Montana Coal Impact Grant Application

Submitted to the Montana Coal Board By

Colstrip Public Schools

For

Colstrip Public Schools LED Lighting Project

Date submitted: January 27, 2020

SUBMITTED BY COLSTRIP PUBLIC SCHOOLS

CERTIFICATION

To the best of my knowledge and belief, the information provided in this application and in the attached documents is true and correct.

In accordance with Section 90-6-205, MCA, the applicant is eligible for Coal Board grants and has the statutory authority to make expenditures to provide for the particular service or facility.

Name: Bob Lewandowski

Title: Superintendent of Colstrip Public Schools

Signature Date: January 27, 2020

SUMMARY INFORMATION

1. NAME OF APPLICANT(S):

Colstrip Public Schools (SD19)

2. TYPE OF ENTITY:

Public school system

3. FEDERAL TAX ID NUMBER:

4. SENATE AND HOUSE DISTRICTS:

Senate District 20 and 21
House Districts 39 and 41

5. **AMOUNT OF COAL IMPACT GRANT REQUESTED:** $229,470

6. NAME OF PROJECT:

Colstrip Water Main Replacement and LED Lighting Improvement ProjectI

7. TYPE OF PROJECT:

Public school repair and maintenance

8. POPULATION SERVED BY PROJECT:

Population estimate of Colstrip in 2017 was 2,311. Colstrip is the largest city in Rosebud County with 24% of the total population. 2018 Fall student enrollment in Colstrip Public Schools was 536.

9. NUMBER OF HOUSEHOLDS SERVED BY PROJECT:

863.

10. CHIEF ELECTED OFFICIAL OR AUTHORIZED REPRESENTATIVE:

Mr. Bob Lewandowski
Superintendent
Colstrip Public Schools
P.O. Box 159

Colstrip, MT 59323

11. PRIMARY ENTITY CONTACT PERSON:

Mr. Bob Lewandowski
Superintendent
Colstrip Public Schools
P.O. Box 159
Colstrip, MT 59323

Bob.lewandowski@colstrip.k12.mt.us
406.748.4699

12. OTHER CONTACT PERSONS:

Mr. Tyler Bush
Project Manager
100 N 27th St / Suite 210
Billings, MT 59102

tylerb@mckinstry.com
406.426.0079

13. MILLAGE RATES:

FY17
Mill Value - 81,329.82

- Elem GF - 6.52
- HS GF - 8.76

Total mills levied (all funds):

- Elem - 13.59
- HS - 18.55

FY18
Mill Value - 83,491.61

- Elem GF - 16.06
- HS GF - 9.91

Total mills levied (all funds)

- Elem - 21.10
- HS - 16.32

FY19
Mill Value - 79,523.58

- Elem GF - 11.21
- HS GF - 9.86

Total mills levied (all funds)

- Elem - 16.50
- HS - 17.82

14. <u>AMOUNT OF COAL GROSS PROCEEDS TAX</u>:

<u>FY17</u>
Elementary District total rec'd - 1,319,774
- General Fund 101 - 1,035,283
- Transportation Fund 110 - 22,890
- Bus Depreciation Reserve Fund 111 - 97,446
- Technology Fund 128 - 58,861
- Building Reserve Fund 161 - 105,294

High School District total rec'd - 799,131
- General Fund 201 - 426,916
- Bus Depreciation Reserve Fund 211 - 72,798
- Adult Education Fund 217 - 48,943
- Technology Fund 228 - 118,040
- Building Reserve Fund 261 - 132,434

<u>FY18</u>
Elementary District total rec'd - 1,350,701
- General Fund 101 - 648,019
- Transportation Fund 110 - 67,585
- Bus Depreciation Reserve Fund 111 - 176,912
- Technology Fund 128 - 305,125
- Building Reserve Fund 161 - 153,060

High School District total rec'd - 817,857
- General Fund 201 - 386,222
- Transportation Fund 210 - 35,272
- Bus Depreciation Reserve Fund 211 - 85,973
- Adult Education Fund 217 - 39,681
- Technology Fund 228 - 135,355
- Building Reserve Fund 261 - 135,355

The District is on track in **FY19** for the Elementary District to receive a total of $1,219,932 and the High School. District to receive $738,676 across ten levied funds.

Coal Gross Proceeds follow the mills levied in a fund in the previous year. This produces a see-saw effect which can prove challenging especially in the general funds. In the general funds, coal flows into the underbase and then into the overbase, lowering the number of mills necessary to meet the maximum adopted budget.

Use of coal gross proceeds in each fund is dependent on what is allowed for expenditures from that fund.

- The general fund is the chief operating fund of the district and is used to account for all financial resources of the school district except for those required to be accounted for in another fund.
- The transportation fund may be used only to support costs of home-to-school transportation.
- The bus depreciation reserve fund exists for the purpose of financing the replacement of buses and two-way radio equipment owned by the school district.
- The adult education fund allows the school district to provide outreach education to those older than sixteen and no longer enrolled in the school system.
- The technology fund allows for purchase, rent, repair, and maintenance of technological equipment and to provide training for district personnel.
- The building reserve fund is for the purpose of financing voter approved building or construction projects funded with district mill levies.

15. IMPACTS FROM COAL INDUSTRY:

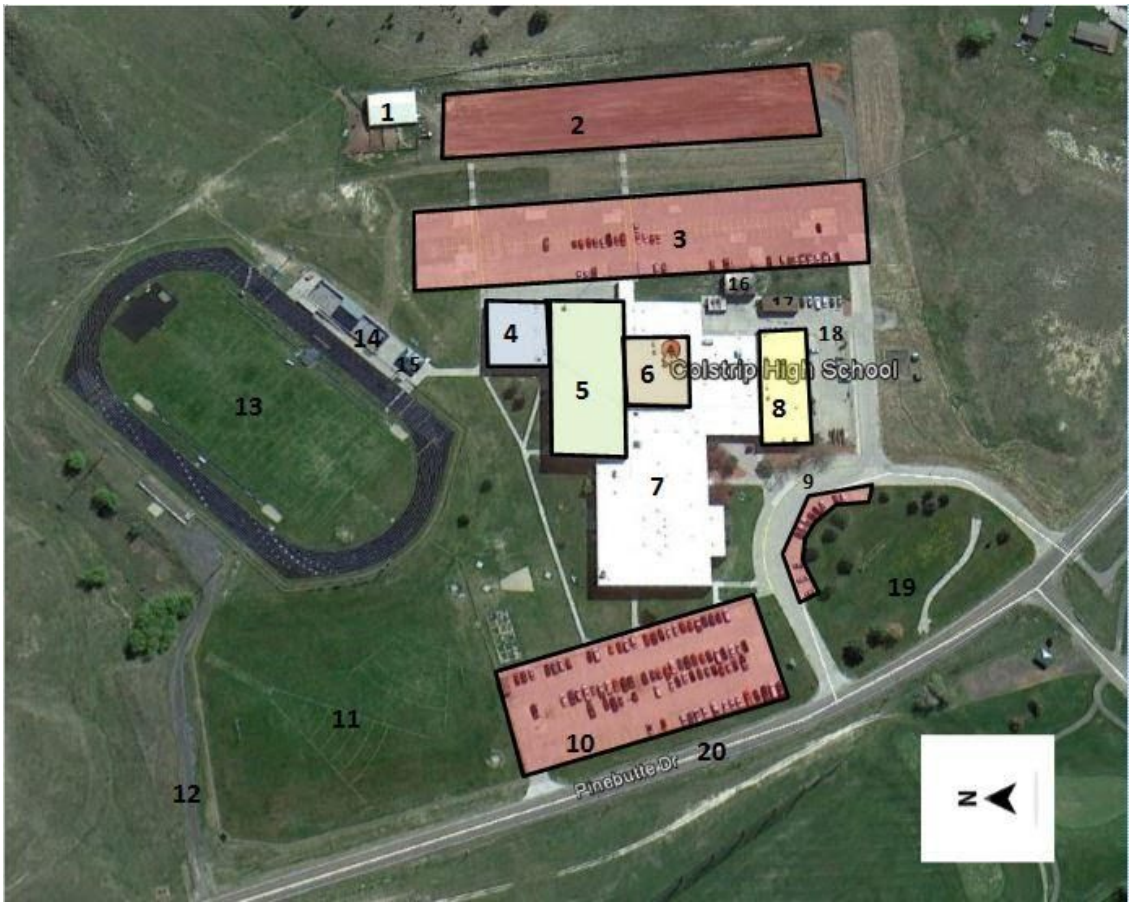
The workforce total in the Colstrip community is 1,229.

Westmoreland's Rosebud Coal Mine, Colstrip MT - 362 Employees
Talen Energy Power Plant, Colstrip, MT - 320 Employees

The four unit power plant located in Colstrip, MT is the second largest coal fired power plant west of the Mississippi river. Colstrip is dramatically impacted by the coal industry - both in the mining and power generation sectors.

16. MAPS:

Colstrip High School Grounds



1. Ag Barn	2. Ag Parking Lot	3. Upper Parking Lot	4. Pool
5. Gym	6. Auditorium	7. Classrooms	8. Career Tech Ed (CTE)
9. Roundabout	10. Lower Parking Lot	11. Practice Field	12. Emergency Access Road
13. Football Field/ Track	14. Stadium	15. Concessions	16. Coal Port
17. Freezer	18. Access Delivery	19. Grassy Knoll	20. Pine Butte Drive

Rustic Lodge B&B
Ponderosa Butte Public Golf
Colstrip High School
Prospector Park
and R division
Antelope Park
Colstrip Foursquare Church
Stillwater Ballfield Complex
Pine Butte Elementary School
Stillwater Park
Childers Auto Supply
Pine Butte Storage
Church of Christ
Al's Mini Storage

PIne Butte Elementary

1. Main Parking Area	**2. Upper Parking Area**	**3. Bus Barn**
4. Pine Butte School	**5. Main Playground Area**	**6. Front Playground Area**
7. Pine Butte Drive	**8. Durango Drive**	

17. <u>BRIEF PROJECT SUMMARY</u>:

This project is to replace remaining fluorescent lighting with LED lighting at Pine Butte Elementary and Colstrip High School in the following areas.

- Colstrip High School Classrooms
- Colstrip High School Gymnasium
- Pine Butte Elementary Classrooms

<u>Historical information</u>:

Colstrip High School was constructed in 1983. Coal Bonus funds were used to build the facility in a fast growing community that was being impacted by coal development and power plant construction. Since that time the high school gymnasium has been utilized by the community and greater Southeastern Montana for a place of gathering and competition. Colstrip Public Schools has hosted a number of

district and divisional tournaments throughout the years. It is one of the very few Montana High School Association (MHSA) Class B schools that is large enough to support the number of fans and student supporters. This facility is certainly the home of the Colstrip Colts and Fillies, but belongs to the greater coal community in Rosebud County and beyond.

The Colstrip School System extends itself beyond the school district borders. The transportation department has one of the largest Class B fleets in the State. This is due to bussing students who wish to attend Colstrip, but are out of district. Colstrip Public Schools have an annual transportation agreement with surrounding schools at Lame Deer, Hardin, Ashland, Powder River County, and Custer County schools.

Colstrip Public Schools serve a diversified enrollment and have extended relationships with the Northern Cheyenne Indian Reservation and the Crow Reservation. Both reservations play critical roles in coal country and are impacted accordingly. The Colstrip enrollment includes 51% White, 36% American Indian 4% Hispanic/Latino and 9% other.

