STEILACOOM HISTORICAL SCHOOL DISTRICT NO. 1
AGENDA
Special Meeting of the Board of Directors
Wednesday, October 20, 2010 6:30 p.m.
Pioneer Middle School-Steilacoom 511 Chambers Steilacoom, Washington

I. CALL TO ORDER
- A. Pledge of Allegiance
- B. Roll Call
- C. Approval of Agenda **A**

II. COMMENTS FROM THE AUDIENCE **I**

III. CONSENT AGENDA **A**
- A. Approval of Classified Personnel Actions

IV. CAPITAL IMPROVEMENT FUND UPDATE **I**

V. USE OF PIONEER MIDDLE SCHOOL-STEILACOOM BUILDING **I**
- A. Citizen Advisory Committee 2008 Report
- B. Air Quality Report
- C. HVAC Evaluation
- D. Roofing Report
- E. Options Chart

VI. ADJOURNMENT **A**

Meetings of the Board of Directors of the Steilacoom Historical School District are Digitally Recorded.

CONSENT AGENDA CLASSIFIED PERSONNEL REPORT

10.20.10

NEW HIRE 2010-11

Name	Position	Building	Timesheet
Karen Ivy	Head Volleyball Coach	Steilacoom High	$3,609.67
Alyssa Shaffer	Assist. Volleyball Coach	Steilacoom High	$2,655.92
Dan McLaughlin	Head Girls Soccer Coach	Steilacoom High	$3,541.75
Mike Henderson	Head Cross Country Coach	Steilacoom High	$3,099.16
Scott Marsteller	Head Boys Golf Coach	Steilacoom High	$2,916.98
Wanda Betancourt	Student Recognition	Steilacoom High	$1,859.26
Kathy Lech	PMS ASB Coordinator	Pioneer Middle	$1,721.54

TERMINATION of 2010-11 CONTRACT

Brown, Antwone	Lead Custodian	Steilacoom High

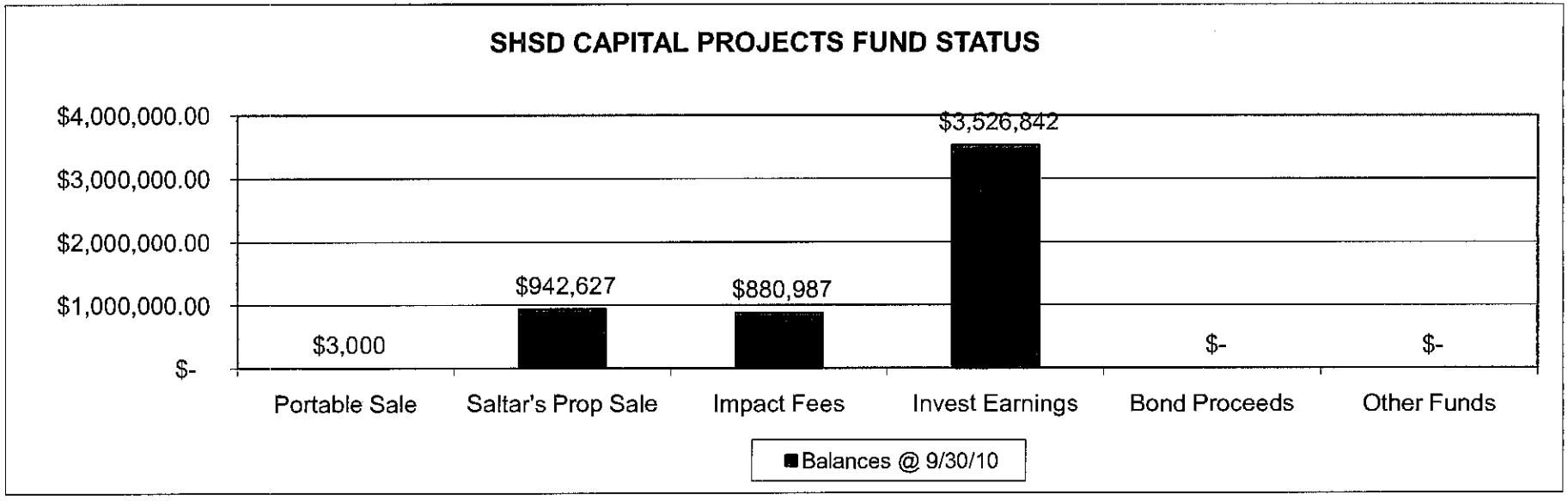
Current Project and Potential Projects

Ralston Property Purchase	$1,850,000.00	Purchase Price
	- 92,500.00	Paid from Investment Earnings 08/10
	$1,757,500.00	Balance to be paid
	25,000.00	Estimated other costs (attorney, etc)
	75,000.00	Estimated environmental insurance
	2,485.00	Watershed Co.
	956.00	Associated Earth Science, Inc
	39,672.90	Associated Earth Science, Inc
	$1,900,613.90	**To be charged to investment earnings**
PMS Close Out	$ 1,600.00	AHBL PO for close out costs
	10,000.00	Est. DLR/City of DuPont costs
	393.48	Beresford – floor repair
	4,134.53	JB Instant Lawn Purchase Order
	$ 16,128.01	**To be charged to Impact Fees**
PMS Snow Guards	$112,000.00	Hard Costs (construction)
	12,000.00	Soft Costs (design, bidding, etc.)
	$124,000.00	**Est. Total to be charged to Impact Fees**
PMS HVAC	$700,000.00	Hard Costs (construction)
	$200,000.00	Soft Costs (design, bidding, etc.)
	$900,000.00	**Est. Total charged to Impact Fees/Investment Earn**
SHS Furniture Budget	$86,308.23	Invoice owing for furniture
	1,786.74	PO for new desks missed
	$145,691.49	(is left from org budget)
	$249,896.46	**Potential Obligation for SHS to Invest Earn**

Sept. 30, 2010

	Investment Earnings	**Impact Fees**
Balance	**$3,526,842.24**	**$880,986.74**
Ralston Pur.	$1,900,613.90	
PMS Close Out		$ 16,128.01
Snow Guards		$124,000.00
HVAC	$159,141.27	$740,858.73
SHS Furn.	$249,896.46	
Est. Ending Balance	**$1,217,190.61**	**0**

***Note: Investment Earnings include the Saltar's Point earnings of $15,292.89 that could be used for curriculum items if desired.**



SUMMARY OF CAPITAL PROJECTS ACTIVITY
September 2010

	Portable Sale	Saltars Property Sale	Impact Fees	Investment Earnings	Bond Proceeds	Other	Total
Balances @ 9/1/10	$ 3,000.00	$ 986,196.62	$ 881,461.74	$ 3,692,551.13			$ 5,563,209.49
Revenue							
Impact Fees							
Investment Earnings				$ 1,280.91			$ 1,280.91
Other Revenues							
Total Revenues	$ -	$ -	$ -	$ 1,280.91	$ -	$ -	$ 1,280.91
Expenditures by Project							
Pioneer Middle School				$ 25,172.57			$ 25,172.57
Steilacoom High School				$ 132,873.27			$ 132,873.27
Chloe Clark Elementary				$ 8,943.96			$ 8,943.96
Anderson Is. Elementary							$ -
Saltars Pt. Elementary							$ -
Cherrydale Elementary		$ 43,569.89					$ 43,569.89
Ralston Property							$ -
Other			$ 475.00				$ 475.00
Total Expenditures	$ -	$ 43,569.89	$ 475.00	$ 166,989.80	$ -	$ -	$ 211,034.69

	Portable Sale	Saltar's Prop Sale	Impact Fees	Invest Earnings	Bond Proceeds	Other Funds	
Balances @ 9/30/10	$ 3,000.00	$ 942,626.73	$ 880,986.74	$ 3,526,842.24	$ -	$ -	$ 5,353,455.71

Prepared:
9/22/2010

STEILACOOM HISTORICAL SCHOOL DISTRICT
ANALYSIS OFCAPITAL PROJECTS
Sale of Saltars Property-Investment Earnings
October 2008 to August 2010

*Sale of Property is sale proceeds less cost of selling	$	1,259,745.00
	$	(227,130.00)
	$	1,032,615.00

Date	Tansaction	Interest Rate		Revenues		Expenditures		Balance
Oct-08	Sale of Property*						$	1,032,615.00
Nov-08	Interest Earnings	1.5000%	$	1,290.77			$	1,033,905.77
Dec-08	Interest Earnings	2.2040%	$	1,898.95			$	1,035,804.72
Jan-09	Interest Earnings	3.3456%	$	2,887.85			$	1,038,692.57
Feb-09	Interest Earnings	1.2669%	$	1,096.60			$	1,039,789.17
Mar-09	Interest Earnings	1.0631%	$	921.20			$	1,040,710.37
Apr-09	Interest Earnings	1.0265%	$	890.25			$	1,041,600.61
May-09	Interest Earnings	0.8817%	$	765.33			$	1,042,365.94
Jun-09	Interest Earnings	0.7911%	$	687.16			$	1,043,053.10
Jul-09	Interest Earnings	0.7396%	$	642.87			$	1,043,695.97
Aug-09	Interest Earnings	0.6500%	$	565.34	$	61,558.00	$	982,703.30
Sep-09	Interest Earnings	0.6480%	$	530.66			$	983,233.96
Oct-09	Interest Earnings	0.4703%	$	385.35			$	983,619.31
Nov-09	Interest Earnings	0.4164%	$	341.32			$	983,960.62
Dec-09	Interest Earnings	0.3327%	$	272.80			$	984,233.43
Jan-10	Interest Earnings	0.3347%	$	274.52			$	984,507.95
Feb-10	Interest Earnings	0.2864%	$	234.97			$	984,742.92
Mar-10	Interest Earnings	0.2723%	$	223.45			$	984,966.37
Apr-10	Interest Earnings	0.2245%	$	184.27			$	985,150.64
May-10	Interest Earnings (1)	0.0000%	$	-			$	985,150.64
Jun-10	Interest Earnings	0.2709%	$	222.40			$	985,373.04
Jul-10	Interest Earnings	0.3014%	$	247.49			$	985,620.53
Aug-10	Interest Earnings	0.6195%	$	508.83			$	986,129.36
Sep-10	Interest Earnings	0.2680%	$	220.24	$	43,569.89	$	942,779.70
Oct-10								
Nov-10								
Dec-10								
Jan-11								
Feb-11								
	Total Investment Earnings To Date		$	15,292.59				

(1) No interest earnings credited to Capital Projects fnd for the month

Prepared:10/1/2010

STEILACOOM HISTORICAL SCHOOL DISTRICT
SUMMARY OF CAPITAL PROJECTS
September 1, 2002 to August 31, 2010

	Undistributed Revenues	Chloe Clark Elem	Pioneer Middle School	Anderson Is Multi-purp	Steilacoom High School	Saltars Pt Elem	Cherrydale Elem	Earthquake Damage (FEMA)	Portable Purchase	Saltars Pt Prop Sale	Ralston Prop Purchase	Unspecified	Totals
Total Costs by Project		7,765,961	34,593,753	966,748	30,990,477	276,394	23,490	93,006	51,630	227,130	92,500	400,269	75,481,358
Beginning Balance													
Impact Fees		2,725							51,630				54,355
Other Funds								49,352				8,988	58,340
Total Beginning Balance Distribution		2,725						49,352	51,630			8,988	112,695
Other State Funds													
FEMA Earthquake pymt								28,707					28,707
Other Cash Increases													
Insur Claim Earthquake								14,948					14,948
Transfer In												31,433	31,433
Study & Survey Reimb		9,282											9,282
Reimb of attny fees												2,363	2,363
Contractor deposit				600									600
Intel Grant			32,000										32,000
Misc deposits												1,000	1,000
Sale of Portables	3,000.00												3,000
Sale of Property	971,124.26					61,558				227,130			1,259,812
Quadrant pymt for MS			50,000										50,000
BINW refund			427,733										427,733
CC PTA		4,395											4,395
Korsmo refund					4,900								4,900
Science kits refund												1,293	1,293
St High Perf Grant			350,000										350,000
Car Biol refund			366										366
Snyder roofing						75							75
Science kits refund												411	411
DLR refund			942										942
Lowes refund			50										50
Subtotal Other	974,124.26	13,677	861,091	600	4,900	61,633	0	14,948	0	227,130	0	36,499	1,220,477
Impact Fees													
County	488,027.00												
City	455,053.88												
Refund of fees	(61,619.14)												
Subtotal Impact Fees	881,461.74	0	0	0	0	0	0	0	0	0		0	0
State Matching Funds			5,084,580		12,075,233		2,455						17,162,269
Subtlt Revenues		16,402	5,945,671	600	12,080,133	61,633	2,455	93,006	51,630	227,130	0	45,488	18,524,148
Bond Sale Proceeds		7,749,559	28,449,518	966,148	18,779,274	0	0	0	0	0	0	0	55,944,500
Investment Earnings	3,707,623.49	0	198,563	0	131,070	214,761	21,035	0	0	0	92,500	354,781	1,012,710
Total Begin Balance and Revenues Allocated		7,765,961	34,593,753	966,748	30,990,477	276,394	23,490	93,006	51,630	227,130	92,500	400,269	75,481,358
													75,481,358
Undistributed Total	5,563,209.49												
Cash & Invest 8/31/10	5,563,209.49												

STEILACOOM HISTORICAL SCHOOL DISTRICT
CAPITAL PROJECTS FUND
CHART OF ACCOUNTS

Prepared: 7/31/2010

Capital Project Account Code Format

Project	Type	Object	Source
XXXX	XX	XXXX	X

"Project" will normally refer to construction at a specific location, however "project" may be a specific activity at a location, such as, portable purchase, roof replacement, additional fields, renovation of a section of a building, etc. Project may also refer to an activity that is not related to an existing location, such a the purchase of land. The fourth digit in the "Project" code may be used to identify specific projects at a location.

"Type" refers to the kind of expenditure that is being recorded. The OSPI recommended "Type" codes will be used in this chart of accounts.

"Object" provides additional detail to describe the expenditure being made. Capital Projects object codes are identical to the General Fund object codes and are optional. At this time it has been decided that "Object" codes will NOT be used in the Capital Projects account structure; therefore, that section of the code will always be 0000.

"Source" refers to the source of revenue that is being used to fund the specific expenditure. These codes are specified by OSPI and must be used as specified. The individual "Source" codes close to specific General Ledger Reserve accounts and thus provide a tracking of the funds received by the district from various sources.

Project Code	Project Description	Type Code	Description	Source Code	Description	Related Reserve Account
4310	High School	11	Site Purchases	0	Unrestricted	890
2370	Pioneer	12	Site Improvements	1	Sale of Bonds & Invest Earnings	861
1270	Saltar's Point	21	Building - New	2	Capital Projects Levies	862
1460	Cherrydale	22	Building - Remodel	3	State Agencies	863
1110	Harriet Taylor	31	Equipment - Initial	4	Federal Agencies	864
1400	Anderson Is.	32	Equipment - Replace	5	Saltar's Other Sources	865
1620	Chloe Clark	41	Energy - Audits	6	Impact Fees	866
0080	District Office	42	Energy - Cap Improve	7	Mitigation Fees	867
		51	Sale of Real Estate	8	Other Sources	868
(note: Others should be		52	Lease/rental of property	9	Amounts to be Distributed	869
added as needed))		61	Bond Issue - Legal			
		62	Bond Issue - Underwriting			
		63	Bond Issue - Other			
		91	Debt - Principal			
		92	Debt - Interest			
		93	Debt - Arbitrage			

Memo

DLR Group
Architecture Engineering Planning Interiors

901 Fifth Avenue
Suite 700
Seattle, WA 98164-1006
tel 206/461-6000
fax 206/461-6049
seattle@dlrgroup.com
www.dlrgroup.com

Date | September 8, 2010

To | Superintendant Bill Fritz

From | Noah Greenberg, AIA

Subject | Original (1919) Pioneer School Building Renovation **- REVISED**

Message | **The following was originally written by Craig Mason, AIA, on April 17, 2008. We find his conclusions remain salient, with the exception of the dollar amounts which have been updated in bold below. You may note that since Oct of 2008, construction costs have decreased 14%. Looking forward two years, we may see inflation in the magnitude of 2%. Additionally, our expectations are that GC mark-ups are much lower than previously.**

The original Pioneer MS 1919 Building does not fall into the Historical District of the PRB Committee. However, all exterior upgrades to the building are still under the jurisdiction of the PRB.

General assumptions:
It is possible to convince the City a full code upgrade is not required on the 1919 original Pioneer school building for an occupancy changes based on the following arguments

1) The total Pioneer MS admin. area is currently less than or equal to what will be put into the 1919 building. The new admin. area will be approx. the same area, with the remaining area being used as training spaces (E occupancy). The rest of the buildings on the site will be used by other entities and considered separate buildings, not a part of school district. (Approximately 6,350sf is currently Admin space – Offices, Staff, Library, and Board Rm. The total 1919 Building is approximately 10,950 gross sf., (7720 on 1st, 3240 on 2nd). New net office space proposed is approx. 5,500 net sf on the first floor and 2,500 net sf. on the second floor.
2) Change in occupancy from E to B is actually a shift to a less hazardous occupancy.
3) In option 1, the upper floor Library can not be used for public meetings, only office functions related to use of building. (We can't have occupant load over 100 persons in one room)

If change of occupancy does not trigger code improvements the following option 1 outlines minimum improvements to move admin. Offices into the existing building. Option 2 outlines improvements to complete a total remodel of the building.

I. Option 1: Minimal upgrades for use as Administrative Offices:	Cost:
1) Roof replacement (w/insulation)	**$8.60/sf – $67,080**
2) Re-paint interior	**$2.15/sf – $23,654**
3) Upgrade bathrooms in current fixture locations	**$43,000**
4) New Flooring	**$4.30/sf – $47,128**
5) Boiler and new exposed plumbing (no work in walls)	**$25.80/sf – $282,510**
6) Demo existing building/abatement	**$8.60/sf – $72,240**
7) Parking/paving	**$10.32/sf – $51,600**
Total base construction costs	**$587,122**
15% unforeseen issues	**$88,068**
2% inflation at 2 years out	**$33,760**
GC mark ups (gen. cond. O&P) **10%**	**$70,895**
50% soft costs	$**389,923**

Total	**$1,169,768**

- Assuming ongoing maintenance repairs and replacements
- Limits use of second floor space

II. Option 2: Total upgrade with prudent improvements:

1)	Seismic upgrade (in addition to limited work done in 1990's)	**$30.10/sf – 329,638**
2)	ADA upgrades (door hardware, thresholds, etc.)	**$4.30/sf – $47,128**
3)	Electrical wiring/lighting	**$25.80/sf – 282,510**
4)	Hazmat abatement	**$4.30/sf – $47,128**
5)	Fire Sprinkler and alarm connection to an agency	**$6.02/sf – $65,962**
6)	Windows / Energy Efficiency	**$12.90/sf - $141,212**
7)	Data Technology	**$4.30/sf – $47,128**
8)	Ceiling finishes	**$4.30/sf – $47,128**
9)	Elevator	**$129,000**
10)	Clean Masonry	**$43,000**
11)	All items from above, along with new HVAC/plumbing ($34.40/sf)	**$681,292**
12)	Selective spatial reconfiguration	**$64,500**
	Total	**$1,925,626**
	15% unforeseen issues	**$288,844**
	2% inflation at 2 years out	**$44,289**
	GC mark ups (gen. cond. O&P) **10%**	**$225,876**
	50% soft costs	**$1,242,318**
	Total	**$3,726,953**

If you have any further questions, please don't hesitate to call.

Thanks kindly.

Noah Greenberg, AIA, LEED AP

Principal
DLR Group

cc Craig Mason, Karen Montovino, file

DLR Group
Seattle, Washington
tel 206/461-6000 fax 206/461-6049

		1918 Building "Minimal Upgrades"	Demo 1951 bldg	Demo 1951 gym	Demo 1968 bldg	Demo 1968 bldg	Demo 1998 cafeteria	Add a parking lot	add shoring to gym	add exterior to cafeteria	re-roof(s) at remaining bldgs (not incl 1918 & 1998)	new gym floor	SUM
		note that this is not full code compliance	(incl classroom & lockers & mech but not incl gym)		(not incl 6th grade)	(6th grade wing)		(incl req'd landscaping and stormwater)					
		11,000 SF	5,178 SF	6,528 SF	16,704 SF	3,260 SF	3,601 SF						
1	Update the 1918 building only (basic plan described by DLR, no elevator, etc) and tear down/remove all other buildings + add a parking lot on site.	$1,169,768.00	$82,352.72	$103,823.60	$265,666.26	$51,848.18	$57,271.56	$150,000.00					**$1,880,730.33**
								(50 stalls)					
2	Update the 1918 building (basic plan described by DLR, no elevator, etc), retain 1998 cafeteria. Tear down/remove all other buildings (including all 1951 & 1962 buildings) + add a parking lot on site.	$1,169,768.00	$82,352.72	$103,823.60	$265,666.26	$51,848.18		$110,000.00		$30,000.00			**$1,813,458.76**
								(30 stalls)					
3	Update the 1918 building (basic plan described by DLR, no elevator, etc), retain 1998 cafeteria and gym. Tear down/remove all 1962 buildings and locker rooms/NE classroom.	$1,169,768.00	$82,352.72		$265,666.26	$51,848.18		$100,000.00	$60,000.00		$45,696.00	$51,200.00	**$1,826,531.17**
4	Update the 1918 building (basic plan described by DLR: no elevator, etc), retain 1998 cafeteria, gym, and 6th grade wing. Tear down/remove two side wings and locker room/NE classroom**.**	$1,169,768.00	$82,352.72		$265,666.26				$45,000.00		$68,516.00	$51,200.00	**$1,682,502.99**
5	Update the 1918 building (basic plan described by DLR: no elevator, etc), retain all builduings and re-roof them.	$1,169,768.00									$221,690.00	$51,200.00	**$1,442,658.00**
		$9.00	per SF										
		$9.45	for unforeseen										
		$9.64	for escalation two years										
		$10.60	for GC OHP										
	demolition per SF	**$15.90**	with soft costs										

MECHANICAL AND ELECTRICAL STUDY/ SURVEY

Old Pioneer Middle School – Steilacoom, WA

EXECUTIVE SUMMARY:

Old Pioneer Middle School in Steilacoom, WA has been evaluated to determine the feasibility of re-using existing mechanical and electrical systems to support future occupancy. HVAC, HVAC controls, Power, Lighting, Telecommunications/ Voice, Intercom/ Clock, CATV, Security and AV systems have been considered.

The original facility was constructed in 1918. Since that time, a gym/ locker room addition was added in 1952, a classroom addition in 1962 and a cafeteria addition in 1998. Information included in this report is based on a site survey conducted on August 10th, 2010 and with speaking with Bruce Turner, Supervisor of Maintenance and Facilities at Steilacoom School District. Record drawings were not available. Age of equipment was based on nameplate data. If nameplate data was not available, equipment age was based on the age of the building in which it was located.

In order to support future occupancy, the school will require major upgrades or replacement of the existing mechanical systems. In particular, the existing steam/boiler system serving the 1918 building and the 1952 gym/locker addition is no longer operational and should be replaced. The HVAC systems serving the 1962 classroom addition and the 1998 cafeteria addition are isolated from the boiler system and are currently operational. Although functional, the controls in the 1962 classroom building are not operating as designed. This system should be replaced for increased energy efficiency, occupant comfort and indoor air quality. There are some code issues with the 1998 cafeteria building and the equipment in nearing the end of its average life.

The existing electrical systems are a mix of original and remodeled systems. There are at times mixes of manufacturers for systems and many devices are at end of usable life. For future school occupancy, replacement of most systems is recommended for function, maintenance and Code issues. Most of this facility does not meet energy, ADA and life safety codes.

HARGIS
600 Stewart Street
Suite 1000
Seattle, WA 98101

t | 206.448.3376
f | 206.448.4450

w | hargis.biz

MECHANICAL · ELECTRICAL · TELECOMMUNICATIONS
ENGINEERS

MECHANICAL:

Existing Mechanical Systems

1918 Building:

Boiler System:

The 1918 building heat is provided by a 15 psi steam system. Steam is provided by a 1949 Birtchfield Firetube Boiler. The boiler room floor is located below grade. There is a single entrance into the boiler room. The boiler burner pulls combustion air through louvers on the exterior of the building. The boiler room contains a steam to domestic water storage tank. It has been abandoned in place. A condensate pump is provided to serve the gym/locker gravity condensate return system. The steam piping routes overhead to serve the 1918 building. The boiler has been red tagged and is no longer being operated.

Heat:

Heat in the 1918 classroom building is provided by steam radiators.

Ventilation:

Ventilation in the 1918 classroom building is provided by natural ventilation and is controlled by operable windows.

Cooling:

There is no central mechanical cooling in the 1918 classroom building. Natural cooling is provided by operable windows.

Controls:

Mechanical controls in the boiler room are Honeywell.

Mechanical controls in the 1918 classroom building are point of use thermostatic radiator valves. Classroom heat capacity is adjusted at each valve. Each classroom is provided with a Honeywell thermostat. It appears that the thermostat is for monitoring only or for boiler control.

Gym & Locker Rooms, 1952 Addition:

Heat:

Heat in the gym, stage and kindergarten classroom is provided by (2) Trane Climate Changer air handlers with steam coils. One of the air handlers serves the gym only. The second air handler serves the gym, stage and kindergarten classroom.

Heat in the boys and girls locker room is provided by steam unit heaters.

Heat in the single toilet/shower restroom is provided by a steam radiator.

Ventilation:

Ventilation in the gym, stage and kindergarten classroom is mechanical and is provided by the (2) air handlers. Ventilation openings into the air handlers are provided with motorized dampers. The ventilation for the air handler that serves the gym, stage and classroom is delivered through a louver and uses the mechanical room as a ventilation plenum. The ventilation for the air handler that serves the gym only is delivered through a louver and is ducted to the air handler. Relief openings were not noted.

Ventilation in the boys and girls locker room is mechanical and is provided by wall mounted through the wall exhaust fans. Make up air for the exhaust fans is provided by operable windows or by transfer openings at the doors. Operable windows are not accessible and door transfers have been blocked. Exhaust fan is turned on and off manually be a wall mounted switch.

Ventilation in the single toilet/ shower restroom is provide by natural ventilation and is controlled by an operable window.

Cooling:

There is no mechanical cooling in the gym, stage and kindergarten classroom. Economizer cooling is provided by the air handlers.

There is no mechanical cooling in the locker room. Economizer cooling could be provided by the exhaust fan and operable windows.

There is no mechanical cooling in the single toilet/shower restroom. Natural cooling is provided by operable windows.

Controls:

Mechanical controls in the gym, stage and kindergarten classroom are Andover AC 256 DDC controls. Each unit is provided with an un-occupied and occupied mode. The air handler unit serving the gym only is provided with a single thermostat. In heating mode, the control system modulates the steam control valve to maintain space setpoint. In cooling mode, the control valve closes and the return and outside air dampers modulate to provide the cooling supply air temperature setpoint. The air handler unit serving the gym, stage and kindergarten is provided with a thermostat in each space. If a programmed number of thermostats are calling for heat, the control system will modulate the steam control valve to maintain the space setpoints. If a programmed number of thermostats are calling for cooling, the control valve closes and the return and

outside air dampers modulate to provide the cooling supply air temperature setpoint. The supply air duct serving each zone is provided with control dampers. The control dampers modulate open and closed to reduce or increase heating or cooling capacity at each zone.

Mechanical controls in the boys and girls locker room are manual point of use. Unit heater fan is turned on and off by a wall mounted switch. Steam heat capacity is controlled with a manual steam balancing valve.

Admin & Classrooms, 1962 Building:

Heat:

Heat in the 1962 classroom building is provided by unit ventilators with electric heat. Electric heat is provided with multiple stages.

Ventilation:

Ventilation in the 1962 classroom building is provided by the unit ventilators. Unit ventilators pull ventilation air through a low wall louver on the exterior wall of the classrooms. Relief air is barometric and is ducted through a ceiling grille on the opposite side of the classroom. The relief air from each classroom is combined and ducted out a louver at the end of the building.

Cooling:

There is no mechanical cooling in the typical 1962 classroom. Economizer cooling is provided.

Controls:

Mechanical controls in the 1962 classroom building are Andover AC 256 DDC and Honeywell pneumatic controls. Each classroom is provided with an Andover DDC thermostat. Pneumatic piping is routed to each unit ventilator and controls and operates the unit ventilators. We were unable to obtain sequence of operations for these units.

Cafeteria, 1998 Renovation:

Heat:

Heat in the cafeteria is provided by a packaged gas fired/ dx rooftop unit.

Heat in the kitchen is provided by a packaged gas fired/ dx rooftop unit.

Heat for the make-up air is provided by a direct fired gas furnace.

Ventilation:

Ventilation in the cafeteria is provided by a packaged gas fired/ dx rooftop unit. Barometric relief is provided at the rooftop unit.

Ventilation in the kitchen is provided by a packaged gas fired/ dx rooftop unit.

Make-up air for the type I exhaust fan is provided by a 100% outside air gas fired air furnace.

Cooling:

Mechanical cooling in the cafeteria is provided by a packaged gas fired/ dx rooftop unit. Economizer cooling is provided with the rooftop unit.

Mechanical cooling in the kitchen is provided by a packaged gas fired/ dx rooftop unit. Economizer cooling is provided with the rooftop unit.

Controls:

Mechanical controls in the cafeteria/kitchen are Andover AC 256 DDC controls. Each RTU is provided with a wall mounted temperature sensor. Each RTU is provided with an unoccupied, warm-up, and occupied mode. In heating mode, the control system enables the gas heat to maintain setpoint. In cooling mode, the economizer dampers are modulated to maintain mixed air setpoint. If the dampers cannot meet the mixed air setpoint, the controls enable mechanical cooling. A CO2 sensor is provided in the return air duct. The controls system changed the minimum position of the outside air damper to maintain the CO2 setpoint.

The make-up air unit is interlocked with type I exhaust fan. If the outside air is below heating supply air setpoint, heat is enabled. Gas heat modulates on internal controls to maintain a supply air temperature above setpoint.

<u>Recommendations</u>

1918 Building:

Boiler:

There were a number of issues noted with the existing boiler system.

The boiler refractory has failed and the maintenance department has shut down the boiler.

One of the dual pumps on the condensate pump package has been removed.

There is only a single entrance into the boiler room. This does not meet code.

The existing steam boiler is 61 years old. The average lifespan of a gas fired steam boiler is 30 years.

The existing steam boiler system should be replaced.

Heat:

The existing steam radiators are 61 years old. The average lifespan of a steam radiator is 30 years.

The steam radiators should be replaced.

Ventilation/ Cooling:

The existing ventilation system is a natural ventilation system. The existing windows could remain as supplemental ventilation and a free cooling system during cooling operation. Natural ventilation should be supplemented with a mechanical ventilation system for heating hours. Natural ventilation systems during heating conditions are difficult to control and make it difficult to maintain occupancy thermal comfort without sacrificing indoor air quality.

A mechanical ventilation system should be added.

Controls:

The controls on the steam radiators are point of use. This does not lend itself to tight temperature control and can lead to comfort issues.

The existing control system should be replaced with new open protocol BACnet DDC system.

Gym & Locker Rooms, 1952 Addition:

Heat/ Ventilation/ Cooling:

There were a number of issues noted with the existing heat/vent/cooling system.

Supply air in the gymnasium is provided by sidewall grilles located on one side of the gym. This could lead to poor air distribution on the far side of the gym.

Barometric relief openings in the gym were not noted. This could lead to over pressurization of the gym space. Note that the gym area was difficult to access due to the fact that it was being used for storage.

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One of the gym air handling units is serving the gym, stage and kindergarten classroom. When the gymnasium is fully occupied, the air handling unit will

need to go into cooling mode. This could cause overcooling of the kindergarten and stage area leading to comfort issues.

The gym air handling units is serving the gym, stage and kindergarten classroom is using the mechanical room as a ventilation air plenum. The 2009 IBC does not allow air plenums to contain combustible materials.

Air distribution in the locker rooms is poor. Exhaust air should be ducted to provide localized exhaust within the locker rooms.

2009 IBC does not allow corridors to be used as supply, return, exhaust, relief or ventilation ducts unless certain exceptions are met. The locker rooms do not meet these exceptions.

There was no wall mounted sensor located in the locker rooms. Heat capacity appeared to be controlled with on/ off switch. This is poor temperature control and could lead to comfort issues.

The existing air handling units with steam coils, fans and unit heaters are 58 years old. The average lifespan of this equipment is 15-30 years.

The existing gym/ locker mechanical equipment should be replaced.

Admin & Classrooms, 1962 Building:

Heat/ Ventilation/ Cooling:

There were a number of issues noted with the existing heat/ vent/ cooling system.

The existing control system/ thermostat is no longer interfacing with the unit ventilator heat control. Occupants are manually adjusting the heating capacity on the unit ventilator. This can impact occupant comfort and increase energy usage.

Unit ventilator air distribution systems do not provide good ventilation effectiveness. All of the ventilation comes from a single point and is not adequately distributed throughout the space. This can lead to poor indoor air quality.

Although the unit ventilators were not operating at the time of our site visit, unit ventilators are typically noisy. Noise can negatively impact a students learning environment.

If the existing control system is not interfacing with the unit ventilator, economizer is not being provided. Economizer can provide free cooling and increase occupant comfort.

If the existing control system is not interfacing with the unit ventilators, the classroom temperature cannot be set back to save energy.

Electric strip heat is an expensive way to heat a building. Heat pumps are a more efficient use of electrical energy. Gas is a less expensive source of heat.

