

EXECUTIVE SUMMARY

The New Bridge High School in Grants Pass, Oregon was born out of a need. The Oregon Youth Authority (OYA), in light of their progressive mission to provide an environment that promotes “Positive Human Development,” recognized that the infrastructure that housed the at-risk youth in their care needed to reflect their ideals. In place of the concrete walls that comprised the building in which the youth were receiving their education, facilities manager Rex Emery envisioned a space that would create “a wide horizon view that fosters hope and possibilities beyond their (the students’) current circumstance.”

The youth detained at the Rogue Valley Youth Correctional Facility have received a stimulating, engaging environment, one that is focused on being more rehabilitative than corrective. The Positive Human Development ethos that the OYA embodies is predicated on maximizing students’ strengths, giving them a sense of belonging, providing them a community connection, and setting high expectations, all while keeping them and others safe. In the planning process for the new school, it was crucial to be cognizant of the design features that would enable OYA to harmoniously integrate their methodologies within the new school.

SCOPE OF WORK AND BUDGET

Funded during the 2015 legislative session as part of Oregon Youth Authority’s 10-Year Plan for Facilities, the \$9.8 million, 13,740-square-foot building was completed in April of 2018 and is on track to be LEED

Platinum certified. The New Bridge High School is a responsibly sourced all wood structure that was designed to be a “bridge to a new future” for the youth at the Rogue Valley Facility. The goal of the school’s design is to provide an education setting that is both safe and inspirational while expressing the cultural diversity of the youth. The high school uses a “building as curriculum” philosophy, meaning that elements of the design are intended to provide learning opportunities throughout the site.

SCHOOL AND COMMUNITY ENGAGEMENT

For the planning process, our team met with the Oregon Youth Authority stakeholders to confirm priorities, operational needs, space programming, functionality, sustainability and energy issues. The concept of community is unique in this process. The goal of the OYA is to reintegrate the youth in their care back into what planning committees would consider a normative community, and by the very nature of the planning process, the community stakeholders are represented by officials who work for the government and the OYA. The needs of the students are at the forefront of this process, and all of the planning and design choices our engagement group made were solely focused on rehabilitating students to ensure recidivism rates are as low as possible.

The engagement process for New Bridge entailed a unique collaboration with students from the Oregon Youth Authority. Students from the Rogue Valley Facility were invited to take part in the planning process for the New Bridge School as representatives. These





representatives were present during design charrettes and provided valuable feedback for the project. This collaboration spawned the opportunity to work with students at the facility on a cultural inclusion project with artwork that would be an integral fixture of the school.

The mural above was assembled together with the students of the Oregon Youth Authority and is an apt metaphor for the way in which our culture is influenced by individual and shared experiences.

OYA youth, who come from many different cultural backgrounds, were responsible for guiding the mural design so it touched as many cultural backgrounds as could be imagined. Over the course of five hands-on workshops with youth who expressed an interest in creating the mural, our Principal-in-Charge, in conjunction with artist Toms Royal and a cultural inclusion specialist, led workshops that encouraged the students to explore what diversity and inclusiveness meant to them.

Through a series of open discussions, the students began to envision what aspects of their lives and others' would be represented in the mural. Artist Toms Royal, specializing in mosaic works, assisted the youth with designing and cutting out the tiles that would then be placed into the artwork.

The mural is featured on the site along the path to the new high school. Youth are allowed to reach out and touch the mural, which is very tactile, as they walk to school each day. The mural also offers treatment program opportunities to discuss culture with youth that enter the facility.

With regards to the value of the process and project to the community at large, it's difficult to express what the school symbolizes and means to the most important stakeholders- the students of New Bridge High School. During the opening ceremony, one of the students shared his thoughts on the new school. The student's depiction most accurately conveys the impact this school has had on the community :

"I came to this facility June of last year on my journey of serving a 5 year sentence, and when I first came here I did not have a care in the world towards my education. I figured that I have time and there is no need to worry about it right now so I was sleeping in classes and getting by with the bare minimum. Because school back then was just on the units (before the high school was built, students only received their education in the living units), so there was no noticeable transition between our environments. So a lot of the time kids had no motivation to learn, constantly taking personal time outs and acting out to leave class.

