



*Livingstone Range*  
SCHOOL DIVISION NO. 68

# ***From School to Work: Career and Technology Studies Plan***

## ***2009-2012***

*Approved by the Board December 8, 2009*



## **From School to Work Career and Technology Studies Plan 2009-2012**

### **Introduction**

In the 2009-2012 Livingstone Range School Division Three Year Education Plan the Board of Trustees are committed to, “improving student access to a broader range of high school programs”. In addition, Alberta Education is currently revising the CTS program to offer relevant learning opportunities to inspire students’ interests and passions with connections to business, industry and post-secondary. The multi-faceted CTS Initiative includes development of the revised curriculum and resources (print, digital, on-line courses). To support the implementation of the revised program, government has committed \$36 million over the 2008/2009, 2009/2010 and 2010/2011 school years for the evergreening and enhancement of CTS equipment.

In order to address the needs of both our school communities and Alberta Education the following plan was established.

### **Current Context**

The Livingstone Range School Division is located in the south west corner of the province. It serves approximately 4000 students, 1000 of which are in our six high schools. Our jurisdiction is currently experiencing an annual decline in enrollment of 3% over the last 10 years. This decline has made it increasingly difficult to continue to offer CTS programs resulting in the loss of 3 construction teachers, 1 construction and fabrication lab, a complete erosion in equipment, facilities, and program offerings and, as a result, a continued decline in the number of CEUs earned by students. This decline in CEUs negatively impacts school budget lines resulting in staffing and programming cuts making it increasingly difficult for small rural high schools to respond effectively to the programming needs of students using traditional delivery methods and outdated facilities. Our jurisdiction has functioned under a site based decision-making model since the mid 1990s; as a result, there has been no jurisdictionally coordinated plan with accompanying budget. It has become clear from our safety and equipment audit that this lack of planning and budgeting has resulted in a major decline in many of our CTS labs and equipment. It is clear that a jurisdictional approach must be taken.

## **Planning Framework**

In order for the planning process to be carried out in a systematic manner, a clear process needed to be put in place and articulated to the stakeholders. The planning process has 3 distinct phases: Visioning, Environmental Scan, and Action Planning.

### **Phase 1: Visioning**

To initiate this process we invited students, parents, teachers and high school administrators to attend a presentation in Lethbridge on Education in the New Digital Age on October 4, 2007. The focus of the presentation was how schools need to change to prepare students for the future.

Two week later, on October 16, 2007 an invitation was extended once again to stakeholders to attend a Livingstone Range School Division sponsored panel discussion entitled, "The Future and CTS". Representatives from Lethbridge College, Careers the Next Generation, Alberta Education, Elk Island and Palliser School Divisions provided an overview of the future directions in CTS, career opportunities, technologies and delivery methods. The evening allowed the 50 participants to envision what CTS could/should look like in Livingstone Range. This was the first step in our comprehensive planning. It clearly demonstrated the need for our jurisdiction to move forward in this area.

### **Vision**

Provide pedagogically sound high school programs for students that are:

- Responsive and flexible to their needs
- Engaging
- Reflective of the 21<sup>st</sup> century learner
- Responsive to the learning needs of all students
- Sustainable

### **High School Programming Guiding Principles**

1. School and communities will work collaboratively to provide the best quality educational opportunities for students.
2. All six high schools will work collaboratively to deliver educational programs to high school students.
3. Equitable access to programming opportunities for all students within their community.
4. Program delivery will be flexible and responsive to student need.

5. Decisions about High School programming will consider sustainability of:

- a) Equipment
- b) Staff
- c) Students
- d) Facilities
- e) Transportation

### **Phase 2: Environmental Scan**

This phase took place during the 2007-2008 school year using data from both 2006-2007 and 2007-2008. As part of the scan the following data and information was gathered:

- CTS Courses currently offered 2006-2007
- CEUs earned at Introductory Level, Intermediate Level, Advanced Level 2006-2007
- CTS Teacher Assignments 2007-2008
- Inventory of current CTS equipment (not computers) 2007-2008
- Community Needs – Focus Groups 2007-2008
- Student Needs – Focus Groups 2007-2008
- Student Interest Inventory 2007-2008
- Parent Interest Inventory 2007-2008
- Equipment/Facility Safety Audit 2007-2008
- Current Research Context
- Industry/Workforce Context

