	School Name:	Henry Wise Wood High School				School Code:	9836
	Location:	910 - 75 Ave. SW				Facility Code:	1656
	Region:	South				Superindendent:	Dr. Donna Michaels
	Jurisdiction:	Calgary				Contact Person:	Leanne Soligo
						Telephone:	214-1121
	Grades:	10-12				School Capacity:	1945

Building Section	Year of Compl.	No. of Floors	Gross Bldg Area (Sq.M.)	Type of Construction (i.e., structure, roof, cladding)	Description of Mechanical Systems (incl. major upgrades)	Comments/Notes
Original Building	1961	3	12752.90	Poured in place concrete structure with curtain wall infill. Flat roofs on concrete deck or wood T&G on OWSJ. Brick veneer to some areas	Two new central hot water boilers, with 11 ventilation units and various packaged units	
Additions/ Expansions	1964		3050.90	Metal roof deck on OWSJ over old courtyard. Curtain wall winodws and vertical metal siding	Central heat from core with packaged RTU's	
	Total		15803.80			

						Evaluator's Name:	Bob Passmore, M.A.A.A.
						& Company:	Building Science Specialists Ltd.

Upgrading/ Modernization (identify whether minor or major)	1999			Class rooms on second floor, Home Economics and some Lab areas Renovation of one shop area into Copycentre and upgrade of Electronics Lab Upgrade of second floor area, Arts and Drafting. Drama change areas have been renovated.		
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)						
List of Reports/ Supplementary Information	CBE Facility Abestos Database, February 23, 1999					

	Evaluation Components	Summary Assessment		Estim. Cost
1	**Site Conditions**	- provide handicapped stall and curb cut near SW entry. - provlde continuous rails to ramp at east entry and curb curts in two sidewalks.		$11,000
2	**Building Exterior**	- paint exterior of building - replace all curtain wall		$1,390,000
3	**Building Interior**	- replace some science lab counters - replace toilet and shower partitions and paint change rooms - Insulate boiler room ceiling		$185,000
4	**Mechanical Systems**	- replace water softener - provide additional dryer for controls compressors - provide ventilation relief air - replace automatic air vents on heating system piping - replace fans motors and coils on ventilation units (11), replace exhaust units & provide humidification - provide MAU and CO system replacement in automotive shop - replace pneumatic motors - provide HVAC unit for administration & add ductwork to swamp coolers for phys. ed. classes - provide proper air supply and fire protection to paint area in woodworking area		$344,000
5	**Electrical Systems**	- upgrade lighting to T-8's - install new telephone intercom system - provide cooling to computer hub		$392,500
6	**Portable Buildings**	- NA		$0
7	**Space Adequacy:**			
	7.1 Classrooms	- Deficient	-666.9	
	7.2 Science Rooms/Labs	- Slightly excessive	193	
	7.3 Ancillary Areas	- Deficient	-221.4	
	7.4 Gymnasium	- Slightly excessive	335.8	
	7.5 Library/Resource Areas	- Slightly excessive	213.8	
	7.6 Administration/Staff Areas	- Deficient	-482.8	
	7.7 CTS Areas	- Deficient	-1762.4	
	7.8 Other Non-Instructional Areas (incl. gross-up)	- Deficient	-122.3	
	Overall School Conditions & Estim. Costs		-2513.2	$2,322,500

