CITY OF KETTERING

PARKS, RECREATION AND CULTURAL ARTS DEPARTMENT

Rosewood Arts Centre

Facilities Condition Assessment

WOOLPERT

February 19, 2016

Final Report

Facilities Condition Assessment
Rosewood Arts Centre — Kettering, Ohio

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Table of Contents

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Introduction

Woolpert, Inc. was hired by the City of Kettering to perform a facilities Condition Assessment (FCA) on the existing Rosewood Arts Centre. The facility is approximately 38,000 square feet and utilizes the existing Rosewood Elementary School building. Woolpert assembled a team of facility condition experts to work in a collaborative approach to review architectural, structural, mechanical, electrical, plumbing and fire protection systems. Our team reviewed the building infrastructure systems, repair histories, and discussed future priorities with the existing City Maintenance Staff to align professional services with client expectations.

The objective of the FCA was to provide information to the City of Kettering that would support strategic decisions regarding the current condition of the major building systems and components, cost estimates to address future renewal requirements over the next 5 years, and confirmation of general compliance with applicable codes.

Scope of Study

Woolpert provided facility assessment and analysis services in a two-step process:

- Step 1: Review the existing facility in person, including interviews of current staff and maintenance personnel to establish the current state of the facility.
- Step 2: Complete an exhaustive analysis of the existing drawings and the firsthand knowledge gained through step one to create an up-to-date facility assessment report that includes the following:
    - Current state of the facility
    - Deficiencies found during site visit
    - Code review and compliance issues
    - Conclusions and path forward for Rosewood
    - Cost analysis of the renovations needed

An overview of services provided are listed below:

- Collect information regarding building history with respect to maintenance, renovations and equipment and system replacements from the facility maintenance personnel.
- Conduct a visual survey of the building to assess general conditions of the major building systems. Major code violations or safety concerns will be noted in building system narratives.
- Estimate renovation costs required to maintain the building in a safe operating condition for 3 phases of construction.
- Review available reports or studies submitted by previous contractors, service companies or consultants.
- A high level review of the facility to identify code violations and non-compliant ADA conditions that do not require significant study or exception determination.
- Building components by discipline include:
    - Architectural:
        - Building roof conditions.
        - Building exterior wall conditions, including existing doors and windows.
        - Interior building conditions, relating to the physical condition of materials and finishes.
        - A macro-level review for major Building Code, ADA, and OSHA standards compliance.
        - Life Safety Review, including but not limited to, a macro-level review of exit lighting, fire alarms, extinguishers, and sprinkler system.

- Review of security measures, as it relates to door hardware.
- Signage, as it relates to ADA & building code compliance (for visually-impaired purposes only).

- MEP:
  - HVAC equipment including air handling units, rooftop equipment, ductwork, boilers, chillers, cooling towers, heat exchangers, pumps drives, and controls.
  - Electric distribution equipment, metering, and lighting.
  - Domestic water heater, piping, fire suppression, roof drains, toilets, sinks, flush valves and faucets.
- Structural:
  - Visual survey for signs of structural distress.
  - General review for structural integrity of building elements.

Facility Analysis

Architectural

The facility was built in 1965 as an elementary school. It now serves as a community art center. The original classrooms are used for daycare, adult and youth art classes, painting, ceramics, glass/mosaic, dance studio, gallery space and various individual artist studios. The original kitchen serves as a pottery studio, kiln room and photography dark room. The original gym/auditorium now functions as a children's theater.

Building envelope systems are a mix of conditions and types throughout the study. Conditions of roof systems vary in type from a built-up bituminous system with gravel ballast for the lower roof areas, to a single ply ballasted EPDM system above the auditorium area. Both have been compromised and are in need of immediate repair. Roof edge conditions also vary, ranging from a metal edge trim at the higher roof area, to a metal mansard for the lower roof edges. Parapet caps and roof flashing systems were typically found as deficient elements in composite roof assemblies. Vertical elements of the building envelope have more significant issues, in particular, window systems on many of the facades surveyed.

The existing metal windows/glazing and storefront entry systems are in dire need of replacement; these systems are single pane, non-insulated, non-thermally broken steel framed systems. The existing main entry into the facility is a thermally-broken, insulated, double pane aluminum system that looks to be in good shape, the only issue with this main entry storefront is that we recommend to have preventative maintenance completed on this system that includes the replacement of seals, weather stripping, sweeps, threshold, and caulking. Re-work of the existing concrete slab in this area would also be beneficial so as to positively drain away water from the door. Currently, water pools at the entry doors and finds its way into the building through the gap between the door leafs and at the deteriorated aluminum threshold.

