Lake County School District

Learning Beyond Walls

2019 MASTER PLAN

FEBRUARY 15, 2019

TREANOR HL

2019
MASTER PLAN

Lake County School District
2019 MASTER PLAN

ACKNOWLEDGMENTS

The Master Planning process was conducted in a collaborative and hands-on manner that involved multiple levels of communication and coordination. The planning process was sub-divided into three decision making groups, the Executive Team, the Visioning Team, and the Master Planning Team. These three teams worked both independently and collectively to ensure that global district directions and detailed facility directions were developed holistically. These groups are listed to the right and included participation by School District administrators, members of the Board of Education, facility-specific administrators and staff, as well as Parents, Students and members of the Leadville community.

EXECUTIVE TEAM

Wendy Wyman LCSD Superintendent of Schools
Jeff Fiedler LCSD Board of Education
Kate Bartlett LCSD Chief Financial Officer
Todd Coffin LCSD Director of Operations & Maintenance

VISIONING TEAM

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Jeff Fiedler LCSD Board of Education
Kate Bartlett LCSD Chief Financial Officer
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Amy Tait Parent and Community Member
Marika Guthrie Parent and Community Member
Gloria Perez Parent and Community Member
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BOARD OF EDUCATION

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APPENDIX

APPENDIX Sections are available in separate documents, not included within this Master Plan. (Please refer to additional attachments)

A. | CDE FACILITY ASSESSMENT REPORTS

B. | STRATEGIC RESOURCES WEST DEMOGRAPHIC REPORT

C. | EDUCATIONAL PROGRAM, CONCEPT DIAGRAMS AND COST ESTIMATES

EXECUTIVE SUMMARY

II.

BACKGROUND AND DEMOGRAPHIC INFORMATION

In January of 2018, Lake County School District engaged TreanorHL to assist in the facilitation and implementation of a 10-year long range plan. The Master Plan was developed to address the current condition and future needs of their facilities, as well as, crafting a strong course of action to enhance the educational experience of their students, staff and community.

This master planning process took place from January 2018 through the B.E.S.T. grant submittal in February 2019 and the following report documents the process, findings, and recommendations for future facility enhancements. The master plan focused its attention on the existing learning environments within the district, educational support facilities, and other district owned properties.

Throughout the master planning effort, the "spirit of balance" was a key driver in the decision making process. A balance of repair vs replacement was a critical factor in the analysis of maintenance and operational upgrades, and the idea of facility equity across the district was important to the various committees. The entire master planning process included significant involvement from the Executive Team, Visioning Team, Focus Groups, and the Leadville community. Each of the groups worked in a very collaborative fashion and the planning process was kept very transparent with the opportunity for the community to be a part of a community worksession which was facilitated by the School District and TreanorHL. In that community worksession, informative discussions and sharing of ideas were key inputs that assisted the Visioning Team in their analysis of future considerations.

The Lake County School District was officially formed on July 14, 1877 and has continued to meet the challenge of its community's educational needs, and to be a leader in educational thought and action in the area. From the rush of the early miners and fortune seekers flocking to the Leadville area in the late 1800's, to the present day

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balance of repair vs. replacement was a critical factor in the analysis of maintenance and operational upgrades

BACKGROUND AND DEMOGRAPHIC INFORMATION (cont.)

recreationally based culture, the Leadville story has been one of a boom or bust community. Throughout the rise and falls of the community population, the District has maintained a respected reputation in the area. The population has varied over the years, but has remained fairly stable over the last 5 years of enrollment, with very modest growth. The current enrollment of the District, Pre-K through 12th grade is 1,081 students.

Leadville, Colorado is the county seat and is the only incorporated community in Lake County, although the unincorporated village of Twin Lakes is located in the southern portion of the county. With the Sawatch Mountain Range containing Colorado's two highest peaks to the west, and the Mosquito Range with North America's highest mountain pass to the east, Leadville sits in a high mountain valley which envelopes the headwaters of the Arkansas River. Because of its location and relative proximity to a myriad of outdoor recreational activities, Leadville is a mecca for outdoor enthusiasts, and is a host site for notable bicycle races, marathons, and cultural attractions throughout the year.

As of the census of 2017, there were 7,778 people in the county and 2,759 residents of the city of Leadville. The racial makeup of the county was 68.2% White, 28.6 % Hispanic or Latino of any race, 0.2% Black or African American, 2.6% Native American, 0.6% Asian, 0.1% Pacific Islander, 0.2% from other races, and 2.2% from two or more races. (see Appendix, volume B) The median household annual income of residents in Lake County, in 2016 dollars, was $46,925.

However, the County demographic data, by percentage, is strikingly different than the demographic make-up of the Lake County School District student population. In October 2018, the student body from Pre-kindergarten to 12th grade is comprised of a total of 1,081 students. The most recent data provided by the District shows that 50% of all students are male and 50% female. The student

population is comprised of 70% Hispanics, and 30% Caucasian. The number of students eligible for free and reduced lunch is 72% of all students, 41% are served by the English Acquisition Program and 45% speak a language other than English in the home. 10% of students are served by Special Educational programs and 4% are in the District's Gifted and Talented program.

ASSESSMENT FINDINGS AND FACILITY CONDITIONS

Lake County School District facilities are aging and that aging was apparent in the State Wide Facility Assessment findings, as well as the independent facility assessment that the TreanorHL team conducted. The assessments used the following criteria to produce the list of deficiencies:

- Code violations that need correction
- Safety and security conditions
- Educational suitability
- Building maintenance

The District has facilities that vary greatly in their condition as a successful 2011 BEST Grant, and subsequent bond election afforded some notable improvements. The Lake County MS/HS facility is in excellent condition due to its renovation and addition which was completed in 2014, however, Margaret J. Pitts Elementary School and West Park Elementary School rank in the top 10 of the poorest condition schools in the state, by CDE. These two elementary schools are a focus of this report as given their average age of 58 years, the era of their construction, and their site and system deficiencies, these two elementary schools must be addressed in both the short-term funding plans, as well as long-term implementation plans. The assessment findings of all district owned facilities are detailed in Section X – Facility Evaluations, and in Section VII – B.E.S.T. Facility Assessment.

Based on the planning teams' facility evaluations and reports, the team completed a construction cost estimate to replace all the systems which are deficient, as well as the cost to correct and remediate any code violation, and safety and security issues within each facility. The upgrades and corrections cost estimates for each facility are detailed in Appendix, volume C.

Assessment Criteria For Priority Rankings

1. **code violations that need correction**
2. **safety and security conditions**
3. **educational suitability**
4. **building maintenance**

PROGRAMMING AND ADEQUACY

In conjunction with the School Districts' Mission, The Visioning Team outlined key Goals and Visions that guided our work together. (see RIGHT)

Lake County School District's programming meets the state guidelines for adequacy, however due to facility deficiencies and programmatic inefficiencies at Pitts Elementary, programming is not offered in an ideal grade configuration across school facilities. Currently, Pre-School is offered as a stand-alone program at Pitts Elementary School, grades K-2 are offered at the West Park Elementary School site, grades 3rd-6th are offered at the Lake County Intermediate School site, and grades 7-12 are at the newly constructed Lake County MS/HS site. The preferred educational vision that arose during the master planning process was to return to a traditional PreK-6 arrangement for the primary grade levels. This transition would occur in a phased plan, with a new PK-2 as a phase one project that ultimately becomes a PK-6 in phase 3. (see NEXT PAGE)

GOALS OF THE MASTER PLAN:

Safety and security of students, both on site and in the facilities

Right sizing and right placement of schools

Equity between facilities

Flexibility for future growth or decline

10-YEAR STRATEGIC PLAN FOR LAKE COUNTY SCHOOL DISTRICT

Phase 1: years 2019-2022

- New PK-2 Facility at West Park site | Funding Strategy: application for BEST Grant and matching Bond pursuit in Fall of 2019
- LCIS Renovation | Funding Strategy: application for BEST Grant and match provided from District reserves or a 2019 Bond pursuit

Phase 2: timeline TBD

- Federico Field Renovation

Phase 3: years 2023-2029

- Addition on PK-2 facility at West Park to transform to PK-5 or PK-6
- Comprehensive renovation to LCIS to transform into facility that can flex to accommodate student population growth in any grade
- New Transportation Building
- New Auxiliary Gym at LCHS
- Relocation of District Offices into renovated existing facility square footage (LCIS potential) and resulting decommissioning of Pitts Elementary School

FUTURE USE ANALYSIS

The Master Plan indicates that the 2012 bond referendum and previous 2011 BEST grant award was critical in solving the health and safety, code, deferred maintenance, and educational programming issues at the High School and Middle School grade levels. However, there remain issues at the Intermediate School facility that need to be addressed in the near future, including educational programming, deferred maintenance, and safety elements.

Additionally, the two elementary facilities are in very poor condition, are programmatically inefficient as elementary schools, and are not meeting the needs of the school districts' educational programmatic vision. These two facilities have been identified as facilities that should be demolished repurposed, or sold. A right sized new PreK-2 facility is envisioned to take the place of Pitts and West Park Elementary Schools.

Lastly, due to safety and use concerns, upgrades to Federico Field and the Transportation Building were identified to also be addressed in the near future.

lake county school district administration, staff, students, and the leadville community can be proud... that this plan is balanced, equitable, student focused, and adaptable.

Lake County High School. (2014)

Little Red School House and Barn. (1902)

CONCLUSION

Lake County School District recognizes that their facilities are aging, and in some cases programmatically inefficient; maintenance concerns are continually being deferred and the facilities inhibit delivery of desired key educational programs. It is because of these issues that it was critical to undertake a District Wide Master Plan. The Master Planning process was a lengthy process that analyzed existing facility conditions, demographic and enrollment forecasts, educational adequacy, and resulted in the following roadmap for the future needs of Lake County School District. The plan is a phased approach that serves to provide a step by step guide to the future facility upgrades and implementation. Lake County School District administration, staff, students, and the Leadville community can be proud of the effort given by many individuals to ensure that this plan is balanced, equitable, student focused, and adaptable.

Lake County School District
2019 MASTER PLAN

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HISTORY OF THE SCHOOL DISTRICT

III.

SCHOOL DISTRICT ESTABLISHMENT

In 1877, the county seat of the reorganized and resurveyed county of Lake was in Granite, some seventeen miles south of the new camp of Leadville. In July of 1877 E.R. Naylor, county superintendent of schools, received a petition from residents in the magic city asking that a new school district be formed. George L. Henderson, always a quiet advocate of the civilized life, was authorized to post notices calling for a meeting on July 14, 1877. As a result of the meeting, it was determined that there were enough people in the area to support a school, and a board for a third-class district was elected. Even though the district was formed in July of 1877, it was not until February 1878 that the first school opened in a "log shanty." Thirty students were enrolled in Mrs. Updegraffs "log shanty" school, which lasted three months. The school treasury was exhausted at the end of that time and the school was forced to close.

The original records of that first board of education were lost and little is known about the operations of those first years. Sometime during the 1877-80 period the district number was changed from eleven to two and it would seem the change was made at the same time Chaffee County and Lake County were split and the county seat of Lake moved to Leadville in February 1879. On April 13, 1880, the decision was made to change the classification from a third class district to a first class district. An election was held July 14, 1880 to determine whether the public favored the purchase of lots and the construction of a proper school building.

Lots on the corner of Chestnut and Spruce Streets were donated to the District on August 2, 1880 and additional property was given and purchased until the district owned the half block immediately west of Spruce Street between State and Chestnut Streets. Construction began on the new school, to be called Central, in October of 1880. The building was accepted by the school board in May of 1881, but the district was still short of space and on May 3, 1881, purchased four lots in the 200 block of West Seventh and moved the old high school building from the property next to the newly constructed Central School. It was remodeled for primary children and became the Seventh Street School.

On June 1, 1880, a committee was formed to locate a site for two more schools. Lots were purchased on Carbonate Hill for the erection of what became the Carbonate Hill School. Carbonate Hill School was finished in time for classes in the fall of 1881, but Ninth Street School, the other building

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February 1878 - the first school was opened in a "log shanty" and taught by Mrs. Updegraff.

SCHOOL DISTRICT
ESTABLISHMENT (cont.)

contracted for, was not finished until January 17, 1882. Located on the corner of Ninth and Poplar, it was similar to Central School in design, having been designed by the same architect, and was constructed largely out of brick masonry.

The Leadville public schools, once out of debt, hired Edward C. Ellicott as superintendent. Ellicott was a native of Nebraska and became one of the outstanding educators in the country. He served as superintendent of the Leadville Schools from 1898 until 1903, when he left to complete his doctoral degree at Columbia University. While he was superintendent, the school district launched its biggest building program to date. The erection of Leadville High School was decided by voters on April 15, 1899 and was agreed upon to accept a bonded indebtedness of not more than $45,000. There were a number of irregularities in the first election, and a second election was held October 2, 1899. The second election, as the first, was passed by the voters. The building finished almost a year from the date of the original election, April 19, 1900 and it was open to the public for two days, then students and faculty moved in and set up the school on Monday, April 23, 1900.

The history of the Leadville Public Schools from 1877 to 1957 presents an eighty year record of the efforts of a mining community, isolated in the mountains, not only to meet the challenge of its educational needs, but frequently to be a leader in educational thought and action. From the rush of the mining men and fortune seekers to the Leadville area in 1877 to the present, the Leadville story has been one of the extremes of prosperity or depression, sharply rising or declining population, optimism or dejection and intermittent periods of apathy.

The historical development of the school district logically falls into five periods: (1) The period from 1877-1880, characterized by the original beginnings as a third class district, during which time it was necessary to rent a number of homes and commercial buildings to use for classrooms; (2) the period from 1880-1893, characterized by tremendous growth of the school population, the change in classification to a first class school district, the construction of the necessary school buildings, and the school district heavily in debt and involved in serious litigations; (3) the period from 1893-1913, characterized by the retirement of the school indebtedness, the building and development of the new Leadville High School, and the start of the decline of the community; (4) the period from 1918 to 1947, characterized by declining enrollments and the razing or selling of many school buildings; (5) the period from 1947 to the present characterized by the development of an educational program based on the present needs of the community, the adoption of sound current administrative practices, and the construction of modern school buildings.

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HISTORICAL DEVELOPMENT TIMELINE OF THE LAKE COUNTY SCHOOL DISTRICT

PERIOD (1)

The period from 1877-1880, characterized by the original beginnings as a third class district, during which time it was necessary to rent a number of homes and commercial buildings to use for classrooms.

1877 - 1880

PERIOD (2)

The period from 1880-1893, characterized by tremendous growth of the school population, the change in classification to a first class school district, the construction of the necessary school buildings, and the school district heavily in debt and involved in serious litigations.

1880 - 1893

PERIOD (3)

The period from 1893-1913, characterized by the retirement of the school indebtedness, the building and development of the new Leadville High School, and the start of the decline of the community.

1893 - 1913

PERIOD (4)

The period from 1918 to 1947, characterized by declining enrollments and the razing or selling of many school buildings.

1918 - 1947

PERIOD (5)

The period from 1947 to the present characterized by the development of an educational program based on the present needs of the community, the adoption of sound current administrative practices, and the construction of modern school buildings.

1947 - PRESENT

SCHOOL DISTRICT ESTABLISHMENT (cont.)

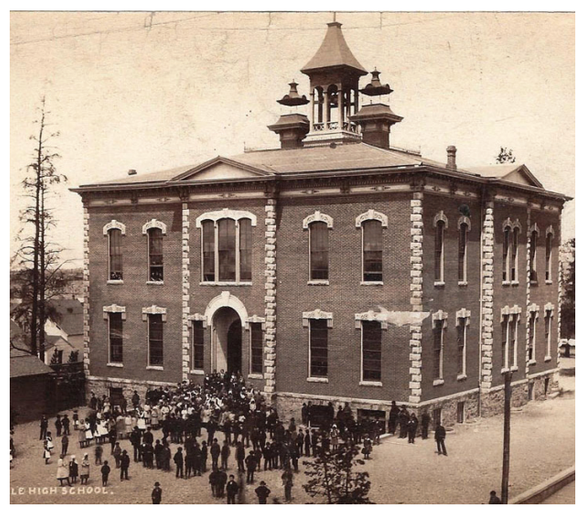
1901 was a record year for both census and school enrollment numbers when 3,136 children were recorded on the school census and 1,990 pupils were in school. After that, the community began to decline because of curtailed mining activity and mineral production. With the close of World War I, the rate of decline became even more rapid. The community had been constructed for a population of over 20,000 in the 1880's and only recorded a population of 3,771 in 1930. The lowest school enrollment was recorded in 1949 when the district showed 637 pupils. There was increasing mining activity during the Korean War, and this activity resulted in an increase in population in Leadville, which continued to increase after the Korean War ended.

In more recent times, enrollment has fluctuated some but has seen a 2.5% or about a 31 student decrease. The majority of the change was within the middle school grades or 5th through 8th grade. Some of the change may be attributed to the students graduating into the high school grades, though this may not account for all of the decreases. The senior high grades have stayed relatively constant, not dipping below 300 or going above 327 since the late 1990's. These slight fluctuations have allowed the total school population to stay relatively stable averaging around 1,100 students over the last 20 years, which has not exceeded the highest student population of 1,990 in 1901.

Information herein gathered from historical documents provided by Lake County School District and the Strategic Resources West, Inc. study.

SCHOOL DISTRICT NAME

According to available information, the District has always been known by the name 'Lake County School District'.



DISTRICT HISTORICALLY SIGNIFICANT SITES

Lake County School District has the honor of counting three truly historic buildings in its inventory; The Little Red Schoolhouse and Barn, and the Twin Lakes Schoolhouse. The District has retained these turn-of-the-century structures and still uses them occasionally for community meetings and storage. In addition, both the current elementary schools are older than 50 years. The Margaret J. Pitts Elementary School was built in 1955, West Park Elementary School was built in 1962 and they both still serve the District and community as facilities that support primary education and school district offices.

(cont. next page)

Margaret J. Pitts Elementary School

Constructed
1955

Square Footage
34,231 s.f

Current Use
The Center for Early Childhood Program (Pre-K), and District Offices

West Park Elementary School

Constructed
1962

Square Footage
41,019 s.f

Current Use
Kindergarten through 2nd Grade

DISTRICT HISTORICALLY SIGNIFICANT SITES (cont.)

The Little Red School House

Constructed
1902

Square Footage
1,019 s.f

Current Use
Storage

Barn by The Little Red School House

Constructed
1902

Square Footage
450 s.f

Current Use
Storage

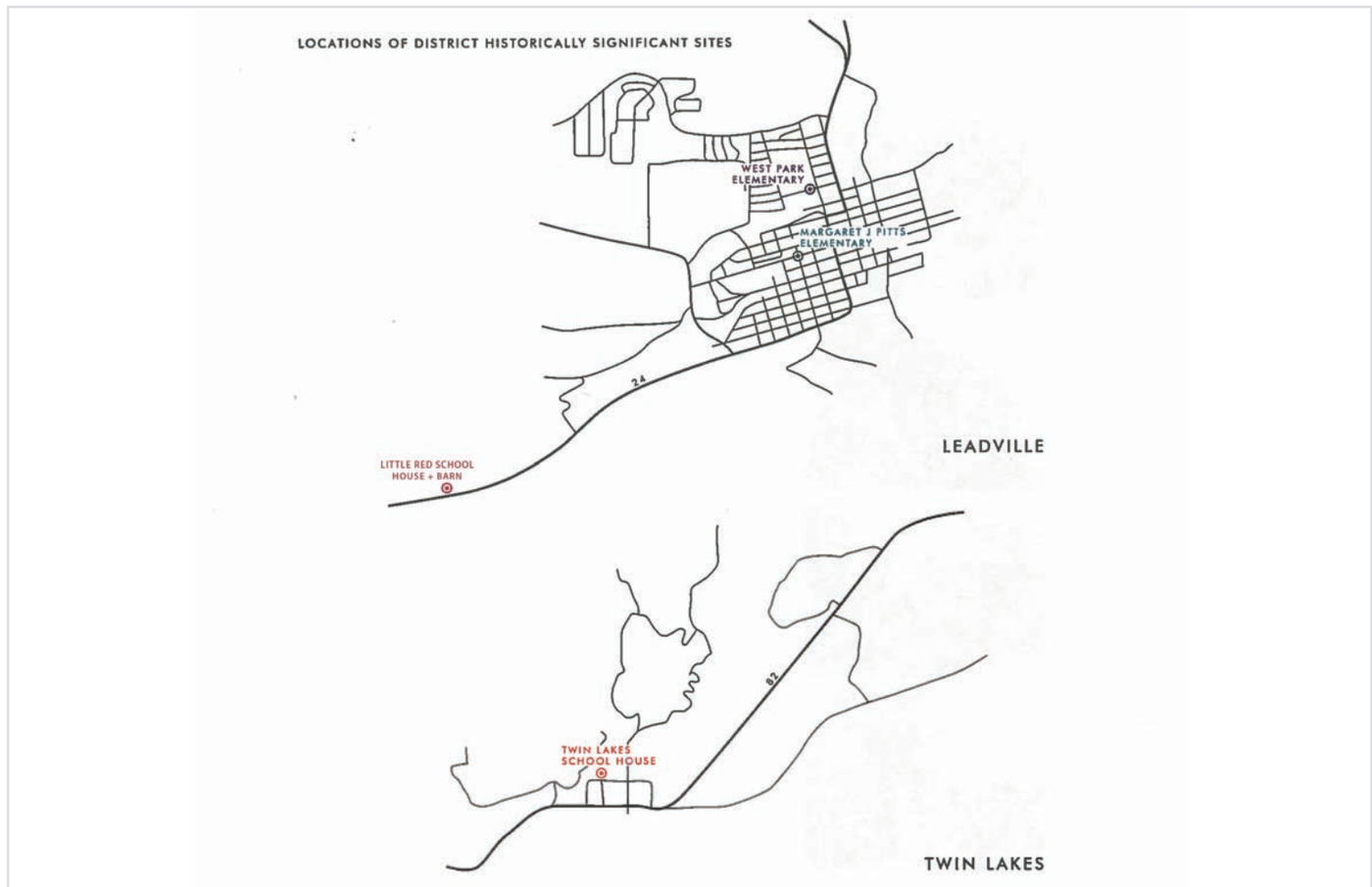
The Twin Lakes School House

Constructed
1895

Square Footage
3,500 s.f

Current Use
Community Meetings

LOCATIONS OF DISTRICT HISTORICALLY SIGNIFICANT SITES



LOCATION OF SCHOOL DISTRICT BOUNDARIES

IV.

SCHOOL DISTRICT LOCATION AND AVAILABLE SERVICES

There are several hospitals in the near vicinity of Leadville, such as; St. Vincent Hospital in Leadville, St. Anthony Summit Medical Center, Frisco, Colorado (30 miles), Vail Valley Medical Center, Vail, Colorado (44 miles), Aspen Valley Hospital, Aspen, Colorado (127 miles), and Heart of the Rockies Regional Medical Center in Salida, Colorado (59 miles).

Leadville is home to the Colorado Mountain College Timberline Campus, and is in relative proximity to many Colorado higher education colleges and universities. Western State College, Gunnison, Colorado (117 miles), Colorado Mountain College Main Campus, Glenwood Springs, Colorado (88 miles), The Colorado School of Mines, Golden, Colorado (91 miles), Red Rocks Community College, Lakewood, Colorado (90 miles), and the University of Colorado at Boulder, Boulder, Colorado (112 miles).

Leadville is served by Lake County Airport. However, there are no scheduled airline services available from this airport. The closest airports to provide scheduled flight services are Eagle County Airport and Aspen-Pitkin County Airport, both located 62 miles away. All of the highways in Lake County are part of the Top of the Rockies Scenic and historic Byway.

Most travel to and from Leadville is from two major highways. US24 is an east-west highway running from interstate 70 to the intersection with interstate 70, near Minturn, Colorado. Its western terminus is located just 32 miles north of Leadville. It is also the main route to the Eagle-Vail Valley and Colorado Springs. State Highway 91 is a 22.5 mile stretch that connects Leadville to the intersection with interstate 70, near Copper Mountain. It is the fastest route to get from Leadville to Denver.

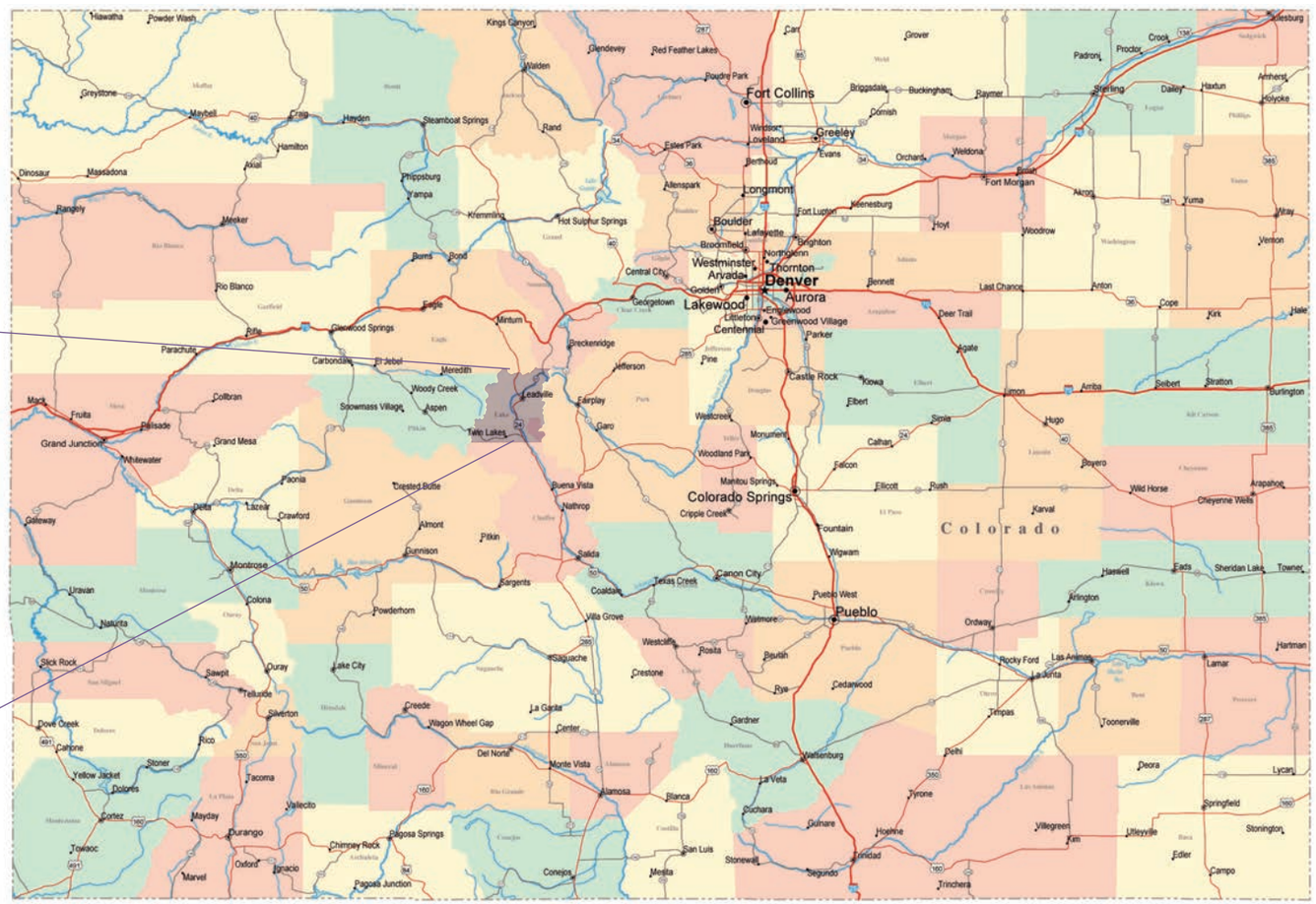
Colorado Mountain College, Timberline Campus

Lake County Airport

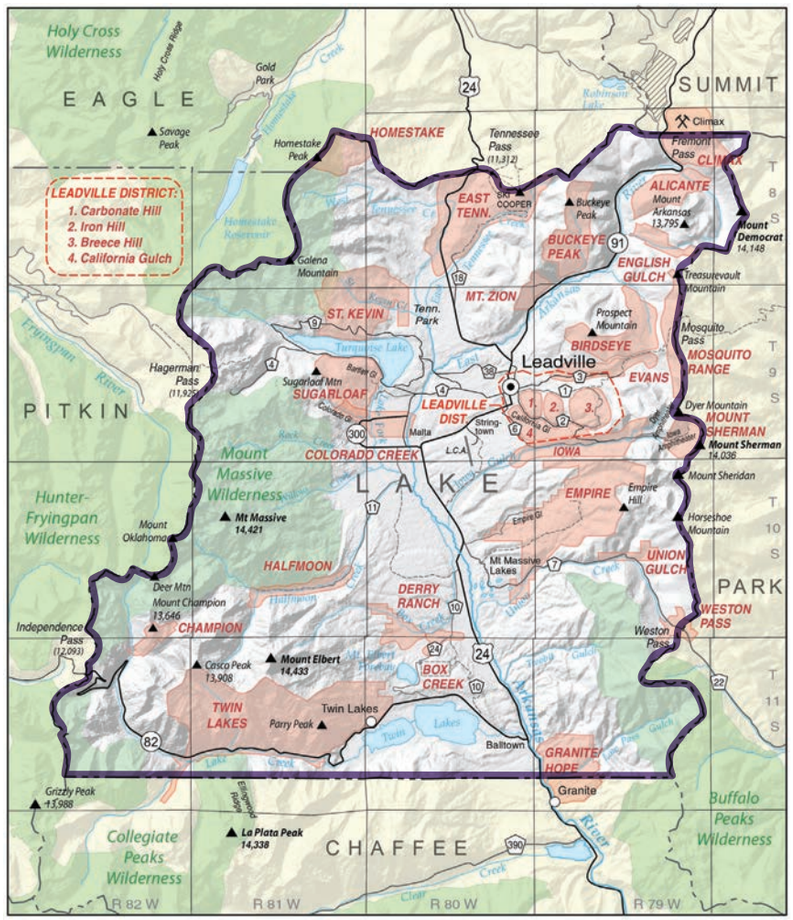
US Highway 24

GEOGRAPHIC LOCATION OF COUNTY IN STATE OF COLORADO

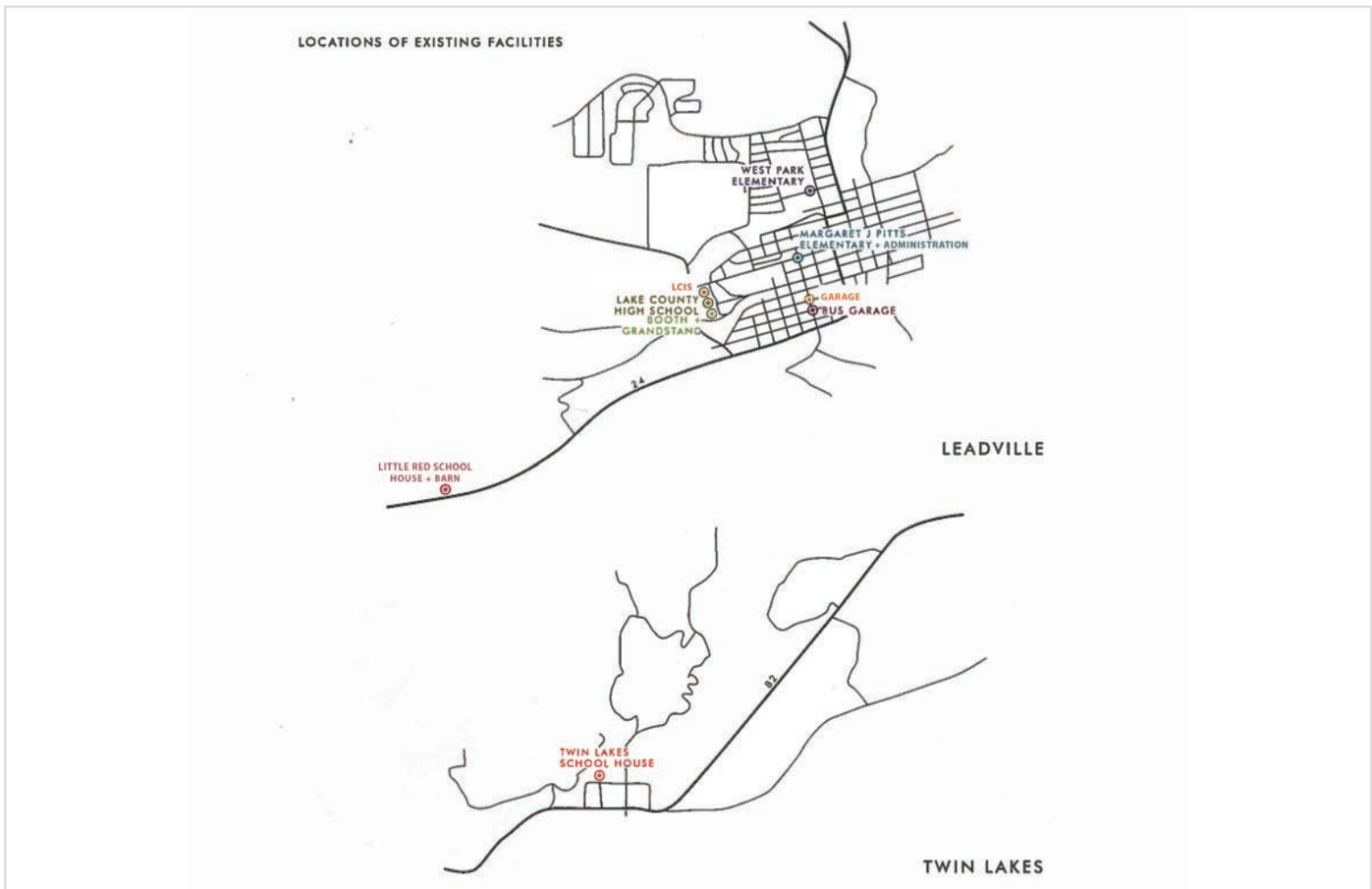
LAKE COUNTY



SCHOOL DISTRICT BOUNDARY



LOCATION OF EXISTING FACILITIES



ELEVATION AND CLIMATE TRENDS

Leadville, Colorado was incorporated in 1878 and is the county seat and only incorporated area in Lake County. The unincorporated village of Twin Lakes is located in the southern portion of the county. Most of the buildings in the 70-square block of Leadville National Historic Landmark District were built between 1880 and 1905. With the Sawatch Mountain Range containing Colorado's two highest peaks to the west and the Mosquito Range with North America's highest mountain pass to the east, Leadville sits in a high mountain valley which envelopes the headwaters of the Arkansas River.

Elevation Data:
Leadville: 10,200 feet above sea level
Twin Lakes: 9,210 feet above sea level
Lake County's highest point: 14,433 feet above sea level
Lake County's lowest point: 9,007 feet above sea level

Square Miles:
Leadville: 1.1 square mile
Lake County: 376.9 square miles

Climate:
Average days of sunshine: 310
Average annual snowfall: 127.7 inches
(mid October – mid May)

Summer:
A typical summer day is sunny, clear skies, 70 degrees, and evening temperatures in the 40's. The humidity is very low and brief afternoon showers are typical.

