A PHOENIX RISES

At Southern Okanagan Secondary School's Frank Venables Theatre

By Michael Raine

February 6, 2014 was a momentous day for the cultural community in Oliver, BC, a picturesque town of fewer than 5,000 people on the south end of the Okanagan Valley. It was the grand opening of the brand new Frank Venables Theatre, which was a focal point of the extensive renovations and reconstruction at South Okanagan Secondary School. In both a figurative and literal sense, it was a moment of a phoenix rising from the ashes.

At the heart of the visual and audio components of the theatre design was Robert Hamilton, principal and senior theatre consultant at Vancouver-based DWD Theatre Design + Consulting. For Hamilton and his team, what began has a renovation of a heritage building became a completely different project in September 2011.

The original plan for Southern Okanagan Secondary School was for half of the school to be rebuilt and the other half, including the 600-seat theatre built in 1947, to be renovated in order to maintain its heritage features. The rebuild was to be completed in time for the beginning of the 2011/12 school year. Sadly, shortly after the start of the school year, a fire broke out in the old section of the school. Thanks to a firewall between the new and old sections of the building, the newly constructed portion was left with just minor damages, but the theatre in the heritage portion of the building was reduced to rubble.

Though the community mourned the loss of the historic theatre, the fire provided the opportunity to build a new, state-of-art venue that would serve as an enviable education platform for the school and a cultural hub for the Town of Oliver. And that opportunity wasn't wasted, as the Frank Venables Theatre is one of the finest high school and small community theatres in the province, and likely the country.

"It had to be pretty much on the same footprint and same location and be roughly the same number of square feet as the old one, so there was that limitation, but other than that there wasn't much in the way of criteria. So I sat with the architect and we sketched a new theatre that I think is better than the old one," says Hamilton of the blank canvas he was suddenly handed. "We ended up with a 400-seat fixed proscenium theatre, that is, it is not a flexible theatre. Because of its location, the architect put an extra beautiful lobby on it. It is a double-height lobby with all glass and a curved, magnificent, *Gone With The Wind*-style staircase."

Hamilton is quick to dispel the misconception that high school and community theatres are in any way lesser projects than professional theatres. "In certain ways they have to be bigger and better. One of the reasons they have to be bigger is you usually have more people on stage. If you have a jazz band with a choir or something, you might have two, three, or four hundred people onstage. One of my favourite questions to ask people who work in theatre is, 'What is the most people you've had onstage and backstage all at once?' The number they give me is usually astronomical. High school and community theatres need a big stage because they do shows with pretty much everyone and their dog onstage; I'm not kidding," Hamilton says with a laugh.

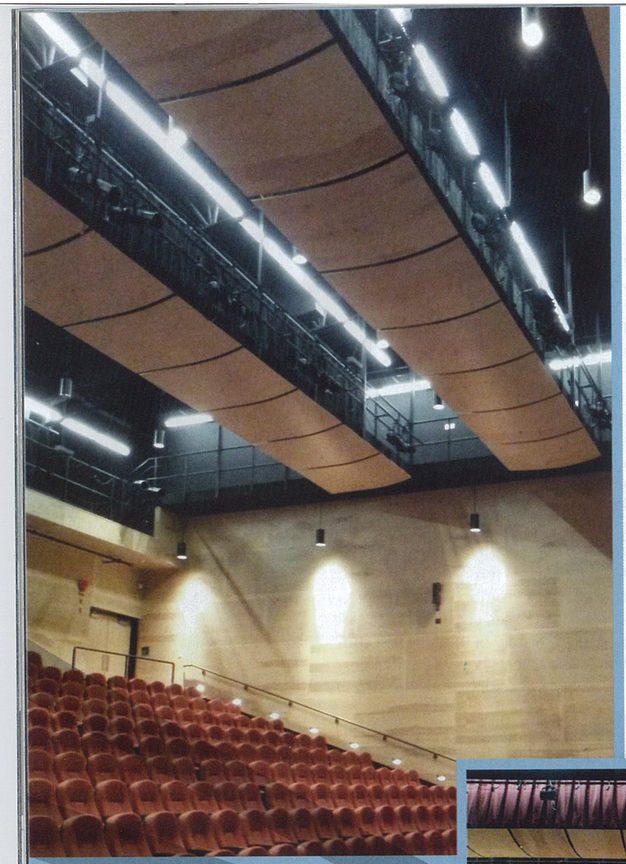
While working with the architects on the design of the building, in addition to designing the lighting, video, audio, staging, drapery, and rigging components, Hamilton had a number of variables to keep in mind. "The old theatre lasted about 60 years. The new one, because it's going to have sprinklers in it, will last at least twice that. That is, what you're building is a building that is going to last more than 100 years, so you have to have some vision when you're thinking about a commitment like that," he says.