The existing unit ventilators are 48 years old. The average lifespan of the unit ventilators is 15 years.

The existing unit ventilators should be replaced.

Controls:

There are number of issues with the existing control system.

The Andover AC 256 control system is no longer manufactured therefore new mechanical units cannot be added to the existing control system.

The existing control system is no longer functioning as designed.

The existing control system is a proprietary system therefore it cannot interface with a new open protocol system.

The existing control system should be replaced with new open protocol BACnet DDC system.

Cafeteria, 1998 Renovation:

Heat/ Ventilation/ Cooling:

There are a number of issues with the existing heat/ vent/ cooling system that were noted.

The black steel gas piping was provided with and epoxy coating. The epoxy coating is degrading and falling off the pipe. Exposed steel is subject to rust and corrosion.

The packaged gas fired/ dx rooftop units do not have condensate traps. Condensate traps keep air from being pulled through the condensate drain connection. Air can cause condensate to be pulled through and into the duct system. Additional outside air can also increase the energy usage of the system.

2009 IMC requires that air intakes to be located not less than 10 feet from any hazardous or noxious contaminant source. Air intakes are within 10 feet of plumbing vents.

The existing packaged gas fired/ dx rooftop units are 12 years old. The average lifespan of the packaged gas fired/ dx rooftop units is 15 years.

The existing packaged gas fired/ dx rooftop units should be replaced in the next 3-5 years. The gas piping can be painted to prevent rust and corrosion. New copper condensate traps shall be provided. Plumbing vents can be relocated away from the outside air intakes.

Type I Hood/ Grease Exhaust/ Make-Up Air:

There are a number of issues with the grease exhaust/ make-up air system.

The make-up air unit intake opening is located tight to the exterior gym building wall. The proximity of the opening to the wall increases fan static pressure.

2009 IMC requires an interlock from the exhaust fan to the kitchen equipment it serves. This was not a requirement in 1998.

2009 IMC requires that the termination location be located not less10 feet horizontally from parts of the same or contiguous buildings. Exhaust fan is located 8'-0" from the gym building.

The grease exhaust fan and make-up air units are approximately 12 years old. The average lifespan of a gas furnace is 15 years. The average lifespan of an exhaust fan is 20 years.

The existing exhaust fan should be relocated or replaced and a control interlock to kitchen equipment should be added. The make-up air unit should be replaced in the next 3-5 years.

Controls:

There are two issues with the existing control system.

The Andover AC 256 control system is no longer manufactured therefore new mechanical units cannot be added to the existing control system.

The existing control system is a proprietary system therefore it cannot interface with a new open protocol system.

The existing control system should be replaced with new open protocol BACnet DDC system.

Electrical:

Existing Electrical Systems

1918 Building:

Power Service:

The electrical service to this building is fed underground from the main switchboard in the electrical room northeast of the Locker Rooms, via the distribution panel in the Staff area near the Cafeteria.

Power Distribution:

Only a single panelboard was confirmed in the Boiler Room. This panel appears to be over 30 years old and is at end of usable life, it is possible at this vintage that the circuit breakers may not operate correctly and are also not braced adequately for the available utility fault current. The classrooms had approximately (4) original receptacles with a handful of receptacles added later with surface metal raceway. Convenience receptacles in common spaces (i.e. Hallway, Restrooms, etc.) are deficient. Existing wiring methods were not available for verification, at this vintage it is likely that knob and tube (K&T) wiring is present.

Lighting:

The classrooms and Library have undergone renovations and are equipped with linear fluorescent luminaires (light fixtures); the lamping appears to be 4' T8. At limited locations in this building there still exist some porcelain bases with either 'A' lamps (Edison bulb style) or self ballasted compact fluorescent lamps. The luminaires are in poor condition and are at end of usable life. The light switches appear to be vintage push-button style; these switches are at end of usable life and are possible safety hazards. The exterior door lighting is deficient if not non-existent. The exit signs are incandescent lamped and are at end of usable life.

Fire Alarm:

The school has undergone a fire alarm upgrade. The fire alarm control panel is an addressable Simplex 4010, the panel appears to be around 10-12 years old. The devices in this building were added later with surface metal raceway. Strobe values were not available and adequate coverage cannot be verified.

Telecommunications/ Voice:

The school MDF is in this building on the second floor near the Library. It consists of (2) floor mounted Chatsworth racks and a small backboard on one wall. The voice 66 blocks and CATV taps & splitter are on the backboard. The Blonder Tongue CATV head-end is free and sits on a student desk, this head-end

appears to be in good condition. The racks contain a small UPS, a server, a fiber cabinet with 24 terminated strands, (3) 24 port switches and a 48 port patch panel. The equipment in this room appears to be in adequate condition. There are workstation outlets in the Library primarily in the power poles and poke-thrus. The classrooms have had workstation outlets added with surface metal raceway, capacity for minimal computer workstations, it is not adequate for typical classroom needs. Outlets do not exist at high locations throughout the building for wireless access points.

Intercom/ Clock:

The school has undergone an upgrade and has an existing Rauland Telecenter V head-end located in the main office floor mounted in front of an existing recessed intercom j-box. The old Latham master clock has been decommissioned, all clock activity is accomplished through the clock module in the Telecenter V or local battery operated clocks. The classrooms and Library have intercom speakers, clocks and call switches. Existing devices are in poor condition and at end of usable life.

CATV:

There are existing taps and splitters in the MDF room on the second floor that allow for some CATV distribution throughout the building. The classrooms have updated outlets in surface mounted raceway. The equipment and outlets appear to be in fair condition.

Security:

The school has undergone an upgrade and has a Bosch D9412G Security head-end in the Cafeteria electrical room. The classrooms have motion sensors. It did not appear that the exterior doors have door contacts. Existing devices are in satisfactory condition and have approximately 10 years of usable life remaining.

AV:

This building is not outfitted with projectors nor classroom sound enhancement systems.

Gym & Locker Rooms, 1952 Addition:

Power Service:

This site is secondary metered. There is a pad-mount utility transformer outside the northeast part of the Locker Rooms between the school and the adjacent playground. The main switchboard is located in the main electrical room near the utility transformer. The switchboard is 208Y/120V, 1,200A. It is split into two different distribution sections, one section contains the circuit breakers that

feed the two large panels for the classroom heating units; the other section contains the circuit breakers that feed the other power and lighting panels. The switchboard manufacturer is Westinghouse, it is at end of usable life.

Power Distribution:

There are electrical panels in the main electrical room, in the northwest wall of the Stage and on the southwest wall of the Gym. They are fed from the distribution panel in the Staff area near the Cafeteria. There is also a switch/ breaker panel in the Kindergarten for the lighting and power circuits serving this space. Panels are manufactured by Square D and in poor condition, they are at end of usable life. Receptacles for computer and convenience uses are deficient in number.

Lighting:

There are T8 lamped linear fluorescent luminaires in the Kindergarten and Locker Rooms. There are some incandescent luminaires in the PE Offices and Stage area. There are metal halide high-bay luminaires in the Gym. There are non-illuminated paper exit signs in the Kindergarten and incandescent exit signs in the Gym. There is a single "bug-eye" emergency luminaire in each locker room. All luminaires are in poor condition and are at end of usable life.

Fire Alarm:

The school has undergone a fire alarm upgrade. The fire alarm control panel is an addressable Simplex 4010, the panel appears to be around 10-12 years old. The devices in this building were added later with surface metal raceway. Strobe values were not available and adequate coverage cannot be verified. There are pull stations and beam smoke detectors in the Gym. All devices are in satisfactory condition with approximately 10 years of usable life remaining.

Telecommunications/ Voice:

The school MDF is in the original 1918 building on the second floor near the Library. There are no workstation outlets in the Gym or Stage. There is a single outlet in the Kidergarten with (3) jacks, this is insufficient for current classroom standards. There are workstation outlets in the PE Offices added in surface metal raceway. Outlets do not exist at high locations throughout these spaces for wireless access points.

Intercom/ Clock:

The school has undergone an upgrade and has an existing Rauland Telecenter V head-end located in the main office floor mounted in front of an existing recessed intercom j-box. The old Latham master clock has been decommissioned, all clock activity is accomplished through the clock module in the Telecenter V. The Kindergarten and PE Office have intercom speakers and

call switches. The Gym appears to have a single intercom speaker, this would most likely not allow for adequate sound levels. Many of the system clocks have been decommissioned and battery clocks are being utilized. Existing devices are in poor condition and at end of usable life.

CATV:

There are existing taps and splitters in the MDF room in the original 1918 building on the second floor that allow for some CATV distribution throughout the school. There are not CATV outlets in this part of the school.

Security:

The school has undergone an upgrade and has a Bosch D9412G Security head-end in the Cafeteria electrical room. The Kindergarten has a motion sensor. It did not appear that the exterior doors have door contacts. Existing devices are in satisfactory condition and have approximately 10 years of usable life remaining.

AV:

This building is not outfitted with projectors nor classroom sound enhancement systems. The sound speakers in the Stage/ Gym area are old and at end of usable life.

Admin & Classrooms, 1962 Building:

Power Service:

These areas are fed underground from the main switchboard in the main electrical room northeast of the Locker Rooms.

Power Distribution:

There are electrical panels in the classroom wings, the south set of classrooms are fed from the distribution panel in the Staff room near the Cafeteria. Panels manufactured by Square D are in poor condition, they are at end of usable life. Three panels are installed in the exterior walkway and do not appear to have any moisture deterring system via gaskets or other methods. The distribution panel, by Siemens, is fairly new and has probably approximately 15 years of usable life remaining. There are two additional Siemens panels in the north classroom wing that are roughly 12 years old and have approximately 15 years of usable life remaining. There are sparse original receptacles in the classrooms and Administration area. Receptacles have been added in these spaces with surface metal raceway. Exterior receptacles are not GFCI and do not have covers. The devices are in poor condition and near end of usable life. The classroom wings are not attached to the Gym/ Cafeteria building making the multiple 208V panels feeding the classroom wings an Electrical Code violation.

Lighting:

The hallway luminaires are T8 linear fluorescent recessed troffers. The exit signs appear to be incandescent. The classrooms have T8 linear fluorescent pendant luminaires. The Admin has T8 linear fluorescent recessed troffers. The exterior luminaires are incandescent and in poor condition.

Fire Alarm:

The school has undergone a fire alarm upgrade. The fire alarm control panel is an addressable Simplex 4010, the panel appears to be around 10-12 years old. The devices in these spaces were added later with surface metal raceway. Strobe values were not available and adequate coverage cannot be verified. There are pull stations in the hallways and smoke detectors in the classrooms and Admin. All devices are in satisfactory condition with approximately 10 years of usable life remaining.

Telecommunications/ Voice:

The school MDF is in the original 1918 building on the second floor near the Library. An IDF is present in the Computer Lab in the north classroom wing. 4000 surface metal raceway with devices has been routed around the room. The condition of this raceway and devices is satisfactory. Workstation outlets have been added in the classrooms and Admin in surface metal raceway. The amount of outlets appears to be satisfactory for the current use but at approximately 8 jacks, would be low for current classroom standards. Workstation outlets are in satisfactory condition. Some wiring in the classrooms is exposed and needs to be covered. Outlets do not exist at high locations throughout these spaces for wireless access points.

Intercom/ Clock:

The school has undergone an upgrade and has an existing Rauland Telecenter V head-end located in the Admin, it is floor mounted in front of an existing recessed intercom j-box. The old Latham master clock has been decommissioned, all clock activity is accomplished through the clock module in the Telecenter V. The classrooms and Admin have intercom speakers and call switches. Many of the system clocks have been decommissioned and battery clocks are being utilized. Existing devices are in poor condition and at end of usable life.

CATV:

There are existing taps and splitters in the MDF room in the original 1918 building on the second floor that allow for some CATV distribution throughout the school. There are CATV outlets added on the hallway wall in surface metal raceway, there are also existing jacks/ cables at the original TV location at the

exterior wall casework. Quality of signal at these devices was not verifiable. The devices are in poor condition and at end of life.

Security:

The school has undergone an upgrade and has a Bosch D9412G Security head-end in the Cafeteria electrical room. The classrooms have motion sensors. It did not appear that the exterior doors have door contacts. There are keypads in the south classroom hallway and in the Admin. Existing devices are in satisfactory condition and have approximately 10 years of usable life remaining.

AV:

The classrooms are not outfitted with projectors nor classroom sound enhancement systems.

Cafeteria, 1998 Renovation:

Power Service:

This area is fed from the main switchboard in the main electrical room northeast of the Locker Rooms, via the distribution panel in the Staff room.

Power Distribution:

There are three electrical panels in the electrical room near the Kitchen. Panels are manufactured by Siemens, are fair new and have probably approximately 15 years of usable life remaining. There are convenience receptacles in the Cafeteria and Kitchen. The power for the Kitchen appears to be adequate, additional power connections and receptacles have not been added. The devices are in satisfactory condition and have approximately 15 years of usable life remaining.

Lighting:

The lighting in the Cafeteria is a mix of compact fluorescent downlights, 2'x2' recessed fluorescent troffers and low bay metal halide pendants. The exit signs appear to be LED. The Kitchen and support spaces have T8 linear fluorescent surface mounted luminaires. There does not appear to be any Egress lighting in the Cafeteria.

Fire Alarm:

The school has undergone a fire alarm upgrade. The fire alarm control panel is an addressable Simplex 4010, the panel appears to be around 10-12 years old. The devices in these spaces were added later with surface metal raceway. There does not appear to be adequate horn/ strobe coverage in the Cafeteria. Strobe values were not available and adequate coverage cannot be verified. All

devices are in satisfactory condition with approximately 10 years of usable life remaining.

Telecommunications/ Voice:

The school MDF is in the original 1918 building on the second floor near the Library. An IDF is present in the Electrical Room with an optical fiber cabling connection underground to the original building. There is a single 24 port switch and a single 24 port patch panel mounted on the backboard. It appears most of these horizontal cables serve the adjacent Staff area, some serve the Kitchen. The equipment and cabling is in satisfactory condition with approximately 10 years of usable life remaining.

Intercom/ Clock:

The school has undergone an upgrade and has an existing Rauland Telecenter V head-end located in the Admin, it is floor mounted in front of an existing recessed intercom j-box. The old Latham master clock has been decommissioned, all clock activity is accomplished through the clock module in the Telecenter V. The Cafeteria has a combination clock/ speaker device and a battery clock adjacent. Most likely the system clock is not is use and the battery clock is the timepiece for the Cafeteria. Existing devices are in satisfactory condition with approximately 10 years of usable life remaining.

CATV:

There are existing taps and splitters in the MDF room in the original 1918 building on the second floor that allow for some CATV distribution throughout the school. There is an underground feed from the original building to the Cafeteria electrical room. There are taps on the backboard that allow for some CATV distribution throughout this portion of the school. There are no CATV outlets in the Cafeteria space. Quality of signal was not verifiable.

Security:

The school has undergone an upgrade and has a Bosch D9412G Security head-end in the Cafeteria electrical room. It did not appear that the exterior doors have door contacts. Existing equipment/ devices are in satisfactory condition and have approximately 10 years of usable life remaining.

AV:

The Cafeteria is not outfitted with projectors nor sound enhancement.

Code Review

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Exit sign coverage does not appear to be up to current codes in number and visibility. It was not confirmed if Egress lighting is present; no generator set is

on site, it is possible emergency luminaires are equipped with battery packs. At this vintage, it is highly possible spaces other than the Cafeteria do not contain Egress lighting. The exterior lighting does not meet current Egress requirements. Occupancy sensors are not present in classrooms, offices or conference rooms.

Recommendations

Power Service:

The existing electrical service to this site is adequate for the current non-school use. As a functioning school the electrical service capacity is approximately 50% below standards. Most of the equipment is at end of usable life and should be replaced.

Power Distribution:

Most of the existing electrical panels are at end of usable life and should be replaced. The panels involved in the 1998 Cafeteria remodel are sufficient for approximately 15 more years. There is a mix of Westinghouse, Square D and Siemens electrical panels. This is not convenient for maintenance and/ or replacement parts. The amount of receptacles in most spaces are not adequate, many devices are at end of usable life. Most likely the existing electrical equipment does not have an AIC rating that is sufficient for the current utilities AIC level. The north and west classroom wing panel Code violation should be corrected if panels are to remain in service.

Fire Alarm:

The fire alarm system has been upgraded, it appears, approximately 12 years ago. The existing equipment and devices appear to be in satisfactory condition and have approximately 10 years of usable life remaining. Not all devices meet current ADA standards and should be reviewed if not replaced for this reason.

Telecommunications/ Voice:

The telecommunications/ voice system has been upgraded and the equipment appears to have approximately 10 years of usable life remaining. The system is not amply distributed, there are not enough IDF's and workstation outlets around the school for current school standards. There is an absence of wireless access points and should be considered.

Intercom/ Clock:

The intercom/ clock system has been upgraded with a Telecenter V head-end. The head-end has a usuable life of approximately 2 years. This model is obsolete and support from the manufacturer and local vendors is ending in the

near future. Most of the devices are at end of usable life and should be replaced.

CATV:

The CATV distribution throughout the school is limited. With the onset of projectors in lieu of TV's, this system should be reviewed for future technologies. The existing system is near end of life and should be replaced.

Security:

The security system has been upgraded, the existing Bosch head-end is in satisfactory condition with approximately 5 years of usable life remaining. The existing keypads and motion sensors are also in satisfactory condition. It does not appear that motion sensors exist in all strategic locations, no cameras exist on this site and door contacts would be a positive addition.

AV:

Add projectors to all classrooms and common spaces. Add sound enhancement systems to the classrooms. Sound system in the Gym/ Stage needs to be replaced in its entirety, add function for assisted listening.

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SAFE ENVIRONMENT OF AMERICA, INC. *dba*
MED-TOX NORTHWEST

FUNGI INVESTIGATION REPORT

Pioneer Middle School Buildings

Steilacoom, Washington

Prepared for

Steilacoom Historical School District #1
510 Chambers Road
Steilacoom, Washington 98388
Telephone: 253-983-2200

Prepared by

Med-Tox Northwest
Post Office Box 1446
Auburn, Washington 98071-1446
Telephone: 253-351-0677

September 15, 2010

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Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
AHU	air handling unit
AIHA	American Industrial Hygiene Association
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers
CHMM	Certified Hazardous Materials Manager
CIH	Certified Industrial Hygienist
CO	carbon monoxide
COC	chain of custody
CO2	carbon dioxide
CSP	Certified Safety Professional
EMC	equilibrium moisture content
EPA	U.S. Environmental Protection Agency
ER	Emergency Room
GC	General Contractor
GWB	gypsum wall board
HEPA	high efficiency particulate air
HVAC	heating, ventilation, and air conditioning
IAQ	indoor air quality
IHLAP	Industrial Hygiene Laboratory Accreditation Program
LPM	liters per minute
MC	Moisture content
MTNW	Med-Tox Northwest
MVOC	microbial volatile organic compound
OSHA	Occupational Safety and Health Administration
RH	relative humidity
USDA	United States Department of Agriculture
WMC	wood moisture content

Survey Summary

Med-Tox Northwest conducted an inspection of the Pioneer Middle School buildings located at 510 Chambers Road, Steilacoom, Washington to perform indoor air quality sampling related to existing moisture intrusion and visible fungi growth.

The investigation was performed in response to known and suspected building moisture intrusion. Med-Tox Northwest performed a preliminary walk thru of the buildings at the end of June 2010 for the purposes of providing a proposal for this work. At the time of the walk thru the area was experiencing heavy rains and Med-Tox Northwest observed water leaking at multiple locations in the gymnasium building and original school building's second floor library. Med-Tox Northwest performed the work for Steilacoom Historical School District.

Building Construction

Pioneer Middle School was constructed in four phases. The original school building was constructed in the 1920's and consists of a two story structure with a basement boiler room. To the east of the 1920 building is the gymnasium and locker rooms, reportedly constructed in 1952. Single story classroom wings were added to the 1920 building in the 1960's and are located on the north and south side of the building. A cafeteria was added in 1998.

Fungi Investigation

The investigation included, without limitation, the following:

1. Visual inspection for evidence of fungi growth resulting from moisture intrusion.
2. Photo documentation of all areas associated with moisture intrusion or water exposure.
3. Moisture content measurements from the interior surfaces as reasonably necessary in the opinion of Med-Tox Northwest.

Photographs taken by Med-Tox during the investigation are included in **Appendix A**.

Building Inspection

Southeast Wing Classrooms. This building is currently used for administrative functions and storage in the former classrooms. There is also a staff lounge with eating areas and copiers. The lounge area and storage rooms both had visible evidence of moisture intrusion including staining on acoustical ceiling tile, walls, and in some locations carpeting staining however, at the time of the inspection olfactory evidence of microbial volatile organic compounds (MVOC) were not present.

Inspection above the ceiling in the lounge area revealed staining on roof framing indicating moisture intrusion from roof leaks. Additionally, inside the bathrooms and copy area inspection above the ceilings revealed the same type of findings. There were no visible

indications of leaking mechanical systems or plumbing above the ceilings that could contribute to the visible moisture intrusion or fungal growth.

The storage room was previously the band room and in the northeast corner of the room was visible evidence of moisture intrusion and fungi growth. This is clearly the result of roof leaks and most likely at the classroom/gymnasium building connection.

Cafeteria. There were no visible signs of moisture intrusion in this building and no olfactory evidence of MVOCs. Inspection of the ceilings and walls did not reveal any conditions indicating moisture intrusion.

Gymnasium. This building consists of the gymnasium and stage, boys and girls locker rooms, and one classroom located on the northeast portion of the structure. The locker rooms and gymnasium have substantial visible evidence of moisture intrusion at the ceilings which indicates roof leaks. Additionally, the west side entrance from the cafeteria and exterior has significant ceiling damage for moisture intrusion. Again, at the time of the inspection olfactory evidence of MVOCs were not present.

Southwest Wing Classrooms. These classrooms and office administration areas did not have visible evidence of moisture intrusion and appear to be in good condition. One of the classrooms did have atypical olfactory evidence of MVOCs however, air sampling did not indicate abnormal fungal ecology. This room may require destructive investigation and/or species specific or MVOC air sampling if complaints are raised during future use.

Northwest Wing Classrooms. These classrooms did not have visible evidence of moisture intrusion other than a couple of minor stains on acoustical ceiling tiles and appear to be in good condition. At the time of the inspection, olfactory evidence of MVOCs were not present in these rooms.

1920 Building. Both floors of this building have visible evidence of moisture intrusion from the building envelope and vapor intrusion from lack of heating or air movement. Water damage is present on the ceilings of the restrooms, hallways and second floor ceilings. Additionally, walls in some areas also have water damage. Atypical olfactory evidence is present in this building indicating MVOCs are present.

Moisture Measurements

During this investigation, Med-Tox Northwest took periodic moisture content measurements of the gypsum board surfaces, wood framing, and acoustical ceiling tiles and other areas as reasonably necessary in the opinion of the Med-Tox throughout the buildings from both water impacted and non-impacted areas. Med-Tox Northwest used a Delmhorst Navigator Pro for moisture content measurements.

Gypsum Board: Many moisture meters are intended to provide direct measurements for the percentage of moisture content of a variety of specific materials. The Delmhorst Navigator Pro has a specific setting for testing gypsum board. However, the moisture content typically encountered in gypsum board may make it difficult to derive the level of

consistency and reliability that is necessary to produce an accurate assessment. Moisture meter measurements can also be affected by the presence of other materials, such as salts or carbonaceous materials, on the specimen being tested; salts frequently are left behind when water evaporates.

In view of the above, it was readily apparent that hand-held moisture meters are more appropriately used to provide a "relative" moisture content, or a "rank ordering" of moisture contents between gypsum board in one area of the building when compared with that in another area of the building. Comparative tests of gypsum board in two different areas in the same building can determine which board is "wetter" but will not necessarily quantify "how much wetter."

For this Project, Med-Tox Northwest used the Delmhorst Nagivator Pro hand-held moisture meter to test gypsum board that had been exposed to moisture intrusion and compared those to areas considered "dry" (not exposed to moisture intrusion). According to Delmhorst, moisture content measurements of gypsum board between 0% and 0.5% moisture content (% MC) are considered a sufficiently dry moisture level. Measurements of gypsum board between 0.5 and 1% MC are considered a borderline suituation and measurements above 1% MC are considered too wet for painting or application of wall paper.

Wood Components: According to the United States Department of Agriculture (USDA) document "Wood as an engineering material, General Technical Report 113," the recommended moisture content of lumber should be matched as closely as is practical to the equilibrium moisture content (EMC) conditions in service. Table 12–1 (table taken from General Technical Report 113) shows the EMC conditions in outdoor exposure in various U.S. cities for each month. The EMC data are based on the average relative humidity and temperature data (30 or more years) available from the National Climatic Data Center of the National Oceanic and Atmospheric Administration.

Table 12-1. Equilibrium moisture content of wood, exposed to outdoor atmosphere
Seattle-Tacoma area in 1997

Equilibrium moisture content[a] (%)											
Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
15.6	14.6	15.4	13.7	13.0	12.7	12.2	12.5	13.5	15.3	16.3	16.5
[a]EMC values were determined from the average of 30 or more years of relative humidity and temperature data available from the National Climatic Data Center of the National Oceanic and Atmospheric Administration.											

In general, the following guidelines are used to interpret moisture meter readings on wood substrates:

- Below 10% - Low.
- 10% - 14% - Low to moderate.

- 14% - 16% - Borderline conditions depending on monthly equilibrium moisture content. Fungal growth can occur at 16%; therefore, further monitoring is warranted.
- 16% - 20% - Fungal growth may occur. Affected materials must be assessed for structural damage or invasive contamination and replaced as necessary.
- Above 20% - High, fungal growth and wood decomposition (rot) likely if not immediately corrected. Affected materials must be assessed for structural damage or invasive contamination and replaced as necessary.

Note: It is a common misconception that mold will not grow on wood if moisture content is maintained below 20%. Extensive wood rot does require higher moisture levels (typically 20% or greater), but surface growth by species such as *Aspergillus* and *Penicillium* can occur at 16% and higher. Another misleading opinion is that wood moisture content (WMC) less than 20% is consistent with levels found in new lumber. While new lumber often contains elevated moisture due to conditions during processing and storage, moisture content of new lumber should in fact be within the equilibrium moisture content of wood for the region installed (see table 12-1 above).

When interpreting moisture test results, it is important to understand that moisture is subject to temporal and spatial variations. Moisture readings for any given day or test area do not necessarily represent prior or future conditions within all building materials. Therefore, more than one survey event may be necessary. For best resolution, testing should be performed under suitable environmental conditions, preferably after recent precipitation or immediately following a water damage event.

All of the wood building components were considered dry at the time of the inspection. Gypsum board and acoustical ceiling tiles were dry in every location tested, including areas of past fungal growth or visible moisture intrusion.

Air Samples

Twenty (20) air samples were collected throughout the four buildings at the initiation of the investigation and are presented in Table 2 below. Two of these were exterior air samples collected to represent background bioaresol levels for comparison with interior samples. Samples were collected on *Air-O-Cell*® cassettes with an air flow of 15 liters per minute (LPM). The *Air-O-Cell*® is a unique air sampling cassette specifically designed for the rapid collection of a wide range of airborne aerosols including mold spores, pollen, insect parts, skin cell fragments, fibers (e.g. fiberglass, cellulose, clothing fibers, etc.) and inorganic particulate e.g. ceramic, fly ash, copy toner, etc.).

The sample locations were selected so as to be as representative of the environment as possible taking into account construction activity, use of the area, and to be sure that samples were obtained in locations served by air handling systems. Typically, EPA recommends that indoor types and levels of bioaresols should of the same type and level,

or lower, as those found in the outdoor environment. Although, concentrations and species indoors may vary from outdoor concentrations due to human and/or space activity.

Table 1. Summary of Air Sampling for Fungi

Sample No.	Location	Time	LPM	Time	Volume (liters)	Results TFS
7453.1-01	Exterior	10:20 10:30	15	10	150	1,400
7453.1-02	Southeast wing classroom 1	10:40 10:50	15	10	150	330
7453.1-03	Southeast wing staff lounge	10:58 11:08	15	10	150	350
7453.1-04	Hallway outside gym entrance	11:14 11:24	15	10	150	520
7453.1-05	Cafeteria	11:37 11:47	15	10	150	270
7453.1-06	Cafeteria	11:39 11:49	15	10	150	350
7453.1-07	Gymnasium	12:00 12:10	15	10	150	280
7453.1-08	Gymnasium	12:14 12:24	15	10	150	230
7453.1-09	Boys locker room	12:20 12:30	15	10	150	550
7453.1-10	Classroom	12:35 12:45	15	10	150	410
7453.1-11	Southwest wing offices	13:04 13:14	15	10	150	270
7453.1-12	Southwest wing classroom	13:06 13:16	15	10	150	370
7453.1-13	Northwest wing classroom	13:26 13:36	15	10	150	500
7453.1-14	Northwest wing classroom	13:29 13:39	15	10	150	150
7453.1-15	1920 1st floor classroom	13:49 13:59	15	10	150	1,000
7453.1-16	1920 1st floor classroom	13:50 14:00	15	10	150	250
7453.1-17	1920 2nd floor library	14:06 14:16	15	10	150	890
7453.1-18	1920 2nd floor hallway	14:07 14:17	15	10	150	1,200
7453.1-19	1920 1st floor wallway	14:20 14:30	15	10	150	980

Sample No.	Location	Time	LPM	Time	Volume (liters)	Results TFS
7453.1-20	Exterior	14:22 14:32	15	10	150	5,200

LPM = liters per minute. TFS = total fungle spores

A review of the laboratory data for the Air-O-Cell cassettes found interior levels generally lower than the exterior samples as an overall count of total fungal spores. However, individual penicillium/Aspergillus type fungi on the interior of the 2-story original classroom building exceeded exterior samples by over a magnitude of ten. Based on the observation of moisture damage, this elevation in penicilluim/Aspergillus fungi are likely indicitive of fungal amplification (growth and fruiting fungal spores).

In general, the air sample results for the rest of the buildings represent a fairly normal building fungal ecology at the time of sample collection which means existing visible fungi growth isn't manifesting in the air quality at this time. However, it must be kept in mind that not all species of fungal spores are readily airborne and that temporal and seasonal variation can have a significant impact on the concentrations and types of fungal spores that may be observed in an air sample. Additionally, based on our findings of active fungal growth in numerous areas, it is our opinion that this condition will change over time if not corrected.

Laboratory Analytical Methods

Air-O-Cell Cassettes

Nine (9) air samples were collected on Zefon Air-o-Cell cassettes and analyzed by EMLab P&K using analytical method 1038. This type of analysis can specifically identify nearly all types of airborne particles, including fungal spores, pollen, dander, man-made fibers and incendiary products. Results are reported in concentrations (particles per cubic meter) for each particle type identified. Copies of the laboratory analytical reports are provided in **Appendix B**.

Comments and Recommendations

Comments

In the opinion of Med-Tox and its' inspectors, the water intrusion occuring in the 1920 Building, Southeast staff lounge/storage room (former band room), and Gymnasium/locker rooms/classrooms is a result of failures in the exterior building envelope; primarily the roof. Although air sample results collected at this time do not indicate amplification of fungal spores at this time, visible evidence is significant enough to warrant limiting water damaged

areas to maintenance or storage facilities. Med-Tox Northwest does not recommend using these areas for school children instruction purposes. Additionally, any staff with diagnosed alergies or immunocompromised immune systems should avoid these areas.

Moisture intrusion must be corrected prior to performing any fungi remediation and Med-Tox Northwest recommends correction of these conditions as soon as possible. Regarding the moisture intrusion observed, Med-Tox Northwest provides the following observations:

1. The water intrusion is a Category 1 event as defined by IICRC S500. In a Category 1 event, water originates from a sanitary water source and does not pose substantial risk from dermal, ingestion, or inhalation exposure. There is no evidence that sanitary systems are leaking and the clean water had no contact with contaminants that would change the Category.

2. The class of water intrusion, in our opinion, is Class 1 as defined by IICRC S500 (Chapter 11), meaning the Water Loss affected only portions of a room or area per floor/unit, and installed materials absorbed minimal moisture. Areas of water damage are limited to small sections of a room or area.

3. It is Med-Tox Northwest's opinion that additional sampling during the rainy season will indicate significant fungal contamination in the areas of obvious moisture intrusion.

RECOMMENDATIONS

Med-Tox Northwest recommends repair of the roof systems to correct the source of moisture intrusion, additional destructive investigation can be performed during repairs ensure other sources of envelope failure are not present. Once repairs are completed, fungi growth should be remediated by a professional firm using procedures recommended by ANSI/IICRC S520 – Standard and Reference Guide for Professional Mold Remediation (2nd edition 2008) and other government recommendations.

1. If the classroom areas without visible evidence of damage and/or fungal growth are going to be used by children or immunocomprised individuals, areas of moisture intrusion and visible fungal growth should be sealed off and made inaccessible until repairs and remediation are completed. This includes the gymnasium building (including locker and classroom), the entire 1920 Building, and the staff lounge and storage room of the southeast wing.

2. It is likely that fungal growth will be discovered in wall cavities and interstial spaces hidden from view and will only be observed with destructive investigation at areas of moisture intrusion.

Limitations

This report is an instrument of service prepared for the exclusive use of Steilacoom Historical School District and its contractors and may not be reproduced or distributed without written authorization from Steilacoom Historical School District. The services described in this report were performed consistent with generally accepted professional consulting principles and practices and in accordance with the practices and service scope elements recommended by EPA. No other warranty, expressed or implied, is made. These services were performed in accordance to our contractual agreement with Steilacoom Historical School District. This report was prepared solely for the use and information of Steilacoom Historical School District or as otherwise noted. Unauthorized use of this report is strictly prohibited and Med-Tox Northwest assumes no liability for such use.