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	**General Site Condions**			
1.1.1	Overall site size.	4	7.47 hectares	
1.1.2	Outdoor athletic areas.	4	Football field to west, community fields to north.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	N/A		
1.1.4	Site landscaping.	4	Mature	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	Perimeter chain link fence to south, of playing field. Site separated to north and west (playing filed by wood post and cable fence. Site open to street on east and south to avenue.	
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	4	No problems noted.	
1.1.7	Evidence of sub-soil problems.	4	None noted.	
1.1.8	Safety and security concerns due to site conditions.	4	None noted.	
1.2	**Access/Drop-Off Areas/Roadways/Bus Lanes**			
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	N/A	city streets	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	4	All roadways and parking is paved. In fair condition	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	N/A	City streets	
1.2.4	Fire vehicle access.	4	City streets on two sides with drive lane to west and north..	
1.2.5	Signage.	4	Wall mounted sign on east elevation and on south wall west of main entry.	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.3	**Parking Lots and Sidewalks**			
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	3	127 designated staff stalls, 20 visitor stalls, 204 student stalls. Total 351. No handicapped stalls or curb cut.	$3,000
1.3.2	Layout and safety of parking lots.	4	Lot is on west and north sides of school. Access to playing fields is across parking lot, good visibility.	
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	Asphalt area is sloped to area drains. Some cracking of asphalt noted. Speed bumps throughout.. In good condition	
1.3.4	Layout and safety of sidewalks.	4	Sidewalks from east-side street approaches east entry. Three walks approach SE, main SW entries. No curb cut at city sidewalk, one to be added. Other walkways are city sidewalks.	
1.3.5	Surfacing and drainage of sidewalks (note type of material).	4	Concrete, slope well away from building.	
1.3.6	Curb cuts and ramps for barrier free access.	3	Handicapped ramp approaches east door, but without continuous rails. Rails are required. SW entry has ramp with continuous rails. There are no curb cuts at the ramp approaches to either door.	$8,000
Other				
	Overall Site Conditions & Estimated Costs			$11,000

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.1	**Overall Structure**		**Bldg. Section**	**Description/Condition**	
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	4	1961 - 1964	No significant problems noted	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	FI	1961 - 1964	Signs of crushing of brick at top of gymnasium, under beams. Signs of cracking between columns and beams.	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	FI	1961 - 1964	Crack noted at angled corner of library at south side, evidence of water leakage, further review required.	
2.1.4	Control/expansion joints.	N/A			
Other					
2.2	**Roofing and Skylights** ***Identify the availability of an up-to-date inspection report or roofing program. Note if roof sections are of different ages and/or in varying states of repair.***			**Description/Condition/Age**	
2.2.1	Based on the inspection report (and to the extent possible, direct observation), assess and rate roof conditions and estimate costs for required improvements (i.e., covering materials, membrane, insulation, other components).	FI	1961 - 1964	No report available, roofs are BUR or SBS, first floor roof over main entry and office will require reroofing soon. Curved concrete roof sections over main entry will require reroofing very soon.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4	1961 - 1964	No problems noted.	
2.2.3	Control of ice and snow falling from roof.	5	1961 - 1964	Roofs slope to inside and drain internally.	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	N/A			
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.3	**Exterior Walls/Building Envelope**		**Bldg. Section**	**Description/Condition**	
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, efflorescence, water stains).	3	1961 - 1964	Exterior walls are finished in brick, rundle stone, concrete and curtain wall panels between the structural bays. The roofed over addition has vertical metal siding above curtain wall window sections. Exterior columns and beams are showing significant cracking and pealing of the paint finish	$100,000
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	3	1961 - 1964	Fascia shows signs of wear and rusting. Soffits require painting and fascia require painting, included in 2.3.1.	
2.3.3	Building envelope (i.e., evidence of air infiltration/ exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	4	1961 - 1964	No evidence of problems	
2.3.4	Interface of roof drainage and ground drainage systems.	4	1961 - 1964	Roof drains internally into storm system	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4	1961 - 1964	No evidence of problems	
Other					
2.4	**Exterior Doors and Windows**		**Bldg. Section**	**Description/Condition**	
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4	1961 - 1964	Doors and hardware are original to building. No significant problems noted.	
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4	1961 - 1964	No evidence of problems, hardware appears to be original. Handicapped auto operator has been added at SW entry.	
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4	1961 - 1964	Hardware functions as required	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	3	1961 - 1964	Several panes (approximately 40 %) of glass have blown seals. Metal panels are rusting and damaged. Perimeter caulking requires resealing. Recommend replacement of entire curtain wall.	$1,290,000
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	3	1961 - 1964	See 2.4.4 above.	
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	3	1961 - 1964	See 2.4.4 above.	
Other					
	Overall Bldg Exterior Condition & Estim Costs				$1,390,000