Existing building veneer materials include a differing mix of brick masonry sitting on an articulated concrete stem wall. The top edge of the walls vary in type of roof edge conditions ranging from a metal roof edge for the Auditorium, to a metal mansard edge at the lower roof areas. The majority of exterior brick masonry is in good condition; however, isolated areas have significant moisture absorption problems contributing to the delaminating of the top surface of the masonry units, cracking and sprawling, with evidence of movement cracking at the building corners.

The presence of large expanses of movement cracking in masonry walls is evident along the exterior perimeter walls of the Auditorium. Masonry wall distress indicates the building/structure is moving beyond acceptable serviceability limits. Additional investigation into this issue is recommended to evaluate the risk of further damage.

Building interior systems are generally in good condition. Many of the interior finishes utilize highly durable materials and continue to provide acceptable service, with the exception where local moisture problems were noted. The floor tile throughout the structure in the Auditorium area is 12x12 VCT squares other areas are 8x8 and the interior ramps are poured terrazzo. The Dance Studio has a raised wood floor over the VCT tiles. The Art Gallery is covered in carpet. It is not known if the VCT tile contains asbestos in the tile or the adhesive, but there are multiple areas in the building where the VCT has chipped away, buckled, or cracked. Woolpert

recommends that the City of Kettering employ the services of a third party asbestos testing company to take samples of the flooring for verification. All of the classrooms were nearly identical with different programmed uses. The walls in the classrooms are painted CMU with the first two feet being a form of glazed tile. The windows and heating units are single pane steel, located in the middle of the exterior wall. Each classroom also contains a small bathroom which in many cases is now being used as storage, in addition to wall-mounted chalk boards and a wash sink. All classrooms except the wood shop room have a suspended acoustical ceiling, which may or may not contain asbestos tiles, Woolpert also recommends that these be tested by the testing agency as well. The corridor walls have glazed tile surface for the first five feet in height and are painted CMU block above that height. The corridor ceiling is a typical 2'x2' suspended acoustical ceiling tiles with exposed surface mount fluorescent light fixtures. There are several skylights throughout the facility; in the corridors, the office and the old kitchen area. A majority of the skylight locations show signs of moisture infiltration from around the skylight, which can be attributed to a roof curb failure.

Structural

The existing structural system is a traditional bar joist roof structure on load-bearing masonry walls. Overall, the facility is in satisfactory structural condition and will require nominal repairs to continue serviceability.

Cracks were noted in the auditorium stack-bond masonry walls. Several cracks extend vertically from ground floor to roof. Various repairs options are available to economically improve wall integrity.

Localized repairs of the metal roof deck are expected as part of the roof replacement work. Repairs will focus on areas with penetrations.

Existing drawings identify lateral bracing at the top of masonry walls for out-of-place forces. The top of masonry walls stop at window heads; therefore, lateral bracing is of primary concern when bar joists are spanning parallel with masonry walls. Additional lateral ties or clips are recommended to enhance confidence that masonry walls can resist out-of-plane forces for current code-prescribed wind and seismic loads.

Mechanical

Heating in the building is provided by a central boiler located in the mechanical room.

The classroom portion of the building is heated and ventilated by through-wall hot water units. The rooms do not have cooling provided to them. Individual wall mounted thermostats control each wall mounted unit.

The auditorium is heated by a hot water air handling unit (AH-4). The unit does not have cooling and the controls for the unit are pneumatic.

The basement rooms are heated by hot water radiant heaters.

The kiln room and two sets of restrooms each have individual exhaust fans.

The dark room is heated and cooled by a relatively new split system with the condenser located in the room. The dark room has dedicated exhaust.

The interior restrooms are served by a hot water air handling unit (AH-01). Outdoor air is ducted to the unit but the pneumatic actuator is missing.

The former kitchen is only exhausted. Conditioned air is not ducted to space.

A large fan in the electrical room pulls air through the entire building above the plenum during the summer.

Each hallway has a hot water unit heater. Outside air is currently not provided to the hallway.

A new cooling-only unit is located in the vending area serving the vending area, the environmental health office and classroom 22. Electric baseboard heats the environmental health room, a through wall unit heats the classroom and the heat for the vending is provided by the air handling unit for the office.

The office space is heated and cooled by a split system so outdoor air is not ducted to the system. The corridor is used as the return path for the administrative area.

The two galleries have split systems to maintain the desired temperature for artwork. They do not currently include the capability to control humidity in the space.

A mixture of controls including pneumatics, currently run the HVAC system.