This report has been prepared in order to aid in the evaluation of the Pioneer Middle School buildings in Steilacoom, Washington with regard to the potential for the presence of fungi. The conclusions presented in this report were based on available information pertaining to various points in time and were presented by others for use by Med-Tox Northwest or were based on informal discussion with various personnel. Med-Tox Northwest does not warrant the accuracy of information supplied by others.

The conclusions in this report may rely on others credibility and, therefore, an alteration in documentation or verbal information obtained may result in the redirection of the conclusions presented in this report. The conclusions are also based on visual field observations performed within the property boundaries at this specific point in time and, therefore, do not include the potential for mold present within undocumented activities occurring on the subject property or adjacent properties. Opinions presented herein may be based on analysis performed by others and, therefore, Med-Tox Northwest is not responsible for variations in analytical results or inaccuracies resulting from laboratory analysis provided by subcontracted analytical laboratories.

This report reflects Med-Tox Northwest's observations of the condition of the property during the time of field activities, and does not cover conditions that may be found at some later time on the property that were not visible during these field activities.

Appendix A
Building and System Photographs

Photo 1: Pioneer Middle School (looking at southeast and southwest wings.

Photo 2. 1920's Building.

Photo 3: Gymnasium builidng, northeast classroom and locker rooms.

Photo 4. Building on the right are northwest classrooms.

Appendix B
Laboratory Analytical Reports

EMLab P&K

Report for:

Mr. Jon Havelock
Med-Tox Northwest
PO Box 1446
Auburn, WA 98071

Regarding: Project: Pioneer Middle School
EML ID: 688718

Approved by:

Technical Manager
Aaron Agajanian

Dates of Analysis:
Spore trap analysis: 08-11-2010

Service SOPs: Spore trap analysis (1038)

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank corrections of results is not a standard practice. The results relate only to the items tested.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Med-Tox Northwest
C/O: Mr. Jon Havelock
Re: Pioneer Middle School

Date of Sampling: 08-03-2010
Date of Receipt: 08-09-2010
Date of Report: 08-11-2010

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	1: 7453.1-01 Exterior				2: 7453.1-02 Southeast Wing Classroom 1				3: 7453.1-03 Southeast Wing Staff Lounge				4: 7453.1-04 Hallway Outside Gym Entrance			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	3054238-1				3054239-1				3054240-1				3054241-1			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	2+				3+				4+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	2	13	7	n/a	1	7	7	n/a	4	27	7	n/a				
Pollen	21	140	7	n/a					2	13	7	n/a				
§ TOTAL FUNGAL SPORES	216	1,400	n/a	100	50	330	n/a	100	52	350	n/a	100	78	520	n/a	100
Alternaria																
Ascospores	9	60	7	4	12	80	7	24	6	40	7	12	11	73	7	14
Basidiospores	16	110	7	7	19	130	7	38	26	170	7	50	41	270	7	53
Bipolaris/Drechslera group																
Botrytis									1	7	7	2				
Chaetomium																
Cladosporium	117	780	7	54	14	93	7	28	12	80	7	23	17	110	7	22
Curvularia																
Epicoccum																
Nigrospora																
Oidium	2	13	7	1												
Other brown																
Penicillium/Aspergillus types	5	33	7	2	4	27	7	8	5	33	7	10	9	60	7	12
Pithomyces																
Rusts	55	370	7	25					2	13	7	4				
Smuts, Periconia, Myxomycetes	12	80	7	6	1	7	7	2								
Stachybotrys																
Torula																
Ulocladium																

Comments:

The Limit of Detection is the product of a raw count of 1 and 100 divided by the percent read. The analytical sensitivity (counts/m3) is the product of the Limit of Detection and 1000 divided by the sample volume.

*The DL/m3 has been rounded to a whole number.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

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Date of Receipt: 08-09-2010
Date of Report: 08-11-2010

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	5: 7453.1-05 Cafeteria				6: 7453.1-06 Cafeteria				7: 7453.1-07 Gymnasium				8: 7453.1-08 Gymnasium			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	3054242-1				3054243-1				3054244-1				3054245-1			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				3+				2+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments																
Pollen	2	13	7	n/a	1	7	7	n/a					1	7	7	n/a
§ TOTAL FUNGAL SPORES	40	270	n/a	100	53	350	n/a	100	42	280	n/a	100	35	230	n/a	100
Alternaria																
Ascospores	6	40	7	15	12	80	7	23	6	40	7	14	3	20	7	9
Aureobasidium																
Basidiospores	13	87	7	33	14	93	7	26	26	170	7	62	13	87	7	37
Bipolaris/Drechslera group																
Botrytis																
Chaetomium																
Cladosporium	6	40	7	15	7	47	7	13	4	27	7	10	9	60	7	26
Curvularia	1	7	7	3												
Epicoccum																
Nigrospora																
Oidium																
Other brown																
Penicillium/Aspergillus types	14	93	7	35	19	130	7	36	5	33	7	12	9	60	7	26
Pithomyces																
Rusts					1	7	7	2	1	7	7	2	1	7	7	3
Smuts, Periconia, Myxomycetes																
Stachybotrys																
Torula																
Ulocladium																

Comments:

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	9: 7453.1-09 Boys Locker Room				10: 7453.1-10 Classsroom				11: 7453.1-11 Southwest Wing Offices				12: 7453.1-12 Southwest Wing Classroom			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	3054246-1				3054247-1				3054248-1				3054249-1			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				3+				3+				2+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	3	20	7	n/a					1	7	7	n/a				
Pollen									1	7	7	n/a				
§ TOTAL FUNGAL SPORES	83	550	n/a	100	61	410	n/a	100	41	270	n/a	100	55	370	n/a	100
Alternaria	1	7	7	1												
Ascospores	15	100	7	18	11	73	7	18	1	7	7	2	7	47	7	13
Basidiospores	29	190	7	35	30	200	7	49	16	110	7	39	22	150	7	40
Bipolaris/Drechslera group																
Botrytis	1	7	7	1												
Chaetomium	1	7	7	1												
Cladosporium	11	73	7	13	10	67	7	16	12	80	7	29	9	60	7	16
Curvularia																
Epicoccum																
Nigrospora																
Oidium																
Other brown																
Penicillium/Aspergillus types	24	160	7	29	8	53	7	13	10	67	7	24	17	110	7	31
Pithomyces																
Rusts	1	7	7	1												
Smuts, Periconia, Myxomycetes					2	13	7	3	2	13	7	5				
Stachybotrys																
Torula																
Ulocladium																

Comments:

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	13: 7453.1-13 Northwest Wing Classroom				14: 7453.1-14 Northwest Wing Classroom				15: 7453.1-15 1920 1st Floor Classroom				16: 7453.1-16 1920 1st Floor Classroom			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	3054250-1				3054251-1				3054252-1				3054253-1			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				2+				3+				2+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	1	7	7	n/a									1	7	7	n/a
Pollen	1	7	7	n/a									1	7	7	n/a
§ TOTAL FUNGAL SPORES	75	500	n/a	100	22	150	n/a	100	150	1,000	n/a	100	38	250	n/a	100
Alternaria																
Ascospores	8	53	7	11	2	13	7	9	17	110	7	11	4	27	7	11
Basidiospores	11	73	7	15	12	80	7	55	44	290	7	29	26	170	7	68
Bipolaris/Drechslera group																
Botrytis																
Chaetomium																
Cladosporium	32	210	7	43	1	7	7	5	73	490	7	49				
Curvularia																
Epicoccum																
Nigrospora																
Oidium																
Other brown																
Penicillium/Aspergillus types	24	160	7	32	7	47	7	32	16	110	7	11	8	53	7	21
Pithomyces																
Rusts																
Smuts, Periconia, Myxomycetes																
Stachybotrys																
Torula																
Ulocladium																

Comments:

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	17: 7453.1-17 1920 2nd Floor Library				18: 7453.1-18 1920 2nd Floor Hallway				19: 7453.1-19 1920 1st Floor Wallway				20: 7453.1-20 Exterior			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	3054254-1				3054255-1				3054256-1				3054257-1			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				3+				4+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments													2	13	7	n/a
Pollen	1	7	7	n/a	6	40	7	n/a					2	13	7	n/a
§ TOTAL FUNGAL SPORES	133	890	n/a	100	185	1,200	n/a	100	147	980	n/a	100	782	5,200	n/a	100
Alternaria													2	13	7	< 1
Ascospores	16	110	7	12	7	47	7	4	11	73	7	7	11	73	7	1
Basidiospores	55	370	7	41	34	230	7	18	20	130	7	14	481	3,200	7	62
Bipolaris/Drechslera group					1	7	7	1					1	7	7	< 1
Botrytis																
Chaetomium																
Cladosporium	36	240	7	27	41	270	7	22	47	310	7	32	278	1,900	7	36
Curvularia																
Epicoccum													1	7	7	< 1
Nigrospora																
Oidium																
Other brown					3	20	7	2	1	7	7	1				
Penicillium/Aspergillus types	24	160	7	18	94	630	7	51	67	450	7	46	6	40	7	1
Pithomyces																
Rusts																
Smuts, Periconia, Myxomycetes	2	13	7	2	5	33	7	3	1	7	7	1	2	13	7	< 1
Stachybotrys																
Torula																
Ulocladium																

Comments:

The Limit of Detection is the product of a raw count of 1 and 100 divided by the percent read. The analytical sensitivity (counts/m3) is the product of the Limit of Detection and 1000 divided by the sample volume.

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§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

Introduction

Molds are a natural and important part of our environment. They are ubiquitous and are found virtually everywhere. Molds produce tiny spores to reproduce. These spores can be found in both indoor and outdoor air and on indoor and outdoor surfaces. When mold spores land on a damp spot, they may begin growing and digesting whatever they are growing on in order to survive, leading to adverse conditions. In response to increasing public concern, a number of government authorities, including the United States EPA, California Department of Health Services and New York City Department of Health, have developed recommendations and guidelines for assessment and remediation of mold. Websites for these organizations can be found at the end of this report.

While it is generally accepted that molds can be allergenic and can lead to adverse health conditions in susceptible people, unfortunately there are no widely accepted or regulated interpretive standards or numerical guidelines for the interpretation of microbial data. The absence of standards often makes interpretation of microbial data difficult and controversial. This report has been designed to provide some basic interpretive information using certain assumptions and facts that have been extracted from a number of peer reviewed texts, such as the American Conference of Governmental Industrial Hygienists (ACGIH). In the absence of standards, the user must determine the appropriateness and applicability of this report to any given situation. Identification of the presence of a particular fungus in an indoor environment does not necessarily mean that the building occupants are or are not being exposed to antigenic or toxic agents.

None of the information contained herein should be construed as medical advice or a call to action for evacuation or remediation. Only a qualified physician should make any decision relative to medical significance.

EMLab P&K did not conduct the site investigation, provide consulting or collect the samples referenced in this report. EMLab P&K's primary involvement in this project is to provide analytical results for the samples submitted. The data presented in this report are based on the samples and accompanying information provided and represents concentrations at a point in time under the conditions sampled.

EMLab P&K's standard terms and conditions govern all aspects of this report.

Materials

Please refer to the chain of custody included with this report.

Methods

1. **Surface Samples – Swab, Dust, Tape and Bulk Samples**
   Swab, Dust and Tape samples are mounted on a glass slide and observed under a bright field microscope for either Qualitative or Quantitative Examination. A bulk sample is also simultaneously observed under a stereomicroscope to look for signs of any visible discoloration or fungal growth, which is then mounted and observed under a bright field microscope for either Qualitative or Quantitative Examination. The samples are analyzed at a

minimum of 200X magnification and up to a 1000X magnification. In the qualitative examination, the prepared samples are observed for the presence of any structures or skewing of spore distribution that may indicate growth in the sample being analyzed. In the quantitative examination, the mold spores detected in the sample are counted and reported as spores per cm^2, spores per gram (or 1000mg), or spores per swab/wipe, etc depending on the sample type. These methodologies do not differentiate between viable and non-viable fungal spores.

2. Air Samples- Spore Trap Device

Spore traps are a unique sampling device designed for the rapid collection and analysis of a wide range of airborne particulates, including fungal spores. While analyzing the sample, the analyst takes a number of variables into account to select the proper analytical method to accurately determine the densities of the various spores on the trace. The densities of the debris and the spores on the trace will determine the approach to analyzing the sample. In general, the sample is directly mounted under the microscope and the various airborne particles detected are counted at a minimum of 200X magnification and up to 1000X magnification, with the entire trace (100% of the sample) being analyzed at 200X or 600X. This method does not differentiate between viable and non-viable fungal spores. This technique does not allow for the differentiation between *Aspergillus* and *Penicillium* spores. Additionally, depending on morphology, other non-distinctive spores are reported in categories such as ascospores or basidiospores. All slides are graded with the following debris scale for data qualification.

Debris Rating	Description	Interpretation
None	No particles detected.	No particulates on slide. The absence of particulates could indicate improper sampling as most air samples typically capture some particles.
<1+	Good visibility. A few particles detected.	Reported values are not affected by debris.
1+	Good visibility. No crowding of particles.	
2+	Decent visibility. Particles beginning to crowd.	Non-microbial particulates can mask the presence of fungal spores. As a result, actual values could be higher than the numbers reported. Higher debris ratings increase the probability of this bias.
3+	Decent visibility. Particles beginning to crowd.	
4+	Poor visibility. Particles beginning to overlap.	Excessive debris detected in the sample. Counts reported may vary drastically and actual values could be higher than the numbers reported. The sample should be collected at a shorter time interval, or other measures taken to reduce the collection of non-microbial debris. In addition, a >4+ rating will only allow for a count from the perimeter of the slide.
>4+	Poor visibility. Particles overlapping.	

3. Comments

Comments identify issues or events that are relevant to your analytical results. A comment includes information about any peculiar observation or situation encountered while analyzing the sample. In each case, the comments provide significant information vital to the interpretation of the laboratory data.

4. Data Interpretation

According to ACGIH, "Data from individual sampling episodes is often interpreted with respect to baseline data from other environments or the same environment under anticipated low exposure conditions." In the absence of established acceptable exposure limits, it is often necessary to use a comparison standard when interpreting data. In this instance, it will be necessary to sample the suspect area as well as a non-suspect area.

According to ACGIH, "...active fungal growth in indoor environments is inappropriate and may lead to exposure and adverse health effects."

a. Total Fungal Spores

According to ACGIH, ".... differences that can detected with manageable sample sizes are likely to be in 10- fold multiplicative steps (e.g., 100 versus 1000...)". Following this logic, if total fungal spores are ten (10) times greater in the sample from a suspect area than in the negative control sample collected from a non-suspect area, then that sample area may be a fungal amplification site.

b. Mycelial Fragments

Mycelium is a fungal mass that constitutes the vegetative or living body of a fungus. Following the same logic above, if total mycelial fragments are ten (10) times greater in the suspect sample than in the negative control, then the sample area is considered to be a fungal amplification site. The presence of mycelial fragments provides evidence of microbial growth.

c. Mycotoxins

Molds can produce toxic substances called mycotoxins. More tha n 200 mycotoxins have been identified from common molds, and many more remain to be identified. Some of the molds that are known to produce mycotoxins are commonly found in moisture-damaged buildings. Exposure pathways for mycotoxins can include inhalation, ingestion, or skin contact. Although some mycotoxins are well known to affect humans and have been shown to be responsible for human health effects, for many mycotoxins, little information is available, and in some cases research is ongoing. Some molds can produce several toxins, and some molds produce mycotoxins only under certain environmental conditions. The presence of mold in a building does not necessarily mean that mycotoxins are present or that they are present in large quantities.

d. Water Indicator Molds

Certain authorities identify certain molds whose presence indicates excessive moisture. The presence of a few spores of indicator mold should be interpreted with caution. Additionally, it should be recognized that these named molds are not necessarily the only ones of potential significance.

e. Mold Glossary

Specific characteristics of the individual molds listed in the report are presented in Table 1.

f. Useful Resources

i. Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health. www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html

ii. Facts about Mold, New York City Department of Health. www.ci.nyc.ny.us/html/doh/html/epi/epimold.html
iii. Mold Resources, United States Environmental Protection Agency. http://www.epa.gov/mold/moldresources.html
iv. Mold in My Home, What do I do? California Department of Health Services. www.asbestos.org/Microbial/index.html

Table 1: Summary of Specific Mold Characteristics

Fungi	Environmental Indicator		Typically Found
Alternaria			*Alternaria* is one of the more common fungi found in nature. It is found growing indoors on a variety of substrates including wallboards, painted walls, etc.
Arthrinium			*Arthrinium* is a saprobe and is found on plants. It is rarely found growing indoors.
Ascospores			Ascospores are ubiquitous in nature and are commonly found in the outdoor environment. Some fungi that belong to the ascomycete family include the sexual forms of *Penicillium/ Aspergillus*, *Chaetomium*, etc that may be frequently found growing on damp substrates.
Aureobasidium			*Aureobasidium* is commonly found in a variety of soils. Indoors, it is commonly found where moisture accumulates, especially bathrooms, and kitchens, on shower curtains, tile grout, windowsills, textiles, and liquid waste materials.
Basidiospores			Basidiospores are Saprophytes and plant pathogens and are commonly found in gardens, forests, and woodlands. They also include organisms that are the agent of "dry rot," and other fungi that cause white and brown wood rot, which may grow and destroy the structural wood of buildings.
Bipolaris/ Dreschlera			*Bipolaris* and *Dreschlera* are usually found associated with plant debris, and soil. They are plant pathogens of numerous plants, particularly grasses. *Bipolaris* and *Dreschlera* can grow indoors on a variety of substrates.
Botrytis			*Botrytis* is commonly found in tropical and temperate climates growing on vegetative matter. They may be found indoors in conjugation with indoor plants, fruits and vegetables.
Chaetomium			*Chaetomium* is often found on materials containing cellulose such as sheetrock paper, or other wet materials.
Cladosporium			*Cladosporium* is a common outdoor mold. They are commonly found on dead plants, food, textiles, and a variety of other surfaces. Indoors, they can grow on a variety of substrates including textiles, wood, moist windowsills, etc. It can grow at 0°C and is associated with refrigerated foods.
Curvularia			*Curvularia* is found on plant materials and is considered a saprobe. Indoors, they can grow on a variety of substrates.
Epicoccum			*Epicoccum* is a saprophyte and considered a weekly parasitic secondary invader of plants. They tend to colonize continuously damp materials such as damp wallboard and fabrics.

Fusarium			*Fusarium* requires very wet conditions and is frequently isolated from plants and grains. They colonize continuously damp materials such as damp wallboard and water reservoirs for humidifiers and drip pans.
Memnoniella			*Memnoniella* can be found growing on a variety of cellulose-containing materials.
Nigrospora			*Nigrospora* is especially abundant in warm climates and is rarely found growing indoors.
Oidium/ Peronospora			*Oidium* and *Peronospora* are plant pathogens and are not found growing indoors.
Penicillium/ Aspergillus			*Penicillium* and *Aspergillus* are ubiquitous in environment. *Aspergillus* tends to colonize continuously damp materials such as damp wallboard and fabrics. *Penicillium* is commonly found in house dusts, wallpaper, decaying fabrics, moist clipboards, etc.
Pithomyces/ Ulocladium			*Pithomyces* is commonly found on grass and decaying plant material and are rarely found growing indoors. *Ulocladium* has a high water requirement and therefore colonizes continuously damp materials such as damp wallboard and fabrics.
Rusts			Rusts are plant pathogens and only grow on host plants.
Smuts/ *Periconia*/ Myxomycetes			Smuts and Myxomycetes are parasitic plant pathogens that require a living host. Smuts do not usually grow indoors. *Periconia* are rarely found growing indoors. Myxomycetes are occasionally found indoors, but rarely growing.
Stachybotrys			*Stachybotrys* are commonly found indoors on wet materials containing cellulose, such as wallboard, jute, wicker, straw baskets, and other paper materials.
Stemphylium			*Stemphylium* is either parasitic or saprophytic and is rarely found growing indoors.
Torula			*Torula* can grow indoors on cellulose containing materials such as wallboard, jute, wicker, straw baskets, and other paper materials.
Other brown/ colorless			An uncharacteristic fungal spore that does not lend itself to classification via direct microscopy.

 Potential Water Intrusion/Indicator Mold

 Potential Water Intrusion/Indicator Mold Capable of Mycotoxin Production

Quality Programs

The EMLab P&K's laboratory network is staffed with highly trained analysts, the majority of which hold advanced degrees. The reliability of test results depends on many factors such as the personnel performing the tests, environmental conditions, selection and validation of test methods, equipment functioning, as well as the sampling, storage and handling of test items, all of which are a reflection of the overall quality system of the laboratory.

EMLab P&K has modeled its quality system after ISO 17025, General Requirements for the Competence of Testing and Calibration Laboratories, one of the most stringent sets of standards in the industry, to ensure that its customers receive the highest standard of accuracy, reliability, and impartiality that they have come to expect from the leader in the environmental industry. EMLab P&K's laboratories adherence to the standards set forth in ISO 17025 has been validated and

formally recognized through accreditations granted by an independent outside agency, American Industrial Hygiene Association (AIHA), on a site by site basis. As an additional measure to demonstrate its competency to perform the analyses it offers to its clients, EMLab P&K laboratories also participate in a variety of different proficiency testing programs, including the Environmental Microbiology Proficiency Analytical Testing Program (EMPAT) sponsored by the American Industrial Hygiene Association.

As part of our continuous commitment to excellence, EMLab P&K laboratories are also inspected, licensed and/or accredited by a number of governmental agencies and independent associations in addition to those already mentioned above. The scope of services, accreditation certificates, and proficiency results can all be accessed at www.emlabpk.com.

References

1. Bioaerosols: Assessment and Control. Janet Macher, Ed., American Conference of Government Industrial Hygienists, Cincinnati, OH (1999).

2. EPA: The Inside Story. A Guide to Indoor Air Quality, United States Environmental Protection Agency and the United States Consumer Product Safety Commission, Washington DC (1995).

3. Health Canada: Exposure Guidelines for Residential Indoor Air Quality. Environmental Health Directorate. Health Protection Branch, Health Canada, Ottawa, Ontario (1989).

4. IIRC: Standard and Reference Guide for Professional Water Damage Restoration, 2nd Ed. Institute of Inspection, Cleaning and Restoration, Vancouver, WA (1999).

5. Field Guide for the Determination of Bio logical Contaminants in Environmental Samples. American Industrial Hygiene Association, Fairfax, VA (1996).

6. Standards of Practice for the Assessment of Indoor Environmental Quality, Volume I: Mold Sampling, Assessment of Mold Contamination. Indoor Environmental Standards Organization (2002).

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Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * (800) 651-4802
San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * (866) 888-6653

000688718

WEATHER	Fog	Rain	Snow	Wind	Clear
None	X	X	X	X	
Light					
Moderate					
Heavy					

CONTACT INFORMATION

Company: Med-Tox Northwest
Contact: Jon Havelock
Phone: 253-351-0677
Address: P.O. Box 1446, Auburn, WA 98071
Special instructions: E-mail results: havelockj@medtoxnw.com

PROJECT INFORMATION

Project ID: Pioneer Middle School
Project Desc.:
Project Zip Code:
Sampling Date & Time: 8/3/10
PO Number: A-7453.1

TURN AROUND TIME CODES (TAT)

- STD - Standard (DEFAULT)
- ND - Next Business Day
- SD - Same Business Day Rush
- WH - Weekend/Holiday

Rushes received after 2pm or on weekends will be considered received the next business day. Please alert the lab ahead of time for weekend analysis needs.

REQUESTED ANALYSIS — Non-Culturable / Culturable: Spore Trap; Tape Swab Bulk; BioCassette™ Air, Water, Bulk, Dust

Analysis columns: Fungi - Spore Trap Analysis; Spore Trap Analysis - Other particles; Direct Microscopic Exam (Qualitative); Quantitative Spore Count Direct Exam; 1-Media Surface Fungi (Genus ID + Asp. spp.); 2-Media Surface Fungi (Genus ID + Asp. spp.); 3-Media Surface Fungi (Genus ID + Asp. spp.); Culturable Air Fungi (Genus ID + Asp. spp.); Gram Stain and Counts (Culturable Air and Surface Bacteria); Legionella culture; Total Coliform, E.coli (Presence/Absence); Membrane Filtration (Please specify organism); MPN Bacteria (Please specify organism); QuantiTray - Sewage Screen; Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 7400); Asbestos Analysis - PLM (EPA method 600/R-93-116); PCR (please specify test)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (if applicable)	NOTES (Time of day, Temp, RH, etc.)	Fungi - Spore Trap Analysis
7453.1-01	SEE ATTACHED data sheet	ST	STD	150		X
02						X
03						X
04						X
05						X
06						X
07						X
08						X
09						X
10						X
11						X
12						X

SAMPLE TYPE CODES

BC - BioCassette™	ST - Spore Trap: Zefon, Allergenco, Burkard...	T - Tape	D - Dust
A1S - Andersen		SW - Swab	SO - Soil
SAS - Surface Air Sampler	P - Potable Water	B - Bulk	
CP - Contact Plate	NP - Non-Potable Water	O - Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
[signature]	8/5 1200		
[signature]	950	[signature]	8910

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San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * (866) 888-6653

WEATHER	Fog	Rain	Snow	Wind	Clear
None					
Light					
Moderate					
Heavy					

000688718

CONTACT INFORMATION

Company: Med-Tox Northwest
Contact: See page 1
Phone:
Address:
Special Instructions:

PROJECT INFORMATION

Project ID:
Project Desc.:
Project Zip Code:
Sampling Date & Time:
PO Number:

TURNAROUND TIME CODES (TAT)

STD - Standard (DEFAULT)
ND - Next Business Day
SD - Same Business Day Rush
WH - Weekend/Holiday

Rush: [illegible] received the next business day. Please alert us in advance [illegible]

REQUESTED SERVICE

Non-Culturable: Spore Trap; Tape Swab Bulk — Culturable: BioCassette™ • Air, Water, Bulk, Dust

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (if applicable)	Notes (Time of day, Temp, RH, etc.)	Fungi - Spore Trap Analysis	Spore Trap Analysis - Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + Asp. spp.)	2-Media Surface Fungi (Genus ID + Asp. spp.)	3-Media Surface Fungi (Genus ID + Asp. spp.)	Culturable Air Fungi (Genus ID + Asp. spp.)	Gram Stain and Counts (Culturable Air and Surface Bacteria)	Legionella culture	Total Coliform, E.coli (Presence/Absence)	Membrane Filtration (Please specify organism)	MPN Bacteria (Please specify organism)	QuantiTray - Sewage Screen	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis - PLM (EPA method 600/R-93-116)	PCR (please specify test)
7453.1-13	See attached data sheet	ST	STD	150		X																
14		|	|	|		X																
15		|	|	|		X																
16		|	|	|		X																
17		|	|	|		X																
18		|	|	|		X																
19		|	|	|		X																
20		|	|	|		X																

SAMPLE TYPE CODES

BC - BioCassette™	ST - Spore Trap: Zefon, Allergenco, Burkard...	T - Tape	D - Dust
A1S - Andersen		SW - Swab	SO - Soil
SAS - Surface Air Sampler	P - Potable Water	B - Bulk	
CP - Contact Place	NP - Non-Potable Water	O - Other	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
[signature]	8/5 17:00		
[signature]	8/10	[signature]	930

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Page [illegible] of 3

MED-TOX NORTHWEST

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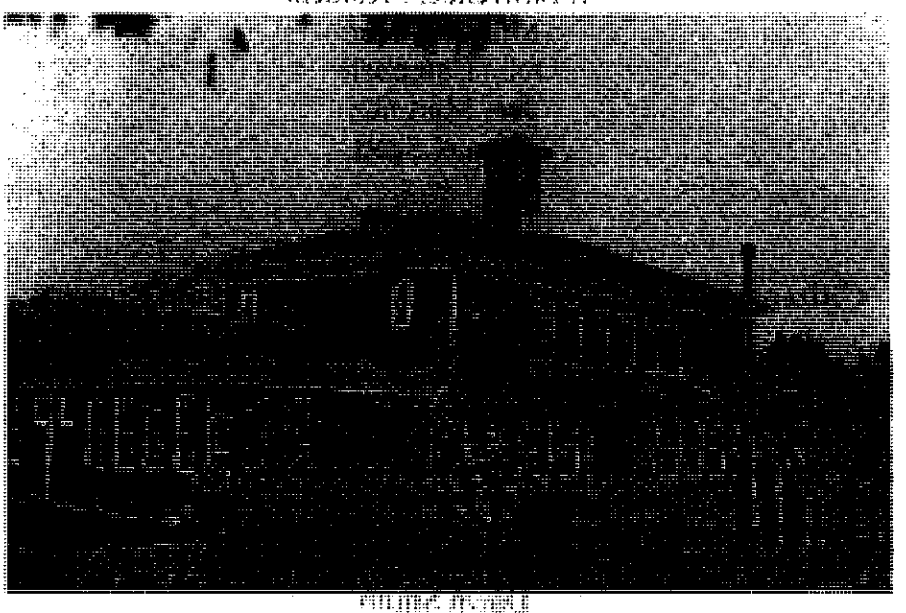
Table 3. Summary of Air Sampling for Mold

Sample No.	Location	Time	LPM	Time	Volume (liters)	Result Total Fungi Spores
7453.1-01	Exterior	10:20 10:30	15	10	150	
7453.1-02	Southeast wing classroom 1	10:40 10:50	15	10	150	
7453.1-03	Southeast wing staff lounge	10:58 11:08	15	10	150	
7453.1-04	Hallway outside gym entrance	11:14 11:24	15	10	150	
7453.1-05	Cafeteria	11:37 11:47	15	10	150	
7453.1-06	Cafeteria	11:39 11:49	15	10	150	
7453.1-07	Gymnasium	12:00 12:10	15	10	150	
7453.1-08	Gymnasium	12:14 12:24	15	10	150	
7453.1-09	Boys locker room	12:20 12:30	15	10	150	
7453.1-10	Classroom	12:35 12:45	15	10	150	
7453.1-11	Southwest wing offices	13:04 13:14	15	10	150	
7453.1-12	Southwest wing classroom	13:06 13:16	15	10	150	
7453.1-13	Northwest wing classroom	13:26 13:36	15	10	150	
7453.1-14	Northwest wing classroom	13:29 13:39	15	10	150	
7453.1-15	1920 1st floor classroom	13:49 13:59	15	10	150	
7453.1-16	1920 1st floor classroom	13:50 14:00	15	10	150	
7453.1-17	1920 2nd floor library	14:06 14:16	15	10	150	
7453.1-18	1920 2nd floor hallway	14:07 14:17	15	10	150	
7453.1-19	1920 1st floor wallway	14:20 14:30	15	10	150	
7453.1-20	Exterior	14:22 14:32	15	10	150	

LPM = liters per minute

Reuse of Pioneer School



Report to the Board of Directors
Steilacoom Historical School District #1

Citizens Advisory Committee for Surplus School Property

August 1, 2008

Board of Directors
Steilacoom Historical School District #1

Al Lawrence, President
Mike Winkler
John Campbell
Jeni Martinez
Samuel Scott

Citizens Advisory Committee for Surplus School Property

French Wetmore, Chair
Kevin Callanan, Vice Chair
Lenore Rogers, Secretary
Gary Duggins
Patricia J. Randall
Paul Schilling
Dawn Smith
Marion Smith

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Executive Summary

This report to the School Board was prepared by the Citizens Advisory Committee for Surplus School Property pursuant to the Board's assignment and guidance. The Committee collected and reviewed all available data on the structure. Members toured each part of the structure and reviewed engineers' and contractors' reports.

A major effort was made to gather the public's views, including a survey on the District's website that allowed all interested parties to submit their thoughts and two public input workshops that were attended by nearly 100 people.

The community appears almost unanimous in its desire to preserve the 1918 Building and most strongly recommends retention by the School District for consolidation of its Executive and Administrative offices. Adequate exterior space and parking would be needed. Some parking could be provided by removal of the three portable buildings.

There is a strong sentiment to retain the gym facility (and the attached cafeteria) although costs to upgrade, maintain, and operate have to be balanced against use of the more modern and better maintained facilities which are available in the current District schools. If either the School District or the Town of Steilacoom own this facility, it would be a continuing burden to the taxpayers. A private organization is a better option for ownership as the facility would then be placed on the tax rolls.

Demolishing the 8th grade wing (which had no suggested uses) and then using the resulting space for parking had strong support. The parking would support the administration building during the day and the adjacent ball field for evening activities.

The 7th grade wing was not specifically discussed other than to be demolished to provide open space around the 1918 Building. However, when classrooms and/or retail space was discussed it was acknowledged that use of this wing was a possibility.

The 6th grade wing with its proximity to the cafeteria/gym has considerable potential utility if all these facilities are retained, rented, or sold for commercial use.

To reiterate, the public input on the various parts of the school was,

- Retain the 1918 Building for use by the District.
- Demolish the 8th grade wing and build a parking lot.
- Preferably demolish the 7th grade wing or sell as is.
- Either sell the 6th grade wing and cafeteria/gym as is or demolish these facilities and sell the unimproved land to the highest bidder.

This report summarizes the plusses and minuses of the various options for reuse of Pioneer School. This Committee did not compare dollar costs of the options. The School Board will have to obtain more accurate figures if it wants to weigh the dollar costs of keeping, upgrading, demolishing, or building new structures.