## Summary of Environmental Scan

### **Programming**

- The top six strands for CTS based on % of Credit Enrollment Units (CEU) are:
  - Foods at 19%
  - Career Transitions at 18%
  - Mechanics at 12%
  - Information Processing at 11%
  - Construction Technologies at 10%
  - Fabrication at 9%
- Poor enrollment in intermediate and advanced Construction and Fabrication strands
- A continued high school drop out rate as high as 25% in one school indicates the need to try to find ways to engage students in their learning through increased program options and meaningful learning opportunities. Not only will students find engagement within their CTS course work but they will see the relevance in their core subject studies
- Stakeholders are demanding that CTS areas are maintained and improved. Jurisdictional parent survey data makes this very clear with regards to student readiness for the world of work. Currently on 72% of parents believe high school programming options are adequate compared to 78% for the province
- The need for skilled trades and entry level skills into the trades continues to be in high demand in this area of the province
- In the 2006-2007 school year, no students earned credits in Logistics or Electro-Technologies. If we hope to develop the Construction and Transportation Pathway this will have to be addressed
- Increasing rural capacity in CTS skills will increase the opportunities for students to remain within their home community with full employment

### **Equipment**

- Equipment is in various states of disrepair and in several situations teachers are rigging equipment in order to have it available for student use.
- Much of the equipment is so old that even though it can be repaired, parts are not available.
- F.P.Walsh, Willow Creek Composite High School and J.T.Foster have major facility and equipment concerns. These schools were all built prior to 1969 and are still using most of the large stationary equipment that was purchased when those labs were first built.
- The audit revealed the lack of appropriate equipment needed to support advanced modules

## **Facilities**

- F.P.Walsh, Willow Creek Composite High School and J.T.Foster have major facility concerns. These schools were all built prior to 1969 and have not received modernization dollars.
- Facilities will need to be designed to provide:
  - Flexible spaces for mobile equipment
  - Spaces that support integrated and interdisciplinary instruction
  - Spaces that can be shared
  - Spaces that the public can access (Designing Ahead of the Trend, G. Massengale, 2008)

## **Phase 3: Building the Plan and Proposal**

- Working Session: November 2, 2007 at Divisional Day
- Working Session: November 23, 2007 on Jurisdictional Visitation Day
- Establishing a Planning Team
- Setting the Vision
- Looking at the Data
- Establishing Priorities
- Establishing Outcomes
- Writing the Plan

## Action Plan

Programming				
Desired Outcome	Measure	Baseline	Strategies	Targets
1. All high schools students have the opportunity to participate in CTS programs that meet their future needs	Student and parent satisfaction	Gr. 10 Ab. Ed. Student Survey Oct 2008 Learn About Computers 68% Variety of Courses Available 51% Ab. Ed. Gr. 10 Parent Survey Oct. 2008 Learn About Computers 75% Variety of Courses 56%	<ul style="list-style-type: none"> <li>• Create dirty shop facilities that are multi-purpose that will allow for flexibility and responsiveness</li> <li>• Partner with community businesses to provide program support</li> <li>• Hire off-campus teachers that can facilitate the aforementioned partnerships</li> </ul>	
2. Schools have clearly articulated CTS pathways and programs in their schools that reflect the current program of studies	# CTS Plans Reflecting Pathways	0	<ul style="list-style-type: none"> <li>• Innovative Project money to encourage schools to develop specialized and credentialed pathways</li> </ul>	100% of Schools
3. Increase the breadth of CTS courses offered in the Construction and Transportation Cluster	Number of CEUs earned jurisdictionally in Construction, Fabrication, Mechanics, Logistics and Electro-Technologies	Construction: 519 Fabrication: 487 Mechanics: 625 Logistics: 0 Electro-Technologies: 0	<ul style="list-style-type: none"> <li>• Modernize dirty shops</li> <li>• Centralized equipment purchases and evergreening budgets</li> <li>• Establish clear pathways</li> <li>• Purchase the necessary equipment</li> </ul>	5% increase
4. Provide opportunities for a greater diversity of students accessing CTS courses	Number of CEUs earned jurisdictionally in Construction, Fabrication, Mechanics # of new course offerings @ schools	Construction: 519 Fabrication: 487 Mechanics: 625	<ul style="list-style-type: none"> <li>• Provide innovative grant money to schools to enhance CTS Course offerings</li> </ul>	5% increase

Programming				
Desired Outcome	Measure	Baseline	Strategies	Targets
5. Increase the enrollment in the intermediate and advanced level courses	Number of CEUs earned at the intermediate and advanced levels	Construction (I):175 Construction (A):38 Fabrication (I):163 Fabrication (A):59 Mechanics (I): 172 Mechanics (A):80	<ul style="list-style-type: none"> <li>Provide innovative grant money to schools to enhance CTS Course offerings</li> </ul>	5% Increase
6. Increase the number of CEUs earned through RAP	# of CEUs earned by students through RAP	80 CEUs were earned in 2006-2007	<ul style="list-style-type: none"> <li>Provide a full time Off-campus teacher to find placements and offer student support</li> </ul>	10% increase per year
7. School will have CTS Plans in place that will provide for enhanced CTS Programming or evergreening of current equipment	CTS Plan in Place	0 as of September 2008	<ul style="list-style-type: none"> <li>Schools will be provided CTS funding upon completion and submission of their plans</li> </ul>	100% of all high schools have CTS Plans in place

Staffing				
Desired Outcome	Measure	Baseline	Strategies	Targets
1. Qualified staff in every school to meet CTS Programming needs	# of staff trained # of incentive programs in place	.5 Sabbatical	<ul style="list-style-type: none"> <li>Work with the university and the college to brain storm ways to train staff to meet school needs</li> <li>Create bursaries to encourage students to get the CTS training required in mechanics, fabrication and construction tech.</li> <li>Provide professional leaves and sabbaticals to LRSD staff</li> </ul>	3 newly trained teachers in fabrication, mechanics and construction tech.