Mechanical Items to be addressed:

The building currently does not have cooling in most spaces. For comfort during summer sessions, replace the through wall heating only units with packaged through wall heating and cooling units to condition classroom and art studio space.

Alter current air return path in central office area such that it does not use the hallway as the return path. Code does not allow the return path to be a means of egress. The return air either needs to use the plenum above the ceiling or be ducted back to the unit. Additionally, the supply ductwork and diffusers in the office area need to be replaced and externally insulated.

Outside air is required per code. The interior spaces do not have outside air ducted to them and the galleries only have outside air when the heat is running. Outside air should be introduced to the split systems. Outside air must reach the space in both cooling and heating mode.

Due to the variety of activities occurring in the classrooms, exhaust and ventilation capabilities need to be added to most of the rooms. Rooms such as the glass working, pottery and art studios, must have an exhaust fan and make up air provided during all occupied hours.

The older equipment in the building still has pneumatic controls. Pneumatic controls should be replaced with Direct Digital Controls (DDC). A new building automation system should be built so that the controls are uniform for all equipment. The units in each classroom will require control points in order to effectively control heating and cooling in the building.

The kilns produce a significant heat load. The kiln room currently has six kilns in a room that appears to have been designed for storage. Due to the heat generated by the equipment, an exhaust fan capable of withstanding high temperature exhaust air should be installed as well as a make-up unit that is interlocked with the exhaust fan to provide air to the space when the fan is running. Exhaust requirements for equipment should be verified.

Most art work galleries have both temperature and humidity requirements. Verify ability of existing equipment to meet humidification requirements as well as temperature. Outside air needs to be ducted to units to meet outside air requirements during cooling.

Conditioning and ventilation requirements for former kitchen area need to be calculated and units modified to provide required conditioned air to space.

It is recommended that energy calculations are completed for each room in the building to verify adequate ventilation air is provided to each space and that spaces are properly heated and cooled. Exhaust requirements for art classrooms should be met per code. A variety of technologies requirements such as exhaust fans, dedicated outdoor air units, or energy recovery ventilators may meet the exhaust and ventilation requirements.

It was noted during the walk through and verified by staff that the heating system in the auditorium area is not capable of properly heating the auditorium in the winter. The capacity of the unit must be increased as well as adding ductwork and diffusers throughout the auditorium area for more effective conditioning of the entire space. The stage in the auditorium does not have any conditioned air ducted to it to combat the heat produced by stage lighting. The auditorium air handling unit should also provide conditioned air to the stage.

The area used for set design next to the stage area does not currently have a means of handling dust created by wood working equipment. A dust collector should be installed in order to remove as much of the dust particulate as possible. Additionally woodworking shops are required to be exhausted per code. Exhaust and conditioned make up air must be provided to the space.

A variable refrigerant flow system is an alternative to replacing the heating only through wall units. Variable refrigerant flow systems are typically a good alternative system in renovated buildings and provide greater control although they are more expensive.

If the work for the project is phased over multiple years, the HVAC equipment on the roof should be replaced in conjunction with the roof replacement. The in room conditioning units should be replaced as the windows are replaced. Installation of the individual room exhaust fans should also be considered at that time. The installation of the in room units and exhaust fans may be completed by wing if necessary for funding. Work in the auditorium and office area may also be staged later if necessary.

Should the variable refrigerant flow option be selected, the work may be separated by area if multiple outside units are installed. In that case however, the dedicated outside air unit installation should still coincide with the replacement of the roof.

Plumbing and Fire Protection

The domestic water piping is primarily galvanized pipe, which has corroded significantly and is susceptible to leaking. It is also likely the reason that the domestic water has a yellow/orange tint.

The majority of the restroom fixtures and classroom sinks are original to facility, are in fair/poor condition and were designed for children. Restrooms do not meet ADA requirements, nor are the fixture heights satisfactory for the functionality of this facility. Several of the classroom sinks have been replaced with utility sinks and sink traps to accommodate specific drainage requirements for the pottery studios.

The domestic hot water is produced from an indirectly fired boiler with heat exchangers and is circulated through a 300 gallon storage tank. This system is original to the facility and is inefficient due to heat loss. Restroom and classroom sinks were not producing hot water at the time of visit. There is a small storage type water heater serving the sink in the dark room. It is newer and in good working condition.

Gas service and piping appear to be sufficient and in good condition.

Storm Piping and roof drains appear to be sufficient and in good working order.

Sanitary and vent piping appear to be sufficient and in fair condition.

The water service comes into the building in the basement and feeds the domestic water and sprinkler piping. No backflow preventer is present on the fire service piping.