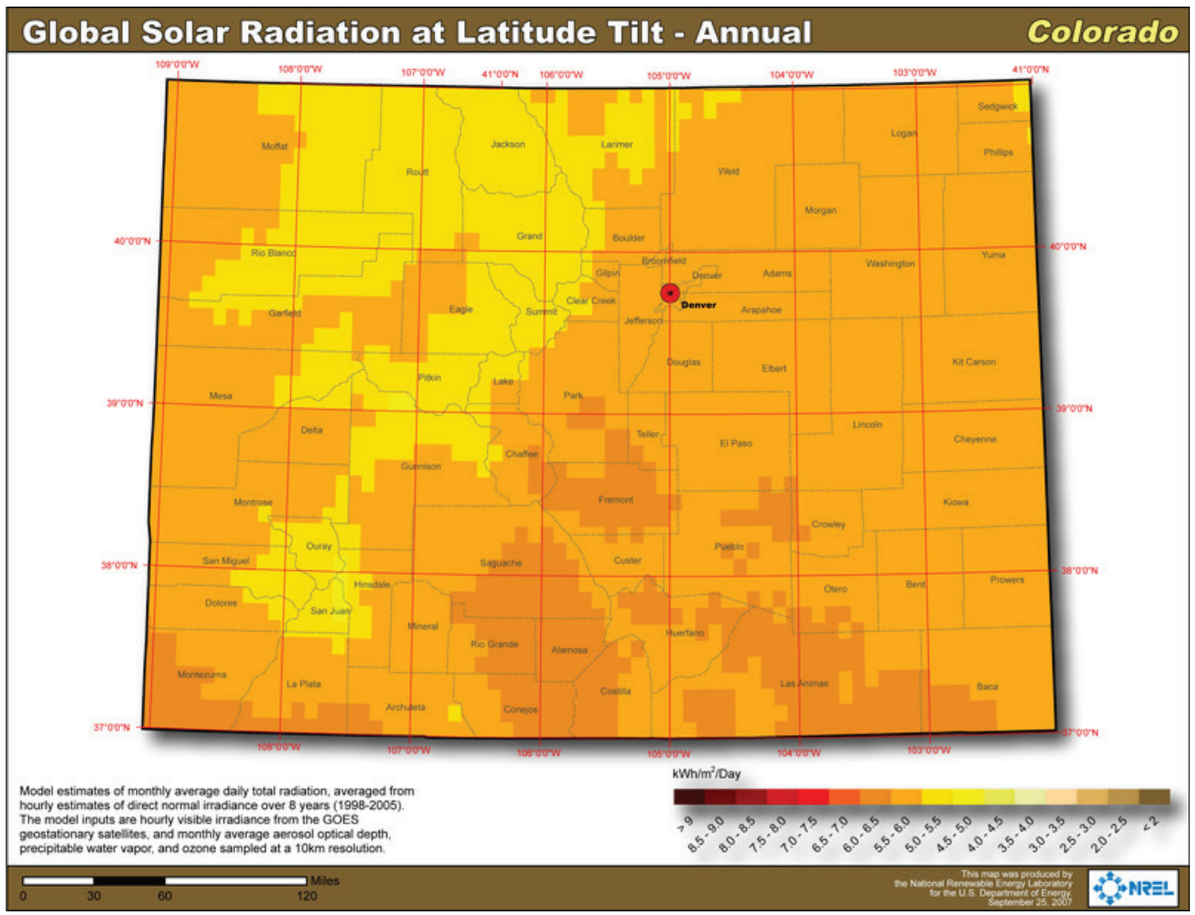
Winter:
127.7 inches average annual snowfall. A typical winter day is sunny, clear skies, high temperatures in the mid 30's, and lows in the single digits. Snowstorms generally occur in the evening and are at times very heavy. Highways are well-maintained, however, four-wheel and front-wheel drive vehicles with snow tires are highly recommended. Chains are seldom, if ever, necessary.

Temperatures:
Average January high temperature is 30.1 F
Average January low temperature is 4.8 F
Average July high temperature is 72.3 F
Average July low temperature is 40.4 F

RENEWABLE ENERGY OPTIONS

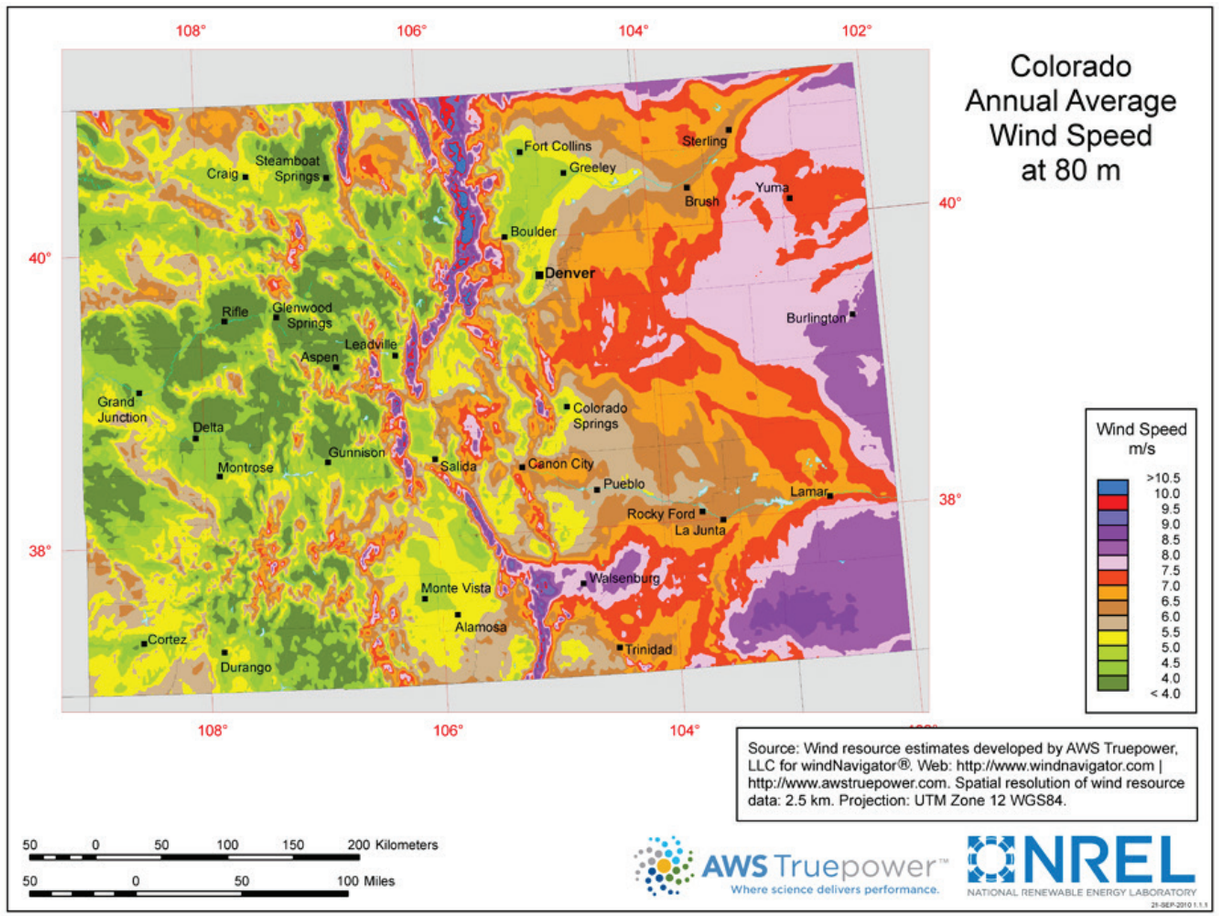
Colorado is fortunate to have a climate that is conducive to many types of renewable energy sources and Lake County School District would be potentially be able to benefit from these various renewables. Final selection of renewable options would be at the discretion of the District and the design team for future projects, but based upon initial evaluation of available data, there are several potential sources.

Solar Power – The majority of the Lake County School District receives over 6.0 kwh/m2/day making it in one of the moderate locations in the state for solar power concentrations. This would initially indicate that solar power is a potential option for the district.



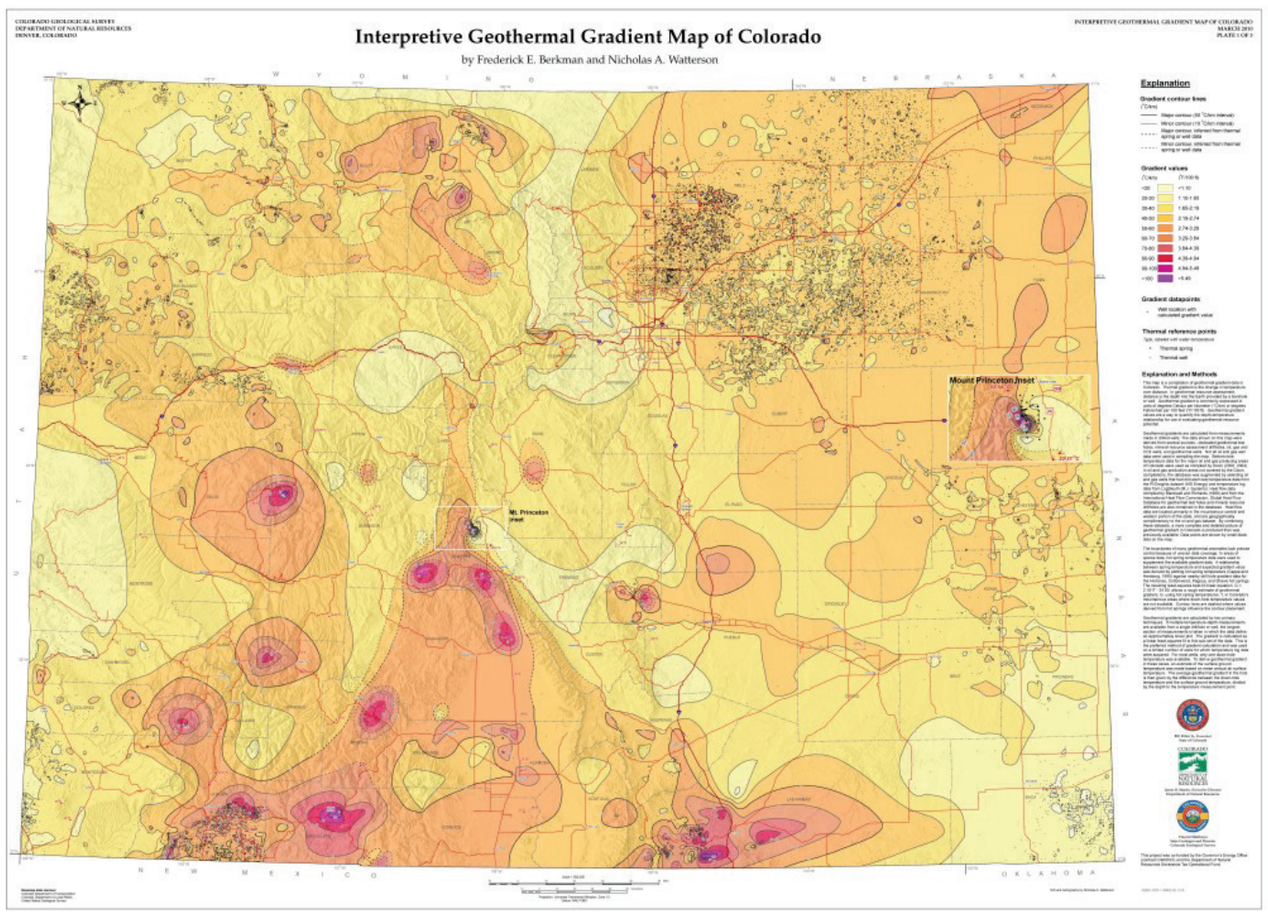
RENEWABLE ENERGY OPTIONS (cont.)

Wind – Within the Lake County School District boundaries, the wind power class is rather low and the resource potential is poor. In small pockets of the southwest area of the district, the potential could be good to excellent, however these areas may not be large enough to support this renewable as a sustainable energy source.



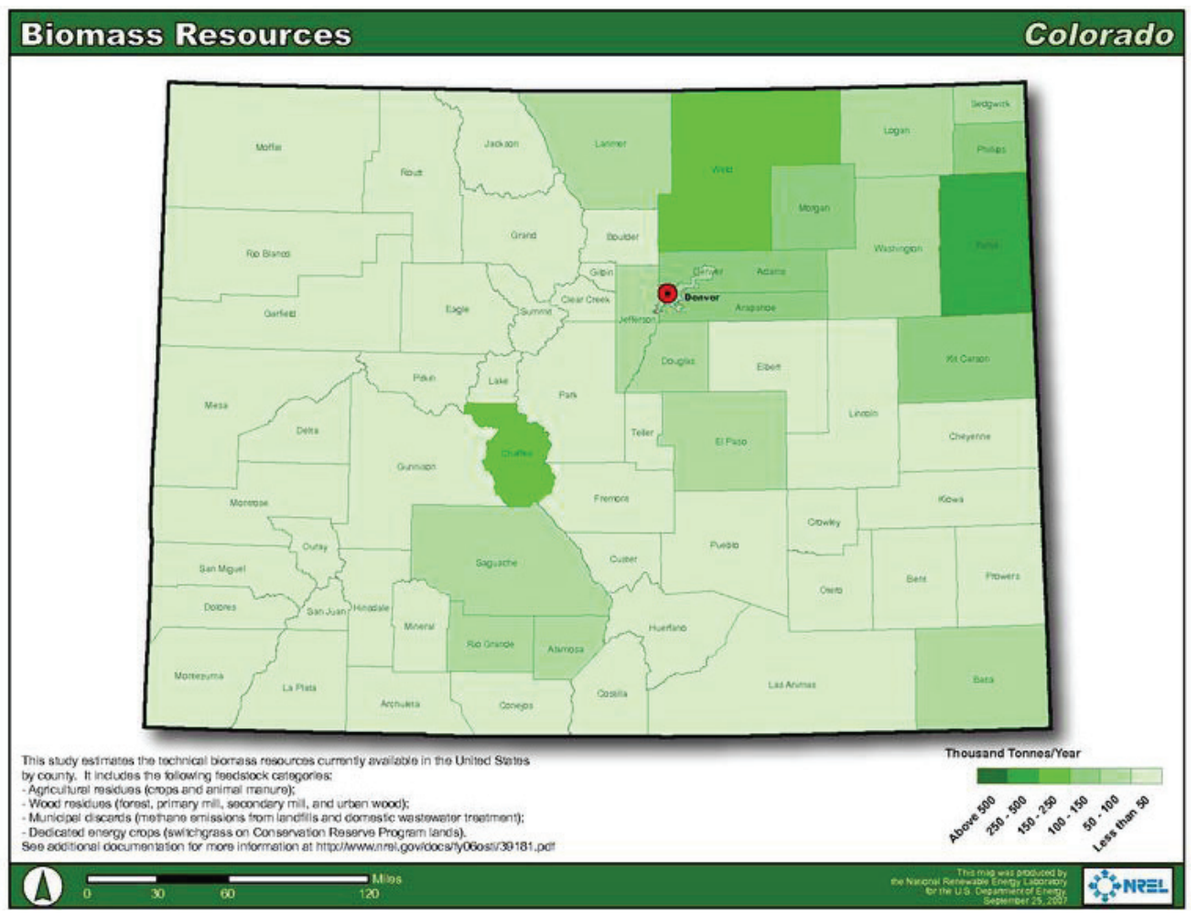
RENEWABLE ENERGY OPTIONS (cont.)

Geothermal – The area of the state in which Lake County is located seems to be determined as a Favorable to Most Favorable location for Deep Enhanced Geothermal Systems and therefore, this may be a renewable type that the district would want to investigate for the future.



RENEWABLE ENERGY
OPTIONS (cont.)

Biomass – According to available information about biomass resources, Lake County is in the Lower Range of tonnage available for the renewable resource. However, this data may not include the future potential of beetle kill biomass.



DISTRICT DEMOGRAPHICS

V.

DEMOGRAPHICS OF THE STUDENT BODY AND COMMUNITY

Economic activity in the Lake County School District area remains primarily influenced by tourism, often outside the county, while mining has experienced a small but significant resurgence.

An understanding of the demographics is important to determine past, current and future trends of both the community and of the student body. The demographics will also be an indicator of the community composition, employment, economics and the needs within.

Economic activity in the Lake County School District area remains primarily influenced by tourism, often outside the county, while mining has experienced a small but significant resurgence. These activities and those in neighboring communities continue to fuel the local economy, exerting a direct influence upon the resultant population base and the services demanded, including public education. The area's economic health places pressure upon public infrastructure and service demands, including the ability to finance the required improvements and staffing. The following narrative provides an overview of the economy and characteristics that affect the Lake County School District's future.

EMPLOYMENT

Between 2007 and 2016, Lake County employment increased by nearly 250 workers or 12 percent (see Table I-1 next page). Employment changes varied widely among the industries with the Arts and Manufacturing gaining the most (53 and 33 employees, respectively). Declines were led by Health Care & Social Assistance (-80), Real Estate (-33) and Construction (-32) with a substantial reduction in local government employment as well (down 84). However, most of the industries experienced net gains once the economy began recovering from the Great Recession in 2010. The primary exceptions were Health Care & Social Assistance and Real Estate; local government employment also continued its negative experiences since 2010. Unfortunately, mining employment data have been withheld because of the predominant influence of one company, Climax. Even so, it is believed to be a major contributor to the total employment that was withheld due to privacy reasons.

Lake County jobs have been forecast by the Colorado Department of Local Affairs and are shown in Table I-2 (see page 36). Total direct basic jobs (those that bring money into the local economy) approximated 2,000 in 2015 and are forecast to grow to about 2,240 jobs in 2020 and over 2,400 by 2040. Non-basic or secondary jobs add about another 1,000 positions to the local labor force. In addition, many residents work outside the county, accounting for nearly 780 workers in 2015 and projected to more than double by 2040 to 1,650 people. The 2015 level of commuting workers represents about 16 percent of total jobs held by residents. The growth in commuting workers is expected to increase relative to total jobs held by residents and could account for more than 30 percent of all workers by 2040. Affordability of housing in Lake County compared with Eagle and Summit Counties may well explain much if this characteristic.

The Department of Local Affairs also expects population to increase in step with the jobs forecast. Lake County's 2015 population was estimated at 7,500 people and is forecast to exceed 8,800 by 2040. The jobs-to-population ratio is anticipated to remain relatively constant around 0.400.

Refer to Table I-1 and Table I-2 from 2018 Strategic Resources West Report.

see tables next pages >

(cont. next page)

EMPLOYMENT (cont.)

EMPLOYMENT - TABLE I-1

(cont. next page)

Table I-1. Lake County Annual Average Employment by Industrial Classification: Annual Estimates from 2007 through 2016

	Based Upon NAICS*										
Industry	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change: Employ.
Accomodation and food	**292**	**275**	**237**	**211**	**236**	**238**	**243**	**270**	**263**	**268**	(24)
Administrative and waste services	69	73	54	46	47	46	53	102	68	60	(9)
Agriculture	-	-	-	-	-	-	-	-	-	-	NA
Arts	102	97	106	118	113	111	126	128	137	155	53
Construction	209	211	138	111	116	102	112	123	189	129	(32)
Educational services	*	*	*	*	*	*	*	35	37	40	NA
Finance and insurance	31	25	18	17	15	16	17	18	16	16	(15)
Health care and social assistance	206	212	207	199	194	183	193	191	126	126	(80)
Information	13	13	*	7	8	7	8	8	8	8	(5)
Management of companies and enterprises	-	-	-	-	-	-	-	-	-	-	NA
Manufacturing	30	35	30	24	30	36	39	46	47	51	33
Mining	*	*	*	*	*	*	*	*	*	*	NA
Other services	34	34	32	31	31	34	31	28	31	32	(2)
Professional and technical services	21	22	15	23	38	34	19	25	35	32	11
Real estate	55	49	40	34	33	30	19	18	21	22	(33)
Retail trade	165	176	164	166	170	166	157	156	171	207	42
Transportation and warehousing	20	18	*	*	*	15	*	*	*	*	NA
Utilities	*	*	*	*	*	*	*	*	*	*	NA
Wholesale trade	20	25	30	27	31	31	24	25	26	24	4
Total Withheld/Suppressed	29	33	49	41	101	343	386	350	389	407	378
Total Private Industry	1,296	1,298	1,120	1,055	1,163	1,392	1,427	1,523	1,564	1,577	321
State government	17	18	20	21	28	28	27	30	30	31	14
Local government	682	681	703	681	620	584	579	590	619	598	(84)
Federal government	59	58	67	66	63	59	56	55	51	55	(4)
Total Government	758	757	790	768	711	671	662	675	700	684	(74)
Grand Total	2,054	2,055	1,910	1,823	1,874	2,063	2,089	2,198	2,264	2,261	247

*: Data withheld/suppressed for privacy reasons.
Source: Colorado Department of Labor, Labor Market Information, Unemployment Insurance Covered Employment and Wages, unpublished data, years shown

EMPLOYMENT (cont.)

EMPLOYMENT - TABLE I-2

Table I-2. Lake County Jobs Forecast 2015 through 2040

	Variable	2015	2020	2025	2030	2035	2040
Labor Demand	Direct Basic Jobs						
	Traditional Industrial Basic Jobs	419	441	472	495	498	488
	Regional & National Services	404	411	423	423	427	433
	Tourism	345	391	391	400	411	429
	Commuting Jobs	311	350	349	403	444	485
	Retiree Generated Jobs	409	517	505	463	441	465
	Public Asst. Generated Jobs	61	66	69	71	73	74
	Investment Income & Wealth	61	67	65	65	64	64
	Total Direct Basic Jobs	2,009	2,242	2,273	2,320	2,359	2,438
	Ann. Pct Ch.	5.9%	2.2%	0.3%	0.4%	0.3%	0.7%
	Non-Basic Resident Sv. Jobs	961	1,016	1,037	1,035	978	1,036
	Ann. Pct Ch.	-0.9%	1.1%	0.4%	0.0%	-1.1%	1.1%
	Ratio:Nbrs Jobs/Basic Jobs	0.479	0.453	0.456	0.446	0.415	0.425
	Total Jobs	2,970	3,258	3,310	3,355	3,337	3,474
	Ann. Pct Ch.	3.4%	1.9%	0.3%	0.3%	-0.1%	0.8%
	Less: Military Jobs	19	11	11	11	11	11
	Civilian Jobs (Demand)	2,951	3,394	3,419	3,408	3,367	3,545
	Ann. Pct Ch.	3.4%	2.8%	0.1%	-0.1%	-0.2%	1.0%
	*Statistical Discrepancy	(919)	(455)	(370)	(240)	(192)	(44)
	Civilian Jobs Held (Supply)	3,970	3,849	3,789	3,648	3,560	3,590
	Commuting (+ = In)	(778)	(1,002)	(1,145)	(1,424)	(1,614)	(1,653)
	Jobs Held By Residents	4,749	4,851	4,934	5,072	5,174	5,243
	Plus:Jobs Multiply Held	596	638	633	631	625	614
	Multiple Job Holding Rate	13.8%	14.7%	14.2%	13.7%	13.2%	12.7%
	Employed Persons (Residents)	4,152	4,213	4,301	4,441	4,549	4,629
	Ann. Pct Ch.	1.6%	0.3%	0.4%	9.0%	0.5%	0.4%
	Unemployment Rate	3.9%	3.0%	3.5%	3.5%	3.9%	4.2%
	Unemployed Persons	168	128	157	160	185	201
	Labor Force (Residents)	4,320	4,341	4,458	4,602	4,734	4,830
	Ann. Pct Ch.	0.0%	0.1%	0.5%	0.6%	0.6%	0.4%
	Labor Force Participation Rate	74.7%	73.1%	72.6%	73.0%	72.8%	72.2%
	Civilian Noninst. Population 16+	5,783	5,937	6,139	6,301	6,500	6,692
	Ann. Pct Ch.	0.4%	0.5%	0.7%	0.5%	0.6%	0.6%
	Civilian Ni Pop 16+ / Total Pop	77.1%	76.4%	76.3%	75.9%	75.7%	75.9%
	"True" Population	7,502	7,772	8,046	8,303	8,581	8,816
	Ann. Pct Ch.	0.6%	0.7%	0.7%	0.6%	0.7%	0.5%
	Population Undercount	-	-	-	-	-	-
Labor Supply	Percent Undercount	-	-	-	-	-	-
	Population - Census Based	7,502	7,772	8,046	8,303	8,581	8,816
	Ann. Pct Ch.	0.6%	0.7%	0.7%	0.6%	0.7%	0.5%
	Jobs to Population Ratio	0.396	0.419	0.411	0.404	0.389	0.394

Source: Colorado Department of Local Affairs, Economic Forecasts, Forecasting Worksheets, Jobs and Labor Force, Regions 9 through 14, Lake County.

DEMOGRAPHICS

The Colorado Department of Local Affairs, Demography Section, maintains recent population estimates. These data indicate encompass only counties and incorporated municipalities such as Leadville: (2)

This represents a net County population increase of 91 persons or 1.2 percent between the April 2000 Census and the 2016 ACS estimate, the most recent estimate available. The Leadville North area experienced slightly faster growth while the City of Leadville's population has remained fairly stable. These factors indicate that most of the population growth is occurring in the unincorporated areas outside the city limits.

As suggested by the median age differential, the younger aged population, those households more likely to have children, is generally located outside the Leadville City limits. In comparison, Leadville and Lake County median ages have increased and are significantly higher than the statewide median age of 36.1 years in 2010: (3)

Further, a substantial proportion of population is now in the latter portion of the "prime child bearing ages" of 15 to 44. Thus, it is apparent that school age population has a reduced probability to increase until younger adults decide to move into the area.

Population and Percent Change by Area

Area:	Census 2010	ACS 2016	Percent Change 2010-16
Leadville	2,602	2,614	0.5%
Leadville North*	1,794	1,875	4.5%
Twin Lakes*	171	97	-43.3%
Lake County	7,310	7,401	1.2%

*: Margin of error high for these areas.

TABLE 2

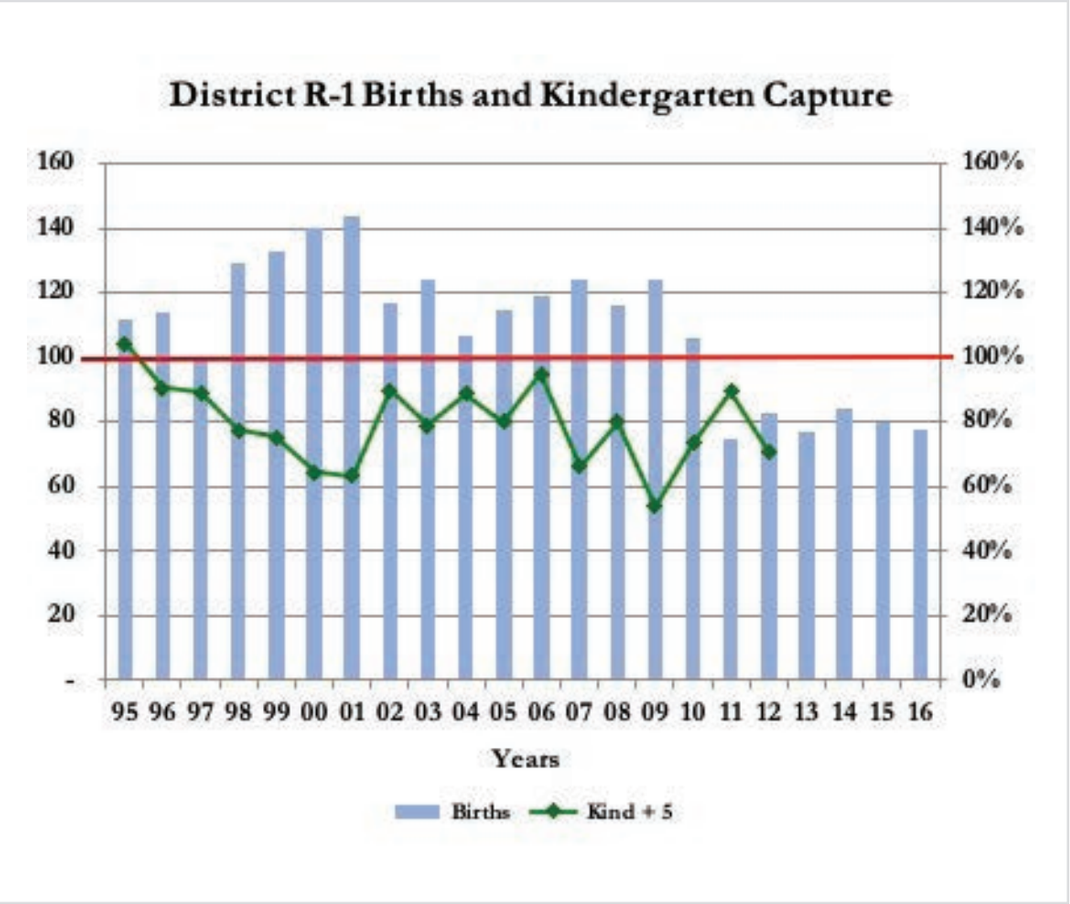
Location	Total Population	Median Age	Proportion of Population: Under 15	Aged 15 to 24	Aged 25 to 44	Aged 45 to 64	Aged 65+
Leadville	2,614	39.20	13.50%	10.21%	40.13%	23.95%	12.20%
Lake County	7,401	39.40	15.51%	15.61%	28.62%	28.74%	11.53%

TABLE 3

BIRTHS

Another indicator of enrollment growth or decline potential is the number of births in the area and the district's relative "capture" of area births. The figure to the right shows the number of births to District residents as reported by the Colorado Department of Public Health and Environment compared with the proportion of those births that become kindergarteners five years later. The columns or vertical bars illustrate the number of births to residents of the District and Lake County; the green line shows the proportion of County births that become kindergarten students five years later. The green line falling below the red "full capture" line indicates that, in the net, children have moved out of the area before entering school.

Between 1995 and 2010, births to County residents averaged 120 children. However, since 2010 births have averaged about 80 per year or nearly two-thirds of the prior years. Thus, this factor and the net out-migration of families with pre-school aged children explains a substantial portion of the considerable decline in enrollment, particularly in the lower grades.



HOUSING CONSTRUCTION AND AVAILABILITY

Data extracted from the Lake County Assessors' property database and recent construction activity indicate that most housing growth occurred prior to the 1980's: (5)

As shown, more than three-fourths homes within the District were constructed prior to the 1980's. Of the nearly 5,550 homes in the county, only about ten percent are mobile homes.

Years	Units Built	Proportion of Total
Prior to 1980	4,263	77.5%
1980's	276	5.0%
1990's	408	7.4%
2000's	396	7.2%
2010-17*	156	2.8%

*: Estimate based upon building permits.

TABLE 5

HOUSING POTENTIAL

Several subdivisions are in the planning stages or have been approved but are not built out. Further, a number of individual lots exist that could support housing construction. In early 2018, SRW conducted interviews with local officials and owners or representatives of certain of the larger subdivisions that are planned or in progress toward construction. A summary of key information gathered is: (6)

The planned developments are expected to provide primarily single family detached or attached housing units that are common in mountain areas. Phase 1 of the Railyard at Leadville is in the initial stages of development and will contain roughly half of all the housing units in this project; commercial lots are also available for a variety of uses. More than 400 housing units remain to be built in these projects, a total which represents at least 10 years of construction at recent levels of activity.

		Total Housing Units Remaining			
	Existing	Single Family		Multi-	
Project Name	Units	Detached	Attached	family	Total
Brooklyn Heights	19	29	0	0	29
Elk Trail	4	11	0	0	11
Grand West Filings 1 & 2	16	13	0	0	13
Homestake	43	4	0	0	4
Mountain Pines (Flgs. 2-6)	28	26	0	0	26
Railyard -- Phase 1*	0	35	40	24	99
Westwood	1	19	0	0	19
Total	111	283	0	0	403

*: Maximum units allowed.

TABLE 6

ECONOMIC INDICATORS

Selected economic indicators also demonstrate growth evidenced by employment and housing construction. Retail sales increases were substantial in all portions of the County, including the City of Leadville: (7)

While retail sales increased more than one-third in Leadville and the unincorporated portion of the county over this period, sales grew more than 60 percent in Twin Lakes. Even so, retail sales in the Twin Lakes area is relatively negligible compared with other areas of the county. Thus, business operations outside the city limits of Leadville are increasing in relative importance. The school district's (and county's) assessed valuation approximated $84.9 million as of January 1, 2006 and more than doubled to $196.3 million in 2017: (8)

Although decreasing in recent years, assessed value grew nearly eight percent annually over the last 11 years. The State of Colorado places statutory limitations on a school district's ability to issue general obligation debt. These limits are based upon the rate of enrollment changes and, for Lake County R-1, present a maximum debt potential of 20 percent of assessed value. This translates into a total bonding capacity of about $39.3 million.

Retail Sales (in Millions) by County and Area

Year	Leadville	Twin Lakes	Uninc.	Lake County
2010	$34.03	$0.77	$57.01	$91.82
2011	47.71	0.74	66.23	114.67
2012	38.90	0.75	69.23	108.88
2013	39.22	1.09	76.81	117.12
2014	40.05	1.29	79.19	120.53
2015	46.20	1.24	77.40	124.83
Change 2010-15:				
Sales	$12.16	$0.47	$20.38	$33.01
Percent	35.7%	60.1%	35.8%	36.0%

Note: Retail Sales Report not available for 2016.

TABLE 7

Year	Assessed Valuation (thousands)	Change From Prior Year: Assess. Value (thousands)	Change From Prior Year: Percent	Bonding Capacity (20%) (thousands)
2006	$84,863.70	NA		$16,972.74
2007	94,491.97	9,628.27	11.3%	18,898.39
2008	93,877.82	-614.15	-0.6%	18,775.56
2009	106,506.31	12,628.50	13.5%	21,301.26
2010	108,216.27	1,709.96	1.6%	21,643.25
2011	116,825.28	8,609.01	8.0%	23,365.06
2012	139,585.92	22,760.64	19.5%	27,917.18
2013	231,011.25	91,425.33	65.5%	46,202.25
2014	227,041.91	-3,969.35	-1.7%	45,408.38
2015	234,306.23	7,264.32	3.2%	46,861.25
2016	210,969.66	-23,336.57	-10.0%	42,193.93
2017	196,256.50	-14,713.15	-7.0%	39,251.30

TABLE 8

EMPLOYMENT AND GROWTH OPPORTUNITIES

The City of Leadville does not provide basic infrastructure such as water and sanitary sewer; these items are provided by special districts with separate elected boards. The Leadville Sanitation District provides sanitary sewer services for the Leadville area and currently serves about 3,300 taps. The sewage treatment plant has capacity to treat 1.15 million gallons of effluent daily; recent consumption has been about half that amount or a little more but is expecting more demand as the Railyards t Leadville development occurs. Consequently, considerable additional capacity is present. Parkville Water District (PWD) provides potable water for residential and commercial consumers in the Leadville area. PWD currently serves about 2,300 customers (taps) with peak consumption nearing 1.5 million gallons per day (MGD). Current treatment capacity is almost 3.0 MGD at two plants and with plans to expand capacity by another one million gallons per day. The current plants will be undergoing an upgrade of instrumentation, etc. this summer and fall. The District has two underground storage tanks with a combined capacity for 1.5 million gallons of treated water and raw water storage of about 300 acre-feet. Water rights are more than adequate to serve planned growth in the area and many of the water rights are the most senior in the Arkansas River Valley.

The Climax Molybdenum Mine has completed the expansion planned in the previous master plan and currently employs about 380 workers at the mine. (11) This slightly exceeds the approximately 350 permanent operations miners and other staff are anticipated in the prior study and the optimum work force level is about 400 workers. About 150 of the current 380 workers reside in the Leadville area or elsewhere in Lake County.

Based upon current and anticipated market conditions and mining technology, the mine may close in about 20 years. If that occurs, most of the workers would be terminated with about 16 to 20 remaining at the mine for maintenance and related duties plus perhaps another 16 to 20 at the water plant in Summit County. Thus, the loss of approximately 350 well-paid jobs is likely. This would have a material effect upon not only these jobs but also retail, service and other secondary jobs that rely on such basic employment.

SUMMARY AND KEY OBSERVATIONS

Based upon the employment data and trends observed as well as interviews with local government officials and others, it is expected that residential and commercial development activity will continue at a modest pace, similar to recent activity (last 20 years), for the foreseeable future. Demographic trends suggest continued aging of the area's population, including reduced births as experienced beginning in about 2011. When combined with the expected modest growth, the result will likely be fluctuating but relatively stable enrollment unless younger adults choose to in-migrate. Because the area is somewhat of a bedroom community to the Eagle and Summit County resorts and supporting businesses, the economics of these counties will also exert an influence on the local economy, including school enrollment.

it is expected that residential and commercial development activity will continue at a modest pace, similar to recent activity (last 20 years), for the foreseeable future

A few key factors have characterized recent demographics and have significantly influenced enrollment. Primary among these are:

- Aging of the population, particularly among adult females in the prime child-bearing years;
- This aging population has not been replaced by younger women moving into the area;
- Substantially reduced births in the District since the previous master plan; and
- Longer-term employment stability due to the Climax Mine's likely closing in about 2038.

Until or unless these factors improve, the School District will continue to experience lower enrollment levels, particularly in the earlier grades.

ENROLLMENT

This section provides a brief overview of historical enrollment for the Lake County School District based upon fall enrollment data provided by school district records and the Colorado Department of Education (CDE). Observations regarding variances in enrollment from one year to the next and characteristics attributable to unique local factors are offered based upon review of applicable data and interviews with school district and other local government officials conducted in early 2018. The observations also reflect upon changes that have occurred since the previous study in 2008.

Three overall district projection scenarios (low, middle and high) are established for the district through the year 2023 based upon historical trends and expectations about future growth. These forecasts are based upon two different methods of cohort models and often establish high and low parameters regarding enrollment expectations. Variances can be substantial and the factors contributing to the volatility will be explained.

HISTORICAL ENROLLMENT ANALYSIS

The Lake County School District applies a Pre-Kindergarten through second grade elementary program, with pre-school in the Margaret Pitts building and West Park Elementary School housing kindergarten through second grades. The intermediate school accommodates third through sixth grade students while the high school provides space for seventh through 12th grade students. This configuration has been in place since the 2014-15 school year. Historical enrollment by school level based upon the current school grade configurations is: (9)

Over the past ten years, total enrollment has generally declined, losing more than 180 students or 15 percent of the students. Of this negative change, more than half was experienced in the primary school grades and another 30 percent at the intermediate level. The decline in the earlier

grades directly reflects the reduced number of births in the district that began a couple of years following the last master plan study.

