel structure is cast in place concrete with an earth and grass plaza covering the tunnel roof. (See Photo R-CT-03).

Location – 7: The link tunnel from Littlepage Dining Hall to Oneida Hall extends from the south façade, lower level of Littlepage Hall, south about 60' and then east 112' connecting to the southeast corner of Oneida Hall. The roof of the tunnel structure is cast in place concrete with concrete walks and grass plaza covering the tunnel roof. (See Photo R-CT-04).

- **Observations**

Typical at all locations:
During a walking tour of the link tunnel interiors some locations of ceiling deterioration were observed but were attributed to water entering at the top of the windows not through the overhead. A vertical architectural reveal in the exterior concrete is centered on the punched window openings and returns into the window recess to the window head intersecting the drip channel. This configuration allows, and in fact channels, water along its length to the center of the window head. Once at the window head water will find any defect in the sealant joint at the perimeter of the window and enter the interior.

- **Conclusions**

In the absence of any known problems with the link tunnel roofs and the disruptive site intrusion that would need to be undertaken to properly assess the existing tunnel roof membranes the determination was made that no intrusion of the existing roof membranes should be done without some indication that there was a problem. At that time full roof membrane replacement would be advisable and undertaken as a project unto its self.

Two items loosely related to the roofing that are addressed in this study include:

- Loose or failing existing cap flashings installed in locations where the retaining walls abut adjacent buildings. The metal flashings were poorly designed and installed and are in need of replacement.

- Damage to the link tunnel roof membrane termination exposed metal counter flashing on the high side of the exposed link tunnel walls is loose and failing in several locations.

CONNECTING TUNNELS AND RETAINING WALLS

Ceiling deterioration within the link tunnel corridors appears to be caused by water entering at the top center of the window heads. The lateral drip channel cast into the exterior concrete across the head of the recessed window return is compromised by an architectural reveal that returns into the window recess intersecting the drip channel. This configuration allows, and in fact channels, water along its length from the façade to the center of the window head. Once at the window head water will find any defect in the sealant joint at the perimeter of the window and enter the interior. It is likely the reveal extends beyond the exterior face of the window and into the jamb. The bead of elastomeric sealant applied across the head of the window is destined to fail prematurely where it crosses the rustication reveal due to the inherent change of cross-section shape at the location of the reveal.

- **Recommendations**

Rehabilitate joint and metal flashing at all joints between the retaining walls and adjacent building facades.

Repair or replace damaged and failing metal counter flashings.

Reference Photos: R-CT-2A, 01 through 04

FAÇADES:

- **System Description**

Note: See Site location key map for additional information.

Location – 1: The link tunnel from Pathfinder's east side lower level extends east 98' and then north 110' connecting to the south elevation of Seneca Hall. The tunnel structure is cast in place concrete. The roof of the tunnel structure is cast in place concrete with a waterproof membrane, concrete walks and grass plaza above. The south and east facades are exposed concrete with punched, recessed window openings. The top of the exposed wall extends above the roof and upper grade 16" to 20". A bench/rail system constructed of concrete pillars, cast with the wall and precast concrete elements extend the length of the top of the wall. (See Photo F-CT-01).

Location – 2: The link tunnel between Pathfinder's west elevation lower level extends west about 41' and then north 43' and abuts the east side of Cayuga Hall's southeast corner. The roof of the tunnel structure is cast in place concrete with a waterproof membrane and concrete walks and plaza above. The south and west facades of the link tunnel are exposed concrete with punched recessed window openings. In the corner between the south façade of Cayuga Hall and the east façade of the of the link tunnel is an open cast in place concrete stairway consisting of two flights of stairs perpendicular to one another, with midlevel landing, concrete cheek walls with a short steel pipe rail on top. (See Photo F-CT-02).

Location – 3: Included in this study is the cast in place concrete retaining wall that extends 112' east-west between the southwest corner of Cayuga Hall and the northeast corner of Onondaga Hall. (See Photo F-CT-03). Centrally located in the length of the wall is an open, cast in place concrete stairway, consisting of two flights of switch back stairs, with a midlevel landing and a cantilevered top landing. A two rail metal pipe railing sets on low concrete cheek or stringer walls. At the top of the concrete retaining wall is a bench/rail system constructed of concrete pillars cast into the top of the wall, with the wall and precast concrete bench elements set in between. (See Photo F-CT-04).

Location – 4: Two low concrete retaining walls extend 70' north from the northeast and northwest corners of Pathfinder Dining Hall bordering a paved loading dock access and parking area on the north side of the building. (See Photo F-CT-05).

Location – 5: Included in this study is the cast in place concrete retaining wall at the north east corner of Seneca Hall. This retaining wall extends east 72' from the corner of the building and then continues south 128'. The top of the wall slopes from about 14' high at the building down to grade at the south end. Set into the top of the wall and extending the full length of the concrete retaining wall is a two rail, painted metal guard rail, constructed of square tubing. (See Photo F-CT-06).

Location – 6: The link tunnel from Littlepage Dining Hall to Onondaga Hall extends from the north façade, lower level of Littlepage Hall, north 36' and then west 110' connecting to the southeast corner of Onondaga

Hall. The roof of the tunnel structure is cast in place concrete with concrete walks and grass plaza covering the tunnel roof. The north and east facades are exposed concrete with punched, recessed window openings. The top of the exposed wall extends above the roof and upper grade 10" to 15". A bench/rail system constructed of concrete pillars, cast with the wall, and precast concrete elements between extends the length of the top of the wall. (See Photo F-CT-07).

Location – 7: The link tunnel from Littlepage Dining Hall to Oneida Hall extends from the south façade, lower level of Littlepage Hall, south about 60' and then east 112' connecting to the southeast corner of Oneida Hall. The roof of the tunnel structure is cast in place concrete with concrete walks and grass plaza covering the tunnel roof. The south and east facades are exposed concrete with punched, recessed window openings. The top of the exposed wall extends above the roof and upper grade 10" to 12". A bench/rail system constructed of concrete pillars, cast with the wall, and precast concrete elements between extends the length of the top of the north-south wall and the east half of the east-west façade wall. The remaining wall has a painted metal pipe rail with vertical pipe balusters about 2' on center. (See Photo F-CT-08).

- **Observations**

Structurally, all the retaining walls and link tunnel structures are generally in good condition.

The concrete surfaces have been exposed to the environment for forty plus years and are in need of maintenance.

There are numerous locations on the concrete façade elements where areas of the concrete surface have spalled, broken, cracked, or deteriorated. (See Photo F-CT-09).

Most, of the cast-in-place concrete façade element surfaces have been extensively rubbed, or parged, after stripping the forms during the original construction. (See Photo F-CT-10).

Many of the concrete surfaces have thin hairline cracking or other evidence of minor surficial distress. (See Photo F-CT-11).

The rustication strips in the soffits of the window recesses which are transverse to the facade span, that is, perpendicular to the building façade, allow water to run from the face of the facade to the surface of the window frame. This is evidenced by staining of the window soffit and the intersecting area of the window. (See Photo F-CT-12).

Many of the sealant joints around the windows and doors are deteriorated. Deterioration includes gaps, adhesive failure, and cohesive failure.

Some of the shallow revels in the concrete façade elements have been filled with elastomeric sealant. (See Photo F-CT-13).

The exterior concrete stairs are in similar condition as the cast-in-place concrete retaining wall elements. Concrete spalling is a little more prevalent, likely due to the greater prevalence of deicing salts.

Vertical movement joints between retaining walls, the tunnel connecting links and abutted buildings are all in a deteriorated state. The cap flashing on the top lacks design durability and longevity. (See Photo F-CT-14).

Link tunnel roof membrane metal counter flashing is exposed in some areas and has come loose. (See Photo F-CT-15).

- **Conclusions**

Environmental exposure and original construction imperfections, have led to deterioration. Manifestations of the deterioration and imperfections include:

- Areas of inadequate concrete cover over reinforcing bars.
- Over-rubbed surfaces, and delaminating parging.

Areas of concrete which are not adequately resistant to freeze-thaw conditions, possibly the result of inadequate air entrainment by overworking or poor curing conditions.

Inappropriate open-cell backer rod in the sealant joints around the windows, which may have contributed to

water migration and intrusion around the windows.

The transverse rustication strips at the midspan of the window head soffits deliver precipitation to the window frame, compromising the lateral drip channel rustication. This leads to staining, acceleration of soffit deterioration, and amplifies any window or sealant condition which could cause leakage.

Years of exposure to environmental conditions has deteriorated the surfaces of the cast-in-place concrete façade elements. Acid rain reacts with the alkaline components of concrete, increased carbon dioxide in the air contributes to carbonation of the concrete that results in the concrete absorbing precipitation and condensation moisture at an increasing rate over time. Stress created within the concrete due to freezing of absorbed water causes spalling of the concrete surface, both micro and large spalls. Steel reinforcing placed during construction with inadequate concrete cover is at increased risk of being exposed to moisture and air that results in rusting. The expansive nature of rust results in additional spalling of the concrete surface.

A multitude of sealant campaigns, presumably to address water intrusion issues, has been done without complete removal of the previous sealant, some of the work has adhesive failure, some sealant was improperly or excessively installed, and some sealant has been installed where none is required or should be, such as in the rustication joints and possibly covering window weeps.

The exterior concrete stairs have deterioration aggravated by the application of deicing chemicals.

- **Recommendations**

Patch deteriorated, spalled, and missing sections of cast-in-place concrete façade. This should be done to mitigate the ongoing deterioration of the distressed areas.

Fill the window head returns and transverse spandrel soffit rustication strips with concrete repair mortar, in order to mitigate the travel of rainwater running in to the face of the windows.

Prepare and coat all exposed cast-in-place concrete site-wall façade surfaces with a waterproof, elastomeric acrylic emulsion coating. This should be done to mitigate the ongoing deterioration of the distressed areas.

Remove and replace all sealant joints in the façade which require sealant - not the joints that should not be sealed.

Rehabilitate exterior stairs: Patch concrete, repair treads, prepare and paint steel.

Note: The removal and replacement of sealant joints and backer rod material around the windows is covered in the Windows section of this Report.
Reference Drawings:
Facade drawings: F-CT-1A through F-CT-1D

Reference Photos: F-CT-2A through 2C, 01 through 15

WINDOWS AND DOORS:

- **System Description**

At all four connecting tunnels, windows and doors were recessed within the cast-in-place concrete exterior walls, and spanned full height from the tunnel floor to the underside of the concrete roof above. The original window units consisted of 4" deep aluminum framing, with a single sliding window with single pane glazing over an opaque porcelain enamel panel. Sill, jamb, head and intermediate mullion framing members were 1" wide. Finishes throughout were bronze anodized aluminum. Without exception, these window units remain as originally installed. (See Photo W-CT-01).

Doors were typically constructed of narrow profile glazed aluminum entrance doors, with full-height single pane glazing and aluminum frames. The exception was the Littlepage/Oneida tunnel door, which was

constructed of a flush hollow metal door and frame. Without exception, these units have been replaced with painted hollow metal doors and frames, composed of a variety of door size, opening infill and glazing layouts. (See Photo W-CT-02).

Location – 1: This link tunnel extends from Pathfinder's lower level east elevation to the basement level south elevation of Seneca Hall. The east wall includes nine windows; the south wall includes seven windows and one door.

Location – 2: This link tunnel extends from Pathfinder's lower level west elevation to the basement level south elevation of Cayuga Hall. The west wall includes four windows; the east wall includes two windows and one door.

Location – 6: This link tunnel extends from Littlepage's lower level north elevation to the basement level south elevation of Onondaga Hall. The north wall includes three windows; the east wall includes one door.

Location – 7: This link tunnel extends from Littlepage's lower level south elevation to the basement level east elevation of Oneida Hall. The south wall includes three windows; the east wall includes one door.

- **Observations**

Original window units, due to single glazed sash and lack of thermal breaks in framing available at the time of construction, are inherently energy inefficient. Further, in selected locations, wind-driven rain has penetrated the sealant locations and damaged adjacent interior finishes. (See Photo W-CT-03).

Despite some fade and color variation between panel and frame, the original duranodic finish on the aluminum, now almost forty-five years old, has held up remarkably well, preserving unit integrity.

Analysis of original construction details raises some questions as to the integral connection of the window unit and adjacent interior wall finishes, and whether window units can be replaced without impacting interior finishes and attached heating convectors. This is further complicated by the fact that the four connecting tunnels were constructed at different times during the construction history of the west campus; in fact, the four tunnels are detailed in four different sets of construction documents. Further, an analysis of these construction drawings and existing construction indicates that the interior wall conditions and materials used vary from tunnel to tunnel. For example:

- Cayuga / Pathfinder tunnel: A continuous vertical separation, or joint, exists full height between the window unit and flanking walls. (See Photo W-CT-04). An analysis of construction drawings and on-site observation indicate that the interior finish of adjacent walls is plaster, while the lower window spandrel backup is finished with gypsum wallboard.
- Seneca / Pathfinder tunnel: No vertical separation, or joint, exists between the lower window unit (spandrel) and flanking walls. An analysis of construction drawings and on-site observation indicate that both the interior finish of adjacent walls and lower window spandrel backup finish is plaster. In addition, vertical cracks in the plaster exist at all of these lower walls in alignment with the separation between the window units and adjacent exterior walls. (See Photo W-CT-05).
- Oneida / Littlepage tunnel: No vertical separation, or joint, exists between the lower window unit (spandrel) and flanking walls. An analysis of construction drawings and on-site observation indicate that both the interior finish of adjacent walls and lower window spandrel backup finish is plaster. Unlike the similar construction noted in the Seneca / Pathfinder tunnel, however, there is no evidence of vertical cracks in the plaster of the lower walls.
- Onondaga / Littlepage tunnel: No vertical separation, or joint, exists between the lower window unit (spandrel) and flanking walls. An analysis of construction drawings and on-site observation indicate that the interior finish of adjacent walls is plaster, while the lower window spandrel backup is finished with gypsum wallboard, with what appears to be a thin layer of gypsum wallboard joint compound spanning between the adjacent dissimilar finishes.

Previous investigation revealed the absence of cavity wall insulation, blocking, and closed cell backer rod behind perimeter sealants.

CONNECTING TUNNELS AND RETAINING WALLS

Perimeter sealants between window frame and adjacent aggregate wall panels have failed typically, despite successive applications, as noted in Façade Observations.

Subsequent to the original construction, security screen systems have been added to all tunnel windows. The campus has indicated that the security screen function will need to be maintained when the window systems are replaced. (See Photo W-CT-01).

Replacement of window systems will be impacted by continuous wall-mounted heating convectors in all window locations, and wire mold along ceiling in most locations (none at Oneida / Littlepage tunnel). Refer to MEP section. (See Photo W-CT-04).

Removal of existing curtain wall systems and related sealants, and the design of replacement systems, will need to be coordinated closely with asbestos abatement procedures, based on results of asbestos sampling and analysis (Refer to Asbestos Abatement section).

- **Conclusions**

As components of the larger six-building complex, system components of the tunnel windows and doors (frame finish, window glazing, spandrel colors, and door sash) should match or compliment the adjacent residence hall and dining hall fenestration selections.

Original window units provide substandard thermal performance, and should be replaced with high-performance aluminum-framed, insulated sash units.

Replacement of windows will allow for the application of cavity wall insulation.

The result of the analysis of the differing existing spandrel backup finish conditions will need to be investigated more closely, possibly with some investigative demolition, in order to determine the correct level of demolition and construction detailing for each typical tunnel condition. When this analysis indicates that lower spandrel backup finishes are required to be included in the demolition of the window units, existing floor and base, with possible associated abatement implications, may become involved.

New window security screens will need to be included with the window unit replacements.

Existing tunnel doors should be replaced with door systems offering longevity and high performance, with finish to match new windows. Decisions regarding material selection, size, extent of glazing and overall layout (use of sidelight and transom) should be based on aesthetics, long-term maintenance and security concerns.

The building's window and door systems have a history of improperly selected and poorly installed sealant systems, which should be replaced.

- **Recommendations**

Remove all existing window and door systems; provide temporary protection as necessary. (Refer to Asbestos Abatement section).

Remove all previous perimeter sealant applications.

Provide cavity wall insulation as necessary following exposure of wall interior construction.

Install new high-performance aluminum-framed sliding window units with fluoropolymer finish, narrow profile frames, insulated sash, integral screens, and spandrel glazing in lower panel. Resolve interior finish issues (retention or removal of spandrel backup finish and separation of spandrel interior finish with adjacent walls) following further site investigation, use of custom aluminum interior trim components, and coordination with adjacent heating convectors, wire mold, and existing flooring and base.

Install new security screens at operable sash; provide matching frame finish and narrow frame depth in order to integrate aesthetically with adjacent window systems.

Install new hollow metal exterior doors, frames sidelights and transoms with finish to match window replacements. Specify glazing options, hardware and security tie-ins in conjunction with existing systems and campus standards.

Provide closed cell backer rod and sealant system throughout.

CONNECTING TUNNELS AND RETAINING WALLS

Reference Drawings:
Elevation drawings: W-CT-1A through W-CT-1D

Window type elevations: W-CT-2A and W-CT-2B

Reference Photos: W-CT-3A, 1 through 5

ASBESTOS AND PCBs:

- **System Description**

The window and façade scopes will impact asbestos and PCB containing materials.

- **Observations**

Window units within the adjoining tunnels of Pathfinder contain an asbestos cement backer board on the bottom panels. The tunnel windows are adjacent to asbestos containing spray-on ceiling plaster and asbestos containing floor tile.

Window units within the adjoining tunnels of Littlepage contain an asbestos cement backer board on the bottom panels. The tunnel windows are adjacent to asbestos containing spray-on ceiling plaster and asbestos containing floor tile (floor tile not present in tunnel to Oneida).

- **Conclusions/Recommendations**

A reputable contractor in accordance with New York State Industrial Code Rule 56, and all applicable codes, rules and regulations must abate asbestos containing materials impacted by the scopes of this study.

Removal of PCB containing caulk generates a regulated hazardous waste. PCB containing materials shall be removed, handled and disposed of in accordance with current Federal, State and Local requirements. Contract specifications should be developed and included within Contract Documents when this project progresses to the point to do so.

Windows:
It is recommended that the window units within the two adjoining tunnels to both Pathfinder and Littlepage shall be removed by the abatement contractor, due to the presence of the asbestos cement backer board within the window panel, the asbestos containing ceiling plaster that the window tops are adjacent to, and the asbestos containing floor tile and associated mastic that the window bottoms are adjacent to. The materials removed in this process must be disposed of as asbestos containing.

MECHANICAL, ELECTRICAL, PLUMBING:

- **System Description**

The heating system has a radiant fin tubing feed from the existing boiler system. The fin tubing is located along the wall assembly below the windows.

- **Observations**

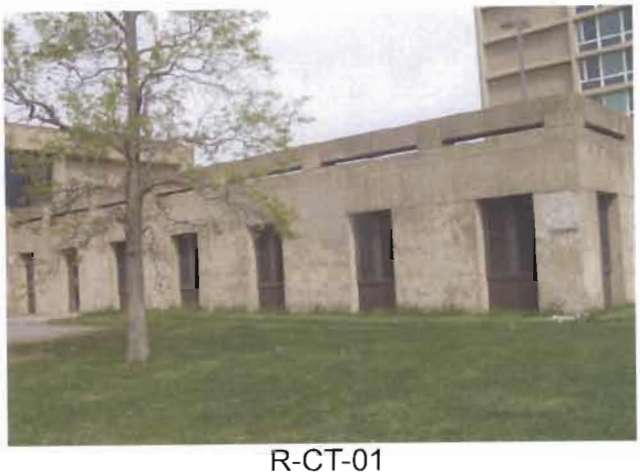
The radiant heat tubing runs along the entire wall assembly. In some locations, the wall interior wall shows signs of damage. Wall heating assembly is wall-mounted. The existing enclosures are layered in paint.

- **Conclusions**

The existing heating system will need to be removed and reinstalled to avoid damage, and simplify the replacement of the window assemblies.

- **Recommendations**

Replace with existing fin tubing enclosures to match.



R-CT-01

R-CT-02

R-CT-03

R-CT-04

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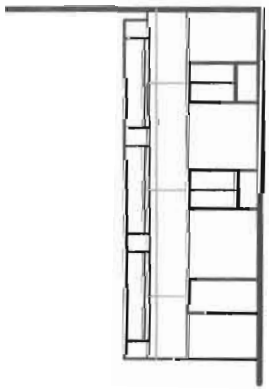
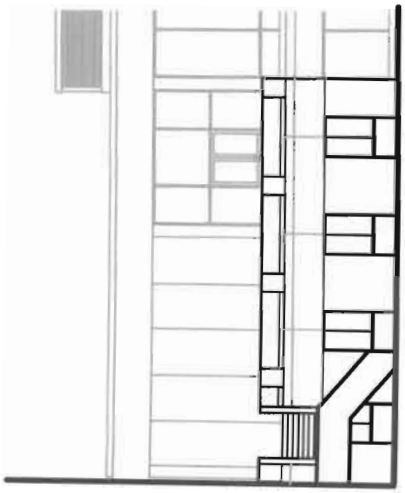
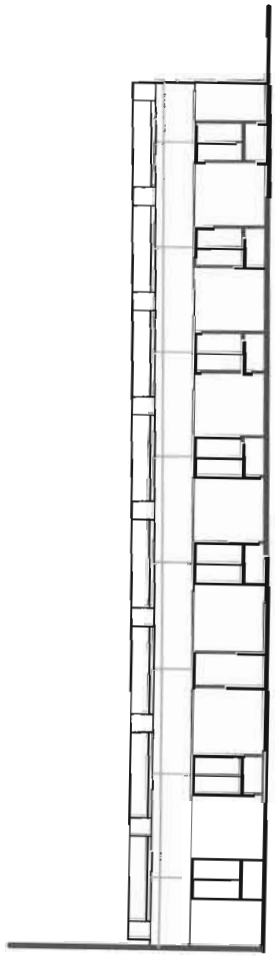


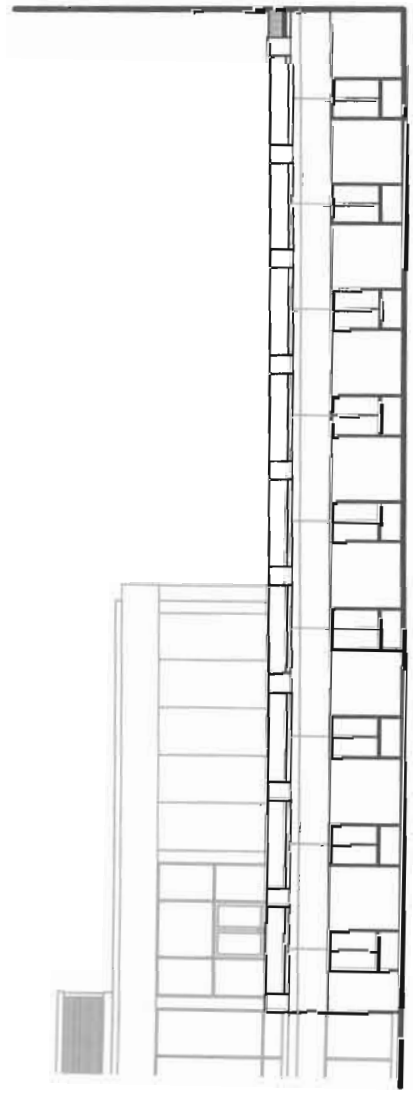
CAYUGA/PATHFINDER SOUTH TUNNEL WALL



CAYUGA/PATHFINDER WEST TUNNEL WALL



SENECA/PATHFINDER SOUTH TUNNEL WALL



SENECA/PATHFINDER EAST TUNNEL WALL

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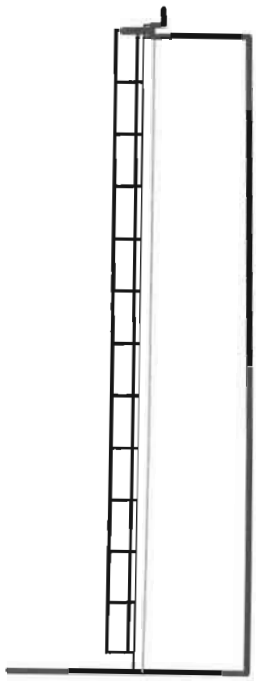
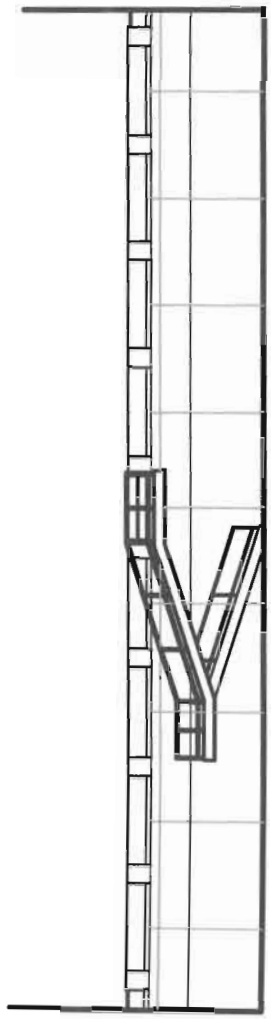
PATHFINDER HALL TUNNELS EXTERIOR ELEVATIONS

F-CT-1A

SENECA HALL EAST RETAINING WALL – WEST ELEVATION



SENECA HALL NORTH RETAINING WALL – SOUTH ELEVATION



RETAINING WALL – SOUTH ELEVATION ONONDAGA/CAYUGA

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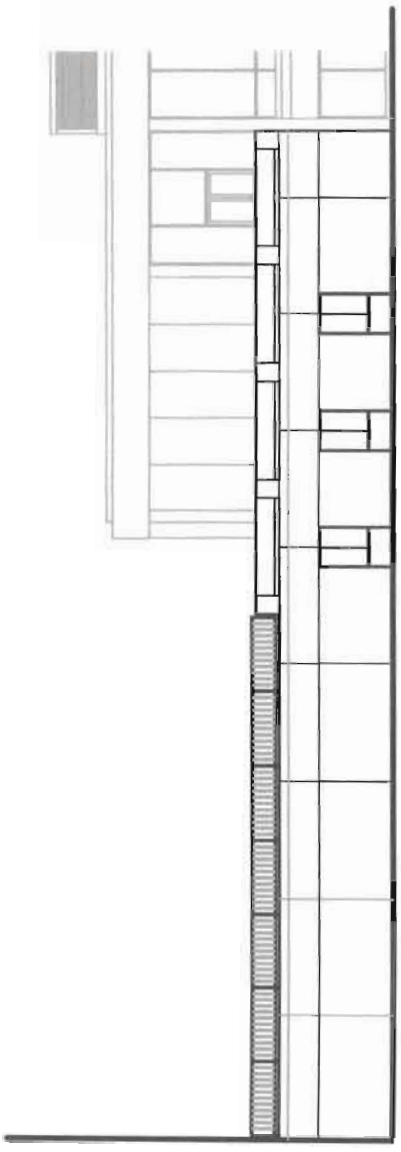
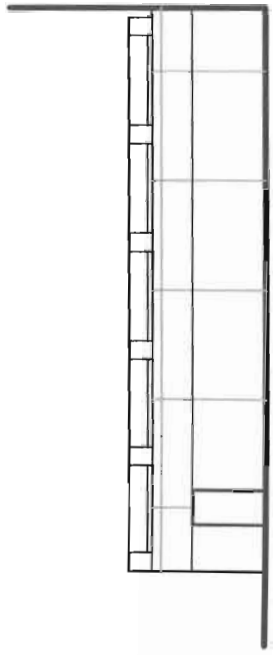
RETAINING WALLS EXTERIOR ELEVATIONS

F-CT-1B



ONEIDA/LITTLEPAGE SOUTH TUNNEL WALL



ONEIDA/LITTLEPAGE EAST TUNNEL WALL

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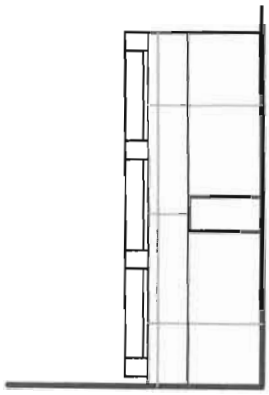
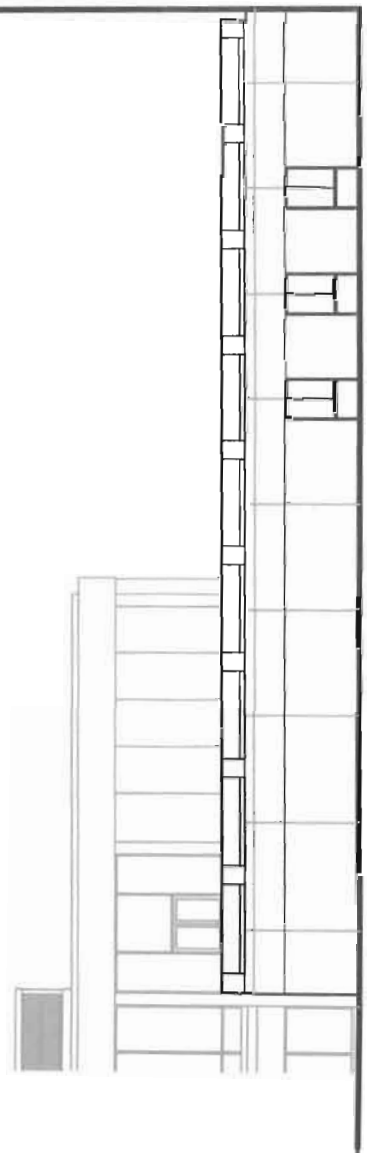
LITTLEPAGE HALL TUNNELS EXTERIOR ELEVATIONS

F-CT-1C



ONONDAGA/LITTLEPAGE EAST TUNNEL WALL



ONONDAGA/LITTLEPAGE NORTH TUNNEL WALL

WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

OSWEGO STATE UNIVERSITY OF NEW YORK

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

ISSUE:	FEASIBILITY STUDY – DRAFT
DATE:	1-28-11

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LITTLEPAGE HALL TUNNELS EXTERIOR ELEVATIONS

F-CT-1D

F-CT-01

F-CT-02

F-CT-03

F-CT-04

F-CT-05

WOOLLEY ARCHITECTS MORRIS

Klepper, Hahn & Hyatt

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CONNECTING TUNNELS

F-CT-2A

F-CT-06

F-CT-07

F-CT-08

F-CT-09

F-CT-10

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WEST CAMPUS DINING HALLS FEASIBILITY STUDY
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CONNECTING TUNNELS

F-CT-2B

F-CT-11

F-CT-12

F-CT-13

F-CT-14

F-CT-15

WOOLLEY ARCHITECTS MORRIS	WEST CAMPUS DINING HALLS FEASIBILITY STUDY - BUILDING SHELL IMPROVEMENTS -	Klepper, Hahn & Hyatt	OSWEGO STATE UNIVERSITY OF NEW YORK	DORMITORY AUTHORITY OF THE STATE OF NEW YORK	ISSUE: FEASIBILITY STUDY – DRAFT DATE: 01-28-11 © WOOLLEY MORRIS ARCHITECTS P.C. CONNECTING TUNNELS F-CT-2C

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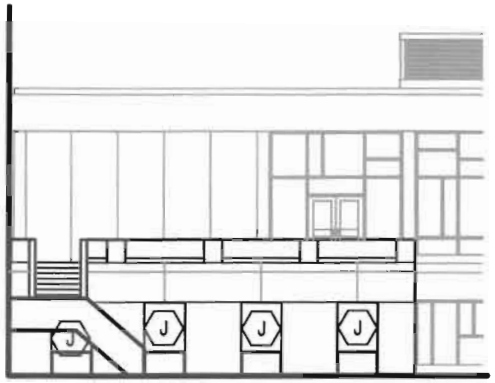
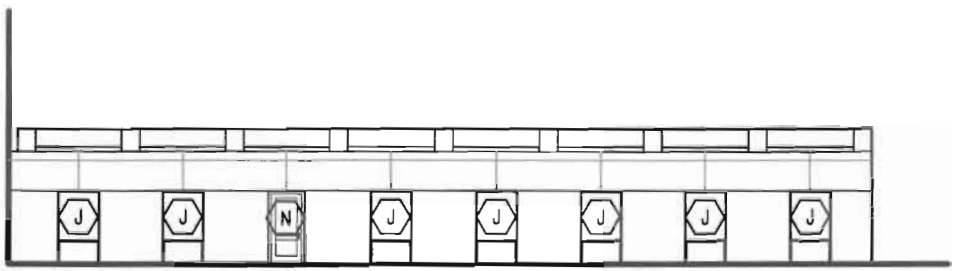
WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -



CAYUGA/PATHFINDER WEST TUNNEL WALL



CAYUGA/PATHFINDER SOUTH TUNNEL WALL

ASBESTOS NOTE

AR-W1 UNLESS OTHERWISE NOTED, ALL WINDOWS, DOORS, AND DOOR SYSTEMS CONTAIN ASBESTOS (CAULKING, GLAZING, OR PANELS) AND MUST BE ABATED BY A NYSDOL LICENSED ASBESTOS ABATEMENT CONTRACTOR IN ACCORDANCE WITH NEW YORK STATE INDUSTRIAL CODE RULE 56 AND ALL APPLICABLE CODES, RULES, AND REGULATIONS.

ELEVATION LEGEND

(C) WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

ISSUE: FEASIBILITY STUDY - DRAFT
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PATHFINDER HALL
TUNNELS PROPOSED ELEVATIONS

W-CT-1A

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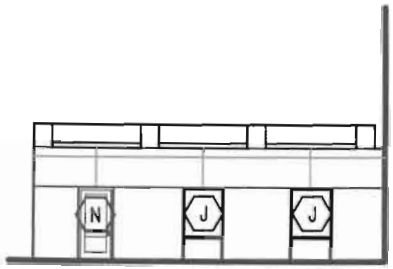
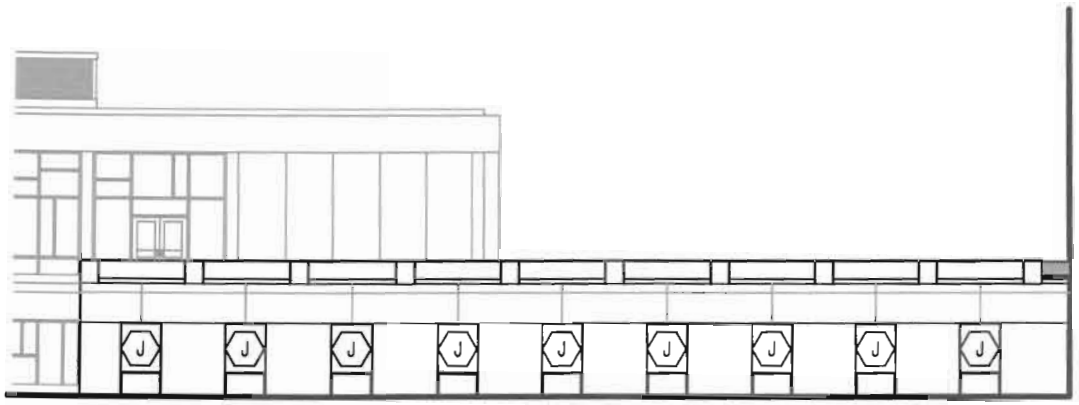
WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -



CAYUGA/PATHFINDER SOUTH TUNNEL WALL



SENECA/PATHFINDER EAST TUNNEL WALL

ASBESTOS NOTE

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ELEVATION LEGEND

(C) WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

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PATHFINDER HALL
TUNNELS PROPOSED
ELEVATIONS

W-CT-1B

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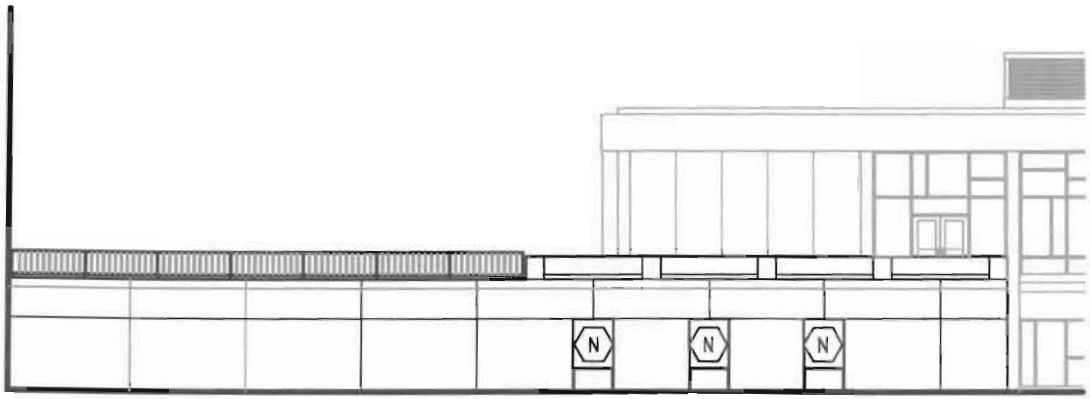
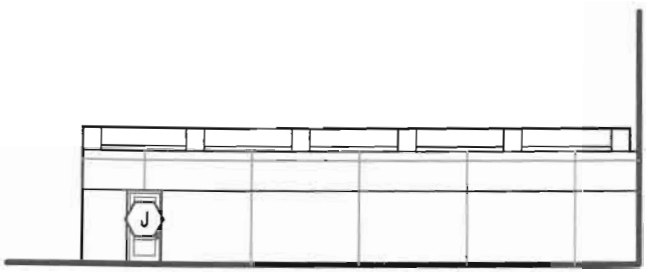
WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -



ONEIDA/LITTLEPAGE SOUTH RETAINING WALL



ONEIDA/LITTLEPAGE EAST RETAINING WALL

ASBESTOS NOTE

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ELEVATION LEGEND

⟨C⟩ WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

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LITTLEPAGE HALL
TUNNELS PROPOSED
ELEVATIONS

W-CT-1C

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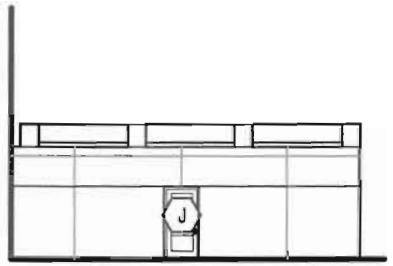
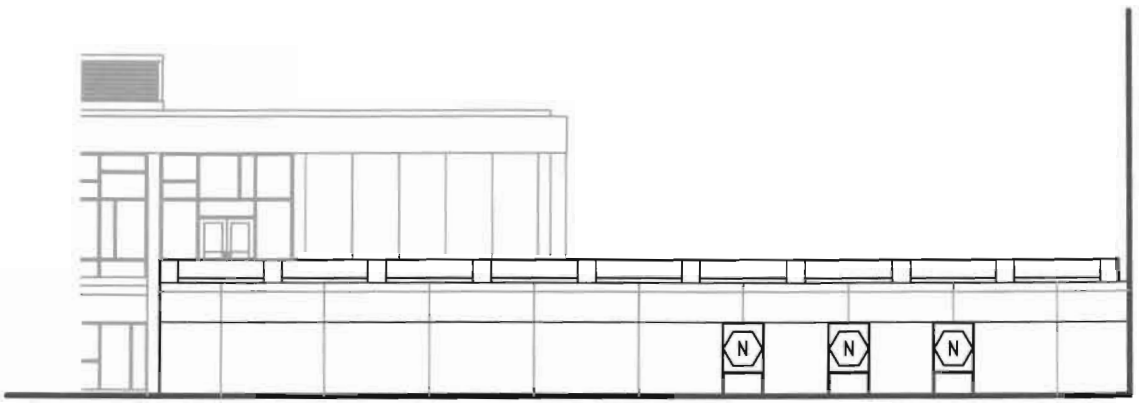
WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -



ONONDAGA/LITTLEPAGE NORTH TUNNEL WALL



ONONDAGA/LITTLEPAGE EAST TUNNEL WALL

ASBESTOS NOTE

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ELEVATION LEGEND

⟨C⟩ WINDOW/DOOR TYPE – REFER TO DRAWING W-36-2A

NOTE:
SHADED WINDOWS INDICATE TINTED GLAZING

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DATE: 1-28-11

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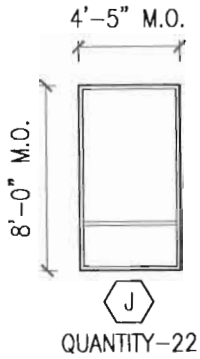
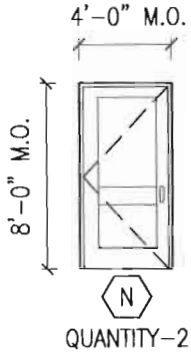
LITTLEPAGE HALL
TUNNELS PROPOSED ELEVATIONS

W-CT-1D



QUANTITY–22



QUANTITY–2

NOTES:
1. DIMENSIONS ARE FOR ESTIMATING PURPOSES ONLY

WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

OSWEGO STATE UNIVERSITY OF NEW YORK

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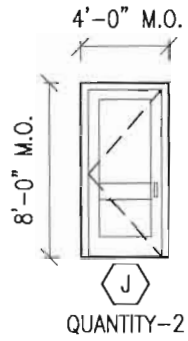
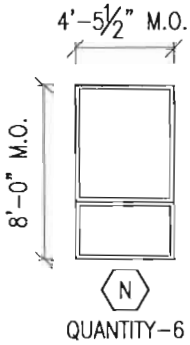
PATHFINDER HALL
PROPOSED
WINDOWS

W-CT-2A



QUANTITY-2



QUANTITY-6

NOTES:
1. DIMENSIONS ARE FOR ESTIMATING PURPOSES ONLY

WOOLLEY ARCHITECTS MORRIS

WEST CAMPUS DINING HALLS FEASIBILITY STUDY
- BUILDING SHELL IMPROVEMENTS -

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ISSUE:	FEASIBILITY STUDY - DRAFT
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LITTLEPAGE HALL
TUNNELS
PROPOSED WINDOWS