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.1	**Interior Structure**		**Bldg. Section**	**Description/Condition**	
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4	1961 - 1964	Interior walls are brick, with exposed concrete beams. Concrete block. Internal partition in offices may be wood frames with glass. Some demountable partitions. Most are in good condition, Some curtain wall sections have been incorporated as interior walls, between classes and library and lunch room.	
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	4	1961 - 1964	No problems noted.	
Other					
3.2	**Materials and Finishes**		**Bldg. Section**	**Description/Condition**	
3.2.1	Floor materials and finishes.	4	1961 - 1964	Floor finishes are 9" VT or sheet vinyl in corridors, sheet lino in classroom or tile. Hardwood floor in Gymnasium. Staff areas are carpeted. Ceramic tile in vestibules and washrooms. Ceramic tile floor in one washroom is heavily cracked, but is maintainable.	
3.2.2	Wall materials and finishes.	4	1961 - 1964	Walls are brick, or glazed brick in washrooms, rundle stone in entries. Painted concrete block is also found. Some demountable partitions.	
3.2.3	Ceiling materials and finishes.	4	1961 - 1964	Corridors are dropped panels of 12" tile. Same in many classrooms. Modernized classrooms may have suspended T-bar. Shops have exposed wood decks.	
3.2.4	Interior doors and hardware.	4	1961 - 1964	Doors are wood throughout, except for metal doors at fire separations. Some areas have been upgraded to metal doors with new hardware. Latch plates are missing at all new doors on 2nd floor.	
3.2	**Materials and Finishes (cont'd)**		**Bldg. Section**	**Description/Condition**	
3.2.5	Millwork	3	1961 - 1964	Millwork is original, except for modernized areas. Some Science Lab (6 labs) counter tops require replacement.	$120,000
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4	1961 - 1964	All tackboards and chalkboards are original - adequate. Whiteboards are found in several rooms.	
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4	1961 - 1964	Shops have various specialty equipment. Weight training room is full of exercise equipment.	
3.2.8	Washroom materials and finishes.	3	1961 - 1964	Floors are ceramic tile, walls glazed brick. Change rooms (in basement) for gym, both sexes, require new partitions and painting throughout. Sinks are wall hung, in good condition, partitions are original, most require replacement.	$45,000
Other					

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.3	**Health and Safety Concerns --- *Intent is to identify renovations considered necessary to meet applicable codes, primarily due to safety concerns. Basis of evaluation should be an up-to-date inspection report from the authority having jurisdiction together with direct observations as appropriate. Evaluator should note if in his opinion a comprehensive code evaluation is required.***		**Bldg. Section**	**Description/Condition**	
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4	1961 - 1964	Combination of combustible and non-combustible construction. Building is to be sprinklered	
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	FI	1961 - 1964	2 hour fire separations exist between class wings and core. New fire separations are being installed. Doors are not present yet. Locations and continuity to be reviewed.	
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	FI	1961 - 1964	Walls are mainly brick or concrete block. Doors are hollow metal. Many doors are wedged open and should be on hold opens.	
3.3.4	Exiting distances and access to exits.	4	1961 - 1964	Appear to be adequate.	
3.3.5	Barrier-free access.	4	1961 - 1964	Facility is accessible, at SW entry and east entry. Key operated elevator is installed at east end of classroom wing. There are handicapped washroom facilities.	
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	4	1961 - 1964	CBE Facility Asbestos database indicates the presence of asbestos in stipple finish on ceiling in storage rooms. Elbows on heating pipes contain asbestos. This must be a consideration as renovations are contemplated.	
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)	4	1961 - 1964	No evidence of other problems	
Other		3	1961 - 1964	Install spray fireproofing (insulation) to ceiling of boiler room. Floor above is caretaking office. It is very uncomfortable	$20,000
	Overall Bldg Interior Condition & Estim Costs				$185,000