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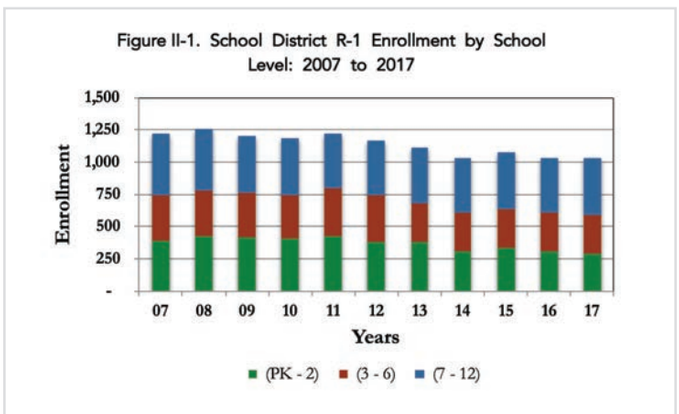
	Enrollment by School Level			
	Elemen.	Interm.	Sr. High	Total
Year	(PK - 2)	(3 - 6)	(7 - 12)	(PK-12)
2007	392	352	474	1,218
2008	426	351	479	1,256
2009	417	342	449	1,208
2010	404	342	442	1,188
2011	426	375	423	1,224
2012	381	358	428	1,167
2013	379	300	431	1,110
2014	307	302	424	1,033
2015	337	296	441	1,074
2016	307	302	424	1,033
2017	294	296	446	1,036

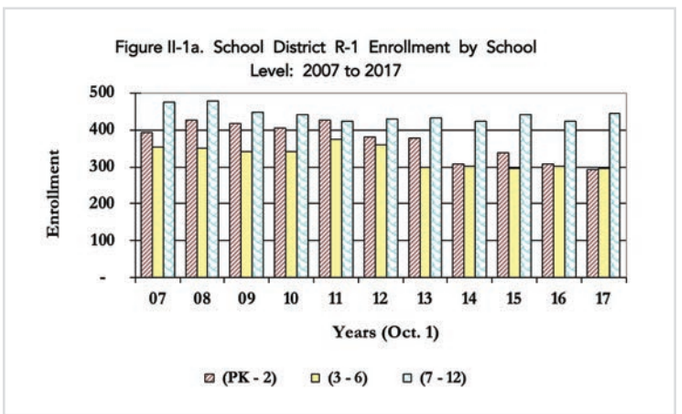
TABLE 9

HISTORICAL ENROLLMENT ANALYSIS (cont.)

Figures II-1 and II-1a graphically depict school enrollment for the 2007 through 2017 time period.

The graphs show how the reduced births and out-migration of families with young children have adversely influenced primary school enrollment beginning in 2012 and has followed through to affect the intermediate school as well. As of fall 2017, the kindergarten class was the smallest in the District with 59 students. The remaining grades have at least 65 students with a high of 81 students in both fourth and 10th grades. Average 2017 enrollment per grade was 74 across all grades, down from 87 students in 2007.





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HISTORICAL ENROLLMENT ANALYSIS (cont.)

Table II-1 shows the annual enrollment change by school type since 2007. Negative changes (in parentheses) reflect a reduction in enrollment (attrition) as students graduate from one grade to the next or leave the area. This implies that, in the net, more students are exiting the school district than are moving in. The net change across the grades has fluctuated, ranging from a net loss of 77 students between 2013 and 2014 to a net gain of 41 students from 2014 to 2015.

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TABLE II-1. LAKE COUNTY SCHOOL DISTRICT R-1 HISTORICAL ENROLLMENT CHANGES BY GRADE: 2007-08 TO 2016-17

ABSOLUTE CHANGE IN ENROLLMENT: YEAR TO YEAR TREND

Change From	PK-1 to PK	PreK-1 to K	K to 1	1 to 2	2 to 3	3 to 4	Total Elem.	4 to 5	5 to 6	6 to 7	7 to 8	Total Middle	8 to 9	9 to 10	10 to 11	11 to 12	Total Sr High	Total District Enrollment	Net Change From Prior Year
2007-08	13	(15)	(4)	8	34	(1)	(2)	-	6	2	2	(1)	(9)	5	4	(7)	5	(3)	38
2008-09	3	(31)	(9)	3	(9)	(4)	(8)	(6)	(5)	(9)	(1)	(9)	(3)	(11)	(9)	(9)	(30)	(42)	(48)
2009-10	1	(37)	(5)	3	(13)	(7)	(2)	(1)	(6)	(11)	(7)	-	(2)	(4)	(1)	9	(7)	(16)	(20)
2010-11	(5)	(17)	7	(1)	22	8	4	7	2	(1)	(6)	33	(1)	(2)	2	(6)	(19)	(14)	36
2011-12	(9)	(43)	(13)	(16)	(45)	(6)	(4)	(12)	(8)	(6)	(6)	(17)	(2)	(1)	(5)	4	5	(16)	(57)
2012-13	(6)	(23)	(3)	(3)	(2)	(12)	(11)	(18)	(15)	(7)	(4)	(58)	(9)	7	(1)	4	3	(10)	(57)
2013-14	(8)	(43)	(23)	(11)	(72)	(4)	(20)	11	1	(20)	17	2	(9)	-	(18)	14	(7)	(16)	(77)
2014-15	4	(24)	4	12	30	12	3	9	(25)	3	3	(6)	20	(16)	(1)	17	17	26	41
2015-16	(4)	(39)	(8)	(3)	(30)	(3)	(5)	(5)	(4)	4	(5)	6	(7)	1	(3)	10	(17)	-	(41)
2016-17	(6)	(43)	(2)	4	(13)	4	(1)	-	(4)	1	11	(6)	2	3	(7)	21	22	31	3
Average Change:																			
Last 10	(2)	(32)	(6)	(9)	(10)	(1)	(5)	(2)	(6)	(4)	0	(6)	(2)	(2)	(4)	6	(3)	(6)	(18)
Last 5	(4)	(34)	(6)	(9)	(17)	(1)	(7)	(1)	(9)	(4)	4	(12)	(1)	(1)	(6)	13	4	6	(26)
Last 3	(2)	(35)	(2)	4	(4)	4	(1)	1	(11)	3	3	(2)	5	(4)	(4)	16	7	19	1

PERCENT CHANGE IN ENROLLMENT: YEAR TO YEAR TREND

Change From	PreK-1 to PreK	PreK-1 to K	K-1 to K	K to 1	1 to 2	2 to 3	3 to 4	Net Total Elem.	4 to 5	5 to 6	6 to 7	7 to 8	Net Total Middle	8 to 9	9 to 10	10 to 11	11 to 12	Net Total Sr High	Total District Enrollment
2007-08	11.5%	-13.3%	-6.7%	-3.8%	8.7%	-2.5%	8.6%	-1.1%	0.0%	-0.3%	-11.3%	7.4%	2.4%	2.8%	6.3%	4.8%	-8.5%	1.1%	3.1%
2008-09	2.4%	-24.6%	-3.1%	-9.2%	-2.1%	-7.9%	3.0%	-5.1%	-6.5%	-2.6%	-3.4%	-5.4%	-10.3%	-1.4%	-15.1%	-10.6%	-10.2%	-6.3%	-3.8%
2009-10	0.8%	-28.7%	-3.2%	-5.3%	-3.1%	-1.9%	3.4%	-7.5%	-1.3%	0.0%	-2.6%	-7.0%	-12.5%	-8.3%	-5.7%	-1.6%	11.8%	-1.6%	-1.7%
2010-11	-3.8%	-13.1%	22.8%	7.6%	5.4%	4.3%	-1.1%	7.8%	8.1%	9.6%	-1.3%	2.7%	-1.3%	-7.9%	-2.6%	3.0%	-9.8%	-4.3%	3.0%
2011-12	-7.2%	-34.4%	-27.4%	-11.5%	-10.6%	-4.5%	-16.2%	-6.3%	-10.9%	-4.5%	-2.5%	-8.6%	-7.9%	-7.9%	-1.4%	-6.7%	5.9%	1.2%	-4.7%
2012-13	-5.2%	-19.8%	13.4%	-3.7%	-0.5%	-13.3%	-3.0%	-14.1%	20.0%	-16.2%	-12.9%	-15.3%	8.2%	-5.2%	10.0%	-1.4%	5.7%	0.7%	-4.9%
2013-14	-7.3%	-39.1%	-28.0%	-24.7%	-19.0%	-20.6%	-13.9%	-5.6%	15.1%	0.7%	-11.5%	1.4%	-24.1%	27.9%	0.0%	-23.4%	20.6%	-1.6%	-6.9%
2014-15	3.9%	-23.5%	16.4%	6.0%	9.8%	4.4%	17.1%	15.6%	13.2%	2.0%	31.7%	-29.8%	4.1%	4.3%	-20.5%	-1.4%	28.8%	4.0%	4.0%
2015-16	-3.8%	-36.8%	-14.1%	-10.3%	-8.9%	-6.1%	-4.2%	-4.2%	-5.6%	2.0%	-9.2%	-5.2%	6.8%	-6.0%	1.4%	-4.8%	13.9%	-3.9%	-3.8%
2016-17	-5.9%	-42.2%	-11.9%	-3.0%	-4.2%	-1.5%	5.7%	5.2%	0.0%	-2.0%	3.2%	-4.8%	1.4%	15.9%	3.8%	-9.6%	35.6%	5.2%	0.3%
Average Change:																			
Last 10	-1.5%	-27.5%	-4.2%	-5.8%	-2.5%	-4.9%	-0.1%	-1.5%	-0.8%	-1.5%	-2.0%	-6.4%	-5.0%	1.4%	-2.4%	-5.2%	9.4%	-0.5%	-1.5%
Last 5	-3.6%	-32.3%	-4.8%	-7.1%	-4.6%	-7.4%	0.3%	-0.6%	0.5%	3.5%	0.3%	-10.7%	-4.0%	7.4%	-1.1%	-8.1%	20.9%	0.9%	2.3%
Last 3	-1.9%	-34.2%	-3.2%	-2.4%	-1.1%	-1.1%	6.2%	5.5%	2.5%	-0.6%	8.6%	-13.2%	4.1%	4.8%	-5.1%	-5.3%	26.1%	1.8%	0.1%

HISTORICAL ENROLLMENT ANALYSIS (cont.)

One dependent factor that can indicate substantial enrollment growth or decline potential is a considerable relative size differential between the graduating twelfth grade class and the enrolling kindergarten class the next school year. Typically, increasing enrollment can occur in an area that is experiencing rapid housing growth or enrollment declines can be expected if employment losses or reduced births are experienced. The District had potential for enrollment growth through 2013 but has experienced net attrition since then (see Table 10 and graph).

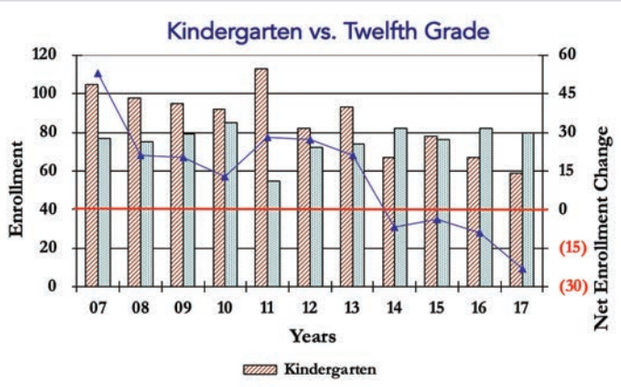
As indicated in the Table to the right, both kindergarten and twelfth grade enrollment have experienced sizable fluctuations and, until 2013, the graduating twelfth grade class in each year has been smaller than the next year's entering kindergarten class. This is largely attributable to ample local area births and net in-migration patterns. Consequently, significant differences among grade sizes have caused considerable variances in class sizes. As mentioned above, births have declined substantially in recent years, leading to considerably smaller kindergarten classes. As illustrated in the following graph, these smaller classes have been working their way through the system and have several years remaining before enrollment has the potential to stabilize at these lower enrollments (see graph below).

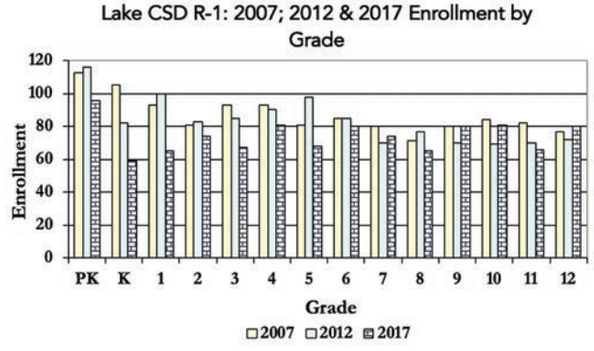
This has substantial implications for the number of teaching staff required and the operating efficiencies that may be realized.

TABLE 10

Enrollment by Grade

Year	Kinder-garten	12th	Net Change
07	105	77	53
08	98	75	21
09	95	79	20
10	92	85	13
11	113	55	28
12	82	72	27
13	93	74	21
14	67	82	(7)
15	78	76	(4)
16	67	82	(9)
17	59	80	(23)





OPEN ENROLLMENT

Over the past decade Lake County School District R-1 experienced considerable net attrition regarding open enrollment: (11)

In the past ten years, open enrollment into the district has increased modestly but has remained minimal. In contrast, open enrollment out of the district has nearly doubled from 86 students in the 2007-08 school year to more than 160 in 2017-18. This indicates parents' willingness to transport their children to other educational opportunities, often associated with their proximity to place of work. For example, approximately three-fourths of these students attended schools in Buena Vista R-31, Eagle County Re 50 and Summit Re-1, suggesting these schools may be close to the parents' workplace.

In addition, nearly one-quarter of students open enrolling out of the district attend an online school such as Douglas County's Hope Online: (12)

Total open enrollment out of the district represents about 15 percent of resident students enrolled in district schools. Recapturing these students would likely be difficult unless comparable or better programs are offered locally. Further, recapturing students whose parents take them closer to their place of work is often unlikely.

Open Enrollment Into and Out of Lake County R-1

Year	Open Enrolled: Into LCSD	Open Enrolled: Out of LCSD	Net Gain (Loss) Students
2007-08	1	86	(85)
2012-13	1	66	(65)
2013-14	3	106	(103)
2014-15	6	117	(111)
2015-16	4	174	(170)
2016-17	NA	NA	NA
2017-18	9	161	(152)
Change:	**Students**		
2007 to 2012	0	-20	
2012 to 2017	8	95	
2007 to 2017	8	75	

TABLE 11

Students Open Enrolled	School Year		
Out of Lake County SD	2007-08	2012-13	2017-18
Number of Students Attending:			
Buena Vista R-31	32	22	63
Douglas County Re-1	-	-	25
Eagle County Re-50	15	10	23
Summit Re-1	21	19	33
All others	18	15	17
Total	86	66	161
Share of Students Attending:			
Buena Vista R-31	37.2%	33.3%	39.1%
Douglas County Re-1	0.0%	0.0%	15.5%
Eagle County Re-50	17.4%	15.2%	14.3%
Summit Re-1	24.4%	28.8%	20.5%
All others	20.9%	22.7%	10.6%
Total	100.0%	100.0%	100.0%

TABLE 12

ENROLLMENT PROJECTIONS

Based upon historical enrollment trends and anticipated continued residential growth, three projection scenarios are provided (see Table II-2). These three scenarios are culled from seven total scenarios prepared to assess past growth trends and assist with predicting enrollment for the near future. The three scenarios on Table II-2 are typically utilized to establish potential high and low parameters for reasonable growth expectations. However, be advised that any forecasting model based upon historical data inherently assumes that history will repeat itself. This is not always the case, as was reflected in the prior master plan effort, because demographic characteristics of the community can change as can employment drivers. Consequently, continuous monitoring of the data and underlying factors is essential to developing and regularly updating forecasts to incorporate unexpected changes.

(cont. next page)

TABLE II-2. ENROLLMENT PROJECTIONS SUMMARY BY SCENARIO — 2018 to 2023

	SCENARIO							
	LOW -- 10 & 5 Yr. Cohort Survival*				Middle -- 5 Year Modified Cohort			
YEAR	Elemen. (PK-2)	Inter. (3-6)	Sr. High (7-12)	Total	Elemen. (PK-2)	Inter. (3-6)	Sr. High (7-12)	Total
2017 Actual					**294**	**296**	**446**	**1,036**
PROJECTED:								
2018	277	272	440	988	290	277	455	1,022
2019	267	256	425	947	302	268	445	1,015
2020	268	217	409	894	321	234	437	993
2021	228	207	403	838	317	237	415	968
2022	212	184	390	786	306	245	405	956
2023	196	166	360	722	300	259	381	939

	HIGH -- 3-Yearr Percent Change				PREFERRED -- Various Data			
YEAR	Elemen. (PK-2)	Inter. (3-6)	Sr. High (7-12)	Total	Elemen. (PK-2)	Inter. (3-6)	Sr. High (7-12)	Total
PROJECTED:								
2018	302	286	468	1,056	285	291	443	1,018
2019	322	290	469	1,081	293	287	438	1,018
2020	346	275	468	1,089	310	273	429	1,012
2021	346	290	459	1,095	313	272	420	1,005
2022	338	309	475	1,121	313	274	426	1,013
2023	335	330	470	1,135	317	272	423	1,012

*: The low scenario uses two scenarios; the 10 year cohort in the first three years and the 5 year cohort in the last three years.

Notes: The low scenario uses percent changes over the most recent ten years; the middle scenario applies cohort changes over the most recent five and 10 years; and the high scenario is based upon cohort survival changes for the most recent five years, excluding the high and low changes.

ENROLLMENT
PROJECTIONS (cont.)

LOW SCENARIO

This scenario presumes that enrollment growth over the next five years will largely mirror the average cohort survival over the past ten and five years. The low scenario forecasts substantial declines through 2023, with decreases averaging more than 50 students or 5 five percent annually. Total enrollment is projected to approximate 990 students in the fall of 2018; by 2020 enrollment is expected to drop another 100 students and continue decreasing to about 720 students by fall 2023 students. In SRW's opinion, this scenario is believed unrealistically low and is not supported by expected economic and demographic conditions.

MIDDLE SCENARIO

The middle scenario is based upon the cohort survival changes during the most recent five years without the low and high changes. This scenario forecasts about 1,020 students in the district in the fall of 2018, just slightly less than in fall 2007. Enrollment in this scenario is expected to experience modest declines throughout the projection period. By 2023, enrollment could fall to about 940 students if this scenario is borne out. While possible, this appears slightly pessimistic.

HIGH SCENARIO

This alternative incorporates the rate of change in enrollment over the past three years as the basis for forecasting. Under this scenario, fall 2018 enrollment is expected to increase about 20 students in fall 2018 and then experience steady increases reaching nearly 1,100 students by 2021 and continuing to increase approximating 1,135 students in 2023. If these forecasts are realized, the District's enrollment will reach levels not experienced since 2013.

(cont. next page)

ENROLLMENT PROJECTIONS (cont.)

PREFERRED SCENARIO

The middle scenario forecasts are viewed as reasonable for the next year or two but appear too conservative after that. The high scenario is expected to be a bit optimistic, particularly in the next year or two. As a result, the preferred scenario represents somewhat of a compromise between these two scenarios. The preferred scenario or SRW's best estimate is based upon the following assumptions:

- Births will continue near the recent experience, generally between 75 and 90 per year;
- The number of jobs in the District will experience modest but continual gains;
- Housing construction should be steady and relatively modest;
- Open enrollment out of the district will stabilize at recent levels; and
- Demographics of child-bearing age females will stabilize.

Because of the considerable change in births and demographics experienced beginning in the latter part of the previous decade and following the previous study, ***it is strongly recommended that the District continually monitor these and other pertinent factors on an annual basis.*** Such measures will improve the District's ability to better anticipate enrollment changes and adjust facility planning and staffing accordingly.

Lake County School District
2019 MASTER PLAN

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HISTORICAL SIGNIFICANCE

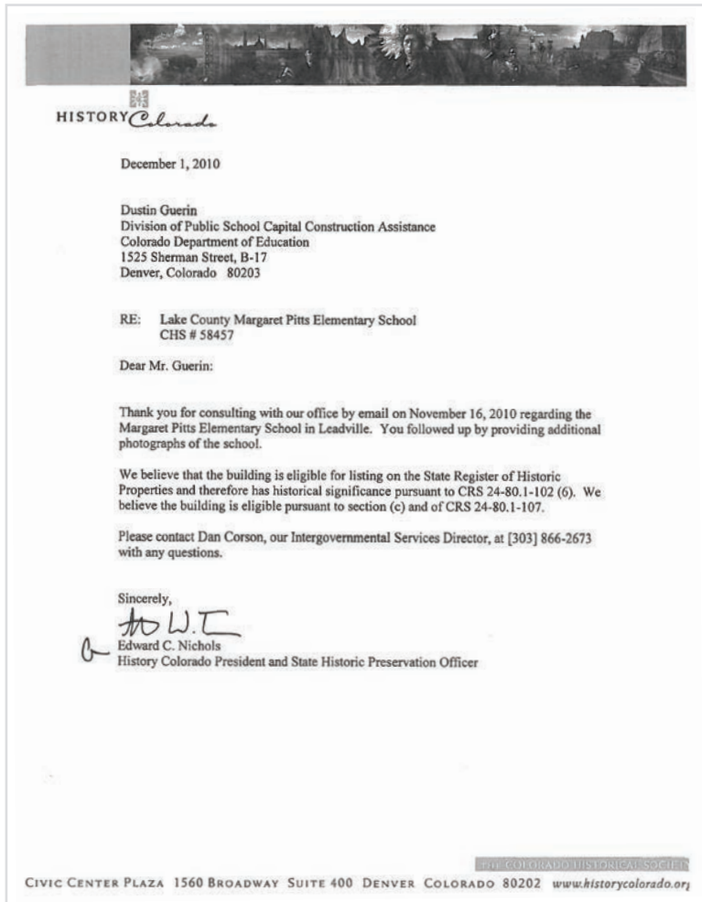
VI.

HISTORICAL SIGNIFICANCE

Though the Lake County School District has several historical buildings, including the 1902 schoolhouses and the barn building, these facilities are not being considered in the master plan and will not be affected in any way.

However, Margaret J. Pitts Elementary School is over 60 years old, having been built in 1955 and has been evaluated by the Colorado State Historical Society and is considered historically significant. The Colorado Historical Society stated that the building is eligible for listing on the State Register of Historic properties pursuant section (c) and of CRS 24-80.1-107.

The master plan contemplates a change in use from the current use as The Center Early Childhood Programs and District Office head-quarters. The use change would be to simply utilize the facility for the District Offices and the Preschool programs would be built new at a new location. No plans to add, renovate, or otherwise adapt the building are contained in this master plan.



HISTORY Colorado

December 1, 2010

Dustin Guerin
Division of Public School Capital Construction Assistance
Colorado Department of Education
1525 Sherman Street, B-17
Denver, Colorado 80203

RE: Lake County Margaret Pitts Elementary School
CHS # 58457

Dear Mr. Guerin:

Thank you for consulting with our office by email on November 16, 2010 regarding the Margaret Pitts Elementary School in Leadville. You followed up by providing additional photographs of the school.

We believe that the building is eligible for listing on the State Register of Historic Properties and therefore has historical significance pursuant to CRS 24-80.1-102 (6). We believe the building is eligible pursuant to section (c) and of CRS 24-80.1-107.

Please contact Dan Corson, our Intergovernmental Services Director, at [303] 866-2673 with any questions.

Sincerely,

Edward C. Nichols
History Colorado President and State Historic Preservation Officer

THE COLORADO HISTORICAL SOCIETY

CIVIC CENTER PLAZA 1560 BROADWAY SUITE 400 DENVER COLORADO 80202 www.historycolorado.org

HISTORICAL SIGNIFICANCE (cont.)

Additionally, West Park Elementary School is over 50 years old, having been built in 1962 and has been evaluated by the Colorado Historical Society.

The master plan contemplates the demolition and replacement with a new PreK-2 facility on the same site.

Colorado Historical Society Communication Statement:

The Master Planning Team and the CDE Regional Program Manager have been in contact with various individuals at the Colorado Historical Society (CHS)and Office of Archaeology and Historic Preservation, over the course of January and February 2019. Our collective conclusion, that we have garnered from CHS statements, is that the West Park Elementary School is not of historical significance and the Lake County School District may modify the building and/or the site as necessary.

The only requirement that the CHS has stated, is that Lake County School District archive all historical documents of the West Park Elementary School. The Master Planning Team has assisted the school district in archiving the design and construction documents, all as-built drawings and documents, photography, and miscellaneous files related to the school. The archiving is complete, and we believe that this CHS requirement has been met and the school district can modify the West Park Elementary School facility and site, in the future.

The CHS is in process of completing their letter to the school district, but the letter wasn't available prior to the publication of this master plan document.

Lake County School District
2019 MASTER PLAN

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B.E.S.T. FACILITY ASSESSMENTS

VII.

B.E.S.T. FACILITY ASSESSMENTS

Currently, Lake County School District consists of 11 buildings, however only 5 of the facilities are used on a regular basis. In addition to the following inventory of District facilities, they maintain two historic school-houses, a barn, and a storage shed.

The District has made numerous upgrades and renovations to the facilities over the years to address ADA, electrical, roof and boiler needs. The most significant upgrade was completed in 2014 with the complete renovation and additions to Lake County High School. LCIS has had several upgrades at the indoor track, and roofing. Maintenance of the facilities is on on-going and regular activity throughout the district. Currently the average age of buildings in Lake County School District is 63 years of age, and almost 92%of the current facilities are over 45 years of age, a with a large portion over 48 years old. These numbers include the 3 historic school which alone are 114 years old.

Prior to the beginning of the Master Planning process, CDE, through the State's BEST Facility Assessment program, provided assessments in 2017 for the following structures and their corresponding Facility Condition Index score (FCI):

- West Park Elementary School (FCI: 0.65)
- Margaret Pitts Elementary School (FCI: 0.65)
- Lake County Intermediate School (FCI: 0.45)
- Lake County High School
  – Including Federico Field (FCI: 0.06)

(cont. next page)

the district has made numerous upgrades and renovations over the years... the most significant was for lake county high school

Access to full (FCI) reports can be found here:

https://api.vfafacility.com/CDOEDashboard/districtLevel/district.jsp?districtEid=REG-634

B.E.S.T. FACILITY ASSESSMENTS (cont.)

While the majority of the noted work in CDE's reports was confirmed by the complementary assessment reports done by the TreanorHL team and reinforced the need to look at de-commissioning or replacement of both West Park and Pitts, deferred maintenance items at LCIS, and substantial improvements to Federico Field, there were a few discrepancies that should be highlighted. They are as follows:

West Park Elementary School

- Interior CMU walls are noted as beyond their useful life. There is no sign of distress in the walls, and they still function as intended.

Margaret Pitts Elementary School

- Interior CMU walls are noted as beyond their useful life. There is no sign of distress in the walls, and they still function as intended.

Lake County Intermediate School (shown)

- The rubber gym floor and adjacent track is noted as being beyond its useful life and needing replaced. However, this floor was replaced in full in 2016, and included abatement of the existing (and removed) mercury containing flooring.
- A sprinkler system is noted as needed; however, it should be noted that this building is partially sprinkled.

Lake County High School

- The single ply roofing is noted as needing to be replaced; however, it should be noted that the vast majority of the roofing on the facility was replaced in 2014. This note would apply only to the Auditorium and Gymnasium roofs.
- Interior CMU walls are noted as beyond their useful life. The walls indicated are the CMU walls at the Gymnasium. There is no sign of distress in the walls, and they still function as intended.
- Roof drains are noted as needing to be replaced. All interior piping and the vast majority of drain assemblies were replaced in 2014. This note would apply only to the drain assemblies of the Gymnasium and Auditorium.

Lake County School District
2019 MASTER PLAN

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EDUCATIONAL PROGRAMMING AND ADEQUACY

VIII.

MISSION

THE MISSION OF LAKE COUNTY SCHOOL DISTRICT R-1

LCSD challenges students to reach their fullest potential through personal, engaged and rigorous learning in the classroom and beyond.

Simultaneously focus our efforts on the following:

1. Ensuring all students stay on or above grade level each year and graduate prepared to successfully implement a plan for college or career

"Every day, we are college and career-ready"

2. Providing all students with engaging learning opportunities

"Rigor and engagement are everywhere"

3. Create a space that is safe, inclusive and welcoming for all

"Diversity and culture make us better"

4. Plan and execute the capital and human capital investments that will make our district better

"We plan for the future"

CORE BELIEFS AND GOALS

THE CORE BELIEFS OF LAKE COUNTY SCHOOL DISTRICT

- Inspire all students to be life-long problem-solvers
- Create a culture of academic achievement
- Build on the strengths of every individual
- Provide opportunities for risk-taking in learning
- Respect the whole person: physical, mental, emotional
- Empower all community members to be active participants in our schools
- Foster a safe environment for all students and staff
- Honor cultural difference
- Partner with families and community members

FACILITY CORE VALUES

The Facility Core Values of the Lake County School District are to Provide and Maintain School Facilities that are:

- SAFE, SECURE AND PROMOTING HEALTHY DEVELOPMENT
- EQUITABLE FOR ALL LEARNERS
- ENGAGING AND INSPIRING
- RIGHT-SIZED, LOCATED APPROPRIATELY, AND FLEXIBLE
- TECHNOLOGY-RICH AND PREPARING STUDENTS FOR A WIDE-RANGE OF POST-SECONDARY OPTIONS AND CAREERS
- COMMUNITY-ORIENTED
- ENERGY-EFFICIENT AND IN TUNE WITH OUR NATURAL ENVIRONMENT

DISTRICT INSTRUCTIONAL GOALS AND LEARNING OBJECTIVES

by planning and executing the capital and human capital investments that will make our district better... we plan for the future

Priority #1
Every day we are college and career ready.

Current Reality: We are making progress on ensuring students are meeting grade level.

Priority Description: The superintendent and staff will ensure all students stay on or above grade level each year and graduate academically prepared to participate in college or career.

Implementation Strategy:

1. Implement processes for ensuring that all students are receiving grade level instruction or instruction appropriate for their ALP or IEP.
2. Monitor student work and assessments for progress towards grade level achievement.

Priority #2
Rigor and engagement are everywhere.

Current Reality: We are working to ensure that curriculum and instruction are engaging and rigorous.

Priority Description: The superintendent and staff will provide all students with engaging learning opportunities that include grade-level appropriate curriculum.

Implementation Strategy:

1. Analyze current curriculum map to identify gaps.
2. Work with faculty and leaders to select or create curriculum where we do not have it.
3. Acquire and implement curriculum.

Priority #3
Diversity and culture make us better.

Current Reality: We are working to make our schools more welcoming.

Priority Description: All staff will work to build engaging welcoming environments that are conducive to learning.

Implementation Strategy:
Superintendent is working with school leaders to build goals and strategies that are aligned to school culture strategies and will be measured by Panorama survey data or the Healthy Kids Colorado Data.

Priority #4
We Plan for the future.

Current Reality: We have developed a long-term capital projects planning process and have revamped our recruiting and hiring processes to ensure that we are attracting and retaining highly qualified staff.

Priority Description: The School District is working to understand the condition, programs, and best use of our facilities for the future.

Implementation Strategy:
The School District has completed the 2019 Master Plan which outlines a phased 10-year facilities plan.

ADEQUACY

Lake County School District currently offers programming at the Early Childhood, Elementary, Middle and High School levels that are primarily consistent with the Colorado Model Content PreK-12 Standards of:

- Dance
- Drama and Theatre Arts
- Comprehensive Health and Physical Education
- English Language Proficiency
- Mathematics
- Music
- Reading, Writing and Communicating
- Science
- Social Studies
- Visual Arts
- World Languages

Lake County High School offers Vocational and Career programs that are outside of the Model Content, but is consistent with long-term programming at the school, acts as Career Education for local opportunities and as preparation for courses at nearby college, such as Colorado Mountain College. The High School has a drama program and performing arts program including band, choir, and drumline that are available to students at the high school level.

At the Middle School level, all students are offered the full complement of standard Model Content courses and also have the required music, art, drama, and vocational programs.

The Elementary School programs in grades K-2 are provided at West Park Elementary School and grades 3-6 at the Lake County Intermediate School. The programs are arranged around standard, accepted elementary programming and meet the Model Content Standards.

COMPLETE INVENTORY OF FACILITIES

IX.

LAKE COUNTY SCHOOL DISTRICT FACILITIES

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

(Former) Administration Building

Current Use: Storage

Constructed: Unknown

Square Footage: approx. 9,000 s.f.

Construction Type: Pre-Engineered metal building, slab on grade, metal siding with stone accents

Transportation Building

Current Use: Bus storage and maintenance, transportation offices

Constructed: Unknown, addition of offices after original construction

Square Footage: approx. 8,200 s.f.

Construction Type: Pre-engineered metal building, slab on grade

Lake County High School (LCHS)

Current Use: School for grades 7-12 and Alternative High School

Constructed: 1955, major addition and renovation 2014

Square Footage: 121,000 s.f.

Construction Type: Two story steel structure, primarily steel framing and decking, non-bearing exterior masonry and metal panels, slab on grade and composite deck

Lake County Intermediate School (LCIS)

Current Use: School for grades 3-6; pool portion of facility currently leased to Lake County Recreation

Constructed: 1976

Square Footage: 142,600 s.f.

Construction Type: Three story steel structure, steel framing and decking, non-load bearing exterior masonry, stucco, and metal panels, slab on grade and composite deck

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

Margaret J. Pitts Elementary School

Current Use: School for Pre-Kindergarten, District Offices

Constructed: 1955, Library Addition 1971

Square Footage: 34,231 s.f.

Construction Type: Single story steel structure with interior bearing masonry walls, wood joists and decking, non-load bearing masonry exterior, slab on grade

West Park Elementary School

Current Use: School for grades K-2

Constructed: 1962, Reroof 1997, New Boiler System 2008, Mechanical System Upgrade 2013, New Playground 2016

Square Footage: 41,019 s.f.

Construction Type: Single story steel structure, wood joists and decking, slab on grade with some crawl space, non-load bearing masonry exterior

Federico Field

Current Use: Practice field for football, soccer, and track

Constructed: 1962

Square Footage: 384 s.f. (Grandstands)

Construction Type: Grandstands are wood bleachers on steel support structure

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

Little Red School House

Current Use: Storage
Constructed: 1902
Square Footage: 1,019 s.f.
Construction Type: Wood frame, wood siding

Barn by Little Red School House

Current Use: Storage
Constructed: 1902
Square Footage: 450 s.f.
Construction Type: Wood frame, wood siding

Twin Lakes School House

Current Use: Community use and storage
Constructed: 1895
Square Footage: 3,500 s.f.
Construction Type: Wood frame, wood siding

FACILITY EVALUATIONS

x.

FACILITY EVALUATIONS AND FUTURE USE ANALYSIS

The following pages contain assessment reports done by the TreanorHL design team for the following facilities, to accompany the assessments completed by CDE, and include civil, architectural, structural, and MEP information, where applicable.

- (Former) Administration Building
- Transportation Building
- Lake County Intermediate School
- West Park Elementary School
- Margaret Pitts Elementary School
- Federico Field

See the Appendix for construction cost estimates for each facility, which include all of the work listed in the assessments. Anticipated construction costs are shown in both 2018 and 2020 dollars.

Leadville Area
Historic Mining Structure

Note: an assessment was not completed on Lake County High School due to the recent renovation and addition work completed in 2014.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

TREANORHL

Lake County School District R-1
Facility Assessment Report

DISTRICT ADMINISTRATION OFFICES

October 12, 2018

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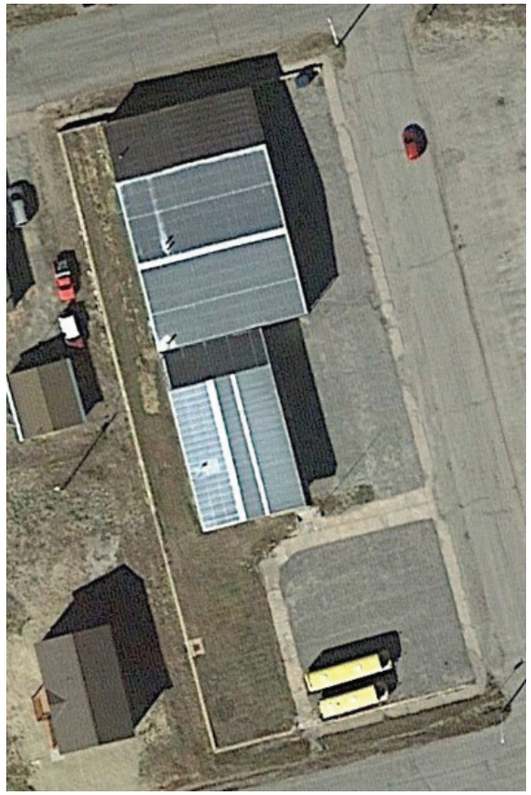
LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)



(Former) Administration Building

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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DISTRICT ADMINISTRATION OFFICES
ARCHITECTURAL FACILITY ASSESSMENT

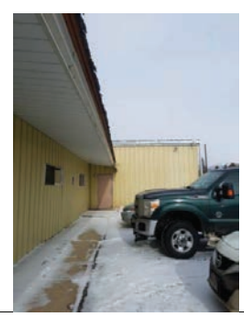
Overview:

The District Administration Offices is an approximately 9000 square foot prefabricated metal building, housing administration offices as well as maintenance garages. The year of construction is unknown.