W-CT-2B

W-CT-3A-1

W-CT-3A-2

W-CT-3A-3

W-CT-3A-4

W-CT-3A-5

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CONNECTING TUNNELS	
W-CT-3A	

OPINION OF PROBABLE CONSTRUCTION COST

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: _____

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** _____

Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: _____ **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
			SUMMARY					
		007200	GENERAL CONDITIONS					$537,737
		020000	EXISTING CONDITIONS					$227,345
		030000	CONCRETE					$695,504
		060000	WOOD, PLASTICS & COMPOSITES					$96,498
		070000	THERMAL & MOISTURE PROTECTION					$207,020
		080000	OPENINGS					$849,868
		090000	FINISHES					$4,977
		120000	FURNISHINGS					$61,695
		230000	HVAC					$2,100
		260000	ELECTRICAL					$5,940
			PROJECT SUBTOTAL (DIVISIONS 020000-12000)					$2,150,947
			TOTALS					$2,688,684

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date:

TRADE PAYMENT BREAKDOWN

Project No: JDE# 2938509999 **Contract No:** 116504

Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 100% Construction Documents Estimate **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		00700	GENERAL CONDITIONS					
			General Conditions	%	8		172,076	$172,076
			Overhead & Profit	%	7		150,566	$150,566
			Contingency	%	10		215,095	$215,095
			TOTALS					$537,737

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: _____

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT UM	QUANTITY	LABOR	MATERIAL	TOTAL
		022000	**EXISTING CONDITIONS**					
		024119	General Building Removals					$0
			Pathfinder					$0
		024119	Selective demolition curtain walls					$0
			Upper Level West	SF	630	$2.50		$1,575
			Upper Level South	SF	1270	$2.50		$3,175
			Upper Level East	SF	1130	$2.50		$2,825
			Lower Level West	SF	408	$2.50		$1,020
			Lower Level South	SF	928	$2.50		$2,320
			Lower Level East	SF	308	$2.50		$770
		024119	Selective demolition overhead door	LS	1			$250
		024119	Dispose of debris for temporary protection at openings	LS	1			$2,500
			Littlepage					$0
		024119	Selective demolition curtain walls					
			Upper Level South	SF	1130	$2.50		$2,825
			Upper Level East	SF	1620	$2.50		$4,050
			Upper Level North	SF	1130	$2.50		$2,825
		024119	Selective demolition overhead door	LS	1			$250
		024119	Dispose of debris for temporary protection at openings	LS	1			$2,500
			Connecting Tunnels					$0
		024119	Selective demolition security screens					$0
			Pathfinder Tunnels	EA	22	$50.00		$1,100
			Littlepage Tunnels	EA	6	$50.00		$300
								$0
		028200	**ASBESTOS REMEDIATION - GENERAL**					
		028200	Bonds	LS	1	$367.50	$6,982.50	$7,350
		028200	Insurance	LS	1	$220.50	$4,189.50	$4,410
		028200	General Requirements	LS	1	$800.00	$200.00	$1,000
		028200	Supervision	LS	1	$500.00	$0.00	$500
		028200	Scheduling and Coordination	LS	1	$500.00	$0.00	$500
		028200	Record Drawings	LS	1	$1,000.00	$0.00	$1,000
		028200	Submittals	LS	1	$800.00	$200.00	$1,000
		028200	NYSDOL Notification	LS	1	$200.00	$5,000.00	$5,200
		028200	Debris Removal	LS	1	$2,000.00	$0.00	$2,000
		028200	Project Meetings	LS	1	$1,000.00	$0.00	$1,000
		028200	Final Clean-up	LS	1	$1,000.00	$0.00	$1,000
		028200	Project Close-out	LS	1	$1,200.00	$300.00	$1,500
		028200	Personal Air Monitoring	LS	1	$120.00	$480.00	$600
		028200	Mobilization / Demobilization	LS	1	$4,000.00	$1,000.00	$5,000
		028200	Personal and Waste Decontamination (assume 4 setups)	LS	1	$2,400	$9,600	$12,000
		028200	Scaffolding / Lift Rental	LS	1		$8,000.00	$8,000

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Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
			Tunnels					
		028200	Tunnel windows ($600/window) includes 4" of AC spray-on plaster ceiling, 1 strip of AC floor tile/mastic, window frame and AC window panel	EA	Pathfinder- 22 Littlepage- 6	$13,440	$3,360	$16,800
			Pathfinder Dining Hall					
		028200	Dining room upper level windows- center windows, west elevation ($1,000/window) includes AC exterior window caulk	EA	7	$5,600	$1,400	$7,000
			Dining room upper level windows- left side of building, south elevation ($1,000/window) includes assumed AC exterior window caulk	EA	5	$4,000	$1,000	$5,000
		028200	Roof- $3/square foot, includes EPDM, assumed AC caulk and assumed AC penetration caulk	SF	16,200	$38,880	$9,720	$48,600
			Littlepage Dining Hall					
		028200	Work-out room windows- ($500/window of various sizes) includes AC glaze, 1 strip of AC floor tile/mastic and window frame	EA	42	$16,800	$4,200	$21,000
		028200	Roof- $3/square foot, includes EPDM, assumed AC caulk and assumed AC penetration caulk	EA	16,200	$38,880	$9,720	$48,600
			TOTALS					$227,345

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Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		030000	CONCRETE					
			Pathfinder					
PDH1			Prepare & patch concrete spalls	SF	350	$ 85.00	$ 22.00	37,450
PDH2			Prepare & fill soffit rustication strips in spandrel beams	EA	40	$ 75.00	$ 22.00	3,880
PDH3			Prepare & coat all exposed cast-in-place concrete surfaces	SF	10,200	$ 4.50	$ 1.85	64,770
PDH4			Remove & replace all sealant joints in the façade	LF	1,650	$ 5.35	$ 1.72	11,666
PDH5			Prep & paint exposed steel	LS	1	$ 1,000.00	$ 500.00	1,500
PDH6			Urethane deck coating @ loading dock	SF	200	$ 3.25	$ 1.70	990
			Littlepage					
LDH1			Prepare & patch concrete spalls	SF	350	$ 85.00	$ 22.00	$ 37,450
LDH2			Prepare & fill soffit rustication strips in spandrel beams	EA	40	$ 75.00	$ 22.00	$ 3,880
LDH3			Remove existing coating from concrete surfaces	SF	700	$ 3.00	$ 0.85	$ 2,695
LDH4			Prepare & coat all exposed cast-in-place concrete surfaces	SF	10,200	$ 4.50	$ 1.85	$ 64,770
LDH5			Remove & replace all sealant joints in the façade	LF	1,650	$ 5.35	$ 1.72	$ 11,666
LDH6			Prep & paint exposed steel	LS	1	$ 1,000.00	$ 500.00	$ 1,500
LDH7			Urethane deck coating @ loading dock	SF	200	$ 3.25	$ 1.70	$ 990
LDH8			Remove & replace section of concrete walk	SF	60	$ 11.00	$ 4.00	$ 900
			Tunnels & Retaining Walls					
TRW1			Prepare & patch concrete spalls	SF	1,950	$ 85.00	$ 22.00	$ 208,650
TRW2			Prepare & fill soffit rustication strips in spandrel beams	EA	35	$ 75.00	$ 22.00	$ 3,395
TRW3			Prepare & coat all exposed cast-in-place concrete surfaces	SF	19,750	$ 4.50	$ 1.85	$ 125,413
TRW4			Repair metal counter flashing	LF	200	$ 24.00	$ 12.00	$ 7,200
TRW5			Rehabilitate cap flashings & sealant joints	EA	8	$ 650.00	$ 325.00	$ 7,800
TRW6			Prep & paint exposed steel	LS	1	$ 1,000.00	$ 500.00	$ 1,500
TRW7			Repair exterior concrete stairs	LS	1	$ 5,000.00	$ 2,200.00	$ 7,200
TRW8			Provide & install curb at edges of loading dock parking	LF	320	$ 243.00	$ 39.00	$ 90,240

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date:

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0

Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
			TOTALS					$695,504

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: _____

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		060000	**WOOD, PLASTICS & COMPOSITES**					
		061000	Wood stud & plywood temporary protection at ground floor openings					$0
			Pathfinder	SF	1750	$4.45	$2.53	$12,215
			Littlepage	SF	1,750	$4.45	$2.53	$12,215
			Tunnels	SF	864	$4.45	$2.53	$6,031
		061000	Wood stud & plywood temporary protection at upper level openings					$0
			Pathfinder	SF	3,480	$6.67	$2.53	$32,016
			Littlepage	SF	3,480	$6.67	$2.53	$32,016
			Tunnels	SF	218	$6.67	$2.53	$2,006
			TOTALS					$96,498

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

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TRADE PAYMENT BREAKDOWN

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Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		070000	**THERMAL & MOISTURE PROTECTION**					
			Pathfinder					
PDF7			Renovate and replace roof assembly and flashings at main low roof	SF	14,700	$ 4.50	$ 7.25	$ 172,725
PDF8			Remove and replace roof assembly at penthouse	LS	760	$ 3.75	$ 5.25	$ 6,840
PDF9			Recoat entrance canopy roof	SF	80	$ 8.00	$ 3.00	$ 880
			Littlepage					
LDF9			Renovate all existing roof membrane seams & laps	LF	2,100	$ 6.50	$ 4.25	$ 22,575
LDF10			Allowance for as needed edge & pipe flashing repair & replacement	LS	1	$ 2,500.00	$ 1,500.00	$ 4,000
			TOTALS					$207,020

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: _____

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		080000	**OPENINGS**					
			Pathfinder					
		083613	Insulated sectional doors with integral main door with vision panel	EA	1			$2,500
		084113	Aluminum framed entrance & storefront (installed)					
			Type E	EA	4	$3,780.00	$10,920.00	$58,800
			Type H	EA	1	$5,220.00	$15,080.00	$20,300
			Type L	EA	1	$2,160.00	$6,240.00	$8,400
			Type L1	EA	1	$2,160.00	$6,240.00	$8,400
		084413	Glazed aluminum curtain walls with selected spandrel glazing, operable sash & tinted glazing (installed)					$0
			Type A	EA	1	$5,940.00	$17,460.00	$23,400
			Type A1	EA	1	$5,940.00	$17,460.00	$23,400
			Type B	EA	1	$3,465.00	$10,185.00	$13,650
			Type C	EA	1	$8,250.00	$24,250.00	$32,500
			Type C1	EA	1	$8,250.00	$24,250.00	$32,500
			Type C2	EA	1	$8,250.00	$24,250.00	$32,500
			Type D	EA	2	$3,465.00	$10,185.00	$27,300
			Type D1	EA	1	$3,465.00	$10,185.00	$13,650
			Type F	EA	1	$3,300.00	$9,700.00	$13,000
			Type F1	EA	1	$3,300.00	$9,700.00	$13,000
			Type G	EA	1	$1,980.00	$5,820.00	$7,800
			Type G1	EA	1	$1,980.00	$5,820.00	$7,800
			Type K	EA	1	$4,785.00	$14,065.00	$18,850
			Type K1	EA	1	$4,785.00	$14,065.00	$18,850
		084413	Upcharge for custom spandrel glazing color setup	LS				$2,000
			Littlepage					$0
		083613	Insulated sectional doors with integral main door with vision panel	EA	1			$2,500
		084113	Aluminum framed entrance & storefront (installed)					$0
			Type E	EA	4	$3,780.00	$10,920.00	$58,800
			Type L	EA	1	$2,160.00	$6,240.00	$8,400
			Type L1	EA	1	$2,160.00	$6,240.00	$8,400
		084413	Glazed aluminum curtain walls with selected spandrel glazing, operable sash & tinted glazing (installed)					$0
			Type A	EA	1	$5,940.00	$17,460.00	$23,400
			Type A1	EA	1	$5,940.00	$17,460.00	$23,400
			Type B	EA	1	$3,465.00	$10,185.00	$13,650
			Type C	EA	1	$8,250.00	$24,250.00	$32,500
			Type C1	EA	1	$8,250.00	$24,250.00	$32,500

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date:

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
			Type C2	EA	1	$8,250.00	$24,250.00	$32,500
			Type D	EA	2	$3,465.00	$10,185.00	$27,300
			Type D1	EA	1	$3,465.00	$10,185.00	$13,650
			Type F	EA	1	$3,300.00	$9,700.00	$13,000
			Type F1	EA	1	$3,300.00	$9,700.00	$13,000
			Type G	EA	1	$1,980.00	$5,820.00	$7,800
			Type G1	EA	1	$1,980.00	$5,820.00	$7,800
			Type K	EA	1	$4,785.00	$14,065.00	$18,850
			Type K1	EA	2	$4,785.00	$14,065.00	$37,700
		084413	Upcharge for custom spandrel glazing color setup	LS				$2,000
			Connecting Tunnels					$0
		084113	Aluminum framed entrance & storefront (installed)					$0
			Pathfinder Type N	EA	2	$451.20	$902.40	$2,707
			Littlepage Type J	EA	2	$451.20	$902.40	$2,707
		085113	Aluminum window (installed)					$0
			Pathfinder Type J	EA	22	$576.00	$1,512.00	$45,936
			Littlepage Type N	EA	6	$576.00	$1,512.00	$12,528
		085166	Security Screens					$0
			Pathfinder Tunnels	EA	22	$216.00	$864.00	$23,760
			Littlepage Tunnels	EA	6	$216.00	$864.00	$6,480
								$0
								$0
								$0
								$0
								$0
								$0
			TOTALS					$849,868

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: _____

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		090000	**FINISHES**					
		092300	Plaster repairs	SF	180	$1.80	$0.45	$405
		096513	Resilient base and accessories	LF	600	$1.25	$0.84	$1,254
		099123	Painting of convector covers and interior face of exterior wall in its entirety	SF	4,200	$0.39	$0.40	$3,318
			TOTALS					$4,977

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date:

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999

Contract No: 0

Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements

Contractor: 0

Trade: GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		120000	**FURNISHINGS**					
		122413	Roller Window Shades					
			Pathfinder	SF	4570	$1.75	$5.00	$30,848
			Littlepage	SF	4570	$1.75	$5.00	$30,848
								$0
								$0
								$0
								$0
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								$0
								$0
			TOTALS					$61,695

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: ________

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999 **Contract No:** 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0 **Trade:** GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		230000	**HVAC**					$2,100
								$0
		230500	Common work results for HVAC	LS	1	$8,000.00	$1,800.00	$0
								$0
		230593	Testing adjusting & balancing for HVAC	LS	1	$5,000.00	$200.00	$0
								$0
		232113	Hydronic piping	LS	1	$1,200.00	$900.00	$0
								$0
		238233	Convectors	LF		$20.00	$30.00	$0
								$0
								$0
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								$0
			TOTALS					$2,100

Dormitory Authority -- State of New York
515 Broadway
Albany, NY 12207

Date: ______

TRADE PAYMENT BREAKDOWN

Project No: JDE#2938509999
Contract No: 0
Project: SUNY Oswego Dining Halls Feasibility Study - Building Shell Improvements
Contractor: 0
Trade: GC

No.	GSA	CSI	DESCRIPTION	CONTRACT AMOUNT				
				UM	QUANTITY	LABOR	MATERIAL	TOTAL
		260000	**ELECTRICAL**					
		260533	Raceways and boxes for electrical systems	LF	250	$2.60	$0.04	$660
								$0
		265600	Exterior Lighting	EA	22	$65.00	$175.00	$5,280
								$0
								$0
								$0
								$0
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								$0
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								$0
								$0
			TOTALS					$5,940

ASBESTOS TECHNICAL MEMORANDUM

STATE UNIVERSITY OF NEW YORK
OSWEGO, NEW YORK

TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

Prepared For:
Woolley Morris Architects
401 N. State Street
Syracuse, NY 13203

Prepared By:
Ravi Engineering & Land Surveying, P.C.
2110 S. Clinton Avenue, Suite 1
Rochester, NY 14618

November 2010

Project No. 40-10-066

Preface

An Asbestos Technical Memorandum and PCB Technical Memorandum have been completed as part of the Dining Hall Feasibility Study of Pathfinder and Littlepage Dining Halls at the State University of New York at Oswego. The results of this Study are included in this report and are presented in two Volumes dated November 2010, namely:

Volume 1 of 2: Asbestos Technical Memorandum

Volume 2 of 2: PCB Technical Memorandum

ASBESTOS EXECUTIVE SUMMARY

The State University of New York at Oswego is conducting a feasibility study of Pathfinder and Littlepage Dining Halls for potential replacement of the current window systems (including those windows in adjoining tunnels in both dining halls), the current roof systems and renovation of the exterior façades including stairs and retaining walls.

An Asbestos Technical Memorandum for the Feasibility Study was prepared. Representative accessible areas that have the potential to be impacted by potential renovations (window, roof, façade) were inspected within the Pathfinder and Littlepage Dining Hall interior and exterior.

This Study included a record review, visual inspection and collection of suspect asbestos containing materials (ACM's). At Pathfinder Dining Hall, thirty-three (33) different homogeneous areas were identified, from which twenty-four (24) samples were collected; at Littlepage Dining Hall, thirty-five (35) homogeneous areas were identified, from which eighteen (18) samples were collected. All forty-two (42) samples were submitted to AmeriSci New York for asbestos content determination.

The following tables indicate the materials are asbestos containing (>1% asbestos) based on either record review or laboratory analysis. This estimate of quantities of asbestos containing materials is limited to anticipated impact of this study; it is NOT inclusive of the entire building. Quantity units are in either square feet (SF) or linear feet (LF).

PATHFINDER DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	**Description**	**Quantity**
5	Cement board behind plaster topcoat and substrate, drywall and Styrofoam insulation	250 SF
6	White ceiling plaster on concrete deck	32 SF
7	9"x9" floor tile	72 SF
8	Black floor tile mastic	72 SF
19	2'x2' SAT with holes and ½" gashes	640 SF
25	Exterior caulk- light grey extremely sticky window caulk- west elevation between bottom of window frame and concrete	50 LF
28	Chocolate brown/charcoal grey window caulk between metal and concrete- upper windows, south elevation	7 SF
31	Black EPDM roof material	16,220 SF
32	Black EPDM roof seam caulk ≈ 2" wide	12,230 LF

PATHFINDER DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	Description	Quantity
33	Black roof penetration caulk	100 LF

LITTLEPAGE DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	Description	Quantity
6	White ceiling plaster on concrete deck	10 SF
7	9"x9"FT cream with tan, light brown specks and swirls	95 SF
8	Black floor tile mastic	95 SF
9	Interior glaze- black, sticky between metal frame and glass window	1,000 LF
14	2'x2' white SAT with holes and ½" gashes	640 SF
32	Cement board behind plaster topcoat and substrate, drywall and Styrofoam insulation	70 SF
33	Black EPDM roof material	16,220 SF
34	Black EPDM roof seam caulk ≈ 2" wide	12,230 LF
35	Black roof penetration caulk	100 LF

The AHERA and DASNY Sampling protocols were not followed for this study. The recommendations indicated at the end of this report are based on limited sampling collected for this study and the general understanding of the various scopes. Additional asbestos inspection, sample collection, and scope definition would be necessary to facilitate an asbestos abatement design.

In accordance with 12 NYCRR 56, no renovation work shall be commenced by any owner or agent prior to completion of asbestos abatement performed by a licensed asbestos abatement contractor.

RAVI ENGINEERING & LAND SURVEYING, P.C.

TECHNICAL MEMORANDUM

TO: Woolley Morris Architects
401 N. State Street
Syracuse, NY 13203

ATTN: James Williams, AIA
Senior Associate

FROM: Michael Waller
Project Engineer

DATE: November 19, 2010

RE: State University of New York at Oswego
Dining Hall-Feasibility Study
Volume 1 of 2: Asbestos Technical Memorandum

SUBJECT: Pathfinder and Littlepage Dining Hall Feasibility Study

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INTRODUCTION

Woolley Morris Architects retained Ravi Engineering & Land Surveying, P.C. (RE&LS) to perform a Pathfinder and Littlepage Dining Hall Feasibility Study at the State University of New York at Oswego campus, Oswego, New York. The required license and certifications to conduct this work are included in Attachment A.

PROJECT OVERVIEW

Pathfinder and Littlepage both are two-story structural concrete and masonry dining halls located on the SUNY Oswego campus. The campus intends to replace the current window systems (including those windows in adjoining tunnels in both dining halls), the current roof systems and to renovate the exterior façades including stairs and retaining walls. The survey was necessary to determine potential asbestos impacts of the intended renovations; and included a review of available records (contained in Attachment B), a visual inspection and collection of samples. Site investigations were conducted on October 22 and 26, 2010. The results of the Feasibility Study are presented in this Technical Memorandum.

2110 S. Clinton Ave, Suite 1
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info@ravieng.com

ASBESTOS BULK SAMPLING

Representative bulk samples of suspect asbestos containing materials (ACM's) were collected by New York State Department of Labor (NYSDOL) certified inspectors from RE&LS. A copy of RE&LS's license and inspectors' certifications can be found in Attachment A.

Friable bulk asbestos samples were analyzed using NYS ELAP Method EPA 600/M4/82/020 (Polarized Light Microscopy (PLM)). Non-friable organically bound (NOB) asbestos samples were analyzed using NYS ELAP Method 198.6 (PLM) and, if found to be less than or equal to 1% asbestos containing, NYS ELAP Method 198.4 (Transmission Electron Microscopy (TEM)). AmeriSci New York was the NYSDOH approved laboratory used for analysis. A copy of AmeriSci's credentials can be found in Attachment A.

A total of forty-two (42) asbestos bulk samples were collected; 24 at Pathfinder and 18 at Littlepage, and were sent in for laboratory analysis.

The bulk sample locations are indicated on the bulk sample location plans included in Attachment C. The sample identification number indicated on the sketch corresponds to the identification number on the laboratory analytical report, the bulk sample log, and the chain of custody forms; all of which are located in Attachment D.

ASBESTOS RESULTS/FINDINGS

As defined by the NYSDOL 12NYCRR 56, a sample is considered to be asbestos containing if it contains greater than 1% asbestos by weight based on laboratory analysis.

The tables below indicate the materials that were identified as part of this study and the results of those samples that were collected for analysis. Bold and italicized rows indicate that the material is asbestos containing based on laboratory analysis or confirmed asbestos containing based on record review.

1: PATHFINDER DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	**Description**	**Sample Number**	**Asbestos Content and Type of Analysis**
1	White plaster wall topcoat	B001-1A B007-1B	None Detected-PLM
2	Brown plaster wall substrate	B001-2A	None Detected-PLM
3	Grey drywall wall	B001-3A	None Detected-PLM
4	1 ½" blue Styrofoam rigid insulation behind HA#'s 1, 2, 3	Not sampled[1]	NA

1: PATHFINDER DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	**Description**	**Sample Number**	**Asbestos Content and Type of Analysis**
5	***Cement board behind HA#'s 1, 2, 3, 4***	***B001-5A***	***23.5% Chrysotile-PLM***
6	***White ceiling plaster on concrete deck***	***B001-6A[2]***	***<0.25% Chrysotile-PLM***
7	***9"x9" floor tile***	***Not sampled[3]***	***NA***
8	***Black floor tile mastic***	***Not sampled[4]***	***NA***
9	Interior caulk- tan, crumbly original caulk between metal and plaster on top of radiator	B001-9A	None Detected-TEM
10	Black cove molding	B001-10A	None Detected-TEM
11	Chocolate brown, crumbly cove molding mastic	B001-11A	None Detected-TEM
12	Interior caulk- original grey/brown, crumbly window caulk between metal and plaster	B001-12A	<0.25% Chrysotile-PLM
13	Interior caulk-white, flexible window caulk between metal and plaster	B002-13A	None Detected-TEM
14	Interior caulk- black, semi-sticky window caulk between metal and metal in UPD	B003-14A	None Detected-TEM
15	Brown, tan, cream 12"x12" floor tile oatmeal pattern	Not sampled[5]	NA
16	Interior caulk- blue, flexible, sticky	B006-16A	None Detected-TEM
17	Yellow, sticky carpet glue	Not sampled[6]	NA
18	Black, sticky floor tile mastic	1001-18A	None Detected-TEM
19	***2'x2' SAT with holes and ½" gashes***	***Not sampled[7]***	***NA***
20	Exterior caulk- tan, flexible, powders when rubbed between stone wall slabs and stone wall/concrete columns	EE-20A	None Detected-TEM
21	Exterior caulk- light grey, gum-like at base of bldg.	EE-21A	None Detected-TEM
22	Exterior caulk- medium grey, flexible seam caulk	EE-22A	None Detected-TEM
23	Exterior caulk- dark grey, flexible, smooth (top bead of metal base board of retaining wall (east side only))	EE-23A	None Detected-TEM

1: PATHFINDER DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	Description	Sample Number	Asbestos Content and Type of Analysis
24	Exterior caulk- med./dark grey, flexible caulk at base of bldg.	EN-24A	None Detected-TEM
25	***Exterior caulk- light grey extremely sticky window caulk- west elevation between bottom and far sides of window frame and concrete***	***EW-25A***	***1.6% Chrysotile-TEM***
26	Tan surfacing efis coat	EW-26A	None Detected-PLM
27	Exterior caulk-battleship grey, semi-flexible caulk	EW-27A	None Detected-TEM
28	***Chocolate brown/charcoal grey window caulk between metal and concrete- upper windows, south elevation***	***Not sampled[8]***	***NA***
29	Grey plaster wall substrate	B007-29A	None Detected-PLM
30	Light grey drywall wall	B007-30A	None Detected-PLM
31	***Black EPDM roof material***	***Not sampled[9]***	***NA***
32	***Black EPDM roof seam caulk ≈ 2" wide***	***Not sampled[9]***	***NA***
33	***Black roof penetration caulk***	***Not sampled[9]***	***NA***

PLM denotes Polarized Light Microscopy
NA denotes Not Analyzed
TEM denotes Transmission Electron Microscopy
UPD denotes University Police Department
[1] Material non-suspect but was identified in study for ease of identifying associated materials
[2] Material determined to have trace amounts of asbestos, ceiling plaster with similar appearance has been positive in several other buildings on campus and is assumed to be asbestos containing
[3] Record as-built drawing indicates floor to be Vinyl Asbestos Tile (see Attachment B)
[4] Previous sample collected and determined to be asbestos containing (see Attachment B)
[5] Material not intended to be disturbed by this project
[6] Unable to sample due to residual floor tile mastic contamination
[7] Inaccessible due to ceiling height; until further verification, this material is assumed to be asbestos containing
[8] Inaccessible due to window height; until further verification, this material is assumed to be asbestos containing
[9] Roof materials were not sampled at this time, until further verification, this material is assumed to be asbestos containing

2: LITTLEPAGE DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	Description	Sample Number	Asbestos Content and Type of Analysis
1	Black cove molding	B001-1A	None Detected-TEM

2: LITTLEPAGE DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	**Description**	**Sample Number**	**Asbestos Content and Type of Analysis**
2	Cream cove molding mastic associated with HA#1	B001-2A	None Detected-TEM
3	Interior white, crumbly caulk between metal and plaster on top of radiator	B001-3A	None Detected-TEM
4	White plaster wall topcoat	Not sampled[1]	NA
5	Grey plaster wall substrate	Not sampled[1]	NA
6	***White ceiling plaster on concrete deck***	***Not sampled[2]***	***NA***
7	***9"x9"FT cream with tan, light brown specks and swirls***	***Not sampled[3]***	***NA***
8	***Black floor tile mastic***	***Not sampled[2]***	***NA***
9	***Interior glaze- black, sticky between metal frame and glass window***	***B002-9A***	***1.9% Chrysotile-TEM***
10	Black with blue specks rubber 2'x2' floor tile over HA#11 on concrete	B002-10A	None Detected-TEM
11	Grey mastic/leveler under HA#10	B002-11A	None Detected-TEM
12	Grey rubber 2'x2' floor tile with symmetrical raised circles	Not sampled[1]	NA
13	Tan floor tile mastic associated with HA#12	Not sampled[1]	NA
14	***2'x2' white SAT with holes and ½" gashes***	***Not sampled[4]***	***NA***
15	Main dining hall carpet (multi-red, grey, blue)	Not sampled[5]	NA
16	Yellow, sticky mastic under HA#15	Not sampled[1]	NA
17	White floor leveler under HA#15	Not sampled[1]	NA
18	Chocolate brown, brittle cove molding mastic under HA#'s 1, 2	1001-18A	None Detected-TEM
19	8"x8" cream (solid) and rust red (solid) ceramic floor tile	Not sampled[5]	NA
20	Grey grout associated with HA# 19	1001-20A	None Detected-PLM
21	Exterior caulk-light tan/cream, flexible between concrete and concrete	EN-21A	None Detected-TEM

2: LITTLEPAGE DINING HALL & ADJOINING TUNNELS			
Homogeneous Area No.	**Description**	**Sample Number**	**Asbestos Content and Type of Analysis**
22	Exterior caulk-grey/brown/smoky charcoal grey rubber-like door caulk between metal door frame and concrete	EN-22A	None Detected-TEM
23	Light grey/off-white exterior seam caulk between sidewalk panels and between stone wall panels	EN-23A	None Detected-TEM
24	Tan surfacing efis on all retaining walls and building columns	EN-24A	None Detected-PLM
25	Exterior caulk-cream, flexible, powders when rubbed between stone wall panels over HA#21	EW-25A	None Detected-TEM
26	Exterior window glaze-black, very stretchy between glass and metal	EN-26A	None Detected-TEM
27	Charcoal grey/brown window glaze/caulk, flexible	EN-27A	None Detected-TEM
28	Exterior caulk-cream (original) window caulk, existing original caulk behind window frame (visible only because window frame was broken at one section)	EN-28A	None Detected-TEM
29	Exterior caulk-metallic grey seam caulk between concrete and concrete at base of building	ES-29A	None Detected-TEM
30	Exterior caulk-grey, flexible seam caulk between concrete and concrete on retaining wall cube bases and tunnel seams	ES-30A	None Detected-TEM
31	1 ½" blue Styrofoam rigid insulation behind HA#'s 4, 5	Not sampled[5]	NA
32	***Cement board behind HA#'s 4, 5, 31***	***Not sampled[6]***	***NA***
33	***Black EPDM roof material***	***Not sampled[7]***	***NA***
34	***Black EPDM roof seam caulk*** ≈ 2" wide	***Not sampled[7]***	***NA***
35	***Black roof penetration caulk***	***Not sampled[7]***	***NA***

TEM denotes Transmission Electron Microscopy

NA denotes Not Analyzed

PLM denotes Polarized Light Microscopy

[1] Previous samples collected and determined to be non-asbestos containing (see Attachment B)

[2] Previous samples collected and determined to be asbestos containing (see Attachment B)

[3] Record as-built drawings indicate flooring to be Vinyl Asbestos Tile (see Attachment B)

[4] Inaccessible due to ceiling height; until further verification, this material is assumed to be asbestos containing

[5] Material is non-suspect but was identified in study for ease of identifying associated materials

[6] Same material identified in other buildings and determined to be asbestos containing transite

[7] Roof materials were not sampled at this time, until further verification, this material is assumed to be asbestos containing

ASBESTOS MATERIALS AND ESTIMATE OF QUANTITIES

Asbestos exists throughout the inspected areas based on analytical results of this inspection and information gathered from the record review. The following table indentifies the Homogeneous Areas that are asbestos containing along with the material description and approximate quantity. This estimate of quantities of asbestos containing materials is limited to anticipated impact of this study; it is NOT inclusive of the entire building. Quantity units are in either square feet (SF) or linear feet (LF).

PATHFINDER DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	**Description**	**Quantity**
5	Cement board behind HA#'s 1, 2, 3, 4	250 SF
6	White ceiling plaster on concrete deck	32 SF
7	9"x9" floor tile	72 SF
8	Black floor tile mastic	72 SF
19	2'x2' SAT with holes and ½" gashes	640 SF
25	Exterior caulk- grey extremely sticky window caulk	50 LF
28	Chocolate brown/charcoal grey window caulk between metal and concrete- upper windows, south elevation	7 SF
31	Black EPDM roof material	16,220 SF
32	Black EPDM roof seam caulk	12,230 LF
33	Black roof penetration caulk	100 LF

LITTLEPAGE DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	**Description**	**Quantity**
6	White ceiling plaster on concrete deck	10 SF
7	9"x9"FT cream with tan, light brown specks and swirls	95 SF
8	Black floor tile mastic	95 SF
9	Interior caulk- black, sticky between metal frame and glass window	1,000 LF
14	2'x2' white SAT with holes and ½" gashes	640 SF
32	Cement board behind HA#'s 4, 5, 31	70 SF
33	Black EPDM roof material	16,220 SF

LITTLEPAGE DINING HALL & ADJOINING TUNNELS		
Homogeneous Area No.	Description	Quantity
34	Black EPDM roof seam caulk	12,230 LF
35	Black roof penetration caulk	100 LF

LIMITATIONS (each limitation that has a preceding number has a subsequent recommendation with the same preceding number.)

1. The asbestos inspection and sampling conducted for this study was limited to the general areas that could be impacted by the Feasibility Study Scope. AHERA regulations, 40 CFR Part 763.86 and 763.87, NYS Code Rule 56 and DASNY protocols with regards to number of samples collected were not followed.

2. Documentation of previous sampling is identified as a "reference only" document. The past sampling that is referenced in this technical memorandum was adopted from this "reference only" document located in Attachment B.

3. Materials that were not accessible were not sampled and are therefore assumed to be asbestos containing until further verification.

4. To avoid potential roof leaks, the EPDM roof systems on both buildings were not sampled and are assumed to be asbestos containing.

5. HA#6 in Pathfinder (white ceiling plaster topcoat) was determined to contain trace amounts of asbestos. Ceiling plaster with this same appearance has been positive for asbestos content in several other buildings on campus. Until further sampling is completed, this material is assumed to be asbestos containing.

6. The plaster substrate in either tunnel attached to Pathfinder dining hall were determined to be different. Since this survey did not include a complete room-by-room survey and bulk sampling of all existing suspect materials within the building, the plaster substrate within Pathfinder Dining Hall proper is assumed to be both HA# 2 and HA# 29.

7. HA#29 collected at Littlepage Dining Hall was visible only because a portion of the window frame was missing. It is unknown if a comparable material exists within the Pathfinder Dining Hall windows.

8. The as-built record drawing for Pathfinder Dining Hall entitled "Tunnel Plan, Elevations, Sections and Details," dated February 18, 1965, Plan No. A-21, indicates a ¼" cement asbestos board back-up material within the window panel system between the porcelain enamel and the

Styrofoam rigid insulation. The record drawing for Littlepage Dining Hall entitled "Tunnel Plan, Elevations, Sections and Details," dated October 3, 1966, Plan No. A-21, does not indicate an asbestos cement board within the window panel system (record drawings located in Attachment B). Contrary to the record drawing, this material is present as visually observed from a wall core.

9. The estimate of quantities of asbestos containing materials used within this study are based on areas of impact with regards to the various scopes within this study (window, roof, façade) and is not inclusive of the entire building.

RECOMMENDATIONS

Asbestos containing materials have been identified as part of this study. In accordance with 12 NYCRR 56, no renovation work shall be commenced by any owner or agent prior to completion of asbestos abatement performed by a licensed asbestos abatement contractor. RE&LS recommends, and NYSDOL regulations require, that all of the asbestos containing materials that will be impacted by the intended renovation be removed prior to the renovation.

It is recommended that the windows located in both tunnels at Pathfinder and Littlepage be removed by the abatement contractor; due to the presence of the asbestos cement backer board within the window panel, the asbestos containing ceiling plaster that the window tops are adjacent to and the asbestos containing floor tile and associated mastic that the window bottoms are adjacent to.

It is recommended that the windows in the work-out room in Littlepage Dining Hall be removed by the abatement contractor; due to the presence of asbestos containing window glaze around each window.

It is recommended that the upper windows in the center of Pathfinder Dining Hall, west elevation, be removed by the abatement contractor; due to the presence of asbestos containing caulk located along the bottom and half way up the far left and right side of the unit.

It is recommended that the upper windows on the left side of Pathfinder Dining Hall, south elevation, be removed by the abatement contractor; due to the presence of assumed asbestos containing window caulk located on the far left and right side of the unit, full height.

1. It is recommended that a formal Asbestos Pre-Renovation Survey be completed by a NYSDOL certified inspector and subsequent samples be analyzed by a NYSDOH laboratory prior to the planned renovations outlined in this feasibility study.

2. When a formal Asbestos Pre-Renovation Survey is completed, it is recommended that proper analytical documentation be gathered to verify the accuracy of samples referenced in the "reference only" document.

3. It is recommended that coordination be set in place to sample those materials that were inaccessible due to either ceiling or window height.

4. It is recommended that all roofing materials be sampled for asbestos content verification at a later time prior to roof renovations

5. It is recommended that additional ceiling plaster samples be collected in the Pathfinder Dining hall tunnels to verify asbestos content.

6. Two different plaster substrates within the adjoining tunnels to Pathfinder Dining Hall were found not to contain asbestos. It is recommended that verification of plaster wall systems be completed within the main portion of Pathfinder Dining Hall to properly adhere to AHERA sampling protocols with regards to required number of samples.

7. It is recommended that further investigation be completed to verify if there are any additional caulk materials behind the exterior window frames at Pathfinder Dining Hall.

8. It is assumed from visual observation that the same cement asbestos board back-up material exists within the porcelain enamel window panels at Littlepage Dining Hall. It is recommended that this material be sampled to verify asbestos content.

9. If there are additions to the various scopes as this project progresses, it is recommended that the quantities of impacted asbestos containing materials be recalculated.

ATTACHMENT A

License and Certifications

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

NEW YORK STATE - DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
LICENSE AND CERTIFICATE UNIT
STATE CAMPUS BUILDING 12
ALBANY, NY 12240

ASBESTOS HANDLING LICENSE

Ravi Engineering & Land Surveying P.C.
Suite 1
2110 South Clinton Ave.

Rochester, NY 14618

FILE NUMBER: 06-1103
LICENSE NUMBER: 29384
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 01/12/2010
EXPIRATION DATE: 02/28/2011

Duly Authorized Representative: Nagappa Ravindra:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Maureen A. Cox

Maureen A. Cox, Director
FOR THE COMMISSIONER OF LABOR

SH 432 (4-07)

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

NANCY S GILLETTE
CLASS(EXPIRES):
D (INSP(12/10) I PD (12/10)

DEPARTMENT OF LABOR

CERT# 05-07697
DMV# 782973033

MUST BE CARRIED ON ASBESTOS PROJECTS

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

MICHAEL S WALLER

CLASS (EXPIRES)

C ATEC(09/11) C INSP(09/11)

H PM (09/11)

CERT# 91-03693

DMV# 596726536

MUST BE CARRIED ON ASBESTOS PROJECTS

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

MEGAN E GARBACH
CLASS(EXPIRES)
D.INSP(05/11)

CERT# 09-06298
DMV# 569365236

MUST BE CARRIED ON ASBESTOS PROJECTS

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2011
Issued April 01, 2010

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL MUCHA
AMERICA SCIENCE TEAM NEW YORK INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480
EPA Lab Code: NY01378

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below.