Reuse of Pioneer School

Report to the Board of Directors
Steilacoom Historical School District #1

1. Introduction

The Steilacoom Historical School District #1 serves the Town of Steilacoom, the City of DuPont, and portions of unincorporated Pierce County, including Anderson Island. It is the first school district created in the state of Washington. Over the years, the student population has increased as the area has grown and the District's boundaries have expanded. Pursuant to a master Facilities Plan, school buildings have been built, renovated, enlarged, and replaced. One part of that plan is to have a single, District-wide, middle school.

Pioneer School: Pioneer Middle School is the District's oldest school building. It was built in 1918 and called "Steilacoom School" because for many years, it was the only school building serving the Town. It has had several expansions, including a gymnasium, cafeteria, three wings with 12 classrooms, and three detached temporary classrooms.

The original Steilacoom School

Pioneer Middle School today

In accordance with its Facilities Plan, the District will open a new Pioneer Middle School in DuPont in the Fall of 2008. On May 28, 2008, the School Board declared the old Pioneer School as "surplus" property. The District is therefore faced with the question of what to do with the current site.

Advisory Committee: Because Pioneer School has been a central part of life in Steilacoom for nearly 100 years, the Board of Directors was concerned that its future be carefully considered with input from the community. Accordingly, on December 5, 2007, the Board passed Resolution No. 664-12-05-07, creating a Citizens Advisory Committee for Surplus School Property. Pioneer School was assigned to the Committee.

The directions given the Citizen Advisory Committee are in Appendices A and B. This paper is the Committee's report to the Board for Pioneer School. It was prepared after a series of Committee meetings that were held from January through June, 2008.

The Committee collected and reviewed all available data on the structure. Members toured each part of the structure and reviewed engineers' and contractors' reports. A major effort was made to gather the public's views, which involved:

- Publicizing the Committee's work and schedule through local newspapers,
- A special section of the District's website that explained the Committee's work and requested comments,
- A Pioneer School Reuse Survey on the District's website (www.steilacoom.k12.wa.us) that allowed all interested parties to submit their thoughts (26 statements were submitted),
- Two public input workshops held on a Saturday afternoon and a Monday evening that were attended by nearly 100 people. The participants represented a cross section of the residents of the School District.

Some dollar figures are noted in Appendices D and E, but because the Committee did not have dependable figures for the costs of all the possible uses, reuses, and reconstruction approaches, dollar costs were not discussed at the public workshops. This report of public interest does not compare the costs of refurbishing vs. the costs of demolition vs. the costs to rebuild elsewhere.

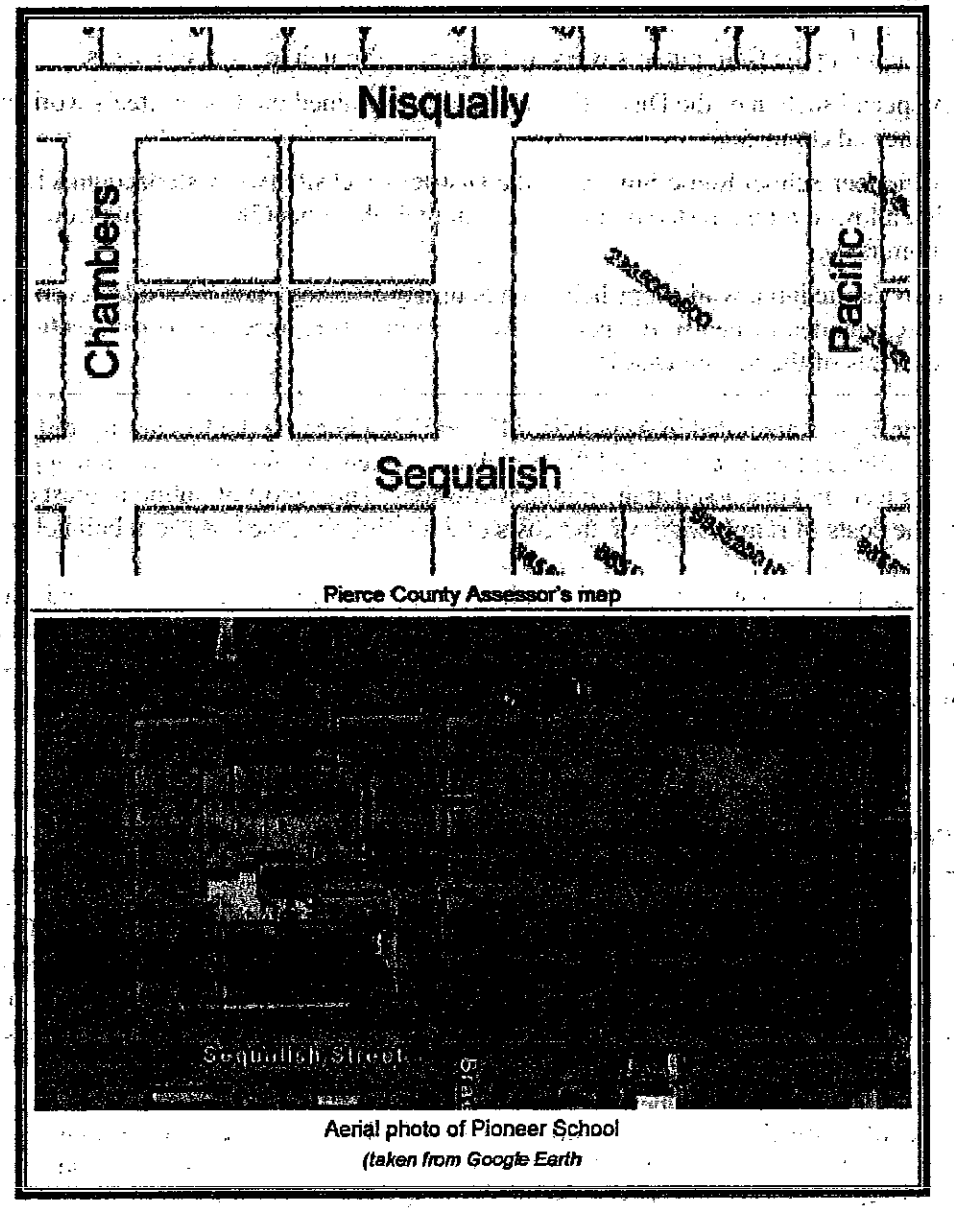
It is important to note that Section 8 of Resolution No. 664-12-05-07 states "It is understood that the Committee's actions are advisory to the Board of Directors and can in no way bind the District or its officers to any action." This paper is for information purposes only, but the Committee's position is that this paper represents the views of the community.

2. Pioneer School

The property: Pioneer School is on a lot that is bounded by Nisqually, Chambers, Sequalish, and Pacific Streets. According to property records, this is all one lot of record. The Pierce County Assessor's map on the next page shows the school building on four small lots, separated by alleys. There is a street right of way separating the four lots from the eastern half. The alleys and the street right of way have been vacated by the Town, even though the Assessor's map shows otherwise (Town Ordinances 608 and 1038). It is concluded that the Assessor's map has not been kept up to date with actual property records. This is not uncommon, as the Assessor is primarily concerned with properties subject to property taxes.

District records show that the eastern half, known as the lower ball field, was sold to the District by the Town of Steilacoom on April 17, 1945, for $1. There is a deed restriction that states "Said real property shall be used for a Public Square, playfield, amusement and recreation park and for no other purpose." Should the western half of the School property be sold for a use other than these, the property will need a boundary line adjustment. The ball field area will need to be separated so it can be preserved according to the deed.

It is assumed that if the property were sold, the vacated right of way between the ball field and the building would go with the parcel that goes with the building.

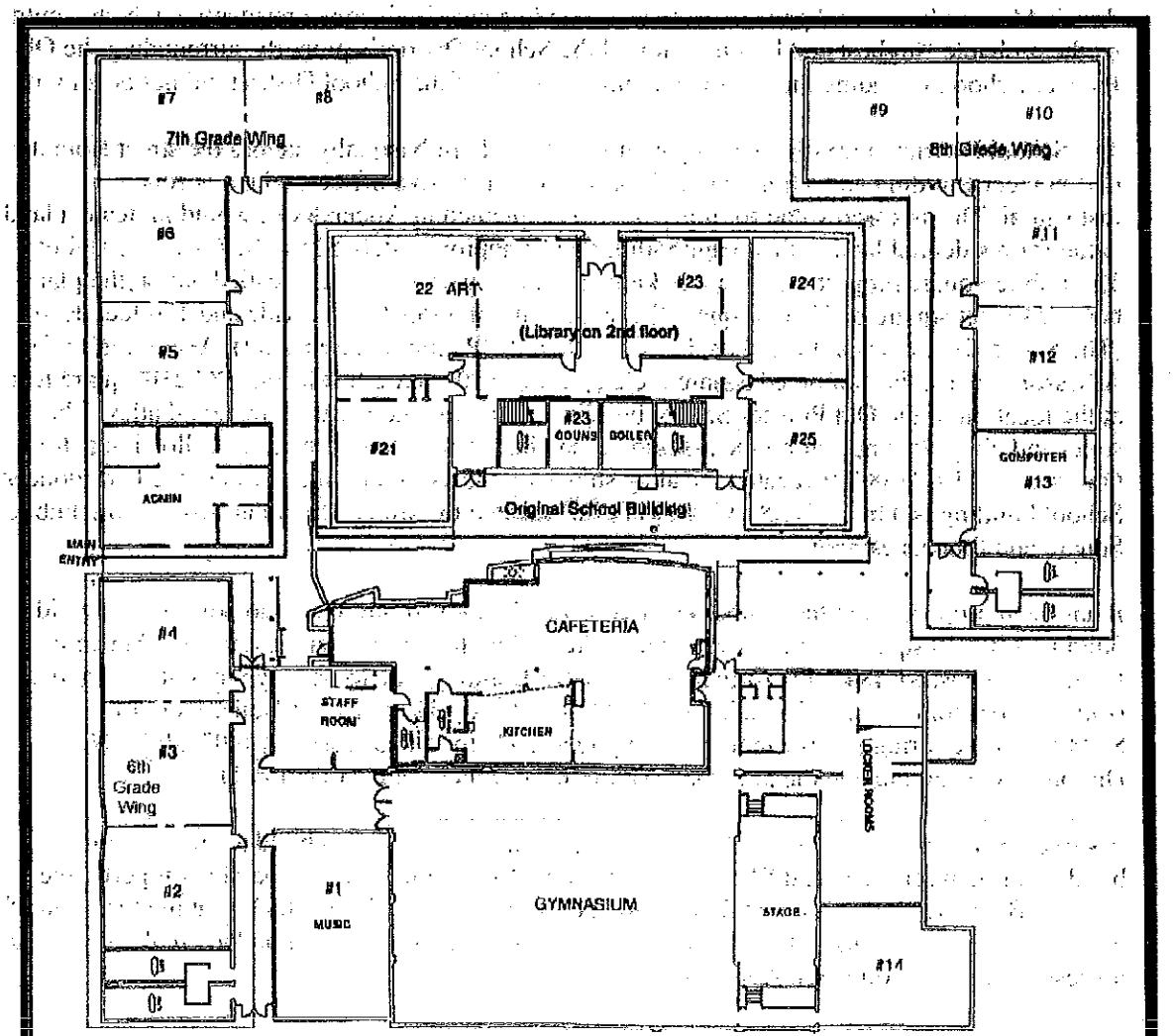


Pierce County Assessor's map

Aerial photo of Pioneer School
(taken from Google Earth

The floor plan of the structure is shown below. The structure consists of:

- The original 1918 school building, which currently has five rooms on the first floor and the library on the second floor,
- Three wings with an office and 12 classrooms for 6 – 8th grades,
- A cafeteria and gymnasium with adjacent rooms used for a staff lounge, music, storage, and lockers, and
- Three temporary classroom structures (which are not shown below, but do appear on the right side of the aerial photo on the previous page). These are believed to be located on the street right of way between the original school building and the ball fields.



Current configuration of Pioneer Middle School

Condition: Pioneer School is not in the best of shape. It is in need of extensive repair to come up to applicable codes.

In 2004, the District's consultant prepared an architectural/engineering review of the complex, which is included as Appendix C. A more recent review of just the original 1918 structure was prepared by the same firm and is in Appendix D.

Value: It is difficult to estimate the value of a publicly owned single use structure, especially one that does not have to be assessed for tax purposes; and most real estate appraisers would classify it as being physically and functionally obsolete. Appendices E and C explain this in detail. Also explained in Appendix E, the surrounding area is all zoned residential, which would be the probable "highest and best use" for all the School District's property surrounding the Old Pioneer School, including the old school building itself, if the School District did not occupy it.

The School District currently owns a parcel located at 1314 Nisqually, across the street from the Old Pioneer Building and adjoining the District Administrative offices, which is zoned residential. The assessed value for this parcel, as explained in Appendix E, would indicate a land value for residential land in that neighborhood to be approximately $25 to $27 per square foot. The Public Square property, commonly known as the lower ball field, is called out on the plat as being 240 feet square or 57,600 square feet consisting of 8 lots 60 feet wide and 120 feet deep (The School Board has indicated its desire to retain the Public Square parcel). According to the Assessor's maps, the combined square footage is 141,830 square feet leaving 84,230 square feet at the location of the Old Pioneer School building, including the vacated street and alley. The street and alleys that appear on the assessor's map have been vacated with the following actions: Ord. # 608, AF# 2138960 vacated the alley shown on the assessor's maps where the Old Pioneer School building is, Ord. # 1038, AF # 89111705 vacated the street which ran between the Public Square and Pioneer School.

It has been proposed that the School District offices be moved into the main portion of the old building (10,950 square feet of office space). According to the District's engineers (Appendix C), it would cost $1,484,200 just to make the 1918 Building safe to occupy without any modern conveniences (option 1) and an additional $4,866,700 (less Option 1, #5 Boiler work of $328,500.00) to bring just the main building up to code for a total cost of $ 6,022,400. (Note: Option 2 does not include the new roof, bathrooms or other items in Option 1)

A survey of local new commercial office buildings indicates a cost to build a new modern building at between $100 and $160 per square foot. Taking the third comparable property, the Venture Bank Headquarters in DuPont, with a cost factor of $157.60, which is at the high end of the range, the School District could build an 11,000 square foot building on land it already owns for less than $1,722,600. See Appendix E.

3. Findings

After reviewing all the input received from two public workshops, the website survey, individual conversations, and committee discussions, the following findings became apparent. There is an overwhelming desire to preserve the original school building, "the 1918 Building." It was referred to as a treasure, as an important part of Steilacoom History, and as a building which should be on the National Register of Historic Places.

Uses

The 1918 Building: Concerns with preserving this building lead into discussions on ownership. In order to control its fate, it was suggested first and very strongly to keep it under the ownership of tax funded organizations – either the Steilacoom Historic School District (SHSD) or the Town of Steilacoom (TOS). Either organization has a knowledge and understanding of the strong emotional ties the community has with the 1918 Building and both have demonstrated a willingness to consider the community's desires in historic preservation.

An obvious use by SHSD is for consolidation of all administrative offices in the 1918 Building since its current site is not adequate. This was also the use most frequently preferred by those who commented at the workshops and via the on-line survey.

As an alternative, TOS could house its administrative offices in the 1918 Building which would provide a more central location in town and would then free more space for TOS Public Works in their current facility.

A much less frequently made suggestion was to sell the 1918 Building to a non profit (501(c)(3)) organization for a variety of uses. Identifying or establishing a non profit specifically focused on the 1918 Building would be a lengthy process. Finding adequate funding for the non profit is a great challenge as well. Other than preservation as a school museum, no other use by a non profit was suggested.

The final group of suggestions and the least popular was centered around selling the 1918 Building to a commercial venture for such uses as shops, offices, senior or low income housing. This was deemed the least preferred alternative because, unless it was specified in the condition of sale, once in private ownership there would be no guarantee that the building would not be severely altered or demolished.

Cafeteria and Gymnasium: This building, while needing considerable repair and upgrading, was deemed a valuable asset for use in community services, again owned and managed by either SHSD or TOS. These included a Youth Activities Facility, a meeting place for student youth groups (i.e. Key Club, Student Tutors, Girl Scouts, Boy Scouts, other youth organizations), and/or a meeting place for adult groups (i.e. Chamber of Commerce, Kiwanis, Steilacoom Memories Group). The rationale was that there are no similar government-sponsored facilities available in town.

The counterargument is to make use of existing school facilities paid for by tax funds rather than burden either SHSD or TOS with further expenditures of tax funds for upgrading, maintenance and operations of the cafeteria and gymnasium complex.

Two other ownership suggestions were made. The first was to find a commercial venture to purchase, upgrade, maintain, and operate (for profit) these facilities for the community services identified above.

The final ownership suggestion was to form a consortium of SHSD, TOS, and a non profit organization to upgrade, maintain, and operate the facility. There were no suggestions on how this could be accomplished legally or how this could be accomplished financially.

There has been interest on the part of a local church group in the Cafeteria and Gymnasium building. They have an understanding of the upgrading needed and, having participated in the public workshop, they may be interested in leasing space for some of the aforementioned community services or some commercial ventures.

Other uses: There were many other suggestions for use of some part of the entire complex, and these are identified below with what building area, if any, was specified and under what organization's auspices, if any.

- Rent space to a non profit pre-school organization which requires a location in Steilacoom. The 6th grade wing is a possibility because of existing bathrooms, classrooms in that wing, as well as the strong likelihood that the adjoining cafeteria and gymnasium would not be demolished.
- Rent classroom space for use by Pierce College, Clover Park Technical College, Bates College, Pacific Lutheran University, University of Puget Sound, Tacoma Technical College, or specialty schools.
- Build a skate board park on the property as there are no local facilities available. There were no suggestions on which buildings should be demolished to make land available for the skateboard park, no suggestions on how this would be funded, nor any suggestions on what organization would own and manage it.
- Build an indoor swimming pool. There were no suggestions on where it would be located or how it would be funded.
- Develop an arts and crafts center in one of the wings with gallery space for displays and areas for hot shop, welding, pottery firing, glass fusing, painting, sculpture. It was pointed out that the old Manitou Elementary School has facilities for some of these same programs which are managed by Metro Parks. Also noted was that Metro Parks has attempted to close this facility for several years because of the large financial burden required to upgrade the old building, the same problem presented by the current state of the Pioneer School buildings.
- Provide retail space for a variety of businesses, such as craft store, coffee shop, specialty foods, hobby shop, office space. Although there were a few suggestions that SHSD should run the commercial enterprise, the majority of the suggestions was that a for profit

commercial company should purchase the needed facilities (1918 Building and/or one or more wings), upgrade as needed, and manage the rentals.

- Provide senior citizen condos/apartments. No specific building area was identified nor was ownership.
- Plan for some space for the Food Pantry if SHSD sells the yellow house where the Food Pantry is currently located. No specific building area was identified nor was ownership.

Other Suggestions/Observations:

- Remove the 8th grade wing and the three portable buildings and use the land for parking for the lower ball field and the 1918 Building.
- Even without knowing estimated costs for upgrades and renovations, it may not be cost effective to try to save any of the 3 wings. They are poorly designed and are not in good shape.
- Without knowing estimated costs for roof and floor repairs/replacements for the gym, it can not be determined whether the gym should be renovated or demolished.
- Parking is currently a problem. Parking will get worse if the current administration building and adjacent parking lot are sold.
- While the 1918 Building is a Steilacoom treasure, the wings are an eyesore and have little if any continuing utility, so they should be demolished.

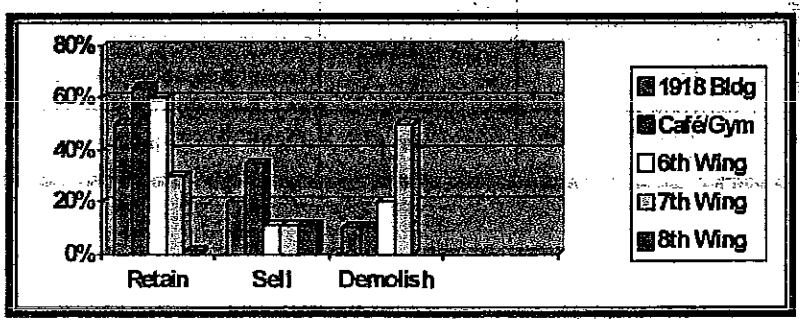
Ownership: As discussed above, there are many possibilities for ownership: SHSD, TOS, tax exempt organization (Church group), non profit 501(c)(3), commercial enterprise, or real estate developer. Each group has its limitations and considerations. Depending upon the use, some are more likely than others, e.g., retail space would more likely be provided by a commercial enterprise rather than a governmental entity. Below is a table illustrating the most likely spaces required for different types of owners.

Impacts of Different Types of Ownership

Organization	Space(s)	Impact
SHSD	1918 Building	Upgrade, maintenance, operating expenses tax funded
TOS	1918 Building	Upgrade, maintenance, operating expenses tax funded
Church	Cafeteria/Gym	Not tax funded, sales tax at sale, but not property taxes
Non Profit	Cafeteria/Gym	Not tax funded, sales tax at sale, certain uses pay property taxes
Consortium (Public/Non profit)	Cafeteria/Gym	Some of the upgrade, maintenance, operating expenses are tax funded
For Profit	1918 Building Wings	Generates sales tax, business taxes, and property taxes
Residential real estate developer	Entire complex	Generates sales taxes at sales and property taxes

Summary of the Use and Disposition Options			
	Option	**Plus**	**Minus**
1	Retain 1918 Building Raze all others Sell property not needed for parking and landscaping	Saves the 1918 Building Fewer code requirements on repairing the 1918 building Avoids upgrade costs except for 1918 building More areas for parking	Rest of property will be vacant and burden on taxpayers (until sold) Cost of demolition – 3 wings, cafeteria, gym Areas sold – no control over reuse or appearance
2	Retain 1918 Building Sell gym and cafeteria Raze all others	Saves the 1918 Building Some income generated from the sale Fewer code requirements on repairing the old building More areas for parking	Little control over reuse or appearance Cost of demolition – 3 wings
3	Retain 1918 Building Sell gym, cafeteria, and 6th grade wing Raze all others	Saves the 1918 Building More income generated from the sale More areas for parking	Little control over reuse or appearance Cost of demolition – 2 wings
4	Retain 1918 Building Sell all others	Saves the 1918 Building Second most income generated from the sale No demolition costs	Little control over reuse or appearance Will need rezoning, causing delays
5	Sell entire complex	Most income generated from the sale (plus for SHSD) Property will begin to pay taxes (plus for TOS) New use may meet local needs (e.g., more housing)	Little control over reuse or appearance Will need rezoning, causing delays
6	Raze entire complex Sell property	Income generated from the sale (offset by demolition costs) Property will begin to pay taxes New use may meet local needs (e.g., more housing) May be more likely to sell if there's nothing on the site	Little control over reuse or appearance Cost of demolition Will need rezoning, causing delays
7	Rent out entire complex until real estate prices rise.	Generation of income in interim Higher profit when sold after real estate market recovers	Income reduced by taxes that will be levied on commercial use Will need rezoning, causing delays for developers

To the right is a bar graph illustrating the public responses.



Summary: The community appears almost unanimous in its desire to preserve the 1918 Building and most strongly recommends retention by SHSD for consolidation of its Executive and Administrative offices. Adequate exterior space and parking would be needed. Some parking could be provided by removal of the three portable buildings.

There is a strong sentiment to retain the gym facility (and the attached cafeteria) although costs to upgrade, maintain, and operate have to be balanced against use of the more modern and better maintained facilities which are available in the current SHSD schools. If either SHSD or TOS own this facility, it would be a continuing burden to the taxpayers. A private organization is a better option for ownership as the facility would then be placed on the tax rolls.

Demolishing the 8th grade wing (which had no suggested uses) and then using the resulting space for parking had strong support. The parking would support the administration building during the day and the adjacent ball field for evening activities.

The 7th grade wing was not specifically discussed other than to be demolished to provide open space around the 1918 Building. However, when classrooms and/or retail space was discussed it was acknowledged that use of this wing was a possibility.

The 6th grade wing with its proximity to the cafeteria/gym has considerable potential utility if all these facilities are retained, rented, or sold for commercial use.

To reiterate, the public input on the various parts of the school was,

- Retain the 1918 Building for use by SHSD.
- Demolish the 8th grade wing and build a parking lot.
- Preferably demolish the 7th grade wing or sell as is.
- Either sell the 6th grade wing and cafeteria/gym as is or demolish these facilities and sell the unimproved land to the highest bidder.

The table on the previous page summarizes the plusses and minuses of the various options for reuse of Pioneer School. The word "cost" appears many times, but this Committee did not compare dollar costs of the options. The School Board will have to obtain more accurate figures if it wants to weigh the dollar costs of keeping, upgrading, demolishing, or building new structures.

Appendix A. Resolution 664-12-05-07

Stellacoom Historical School District No. 1
510 Chambers
Stellacoom, WA 98388

Resolution No. 664-12-05-07

Citizen Advisory Committee for Surplus School Property

A RESOLUTION of the Board of Directors of the Stellacoom Historical School District No. 1 to create a citizen advisory committee on surplus school property.

WHEREAS, the Board of Directors may determine that certain pieces of property owned by the District are no longer required for school purposes, and, as such may declare these properties surplus; and

WHEREAS, deciding on the disposition of these public assets should be done carefully and with the involvement and input of all affected parties.

NOW, THEREFORE, BE IT RESOLVED THAT

1. The Citizen Advisory Committee on Surplus School Property is hereby created as a temporary advisory body to the Board of Directors.

2. The Committee shall have ten members. Members shall be volunteers and will serve without compensation. The Board of Directors has sole discretion in adding/removing members of the committee. The following citizens have agreed to serve:

Marion Smith
Larry Wilcox
Dawn Smith
Kevin Callanan
French Wetmore
Paul Schilling
Pat Randall
Karen Newhouse
Lenore Rogers
Gary Duggins

3. At its first meeting, the Committee shall elect a Chair and a Secretary. The Chair will ensure that the Committee meetings are conducted pursuant to Roberts Rules of Order. The Secretary shall be responsible for the minutes and other records.

4. The Committee shall meet at least once per month. All meetings shall be publicized on the District's website and shall be open to the public. Where possible, meeting locations should be held in the neighborhoods near the affected surplus properties. All meetings shall offer visitors an opportunity to speak to the Committee.

5. The Committee is charged with researching into the following for each property:

   a. The potential uses and reuses of the declared surplus properties, accounting for the use of adjacent properties, natural conditions, such as wetlands, and legal restrictions, such as historic preservation laws and zoning;

   b. The costs and benefits to the community of the different potential uses; and

   c. Sources of funds that would help keep the property in the public domain, if appropriate.

6. For each property assigned to the Citizen Advisory Committee, the Committee shall prepare and distribute a report that includes the findings of its research and its recommendations to the Board of Directors.

7. The Superintendent and/or Board of Directors shall provide the Committee with appropriate documents as needed.

8. It is understood that the Committee's actions are advisory to the Board of Directors and can in no way bind the District or its officers to any action. It is expected that the Committee will disband once the Board of Directors determines there is no further need.

ADOPTED by the Board of Directors of the Steilacoom Historical School District No. 1 at its regular meeting on December 6, 2007.

_____
President

_____

_____

_____

_____

ATTEST

_____

_____
(Secretary/Superintendent)

Appendix B. Guidance Provided to The Citizens Advisory Committee

Guidance Provided to The Citizens Advisory Committee
In Reviewing the Potential Future of
Pioneer Middle School, 511 Chamber Street, Steilacoom, WA 98388

Steilacoom Historical School District # 1 Mission:

The mission of Steilacoom Historical School District #1 (SHSD #1) is to provide each student the best education possible.

School Facilities Plan/Vision:

To accomplish the District's mission, the District's facilities plan is to have safe and modern schools providing an excellent learning environment for all students. Key elements of this facilities plan are:

- Neighborhood elementary schools
- One district wide middle school
- One district wide high school

SHSD #1 Facility Priorities:

The District's priority is classroom space that helps reduce class size and helps ensure an excellent learning environment for all students. To meet this priority, SHSD #1 will avoid being involved in businesses or activities that take time and money away from our mission and facilities plan.

Facts:

1. As a major step in fulfilling its facilities plan, the voters of SHSD #1 overwhelming voted in favor of a school construction bond in May of 2005. This bond included the construction of a new middle school in DuPont to replace the overcrowded and aging Pioneer Middle School located in Steilacoom. The new school, which will retain the Pioneer Middle School name, is scheduled to open in September of 2008.

2. Upon completion of the new middle school, the current Pioneer Middle School (located in Steilacoom) cannot be utilized for instructional purposes for our students since the district accepted state matching funds to replace the facility.

3. Pioneer Middle School, located at 511 Chambers Street in Steilacoom, is not listed on the Steilacoom Register of Historical Places and is not listed on the National Register of Historical Places.

4. The Board of Directors of SHSD #1 formed a Citizens Advisory Committee to assist, as needed, in reviewing alternatives for surplus properties.

5. The Board of Directors of SHSD #1 refers Pioneer Middle School, located at 511 Chambers Street in Steilacoom, to the Citizens Advisory Committee for review.

6. The Board of Directors has appointed Al Lawrence to serve as its liaison with the Citizens Advisory Committee.

Assumptions:

1. All funds, to include state matching funds, from the current bond are needed for facilities directly supporting the District's facilities plan.

2. The prioritized use of funds gained from the sale of any excess property within the District will be to meet the District's facilities plan.

3. The priority of any future bond will be to construct, expand, or modernize facilities that fulfill the District's facilities plan.

4. To retain a facility for any use by the district, it must be brought up to current building codes.

5. There may be strong community sentiment that the original portion of Pioneer Middle School is an important building to the history and culture of the Town of Steilacoom.

Guidance to the Citizens Advisory Committee

1. The Committee is to limit its review of alternatives to the following parcels at the current Pioneer Middle School (located in Steilacoom):

   a. The original portion of the school building

   b. All additions to the school building complex

2. The Committee is not charged to look at the adjacent athletic fields, bus garage, the District administration building, and other adjacent property.

3. The Committee should review the following potential uses and reuses of the property:

   a. Use of the original portion of the building for District offices or other non-instructional purposes.

   b. Sale of all or portions of the property to the Town of Steilacoom.

   c. Sale of all or portions of the property to a non-profit organization.

   d. Sale of all or portions of the property to a private developer.

e. Other uses the Committee liaison (School Board Member Al Lawrence) agrees may be feasible and appropriate.

4. The Committee should review the costs and benefits to the community of the different potential uses. The Committee is not authorized to financially obligate SHSD#1. Examples of restrictions to fiscally obligate the District include, but are not limited to professional cost estimates and technical studies.

5. The Committee is charged to report to the Board of Directors at the following regularly scheduled meetings of the Board of Directors:

- May 14, 2008 – Initial Report
- July 10, 2008 – Draft Report
- August 14, 2008 – Final Report

Additional Information:

1. The District Superintendent has tasked the District's construction management team to provide a cost estimate to have the original portion of Pioneer or the feasibility of other facilities converted to a district office. This information will be provided to the Citizens Advisory Committee.

2. The Chair of the Citizens Advisory Committee will coordinate with the Board of Directors Liaison (Al Lawrence) and the District Superintendent (Dr. Himmler) for additional information as required.

Appendix C. Architectural/Engineering Review of Pioneer Middle School (2004)

STUDY AND SURVEY

Steilacoom Historical District No.1
Steilacoom, Washington

Superintendent of Schools

Dr. Authur Himmler

Board of Directors:
Al Lawrence
Jim Hills
C.D. "Dave" Acree
Duane Hardesty
Samuel Scott

December, 2004

Architectural and Engineering Consultants
DLR Group
73-05104-00

ARCHITECTURAL/ENGINEERING REVIEW OF PIONEER MIDDLE SCHOOL

Grades Housed:	6-8
Building Construction:	Main building- Constructed 1919 Gym Building- 1951 Classroom Building 1968 Cafeteria Addition- 1999
Building Size:	43,017 Square Feet
Building Capacity:	377 Regular Students
Portables On Site:	3

SITE

The site is inadequate in size to provide bus loop, drop-off or parking. Public roads are used for bus loading, leading to pedestrian safety issues. Playfields are inadequate in size for a middle school. Hard surface recreation area is lacking. Landscaping is below standard. Circulation is confusing and security is difficult.

BUILDING

Architectural

There are three main building areas in the school. The main building, referred to as the "old building" is an wood structure with brick veneer. A gymnasium was added in 1951. In 1968 an addition was made to the Gym, as well as two separate classroom buildings and an administrative area. Finally, a cafeteria was added in 1999 within part of the existing building.

No room exists for expansion without major demolition. Existing stage is underutilized and space is used as storage and the library is inadequate in size. In general, functional and spatial relationships are poor, and spaces are poorly laid out. Finishes are failing throughout and roofing has failed in the 1951 and 1968 buildings. Acoustic and thermal characteristics of doors and windows are severely lacking.

Mechanical

The "old building" and the gymnasium are heated with low pressure steam by a gas/diesel oil combination burner fire-box type boiler. There is underground steam piping from the boiler room to the gymnasium. The 1968 building is heated with electric resistance. The classrooms have unit ventilators and the remaining spaces are heated by electrical wall heaters and baseboards. Temperature controls are by DDC by "Andover", with as antiquated, interconnected compressed air control system. No energy efficiency or heat recovery exists for the bulk of the

campus and ventilation is poor.

The buildings are serviced by two sewer connections and two domestic water connections to the city. Water is distributed throughout campus at service pressure, which has created water hammer from its high pressure. Some of the piping has been replaced, but most of the original piping still remains and is in bad repair. Fire protection consists of fire hydrants around the perimeter of the school. The only fire sprinklers that have been installed are located in the 1999 cafeteria addition.