The current facility appears to serve basic function, but due to slab movement there are many areas where the floor slopes significantly. In addition, deterioration of the building envelope was observed, likely leading to water intrusion evidenced by stains in the ceiling tile as well as actual gaps between openings and siding (see structural assessment for additional information). Due to the nature of the building type, the insulative nature of the walls and ceilings are below average, contributing to higher energy costs. The office portion of the building has been somewhat modified to provide basic ADA accessibility; exterior approach accessibility is minimal.

Consideration of the following items should be taken if the building is to remain in service.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-1	No ADA parking is available at the exterior. Installation of signage and striping recommended, minimum of 1 parking spot. Further review of paving conditions to be included in civil assessment report.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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A-2	Stairs from lower parking to entry door have no handrails. Installation of ADA handrails recommended. Further review of concrete condition to be included in civil assessment report.			X	
A-3	Exterior damage to building envelope potentially contributing to water intrusion. Recommend repair or replacement of siding.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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A-4	Cedar shingles at front entry are past their useful life and may be contributing to water and structural damage. Further investigation of condition recommended, as well as replacement of roof. Note any roof replacement at this building will require upgrading the insulative and structural requirements to meet current code.			X	
A-5	Deteriorating and damaged frames and sealant noted at exterior windows. Replacement of all windows and man doors recommended. Further			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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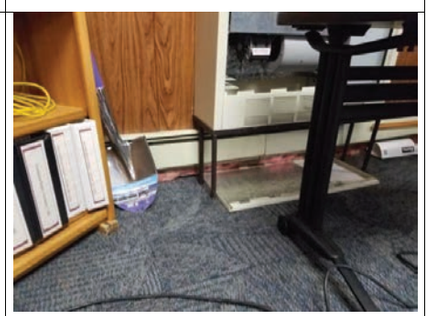
	review of overhead doors required to determine if observed damage was impacting function.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

TREANORHL

					
A-6	Sloping floors in office portion of building is exposing wall insulation. In addition, wall separation was observed in some areas. See structural assessment for recommendation.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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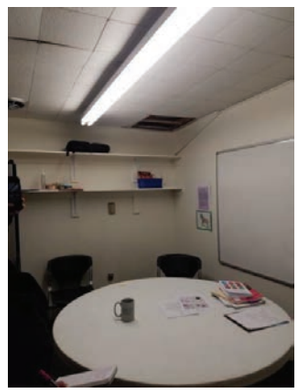
A-7	Water staining observed in multiple locations at ceiling tile. Further investigation into integrity of roofing and structure recommended; followed by roofing and ceiling replacement.			X	 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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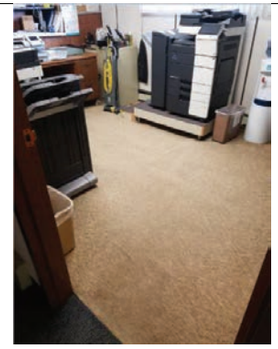
A-8	Majority of door hardware is not ADA compliant. Recommend replacement of all door knobs with levers.				
A-9	Carpeting throughout offices appears to be in serviceable condition. If structural repairs are required at the floor slab, replacement of the carpet will likely be necessary.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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A-10	Miscellaneous area of insulation in garage area is in disrepair or falling from ceiling. Recommend replacement and resecurement. Note that if the roof is required to be replaced, all insulation (existing and new) will need to meet the current energy code.	X			 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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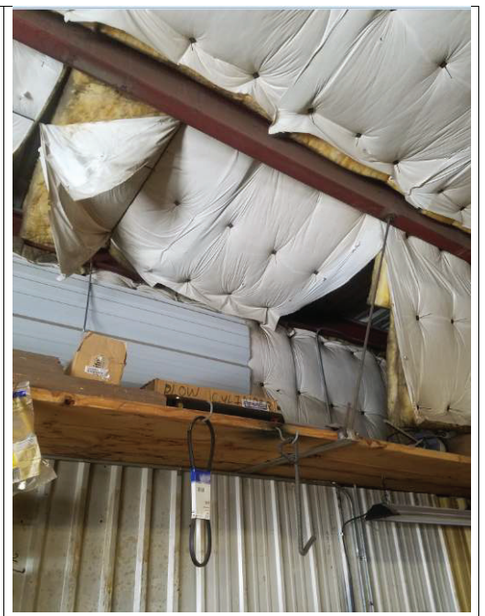
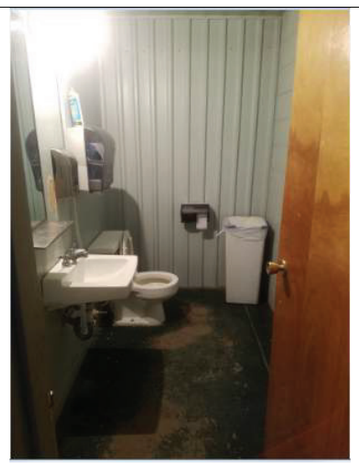
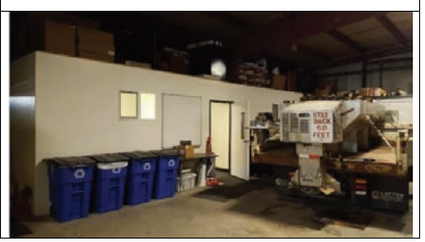
					

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

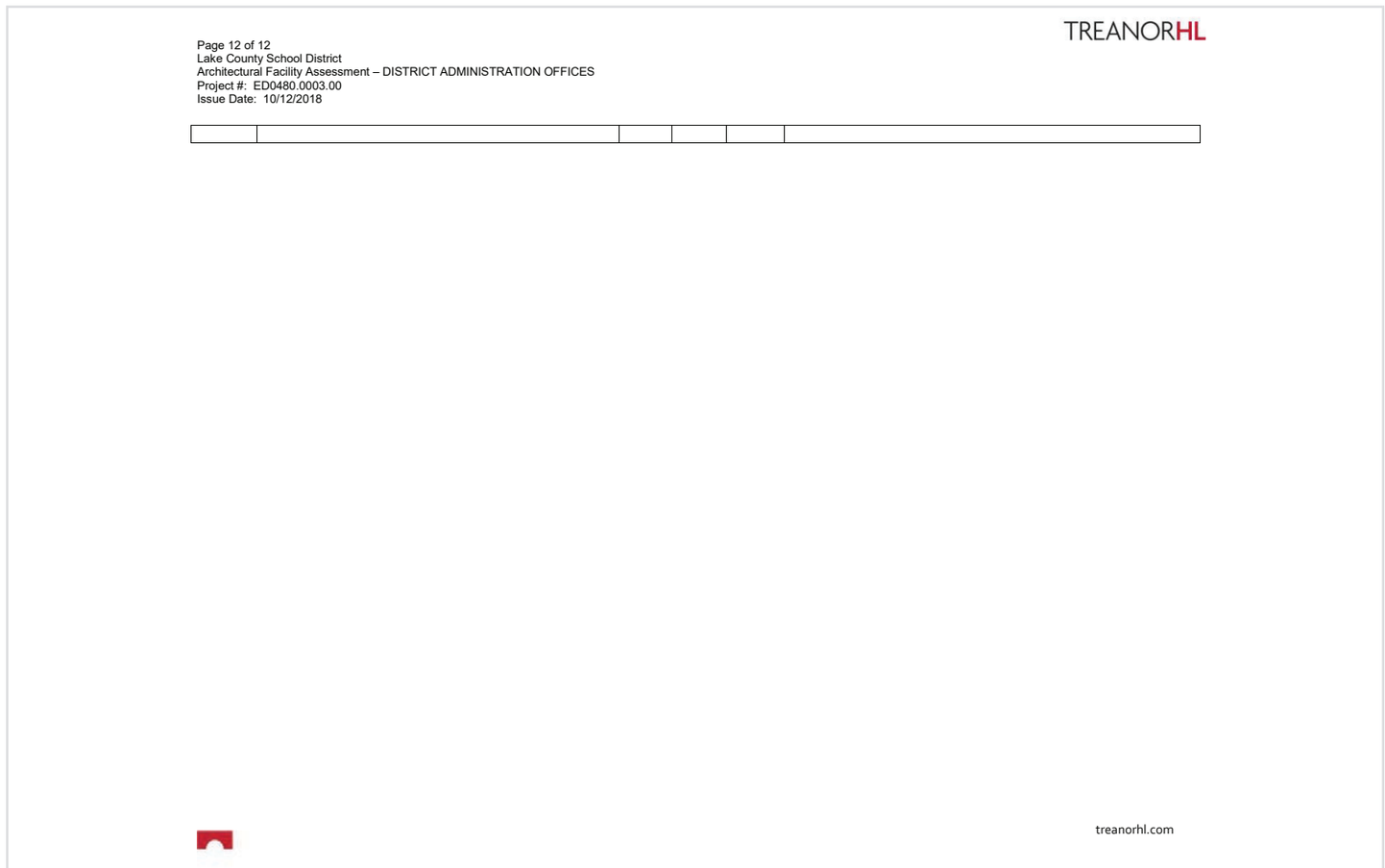
(Former) Administration Building

TREANORHL

A-11	No ADA accessible toilet facility is available in the garage portion of the building. Recommend modification of existing facility, if possible, to create accessible restroom.	X			
A-12	There does not appear to be a proper fire barrier separation between the garage area with gas-fueled vehicles and the office area. Recommend remediation of existing walls and doors.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building



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LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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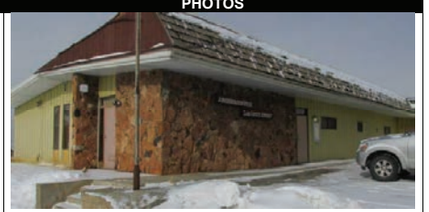
DISTRICT ADMINISTRATION OFFICES
STRUCTURAL FACILITY ASSESSMENT

Overview:

The District Administration Offices are situated in a one-story prefabricated metal building with a slab-on-grade floor. A conference room and offices are located in the southern half of the building, whereas the northern half is a maintenance garage with four overhead doors on the east side. It appears that the northernmost bay of the maintenance garage may have been added on. Existing structural drawings were not available at the time of this assessment; however, the foundation system is assumed to be spread footings. The roof form on the east side of the offices portion of the building was most likely constructed with wood overframing. Retaining site walls occur on the north and west sides of the building. The year that the building was constructed is unknown.

In general the building appears to be structurally serviceable, although further evaluation and repairs are recommended as noted below, if it will continue in service for much longer.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-1	The wood shingles on the east building elevation have weathered significantly. Repair is recommended to prevent moisture intrusion. The soffit below the shingled roof dips and is not entirely level. This could be an indication of structural distress. Further investigation is recommended to determine if repairs are required.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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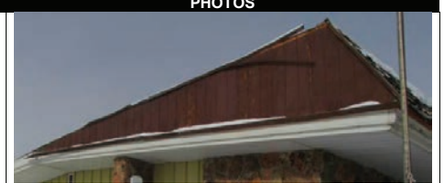
Structural Facility Assessment – DISTRICT ADMINISTRATION OFFICES
Project #: ED0480.0003.00
Issue Date: 08/13/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-2	The fascia at the south building elevation is weathered and the trim is pulling away. Repair is recommended to prevent moisture intrusion and further deterioration.		X		
S-3	A piece of stone is missing from the veneer at the southeast corner of the building. The surrounding stone appears to be firmly adhered so a repair would be for visual reasons.	X			
S-4	The exterior siding is dented and bent in several locations around the perimeter of the building and the sealant around the windows has deteriorated. Repair of the siding and replacement of the sealant may be necessary to prevent water intrusion.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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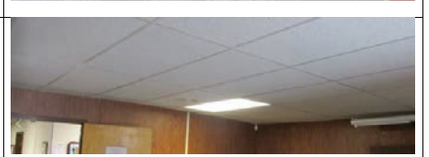
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-5	The exterior wall at the northeast corner of the building is badly dented; however, the metal building column in the corner appears to be undamaged. Repair of the wall is recommended to prevent water intrusion.	X			
S-6	The floor slab-on-grade has settled several inches at the east and west ends of the conference room. Placement of an overlay, mud-jacking or an equivalent slab repair is recommended.	X			
S-7	The suspended ceiling is not level. This could be an indication of structural distress above. Further investigation is recommended to determine if repairs are required.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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Structural Facility Assessment – DISTRICT ADMINISTRATION OFFICES
Project #: ED0480.0003.00
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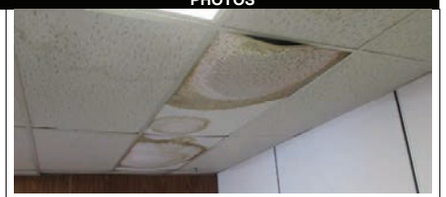
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-8	Multiple roof leaks occur above the offices and conference room as evidenced by stained ceiling tiles and water filled catch buckets placed above and below the ceilings. It is recommended that the roof leaks be repaired and that the metal roof framing be inspected for signs of corrosion and other weather-related deterioration.		X		
S-9	Minor cracks occur in the slab-on-grade in the maintenance garage bays. The cracks are of the type that would normally be expected for slabs-on-grade and are not a structural concern.	X			
S-10	The top of the concrete retaining walls has deteriorated and spalled off in some locations. The spalling is unsightly but it does not appear to have compromised the structural integrity of the walls. Repairs and or replacement of the walls will eventually be required as they continue to deteriorate.	X			

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LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-11	Signs of foundation movement or distress were not observed.				
S-12	Due to snow on the ground, the grading around the perimeter of the building and whether it provides adequate drainage away from the foundation could not be observed. The grading should be evaluated and improved where drainage is inadequate.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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DISTRICT ADMINISTRATION OFFICES
MEP FACILITY ASSESSMENT

Overview:

Mechanical and Plumbing Systems

The District Administration offices are served via a hydronic heating water boiler which distributes hot water via plastic piping to baseboard and cabinet heaters throughout the structure. Roof ventilators and operable windows provide ventilation for cooling effect. The maintenance bays are equipped with gas fired unit heaters. The building is not equipped with a fire sprinkler system. Domestic hot water is provided via a gas fired water heater. Plumbing fixtures are in good condition throughout.

While the hvac boiler and domestic water heater are relatively new, the remaining mechanical equipment is at the end of its useful life. Along with the poor building insulation and lack of a fire sprinkler system we recommend the offices be relocated to a new or different facility, as upgrading the mechanical and plumbing services in place would be a poor investment.

Electrical Systems

The electrical service to the District Administration offices is 225 Amp, 120/240 Volt, Single Phase, 3-Wire, served by pole mounted utility transformer. The main building is served by 225A, 120/240V, single phase, 42 circuits panelboard (Panel L1A). Panel were installed in December 1996. In addition, a 100A, 120/240V, single phase, 20 circuits panelboard is provided to serve miscellaneous equipment in Shop area, such as overhead door, welder, etc.

Limited amount of convenience receptacles were provided throughout the building. Therefore, extension cords and power strips are utilized to accommodate user's power needs. Combination of linear fluorescent (T8 lamps) and compact fluorescent is utilized for lighting equipment within the building. Administration/office area is provided with recessed 2x4 troffers. Striplight and multi-lamps surface mounted utility fixtures were utilized in back of house (storage, shops) area. Manual toggle switches are provided in each room/area. Adjustable multi-heads LED floodlights were installed at exterior doors. Fire alarm system was not provided for this building.

Although the existing panelboards are in good condition, it is toward the end of its life. The main panel does not have any spare breakers for new/additional loads. New circuit breakers can be added to shop area subpanel. We recommend that existing fluorescent troffers to be replaced with LED replacement lamps or LED fixtures.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

TREANORHL

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MEP Facility Assessment – DISTRICT ADMINISTRATION OFFICES
Project #: ED0480.0003.00
Issue Date: 10/12/2018

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-1	Existing baseboard and cabinet unit heaters in poor condition and in need of replacement.			X	 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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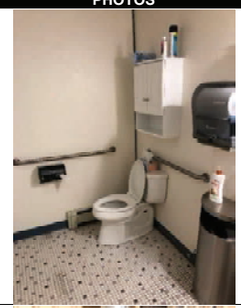
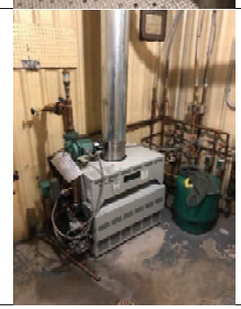
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-2	Restroom plumbing fixtures in good condition.	X			
MP-3	HVAC Boiler- note PEX distribution piping from manifold. Plastic piping in concealed locations would be subject to accidental damage from other construction activities requiring full replacement.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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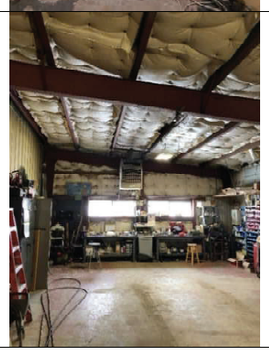
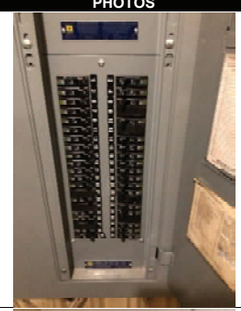
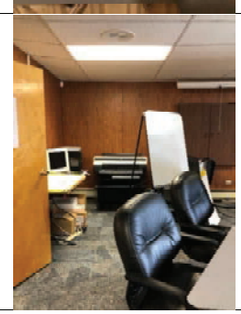
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-4	Domestic Water Heater in good condition.	X			
MP-5	Maintenance Bay Unit Heater in serviceable condition.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-1	Existing panelboards in good condition. However, no spare breakers available for new/additional loads.		X		
E-2	Existing recessed fluorescent troffer is recommended to be replaced with LED.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

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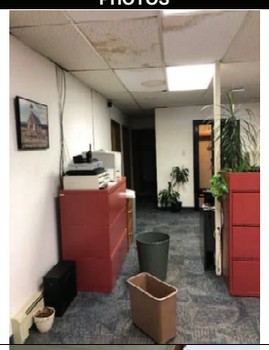
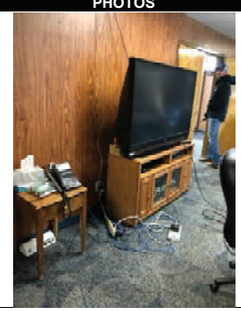
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-3	Existing fixtures maybe damaged due to leak in the ceiling space.			X	
E-4	Exterior fixture seems to be broken and not utilized.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

(Former) Administration Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-5	Existing outlets were not adequate, hence multiple power strips were installed to accommodate user's need.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

Lake County School District R-1
Facility Assessment Report

TRANSPORTATION CENTER

October 12, 2018

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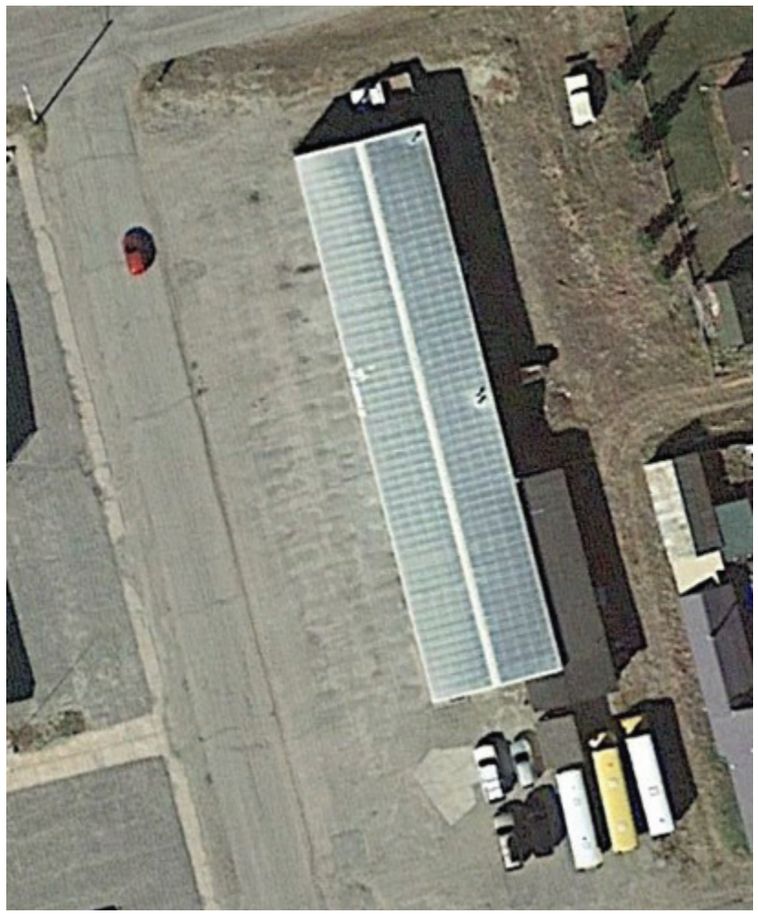
LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)



Transportation Building

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

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TRANSPORTATION CENTER
ARCHITECTURAL FACILITY ASSESSMENT

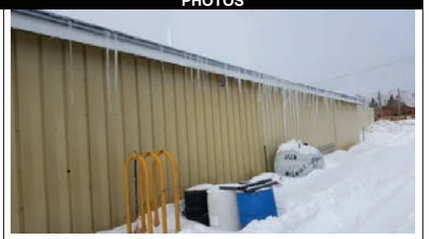
Overview:

The Transportation Center is an approximately 8200 square foot prefabricated metal building, housing a transportation office and staff break room, as well as maintenance garages. The year of original construction is unknown; a small office area was added post original construction.

The current facility appears to be in relatively good shape, with some minor exterior damage and accessibility issues noted. It was observed that the current buses housed in this garage barely fit within; this limitation will keep the District from being able to buy larger buses that would allow more efficient bussing of students.

Consideration of the following items should be taken if the building is to remain in service.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-1	Heat loss through the roof is causing significant ice damming on a portion of the east side of the building. Recommend review of integrity of roof panels in this location, as well as the implementation of a roof mounted snow melt system.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

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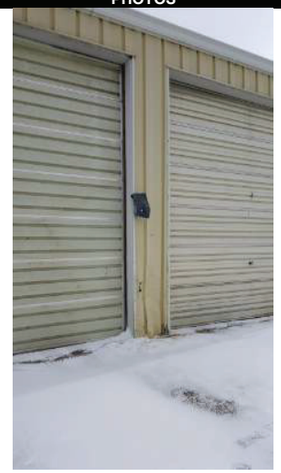
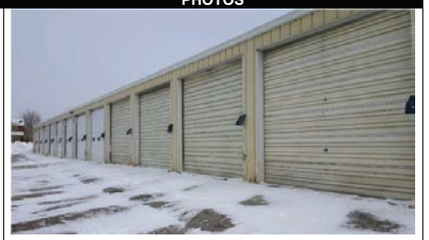
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-2	Some areas of damage to the building, primarily at the garage door entries, noted. Recommend repair of the panels and the installation of steel bollards for building protection.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-3	Some of the original garage doors were replaced at some point with newer insulated doors. Recommend replacement of remaining doors.		X		
A-4	There are a few miscellaneous areas where insulation repair is recommended.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

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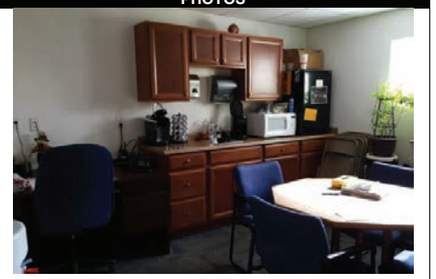
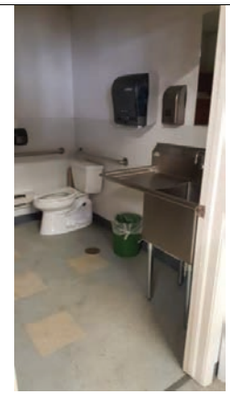
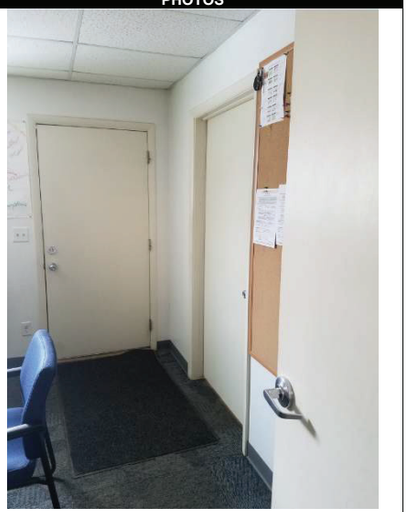
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-5	Staff lounge is not currently ADA compliant; recommend replacement of cabinetry to allow universal use.	X			
A-6	Staff restroom is partially ADA compliant. Recommend sink replacement and relocation of toilet accessories to meet the requirements.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-7	Some door hardware within building is not ADA compliant; recommend replacing non-compliant knobs with levers.				
A-8	It is not clear whether or not there is proper fire barrier separation between the garage and office portions of the building. Further investigation recommended.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

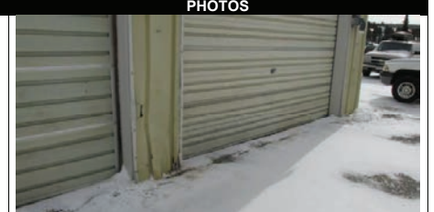
TRANSPORTATION CENTER
STRUCTURAL FACILITY ASSESSMENT

Overview:

The Transportation Center is a rectangular one-story prefabricated metal building with a slab-on-grade floor. Twelve overhead doors on the west side of the building provide access into the service and parking bays. The southeast corner of the building bumps out to enclose offices and a work area. Existing structural drawings were not available at the time of this assessment; however, the foundation system is assumed to be spread footings. The year that the building was constructed is unknown.

In general the building appears to be in nominally acceptable structural condition.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-1	The exterior siding is dented and damaged in several locations around the perimeter of the building, particularly at the jambs of the overhead doors. The damage appears to be non-structural; however, repairs may be required to prevent water intrusion.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

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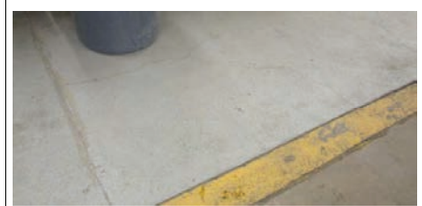
Lake County School District
Structural Facility Assessment – TRANSPORTATION CENTER
Project #: ED0480.0003.00
Issue Date: 08/13/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-2	The paint has worn off of the wood fascia at the south wall of the office bumpout leaving it exposed to the elements. Repair is recommended to prevent further deterioration.	X			
S-3	Minor cracks occur in the slab-on-grade in the maintenance garage bays. The cracks are of the type that would normally be expected for slabs-on-grade and are not a structural concern.	X			 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
S-4	Signs of interior slab-on-grade movement were not observed.				
S-5	Signs of foundation movement or distress were not observed.				
S-6	Due to snow on the ground, the grading around the perimeter of the building and whether it provides adequate drainage away from the foundation could not be observed. The grading should be evaluated and improved where drainage is inadequate.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

TRANSPORTATION CENTER
MEP FACILITY ASSESSMENT

Overview:

Mechanical and Plumbing Systems

The Transportation Center is served primarily via gas fired unit heaters. The small office and restroom area is provided with electric baseboard units. No ventilation is provided other than exhaust for the restroom.

Compressed air hose reels and other associated automotive repair equipment is present and in good working order.

Domestic hot water for the office and restroom is provided via a local electric water heater which appears to be in good working order. Plumbing fixtures are also in good working order. Plastic water piping is used for distribution. Trench drains are provided in the vehicle bays.

The building is not equipped with a fire sprinkler system.

Overall the building envelope is poor and not compliant with current energy codes.

The mechanical and plumbing systems are appropriate for the use of the facility, and could continue to be maintained or replaced on an as needed basis. While plastic piping is used for the domestic water distribution, it is routed exposed and any damage or leaks would be easily observed for repair. In general, the facility is fine for the intended use, and could continue to be used pending program requirements. If the overall program of the building is not appropriate repurposing would be suggested, as again the structure and associated mechanical and plumbing systems are appropriate for maintenance or storage facility use. Any repurposing of the facility should include salvage of all automotive repair equipment for re-use.

Electrical Systems

The electrical service to the Transportation Center is 225 Amp, 120/240 Volt, Single Phase, 3 Wire, served by pole mounted utility transformer. The main building is served by 225A, 120/240V, single phase, 42 circuits panelboard. In addition, a 70A, 120/240V, single phase, 12 circuits panelboard is provided to serve miscellaneous equipment in office/break room area, such as water heater, refrigerator, baseboard heaters, etc.

Combination of linear and compact fluorescent is utilized for lighting equipment within the building. Break room area is provided with recessed 2x4 troffers. Multi-lamps surface mounted utility fixtures with linear fluorescent (T8 lamps) were utilized in garage/shop area. Manual toggle switches are provided in each area. Wall mounted semi decorative fixture and adjustable flood lights are installed at building entrances and and Adjustable multi-heads LED floodlights were installed at exterior doors. Fire alarm system was not provided for this building.

Although the existing panelboards are in good condition, it is toward the end of its life. Replacement breakers may be required for additional larger loads. We recommend that existing fluorescent troffers in break room to be replaced with LED replacement lamps or LED fixtures.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

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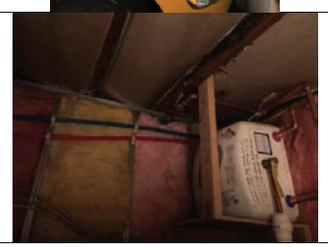
Lake County School District
MEP Facility Assessment – TRANSPORTATION CENTER
Project #: ED0480.0003.00
Issue Date: 03/09/2018

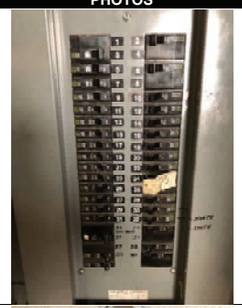
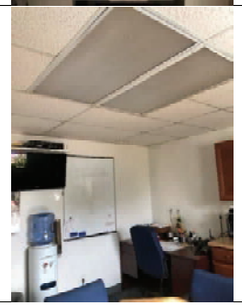
Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-1	Unit heater installation.	X			
MP-2	Water heater and plastic piping distribution.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Building

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-1	Existing panelboard in good condition.	X			
E-2	We recommend that existing light fixtures to be replaced with up/down LED fixtures.	X			

Lake County School District
2019 MASTER PLAN

continues next page >

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

Lake County School District R-1
Facility Assessment Report

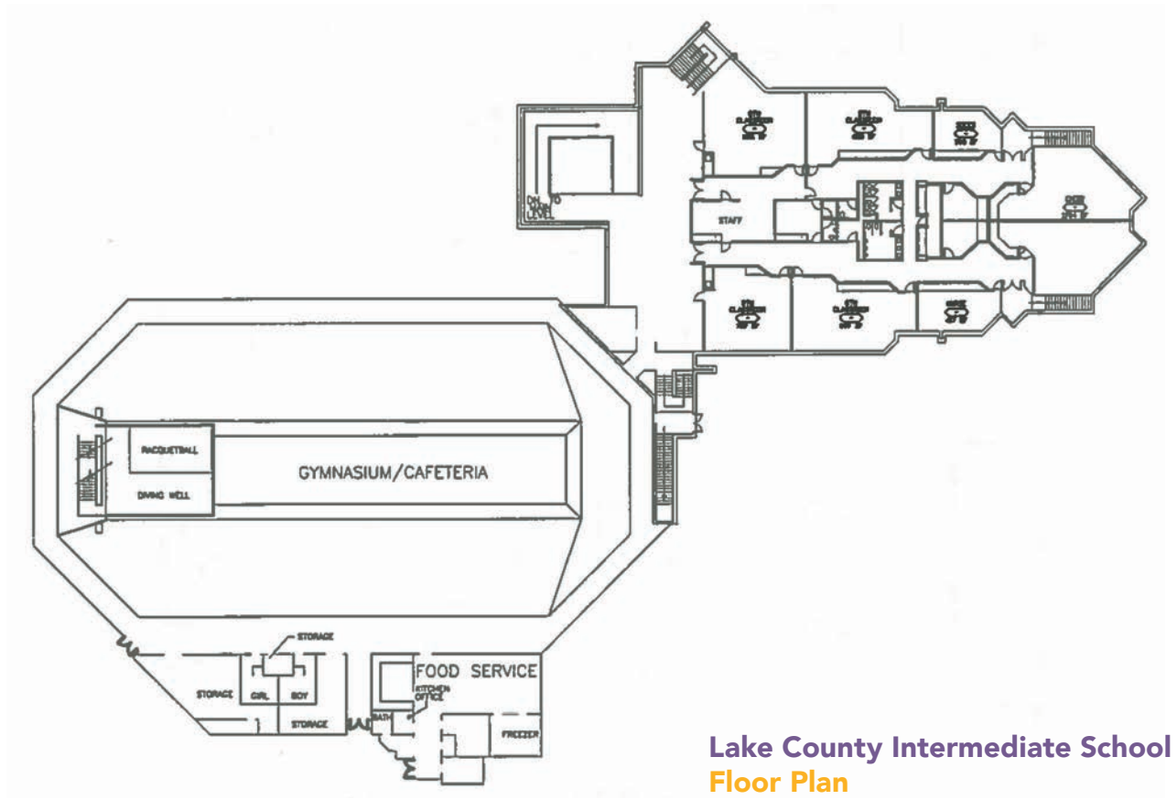
LAKE COUNTY INTERMEDIATE SCHOOL

October 12, 2018

treanorhl.com

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School



Lake County Intermediate School Floor Plan

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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LAKE COUNTY INTERMEDIATE SCHOOL
ARCHITECTURAL FACILITY ASSESSMENT

Overview:

West Park Elementary School is an approximately 142,600 square foot 3-story steel and masonry building, constructed in 1977. The building currently houses grades 3-6. In addition to the classrooms, the building contains a fully functioning kitchen, gymnasium, swimming pool, and locker rooms. The original design reflects an open-plan concept; consequently the classroom wings were renovated post construction to enclose the classrooms with walls around the existing cores. The school district has a lease agreement with the Lake County Recreation Department for use of the swimming pool and locker rooms, and as such that portion of the building is separate from the school and not used by the students.

The existing site consists of a large parking lot on the south side of the building. No permanent separation between buses, drop-off, parking, and recreation center parking exists; the school district currently provides this through use of concrete barricades. A playground remodel was completed in 2016 through the award of a GOCO grant, a new rubber gymnasium floor installed in 2015, and a partial reroof (flat roof areas) completed in 2015 through the BEST grant program.

Many elements within and around the building are beyond their life cycle and need to be replaced. In addition, ADA accessibility is limited, both at the exterior and interior of the facility.

Note that the Colorado Department of Education completed a full site and facility assessment in 2016; that report is attached. That report indicates an FCI of 0.45, making this building a candidate for renovation and renewal, but not replacement.

In conjunction with the CDE report, consideration of the following additional items should be taken if the building is to remain in service.

Assessment

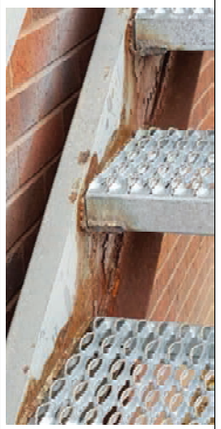
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-1	Site safety, age and drainage related issues noted in many locations on the site. See attached civil report for more detail.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

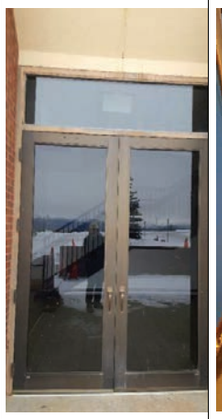
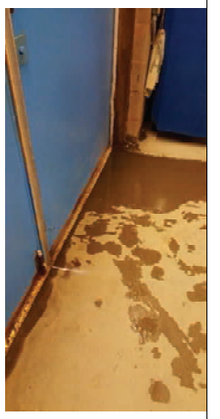
Page 2 of 12
Lake County School District
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-2	All exterior stairs at the building have varying levels of erosion and are in need of repair. Guardrails and handrails should also be replaced to meet current code and increase safety. See Supplemental Exhibit at end of this report for locations.				  

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-3	Exterior Windows and doors are at the end of their useful life; recommend replacement. See Supplemental Exhibit at the end of this report for door locations.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

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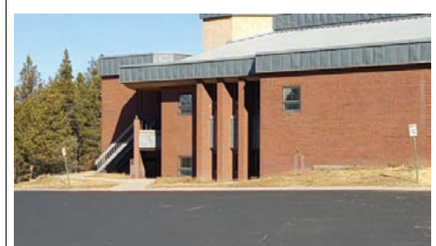
Lake County School District
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-4	Standing seam roofing and exterior fascia is original to the building and at the end of its useful life. Recommend replacement.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-5	Exterior soffits exhibit signs of water damage due to water from adjacent fascia. Recommend replacement of these soffits in conjunction with replacement of standing seam roofing.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

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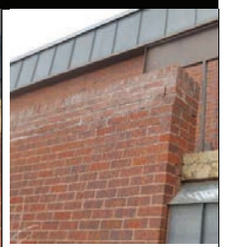
Lake County School District
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS	
A-6	Some areas of damaged brick noted on exterior of building. Recommend re-tooling or replacement.					