I don't speak for just myself when I say that once I walked up the steps to this new school my whole perspective changed. I felt like I was going to my first day of high school again and felt like I was stepping into a totally different world than the one we came from down there.

Seeing our new classrooms, outside field area, and my favorite place, the new barbershop, was something I never expected to see or even experience in a place like this. I actually look forward to coming up

here (to the new school) when I wake up in the morning and enjoy the learning environment provided here. Since being up here I see youth actively engaged in learning, not trying to leave class every five minutes. . . Since the opening of this new school we have more space to help us in places like our Vocational Education class which is a lot more state of the art and spacious than the space it was down in the facility.

Our classrooms actually have windows in them where we can see the trees, the sky, and the mountains around us. It makes everything feel so normal, well as normal as a place like this can be, you know?

This place right here is way more diverse than any school that I have attended, but yet we can all come together with one common goal, no matter who you are and what you're in for, and that one goal is to learn and grow in ways we never imagined."

EDUCATIONAL ENVIRONMENT

The educational environment at New Bridge High School is distinct in that must serve an additional function that normative schools are less focused on: rehabilitation. Education and rehabilitation are important factors in all of the design and curriculum choices for the school. From a pedagogical standpoint, the spaces must reflect the curriculum.

The educational vision at New Bridge High School is predicated on helping youth realize their potential through vocational and educational training to reduce recidivism rates and promote Positive Human Development. Positive human development occurs when

everyone- staff and community partners, youth, and OYA's organizational structure - works collaboratively and uses evidence-based research within the Youth Reformation System to support youth, staff and the community.

The programmatic spaces that comprise New Bridge High School are varied so as to stimulate personal growth and development. Vocational classes, which, according to research performed by RAND Corporation, indicate that incarcerated people who participate in these training programs are 43 percent less likely to be arrested for another crime than those who do not. They are also more likely to find jobs when they leave custody.

In addition to high school diploma and GED programs, New Bridge offers a dual-credit college program, manufacturing technology, barbering, and a number of other vocational classes and certificates, including wood manufacturing, CAD/CAM drafting, 3D printing, and workplace social skills. The school, run by Three Rivers School District under the supervision of the Oregon Department of Education, is staffed by a principal, eight teachers, four support staff, and a graduation coach.

Before the new building opened at the end of April, students attended school in small classrooms in their living units — a distracting environment that did not lead to optimal learning. The new, separate building looks and feels more like a "normal" community school.



Classroom interiors

Additionally, the physical features of the building- including large windows with natural lighting and views of nature, carpeted floors, and calming paint colors- support OYA's use of positive youth development and a therapeutic approach to support rehabilitation. Research shows that therapeutic approaches are more effective at reducing youth reoffending than punitive ones.

BUILDING AS CURRICULUM

As a green school, it was important to maximize the potential of the building as a flexible learning opportunity for students. The youth at OYA will be encouraged to monitor the day-to-day operations of how the building is performing. An interactive monitor that details information about energy use, food and water recycling, as well as other pertinent sustainability features of the building, is mounted in the corridor.

The corridor itself is a learning opportunity too. The concrete in the entry plaza is stained, polished concrete. The building entry and corridor have a water pattern stain in the concrete finish that replicates the path of the Rogue River through Grants Pass. This reflects the school's mascot, the River Rafters, and incorporates a regional influence that ties the youth to the greater context of their community.

LEED plaques, as seen on the bottom left, are mounted around the campus providing relatable informa-

tion to students about their new high school's energy consumption and productivity.

As an additional educational element, the swales and collection systems are incorporated as hands on opportunities to demonstrate stormwater management and how watersheds work for students. An informational sign on watershed management is posted on the onsite infiltration swales. The sign informs the students about: (1) the runoff from a natural site, (2) the changes that occur when a site is paved and the impact on sites downstream, and (3) how green stormwater infrastructure such as swales and infiltration facilities can be used to help a site continue to mimic a natural site even after it is developed with buildings and pavements.