The building contains a limited area sprinkler system with sprinklers over the stage, mechanical rooms, the storage closet next to the kitchen, and in the classroom that used to function as a woodshop.

Plumbing/Fire Protection Items to be addressed:

Galvanized water piping needs to be replaced with copper. This may pose issues in piping chases that are inaccessible, however it is recommended that at very least, the main runs in the building be replaced and secondary runs and inaccessible piping be replaced as leakage occurs.

In prior 2007 report, it was found that the facility contained asbestos in pipe insulation. All insulation containing asbestos will need to be properly abated.

It is recommended that all restroom plumbing fixtures (water closets, urinals and sinks) be replaced with standard height, high efficiency, water-conserving fixtures, except near daycare classrooms where lower height fixtures may be desirable for children.

All pottery classroom/studio sinks should be removed, replaced or modified to accommodate the specific needs and drainage requirements of each classroom.

It is recommended that the original hot water generator/boiler and storage tank be replaced with high efficiency condensing unit water heaters. These heaters would be much smaller, have added heat capacity, and be much more efficient than the existing system.

A new fire service is required for the building and the existing sprinkler system should be replaced to meet the new functionality and code requirements of the facility, including specific fire suppression requirements in the kiln rooms, gallery spaces, and theater.

Electrical

The lighting system is made up of a combination of incandescent and linear fluorescent fixtures inside the building. Exterior lighting fixtures are high pressure sodium or metal halide.

Main electrical service equipment is original to the building and past its recommended service life. Service size is adequate for current use only. Addition of cooling to the remaining uncooled spaces could possibly overtax the existing system.

Branch circuit electrical panels are original to the building and past their recommended service life. Replacement circuit breakers could be difficult to find and expensive. There appears to be space in several of these panels for additional circuit breakers, although they are most likely near full capacity.

New branch circuit panels have been added to the woodshop, which is currently unused.

Pottery kilns account for fifty percent of the capacity of the utility transformer.

Receptacles have been added to unistrut supports in pottery classrooms to serve pottery wheels.

Office space, classrooms, and studios currently utilize many plug strips due to a lack of wall mounted receptacles.

Most of the data/comm. cabling is exposed, running down the wall from the accessible ceilings.

Some roof mounted electrical equipment is beginning to rust.

Exit signs and emergency lights appear to be in good condition with some new units throughout the building.

A minimal fire alarm system is in use, consisting of pull stations and bells in the corridors. A full fire alarm system will be required with a large-scale renovation of the facility, including smoke detectors, modern audible and visual notification devices, and additional pull stations.

Electrical Items to be addressed:

The main electrical service should be replaced to increase the overall capacity of the building. This will allow the addition of cooling and better serve the many different activities that take place in the facility.

The existing Public Address system should be replaced with a new control station and updated speakers.

A full fire alarm should be installed to provide code compliant life safety for all occupants.

Lighting should be updated with energy efficient technologies, such as LED, to reduce energy usage and increase electrical system capacities. Light fixture selection should take into account the functions of each space and the possible removal of existing ACT ceilings. Additional lighting should be added to spaces where functions have changed over the years to require increased lighting levels.

Exposed data/comm. cabling and plug strips should be concealed and organized using wireways.

Corroding and/or damaged electrical equipment should be replaced in the interest of safety.

Building and Energy Code Discussion

Building and life safety code-related issues were encountered during the assessment, most of which are related to the evolution of codes since the time of original construction. These issues impact the safety of building occupants and should be included in discussions for renovation or replacement of facilities. Specific issues encountered included: ADA accessibility to the main and pre-school entry doors; non-compliant guards and handrails; inadequate sizes and number of fire extinguishers; lack of fire sprinkler coverage in certain areas; improper exit/shelter location signage.

Commissioning of all envelope and mechanical systems is recommended to ensure buildings are operating per specified design requirements to obtain maximum efficiency.

Next Steps

Next steps will include the City of Kettering to incorporate findings and recommendations from this assessment into near-term construction projects and planning sessions for future renovation programs that support the vision of providing a superior teaching experience for students, faculty and other stakeholders.

One of the near-term construction projects will include addressing deterioration issues with building envelope systems. Recommended envelope repairs for the next five years are summarized for the City of Kettering to prioritize and establish extent of work.

Woolpert, in collaboration with the City of Kettering, compiled an Overall Building Summary of Construction Costs that includes:

1. Recommended repairs in the next 2-3 years.
2. Range of building modernization costs.

This cost summary will provide the City of Kettering general guidance for strategic decisions relating to managing facility assets.

Recommendations

Woolpert recommends the following path of work to allow the City of Kettering to maximize the amount of renovation work compared to the overall cost of the project.