For the past 14 years, the voters of Colstrip have consistently passed annual levies to support its educational system and facilities in Colstrip. Colstrip has seen times of tremendous growth in which it was difficult for the school district to financially keep up with its student population and therefore resulted in the construction of new buildings for kids. Because of coal, Colstrip grew and was classified as a Class A school district by the MHSA, but with restricted demands for coal, Colstrip has dropped to a Class B school with Class A facilities of size and scope. Maintaining buildings and grounds has become a difficult task with fewer students and state funding. The voters of Colstrip have taken on this responsibility and passed a 4-year building reserve levy in May 2015 for half a million dollars ($125,000 annually) in the Elementary District and $1M ($250,000 annually) in the High School District. Those funds were designated for repair of infrastructure needs that were linked to roof repair and heating and ventilation problems. At the same time deferred maintenance continues to become an insurmountable issue without the help of the Coal Board to address the District's Deferred Maintenance which is estimated at over $5 million dollars.

The project presented prepares the district for the future by reducing future maintenance costs and improving the learning environment. Having to pay for this project with the current budget will have a significant impact on student resources.

Problem:

Like most schools that were built over 30 years ago, Colstrip Public School buildings were constructed with fluorescent lighting to light their classrooms and hallways. The current fluorescent lighting tubes last approximately 3-5 years and the ballast that run those tubes at Colstrip Public Schools have reached their lifecycle and are burning out. Replacement is costly, both in time and materials. The School District has been replacing its fluorescent lighting with LED light fixtures in its classrooms for the past three years. The District has invested over $150,000 in LED lighting, one classroom at a time. Please see the **Appendix A** of maps that identify current areas addressed with LED lighting as well as

needed areas to be addressed. This has been a slow process due to the expense involved. The problem is not only financial, but the District believes that the benefits of LED lighting are crucial for the following reasons: **1. Improved Student Concentration and Performance; 2. Energy Savings; 3. Health Benefits; 4. Reduced Maintenance Costs**

1. Improved Concentration and Performance:

   Lighting is a dominant factor in the brain's ability to focus. Studies show that learners in brightly lit environments got higher grades than those in dimly lit classrooms. It seems that the poor lighting reduces the effectiveness of the brain's power to gather data as well as having social and emotional effects on the human condition. Light-emitting diode (LED) lights provide energy efficiency, durability, flexibility, and improved overall light quality. In particular, K-12 schools often see improvements in academic performance after upgrading to LED lights. If you work at a school and are looking for a cost-effective way to improve your students' learning experience, LED lights represent a crucial pathway for meeting these goals.

   Lighting within the built environment is an important factor on human development and functioning. Research has shown that daylight can impact human mood, performance, and well-being; include children in schools. According to Wurtman "Light is the most important environmental input, after food and water in controlling bodily functions." (Wurtman, 1975) However, daylight must be supplemented with artificial lighting and today's society is exposed to more artificial light than daylight. (Veitch, 1995) Our children are expected to attend school to learn and perform at optimum levels. Energy conservation requirements have forced schools to implement energy efficient lighting solutions. For many years fluorescent lighting has been the solution to provide energy efficiency and high illuminance for school environments; and have evolved to include full-spectrum lamps that simulate daylight. Recently, LED (light-emitting diodes) have come to the forefront due to their efficiency, longevity, and ability to provide a full, smooth, and unbroken spectrum. The downside has been the cost to retrofit or implement LED lamps within the school environment, and most studies examining the benefits to student behavior and performance have been based on fluorescent lamps. It's imperative to provide artificial lighting that enhances the classroom experience for children and teachers that enables strong cognitive function and supports positive behavior. LED lamps are the next step in the evolution of lighting interior environments to ensure a positive effect on human performance and well-being (**Morrow, Brenda & Kanakri, Shireen. (2018). The Effect of LED and Fluorescent Lighting on Children in the Classroom**).

   Dr. Michael Shulte-Markwork, who worked at the University Medical Centre Hamburg-Eppendoft as the Director of the Clinic for Psychosomatics in Children and Juveniles. In his year-long experiment, he set out to determine the benefits of light on students' learning behavior. His study involved 18 teachers and 166 children, with ages ranging from 8 to 16, from the Grundschule in der Alten Forst elementary school located in Hamburg, Germany. His research indicated the following results:

   - **Improved Reading Speed:** The students increased their reading speed by 35%.
   - **Improved Concentration:** The students reduced their errors by 45%.
   - **Reduced Hyperactivity:** When teachers gave students mathematical problems to solve, they used the Calm lighting scheme, which reduced the students' hyperactivity by an

astonishing 76%.

2. Energy Savings:

   Schools that choose to install LEDs won't just see increased academic performance — they'll also enjoy decreased energy bills. Unlike fluorescent lights, LEDs are free of mercury and completely recyclable, which make them the most environmentally friendly lighting option. LEDs consume less energy than any other type of lighting available on the market, meaning that your energy and maintenance costs will be substantially reduced.

   According to the U.S. Department of Energy, switching to LEDs can reduce your energy consumption by 75 to 80 percent. By adding reflectors, sensors, lenses, timers, and other options, your school can increase its savings even more.

   Education facilities in the United States that continue to operate with fluorescent or incandescent bulbs spend more money trying to compensate for the heat produced by these outdated lights than they do on the lights themselves. By upgrading to LED lights, the savings generated by these avoided expenses can be relegated toward other parts of your facility that require more attention.

   LED light bulbs use roughly half the wattage of fluorescent lighting. LED bulbs also last longer and use less energy than fluorescent bulbs. That means financial savings in the long run by cutting down on replacements.

4. Health Benefits

   Fluorescent bulbs aren't just wasteful — they can also harm your health and wellbeing. Replacing fluorescent lights with LED lighting in educational environments is associated with the following health benefits:

   Installing LED light fixtures can lower the risk of exposure to harmful contaminants like Polychlorinated Biphenyls (PCBs). The U.S. Environmental Protection Agency defines PCBs as carcinogens that can harm the nervous, immune, and endocrine systems and are often found in the T12 fluorescent ballasts. While all of these ballasts have the potential to leak or rupture, some of them are also known to emit small amounts of PCBs during their normal use. The EPA also released an announcement that schools in the U.S. built before 1979 may still have some T12s that contain PCB. You can be exposed to the contaminants if you breathe contaminated air or touch contaminated materials following a rupture or leak. People exposed to high levels of PCBs may show signs of rashes or acne and, in some cases, even lung and liver problems. Researchers are continuing to conduct studies to better determine the adverse health effects of PCBs.

   Outdated lighting technology contains another, more familiar contaminant — mercury. Fluorescent lighting contains a combination of inert gages and mercury when the current passes through the glass containment tube. Depending on how you're exposed to the contaminant, it can enter your body through the skin or lungs. If a fluorescent tube shatters, anyone nearby is at risk of mercury contamination, which makes fluorescent tubes a serious safety hazard in schools. Mercury is also hazardous because it produces UV light. UV radiation can damage tissues in our skin and eyes, and if exposed to it for too long, cataracts can form and macular degeneration — the most common cause of blindness — can also occur.

Some other ways that LED lighting can make the school environment healthier and more comfortable for students include:

Improvement in Visual Performance and Comfort: Glare and flicker are two issues associated with outdated lights and can affect the teachers as well as the students. Glare often causes you to blink, squint or look away and can be caused by one of two things — excessively high luminance or excessively high luminance ratios. In both scenarios, the students' visual performance will decline as their comfort levels decrease. Two types of glare exist — disability and discomfort glare. Discomfort glare refers to the pain associated with viewing glare, whereas disability glare reduces visibility. Disability glare occurs when light is scattered throughout the eye, which then reduces the retinal image's luminance contrast.

Less Irritation for Autistic Students: Autistic students are especially susceptible to the harmful effects of fluorescent lighting, including an increased sensitivity to direct fluorescent lighting's sub-visible flicker. This can lead to eyestrain, headaches, and an increase in repetitive/compulsive behavior. LEDs, on the other hand, are resistant to the flicker-effect when they are completely dimmed, which makes them an excellent choice for special education student bodies.

Reduction in Hyperactivity: Color temperature has also been shown to play an important role in students' health/performance. Studies show that cool color temperatures can improve the behavior of students with learning disadvantages or hyperactivity disorder. This cool light color allows them to concentrate on projects and tasks more effectively. Hyperactivity is related to stress conditions, which can be aggravated by the radiation produced by the fluorescent lights. When exposure to this radiation is decreased, performance and behavior improve.

Improvement in Circadian Rhythms: The optimal function of the body's circadian rhythm depends on the right kind of light. This vital process helps your body determine when you should wake up, go to bed, and even focus and relax. If students are regularly exposed to lighting that doesn't match their circadian rhythm, it can disrupt their sleep-wake cycle. And students who aren't getting enough sleep are at increased risk of focus and performance related issues.

Improvement in Mental Cognition: Exposure to cooler color temperatures during the morning hours is known to help with morning wakefulness, contributing to improved concentration and performance in school.

Improvement in Mood: Light levels are also important in the classroom, and bright lights are used to treat several types of depression, including Season Affective Disorder (SAD). SAD affects people during the coldest months of the year when people don't get enough sunlight exposure during the day and is a common problem in schools and offices. If you spend too long in a room that's dimly lit, it can affect your mood and lead to depression.

4. Reduced Maintenance Cost:

The current fluorescent lighting tubes last approximately 3-5 years and the ballast at

Colstrip High School and Pine Butte Elementary have reached their lifecycle and are burning out. Replacement is costly and time prohibitive. Every classroom, hallway, bathroom, and office needs sufficient lighting, and the number of bulbs maintenance workers must replace can number in the thousands. If a school uses fluorescent bulbs, maintenance crews may spend a significant portion of their working hours replacing lights, especially when those lights are not easily accessible, like those found in gyms, auditoriums and other spaces with high ceilings. However, since LED lights have a significantly longer lifespan, your crew can spend less time maintaining/replacing bulbs when you switch to LED.

Proposed Solution:

The School District has been replacing its fluorescent lighting with LED lighting for the past three years. Floor plans identifying both areas that have been retro-fitted and areas that remain to be retrofitted are included as a reference. The proposed solution is to install LED flat panel lighting in the areas that have not been updated during the summer of 2020 to avoid impact on the student educational environment. Included in the floor plan appendix is the proposed cut sheet of the replacement LED lighting. Estimated savings associated with electrical consumption cost for lighting are in excess of 30%. The district is confident that this solution will reduce maintenance cost and improve the educational environment.