PHYSICAL ENVIRONMENT

The New Bridge High School is a "bridge to a new future" for the youth at the Rogue Valley Facility. The site has access from the existing facility to the new school, which was a key component of the project on a subtle, psychological level. It was important during the design and planning process to create space between where the youth are incarcerated, and where they go to school. The walk from their facility to the high school is meant to be a reprieve from feelings of confinement, restoring the students to a normative academic experience where they cross the bridge to school, symbolizing the crossing of a bridge to a brighter future.



Building as Curriculum: Educational plaque and interactive monitor



The students' view of New Bridge High School as they approach the bridge from their living units

When students cross the bridge from their living units facility to the new school, the design of the building is striking as a distinct departure from more traditional juvenile detention spaces. A modern, angular facility accented by a slanted roof, large windows, wooden pillars and beams juts upwards from the landscape as it rests on a hill to greet students.

Included in the scope of work for New Bridge High School was the installation of a perimeter security fence. In order to minimize the harsh visual impact of the perimeter fencing on the psyche of the students, large portions of the abrasive fencing are covered with black vinyl. This helps to accentuate the stunning surrounding landscape by bringing it into a sharper focus, thereby dampening the impression of being in a punitive environment.

The exterior design of the building is in concert with existing design elements found throughout the compound, such as the green standing seam metal roofing and storefront entry. Nichiha composite panels provide a wood grain look while maintaining the necessary durability required for the facility.

The building exterior cladding is designed to have a rainscreen system. Two materials are used to accentuate portions of the building and provide aesthetically pleasing impressions: (1) The primary material is fiber cement wall panel. This is used on the tall commons, vocational and classroom volumes. (2) The second exterior material is a fiber cement lap siding, which is used on the lower, flat roof portions of the building where it is not in direct contact with real wood on soffits and exposed structures.

The roof of the building is composed of a series of angled asphalt roof segments that take advantage of northern daylight and solar orientation, while minimizing glare and solar heat gain. The underside of the roof canopies are a natural wood material to accompany the exposed wood structural elements. Solar panels grace the roof of the high school, all fixtures are low-flow to reduce water use, and a swale system has been installed to sponge up storm water.

As the students move inside the building, a jagged corridor stretches out in front of the youth. Planned supervision inspired the sawtooth layout of the classrooms, which was a responsive design choice



New Bridge High School Outdoor Learning Area

focused on the client's needs for surveillance. From the principal's office, there is a line of visibility that allows for a line of sight into each classroom. While the youth are seated in the classrooms, windows that are glazed at the bottom provide the necessary illusion of privacy while still allowing in natural light and views of the tree-covered hills surrounding Grants Pass. The tops of the windows are unglazed, allowing for direct staff supervision in the corridor.

The \$9.8 million school spans 13,740 square feet, includes 18 acres of site development and a soccer field. The four separate classrooms in New Bridge High School are designed to accommodate an Active Learning Layout, as well as traditional row and column style seating arrangements. Students have access to a vocational classroom, a wood shop, barber shop, and science lab, as well as having access to an outdoor amphitheater style classroom. These specific programs allow for students to develop skills and pursue higher education or career and technical education opportunities when they leave the facility. A commons space provides a tranquil atmosphere where the youth can relax. The building also features the requisite administrative spaces for staff.

The commons area is a shared space for healing and treatment, as well as extracurricular activities. This 1,000 sf area is a flexible space that accommodates

approximately 96 seated individuals. The space is intended for day and night activities, including visitations and family days, culinary events, integrated classroom sessions, Saturday night movies, and graduation events.

The context of a secured facility was omnipresent in all aspects of the design, including the landscape. It was important to provide the youth with a feeling of freedom, while being mindful of their present circumstance. The outdoor classroom design contains the youth in the area, while still allowing them a creative space with fresh air to receive their education. The outdoor classroom takes the shape of an amphitheater and is intended for full-class or small group instruction. The seating is positioned on a sloping grade away from the building. This layout sheets water away from the building and showcases the spectacular nature views. An ADA accessible route from the central area of the amphitheater to the building is provided.

