

High School Priority Budgetary Estimates

Client: Barrington Public School		Project Name: RIDE Stage 1						
Project Manager: Sean Schmigle		Project #:	21023					
Site: N High School		School Size:	177,600 sf		Year Built:	1950		
		PRIORITY TOTAL						
Item	System	1	2	3	4	5	Total	% of Total
1	Site			3	4		\$ 445,000.00	1.20%
1	Cleaning Roof Drains			Capital Renewal	Lump	2	\$ 44,400.00	1.01%
2	Installing new downspouts			Capital Renewal	24	2	\$ 25,200.00	0.57%
3	Replacement of damaged low-sloping modified Bitumen roof(s) (School)			Capital Renewal	91,475 SF	1	\$ 3,293,100.00	74.85%
4	Replacement of damaged low-sloping modified Bitumen roof(s) (Press Box)			Capital Renewal	4,500 SF	2	\$ 162,000.00	3.68%
5	Field storage buildings roof repair / replacement			Capital Renewal	2,500 SF	2	\$ 875,000.00	19.89%
1	In several locations throughout the building, water-stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration			Capital Renewal	Lump	2	\$ -	0.00%
6	In the main gymnasium, the basketball hoop support framing is connected to the roof trusses between panel point and is not reinforced at these locations. It is recommended that the existing structural drawings be reviewed and/or the metal truss manufacturer be contacted to verify that the trusses were designed to support the basketball hoop framing as it has been built.			Capital Renewal	Lump	2	\$ 10,000.00	0.25%
12	In the north-eastern courtyard, both roofs above the doors appear to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, and the framing be re-finished with an appropriate coating system and that the panels be replaced.			Capital Renewal	Lump	2	\$ 25,000.00	0.62%
27	At the north side entrance to the cafeteria, the roof framing is rusted, the panels are deteriorated and the brick wall to the west has several cracks and is slightly displaced. Due to the extent of deterioration, and its location at an entrance/exit, it is recommended that this area be rebuilt or repaired at once. See the next page for a photo of the other side of the brick wall			Capital Renewal	Lump	2	\$ 50,000.00	1.25%
28	The canopy roof framing along the west face of the kitchen area appears to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, perform any repairs to the framing, and then re-finish the framing with an appropriate coating system and the panels be replaced			Capital Renewal	Lump	2	\$ 25,000.00	0.62%

(-\$1,243,200)
Covered in Roof
Replacement

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30	The flat portion of roof at the south west area of the building has ponding water. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstructions. The framing supporting the ductwork is showing signs of rust and should be inspected for deterioration. There are pieces of sheet metal on the roof which should be removed before they can be moved by wind and possibly cause damage to property or injure personnel. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork.			Capital Renewal	Lump	2	\$ -	0.00%	
31	The curved dormer on the south face, east end has become un-seamed and a portion of the flashing has buckled. These deficiencies may allow water and air to infiltrate the building envelope and possibly cause damage to the structure and interior architectural finishes. It is recommended that these repairs be performed by a contractor that specializes in metal roofing systems.			Capital Renewal	Lump	2	\$ 75,000.00	1.87%	
32	At the north east courtyard's south east corner, vegetation is growing along the edge of the flashing and vertical cracks in the brick are visible. It is recommended that the vegetation be removed as it can create openings in the building envelope which may allow water and air infiltration that could cause damage to the structure and/or interior finishes. It is recommended that cracks in the bricks be repaired for the same reasons. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas			Capital Renewal	Lump	2	\$ 12,000.00	0.30%	
33	The tarp which has been wrapped over a roof top unit (RTU) on the east side roof appears to have reached the end of its useable life. It is recommended that the tarp be removed and replaced. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork			Capital Renewal	Lump	2	\$ 1,000.00	0.02%	
34	At various locations, roof drains appear to be partially obstructed. Obstructed roof drains can cause water ponding which can cause the roof structure to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. It is recommended that the roof drains be cleaned on a regular basis. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas			Capital Renewal	Lump	2	\$ 15,000.00	0.37%	
36	The flat portion of roof at the north east area of the building has ponding water around a piece of equipment and adjacent to a roof edge drain. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstruction			Capital Renewal	Lump	2	\$ -	0.00%	