PROJECT BUDGET AND IMPLEMENTATION SCHEDULE:

A. Project Budget Form:

PROJECT BUDGET FOR: **Colstrip Public Schools LED Lighting Replacement Project**					
Completed by: CPS Superintendent of Schools For: Colstrip Public Schools, MT Date 1.24.20					
ADMINISTRATIVE/ FINANCIAL COSTS	**SOURCE: Coal Board Grant**	**SOURCE: CPS District**	**SOURCE:**	**SOURCE:**	**TOTAL:**
Grant Administration	$0	$0	$0	$0	$0
Office Costs	$0	$0	$0	$0	$0
Professional Services	$4,172	$0	$0	$0	$4,172
Legal Costs	$0	$0	$0	$0	$0
Travel & Training	$0	$0	$0	$0	$0
TOTAL ADMINISTRATIVE/ FINANCIAL COSTS	**$4,172**	**$0**	**$0**	**$0**	**$4,172**
ACTIVITY COSTS:	$0	$0	$0	$0	$0
Equipment Cost	$0	$0	$0	$0	$0
Construction Cost	$208,609	$0	$0	$0	$208,609
Architectural/Engineering Design	$16,689	$0	$0	$0	$16,689
Product Completion (PER's, studies, etc.)	$0	$0	$0	$0	$0
Contingency	$0	$19,963	$0	$0	$19,963
TOTAL ACTIVITY COSTS	**$225,298**	**$19,963**	**$0**	**$0**	**$245,261**
TOTAL PROJECT COSTS	**$229,470**	**$19,963**	**$0**	**$0**	**$249,433**

B. Project Budget Narrative:

Colstrip Public Schools LED Lighting Replacement Project		
ADMINISTRATIVE/FINANCIAL COSTS		
Personnel Services/Office Costs:		**$0.00**
There will be no personnel services required on this project as an employee's salary is accounted for in the annual budget.		
Professional Services:		**$4,172.00**
The district has hired McKinstry as the design builder for the project. Their project manager will assist with the project design, development, and administration throughout the project.		
Legal Costs:		**$0.00**
No legal costs are anticipated or budgeted for in this project.		
Audit Fees:		**$0.00**
Audit fees will not be necessary with this project.		
TOTAL ADMINISTRATIVE/FINANCIAL COST		**$4,172.00**
ACTIVITY COSTS		
Equipment Cost:		**$0.00**
There is no equipment breakout for equipment. All materials included in construction line item.		
Construction Cost:		**$208,609.00**
Construction cost is the total construction including inspection fees for the lighting replacement in Colstrip High School / CHS Classrooms ($116,162), Pine Butte Elementary School / PBES ($23,750), and CHS Gymnasium ($68,697).		
Architectural Design:		**$16,689.00**
This cost is for architectural and design fees related to the design and electronic documentation of the project.		
Project Study/ Permit		**$0.00**

This cost is for the initial permit for the construction scope.		
Contingency:		**$19,963.00**
Contingency cost is approximately 8.7% of the construction budget. Percentage is within the industry standard for projects as recommended by the architect/ consultant.		
TOTAL ACTIVITY COSTS		**$245,261.00**
TOTAL PROJECT COSTS		**$249,433.00**

C. Implementation Schedule:

IMPLEMENTATION SCHEDULE FOR: CPS Lighting Improvement Project								
	QUARTERS 2020				QUARTERS 2021			
TASK	**1ST**	**2ND**	**3RD**	**4TH**	**1ST**	**2ND**	**3RD**	**4TH**
PROJECT START-UP								
A. Sign contract with Coal Board	X							
B. Secure approval of other funding	X							
C. Submit progress reports and drawdown request. (Progress reports quarterly if no draws submitted)		X	X	X				
PROJECT CONSTRUCTION								
A. Architectural Design	X							
B. Conduct pre-construction conference		X						
C. Construction and purchase and installation of equipment		X	X					
D. Monitor Progress		X	X					
E. Final Inspection				X				
PROJECT CLOSE-OUT								
A. Coal Board admin staff conduct on-site monitoring of the project.				X				
B. Submit project completion report.				X				
C. Include project in audits.					X			

18. DESCRIPTION OF RELATIONSHIP TO COAL BOARD STATUTORY GRANT CRITERIA

A. Need

1. Does a serious deficiency exist in a basic or necessary community public facility or service? Examples include emergency services such as police, fire or ambulance services.

APPLICANT'S RESPONSE:
Light-emitting diode (LED) lights provide many benefits for homes and businesses, such as energy efficiency, durability, flexibility, and improved overall light quality. In particular, K-12 schools often see improvements in academic performance after upgrading to LED lights. If you work at a school and are looking for a cost-effective way to improve your students' learning experience, LED lights represent a crucial pathway for meeting these goals.

2. Have serious public health or safety problems that are clearly attributable to a deficiency occurred, or are they likely to occur, such as illness, disease outbreak, substantial property loss, environmental pollution, safety problems, hazards, or health risks?

APPLICANT'S RESPONSE:

Fluorescent bulbs aren't just wasteful — they can also harm your health and wellbeing. Replacing fluorescent lights with LED lighting in educational environments is associated with the following health benefits:

Installing LED light fixtures can lower the risk of exposure to harmful contaminants like Polychlorinated Biphenyls (PCBs). The U.S. Environmental Protection Agency defines PCBs as carcinogens that can harm the nervous, immune, and endocrine systems and are often found in the T12 fluorescent ballasts. While all of these ballasts have the potential to leak or rupture, some of them are also known to emit small amounts of PCBs during their normal use. The EPA also released an announcement that schools in the U.S. built before 1979 may still have some T12s that contain PCB. You can be exposed to the contaminants if you breathe contaminated air or touch contaminated materials following a rupture or leak. People exposed to high levels of PCBs may show signs of rashes or acne and, in some cases, even lung and liver problems. Researchers are continuing to conduct studies to better determine the adverse health effects of PCBs.

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Some other ways that LED lighting can make the school environment healthier and more comfortable for students include:

Improvement in Visual Performance and Comfort: Glare and flicker are two issues

associated with outdated lights and can affect the teachers as well as the students. Glare often causes you to blink, squint or look away and can be caused by one of two things — excessively high luminance or excessively high luminance ratios. In both scenarios, the students' visual performance will decline as their comfort levels decrease. Two types of glare exist — disability and discomfort glare. Discomfort glare refers to the pain associated with viewing glare, whereas disability glare reduces visibility. Disability glare occurs when light is scattered throughout the eye, which then reduces the retinal image's luminance contrast.

Less Irritation for Autistic Students: Autistic students are especially susceptible to the harmful effects of fluorescent lighting, including an increased sensitivity to direct fluorescent lighting's sub-visible flicker. This can lead to eyestrain, headaches, and an increase in repetitive/compulsive behavior. LEDs, on the other hand, are resistant to the flicker-effect when they are completely dimmed, which makes them an excellent choice for special education student bodies.

Reduction in Hyperactivity: Color temperature has also been shown to play an important role in students' health/performance. Studies show that cool color temperatures can improve the behavior of students with learning disadvantages or hyperactivity disorder. This cool light color allows them to concentrate on projects and tasks more effectively. Hyperactivity is related to stress conditions, which can be aggravated by the radiation produced by the fluorescent lights. When exposure to this radiation is decreased, performance and behavior improve.

Improvement in Circadian Rhythms: The optimal function of the body's circadian rhythm depends on the right kind of light. This vital process helps your body determine when you should wake up, go to bed, and even focus and relax. If students are regularly exposed to lighting that doesn't match their circadian rhythm, it can disrupt their sleep-wake cycle. And students who aren't getting enough sleep are at increased risk of focus and performance related issues.

Improvement in Mental Cognition: Exposure to cooler color temperatures during the morning hours is known to help with morning wakefulness, contributing to improved concentration and performance in school.

Improvement in Mood: Light levels are also important in the classroom, and bright lights are used to treat several types of depression, including Season Affective Disorder (SAD). SAD affects people during the coldest months of the year when people don't get enough sunlight exposure during the day and is a common problem in schools and offices. If you spend too long in a room that's dimly lit, it can affect your mood and lead to depression.

3. Is the entire community, or a substantial percentage of the residents of the community, seriously affected by the deficiency or at risk, as opposed to a small percentage of the residents?

APPLICANT'S RESPONSE:
There are approximately 563 students in the district that are all affected at the high school and elementary school. There are a total of 2,311 people in the Colstrip community. Therefore, the student population equates to approximately 24% of the entire community. CPS district lighting liability will be

shared by the community.

4. Is there clear documentation that the current condition of the public facility or service (or lack of a facility or service) violates, or may potentially violate a state or federal health or safety standard? If the proposed project is necessary to comply with a court order or a state or federal agency directive, describe the directive and attach a copy of it.

APPLICANT'S RESPONSE:
Upon examination of the exposed pipe during its repair there is certainly a concern for possible violations of state, federal health and safety standards.

5. Does the standard that is being violated, or potentially may be violated; represent a significant threat or potential threat to public health or safety?

APPLICANT'S RESPONSE:
There are concerns that the educational quality and delivery are compromised by the current lighting delivery system by all who use the school facility.

6. Additional information supporting the NEED for this project**.**

APPLICANT'S RESPONSE:

There are future improvements planned for Colstrip Public Schools that will be put on hold despite the educational or facility needs that require updates or being brought up to current code.

B. <u>Degree of Severity of Impact from an Increase or Decrease in Coal Development or In the Consumption of Coal by A Coal-Using Energy Complex</u>

1. Describe why the need for the expansion or improvement to the public facility or public service is attributable to coal-related impacts. Additionally, please provide the percentage of the project that is a result of coal impacts.

APPLICANT'S RESPONSE:

The need for the LED Lighting Project are issues of safety and functionality. Specifically for those that work, live and stay in coal country and the community of Colstrip. The impact of the coal economy directly affects the Colstrip School District's ability to provide the needed maintenance for facilities that were built with coal funding. The current uncertainty in the coal industry has resulted in declining enrollments and funding. The current economic situation in Colstrip is 100% a result of coal impacts and an uncertainty in the power industry. Colstrip was initially a company town formed to provide housing to employees of the coal mine and later the power generation facility. The majority of households in Colstrip have a member of the household that works in the coal industry. Even families that attend Colstrip from the surrounding area contribute indirectly or directly to the coal industry. At present there are over 650 persons employed.

2. Name the nearest coal development area or coal-using energy complex to your community and the road miles from your community.

APPLICANT'S RESPONSE:

A. Talen Energy Coal-fired Electric Plant - Four Unit 2,100 MW power station: Employs 320 and is located with the City of Colstrip.
B. Westmoreland Company's Rosebud Coal Mine: Employs 362 and produces 12.3 million tons of coal; has 25,000 acres adjacent to the City of Colstrip.
C. Westmoreland's Syncoal Advanced Coal Conversion Plant producing 300,000 tons of coal per year was located adjacent to the unit train loadout facility at WECO's Rosebud mine and was in production from 1992 to 2001 when it was permanently closed.
D. Peabody Group's Big Sky Coal Mine located just six miles south of Colstrip closed in 2004-05 and was listed as one of Rosebud County's top 10 private employers in 1997.
E. Rosebud Power generation station is north of town within seven miles of the City limits.
F. Westmoreland's Sarpy Creek mine is 25 miles west of Colstrip.
G. Decker Mine is located 85 miles to the south of Colstrip.

3. Additional information supporting the DEGREE OF SEVERITY OF IMPACT FROM AN INCREASE OR DECREASE IN COAL DEVELOPMENT OR IN THE CONSUMPTION OF COAL BY A COAL-USING ENERGY COMPLEX.

APPLICANT'S RESPONSE:

Colstrip is a community built and centered around the production of coal fired electricity. Residents that come into the community are employed by or supported directly or indirectly by the Rosebud Power Plan, Western Energy Coal Mine and the Talon Energy generated power plant. The majority of households in Colstrip have at least one person directly employed in the coal industry. In the advent of the shut-down of two of the four power units located in Colstrip that provide a significant tax structure for community and educational operations, economic uncertainty has rippled through the Colstrip

community. The effects from the uncertainty alone have significantly impacted our community and those that choose to live and raise their families in coal country.