Electrical

Power: The building electrical service is 120/208V, three phase. At the time of the 1968 addition, there were partial upgrades made to the system. However, knob and tube wiring is still being utilized in the 1919 building.

Lighting: Interior lighting is fluorescent, but does not utilize energy efficient ballasts and lamps. Exterior lighting is with incandescent soffit lighting.

Alarm and PA System: The fire alarm system was installed in 1968, but is not connected to a certified reporting agency, as required by code. There is an wired minute impulse system with a new "Lathum" master clock system. The security alarm system is by "Sonotrol".

Structural

1919 Building: The structural conditions appear fair, with some cracking visible on the south wall of the two story building. Settlement and deflection is noticeable, with some evidence of repair where the damage was excessive. The building structure is unreinforced clay tile with brick veneer and is not appropriate for structures in a seismic region, as the materials are brittle and subject to damage or collapse during a seismic event. The recent anchorage of the walls to the roof and floor framing tries meet current codes. However, the lateral system of the roof diaphragm and shear wall elements is questionable in terms of its effectiveness in distributing loads and its ability to reduce potential damage. The chimney is also of concern, due to its height, lack of bracing, and proximity to the entrance.

1951 Building: The building is unreinforced CMU and has minimal anchorage to the roof framing. Both of these are factors that increase the potential of partial collapse of the roof during a seismic event. A majority of the roof sheathing is plywood over joist framing, but there is a section of decking orientated perpendicular to the purlins. This direction of the decking has reduced the ability of the roof diaphragm to distribute lateral forces to the wall.

1968 Buildings: The buildings are wood framed with brick veneer. No structural deficiencies are apparent.

1999 Cafeteria Addition: The walls are wood stud with brick veneer and the roof framing is TJI and glulam beams. This building is fully compliant with current codes.

Facility/Site Deficiencies (1919 Building)

- (Historical) minor shifts (settlement) in foundation evident.
- Masonry could use cleaning.
- Single pane windows, difficult to operate.
- VCT peeling and significant wear cannot be repaired.
- Walls uneven, exposed conduit and shifts in finish surface.
- Minor staining and cracking.
- Paint jobs unprofessional.
- Minor cracks and stains, Finish ceiling missing or non-evident in some areas.
- Knob and tube wiring fond in wall cavity.
- Some aluminum conductors suspected.
- System rating agrees with team evaluation.
- Method of DVW venting cannot be verified, suspect is non-compliant. Lead solder t fittings can be suspected as well.
- System rating agrees with team evaluation.
- Asbestos pipe insulation impedes maintenance.
- System rating agrees with team evaluation.
- Stand-alone cooling for board room is recently installed – anomalous.
- Lighting is probably not energy-efficient.
- System rating agrees with team evaluation.
- Exiting from library doesn't meet code.
- System rating agrees with team evaluation.

Facility/Site Deficiencies (1951 Building)

- Masonry and concrete needs cleaning. Some areas in significant need of repointing and caulking.
- Roof failure is widespread. Roof is beyond useful life.
- Poor thermal and operating characteristics of windows.
- Paint and minor replacement of fascias. Risk of water intrusion.
- Failure of gym flooring, and also signs of wear on CT in locker rooms.
- Stained and worn surfaces, especially in locker rooms.
- Stains and minor sagging.
- Recent replacement of a few fixtures has changed the rating to poor instead of unsatisfactory.
- System rating agrees with team evaluation.
- Direct fired heating in the AHU is suspected; this would indicate the possibility of combustion by-products (carbon monoxide) in the air stream.
- The system rating agrees with the team evaluation.
- Condition of emergency power to fire alarm system in unclear.
- System rating agrees with team evaluation.
- Locker rooms and stage/storage not accessible.

Facility/Site Deficiencies (1968 Building)

- End of system life imminent.
- Thermal characteristics dubious. Operation varies.
- Some signs of wear.
- Some staining.
- Asbestos pipe insulation impedes maintenance.
- Unit ventilators are controlled by antiquated compressed air system.
- System rating agrees with team evaluation.
- Stand-alone cooling for the computer is anomalous – recently installed.
- System rating agrees with team evaluation.
- Some changes in level are not fully compliant.

Facility/Site Deficiencies (1998 Building)

- None.

BUILDING CONDITION EVALUATION FORM

PIERCE/STEILACOOM HIST. | PIONEER MIDDLE | 1919 BLDG

County/School District | School Name | Building Name/#

COMPONENTS	SYSTEMS	GOOD (10)	FAIR (12)	RATINGS POOR (14)	UNSAT (24)	COMBINED	COMMENTS
1.0 Exterior Building Condition	1.1 Foundation/Structure	+12	(+8)	+6	+4		
	1.2 Walls	+8	(+6)	+3	+1		
Component Score 21	1.3 Roof	(7)	+5	+2	0		
	1.4 Windows/Doors	+2	+1	(0)	0		
	1.5 Trim	+2	(+1)	0	0		
2.0 Interior Building Condition	2.1 Floors	+8	+6	(+2)	0		
	2.2 Walls	+8	+5	(+1)	0		
Component Score 4	2.3 Ceilings	+5	+3	(+1)	0		
	2.4 Fixed Equipment	+2	+1	0	0		NONE
3.0 Mechanical Systems Condition	3.1 Electrical	+8	+4	(+2)	0		
	3.2 Plumbing	+4	+2	(+1)	0		
Component Score 8	3.3 Heating	+6	(+4)	(+2)	+1		
	3.4 Cooling	+8	+4	+2	+1		NONE
	3.5 Lighting	+4	(+3)	+2	0		
4.0 Safety/Building Code	4.1 Means of Exit	+8	+4	(+2)	0		
	4.2 Fire Control Capability	+4	+3	(+2)	+1		
Component Score 7	4.3 Fire Alarm System	+4	+3	+2	(+1)		
	4.4 Emergency Lighting	+2	+1	0	(0)		
	4.5 Fire Resistance	+4	+3	(+2)	+1		
	TOTALS	7	13	15	1	45	
5.0 Provisions for Handicapped		X	(X)	X	X		

Suitability Code and Definition (Circle Appropriate Code)

4 Building makes positive contribution to educational environment
3 Building suitable
2 Current use of space is compatible with intended use but needs remodeling
(1) Current use of space is not compatible with intended use or design

Significant Location Factors / Overall Conclusions:

Evaluator Signature: [signature]

School Official Signature:

Date	Unadjusted Score	Adjusted Score
11/19/04	40	43

(BCEF.WK1 2/15/92) ** Record information on Building System Data Elements on Reverse Side. **

Building Condition Evaluation - Page 1

BUILDING CONDITION EVALUATION FORM

PIERCE/STEILACOOM HIST. | PIONEER MIDDLE | 1951 BLDG

County/School District | School Name | Building Name/#

COMPONENTS	SYSTEMS	RATINGS: GOOD (0)	FAIR (-3)	POOR (-5)	UNSAT (-8)	COMBINED	COMMENTS
1.0 Exterior Building Condition	1.1 Foundation/Structure	(12)	+8	+8	+4		
	1.2 Walls	+8	(+5)	+3	+1		
Component Score 19	1.3 Roof	+7	+5	(+2)	0		
	1.4 Windows/Doors	+2	+1	(0)	0		
	1.5 Trim	+2	+1	(0)	0		
2.0 Interior Building Condition	2.1 Floors	+8	+5	(+3)	0		
	2.2 Walls	+8	(+5)	+1	0		
Component Score 10	2.3 Ceilings	+5	(+3)	+1	0		
	2.4 Fixed Equipment	+2	+1	0	0		NONE
3.0 Mechanical Systems Condition	3.1 Electrical	+8	+4	+2	(0)		
	3.2 Plumbing	+4	+2	(+1)	0		
Component Score 6	3.3 Heating	+8	+4	(+2)	+1		
	3.4 Cooling	+8	+4	+2	+1		NONE
	3.5 Lighting	+4	(+3)	+2	0		
4.0 Safety/Building Code	4.1 Means of Exit	(+8)	+4	+2	0		
	4.2 Fire Control Capability	+4	+3	(+2)	+1		
Component Score 15	4.3 Fire Alarm System	+4	+3	(+2)	+1		
	4.4 Emergency Lighting	(+2)	+1	0	0		
	4.5 Fire Resistance	+4	(+3)	+2	+1		
	SYSTEMS TOTALS	26	19	11	0	50	
5.0 Provisions for Handicapped		X	X	(X)	X		

Suitability Code and Definition (Circle Appropriate Code)

0 Building makes positive contribution to educational environment
3 Building suitable
6 Current use of space is compatible with intended use but needs remodeling
9 Current use of space is not compatible with intended use or design

Significant Location Factors / Overall Conclusions

Evaluator Signature CINDY COREY

School Official Signature

Date	Unadjusted Score	Adjusted Score
4/19/04	50	54

(BCEE/MAC 2/1992) ** Record Information on Building System Data Elements on Reverse Side. **

Building Condition Evaluation - Page 1

BUILDING CONDITION EVALUATION FORM

PIERCE/STELLA COOM HIST. PIONEER MIDDLE 1968 BLDGS

County/School District | School Name | Building Name/#

SYSTEM		RATINGS: GOOD (4)	FAIR (2)	POOR (1)	UNSAT (0)	COMPLETED	COMMENTS
1.0 Exterior Building Condition	1.1 Foundation/Structure	(+2)	+8	+8	+4		
	1.2 Walls	(+8)	+6	+3	+1		
Component Score 23	1.3 Floor	+7	+6	(+2)	0		
	1.4 Windows/Doors	+2	+1	(0)	0		
	1.5 Trim	+2	(+1)	0	0		
2.0 Interior Building Condition	2.1 Floors	(+8)	+5	+2	0		
	2.2 Walls	+8	(+5)	+1	0		
Component Score 16	2.3 Ceilings	+5	(+3)	+1	0		
	2.4 Fixed Equipment	+2	+1	0	0		NONE
3.0 Mechanical Systems Condition	3.1 Electrical	+8	(+4)	+2	0		
	3.2 Plumbing	+4	+2	(+1)	0		
	3.3 Heating	+8	+4	(+2)	+1		
Component Score 10	3.4 Cooling	+8	+4	+2	+1		NONE
	3.5 Lighting	+4	(+3)	+2	0		
4.0 Safety/Building Code	4.1 Means of Exit	(+8)	+4	+2	0		
	4.2 Fire Control Capability	+4	+3	+2	(+1)		
Component Score 11	4.3 Fire Alarm System	+4	+3	+2	(+1)		
	4.4 Emergency Lighting	+2	(+1)	0	0		
	4.5 Fire Resistance	+4	+3	(+2)	+1		
	TOTALS	84	57	24	8	60	
5.0 Provisions for Handicapped		X	X	X	X		

Suitability Code and Definition (circle Appropriate Code)

4 Building makes positive contribution to educational environment
3 Building suitable
2 Current use of space is compatible with intended use but needs remodeling
1 Current use of space is not compatible with intended use or design

Significant Location Factors / Overall Conclusions

Evaluator Signature Carol Greenway

School Official Signature

Date	Unadjusted Score	Adjusted Score
11/19/04	60	65

(BCREF.WK1 2/15/92) ** Record Information on Building System Data Elements on Reverse Side. **

Building Condition Evaluation - Page 1

BUILDING CONDITION EVALUATION FORM

PIERCE/STEILACOOM HIST. | PIONEER MIDDLE | 1998 ADDITION

County/School District | School Name | Building Name/#

COMPONENTS	STEM	RATINGS: GOOD (1)	FAIR (2)	POOR (3)	UNSAT (0)	COMBINED	COMMENTS
1.0 Exterior Building Condition	1.1 Foundation/Structure	+2	+2	+2	+4		
Component Score 31	1.2 Walls	+3	+2	+2	+1		
	1.3 Roof	+2	+2	+2	0		
	1.4 Windows/Doors	+2	+1	0	0		
	1.5 Trim	+2	+1	0	0		
2.0 Interior Building Condition	2.1 Floors	+3	+2	+2	0		
Component Score 23	2.2 Walls	+3	+2	+1	0		
	2.3 Ceilings	+2	+3	+1	0		
	2.4 Fixed Equipment	+2	+1	0	0		
3.0 Mechanical Systems Condition	3.1 Electrical	+3	+1	+2	0		
Component Score 26	3.2 Plumbing	+1	+2	+1	0		
	3.3 Heating	+3	+1	+2	+1		HEATING/COOLING COMBINED
	3.4 Cooling	+3	+1	+2	+1		
	3.5 Lighting	+1	+3	+2	0		
4.0 Safety/Building Code	4.1 Means of Exit	+3	+1	+2	0		
Component Score 18	4.2 Fire Control Capability	+1	+3	+2	+1		
	4.3 Fire Alarm System	+1	+3	+2	+1		
	4.4 Emergency Lighting	+2	+1	0	0		
	4.5 Fire Resistance	+1	+3	+2	+1		
	TOTALS	92	70			98	
5.0 Provisions for Handicapped		X	X	X	X		

Suitability Code and Definition (Circle Appropriate Code)

4 Building makes positive contribution to educational environment
3 Building suitable
2 Current use of space is compatible with intended use but needs remodeling
1 Current use of space is not compatible with intended use or design

Significant Location Factors / Overall Conclusions

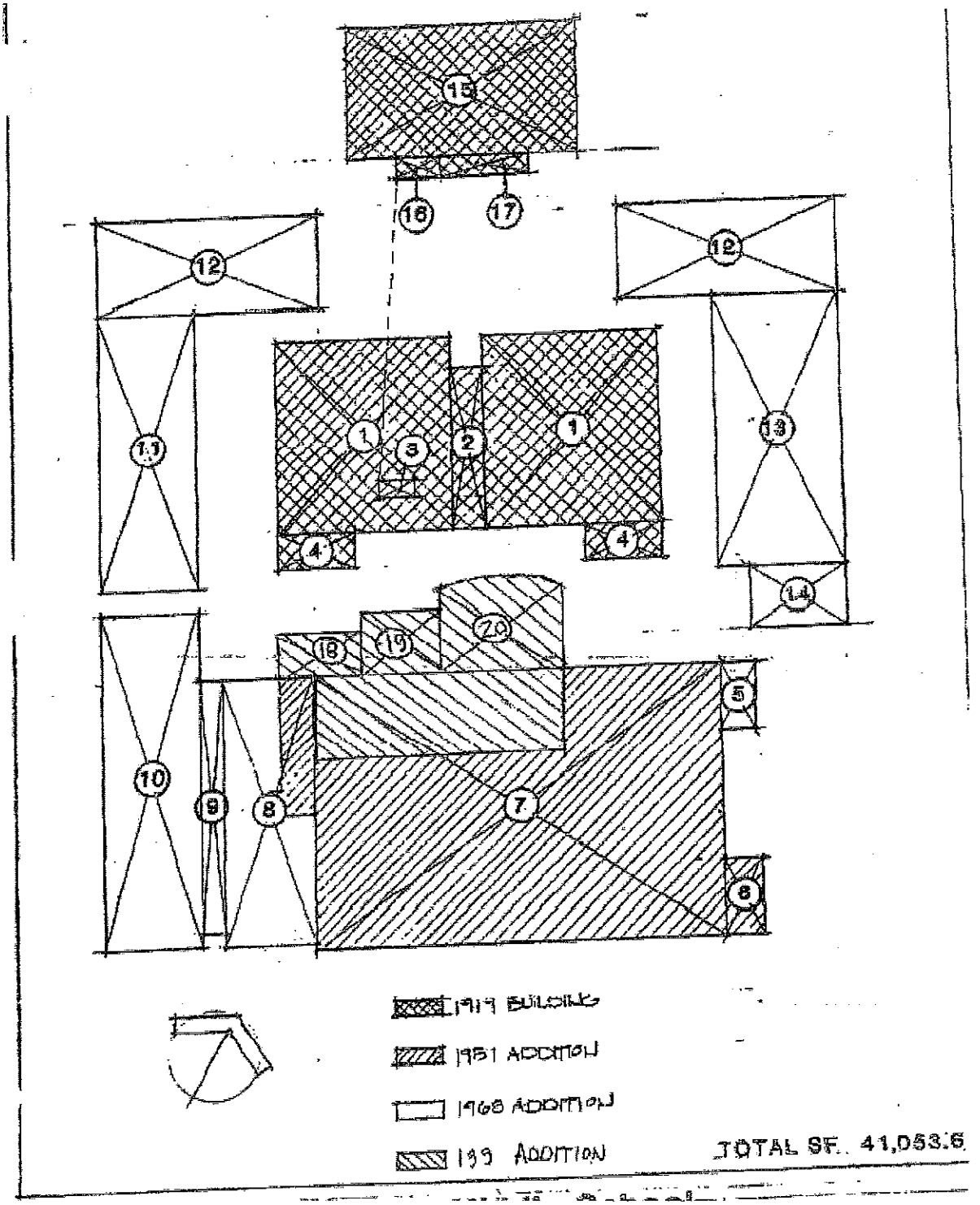
Evaluator Signature: Sarah Coleman

School Official Signature:

Date	Unadjusted Score	Adjusted Score
4/19/04	98	98

(BCEF.WK1 2/15/02) ** Record information on Building System Data Elements on Reverse Side. **

Building Condition Evaluation - Page 1

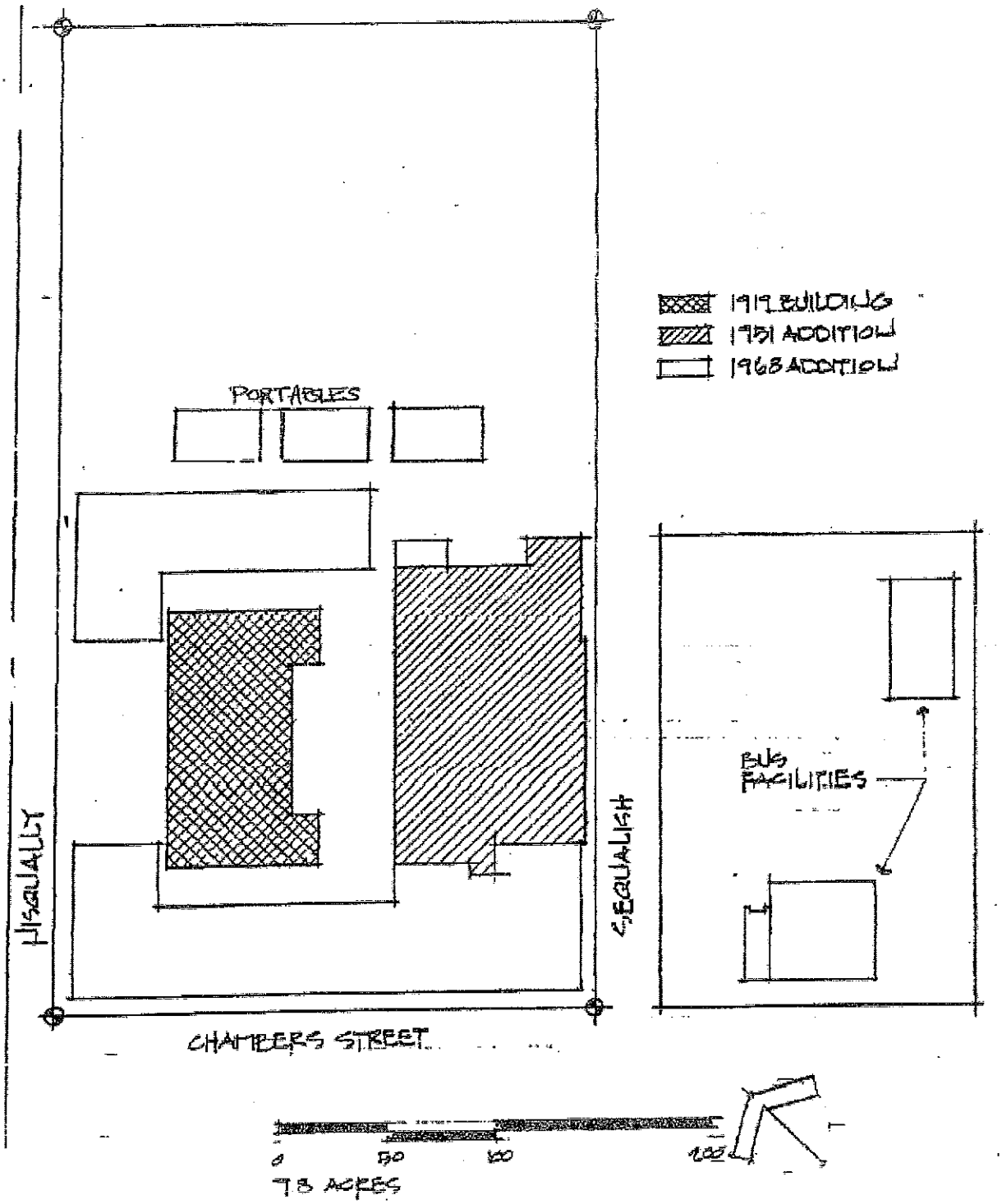

15
16
17
12
12
11
1
3
2
1
4
4
13
14
18
19
20
5
10
9
8
7
6
1919 BUILDING
1951 ADDITION
1968 ADDITION
199 ADDITION
TOTAL SF. 41,053.6

PIONEER MIDDLE SCHOOL

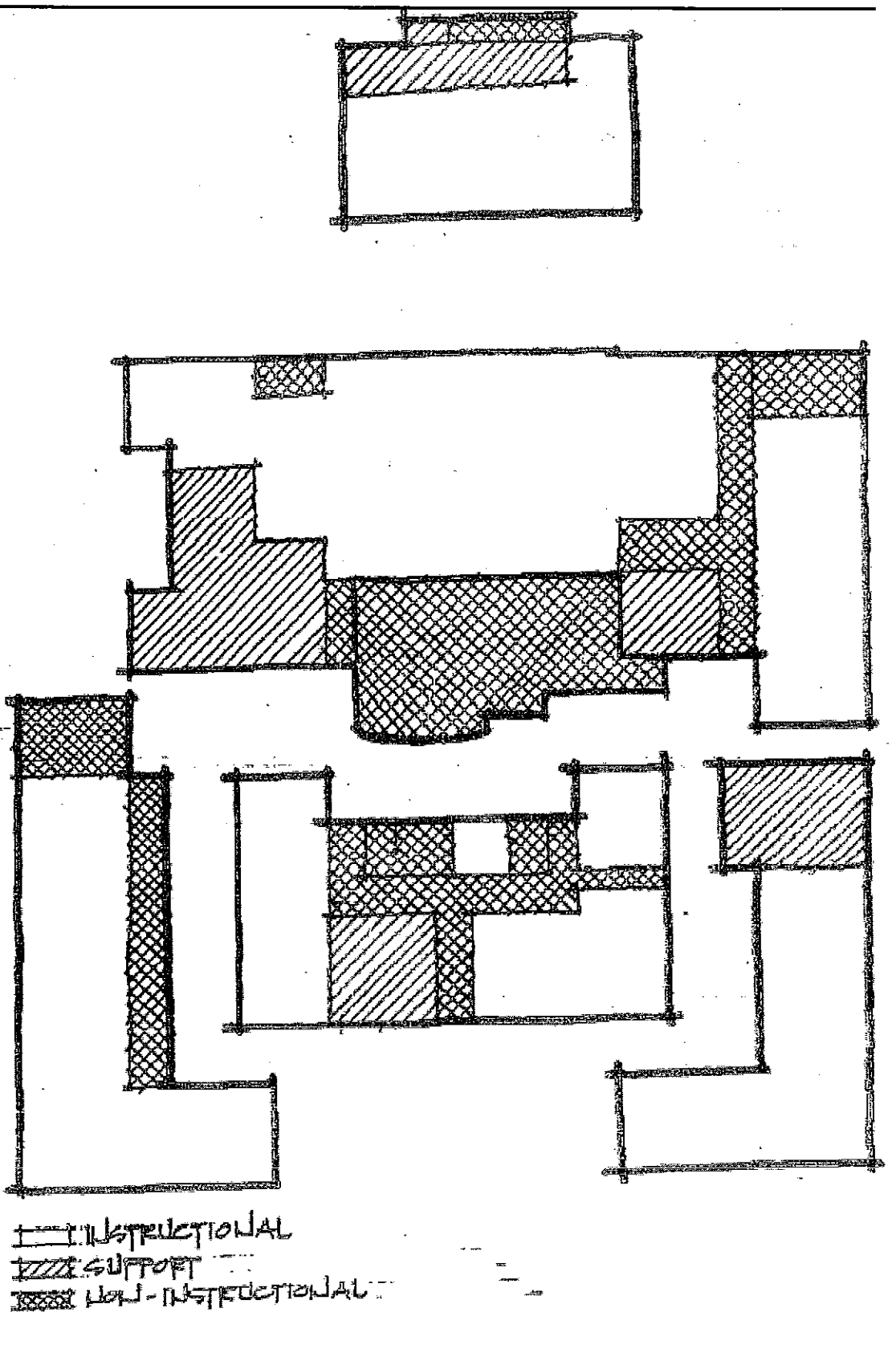
1.	2 (58 x 56.5) =	6554.00
2.	48 x 9.5 =	456.00
3.	-(6 x 11) .5 =	-33.00
4.	2 (14 x 26.5) =	742.00
5.	11 x 22 =	242.00
6.	12 x 15 =	180.00
7.	140 x 88.3 =	12,362.00
8.	30 x 76.8 =	2304.00
9.	10.2 x 72.8 =	742.56
10.	30 x 107.8 =	3234.00
11.	30 x 89.3 =	2679.00
12.	(70.2 x 30) 2 =	4212.00
13.	40.2 x 88.2 =	3545.64
14.	30 x 19.8 =	594.00
15.	42 x 73 =	3066.00
16.	(6 x14) .5 =	42.00
17.	6 x 22 =	132.00
18.	29.2 x 15.8 =	461.36
19.	21.5 x 17.6 =	378.40
20.	42 x 26.75 =	1123.5
TOTAL		43,017.46 SF

AREA ANALYSIS BY CATEGORIES

CATEGORY 1 (INSTRUCTIONAL)	26,881.64 SF
CATEGORY 2 (SUPPORT)	6388.00 SF
CATEGORY 3 (NON-INSTRUCTIONAL)	9747.82 SF



Pioneer Middle School Site Plan


INSTRUCTIONAL
SUPPORT
NON-INSTRUCTIONAL

Appendix D. Pioneer School Building Renovation Cost Estimate (2008)

Memo

DLR Group
Architecture Engineering Planning Interiors

901 Fifth Avenue
Suite 700
Seattle, WA 98164-1006
tel 206/461-6000
fax 206/461-6049
seattle@dlrgroup.com
www.dlrgroup.com

Date: 4/17/08

To: Dr. Art Himmler

From: Craig Mason

Subject: Original (1919) Pioneer School Building Renovation

Message: The original Pioneer MS 1919 Building does not fall into the Historical District of the PRB Committee. However, all exterior upgrades to the building are still under the jurisdiction of the PRB.

General assumptions:
It is possible to convince the City a full code upgrade is not required on the 1919 original Pioneer school building for an occupancy changes based on the following arguments

1) The total Pioneer MS admin. area is currently less than or equal to what will be put into the 1919 building. The new admin. area will be approx. the same area, with the remaining area being used as training spaces (E occupancy). The rest of the buildings on the site will be used by other entities and considered separate buildings, not a part of school district. (Approximately 6,350sf is currently Admin space – Offices, Staff, Library, and Board Rm. The total 1919 Building is approximately 10,950 gross sf., (7720 on 1st, 3240 on 2nd). New net office space proposed is approx. 5,500 net sf on the first floor and 2,500 net sf. on the second floor.
2) Change in occupancy from E to B is actually a shift to a less hazardous occupancy.
3) In option 1, the upper floor Library can not be used for public meetings, only office functions related to use of building. (We can't have occupant load over 100 persons in one room)

If change of occupancy does not trigger code improvements the following option 1 outlines minimum improvements to move admin. Offices into the existing building. Option 2 outlines improvements to complete a total remodel of the building.

I. Option 1: Minimal upgrades for use as Administrative Offices:	Cost:
1) Roof replacement (w/insulation)	$10/sf – 78,000
2) Re-paint interior	$2.50/sf – 27,400
3) Upgrade bathrooms in current fixture locations	$50,000
4) New Flooring	$5/sf – 54,800
5) Boiler and new exposed plumbing (no work in walls)	$30/sf – 328,500
6) Demo existing building/abatement	$10/sf – 84,000
7) Parking/paving	$12/sf – 60,000
Total base construction costs	$682,700
15% unforeseen issues	$102,400
5% inflation at 1 year out	$39,300
GC mark ups (gen. cond. O&P) 20%	$164,800
50% soft costs	$495,000
Total	**$1,484,200**

- Assuming ongoing maintenance repairs and replacements
- Limits use of second floor space

II. Option 2: Total upgrade with prudent improvements:	
1) Seismic upgrade (in addition to limited work done in 1990's)	$35/sf – 383,300
2) ADA upgrades (door hardware, thresholds, etc.)	$5/sf – 54,800

3)	Electrical wiring/lighting	$30/sf – 328,500
4)	Hazmat abatement	$5/sf – 54,800
5)	Fire Sprinkler and alarm connection to an agency	$7/sf – 76,700
6)	Windows / Energy Efficiency	$15/sf - 164,200
7)	Data Technology	$5/sf – 54,800
8)	Ceiling finishes	$5/sf – 54,800
9)	Elevator	$150,000
10)	Clean Masonry	$50,000
11)	All items from above, except with new HVAC/plumbing ($40/sf)	$792,200
12)	Selective spatial reconfiguration	$75,000
	Total	**$2,239,100**
	15% unforeseen issues	$335,900
	5% inflation at 1 year out	$128,700
	GC mark ups (gen cond and O&P)	$540,800
	50% soft costs	$1,622,200
	Total	**$4,866,700**

cc

DLR Group
Seattle, Washington
tel 206/461-6000 fax 206/461-6049

Appendix E. Real Estate Appraisal Basics

This page is intended to give the reader a basic understanding of how real estate is appraised and the uses of the basic methods. The following pages refer to the Pioneer School property and the surrounding School District properties. In determining the value of real estate an appraiser will use one or more of the following methods:

- **Market Approach:** (based on similar properties that have recently sold)
- **Income Approach:** (based on the income/expenses or future income/expenses the property could generate)
- **Cost Approach:** (based on the cost to build or rebuild or sometimes used to determine whether it is realistic to remodel or rehabilitate a property)

Typically residential properties in Pierce County can easily be evaluated by the market approach alone and for a quick rule of thumb you can arrive at a ball park value by dividing the assessed value by 85% to 90%. Typically you can not use the income approach on one to four family properties, as it is rare that the relationship to income and expenses will support the market value.

The income approach is usually only used on larger apartment complexes, retail complexes, office buildings or other income producing properties, where the income is sufficient to cover the expenses and produce a positive cash flow. The net operating income is multiplied by a capitalization factor, which is arrived at for different types of properties and the local market. An apartment complex will have a different capitalization rate than a retail center or other types of properties, as the investors in those properties all expect a different rate of return.

The cost approach is most frequently used in conjunction with the income approach to support value; however it can also be used on new construction and on multi use properties in need of rehabilitating where the property will be partially an owner occupied property or where income and expenses are not reflective of typical properties due to type of use or ownership i.e., government or non-profit organizations.

Raw land can best be appraised using the market approach, depending on the zoning and type of development proposed. If the use zoning can not be determined or the proposed use is unknown, it is next to impossible to arrive at an appraised value, an appraiser can make an assumption on the zoning in order to arrive at an estimated value, however that appraisal would be classified as unsupported and could easily be challenged and over thrown.

Government owned property provides a unique challenge for an appraiser in that the zoning as a tax exempt property makes it difficult to arrive at a probable zoning. One thing an appraiser can do is to review surrounding properties to determine a likely conforming use and discuss that probability with the local zoning authority; however that still only gives the appraiser and assumed zoning and therefore assumed unsupported value. An appraiser would need to note on the appraisal report any assumptions that were used in arriving at a value and would also note that if that assumption did not occur it would have an effect on value, and that the appraiser therefore cannot certify the appraised value of the report.

According to the assessor's office the assessed valuations on School property have absolutely no resemblance to value, in reality once they are no longer School property they would be based on the new zoning, which would most likely be determined by the surrounding properties and their zoning, so without a zoning change they would use the surrounding properties' zoning in determining a new assessed value.

Pioneer School Main Building and North Public Square

Both parcels including the vacated street and alley are all under one tax parcel and a boundary line adjustment would have to be done to sell them separately. Such boundary line adjustment should be done to the original "Public Square" boundary, to include the vacated street with the main property. The Public Square is called out on the Plat as being 240 feet square or 57,600 square feet out of the current parcel of 141,830 square feet leaving 84,230 square feet including the vacated street for the School District to sell. Based on the comparable market value for the residential property the District owns across the street, the land zoned as residential would reflect a value of approximately $2,275,000±. The Assessor shows a building value of $2,867,200. This includes all the square footage in the building. As pointed out on the previous page, the Pierce County Assessor's office states that these values are totally arbitrary and do not reflect any resemblance to a real value of the properties in questions.