Miscellaneous

Asbestos in Friable Material	EPA 600/M4/82/020
	Item 198.1 of Manual
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	ITEM 198.4 OF MANUAL

Serial No.: 41865

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

ATTACHMENT B

Record Review-Excerpts

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

PATHFINDER DINING HALL

RELEASE

Pathfinder Asbestos Samples

Sort by ACM

Floor	Room	Area	Material	Asbestos %	Asbestos Type	Friable / Non-Friable	Year Sampled
	UP Storage		Unknown Possibly TSI	36	Chrysotile	Friable	2006
1	Serving Line	Ceiling	Insulation	30	Chrysotile	Friable	1987
1	Women's Bathroom	Floor	Tile	24	Chrysotile	Non-Friable	1994
	Beverage Area	Floor	Tile - 12x12	4.1	Chrysotile		2007
1	Women's Bathroom	Floor	Mastic	2.7	Chrysotile	Non-Friable	1994
1	Dining Hall	Ceiling	Tile	0			1986
1	Dining Hall, Exhaust Fan Housing	Ceiling	Tile	0			1987
1	N.W. End of Serving Line, W. Side of Hall	Ceiling	Dust	0			1987
1	S.W. End of Serving Line, W. Side of Hall	Ceiling	Dust	0			1987
1	East Serving Line	Ceiling	Dust	0			1987
1	North Kitchen Area	Ceiling	Dust	0			1987
1	Dining Hall, Cayuga Side - Center Column	Column	Plaster	0		Non-Friable	2005
1	Serving Line, Seneca Side - Kitchen Door	Door	Plaster	0		Non-Friable	2005
1	Dishwashing Area, S. Kitchen - Main Exhaust	Duct	Dust	0			1987
1	Kitchen, Time Clock	Object	Plaster	0		Non-Friable	2005
1	Boiler Room	Pipe	Insulation 6"	0		Friable	2008
1	Boiler Room	Pipe	Insulation 8"	0		Friable	2008
1	Boiler Room	Pipe	Insulation 15"	0		Friable	2008
1	Main Roof SW	Roof	Tar	0			1989
1	Main Roof NE	Roof	Tar	0			1989
1	Main Roof Center	Roof	Tar	0			1989
Exterior	Stairs near SE Corner of Cayuga	Stairs	Control joint caulk	0		Non-Friable	2006
1	Dining Room, S. Center - on Windowsill	Wall	Dust	0		Friable	1992
1	S. End of E. Serving Line	Wall	Dust	0		Friable	1992
1	S. End of W. Serving Line	Wall	Dust	0		Friable	1992
Exterior		Wall	Caulk Between Wall Joints	0		Non-Friable	2004
1	Dining Hall, Cayuga Side - Left Wall	Wall	Plaster	0		Non-Friable	2005
1	Serving Line, Seneca Side - Dish Drop Wall	Wall	Plaster	0		Non-Friable	2005
1	Kitchen, Store Room	Wall	Plaster	0		Non-Friable	2005
1	Dining Hall, Seneca Side - Nr. Window	Wall	Plaster	0		Non-Friable	2005

STATE UNIVERSITY COLLEGE AT OSWEGO

OSWEGO, NEW YORK

DINING HALL BUILDING STAGE VIII

LEGEND

CONCRETE
CONCRETE BLOCK
BRICK
RIGID INSULATION
GYPSUM BOARD OR PLASTER
ACOUSTIC TILE
COLUMN NUMBER
STEEL
ROUGH WOOD
FINISHED WOOD
CERAMIC TILE
ROOM NUMBER
DOOR NUMBER
WINDOW TYPE

ABBREVIATIONS

AL.	ALUMINUM	RUB.	RUBBER
ANOD.	ANODIZED	S/S	STAINLESS STEEL
A.T.	ACOUSTIC TILE	SUSP.A.T.	SUSPENDED ACOUSTICAL TILE
BLK.	BLOCK	T.	TREAD
BSMT.	BASEMENT	V.A.T.	VINYL ASBESTOS TILE
CLG.	CEILING	WNSCT.	WAINSCOT
CLO.	CLOSET	WD.	WOOD
CONC.	CONCRETE	A.B.	ALKYD SATIN
DWG.	DRAWING	PVA.	POLYVINYL ACETATE
EL.	ELEVATION	CMT.	CERAMIC MOSAIC TILE
F.D.	FLOOR DRAIN	C.T.	CERAMIC TILE
F.F.L.	FIRST FLOOR	GWT.	GLAZED WALL TILE
FR.	FRAME	Q.T.	QUARRY TILE
GR.	GRADE	V.A.C.T.	VENTILATING ACOUSTIC TILE
HGT.	HEIGHT	MIXED	MIXED
H.M.	HOLLOW METAL	CEM.	CEMENT
JAN.	JANITOR		
MAT.	MATERIAL		
MET. PAN A.T.	METAL PANEL ACOUSTICAL TILE		
M.O.	MASONRY OPENING		
N.I.C.	NOT IN CONTRACT		
NO.	NUMBER		
P.E.	PORCELAIN ENAMEL		
POL.PL.	POLISHED PLATE		
P.W.C.	PLASTIC WALL COVERING		
R.	RISER		
RM.	ROOM		

LIST OF DRAWINGS

ARCHITECTURAL

A-1	PLOT PLAN & TEST BORING LOGS
A-2	LOWER LEVEL PLAN & DETAILS
A-3	UPPER LEVEL PLAN & DETAILS
A-4	ROOF PLAN & DETAILS
A-5	ELEVATIONS
A-6	ELEVATIONS
A-7	CROSS SECTIONS — MISSING FROM SET
A-8	WALL SECTIONS
A-9	WALL SECTIONS & DETAILS
A-10	STAIR PLANS SECTIONS & DETAILS
A-11	FINISH SCHEDULE, DOOR SCHEDULE & DETAILS
A-12	WINDOW SCHEDULE & DETAILS
A-13	TOILET PLANS, ELEVATIONS & DETAILS
A-14	LOWER LEVEL REFLECTED CEILING PLAN & INTERIOR ELEVATIONS
A-15	UPPER LEVEL REFLECTED CEILING PLAN & INTERIOR ELEVATIONS
A-16	MISCELLANEOUS DETAILS
A-17	FOOD SERVICE EQUIPMENT PLAN
A-18	FOOD SERVICE EQUIPMENT SCHEDULE & ELEVATIONS
A-19	FOOD SERVICE EQUIPMENT ELEVATIONS & SECTIONS
A-20	FOOD SERVICE EQUIPMENT ELEVATIONS & SECTIONS
A-21	TUNNEL PLAN, ELEVATIONS, SECTIONS & DETAILS

STRUCTURAL

S-1	FOUNDATION PLAN
S-2	UPPER LEVEL FRAMING PLAN
S-3	ROOF FRAMING PLAN
S-4	GENERAL NOTES, TYPICAL DETAILS & COLUMN SCHEDULE

HEATING, VENTILATING & AIR CONDITIONING

HVAC-1	LOWER LEVEL PLAN
HVAC-2	UPPER LEVEL PLAN
HVAC-3	MECHANICAL & FAN ROOM DETAILS
HVAC-4	SCHEDULES & DETAILS

PLUMBING

P-1	LOWER LEVEL PLAN
P-2	UPPER LEVEL PLAN
P-3	ROOF PLAN
P-4	KITCHEN PLAN
P-5	RISER DIAGRAM & DETAILS

ELECTRICAL

E-1	LOWER LEVEL PLAN
E-2	UPPER LEVEL PLAN
E-3	KITCHEN POWER PLANT
E-4	RISER DIAGRAM, SCHEDULES & SYMBOLS

PATHFINDER

SKIDMORE, OWINGS & MERRILL
ADLERSTEIN ASSOCIATES ARCHITECT
ASSOCIATED ARCHITECTS

SEELYE STEVENSON VALUE & KNECHT INC.
CONSULTING ENGINEERS
99 PARK AVENUE NEW YORK, N.Y.

PATHFINDER

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

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A. WARREN SCHMIDT — TREASURER

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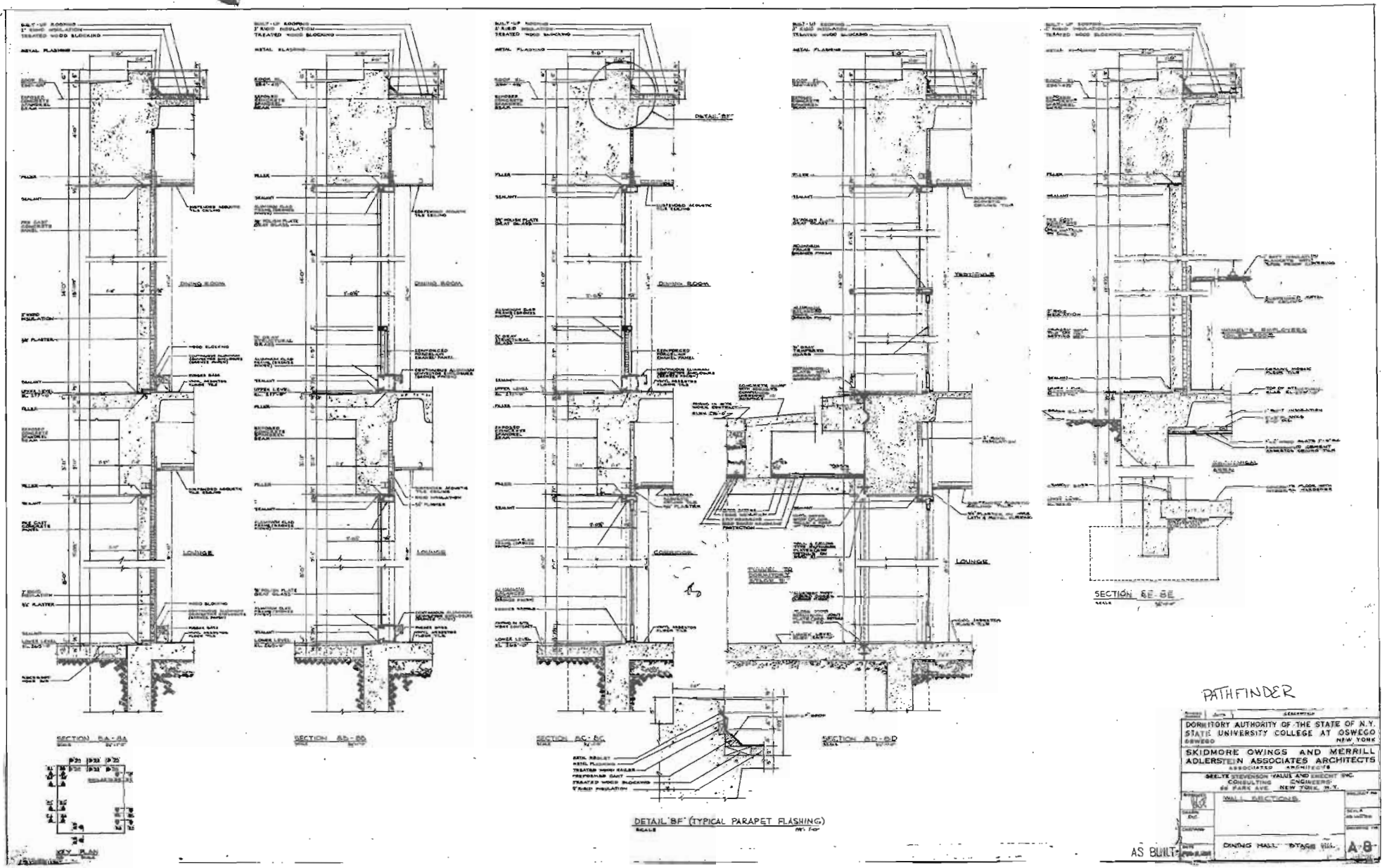
AS BUILT



PATHFINDER

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STATE UNIVERSITY COLLEGE AT OSWEGO
OSWEGO NEW YORK

SKIDMORE OWINGS AND MERRILL
ADLERSTEIN ASSOCIATES ARCHITECTS
ASSOCIATED ARCHITECTS

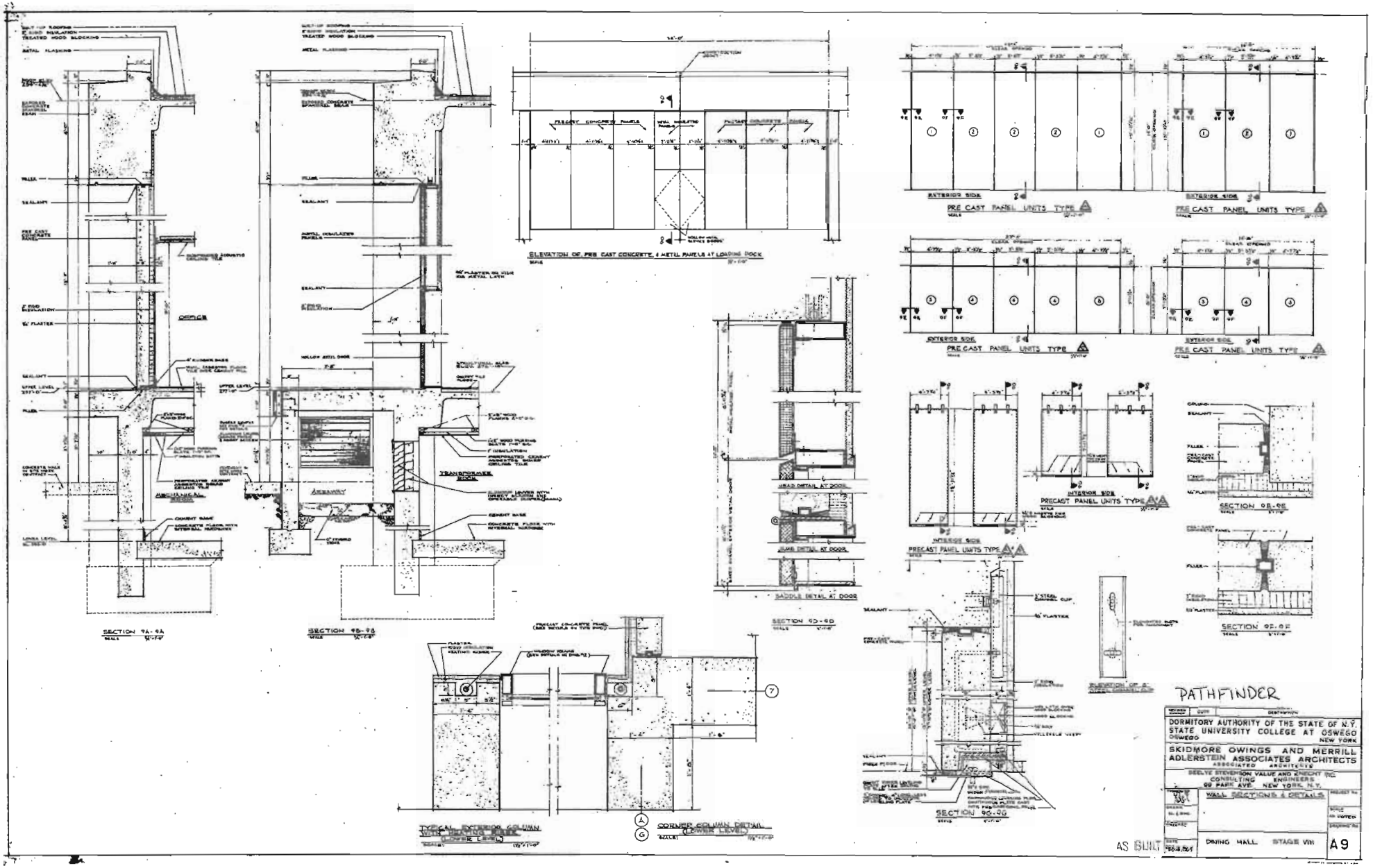
SEELYE STEVENSON VALUE AND KNECHT INC.
CONSULTING ENGINEERS
55 PARK AVE. NEW YORK, N.Y.

WALL SECTIONS

DINING HALL - STAGE WALL

AS BUILT

A-8


SECTION 9A-9A
SECTION 9B-9B
ELEVATION OF PRE CAST CONCRETE & METAL PANELS AT LOADING DOCK
PRE CAST PANEL UNITS TYPE A
PRE CAST PANEL UNITS TYPE A
PRE CAST PANEL UNITS TYPE A
PRE CAST PANEL UNITS TYPE A
HEAD DETAIL AT DOOR
JAMB DETAIL AT DOOR
SADDLE DETAIL AT DOOR
SECTION 9D-9D
PRECAST PANEL UNITS TYPE A
PRECAST PANEL UNITS TYPE A
SECTION 9B-9B
SECTION 9E-9E
SECTION 9C-9C
TYPICAL EXTERIOR COLUMN WITH HEATING UNIT LOWER LEVEL
CORNER COLUMN DETAIL LOWER LEVEL
PATHFINDER
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CONSULTING ENGINEERS
99 PARK AVE. NEW YORK, N.Y.
WALL SECTIONS & DETAILS
DINING HALL STAGE VIII
A9
AS BUILT

WINDOW SCHEDULE

TYPE	WINDOW OPENING WIDTH	WINDOW OPENING HEIGHT	MATERIAL SASH	MATERIAL STEEL	FINISH SASH	FINISH STEEL	GLASS TYPE	GLASS THICKNESS	REMARKS
A	8'-0"	14'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
B	14'-8"	14'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
C	5'-6"	14'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
D	14'-8"	14'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
E	7'-0"	14'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
F	1'-6"	6'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
G	5'-0"	6'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	
H	10'-6"	8'-0"	ALUM.	ALUM.	BRONZE FINISH	BRONZE FINISH	GRAY POL. PL.	¼"	

WINDOW TYPE A

WINDOW TYPE B

WINDOW TYPE C

WINDOW & DOOR TYPE D

WINDOW TYPE G

WINDOW & DOOR TYPE F

WINDOW TYPE G

WINDOW TYPE H

DETAIL OF PLASTIC LAMINATED PUSH & PULL

INTERIOR ELEVATION OF VESTIBULES 215 & 219

SECTION 11A-11A

SECTION 12C-12C

SECTION 12E-12E

SECTION 12F-12F

ELEVATION OF CONTROL WINDOW IN KITCHEN

SECTION 10G-10G KITCHEN

ELEVATION OF CONTROL WINDOW IN RECEIVING

SECTION 12H-12H RECEIVING

SECTION 12B-12B

SECTION 12D-12D

TYPICAL GLAZING DETAIL

AS BUILT

PATHFINDER

2	9-30-60	REVISED AS PER ADDENDUM NO 2
REVISION NUMBER	DATE	DESCRIPTION

DORMITORY AUTHORITY OF THE STATE OF N.Y.
STATE UNIVERSITY COLLEGE AT OSWEGO NEW YORK

SKIDMORE OWINGS AND MERRILL
ADLERSTEIN ASSOCIATES ARCHITECTS
ASSOCIATES

SEELYE STEVENSON VALUE AND KNECHT INC.
CONSULTING ENGINEERS
99 PARK AVE. NEW YORK, N.Y.

WINDOW SCHEDULE & DETAILS

DRAWING NO. & SYM.

CHECKED

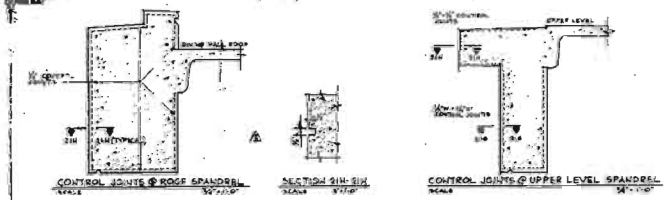
DATE

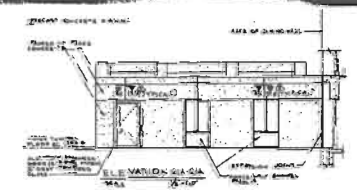
DINING HALL STAGE VIII

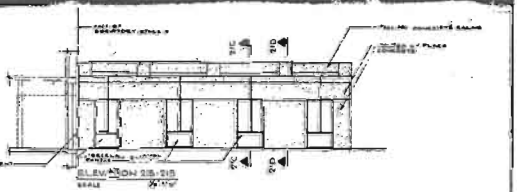
SCALE AS NOTED

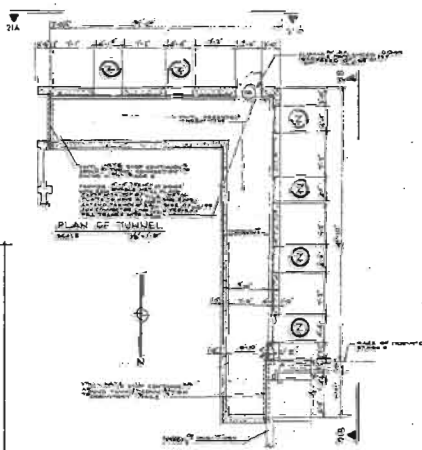
DRAWING NO.

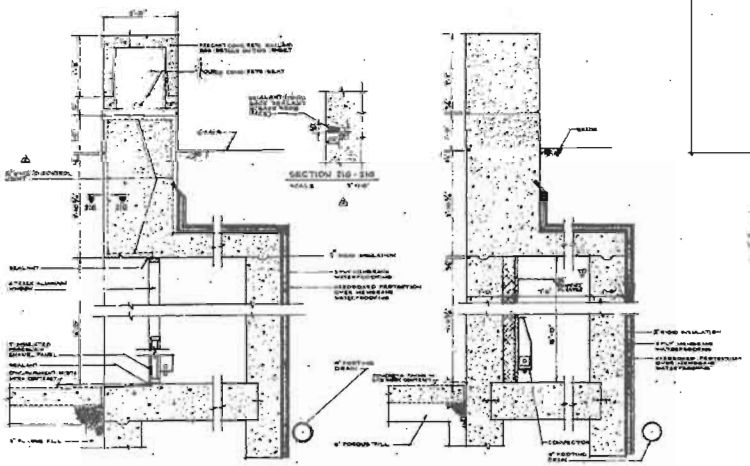
A12

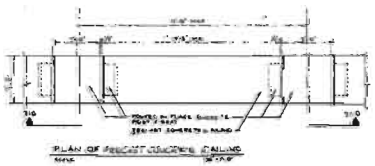


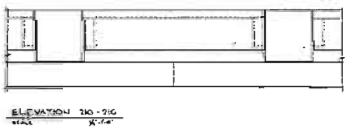


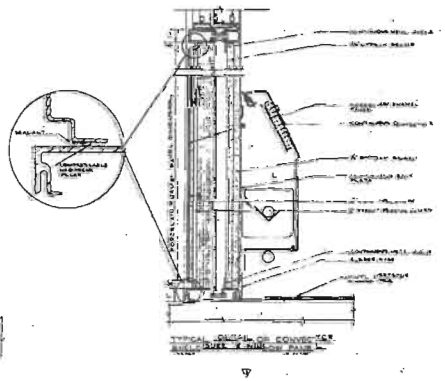


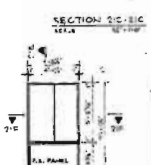


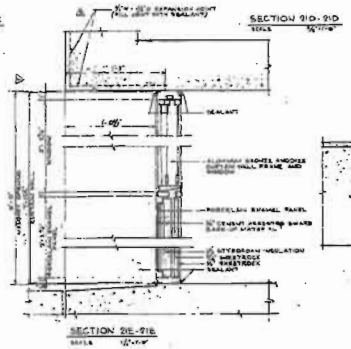


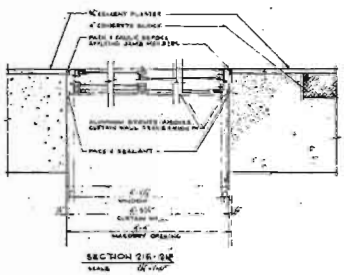












PATHFINDER

DORMITORY AUTHORITY OF THE STATE OF N.Y.
STATE UNIVERSITY COLLEGE AT OSWEGO
OSWEGO NEW YORK

SKIDMORE OWINGS AND MERRILL
ADLERSTEIN ASSOCIATES ARCHITECTS
ASSOCIATED ARCHITECTS

SEELYE STEVENSON VALUE AND KNECHT INC.
CONSULTING ENGINEERS
80 PARK AVE NEW YORK N.Y.

TUNNEL PLAN ELEVATION
SECTIONS & DETAILS

DWNG. NO. A21

AS BUILT

LITTLEPAGE DINING HALL

REFERENCE ONLY

Littlepage Asbestos Samples

Sort by ACM

	Location	Area			Type		Year Sampled
	North Serving Line	Floor	Black Mastic Under 9x9 Tiles	<1	Chrysotile		2008
	North Center	Floor	Black Mastic Under Tiles	66.7	Chrysotile		2008
	East Wall	Floor	12x12 Crème Floor Tile	60.1	Chrysotile		2008
1	Exhaust Hood Above Ceiling	Ceiling	Insulation	60	Chrysotile	Friable	1987
1	Kitchen, Main Exhaust Duct	Duct	Insulation	60	Chrysotile	Friable	1987
Ground	Hallway	Pipe	Mud Fitting - Grey	50	Chrysotile		2004
	South Serving Line	Floor	Black Mastic	50	Chrysotile		2008
	North Center	Floor	12x12 Gray Tile	25	Chrysotile		2008
	East Wall	Floor	Black Mastic Under Tiles	20	Chrysotile		2008
Ground	Tunnel From Onondaga	Floor	Tile - White	15	Chrysotile		2004
Ground	Tunnel From Oneida	Ceiling	Textured Plaster - White	10	Chrysotile		2004
Ground	Tunnel From Oneida	Ceiling	Textured Plaster - White	10	Chrysotile		2004
Ground	Tunnel From Onondaga	Ceiling	Textured Plaster - White	10	Chrysotile		2004
Ground	Tunnel From Onondaga	Ceiling	Textured Plaster - White	10	Chrysotile		2004
1	Main Dining Room	Ceiling	Tile	0			1986
1	Kitchen, Exhaust Hood	Ceiling	Tile - Grey	0			1987
Ground	Hallway	Ceiling	SAT - White	0			2004
Ground	Fitness Center, W. Side	Ceiling	SAT - Tectum	0			2004
Ground	Tunnel From Oneida	Floor	Rubber Flooring - Grey	0			2004
Ground	Tunnel From Oneida	Floor	Glue - Tan	0			2004
Ground	Tunnel From Onondaga	Floor	Mastic - Black	0			2004
Exterior		Wall	Caulk Between Wall Joints	0		NOB	2004
Ground	Tunnel From Oneida	Wall	Plaster Top Coat - White	0			2004
Ground	Tunnel From Oneida	Wall	Plaster Top Coat - White	0			2004
Ground	Hallway	Wall	Plaster Top Coat - White	0			2004
Ground	Hallway	Wall	Plaster Top Coat - White	0			2004
Ground	Hallway	Wall	Plaster Top Coat - White	0			2004
Ground	Tunnel From Onondaga	Wall	Plaster Top Coat - White	0			2004
Ground	Tunnel From Onondaga	Wall	Plaster Top Coat - White	0			2004
Ground	Tunnel From Oneida	Wall	Plaster Substrate - Grey	0			2004
Ground	Tunnel From Oneida	Wall	Plaster Substrate - Grey	0			2004
Ground	Hallway	Wall	Plaster Substrate - Grey	0			2004
Ground	Hallway	Wall	Plaster Substrate - Grey	0			2004
Ground	Hallway	Wall	Plaster Substrate - Grey	0			2004
Ground	Tunnel From Onondaga	Wall	Plaster Substrate - Grey	0			2004
Ground	Tunnel From Onondaga	Wall	Plaster Substrate - Grey	0			2004
Ground	Tunnel From Oneida	Wall	Cove Molding - Black	0			2004

Titlepage Asbestos Samples

REFERENCE ONLY

Sort by ACM

Floor	Room				Type		Sampled
Ground	Tunnel From Oneida	Wall	Cove Molding Mastic - Lt. Brown	0			2004
	Glimmerglass East Wall Center	Wall	Wall Plaster - Multicolored	0			2005
	Glimmerglass NE Corner	Wall	Wall Plaster - White	0			2005
	Glimmerglass Fitness Center	Wall	Wall Plaster - White/Blue	0			2006
1	Main Dining Room	Wall	Plaster - Multi	0			2006
1	Main Dining Room	Wall	Plaster - Multi	0			2006
1	Main Dining Room	Wall	Plaster - White/Blue	0			2006
1	North Entry	Floor	Floor Filler	0			2009
1	Center North Service Line	Floor	Floor Filler	0			2009
1	Between East Stairwells	Floor	Floor Filler	0			2009
1	Center Dining Room	Floor	Floor Filler	0			2009
1	NE Corner Serivce Line	Floor	Floor Filler	0			2009
1	NE Serving Track	Floor	Floor Filler	0			2009
1	SW Dining Hall	Floor	Carpet Glue - Yellow	0			2009

STATE UNIVERSITY COLLEGE AT OSWEGO

OSWEGO, NEW YORK

DINING HALL BUILDING STAGE X

LEGEND

CONCRETE
CONCRETE BLOCK
BRICK
RIGID INSULATION
GYPSUM BOARD OR PLASTER
ACOUSTIC TILE
COLUMN NUMBER
STEEL
ROUGH WOOD
FINISHED WOOD
CERAMIC TILE
ROOM NUMBER
DOOR NUMBER
WINDOW TYPE

ABBREVIATIONS

AL.	ALUMINUM	NUM	NUMBER
ANOD	ANODIZED	S.S	STAINLESS STEEL
A.T.	ACOUSTIC TILE	SUSP.A.T.	SUSPENDED ACOUSTICAL TILE
BLK	BLOCK	T	TREAD
BSMT	BASEMENT	V.A.T.	VINYL ASBESTOS TILE
CLG	CEILING	WDCT	WINDSCOT
CLO	CLOSET	WD	WOOD
CONC	CONCRETE	A.B	ALKYD SATIN
DIM	DIMENSION	PVA	POLYVINYL ACETATE
EL	ELEVATION	C.M.T.	CERAMIC MOSAIC TILE
F.D.	FLOOR DRAIN	C.T.	CERAMIC TILE
F.FL	FIRST FLOOR	GWB	GLAZED WALL TILE
FR	FRAME	Q.T.	QUARRY TILE
G.	GLASS	V.A.C.T.	VENTILATING ACOUSTIC TILE
HGT	HEIGHT	W	WAXED
H.M.	HOLLOW METAL	CEM	CEMENT
JAN	JANITOR		
MAT	MATERIAL		
MET.PAN.A.T.	METAL PANEL ACOUSTICAL TILE		
M.O.	MASONRY OPENING		
N.I.C	NOT IN CONTRACT		
NO	NUMBER		
P.E.	PORCELAIN ENAMEL		
POL.PL	POLISHED PLATE		
P.V.C.	PLASTIC WALL COVERING		
R	RISER		
RM	ROOM		

LIST OF DRAWINGS

ARCHITECTURAL
A-1 PLOT PLAN & TEST BORING LOGS
A-2 LOWER LEVEL PLAN & DETAILS
A-3 UPPER LEVEL PLAN & DETAILS
A-4 ROOF PLAN & DETAILS
A-5 ELEVATIONS
A-6 ELEVATIONS
A-7 CROSS SECTIONS
A-8 WALL SECTIONS
A-9 WALL SECTIONS & DETAILS
A-10 STAIR PLANS SECTIONS & DETAILS
A-11 FINISH SCHEDULE, DOOR SCHEDULE & DETAILS
A-12 WINDOW SCHEDULE & DETAILS
A-13 TOILET PLANS, ELEVATIONS & DETAILS
A-14 LOWER LEVEL REFLECTED CEILING PLAN & INTERIOR ELEVATIONS
A-15 UPPER LEVEL REFLECTED CEILING PLAN & INTERIOR ELEVATIONS
A-16 MISCELLANEOUS DETAILS
A-17 FOOD SERVICE EQUIPMENT PLAN
A-18 FOOD SERVICE EQUIPMENT SCHEDULE & ELEVATIONS
A-19 FOOD SERVICE EQUIPMENT ELEVATIONS & SECTIONS
A-20 FOOD SERVICE EQUIPMENT ELEVATIONS & SECTIONS
A-21 TUNNEL PLAN, ELEVATIONS, SECTIONS & DETAILS

STRUCTURAL
S-1 FOUNDATION PLAN
S-2 UPPER LEVEL FRAMING PLAN
S-3 ROOF FRAMING PLAN
S-4 GENERAL NOTES, TYPICAL DETAILS & COLUMN SCHEDULE

HEATING, VENTILATING & AIR CONDITIONING
HVAC-1 LOWER LEVEL PLAN
HVAC-2 UPPER LEVEL PLAN
HVAC-3 MECHANICAL & FAN ROOM DETAILS
HVAC-4 SCHEDULES & DETAILS

PLUMBING
P-1 LOWER LEVEL PLAN
P-2 UPPER LEVEL PLAN
P-3 ROOF PLAN
P-4 KITCHEN PLAN
P-5 RISER DIAGRAM & DETAILS

ELECTRICAL
E-1 LOWER LEVEL PLAN
E-2 UPPER LEVEL PLAN
E-3 KITCHEN POWER PLANT
E-4 RISER DIAGRAM, SCHEDULES & SYMBOLS

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LITTLEPAGE
AS BUILT

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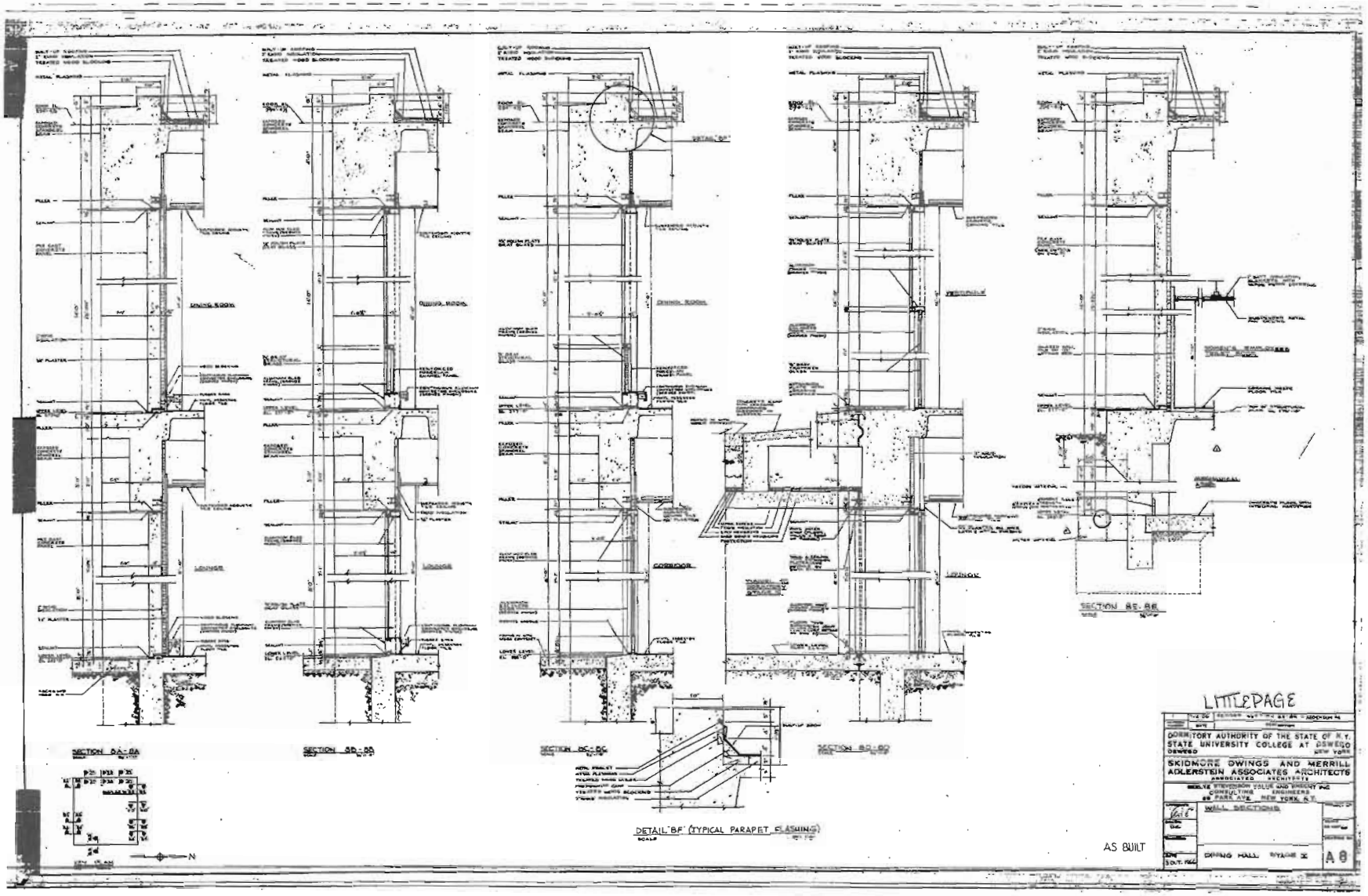
SECTION AA-AA
SECTION BB-BB
SECTION CC-CC
SECTION DD-DD
SECTION EE-EE
DETAIL 'BF' (TYPICAL PARAPET FLASHING)
N
AS BUILT
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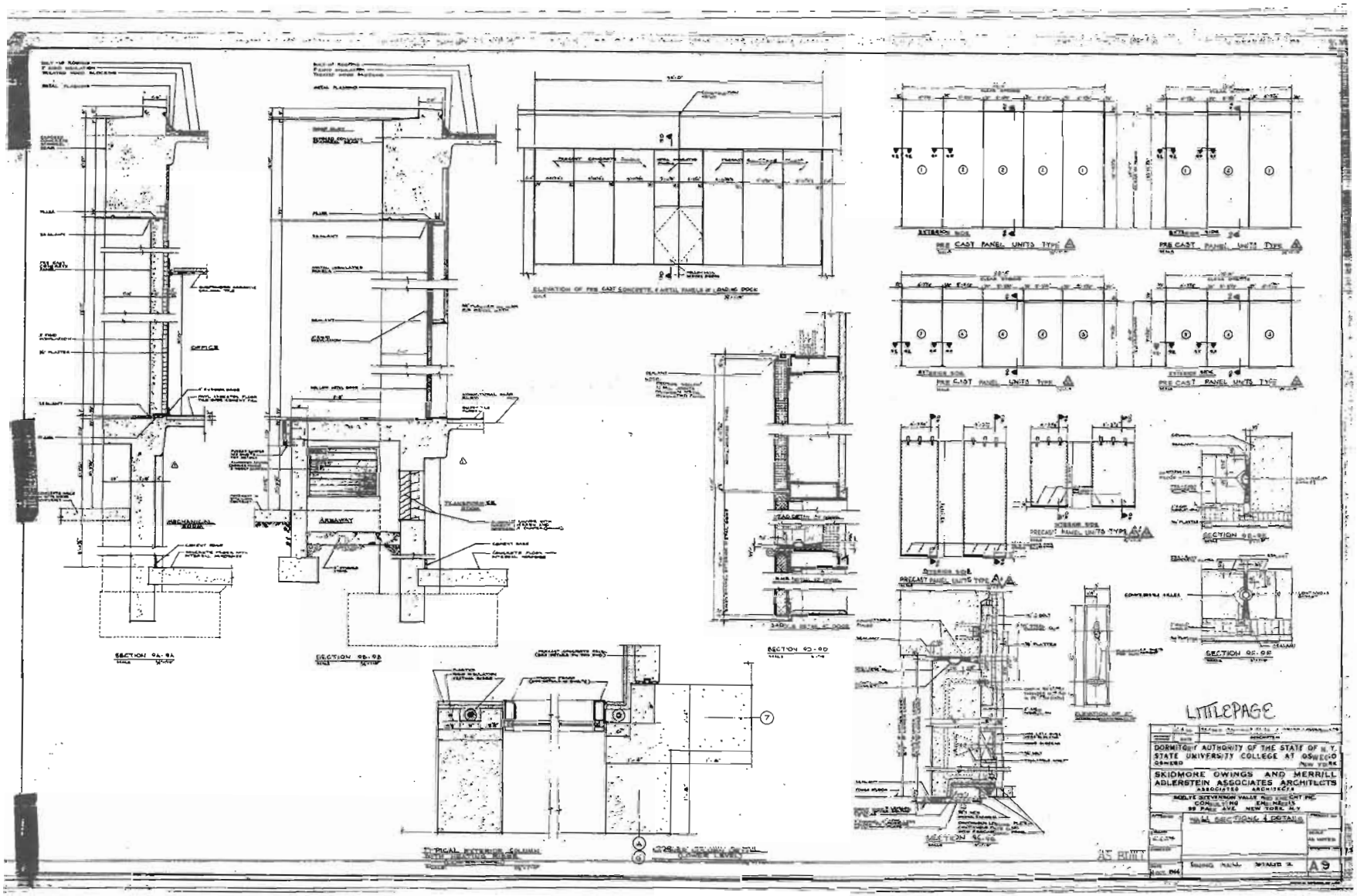
WALL SECTIONS
DRAWING HALL STAGE X
A 8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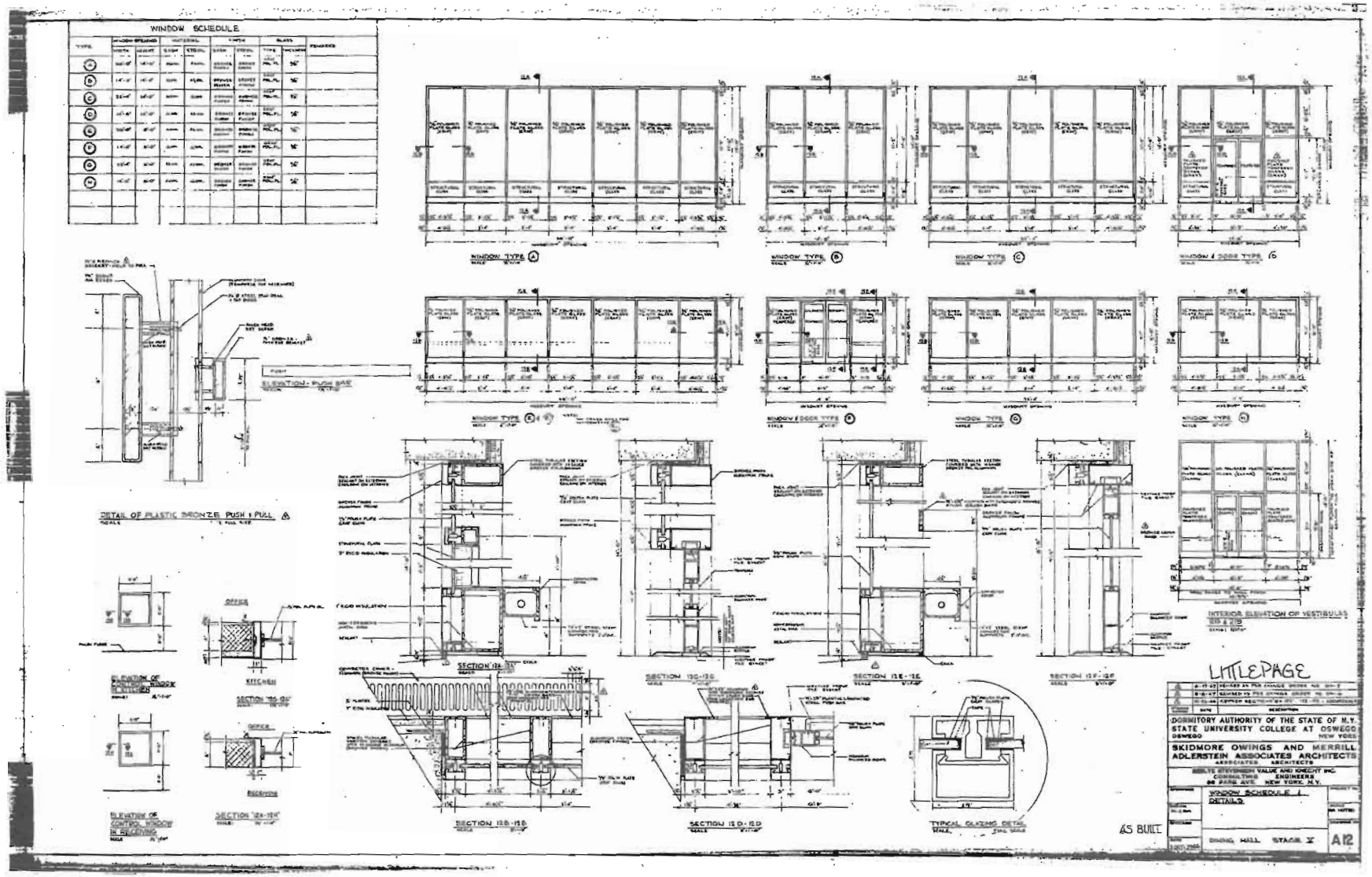
SECTIONS & DETAILS
A9