C. Availability of Funds

1. Amount requested from the Coal Board: $ 229,470
2. Amount of Coal Board funds available at the time of application $_____
3. Explain why a coal impact grant is necessary to make the project feasible and affordable

APPLICANT'S RESPONSE:

The Coal Impact Grant is vital to this project. Public school funding is determined by formula in the state of Montana and directly related to "average number belonging" (ANB) and support of local taxpayers. With the pending closure of Colstrip Units 1 & 2, the District has experienced enrollment changes that affect the funding in the General Budget. Any negative shifts in enrollment lead to greater tax burden on the individual taxpayer to maintain current budgets. In addition, as taxable valuation diminishes and less coal is mined , resulting in reduced in coal gross proceeds, the individual property taxpayer will be under greater burden to shoulder any difference.

Natural demographic changes leading to staff retirement coupled with uncertainty of future employment opportunities, because of the closure of Units 1 & 2, have created challenges to recruitment and retention of qualified staff.

The Coal Impact Grant is instrumental in offsetting the burden that taxpayers have in maintaining the facilities that were built for our coal producing community with coal funds. This grant will help a coal reliant community offset its obligation to provide a safe facility for students, staff, and community.

4. What are the other proposed funding sources for the project?

APPLICANT'S RESPONSE:

The Colstrip community has supported the requests of the Colstrip School District for funding for over three decades. As such, it has diminished its reliance on outside sources. Colstrip Schools has committed over $19,963 to fund project contingency (in excess of 8.% of the project); however, the District has already installed and funded over $150,000 in LED lighting that has been installed. The district is seeking assistance from the coal board to fund the remainder of the project.

5. If a particular proposed source of funding is not obtained, how will the applicant proceed?

APPLICANT'S RESPONSE:

If grant funding is not obtained, it is anticipated that the majority of the project may not proceed.

D. Degree of Local Effort in Meeting Needs

1. If current millage rates given are lower than the average rates levied during the previous three years, briefly explain why they are lower.

APPLICANT'S RESPONSE:

In 2019, the general fund millage rate is greater than the three year average millage rate.

2. Describe any local efforts to meet the public facility or public service needs by providing financial contributions to the project to the extent possible, such as local funding, donations of land, absorbing some or all-administrative costs. For non-profit organizations, describe fund-raising efforts or other in-kind assistance to the proposed project as well as usual program fund-raising efforts.

APPLICANT'S RESPONSE:

Colstrip Public Schools plans to absorb over $19,963 of the total project cost, These costs are primarily related to contingency cost; however, the district has already absorbed an extensive amount bu installing over $150,000 of LED lighting over the past three years.

3. Describe past operation and maintenance budgets and practices over the long-term, including any reserves for repair and replacement.

APPLICANT'S RESPONSE:
Colstrip Public Schools has over $5 million in deferred maintenance. The district prioritizes the annual list according to the following criteria: 1) Safety and Security 2) Degree of wear 3) Insufficiency and Cost Prohibitive 4) Condition. This grant application addresses the districts highest grading criteria. The taxpayers have generously supported all levy requests put before them for general funds as well as several building reserve levy requests thereby showing its commitment for the well-being of the school district.

4. If there are indications that the problem is not of recent origin, or has developed because of inadequate operation and maintenance practices in the past, explain the circumstances and describe the actions that management will take in the future to assure that the problem will not reoccur.

APPLICANT'S RESPONSE:

N/A

5. If the project involves water, wastewater or solid waste, provide the current and projected monthly household user charges, including operation and maintenance:

What is the current monthly household user charge? $___N/A

a. What is the projected monthly user charge (including operation and maintenance) when the project is complete? $ ___N/A

6. What are your current debt obligations?

784442000
784442006 9999JD9C1

BOARD OF INVESTMENTS
ANNUAL AJUSTABLE RATE TENDER OPTION
MUNICIPAL FINANCE CONSOLIDATION ACT BONDS
(INTERCAP REVOLVING PROGRAM) SER 2004

0

MUNICIPALITY: COLSTRIP HS DISTRICT#19
TOTAL LOAN COMMITMENT: $ 500,000.00
TOTAL DRAWS TO DATE: $ -
THIS DRAW DOWN: $ 500,000.00
REMAINING LOAN COMMITMENT: $ -
PROJECT: BUILDING REMODEL

FINAL LOAN PAYMENT: 6/15/2021
TOTAL # OF LOAN PAYMENTS: 10
LOAN/DRAW NUMBER: 2719-01
DATE OF THIS DRAW 9/30/2016
DATE OF LOAN AGREEMENT: 9/30/2016

PAYMENT DUE	INTEREST RATE	# DAYS DUE	INTEREST PAYMENT	PRINCIPAL PAYMENT		O/S LOAN BALANCE	TOTAL AMOUNT OF PAYMENT
* BEGINNING BALANCE *						500,000.00	
2/15/2017	1.550%	138	2,922.13	50,000.00	ex princ pd	450,000.00	$52,922.13
8/15/2017	2.500%	181	5,563.52	48,691.20		401,308.80	$54,254.72
2/15/2018	2.500%	184	5,057.59	49,020.22		352,288.58	$54,077.81
8/15/2018	3.150%	181	5,502.94	49,448.13		302,840.45	$54,951.07
2/15/2019	3.150%	184	4,808.94	49,789.62		253,050.82	$54,598.56
8/15/2019	3.370%	181	4,228.86	50,210.90		202,839.92	$54,439.76
2/15/2020	3.370%	184	3,445.94	50,571.00		152,268.92	$54,016.94
8/15/2020	0.000%	182	0.00	50,982.29		101,286.63	$0.00
2/15/2021	0.000%	184	0.00	51,366.67		49,919.96	$0.00
6/15/2021	0.000%	120	0.00	49,919.96		0.00	$0.00

7. What are your current assets?

APPLICANT'S RESPONSE: From the management, discussion, and analysis section of the FY 2018 of the Financial Compliance Report:

NET POSITION			Activities	
	2018	**2017**	$ Change	% Change
Current assets	8,135,040	7,040,576	1,094,464	15.55%
Capital assets, net	9,835,306	10,593,603	-758,297	-7.16%
Total assets	17,970,346	17,634,179	336,167	1.91%
Deferred outflows of resources	848,455	1,204,472	-356,017	-29.56%
Current liabilities	161,869	148,104	13,765	9.29%
Long term liabilities	8,834,542	8,755,379	79,163	0.90%
Total liabilities	8,996,411	8,903,483	92,928	1.04%
Deferred Inflows of Resources	343,616	329,840	13,776	4.18%
Net Position:				
Invested in capital assets net of related debt	9,483,017	10,593,603	-1,110,586	-10.48%
Restricted	4,719,006	4,011,573	707,433	17.63%
Unrestricted	-4,723,249	-4,999,848	276,599	-5.53%
Total net assets	9,478,774	9,605,328	-126,554	-1.32%

8. What financial accounting system do you use?

APPLICANT'S RESPONSE

Generally accepted accounting principles as adopted by the governmental accounting board and the State of Montana. The district utilizes Tyler Technologies' Infinite Visions software.

9. Is the applicant in compliance with the auditing and annual financial reporting requirements provided for in the Montana Single Audit Act, 2-7-501 to 522, MCA? (Tribal governments must comply with auditing and reporting requirements provided for in OMB Circular A-133).

Yes X No

Date of last completed audit or financial report: Year ending June 30, 2018, audit finalized by Strom & Assoc., P.C. March 19, 2019, and approved by Colstrip Board of Trustees on April 8, 2019

10. If there have been audit findings within the last five years, have they been satisfactorily addressed?

APPLICANT'S RESPONSE:

Yes

11. Additional information supporting the DEGREE OF LOCAL EFFORT IN MEETING NEEDS.

APPLICANT'S RESPONSE:

Colstrip Schools has committed over $19,963 to fund project contingency (in excess of 8.% of the project); however, the District has already installed and funded over $150,000 in LED lighting. The district is seeking assistance from the coal board to fund the remainder of the project. See Appendix A for details.

E. Planning & Management

1. Describe how your grant request reasonably fits into an overall plan for the orderly management of the existing or contemplated growth or decline problems related to coal impacts.

APPLICANT'S RESPONSE:

The District has invested in the future by completing a Centralization Project Study. It is anticipated that there will be substantial decreases to the district's student population and budget with the closure of Units 1 and 2 at the Colstrip Power Plant. The district has proactively explored multiple scenarios reviewing how they can best accommodate declining enrolment and reduced budget dollars. A recommendation from the study was to reduce the facility footprint for the district. Both Colstrip High School and Pine Butte Elementary School will be the anchor facilities when a reduction in facility footprint is needed.

2. Describe how the proposed project is consistent with current plans.

APPLICANT'S RESPONSE:

Completing this project is critical to the needs of the community and district. Replacing current fluorescent fixtures are part of the deferred maintenance list. The District is in its fourth phase of replacing fixtures in all academic areas in both the high school and elementary.