As an example, the report from the Architect clearly shows that the cost of rehabilitating the existing basic 1918 building, even for **basic use** option #1 @ $1,484,200 and to do all prudent upgrades to **"complete a total remodel of the building"** (General Assumptions: 3) last sentence) by adding option # 2 @ $4,866,700 for a Grand Total cost of **$6,350,900**. This does not support the assessed values of the building, shown below or the cost value. According to Marshal Swift, the premier estimator guide in the United States, you can build a new school from $210 to $300 per square foot, so a 10,950 square foot school would cost between $2,300,000 and $3,200,000. However, the local market indicates the costs are from $148 to $210 per square foot, making that same building locally cost only $2,100,000 to $2,300,000. The same *Swift* guide states you can build a good quality 2 story office building from $190 to $230 per square foot or $1,900,000 to $2,300,000. However, the local market indicates the costs are from $100 to $160 per square foot, which would indicate the cost from $1,000,000 to $1,600,000 as reflected by recent projects on the last page.

Taxes / Values for 2305000600

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM SCH DIST #1	**Parcel Number:**	2305000600
Mailing Address:	511 CHAMBERS ST STEILACOOM WA 98388-3304	**Site Address:**	511 CHAMBERS ST
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	6820-SEC SCHOOLS 7 TO 12

Tax Year	Taxable Value	Assessed Total	Assessed Land	Assessed Building	Current Use Land	Phased Property	NOV Mail Date
2008	0	3,634,100	766,900	2,867,200	0	0	06/22/2007
2007	0	2,978,500	684,700	2,293,800	0	0	06/12/2006

Steilacoom School District Bus Barn

Taxes / Values for 6655200160

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM SCH DIST #1	**Parcel Number:**	6655200160
Mailing Address:	510 CHAMBERS ST STEILACOOM WA 98388-3311	**Site Address:**	511 CHAMBERS
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	6700-GOVERNMENTAL SERVICES

Assessed Values

Tax Year	Taxable Value	Assessed Total	Assessed Land	Assessed Building	Current Use Land	Personal Property	NOV Mail Date
2008	0	494,000	349,400	144,600	0	0	06/22/2007
2007	0	443,300	311,900	131,400	0	0	06/12/2006

Note: Part of this parcel is used as part of the upper ball field

Steilacoom School District Pioneer Upper Ball Field

Taxes / Values for 6655200310

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM SCHOOL DIST # 1	**Parcel Number:**	6655200310
Mailing Address:	510 CHAMBERS ST STEILACOOM WA 98388-3311	**Site Address:**	XXXXX CHAMBERS ST
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	7400-REC ACTIVITIES

Assessed Values

Tax Year	Taxable Value	Assessed Total	Assessed Land	Assessed Building	Current Use Land	Personal Property	NOV Mail Date
2008	0	314,700	314,700	0	0	0	06/22/2007
2007	0	143,400	143,400	0	0	0	06/12/2006

Note: Part of this parcel is made up of part of the Bus Barn property

Steilacoom School District Administration
Property Zoned: Government Offices

Taxes / Values for 2305000651

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM HISTORICAL SCH DIST #1	**Parcel Number:**	2305000651
Mailing Address:	54 SENTINEL DR STEILACOOM WA 98388-1699	**Site Address:**	510 CHAMBERS
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	6700-GOVERNMENTAL SERVICES

Assessed Value

Tax Yr	Taxable Value	Assessed Total	Assessed Land	Assessed Building	Current Use Land	Exempt Amount	NOC No	Date
2008	0	329,700	85,500	244,200	0	0		06/22/2007
2007	0	298,400	76,400	222,000	0	0		06/12/2006

Steilacoom School District "Yellow House"

Building Characteristics for 2305000640

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM HISTORICL SCH DIST #1	**Parcel Number:**	2305000640
Mailing Address:	54 SENTINEL DR STEILACOOM WA 98388-1699	**Site Address:**	1314 NISQUALLY ST
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	1101-SINGLE FAMILY DWELLING

Construction		Size		Other	
Built-As:	1 Story	**Stories:**	1	**Property Type:**	Residential
Condition:	Fair	**SF:**	840	**Neighborhood:**	130401
Quality:	Fair Plus	**Fin Attic SF:**	360	**Occupancy:**	Single Family Residential
Exterior:	Frame Siding	**Total Bsmnt SF:**	420	**Bedrooms:**	3
Class:		**Fin Bsmnt SF:**		**Bathrooms:**	1
Roof:	Composition Shingle	**Garage SF:**		**Fireplaces:**	1
HVAC:	Forced Air	**Det Garage SF:**		**Net SF:**	
Year Built:	1915			**Sprinkler SF:**	
Adj Year Built:	1950	**Bsmnt Gar Door:**		**Units:**	1
		Lot	7200		

Taxes / Values for 2305000640

Taxpayer Details		Property Details	
Taxpayer Name:	STEILACOOM HISTORICL SCH DIST #1	**Parcel Number:**	2305000640
Mailing Address:	54 SENTINEL DR STEILACOOM WA 98388-1699	**Site Address:**	1314 NISQUALLY ST
		Account Type:	Real Property
		Category:	Land and Improvements
		Use Code:	1101-SINGLE FAMILY DWELLING

Tax Year	Taxable Value	Assessed Total	Assessed Land	Assessed Building	Current Use Land	Personal Property	NOV Mail Date
2008	0	265,500	177,300	88,200	0	0	06/22/2007
2007	0	308,500	212,700	95,800	0	0	06/12/2006

Based on the assessed value this property has a market value of approximately $295,000. This would be supported by the comparable sale located at 214 Frederick Street in March 2007 at $305,000, representing land values for residential land of approximately $25 to $27 per square foot in this area.

Comparable Sale for the "Yellow House"

Sale Parcel

Address:	214 FREDERICK ST				
Parcel:	2305002510			**Land SF:**	8,233
Acct Type:	Residential	**Approach:**	Cost	**Total Fin SF:**	801
Prop Type:	Residential	**Nbhd:**	130401	**Abv Grade SF:**	801
Blt As:	1 Story	**Yr Blt:**	1910	**Fin Bsmt SF:**	0
Quality:	Fair Plus	**Adj Yr Blt:**	1950	**Unfin Bsmt SF:**	0
Condition:	Average	**HVAC:**	Forced Air	**Gar SF:**	0
Bedrooms:	2	**Baths:**	1	**Det Gar SF:**	0
Exterior:	Frame Siding			**Outbldgs:**	0
Roof Cvr:	Composition Shingle			**Outbldg SF:**	0

Local Cost Basis Comparables for Offices and Schools

JEROME CENTRE MIXED USE DEVELOPMENT
GIG HARBOR, WASHINGTON COMPLETED 2006
Construction Cost $2.5 Million @ $100 per square foot
SIZE: 25,000 Square feet
ARCHITECT: BCRA, Tacoma, WA

CANTERWOOD OFFICE BUILDING
PUYALLUP, WASHINGTON COMPLETED 2007
Construction Cost $3.1 Million @ $167.57 per square foot
SIZE: 18,500 Square feet
ARCHITECT: BCRA, Tacoma, WA

VENTURE BANK CORPORATE HEADQUARTERS
DUPONT, WASHINGTON COMPLETED 2007
Construction Cost $8.3 Million @ $156.60 per square foot
SIZE: 53,000 Square feet
ARCHITECT/ENGINEER: BCRA, Tacoma, WA

MOUNT TAHOMA HIGH SCHOOL
TACOMA, WASHINGTON COMPLETED 2004
Construction Cost $58.25 Million @ $209.59 per square foot
SIZE: 277,912 Square feet, Grades 9-12, 1,800 students
ARCHITECT: BLRB Architects P.S. (note: performed all construction management)

KAPOWSIN ELEMENTARY SCHOOL
GRAHAM, WASHINGTON COMPLETED 2003
Construction Cost $6.825 Million @ $170.62 per square foot
SIZE: 40,000 Square feet, Grades K-6, 411 students
ARCHITECT: BLRB Architects P.S. (note: performed all construction management)

MIDLAND ELEMENTARY SCHOOL
TACOMA, WASHINGTON COMPLETED 2003
Construction Cost: $6.85 Million @ $147.91 per square foot
SIZE: 46,311 Square feet, Grades K-5, 500 students
ARCHITECT: BLRB Architects P.S. (note: performed all construction management)

Appendix F. Suggestions from the Public

Enumeration of Workshops' Reuse Suggestions		
Suggestion	Saturday	Monday
Lease classroom space to colleges	9	-
Lease space to pre-school	17	13
Lease space to child care facility	7	-
Adult exercise facilities	21	-
Indoor Pool	13	11
Skateboard Park	13	-
Teen Center	77	37
Demolish Everything & Sell for Housing or Retail	9	17
Retain Old Building & Demolish rest of complex	3	-
Retain Old Building for Admin	17	
SHSD retain what it needs Sell remainder to commercial venture which will lease or sell condominium ownership for spaces or businesses & schools	18	-
Provide space for Food Pantry	7	-
Youth & Adult Center	-	8
Sell to non-profit	-	25
Retain all except 8th Wing and Portables & use complex for Retirement homes, hospice facility, Adult Foster Care	-	15
Retain Old Building and cafeteria for Art Center – studios and gallery	-	8
Retain entire Complex: Old Building – District Administration Remainder: pre school – Senior Center Exercise Areas, Indoor Pool. (jointly run by TOS, SHSD, non-profit)	-	11
Total Votes	211	145
Total Attendees	46	39

Appendix G. Constraints on Reuse of the Property

State law: The Revised Code of Washington restricts the freedom of the School District from giving the school property away or selling it for a token amount. RCW 28A.335.120 specifies how school district property can be disposed of. Section (5) states:

> (5) Any sale of school district real property authorized pursuant to this section shall be preceded by a market value appraisal by a professionally designated real estate appraiser as defined in RCW 74.46.020 or a general real estate appraiser certified under chapter 18.140 RCW selected by the board of directors and no sale shall take place if the sale price would be less than ninety percent of the appraisal made by the real estate appraiser: PROVIDED, That if the property has been on the market for one year or more the property may be reappraised and sold for not less than seventy-five percent of the reappraised value with the unanimous consent of the board.

One key result of this law is that if the District opts to sell the property to a private developer, it cannot be sold during the first year unless the buyer is willing to pay at least 90% of the appraised value.

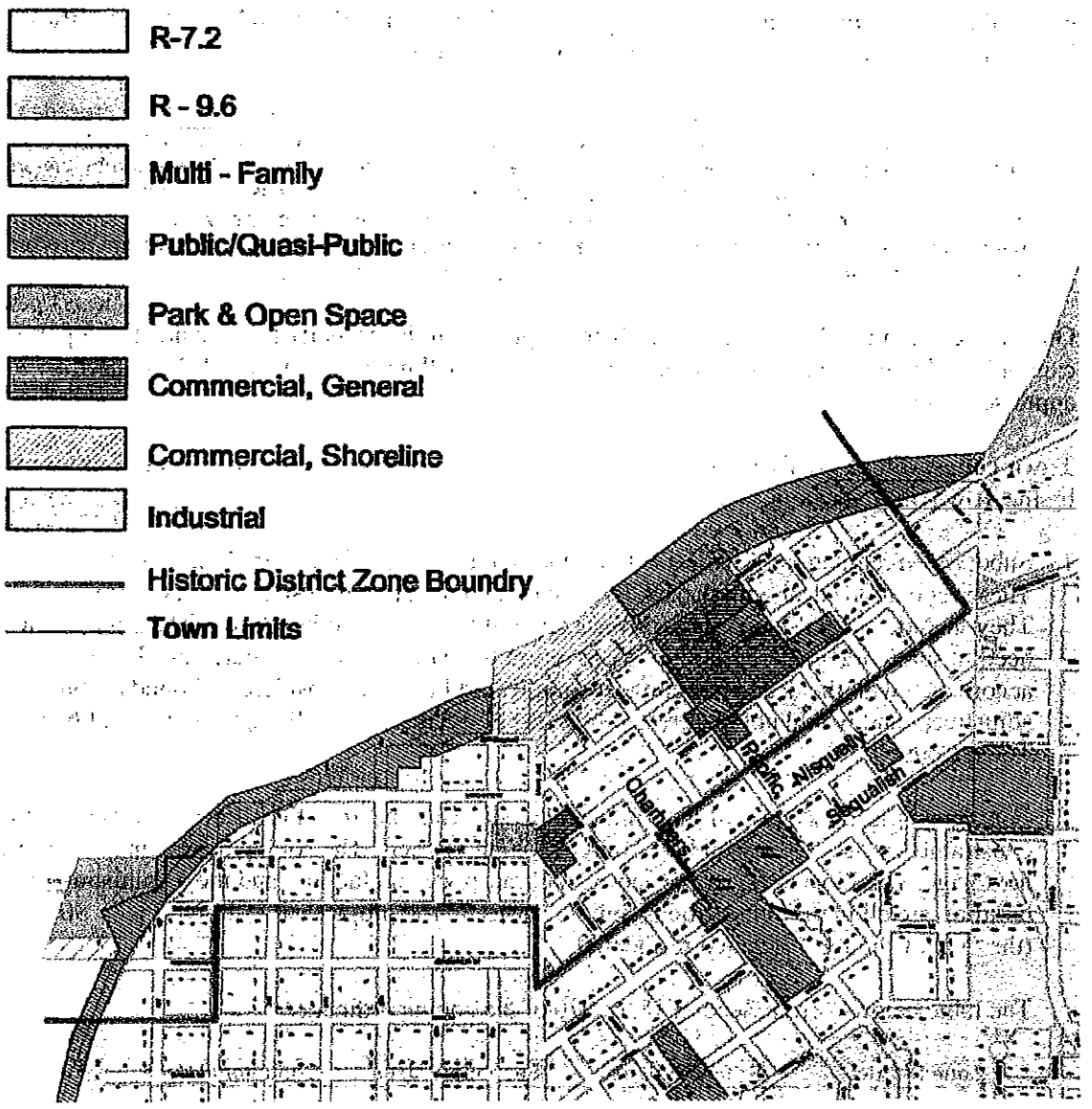
Town codes: There are five types of regulations that affect redevelopment of a parcel enforced by the Town of Steilacoom.

1. Subdivision regulations – Title 17. Plats and Subdivisions, Steilacoom Municipal Code. These regulations deal with the subdivision of a large parcel into smaller ones for resale. They include design standards for streets and utilities, among other things. There may be a need to subdivide the School property to return the ball field to a separate parcel kept in accordance with the deed restriction, If so, it would likely be considered a boundary line adjustment and would not be affected by Title 17. Such action still requires approval by the Town Council.

2. Zoning – Title 18. Zoning of the Municipal Code. This specifies the allowable uses and other constraints on developing land in different zoning districts. The zoning district map is on the next page. The Pioneer School property, the transportation facility, and the administration building are all in the "public/quasi-public" district. The property at 1314 Nisqually Street (the "yellow house") is zoned residential.

   The table below is from Section 18.12.070 of the zoning ordinance:

Zone District	Principal Uses	Secondary Uses	Conditional Uses
Public and Quasi-Public (P/QP)	primary and secondary public facilities	radio transmitting and satellite receiving antennas	Non-Town owned structures over 26 feet in height
	quasi-public facilities	restaurants	modular classrooms
		accessory structures	
		parking facilities	
		retail sales	



Section 18.12.070 also states: "It is the intent of the public/quasi-public district to provide for publicly and privately owned and operated facilities and buildings that provide for the cultural, historical, educational, religious and public service needs of the community and to reflect the intent of the comprehensive plan."

The definition of the different types of public facilities is in Section 18.-08.730:

18.08.730 Public facility. "Public facility" means any public service, property, or structure operated and maintained by a public agency. Examples include streets, roads, street light systems, traffic signals, domestic water systems, stormwater and sanitary sewer systems, parks and recreational facilities, libraries and schools.

(A) Public facility, primary. "Primary public facility" means a public facility that provides service to residents within and beyond the surrounding neighborhood in which the facility is located. Examples include governmental buildings, schools, town-wide utility structures and libraries.

(B) Public Facility, Quasi-. "Quasi-public facility" means a facility operated by a non-profit private community, educational, religious, charitable, medical institution or service organization having the primary purpose of serving the general public. Examples include religious institutions, churches, private schools and museums.

(C) Public Facility, Secondary. "Secondary public facility" means a public facility that provides service to residents of the neighborhood in which it is located. Examples include walking paths, electrical transformers and utility vaults.

There appears to be some allowance for some commercial uses under the secondary uses listed in the table without a zoning revision. However, the main use of the building would still have to be public/quasi-public. If the site were to be completely privately owned for commercial uses, a rezoning to a commercial district would be required.

3. Comprehensive Plan – Under State law and Sections 18.04.020 and 030, the zoning districts must follow the Town's Comprehensive Plan. The only zoning districts possible under the current Comp Plan for the Pioneer site are Public/Quasi-Public and Open Space. Rezoning of the site to commercial use would require an amendment of the Comprehensive Plan to accommodate the new zoning. Such changes are done once a year and must be applied for by March 31 of that year. The rezoning can be done concurrently with the plan revision.

4. Historic property regulations – Chapter 2.14. Steilacoom Historic District. The zoning district map on the previous page shows the district boundaries, which do not include Pioneer School. The Preservation & Review Board reviews commercial and public/quasi-public buildings outside the District. Exterior changes to Pioneer School would need to be reviewed by the PRB prior to issuance of a building permit.

   Because the building is not on a state or federal register, there are no state or federal rules that constrain what can be done to it. A building can be put on the Historic Register following a review process and only with the owner's consent. Such action would give the Preservation & Review Board additional authority to review changes. It should be noted that putting a building on such a register reduces the owner's freedom to remodel it and, therefore, could reduce the selling price.

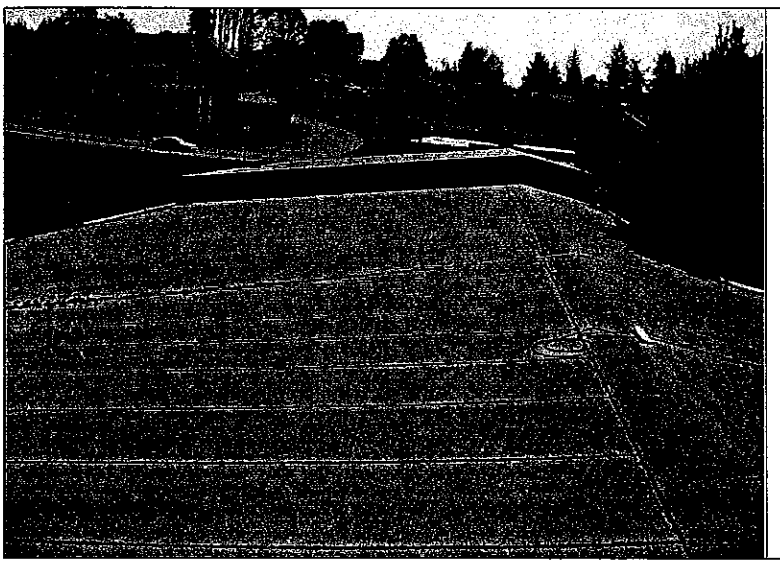
5. Building code – Title 15, Buildings and Construction. Section 15.04.030 adopts the International Building Code, as amended by the Washington State Building Code Council. Suffice it to say, the current structure does not meet the current codes. It does not have to be brought up to the current codes unless there is a change in occupancy, a remodeling, or an expansion of the building. At least one of these will occur upon reuse.

   Which sections of the Code must be complied with will depend on the new use and the amount of work to be done. It is more likely that if the structure will still have a public use (including retail stores), the life safety aspects of the fire and electrical codes will need to be complied with. Depending on public access, the Americans with Disabilities Act (ADA) requirements could be triggered or energy conservation rules may apply, too.

There would be somewhat fewer requirements if the property was converted to commercial use than if it was reconstructed as an educational use.

While the building code requirements do not affect the use or reuse of the school, they do affect the cost of construction, especially remodeling of an existing building. It is possible that rather than retrofit an old structure, a new owner would find it cheaper to build exactly what he wants from the ground up.

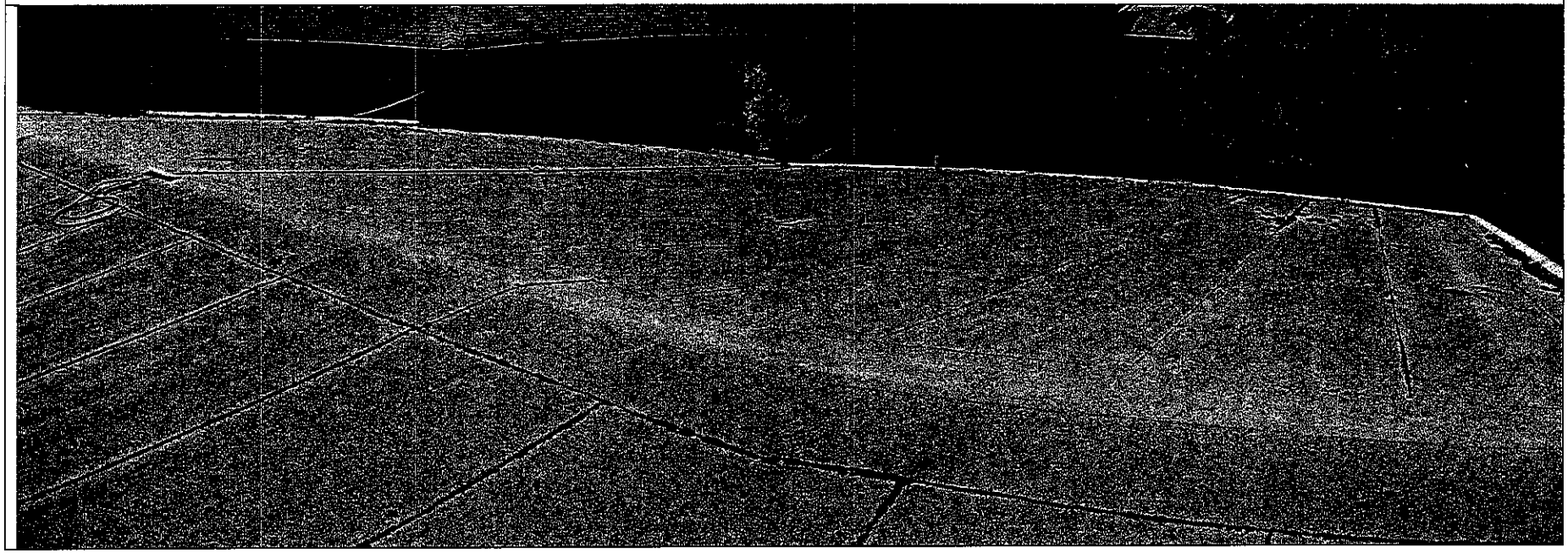
Photograph 56: North elevation of the North Wing



Photograph 57:

Looking east of the north slope of the North Wing

Photograph 58: Looking at the down slope west roof of the North Wing

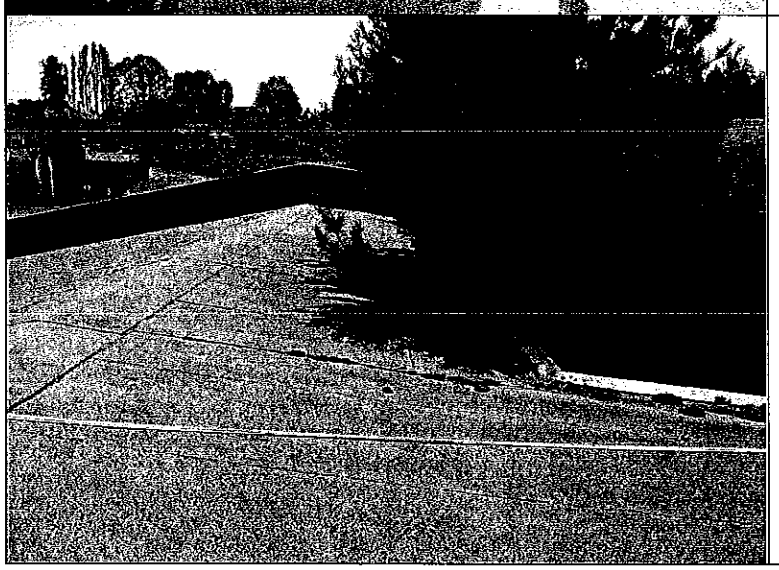


Photograph 59: North Wing

Looking east along south slope, north end of the west roof showing extensive vegetation and algae growth in gutter

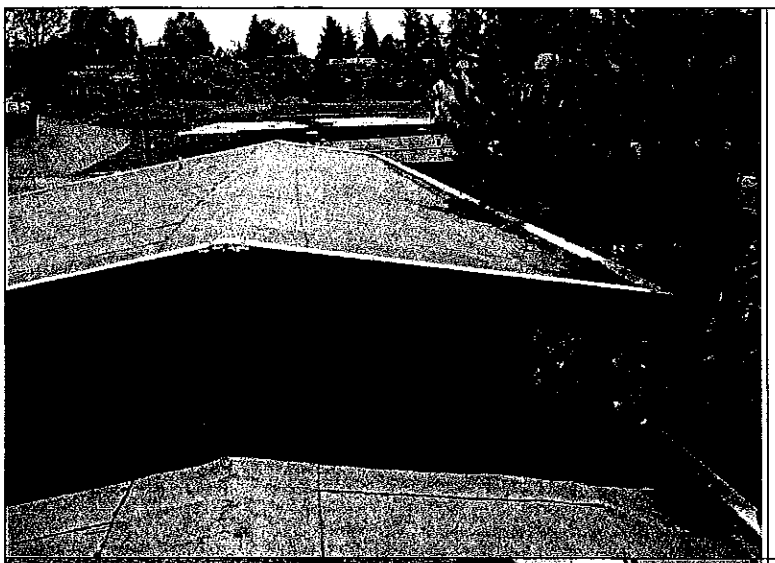
Photograph 60: North Wing

Close up of vegetation growth at the southeast corner of south slope west end of north wing, deck is soft underneath, underside possibly contributing to major leak noted at soffit below.



Photograph 61: North Wing

Looking east along gutter edge of central portion of west roof, south slope. Pine trees growing up and over roof. Huge collection of pine cones and vegetative growth



Photograph 62: North Wing

Looking east along south slope of east roof, north wing, note additional collection of pine cones, algae growth and vegetation in gutter area

Photograph 63: North Wing

Close up of typical gutter area where granule loss is extensive exposing membrane.

Photograph 64: North Wing

Lead flashing at 4-inch pipe penetration Lead deteriorated with holes open for moisture intrusion

WETHERHOLT AND ASSOCIATES, INC.

September 29, 2010

Steilacoom Historical School District
510 Chambers
Steilacoom, WA 98388-3300

Phone # (253) 983-2200
Fax # (206) 782-5970

Attn: JM Leroy

Email: jm@alliancemanagemt.com

Ref: Consulting Services
General Construction Cost Estimate
Old School Building, Pioneer Middle School
Steilacoom, Washington

Greetings,

As discussed, the following information provides general construction cost for replacement of the existing composition shingle roof assembly on the Old School Building. Separate additional construction cost estimates are provided for installation of plywood sheathing over the existing ship lap decking and for replacement of the existing hung metal gutters and downspouts.

Shingle Roof Replacement includes the following:

1. Removal and disposal of the existing composition shingles, underlayment, and related membrane and sheet metal flashing components.
2. Installation of self adhering membrane and eaves, valleys, and penetrations.
3. Installation of 30 lb Titanium underlayment.
4. Installation of 40 year SBS modified asphalt composition shingles with high wind fastening pattern.
5. Installation of new venting ridge assembly at high roof area.
6. Installation of new through roof pipe flashings
7. Installation of 24 gauge pre-finished sheet metal drip edge flashing, two piece upslope roof to wall flashing at stucco siding locations, roof to wall step shingles and new sheet metal flashing and counterflashing at boiler chimney.
8. Installation of 45 mil EPDM membrane at north and south low slope drain areas.
9. Manufacturer's 40 year material warranty and Contractors five year labor and materials warranty.

General Estimated Construction Cost: $69,000 to $74,000 excluding WSST.

Plywood Sheathing Overlay:

1. Reset fasteners in existing ship lap substrate.
2. Install ½ inch CDX plywood sheathing over the ship lap and secure with 10 D galvanized nails.

General Estimated Construction Cost: $14,800 to $15,900 excluding WSST.

New Gutters and Downspouts:

1. Remove and dispose of existing gutters and downspouts.
2. Install new 24 gauge, pre-finished commercial box gutter.
3. Install new 3 inch round PVC downspouts, connect to existing perimeter tight lines.

General Estimated Construction Cost: $14,900 to $16,000.

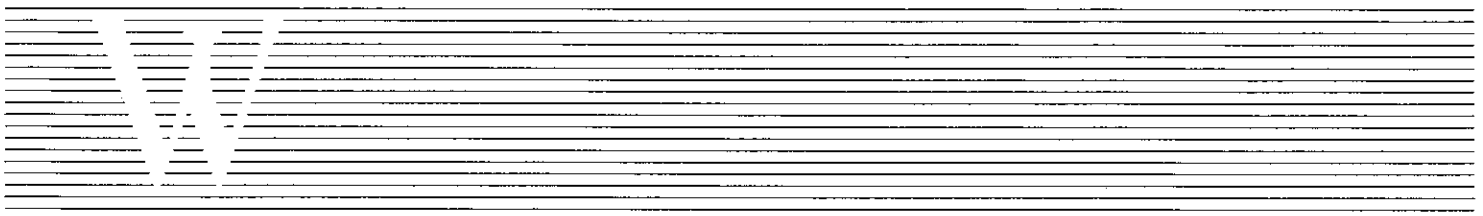
We hope this information has been helpful. Please call if you have any questions or if we may be of further assistance.

Respectfully,

William A. Cypher, RRC, FRCI
Senior Field Engineer/Principal

_____
Signature of Authorization

_____
Date



WETHERHOLT AND ASSOCIATES, INC.

Pioneer Middle School
Steilacoom, WA 98388

For

Steilacoom Historical School District
510 Chambers
Steilacoom, WA 98388-3300
Attn: JM Leroy

Prepared by:

William Cypher, RRC, FRCI
Senior Field Engineer
Wetherholt and Associates, Inc.

Project #: 20-981206C2

August 11, 2010

2633A Parkmont Lane Southwest, Suite A-1 • 1001 Cooper Point Road Southwest, Suite 140 – PMB 185
Olympia, Washington 98502
Phone: 360-786-1660 • Fax: 360-786-1696

WETHERHOLT AND ASSOCIATES, INC.

August 11, 2010

Steilacoom Historical School District
510 Chambers
Steilacoom, WA 98388-3300

Phone #: 253-983-2200
Fax #: 253-584-7198

Attn: JM Leroy

Email: jm@alliancemanagemt.com

Ref: Pioneer Middle School
Roof Evaluation
Steilacoom, Washington

Greetings,

As requested, this writer visited the Pioneer Middle School on August 3, 2010. The purpose of this site visit was to evaluate the existing roof assemblies on the various buildings. The following information was gathered during this site visit.

Observations

In reviewing our files, we found a previous Wetherholt and Associates, Inc., Roof Evaluation Report dated August 2000 for the Steilacoom Historical School District on the Pioneer Middle School. The report included evaluations of the South Wing roofs, the Gymnasium and Locker Room roof, and the North Wing roofs. It did not include the newer Central building Cafeteria roof or the composition shingle roof on the Old School building. We utilized information from the August, 2000 report to compare conditions during our recent site visit and roof evaluation to determine whether any suggested repairs and/or replacements or modifications to the roofs had been undertaken.

South Wing

The South wing is comprised of three (3) separate roof areas; west roof, central roof, and east roof.

The south wing roofs appear to be the same roof assemblies as noted in the 2000 report. Notes from the core samples taken in 2000 identify the roof assemblies as consisting of a wood deck, a base sheet nailed to the wood deck, ¾ inch polystyrene insulation, ½ inch of built-up roof membrane with a granular surface cap sheet, 1 inch of fiberglass insulation, and another ½ inch of built-up roof membrane with a granular surfaced cap sheet. There are two full roof assemblies in place at this time. Drainage is provided by positive slope in the substrate to "T" scuppers along the gutter/eave lines of the north and south slopes of each roof area.

Perimeter edges consist of marginal 4 inch high canted curbs with lapped sheet metal caps secured with gasketed fasteners through the top surface of the cap metal. It appears the metal cap has been displaced and reinstalled without benefit of appropriate sealants between the lapping surfaces.

Loss of granule surfacing in the top exposed membrane is notable throughout the field of the roof and is most notable in perimeter gutter areas where granule loss is significant and large quantities of loose granules have accumulated. The majority of the gutter areas are clogged with moss and vegetative growth prohibiting positive drainage.

Several repairs were noted around gutter and eave areas as well as isolated areas in the field of the roof.

Multiple repairs were noted around the "T" scupper drain located in the northeast corner of the north slope on the easternmost roof of the South Wing. A hole in the membrane and the various mastic repairs was noted just upslope of this drain. This single scupper drains approximately 75 percent of the north slope of this roof area. The additional roofing and repairs surrounding the scupper have reduced the outlet or throat size of the scupper to +/- 2 inch square. There is significant interior damage from leaks at this location.

Lead flashings at pipe penetrations through the roof are significantly deteriorated and are allowing moisture to migrate into and below the roof assemblies.

Gymnasium Roof

The gym roof assembly consists of two separate built-up roof membranes installed over a wood substrate.

Drainage is provided by slope in the substrate to "T" scuppers along the gutter/eave lines of the east and west slopes of each roof area.

Approximately 50 percent of the existing built-up roof membrane has been covered with a smooth surfaced torch applied overlay membrane. Significant buckles and mole runs were noted in the remaining exposed granular surfaced cap sheet of the built-up roof assembly.

Repairs at the north and south end drain scuppers along the west perimeter gutter have failed and moisture intrusion was observed both within the interior of the gymnasium and directly below the drain scuppers and downspouts at the exterior of the building.