All of the materials chosen for the design of the New Bridge School are consistent with OYA requirements and are in the service of Positive Human Development for the youth. Interior walls are constructed to withstand impact and abuse. The system consists of wood framed walls, plywood sheathing, high-impact gypsum wall board, and a finish coat of veneer plas-



ter. The colors of the walls are neutral tones with one accent wall in each classroom. Additional acoustical treatment is added to walls in areas that have a ceiling height of 12 feet or higher to minimize reverberation. Water-resistant gypsum board with solid surface wainscot are installed in all restrooms. All trim and finishes are, by necessity, designed for durability and security.

SUSTAINABLE DESIGN STRATEGIES

The New Bridge School is oriented on an E-W axis to take advantage of natural daylighting and reduce heat gain and glare from morning and afternoon sun. The incorporation of natural daylighting and views to the outdoors also improves student test scores and creates a more normative high school experience. Natural ventilation is installed with a louver system to allow fresh air to flow through the building while still providing the required security.

Oregon Executive Order 12-16, passed down from the Governor of Oregon, promotes wood products in commerce and as a green building material. This project follows the objective of this executive order, as this public project integrates wood as the primary structural material. Timber harvesting is a keystone industry for the State of Oregon, with extensive forest land available as a sustainable resource.

The design of New Bridge stipulated that wood materials came from certified forests, which ensures that

the wood products that are utilized are sourced from locations promoting sustainable forest management practices.

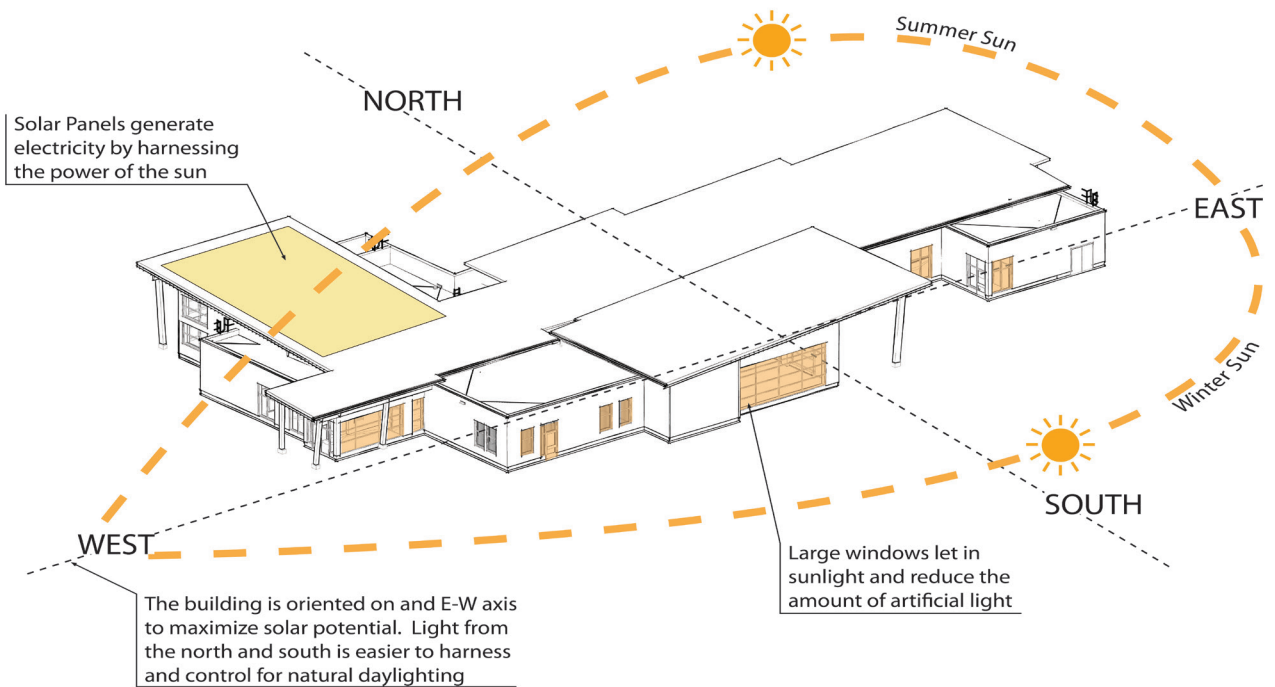
The concrete slab-on-grade uses a mix design that integrates fly ash, a readily available material that reduces demands on cement usage. Cement production emits carbon dioxide, and material quarrying produces local noise and dust pollution. Minimizing cement in a concrete mix design is a sustainable design feature that was woven into the structural design process for New Bridge.