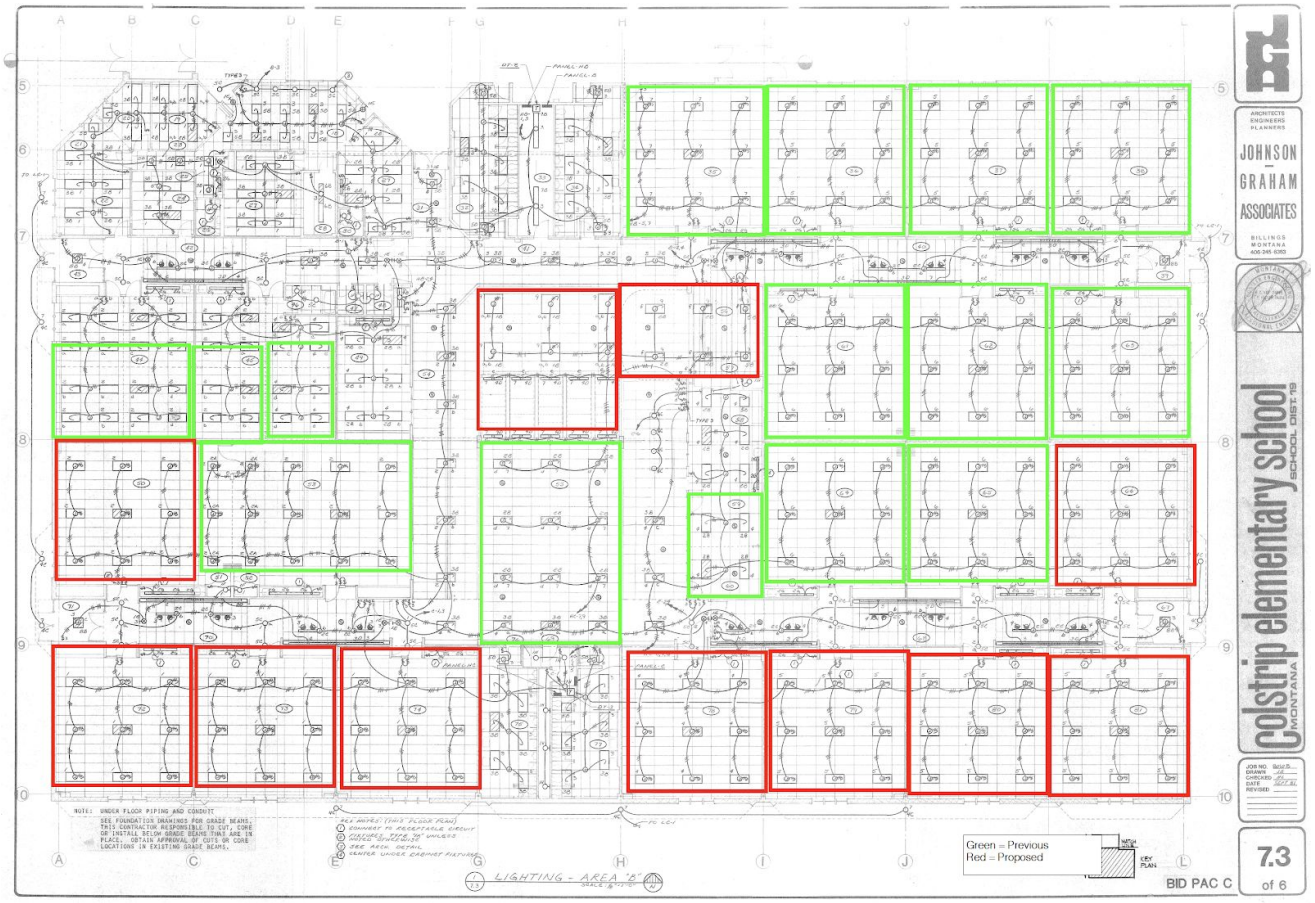
APPENDIX A

LED Lighting Maps

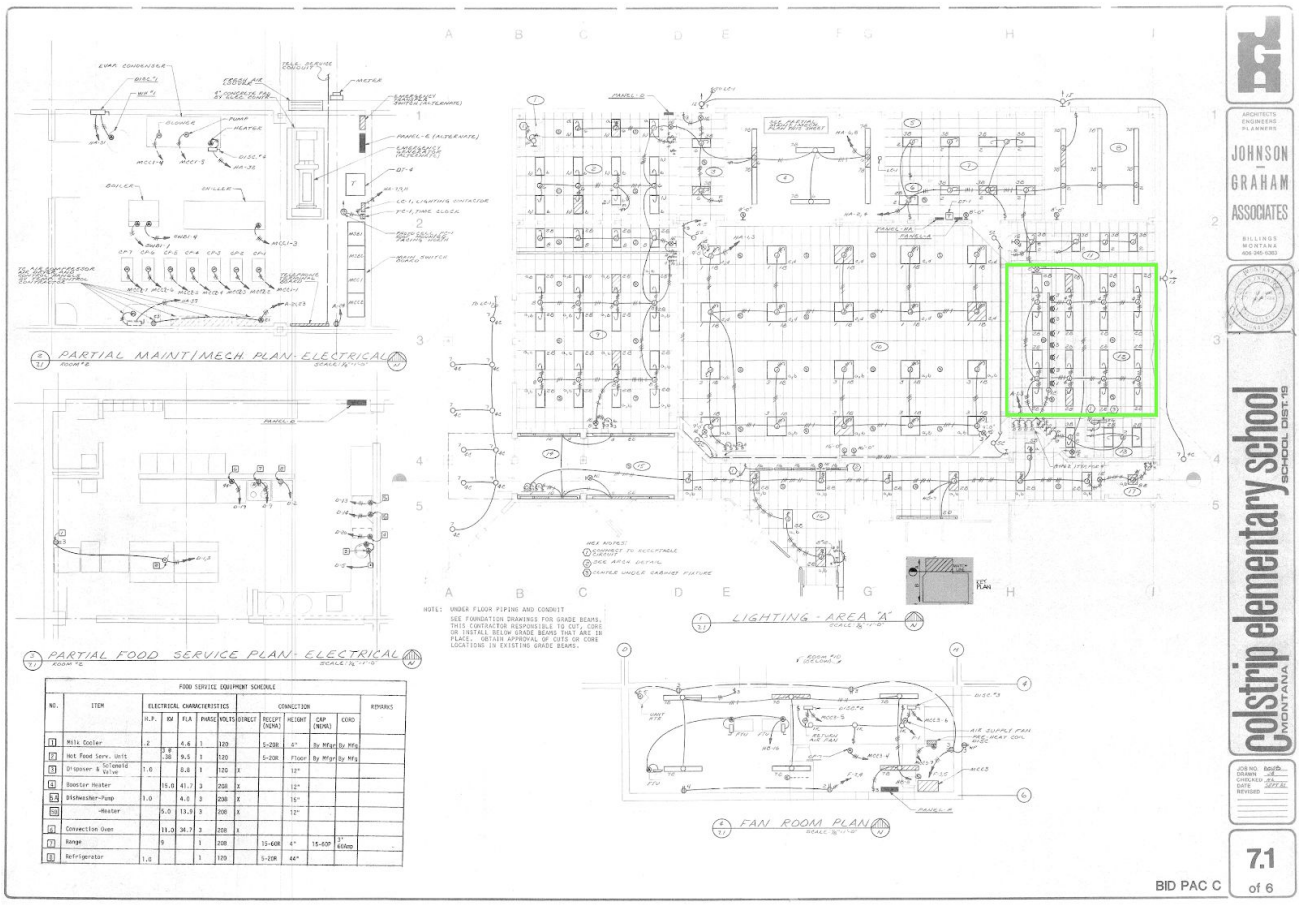
Areas (Classrooms) that have already been addressed by the District are outlined in GREEN. Requested areas that need new LED fixtures are outlined in RED.

PINE BUTTE ELEMENTARY

Elementary Academic



Elementary Food Service



NO.	ITEM	ELECTRICAL CHARACTERISTICS					CONNECTION				REMARKS
		H.P.	KW	FLA	PHASE	VOLTS	DIRECT	RECEPT (NEMA)	HEIGHT	CAP (NEMA)	CORD	
1	Milk Cooler	.2		4.6	1	120		5-20R	4"	By Mfgr	By Mfg	
2	Hot Food Serv. Unit		2 @ .38	9.5	1	120		5-20R	Floor	By Mfgr	By Mfg	
3	Dispenser & Solenoid Valve	1.0		8.8	1	120	X		12"			
4	Booster Heater		15.0	41.7	3	208	X		12"			
5	Dishwasher-Pump	1.0		4.0	3	208	X		15"			
5a	-Heater		5.0	13.9	3	208	X		12"			
6	Convection Oven		15.0	34.7	3	208	X					
7	Range		9		1	208		15-60R	4"	15-60P	3" 60Amp	
8	Refrigerator	1.0			1	120		5-20R	44"			

COLSTRIP HIGH SCHOOL

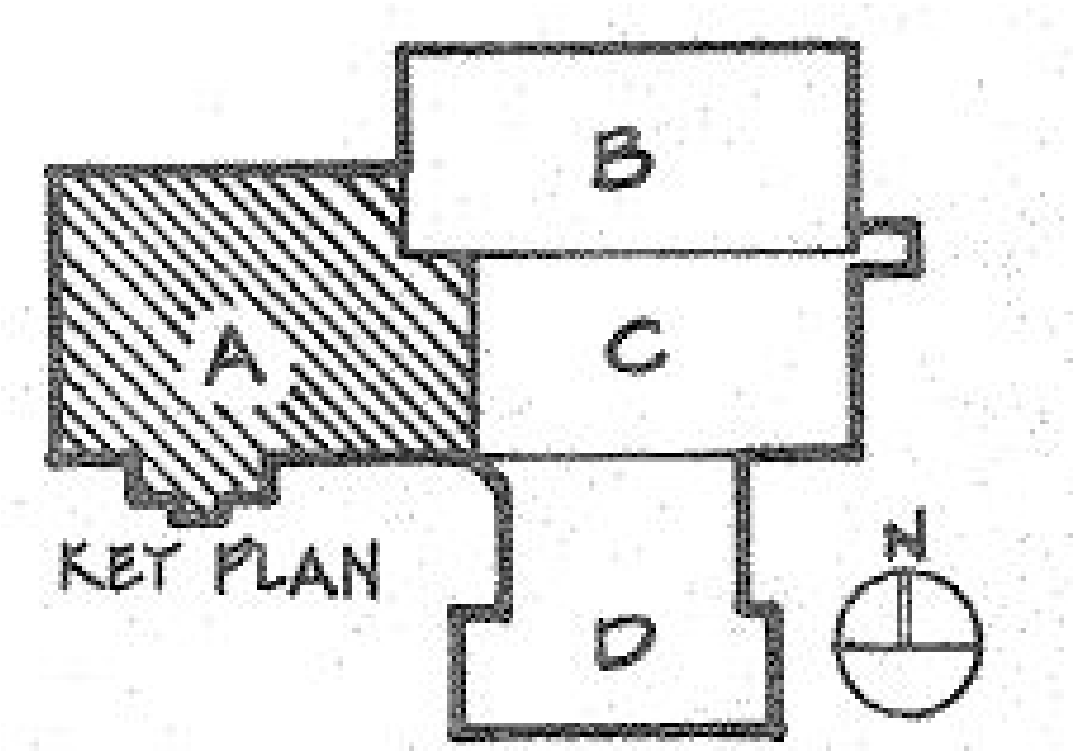
The High School Has been divided into four (4) areas as seen in the illustration below:

A: Academic

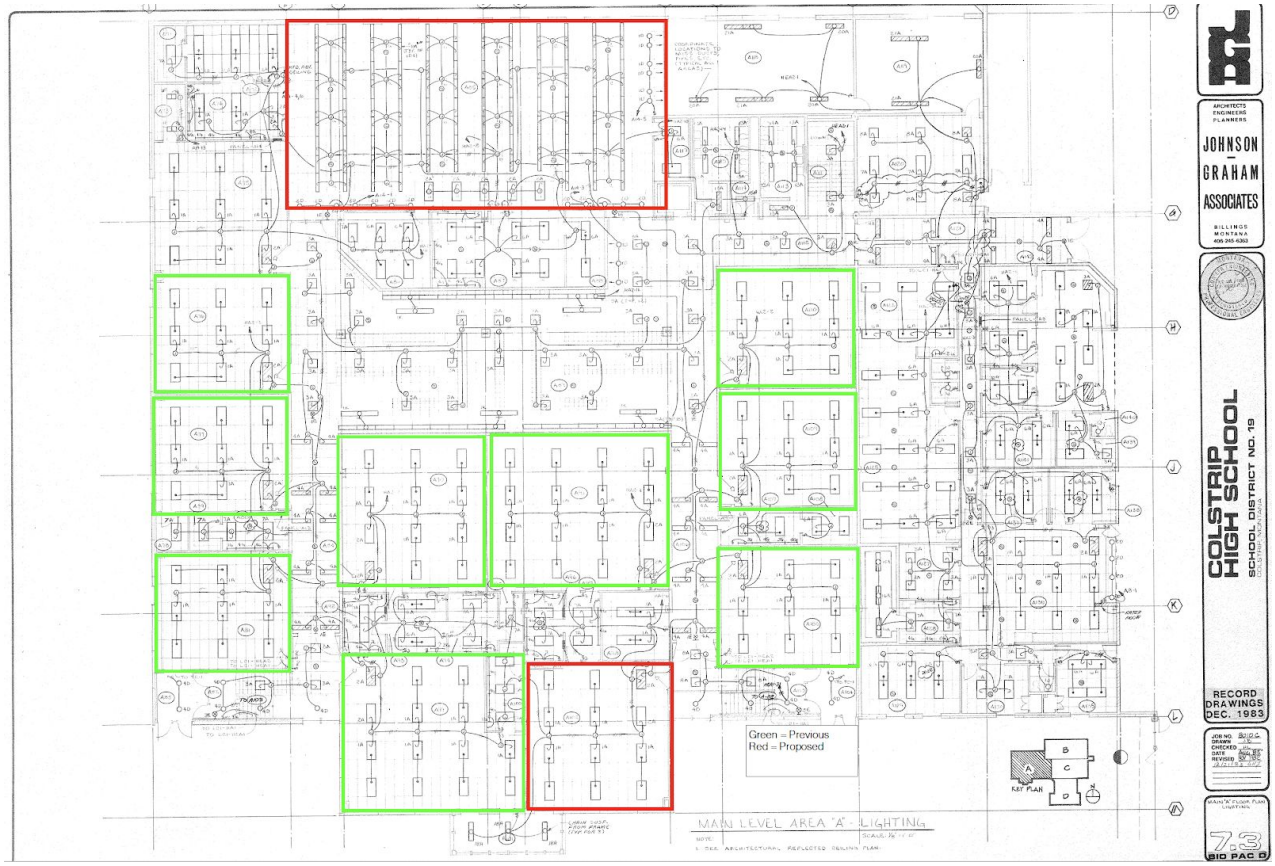
B: Gymnasium

C: Auditorium/Fine Arts

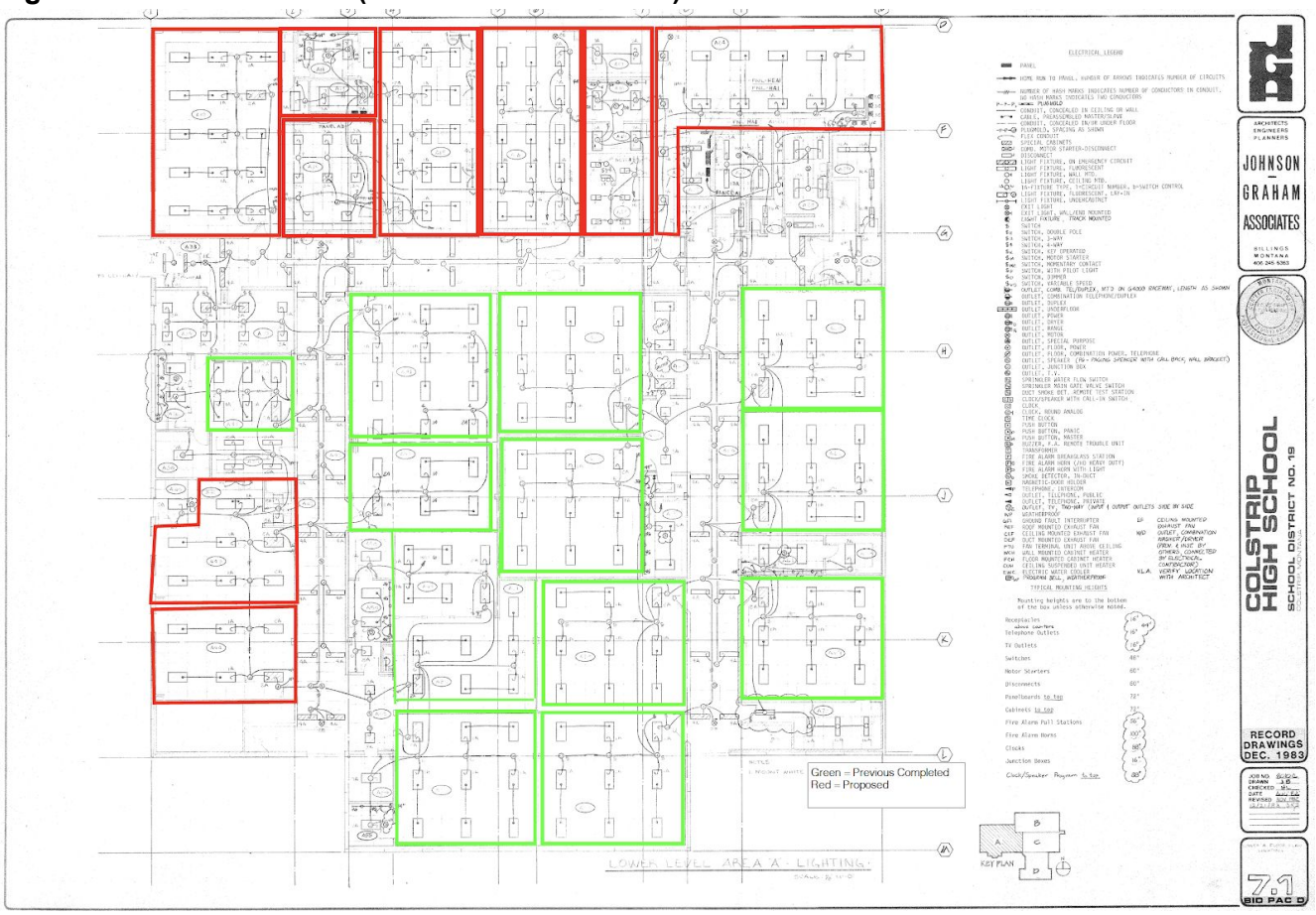
D: Career Technical Education



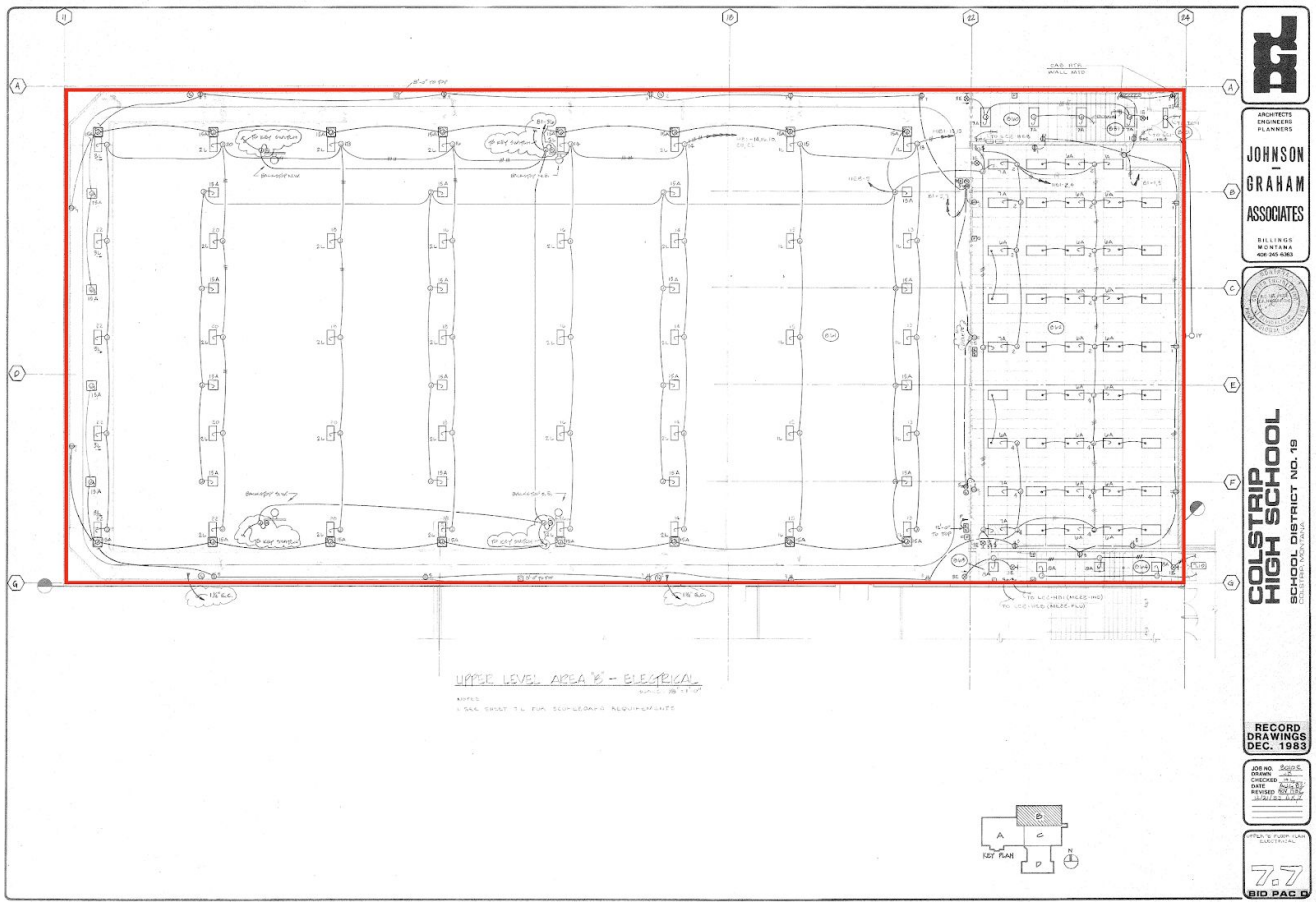
High School KEY PLAN A (Academic Upper Level)



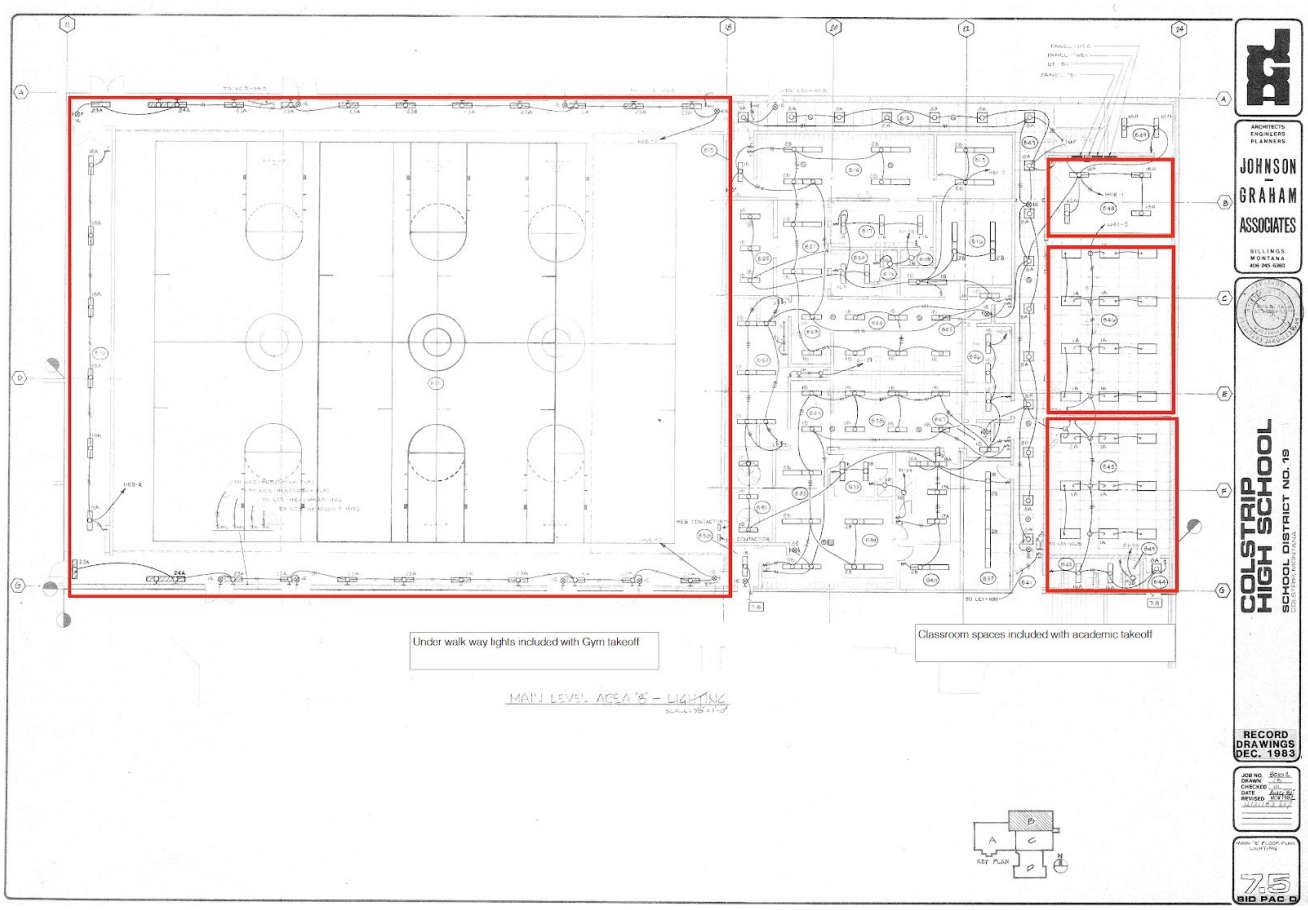
High School KEY PLAN A (Academic Lower Leve)l