Perimeter edge details at the gymnasium roof are similar to those noted on the South Wing roof areas.

Locker Room Roof Areas

The Locker Room roofs appear to consist of the same two built-up roof assemblies installed over a wood substrate as noted on the gym roof area.

Nominal or marginal drainage is provided to perimeter edge gutters and "T" scuppers. Signs of water ponding were evident on the surface of the roof assembly. Moss and vegetative growth has accumulated in the gutter areas.

Portions of the locker room roof assembly have been overlaid with the smooth surfaced torch applied membrane.

It is noted that significant granule loss is in the surface of the remaining built-up roof assembly.

Fractures and or breaks in the membrane were noted in various locations.

The easternmost shed slope roof drains to a hung metal gutter.

Significant mole runs and buckling were noted in the field of the roof assembly.

Central Wing Roof

Existing low slope roof assembly is a single membrane, most likely TPO, installed over ridged insulation secured to unknown substrate.

Drainage is provided by slope in the substrate to a hung metal gutter along the west perimeter edge.

Extensive moss growth was observed on the surface of the membrane.

An upper barrel roof extends up from the low sloped roof in the northwest corner over the main entrance to the building.

A standing seam metal roof, radiused to fit the barrel shape, drains to hung gutters along the south and north eave edges.

The same standing seam metal roof assembly is installed at a canopy extending out from the north wall of the raised roof area and along walkway canopies extending from the old school building to the north wing building.

North Wing Roofs

The North Wing Roof assemblies are identical to those noted on the South Wing roof assemblies.

Similar positive slope in the substrate to provide drainage to built-in gutters and "T" scuppers along the north and south perimeter eave lines

Significant deterioration of the membrane and the underlying wood substrate noted on the west roof, north slope surrounding the east drain scupper.

Granule loss from the surface sheet of the membrane noted throughout the field of the membrane.

Extensive accumulation of pine cones and other organic debris occur along the south gutter edges from overhanging pine trees.

Similar low perimeter height curbs with sheet metal caps as noted at Gym and South Wing roofs.

Old School Roof

The existing Old School Roof is comprised of multiple level steep slope composition shingles.

The majority of the drainage is provided at hung gutters at eave lines with the exception of the north and south lower roofs that provide portions of drainage where the shingle roofs drain back to the rising wall of the second story of the building. A torch applied membrane provides drainage along the wall to the west edge of the building.

Several shingles and shingle tabs are missing or displaced from the roof assembly.

Upslope roof to wall flashing consists of a torch applied membrane extending down over the top edge of the shingles and up the stucco wall cladding. No metal counterflashing was noted at these locations. The upslope edge of the torch applied membrane is loose and open to moisture intrusion in various locations along the wall line.

The hung metal gutters are full of moss and vegetative growth. In some locations, the spike and ferrule attachments have pulled loose from the fascia leaving the gutter sagging and displaced.

Rubber boot flashing at pipe penetration are deteriorated and/or split and are no longer sealed to the pipes.

Discussion and Recommendations

It is this writer's opinion that the existing built-up roof assemblies on the South Wing, Gymnasium, Locker Rooms, and North Wing have reached their useful life expectancy and should be removed and replaced. The existing roofs are showing accelerated deterioration with loss of granular surfacing and failed flashing components. Extensive moss and vegetative growth in the gutter areas block drainage to undersized "T" scuppers creating extensive ponding water and deterioration of the membrane.

Roof replacement scope should include the following:

1. Complete removal of the existing roof assemblies and flashing components down to the wood substrate.
2. Repair of any deteriorated wood substrate components.
3. Raising perimeter edge curbs eight to twelve inches to accommodate crickets for diverting water to drain locations.

4 Installation of a vapor barrier, ridged insulation, and cover board. Tapered insulation should be utilized at the Locker Room roof and all gutter locations to promote positive drainage.
5 Installation of new membrane and new membrane flashing components.
6 Installation of new through curb scuppers and collectors at perimeter gutter locations.
7 Installation of new sheet metal copings and related sheet metal flashing and counterflashings.

An estimated construction cost for the above described scope of work is $12.00 to $15.00 per square foot based on current market pricing and will vary depending on the extent of substrate repairs and type of membrane assembly utilized for reroofing.

The Central Wing, single ply roof membrane appears to be in reasonably good condition. We suggest cleaning and removal of all moss growth and accumulated debris.

The standing seam metal roof assemblies appear to be in good condition and do not require any modifications or repairs.

The existing composition shingle roof on the Old School Building is reaching its useful life expectancy. Multiple locations of shingle tab loss were noted throughout the field of the roof. Upslope roof to wall flashings and through roof penetration flashings are failing and the existing gutters are being displaced from moss and vegetative growth.

While replacement of missing shingles and repair of flashing components and gutters will provide some potential protection from moisture intrusion for one to three years, the roof should be scheduled for replacement as soon as possible.

An estimated construction cost for the above suggested repairs is $20,000 to $25,000.

An estimated construction cost for replacement of the existing composition shingle roof related sheet metal flashing and gutters is $7.00 to $9.00 per square foot.

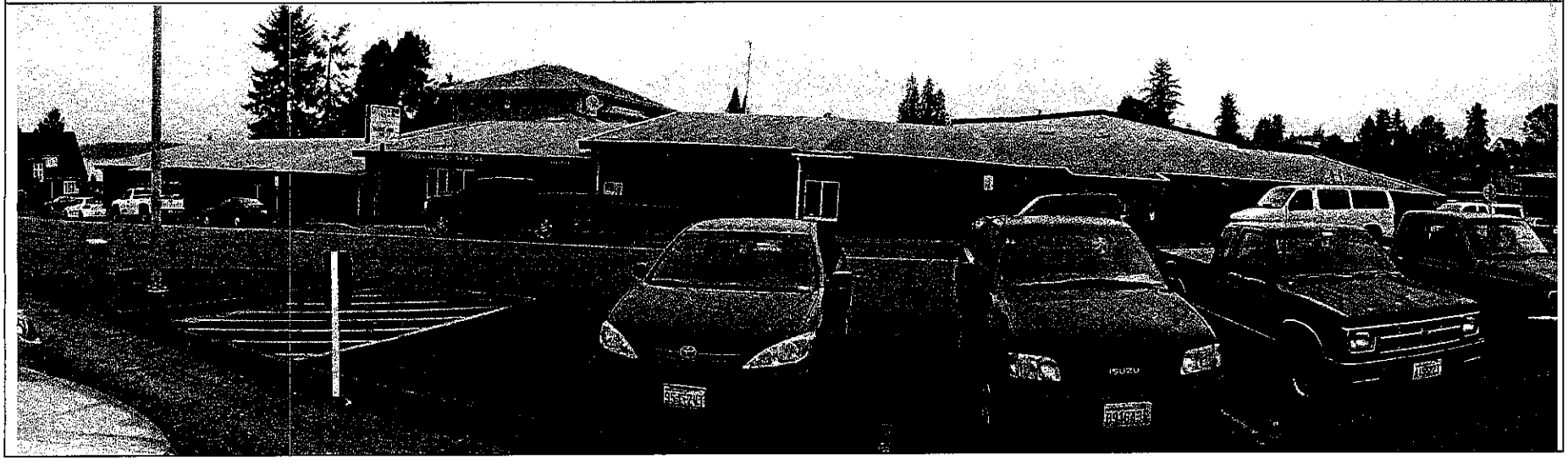
Enclosed are photographs and notes taken during our site visit for your review with this report.

We trust the above discussion has been of assistance. If you have any questions, or if we may be of further service, please do not hesitate to call.

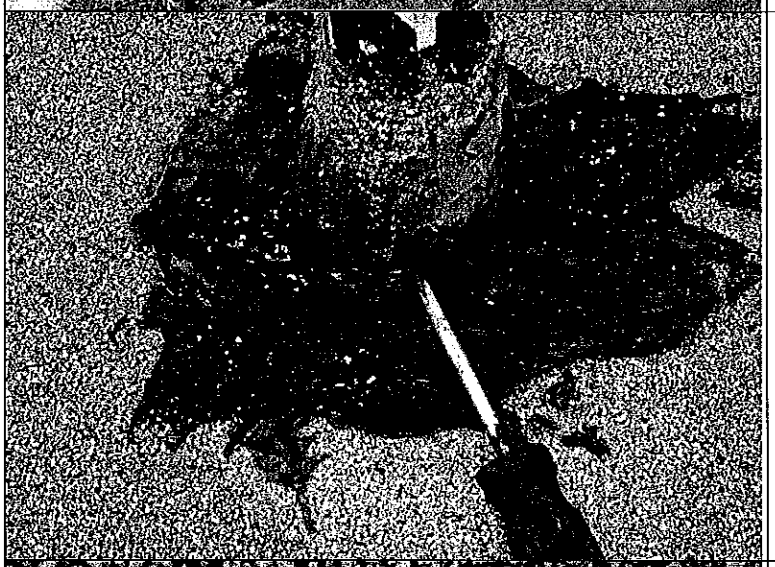
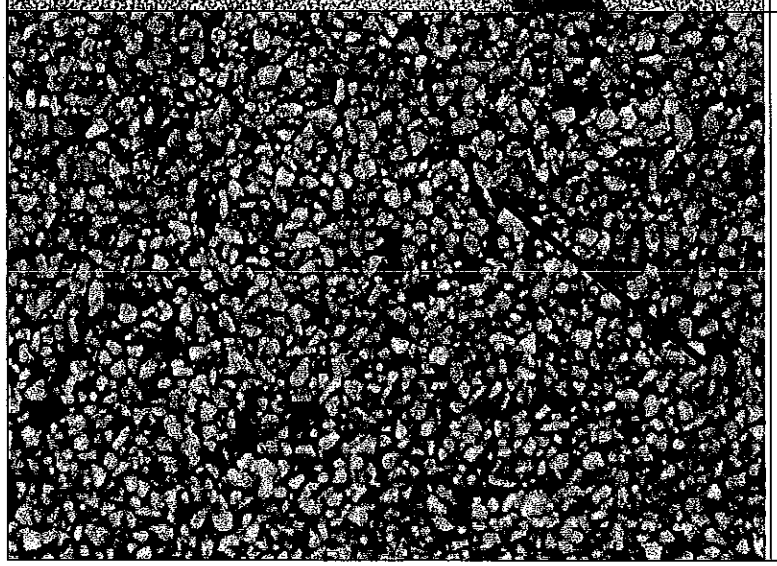
Respectfully,

William Cypher, RRC, FRCI
Senior Field Engineer
Principal

Photograph 1: Pan photo of the south elevation of the South Wing



Photograph 2: Pan photo looking west. South wing, west roof area.

	Photograph 3: South Wing, west roof, north slope. Moss and vegetative growth in gutter and drain scupper.
	Photograph 4: South Wing, west roof, north slope. Deteriorated lead flashing at pipe penetration.
	Photograph 5: South Wing, west roof, north slope. Fracture in granular surfaced membrane.

Photograph 6:

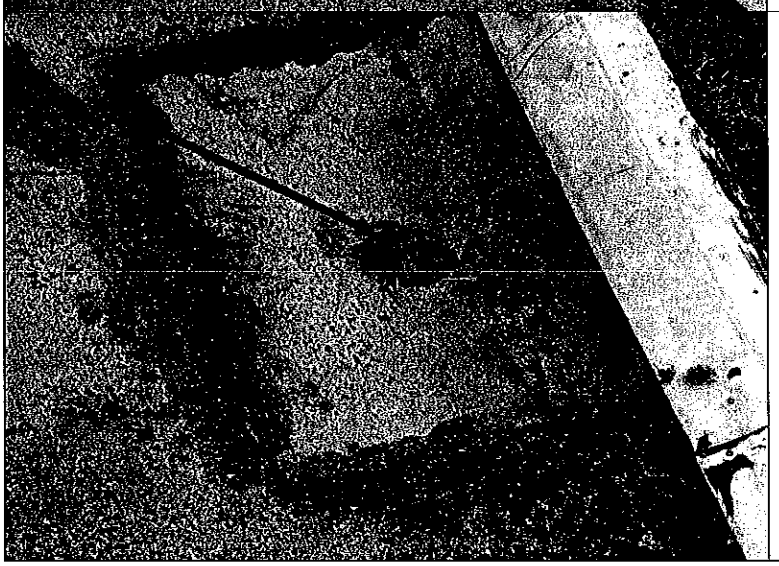
South Wing, west roof, south slope.

Mastic repairs and granule accumulation in gutter.

Photograph 7:

South Wing, west roof, south slope.

Large mastic repair in south gutter.



Photograph 8:

South Wing, west roof, south slope.

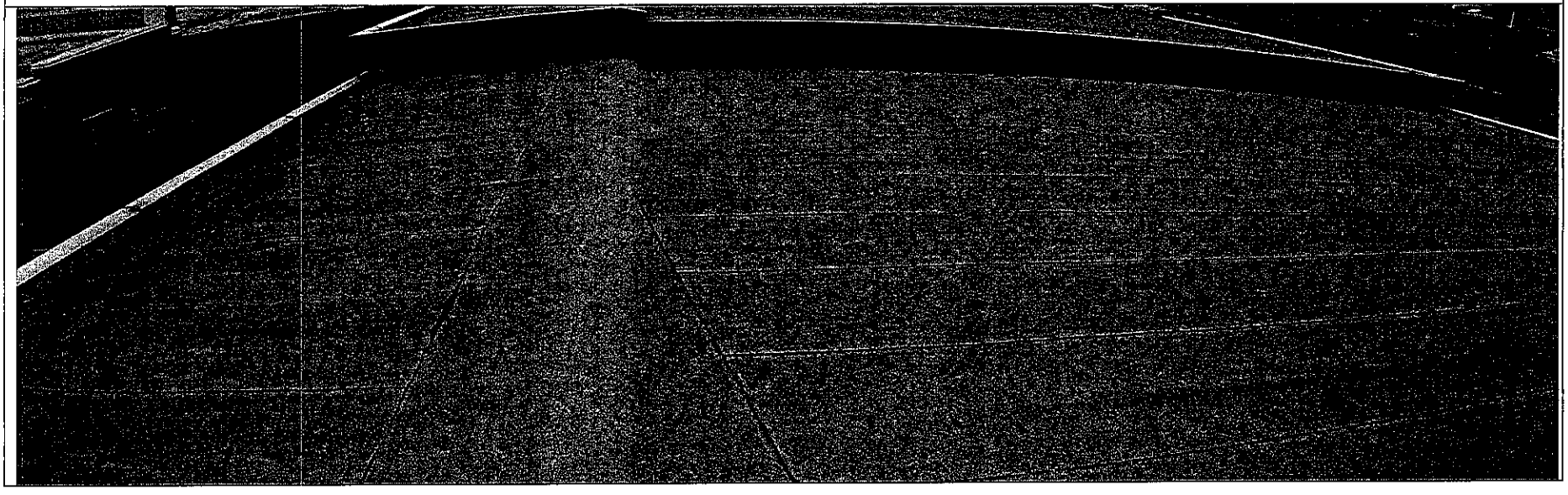
Repair at drain scupper. Note scupper is plugged with debris.

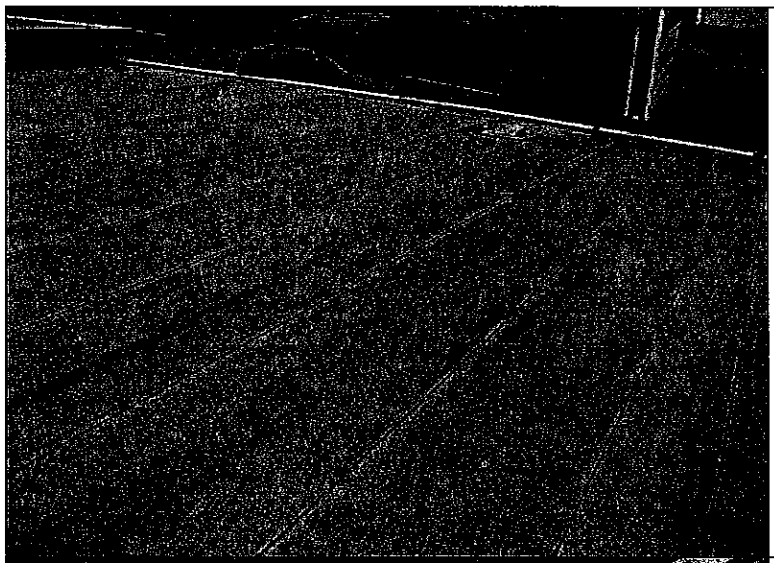
Photograph 9:

South Wing, west roof, south slope.

East end of west roof area at rising wall. Sealant failure at surface mounted sheet metal flashing.

Photograph 10: Pan photo of the South Wing, central roof,





Photograph 11:

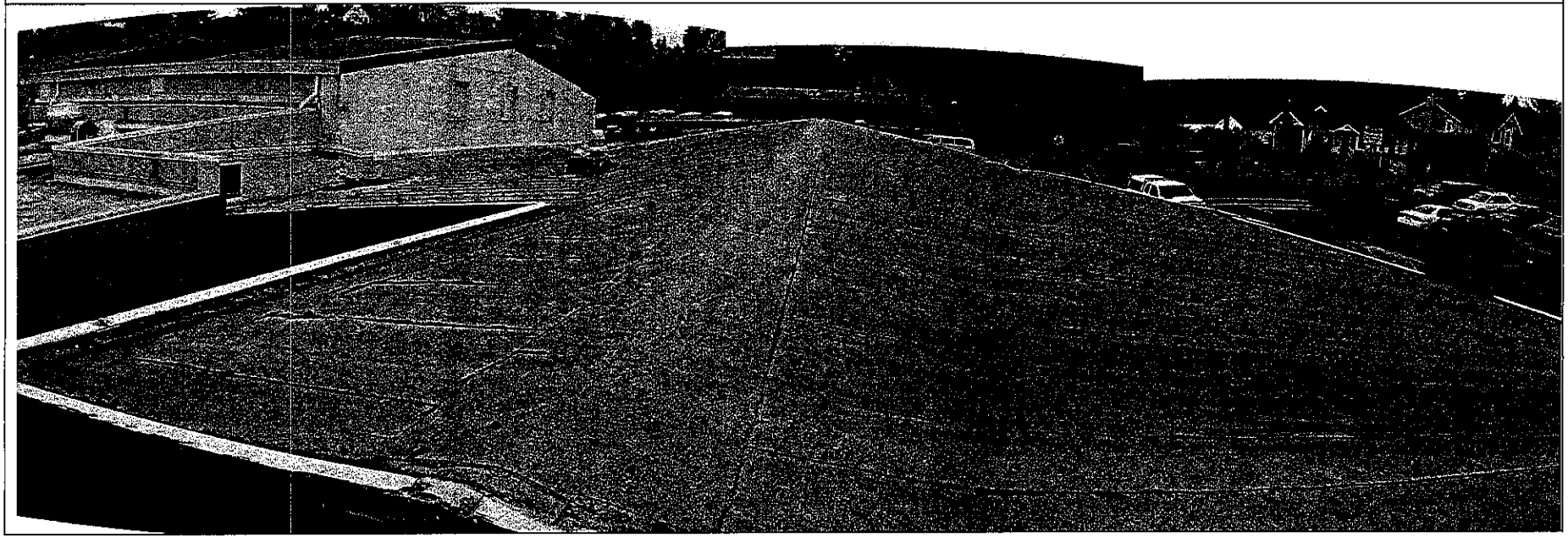
South Wing, central roof, south slope.

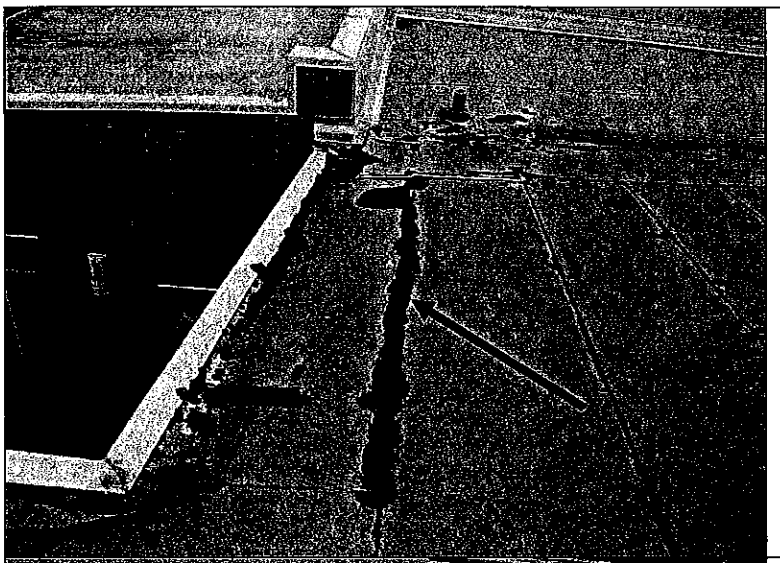
Photograph 12:

South Wing, central roof, south slope.

Displaced sheet metal cap and repairs at drain scupper.

Photograph 13: Pan photo of the South Wing, east roof area.





Photograph 14:

South Wing, east roof, north slope.

Mastic repairs along membrane seam at west rake edge.

Photograph 15:

South Wing, east roof, north slope.

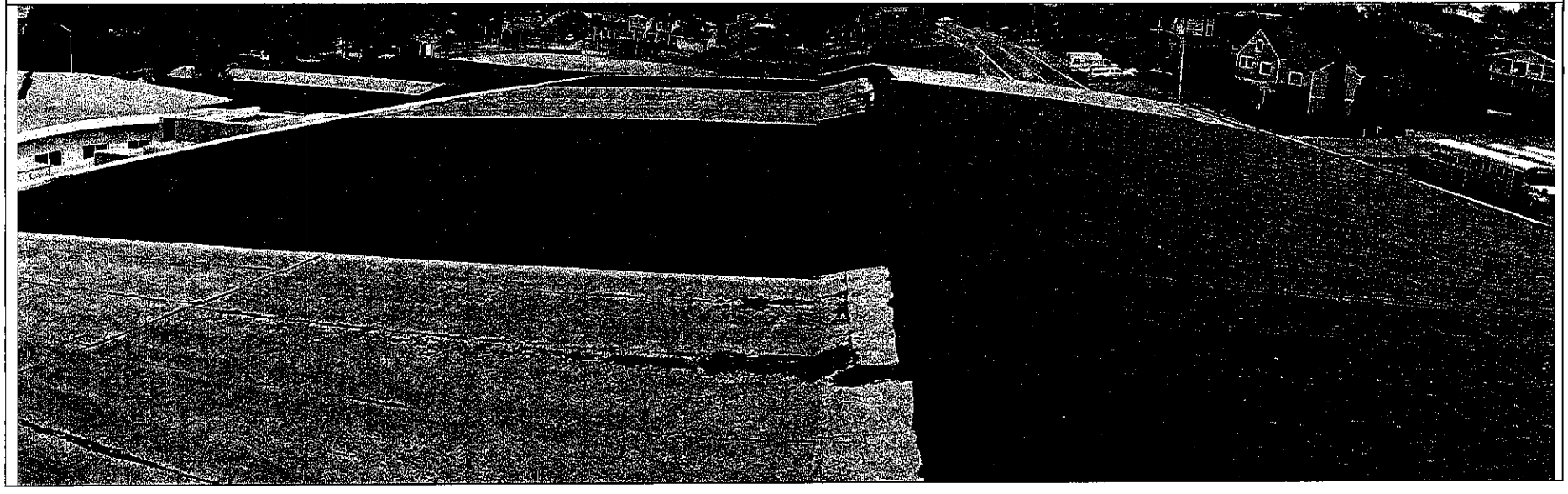
Coating repairs at northeast corner adjacent rising gym wall. Repairs are directly above interior leak location.

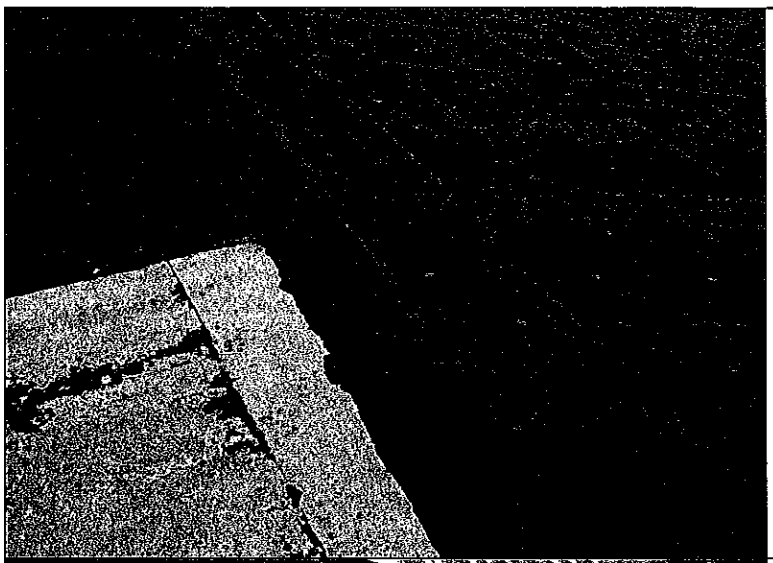
Photograph 16:

South Wing, east roof, north slope.

Hole in membrane and various repairs adjacent northeast drain scupper.

Photograph 17: Pan photo of the upper gym roof looking north.

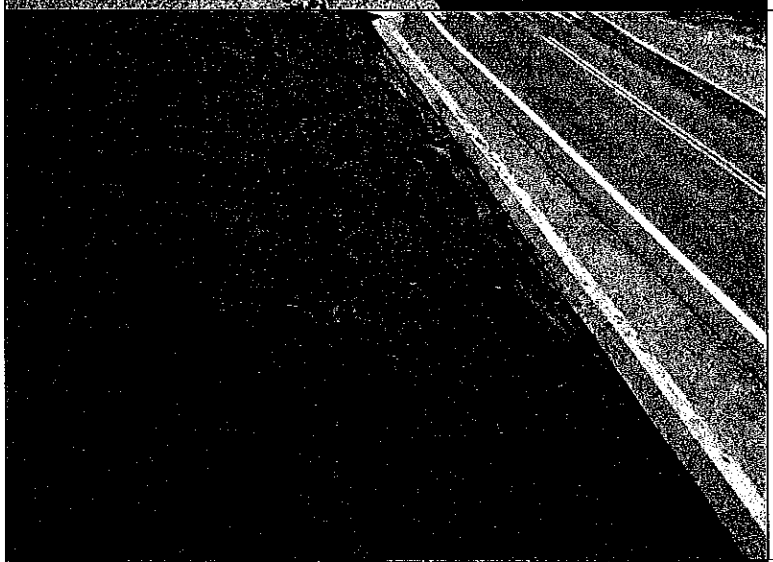




Photograph 18:

Upper Gym Roof.

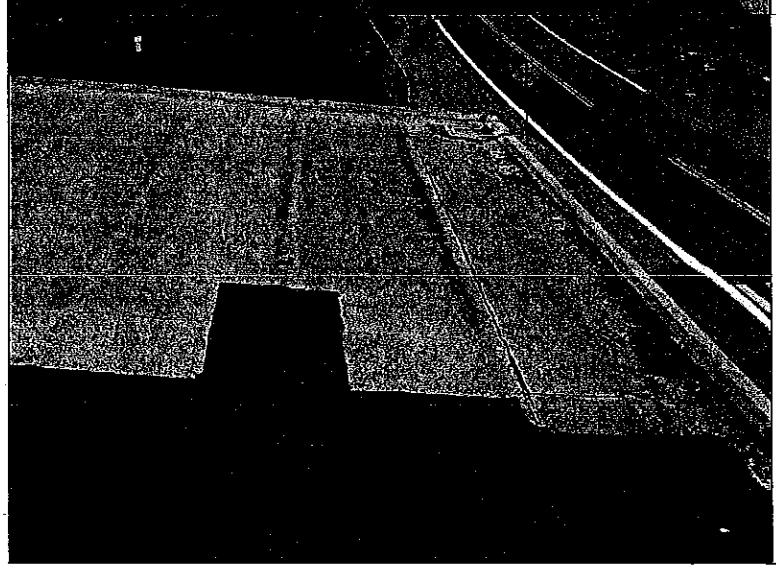
Ridgeline showing smooth surfaced torch applied membrane overlay termination at ridge.



Photograph 19:

Upper Gym Roof,
east slope.

Looking north along east gutter line.



Photograph 20:

Upper Gym Roof, east slope.

Looking north along east slope showing mole runs and buckling in granular cap sheet beyond torch applied overlay.

Photograph 21:

Upper Gym Roof, west slope.

Low profile shingle vent with mastic repairs around perimeter.

Photograph 22:

Upper Gym Roof, west slope.

Looking south along west gutter line. Note extensive accumulation of granules in gutter.

Photograph 23:

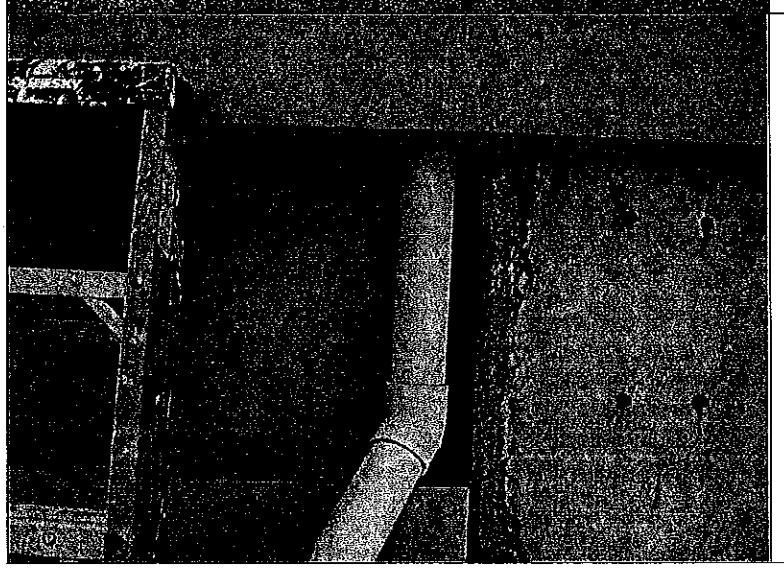
Upper Gym Roof, west slope.

Repairs at drain scupper along west slope gutter. Note peeling mastic repair.

Photograph 24:

Upper Gym Roof, west slope.

Drain scupper in southwest corner of west slope. Note extensive repairs at and above drain scupper. Drain scupper is directly above interior leak location.

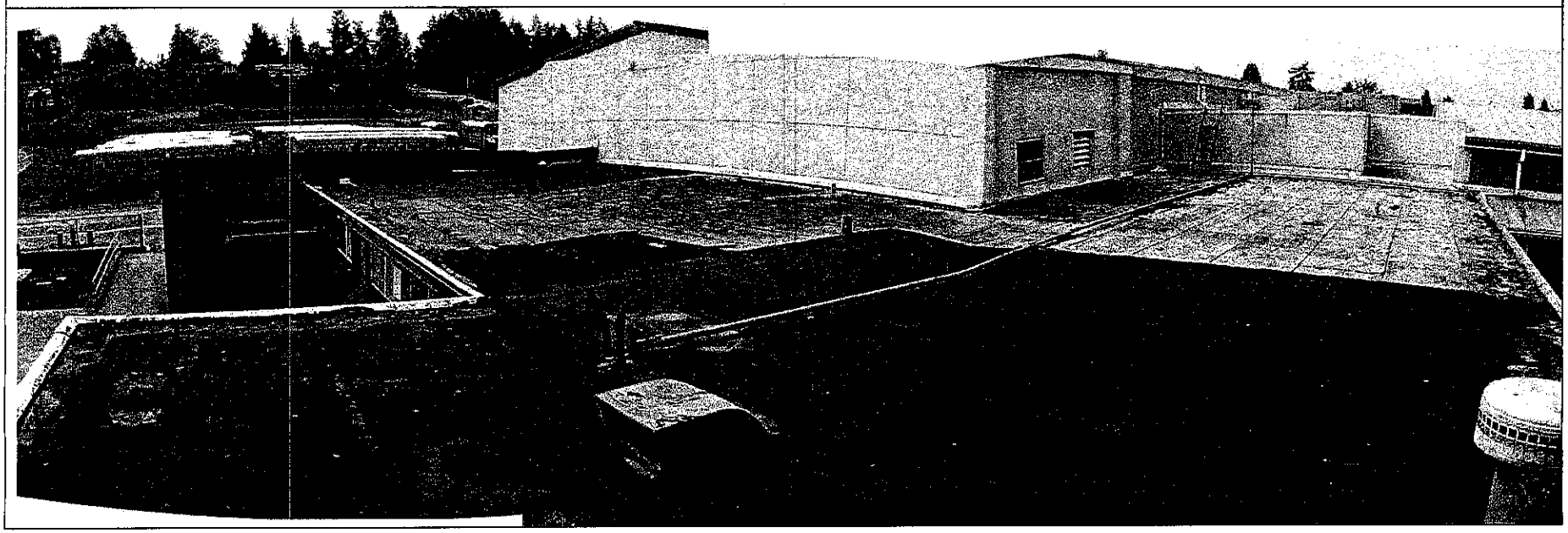


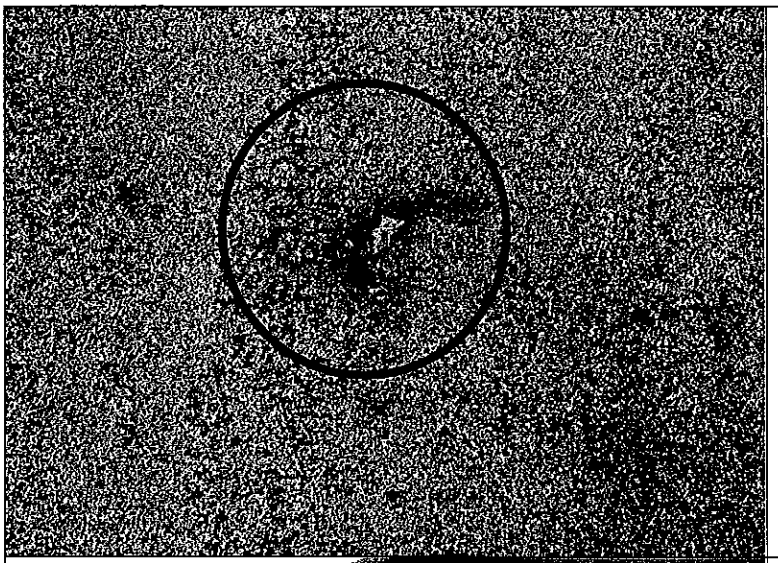
Photograph 25:

Upper Gym Roof, west slope.