WINDOW SCHEDULE
WINDOW TYPE A
WINDOW TYPE B
WINDOW TYPE C
WINDOW & DOOR TYPE G
WINDOW & DOOR TYPE D
WINDOW TYPE E
WINDOW TYPE H
DETAIL OF PLASTIC BRONZE PUSH & PULL
ELEVATION - PUSH BAR
SECTION 12A-12A
SECTION 12C-12C
SECTION 12E-12E
SECTION 12F-12F
INTERIOR ELEVATION OF VESTIBULES
SECTION 12B-12B
SECTION 12D-12D
TYPICAL GLAZING DETAIL
ELEVATION OF CONTROL WINDOW IN KITCHEN
SECTION '12A-12A'
ELEVATION OF CONTROL WINDOW IN RECEIVING
SECTION '12A-12A'
LITTLEPAGE
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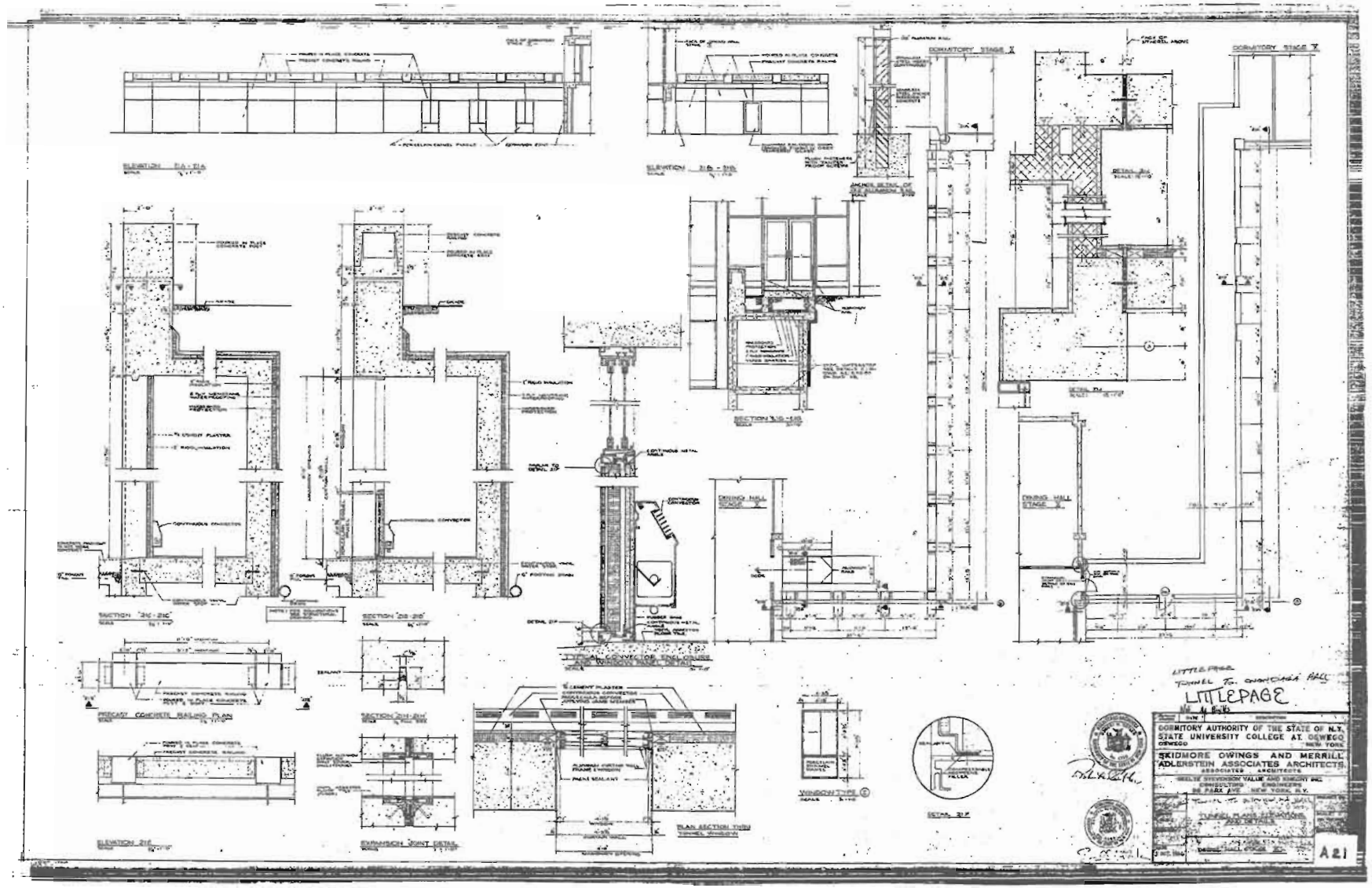
ASSOCIATED ARCHITECTS
WINDOW SCHEDULE & DETAILS
DINING HALL STAGE X
A12
AS BUILT

LITTLE HALL
DINING HALL



ATTACHMENT C

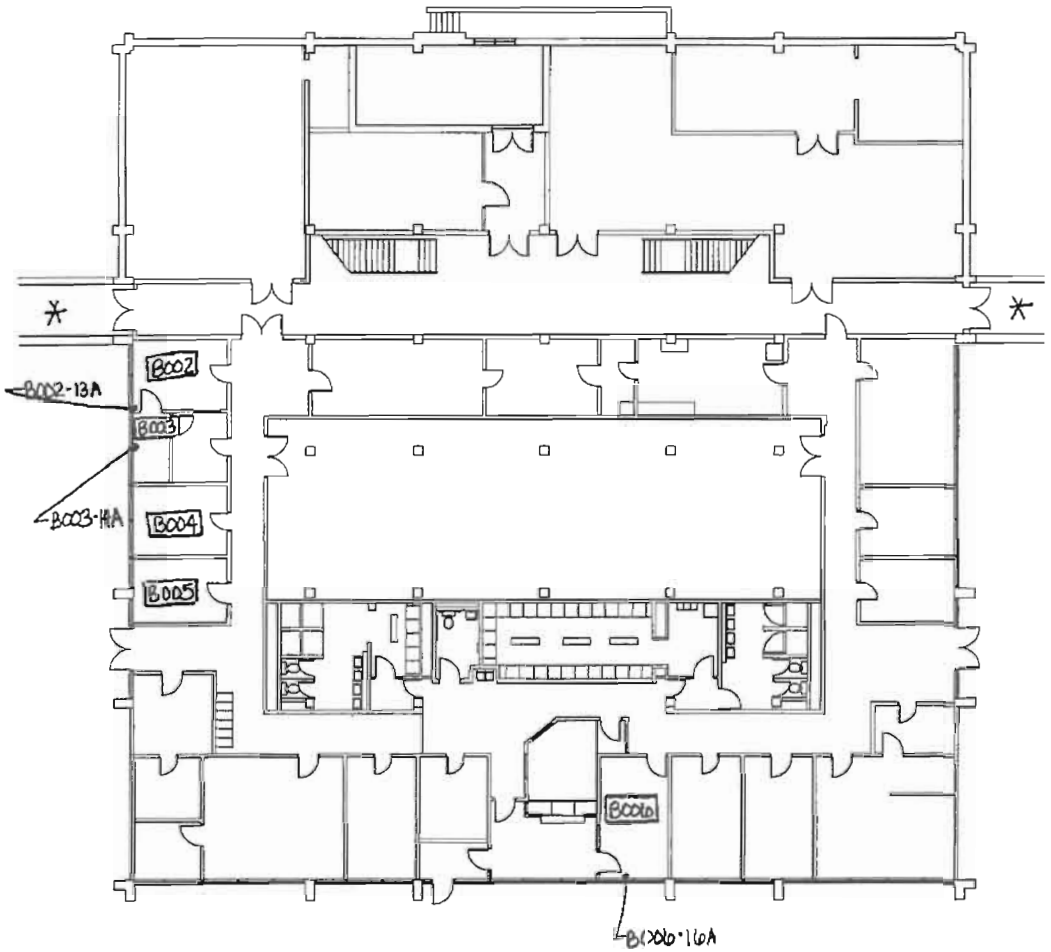
Bulk Sample Location Plans

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

PATHFINDER DINING HALL



* See 31-AB-105 for continuation of tunnels

1 PATHFINDER HALL – BASEMENT PLAN

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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TEL 315 420 9871
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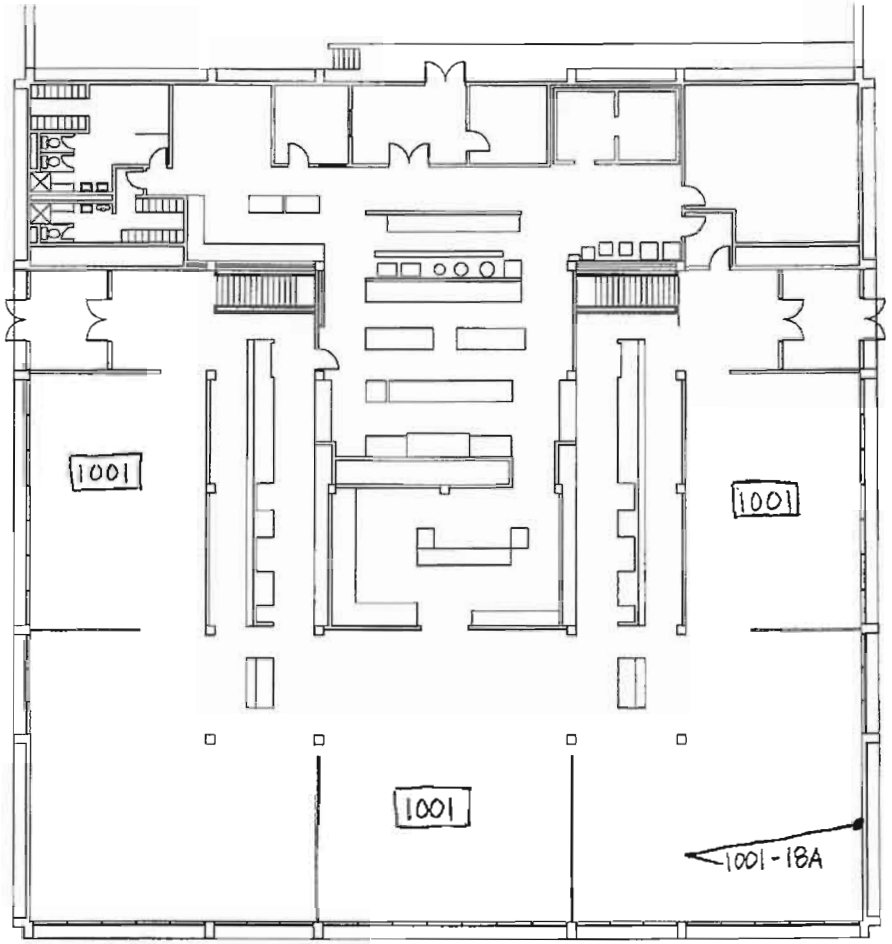
PATHFINDER HALL
EXISTING
BASEMENT PLAN

31-AB-100



1 / 314101 PATHFINDER DINING HALL - 1st FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY

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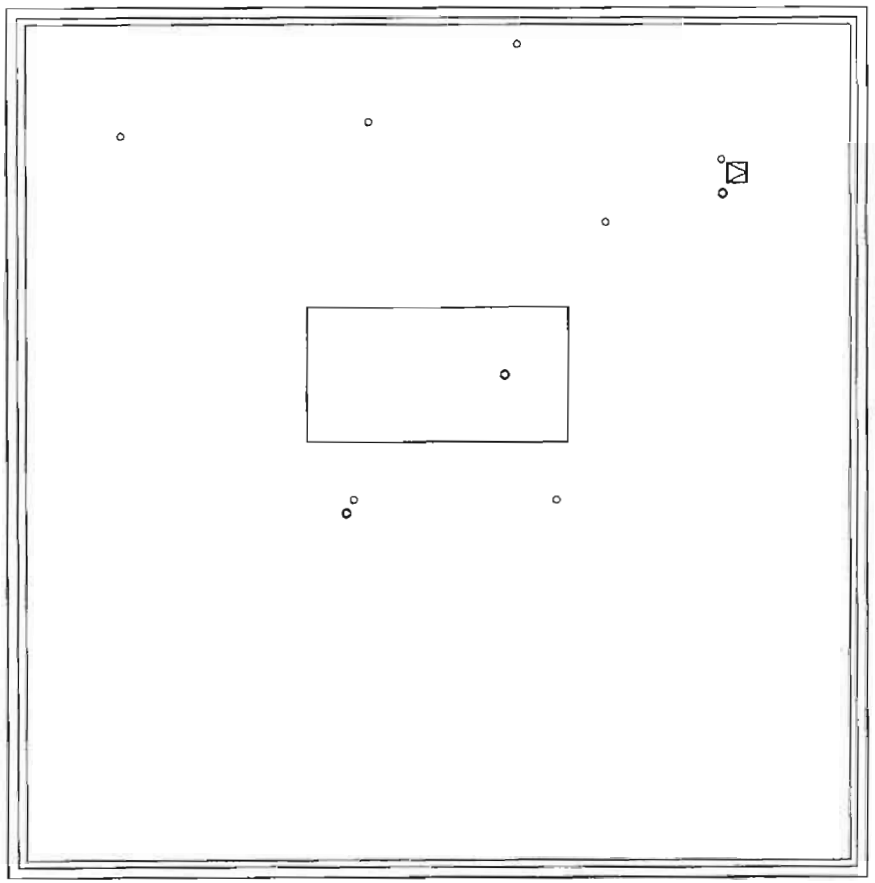
PATHFINDER
DINING HALL
EXISTING
FIRST FLOOR PLAN

31-AB-101



1 / 33A102 PATHFINDER DINING HALL – ROOF PLAN
SCALE: 1/8" = 1'-0"

NORTH

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY

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MARK	DATE

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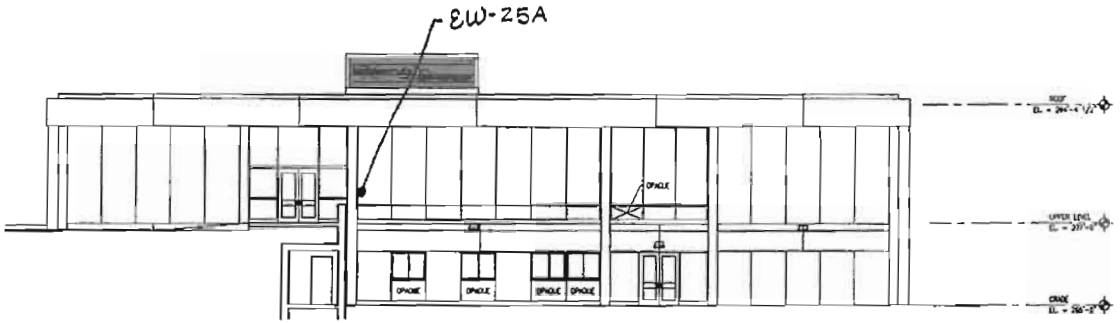
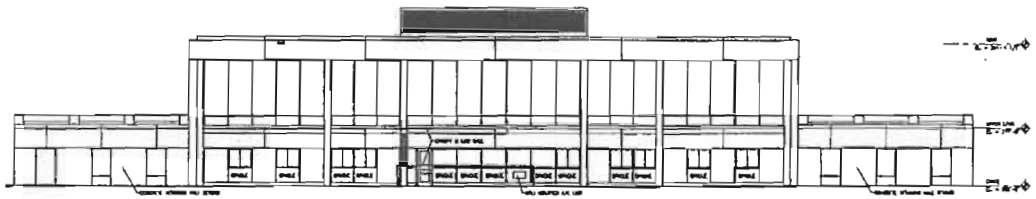
PATHFINDER
DINING HALL
ROOF PLAN

31-AB-102

* For additional EW samples see 31-AB-105, detail 4



1 / 31A103 PATHFINDER DINING HALL - WEST ELEVATION



2 / 31A103 PATHFINDER DINING HALL - SOUTH ELEVATION

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY
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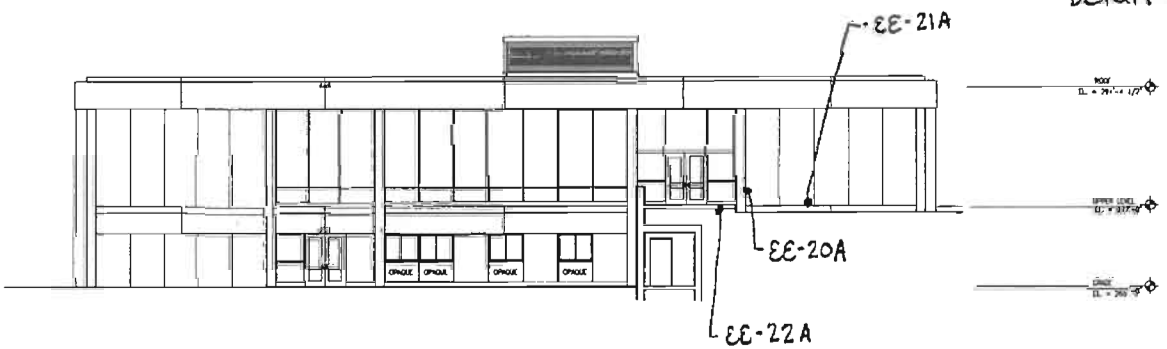
PATHFINDER
DINING HALL
EXISTING
ELEVATIONS

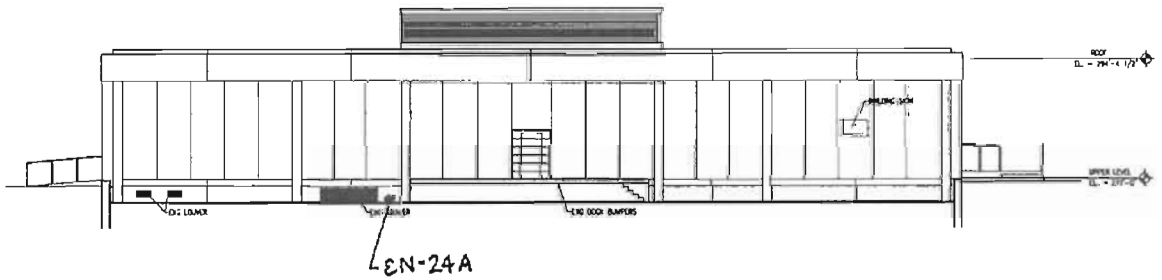
31-AB-103

* For additional EE Sample See 31-AB-105, Detail 6



1 / 31A104 PATHFINDER DINING HALL – EAST ELEVATION

SCALE: 1/8" = 1'-0"



2 / 31A104 PATHFINDER DINING HALL – NORTH ELEVATION

SCALE: 1/8" = 1'-0"

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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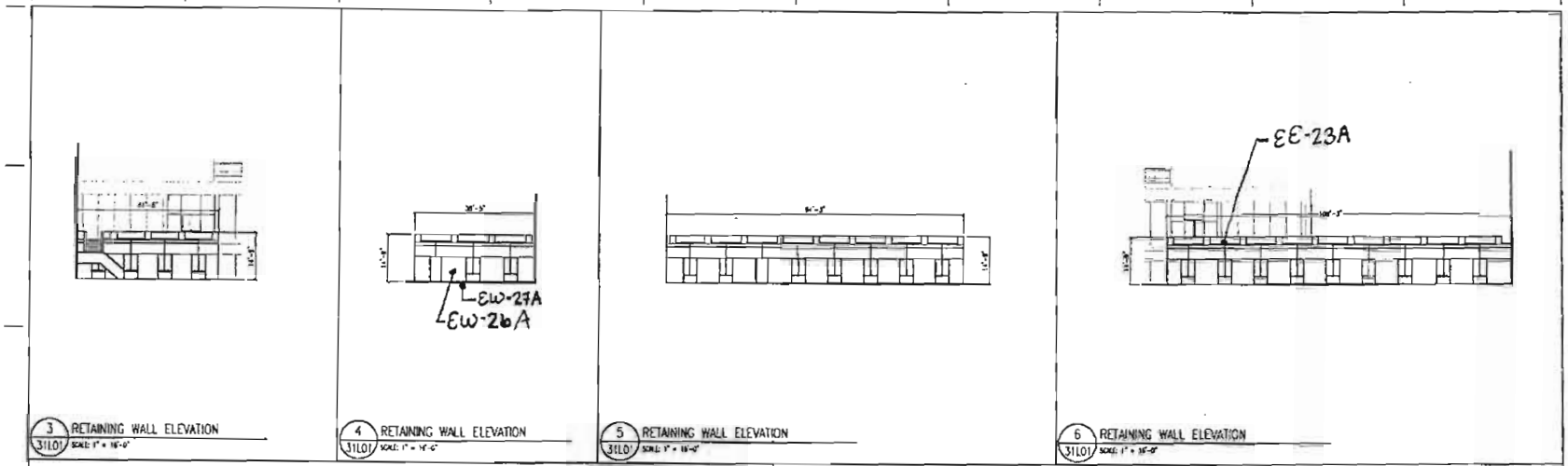
PATHFINDER DINING HALL EXISTING ELEVATIONS

31-AB-104

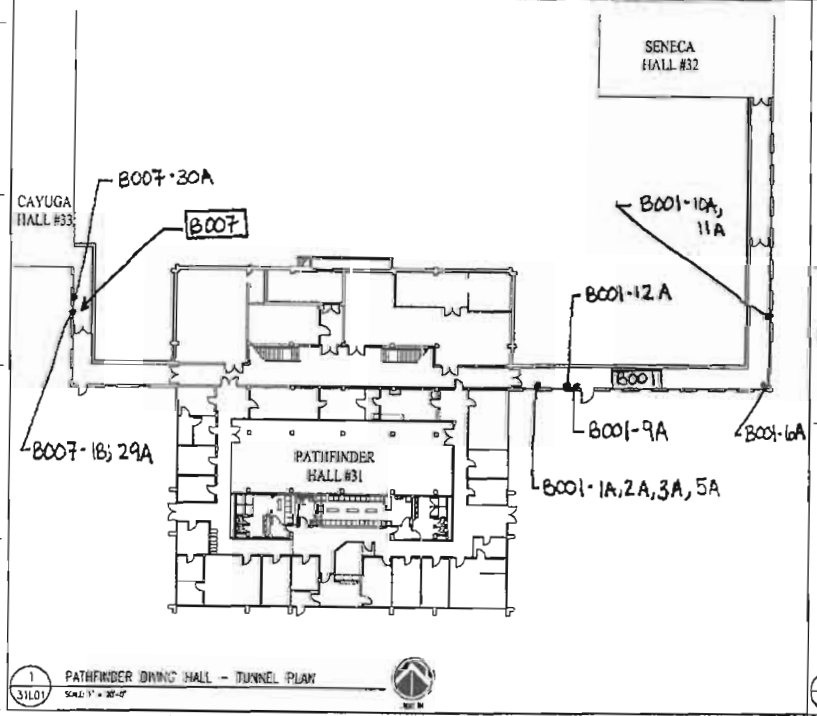


3 / 31L01 RETAINING WALL ELEVATION

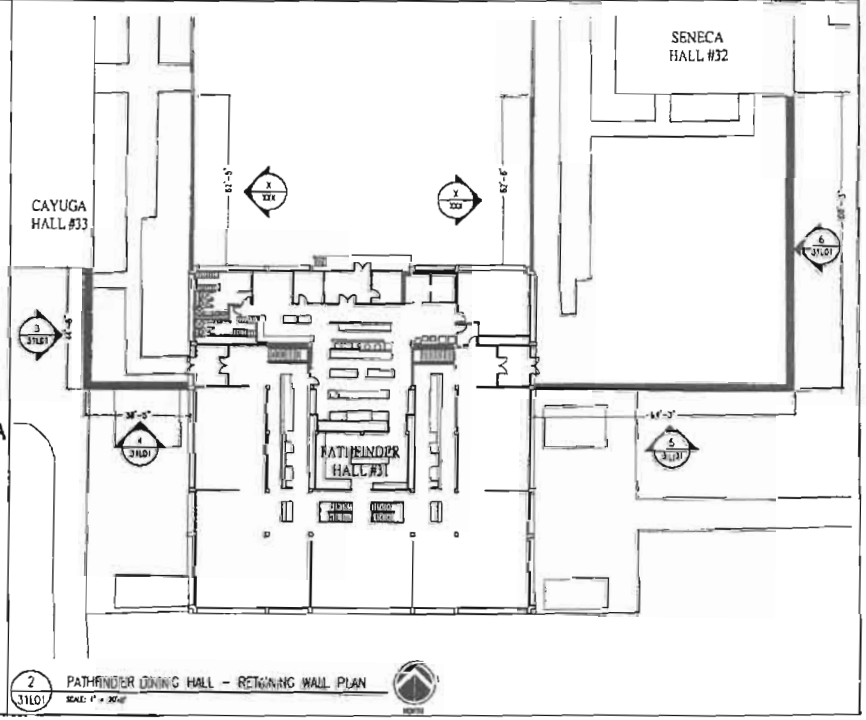
4 / 31L01 RETAINING WALL ELEVATION

5 / 31L01 RETAINING WALL ELEVATION

6 / 31L01 RETAINING WALL ELEVATION



1 / 31L01 PATHFINDER DINING HALL – TUNNEL PLAN



2 / 31L01 PATHFINDER DINING HALL – RETAINING WALL PLAN

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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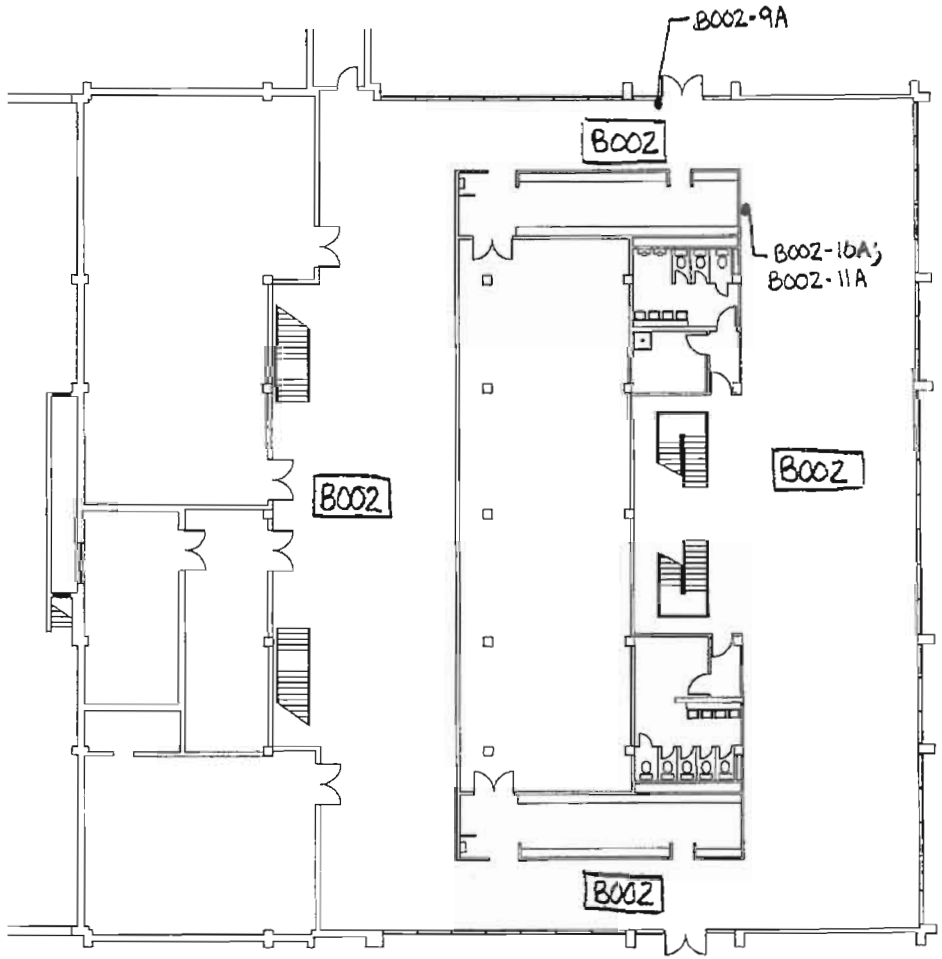
PATHFINDER HALL RETAINING WALLS/ TUNNELS, PLANS & ELEVATIONS

31- AB-105

LITTLEPAGE DINING HALL



* See 35-AB-105 for continuation of tunnels

1 / 35A100 LITTLEPAGE DINING HALL – BASEMENT PLAN

SCALE: 1/8" = 1'-0"

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

STATE UNIVERSITY OF NEW YORK AT OSWEGO (LITTLEPAGE & PATHFINDER HALLS)

DORMITORY AUTHORITY OF THE STATE OF NEW YORK
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TEL 315 426 9671

142 WITHERSPOON ST.
THIRD FLOOR
PRINCETON, NJ 08542
FAX 609 688 1861
TEL 609 688 1810

Klepper, Hahn & Hyatt

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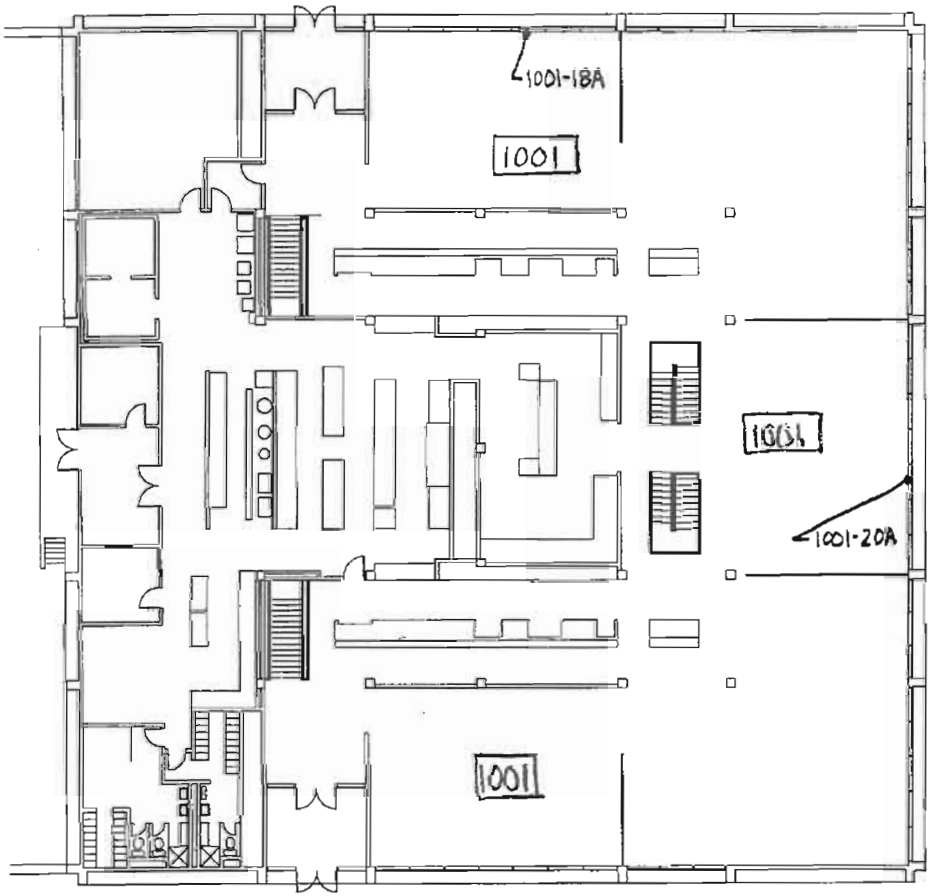
LITTLEPAGE DINING HALL EXISTING BASEMENT PLAN

35-AB-100



1 / 35A101 LITTLEPAGE DINING HALL - 1st FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

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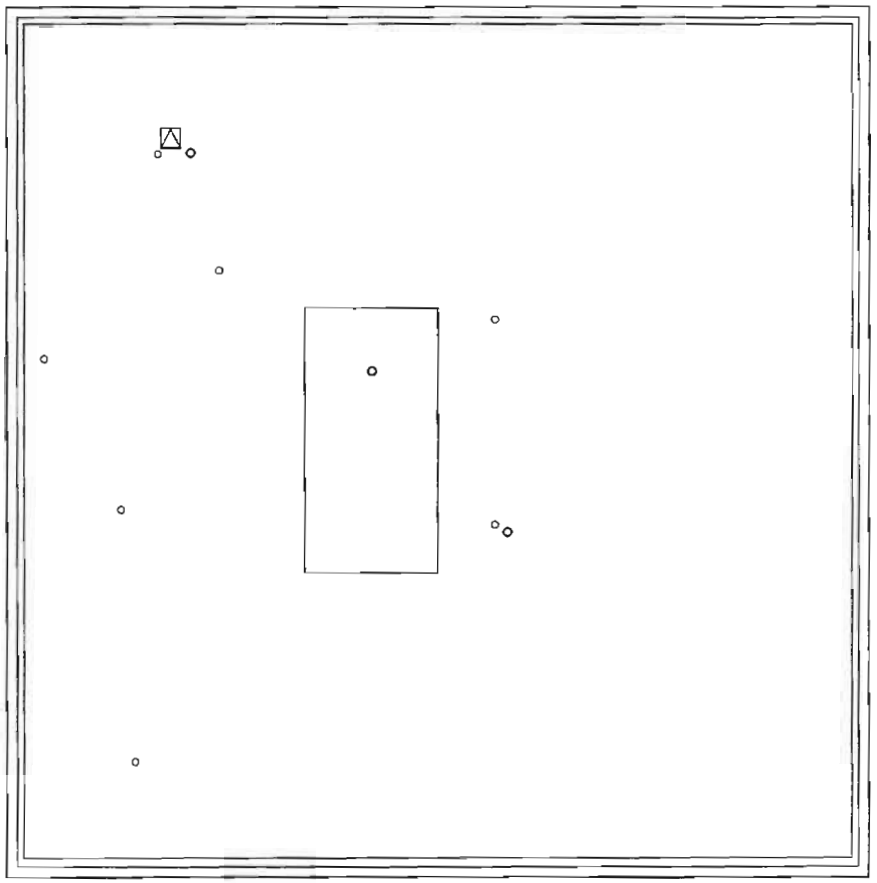
LITTLEPAGE
DINING HALL
EXISTING
FIRST FLOOR PLAN

35-A-101



1 / 33A102 LITTLEPAGE DINING HALL - ROOF PLAN

SCALE: 1/8" = 1'-0"

NORTH

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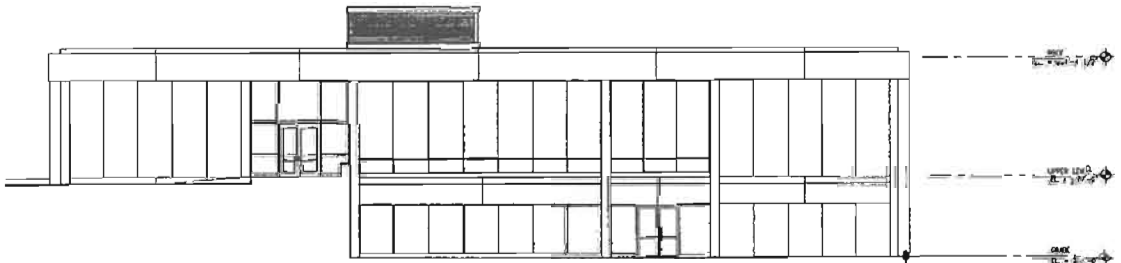
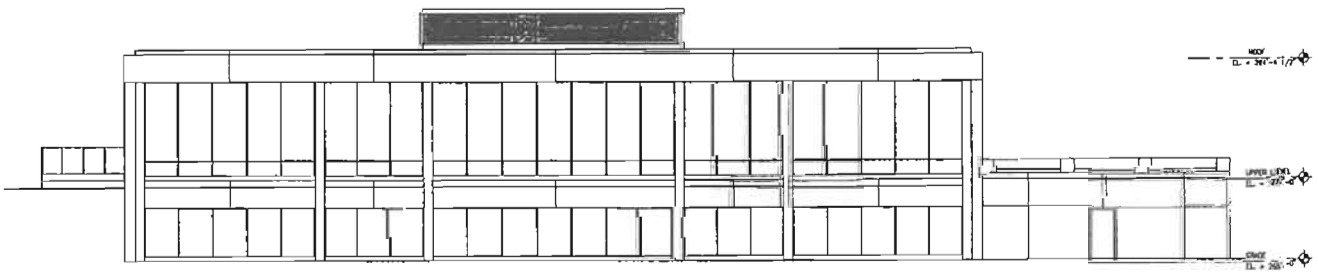
LITTLEPAGE
DINING HALL
ROOF PLAN

35-AB-102

* For additional ES sample see 35-AB-105, detail 4



1 LITTLEPAGE DINING HALL – SOUTH ELEVATION
3341B3



2 LITTLEPAGE DINING HALL – EAST ELEVATION
3341D3

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY
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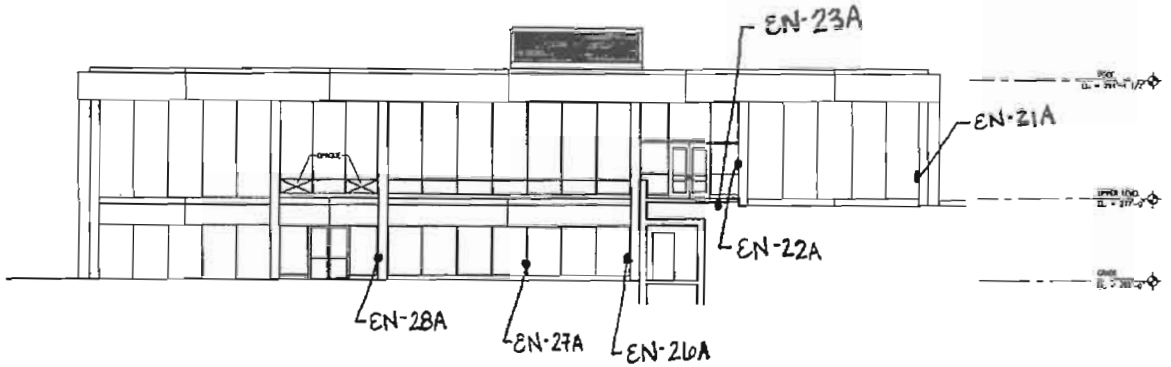
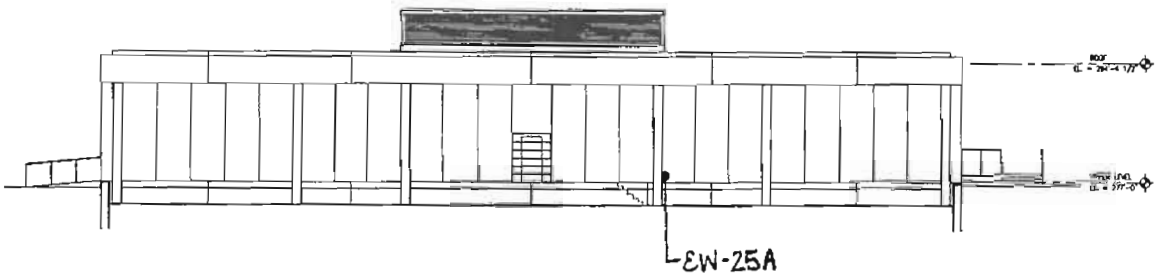
LITTLEPAGE DINING HALL EXISTING ELEVATIONS

35-AB-103

* For additional EN sample
See 35-AB-105, detail 3



1 / 33A104 LITTLEPAGE DINING HALL – NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 / 33A104 LITTLEPAGE DINING HALL – WEST ELEVATION
SCALE: 1/8" = 1'-0"

RESIDENCE HALL
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WMA PROJECT #2010

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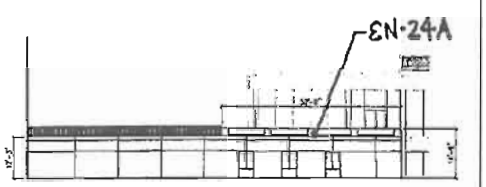
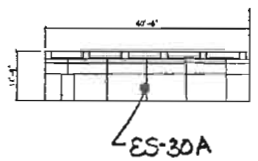
LITTLEPAGE
DINING HALL
EXISTING
ELEVATIONS

35-AB-104



3 L01 RETAINING WALL ELEVATION



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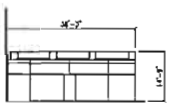
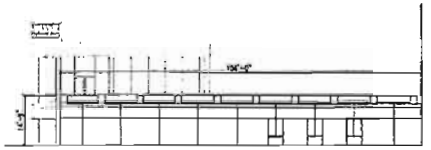


5 L01 RETAINING WALL ELEVATION



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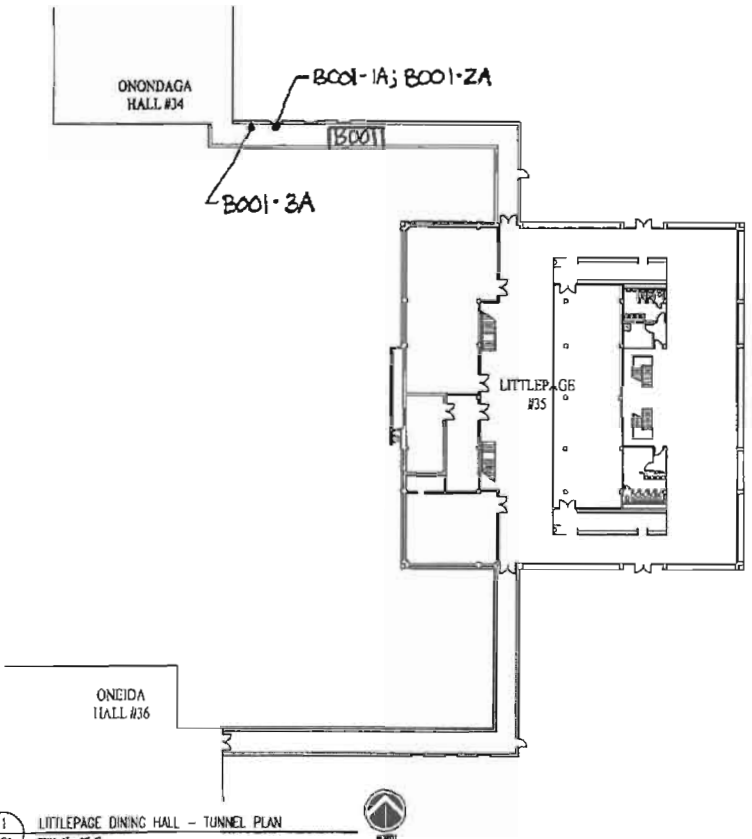
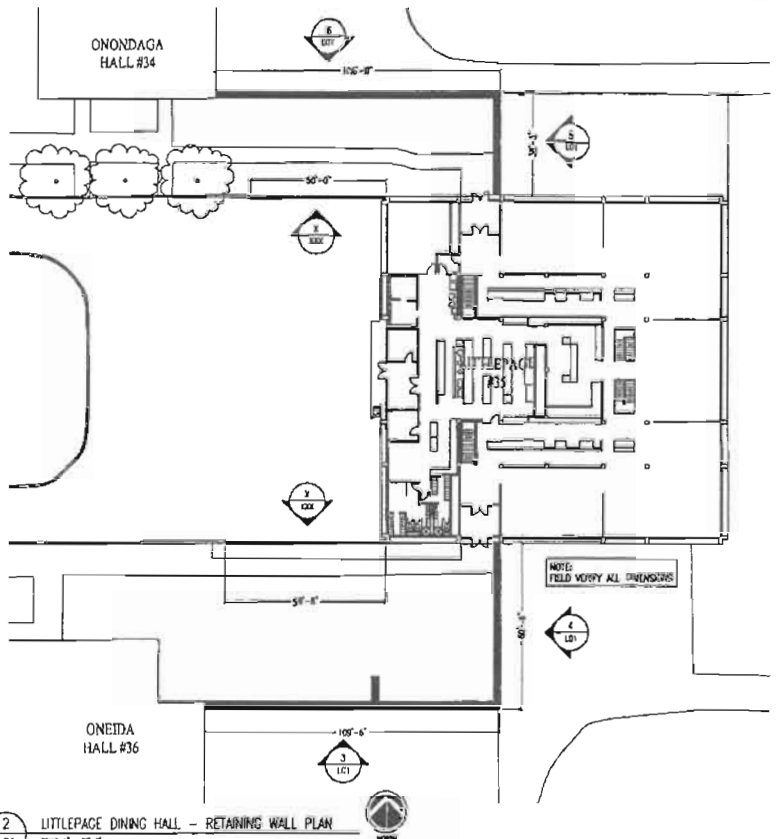


1 L01 LITTLEPAGE DINING HALL – TUNNEL PLAN



2 L01 LITTLEPAGE DINING HALL – RETAINING WALL PLAN

RESIDENCE HALL
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WMA PROJECT #901205

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WEST CAMPUS
EXISTING
RETAINING WALLS
PLANS

35-AB-105

ATTACHMENT D

Analytical Reports,
Chain of Custody Forms,
Bulk Sample Logs

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE
DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

PATHFINDER DINING HALL

AmeriSci New York
117 EAST 30TH STREET
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-9392

November 2, 2010

Ravi Engineering & Land Surveying, P.C.
Attn: Jim Mussgnug
2110 S. Clinton Avenue
Suite 1
Rochester, NY 14618

RE: Ravi Engineering & Land Surveying, P.C.
Job Number 210104309
P.O. #40-10-066
40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Dear Jim Mussgnug:

Enclosed are the results of Asbestos Analysis - Bulk Protocol of the following Ravi Engineering & Land Surveying, P.C. samples, received at AmeriSci on Thursday, October 28, 2010, for a 5 day turnaround:

B001-1A, B001-2A, B001-3A, B001-5A, B001-6A, B001-9A, B001-10A, B001-11A, B001-12A, B002-13A, B003-14A, B006-16A, 1001-18A, EE-20A, EE-21A, EE-22A, EE-23A, EE-24A, EN-25A, EW-26A, EW-27A, B007-1B, B007-29A, B007-30A

The 24 samples, placed in Zip Lock Bag, were shipped to AmeriSci via UPS. Ravi Engineering & Land Surveying, P.C. requested ELAP PLM/TEM analysis of these samples.