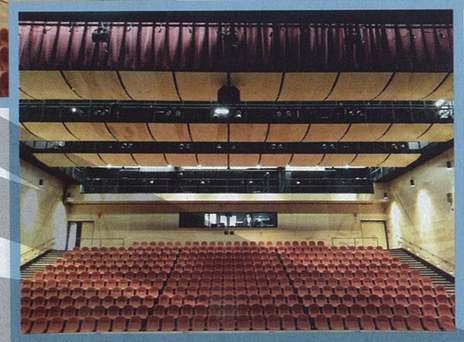
Because it is an educational and community theatre and also the only theatre for about 45 minutes in any direction, it has to be multi-purpose. Additionally, Hamilton was working with what he describes as a "medium budget," so cost considerations were a significant part of the project. Adding to that, the Frank Venables Theatre is an all-LED theatre, which, of course, comes with some added cost considerations.

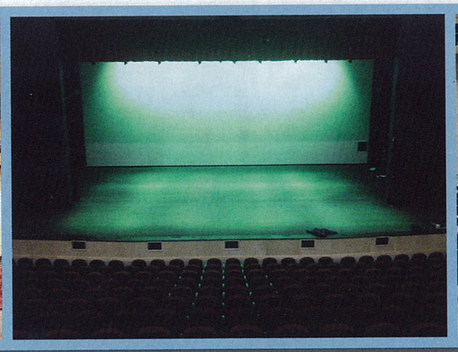
"The big question these days in stage lighting in whether to go with the new technology, which is mostly LED, or to stick with the older technology for various reasons, or to do a mixture," says Hamilton. "If we're heading towards all-LED very soon, a mixture can be a really dubious thing because you can spend a lot of money to have the ability to do both, and then five years from now, you might think, 'What a waste that money was.' So newer theatres, not just this one but theatres around the world – this year, next year, last year – there are theatres being done that are all LED. Since that is the way the wind is blowing, we made this all LED."

But while it is an all-LED kit, the infrastructure supporting the lighting, that being the circuits that feed the lights, is made up of ETC ThruPower dimmer modules that can switch from a dimmer for conventional fixtures to straight power for LED fixtures. For convenience – which is a key concern in a community or educational theatre such as this that has no dedicated technical staff – the switch between dimmer and straight power can be made remotely from the ETC Ion console in the booth.

"We left a kit of all LED, but I know that lately they have mixed it up with other kinds of lights. Maybe some of their old lights were brought in and that's fine because we made the place set to go for that," says Hamilton before adding a warning about combining LED and conventional fixtures. "You may cause yourself an unanticipated problem because one of the challenges with LED lighting is colour. The spectrum of colour you get from it is slightly different than what you get from an incandescent lamp. Our human eyes are used to the incandescent lamps and when you see something different, the first thing you think is 'That's wrong,' whereas the eye is very forgiving and it adjusts to whatever lighting conditions you're seeing. If you have a situation with all LED lighting and no incandescent, in about five or 10 minutes your eye would just think that's normal. It's only when you start mixing it up, putting some incandescent ones in among the LED ones, that I think you're going to see complications. We'll see how it goes in the history of this building and also we'll see over many years how the audiences' eyes react to different kinds of light sources.