Water stains on west wall directly below southwest drain scupper.

Photograph 26: Pan Photo of Lower North Locker Room Roofs.

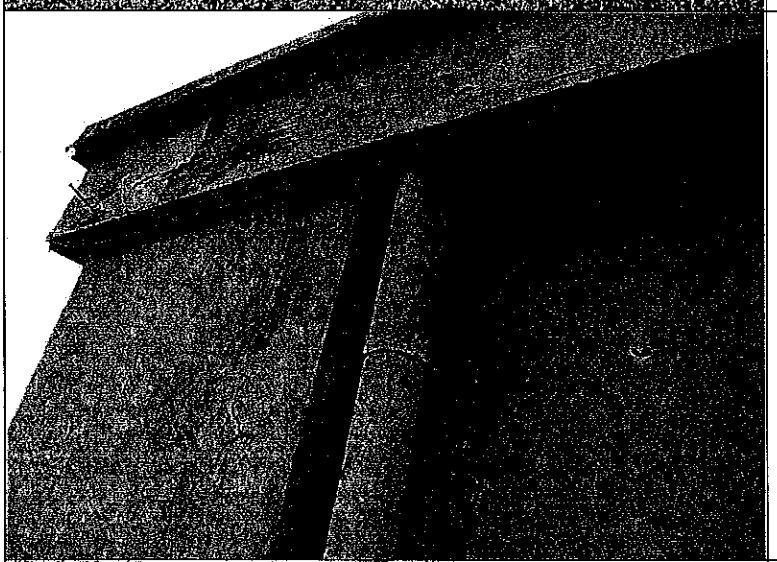




Photograph 27:

Lower North Locker Room Roofs.

Hole through surface of granular cap sheet.



Photograph 28:

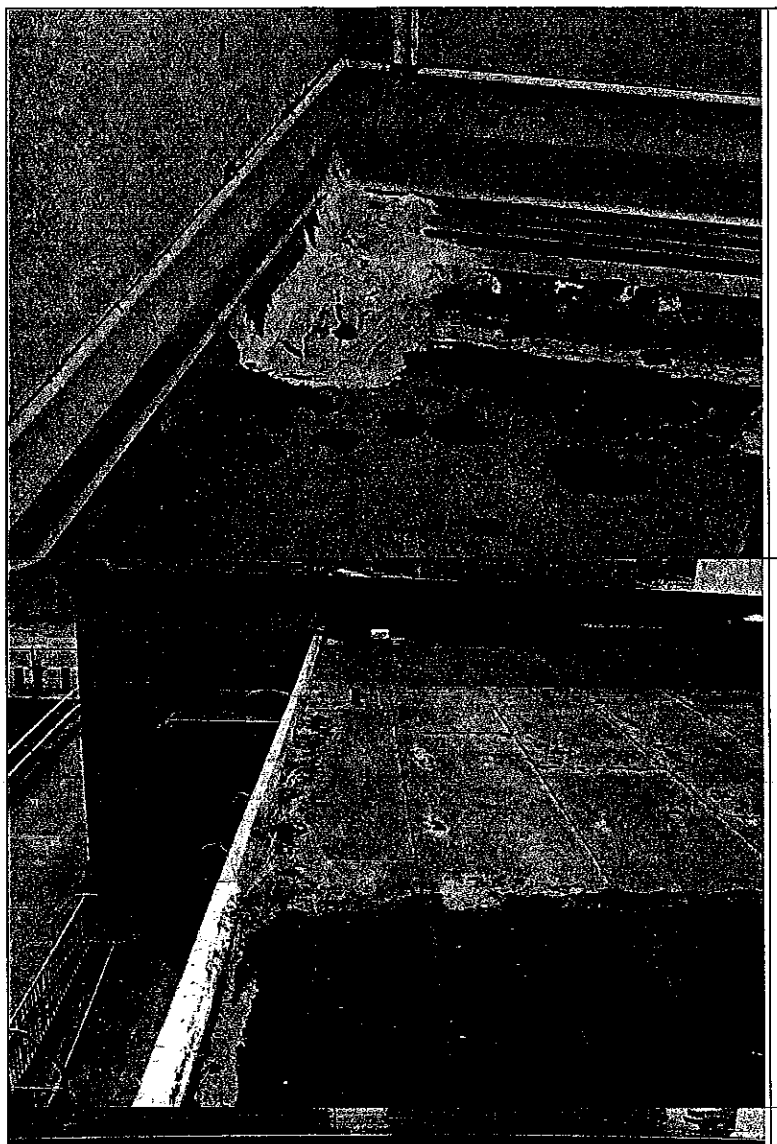
Lower North Locker Room Roofs.

Looking up at northwest corner of gym. Note water stains from leaks at northwest scupper on gym roof.

Photograph 29:

Lower North Locker Room Roofs.

Bird nest around base of downspout from upper gym roof.



Photograph 30:

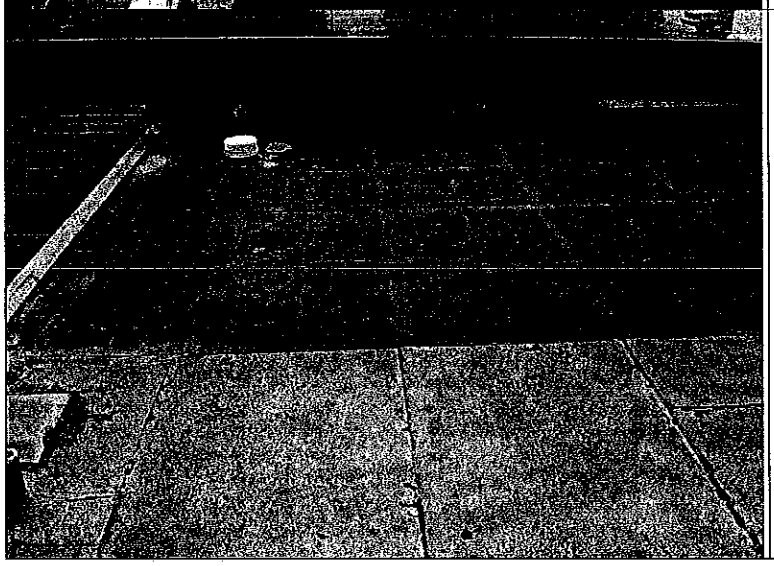
Lower North Locker Room Roofs.

Extensive repairs at expansion joint termination to west wall of gym.

Photograph 31:

Lower North Locker Room Roofs.

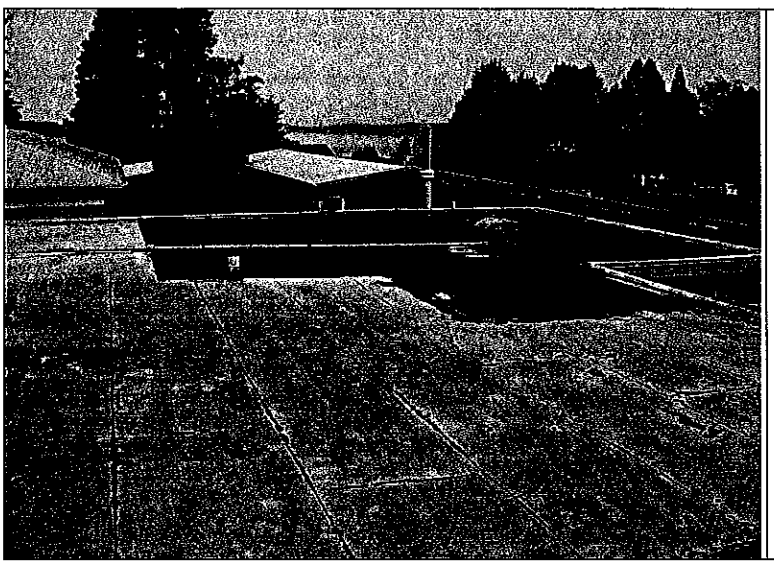
North perimeter edge/gutter. Note extensive vegetative growth.



Photograph 32:

Lower North Locker Room Roofs.

Looking east along north perimeter edge showing smooth surface torch applied overlay.

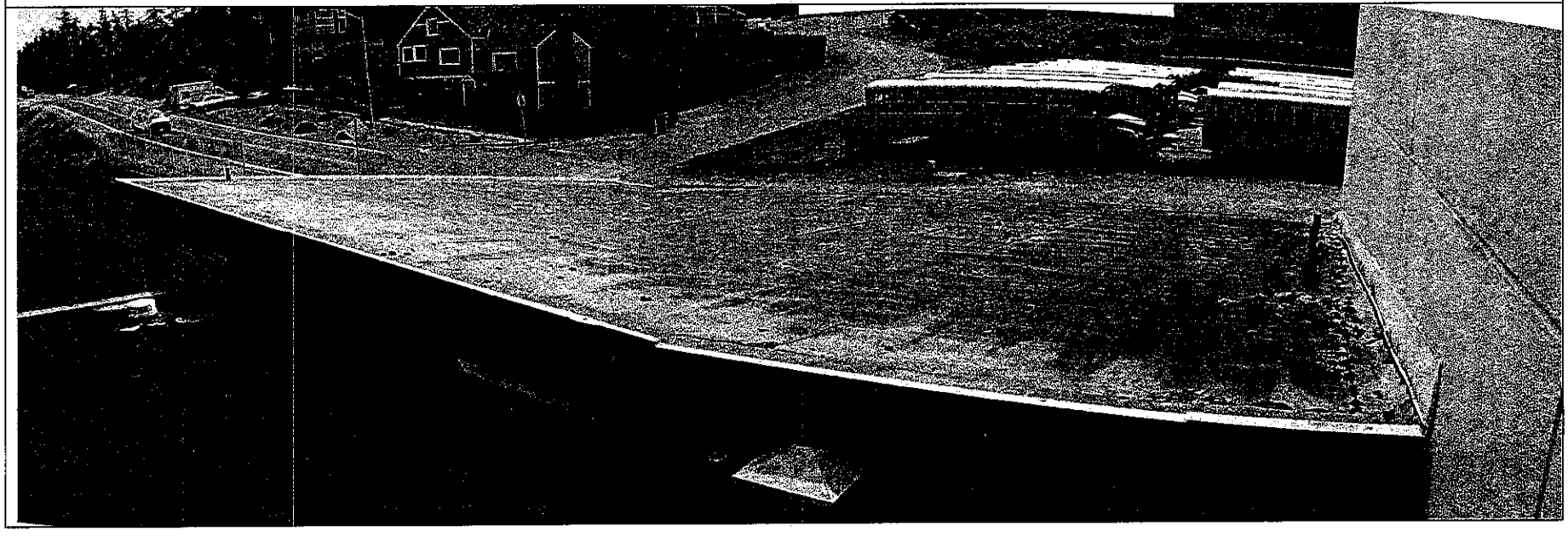


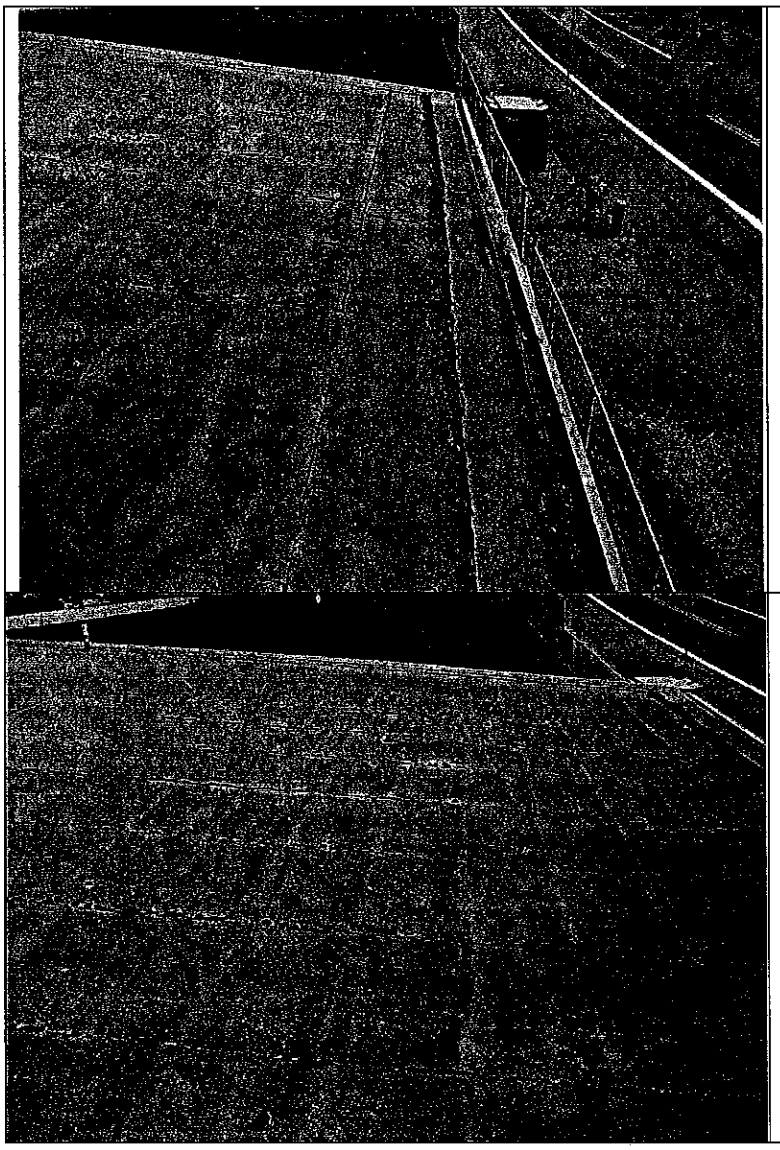
Photograph 33:

Lower North Locker Room Roofs.

Looking west at smooth surfaced torch applied overlay in northwest corner.

Photograph 34: Pan photo of eastern most shed roof area.





Photograph 35:

East Shed Roof.

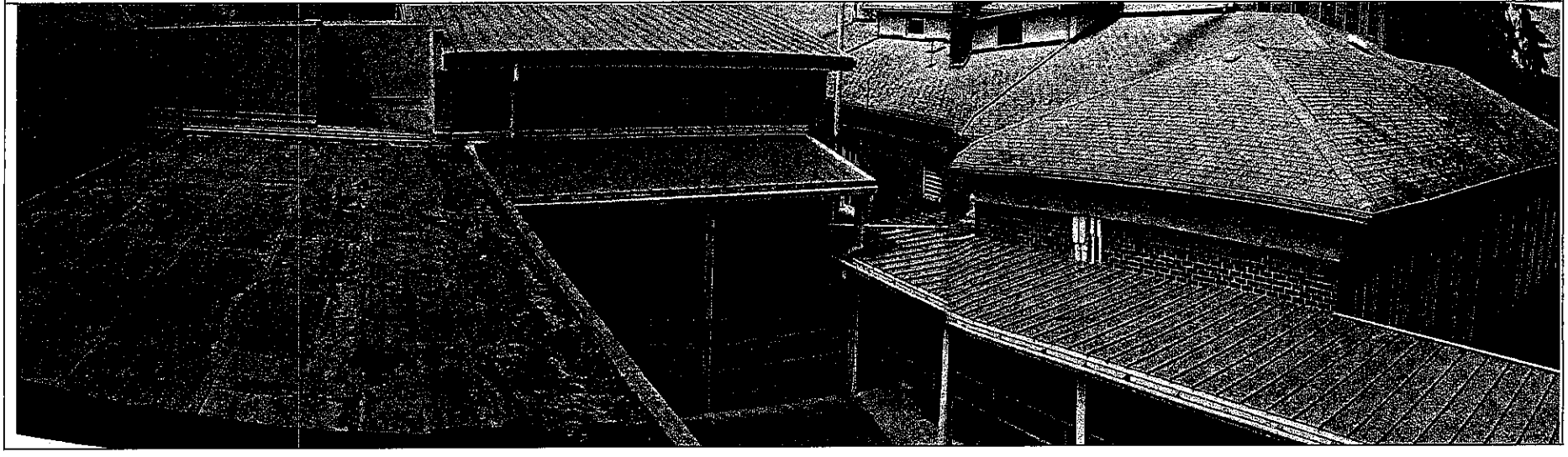
Looking north along east gutter line.

Photograph 36:

East Shed Roof.

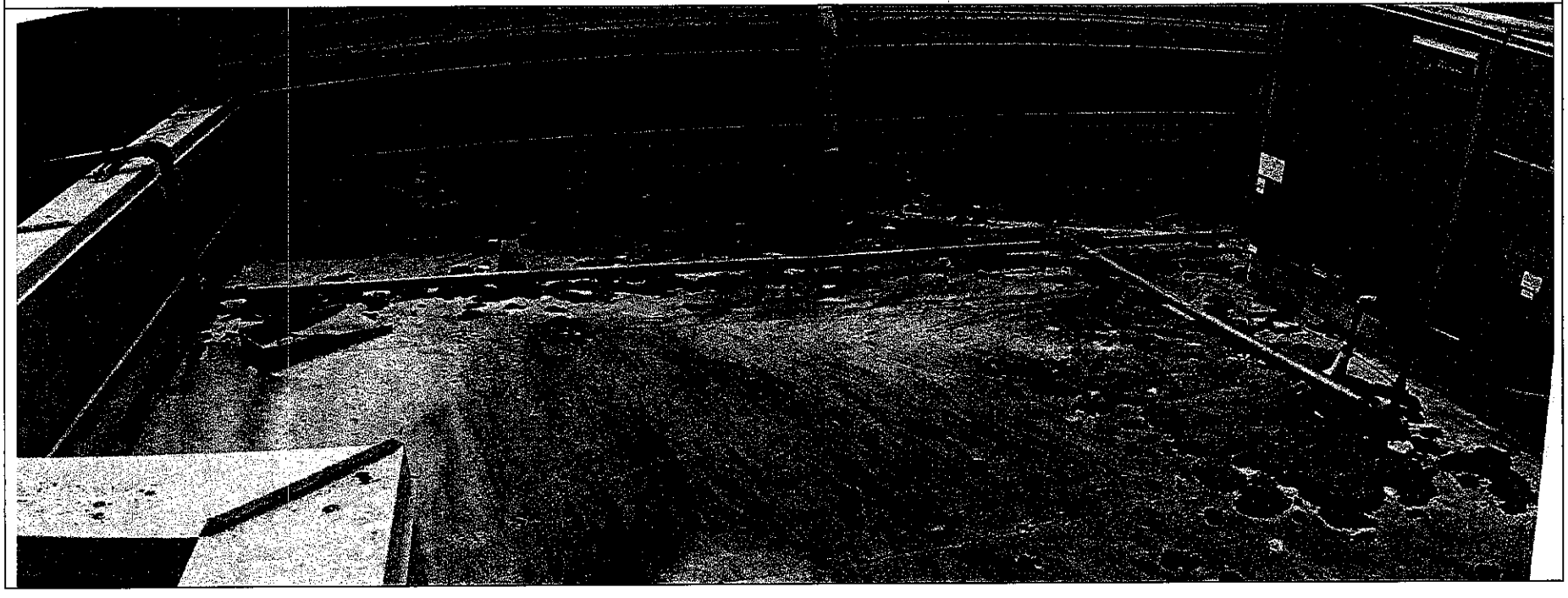
Note extensive buckling and mole runs in roof membrane.

Photograph 37: Pan photo of newer central building additions taken from north elevation.

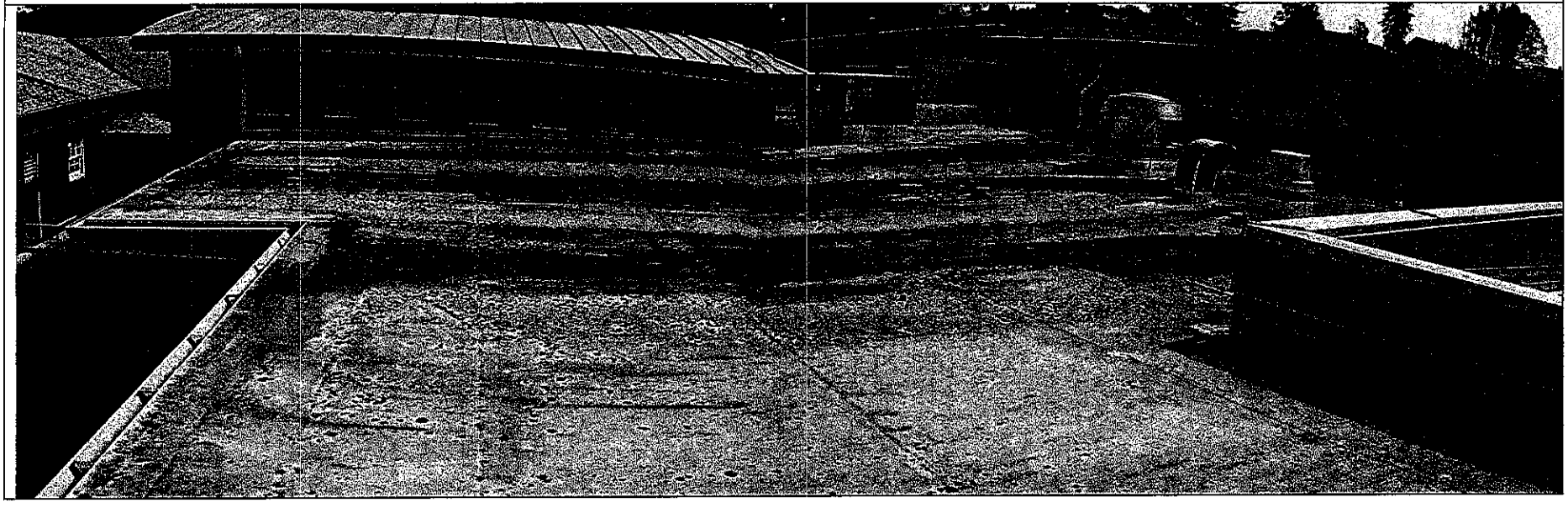


Photograph 38: Pan photo of the north end of the Central Roof area.

Note extensive moss growth on membrane.



Photograph 39: Pan photo of the south half of the Central Roof area.



Photograph 40: Old School Building. Panoramic photo of the east elevation

Photograph 41: Old School Building

East Elevation, upper roof missing shingles

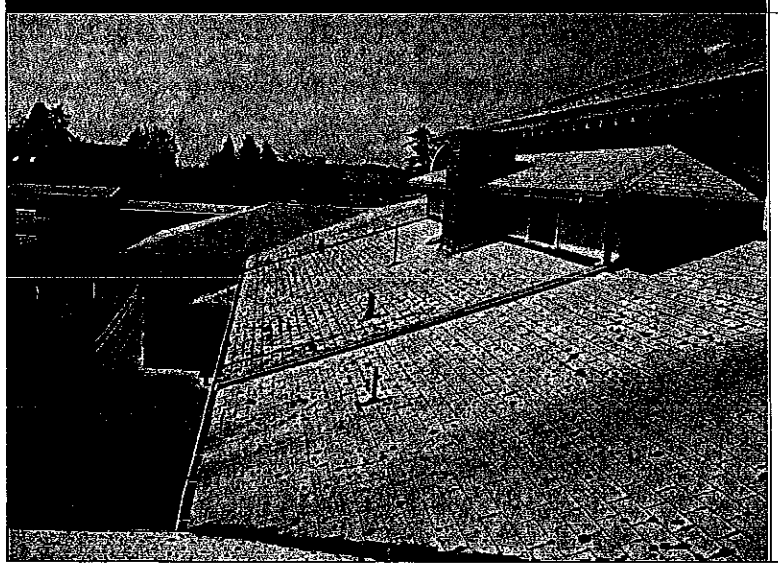
Photograph 42: Old School Building

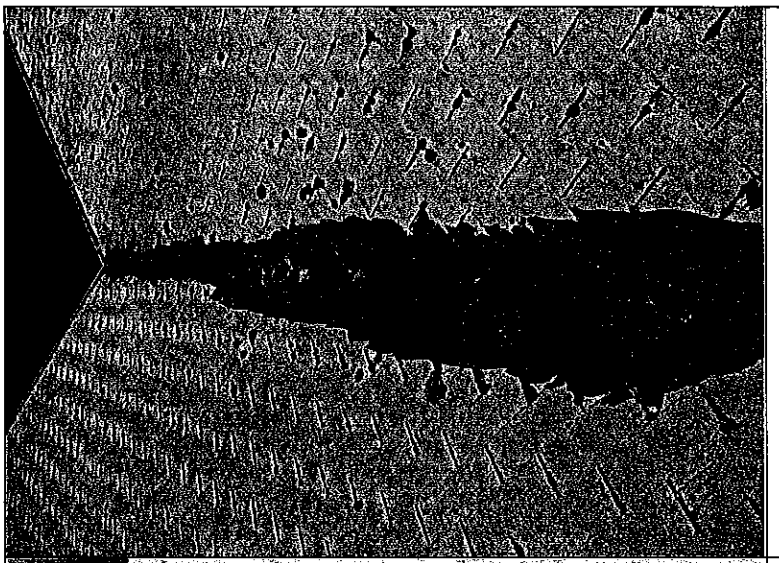
Lower north end of roof that slopes back to the side of the rising wall

Extensive algae growth and moss to a smooth surface torch grade membrane adhered directly to the stucco wall

Photograph 43: Old School Building

Close up of the torch grade membrane to the stucco wall

	Photograph 44: Old School Building Looking east along the lower north slope showing extensive algae growth and moss on shingles. Gutters filled with moss, shingle debris and vegetation
	Photograph 45: Old School Building Looking up at the north slope of the upper roof. Note extensive moss growth on shingles and in metal gutters.
	Photograph 46: Old School Building Looking south along east slope



Photograph 47: Old School Building

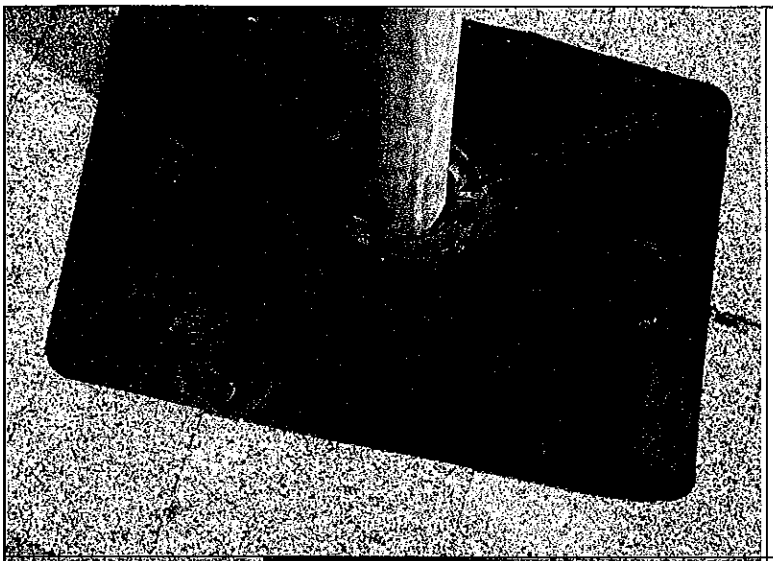
Looking down the valley on east slope north end where mastic or cold applied application has occurred, it is a cut valley with no metal, appears to be a leak location.

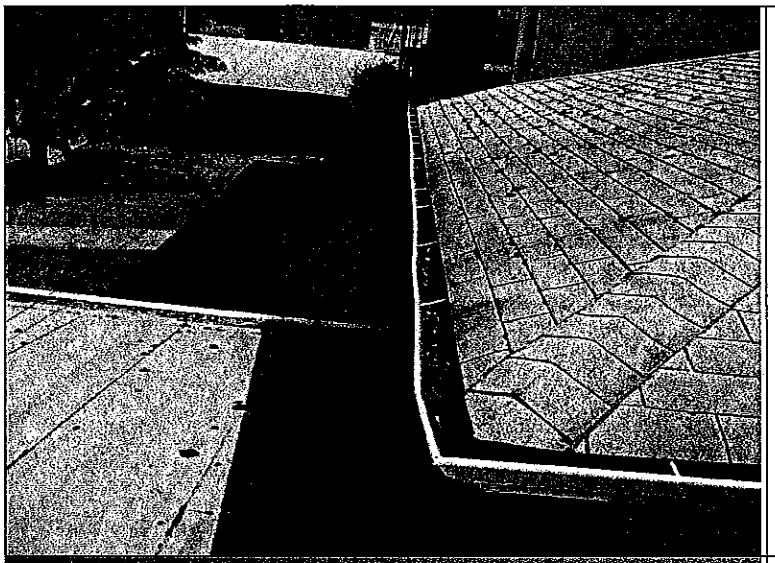
Photograph 48: Old School Building

Close up of a smooth surface torch grade membrane at the up slope edge of the east slope roof used as an up slope roof to wall counter flashing torch grade sealed directly to the stucco wall assembly

Photograph 49: Old School Building

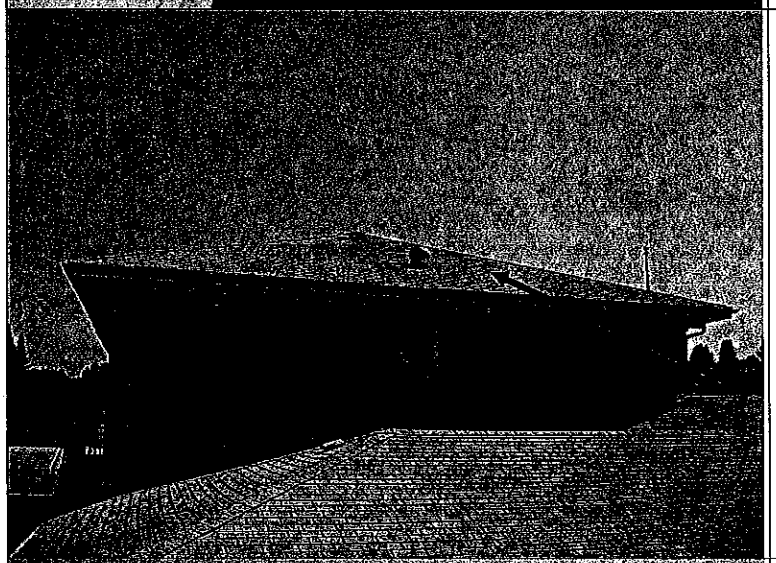
Close up of the torch grade membrane to up slope back end at edge of chimney that penetrates the eyebrow roof on south elevation

	Photograph 50: Old School Building Close up of rubber pipe boot penetration not secured or sealed around steel pipe penetrating roof
	Photograph 51: Old School Building Close up of rubber boot around 4 inch cast pipe. Split on sides, open to water intrusion
	Photograph 52: Old School Building At the southwest corner of the upper roof showing a disconnect between gutter drop and down spout



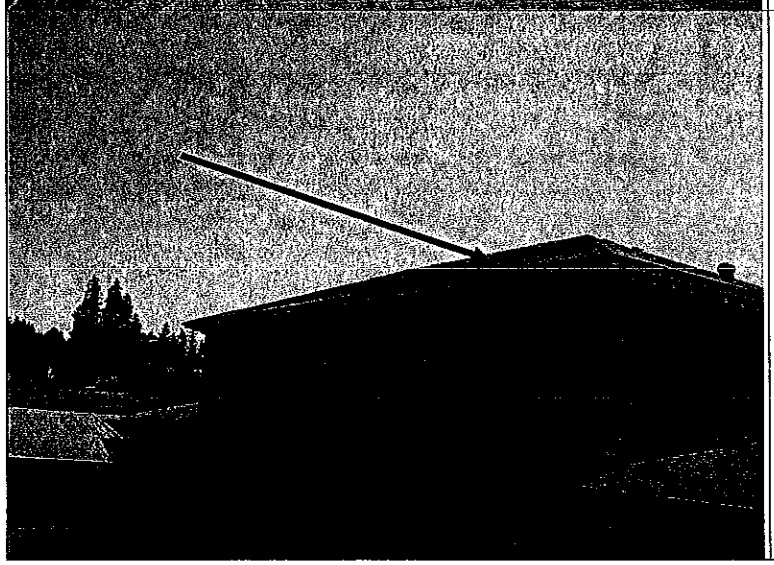
Photograph 53: Old School Building

Looking north at the lower east slope of the south end of the old school showing gutter filled with granules and debris. Spike and ferrules loose and gutter completely plugged



Photograph 54: Old School Building

Looking up at the south slope of the upper roof at the old school extensive shingle tab loss throughout field of south slope



Photograph 55: Old School Building

Looking up at the west slope of the upper roof old school extensive algae growth, gutters full of organic growth and moss, shingle loss throughout field