- **Phase 1**
  - Complete removal and replacement of the roofing system, including the removal of all of the existing skylights and equipment curbs.
  - New roof equipment curbs and packaged HVAC equipment to meet the ventilation needs of the occupants.
  - Complete removal and replacement of the existing steel and glass window systems of the classrooms with new energy efficient aluminum window systems.
  - Complete removal and replacement of the existing steel and glass building entry systems with more energy efficient aluminum storefront entry systems.
  - Preventative maintenance work to the existing aluminum storefront main entry to the building.
  - Wall mounted handrails at the existing interior corridor ramps to meet ADA accessibility requirements.
  - Additional fire extinguishers and exit signage.
  - Replacement and upgrade of the main electrical service to serve expected HVAC upgrades.
  - Replacement of damaged and/or corroded electrical equipment.
  - Installation of new HVAC controls system.
  - Installation of new fire service.

- **Phase 2**
  - Re-work of the main pre-school entry access point to include proper ADA accessibility access to this area of the building.
  - Sealing or removal of the existing VCT tile (depending on asbestos testing results). If it is found that the tile doesn't contain asbestos, then fix all broken, cracked, or heaving VCT tile prior to sealing.
  - Complete removal of the existing suspended acoustical ceiling tile systems from approx. 30 percent of the classrooms to meet facility programming needs.
  - Re-seal the existing exterior brick veneer to help prevent moisture migration through the brick back into the wall cavity. This will include the installation of additional masonry weeps and vents.
  - Upgrade lighting fixtures in all areas where HVAC work is being performed.
  - Replacement of several branch circuit distribution panels.
  - Installation of new fire alarm system.
  - Replacement of a portion of classroom heating and cooling packaged units.
  - Installation of exhaust fans in art rooms.
  - Replacement of heating units in hallways.
  - Replacement of classroom sinks.
  - Replacement of a portion of building's galvanized piping.
  - Installation of new sprinkler system in portion of building.

- **Phase 3**
  - Renovations of (2) of the restroom areas (2 men and 2 women) to meet ADA accessibility requirements and current construction standards for adult usage.
  - Re-work existing main entry exterior concrete landing to positively drain water away from the main entry doors. This will include the construction of an additional ADA accessible ramp to the building from the parking lot.
  - Upgrading all remaining lighting fixtures.
  - Replacing all remaining branch circuit distribution panels.
  - Upgrading public address system.
  - Replace remaining classroom heating and cooling packaged units.
  - Upgrade auditorium heating and install cooling.
  - Replace office ductwork and install ducted return.
  - Provide humidification ability for gallery area.
  - Replacement of hot water generator.
  - Replacement of a portion of building's galvanized piping.
  - Installation of new sprinkler system in portion of building.

Future Considerations

The Rosewood Arts Centre has become a focal point of the cultural and artistic fabric of the Kettering area. It is also working to educate our future generations to love the arts. With that being said, with just a few areas of additional work, the Rosewood Arts Centre can become a work of art in itself. Woolpert suggests the City of Kettering consider the following items on top of the above phased renovations:

- Transforming the different classroom wing corridors into an internal canvas
  - Utilize local muralists or artists to paint their creations on the corridor walls
  - Allow the pre-school children to turn their hallway into a story board of their favorite books
  - Showcase artist work more throughout the building and not just at the entries
- When considering changing out the VCT flooring – look at the possibility of creating a pathway for newcomers that can draw them deeper into the facility, a take on the dinosaur foot prints that currently mark a pathway through the building.
- Change out the solid wood classroom entry doors to be full-light wood doors, this will allow patrons of the facility to actually see what is going on inside. Additionally, small windows from the corridors into the studios would allow more visibility within the facility.
- Consider changing out the light fixtures of the corridors with wall sconces to play on the theater themes of the auditorium.

- Look at the possibility of opening up the walls between a few of the classrooms to allow for future program expansion or to create more flexible working space.

The above items are suggestions based on conversations with the program director that could help modernize the facility and to generate more interest in the Rosewood Arts Centre programs.

In meetings with building staff and stakeholders on January 19th, 2016, Woolpert was able to help work through internal room usage "Programming Updates" to make the building more utilized. Please see the attached existing and proposed program diagrams at the end of this report. Some of these changes include:

- Relocation of the Photography Dark Room and Digital Studio.
- Relocation of the Kiln Room.
- Increased space requirements for Ceramics and Jewelry, etc.