But I foresee that the LED will not be much of a problem and they will have many advantages."

With the help of Christie Lites' Vancouver sales rep, David Neal, Hamilton opted for a mostly ETC set up. As he explains, there are about 140 ETC lights in the theatre, which are broken up into three categories. The first category is cyclorama lighting, which is provided by ETC's Selador Vivid R LED fixture. The Vivid R was nothing new for DWD as Hamilton has used them for cyc lighting in past. "Ten years ago we used to use it to light cycs in casino theatres because they were the only people who could afford them," recalls Hamilton, noting that he also used the Vivid R for cyc lighting at a high school theatre in Fort McMurray, AB about three years ago, which had an unusually large budget provided by an oil company sponsor. "But the price now has come down to where, with a little bit of juggling, we can make the LEDs happen for an ordinary high school theatre project."

Sticking with the notion that the theatre be multi-purpose and flexible, Hamilton opted for the same Vivid R fixtures for backlighting. "The reason for that is so that our back lights and our cyc lights are interchangeable. If you've got a show without a cyc, you can steal all those lights and use them for other things or vice versa. If you want to have a ground row at the bottom of your cyc, you can steal all of your backlights and make a ground row out of it."

The trick of using the same LED fixture for cyc and backlighting was one Hamilton used at the aforementioned high school theatre in Fort McMurray, which he describes as a two-thirds LED theatre. The difference in the intervening years was the release of ETC's Source 4 LED ellipsoidal, which was used in this project for front lighting. Just a few years ago, according to Hamilton, LED ellipsoidals simply weren't good enough to replace the tungsten fixtures for front lighting, regardless of budget. The Source 4 LED was the final piece of the puzzle that allowed the Frank Venables Theatre to be DWD's first all-LED theatre project.

With the roughly 140 ETC LED fixtures, plus four Martin Mac 350 Entour LEDs for moving lights, the budget split for this project was weighted more heavily towards lighting than Hamilton generally sees in a theatre project. Because it is an all-LED system, about half of the equipment budget was spent on lighting compared to about a third in a typical, non-all-LED theatre. For example, he explains, the Vivid Rs run at about $1,100 each whereas the conventional backlight fixture would be around $500. This cost differential, though, was no concern to Hamilton because the convenience the LEDs offer makes them the ideal option for a high school theatre.

"The $500 one, you have to change the lamp once a year and you have to change the gels in it and they cost money and there's time and effort that go into those tasks. The LED, you never change gels, you never change lamps, and you can do a quarter million colours, whereas the other one does one colour at a time. You can put a scroller on a Fresnel, and that is what people have been doing for the last 20 years or so, but a scroller compared to a quarter million colours instantly, it's just not quite as *Jetsons*," Hamilton says with a laugh, referencing the classic '60s-era futuristic cartoon.

That said, combine the approximately 140 ETC LEDs, the Thru-Power dimmer modules, and the four Mac 350s (which Christie's David Neal says "were just perfect to give enough bling and fun in this particular project"), and as Hamilton says, "No matter how you slice it, it starts to add up to more money."

As is common in a high school theatre, the Frank Venables Theatre is outfitted with a video presentation system. A laptop or other video source can be plugged into the onstage lectern or in the booth and is projected through a Barco RLM-W12 HD projector. The unusual aspect of the set-up is that there is no dropdown video screen. Instead, the back wall of the stage is painted white to act as both a projection surface and a cyc. While there are projection screen paints on the market, a standard matte white paint was chosen for the back wall to make life easier and more cost effective for the school. As Hamilton chuckles, "When you have the kiddy shows in there, all the little people and their dirty, sticky hands touch the wall about two or three feet up. Once a year, you look at the wall and go, 'Oh man, it's time to paint.'" There is room above stage, however, for a projection screen to be added if the school decides to go that route in the future.

Changes large and small such as this are where Hamilton was able to conserve funds to make room in the budget for an all-LED system. As such, one of the other items omitted from the original design was an orchestra pit.