(-\$939,682)
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37	At various locations the roofing material is detaching (bubbling) from the substrate and the joint materials are cracked and appear brittle. The deficiencies do appear to currently pose a structural hazard at this time. However, if the conditions continue to deteriorate, water and air may infiltrate the building envelope and cause damage to the structure or interior finishes. It is recommended that the roofing and joint materials be inspected and repaired by a roofing contractor specializing in these roofing systems. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas			Capital Renewal	Lump	2	\$ 5,000.00	0.12%	
38	At various locations on the roof, the wood supporting equipment has deteriorated and/or is no longer connected to the roof below. Insufficient support of the equipment could allow it to displace during strong winds. It is recommended that new pressure-treated equipment support framing be installed. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork			Capital Renewal	Lump	2	\$ 35,000.00	0.87%	
39	The ballasted roofs along the southern side of the building appears to have reached the end of its service life. The ballast is no longer adhering to the membrane and is falling onto adjacent roofs and into gutters. It is recommended that the ballasted roofs be removed and replaced.			Capital Renewal	Lump	2	\$ -	0.00%	
40	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.			Capital Renewal	Lump	2	\$ 15,000.00	0.37%	
1	The existing boilers appear to be original to the building, with exception of the Weil Mclain, and are past their useful life expectancy. Four new gas fired condensing boilers (95% Efficient) with all new accessories should be installed.			Capital Renewal	Lump	2	\$ 35,000.00	2.17%	
2	The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.			Capital Renewal	Lump	2	\$ 45,000.00	2.80%	
3	A new air handling unit serving the Cafeteria should be provided. We recommend the system provide dehumidified displacement air similar to the classrooms as described above.			Capital Renewal	Lump	2	\$ 85,000.00	5.28%	
4	Air handling units that provide ventilation air to corridors, offices, etc should be replaced and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to each respective space.			Capital Renewal	Lump	2	\$ 90,000.00	5.59%	

(-\$660,317)
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5	Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.				Capital Renewal	Lump	2	\$ 105,000.00	6.52%	
7	Upgrade / replace air handling units that provide ventilation air and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal units				Capital Renewal	Lump	1	\$ 1,250,000.00	77.64%	
2	New addressable fire alarm system to be provided with voice evacuation.				Capital Renewal	Lump	1	\$ 250,000.00	16.67%	
4	Upgrading / relocating of electrical systems.				Capital Renewal	Lump	1	\$ 650,000.00	43.33%	
5	Diesel Generator Replacement w/ Transfer switch upgrades				Capital Renewal	Lump	1	\$ 500,000.00	33.33%	
1	Install new NFPA-13 Fire Suppression System				Code Compliance	177,600 SF	1	\$ 150,000.00	100%	
7	Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.				Technology	Lump	2	\$ 48,000.00	0.75%	
8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.				Technology	Lump	2	\$ 36,000.00	0.56%	
9	Replace all public address/master clock associated cabling.				Technology	Lump	2	\$ 75,000.00	1.16%	
10	Install public address strobes to notify students and staff of an announcement in high volume areas, including, but not limited to: Gymnasiums, Cafeteria, Shop Classrooms, Music/Choral Classrooms				Technology	Lump	2	\$ 66,000.00	1.03%	
11	Install exterior horns around the building for full coverage of the exterior, including the fields				Technology	Lump	2	\$ 75,000.00	1.16%	
12	Install a phone to public address interface so that any phone in the building can access the public address system.				Technology	Lump	2	\$ 60,000.00	0.93%	
13	Replace the Public Address Phone handsets with newer models				Technology	Lump	2	\$ 36,000.00	0.56%	
14	Replace the Simplex Wired Master Clock with a modern, wireless Master Clock.				Technology	Lump	2	\$ 45,000.00	0.70%	
15	Replace all hardwired clocks in all spaces with Wireless clocks.				Technology	Lump	2	\$ 73,000.00	1.13%	
16	Install a card reader and an intercom door release at the main entrance. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.				Technology	Lump	2	\$ 25,500.00	0.40%	
17	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTs, IP, Cellular). Consider adding door position switches on all exterior doors.				Technology	Lump	2	\$ 28,500.00	0.44%	

Added Capital Renewal
Added Capital Renewal

Public Address/Master Clock

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18	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.				Technology	Lump	2	\$ 42,000.00		0.65%
19	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a “Single Pane of Glass” to manage all cameras throughout the district.				Technology	Lump	2	\$ 150,000.00		2.33%
20	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary				Technology	Lump	2	\$ 45,000.00		0.70%
21	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.				Technology	Lump	2	\$ 90,000.00		1.40%
22	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.				Technology	Lump	2	\$ 75,000.00		1.16%
23	Consider replacing the lockdown button for a larger button with clear text noting “Lockdown”. Consider installing multiple buttons throughout the administration and reception area.				Technology	Lump	2	\$ 38,000.00		0.59%
24	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders				Technology	Lump	2	\$ 120,000.00		1.86%
25	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.				Technology	Lump	2	\$ 95,000.00		1.48%
26	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.				Technology	Lump	2	\$ 65,000.00		1.01%

Physical Electronic Security

Total: \$9,115,700.00