SD8 Budget Application
On Behalf of Technology Teachers and Programs

Preamble: This budget application is the result of collaboration amongst the Technology Education Teachers across School District #8 and represents the fifth step in a six year equipment replacement program. We have met a number of times over some years, inventoried equipment across the district, identified needs for replacement, prioritized those needs and engaged in a comprehensive, multi-year initiative to address the needs. The details of that program are available upon request but not included here as those details, while relevant, do not fit within the format of this application process which asks for a rational to justify the budget request as opposed to the particulars of the request. The important point for the Budget Committee to be aware of as they consider this application is that it is not a one time request but fits into a multi-year program already underway.

1 Alignment with Student Expectations:

- SE1 - Academic Success: Although not strictly academic, students working in Technology Education programs are certainly lead to think, plan and problem solve; sometimes in very sophisticated and challenging ways.
- SE2 - Creativity and Imagination: Technology programs are a natural venue for the development of creativity and imagination as students conceive, design and develop projects in a variety of materials and pointedly in design challenge opportunities.
- SE3 - Citizenship: Technology programs provide opportunities for teaching and consideration of social issues such as resource consumption, waste management, moral decision making around technological issues and responsible use of technology.
- SE4 - Resiliency: There is no better or more natural means of teaching resiliency than the experience of cutting a piece for a project and discovering that it doesn't fit. The lesson is obvious, non-judgemental and demands a response which clearly provides the lesson in resilience.

Alignment with Board Goals:

- DG1 – Transparency in Fiscal Accountabilities: All spending in this budget item is coordinated at the district level.
- DG2 – Relationship Building with Staff and Unions: Over the past few years this budget program has provided a valuable tie between Technology teachers across the district.
- DG3 – Increased Engagement with Communities and Constituents: Many Technology programs in our schools build or coordinate on projects for people and organizations in their communities outside the school.
- DG4 – Enhanced Marketing of Program Opportunities for Students: The obvious program opportunity that this budget initiative serves is any ACE IT or Trades training program.
- DG5 – Alignment of Programs and Facilities to Better Meet Student Needs: This is the precise goal of this budget application – an initiative to align facilities (shop equipment) across the district to better meet student needs, save money (through bulk purchasing) and simplify maintenance through acquisition of similar equipment in the different schools.

- DG6 – Enhance Support for Successful Transition to Kindergarten: N/A
- DG7 – Provision of More Program Choices throughout the District: The preservation, support and enhancement of "trades" courses as an elective option for students fully and clearly addresses this goal.
- DG8 – Advocate for Transportation That Supports Student Learning: N/A
- DG9 – Increase Effort to collaborate with and Engage Individuals and Organizations: Again, Technology Education projects in schools often reach out into the community to find partners or to fulfill needs of the community. For example: the ACE IT Carpenter course at PCSS that constructs a house every year.

2 Impact on Students

This budget application has a clear and direct impact on students. In most district middle and high schools *all* students are given an exposure to trades courses at the junior high level and *many* students continue in those programs throughout their high-school careers. Further, these programs address the needs of students who are, to a degree, marginalized in a society and an institution that leans its priorities towards intellectual and academic pursuits.

3 Achievement Contract Gaps

The District Achievement Contract address a range of issues but has a strong focus on the academic achievement of our students and little mention of the arts, sports or the trades. (This is an example of the unwitting marginalization identified in the paragraph above.) There are, however, three "gaps" that Technology courses do address. The first is that of social/emotional issues; some students who struggle with academics find success in hands-on classes. Success builds competence, confidence and self-esteem which are the foundations of social and emotional health. Secondly, success in shop settings (or art, or drama, or sports) provides a lure for some students to keep them in school thereby addressing the issue of non-completers which is also identified as a gap in the Achievement Contract. Thirdly, that same lure or hook can be the thing that connects some students to their school, providing a place where they feel valued and recognized.

It is critical to maintain these non-academic settings as vibrant programs within our schools to address the needs and interests of our many students who are not intellects and academics.

4 SD8 Support Person:

This budget request is the next phase of an ongoing initiative that has been unfolding over the past four years. The planning and coordination of this equipment replacement program has preceded with the knowledge, participation and oversight of the District Director of Operations and safety officer, Mr. L. Brown.

5 Alignment with Global Education Trends:

The modern world in increasingly technological and there is a current and growing demand for skilled trades-people. B.C. has a resource based economy and resource extraction industries depend on a skilled workforce. Recognition of trades training as a valuable investment is on the rise.