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.1	**Mechanical Site Services**		Bldg. Section	Description/Condition	
4.1.1	Site drainage systems (i.e., surface and underground systems, catch basins).	4	1961 to 1964	Parking lots on the southwest, northwest, north and northeast have catchbasins that are connected to city storm sewers.	
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4	1961 to 1964	The playing fields and west lawn have automatically controlled underground sprinklers. Hose bibbs are provided on the south and east sides of the building.	
4.1.3	Outside storage tanks.	N/A		None	
Other					
4.2	**Fire Suppression Systems**		Bldg. Section	Description/Condition	
4.2.1	Fire hydrants and siamese connections.	NA		none	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4	1961 to 1964	There is a hose and standpipe system installed throughout the building.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4	1961 to 1964	The chemistry and physics labs. have fire blankets and eye showers. Pressurized water or type ABC dry chemical fire extinguishers are provided in the hose cabinets. Dry chemical or carbon dioxide FE are provided in labs., shops & service rooms.	
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	FI	1961 to 1964	The combustible/flammable liquids (paints and solvents) storage room has no special protection. Quantities should be limited as required by NFPA #30.	
Other					

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.3	**Water Supply and Plumbing Systems**		Bldg. Section	Description/Condition	
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	1961 to 1964	A 4" iron water service is brought to the boiler room from city water mains. Pressure, capacity and volume are adequate.	
4.3.2	Water treatment system's).	3	1961 to 1964	A small softener is located next to the water heaters in the basement mechanical room. It is old and should be replaced.	$1,000
4.3.3	Pumps and valves (including backflow prevention valves).	5	1961 to 1964	Backflow protection is provided on the domestic water, fire, and boiler feedwater lines and the irrigation system supply.	
4.3.4	Piping and fittings.	4	1961 to 1964	Visible water lines are copper tubing with soldered joints.	
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	4	1961 to 1964	Water closets are floor mounted, regular rim, flush valve type. Urinals are stall type with flush valves. Lavatories are wall hung. Drinking fountains are I bubbler wall hung. Countertop sinks are stainless steel. Janitors rooms have laundry tubs or mop sinks. Showers are group column or wall type with remote mixing valve temperature control. The automotive shop has a circular washfountain. Condition of the fixtures is good.	
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	5	1961 to 1964	Hot water heaters are large gas fired tank type. Three new heaters are provided in the boiler room. Two new recirculating pumps are provided.	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	1961 to 1964	Hub and spigot cast iron storm and sanitary drainage is connected to city mains. Each of the tunnel HV(4) units has an adjacent sump with a submersible pump. A two compartment sump in the boiler room has submersible pumps.	
Other					

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.4	**Heating Systems**		Bldg. Section	Description/Condition	
4.4.1	Heating capacity and reliability (including backup capacity).	5	1961 to 1964	Two new high capacity hot water boilers rated at 8,400 MBH output are provided. A new primary (2) secondary(7) pump system is installed using new pumps. One secondary pump is a spare. A new large motorized mixing valve controls the water temperature to the secondary system.	
4.4.2	Heating controls (including use of current energy management technology.	3	1961 to 1964	A pneumatic control system is installed. A dual compressor unit is used to supply control air. Only one dryer is used. A second dryer should be provided.	$3,000
4.4.3	Fresh air for combustion and condition of the combustion chimney.	3	1961 to 1964	Combustion air is provide by an old packaged ventilation unit in the boiler room. It draws air from a return air duct and a fresh air source. It's heating coil is disconnected. The return air connection should be removed and the heating coil reactivated. A ventilation relief air opening as required by the gas code is required.	$6,000
4.4.4	Treatment of water used in heating systems.	4	1961 to 1964	Chemical pot feeders are piped across the primary and secondary pumps. A small and a large micro filter are piped across the pumps.	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	5	1961 to 1964	The new boilers have low water cutoffs, pressure relief valves and failure alarms.	
4.4.6	Heating air filtration systems and filters.	5	1961 to 1964	See 4.5.8	
4.4.7	Heating humidification systems and components.	NA		None	