The results of the analyses which were performed following ELAP Protocols 198.1 PLM Friable and/or 198.6 for PLM NOB. ELAP Protocol 198.4 TEM NOB guidelines are presented within the Summary Table of this report. The presence of matrix reduction data in the Summary Table normally indicates an NOB sample. For NOB samples the individual matrix reduction, combined PLM and TEM analysis results are listed in the Summary Bulk Asbestos Analysis Results in Table I. Complete PLM results for individual samples are presented in the PLM Bulk Asbestos Report. This combined report relates ONLY to sample analysis expressed as percent composition by weight and percent asbestos. This report must not be used to claim product endorsement or approval by these laboratories, NVLAP, ELAP or any other associated agency. The National Institute of Standards and Technology Accreditation requirements, mandates that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Paul J. Mucha
Laboratory Director

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Ravi Engineering & Land Surveying, P.C
Attn: Jim Mussgnug
2110 S. Clinton Avenue
Suite 1
Rochester, NY 14618

Date Received 10/28/10 **AmeriSci Job #** 210104309
Date Examined 11/01/10 **P.O. #**
ELAP # 11480 **Page** 1 **of** 5
RE: 40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B001-1A 1	210104309-01 **Location:** Tunnel To Seneca - White Plaster Wall Top Coat	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
B001-2A 2	210104309-02 **Location:** Tunnel To Seneca - Brown Plaster Wall Substrate	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
B001-3A 3	210104309-03 **Location:** Tunnel To Seneca - Grey Drywall Wall	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Brown/Grey, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 70 %, Non-fibrous 30 %			
B001-5A 5	210104309-04 **Location:** Tunnel To Seneca - Cement Board	***Yes***	23.5 % (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile 23.5 % **Other Material:** Non-fibrous 76.5 %			
B001-6A 6	210104309-05 **Location:** Tunnel To Seneca - White Ceiling Plaster Top Coat	***Yes***	Trace (<0.25 % pc) (ELAP 198.1; 400pc) by David W. Roderick on 11/01/10
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B001-9A 9	210104309-06 **Location:** Tunnel To Seneca - Interior Caulk - Tan Crumbly Original Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 45.5 %			
B001-10A 10	210104309-07 **Location:** Tunnel To Seneca - Black Cove Molding	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 50.4 %			
B001-11A 11	210104309-08 **Location:** Tunnel To Seneca - Chacolate Brown Crumbly CMM	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 43.2 %			
B001-12A 12	210104309-09 **Location:** Tunnel To Seneca - Interior Caulk - Original Grey / Brown, Crumbly Window Caulk	***Yes***	Trace (<0.25 % pc) (ELAP 198.6; 400pc) by David W. Roderick on 11/01/10
Analyst Description: Brown/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc **Other Material:** Non-fibrous 21.8 %			
B002-13A 13	210104309-10 **Location:** Room In University Police - Interior Caulk - White, Flexible Window Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2 %			
B003-14A 14	210104309-11 **Location:** Room In University Police Station - Interior Caulk - Block, Semi-Sticky Window Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 5.9 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B006-16A 16	210104309-12 **Location:** Room In University Police Station - Interior Caulk - Blue, Flexible, Sticky	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Blue, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.5 %			
1001-18A 18	210104309-13 **Location:** Main Cafeteria Eating Area - Black, Sticky FT Mastic	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 28.8 %			
EE-20A 20	210104309-14 **Location:** Exterior East - Exterior Caulk Light Grey, Flexible	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 9.5 %			
EE-21A 21	210104309-15 **Location:** Exterior East - Exterior Caulk Light Grey, Flexible	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 5.5 %			
EE-22A 22	210104309-16 **Location:** Exterior East - Exterior Caulk - Medium Grey, Flexible Seam Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 11.7 %			
EE-23A 23	210104309-17 **Location:** Exterior East - Exterior Caulk - Dark Grey, Flexible, Smooth	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3.9 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
EE-24A 24	210104309-18 **Location:** Exterior North - Exterior Caulk - Med / Dark Grey, Flexible Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.5 %			
EN-25A 25	210104309-19 **Location:** Exterior West - Exterior Caulk - Extremely Sticky Window Caulk	***Yes***	Trace (<0.25 % pc) (ELAP 198.6; 400pc) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc **Other Material:** Non-fibrous 10.4 %			
EW-26A 26	210104309-20 **Location:** Exterior West - Tan Surfacing Efis Coat	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
EW-27A 27	210104309-21 **Location:** Exterior West - Exterior Caulk - Battleship Grey, Semi-Flexible Caulk	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 24.6 %			
B007-1B 1	210104309-22 **Location:** Tunnel To Cayuga - White Plaster Wall Top Coat	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
B007-29A 29	210104309-23 **Location:** Tunnel To Cayuga - Grey Plaster Wall Substrate	***No***	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B007-30A	210104309-24	***No***	NAD
30	**Location:** Tunnel To Cayuga - Eight Grey Drywall Wall		(by NYS ELAP 198.1) by David W. Roderick on 11/01/10

Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material
Asbestos Types:
Other Material: Cellulose 2 %, Non-fibrous 98 %

Reporting Notes:

Analyzed by: David W. Roderick

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200546-0), ELAP PLM Method 198.1 for NY friable samples or 198.6 for NOB samples (NY ELAP Lab ID11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile,FR 59,146,38970,8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA Lab# 102843.

Reviewed By:_____ END OF REPORT

Client Name: Ravi Engineering & Land Surveying, P.C.

Table I

Summary of Bulk Asbestos Analysis Results

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	* Asbestos % by TEM
01	B001-1A	1	—	—	—	—	NAD	NA
Location:	Tunnel To Seneca - White Plaster Wall Top Coat							
02	B001-2A	2	—	—	—	—	NAD	NA
Location:	Tunnel To Seneca - Brown Plaster Wall Substrate							
03	B001-3A	3	—	—	—	—	NAD	NA
Location:	Tunnel To Seneca - Grey Drywall Wall							
04	B001-5A	5	—	—	—	—	Chrysotile 23.5	NA
Location:	Tunnel To Seneca - Cement Board							
05	B001-6A	6	—	—	—	—	Chrysotile <0.25	NA
Location:	Tunnel To Seneca - White Ceiling Plaster Top Coat							
06	B001-9A	9	0.444	34.9	19.6	45.5	NAD	NAD
Location:	Tunnel To Seneca - Interior Caulk - Tan Crumbly Original Caulk							
07	B001-10A	10	0.504	42.1	7.5	50.4	NAD	NAD
Location:	Tunnel To Seneca - Black Cove Molding							
08	B001-11A	11	0.407	49.9	6.9	43.2	NAD	NAD
Location:	Tunnel To Seneca - Chacolate Brown Crumbly CMM							
09	B001-12A	12	0.827	38.0	40.3	21.7	Chrysotile <0.25	Chrysotile Trace
Location:	Tunnel To Seneca - Interior Caulk - Original Grey / Brown, Crumbly Window Caulk							
10	B002-13A	13	0.298	32.9	65.1	2.0	NAD	NAD
Location:	Room In University Police - Interior Caulk - White, Flexible Window Caulk							
11	B003-14A	14	0.555	57.3	36.8	5.9	NAD	NAD
Location:	Room In University Police Station - Interior Caulk - Block, Semi-Sticky Window Caulk							
12	B006-16A	16	0.160	74.4	23.1	2.5	NAD	NAD
Location:	Room In University Police Station - Interior Caulk - Blue, Flexible, Sticky							
13	1001-18A	18	0.379	62.5	8.7	28.8	NAD	NAD
Location:	Main Cafeteria Eating Area - Black, Sticky FT Mastic							
14	EE-20A	20	0.484	43.0	47.5	9.5	NAD	NAD
Location:	Exterior East - Exterior Caulk Light Grey, Flexible							
15	EE-21A	21	0.402	59.7	34.8	5.5	NAD	NAD
Location:	Exterior East - Exterior Caulk Light Grey, Flexible							
16	EE-22A	22	0.333	72.4	15.9	11.7	NAD	NAD
Location:	Exterior East - Exterior Caulk - Medium Grey, Flexible Seam Caulk							

See Reporting notes on last page

Client Name: Ravi Engineering & Land Surveying, P.C.

Table I
Summary of Bulk Asbestos Analysis Results

40-10-066; Feasibility Study At PATHFINDER Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-01

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	EE-23A	23	0.355	72.1	23.9	3.9	NAD	NAD
Location:	Exterior East - Exterior Caulk - Dark Grey, Flexible, Smooth							
18	EE-24A	24	0.220	73.6	11.8	14.5	NAD	NAD
Location:	Exterior North - Exterior Caulk - Med / Dark Grey, Flexible Caulk							
19	EN-25A	25	0.299	55.2	34.4	8.8	Chrysotile <0.25	Chrysotile 1.6
Location:	Exterior West - Exterior Caulk - Extremely Sticky Window Caulk							
20	EW-26A	26	---	---	---	---	NAD	NA
Location:	Exterior West - Tan Surfacing Efis Coat							
21	EW-27A	27	0.448	50.4	25.0	24.6	NAD	NAD
Location:	Exterior West - Exterior Caulk - Battleship Grey, Semi-Flexible Caulk							
22	B007-1B	1	---	---	---	---	NAD	NA
Location:	Tunnel To Cayuga - White Plaster Wall Top Coat							
23	B007-29A	29	---	---	---	---	NAD	NA
Location:	Tunnel To Cayuga - Grey Plaster Wall Substrate							
24	B007-30A	30	---	---	---	---	NAD	NA
Location:	Tunnel To Cayuga - Eight Grey Drywall Wall							

Analyzed by: Madell E. Collins Madell E Collins; Date Analyzed 11/2/2010

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by EPA 600/M4-82-020 per 40 CFR or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or ELAP 198.4 for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses); AIHA Lab # 102843, NVLAP Lab Code 200546-0, NYSDOH ELAP LAB ID 11480.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By: Paul Lee

Relinquished By: Megan Gaibach	Date/Time: 10/27/10; 1600
Received By: C DelaRose	Date/Time: 10/28 1015
Relinquished By:	Date/Time:
Received By:	Date/Time:

AMERI SCI

BULK SAMPLE SHEET

AmeriSci New York
117 East 30th Street
New York, NY 10016
Phone: (212) 679-8600
Fax: (212) 679-9392
TOLL FREE: (800) 705-5227
www.AmeriSci.com

Company: RAVI ENGINEERING & LAND SURVEYING, P.C.	Project: Asbestos Pre-Renovation Feasibility Study at PATHFINDER Dining Hall, SUNY Oswego	SCILAB #: RAVI PHASE #: 40-102-01
Street Address: 2110 S. CLINTON AVENUE, SUITE 1	Project Address: Oswego, New York 13126	Project #: 40-10-066
City: ROCHESTER State: NY Zip: 14618	Project Manager: Christine Cregan	Project State: NY
Phone: 585-223-3660 Fax: 585-223-4250	Analysis: __PLM Only __TEM Only XX NY ELAP PLM/TEM with NOB Prep. __ ASTM Dust (microvac) __ ASTM Dust (Wipe)) __ Other (describe in comments)	
EMAIL: CCREGAN@RAVIENG.COM Verbal Results: Y (N)		
Site/Secondary Fax #:	Turnaround Time: Five (5) Day	Material Type: (X) Bulk __Dust __Water
Results to: Christine Cregan	Sampled By: MG, MW	Date Sampled: 10-26-10

Special Instructions or Comments:

Lab ID	Field ID	Location	Sample Description (for dust= size of surface area sampled)	Homogenous Area (HA #)
	B001-1A	* PLEASE SEE BULK SAMPLE LOG ATTACHED *		1
	B001-2A			2
	B001-3A			3
	B001-5A			5
	B001-6A			6
	B001-9A			9
	B001-10A			10
	B001-11A		210104309	11
	B001-12A			12
	B002-13A			13

Relinquished By: Megan Yauback Date/Time: 10/27/10; 1600

Received By: CBellaRosa Date/Time: 10/28 1015

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

AMERI SCI

BULK SAMPLE SHEET
AmeriSci New York
117 East 30th Street
New York, NY 10016
Phone: (212) 679-8600
Fax: (212) 679-9392
TOLL FREE: (800) 705-5227
www.AmeriSci.com

Company: RAVI ENGINEERING & LAND SURVEYING, P.C.

Project: Asbestos Pre-Renovation Feasibility Study at PATHFINDER Dining Hall, SUNY Oswego

SCILAB #:

RAVI PHASE #: 40-102-01

Street Address: 2110 S. CLINTON AVENUE, SUITE 1

Project Address: Oswego, New York 13126

Project #: 40-10-066

City: ROCHESTER State: NY Zip: 14618

Project Manager: Christine Cregan

Project State: NY

Phone: 585-223-3660 Fax: 585-223-4250

EMAIL: CCREGAN@RAVIENG.COM Verbal Results: Y / (N)

Analysis: __PLM Only __TEM Only XX NY ELAP PLM/TEM with NOB Prep.
__ ASTM Dust (microvac) __ ASTM Dust (Wipe)) __ Other (describe in comments)

Site/Secondary Fax #:

Turnaround Time: Five (5) Day

Material Type: (X) Bulk __Dust __Water

Results to: Christine Cregan

Sampled By: MG, MW

Date Sampled: 10-26-10

Special Instructions or Comments:

Lab ID	Field ID	Location	Sample Description (for dust= size of surface area sampled)	Homogenous Area (HA #)
	B003-14A			14
	B006-16A	* PLEASE SEE BULK		16
	1001-18A			18
	EE-20A			20
	EE-21A	SAMPLE LOG ATTACHED *		21
	EE-22A			22
	EE-23A			23
	EN-24A			24
	EW-25A		210104309	25
	EW-26A			26

Relinquished By: Megan Garbach	Date/Time: 10/27/10; 1600	AMERI SCI	BULK SAMPLE SHEET AmeriSci New York 117 East 30th Street New York, NY 10016 Phone: (212) 679-8600 Fax: (212) 679-9392 TOLL FREE: (800) 705-5227 www.AmeriSci.com
Received By: [illegible]	Date/Time: 10/28 1015		
Relinquished By:	Date/Time:		
Received By:	Date/Time:		

Company: RAVI ENGINEERING & LAND SURVEYING, P.C.	Project: Asbestos Pre-Renovation Feasibility Study at PATHFINDER Dining Hall, SUNY Oswego	SCILAB #: RAVI PHASE #: 40-102-01
Street Address: 2110 S. CLINTON AVENUE, SUITE 1	Project Address: Oswego, New York 13126	Project #: 40-10-066
City: ROCHESTER State: NY Zip: 14618	Project Manager: Christine Cregan	Project State: NY
Phone: 585-223-3660 Fax: 585-223-4250	Analysis: __PLM Only __TEM Only XX NY ELAP PLM/TEM with NOB Prep.	
EMAIL: CCREGAN@RAVIENG.COM Verbal Results: Y (N)	__ ASTM Dust (microvac) __ ASTM Dust (Wipe)) __ Other (describe in comments)	
Site/Secondary Fax #:	Turnaround Time: Five (5) Day	Material Type: (X) Bulk __Dust __Water
Results to: Christine Cregan	Sampled By: MG, MW	Date Sampled: 10-26-10

Special Instructions or Comments:

Lab ID	Field ID	Location	Sample Description (for dust= size of surface area sampled)	Homogenous Area (HA #)
	EW-27A			27
	B007-1B	* PLEASE SEE BULK	210104309	1
	B007-29A			29
	B007-30A			30
		SAMPLE LOG ATTACHED		

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Pathfinder Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-~~22~~ 26-10

ASBESTOS BULK- PATHFINDER DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
B001-1A	Tunnel to Seneca	white plaster wall topcoat	Undamaged		
B001-2A	" "	brown plaster wall substrate		fibrous	
B001-3A	" "	grey drywall wall		behind HA's # 1 & 2	
B001-5A	" "	cement board		behind HA#'s 1, 2, 3, 4	
B001-6A	" "	white ceiling plaster topcoat			
B001-9A	" "	interior caulk - tan, crumbly original caulk		between metal/plaster on top of radiator	
B001-10A	" "	Black cove molding		210104309	
B001-11A	" "	chocolate brown, crumbly CMM			
B001-12A	" "	interior caulk - original grey/brown, crumbly window caulk		between metal/plaster	
B002-13A	Room in University Police	interior caulk - white, flexible window caulk		between metal/plaster	

210104309

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Pathfinder Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-~~20~~-10
26

ASBESTOS BULK- PATHFINDER DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
B003-14A	Room in University Police station	Interior caulk- block, semi-sticky window caulk	undamaged	between metal/ metal	
B010-16A	" "	Interior caulk- blue, flexible, sticky	undamaged	blue from window frame paint absorption	
1001-18A	main cafeteria eating Area	black, sticky FT mastic	undamaged	under HA #17	
EE-20A	Exterior East	Exterior caulk- tan, flexible, powders when rubbed	undamaged	between stone wall slabs	
EE-21A	" "	Exterior caulk- light grey, flexible	" "	looks like a brain, gum-like @ base of bldg.	
EE-22A	" "	Exterior caulk- medium grey, flexible seam caulk	" "	slab joint	
EE-23A	" "	Exterior caulk- dark grey, flexible, smooth	" "	top bead of metal base board of retaining wall- east side only	
EN-24A	Exterior North	Exterior caulk- med/dark grey, flexible caulk	" "	at base of bldg.	
EW-25A	Exterior West	Exterior caulk- extremely sticky window caulk	" "		
EW-26A	" "	tan surfacing efis coat	undamaged	coat on entire bldg.	

210104309

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Pathfinder Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10
20

ASBESTOS BULK- PATHFINDER DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
EW-27A	Exterior West	Exterior caulk - battleship grey, semi-flexible caulk	Undamaged		
B007-1B	Tunnel to Cayuga	white plaster wall topcoat	" "		
B007-29A	" "	grey plaster wall substrate	" "		
B007-30A	" "	light grey drywall wall	" "		

LITTLEPAGE DINING HALL

Please Reply To:

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

FACSIMILE TELECOPY TRANSMISSION

To:	Jim Mussgnug Ravi Engineering & Land Surveying, P.C.	**From:**	Aleksandr Barengolts
		AmeriSci Job #:	210104308
Fax #:	(585) 223-4250	**Subject:**	ELAP-PLM/TEM 5 day Results
		Client Project:	40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, N
Email:	jmussgnug@ravieng.com,ccregan@ravieng.com,mwaller@ravieng.com,mgarbach@ravieng.com,kfogle@ravieng.com		
Date:	Monday, November 01, 2010	**Number of Pages:**	3 (including cover sheet)
Time:	19:42:32		
Comments:			

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NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Ravi Engineering & Land Surveying, P.C
Attn: Jim Mussgnug
2110 S. Clinton Avenue
Suite 1
Rochester, NY 14618

Date Received 10/28/10 **AmeriSci Job #** 210104308
Date Examined 11/01/10 **P.O. #**
ELAP # 11480 **Page** 1 **of** 4
RE: 40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B001-1A	210104308-01	*No*	NAD
Location: Basement In Tunnel To Onondaga/Black Cove Molding/4"			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 2.4 %			
B001-2A	210104308-02	*No*	NAD
Location: Basement In Tunnel To Onondaga/Cream CMM/Associated w/HA#1			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Cream, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 14.4 %			
B001-3A	210104308-03	*No*	NAD
Location: Basement In Tunnel To Onondaga/Interior White, Crumbly Caulk/Between Metal & Plaster Located On Top Of Radiator			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 30.7 %			
B002-9A	210104308-04	*Yes*	Trace (<0.25 % pc)
Location: Basement Exercise/Equipment Room/Black, Sticky Window Glaze/Between Metal Frame/Glass			(ELAP 198.6; 400pc) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types: Chrysotile <0.25 % pc			
Other Material: Non-fibrous 9.4 %			
B002-10A	210104308-05	*No*	NAD
Location: Basement Exercise/Equipment Room/Black w/Blue Specks Rubber 2'x2' FT/Over HA#11 On Concrete			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B002-11A	210104308-06	*No*	NAD
Location: Basement Exercise/Equipment Room/Grey Mastic/Leveling Under HA#10/Texture = Leveler Application = Adhesive			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 15.5 %			
1001-18A	210104308-07	*No*	NAD
Location: 1st Floor Dining Area/Chocolate Brown, Brittle CMM/Under HA#1 & 2			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 40 %			
1001-20A	210104308-08	*No*	NAD
Location: 1st Floor Dining Area/Grey Ceramic Floor Tile Grout/Associated w/HA#19			(by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
EN-21A	210104308-09	*No*	NAD
Location: Exterior North/Exterior Caulk - Light Tan/Cream, Flexible/Between Conc./Conc.			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 10.1 %			
EN-22A	210104308-10	*No*	NAD
Location: Exterior North/Exterior Caulk - Grey/Brown/Smoky Charcoal Grey Rubber-Like Door Caulk			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 11.2 %			
EN-23A	210104308-11	*No*	NAD
Location: Exterior North/Light Grey/Off-White Exterior Seam Caulk/Between Sidewalk Panels & Between Store Wall Panels			(by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 23.2 %			

See Reporting notes on last page

AmeriSci Job #: 210104308
Client Name: Ravi Engineering & Land Surveying, P.C.

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
EN-24A	210104308-12	*No*	NAD (by NYS ELAP 198.1) by David W. Roderick on 11/01/10
Location: Exterior North/Tan Surfacing Efis/On All Retaining Walls, Bldg. Columns			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
EW-25A	210104308-13	*No*	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Location: Exterior West/Exterior Caulk - Clean Flexible/Powders When Rolled Between Store Wall Panels Over HA#21			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 8.2 %			
EN-26A	210104308-14	*No*	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Location: Exterior North/Exterior Window Glaze, Black, Very Stretchy/Between Glass/Metal			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 8.5 %			
EN-27A	210104308-15	*No*	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Location: Exterior North/Charcoal Grey/Brown Window Glaze/Caulk/Flexible			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 4.8 %			
EN-28A	210104308-16	*No*	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Location: Exterior North/Exterior Caulk - Cream (Original) Window Caulk/Existing Original Caulk Behind Window Frame (Visible Only b/c Window Frame Was Broken At One Section			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 8.8 %			
ES-29A	210104308-17	*No*	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10
Location: Exterior South/Exterior Caulk - Metallic Grey Seam Caulk/Between Conc./Conc. @ Base Of Bldg.			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 32.8 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
ES-30A	210104308-18	***No***	NAD (by NYS ELAP 198.6) by David W. Roderick on 11/01/10

Location: Exterior South/Exterior Caulk - Grey Flexible Seam Caulk/Between Conc./Conc. On Retaining Wall Cube Bases & Tunnel Seams

Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material
Asbestos Types:
Other Material: Non-fibrous 8.2 %

Reporting Notes:
Analyzed by: David W. Roderick
*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200546-0), ELAP PLM Method 198.1 for NY friable samples or 198.6 for NOB samples (NY ELAP Lab ID11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile,FR 59,146,38970,8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA Lab # 102843.

Reviewed By:_____ END OF REPORT

Client Name: Ravi Engineering & Land Surveying, P.C.

Table I
Summary of Bulk Asbestos Analysis Results

40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	B001-1A		0.419	47.5	50.1	2.4	NAD	NAD
Location:	Basement In Tunnel To Onondaga/Black Cove Molding/4"							
02	B001-2A		0.571	39.2	46.4	14.4	NAD	NAD
Location:	Basement In Tunnel To Onondaga/Cream CMM/Associated w/HA#1							
03	B001-3A		0.450	39.6	29.8	30.7	NAD	NAD
Location:	Basement In Tunnel To Onondaga/Interior White, Crumbly Caulk/Between Metal & Plaster Located On Top Of Radiator							
04	B002-9A		0.393	88.0	2.5	7.5	Chrysotile <0.25	Chrysotile 1.9
Location:	Basement Exercise/Equipment Room/Black, Sticky Window Glaze/Between Metal Frame/Glass							
05	B002-10A		0.346	95.7	2.3	2.0	NAD	NAD
Location:	Basement Exercise/Equipment Room/Black w/Blue Specks Rubber 2'x2' FT/Over HA#11 On Concrete							
06	B002-11A		0.541	35.1	49.4	15.5	NAD	NAD
Location:	Basement Exercise/Equipment Room/Grey Mastic/Leveling Under HA#10/Texture = Leveler Application = Adhesive							
07	1001-18A		0.637	51.2	8.8	40.0	NAD	NAD
Location:	1st Floor Dining Area/Chocolate Brown, Brittle CMM/Under HA#1 & 2							
08	1001-20A		—	—	—	—	NAD	NA
Location:	1st Floor Dining Area/Grey Ceramic Floor Tile Grout/Associated w/HA#19							
09	EN-21A		0.475	43.2	46.7	10.1	NAD	NAD
Location:	Exterior North/Exterior Caulk - Light Tan/Cream, Flexible/Between Conc./Conc.							
10	EN-22A		0.349	39.3	49.6	11.2	NAD	NAD
Location:	Exterior North/Exterior Caulk - Grey/Brown/Smoky Charcoal Grey Rubber-Like Door Caulk							
11	EN-23A		0.392	58.2	18.6	23.2	NAD	NAD
Location:	Exterior North/Light Grey/Off-White Exterior Seam Caulk/Between Sidewalk Panels & Between Store Wall Panels							
12	EN-24A		—	—	—	—	NAD	NA
Location:	Exterior North/Tan Surfacing Efis/On All Retaining Walls, Bldg. Columns							
13	EW-25A		0.328	3.0	88.7	8.2	NAD	NAD
Location:	Exterior West/Exterior Caulk - Clean Flexible/Powders When Rolled Between Store Wall Panels Over HA#21							
14	EN-26A		0.363	87.1	4.4	8.5	NAD	NAD
Location:	Exterior North/Exterior Window Glaze, Black, Very Stretchy/Between Glass/Metal							
15	EN-27A		0.336	72.9	22.3	4.8	NAD	NAD
Location:	Exterior North/Charcoal Grey/Brown Window Glaze/Caulk/Flexible							
16	EN-28A		0.410	53.2	38.0	8.8	NAD	NAD
Location:	Exterior North/Exterior Caulk - Cream (Original) Window Caulk/Existing Original Caulk Behind Window Frame (Visible Only b/c Window Frame Was Broken At One Section							

See Reporting notes on last page

Client Name: Ravi Engineering & Land Surveying, P.C.

Table I

Summary of Bulk Asbestos Analysis Results

40-10-066; Feasibility Study At LITTLEPAGE Dining Hall; SUNY Oswego, Oswego, New York 13126; Ravi Phase #: 40-102-02

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	ES-29A		0.488	54.3	12.9	32.8	NAD	NAD
Location:	Exterior South/Exterior Caulk - Metallic Grey Seam Caulk/Between Conc./Conc. @ Base Of Bldg.							
18	ES-30A		0.377	71.6	20.2	8.2	NAD	NAD
Location:	Exterior South/Exterior Caulk - Grey Flexible Seam Caulk/Between Conc./Conc. On Retaining Wall Cube Bases & Tunnel Seams							

Analyzed by: Aleksandr Barengolts_____; Date Analyzed 11/1/2010

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by EPA 600/M4-82-020 per 40 CFR or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or ELAP 198.4 for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses); AIHA Lab # 102843, NVLAP Lab Code 200546-0, NYSDOH ELAP LAB ID 11480.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:_____

Relinquished By: Megan Garbach	Date/Time: 10/27/10; 1600	
Received By: Chela Ross	Date/Time: 10/28 1015	
Relinquished By:	Date/Time:	
Received By:	Date/Time:	

AMERI SCI

BULK SAMPLE SHEET
AmeriSci New York
117 East 30th Street
New York, NY 10016
Phone: (212) 679-8600
Fax: (212) 679-9392
TOLL FREE: (800) 705-5227
www.AmeriSci.com

Company: RAVI ENGINEERING & LAND SURVEYING, P.C.

Project: Asbestos Pre-Renovation Feasibility Study at LITTLEPAGE Dining Hall, SUNY Oswego

SCILAB #:

RAVI PHASE #: 40-102-02

Street Address: 2110 S. CLINTON AVENUE, SUITE 1

Project Address: Oswego, New York 13126

Project #: 40-10-066

City: ROCHESTER State: NY Zip: 14618

Project Manager: Christine Cregan

Project State: NY

Phone: 585-223-3660 Fax: 585-223-4250

EMAIL: CCREGAN@RAVIENG.COM Verbal Results: Y / (N)

Analysis: __PLM Only __TEM Only XX NY ELAP PLM/TEM with NOB Prep. __ ASTM Dust (microvac) __ ASTM Dust (Wipe)) __ Other (describe in comments)

Site/Secondary Fax #:

Turnaround Time: Five (5) Day

Material Type: (X) Bulk __Dust __Water

Results to: Christine Cregan

Sampled By: MG, MW

Date Sampled: 10-22-10, 10-26-10

Special Instructions or Comments: 210104308

Lab ID	Field ID	Location	Sample Description (for dust= size of surface area sampled)	Homogenous Area (HA #)
	B001-1A	* PLEASE SEE BULK SAMPLE LOG ATTACHED *		1
	B001-2A			2
	B001-3A			3
	B002-9A			9
	B002-10A			10
	B002-11A			11
	1001-18A			18
	1001-20A			20
	EN-21A			21
	EN-22A			22

Relinquished By: Megan Murback Date/Time: 10/27/10; 1600

Received By: C DeLa Rosa Date/Time: 10/28 1015

Relinquished By: Date/Time:

Received By: Date/Time:

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BULK SAMPLE SHEET

AmeriSci New York
117 East 30th Street
New York, NY 10016
Phone: (212) 679-8600
Fax: (212) 679-9392
TOLL FREE: (800) 705-5227
www.AmeriSci.com

Company: RAVI ENGINEERING & LAND SURVEYING, P.C.

Project: Asbestos Pre-Renovation Feasibility Study at LITTLEPAGE Dining Hall, SUNY Oswego

SCILAB #:

RAVI PHASE #: 40-102-02

Street Address: 2110 S. CLINTON AVENUE, SUITE 1

Project Address: Oswego, New York 13126

Project #: 40-10-066

City: ROCHESTER State: NY Zip: 14618

Project Manager: Christine Cregan

Project State: NY

Phone: 585-223-3660 Fax: 585-223-4250

EMAIL: CCREGAN@RAVIENG.COM Verbal Results: Y / (N)

Analysis: __PLM Only __TEM Only XX NY ELAP PLM/TEM with NOB Prep.
__ ASTM Dust (microvac) __ ASTM Dust (Wipe)) __ Other (describe in comments)

Site/Secondary Fax #:

Turnaround Time: Five (5) Day

Material Type: (X) Bulk __Dust __Water

Results to: Christine Cregan

Sampled By: MG, MW

Date Sampled: 10-22-10, 10-26-10

Special Instructions or Comments:

210104308

Lab ID	Field ID	Location	Sample Description (for dust= size of surface area sampled)	Homogenous Area (HA #)
	EN-23A	* PLEASE SEE BULK SAMPLE LOG ATTACHED *		23
	EN-24A			24
	EW-25A			25
	EN-26A			26
	EN-27A			27
	EN-28A			28
	ES-29A			29
	ES-30A			30

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

210104308

Project Name: Feasibility Study at Littlepage Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10

ASBESTOS BULK- LITTLEPAGE DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
B001.-1A	Basement in tunnel to Onondaga	Black cove molding	undamaged	4"	
B001-2A	" "	cream CMM	" "	associated w/ HA#1	
B001-3A	" "	Interior white, crumbly caulk	" "	between metal & plaster- located on top of radiator	
B002-9A	Basement exercise/ equipment room	black, Sticky window glaze	" "	between metal frame/ glass	
B002-10A	" "	Black w/ blue specks rubber 2'x2' FT	" "	over HA # 11 on concrete	
B002-11A	" "	grey mastic/leveler under HA # 10	" "	texture = leveler application = adhesive	
~~-14A~~	~~1st floor dining area~~	~~white 2'x2' SAT w/ holes & 1/2" gashes~~	" "		
1001-18A	" "	chocolate brown, brittle CMM	" "	under HA # 1 & 2	
1001-20A	" "	grey ceramic floor tile grout	" "	associated w/ HA #19	
EN-21A	Exterior North	~~exterior~~ caulk-light tan/cream, flexible	" "	between conc./conc.	

210104308

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Littlepage Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10

ASBESTOS BULK- LITTLEPAGE DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
EN-22A	Exterior North	Exterior caulk - grey/ brown/smoky charcoal grey rubber-like door caulk	undamaged	between metal door frame/conc.	
EN-23A	Exterior North	Light grey/off-white exterior seam caulk	"	between sidewalk panels & between stone wall panels	
EN-24A	Exterior North	Tan surfacing efis	"	on all retaining walls, bldg. columns	
EW-25A	Exterior West	Exterior caulk - cream, flexible	"	powders when rubbed, between stone wall panels over HA# 21	
EN-26A	Exterior North	Exterior window glaze - black, very stretchy	"	between glass/ metal	
EN-27A	Exterior North	Charcoal grey/brown window glaze/caulk	"	flexible,	
EN-28A	Exterior North	Exterior caulk - cream (original) window caulk	"	existing original caulk behind windowframe (visible only where window frame was broken at one section)	
ES-29A	Exterior South	Exterior caulk - metallic grey seam caulk	"	between conc./conc. @ base of bldg.	
ES-30A	Exterior South	Exterior caulk - grey, flexible seam caulk	"	between conc./conc. on retaining wall cube bases & tunnel seams	

PCB TECHNICAL MEMORANDUM

AECOM
5015 Campuswood Drive, Suite 104
East Syracuse, NY 13057-4232

315.432.0506 tel
315.437.0509 fax

February 22, 2011

Mr. Jamie Williams
Woolley Morris Architects
401 North State Street
Syracuse, New York 13203

Re: SUNY Oswego – Pathfinder and Littlepage Dining Halls
Limited Asbestos Bulk Sampling & Analysis – Roof Sampling
AECOM Project No.: 60139355

Dear Mr. Williams:

This letter and attachments represent AECOM's report for the above-referenced project.

Introduction

AECOM was retained by the Dormitory Authority State of New York (DASNY) to conduct limited bulk sampling and analysis of suspect asbestos-containing material (ACM) roof systems at Pathfinder and Littlepage Dining Halls located at SUNY Oswego in Oswego, New York. The sampling was performed in compliance with New York State Industrial Code Rule 56 (ICR 56).

The sampling was conducted on February 18, 2011 by AECOM representative Thomas Wilkinson who was escorted and shown specific areas to be sampled by Klepper, Hahn & Hyatt representative Douglas Arena. Mr. Wilkinson is a New York State Department of Labor (DOL) certified asbestos building inspector. Copies of applicable certifications are provided in Attachment A.

Results and Discussion

Representative bulk sampling, as directed by Mr. Arena, was conducted in 2 areas of the roof deck along with multiple locations of caulking materials on each roof at Pathfinder and Littlepage Halls. Non-friable organically bound (NOB) materials were analyzed in accordance with New York State Department of Health (DOH) requirements. NOBs are first subjected to an ashing and acid washing procedure to properly break down the material. The sample is then analyzed by PLM for asbestos content. If asbestos is found, the analysis is complete. However, a negative result must be confirmed by using transmission electron microscopy (TEM). All samples were analyzed by AmeriSci, New York.

The sampling included the collection of 36 non-friable/NOB material samples. 18 samples were collected from Pathfinder Hall and 18 samples were collected from Littlepage Hall. Laboratory reports and chain-of-custody forms are included in Attachment B. Sample locations are shown on Figures 1 and 2 in Attachment C. Sample results are summarized in the following tables. Materials found to be asbestos – containing (i.e., >1%) are denoted in **BOLD** type.