Consideration must be given to these programming changes for MEP and Structural requirements. For instance, the relocation of the Photography Dark Room would require significant modifications to both plumbing and HVAC systems. Specifically, the exhaust hood and the existing mechanical split system would have to be moved, new refrigerant piping and ductwork will be required, existing sinks and emergency eye wash station would be relocated, additional backflow preventers added at new sinks, additional water and sanitary piping, new floor drains, new interceptor and tempering valve may be required. Additionally, a preliminary structural analysis has been completed to determine if certain interior walls can be removed to increase overall studio square footage and of possible locations of new exterior windows in the Artist Studios, please see below.

- Removal of (9) interior structural CMU bearing walls (full height and full length of wall) would require that the existing steel roof joists be temporarily shored to install a deep wide flange steel beam that would span from the existing exterior wall to the interior CMU corridor wall. Installation of additional CMU pilasters or steel columns would also have to be completed for the new steel beam support.
- Partial removal of the (9) interior bearing walls for approx. 12'-0" in length to create a wide enough pass through between the two existing rooms that would only require partial temporary shoring of the existing roof structure. This would only require a large enough steel lintel or smaller depth steel beam for support and still give the Arts Centre the flexibility to pass between the two spaces.

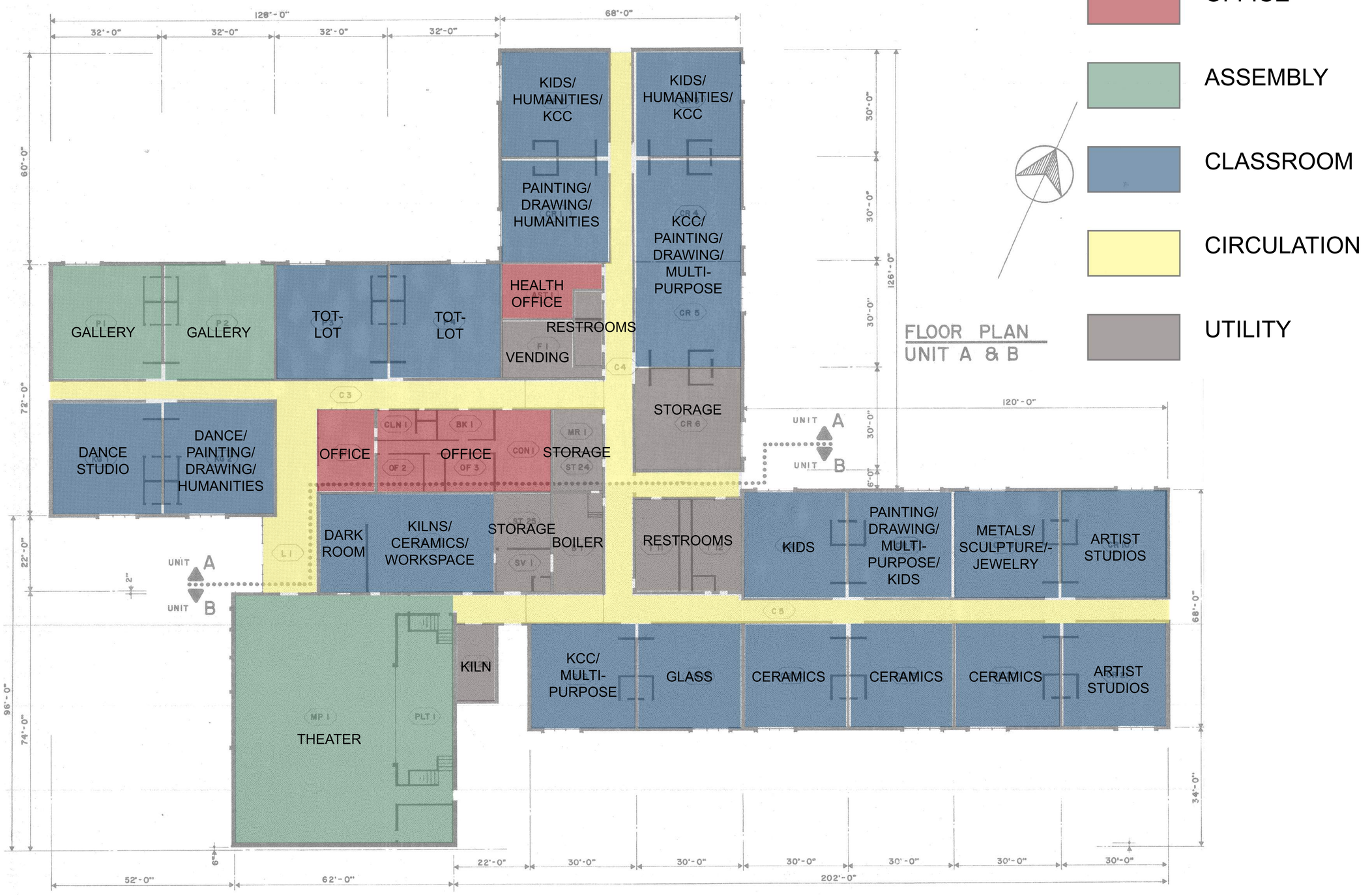
Building Data and Renewal Cost Summary

Rosewood Arts Centre - City of Kettering, OH

Schedule of Costs

Main Building System Category		Renovation Cost Year 1 Design	Year 2 Const.	Year 3 Const.	Total
Building Envelope					
Replacement of Roof (Demo and New) - TPO			$400,000		
Replacement of Steel Windows			$85,000		
Replacement of Steel Doors			$16,000		
Re-sealing and Caulking of Main Entry Storefront - Including New Hardware, Threshold, Sweeps and Weather-stripping			$2,000		
Sealing of Exterior Masonry			$25,000	$25,000	
Installation of Additional Masonry Weeps and Vents into the Masonry Wall Cavity			$4,000		
	Sub-Total	**$0**	**$532,000**	**$25,000**	**$557,000**
Building Interior					
Sealing of Existing VCT			$12,000		