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.4	**Heating Systems (cont'd)**		Bldg. Section	Description/Condition	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	4	1961 to 1964	Threaded and screwed steel piping is used to distribute hot water to the convectors, unit heaters, fan cabinet heaters, heating coils and reheat coils.	
4.4.9	Heating piping, valve and/or duct insulation.	4	1961 to 1964	Piping is insulated with canvas covered fiberglass. Ductwork where insulation is used is fiberglass duct liner.	
4.4.10	Heat exchangers.	NA		None	
4.4.11	Heating mixing boxes, dampers and linkages.	NA		None	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	NA		No problems were reported.	
4.4.13	Zone/unit heaters and controls.	4	1961 to 1964	Unit heaters and fan cabinet heaters have fans that are cycled by space t'stats.	
Other	Expansion tanks/auto. air vents	3	1961 to 1964	A new diaphragm type expansion tank is provided. The automatic air vents on the heating system piping and terminals should be replaced.	$20,000

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.5	**Ventilation Systems**		Bldg. Section	Description/Condition	
4.5.1	Air handling units capacity and condition.	3	1961 to 1964	Packaged central ventilation units (11) are used. They are in the boiler room, the tunnel and in 6 mechanical rooms. The units have hot water heating coils, return/fresh air mixing and filter sections and return air fans with return/ exhaust air dampers. Control valves are new. Capacity is good. Fans, motors and coils will need major work.	$140,000
		3	1961 to 1964	Three recently installed rooftop HVAC units with gas fired heating and direct expansion cooling service the new electronics shop, second floor computer labs and a document printing shop. The courtyard housing part of the library and part of the eating area have four older HVAC units. These units will require major work.	$24,000
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	4	1961 to 1964	The amount of outside air is adjustable. The ventilation units were probably designed for a 25% minimum fresh air volume. The CFM/occupant is not known.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	3	1961 to 1964	Tempered supply air is distributed at low pressure through main ducts and branches to ceiling diffusers or wall grilles. Return air is brought back by wall mounted grilles. The school corridors and tunnels are used as return plenums. Corridor doors have door grilles. Air changes is probably 6 per hour. Fire dampers should be installed in the doors at/in wall return grilles.	$24,000
4.5.4	Exhaust systems capacity and condition.	3	1961 to 1964	Central roof exhausters are used for the washrooms in all areas of the building. Capacity is good. Some are old and will require replacement.	$7,000
4.5.5	Separation of out flow from air intakes.	4	1961 to 1964	Separation is generally good.	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	3	1961 to 1964	The kitchen ranges have roof exhausters. Fume hoods in the chemical and physics labs have wall or roof exhausters. A CO exhaust system and fan is used in the automotive shop. The electrical shop hoods and arts kilns have new roof mounted utility fans. The automotive shop requires a ventilation/make-up air unit and the CO duct system will require replacement. The paint and solvent storage room requires ventilation.	$20,000
Other	Dust collector system	5	1961 to 1964	A new dust collection system is installed in the woodworking shop and run to a new dust collector.	