Mr. Jamie Williams
Woolley Morris Architects
February 22, 2011

Bulk Sample Summary – Pathfinder Dining Hall

Sample No.	Material Sampled	Sample Location	Lab Results (% Asbestos)	Condition
ROOF-001A	Gray/Black Paper Backing on Foam	NW Corner of Roof	NAD	Fair
ROOF-001B		SW Corner of Roof	NAD	Fair
ROOF-002A	Black Top Layer Felt w/"Hot Mop"	NW Corner of Roof	NAD	Fair
ROOF-002B		SW Corner of Roof	NAD	Fair
ROOF-003A	Black 2nd/3rd Layer Felt w/ "Hot Mop"	NW Corner of Roof	NAD	Fair
ROOF-003B		SW Corner of Roof	NAD	Fair
ROOF-004A	Black/Brown Bottom Layer Paper w/ "Hot Mop" on Roof Deck	NW Corner of Roof	NAD	Fair
ROOF-004B		SW Corner of Roof	NAD	Fair
CAULK-005A	Gray Sticky Soft Caulk on Copper Vent Pipes	NW Corner of Roof	NAD	Fair
CAULK-005B		East of Mechanical Air Plenum	NAD	Fair
CAULK-006A	Dark Gray Sealant for Roof Patches	SE Corner at Penetration	NAD	Fair
CAULK-006B		NE Corner at Penetration	NAD	Fair
CAULK-007A	Light Gray Soft Caulk at Corners of Mechanical Air Plenum	NE Corner of Air Plenum	NAD	Fair
CAULK-007B		SW Corner of Air Plenum	NAD	Fair
CAULK-008A	Tan Caulk Around Base of Mechanical Air Plenum	NE Corner of Air Plenum	NAD	Fair
CAULK-008B		SW Corner of Air Plenum	NAD	Fair
RFLASH-009A	**Black Roof Flashing/Penetration Cement**	**Top of Curbing for Large Duct Work**	**3.4% Chrysotile**	**Fair**
RFLASH-009B		**South Side of Mechanical Air Plenum**	**NA/PS**	**Fair**

NAD signifies No Asbestos Detected
Trace signifies <1% asbestos, (i. e., ~0.25%) is considered a non-asbestos material
NA/PS signifies Not Analyzed/Positive Stop

Bulk Sample Summary – Littlepage Dining Hall

Sample No.	Material Sampled	Sample Location	Lab Results (% Asbestos)	Condition
ROOF-001A	Gray/Black Paper Backing on Foam	NW Corner of Roof	NAD	Fair
ROOF-001B		SW Corner of Roof	NAD	Fair
ROOF-002A	Black Top Layer Felt w/"Hot Mop"	NW Corner of Roof	NAD	Fair
ROOF-002B		SW Corner of Roof	NAD	Fair
ROOF-003A	Black Middle Layer Felt w/ "Hot Mop"	NW Corner of Roof	Chrysotile Trace	Fair
ROOF-003B		SW Corner of Roof	Chrysotile <1%	Fair
ROOF-004A	Black/Brown Bottom Layer Paper w/ "Hot Mop" on Roof Deck	NW Corner of Roof	NAD	Fair
ROOF-004B		SW Corner of Roof	NAD	Fair
CAULK-005A	Gray Sticky Soft Caulk on Copper Vent Pipes	NW Corner of Roof	NAD	Fair
CAULK-005B		East of Mechanical Air Plenum	NAD	Fair
CAULK-006A	Dark Gray Sealant for Roof Patches	SE Corner at Penetration	NAD	Fair
CAULK-006B		NE Corner at Penetration	NAD	Fair

Mr. Jamie Williams
Woolley Morris Architects
February 22, 2011

Sample No.	Material Sampled	Sample Location	Lab Results (% Asbestos)	Condition
CAULK-007A	Light Gray Soft Caulk at Corners of Mechanical Air Plenum	NE Corner of Air Plenum	NAD	Fair
CAULK-007B		SW Corner of Air Plenum	NAD	Fair
CAULK-008A	Tan Caulk Around Base of Mechanical Air Plenum	NE Corner of Air Plenum	NAD	Fair
CAULK-008B		SW Corner of Air Plenum	NAD	Fair
RFLASH-009A	**Black Roof Flashing/Penetration Cement**	**Top of Curbing for Large Duct Work**	**8.4% Chrysotile**	**Fair**
RFLASH-009B		**South Side of Mechanical Air Plenum**	**NA/PS**	**Fair**

NAD signifies No Asbestos Detected
Trace signifies <1% asbestos, (i. e., ~0.25%) is considered a non-asbestos material
NA/PS signifies Not Analyzed/Positive Stop

In accordance with ICR 56, all material determined to be asbestos – containing must be removed by a licensed contractor prior to building renovation or demolition activities which would disturb the asbestos – containing material.
The DOL also requires that a copy of this report be provided to the Commissioner of Labor at the following address:

New York State Department of Labor
Division of Safety and Health
Asbestos Control Bureau
450 South Salina St.
Syracuse, New York 13202

If you have any questions, please call us at (315) 432-0506. It was a pleasure working with you on this project and I hope we can be of service in the future.

Sincerely,
AECOM

Thomas Wilkinson
Industrial Hygienist

Mark Fiorini
Office Manager

Attachment A NYSDOL License and Inspector Certification
Attachment B Laboratory Reports and Chain-of-Custody Forms
Attachment C Sample Location Drawings

Attachment A

NYSDOL License and Inspector Certification

AECOM
5015 Campuswood Drive Suite 104
East Syracuse, NY 13057

315.432.0506 tel
315.437.0509 fax

NEW YORK STATE DEPARTMENT OF LABOR ASBESTOS HANDLING LICENSE

NEW YORK STATE - DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
LICENSE AND CERTIFICATE UNIT
STATE CAMPUS BUILDING 12
ALBANY, NY 12240

ASBESTOS HANDLING LICENSE

AECOM Inc.
Suite 104
5015 Campus Wood Drive

East Syracuse, NY 13057-4232

FILE NUMBER: 99-0569
LICENSE NUMBER: 28522
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 09/22/2010
EXPIRATION DATE: 09/30/2011

Duly Authorized Representative – Mark Fiorini

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Maureen A. Cox

Maureen A. Cox, Director
FOR THE COMMISSIONER OF LABOR

SH 432 (4-07)

AECOM
5015 Campuswood Drive Suite 104
East Syracuse, NY 13057

315.432.0506 tel
315.437.0509 fax

NEW YORK STATE DEPARTMENT OF LABOR ASBESTOS HANDLING CERTIFICATE

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

THOMAS A WILKINSON
CLASS(EXPIRES)
C ATEC(05/11) D INSP(05/11)
H PM (05/11)

CERT# 06-07890
DMV# 854575816
MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BLU
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

Legend - Identification of Letter Designations

A	Asbestos Handler	D	Asbestos Inspector	G	Asbestos Supervisor
B	Allied Trades	E	Management Planner	H	Asbestos Project Manager
C	Air Sampling Technician	F	Operations & Maintenance	I	Asbestos Project Designer

Attachment B

Laboratory Reports and Chain-of-Custody Forms

AMERI SCI

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

AECOM Environment
Attn: Mark Fiorini
5015 Campuswood Drive
Suite 104
East Syracuse, NY 13057-4232

Date Received 02/19/11 **AmeriSci Job #** 211023082
Date Examined 02/21/11 **P.O. #**
ELAP # 11480 **Page** 1 **of** 4
RE: 60139355.1800; DASNY; SUNY Oswego, Path Finder Hall; Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Roof-001A 001	211023082-01 **Location:** Gray/Black; Paper Backing On Foam; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey/Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 2 %, Non-fibrous 4.3 %			
Roof-001B 001	211023082-02 **Location:** Gray/Black; Paper Backing On Foam; SW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey/Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 20 %, Non-fibrous 24.4 %			
Roof-002A 002	211023082-03 **Location:** Black; Top Layer Felt With "Hot Mop"; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass Trace, Non-fibrous 2.7 %			
Roof-002B 002	211023082-04 **Location:** Black; Top Layer Felt With "Hot Mop"; SW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass Trace, Non-fibrous 1.9 %			
Roof-003A 003	211023082-05 **Location:** Black; 2nd/3rd Layer Felt With "Hot Mop"; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 9.3 %			

See Reporting notes on last page

AmeriSci Job #: **211023082**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego; Path Finder Hall; Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Roof-003B 003	211023082-06 **Location:** Black; 2nd/3rd Layer Felt With "Hot Mop"; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 1 %, Non-fibrous 2.8 %			
Roof-004A 004	211023082-07 **Location:** Black/Brown; Bottom Layer Paper With Hot Mop On Deck; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.1 %			
Roof-004B 004	211023082-08 **Location:** Black/Brown; Bottom Layer Paper With Hot Mop On Deck; NW Corner Of Roof	*No*	NAD (ELAP 198.6; 400pc) by Bella J. Chernis on 02/21/11
Analyst Description: Black/Brown, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.8 %			
Caulk-005A 005	211023082-09 **Location:** Gray; Sticky Soft Caulk On Copper Vent Pipes; NW Corner Of Roof	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 22.2 %			
Caulk-005B 005	211023082-10 **Location:** Gray; Sticky Soft Caulk On Copper Vent Pipes; East Of Mechanical Air Plenum	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 21.2 %			
Caulk-006A 006	211023082-11 **Location:** Dark Gray Sealant For Roof Patches; SE Corner At Penetration	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 5.2 %			

See Reporting notes on last page

AmeriSci Job #: **211023082**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego; Path Finder Hall; Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Caulk-006B 006	211023082-12 **Location:** Dark Gray Sealant For Roof Patches; NE Corner At Penetration	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.6 %			
Caulk-007A 007	211023082-13 **Location:** Light Gray; Soft Caulk At Corners Of Mechanical Air Plenum; NE Corner Of Air Plenum	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 13.7 %			
Caulk-007B 007	211023082-14 **Location:** Light Gray; Soft Caulk At Corners Of Mechanical Air Plenum; SW Corner Of Air Plenum	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 11.2 %			
Caulk-008A 008	211023082-15 **Location:** Tan; Caulk Around Base Of Mechanical Air Plenum; NW Corner Of Air Plenum	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 12.6 %			
Caulk-008B 008	211023082-16 **Location:** Tan; Caulk Around Base Of Mechanical Air Plenum; SW Corner Of Air Plenum	*No*	NAD (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 11 %			
RFlash-009A 009	211023082-17 **Location:** Black; Roof Flashing/Penetration Cement; Top Of Curbing For Large Duct	*Yes*	3.4 % (by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.4 % **Other Material:** Non-fibrous 17.1 %			

See Reporting notes on last page

AmeriSci Job #: **211023082**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego; Path Finder Hall; Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
RFlash-009B	211023082-18		NA/PS
009	Location: Black; Roof Flashing/Penetration Cement; South Side Of Mechanical Air Plenum		

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

Reporting Notes:
Analyzed by: Bella J. Chernis Bella Chernis

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200546-0), ELAP PLM Method 198.1 for NY friable samples or 198.6 for NOB samples (NY ELAP Lab ID11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive. TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile,FR 59,146,38970,8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA Lab # 102843.

Reviewed By:_____

END OF REPORT

02/22/2011 11:05 2126793114 AMERISCI PAGE 02/03

Table I
Summary of Bulk Asbestos Analysis Results
60139355.1800; DASNY; SUNY Oswego; Path Finder Hall; Oswego, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	Roof-001A	001	0.240	92.9	0.8	6.3	NAD	NAD
Location:	Gray/Black; Paper Backing On Foam; NW Corner Of Roof							
02	Roof-001B	001	0.160	54.4	1.3	44.4	NAD	NAD
Location:	Gray/Black; Paper Backing On Foam; SW Corner Of Roof							
03	Roof-002A	002	0.259	96.1	1.2	2.7	NAD	NAD
Location:	Black; Top Layer Felt With "Hot Mop"; NW Corner Of Roof							
04	Roof-002B	002	0.359	96.7	1.4	1.9	NAD	NAD
Location:	Black; Top Layer Felt With "Hot Mop"; SW Corner Of Roof							
05	Roof-003A	003	0.398	79.9	10.8	9.3	NAD	NAD
Location:	Black; 2nd/3rd Layer Felt With "Hot Mop"; NW Corner Of Roof							
06	Roof-003B	003	0.211	93.8	2.4	3.8	NAD	NAD
Location:	Black; 2nd/3rd Layer Felt With "Hot Mop"; NW Corner Of Roof							
07	Roof-004A	004	0.305	73.4	12.5	14.1	NAD	NAD
Location:	Black/Brown; Bottom Layer Paper With Hot Mop On Deck; NW Corner Of Roof							
08	Roof-004B	004	0.602	72.8	12.5	14.8	NAD	NAD
Location:	Black/Brown; Bottom Layer Paper With Hot Mop On Deck; NW Corner Of Roof							
09	Caulk-005A	005	0.496	38.3	39.5	22.2	NAD	NAD
Location:	Gray; Sticky Soft Caulk On Copper Vent Pipes; NW Corner Of Roof							
10	Caulk-005B	005	0.425	37.4	41.4	21.2	NAD	NAD
Location:	Gray; Sticky Soft Caulk On Copper Vent Pipes; East Of Mechanical Air Plenum							
11	Caulk-006A	006	0.327	74.3	20.5	5.2	NAD	NAD
Location:	Dark Gray Sealant For Roof Patches; SE Corner At Penetration							
12	Caulk-006B	006	0.284	72.2	23.2	4.6	NAD	NAD
Location:	Dark Gray Sealant For Roof Patches; NE Corner At Penetration							
13	Caulk-007A	007	0.234	69.2	17.1	13.7	NAD	NAD
Location:	Light Gray; Soft Caulk At Corners Of Mechanical Air Plenum; NE Corner Of Air Plenum							
14	Caulk-007B	007	0.277	75.5	13.4	11.2	NAD	NAD
Location:	Light Gray; Soft Caulk At Corners Of Mechanical Air Plenum; SW Corner Of Air Plenum							
15	Caulk-008A	008	0.350	33.4	54.0	12.6	NAD	NAD
Location:	Tan; Caulk Around Base Of Mechanical Air Plenum; NW Corner Of Air Plenum							
16	Caulk-008B	008	0.290	33.8	55.2	11.0	NAD	NAD
Location:	Tan; Caulk Around Base Of Mechanical Air Plenum; SW Corner Of Air Plenum							

See Reporting notes on last page

AmeriSci Job #: 211023082
Client Name: AECOM Environment

02/22/2011 11:05 2126793114 AMERISCI PAGE 03/03

Table I
Summary of Bulk Asbestos Analysis Results
60139355 1800; DASNY; SUNY Oswego; Path Finder Hall; Oswego, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	RFlash-009A	009	0.200	73.5	6.0	17.1	Chrysotile 3.4	NA
Location:	Black; Roof Flashing/Penetration Cement; Top Of Curbing For Large Duct							
18	RFlash-009B	009	0.455	69.0	6.8	24.2	NA/PS	NA
Location:	Black; Roof Flashing/Penetration Cement; South Side Of Mechanical Air Plenum							

Analyzed by: Roman Peysakhov _____; Date Analyzed 2/22/2011

**Quantitative Analysis (Semi/Full): Bulk Asbestos Analysis - PLM by EPA 600/M4-82-020 per 40 CFR or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or ELAP 198.4 for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis. Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses); AIHA Lab # 102843, NVLAP Lab Code 200546-0, NYSDOH ELAP LAB ID 11480.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogeneous materials).

Reviewed By: _____

AECOM

211023082

Asbestos Bulk Sample Chain-of-Custody

6015 Campuswood Dr.
Suite 104
East Syracuse, NY 13057
Ph. (315) 432-0506
Fax (315) 437-0509

Client:	DASNY	Project #:	60139555.1800
Project:	SUNY Oswego	Date Sampled:	2/18/11
	Path Finder Hall	Sampled By:	TW
	Oswego, NY		

Analysis: ___ PLM only X NY ELAP PLM/TEM w/ NOB Prep ___ Other: _____

Report Results to: Mark Fiorini/Sean Hart Email: Mark.Fiorini @aecom.com

Fax (315) 437-0509 72 Hour Turnaround Time Written/Invoice: 10 Days

Homogenous Material #		Color	Sample Description	Sample Location
Roof-001	A	Gray/Black	Paper backing on foam	NW Corner of Roof
	B			SW Corner of Roof
Roof-002	A	Black	Top layer Felt with "Hot mop"	NW Corner of Roof
	B			SW Corner of Roof
Roof-003	A	Black	2nd/3rd layer Felt with "Hot Mop"	NW Corner of Roof
	B			SW Corner of Roof
Roof-004	A	Black/Brown	Bottom Layer Paper with Hot mop on deck	NW Corner of Roof
	B			SW Corner of Roof
* CAulk-005	A	Gray	Sticky Soft caulk on copper vent Pipes	NW Corner of Roof
	B			East of Mechanical Air Plenum
* CAulk-006	A	Dark Gray	Sealant for Roof patches	SE Corner of Penetration
	B			NE Corner of Penetration
CAulk-007	A	Light Gray	Soft Caulk at Corners of Mechanical air plenum	NE Corner of Air Plenum
	B			SW Corner of Air Plenum
CAulk-008	A	Tan	Caulk around Base of Mechanical Air Plenum	NE Corner of Air Plenum
	B			SW Corner of Air Plenum
RFLASH-009	A	Black	Roof Flashing/Penetration Cement	Top of Curbing for large Duct
	B			South Side of Mechanical Air Plenum

Please Analyze all layers and/or Mastics Send NOB's to TEM if <1% by PLM **Stop at First Positive for each DUPLICATE OR TRIPLICATE Set** ***Analyze ALL Joint Compound Samples***

Chain of Custody:	Signature:	Date/Time:
Relinquished by:		2/18/11
Received by:		2-19-11 1141
Relinquished by:		
Received by:		

Comments:

Please E-mail results to @aecom.com when complete

FIELD ID CODES

FLVCT- Floor Tile FLVCS- Sheet Flooring FLMAS- Floor Mastic RFSH- Roof Shingle RLRF- Rolled Roof CAULK- Caulking SR- Sheetrock JC- Joint Compound FLASH- Roof Cement DI- Duct Insulation VAP- Vapor Barrier PIPE- Pipe Insulation ASPH- Asphalt Siding FIT- Pipe Fitting TRAN- Transite WLMAS- Wall Mastic CET- Ceiling Tiles PLAST- Plaster

AMERI SCI

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

AECOM Environment
Attn: Mark Fiorini
5015 Campuswood Drive
Suite 104
East Syracuse, NY 13057-4232

Date Received 02/19/11 **AmeriSci Job #** 211023084
Date Examined 02/21/11 **P.O. #**
ELAP # 11480 **Page** 1 **of** 4
RE: 60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Roof-001A	211023084-01	*No*	NAD
1	**Location:** Gray/Black, Paper Backing On Foam - West Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey/Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass Trace, Non-fibrous 1.2 %			
Roof-001B	211023084-02	*No*	NAD
1	**Location:** Gray/Black, Paper Backing On Foam - North Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey/Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 5 %, Non-fibrous 11.1 %			
Roof-002A	211023084-03	*No*	NAD
2	**Location:** Black, Top Layer Felt With "Hot Mop" - West Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 1 %, Non-fibrous 2.8 %			
Roof-002B	211023084-04	*No*	NAD
2	**Location:** Black, Top Layer Felt With "Hot Mop" - North Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass Trace, Non-fibrous 2.2 %			
Roof-003A	211023084-05	*No*	NAD
3	**Location:** Black, Middle Layer Felt With "Hot Mop" - West Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 1 %, Non-fibrous 2.4 %			

See Reporting notes on last page

AmeriSci Job #: **211023084**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Roof-003B	211023084-06	*No*	NAD
3	**Location:** Black, Middle Layer Felt With "Hot Mop" - North Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 12.1 %			
Roof-004A	211023084-07	*No*	NAD
4	**Location:** Black/Brown, Bottom Layer Paper With "Hot Mop" On Roof Deck - West Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.8 %			
Roof-004B	211023084-08	*No*	NAD
4	**Location:** Black/Brown, Bottom Layer Paper With "Hot Mop" On Roof Deck - North Side Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.9 %			
Caulk-005A	211023084-09	*No*	NAD
5	**Location:** Gray, Sticky Soft Caulk On Copper Vent Pipes - SW Corner Of Roof		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 28.4 %			
Caulk-005B	211023084-10	*No*	NAD
5	**Location:** Gray, Sticky Soft Caulk On Copper Vent Pipes - East Of Mechanical Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 25.4 %			
Caulk-006A	211023084-11	*No*	NAD
6	**Location:** Dark Gray, Sealant For Roof Patches - SW Corner Of Roof At Penetration		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 5.2 %			

See Reporting notes on last page

AmeriSci Job #: **211023084**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
Caulk-006B	211023084-12	*No*	NAD
6	**Location:** Dark Gray, Sealant For Roof Patches - West Of Air Plenum At Curb For Duct Work		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.3 %			
Caulk-007A	211023084-13	*No*	NAD
7	**Location:** Light Gray, Soft Caulk At Corners Of Mechanical Air Plenum - SE Corner Of Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.9 %			
Caulk-007B	211023084-14	*No*	NAD
7	**Location:** Light Gray, Soft Caulk At Corners Of Mechanical Air Plenum - NW Corner Of Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 23.4 %			
Caulk-008A	211023084-15	*No*	NAD
8	**Location:** Tan, Caulk Around Base Of Mechanical Air Plenum - SE Corner Of Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 13 %			
Caulk-008B	211023084-16	*No*	NAD
8	**Location:** Tan, Caulk Around Base Of Mechanical Air Plenum - NW Corner Of Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 13.1 %			
RFlash-009A	211023084-17	*No*	NAD
9	**Location:** Black, Roof Flashing/Penetration Cement - Top Of Curbing For Large Duct		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 20.9 %			

See Reporting notes on last page

AmeriSci Job #: **211023084**
Client Name: AECOM Environment

PLM Bulk Asbestos Report

60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
RFlash-009B	211023084-18	*No*	NAD
9	**Location:** Black, Roof Flashing/Penetration Cement - East Side Of Mechanical Air Plenum		(by NYS ELAP 198.6) by Bella J. Chernis on 02/21/11

Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material
Asbestos Types:
Other Material: Non-fibrous 13.7 %

Reporting Notes:
Analyzed by: Bella J. Chernis Bella Chernis

*NAD/NSD =no asbestos detected; NA =not analyzed; NAPS=not analyzed/positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200546-0); ELAP PLM Method 198.1 for NY friable samples or 198.6 for NOB samples (NY ELAP Lab ID 11480); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive. TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA Lab # 102843.

Reviewed By:_____

END OF REPORT

AmeriSci Job #: **211023084**

Client Name: AECOM Environment

02/22/2011 11:06 2126793114 AMERISCI PAGE 02/03

Table I
Summary of Bulk Asbestos Analysis Results
60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	Roof-001A	1	0.248	95.2	3.6	1.2	NAD	NAD
Location:	Gray/Black, Paper Backing On Foam - West Side Of Roof							
02	Roof-001B	1	0.192	79.2	4.7	16.1	NAD	NAD
Location:	Gray/Black, Paper Backing On Foam - North Side Of Roof							
03	Roof-002A	2	0.238	95.4	0.8	3.8	NAD	NAD
Location:	Black, Top Layer Felt With "Hot Mop" - West Side Of Roof							
04	Roof-002B	2	0.359	97.5	0.3	2.2	NAD	NAD
Location:	Black, Top Layer Felt With "Hot Mop" - North Side Of Roof							
05	Roof-003A	3	0.321	94.7	0.9	4.3	NAD	Chrysotile Trace
Location:	Black, Middle Layer Felt With "Hot Mop" - West Side Of Roof							
06	Roof-003B	3	0.307	78.2	11.7	11.9	NAD	Chrysotile <1.0
Location:	Black, Middle Layer Felt With "Hot Mop" - North Side Of Roof							
07	Roof-004A	4	0.271	77.1	8.1	14.8	NAD	NAD
Location:	Black/Brown, Bottom Layer Paper With "Hot Mop" On Roof Deck - West Side Of Roof							
08	Roof-004B	4	0.390	70.0	15.1	14.9	NAD	NAD
Location:	Black/Brown, Bottom Layer Paper With "Hot Mop" On Roof Deck - North Side Of Roof							
09	Caulk-005A	5	0.457	35.4	36.1	28.4	NAD	NAD
Location:	Gray, Sticky Soft Caulk On Copper Vent Pipes - SW Corner Of Roof							
10	Caulk-005B	5	0.295	34.9	39.7	25.4	NAD	NAD
Location:	Gray, Sticky Soft Caulk On Copper Vent Pipes - East Of Mechanical Air Plenum							
11	Caulk-006A	6	0.423	71.4	23.4	5.2	NAD	NAD
Location:	Dark Gray, Sealant For Roof Patches - SW Corner Of Roof At Penetration							
12	Caulk-006B	6	0.328	72.6	23.2	4.3	NAD	NAD
Location:	Dark Gray, Sealant For Roof Patches - West Of Air Plenum At Curb For Duct Work							
13	Caulk-007A	7	0.235	70.2	14.9	14.9	NAD	NAD
Location:	Light Gray, Soft Caulk At Corners Of Mechanical Air Plenum - SE Corner Of Air Plenum							
14	Caulk-007B	7	0.252	64.7	11.9	23.4	NAD	NAD
Location:	Light Gray, Soft Caulk At Corners Of Mechanical Air Plenum - NW Corner Of Air Plenum							
15	Caulk-008A	8	0.377	34.7	52.3	13.0	NAD	NAD
Location:	Tan, Caulk Around Base Of Mechanical Air Plenum - SE Corner Of Air Plenum							
16	Caulk-008B	8	0.396	34.6	52.3	13.1	NAD	NAD
Location:	Tan, Caulk Around Base Of Mechanical Air Plenum - NW Corner Of Air Plenum							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
60139355.1800; DASNY; SUNY Oswego - Littlepage Dining Hall Oswego, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	RFlash-009A	9	0.330	74.8	4.2	12.5	NAD	Chrysotile 8.4
Location: Black, Roof Flashing/Penetration Cement - Top Of Curbing For Large Duct								
18	RFlash-009B	9	0.329	55.0	31.3	13.7	NAD	NA/PS
Location: Black, Roof Flashing/Penetration Cement - East Side Of Mechanical Air Plenum								

Analyzed by: Roman Peysakhov_____; Date Analyzed 2/22/2011

**Quantitative Analysis (Semi/Full): Bulk Asbestos Analysis - PLM by EPA 600/M4-82-020 per 40 CFR or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or ELAP 198.4 for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses); AIHA Lab # 102843, NVLAP Lab Code 200546-0, NYSDOH ELAP LAB ID 11480.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:_____

02/22/2011 11:06 2126793114 AMERISCI PAGE 03/03

AECOM

211023084

Asbestos Bulk Sample Chain-of-Custody

5015 Campuswood Dr.
Suite 104
East Syracuse, NY 13057
Ph. (315) 432-0506
Fax (315) 437-0509

Client:	DASNY	Project #:	60139355.1800
Project:	SUNY Oswego	Date Sampled:	2/18/11
	Littlepage Dining Hall	Sampled By:	TW
	Oswego, NY		

Analysis: ___ PLM only X NY ELAP PLM/TEM w/ NOB Prep ___ Other: ___

Report Results to: ~~Mark Fiorini~~ Sean Hart Email: Mark.Fiorini@aecom.com
Fax (315) 437-0509 72 Hour Turnaround Time Written/Invoice: 10 Days

Homogenous Material #		Color	Sample Description	Sample Location
Roof-001	A	Gray/Black	Paper Backing on foam	West Side of Roof
	B			North Side of Roof
Roof-002	A	Black	Top layer Felt with "Hot Mop"	West Side of Roof
	B			North Side of Roof
Roof-003	A	Black	Middle layer Felt with "Hot Mop"	West Side of Roof
	B			North Side of Roof
Roof-004	A	Black/Brown	Bottom Layer Paper with "Hot Mop" on roof deck.	West Side of Roof
	B			North Side of Roof
*CAulk-005	A	Gray	Sticky Soft Caulk on Copper vent pipes.	SW Corner of Roof
	B			East of Mechanical Air Plenum
CAulk-006	A	Dark Gray	Sealant for roof patches	SW Corner of Roof at Penetration
	B			West of Air Plenum at Curb for Duct work
CAulk-007	A	Light Gray	Soft Caulk at Corners of mechanical air plenum.	SE Corner of Air Plenum
	B			NW Corner of Air Plenum
CAulk-008	A	Tan	Caulk around Base of Mechanical Air plenum.	SE Corner of Air Plenum
	B			NW Corner of Air Plenum
RFLASH-009	A	Black	Roof Flashing/Penetration Cement	Top of Caulking for Range Duct
	B			East Side of Mechanical Air Plenum

Please Analyze all layers and/or Mastics Send NOB's to TEM if <1% by PLM **Stop at First Positive for each DUPLICATE OR TRIPLICATE Set** ***Analyze ALL Joint Compound Samples***

Chain of Custody:	Signature:	Date/Time:
Relinquished by:		2/18/11
Received by:		2-19-11 1641
Relinquished by:		
Received by:		

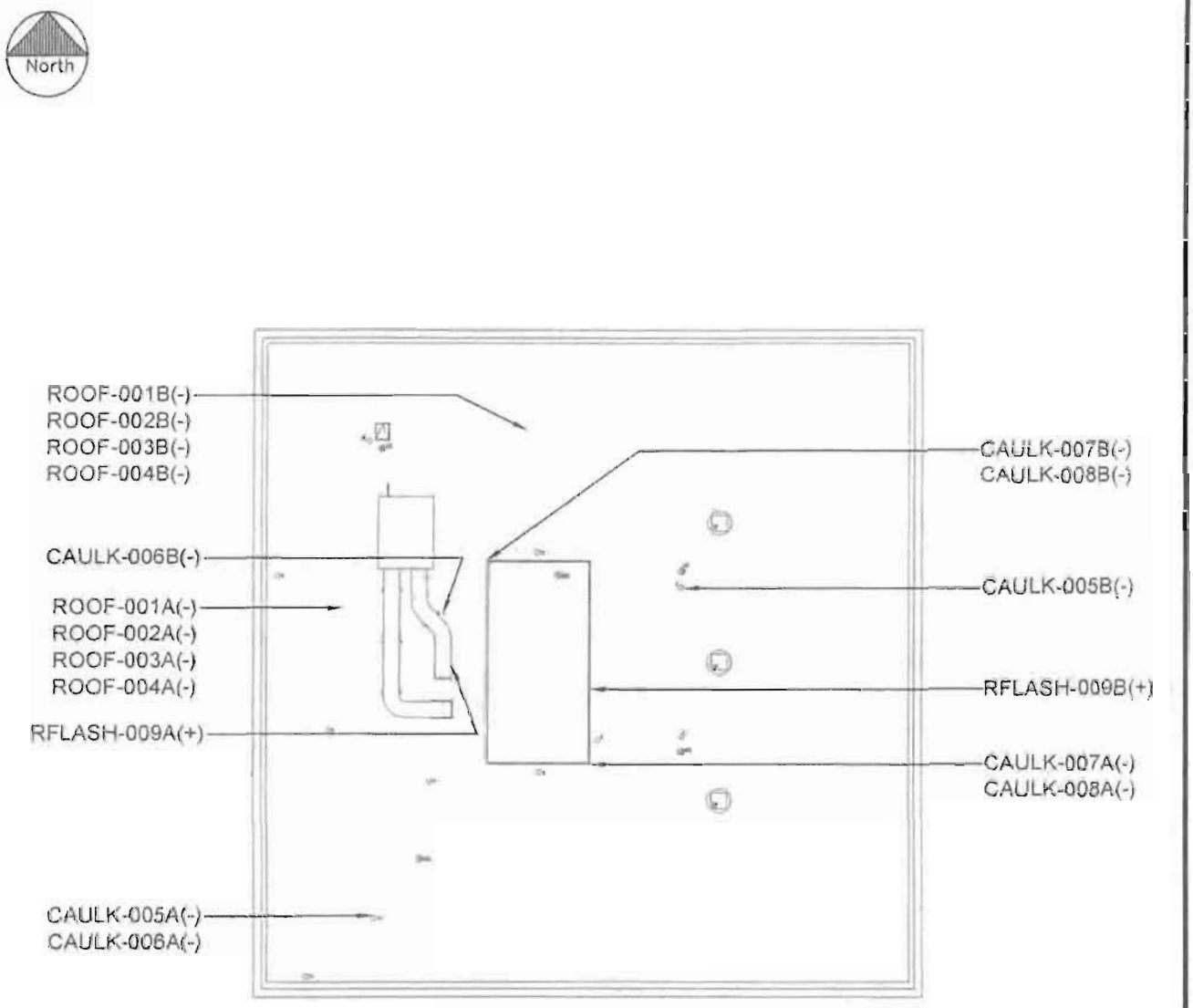
Comments:
Please E-mail results to @aecom.com when complete

FIELD ID CODES

FLVCT- Floor Tile FLVCS- Sheet Flooring FLMAS- Floor Mastic RFSH- Roof Shingle RLRF- Rolled Roof CAULK- Caulking SR- Sheetrock JC- Joint Compound FLASH- Roof Cement DI- Duct Insulation VAP- Vapor Barrier PIPE- Pipe Insulation ASPH- Asphalt

Attachment C

Sample Location Drawings



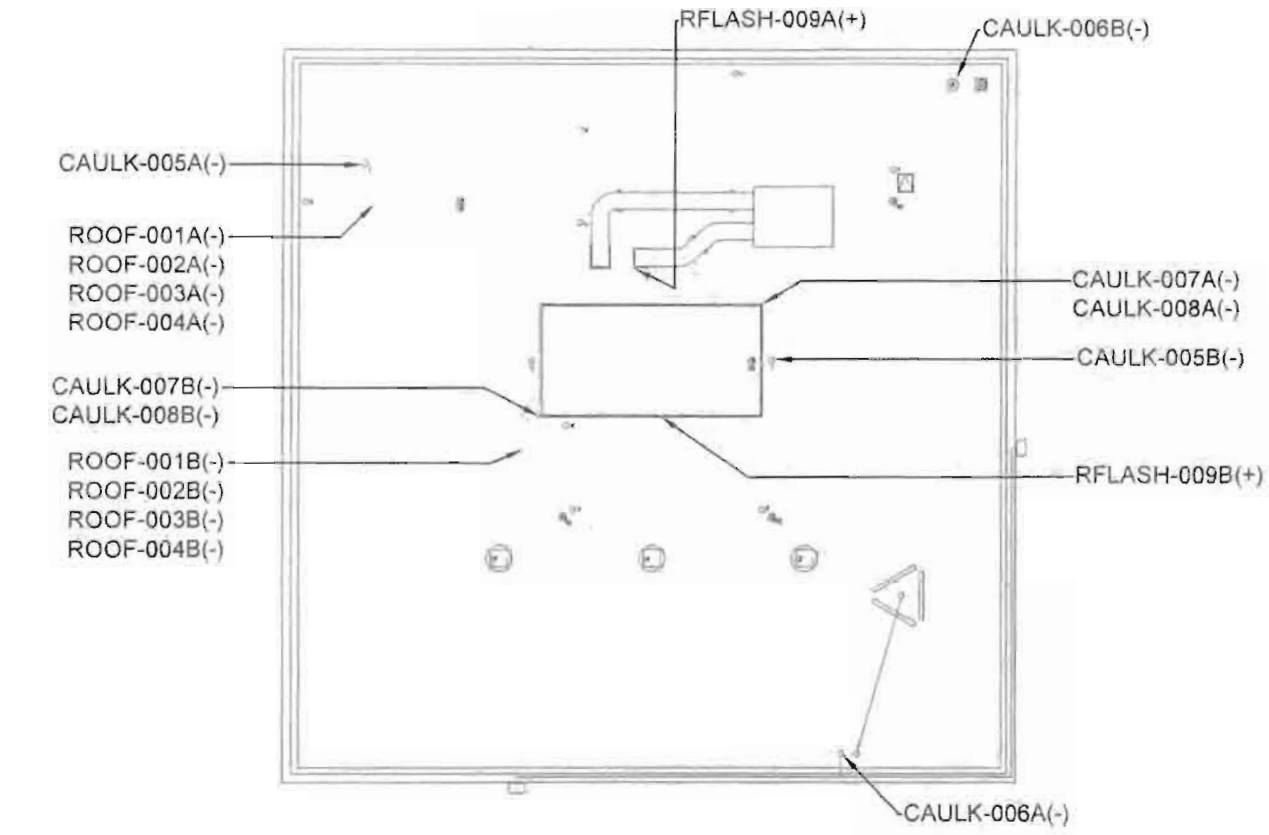
NOT TO SCALE

AECOM
5015 CAMPUSWOOD DRIVE, SUITE 104
EAST SYRACUSE, NEW YORK
PHONE: (315) 432-0506
FAX: (315) 437-0509
WEB: HTTP://WWW.AECOM.COM

ROOF PLAN
LITTLEPAGE HALL
SUNY OSWEGO
OSWEGO, NY

FIGURE NUMBER: 1

DRAWN BY:	CHECKED BY:	DATE:	PROJECT NUMBER:	DRAWING NUMBER:
RR	MF	2/22/2011	60139355-1600	1 OF 2



NOT TO SCALE

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5015 CAMPUSWOOD DRIVE, SUITE 104
EAST SYRACUSE, NEW YORK
PHONE: (315) 432-0506
FAX: (315) 437-0509
WEB: HTTP://WWW.AECOM.COM

ROOF PLAN
PATHFINDER HALL
SUNY OSWEGO
OSWEGO, NY

FIGURE NUMBER: 2

DRAWN BY:	CHECKED BY:	DATE:	PROJECT NUMBER:	DRAWING NUMBER:
RR	MF	2/22/2011	60139355-1800	2 OF 2

PCB EXECUTIVE SUMMARY

The State University of New York at Oswego is conducting a feasibility study of Pathfinder and Littlepage Dining Halls for potential replacement of the current window systems (including those windows in adjoining tunnels in both dining halls), the current roof systems and renovation of the exterior façades including stairs and retaining walls.

A PCB Technical Memorandum for the Feasibility Study was prepared. Representative accessible areas that have the potential to be impacted by potential renovations (window, roof, façade) were inspected within the Pathfinder and Littlepage Dining Hall interior and exterior.

This Study included a visual inspection and collection of suspect PCB containing caulks and glazing. At Pathfinder Dining Hall, twelve (12) different caulk/glazing materials were identified and sampled; at Littlepage Dining Hall, eleven (11) different caulk/glazing materials were identified and sampled. All twenty-three (23) samples were submitted to either AmeriSci Boston or Paradigm Environmental for analysis.

The following tables indicate the caulk/glazing materials that are PCB containing (≥ 50 ppm) based on analytical results.

PATHFINDER DINING HALL & ADJOINING TUNNELS		
Sample Location	**Description**	**PCB Content**
Tunnel to Seneca	Interior caulk- tan, crumbly original caulk between metal and plaster on top of radiator	82.7 ppm
Tunnel to Seneca	Interior caulk- original grey/brown, crumbly window caulk between metal and plaster	61.9 ppm
Exterior east	Exterior caulk- tan, flexible, powders when rubbed between stone wall slabs and stone wall/concrete columns	3950-4570 ppm
Exterior east	Exterior caulk- light grey, gum-like at base of bldg.	590-1870 ppm
Exterior north	Exterior caulk- med./dark grey, flexible caulk at base of bldg.	34.9-173 ppm
Exterior west	Exterior caulk- light grey extremely sticky window caulk- west elevation between bottom and far sides of window frame and concrete	3300-6630 ppm
Exterior west	Exterior caulk-battleship grey, semi-flexible caulk	3420 ppm
Exterior south	Chocolate brown/charcoal grey window caulk between metal and concrete- upper windows, south elevation	NA[1]
Roof	Black EPDM roof seam caulk ≈ 2" wide	NA[2]

PATHFINDER DINING HALL & ADJOINING TUNNELS		
Sample Location	**Description**	**PCB Content**
Roof	Black roof penetration caulk	NA[2]

NA denotes Not Analyzed

[1] Inaccessible due to window height; until further verification, this material is assumed to be PCB containing

[2] Roof materials were not sampled at this time; until further verification, materials are assumed to be PCB containing

LITTLEPAGE DINING HALL & ADJOINING TUNNELS		
Sample Location	**Description**	**PCB Content**
Tunnel to Onondaga	Interior glaze- black, sticky between metal frame and glass window	344 ppm
Exterior north	Exterior caulk-light tan/cream, flexible between concrete and concrete	7490-8560 ppm
Exterior north	Exterior caulk-grey/brown/smoky charcoal grey rubber-like door caulk between metal door frame and concrete	50.7 ppm
Exterior north	Exterior window glaze-black, very stretchy between glass and metal	11.1-61.7 ppm
Exterior north	Exterior caulk-cream (original) window caulk, existing original caulk behind window frame (visible only because window frame was broken at one section)	61,000 ppm
Exterior south	Exterior caulk-metallic grey seam caulk between concrete and concrete at base of building	5920 ppm
Roof	Black EPDM roof seam caulk ≈ 2" wide	NA[1]
Roof	Black roof penetration caulk	NA[1]

NA denotes Not Analyzed

[1] Roof materials were not sampled at this time; until further verification, materials are assumed to be PCB containing

It is recommended that these materials be removed, handled and disposed of in accordance with current Federal, State and Local requirements. Contract specifications should be developed and included within Contract Documents when this project progresses to the point to do so.

RAVI ENGINEERING & LAND SURVEYING, P.C.

TECHNICAL MEMORANDUM

TO: Woolley Morris Architects
401 N. State Street
Syracuse, NY 13203

ATTN: James Williams, AIA
Senior Associate

FROM: Michael Waller
Project Engineer

DATE: November 19, 2010

RE: State University of New York at Oswego
Dining Hall-Feasibility Study
Volume 2 of 2: PCB Technical Memorandum

SUBJECT: Pathfinder and Littlepage Dining Hall Feasibility Study

---

INTRODUCTION

Woolley Morris Architects retained Ravi Engineering & Land Surveying, P.C. (RE&LS) to perform a Pathfinder and Littlepage Dining Hall Feasibility Study at the State University of New York at Oswego campus, Oswego, New York.

PROJECT OVERVIEW

Pathfinder and Littlepage are two story structural concrete and masonry dining halls located on the SUNY Oswego campus. The campus intends to replace the current window systems (including windows in adjoining tunnels in both dining halls), the current roof systems and to renovate the exterior facades including stairs and retaining walls. The survey was necessary to determine potential PCB containing caulk/glazing impacts of the intended renovations; and included a visual inspection and collection of samples. Site investigations were conducted on October 22 and 26, 2010. The results of the feasibility study are presented in this technical memorandum.

PCB CAULK SAMPLING

A total of twenty-three (23) samples were collected; 12 at Pathfinder and 11 at Littlepage. Each caulk or glaze that was sampled, was also sampled and analyzed for asbestos content as part of the

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info@ravieng.com

complimentary November 16, 2010 Technical Memorandum, "Pathfinder and Littlepage Dining Hall Feasibility Study." Each PCB sample number for this study contains the corresponding HA# found in the asbestos feasibility study.

The suspect PCB caulks and glazes that were collected were submitted for laboratory analysis. Bulk PCB samples were analyzed using EPA Method 8082. AmeriScri Boston and Paradigm Environmental Services were the NYSDOH-approved laboratories used for analysis. A copy of Paradigm's and AmeriSci's credentials can be found in Attachment A.

The sample locations are indicated on PCB Sample Location Plans included in Attachment B. The sample numbers indicated on the plans correspond to the sample numbers on the laboratory analytical reports and the chain of custody forms, which are included in Attachment C.

PCB RESULTS/FINDINGS

The Environmental Protection Agency (EPA) defines PCB bulk waste as, "waste derived from manufacturing products containing PCB's in a non-liquid state, at any concentration where concentration at the time of designation for disposal was ≥ 50 ppm PCB's."

The tables below indicate the caulk and/or glazing materials that were identified as part of this study and subsequent analytical results received from AmeriSci Boston and Paradigm Environmental Services. Samples that are ***Bold and italicized*** are ≥ 50 ppm.