Removal and Abatement of Existing VCT (Install new VCT)			$250,000		
Removal of Existing Suspended Acoustical Ceiling in the Classrooms (assuming 30% of the overall classroom spaces)			$7,000		
New Suspended Ceiling at Old Skylight Openings			$2,000		
Renovation of Select Restrooms				$80,000	
	Sub-Total	**$0**	**$271,000**	**$80,000**	**$351,000**
ADA Upgrades					
New ADA Access Ramp at Building Front Entry			$20,000		
Re-work Main Concrete Landing Outside Main Front Entry to Positively Slope Water Away from the Storefront Entry			$6,000		
New ADA Access Ramps and Stairs at Preschool Entry			$11,000		
New Wall-mounted Handrails and Interior Ramp Areas			$5,000		
Upgrade Signage to Meet ADA Guidelines				$5,000	
Upgrade All Door Hardware to Meet ADA Guidelines				$17,500	
	Sub-Total	**$0**	**$42,000**	**$22,500**	**$64,500**
Life Safety Upgrades					
Additional Fire Extinguisher Locations			$3,000		
Additional Exit Signage			$2,000		
	Sub-Total	**$0**	**$5,000**	**$0**	**$5,000**
Structural					
Cracking Repair and Façade Clip Installation			$50,000		
	Sub-Total	**$0**	**$50,000**	**$0**	**$50,000**
HVAC					
Rooftop Equipment (DOAS units) and Controls Upgrade			$216,000		
Replace Classroom Units			$184,000	$70,000	
Improvements to Auditoriums, Office, Dust Collection and Humidification				$112,000	
	Sub-Total	**$0**	**$400,000**	**$182,000**	**$582,000**
Electrical					
Increase Electrical Service			$175,000		
Replace Branch Distribution Panels			$75,000	$75,000	
Full Fire Alarm System			$40,000		
Lighting Upgrades			$150,000	$150,000	
Public Address System				$25,000	
General Maintenance/Equipment Replacement			$10,000		
	Sub-Total	**$0**	**$450,000**	**$250,000**	**$700,000**
Plumbing					
Replace Restroom Fixtures				$80,000	
Replace Classroom Sinks			$40,000		
Replace Galvanized Piping			$100,000	$100,000	
Replace Generator/Boiler with New High Efficiency Water Heaters				$60,000	
	Sub-Total	**$0**	**$140,000**	**$240,000**	**$380,000**
Fire Protection					
New Sprinkler System			75000	$75,000	
New Fire Service			$25,000		
	Sub-Total	**$0**	**$100,000**	**$75,000**	**$175,000**
	Total	**$0**	**$1,990,000**	**$874,500**	**$2,864,500**
Soft Costs					
Asbestos Testing Agency		$3,500			
Architectural and Engineering Design Fees		$344,000	$43,000	$43,000	
Space Planning		$43,000			
Construction Management Fees			$99,000.00	$44,000.00	
FFE costs			$159,500.00	$69,500.00	
Total Projected Project Cost		$390,500			**$3,713,000.00**