The high-performance building envelope includes R-20 minimum insulation in the walls and R-30 minimum insulation in the roof. The school roof is sloped to the South to provide optimal orientation for rooftop PV panels.

Large fans are utilized within the high commons ceiling area to provide air movement within the shared space. Low-e glazing is installed throughout the building exterior to minimize heat gain. All water fixtures are low-flow.

Other notable sustainable design features include:

- The HVAC systems at the New Bridge School use 40% less energy than a typical school.
- The fan in the Commons is a High Velocity Low Speed (HVLS) fan. The movement of air created by the fan can cool the room by 10 degrees without using air conditioning.



- Nearly 100% of the wood timbers and framing found in the school is FSC (Forest Stewardship Council) Certified. The use of this wood reduces forest destruction, wildlife habitat loss, soil erosion and stream sedimentation by promoting companies that follow environmentally-friendly forestry practices.
- 68 solar panels are on the New Bridge High School's roof, generating approximately 22,236 watts of energy per day- enough energy to power 55 refrigerators.
- Exterior lights are shielded to prevent light from being emitted directly to the sky, minimizing sky pollution and protecting the surrounding environment.
- New Bridge School has approximately 99,000 sf of native plantings, saving approximately 1,350,000 gallons of water per year.
- Typical school toilets flush over 1 1/2 gallons of water per use. The low flow toilets at New Bridge flush only 1 gallon of water each time they are used.
- Durable exposed concrete floors allow the building to take advantage of thermal mass for passive solar heating. This strategy reduces the number of hours that heating will be required.
- With respect to the finishes and furniture used throughout the building, recycled/recyclable content and low VOC are used throughout the building. Other building materials and furniture include reclaimed

wood, Forest Stewardship Certified wood, and harvested trees from the site.

RESULTS OF THE PROCESS AND PROJECT

The Oregon Youth Authority, with the construction of the New Bridge High School, chose to transform the experience of incarcerated youth with a building that fosters educational and vocational training, treatment, rehabilitation opportunities and positive relationships all aimed at promoting post-incarceration success and reducing recidivism. The state-of-the-art design supports the state-of-the-art programming and reimagines what is possible for correctional facility design.

New Bridge High School achieves school district and community goals by marrying two disparate spheres that the building is in architectural dialogue with: 21st century learning environments and a fully functional and safe correctional facility. The bridging of this gap represents a fundamental shift in the ideologies existent before this project- that youth in custody deserve a positive environment that is geared toward education and rehabilitation, rather than punishment. This facility is an integral part of the rehabilitation process, providing a natural setting that alleviates adverse effects of chronic stress, and implementing essential noise, lighting, and spatial design considerations that are mindful of people's visual and tactile senses.

The New Bridge High School is already on its way to be certified LEED Gold, and it will most likely be the first LEED Platinum facility designed for the Oregon Youth Authority.

Perhaps the greatest achievement of the New Bridge project is that it returns a sense of normalcy to the youth who inhabit the Rogue Valley Youth Correctional Facility. Instead of concrete walls, the students learn in a light-filled environment, with fresh air and large window views that showcase the natural beauty of their surroundings, a space that helps young learners recuperate and see the possibilities of their futures.









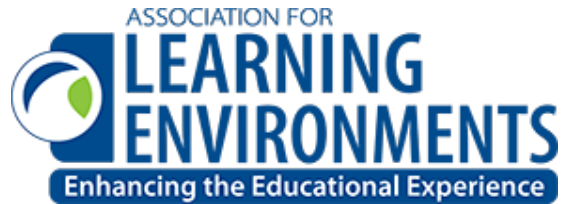


Photo Release Form

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Location of Project: Grants Pass, Oregon

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Date of Release: 7/16/2018