6 Need Versus Wish:

Technology Education programs *must* have equipment to function. Do they need new equipment – no. Is the existing equipment in many of the shops around the District at the end of its lifecycle – yes. Much of it is well used and worn out. Parts are missing or broken, bearings are loose, accuracy impacted, student safety compromised. Further, there have been improvements in equipment design since many of the existing machines were bought twenty, thirty or fifty years ago. It is possible for programs to limp along with existing equipment but vibrant, effective and safe programs are far past due re-equipping.

7 Measure of Project Success:

It is hard to define an objective measure of success for this proposal. Its economic impact, expected savings, cut across budgets since the purchases through this program take place at the district level through bulk purchasing but it is hard to know what the same equipment would have cost if bought school by school as in the past. Maintenance costs on new equipment should be lower – who knows by how much. There is a direct and immediate benefit to students as the new machines are quieter, smoother, safer, easier to use and more reliable; but how does one measure this element of success?

Probably, the best way to measure the success of this project would be to ask the Technology Education teachers if their programs have benefited by the new equipment. As one of those teachers I can assure you that mine certainly have. I suspect that every teacher working in a shop would emphatically say the same thing.

8 Lifecycle Analysis:

This proposal is the fifth phase of a six year equipment replacement program. It is expected that the need for funding will diminish after the completion of the program. The program has been a great asset to Technology Education facilities and courses across the district. It should be recognized that equipment will continue to wear out and therefore anticipated that similar replacement of major equipment items will be valuable in another ten or twelve years.

9 Budget:

For each of the past four years the budget for this equipment replacement program has been in the neighbourhood of $80,000. The request for this budget is approximately $82,0000. An itemized list of the equipment to be purchased with this year's allocation is attached.

10 Alignment with Local Education Trends:

Below, in italics, are educational goals identified by the District, and, following them in plain text, comments as to how this budget request addresses each particular goal.

Maintain student learning at the forefront or resource allocation. As observed in item #6, students can't learn practical skills without equipment to train on. Therefore, the provision of such resources is clearly and directly applicable to providing learning opportunities for students.
To ensure students are active leaders of their own learning. In Technology Education courses projects are the vehicle by which skills are learned and students frequently have a lot of freedom and input into the selection and design of their projects. Hereby they become active leaders in their own learning.
Development of skills and competencies as curriculum. The development of skills and competencies is the raison d'etre of Technology Education classes. They unequivocally address this District goal.
Solve complex world issues and challenges. Technology students are constantly solving challenges and in some shop courses, notably design type programs, the focus is on realizing and addressing social and global issues through "Technology Learning Activities". Examples would be designing and building solar vehicles or identifying problems faced by handicapped people and seeking to design a solution to that problem.

11 One Time Savings versus Annual On-Going Savings:

It is hoped that this equipment replacement program will provide the District with both one time savings – to be realized through reduced pricing due to bulk purchasing – and annual ongoing savings – to be realized lower maintenance costs on the new equipment and standardization of maintenance needs by virtue of having the same equipment in schools across the District.

12 Student Support:

This application is not accompanied by any formal record of student support. However, it is noted that it would be hard to imagine any student taking classes in the workshops across our district, and many more besides, who wouldn't support the application.

13 Alignment with Provincial Curriculum:

The equipment to be purchased under this program goes into facilities that are teaching Provincially prescribed curriculum including courses in Automotive, Woods, Metals, Design and Construction. It also supports ACE IT programs in Welding, Millwright, Machinist, Automotive Service Technician, Carpenter, Heavy Duty mechanic, Steam Fitter/Pipe Fitter, Metal Fabrication and Electrician.

School District #8 Kootenay Lake
Construction Foundation of BC Grant Application 2014

Shop	Item	Make & Model	No.	Item Cost	Total Cost (inc. taxes & shipping)	Notes
Auto	Parts Washer	BIOMATIC 436R-A	3	$ 1,250.00	$ 3,750.00	
	6 Hp motors Briggs & S	Hortizontal cranks	48	$ 325.00	$ 15,600.00	
					$ -	
					$ -	
					$ -	
				TOTAL	**$ 19,350.00**	
Metal	Cutting Torch assem.	UNWCA730	8	$ 1,000.00	$ 8,000.00	
	Milling machine	857II	1	$ 18,500.00	$ 18,500.00	
	Slip Roll Former	King BB-S2420	3	$ 2,000.00	$ 6,000.00	
					$ -	
					$ -	
				TOTAL	**$ 32,500.00**	
Wood	Table Saw	SAW-ICS53230	6	$ 5,000.00	$ 30,000.00	
					$ -	
				TOTAL	**$ 30,000.00**	
				TOTAL GRANT REQUEST	**$ 81,850.00**	