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-7	Casework throughout is original to the building, and in poor shape as well as non-ADA compliant. Recommend replacing all casework throughout.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

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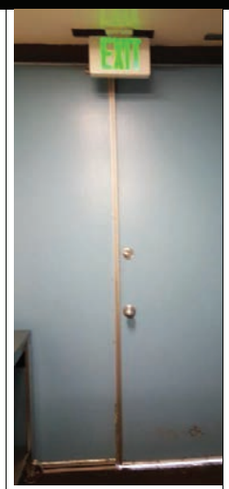
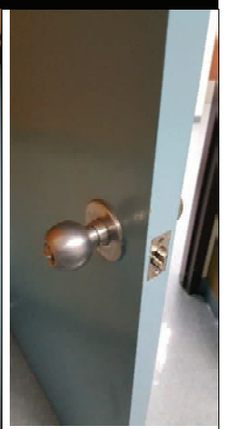
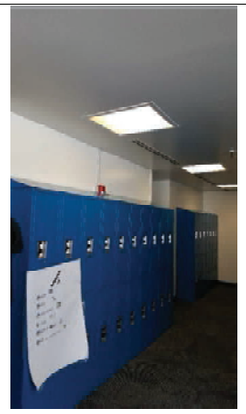
Lake County School District
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-8	Doors at academic core areas, music rooms, and kitchen/gym area are in poor shape and have non-ADA compliant hardware. Recommend replacing with new doors and compliant hardware. See Supplemental Exhibit at the end of this report for locations.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

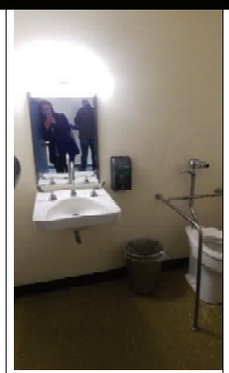
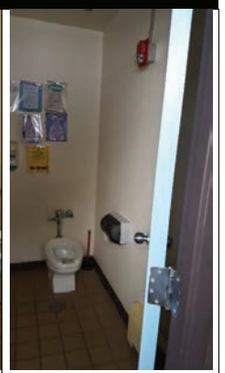
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-9	Doors between the swimming pool and locker rooms are not fully secured to limit access to the school. Recommend providing magnetic security locks as shown on the attached Supplemental Exhibit.				
A-10	Lockers remain in corridors of buildings from original construction but are unused. In some instances, there is conflict with the fire alarm system. Recommend removal of lockers at time of flooring replacement.				
A-11	The majority of the academic areas of the building are sprinklered, however the gymnasium, kitchen, and music rooms are not. Recommend extending fire protection system to encompass these areas.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

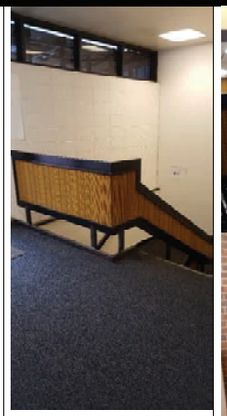
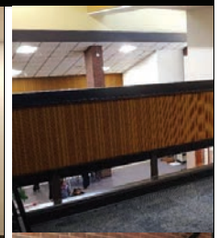
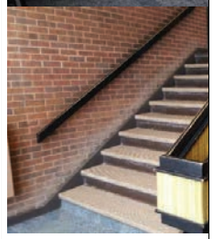
Page 10 of 12
Lake County School District
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-12	Single fixture restrooms throughout the building have varying levels of accessibility. Recommend making improvements to the extent feasible, including adding grab bars and replacing fixtures.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-13	Interior railings and guardrails throughout the building are not compliant with current code. While not required to be replaced, it is recommended for additional student safety. See attached Supplemental Exhibit at the end of this report for locations.				  

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

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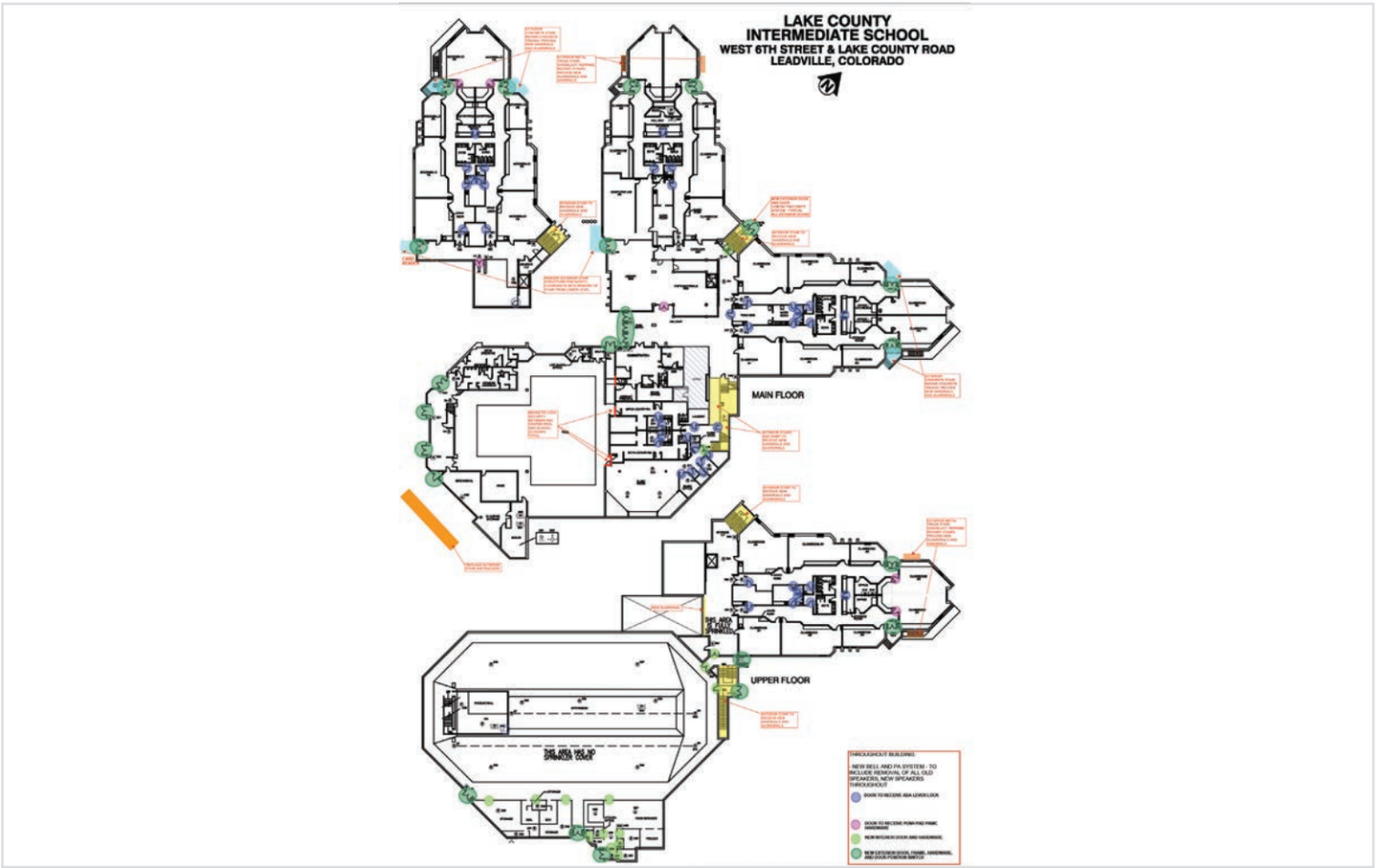
Architectural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-14	Many areas of ceiling in the building are original, and show signs of damage and age. Recommend new ceilings throughout for both aesthetic and acoustic improvements.				
A-15	The drinking fountains throughout are original to the building, and are not ADA compliant. Recommend replacing all throughout with new bi-level water coolers with bottle fillers.				
A-16	The PA and bell system is original to the building, and doesn't function in the manner the school district needs it to. Recommend replacement throughout facility.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School



LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

LAKE COUNTY INTERMEDIATE SCHOOL
CIVIL FACILITY ASSESSMENT

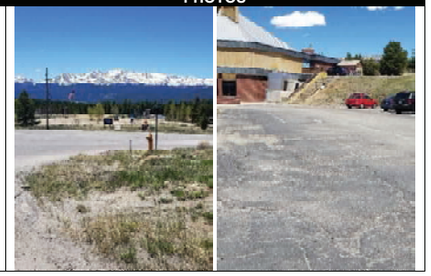
Overview:

The Lake County Intermediate School site was primarily constructed in 1977 with renovations to the playground and some building accesses completed in 2016. The building is currently served by water and sewer mains in the adjacent roads. Site improvements include asphalt parking in the south with an integrated parent and bus drop-off, playground and basketball court in the northeast, and an access drive along the east property line. The site generally slopes from south to north and utilizes minor storm drainage infrastructure to convey flows off-site. It appears a small detention or sedimentation pond was constructed at the outfall of the playground at the time of those renovations.

The majority of asphalt drives and parking areas as well as the adjacent concrete walks are at the end of their useful life. Recent renovations are generally in good shape.

While water and sanitary service connections appear to be functioning properly, they are at the end of their expected life. If the building is to be renovated, consideration should be taken towards the replacement of both these lines. In addition, it is understood that the existing building has partial fire sprinkler coverage. Renovations to the building could trigger the need for the building to become completely covered which may require the installation of a larger diameter water service line.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-1	Asphalt drives and parking lots have reached the end of their useful life. Recommend replacement.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

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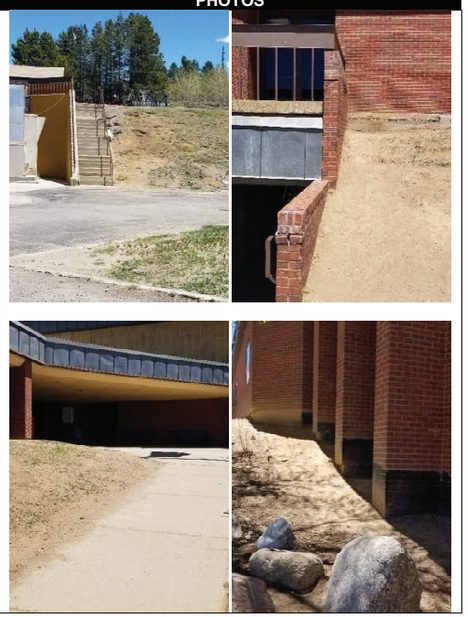
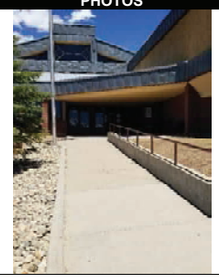
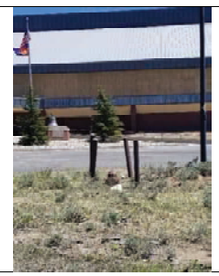
Lake County School District
Civil Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 08/07/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-2	Several slopes across the site have evidence of experiencing erosion. Recommend erosion control measures to be installed in selective locations.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-3	Site does not provide any access that conforms to ADA code. Recommend replacement at main entrance. Main entrance should connect to accessible routes that lead to ADA parking stalls and adjacent Right-of-Ways.				
C-4	Existing ADA parking stalls to not connect to an accessible route to the building. Recommend replacement.				
C-5	Hydrants on site appear inaccessible and possibly outdated. Recommend maintenance and barrel replacement to conform to current Fire District standards.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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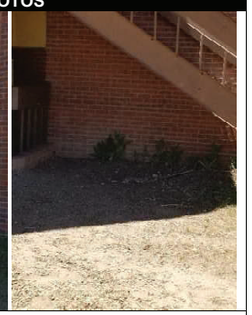
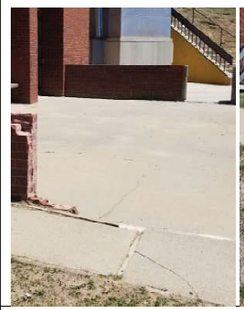
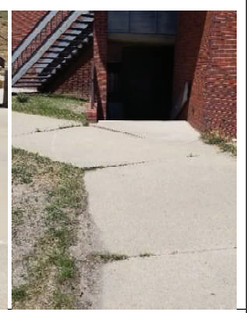
Lake County School District
Civil Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
Issue Date: 08/07/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-6	Some grades adjacent the building do not have adequate slope away, causing ponding near or against the building. Recommend regrading and replacement of vegetation.				 
C-7	Older concrete walks on site have experienced minor cracking and slab movement. Recommend maintenance to reduce effects of freeze/thaw and remove trip hazards caused by grade differences.				 
C-8	Water service line is at end of expected life. Recommend full replacement.				
C-9	Sanitary sewer service line is at end of expected life. Recommend full replacement.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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LAKE COUNTY INTERMEDIATE SCHOOL
STRUCTURAL FACILITY ASSESSMENT

Overview:

Lake County Intermediate School is a three-story building, designed by Nixon Brown Brokaw Bowen Architects and constructed in 1977. Roof areas are typically framed with steel decking on sloping steel bar joists at 4 ft. on-center, spanning between steel wide flange beams that are supported on steel wide flange columns and steel pipe columns. Large steel trusses clear span over the expansive gymnasium. Elevated floors consist of non-composite concrete slabs-on-deck on steel bar joists at 2'-6" on-center. The floor joists span between the foundation walls and steel wide flange beams that are supported on steel wide flange columns and steel pipe columns. At the exterior of the building, non-bearing multi-wythe masonry walls with punched windows are interrupted periodically by window wall systems. Wood framing is assumed to back-up the wall areas that have metal panel and stucco finishes. The lateral force resisting system for the building appears to be the exterior and interior non-bearing multi-wythe masonry walls integrated with the steel superstructure, acting as shearwalls. The first floor of the building is a slab-on-grade and the foundation system is spread footings.

In general the building appears to be in nominally acceptable structural condition.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-1	The exterior brick walls generally appear to be in good condition for the age of the building. There are some areas, however, where weathered mortar joints or damaged brick should be replaced and treated with a penetrating surface sealer for visual reasons and to maintain the weather-resistant characteristics of the wall system. See photos for representative locations.		X		 ↑Parapet outside kitchen  ↑Site walls near aquatics center entry

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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Structural Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
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↑Sill walls near aquatics center entry

↑Monument at main entrance

↑Cantilevered walls at library entrance

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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S-2	The stringers for the four exterior steel stairs (two at the end of the west wing and two at the end of the east wing) are severely corroded and should be replaced.			X	 ↑West wing (west side)  ↑West wing (east side)

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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					 ↑East wing (west side)  ↑East wing (east side)

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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S-3	The exterior landing slab at the entrance to the library has cracks in it and signs of water intrusion are evident on the surface of the soffit below. Further investigation is required to determine the condition of the landing structure and what repairs will be required.			X	 ↑Exterior landing at library entrance  ↑Soffit below landing at library entrance

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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S-4	The soffits at the loading dock area have been damaged. Repair may be necessary to prevent water intrusion.	X			
S-5	Concrete at the entrances (flatwork and steps) and loading dock is deteriorating and should be replaced.	X			 ↑Flatwork at main entrance  ↑Entrance steps

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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↑Entrance steps

↑Loading dock

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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S-6	The exterior steel railings appear to be in serviceable condition except that one of the railing posts at the main entrance is bent and the bases of some of the railing posts at the mechanical well stair are rusting. If the bent post is straightened for visual reasons, care should be taken to not damage the concrete wall. Removal of the rust and coating with a rust-inhibiting primer and paint is recommended. Repair of cracked concrete at the base of the rusting posts is also recommended.	X			 ↑Railing at main entrance  ↑Railing at mechanical well stair
S-7	Signs of interior slab-on-grade movement were not observed.				
S-8	Signs of foundation movement or distress were not observed.				
S-9	Due to snow on the ground, the condition of the elastomeric sealant between the building and abutting sidewalks could not be observed. The elastomeric sealant should be evaluated and replaced where it has deteriorated.				
S-10	Due to snow on the ground, the grading around the perimeter of the building and whether it provides adequate drainage away from the foundation could not be observed. The grading should be evaluated and improved where drainage is inadequate.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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LAKE COUNTY INTERMEDIATE SCHOOL
MEP FACILITY ASSESSMENT

Overview:

Mechanical and Plumbing Systems

The Intermediate School is served via hydronic heating water boilers which distribute hot water to air handling units throughout the facility. The vast majority of the facility is served via overhead forced air heating, which is not ideal for the climate. The heating water system is not equipped with glycol. The air handling units are in good condition but nearing the end of their life expectancy. In addition, not all air handling units are equipped with proper ventilation air and controls. Where present, associated hot water reheat coils are in good condition and generally accessible via a catwalk system in each classroom wing.

Domestic hot water is provided via gas fired water heaters. Plumbing fixtures are in good condition throughout, but are not compliant to current ADA requirements.

The building is partially equipped with a fire sprinkler system. In addition, the indoor pool is served via an outdoor dehumidification air handling unit. For the purposes of this study, it is assumed any modifications to the pool dehumidification unit or associated pool equipment would be handled separately from modifications in the remainder of the facility.

Vestibules are not present at the facility, and the vast majority of the exterior exposures and entries are served via overhead forced air heating. This results in drafty conditions at entries, and some entries (such as the west stairwell) being extremely problematic to use during the winter months. The mechanical system controls for the facility are older, electronic controls and are reported as unreliable.

The hvac boilers and domestic water heaters are relatively new and in good condition. The remaining mechanical equipment is nearing the end of its useful life, but still in serviceable condition. In summary, the existing mechanical and plumbing systems could remain in service, pending long term plans for the facility. If major modifications or upgrades are planned for the facility within the next five to ten years, the following should be noted:

1. Exterior exposures should be modified to be served via floor level heating, not overhead.
2. Adding vestibules with floor level heating should be strongly considered.
3. Ventilation air and economizer functions should be reviewed for all air handling units. This will require circulation pumps and control sequences to protect unit heating water coils from freezing as glycol is not present in the system. Coil circulation pump to be provided for each air handling unit, assume (7) total for budget purposes. Circulation pump and revised ventilation and economizer controls per item 4 below.
4. An overall mechanical controls system upgrade should be pursued. Ideally this upgrade would provide connectivity to the new controls system installed at the high school. If pursued, provide new controls system for all existing mechanical systems. Existing raceways, wiring and terminal

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

controls (actuators, VFDs, dampers) may be re-used based on condition, but all new controllers and front end system to be provided, Alerton or similar as provided by ATS Rocky Mountain to allow connectivity to existing high school controls system.

5. If major modifications are planned which revise overall program and floor plan layouts, replacement of existing air handling units and associated reheat coils should be considered.
6. Plumbing fixtures should be replaced where required to meet current ADA requirements.
7. The fire sprinkler system should be expanded to provide a fully sprinklered building.

Electrical Systems

The electrical service to the Lake County Intermediate School is 1200 Amp, 480/277V Volt, Three Phase, 4 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room, located along the main corridor. 480V panelboard, stepdown transformers and 208V panelboards are provided for each classroom wing at each level, pool area, gym area, and kitchen area to serve power, lighting, mechanical equipment, etc. Existing generator had been removed from the system and emergency panelboard had been connected directly to normal system distribution.

Limited amount of convenience receptacles is provided throughout the building. In addition, surface mounted wiremold, outlets, and power strips had been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, some of the corridor lighting had been replaced with recessed LED lensed troffer and gym lighting had been replaced with LED modules recently. The rest of the lighting still utilized semi-recessed 4x4, 2x4, or 2x2 with T8–U fluorescent lamping had been provided throughout spaces, such as corridors, classrooms, seating area, restrooms, library reading area, etc. Multi-level/dual level manual toggle switches are provided in each area. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System were provided for the building to provide full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

Existing panelboards seems to have spare capacity for additional outlets. However, it seems that power conditioning would need to be provided, especially for critical loads, such as computer labs, server equipment, AV equipment, etc.

We recommend that existing semi-recessed fluorescent troffers to be replaced with LED replacement lamps or LED fixtures. Exterior area lights are replaced with wall or pole mounted fully cutoff area lighting to provide better coverage for parking lot and building perimeter.

If modification required for the existing fire alarm system, new voice evacuation system would be required to meet the new 2015 International Fire Code.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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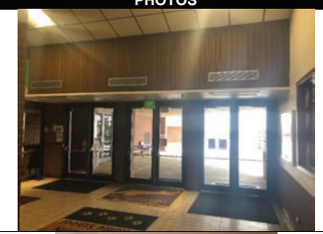
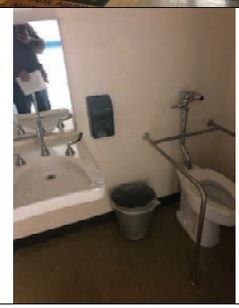
Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-1	Main entry- no vestibule provided.			X	
MP-2	Existing plumbing fixtures- ADA update required.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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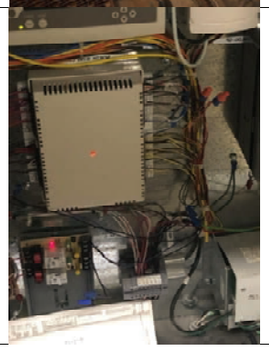
Project #: ED0480.0003.00
Issue Date: 03/09/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-3	Existing reheat coils with associated catwalk access.	X			
MP-4	Typical existing electronic control panel.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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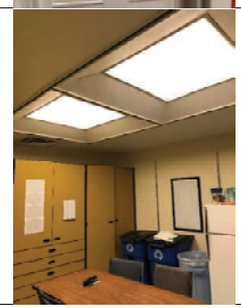
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-1	There are a few spare/spaces within panelboards for future expansion.		X		
E-2	Existing linear fluorescent lighting should be replaced with LED, either with replacement lamps or new LED fixtures/modules.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County Intermediate School

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Lake County School District
MEP Facility Assessment – LAKE COUNTY INTERMEDIATE SCHOOL
Project #: ED0480.0003.00
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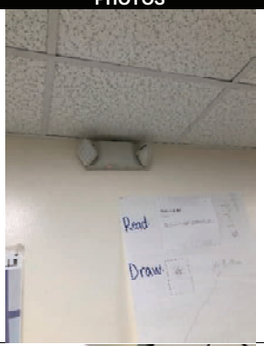
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-3	Existing battery packs were provided throughout interior path of egress. Exterior emergency fixtures would need to be provided on all exterior egress doors since it is required by code.		X		
E-4	Existing horn/strobes would need to be replaced with new speaker strobes to accommodate voice evacuation system, if modification is required for fire alarm system.		X		

Lake County School District
2019 MASTER PLAN

continues next page >

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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Lake County School District R-1
Facility Assessment Report

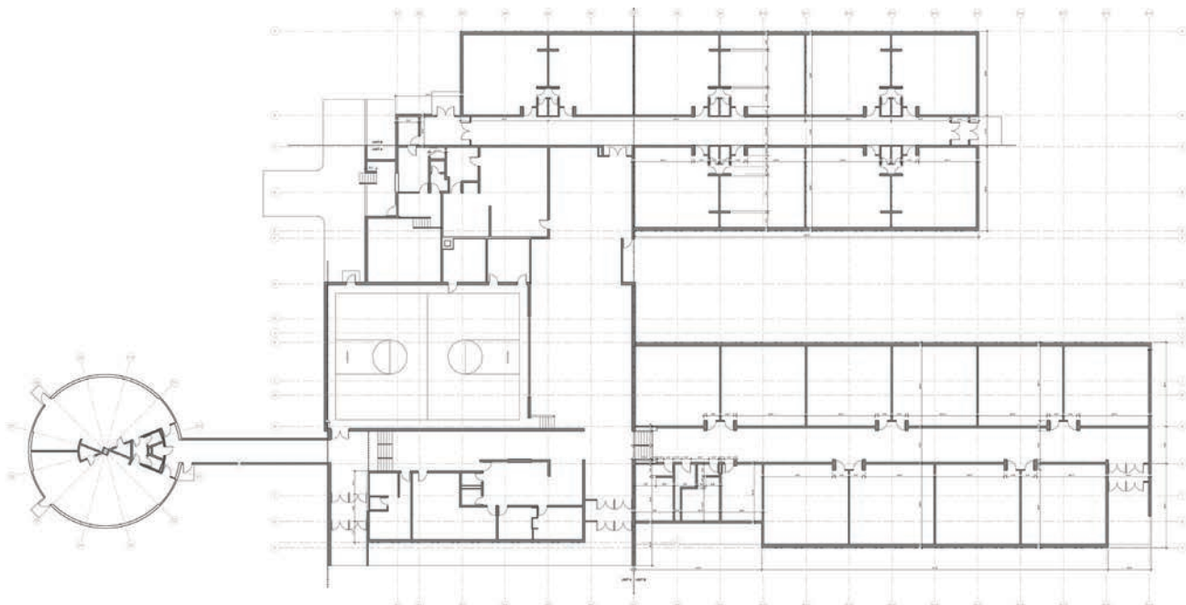
WEST PARK ELEMENTARY SCHOOL

October 12, 2018

treanorhl.com

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School



West Park Elementary School
Floor Plan

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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WEST PARK ELEMENTARY SCHOOL
ARCHITECTURAL FACILITY ASSESSMENT

Overview:

West Park Elementary School is an approximately 41,000 square foot 1-story steel and masonry building with grade beams and a slab on grade, constructed in 1962. The building currently houses grades Kindergarten through 2nd. In addition to the classrooms, the building contains a fully functioning kitchen, gymnasium, and stage. The arrangement of classrooms is traditional, with community and collaboration spaces limited to areas such as the gym and cafeteria. There is separation on site between parking and drop-off, however no separation exists between parent and bus drop-off. A playground remodel was completed in 2016 through the award of a GOCO grant, and a reroof done in 1997.

The current facility has been well maintained despite its age. However, many elements are beyond their life cycle and need to be replaced within the next 5 years. In addition, ADA accessibility is limited, both at the exterior and interior of the facility. Note that due to the age of this building, reroofing or any type of other significant remodel would require full evaluation of the existing structural diaphragm and capacity with a requirement to bring it up to current code.

Note that the Colorado Department of Education completed a full site and facility assessment in 2016; that report is attached. That report indicates an FCI of 0.65, making this building a candidate for replacement. The assessment below is intended to supplement the CDE report, not replace it. In addition, a structural assessment was completed in 2016, and is also attached to the end of the assessment.

In conjunction with the CDE report, consideration of the following additional items should be taken if the building is to remain in service.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-1	The existing TPO membrane roof has exceeded its 20 year life span, and should be replaced.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

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Lake County School District
Architectural Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
A-2	Roof scuppers along the perimeter of the building lack proper metal flashing drip edges, and as such have contributed to water damage at fascias and soffits. It is recommended that metal flashing be installed as part of the re-roofing, and fascias and soffits repaired or replaced.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-3	Aluminum windows appear to be original to the building, with areas of condensation noted. It is recommended that all windows are replaced with new high performance aluminum windows and glazing.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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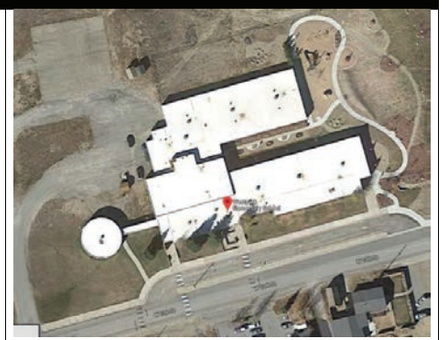
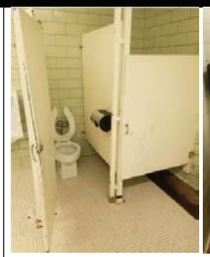
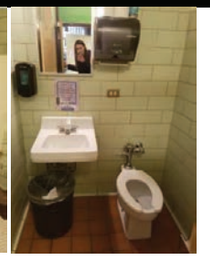
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-4	There is no ADA signed parking and paths on site. Recommend installation of a minimum of 2 ADA parking stalls adjacent to the main entry.		X		
A-5	Multi fixture restrooms in the building are not ADA accessible. In addition, the fixtures and partitions are beyond their useful life. It is recommended that the restrooms are remodeled to incorporate full accessibility requirements.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					 
A-6	The stage curtains show signs of wear and tear, and are beyond their useful life and should be replaced. In addition, no safety barrier exists between the cafeteria and the edge of stage. Recommend providing a folding acoustic partition between the stage and gym.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

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Architectural Facility Assessment – WEST PARK ELEMENTARY SCHOOL
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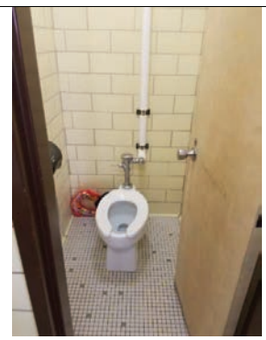
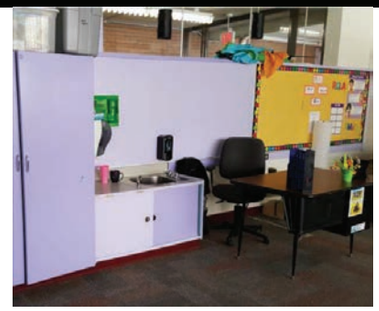
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
A-7	All classrooms appear to have the proper panic function lever type locks; however, other areas existing where non ADA hardware is in use. Recommend replacing all door knobs with levers.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-8	Casework is original to the building, and there are several areas where the plastic laminate is damaged. In addition, there are many areas where it is not ADA accessible. It is recommended that all casework in the building is replaced.			X	 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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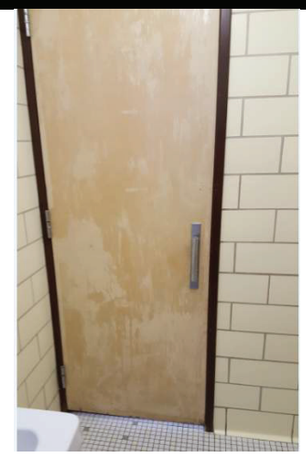
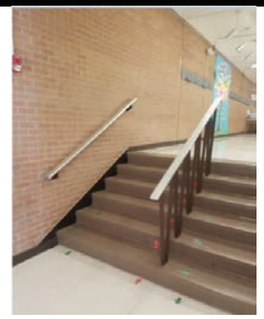
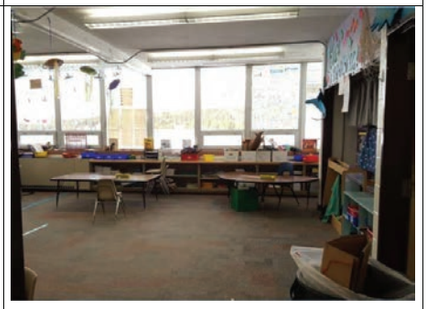
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-9	Many wood doors show signs of damage, wear and tear. It is recommended that all interior doors in the building are replaced.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-10	Handrails do not meet current accessibility requirements. It is recommended that these be replaced.		X		
A-11	Carpeting throughout building is still in serviceable condition, however it is nearing the end of its life cycle. Replacement throughout recommended.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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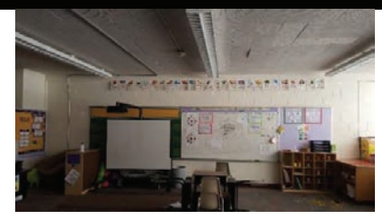
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-12	Ceilings throughout are original 12"x12" tile, with some areas missing tiles or with damaged tiles. Recommend providing new dropped acoustical ceiling tile system throughout for improved acoustics and appearance.				
A-13	Bell system is original to school. Recommend replacing with new Bell and PA system.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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WEST PARK ELEMENTARY SCHOOL
CIVIL FACILITY ASSESSMENT

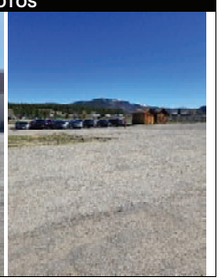
Overview:

West Park Elementary School is an approximately 34,000 square foot building constructed in 1962. The building is currently served by water and sewer mains in the adjacent roads. Site improvements include asphalt parking in the northwest, joint bus and parent drop-off adjacent to the south property line, and playgrounds and landscaping on the east. The site generally slopes from east to west and utilizes minor storm drainage infrastructure to convey flows both off-site and to an infiltrating dry well.

The majority of asphalt drives and parking areas as well as the adjacent concrete walks are at the end of their useful life. Recent renovations, including the main entrance stairs and ADA ramp and playground, are generally in good shape.

While water and sanitary service connections appear to be functioning properly, they are at the end of their expected life. If the building is to be renovated, consideration should be taken towards the replacement of both these lines.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-1	Asphalt in northwest parking lot and associated drives is at end of useful life. Recommend replacement.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

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Lake County School District
Civil Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 08/07/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-2	Drop-off drive lane, parking lane, concrete island, and concrete walks along Right-of-Ways are in very poor condition and do not appear to conform to current ADA code. Recommend regrading and replacement.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-3	Concrete stoops at several doors have experienced movement or damage and are out of conformance with current code. Recommend selective replacement.				
C-4	Playground drainage was noted to not function as intended. Small ponding occurs in softscape and at the installed dry well. Recommend remove and replace with positive drainage away from low points.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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Lake County School District
Civil Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
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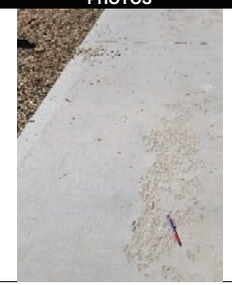
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-5	Concrete walks at playground are experiencing spalling. Recommend routine maintenance to extend service life.				
C-6	Water service line is at end of expected life. Recommend full replacement.				
C-7	Sanitary sewer service line is at end of expected life. Recommend full replacement.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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WEST PARK ELEMENTARY SCHOOL
STRUCTURAL FACILITY ASSESSMENT

Overview:

West Park Elementary School is a one-story building, designed by Wheeler & Lewis Architects and constructed in 1962. The roof is typically framed with wood decking on 2x10 wood joists spanning between steel wide flange beams that are supported on steel wide flange columns. At the classroom wings, the perimeter steel columns project from the building envelope and are exposed to the elements. The exterior walls are a combination of non-bearing multi-wythe masonry and window wall systems. The lateral force resisting system for the building appears to be the exterior and interior non-bearing multi-wythe masonry walls installed tight to the beams and columns, acting as shearwalls. The first floor of the building is a slab-on-grade and the foundation system is assumed to be spread footings.

In general the building appears to be in nominally acceptable structural condition.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-1	The exterior steel columns and metal fascia around the perimeter appear to have been painted fairly recently. The paint is streaked but corrosion does not appear to be present. The roof membrane has been wrapped down onto the metal fascia and partially covers it. The exposed steel should be periodically inspected for signs of corrosion.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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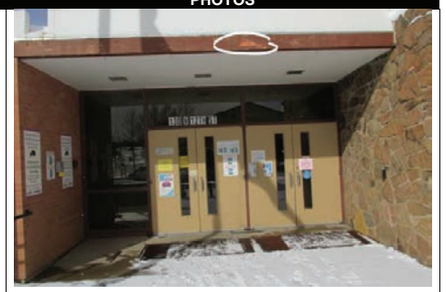
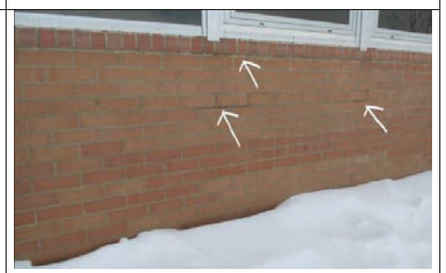
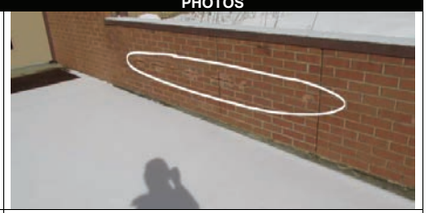
Lake County School District
Structural Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 08/13/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
S-2	The exterior brick walls generally appear to be in good condition for the age of the building. There are a few isolated areas where weathered mortar joints or damaged brick could be repaired for visual reasons and to maintain the weather-resistant characteristics of the wall system.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
S-3	The concrete retaining walls at the main entrance appear to be in good condition with only minor cosmetic cracking in isolated locations. The steel rails appear to have been painted fairly recently. The paint is streaked but corrosion does not appear to be present.	X			
S-4	Signs of wear and tear are evident at the loading dock. Repairs would be primarily for visual reasons and to maintain the weather-resistant characteristics of the walls.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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Lake County School District
Structural Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
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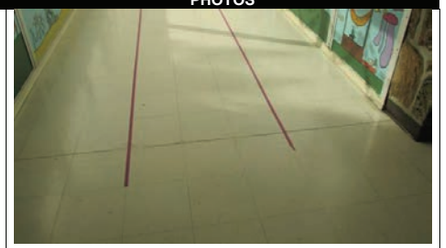
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-5	Signs of interior slab-on-grade movement were not observed except for some minor separation of the vinyl floor covering in a few isolated locations, possibly due to slab contraction.	X			
S-6	Signs of foundation movement or distress were not observed.				
S-7	Due to snow on the ground, the condition of the elastomeric sealant between the building and abutting sidewalks could not be observed. The elastomeric sealant should be evaluated and replaced where it has deteriorated.				
S-8	Due to snow on the ground, the grading around the perimeter of the building and whether it provides adequate drainage away from the foundation could not be observed. The grading should be evaluated and improved where drainage is inadequate.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

WEST PARK ELEMENTARY SCHOOL
MEP FACILITY ASSESSMENT

Overview:

Mechanical and Plumbing Systems

West Park Elementary School is served via hydronic heating water boilers which distribute hot water to air handling units and unit ventilators throughout the facility. The heating water boilers were replaced approximately 10 years ago, and the remainder of the mechanical system was replaced approximately 5 years ago. Therefore, all mechanical systems in the building, including piping, controls and equipment are in excellent condition with many years of life expectancy remaining.