"There was a meeting of about six or seven user groups for the existing theatre before the construction started and I asked, 'There is an orchestra pit [in the design]; is anyone going to use it?' There was a big silence in the room and I said, 'Going once, going twice… orchestra pit gone? Last chance...' There was a silence in the room and nobody wanted the pit. And it is not just that certain types of users don't need a pit, but also that pits are a little bit out of fashion," Hamilton explains, noting that many of the modern productions on Broadway forego an orchestra pit and instead incorporate a small band into the stage set.

Omitting an orchestra pit also has a number of advantages aside from the obvious cost savings, according to Hamilton. For one, having a solid stage means there is no hollow drumming underfoot at the front of the stage. As well, he adds, "Unless you have the deluxe kind of pit that is motorized, which is expensive, you have to have a big crew and spend all day moving all the platforms around to move from one position to another."

For the stage itself, Hamilton added a nice twist with a nod to the local community. "With theatre people, you could talk about floors longer than any other aspect of the theatre. No floor that you put in will make everybody happy because one group of people wants to put screws and bolts into it and the other group of people wants a pretty floor that they don't have to do anything to and so on," says Hamilton. Instead of the usual maple stage floor, he asked the project manager for an oak floor. Hamilton recalls, "He said, 'Sure, that will probably cost the same. Why would you want oak instead of maple?' I said, 'It's because it's a wine making region and you don't make wine in maple barrels; you make it in oak barrels.' So I thought it would work well with the possibility of future sponsorships or usage of the space by the wineries for special events if the floor matched up with the kind of materials that their industry uses."

Above the oak wood, Hamilton worked with the structural engineer to ensure that the steel above the stage is ready for any future additions, such as motorized fly lines. "So if in 20 years from now, they decide to do that, the building is ready to go for it – not just the strength of the steel, but also in terms of space. That is, there's nothing in the way of that system. We made sure all the electrical and mechanical stuff was out of the way so that when they want to put that in, it is basically set to go."

It is with the structural elements of the project that Hamilton gets the most excited. As he says, "Gear is only a part of the story. The infrastructure and thinking about the uses of the space and the staffing, those are all equal parts of the puzzle that need to be considered. You can have a perfectly good piece of gear be the wrong piece of gear for this job for various reasons."

On this note, Hamilton speaks in awed terms about the four catwalks spanning the width of the theatre high above the audience. One catwalk is placed over the front of the stage with two over the audience for front lighting. A fourth 12-ft. wide catwalk is at the rear of the theatre, almost on top of the booth. This is what Hamilton refers to as a "teaching catwalk" as it is wide enough to fit an entire class comfortably and safely in order to learn about the technical aspects of stage production. As well, there are connecting catwalks on either side of the theatre.

"All of that together is really deluxe. It is pretty much hidden and no one is going to see it – it is way up high in the sky in the dark. But when you get up there, it's like a whole technical world. Room for classes, room for lots of people, room for lots of equipment, very safe, super flexible, it just could not be better," enthuses Hamilton. "You're always replacing and adding equipment, whereas components like these catwalks are devilishly difficult to put in later – pretty much impossible – and they are permanent. These catwalks will be there doing their job until they plough the building more than 100 years from now."

It's impossible to know what the theatre will need in 2114, but as of 2014, the Southern Okanagan Secondary School's Frank Venables Theatre is one of the finest around. Thanks to Hamilton and DWD, as well as David Neal and Christie Lites who, on top of supplying the lighting, also supplied and installed the Gerriets drapes and Joel Theatrical rigging, the school held its first production, *The Wizard of Oz*, in late April. "The drama teacher told me that the closing night was pretty much an evening of magic," Hamilton reports. Neal adds that the weekend shows each ended in standing ovations and that "people couldn't believe the quality of the technical side of it. The brightness, the colours – they were just blown away."

What more could you want for a theatre? Simply another job well done as this phoenix soars into the future.

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