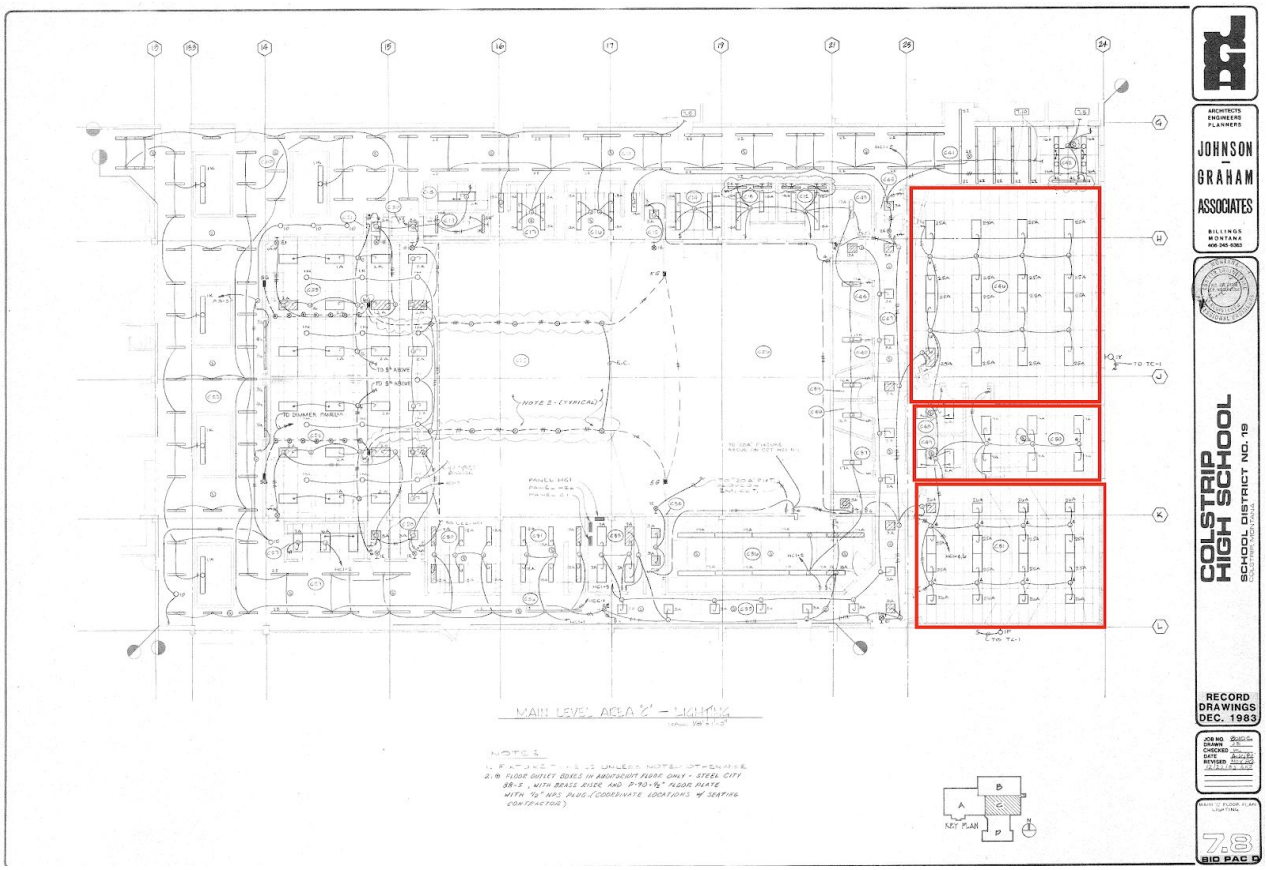
High School KEY PLAN B (Gymnasium Upper)



High School KEY PLAN B (Gymnasium Lower)



High School KEY PLAN C (Auditorium/Fine Arts)



High School KEY PLAN D (Career Technical Education)

44W LED Panel - Color Selectable

Order Code: PN41751

CCT Selectable: 3500K / 4000K / 5000K

3500K 4000K 5000K

Description

Venture Lighting's color temperature selectable LED panels are low profile, lightweight, and designed for long life and low maintenance. These thin luminaires are designed to quickly and easily upgrade existing fluorescent fixtures and be more versatile than other LED panels. The high performance LED source is mounted to ensure proper thermal management of the system. Each fixture is capable of changing CCT with a simple flip of a switch. The CCT Selection method allows for a cost effective method to reduce stocking inventory by 66%.

- Change from 3500K, 4000K or 5000K with just the flip of a switch.
- All CCT Selectable Panel fixtures are preset to 4000K at the factory.

Construction

The high performance LED source is mounted to ensure proper thermal manage-ment of the system. The design allows for a cooler running LED chip which leads to longer lifetime, better efficacy, and color consistency.

Optics

Each fixture utilizes a specially engineered optic which is designed to have low glare yet maximize the product performance.

Electrical

The power supply has a range of 120-277V, 50/60 Hz. Driver input voltage terminal block can use 12 to 22 wire gauge. Driver output voltage terminal block can use 16 to 22 wire gauge. 0-10V DC dimming capability is standard.

Mounting

The fixture is designed for replacing fluorescent fixtures in T-grid applications. Fixtures are IC-rated and rated for damp and dry locations.

Product Performance

Wattage		44W	
	CCT	**DLC Model#**	**Lumen Output**
Standard	4000K	P124-48N-ANR-C	4740
Field Selectable	3500K	P124-48B-ANR-C	4660
Field Selectable	5000K	P124-48C-ANR-C	5030
Color Rendering Index (CRI)		80+	
Life Hours		50000	
Operating Temperature Range		-13°F to 113°F (-25°C to 45°C)	

Physical Characteristics

Fixture Color	White
Weight	11.0 lbs
Width	23.7"
Length	47.7"
Height	1.9"
Panel Size	2x4

Electrical Characteristics

Amperage Draw (Input Volts/Amps)	120/0.42 208/0.25 240/0.22 277/0.19

Regulatory Qualifications

cULus Listed

DLC Model# (4000K) P124-48N-ANR-C

DLC Model# (3500K) P124-48B-ANR-C

DLC Model# (5000K) P124-48C-ANR-C

IC-Rated

Accessories

KT18522 2X4 SURFACE MOUNT KIT, WHITE

KT18916 2X4 DRYWALL MOUNT KIT, WHITE

BB23468 BATTERY BACK-UP*

AC25420 - 3/8" 3-WIRE 14/3 600V MAX 6FT FLEX. WHIP

Add suffix "-WP" to order code for a factory installed fixture with a 6ft whip (Part # AC25420)

Add suffix "-PP" to order code for a factory installed fixture with PowPack.

*For a factory installed Battery Backup add "-EM" after order code (Lumens 860) – Temp range for battery backup: (0-45°C)

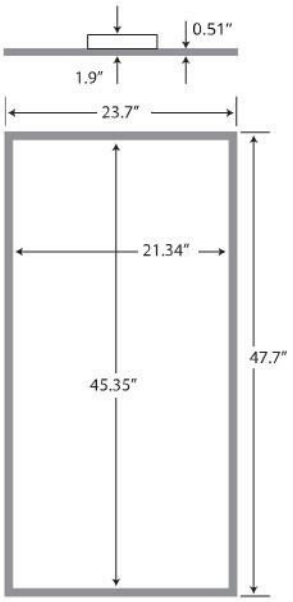
VENTURE LIGHTING

COMPATIBLE WITH LUTRON LIGHTING CONTROLS

2451 Enterprise Parkway East, Twinsburg, Ohio 44087 | Tel: 800-451-2606 | Fax: 800-451-2605 | www.venturelighting.com

Venture 44W LED Panel - Color Selectable

44W 2x4 LED Panel



(800) 451-2606
Fax: (800) 451-2605
2451 Enterprise Parkway East
Twinsburg, Ohio 44087 USA
E-mail: venture@adlt.com
VentureLighting.com

VENTURE LIGHTING

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Lighting Quantity Takeoff and Pricing Estimate for Colstrip Public Schools LED Lighting Replacement Project 2020

Description	Totals per Fixture
Gym 200 Watt UFO	$519
Gym U-Bent LED Replacement	$304
Gym 4'x 2'-4" Lamp Wall Lights	$319
Academic 2' x 2'	$269
Academix 2' x 4'	$294
Academic 1' x 4'	$288
Parabolic Lamp	$127
Academic Library LED Re-Lamp	$178

Selected CHS Academic Areas:

250 - 2'X4'

34 - 2' x 2'

8 - 4' Wall Lights

116 - Parabolic lights

114 - 4" LED lamp replacements

9 - 1' x 4'

Subtotal Cost: $116,162

CHS Gym Area:

90 - UFO high bay lights

31 - Replace U-Bent LED lamps

30 - Wall Lights

Subtotal Cost: $68,697

Pine Butte Elementary School

50 - 2' x 4'

2 - 2 'x 4'

26 - 1' x 4'

Subtotal Cost: $23,750

APPENDIX B

Resolution identifying exemption to the MEPA review under ARM 8.2.328(2)

- Project involves only minor repairs or rehabilitation to an existing facility, including functional replacement of an existing facility or facility components;
- Project where the footprint of the proposed structures, pipelines or other infrastructure would be substantially unchanged from existing conditions, and there is no increase in the population served by the facility.

As per Colstrip Public District Policy 1400 Board Meetings, the following agenda was posted in a manner that will receive public attention. It was posted at the Post Office and at all school building main entries (Frank Brattin Middle School, Pine Butte Elementary School and Colstrip High School). This process serves as Colstrip Public Schools public notice. The District also provides public notice using an online service called BoardDocs. Below is the notice and header used.