Domestic hot water is provided via gas fired water heaters. Plumbing fixtures are in good condition throughout, though would need to be updated to current ADA requirements as part of any major architectural renovation. All plumbing piping was replaced as part of the overall mechanical system replacement approximately 5 years ago.

The building is not equipped with a fire sprinkler system.

Vestibules are present at the facility, but overall the building envelope is poor and not compliant with current energy codes.

The mechanical and plumbing systems are in excellent condition and are not in need of replacement, apart from bringing older plumbing fixtures up to current ADA requirements. A fire sprinkler system would need to be installed to meet current codes if the building continues to be utilized.

Electrical Systems

The electrical service to the West Park Elementary School is 800 Amp, 208/120 Volt, Three Phase, 4 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room. Panelboards are provided throughout the building to serve power, lighting, mechanical equipment, boiler room, kitchen equipment, and stage area. Generally, the original panelboards are located recessed in the wall within the area its serving. Newer panelboard, such as new panel in seating area, were surfaced mounted along the wall.

Limited amount of convenience receptacles is provided throughout the building. In addition, surface mounted wiremold, outlets, and power strips had been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, generally, 2x2 surface mounted troffer (with T8-U lamping) and linear surface mounted louvered fluorescent is provided throughout spaces, such as corridors, classrooms, seating area, library, music and art classrooms, restrooms, etc. Multi-level/dual level manual toggle switches are provided in each area. Gymnasium lighting is controlled directly from breakers within panelboard. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System were added to the building to provide full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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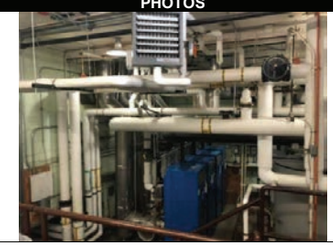
Although the newer panelboards are in good condition, most of the areas are served by the original panelboards, which utilized ITE equipment and not many spares or spaces available within each panel. New panelboards would be required to replace existing if additional equipment/devices to be added.

We recommend that existing fluorescent 2x2 and linear fluorescent fixtures to be replaced with LED replacement lamps or LED fixtures. Less fixtures might be adequate for the required light level for each space. Exterior area lights are replaced with wall or pole mounted fully cutoff area lighting to provide better coverage for parking lot and building perimeter.

If modification required for the existing fire alarm system, new voice evacuation system would be required to meet the new 2015 International Fire Code.

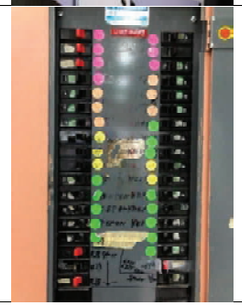
Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-1	Newer boiler installation.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-2	Piping replacement, note overhead soffited distribution to replace previously installed underslab piping. (Ref. Pitts Elementary.)				
E-1	Original panelboard were provided with ITE with not many spares/spaces available for additional loads. We recommend that existing panelboard to be replaced with new.	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

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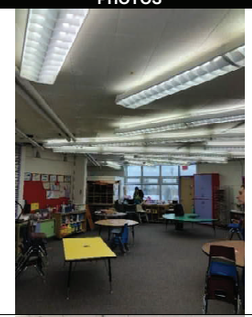
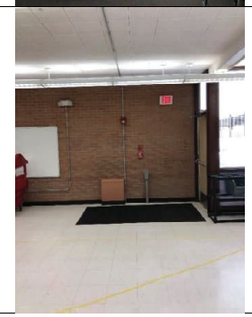
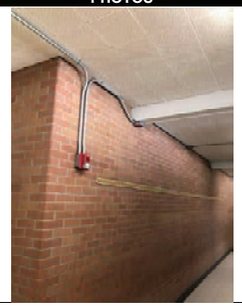
Lake County School District
MEP Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 03/09/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-2	Existing fluorescent lighting in art/music classroom seems to be a bit excessive. We recommend replacing it with LED and less fixture quantity.	X			
E-3	Existing battery packs were added throughout interior path of egress. Exterior emergency fixtures would need to be provided on all exterior egress doors since it is required by code.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-4	Existing horn/strobes would need to be replaced with new speaker strobes to accommodate voice evacuation system, if modification is required for fire alarm system.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

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MEP Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
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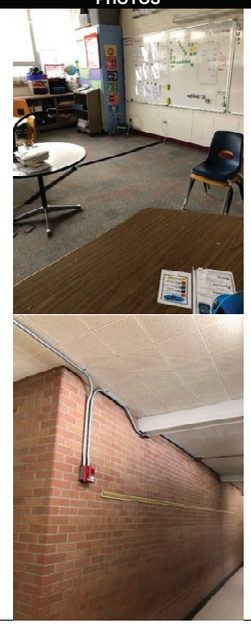
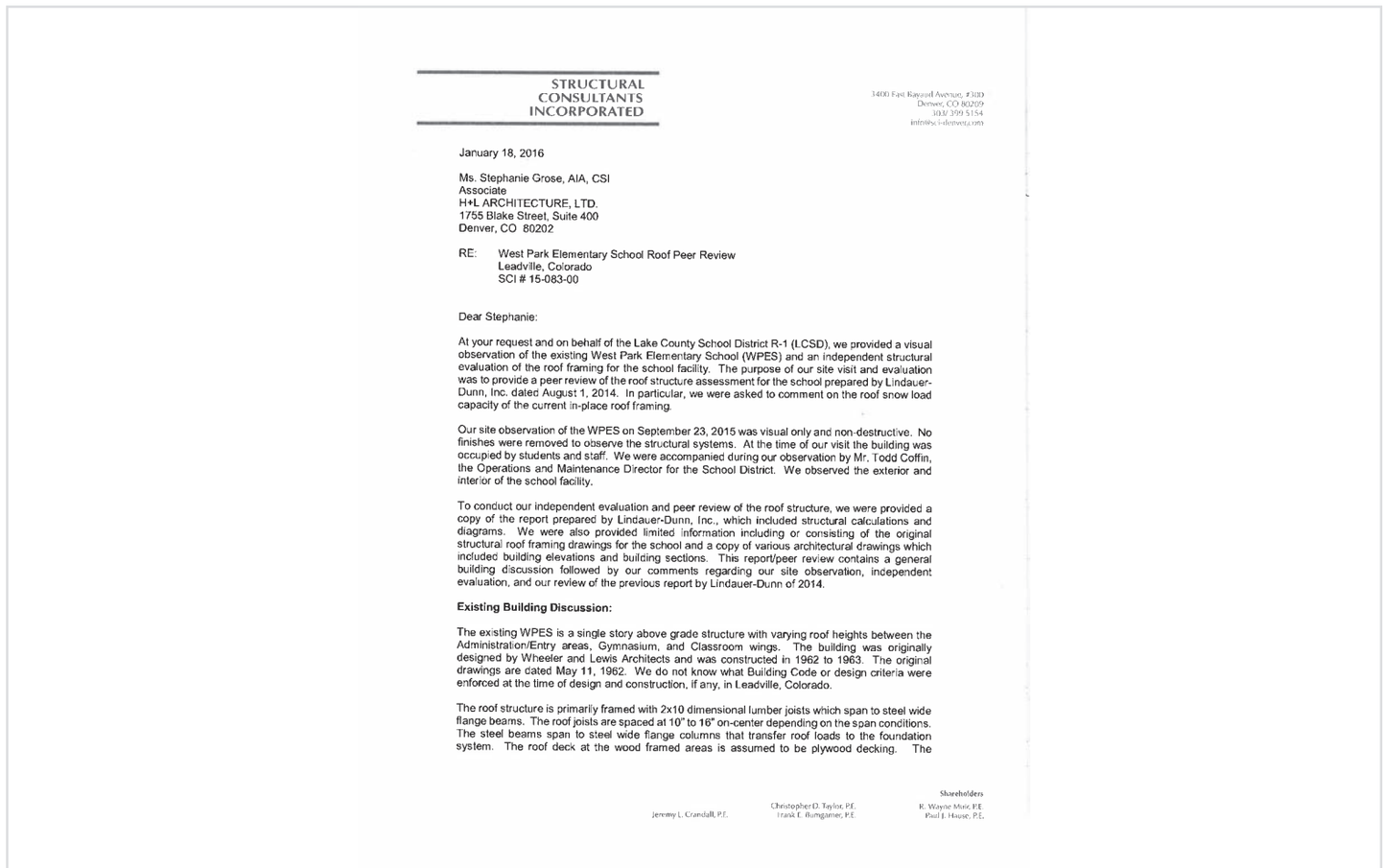
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-5	Existing power strips were provided to serve additional power requirement in classrooms, etc. We recommend providing additional outlets in each classroom.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School



STRUCTURAL CONSULTANTS INCORPORATED

1400 East Bayaud Avenue, #300
Denver, CO 80209
303/ 399 5154
info@sci-denver.com

January 18, 2016

Ms. Stephanie Grose, AIA, CSI
Associate
H+L ARCHITECTURE, LTD.
1755 Blake Street, Suite 400
Denver, CO 80202

RE: West Park Elementary School Roof Peer Review
Leadville, Colorado
SCI # 15-083-00

Dear Stephanie:

At your request and on behalf of the Lake County School District R-1 (LCSD), we provided a visual observation of the existing West Park Elementary School (WPES) and an independent structural evaluation of the roof framing for the school facility. The purpose of our site visit and evaluation was to provide a peer review of the roof structure assessment for the school prepared by Lindauer-Dunn, Inc. dated August 1, 2014. In particular, we were asked to comment on the roof snow load capacity of the current in-place roof framing.

Our site observation of the WPES on September 23, 2015 was visual only and non-destructive. No finishes were removed to observe the structural systems. At the time of our visit the building was occupied by students and staff. We were accompanied during our observation by Mr. Todd Coffin, the Operations and Maintenance Director for the School District. We observed the exterior and interior of the school facility.

To conduct our independent evaluation and peer review of the roof structure, we were provided a copy of the report prepared by Lindauer-Dunn, Inc., which included structural calculations and diagrams. We were also provided limited information including or consisting of the original structural roof framing drawings for the school and a copy of various architectural drawings which included building elevations and building sections. This report/peer review contains a general building discussion followed by our comments regarding our site observation, independent evaluation, and our review of the previous report by Lindauer-Dunn of 2014.

Existing Building Discussion:

The existing WPES is a single story above grade structure with varying roof heights between the Administration/Entry areas, Gymnasium, and Classroom wings. The building was originally designed by Wheeler and Lewis Architects and was constructed in 1962 to 1963. The original drawings are dated May 11, 1962. We do not know what Building Code or design criteria were enforced at the time of design and construction, if any, in Leadville, Colorado.

The roof structure is primarily framed with 2x10 dimensional lumber joists which span to steel wide flange beams. The roof joists are spaced at 10" to 16" on-center depending on the span conditions. The steel beams span to steel wide flange columns that transfer roof loads to the foundation system. The roof deck at the wood framed areas is assumed to be plywood decking. The

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

perimeter structural columns on the long axis of the building are primarily on the exterior of the building envelope and exposed to the seasonal elements. The foundation system is unknown, but assumed to be continuous spread footings at perimeter walls and pad footings at column locations. The exterior wall system is a combination of multi-wythe brick masonry and window wall systems. The lateral load resisting system for wind and seismic forces appears to be the interior and exterior masonry walls placed tight to the face of the building columns, acting as shear walls.

The exposed roof structure in the Gym and Multi-Purpose rooms is comprised of steel beam framing and steel channel cross purlins, that are supported by steel columns located in the plane of the multi-wythe masonry walls. The steel beams in these areas are decked with 3" Tectum panels and bulb-tees.

Based on our visual observation of framing systems, and the exterior and interior walls, the building appears to be performing adequately at this time and no areas of structural distress were noted. The hard ceilings in the classroom wings and administration area that are attached directly to the underside of the roof structure did not show signs of creep (long term deflection due to loading). The exposed steel framing and Tectum decking in the Gym and Multi-Purpose area appeared to be performing adequately. The exterior and interior brick walls did not display any cracking beyond expected normal minor cracks, which is an indication the foundation system is performing adequately for the current usage of the building. We did note that the exposed exterior steel column bases were showing signs of rusting and recommend that the rust be brushed off and the column bases and base plates be primed with a rust inhibiting primer and painted as part of the building maintenance.

Independent Roof Framing Review and Peer Review:

Our independent structural review included an analysis of the existing roof framing of the east classroom wings and a review of the structural calculations included with the Lindauer-Dunn, Inc. roof framing report. For our independent analysis, we used the design standards available at the time the original building was engineered, which included the 1960 edition of the American Institute Manual of Steel Construction (AISC) and the 1957 Edition of Modern Timber Engineering that were as close as we could find to standards most likely used during the original design of the framing systems. At the time the Lindauer-Dunn, Inc report was prepared, the provisions in Chapter 34 of the 2006 IBC for existing buildings, as adopted by the Division for Fire Prevention and Control (DFPC), would have been in effect. The DFPC is the jurisdiction having authority of state school facilities. The DFPC has recently adopted the 2015 IBC as the governing code which includes by reference the 2015 IEBC for existing buildings.

Based on recent projects we have completed in Park County, we understand that the current design roof snow load for new or altered structures is 90 psf based on the elevation of the WPES in the Leadville area. Increased snow drift loading would need to be considered at roof elevation changes and parapets exceeding the predicted snow depth of the base snow load.

Using the estimated material strengths for the wood roof joists, steel roof joists, and steel columns, and using a structure dead load of 20 psf, our independent calculations indicate that the maximum allowable uniform snow live load capacity is 45 psf for the wood roof joists, and 78 psf for the supporting steel beams. Using the 78 psf uniform roof snow live load, the interior steel columns of the classroom wings located along each side of the corridor are loaded to approximately 95% of

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

West Park Elementary School

their allowable capacity. Our analysis of the classroom wing roof structures therefore concludes that the capacity of the wood roof joists would control, and the in-place uniform roof snow live load capacity would be limited to 45 psf. We would expect to come to a similar conclusion in the other wood framed areas of the school facility. Potential snow drift loading on low roofs adjacent to the Gym and Multi-Purpose areas would greatly exceed the 45 psf loading. Based on our review of the original drawings. The framing did not differ from the typical framing on the low roofs around these areas. Potential snow drift loading did not appear to have been considered by the original designers.

Based on our conclusions regarding the roof framing, we assume that the foundations for the supporting roof columns would also have been originally designed for a similar 45 psf roof live load plus an applicable dead load, but as previously mentioned, the original foundation drawings were not available to review.

After completing our independent evaluation of the WPES roof structure, we reviewed the calculations for the roof structure provided by Lindauer-Dunn, Inc. The provided structural calculations contained similar results to SCI's evaluation regarding the capacity of the existing roof structure of WPES. SCI agrees with the approach Lindaur-Dunn took in their evaluation and in general we concur with their conclusions.

Conclusion:

Based on our previously discussed visual observation of the WPES building, we did not observe any areas of the facility that appeared structurally unsound. Based on our independent calculations and peer review of the Lindauer-Dunn report, the allowable roof snow live load should be understood to be approximately 45 psf. The building has been in service as a school facility for approximately 52 years and appears to have been well maintained by the LCSD during this time. The current code recognized minimum roof snow live load of 90 psf for new buildings and additions in the general area of WPES, would result in an over-stressed condition to the building's structural systems.

Please contact us with any questions.

Sincerely,

STRUCTURAL CONSULTANTS, INC.

Frank E. Bumgarner, P.E.
Managing Principal / Vice President

FEB/cab

Lake County School District
2019 MASTER PLAN

continues next page >

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

Lake County School District R-1
Facility Assessment Report

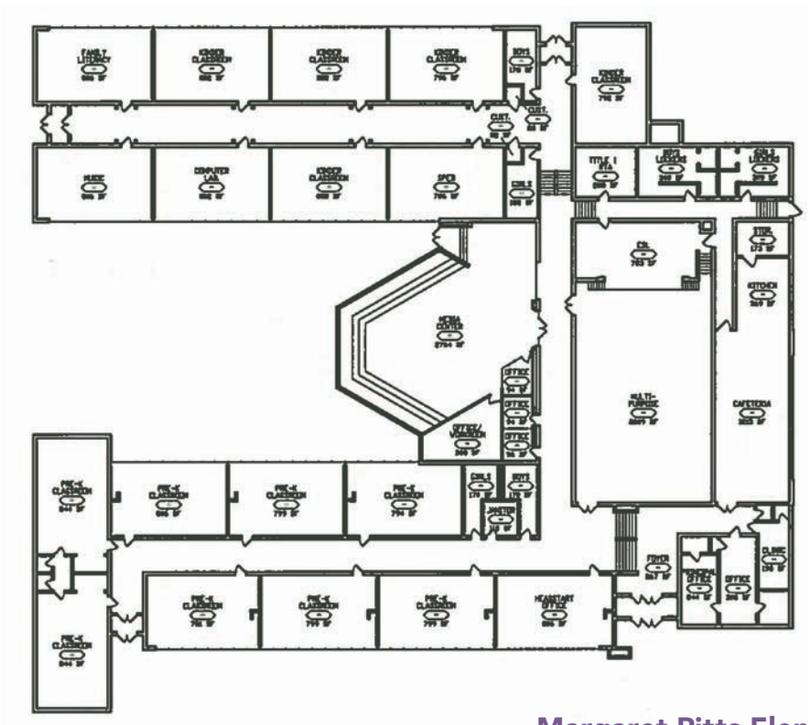
PITTS ELEMENTARY SCHOOL

October 12, 2018

treanorhl.com

LAKE COUNTY SCHOOL
DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School



Margaret Pitts Elementary School
Floor Plan

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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PITTS ELEMENTARY SCHOOL
ARCHITECTURAL FACILITY ASSESSMENT

Overview:

Pitts Elementary School is an approximately 34,000 square foot 1-story steel and masonry building with grade beams and a slab on grade, constructed in 1955. The building currently houses the Head Start program, Pre-K, and some District offices. In addition to the classrooms, the building contains a non-functioning kitchen, and a gymnasium. There is separation on site between parking and drop-off, however drop-off occurs at the street on the north side of the building.

The current facility is in poor condition, and due to its age, reroofing or any type of other significant remodel would require full evaluation of the existing structural diaphragm and capacity with a requirement to bring it up to current code.

Note that the Colorado Department of Education completed a full site and facility assessment in 2016; that report is attached. That report indicates an FCI of 0.65, making this building a candidate for replacement. The assessment below is intended to supplement the CDE report, not replace it.

In conjunction with the CDE report, consideration of the following additional items should be taken if the building is to remain in service.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-1	Glass block at exterior of building is damaged in multiple locations. Recommend replacing block with new high performance aluminum windows and glazing.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

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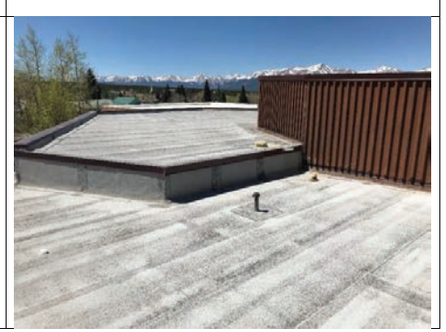
Architectural Facility Assessment – PITTS ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 10/12/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-2	Some portions of the building were reroofed in 1997 with TPO membrane. This membrane has exceeded its life span, and should be replaced. Overflow scuppers or interior overflow drains should be added at time of reroof.				
A-3	Areas of built-up roofing that were not replaced in 1997 still remain. Recommend replacement with new roofing membrane.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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Project #: ED0480.0003.00
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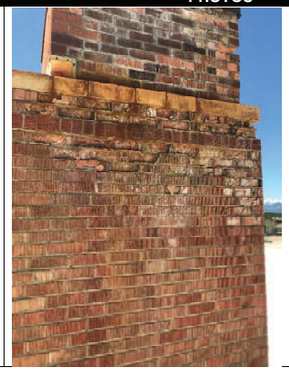
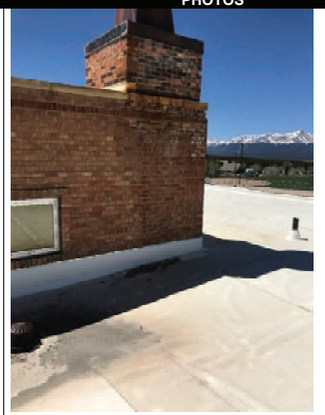
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-4	Masonry on existing chimney (not-in-use) is in disrepair. Recommend dismantling and capping, and replacing remaining masonry below.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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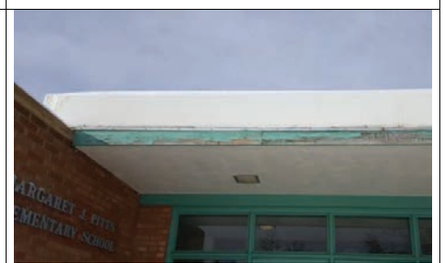
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-5	Water staining at the gym ceiling is evident. Reroofing may help to address; refinishing ceiling is recommended.				
A-6	Exterior fascias have considerable deterioration and should be replaced. Recommend installation of sheet metal flashing with drip edge as part of reroof work to limit future water damage.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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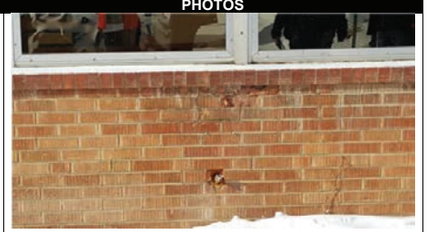
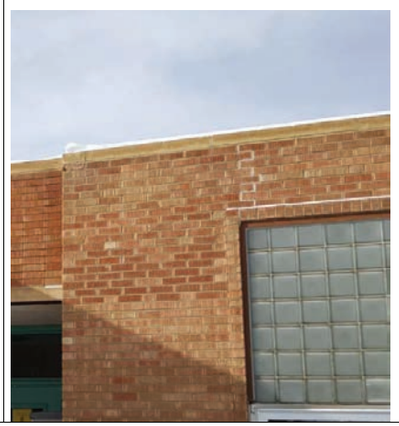
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-7	Areas of damage to exterior brick noted. These areas should be replaced/retooled.				 

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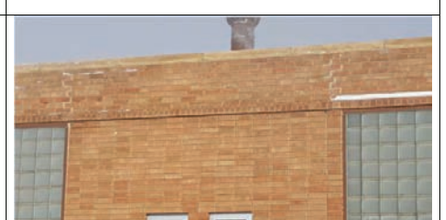
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					
A-8	Cast stone parapet cap should be replaced with sheet metal flashing as part of reroofing.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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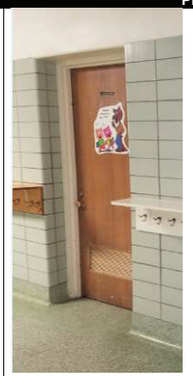
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-9	Interior wood doors are in poor condition and should be replaced alongside non ADA compliant hardware from knobs to levers.				

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DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-10	Fire extinguisher cabinets are not ADA accessible, and some appear to have no extinguishers. Recommend replacing and relocating cabinets, providing new extinguishers.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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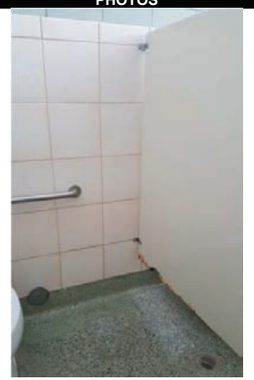
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-11	Toilet partitions are beyond their useful life and should be replaced.				

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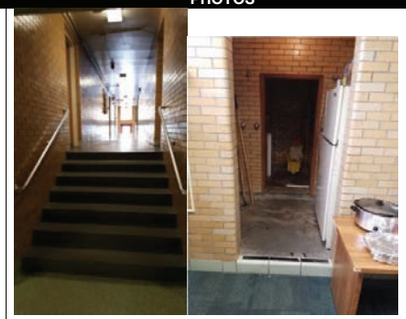
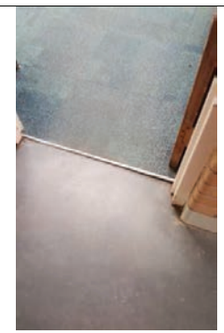
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-12	Limited areas of the building are not ADA accessible.				
A-13	The carpeting in the building is beyond its useful life and should be replaced.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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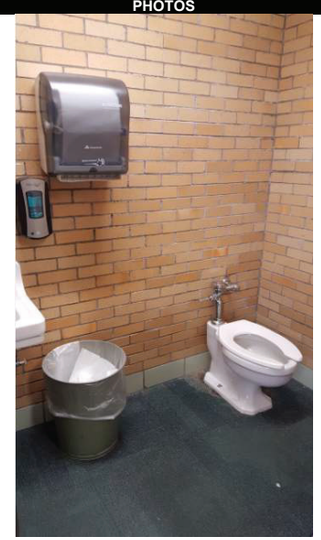
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-14	There are non ADA accessible restrooms that should be renovated to meet requirements. In addition, restroom flooring should be replaced as part of that work.				

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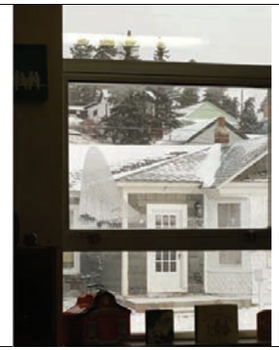
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-15	Areas of water damage noted at ceiling in cafeteria. Source of damage should be investigated and ceiling repaired.				
A-16	Aluminum windows are beyond their useful life, and various areas of condensation were noted. Recommend all windows be replaced with new high performance aluminum windows and glazing.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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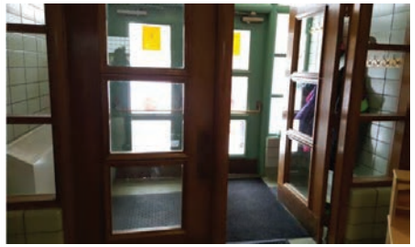
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-17	Exterior doors are damaged, and hardware needs to be replaced. Recommend all exterior doors and hardware be replaced.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

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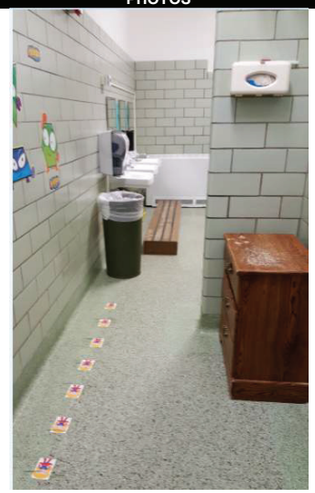
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
A-18	Multi fixture restrooms are not fully ADA accessible or appropriately sized for the age groups served. Recommend renovation of these restrooms.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

PITTS ELEMENTARY SCHOOL
CIVIL FACILITY ASSESSMENT

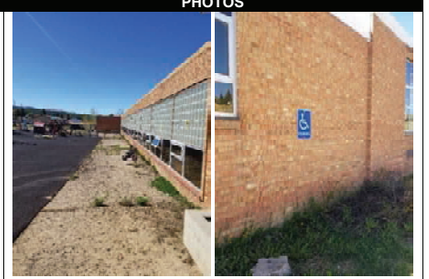
Overview:

Pitts Elementary School is an approximately 34,000 square foot building constructed in 1955. The building is currently served by both water and sewer mains in the adjacent roads. Site improvements include a mixed surface parking lot on the west and playground areas and landscaping on the east. The site generally slopes from east to west and utilizes a minimal amount of storm drainage infrastructure with an exception of underground roof drain connections. The building itself is elevated noticeably higher than the adjacent road grades, causing accessibility issues.

The site is in poor condition with the majority of site pavements likely requiring full redesign and replacement to bring the site into compliance with current codes. This includes site walks, curb ramps and parking stalls.

While water and sanitary service connections appear to be functioning properly, they are at the end of their expected life. If the building is to be renovated, consideration should be taken towards the replacement of both these lines.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-1	Grading around the building, primarily on the east side and within the courtyard, does not provide adequate fall away from the building. Landscaping on north side does not allow for adequate drainage from building. Recommend site grading and underground drainage improvements.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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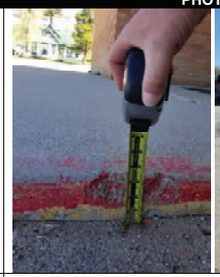
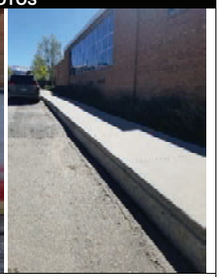
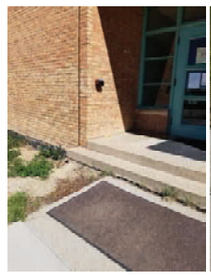
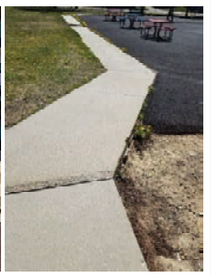
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-2	The building has no ADA accessible parking, drop-off, or accessible routes to the right-of-way that conform with current codes. Existing parking stalls have no accessible ramps. Existing routes have gates without ADA door openers. Recommend replacing site walks.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-3	Atypical curb/riser heights across the site don't conform to ADA codes and create trip hazards. Recommend full replacement.				 
C-4	A large portion of site walks have experienced substantial damage or movement. Recommend selective replacement.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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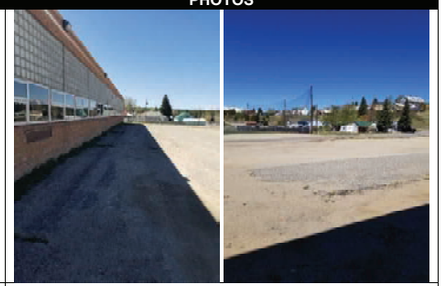
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-5	Asphalt portion of parking lot is at end of useful life. Recommend full replacement.				
C-6	Existing gravel parking lot is not stabilized and causes erosion and tracking onto Town roads. Recommend regrading and routine maintenance.				 
C-7	Water service line is at end of expected life. Recommend full replacement.				
C-8	Sanitary sewer service line is at end of expected life. Recommend full replacement.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

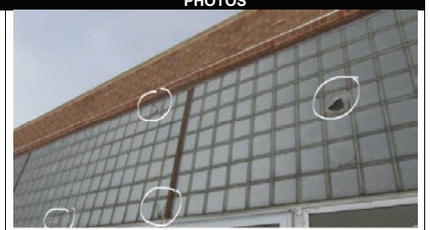
PITTS ELEMENTARY SCHOOL
STRUCTURAL FACILITY ASSESSMENT

Overview:

Margaret J. Pitts Elementary School is a one-story building, designed by Atchison & Kloverstrom Architects and constructed in 1955. A library addition was constructed in the courtyard between the two wings in 1971. The roof is typically framed with wood decking on 2x14 or shallower wood joists, except that there are steel trusses at the gymnasium and open-web wood joists at the library addition. The roof joists and trusses typically bear on multi-wythe interior and exterior masonry walls. At the perimeter of the classroom wings, wide flange steel beams bearing on steel wide flange columns support the joists. It appears that the masonry bearing walls also serve as shearwalls to provide lateral support for the building. The first floor of the building has slab-on-grade at the corridors and library addition, and structured floor above crawlspaces elsewhere consisting of wood joists spanning between foundation walls and steel beams bearing on concrete pilasters. A mechanical basement with a slab-on-grade floor exists at the northwest corner of the building. The foundation system for the building consists of concrete stem walls supported on spread footings.

In general the building appears to be in nominally acceptable structural condition, although further evaluation and repairs are recommended as noted below, if it will continue in service for much longer. Restoration of the deteriorated exterior brick will be extensive and may not be worth the cost.

Assessment

DISC. ITEM #		PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
S-1	The exterior walls have large areas of glass block above the classroom windows and the face shells have been cracked or knocked out in multiple locations. It is evident that damaged glass block units have been replaced in the past since the replacement units do not quite match the originals. Multiple closely-spaced damaged glass block units would be a structural concern; however, the damaged units appear to be isolated and widely spaced so repairs would be for visual and weatherproofing/insulation reasons.	X			

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S-2	The sealant around the windows has deteriorated in some locations. Removal and replacement of the deteriorated sealant may be necessary to prevent water intrusion. The exterior brick walls do not have any control joints and stair step cracks occur commonly in the corners above the glass block areas. It is evident that the cracks have been repaired in the past; however, some of the repairs appear to have deteriorated and should be refreshed with repointing or re-caulking and applying a sealer to prevent water intrusion. The stone parapet cap is weathered and the mortar joints between sections have deteriorated. Repairs should occur to prevent moisture intrusion. In some areas, the roof membrane has been wrapped over the top of the parapet and attached to the brick wall with an exposed termination bar.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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S-3	The exterior brick walls have deteriorated and even eroded extensively around the building, especially below the windows. Removal and replacement of deteriorated brick and mortar followed by application of a sealer is recommended to prevent further deterioration of the walls and possible loss of structural integrity.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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S-4	The roof membrane has been wrapped down onto the fascia above the main entrance; however, the paint is wearing off of the portion of the wood fascia not covered by the membrane. Repainting is recommended to prevent the wood fascia from deteriorating.		X		
S-5	Signs of interior slab-on-grade movement were not observed.				
S-6	Signs of foundation movement or distress were not observed.				
S-6	Due to snow on the ground, the condition of the elastomeric sealant between the building and abutting sidewalks could not be observed. The elastomeric sealant should be evaluated and replaced where it has deteriorated.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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S-7	Due to snow on the ground, the grading around the perimeter of the building and whether it provides adequate drainage away from the foundation could not be observed. The grading should be evaluated and improved where drainage is inadequate.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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PITTS ELEMENTARY SCHOOL
MEP FACILITY ASSESSMENT

Overview:

Mechanical and Plumbing Systems

Pitts Elementary School is served via hydronic heating water boilers which distribute hot water to air handling units and unit ventilators throughout the facility. Operable windows and overhead exhaust are provided for ventilation and cooling effect. The heating water boilers have been retrofitted with new gas burners, but appear to be at the end of their useful life. Heating water pumps were also recently replaced. The classroom unit ventilators were more recently replaced as well and are in good working condition. Sections of inactive baseboard exist within the millwork. The original heating water piping is still in use; however, this piping was originally routed under the building slab and multiple leaks and operational issues have resulted from this installation. (This installation is similar to that at West Park Elementary which was required to be completely replaced recently.) Various controls upgrades have been completed as part of associated mechanical replacements. The grease exhaust hood serving the kitchen appears to be recently replaced.

Domestic hot water is provided a gas fired water heater, which was recently replaced. Plumbing fixtures appear to have been replaced approximately 10 years ago. The plumbing piping is original and installed under the building slab, similar to the mechanical piping, and has similar operational issues.

The building is not equipped with a fire sprinkler system.

Vestibules are present at the facility, but overall the building envelope is poor and not compliant with current energy codes.

The mechanical and plumbing systems are in various stages of use and in good working order. However, as the original under slab mechanical and plumbing piping is still used all components of the mechanical and plumbing systems are subject to imminent failure. Any further use of this facility would require an overall replacement of all mechanical and plumbing piping systems, similar to what was performed at West Park Elementary. A fire sprinkler system would also need to be installed to meet current codes.

Electrical Systems

The electrical service to the Pitts Elementary School is 600 Amp, 120/240 Volt, Single Phase, 3 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room, located along the east corridor. Panelboards are provided throughout the building to serve power, lighting, mechanical equipment, boiler room, kitchen equipment, and stage area. Generally, the original panelboards are located recessed in the wall within the area its serving. Newer panelboard, such as panel KP, were surfaced mounted in the corridor.

Limited amount of convenience receptacles is provided throughout the building. In addition, surface mounted wiremold and outlets had been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, generally, 1x4 surface mounted troffer (with T8 lamping) is provided throughout spaces, such as corridors, classrooms, seating area, restrooms, library reading area, etc. Multi-level/dual level manual toggle switches are provided in each area. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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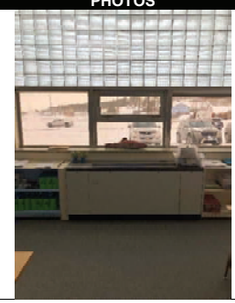
mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System were added to the building to provide full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

We recommend that existing single phase service is upgraded to 208V or 480V, 3 phase service. This will provide additional capacity for the building. Although the newer panelboards are in good condition, most of the areas are served by the original panelboards, which utilized Federal Electric equipment and not many spares or spaces available within each panel. New panelboards would be required to replace existing if additional equipment/devices to be added.