1: PATHFINDER DINING HALL & ADJOINING TUNNELS-PCB SAMPLE SUMMARY			
Sample Location	**Sample Description**	**Sample Number**	**PCB Content**
Tunnel to Seneca	***Interior caulk- tan, crumbly original caulk between metal and plaster on top of radiator***	***PCB-B001-9***	***82.7 ppm***
Tunnel to Seneca	***Interior caulk- original grey/brown, crumbly window caulk between metal and plaster***	***PCB-B001-12***	***61.9 ppm***
Room in University Police	Interior caulk-white, flexible window caulk between metal and plaster	PCB-B002-13	7.96 ppm
Room in University Police	Interior caulk- black, semi-sticky window caulk between metal and metal in UPD	PCB-B003-14	27.5 ppm
Room in University Police	Interior caulk- blue, flexible, sticky	PCB-B006-16	29.8 ppm
Exterior east	***Exterior caulk- tan, flexible, powders when rubbed between stone wall slabs and stone wall/concrete columns***	***PCB-EE-20***	***3950-4570 ppm***
Exterior east	***Exterior caulk- light grey, gum-like at base of bldg.***	***PCB-EE-21***	***590-1870 ppm***

1: PATHFINDER DINING HALL & ADJOINING TUNNELS-PCB SAMPLE SUMMARY			
Sample Location	**Sample Description**	**Sample Number**	**PCB Content**
Exterior east	Exterior caulk- medium grey, flexible seam caulk	PCB-EE-22	8.6-13.6 ppm
Exterior east	Exterior caulk- dark grey, flexible, smooth (top bead of metal base board of retaining wall (east side only))	PCB-EE-23	None Detected
Exterior north	***Exterior caulk- med./dark grey, flexible caulk at base of bldg.***	***PCB-EN-24***	***34.9-173 ppm***
Exterior west	***Exterior caulk- light grey extremely sticky window caulk- west elevation between bottom and far sides of window frame and concrete***	***PCB-EW-25***	***3300-6630 ppm***
Exterior west	***Exterior caulk-battleship grey, semi-flexible caulk***	***PCB-EW-27***	***3420 ppm***
Exterior south	***Chocolate brown/charcoal grey window caulk between metal and concrete- upper windows, south elevation***	***Not sampled[1]***	***NA***
Roof	***Black EPDM roof seam caulk ≈ 2" wide***	***Not sampled[2]***	***NA***
Roof	***Black roof penetration caulk***	***Not sampled[2]***	***NA***

UPD denotes University Police Department

NA denotes Not Analyzed

[1] Inaccessible due to window height; until further verification, this material is assumed to be PCB containing

[2] Roof materials were not sampled at this time; until further verification, materials are assumed to be PCB containing

2: LITTLEPAGE DINING HALL & ADJOINING TUNNELS-PCB SAMPLE SUMMARY			
Homogeneous Area No.	**Description**	**Sample Number**	**PCB Content**
Tunnel to Onondaga	Interior white, crumbly caulk between metal and plaster on top of radiator	PCB-B001-3	2.04 ppm
Tunnel to Onondaga	***Interior glaze- black, sticky between metal frame and glass window***	***PCB-B002-9***	***344 ppm***
Exterior north	***Exterior caulk-light tan/cream, flexible between concrete and concrete***	***PCB-EN-21***	***7490-8560 ppm***
Exterior north	***Exterior caulk-grey/brown/smoky charcoal grey rubber-like door caulk between metal door frame and concrete***	***PCB-EN-22***	***50.7 ppm***
Exterior north	Light grey/off-white exterior seam caulk between sidewalk panels and between stone wall panels	PCB-EN-23	4.54-6.96 ppm
Exterior west	Exterior caulk-cream, flexible, powders when rubbed between stone wall panels over HA#21	PCB-EW-25	33.9 ppm
Exterior north	***Exterior window glaze-black, very stretchy between glass and metal***	***PCB-EN-26***	***11.1-61.7 ppm***

2: LITTLEPAGE DINING HALL & ADJOINING TUNNELS-PCB SAMPLE SUMMARY			
Homogeneous Area No.	**Description**	**Sample Number**	**PCB Content**
Exterior north	Charcoal grey/brown window glaze/caulk, flexible	PCB-EN-27	None Detected
Exterior north	***Exterior caulk-cream (original) window caulk, existing original caulk behind window frame (visible only because window frame was broken at one section)***	***PCB-EN-28***	***61,000 ppm***
Exterior south	***Exterior caulk-metallic grey seam caulk between concrete and concrete at base of building***	***PCB-ES-29***	***5920 ppm***
Exterior south	Exterior caulk-grey, flexible seam caulk between concrete and concrete on retaining wall cube bases and tunnel seams	PCB-ES-30	None Detected
Roof	***Black EPDM roof seam caulk ≈ 2" wide***	***Not sampled[1]***	***NA***
Roof	***Black roof penetration caulk***	***Not sampled[1]***	***NA***

NA denotes Not Analyzed

[1] Roof materials were not sampled at this time; until further verification, these materials are assumed to be PCB containing

LIMITATIONS

Materials that were not accessible were not sampled and are therefore assumed to be PCB containing until further verification.

To avoid potential roof leaks, the EPDM roof systems on both buildings were not sampled, caulks present on the roof are assumed to be PCB containing.

Sample identification number PCB-ES-29 collected at Littlepage Dining Hall was visible only because a portion of the window frame was missing. It is unknown if a comparable material exists within the Pathfinder Dining Hall windows.

RECOMMENDATIONS

Due to the presence of PCBs in caulk, it is recommended that a PCM removal specification be included within the Contract Documents as the project progresses since the scopes of this study will impact PCB containing window caulks/glazing and seam caulk.

Removal of PCB containing caulk generates a regulated hazardous waste. It is recommended that Federal and State regulations for generation, waste characterization, transport and disposal be adhered to.

It is recommended that coordination be set in place to sample those materials that were inaccessible.

It is recommended that all roofing materials be sampled for PCB content verification at a later time prior to roof renovations.

It is recommended that further investigation be completed to verify if there are any additional caulk materials behind the exterior window frames at Pathfinder Dining Hall.

ATTACHMENT A

Laboratory Certifications

PCB TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 29388509999

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2011
Issued April 01, 2010

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. NICOLE CORTESE
AMERISCI BOSTON
8 SCHOOL STREET
EAST WEYMOUTH, MA 02189

NY Lab Id No. 10982
EPA Lab Code: MA00069

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Polychlorinated Biphenyls	
PCB-1260	EPA 8082
Polynuclear Aromatic Hydrocarbons	
Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C
Priority Pollutant Phenols	
2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C

Priority Pollutant Phenols	
2-Nitrophenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C
Purgeable Aromatics	
1,2,4-Trimethylbenzene	EPA 8021B
	EPA 8260B
1,2-Dichlorobenzene	EPA 8021B
	EPA 8260B
1,3,5-Trimethylbenzene	EPA 8021B
	EPA 8260B
1,3-Dichlorobenzene	EPA 8021B
	EPA 8260B
1,4-Dichlorobenzene	EPA 8021B
	EPA 8260B
2-Chlorotoluene	EPA 8260B
4-Chlorotoluene	EPA 8260B
Benzene	EPA 8021B
	EPA 8260B
Bromobenzene	EPA 8260B
Chlorobenzene	EPA 8021B
	EPA 8260B
Ethyl benzene	EPA 8021B
	EPA 8260B
Isopropylbenzene	EPA 8021B
	EPA 8260B

Serial No.: 41616

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NELAP Recognized

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2011
Issued April 01, 2010

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. BRUCE HOOGESTEGER
PARADIGM ENVIRONMENTAL SERVICES INC
179 LAKE AVENUE
ROCHESTER, NY 14608

NY Lab Id No: 10958
EPA Lab Code: NY01287

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Phthalate Esters	
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 625
	EPA 8270C
Di-n-butyl phthalate	EPA 625
	EPA 8270C
Di-n-octyl phthalate	EPA 625
	EPA 8270C
Polychlorinated Biphenyls	
PCB-1016	EPA 608
	EPA 8082
PCB-1221	EPA 608
	EPA 8082
PCB-1232	EPA 608
	EPA 8082
PCB-1242	EPA 608
	EPA 8082
PCB-1248	EPA 608
	EPA 8082
PCB-1254	EPA 608
	EPA 8082
PCB-1260	EPA 608
	EPA 8082
Polynuclear Aromatics	
Acenaphthene	EPA 625
	EPA 8270C
Acenaphthylene	EPA 625
	EPA 8270C
Polynuclear Aromatics	
Anthracene	EPA 625
	EPA 8270C
Benzo(a)anthracene	EPA 625
	EPA 8270C
Benzo(a)pyrene	EPA 625
	EPA 8270C
Benzo(b)fluoranthene	EPA 625
	EPA 8270C
Benzo(ghi)perylene	EPA 625
	EPA 8270C
Benzo(k)fluoranthene	EPA 625
	EPA 8270C
Chrysene	EPA 625
	EPA 8270C
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270C
Fluoranthene	EPA 625
	EPA 8270C
Fluorene	EPA 625
	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270C
Naphthalene	EPA 625
	EPA 8260B
	EPA 8270C
Phenanthrene	EPA 625
	EPA 8270C
Pyrene	EPA 625

Serial No.: 41598

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NELAP Recognized

ATTACHMENT B

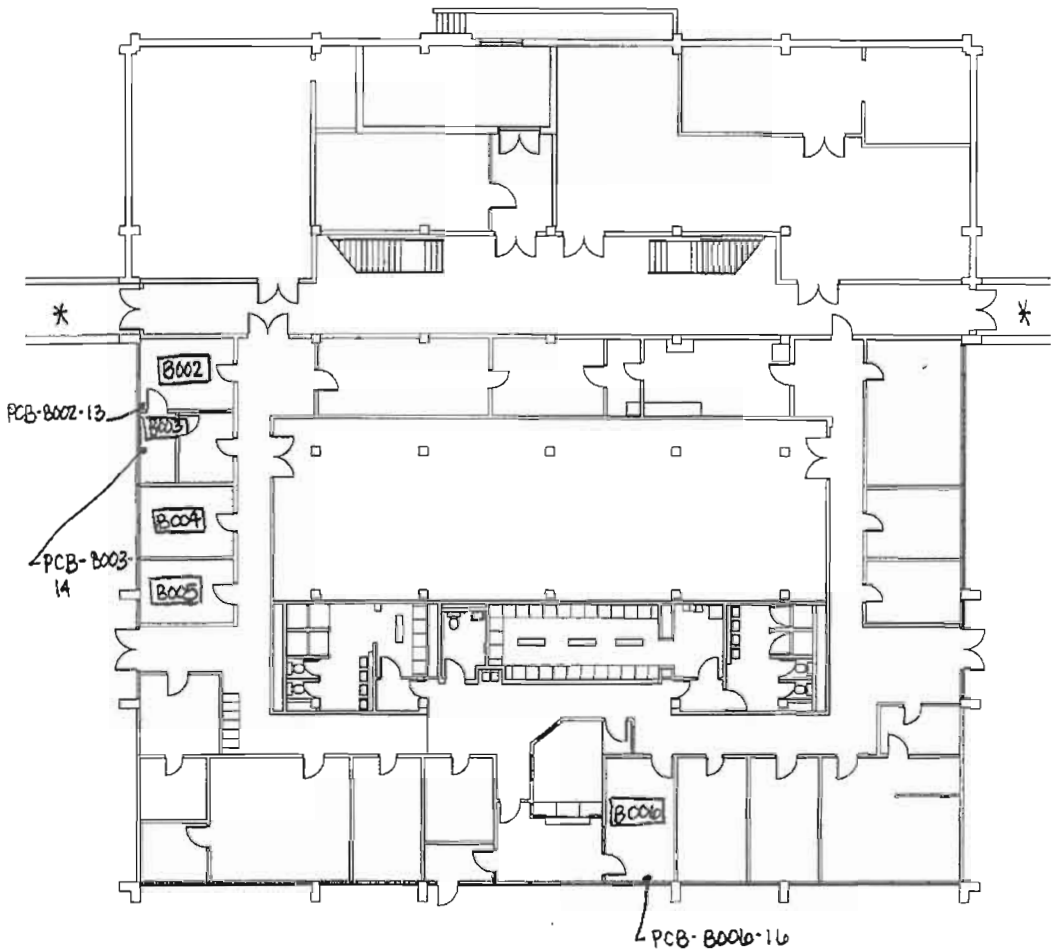
Bulk Sample Location Plans

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

PATHFINDER DINING HALL



* see 31-PCB-105 for continuation of tunnels

1 PATHFINDER HALL - BASEMENT PLAN
3/16"=1'-0"

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY
STATE UNIVERSITY OF NEW YORK AT OSWEGO
(LITTLEPAGE & PATHFINDER HALLS)

DORMITORY AUTHORITY OF THE STATE OF NEW YORK
515 BROADWAY
ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3300

WOOLLEY MORRIS AA

401 N. STATE STREET
SYRACUSE, NY 13203
FAX 315 426 9874
TEL 315 426 9871

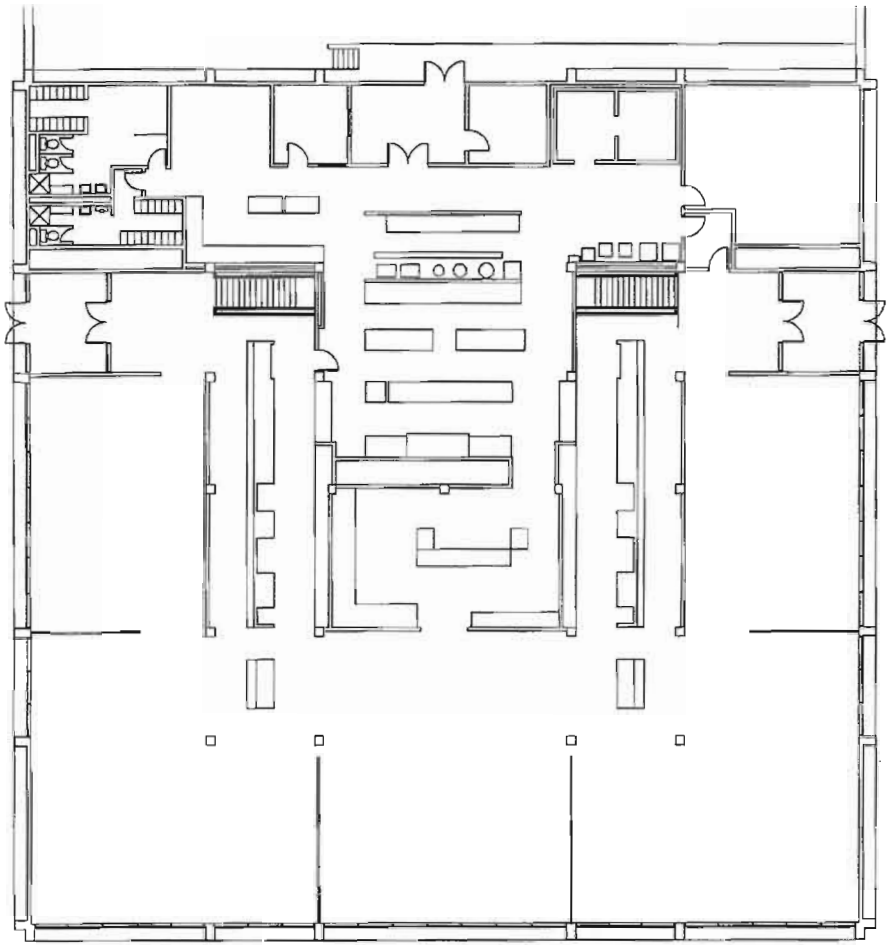
141 WITHERSPOON ST.
THIRD FLOOR
PRINCETON, NJ 08542
FAX 609 688 1881
TEL 609 688 1818

Klepper, Hahn & Hyatt

RAVI ENGINEERING & LAND SURVEYING, P.C.

PATHFINDER HALL
EXISTING
BASEMENT PLAN

31-PCB-100



1 / 31A101 PATHFINDER DINING HALL – 1st FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY

STATE UNIVERSITY OF NEW YORK
AT OSWEGO
(LITTLEPAGE & PATHFINDER HALLS)

DORMITORY AUTHORITY
OF THE STATE
OF NEW YORK

515 BROADWAY
ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3000

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ARCHITECTS
MORRIS

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PRprinceton, NJ 08542
FAX 609 688 1881
TEL 609 688 1818

Klepper, Hahn & Hyatt

RAVI ENGINEERING
& LAND SURVEYING, P.C.

WWW.PROJECT.COM

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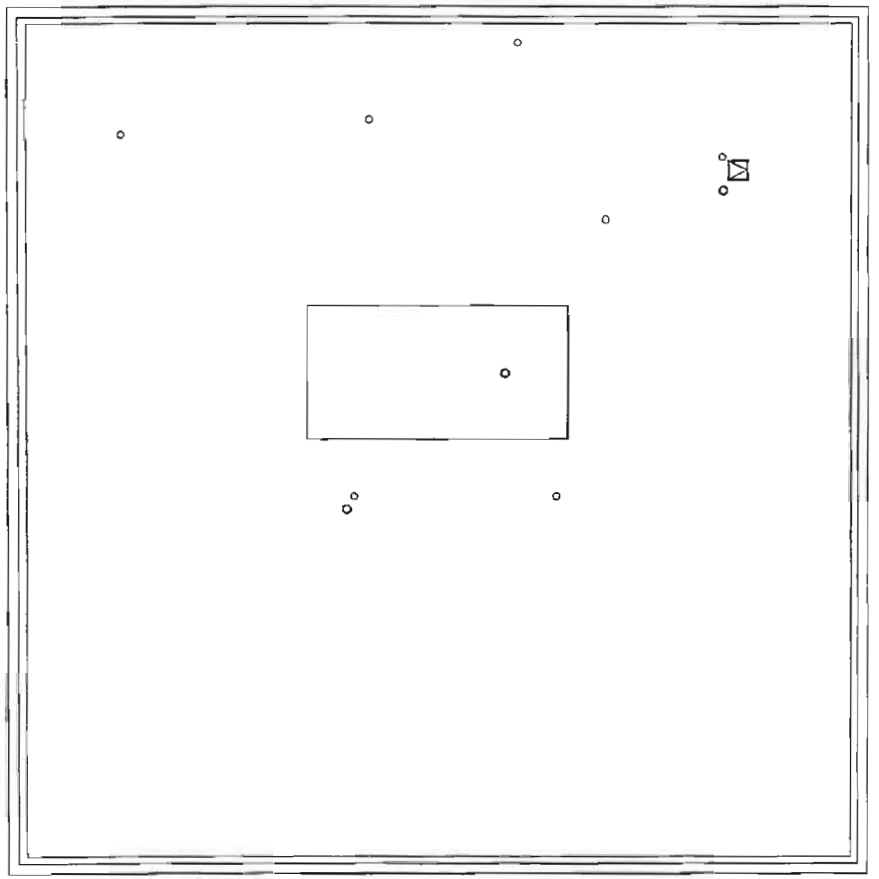
PATHFINDER
DINING HALL
EXISTING
FIRST FLOOR PLAN

31-PCB-101



1 A102 PATHFINDER DINING HALL – ROOF PLAN
SCALE: 1/16" = 1'-0"

NORTH

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY
STATE UNIVERSITY OF NEW YORK
AT OSWEGO
(LITTLEPAGE & PATHFINDER HALLS)

DORMITORY AUTHORITY
OF THE STATE
OF NEW YORK
515 BROADWAY
ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3000

WOOLLEY
ARCHITECTS
MORRIS
AIA

401 N. STATE STREET
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PRINCETON, NJ 08542
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TEL 609 688 1818

Klepper, Hahn & Hyatt

RAVI ENGINEERING
& LAND SURVEYING, P.C.

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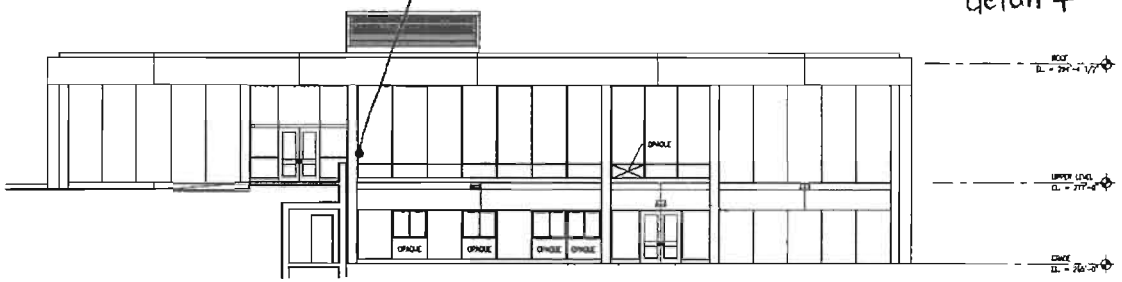
PATHFINDER
DINING HALL
ROOF PLAN

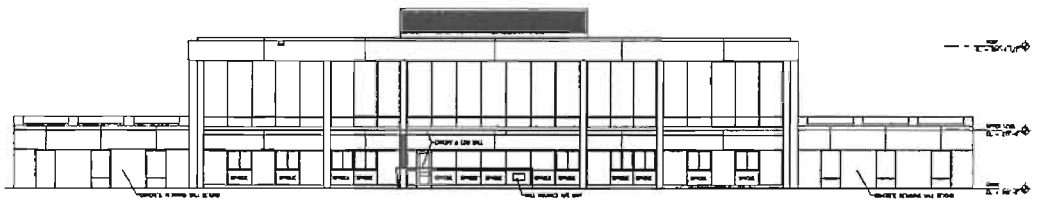
31-PCB-102

PCB-EW-25

* For additional EW sample see 31-PCB-105; detail 4



1 / 31A103 PATHFINDER DINING HALL - WEST ELEVATION



2 / 31A103 PATHFINDER DINING HALL - SOUTH ELEVATION

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

STATE UNIVERSITY OF NEW YORK AT OSWEGO (LITTLEPAGE & PATHFINDER HALLS)

DORMITORY AUTHORITY OF THE STATE OF NEW YORK
515 BROADWAY
ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3000

WOOLLEY MORRIS

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THIRD FLOOR
PRINCETON, NJ 08542
FAX 609 688 1881
TEL 609 688 1818

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WMA PROJECT #201206

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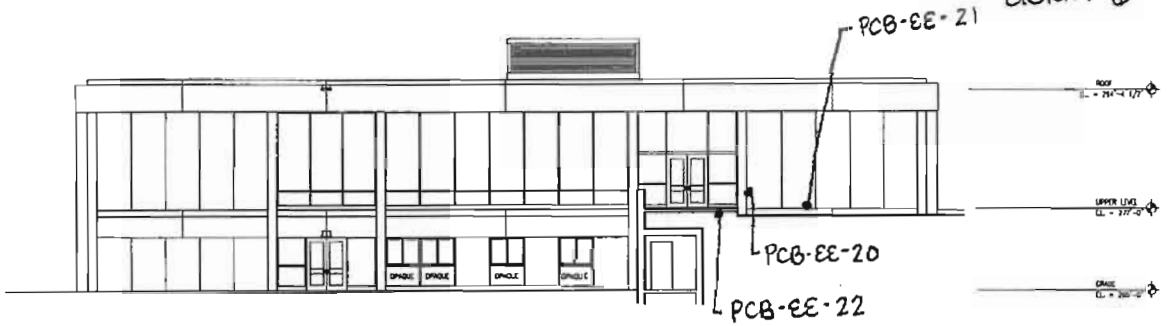
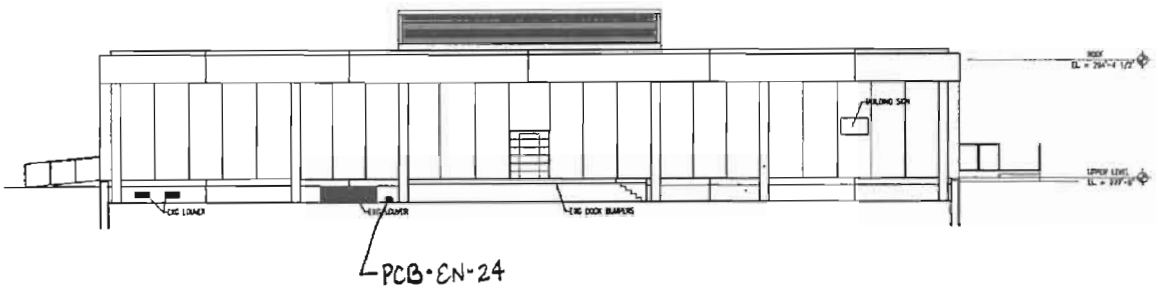
PATHFINDER DINING HALL EXISTING ELEVATIONS

31-PCB-103

*For additional EE sample see 31-PCB-105, detail 6



1 / 31A104 PATHFINDER DINING HALL – EAST ELEVATION



2 / 31A104 PATHFINDER DINING HALL – NORTH ELEVATION

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY
STATE UNIVERSITY OF NEW YORK
AT OSWEGO
(LITTLEPAGE & PATHFINDER HALLS)

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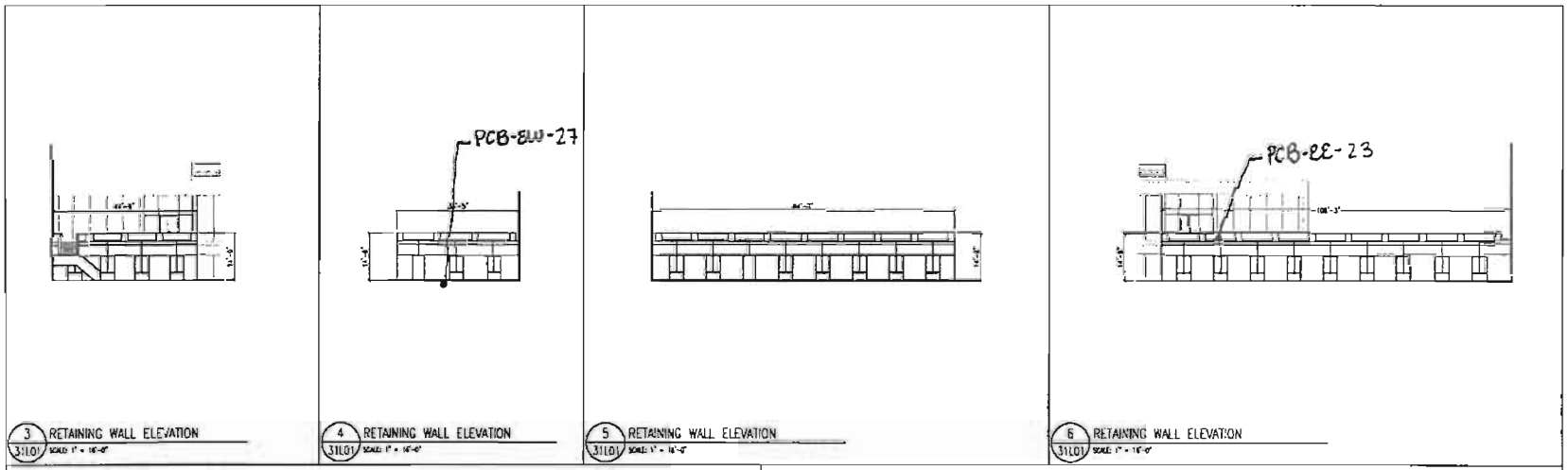
PATHFINDER
DINING HALL
EXISTING
ELEVATIONS

31-PCB-104

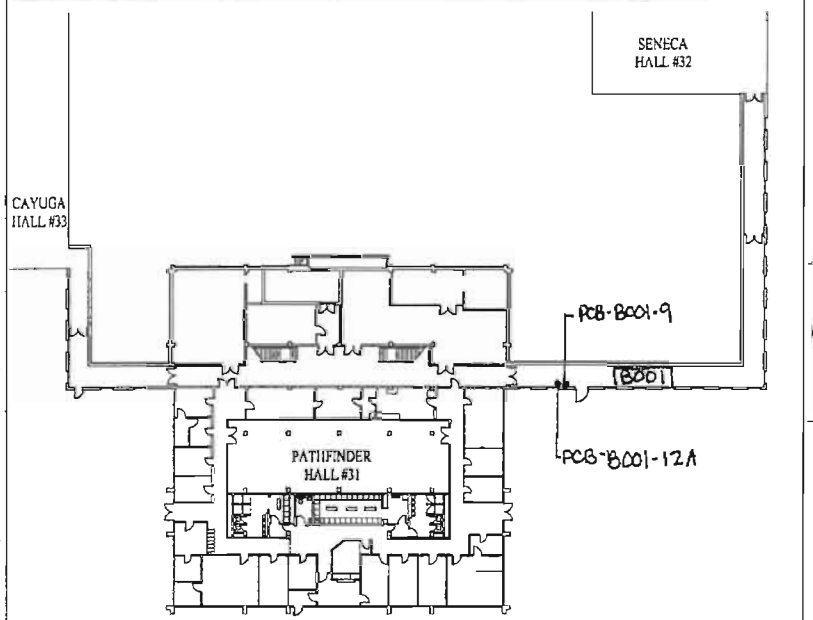


3 31L01 RETAINING WALL ELEVATION

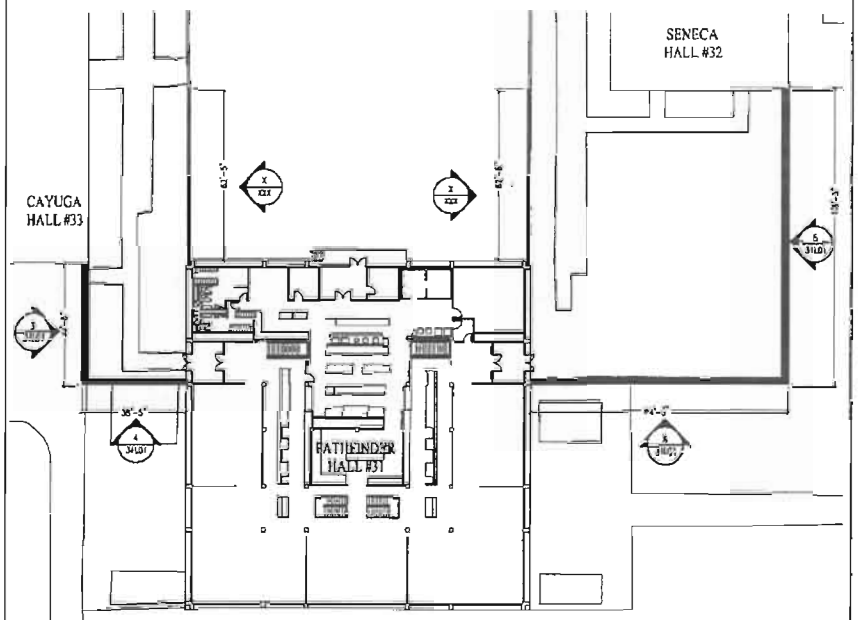
4 31L01 RETAINING WALL ELEVATION

5 31L01 RETAINING WALL ELEVATION

6 31L01 RETAINING WALL ELEVATION



1 31L01 PATHFINDER DINING HALL - TUNNEL PLAN



2 31L01 PATHFINDER DINING HALL - RETAINING WALL PLAN

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SHELL IMPROVEMENTS
FEASIBILITY STUDY
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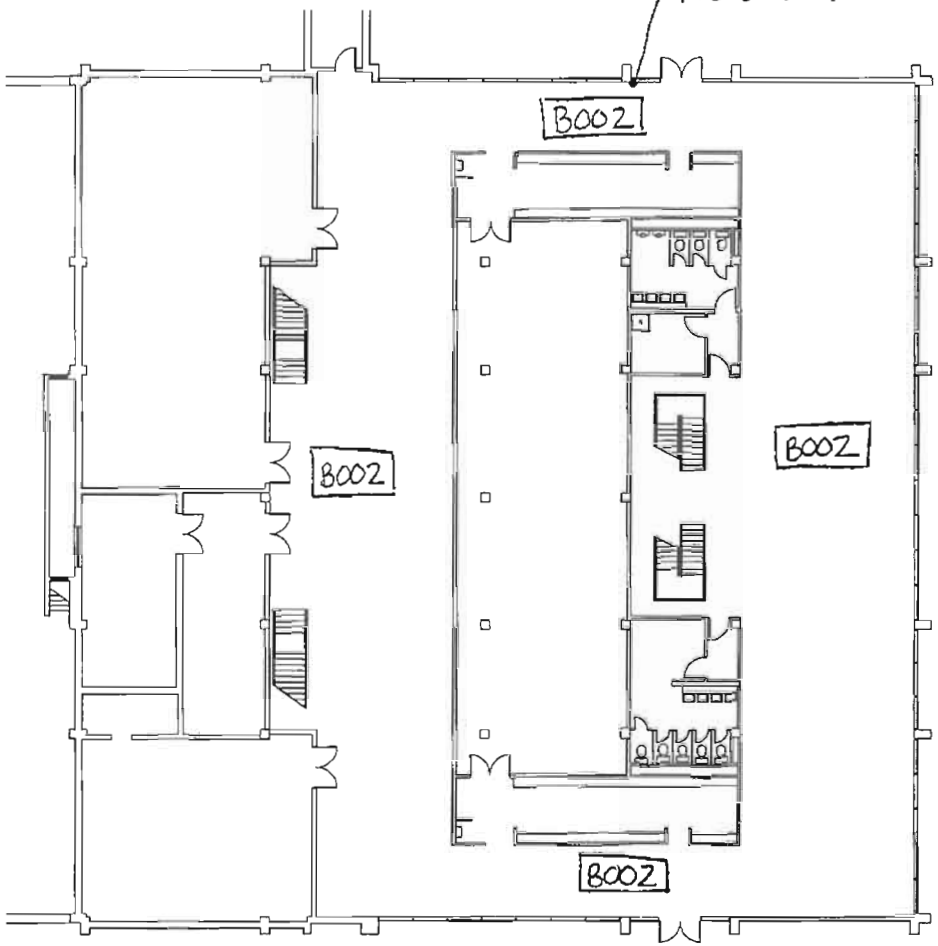
PATHFINDER HALL
RETAINING WALLS/
TUNNELS, PLANS &
ELEVATIONS

31-PCB-105

LITTLEPAGE DINING HALL



*see 35-PCB-105 for continuation of tunnels

1 / 35A100 LITTLEPAGE DINING HALL - BASEMENT PLAN

SCALE: 1/8" = 1'-0"

NORTH

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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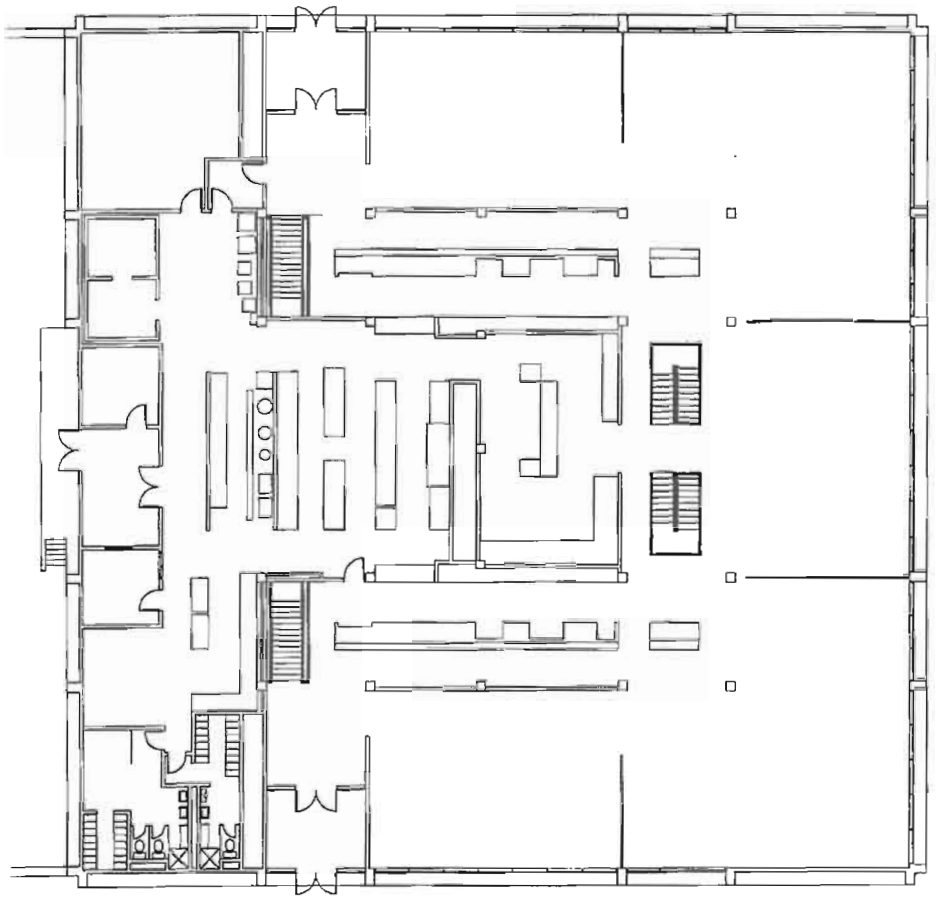
LITTLEPAGE DINING HALL EXISTING BASEMENT PLAN

35-PCB-100



1 / 35A101 LITTLEPAGE DINING HALL – 1st FLOOR PLAN

SCALE: 1/8" = 1'-0"

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY

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AIA

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TEL 315 428 8971

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THIRD FLOOR
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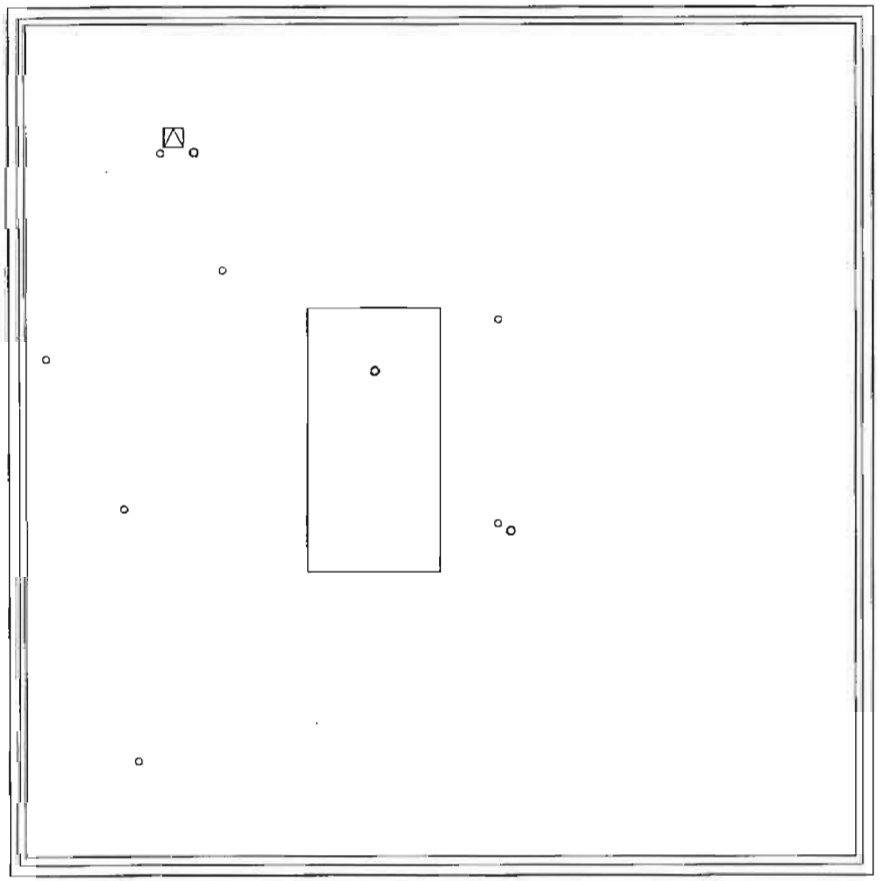
LITTLEPAGE
DINING HALL
EXISTING
FIRST FLOOR PLAN

35-PCB-101



1 / 3A102 LITTLEPAGE DINING HALL - ROOF PLAN

SCALE: 1/8" = 1'-0"

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY

STATE UNIVERSITY OF NEW YORK
AT OSWEGO
LITTLEPAGE & PATHFINDER HALLS

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MORRIS

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THIRD FLOOR
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& LAND SURVEYING, P.C.