Special Board Meeting

Wednesday, January 22, 2020

Notice is hereby given to the governing Board and general public that the Special Board Meeting of the Governing Board for the Colstrip School District #19 will be held Wednesday January 22, 2020 beginning at 5:00 PM in the District Board Room located in the lower level of the Frank Brattin Middle School. Following is the proposed agenda:

Main Governing Board

https://www.boarddocs.com/mt/cpsd19/Board.nsf/vpublic?open.

Agenda Item Details

Meeting	Jan 22, 2020 - Special Board Meeting
Category	NEW BUSINESS
Subject	Montana Coal Impact Grant Application for Colstrip Public Schools LED Lighting Project
Access	Public
Type	Action
Recommended Action	NOW, THEREFORE, BE IT RESOLVED by the Colstrip Public School District # 19 Board of Trustees as follows: That Colstrip Public School District # 19, in Colstrip Montana adopts the Colstrip Public Schools LED Lighting Project for submission to the Montana Coal Board for a Montana Coal Impact Grant at the March 12, 2020 Coal Board Meeting.

Public Content

WHEREAS: **ELIGIBILITY FOR COAL BOARD GRANTS**
The governing body of a city, town, county, or school district, any other local or state governmental unit or agency, or the governing body of a federally recognized Indian tribe may apply for a grant to enable it to provide governmental services that are needed as a direct consequence of an increase or decrease of coal development or of an increase or decrease in the consumption of coal by a coal-using energy complex. (90-6-208, Montana Code Annotated)
Under 90-6-209, MCA, the Coal Board may not approve a grant to an Indian tribe unless:
(a) the governing body of the tribe has agreed:
(1) to waive its immunity from suit on any issue specifically arising from the transaction of a grant obtained under this part; and
(2) to the adjudication of any dispute arising out of the grant transaction in the district court of the first judicial district of the State of Montana; and
(b) approval of the transaction has been obtained from the Secretary of the United
States Department of the Interior whenever approval is necessary

WHEREAS: **CRITERIA FOR AWARD OF COAL IMPACT GRANTS**
In accordance with current statute: 90-6-206, MCA Basis for awarding grants:
(1) Grants must be awarded on the basis of:
(a) need;
(b) degree of severity of impact from an increase or decrease in coal development or in the consumption of coal by a coal-using energy complex;
(c) availability of funds;
(d) degree of local effort in meeting these needs; and
(e) in addition, State law (90-6-207[5], MCA) requires the Coal Board to give attention "to the need for community planning before the full impact of coal development or decline is realized. Applicants should be able to show how the request reasonably fits into an overall plan for the orderly management of the existing or contemplated growth or decline problems." Therefore, pursuant to Sub- Chapter 3 of the Administrative Rules of Montana, 'planning' is an additional criterion the Coal Board will apply when judging applications.

WHEREAS, **Colstrip Public School District #19** has completed a review of it Deferred Maintenance list of $5 million dollars to identify potential projects for consideration through the Colstrip Board of Trustees Facility Committee for recommendation to the Montana Coal Board to request application for a Montana Coal Impact Grant at the Coal Board Meeting on March 12, 2020.

WHEREAS, The **Colstrip Board of Trustees Facility Committee** is recommending the following project for consideration: **Colstrip Public Schools LED Lighting Project**;

Below is the Agenda and Notice posted.

Special Board Meeting
Wednesday, January 22, 2020

Notice is hereby given to the governing Board and general public that the Special Board Meeting of the Governing Board for the Colstrip School District #19 will be held Wednesday January 22, 2020 beginning at 5:00 PM in the District Board Room located in the lower level of the Frank Brattin Middle School. Following is the proposed agenda:

Main Governing Board

View the Agenda Print the Agenda Add Minutes

Make Dust or Eat Dust!

Colstrip Public Schools

216 Olive Drive • P.O. Box 159 • Colstrip, MT 59323-0159 • 406-748-4699

RE: Colstrip Public Schools LED Lighting Project

WHEREAS, **Colstrip Public School District #19** has completed a review to identify potential environmental impacts to the**Colstrip Public Schools LED Lighting Project**;

WHEREAS, **Colstrip Public School District #19** has held a public meeting to solicit public comments regarding the following: potential for causing a significant effect on the quality of the human environment; potential public controversy over the project's possible effect on the quality of the human environment; and potential to affect sensitive environmental or cultural resource areas or endangered or threatened species and their critical habitats;

WHEREAS, No substantive public comment was received;

WHEREAS, **Colstrip Public School District # 19** has determined that the **Colstrip Public Schools LED Lighting Project**; will not significantly affect the quality of the human environment; a significant public controversy does not exist over the project's potential effect on the quality of the human environment; and the project will not affect sensitive environmental or cultural resource areas or endangered or threatened species and their critical habitats;

WHEREAS, **Colstrip Public School District # 19** has determined an Environmental Assessment and Environmental Impact Statement are not necessary;

NOW, THEREFORE, BE IT RESOLVED by the **Colstrip Public School District # 19 Board of Trustees** as follows:

That **Colstrip Public School District # 19,** in Colstrip Montana adopts the determination that a Categorical Exclusion for **Colstrip Public Schools LED Lighting Project** is appropriate.

Passed and approved on this date of (dated).

Signed: Date:

Name: Attested:

Title:

Coal Board Grant Applicant-Colstrip Public Schools #0899
Staff Report / March 2020 Meeting

Applicant: Colstrip Public Schools
Project: Replace fluorescent lighting with LED lighting at two schools
Coal Board Funds Requested: $229,470
Total Project Cost: $249,433

Project Information:
The applicant is requesting $229,470, of a total project cost of $249,433, in Coal Board funds to replace the remaining fluorescent lighting with LED lighting at Pine Butte Elementary and Colstrip High School, which includes classrooms and gym. The request to the Board is 92% of the project costs. The purpose of the project is to address energy inefficiencies, high maintenance costs; and health risks/issues. **The applicant is a designated unit.**

Categories:

Need:

- **Applicant:**
  - The applicant states that the benefits of LED lighting are crucial for improved student concentration and performance, energy savings, health benefits, and reduced maintenance costs.
  - The environmental review documentation included public notice where the environmental determination was discussed. The environmental resolution was not signed, and no meeting minutes were included.
- **Staff Review:**
  - The proposed project is to replace remaining fluorescent lighting with LED lighting at Pine Butte Elementary and Colstrip High School in the following areas:
    - Colstrip High School Classrooms
    - Colstrip High School Gymnasium
    - Pine Butte Elementary Classrooms
  - Procurement documentation was not found in the application.
  - Staff has determined that the environmental process is incomplete.

Degree of Severity of Impact:

- **Applicant:**
  - The applicant discusses the diverse enrollment of the school from the Northern Cheyenne Indian and the Crow Reservations and how the community of Colstrip is centered around the production of coal fired electricity.
  - Direct and indirect impacts from nearby mines and plants are discussed in the application.
- **Staff Review:**
  - Documentation provided for severity of impact included narrative in the application.

Availability of Funds:

- **Applicant:**
  - The applicant details the amount of coal gross proceeds for fiscal years 2017 and 2018 and a projection for fiscal year 2019 and discusses how public school funding is determined and the changes in enrollment.
- **Staff Review:**
  - If applicant does not receive funds, project will not proceed. No other funding sources are proposed
  - The applicant is a designated unit.
  - Revenues related to the Coal Natural Resource account are not sufficient to fund the costs associated with this project request.

Degree of Local Effort in Meeting Needs:

- **Applicant:**
  - The applicant discusses how over the past 14 years, the voters of Colstrip have consistently passed annual levies to support its educational system and facilities in Colstrip.
  - The applicant states that the district has already installed and funded over $150,000 in LED lighting.

- **Staff Review:**
  - Millage rates provided by MDOR data demonstrates the average millage rates for the previous three years are lower than the current year millage rates. MDOR data years: 2016-2017, 2017-2018, 2018-2019.
  - The applicant proposes contributing $19,963 of district funds to the project, representing 8% of the project costs.

Planning & Management:

- **Applicant:**
  - The City of Colstrip updated the Growth Policy in 2019. Additional planning documents include a Capital Improvements Plan, Water Master Plan, Trails map and Zoning Regulations.

- **Staff Review:**
  - The community has a strong planning foundation and have been proactive with the local economic development group in anticipation of the closure of Units I and II.
  - Infrastructure needs at Colstrip Public Schools is addressed in the recent Growth Policy.

Grant History:

Since 2009, the applicant has been awarded two projects totaling $744,853. For more information on Coal Board projects for this or any other applicant, please visit the Commerce Grants Database at https://commerce.mt.gov/About/FundedProjects.

Supplemental Documents (not included in this staff report): maps, schools plans for lighting, produce descriptions and price quotes.

Staff Summary:

See engineer memo.

The applicant provided public notice where the environmental determination was discussed. The environmental resolution was not signed, and no meeting minutes were included.

"The applicant must provide documentation of the completed environmental review process and include with the application all documentation of the public review process, including but not limited to, the public notice for and minutes of a public hearing at which the environmental review was discussed, the public comments received, and the final decision on the environmental determination made during a public meeting" (Montana Coal Board Application, pg 27).

The environmental review record in this application is incomplete. The Board may categorically exclude projects from MEPA requirements which apply to Coal Board regulations. The proposed project could fall under a Coal Board categorical exclusion (ARM 8.2.304(5)). Therefore, the board has two options. The board may postpone action on the project for failure to complete the application. Or the board may designate the project as categorically excluded from MEPA review (see ARM 8.101.203) during a public meeting. To facilitate the opportunity for the board to make this decision, the agenda has included public notice concerning this environmental review decision.

Staff does not recommend funding until environmental review record regulations have been met. Further, staff does not recommend funding due to the statutory criteria: Availability of Funds.

MEMO

To: Coal Board Members and Commerce Staff
From: Division Engineer
Subject: Colstrip Schools – LED lighting
Meeting: March 2020

History –Colstrip High School was constructed in 1983. The buildings were constructed with fluorescent lighting. The lighting tubes last about 3-5 years and the ballast that runs those tubes have reached their life cycle and are burning out. The District has been replacing its fluorescent lighting with LED fixtures in classrooms for the past three years.

Problem – Problems identified in the application included the following:

- energy inefficiencies;
- high maintenance costs; and
- health risks/issues.

Solution – The proposed project includes replacing remaining fluorescent lighting with LED lighting at Pine Butte Elementary and Colstrip High School (classrooms and gym).

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The purposes of the project are to reduce future maintenance costs and improve the learning environment. Benefits of LED lighting were noted in the application and included the following:

- improved student concentration and performance,
- energy savings,
- health benefits and
- reduce maintenance costs.

The Coal Board grant request is for $229,470. The total cost is $249,433; the District is contributing $19,963 in project contingency.

The source of the cost estimates was from a lighting system manufacturer. Catalog cuts were provided. The school has already spent about $150,000 over the past three years replacing the existing lights with LED lighting.

Public notice documentation and the applicant's environmental determination were included with application. Procurement documentation was not found.

It was not clear why question 6 on page 3 referred to the name of the project as "Colstrip Water Main Replacement and LED Lighting Improvement Project". They appear to be two separate projects.