We recommend that existing fluorescent troffers to be replaced with LED replacement lamps or LED fixtures. Exterior area lights are replaced with wall or pole mounted fully cutoff area lighting to provide better coverage for parking lot and building perimeter.

If modification required for the existing fire alarm system, new voice evacuation system would be required to meet the new 2015 International Fire Code.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-1	Newer unit ventilator installation	X			

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Margaret Pitts Elementary School

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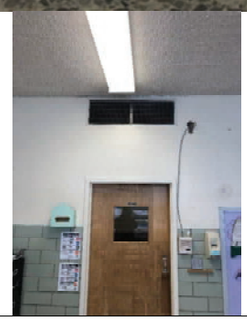
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-2	Abandoned baseboard in millwork.			X	
MP-3	Ventilation relief through soffit exhaust system.		X		

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DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-4	Existing under slab mechanical piping still in service.			X	

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

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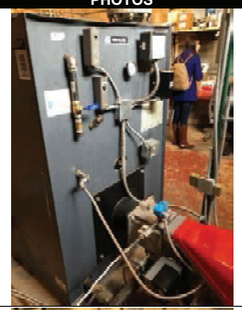
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
MP-5	Original hvac boilers with burner retrofit.		X		
MP-6	New domestic water heater installation.	X			

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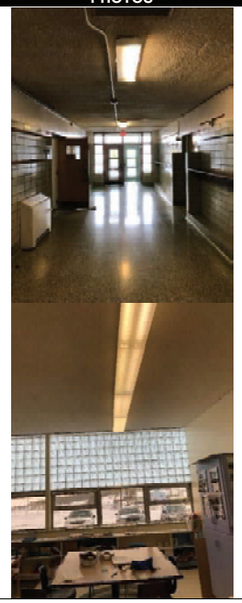
DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-1	Original panelboard were provided with Federal Electric with not many spares/spaces available for additional loads. We recommend that existing single phase service is upgraded and panelboard to be replaced with new.		X		

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-2	Existing linear fluorescent lighting. Corridors seems to be a bit dark. We recommend on replacing fixtures with LED (2x2 or linear).	X			

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

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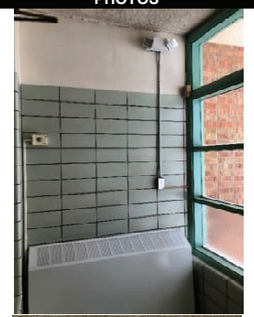
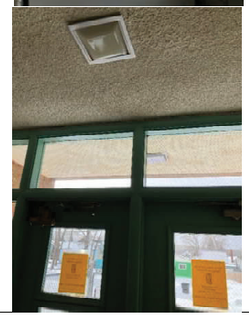
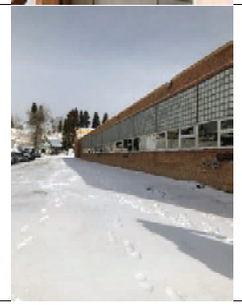
Lake County School District
MEP Facility Assessment – PITTS ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 03/09/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-3	Existing battery packs were added throughout interior path of egress. Exterior emergency fixtures would need to be provided on all exterior egress doors since it is required by code.			X	 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Margaret Pitts Elementary School

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
E-4	Existing horn/strobes would need to be replaced with new speaker strobes to accommodate voice evacuation system, if modification is required for fire alarm system.			X	
E-5	Existing area lighting is provided along building for both walkways and parking lot lighting. We recommend on providing forward throw wall mounted light or pole mounted light.		X		

Lake County School District
2019 MASTER PLAN

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LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Federico Field

TREANORHL

FEDERICO FIELD
CIVIL FACILITY ASSESSMENT

Overview:

The Federico Field site is comprised of an asphalt track, sodded field, small bleacher stands with press box, and several storage sheds. The field is currently accessed by the public at the top of the bleachers. Parking is provided adjacent to the High School and connected to the site by a timber staircase and crossing 3rd Street. Maintenance access is also available at field level off of Washington Street.

The asphalt track is in extremely poor shape and is unusable in its current state. The sod field is adequate but poor drainage appears to affect the sideline areas. The announcer booth appears to be served with electric power, but it is not apparent whether water or sanitary services exist.

Assessment

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-1	Asphalt track is damaged beyond its useful life. Recommend full replacement. Underground drainage should be considered to extend lifetime of both track and field.				

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Federico Field

TREANORHL

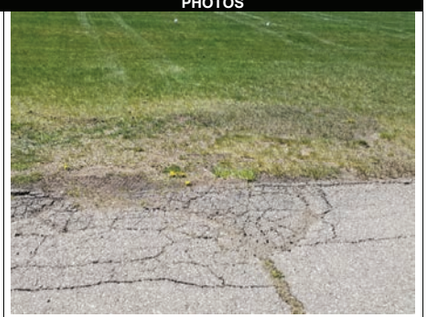
Page 2 of 3
Lake County School District
Civil Facility Assessment – WEST PARK ELEMENTARY SCHOOL
Project #: ED0480.0003.00
Issue Date: 08/07/2018

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
					 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Federico Field

TREANORHL

DISC. ITEM #	OBSERVATION / ISSUE / ITEM DESCRIPTION	PRIORITY LEVEL LOW	MED	HIGH	PHOTOS
C-2	The sod field appears to have poor drainage around the perimeter which may be a cause of damage to the asphalt track. An underground drainage system or other type of stormwater conveyance is recommended.				 

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Federico Field

ENERGY, HVAC, O&M ANALYSIS

XI.

BUILDING ENVELOPE EVALUATION

Through the analysis of each building in the District, except for the Lake County High School, the recommendation is to provide upgrades to the thermal envelope (exterior walls). Where brick masonry or other building materials have failed, it is recommended to replace with like materials. At LCIS, Pitts Elementary and West Park ES it is necessary to tuck point all masonry joints, provide new sealants at gaps and miscellaneous openings at the earliest opportunity. In every facility, except for the Lake County High School, all exterior doors and hardware need replacement, and all window openings should be upgraded and replaced as a majority of the windows are past their useful life and are failing.

Twin Lakes, Colorado

Roofing systems with insulation brought up to energy code should be a priority at Margaret J. Pitts Elementary and West Park Elementary. The roofs on both facilities are past their warranty and useful life.

HVAC SYSTEMS EVALUATION

Lake County High School -

The Lake County High School is in near new to excellent condition and no work is necessary to the facility and its' mechanical systems as it was completely renovated, and new classroom wings added in 2014.

Lake County Intermediate School -

The Intermediate School is served via hydronic heating water boilers which distribute hot water to air handling units throughout the facility. The vast majority of the facility is served via overhead forced air heating, which is not ideal for the climate. The heating water system is not equipped with glycol. The air handling units are in good condition but nearing the end of their life expectancy. In addition, not all air handling units are equipped with proper ventilation air and controls. Where present, associated hot water reheat coils are in good condition and generally accessible via a catwalk system in each classroom wing.

Domestic hot water is provided via gas fired water heaters. Plumbing fixtures are in good condition throughout but are not compliant to current ADA requirements.

The building is partially equipped with a fire sprinkler system. In addition, the indoor pool is served via an outdoor dehumidification air handling unit. For the purposes of this study, it is assumed any modifications to the pool dehumidification unit or associated pool equipment would be handled separately from modifications in the remainder of the facility.

Vestibules are not present at the facility, and the vast majority of the exterior exposures and entries are served via overhead forced air heating. This results in drafty conditions at entries, and some entries (such as the west stairwell) being extremely problematic to use during the winter months. The mechanical system controls for the facility are older, electronic controls and are reported as unreliable.

The HVAC boilers and domestic water heaters are relatively new and in good condition. The remaining mechanical equipment is nearing the end of its useful life, but still in serviceable condition. In summary, the existing mechanical and plumbing systems could remain in service, pending long term plans for the facility. If major modifications or upgrades are planned for the facility within the next five to ten years, the following should be noted:

1. Exterior exposures should be modified to be served via floor level heating, not overhead.
2. Adding vestibules with floor level heating should be strongly considered.
3. Ventilation air and economizer functions should be reviewed for all air handling units. This will require circulation pumps and control

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HVAC SYSTEMS
EVALUATION (cont.)

sequences to protect unit heating water coils from freezing as glycol is not present in the system. Coil circulation pump to be provided for each air handling unit, assume (7) total for budget purposes. Circulation pump and revised ventilation and economizer controls per item 4 below.

4. An overall mechanical controls system upgrade should be pursued. Ideally this upgrade would provide connectivity to the new controls system installed at the high school. If pursued, provide new controls system for all existing mechanical systems. Existing raceways, wiring and terminal controls (actuators, VFDs, dampers) may be re-used based on condition, but all new controllers and front end system to be provided, Alerton or similar as provided by ATS Rocky Mountain to allow connectivity to existing high school controls system.
5. If major modifications are planned which revise overall program and floor plan layouts, replacement of existing air handling units and associated reheat coils should be considered.
6. Plumbing fixtures should be replaced where required to meet current ADA requirements.
7. The fire sprinkler system should be expanded to provide a fully sprinklered building.

West Park Elementary School -

West Park Elementary School is served via hydronic heating water boilers which distribute hot water to air handling units and unit ventilators throughout the facility. The heating water boilers were replaced approximately 21 years ago and are in poor condition. Currently one of the two boilers is not in operation due to failure. All mechanical systems in the building, including piping, controls and equipment are in very poor condition, and at the end of their life.

Domestic hot water is provided via gas fired water heaters. Plumbing fixtures are in very poor condition, and at the end of their life. Plumbing fixtures would need to be updated to current ADA requirements as a part of any major architectural renovation.

The HVAC piping is routed within the concrete foundation system, making in-place replacement impossible. New piping throughout the facility is recommended and will need to be routed independent of the existing network of piping runs. All faucets and toilet fixtures are recommended to be replaced within 3 years (2021).

The building is not equipped with a fire sprinkler system.

Vestibules are present at the facility, but overall the building envelope is poor and not compliant with current energy codes.

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HVAC SYSTEMS
EVALUATION (cont.)

The mechanical and plumbing systems are in excellent condition and are not in need of replacement, apart from bringing older plumbing fixtures up to current ADA requirements. A fire sprinkler system would need to be installed to meet current codes if the building continues to be utilized.

Margaret J. Pitts Elementary School -

Pitts Elementary School is served via hydronic heating water boilers which distribute hot water to air handling units and unit ventilators throughout the facility. Operable windows and overhead exhaust are provided for ventilation and cooling effect. The heating water boilers have been retrofitted with new gas burners, but appear to be at the end of their useful life. Heating water pumps were also recently replaced. The classroom unit ventilators were more recently replaced as well and are in good working condition. Sections of inactive baseboard exist within the millwork. The original heating water piping is still in use; however, this piping was originally routed under the building slab and multiple leaks and operational issues have resulted from this installation. (This installation is similar to that at West Park Elementary which was required to be completely replaced recently.) Various controls upgrades have been completed as part of associated mechanical replacements. The grease exhaust hood serving the kitchen appears to be recently replaced.

Domestic hot water is provided a gas fired water heater, which was recently replaced. Plumbing fixtures appear to have been replaced approximately 10 years ago. The plumbing piping is original and installed under the building slab, similar to the mechanical piping, and has similar operational issues.

The building is not equipped with a fire sprinkler system.

Vestibules are present at the facility, but overall the building envelope is poor and not compliant with current energy codes.

The mechanical and plumbing systems are in various stages of use and in good working order. However, as the original under slab mechanical and plumbing piping is still used all components of the mechanical and plumbing systems are subject to imminent failure. Any further use of this facility would require an overall replacement of all mechanical and plumbing piping systems, similar to what was performed at West Park Elementary. A fire sprinkler system would also need to be installed to meet current codes.

Transportation Center -

The Transportation Center is served primarily via gas fired unit heaters. The small office and restroom area is provided with electric baseboard units. No ventilation is provided other than exhaust for the restroom.

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HVAC SYSTEMS EVALUATION (cont.)

Compressed air hose reels and other associated automotive repair equipment is present and in good working order.

Domestic hot water for the office and restroom is provided via a local electric water heater which appears to be in good working order. Plumbing fixtures are also in good working order. Plastic water piping is used for distribution. Trench drains are provided in the vehicle bays.

The building is not equipped with a fire sprinkler system.

Overall the building envelope is poor and not compliant with current energy codes.

West Park
Elementary School

Margaret J. Pitts
Elementary School

The mechanical and plumbing systems are appropriate for the use of the facility, and could continue to be maintained or replaced on an as needed basis. While plastic piping is used for the domestic water distribution, it is routed exposed and any damage or leaks would be easily observed for repair. In general, the facility is fine for the intended use, and could continue to be used pending program requirements. If the overall program of the building is not appropriate repurposing would be suggested, as again the structure and associated mechanical and plumbing systems are appropriate for maintenance or storage facility use. Any repurposing of the facility should include salvage of all automotive repair equipment for re-use.

ELECTRICAL AND LIGHTING SYSTEMS EVALUATION

Lake County High School -

The Lake County High School is in near new to excellent condition and no work is necessary to the facility. LCHS was completely renovated, and new classroom wings added in 2014 with upgraded and new electrical distribution systems, fixtures, and fire alarm.

Lake County Intermediate School -

The electrical service to the Lake County Intermediate School is 1200 Amp, 480/277V Volt, Three Phase, 4 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room, located along the main corridor. 480V panelboard, stepdown transformers and 208V panelboards are provided for each classroom wing at each level, pool area, gym area, and kitchen area to serve power, lighting, mechanical equipment, etc. Existing generator had been removed from the system and emergency panelboard had been connected directly to normal system distribution.

Limited amount of convenience receptacles are provided throughout the building. In addition, surface mounted wire-mold, outlets, and power strips have been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, some of the corridor lighting has been replaced with recessed LED lensed troffer and gym lighting has been recently replaced with LED modules. Semi-recessed 4x4, 2x4, or 2x2 with T8–U fluorescent lamping has been provided throughout the remainder of spaces, such as corridors, classrooms, seating area, restrooms, library reading area, etc. Multi-level/dual level manual toggle switches are provided in each area. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System provides full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

Existing panelboards seem to have spare capacity for additional outlets. However, it seems that power conditioning would need to be provided, especially for critical loads, such as computer labs, server equipment, AV equipment, etc.

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ELECTRICAL AND LIGHTING
SYSTEMS EVALUATION (cont.)

It is recommended that the remaining existing semi-recessed fluorescent troffers be replaced with LED replacement lamps or LED fixtures. Exterior area lights should be replaced with wall or pole mounted full-cutoff area lighting to provide better coverage for parking lot and building perimeter. If modification is required for the existing fire alarm system, new voice evacuation system would be required to be provided in order to meet the 2015 International Fire Code.

West Park Elementary School -

West electrical service to the West Park Elementary School is 800 Amp, 208/120 Volt, Three Phase, 4 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room. Panelboards are provided throughout the building to serve power, lighting, mechanical equipment, boiler room, kitchen equipment, and stage area. Generally, the original panelboards are located recessed in the wall within the area its serving. Newer panelboards, such as new panels in seating areas, were surfaced mounted along the wall.

Limited amount of convenience receptacles are provided throughout the building. In addition, surface mounted wiremold, outlets, and power strips have been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, generally, 2x2 surface mounted troffer (with T8-U lamping) and linear surface mounted louvered fluorescent is provided throughout spaces, such as corridors, classrooms, seating area, library, music and art classrooms, restrooms, etc. Multi-level/dual level manual toggle switches are provided in each area. Gymnasium lighting is controlled directly from breakers within the panelboard. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System provides full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

Although the newer panelboards are in good condition, most of the areas are served by the original panelboards, which utilize ITE equipment and not many spares or spaces are available within each

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ELECTRICAL AND LIGHTING
SYSTEMS EVALUATION (cont.)

panel. New panelboards would be required to replace existing if additional equipment/devices are to be added.

It is recommended that existing fluorescent 2x2 and linear fluorescent fixtures be replaced with LED replacement lamps or LED fixtures. Due to the higher output of LED fixtures, less fixtures may be adequate for the required light level for each space. Exterior area lights should be replaced with wall or pole mounted full-cutoff area lighting to provide better coverage for parking lot and building perimeter.

If modification is required for the existing fire alarm system, new voice evacuation system would be required to be installed to meet the 2015 International Fire Code.

Margaret J. Pitts Elementary School -

The electrical service to the Pitts Elementary School is 600 Amp, 120/240 Volt, Single Phase, 3 Wire, served by pad mounted utility transformer. The main distribution switchboard is located in the main electrical room, located along the east corridor. Panelboards are provided throughout the building to serve power, lighting, mechanical equipment, boiler room, kitchen equipment, and stage area. Generally, the original panelboards are located recessed in the wall within the area its serving. Newer panelboards, such as panel KP, were surfaced mounted in the corridor.

A limited amount of convenience receptacles have been provided throughout the building. In addition, surface mounted wire-mold and outlets have been added throughout the years to accommodate user's need in classrooms, corridors, offices, work area, etc. For lighting, generally, 1x4 surface mounted troffer (with T8 lamping) is provided throughout spaces, such as corridors, classrooms, seating area, restrooms, library reading area, etc. Multi-level/dual level manual toggle switches are provided in each area. Emergency lighting and exit signs are provided with individual battery unit in path of egress. Wall mounted area lights are provided throughout the perimeter of the building for general site lighting and parking lot lighting. Notifier Fire Alarm System provides full coverage. This includes smoke detection, horn/strobes, and pull stations throughout the building.

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ELECTRICAL AND LIGHTING
SYSTEMS EVALUATION (cont.)

It is recommended that the existing single phase service is upgraded to 208V or 480V, 3 phase service. This will provide additional capacity for the building. Although the newer panelboards are in good condition, most of the areas are served by the original panelboards, which utilize Federal Electric equipment and not many spares or spaces are available within each panel. New panelboards would be required to replace existing if additional equipment/devices to be added.

It is recommended that existing fluorescent troffers are replaced with LED replacement lamps or LED fixtures. Exterior area lights should be replaced with wall or pole mounted full-cutoff area lighting to provide better coverage for parking lot and building perimeter.

If modification is required for the existing fire alarm system, new voice evacuation system would be required to be installed to meet the 2015 International Fire Code.

Transportation Center -

The electrical service to the Transportation Center is 225 Amp, 120/240 Volt, Single Phase, 3 Wire, served by pole mounted utility transformer. The main building is served by 225A, 120/240V, single phase, 42 circuits panelboard. In addition, a 70A, 120/240V, single phase, 12 circuits panelboard is provided to serve miscellaneous equipment in office/break room area, such as water heater, refrigerator, baseboard heaters, etc.

Combination of linear and compact fluorescent are utilized for lighting equipment within the building.

Break room area is provided with recessed 2x4 troffers. Multi-lamps surface mounted utility fixtures with linear fluorescent (T8 lamps) were utilized in garage/shop area. Manual toggle switches are provided in each area. Wall mounted semi decorative fixtures and adjustable flood lights are installed at building entrances and Adjustable multi-heads LED floodlights were installed at exterior doors. Fire alarm system was not provided for this building. Although the existing panelboards are in good condition, they are toward the end of their life. Replacement breakers may be required for additional larger loads. It is recommended that existing fluorescent troffers in break room to be replaced with LED replacement lamps or LED fixtures.

UTILITY COST SUMMARY

The following utility cost graphs are provided below and outline the actual kWh and Therms incurred by the Lake County School District for electricity and natural gas use, by facility, from January 2012 to August 2018. This data was provided by Xcel Energy to the School District. The School District is very diligent at keeping historic and present energy usage data and analysis.

The District-wide electricity and natural gas usage is expected to decrease once the proposed master plan improvements are implemented.

LAKE COUNTY SCHOOL DISTRICT UTILITY COST MATRIX

Lake County High School

LCSD HS Electricity & Gas Utility Cost

Month	2015 Electric	2015 Gas	2016 Electric	2016 Gas	2017 Electric	2017 Gas
Jan	$5,465.89	$6,066.69	$5018.26	$4,134.26	$4903.61	$4,237.97
Feb	$5,314.54	$5,054.60	$4939.05	$3,675.14	$6163.53	$3,459.22
Mar	$5,406.46	$3,866.00	$4904.34	$3,087.40	$4737.69	$3,275.00
Apr	$3,944.04	$2,757.77	$4752.22	$2,785.95	$4780.02	$2,839.52
May	$4,911.78	$2,313.91	$4702.45	$2,171.37	$4808.58	$2,266.69
Jun	$4,711.04	$1,731.83	$4849.68	$1,305.19	$4867.34	$1,307.99
Jul	$4,684.99	$1,209.94	$3967.35	$1,190.87	$4114.87	$1,193.92
Aug	$3,379.00	$1,207.43	$3938.97	$1,547.40	$4145.65	$1,375.61
Sep	$4,991.54	$1,487.43	$4871.57	$1,636.52	$5111.07	$1,694.51
Oct	$5,378.40	$1,704.84	$4849.53	$2,249.78	$4860.44	$2,475.87
Nov	$5,411.52	$5,368.00	$4761.96	$3,186.76	$4828.07	$2,864.88
Dec	$5,457.03	$4,275.13	$5301.91	$4,157.67	$5217.34	$3,620.52
Elect	$59,056.23		$56,857.29		$58,538.21	
Gas		$37,043.57		$31,128.31		$30,611.70
Total Elect & Gas	2015	$96,099.80	2016	$87,985.60	2017	$89,149.91

LAKE COUNTY
SCHOOL DISTRICT
UTILITY COST MATRIX (cont.)

Lake County Intermediate School

LCIS Electricity & Gas Utility Cost

Month	2015 Electric	2015 Gas	2016 Electric	2016 Gas	2017 Electric	2017 Gas
Jan	$6,558.96	$7,393.31	$6,428.88	$5,975.87	$6,056.72	$5,606.46
Feb	$6,534.78	$6,582.42	$6,110.67	$5,054.44	$6,397.15	$4,718.37
Mar	$7,044.73	$5,116.94	$6,046.30	$4,623.80	$6,156.75	$4,303.00
Apr	$6,957.18	$3,826.88	$6,003.59	$3,571.27	$5,754.85	$3,931.41
May	$6,459.40	$2,991.16	$5,657.93	$3,298.23	$5,817.16	$3,278.65
Jun	$6,049.30	$2,722.81	$5,497.19	$2,118.46	$5,589.52	$2,185.24
Jul	$4,825.98	$1,980.73	$3,429.13	$1,960.61	$3,188.26	$2,025.49
Aug	$3,845.48	$1,845.28	$3,823.10	$2,318.16	$4,095.41	$2,481.61
Sep	$5,936.18	$2,311.23	$6,115.59	$2,649.15	$5,255.17	$2,647.66
Oct	$6,072.63	$2,504.19	$6,115.07	$3,230.41	$5,093.10	$3,478.58
Nov	$6,492.28	$6,815.75	$5,985.16	$4,218.53	$5,284.29	$4,032.47
Dec	$6,386.54	$5,454.64	$6,251.57	$5,301.09	$5,587.23	$4,855.89
Elect	$73,163.44		$67,464.18		$64,275.61	
Gas		$49,545.34		$44,320.02		$43,544.83
Total Elect & Gas	2015	$122,708.78	2016	$111,784.20	2017	$107,820.44

LAKE COUNTY
SCHOOL DISTRICT
UTILITY COST MATRIX (cont.)

West Park Elementary School

West Park ES Electricity & Gas Utility Cost

Month	2015 Electric	2015 Gas	2016 Electric	2016 Gas	2017 Electric	2017 Gas
Jan	$2,240.13	$2,567.57	$2,064.14	$2,034.29	$1,953.26	$2,091.90
Feb	$2,153.05	$2,139.54	$2,079.20	$1,742.31	$2,152.34	$1,742.17
Mar	$2,285.73	$1,630.89	$2,024.68	$1,609.18	$2,076.76	$1,703.33
Apr	$2,340.68	$1,263.75	$2,046.30	$1,368.92	$1,959.32	$1,410.00
May	$2,318.85	$1,051.22	$2,057.41	$1,207.81	$1,982.67	$1,323.00
Jun	$2,346.34	$770.84	$1,967.17	$753.98	$1,921.13	$888.13
Jul	$1,358.81	$478.98	$1,050.45	$704.50	$1,262.40	$883.23
Aug	$1,545.83	$498.04	$1,451.22	$794.34	$1,471.42	$1,003.47
Sep	$2,320.45	$699.79	$2,256.97	$896.46	$2,215.14	$1,161.38
Oct	$2,311.32	$770.39	$2,194.93	$1,205.31	$2,157.03	$1,780.18
Nov	$2,342.86	$2,573.51	$2,113.55	$1,543.34	$2,111.21	$1,865.76
Dec	$2,251.52	$2,119.84	$2,113.55	$2,155.74	$2,103.12	$2,305.50
Elect	$25,815.57		$23,419.57		$23,365.80	
Gas		$16,564.36		$16,016.18		$18,158.05
Total Elect & Gas	2015	$42,379.93	2016	$39,435.75	2017	$41,523.85

LAKE COUNTY
SCHOOL DISTRICT
UTILITY COST MATRIX (cont.)

Margaret J. Pitts Elementary School

Pitts ES Electricity & Gas Utility Cost

Month	2015 Electric	2015 Gas	2016 Electric	2016 Gas	2017 Electric	2017 Gas
Jan	$1446.10	$3,119.59	$1167.40	$2,281.66	$1389.83	$2,390.09
Feb	$1559.49	$2,786.87	$1091.19	$2,004.39	$1310.70	$1,947.00
Mar	$1422.42	$2,059.59	$1091.19	$1,885.55	$1362.58	$1,817.24
Apr	$1336.45	$1,495.10	$1105.60	$1,525.58	$1470.02	$1,608.86
May	$1218.20	$1,227.67	$1226.55	$1,210.97	$1189.53	$1,326.96
Jun	$1235.43	$950.79	$1166.65	$659.18	$1258.62	$872.21
Jul	$959.87	$304.87	$886.07	$369.37	$1141.33	$682.35
Aug	$772.19	$430.33	$883.05	$596.82	$1135.81	$755.56
Sep	$1072.65	$806.62	$1291.37	$911.19	$1286.33	$851.76
Oct	$1101.32	$893.65	$1383.80	$1,228.93	$1386.36	$1,398.72
Nov	$1261.64	$2,947.57	$1335.41	$1,759.31	$1270.29	$1,744.94
Dec	$1239.43	$2,241.58	$1365.14	$2,361.71	$1294.09	$2,047.45
Elect	$14,625.19		$13,993.42		$15,495.49	
Gas		$19,264.23		$16,794.66		$17,443.14
Total Elect & Gas	2015	$33,889.42	2016	$30,788.08	2017	$32,938.63

LAKE COUNTY
SCHOOL DISTRICT
UTILITY COST MATRIX (cont.)

Transportation Center

Transportation Electricity & Gas Utility Cost

Month	2015 Electric	2015 Gas	2016 Electric	2016 Gas	2017 Electric	2017 Gas
Jan	$546.76	NA	$553.75	$976.95	$364.63	$981.78
Feb	$492.83	NA	$462.32	$827.31	$368.37	$796.30
Mar	$435.58	$4,680.61	$373.80	$738.26	$345.55	$709.80
Apr	$408.86	$307.29	$301.14	$592.86	$262.54	$614.53
May	$333.46	$386.13	$268.67	$403.28	$272.09	$486.15
Jun	$248.41	$253.12	$214.20	$227.11	$285.21	$262.68
Jul	$110.72	$228.94	$98.46	$211.08	$124.41	$199.58
Aug	$90.30	$263.95	$97.67	$254.20	$132.42	$258.53
Sep	$206.72	$60.78	$203.90	$258.98	$257.55	$285.45
Oct	$237.07	$115.75	$186.57	$491.32	$249.69	$614.41
Nov	$331.95	$1,008.15	$242.78	$620.46	$224.37	$710.06
Dec	$484.89	$953.36	$366.75	$966.91	$325.76	$988.27
Elect	$3,927.55		$3,370.01		$3,212.59	
Gas		$8,258.08		$6,568.72		$6,907.54
Total Elect & Gas	2015	$12,185.63	2016	$9,938.73	2017	$10,120.13

SQUARE FOOT ANALYSIS

XII.

LAKE COUNTY SCHOOL DISTRICT FACILITIES

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

Lake County High School (LCHS)

Current Use: School for grades 7-12 and Alternative High School

Constructed: 1955, major addition and renovation 2014

Square Footage: 121,000 s.f.

2018 Enrollment: 485 students

S.F. / Pupil: 278 s.f.

Lake County Intermediate School (LCIS)

Current Use: School for grades 3-6; pool portion of facility currently leased to Lake County Recreation

Constructed: 1976

Square Footage: 142,600 s.f.

2018 Enrollment: 300 students

S.F. / Pupil: 380 s.f.

West Park Elementary School

Current Use: School for grades K-2

Constructed: 1962, Reroof 1997, New Boiler System 2008, Mechanical System Upgrade 2013, New Playground 2016

Square Footage: 41,019 s.f.

2018 Enrollment: 205 students

S.F. / Pupil: 195 s.f.

Margaret J. Pitts Elementary School

Current Use: School for Pre-Kindergarten,District Offices

Constructed: 1955, Library Addition 1971

Square Footage: 34,231 s.f.

2018 Enrollment: 99 students

S.F. / Pupil: 345 s.f.

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

The following facilities are part of the District's inventory, but are not used as educational facilities.

(Former) Administration Building

Current Use: Storage
Constructed: Unknown
Square Footage: approx. 9,000 s.f.

Transportation Building

Current Use: Bus storage and maintenance, transportation offices
Constructed: Unknown, addition of offices after original construction
Square Footage: approx. 8,200 s.f.

Federico Field

Current Use: Practice field for football, soccer, and track
Constructed: 1962
Square Footage: 384 s.f. (Grandstands)

LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

The following facilities are part of the District's inventory, but are not used as educational facilities.

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

Little Red School House

Current Use: Storage
Constructed: 1902
Square Footage: 1,019 s.f.

Barn by Little Red School House

Current Use: Storage
Constructed: 1902
Square Footage: 450 s.f.

Twin Lakes School House

Current Use: Community use and storage
Constructed: 1895
Square Footage: 3,500 s.f.

SITE EVALUATION

XIII.

LAKE COUNTY SCHOOL DISTRICT FACILITIES

For the purposes of this master plan, only the facilities currently being occupied or utilized by students were evaluated for their existing site conditions. See the complete CDE and TreanorHL site assessments in the Appendix for further information and photographs.

(Former) Administration Facility -

Address: 107 Spruce St., Leadville, CO 80461

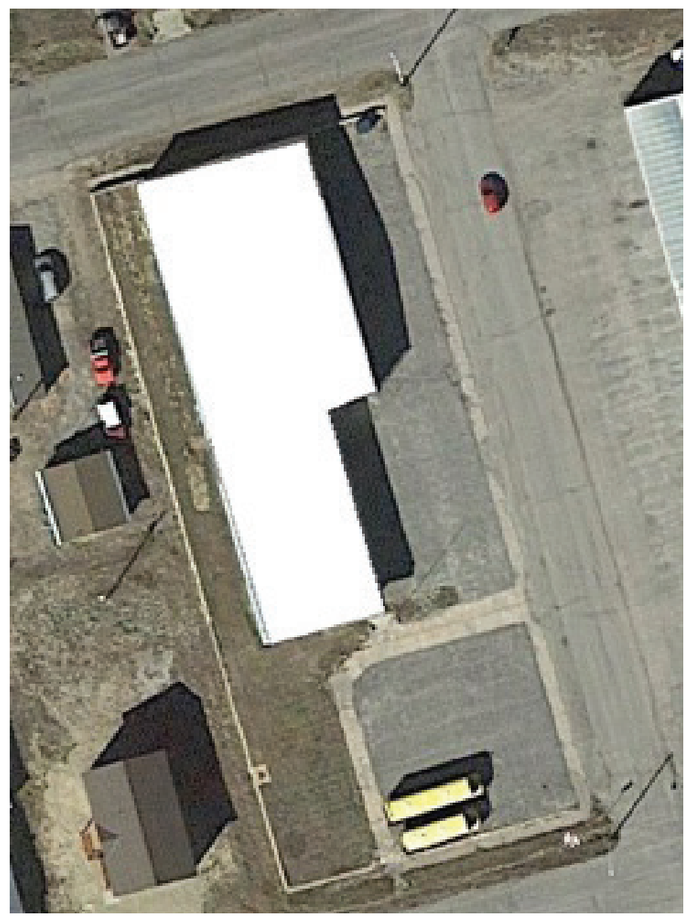
Site Acres: Approximately 0.75 acres

Site Access:

- Parking available off of Spruce Street on east and south sides of building
- Emergency access available on north, east, and south sides of site, accessed off of 2nd St., Spruce St., and south parking lot
- Water, sewer, and electrical service present on site
- No underground storm system

Deficiencies:

- No ADA parking is available
- Lack of ADA access from public right of way to entry
- Concrete and asphalt paving in poor condition and needs to be replaced
- Areas of grading repair needed to provide positive drainage away from building



LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Transportation Center (Bus Barn) -

Address: 106 Spruce St., Leadville, CO 80461

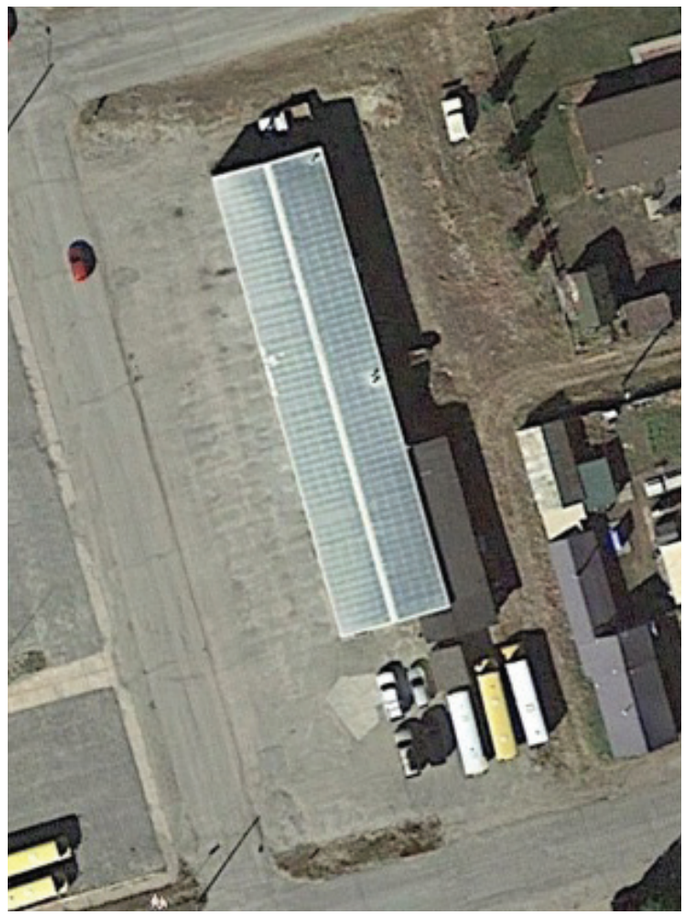
Site Acres: Approximately 0.75 acres

Site Access:

- Parking available off of Spruce Street and W. Chestnut St. on south side of building
- Bus access to garage is off of Spruce St. on west side of building
- Emergency access available on north, east, and south sides of site, accessed off of 2nd St., Spruce St., and south parking lot
- Water, sewer, and electrical service present on site
- No underground storm system

Deficiencies:

- No ADA parking is available
- Lack of ADA access from public right of way to entry
- Asphalt paving in poor condition and needs to be replaced
- Areas of grading repair needed to provide positive drainage away from building



LAKE COUNTY SCHOOL DISTRICT FACILITIES (cont.)

Lake County High School -

Address: 1000 W. 4th St., Leadville, CO 80461

Site Acres: Approximately 11 acres

Site Access:

- Parking, including ADA parking, is available on east side and north sides of site, accessed off of 4th and 6th St.
- Parent drop off provided on east side of site, adjacent to main entry, off of 4th St.
- Separate bus drop off provided on west side of site, accessed off of 3rd St, exiting onto 6th St.
- Site has full ADA access
- Emergency access available full perimeter of building via combination of public streets, bus and parent drop off lanes, parking lot, and reserved fire lane.
- Water, sewer, electrical, and partial underground storm system present on site.

Deficiencies:

- Due to recent construction of this project, this site was not evaluated for deficiencies.

LAKE COUNTY SCHOOL
DISTRICT FACILITIES (cont.)

Lake County Intermediate School -

Address: 1000 6th St., Leadville, CO 80461

Site Acres: Approximately 7.5 acres

Site Access:

- Parking, including ADA parking, is available on south and west side of site, accessed off of both 6th St. and McWethy Drive. Parking is shared between the school and Rec Center.
- Parent and bus drop off currently separated via temporary concrete barriers as well as District directed traffic flow.
- Emergency access available via combination of public streets, parking lot, drop off lanes, and dirt road.
- Water, sewer, electrical, and system present on site.
- No underground storm system.