<b>Facilities</b>				
<b>Desired Outcome</b>	<b>Measure</b>	<b>Baseline</b>	<b>Strategies</b>	<b>Targets</b>
1. All high schools students have the opportunity to work in facilities that address their programming needs.	Teacher Satisfaction Survey	TBD	<ul style="list-style-type: none"> <li>• Create dirty shop facilities that are multi-purpose that will allow for flexibility and responsiveness</li> <li>• Partner with community businesses to provide facilities</li> </ul>	
2. Facility Master Programs are in place for Commercial Kitchens, fabrication, construction and mechanics technologies.	# of Master Programs in place	No Master Programs are currently in place	<ul style="list-style-type: none"> <li>• In collaboration with schools, teachers, Central Office, Lethbridge College and Architects develop master programs for dirty shops, and commercial kitchen. These master programs will be included in the jurisdiction Facilities Plan</li> </ul>	Master Programs are in place for cooking, fabrication, construction and mechanic labs by June 2010.
3. CTS Space Allocation Guidelines are in place.	Guidelines	No guidelines are currently in place	<ul style="list-style-type: none"> <li>• In collaboration with Alberta Education, facility personnel, and schools guidelines for space allocation will be put in place for dirty shop areas and commercial kitchens</li> </ul>	Completion by December 2009
4. The Livingstone Range School Division School Facility Restructuring Plan reflects the long term needs of CTS Programming	LRSD School Facility Restructuring Plan	The facilities restructuring plan does not currently reflect CTS programming needs	<ul style="list-style-type: none"> <li>• In collaboration with the Board of Trustees, Alberta Education, LRSD Business and Education Services modifications will be made to the plan</li> </ul>	Completion by September 2010

<b>Equipment</b>				
<b>Desired Outcome</b>	<b>Measure</b>	<b>Baseline</b>	<b>Strategies</b>	<b>Targets</b>
1. Meet or exceed applicable industry equipment and tool standards in the Construction and Fabrication:	Equipment Audit	80% of current equipment does not meet current industry and/or safety standards	<ul style="list-style-type: none"> <li>• Establish evergreening budgets and school budget allocations to address equipment needs.</li> <li>• Equipment for cooking, fabrication, mechanics and construction labs are the responsibility of the jurisdiction. Equipment for all other CTS programs are the responsibility of the schools</li> </ul>	80% of equipment meets the standard
2. Develop innovative strategies for providing CTS equipment and tools	Number of schools offering courses in the Construction and Transportation Cluster	Four out of six high schools	<ul style="list-style-type: none"> <li>• Develop multi-purpose shops that can handle fabrication, construction and mechanics</li> <li>• Provide mobile equipment that can be moved from one school to another</li> <li>• Allow qualified teachers move from school to school with equipment</li> </ul>	All high schools
3. Equipment in CTS labs is safe and meets occupation health and safety standards	Equipment Lab Audit	80% of current equipment does not meet current industry and/or safety standards	<ul style="list-style-type: none"> <li>• Purchase STOP Saws for all construction labs</li> <li>• Schools implement equipment and tool inspection systems to ensure damaged items are removed from service</li> <li>• WHMIS training for students and staff</li> <li>• Provide school budget allocations to address health and safety issues</li> </ul>	100% of equipment meets safety standards
4. CTS Programs uses equipment that reflects industry standard	Equipment Audit	80% of current equipment does not meet current industry and/or safety standards	<ul style="list-style-type: none"> <li>• Provide funding to schools so that current CTS equipment can be evergreened.</li> </ul>	80% of equipment meet industry standard

<b>Funding</b>				
<b>Desired Outcome</b>	<b>Measure</b>	<b>Baseline</b>	<b>Strategies</b>	<b>Targets</b>
1. The funding framework for ongoing evergreening funds is established	Funding Framework in place	None	<ul style="list-style-type: none"> <li>Establish a long term CTS operational reserve budget</li> </ul>	June 2010
2. A funding framework for program enhancement is established	Funding Framework in place	None	<ul style="list-style-type: none"> <li>In collaboration with high school administrators establish an innovative funding framework.</li> </ul>	September 2009