WMA PROJECT #01005

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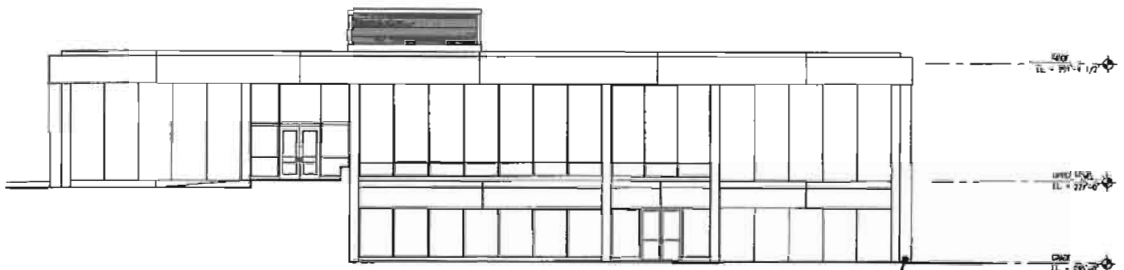
LITTLEPAGE
DINING HALL
ROOF PLAN

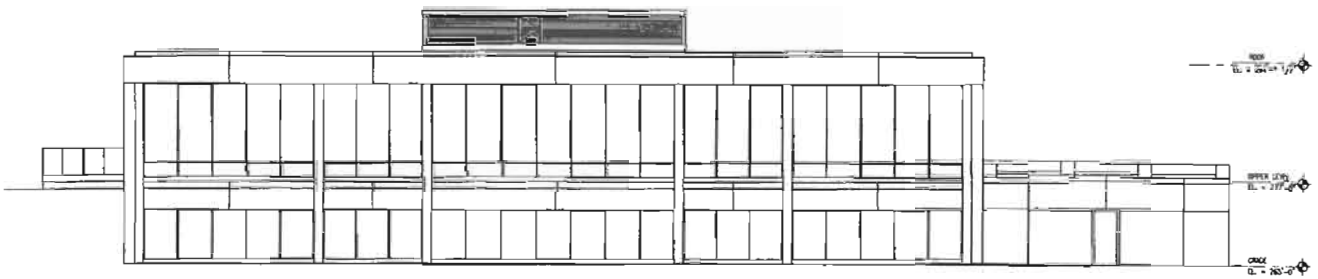
35-DCB-102

* For additional ES sample see 35-PCB-105, detail 4



PCB-ES-29

1 / 334103 LITTLEPAGE DINING HALL – SOUTH ELEVATION



2 / 334103 LITTLEPAGE DINING HALL – EAST ELEVATION

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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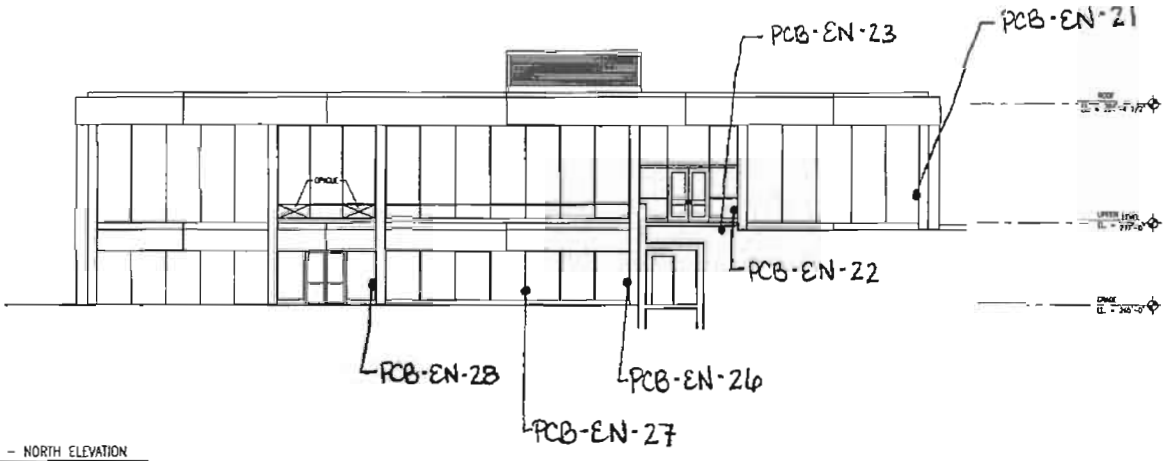
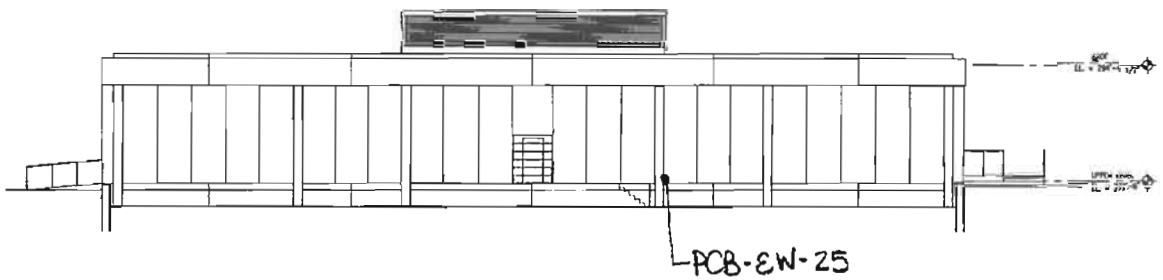
LITTLEPAGE DINING HALL EXISTING ELEVATIONS

35-PCB-103



1 LITTLEPAGE DINING HALL – NORTH ELEVATION



2 LITTLEPAGE DINING HALL – WEST ELEVATION

RESIDENCE HALL SHELL IMPROVEMENTS FEASIBILITY STUDY

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ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3000

WOOLLEY MORRIS

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SYRACUSE, NY 13203
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TEL 315 [illegible]

147 WITHERSPOON ST.
THIRD FLOOR
PRINCETON, NJ 08542
FAX 609 [illegible]
TEL 609 [illegible]

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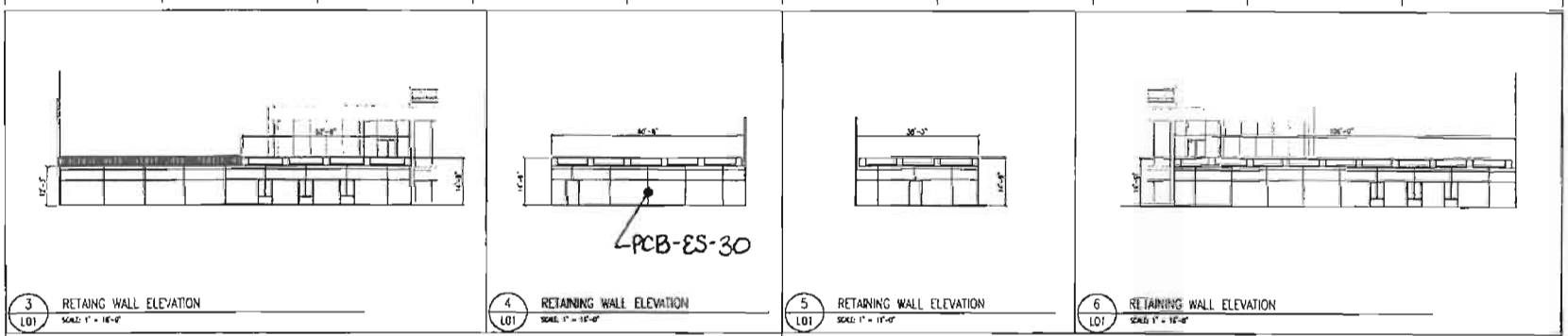
LITTLEPAGE DINING HALL EXISTING ELEVATIONS

35-PCB-104



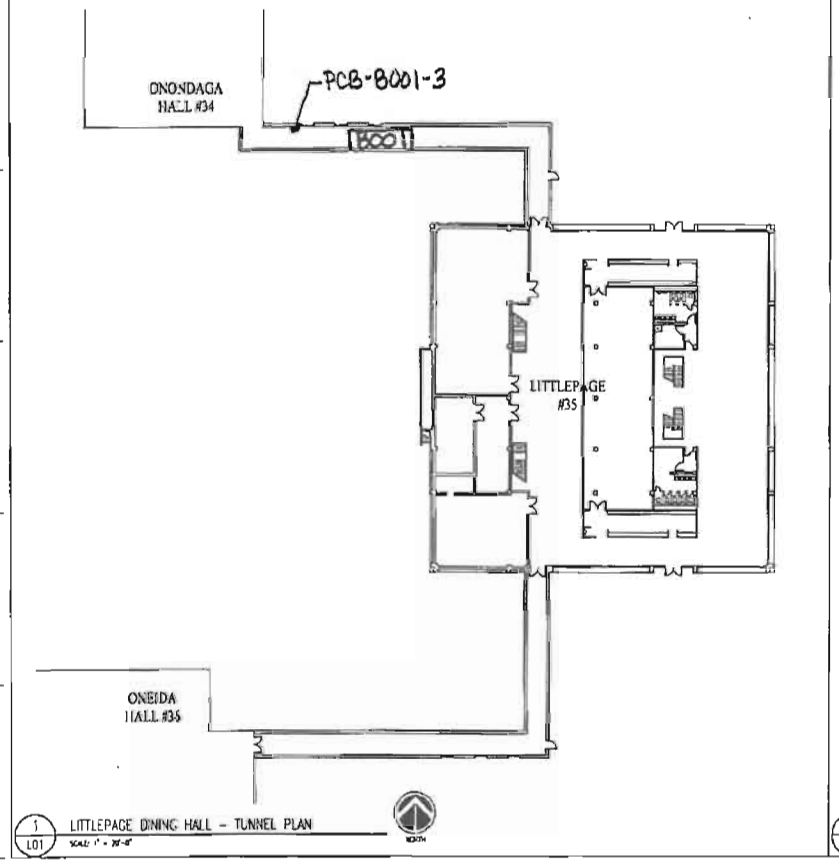
3 L01 RETAING WALL ELEVATION

4 L01 RETAINING WALL ELEVATION

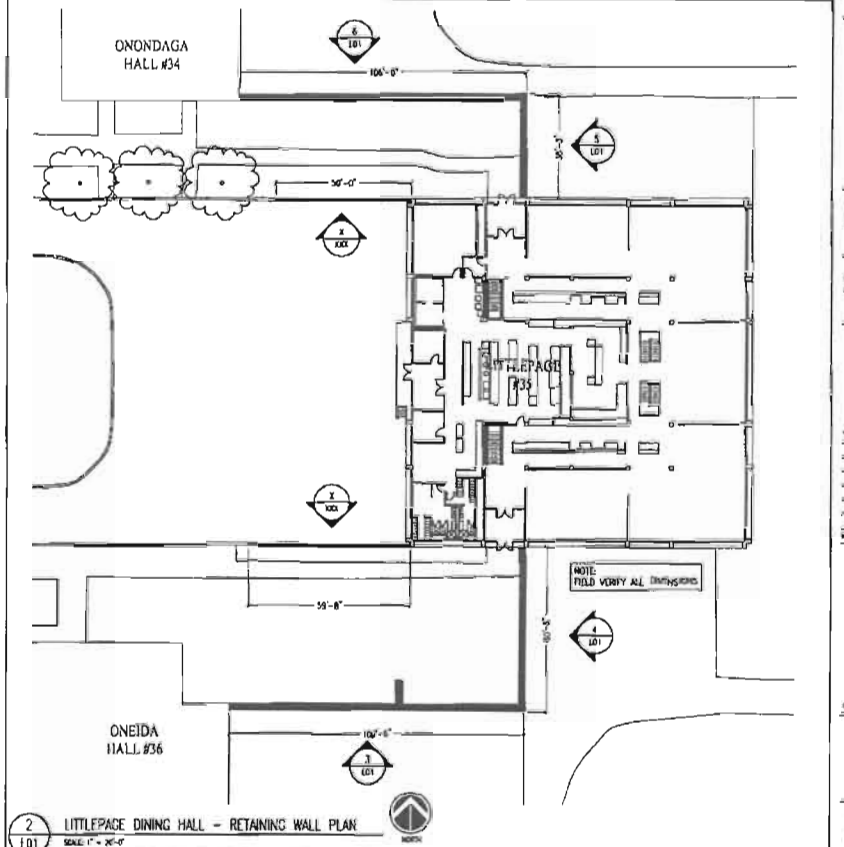
PCB-ES-30

5 L01 RETAINING WALL ELEVATION

6 L01 RETAINING WALL ELEVATION



1 L01 LITTLEPAGE DINING HALL - TUNNEL PLAN



2 L01 LITTLEPAGE DINING HALL - RETAINING WALL PLAN

RESIDENCE HALL
SHELL IMPROVEMENTS
FEASIBILITY STUDY
STATE UNIVERSITY OF NEW YORK
AT ONEONTA
(LITTLEPAGE & PATHFINDER HALLS)

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ALBANY, NEW YORK 12207-2964
TEL: (518) 257-3000

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MORRIS

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TEL 315 422 8871

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THIRD FLOOR
PRINCETON, NJ 08542
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TEL 609 688 1818

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RAVI ENGINEERING
& LAND SURVEYING, P.C.

PROJECT NO. 1606

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WEST CAMPUS
EXISTING
RETAINING WALLS
PLANS

35-PCB-105

ATTACHMENT C

Analytical Reports,
Chain of Custody Forms,
Bulk Sample Logs

ASBESTOS TECHNICAL MEMORANDUM

PATHFINDER AND LITTLEPAGE
DINING HALL FEASIBILITY STUDY

DASNY D#116504; JDE# 2938509999

PATHFINDER DINING HALL

Please Reply To:

AmeriSci Boston
Eight School Street
Weymouth, MA 02189
TEL:(781)337-9334 FAX:(781)337-7642

To: Christine Cregan
Ravi Engineering & LS, P.C.

Fax # MWALLER@RAVIENG.COM
MGARBACH@RAVIENG.COM

Email: CCREGAN@RAVIENG.COM

AmeriSci Job# 1010-00298
Subject: PATHFINDER: PCB

Date: Thursday, November 04, 2010

Time: 1:54:43PM

Comments: This report contains a total of 13 pages, including the cover sheet, laboratory report, chain of custody, airbill, sample receiving form, and any other correspondence related to this work order.

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AmeriSci Boston
Eight School Street
Weymouth, MA 02189
781-337-9334

Laboratory Report

Report Date 11/04/2010
Workorder No. 1010-00298

Customer: Ravi Engineering & LS, P.C.
2110 S. Clinton Ave.
Suite 1
Rochester, NY 14618

Attention: Christine Cregan

Subject: PATHFINDER: PCB

Sample: 001 PCB-B001-9: TUNNEL TO SENECA-INTERIOR CAULK-TAN, CRUMBLY, ORIGINAL CAULK-BETWEEN METAL/PLASTER ON TOP OF RADIATOR
Collection Date: 10/26/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1221	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1232	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1242	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1248	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1254	EPA 8082	82700	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1260	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1262	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
PCB-1268	EPA 8082	ND	ug/Kg	4950	TLL	11/04/2010 / 12:31	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:31	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:31	G

Sample: 002 PCB-B002-13: ROOM IN UNIVERSITY POLICE-INTERIOR CAULK-WHITE,FLEXIBLE WINDOW CAULK-BETWEEN METAL/PLASTER
Collection Date: 10/26/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1221	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1232	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1242	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	

Certifications: MA: MA069 NY:10982 CT: PH0119 RI:LAO00201 NJ: MA744 NH: 2011
ND = Not Detected PQL= Practical Quantitation Limit

Sample: 002 **PCB-B002-13: ROOM IN UNIVERSITY POLICE-INTERIOR CAULK-WHITE,FLEXIBLE WINDOW CAULK-BETWEEN METAL/PLASTER**

(Continued)

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB-1248	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1254	EPA 8082	7960	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1260	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1262	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
PCB-1268	EPA 8082	ND	ug/Kg	3230	TLL	11/04/2010 / :49	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / :49	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / :49	G

Sample: 003 **PCB-B003-14: ROOM IN UNIVERSITY POLICE-INTERIOR CAULK-BLACK,SEMI-STICKY WINDOW CAULK-BETWEEN METAL/METAL**

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1221	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1232	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1242	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1248	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1254	EPA 8082	27500	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1260	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1262	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
PCB-1268	EPA 8082	ND	ug/Kg	4350	TLL	11/04/2010 / 10:18	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G

Sample: 004 **PCB-B006-16: ROOM IN UNIVERSITY POLICE-INTERIOR CAULK-BLUE, FLEXIBLE, STICKY-BLUE FROM WINDOW FRAME PAINT ABSORPTION**

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual

Sample: 004 **PCB-B006-16: ROOM IN UNIVERSITY POLICE-INTERIOR CAULK-BLUE, FLEXIBLE, STICKY-BLUE FROM WINDOW FRAME PAINT ABSORPTION**

(Continued)

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1221	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1232	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1242	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1248	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1254	EPA 8082	29800	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1260	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1262	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
PCB-1268	EPA 8082	ND	ug/Kg	4030	TLL	11/04/2010 / 8:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 8:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 8:00	G

Sample: 005 **PCB-EE-20: EXTERIOR EAST-EXTERIOR CAULK-TAN, FLEXIBLE, POWDERS WHEN RUBBED-BETWEEN STONE WALL SLABS**

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1221	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1232	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1242	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1248	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1254	EPA 8082	4570000	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1260	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1262	EPA 8082	ND	ug/Kg	284000	TLL	11/04/2010 / 10:18	
PCB-1268	EPA 8082	3950000	ug/Kg	284000	TLL	11/04/2010 / 10:18	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G

Sample: 006 **PCB-EE-21: EXTERIOR EAST-EXTERIOR CAULK-LIGHT GREY, FLEXIBLE-LOOKS LIKE A BRAIN, GUM-LIKE @ BASE OF BLDG.**

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1221	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1232	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1242	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1248	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1254	EPA 8082	1870000	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1260	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1262	EPA 8082	ND	ug/Kg	176000	TLL	11/04/2010 / 10:18	
PCB-1268	EPA 8082	590000	ug/Kg	176000	TLL	11/04/2010 / 10:18	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G

Sample: 007 **PCB-EE-22: EXTERIOR EAST-EXTERIOR CAULK-MEDIUM GREY, FLEXIBLE SEAM CAULK-SLAB JOINT**

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1221	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1232	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1242	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1248	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1254	EPA 8082	8620	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1260	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1262	EPA 8082	ND	ug/Kg	2360	TLL	11/04/2010 / 4:00	
PCB-1268	EPA 8082	13600	ug/Kg	2360	TLL	11/04/2010 / 4:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 4:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 4:00	G

AMERI SCI

Customer: Ravi Engineering & LS, P.C.

Workorder No. 1010-00298

Sample: 008 PCB-EE-23: EXTERIOR EAST-EXTERIOR CAULK-DARK GREY, FLEXIBLE,SMOOTH-TOP BEAD OF METAL BASEBOARD OF RETAINING WALL-E. SIDE

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1221	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1232	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1242	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1248	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1254	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1260	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1262	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
PCB-1268	EPA 8082	ND	ug/Kg	1920	TLL	11/04/2010 / 23:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 23:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 23:00	G

Sample: 009 PCB-EN-24: EXTERIOR NORTH-EXTERIOR CAULK-MED/DRK GREY, FLEXIBLE-AT BASE OF BLDG.

Collection Date: 10/26/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1221	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1232	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1242	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1248	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1254	EPA 8082	173000	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1260	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1262	EPA 8082	ND	ug/Kg	18400	TLL	11/04/2010 / 10:18	
PCB-1268	EPA 8082	34900	ug/Kg	18400	TLL	11/04/2010 / 10:18	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G

AMERI SCI

Customer: Ravi Engineering & LS, P.C.

Workorder No. 1010-00298

Sample: 010 PCB-EN-25: EXTERIOR WEST-EXTERIOR CAULK-EXTREMELY STICKY WINDOW CAULK
Collection Date: 10/26/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1221	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1232	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1242	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1248	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1254	EPA 8082	6630000	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1260	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1262	EPA 8082	ND	ug/Kg	397000	TLL	11/04/2010 / 10:18	
PCB-1268	EPA 8082	3300000	ug/Kg	397000	TLL	11/04/2010 / 10:18	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 10:18	G

Sample: 011 PCB-EW-27: EXTERIOR WEST-EXTERIOR CAULK-BATTLESHIP GREY, SEMI-FLEXIBLE CAULK
Collection Date: 10/26/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1221	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1232	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1242	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1248	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1254	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1260	EPA 8082	3420000	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1262	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
PCB-1268	EPA 8082	ND	ug/Kg	185000	TLL	11/04/2010 / 18:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 18:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 18:00	G

AMERI SCI

Customer: Ravi Engineering & LS, P.C.

Workorder No. 1010-00298

G Surrogate recoveries are not reported due to sample dilution.

To the best of my knowledge this report is true and accurate.

Authorized By: Tanya Luongo Date: 11/04/10

Tanya Luongo, Env. Laboratory Manager

NOTE: All solid results are reported on a dry weight basis unless otherwise noted.

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CHAIN OF CUSTODY RECORD

AMERISCI BOSTON
8 School Street ~Weymouth, MA 02189
888.724.5221 Toll Free
781.337.9334 Phone~781.337.7642 Fax

AMERISCI JOB NO: 1010-298 | PAGE 1 OF 1

DUE DATE: ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☐ 7 DAY ☒ 10 DAY | TEMP UPON RECEIPT: Ambient

DATA PACKAGE: | P.O.#

COMPANY: Ravi Engineering & Land Surveying, P.C.

ADDRESS: 2110 S. Clinton Ave., Rochester, NY 14618

PHONE: (585) 223-3060 | FAX 1: (585) 223-4250 | FAX 2:

CLIENT CONTACT: Christine Cregan, Mike Waller; Megan Garbach | EMAIL: mwaller@ravieng.com; ccregan@ravieng.com; mgarbach@ravieng.com

PROJECT NAME: Pre-Renovation Feasibility Study @ PATH-FINDER | PROJECT NUMBER: 40-10-0660 Phase: 40-102-01 | PROJECT STATE: NY

MATRIX: A-WATER (S-SOIL/SOLIDS) SL-SLUDGE OIL-OIL CH-CHIPS WI-WIPES C-CASSETTES W-WASTE O-OTHER

CONTAINER: (P-PLASTIC) G-GLASS V-VOA

LAB ID	CLIENT SAMPLE IDENTIFICATION	MATRIX	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING INFORMATION DATE	TIME	TECH	GRAB (G) OR COMPOSITE (C)	PRESERVATIVES	SAMPLE PH AT LOGIN	PCB Method 8082A	Notes:
1	PCB-B001-9	S		P		10/26/10		MG, MW	G			✓	
2	PCB-B002-13	S		P		"		"	G			✓	
3	PCB-B003-14	S		P		"		"	G			✓	
4	PCB-B004-16	S		P		"		"	G			✓	
5	PCB-EE-20	S		P		"		"	G			✓	
6	PCB-EE-21	S		P		"		"	G			✓	
7	PCB-EE-22	S		P		"		"	G			✓	
8	PCB-EE-23	S		P		"		"	G			✓	
9	PCB-EN-24	S		P		"		"	G			✓	
10	PCB-EW-25	S		P		"		"	G			✓	
11	PCB-EW-27	S		P		"		"	G			✓	

SAMPLED BY: (PRINT) MEGAN GARBACH	DATE: 10/27/10	RECEIVED BY: (PRINT)	DATE:
(SIGN) Megan Garbach	TIME: 1600	(SIGN)	TIME:
RELINQUISHED BY: (PRINT)	DATE:	RECEIVED BY: (PRINT)	DATE:
(SIGN)	TIME:	(SIGN)	TIME:
RELINQUISHED BY: (PRINT)	DATE:	RECEIVED FOR LABORATORY BY: Phong Pham	DATE: 10/28/10
(SIGN)	TIME:	(SIGN)	TIME: 1000

1010-298

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Pathfinder Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-~~22~~-10
26

PCB- PATHFINDER DINING HALL

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
1	PCB-B001-9	Tunnel to Seneca	interior caulk-tan, crumbly, original caulk	undamaged	between metal/plaster on top of radiator	
2	PCB-B002-13	Room in University Police	interior caulk-white, flexible window caulk	"	between metal/plaster	
3	PCB-B003-14	"	interior caulk-black, semi-sticky window caulk	"	between metal/metal	
4	PCB-B006-16	"	interior caulk-blue, flexible, sticky	"	blue from window frame paint absorption	
5	PCB-EE-20	Exterior East	exterior caulk-tan, flexible, powders when rubbed	"	between stone wall slabs	
6	PCB-EE-21	"	exterior caulk-light grey, flexible	"	looks like a brain, gum-like @ base of bldg	
7	PCB-EE-22	"	exterior caulk-medium grey, flexible seam caulk	"	slab joint	
8	PCB-EE-23	"	exterior caulk-dark grey, flexible, smooth	"	top bead of metal base board of retaining wall-east side only	
9	PCB-EN-24	Exterior North	exterior caulk-med/drk grey, flexible	"	at base of bldg.	
10	PCB-EW-25	Exterior west	exterior caulk-extremely sticky window caulk	"		

PP 10/28/10 1000

1010-298

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Pathfinder Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10
26

PCB- PATHFINDER DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
11 PCB-EW-27	Exterior West	Exterior caulk - battleship grey, semi-flexible caulk	undamaged		

PM 10/28/10 10:00

UPS Internet Shipping: View/Print Label

1. **Print the label(s):** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**

   Customers without a Daily Pickup

   Schedule a same day or future day Pickup to have a UPS driver pickup all of your Internet Shipping packages.

   Hand the package to any UPS driver in your area.

   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services℠ (including via Ground) are also accepted at Drop Boxes.

   To find the location nearest you, please visit the 'Find Locations' Quick link at ups.com.

   Customers with a Daily Pickup

   Your driver will pickup your shipment(s) as usual.

FOLD HERE

AmeriSci Boston **SCI-SOP-1003**

Sample Receiving Form

CLIENT: RAVI Engineering	WORKORDER: 1010-298
CLIENTS JOB: 40-10-066; PCB	RECEIVED BY: pp
RECEIVED DATE: 10/28/10	SHIPPING METHOD: UPS
TEMP UPON RECEIPT: Ambient	

"No" responses must be explained in the comment section below.

Checklist	YES	NO	NA
Were custody seals on shipping container(s) intact? Check "NA" if no seals, or if containers were hand delivered.			X
Were Chain of Custody Forms included with the samples?	X		
Were Chain of Custody Forms properly filled out (ink, signed, etc.)	X		
Were all containers received in good condition (Check for breakage/ leaks)?	X		
Were all containers labeled with required information (Sample Id, date, signed, analysis, preservation)?	X		
Were the correct containers used for the tests indicated?	X		
Were proper preservation techniques indicated?			X
Were samples received within holding times? If "NO" nonconformance form is required.	X		
Were all VOA bottles checked for the presence of air bubbles? If bubbles were found please note in the comment section.			X
Were samples in direct contact with wet ice? If "NO" check one: ☐ Blue Ice ☒ No Ice		X	
Is sample temperature recorded ? If "NO" check one: ☐ Unable to record ☐ Temp taken near samples	X		
Were pHs of samples checked and recorded on the COC forms?			X
Did the laboratory accept samples?	X		
Will samples be subcontracted? If "yes" list subcontractor and tests in specified sections below.		X	
Subcontractor: Date Sent Out:			
Analyses Sent:			

Login Technician: MP	Login Review:
Comments:	

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

Ravi Engineering

For Lab Project #10-4495
Issued November 5, 2010
This report contains a total of 3 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"<" = analyzed for but not detected at or above the reporting limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

PCB Analysis Report for Soils/Solids/Sludges

Client: Ravi Engineering & Land Surveying

Client Job Site:	N/A	**Lab Project Number:**	10-4495
		Lab Sample Number:	14305
Client Job Number:	40-10-066		
Field Location:	N/A	**Date Sampled:**	11/02/2010
Field ID Number:	PCB-B001-12	**Date Received:**	11/02/2010
Sample Type:	Solid	**Date Analyzed:**	11/04/2010

PCB Identification	Results in mg / Kg
Aroclor 1016	61.9
Aroclor 1221	< 13.9
Aroclor 1232	< 13.9
Aroclor 1242	< 13.9
Aroclor 1248	< 13.9
Aroclor 1254	< 13.9
Aroclor 1260	< 13.9

ELAP Number 10958 Method: EPA 8082

Comments: mg / Kg = milligram per Kilogram

Signature: Valerie Miller for.

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM

CHAIN OF CUSTODY

REPORT TO:

COMPANY: RAVI ENGINEERING + LAND SURVEYING
ADDRESS: 2110 S Clinton Ave.
CITY: Rochester STATE: NY ZIP: 14618
PHONE: 223-7660 FAX: 223-4250
ATTN: Christine Cregan, Megan Garbach, Mike Waller
COMMENTS:

INVOICE TO:

COMPANY: Same
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
ATTN:

LAB PROJECT #: 10-4495
CLIENT PROJECT #: 40-10-0160

TURNAROUND TIME: (WORKING DAYS)
STD [X] 5 OTHER [ ]
1 [ ] 2 [ ] 3 [ ]

Quotation #

PROJECT NAME/SITE NAME:
PATHFINDER dining hall feasibility study
phase No: 40-116-01

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	PCB-8082A	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	11/2/10	1500		✓	PCB-B001-12	Soil	1	✓		14305
2										
3										
4										
5										
6										
7										
8										
9										
10										

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y [X]	N [ ]
Comments:		
Preservation: N/A	Y [ ]	N [ ]
Comments:		
Holding Time:	Y [X]	N [ ]
Comments:		
Temperature: 20°C	Y [ ]	N [X]
Comments:		

Megan Garbach 11/2/10; 1500
Sampled By Date/Time

Megan Garbach 11/2/10; 1500
Relinquished By Date/Time

11/2/10 1500
Received By Date/Time

Elizabeth A. Honch 11/2/10 1700
Received @ Lab By Date/Time

Total Cost:

P.I.F.

LITTLEPAGE DINING HALL

Please Reply To:

AmeriSci Boston
Eight School Street
Weymouth, MA 02189
TEL:(781)337-9334 FAX:(781)337-7642

To: Christine Cregan
Ravi Engineering & LS, P.C.

Fax # MWALLER@RAVIENG.COM
MGARBACH@RAVIENG.COM

Email: CCREGAN@RAVIENG.COM

AmeriSci Job# 1010-00297
Subject: LITTLEPAGE DINING HALL: PCB

Date: Thursday, November 04, 2010

Time: 1:54:20PM

Comments: This report contains a total of 13 pages, including the cover sheet, laboratory report, chain of custody, airbill, sample receiving form, and any other correspondence related to this work order.

CONFIDENTIALITY NOTICE: Unless otherwise indicated, the information contained in this communication is confidential information intended for the use of the individual named above. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is prohibited. If you have received this communication in error, please immediately notify the sender by telephone and return the original message to the above address via US Postal Service at our expense. Preliminary data reported here will be verified before final report is issued. Samples are disposed of in 60 days unless otherwise instructed by the protocol or special instructions in writing. Thank you.

AmeriSci Boston
Eight School Street
Weymouth, MA 02189
781-337-9334

Laboratory Report

Report Date 11/04/2010
Workorder No. 1010-00297

Customer: Ravi Engineering & LS, P.C.
2110 S. Clinton Ave.
Suite 1
Rochester, NY 14618

Attention: Christine Cregan

Subject: LITTLEPAGE DINING HALL: PCB

Sample: 001 **PCB-B001-3: BASEMENT IN TUNNEL TO ONONDAGA-INTERIOR, WHITE, CRUMBLY CAULK-BETWEEN MEDIA PLASTER LOC. ON TOP OF RADIATOR**
Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB In Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1248	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	2040	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	431	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	771	ug/Kg	431	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		94.2	%		TLL	11/04/2010 / 9:42	
DCB (SURROGATE)		127	%		TLL	11/04/2010 / 9:42	

Sample: 002 **PCB-B002-9: BASEMENT IN TUNNEL TO ONONDAGA-BLACK, STICKY WINDOW GLAZE-BETWEEN METAL FRAME/GLASS**
Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**
Matrix: GLAZING

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB In Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	

Certifications: MA: MA069 NY:10982 CT: PH0119 RI:LAO00201 NJ: MA744 NH: 2011
ND = Not Detected **PQL= Practical Quantitation Limit**

Sample: 002 **PCB-B002-9: BASEMENT IN TUNNEL TO ONONDAGA-BLACK, STICKY WINDOW GLAZE-BETWEEN METAL FRAME/GLASS**

(Continued)

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB-1248	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	344000	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	ND	ug/Kg	43500	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G

Sample: 003 **PCB-EN-21: EXTERIOR NORTH-EXTERIOR CAULK-LIGHT TAN/CREAM, FLEXIBLE-BETWEEN CONC./CONC.**

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1221	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1232	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1242	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1248	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1254	EPA 8082	7490000	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1260	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1262	EPA 8082	ND	ug/Kg	862000	TLL	11/04/2010 / 16:00	
PCB-1268	EPA 8082	8560000	ug/Kg	862000	TLL	11/04/2010 / 16:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 16:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 16:00	G

Sample: 004 **PCB-EN-22: EXTERIOR NORTH-EXTERIOR CAULK-GREY/BROWN/SMOKY CHARCOAL GREY RUBBER-LIKE DOOR CAULK-BETWEEN METAL DOOR FR/CON**

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: SOLID

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual

Sample: 004 PCB-EN-22: EXTERIOR NORTH-EXTERIOR CAULK-GREY/BROWN/SMOKY CHARCOAL GREY RUBBER-LIKE DOOR CAULK-BETWEEN METAL DOOR FR/CON

(Continued)

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1248	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	50700	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	ND	ug/Kg	7810	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G

Sample: 005 PCB-EN-23: EXTERIOR NORTH-LIGHT GREY/OFF-WHITE EXTERIOR SEAM CAULK-BETWEEN SIDEWALK PANELS + BETWEEN STONE WALL PANELS

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1221	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1232	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1242	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1248	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1254	EPA 8082	6960	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1260	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1262	EPA 8082	ND	ug/Kg	1690	TLL	11/04/2010 / 23:00	
PCB-1268	EPA 8082	4540	ug/Kg	1690	TLL	11/04/2010 / 23:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 23:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 23:00	G

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Customer: Ravi Engineering & LS, P.C.

Workorder No. 1010-00297

Sample: 006 PCB-EW-25: EXTERIOR WEST-EXTERIOR CAULK-CREAM, FLEXIBLE-POWDERS WHEN RUBBED BETWEEN STONE WALL PANELS OVER HA #21

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1248	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	33900	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	3910	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	28300	ug/Kg	3910	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G

Sample: 007 PCB-EN-26: EXTERIOR NORTH-EXTERIOR WINDOW GLAZE-BLACK, VERY STRETCHY-BETWEEN GLASS /METAL

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: GLAZING

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1248	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	61700	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	7940	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	11100	ug/Kg	7940	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G

Sample: 008 **PCB-EN-27: EXTERIOR NORTH-CHARCOAL GREY/BROWN WINDOW GLAZE/ CAULK EXTERIOR-STRETCHY**

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1221	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1232	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1242	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1248	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1254	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1260	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1262	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
PCB-1268	EPA 8082	ND	ug/Kg	4630	TLL	11/04/2010 / 20:00	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 20:00	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 20:00	G

Sample: 009 **PCB-EN-28: EXTERIOR NORTH-EXTERIOR CAULK-CREAM (ORIGINAL) WINDOW CAULK-EXISTING ORIGINAL CAULK**

Collection Date: 10/22/2010 **Received Date: 10/28/2010 Time: 10:00:00AM**

Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1221	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1232	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1242	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1248	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1254	EPA 8082	61000000	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1260	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1262	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
PCB-1268	EPA 8082	ND	ug/Kg	4810000	TLL	11/04/2010 / 9:42	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 9:42	G

Sample: 010 PCB-ES-29: EXTERIOR SOUTH-EXTERIOR CAULK-METALLIC GREY SEAM CAULK-BETWEEN CONC./CONC. @ BASE OF BLDG.
Collection Date: 10/22/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: CAULK

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1221	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1232	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1242	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1248	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1254	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1260	EPA 8082	5920000	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1262	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
PCB-1268	EPA 8082	ND	ug/Kg	362000	TLL	11/04/2010 / 12:49	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:49	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:49	G

Sample: 011 PCB-ES-30: EXTERIOR SOUTH-EXTERIOR CAULK-GREY, FLEXIBLE SEAM CAULK-BETWEEN CONC./CONC. ON RETAINING WALL CUBE BASE + SEA
Collection Date: 10/22/2010 **Received Date:** 10/28/2010 **Time:** 10:00:00AM
Matrix: SOLID

Parameter	Method	Results	Units	PQL	Tech	Analysis Date/Time	Qual
PCB in Caulk/Paint							
PCB-1016	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1221	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1232	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1242	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1248	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1254	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1260	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1262	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
PCB-1268	EPA 8082	ND	ug/Kg	1790	TLL	11/04/2010 / 12:10	
TCMX (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:10	G
DCB (SURROGATE)		0.00	%		TLL	11/04/2010 / 12:10	G

G Surrogate recoveries are not reported due to sample dilution.

To the best of my knowledge this report is true and accurate.

Authorized By: Tanya Luongo Date: 11/04/10

Tanya Luongo, Env. Laboratory Manager

NOTE: All solid results are reported on a dry weight basis unless otherwise noted.

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AMERISCI JOB NO: 1010-297

PAGE 1 OF 1

DUE DATE: ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☐ 7 DAY ☒ 10 DAY

TEMP UPON RECEIPT: Ambient

DATA PACKAGE:

P.O.#

COMPANY: Ravi Engineering & Land Surveying, P.C.

ADDRESS: 2110 S. Clinton Ave., Rochester, NY 14618

PHONE: (585) 223-3660 FAX 1: (585) 223-4250 FAX 2:

CLIENT CONTACT: Christine Cregan, Mike Waller, Megan Garbach

EMAIL: ccregan@ravieng.com, mwaller@ravieng.com, mgarbach@ravieng.com

PROJECT NAME: Pre-Renovation Feasibility Study at LITTLEPAGE Dining Hall

PROJECT NUMBER: Phase: 40-102-02 (40-10-0606)

PROJECT STATE: NY

MATRIX: A-WATER (S-SOIL/SOLIDS) SL-SLUDGE OIL-OIL CH-CHIPS WI-WIPES C-CASSETTES W-WASTE O-OTHER

CONTAINER: (P-PLASTIC) G-GLASS V-VOA

LAB ID	CLIENT SAMPLE IDENTIFICATION	MATRIX	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING INFORMATION DATE	SAMPLING INFORMATION TIME	SAMPLING INFORMATION TECH	GRAB (G) OR COMPOSITE (C)	PRESERVATIVES	SAMPLE PH AT LOGIN	PCB Method 8082A	Notes:
1	PCB-B001-3	S		P		10/22/10		MG, MW	G			✓	
2	PCB-B002-9	S		P		"		"	G			✓	
3	PCB-EN-21	S		P		"		"	G			✓	
4	PCB-EN-22	S		P		"		"	G			✓	
5	PCB-EN-23	S		P		"		"	G			✓	
6	PCB-EW-25	S		P		"		"	G			✓	
7	PCB-EN-26	S		P		"		"	G			✓	
8	PCB-EN-27	S		P		"		"	G			✓	
9	PCB-EN-28	S		P		"		"	G			✓	
10	PCB-ES-29	S		P		"		"	G			✓	
11	PCB-ES-30	S		P		"		"	G			✓	

SAMPLED BY: (PRINT) MEGAN GARBACH	DATE: 10/27/10	RECEIVED BY: (PRINT)	DATE:
(SIGN) Megan Garbach	TIME: 1600	(SIGN)	TIME:
RELINQUISHED BY: (PRINT)	DATE:	RECEIVED BY: (PRINT)	DATE:
(SIGN)	TIME:	(SIGN)	TIME:
RELINQUISHED BY: (PRINT)	DATE:	RECEIVED FOR LABORATORY BY: Phong Pham	DATE: 10/28/10
(SIGN)	TIME:	(SIGN)	TIME: 1000

1010-297

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Littlepage Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10

PCB- LITTLEPAGE DINING HALL

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
1	PCB-B001-3	Basement in tunnel to Onondaga	interior, white crumbly caulk	Undamaged	between metal & plaster located on top of radiator	
2	PCB-B002-9	" "	black, sticky window glaze	" "	between metal frame/ glass	
3	PCB-EN-21	Exterior North	Exterior caulk-light tan/cream, flexible	undamaged	between conc./conc.	
4	PCB-EN-22	" "	Exterior caulk-grey/ brown/smoky charcoal grey rubber-like door caulk	" "	between metal door frame/conc.	
5	PCB-EN-23	" "	Light grey/off-white exterior seam caulk	" "	between sidewalk panels & between stone wall panels	
6	PCB-EW-25	Exterior West	Exterior caulk-cream, flexible	" "	powders when rubbed between stone wall panels over HA#21	
7	PCB-EN-26	Exterior North	Exterior window glaze-black, very stretchy	" "	between glass/ metal	
8	PCB-EN-27	" "	charcoal/grey/brown window glaze/caulk exterior	" "	stretchy	
9	PCB-EN-28	" "	Exterior caulk-cream (original) window caulk	" "	existing original caulk	
10	PCB-ES-29	Exterior South	Exterior caulk-metallic grey seam caulk	" "	between conc./conc. @ base of bldg.	

MM co/28/10 1000

1010-297

RAVI ENGINEERING & LAND SURVEYING, P.C.
CONSULTING ENGINEERS & SURVEYORS

Project Name: Feasibility Study at Littlepage Dining Hall
Project #: 40-10-066
Inspector Name: Mike Waller, Megan Garbach
Date: 10-22-10

PCB- LITTLEPAGE DINING HALL

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL TYPE	CONDITION	NOTES	AMOUNT
11 PCB-ES-30	Exterior South	Exterior caulk- grey, flexible seam caulk	undamaged	between conc./conc. on retaining wall cube bases & tunnel seams	

M 10/28/10

UPS Internet Shipping: View/Print Label

1. **Print the label(s):** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers without a Daily Pickup
   Schedule a same day or future day Pickup to have a UPS driver pickup all of your Internet Shipping packages.
   Hand the package to any UPS driver in your area.
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   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

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SCI-SOP-1003
Sample Receiving Form

CLIENT: RAVE Engineering	WORKORDER: 1010-297
CLIENTS JOB: 40-10-066 ; PCB	RECEIVED BY: MP
RECEIVED DATE: 10/28/10	SHIPPING METHOD: UPS
TEMP UPON RECEIPT: Ambient	

"No" responses must be explained in the comment section below.

Checklist	YES	NO	NA
Were custody seals on shipping container(s) intact? Check "NA" if no seals, or if containers were hand delivered.			X
Were Chain of Custody Forms included with the samples?	X		
Were Chain of Custody Forms properly filled out (ink, signed, etc.)	X		
Were all containers received in good condition (Check for breakage/ leaks)?	X		
Were all containers labeled with required information (Sample Id, date, signed, analysis, preservation)?	X		
Were the correct containers used for the tests indicated?	X		
Were proper preservation techniques indicated?			X
Were samples received within holding times? If "NO" nonconformance form is required.	X		
Were all VOA bottles checked for the presence of air bubbles? If bubbles were found please note in the comment section.			X
Were samples in direct contact with wet ice? If "NO" check one: ☐ Blue Ice ☒ No Ice		X	
Is sample temperature recorded ? If "NO" check one: ☐ Unable to record ☐ Temp taken near samples	X		
Were pHs of samples checked and recorded on the COC forms?			X
Did the laboratory accept samples?	X		
Will samples be subcontracted? If "yes" list subcontractor and tests in specified sections below.		X	
Subcontractor: Date Sent Out:			
Analyses Sent:			

Login Technician: MP	Login Review:
Comments:	