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.5	**Ventilation Systems (cont'd)** ***Note: Only complete the following items if there are separate ventilation and heating systems.***		Bldg. Section	Description/Condition	
4.5.7	Ventilation controls (including use of current energy management technology).	4	1961 to 1964	Most ventilation controls on the central systems are operated by pneumatic motors. The HVAC and HV equipment have sensors and activators that are monitored and controlled from the building engineers computer. All heating ventilation/cooling equipment is controlled from a central computer. They operate on a scheduled program.	
4.5.8	Air filtration systems and filters.	4	1961 to 1964	All ventilation and HVAC units have filter sections with replacable media filters. The filter sections are monitored for pressure drop across them.	
4.5.9	Humidification system and components.	3	1961 to 1964	None of the ventilation or HVAC units have humidifiers. Humidifiers should be provided on the central(11) ventilation systems.	$33,000
4.5.10	Heat exchangers.	NA		None	
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	3	1961 to 1964	See 4.5.3. For description. Most pneumatic motors will require replacement c/w new linkages. Ventilation unit control valves have been replaced.	$8,000
Other					

Section 4	Mechanical Systems	Rating		Comments/Concerns	Estim. Cost
4.6	**Cooling Systems**		Bldg. Section	Description/Condition	
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	3	1961 to 1964	The HVAC units(4) for the courtyard and the three new rooftop HVAC units have direct expansion cooling sections. The courtyard HVAC units will require major work and a new HVAC unit should be provided for the administration area c/w new ductwork.	$45,000
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	4	1961 to 1964	The new rooftop HVAC units have supply mains with branch ducts and diffusers and return air grilles and ductwork. The courtyard HVAC units use a combined supply/return diffuser.	
4.6.3	Cooling system controls (including use of current energy management technology).	4	1961 to 1964	The packaged HVAC units use electric controls. All equipment is monitored and controlled by the engineer's computer	
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	3	1961 to 1964	Swamp coolers are used for the physical education classrooms and for the administration area. The swamp coolers(3) deliver air directly to the rooms and are drafty. The units over the physical education classrooms should have ductwork added.	$3,000
Other	Wood work paint area.	2	1961 to 1964	A fume hood is provided in the paint area. Air for this hood is taken from a main corridor. Fumes can travel the other way as the corridor is a return air plenum. A proper air supply should be installed. The paint and painting materials, solvents, etc. storage rooms require ventilation. No special fire protection is provided.	$10,000
4.7	**Building Control Systems**		Bldg. Section	Description/Condition	
4.7.1	Building wide/system wide control systems and/or energy management systems.	5	1961 to 1964	The boilers, primary and secondary circulators, circulating pumps, central ventilation units, rooftop HVAC units, exhaust fans, recirculating pumps, water heaters, control compressors and area space temperatures are monitored and controlled from a central computer in the building.. A remote central station monitors the building during unoccupied periods.	
	Overall Mech Systems Condition & Estim. Costs				$344,000

Section 5	Electrical Systems	Rating		Comments/Concerns	Estim. Cost
5.1	**Site Services**		Bldg. Section	Description/Condition	
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	5	1961 to 1964	Electric service is brought underground from utility lines to a transformer and then to a 2000 ampere 3 phase, 120/480v main switch in an electrical room. Several transformers are provided to drop the power to 3 phase, 120/208v. The service was recently upgraded and capacity increased. Demand reading is 1.059 kva	
5.1.2	Site and building exterior lighting (i.e., safety concerns).	4	1961 to 1964	HID fixtures are installed on all four sides of the building. The front (south side) of the building has incandescent canopy lights and several pole lights.	
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4	1961 to 1964	Parking lots have timer controlled plug-ins. A total of 62 duplex plug-ins are provided. Condition is good.	
Other					
5.2	**Life Safety Systems**		**Bldg. Section**	**Description/Condition**	
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	5	1961 to 1964	A new fire control panel is located in the electrical room. It is a digital programmable panel. A remote digital annunciator is installed in the main entrance lobby. Most alarms are visual/audio alarms. Devices are provided in all areas. Duct detectors are provided in all vent. systems. The system is tested annually.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	4	1961 to 1964	Emergency lights are provided by battery pack heads or fixtures on the emergency generator They are located throughout the building.	
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	4	1961 to 1964	Illuminated exit signs are located throughout the building at floor ,building and large space exits. All exit lighting is connected to the emergency battery packs.	
Other					