Program Reorganization	**Base Bid**
HVAC (Dark Room Relocation)	$20,000
Plumbing (Dark Room Relocation)	$6,000
Studio Relocations and Finishes Upgrade (Paint)	$50,000
Painting of existing ceiling (Black color like current Gallery) - 60% of rooms	$45,000
New suspended ceiling tile - 40% of rooms	$68,000
New interior windows from corridor to select studios (10 total)	$12,000
(2) New Windows in Artist Studio	$18,000
New Interior Double Door at Artist Studios	$3,500
Structural Modifications - Removal of (9) Interior Bearing Walls	$132,000
Total Projected Project Cost - Including Programming Updates (No Alternates)	**$4,067,500**



FLOOR PLAN
UNIT A & B

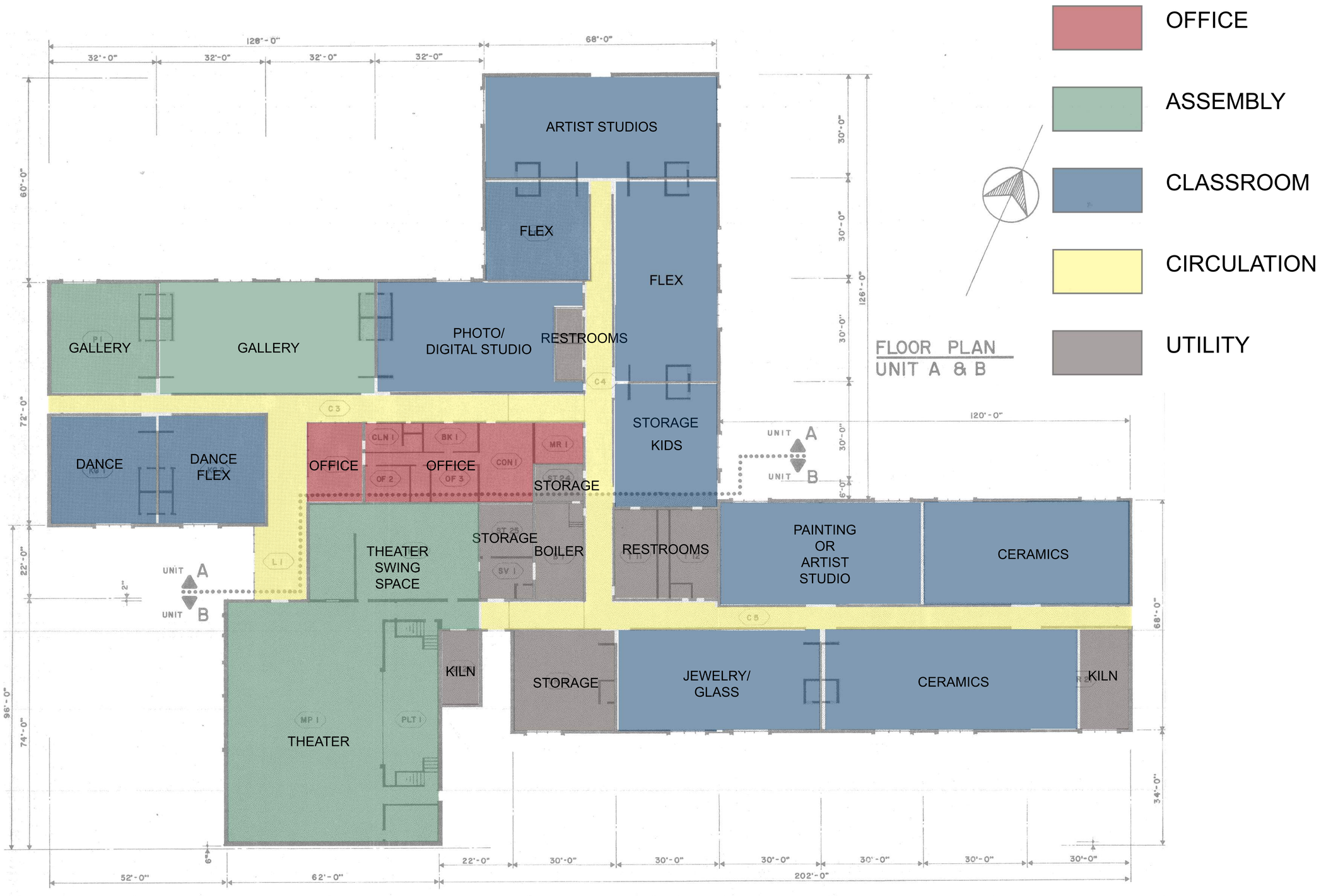
WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

Rosewood Arts Centre Renovation

Existing Programming Diagram

City of Kettering

February 3, 2016



Rosewood Arts Centre Renovation

Proposed Programming Diagram

City of Kettering

February 3, 2016

WOOLPERT

DESIGN | GEOSPATIAL | INFRASTRUCTURE