Section 5	Electrical Systems	Rating		Comments/Concerns	Estim. Cost
5.3	**Power Supply and Distribution**		Bldg. Section	Description/Condition	
5.3.1	Power service surge protection.	4	1961 to 1964	Only the computer hub system has surge protection.	
5.3.2	Panels and wireways capacity and condition.	4	1961 to 1964	Most panelboards have spare capacity. Wiring is run in conduit and supported on trapeze hangers or individually supported.	
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	4	1961 to 1964	A natural gas fired six cylinder engine drives a 50 KVA generator. It is installed in the boiler room. It uses a water cooled engine and power is transferred to the generator automatically on power failure. It services some emergency lights, the boilers, pumps, fire alarm system, control compressors and sump pumps.	
5.3.4	General wiring devices and methods.	4	1961 to 1964	Receptacles are grounded type. Devices in all areas are in good condition	
5.3.5	Motor controls.	4	1961 to 1964	Larger motors are provided with magnetic starters. Small motors have thermal switches.	
Other					

Section 5	Electrical Systems	Rating		Comments/Concerns	Estim. Cost
5.4	**Lighting Systems**		Bldg. Section	Description/Condition	
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	3	1961 to 1964	Most of the building is provided with fluorescent lighting. Incandescent fixtures are used in the tunnel, some mechanical rooms, compressor room, stage and some storage rooms. HIDs are used in the guymnasium and courtyard. Light levels are as follows: main gym. - 324 lux, tunnel - 54 lux, bolier room - 108 to 216 lux, locker rooms - 216 lux, stage - 216 lux, aux. gym. - 216 lux, fitness center - 216 lux, phys. ed. classroom - 216 lux, electrical shop - 432 to 538 lux, woodworking shop - 270 lux, computer lab - 432 lux, drama room - 108 lux, music room - 301 lux, typical corridor - 216 lux, typical classroom - 378 lux, english classroom - 484 lux, boys washroom - 216 lux, science lab. - 432 lux, arts room - 216 lux, drafting room - 378 lux, home ec. - 432 lux, chem lab. - 301 lux, physics lab - 237 lux, business office - 324 lux, lunch room - 301 lux, kitchen - 237 lux, library/courtyard - 378 lux, conference room - 432 lux, main lobby - 270 lux,	
				general office - 324 lux, student councilors - 378 lux. The tunnels, mechanical rooms, classrooms, woodworking shop, arts room, most labs, gyms, etc should have their lighting upgraded. Included in 5.4.3.	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	3	1961 to 1964	Some of the fixtures may have ballasts with PCBs. See 5.4.3.	
5.4.3	Implementation of energy efficiency measures and recommendations.	3	1961 to 1964	All lights are shut off during unoccupied hours including exit signs. Most florescent fixtures have 34 watt lamps. Replace fluorescent fixtures with T-8 lamp equipped fixtures.	$360,000
Other					

Section 5	Electrical Systems	Rating		Comments/Concerns	Estim. Cost
5.5	**Network and Communication Systems**		Bldg. Section	Description/Condition	
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4	1961 to 1964	Telephone service is into the electrical room. Capacity, condition and reliability is adequate.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	3	1961 to 1964	A public address system is installed with speakers in all classrooms, shops, gyms. labs. etc. A telephone communication system is used to the same rooms. A new telephone intercom system should be installed throughout the building.	$30,000
5.5.3	Network cabling (if available, should be category 5 or better).	5	1961 to 1964	A computer system with internet access is provided with outlets throughout the building. Several new computer labs. are provided and banks of computers are installed in many labs.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	5	1961 to 1964	Network cabling is installed in conduits and is concealed in most finished areas.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	3	1961 to 1964	A large computer hub is located in a second floor storage room. It is locked but very warm. A small cooling unit should be provided.	$2,500
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	5	1961 to 1964	The computer hub and computer labs have dedicated circuits. Computers in other locations use general circuits.	
Other					

Section 5	Electrical Systems	Rating		Comments/Concerns	Estim. Cost
5.6	**Miscellaneous Systems**		Bldg. Section	Description/Condition	
5.6.1	Site and building surveillance system (if applicable).	NA		None	
5.6.2	Intrusion alarms (if applicable).	4	1961 to 1964	A motion detector security system is installed throughout the building. A central station connection is provided for unoccupied hours. There is an exterior security camera with a monitor in the general office.`	
5.6.3	Master clock system (if applicable).	4	1961 to 1964	A master clock system is used in many of the large rooms. The classrooms do not have clocks on the master system.	
Other	Program co-ordinator	4	1961 to 1964	A program co-ordinator controller is located in the general office to sound the call bells automatically.	
5.7	**Elevators/Disabled Lifts (If applicable)**		Bldg. Section	Description/Condition	
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).	4	1961 to 1964	A hydraulic elevator is installed to service all three floors. It is key operated. It has a telephone connection to a central remote monitoring station.	
5.7.2	Condition of elevators/lifts.	4	1961 to 1964	The elevator condition is good.	
5.7.3	Lighting and ventilation of elevators/lifts.	4	1961 to 1964	A low level light fixture is installed.	
Other					
	Overall Elect. Systems Condition & Estim Costs				$392,500

Section 6	Portable Buildings	Rating	Comments/Concerns	Estim. Cost
	Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.	**N/A**	**None**	
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).	**N/A**	**None**	
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).	**N/A**	**None**	
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).	**N/A**	**None**	
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).	**N/A**	**None**	
6.1.5	Interior finishes (i.e., floors, walls, ceiling).	**N/A**	**None**	
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).	**N/A**	**None**	
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)	**N/A**	**None**	
6.1.8	Heating system.	**N/A**	**None**	
6.1.9	Ventilation system.	**N/A**	**None**	
6.1.10	Electrical, communication and data network systems.	**N/A**	**None**	
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).	**N/A**	**None**	
6.1.12	Barrier-free access.	**N/A**	**None**	
	Overall Portable Bldgs Condition & Estim Costs			$0.00

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms	42		3333.1	50	80.0	4000.0	-666.9	
7.2	Science Rooms/Labs	13		1393.0	10	120.0	1200.0	193.0	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	7		848.6			1070.0	-221.4	
	Drama		174.7		2	130.0			
	Computer Labs		265.7						
	Art		251.5						
	Music		156.7		9	90.0			
7.4	Gymnasium (incl. gym storage)			2110.8			1775.0	335.8	
	Gymnasium	1	1034.1			1675.0			
	Aux. Gymnasium	2	316.8						
	Stage	1	322.4						
	Storage	2	20.2			100.0			
	Storage	1	80.3						
7.5	Library/Resource Areas			1113.8	1	900.0	900.0	213.8	
		1	650.0						
		1	463.8						
7.6	Administration/Staff, Physical Education, Storage Areas			1242.2			1725.0	-482.8	
	Administration/Staff,		945.5			1035.0			
	Physical Education		44.6			350.0			does not include basement areas
	Storage		252.1			340.0			does not include basement areas
	Sub-Total			10041.5			10670.0	-628.5	
7.7	CTS Areas								
	7.7.1 Business Education	2	varies	157.0	7	115.0	805.0	-648.0	
	7.7.2 Home Economics	2	varies	223.0	1 1 1	160 100 160	420.0	-197.0	
	7.7.3 Industrial Arts Automotive, Electronics Wood work Copy centre	4	varies	997.1	1 1	280 375	655.0	342.1	
	7.7.4 Other CTS Programs - drafting	1	varies	120.5	1 1 1	300 510 570	1380.0	-1259.5	
	Sub-Total			1497.6			3260.0	-1762.4	
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			4264.7			4387.0	-122.3	
	Overall Space Adequacy Assessment	71		15803.8	88		18317.0	-2513.2	

Evaluation Component/ Sub-Component	Additional Notes and Comments

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