Deficiencies:

- Exterior stairs serving building entrances and exits are deteriorated and need replacement
- Site does not provide any access that conforms to ADA. ADA parking stalls also require accessible connection to building.
- Asphalt drives and parking lots are deteriorated and need replacement
- Site safety for students needs to be addressed, with provision of separate and clear parent drop off, bus drop off, pedestrian access, and Rec Center access.
- Several slopes across the site have evidence of erosion; repair and erosion control needs to be installed
- Fire hydrants on site appear inaccessible and possibly outdated.
- Areas of grading repair needed to provide positive drainage away from building
- Water and sanitary sewer service lines are at the end of their expected life.

LAKE COUNTY SCHOOL
DISTRICT FACILITIES (cont.)

West Park Elementary School -

Address: 130 W. 12th Street, Leadville, CO 80461

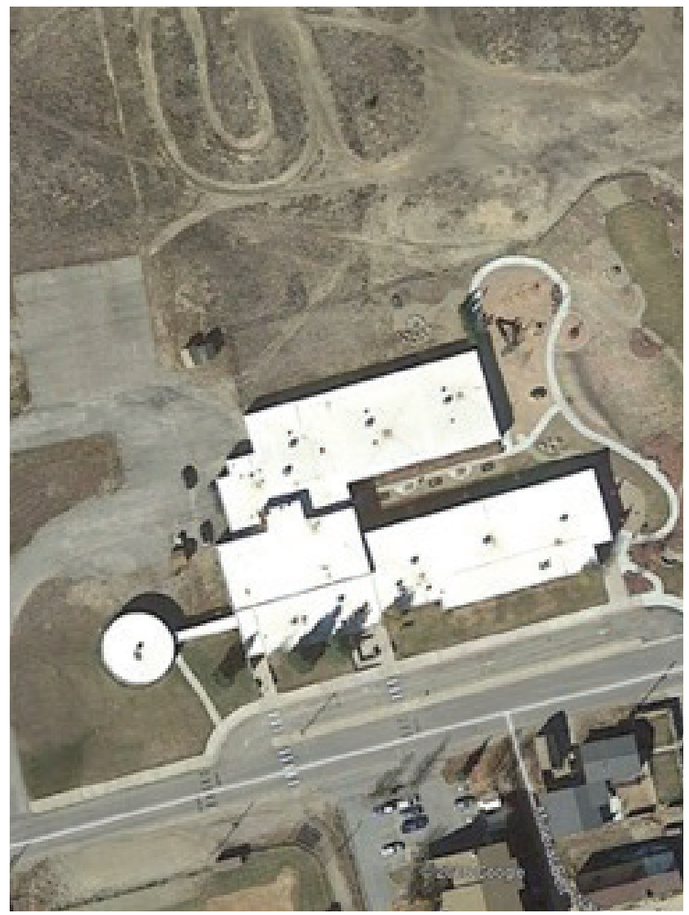
Site Acres: Approximately 10 acres

Site Access:

- Parking available on north and west side of site on roughly paved area, accessed off of 12th St.
- Parent and bus drop off provided together on south side of site off of 12th St.
- Emergency access available on two sides of building via 12th St. and via service/parking access lane on west side of site.
- Water, sewer, electrical service systems present on site.
- No underground storm system.

Deficiencies:

- Site does not provide any access that conforms to ADA. No ADA parking stalls are available.
- Asphalt drives and parking lots, as well as concrete walks and curbs are deteriorated and need replacement.
- Site safety for students needs to be addressed, with provision of separate and clear parent drop off, bus drop off, parking, and pedestrian access.
- Playground drainage not functioning as intended; regrading required to provide positive drainage.
- Water and sanitary sewer service lines are at the end of their expected life.



LAKE COUNTY SCHOOL
DISTRICT FACILITIES (cont.)

Margaret J. Pitts Elementary School -

Address: 315 W. 6th Street, Leadville, CO 80461

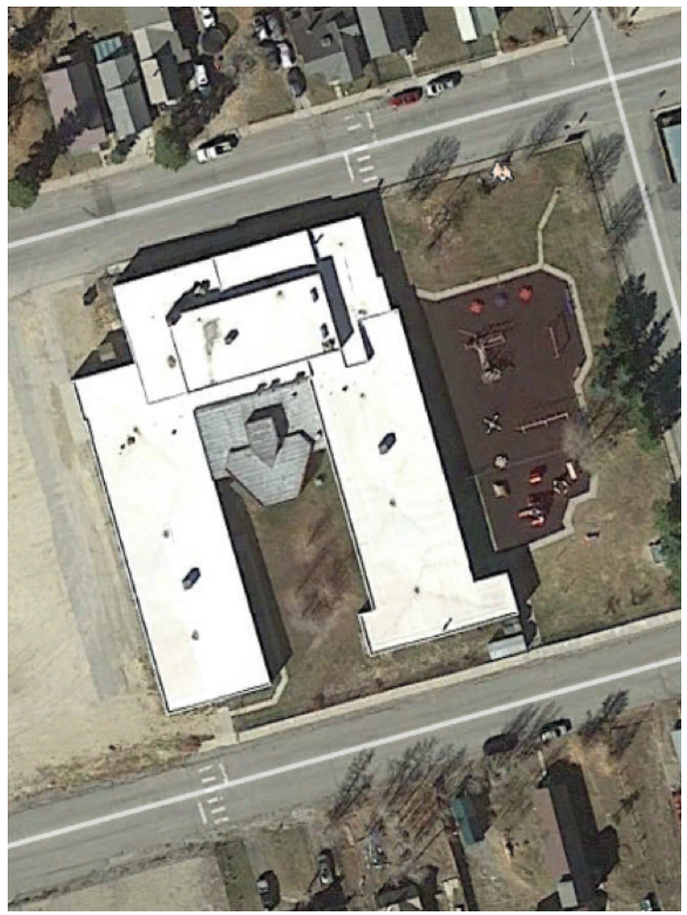
Site Acres: Approximately 2.5 acres

Site Access:

- Parking available on west side of site on roughly paved area, accessed off of Leiter St.
- Parent drop off provided via parking along 6th St. No buses serve this facility.
- Emergency access available on all sides of building via 6th St., Spruce St., 5th St., and Leiter St.
- Water, sewer, electrical service systems present on site.
- No underground storm system.

Deficiencies:

- Site does not provide any access that conforms to ADA. No ADA parking stalls are available.
- Asphalt drives and parking lots, as well as concrete walks and curbs are deteriorated and need replacement.
- Clear entry point for building needs to be provided, with safe parent parking for drop off.
- Grading around the building, primarily on the east side and within the courtyard, does not provide adequate fall away from the building. Site grading and underground drainage improvements required.
- Water and sanitary sewer service lines are at the end of their expected life.



LAKE COUNTY SCHOOL
DISTRICT FACILITIES (cont.)

Federico Field -

Address: 1000 W. 4th St., Leadville, CO 80461 (south of LCHS)

Site Acres: Approximately 4.5 acres

Site Access:

- Parking available in dirt lot on west side of site, accessed off of McWethy Dr.
- Emergency access provided via dirt parking lot as well as via 3rd St. on the north. All other access to site is pedestrian only.
- Existing field is grass, existing track is asphalt.
- Existing bleachers are wood on concrete structure. Press box is wood structure built behind bleachers.

Deficiencies:

- Poor site drainage has caused deterioration of both the track and field. Recommend regrading around and of track and field area, and installation of underground drainage system or some other stormwater conveyance system.
- Asphalt track is deteriorated and should be replaced.
- Areas of erosion noted on north side of site as it slopes up toward high school. Recommend repair and installation of additional erosion control.
- Bleachers and pressbox are dangerously deteriorated and need to be replaced in their entirety.
- ADA accessible parking and access routes to bleachers need to be provided.

TECHNOLOGY

XIV.

NETWORK INFRASTRUCTURE AND TOPOLOGY

The Lake County School District is in progress of updates and upgrades to its District-wide technology plan. The following document is the plan that is currently in progress and coordinated through All Covered, IT Services from Konica Minolta.

Lake County High School
2014

CLIENT BUSINESS SUMMARY OVERVIEW

Lake County School District consist of five locations which include a High School, Intermediate, 2 Elementary Schools and 1 Administration building. Over the last year and a half LCSD, has made several network improvements to the High School and server upgrades to all Facilities. The goal for the upcoming year is to focus on the network infrastructure for the remaining facilities while continue the deployment of the Chrome Books for the 1to1 initiative.

Business Strategy

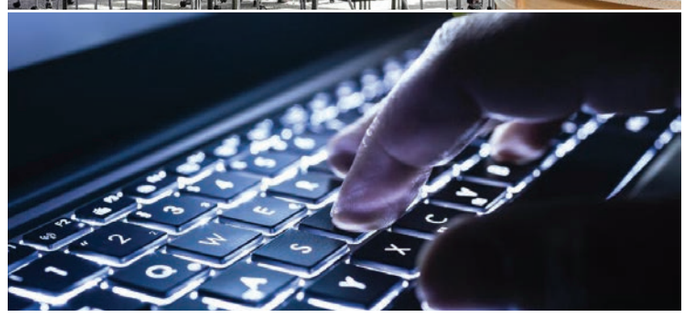
- Growth
- Innovation
- Control Expenditures
- Increase Productivity
- Meet Regulations
- Provide Interactive Experience for Students

Use of technology

- Mobile Devices
- Virtual Servers

Recent IT challenges

- Apple Devices
- Managing Mobile Devices



4C DISCOVERY

In meeting with the District, we gained further insight into the business strategy of Lake County School District. We asked a series of probing questions related to their goals, initiatives and challenges. The following maps our questions and answers to the All Covered 4C's Technology Management Strategy to help formulate a custom Technology Business Plan that will help Lake County School District succeed.

Content Technology Management is not listed or scored as it is not applicable here.

Consolidation Technology Management

- **Are you running separate physical hardware for each server?**
  - Yes, physical servers exist at all locations except for the High School.
- **Have you implemented server virtualization?**
  - Yes, the High School has deployed virtual severs.
- **Are you utilizing data centers for colocation?**
  - Not at this time.
- **Are you utilizing public or private cloud hosting services?**
  - Not at this time.
- **Are you leveraging a public or private cloud for Application Streaming or Thin Client Computing?**
  - Not at this time.
- **Are you utilizing software as a service (SaaS)?**
  - Yes, Student Information System

Consolidation Score:

Why do you want to increase your level?

Virtualizing servers will provide cost benefits from a reduction in the number of physical servers. Moving your virtualized servers to a secure cloud environment creates a more flexible and scalable platform and aligns with business needs while improving cost management.

4C
DISCOVERY (cont.)

Collaboration Technology Management

- **Is Mobile Computing important to your business?**
  - Yes, currently LCSD is in the process of deploying Chrome Books as part of their 1to1 initiative. Traditional learning is being replaced with e-books and educational apps that can easily travel with students, teachers and administrators in and out of the classroom. One laptop per child is becoming one tablet per child through 1:1 programs. Bring Your Own Device (BYOD) is even a K-12 mobility option in the transition to e-learning that is both cost-effective and better prepares students for their adult lives.

    Mobile devices whether provided by your school or brought in by students and faculty must be controlled and managed to both enhance and protect the educational experience. Uncontrolled mobility at K-12 exposes students to unwanted distractions and online threats; and exposes schools to data breaches and non-compliance with governing regulatory mandates.
- **What is your remote mobility strategy? Do you permit employees to use their own mobile device?**
  - LCSD allows instructors to use their own devices and is in need of a mobility strategy and policy for students and staff as required by CIPA.
- **Do you use Instant Messaging in the office for quick communication?**
  - No, however this could be useful to staff and administrators to limit the distractions that traditional phone calls and radios may cause in the classrooms.
- **Is there a need for remote office or employee Video Conferencing?**
  - This could be helpful if distance learning is part of the learning is part of the curriculum.
- **Would Voice and Email integration improve communications?**
  - Yes, as most staff and admin. are mobile.

Collaboration Score:

Why do you want to increase your level?

Creating a computing environment with faster and more flexible communications will lead to higher productivity. Employees will feel more connected and work better together. Implementing a secure platform with the ability for employees to work from anywhere while improving productivity.

4C
DISCOVERY (cont.)

Continuity Technology Management

- **Is your data stored in the right place and accessible when needed?**
  - Data is currently stored on file servers.
- **If a natural disaster occurred, how quickly could your systems be back up and running?**
  - Currently LCSD maintains local backups with no off premise replication. Although LCSD network spans across multiple sites, without offsite data replication, RTO could take a week to a week and a half based on hardware availability
- **Is there a high availability requirement for any software applications?**
  - LCSD currently doesn't have a need for HA.
- **Do you lose billable hours if there is a delay in access to data?**
  - No, because attendance could be taken manually.
- **Are there concerns over unauthorized access of data?**
  - Yes, LCSD is governed by FERPA (Family Education Rights and Pricy ACT)
- **Are there regulatory requirements concerning data management?**
  - Yes, LCSD is governed by FERPA (Family Education Rights and Pricy ACT)
- **Do you use offsite cloud backup services?**
  - Not at this time.
- **Do you use have a published Business Continuity Plan (BCP)?**
  - Not at this time.
- **Do you use Software as a Service (SaaS)?**
  - Google Apps

Continuity Score:

Why do you want to increase your level?

Using an off-site backup with a disaster recovery plan built with the high availability, security and geographic favorable redundancy will protect against incidents that impact local resources. Additionally, implementing a Business Continuity Plan will provide comprehensive protection against significant impacts to the business.

TECHNOLOGY BUSINESS PLAN

Based on gaining insight into the business goals, initiatives and challenges of Lake County School District, we recommend the following Technology Initiatives.

Your Business Objective	Technology Plan Initiatives
• Upgrade Network Switches	• Intermediate School • West Park Elementary School • Server Room Cleanup
• Wireless Expansion	• Wireless Assessment to include all sites except for the High School.
• Business Continuity / Disaster Recovery	• Enable Windows DFS • Upgrade Internet Bandwidth

4C's	Technology Plan Initiatives
• Consolidation Technology Management	• Decommission WSUS and Hyper-V Server • Migrate Hyper-V Servers to VMware Servers
• Collaboration Technology Management	• Develop Mobility Strategy
• Continuity Technology Management	• Develop Disaster Recovery Plan
• Content Technology Management	• Not Applicable

PROJECT PROPOSALS

> SERVER CONSOLIDATION PROJECT

Business Objective:

- Decommission Aging Hyper-V Server
- Virtual Server Migration

LCSD – High School has a Dell R510 server that is approaching end-of-life (Start Date: 5/19/10 - End Date: 5/20/15). In addition, the server is running Hyper-V virtualization operating system as opposed to VMware which was installed at the end of 2013. If this server is to remain in place, a new Veeam license will be required to backup Hyper-V virtual guest servers.

Recommendation:

- Decommission WSUS Server
- Migrate OpenDNS Servers, send one server to ESX01 and the other to ESX02 VMware Servers.
- Migrate NOTCH-DBMIRROR to ESX01
- Decommission LCSD-HS-HV01

Budgetary Estimates:

Service Description (One Time Fee)

- Virtual Server Consolidation Project ($2,500 - $3,000)

> SWITCH UPGRADES

Business Objective:

- Upgrade switch fabric
- Create VLAN's

LCSD has two locations that the switches have reach end-of-life. The first is the intermediate School as 7 of the 8 switches have reached end-of-life. The second site is West Park Elementary School as 1 of the 3 switches has also reached end-of-life.

Recommendation:

- Procure new switches to replace aging equipment.
- Configure the following VLAN's;
  - Staff Network
  - Student Network
  - Guest Wi-Fi Network

Budgetary Estimates:

Service Description (One Time Fee)

- Switch Upgrades ($15,000 - $16,000)

(cont. next page)

PROJECT
PROPOSALS (cont.)

> SERVER ROOM CLEANUP

Business Objective:

- Secure Servers and Network equipment

LCSD has 4 locations with servers not properly secured in server racks. This is potentially a safety hazard, not to mention putting the equipment at risk of being damaged.

Recommendation:

- Procure 18U server cabinets to house rack mount servers, switches, UPS and firewalls not secured.
- Install enclosure and rack network and server devices.

Budgetary Estimates:

Service Description (One Time Fee)

- Server Room Cleanup ($5,000 - $5,500)

> ACTIVE DIRECTORY CLEANUP

Business Objective:

- Inactive Users
  - We discovered 498 active user accounts that have not logged in within the past 30 days. These accounts should be reviewed and disabled or removed if they are no longer needed. Active accounts that are not in use may pose a security risk and should be addressed with a User Audit.
- Inactive Computers
  - 413 computers were found as having not checked in during the past 30 days. There is no threat, but organization is essential to proper network management and providing accurate domain statistics.
- Password Policies
  - User accounts with passwords set to never expire present a risk of use by authorized users. They are more easily compromised than passwords that are routinely changed.
- Operating System Support
  - 3 computers were found to be using an Operating System that is in Extended Support which means patching and other updates will be unavailable in the near future.
- Endpoint Security
  - Anti-virus and anti-spyware was scanned for but not detected on some computers.

(cont. next page)

PROJECT
PROPOSALS (cont.)

Recommendation:

- Remove any users or computers that are no longer in service.
- Review Empty Organizational Units with members from LCSD to confirm OU structure is in line with today's business needs.
- Review Active Directory password policies and ensure it's in line with LCSD business needs.
- Ensure each workstation and server has updated Anti-Virus software.

Budgetary Estimates:
Service Description (One Time Fee)

- Active Directory Cleanup ($4,800 – $5,300)

> WIRELESS ASSESSMENT

Business Objective:

- Improve wireless connectivity on all campuses to support 1to1 initiative.

LCSD is in the process of deploying Chrome Books at a couple of their campuses. With the deployment of these and other mobile devices, LCSD is in need of a mobility strategy that follows the Children's Internet Protection Act, while providing fast access to valuable educational resources and connections.

Recommendation:

- Perform a wireless survey at all sites and generate wireless heat-map and submit to Ruckus Wireless.
- Develop Mobility Strategy that conforms with CIPA.
- Deploy Lightspeed Rocket Content Filter, Mobile Device Manager and Classroom Orchestrator to manage LCSD mobile devices.

Budgetary Estimates:
Service Description (One Time Fee)

- Wireless Assessment / Mobility Strategy ($5,500 - $6,000)
- Lightspeed ($26,500 - $29,000)

(cont. next page)

PROJECT
PROPOSALS (cont.)

> BACKUP AND DISASTER RECOVERY

Business Objective:

- Provide a computing environment that provides everyone access to File Storage in the event of an extended office outage.
- Improve Business Continuity / Disaster recovery

LCSD, is in need of a Disaster Recovery / Business Continuity Plan. There are various ways to achieve Recovery Time Objective (RTO).

Disaster Recovery:
Assuming that all servers are virtualized, All Covered provides backup and replication solutions, with on premise and remote target servers. This solution will allow for quick restores as well as protecting data during environmental emergencies and hardware failure for on premise equipment. The downside to this solution is, it doesn't provide a quick RTO solution.

Business Continuity:
Provides the same services as the DR services provided by All Covered, with one additional service added, cloud virtual spin-up. This allows the client to spin-up in the cloud during long outages suffered by a natural disaster or hardware failure, therefore providing a faster RTO.

In addition, LCSD has 4 physical servers currently using Windows Backup Services for nightly back-up jobs. Symantec's latest version of Backup Exec 2014 supports 2012 servers. Backup Exec 2014 helps you backup quicker, reducing your backup windows and saving you time.

Recommendation:

- Add Disaster Recovery Services from All Covered for LCSD Virtual Servers.
- Install Symantec Backup Exec 2014 for all Physical Servers for local backup restores.
- Enable DFS between File Servers across the district while making the High School the main site.
- Add additional MD3220i hard drives to support DFS.
- Develop Disaster Recovery Procedures
- An upgrade to the current Internet services may be required. This will be determined based on daily file changes.

Budgetary Estimates:
Service Description
(Monthly Recurring/One Time Fee)

- Disaster Recovery ($1,540 / $12,850 - $13,350)
- Install Symantec Backup Exec (no monthly / $6,000 - $6,500)
- Upgrade Internet ($TBD / $TBD)

BUDGETARY IMPLEMENTATION SUMMARY

Service Description	AC Monthly Recurring	AC Project Fee
Virtual Server Consolidation Project		$2,500 - $3,000
Switch Upgrades		$15,000 - $16,000
Server Room Cleanup		$5,000 - $5,500
Active Directory Cleanup		$4,800 - $5,300
Wireless Assessment / Mobility Strategy		$5,500 - $6,000
Lightspeed		$26,500 - $29,000
Disaster Recovery	$1,540	$12,850 - $13,350
Install Symantec Backup Exec		$6,000 - $6,500
Upgrade Internet	TBD	TBD
Estimated Totals	$1,540	$78,150 – 84,650

FUTURE USE ANALYSIS

xv.

FUTURE USE ANALYSIS

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

(Former) Administration Building

The District Administration offices are currently located in a portion of Margaret J. Pitts Elementary School. The (Former) Administration building is currently being utilized for storage by the district and no future use plans or recommendations are contemplated in this master plan.

Transportation Center (Bus Barn)

The recommendation contained in this master plan is that the Transportation Center is a new facility located on a site location near Lake County Intermediate School. The existing Transportation Center would be sold or demolished and land retained.

Lake County High School (LCHS)

Currently houses grades 7-12 as well as the Alternative High School program. The recommendation contained in this master plan is to add an Auxiliary Gymnasium in future years.

Lake County Intermediate School LCIS)

Currently houses grades 3-6. The recommendation contained in this master plan is to provide upgrades related to the scope outlined in Section XVI – Strategic Plan for Implementation.

FUTURE USE ANALYSIS (cont.)

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

West Park Elementary School

Currently houses grades K-2. The recommendation contained in this master plan is to demolish the current West Park Elementary School, re-use the 2015 Playground and to construct a New PreK-2 Facility that is phased to become a future PreK-6. See page 265 and 284 for phasing plan.

Margaret J. Pitts Elementary School

Currently houses both The Center for Early Childhood Program (Pre-K) as well as the District Administration Offices. The recommendation contained in this master plan is that Pitts Elementary would only be utilized as District Administration Offices until such a time that new District Offices are constructed. Pre-K would move to the new facility being constructed on the West Park site. No work is planned to renovate.

Federico Field

The recommendation contained in this master plan is to remove the existing grandstand structure, construct new grandstands, improve drainage, and upgrade the track and field surfaces.

Barn by Little Red School House*

Little Red School House*

Twin Lakes School House*

**No work contemplated in this master plan.*

Lake County School District
2019 MASTER PLAN

continues next page >

STRATEGIC PLAN FOR IMPLEMENTATION

XVI.

SUMMARY

The Master Plan process for Lake County School District involved stakeholders from within the Leadville Community, and was organized as follows:

- Executive Team
- Visioning Team
- School Leadership
- Leadville Community

Through a series of interactive meetings with each group as well as facility assessments by the design team, the core values, vision and goals, current challenges, and the current state of the District's facilities were understood. From there, a global look at the District facilities was taken in order to address the long-term goal of right sizing and right placement of schools. All of this analysis served as the foundation from which the 'building blocks' comprising the strategic plan were derived. In addition, approaching the strategic plan from both a 'top-down' and 'bottom-up' approach helped the teams evaluate the options from both a need and cost standpoint, as well as a realistic look at what a first step could be, simultaneously.

This work, which will be described in further in the ensuing pages, resulted in the following proposal for a 10-year strategic plan for Lake County School District

Phase 1: years 2019-2022

- New PK-2 Facility at West Park site | Funding Strategy: application for BEST Grant and matching Bond pursuit in Fall of 2019
- LCIS Renovation | Funding Strategy: application for BEST Grant and match provided from District reserves or a 2019 Bond pursuit

Phase 2: timeline TBD

- Federico Field Renovation

Phase 3: years 2023-2029

- Addition on PK-2 facility at West Park to transform to PK-5 or PK-6
- Comprehensive renovation to LCIS to transform into facility that can flex to accommodate student population growth in any grade
- New Transportation Building
- New Auxiliary Gym at LCHS
- Relocation of District Offices into renovated existing facility square footage (LCIS potential) and resulting decommissioning of Pitts Elementary School

THE PROCESS

LAKE COUNTY SCHOOL DISTRICT CORE VALUES

- Safe, secure and promoting healthy development
- Equitable for all learners
- Engaging and inspiring
- Right-sized, located appropriately, and flexible
- Technology-rich and preparing students for a wide-range of post-secondary options and careers
- Community-oriented
- Energy-efficient and in tune with our natural environment

VISIONING TEAM AND MASTER PLAN VISION AND GOALS

- Right sizing and right placement of schools
- Equity between facilities
- Flexibility for future growth or decline
- Safety and security of students, both on site and in the facilities

CURRENT FACILITIES ASSESSMENTS

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

West Park Elementary School

Current Use: School for grades K-2

Constructed: 1962

Square Footage: 41,019 s.f.

Deficiencies: Energy inefficiency, security, site safety, accessibility, infrastructure limitations

FCI: 0.65

Margaret J. Pitts Elementary School

Current Use: School for Pre-Kindergarten,District Offices

Constructed: 1955

Square Footage: 34,231 s.f.

Deficiencies: Energy inefficiency, security, site safety, accessibility, infrastructure age and limitations

FCI: 0.65

Lake County Intermediate School (LCIS)

Current Use: School for grades 3-6; pool portion of facility currently leased to Lake County Recreation

Constructed: 1976

Square Footage: 142,600 s.f.

Deficiencies: Deferred maintenance items, accessibility, site safety

FCI: 0.42

Lake County High School (LCHS)*

Current Use: School for grades 7-12

Constructed: 1955, major addition and renovation 2014

Square Footage: 121,000 s.f.

Deficiencies: Gym space, alternative high school classroom space

FCI: 0.06

*****This facility was not assessed due to the addition and full renovation project completed in 2014.*

CURRENT FACILITIES ASSESSMENTS (cont.)

Reference Section X and Appendix A (CDE reports) for a more in-depth discussion on the current state of existing facilities as well as the detailed assessment reports by both the design team and CDE.

(Former) Administration Building

Current Use: Storage

Constructed: Unknown

Square Footage: approx. 9,000 s.f.

Deficiencies: Slab movement, building envelope degradation and inefficiency

FCI: NA

Transportation Building

Current Use: Bus storage and maintenance, transportation offices

Constructed: Unknown, addition of offices after original construction

Square Footage: approx. 8,200 s.f.

Deficiencies: Inability to fit larger buses, accessibility, exterior damage

FCI: NA

Federico Field*

Current Use: Practice field for football, soccer, and track

Constructed: 1962

Square Footage: 384 s.f. (Grandstands)

Deficiencies: Grading and drainage, extensive bleacher damage, accessibility, extensive track surface damage

FCI: NA

**This is not a facility but an athletic field complex.*

CURRENT CHALLENGES AND NEEDS

Throughout the Visioning Teams' worksessions, many district and facility challenges were discussed. The bulleted list below outlines the teams' greatest concerns. Although this master plan doesn't prescribe a solution to every challenge on the list, it does serve to memorialize and document those issues/challenges that may be addressed in later phases or in a future master planning effort.

- Safe routes to school is important, and coordination thereof.
  - The student traffic between LCIS and LCHS is a major concern. The District continues to work with the community on solutions.
- Safety on site is also of concern; consideration of proper pedestrian, parent drop off, and bus drop off needs to be included. Of special concern at LCIS.
- All school entries need to receive updates to create true security vestibules. At this time, the District has installed remote video call stations as a way to improve within existing means.
- Multiple facilities serving students of the same age is inefficient.
- Pre-K is isolated which creates a challenge in being Kinder-ready.
- Need career pathway options available to younger ages.
- Need learning spaces that are specialized to program.
- Need real outdoor learning labs.
- Existing gym space throughout all of the facilities is heavily used and at a premium; master plan must keep same number of gyms at a minimum – preference would be to increase.
- The gym at LCIS is the crown jewel – the indoor track is great.
- LCHS needs an Auxiliary Gym.
- Affordable teacher housing needs to be a consideration.
- Need more auditorium space.
- District offices need attention.
- Federico Field needs to be brought up to standards.
  - No ability to do pole vault
  - Existing Bleachers are not code compliant
  - Underutilized due to state of disrepair
  - Need ability for athletes to train and compete at same level as other schools
- Heating system improvements needed in some facilities.
- For those who travel to multiple facilities in a day, a lot of time is spent traveling between.
- Concern about what happens to new play area at West Park if the school is repurposed.

CONSOLIDATED DISTRICT CAMPUS VS. DISTRIBUTED DISTRICT CAMPUS - THE TOP DOWN VIEW

Right sizing and right placement of facilities quickly rose to the top in terms of long-term goals for the District, with much discussion centering around traffic flow, site safety, and efficient use of staff and learning spaces. The District currently owns many properties, both within and outside of the town, with their current facilities spread throughout the town on the west side of Highway 24. The closest residing facilities are LCIS and LCHS, separated by 6th Street.

District-Wide Facilities

Reviewing the identified challenges led to an initial campus concept of 'consolidating' all District facilities around the LCHS and LCIS sites, including Transportation and District Offices. Conversely, the team also evaluated a more 'distributed' campus approach concept.

CONSOLIDATED

- Decommissioning or repurposing of both the West Park ES, Pitts ES, Transportation, and Administration sites, either through demolition of the existing structures and District keeping the land or through the sale of the buildings and land to an outside entity
- Either a new PK-2 facility built to the north of the existing LCIS school OR the conversion of LCIS into a PK-6 facility through the demolition of the existing classroom wings and rebuild of a new and larger classroom wings
- New District Offices built between LCHS and LCIS
- New Transportation Building built west of LCIS
- New Auxiliary Gym and Classrooms at LCHS
- Federico Field Upgrades

VS

DISTRIBUTED

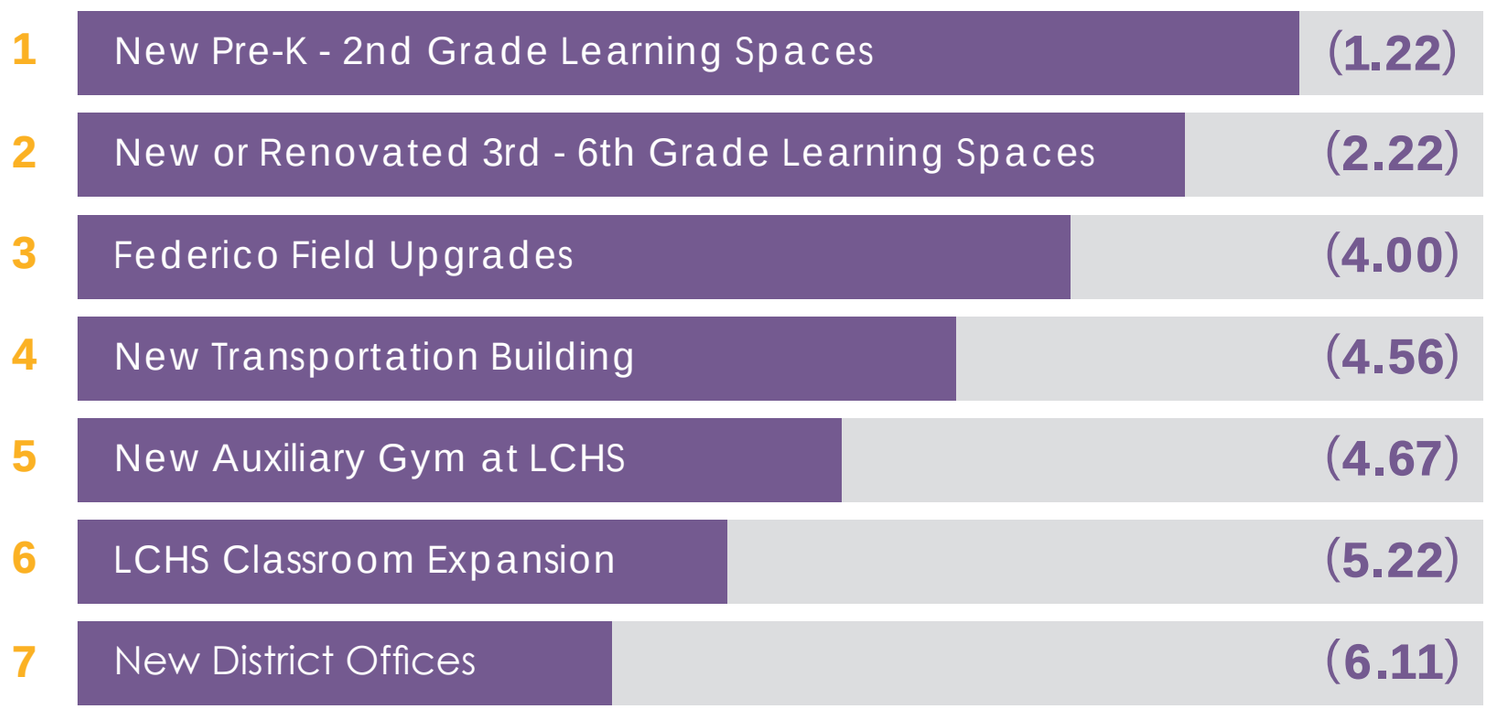
- Decommissioning or repurposing of the Pitts ES, Transportation, and Administration sites, either through demolition of the existing structure and District keepin the land or through the sale of the building and land to an outside entity
- Demolishing of the existing West Park ES and replacement with a new PK-2 school
- Renovation of LCIS facility, kept as 3-6 grades
- New District Offices built between LCHS and LCIS
- New Transportation Building built north of LCIS
- New Auxiliary Gym and Classrooms at LCHS
- Federico Field Upgrades

BUILDING BLOCKS - THE BOTTOM UP VIEW

Through evaluation of the vision, goals and facility assessments as well as the previously discussed top-down approach to a strategic plan, a set of projects were developed by the Visioning Team aimed at addressing the facility, program, and efficiency deficiencies in the District on a more granular level. This allowed the team to refocus on the specific areas to be addressed irrespective of location.

The team then took these building blocks and ranked them, as individuals, as to which they felt was the most pressing need for the District.

Visioning Team Ranking - in order of priority (average ranking score)



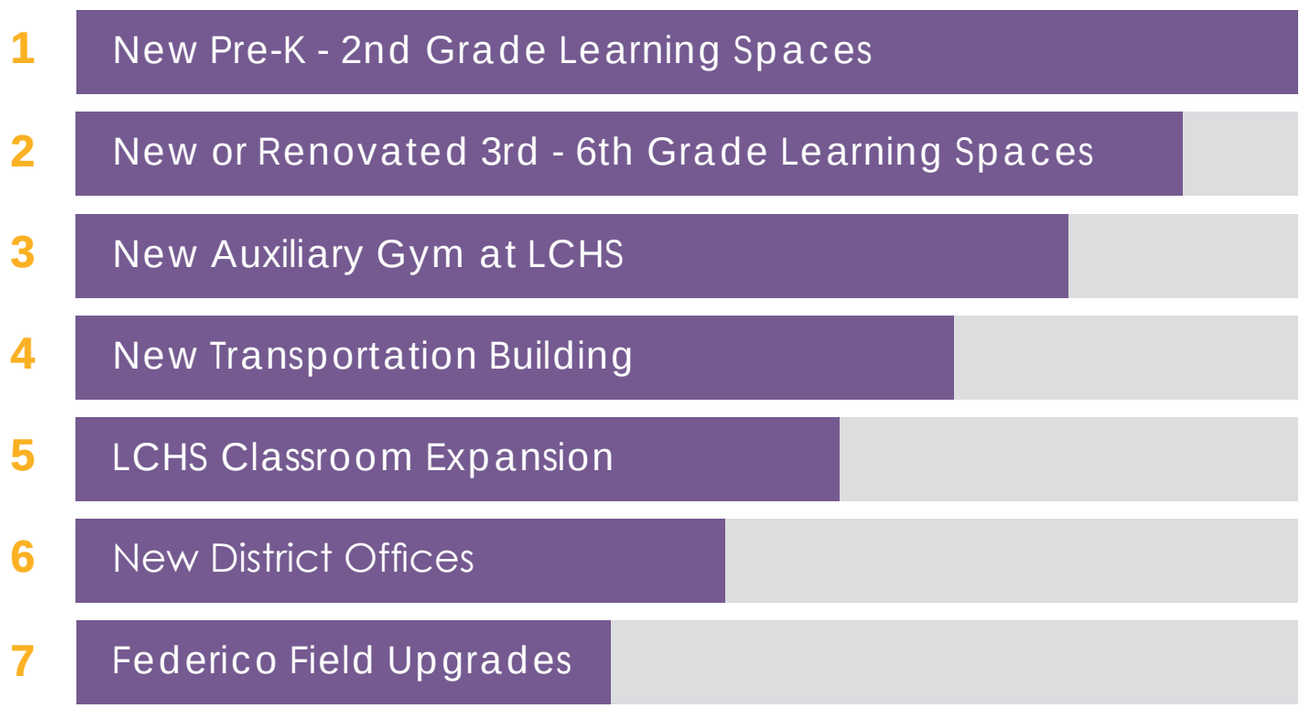
THE COMMUNITY'S VIEW

It was at this point that the team felt it was time to take all of the above work and information to the community. This meeting took place on October 8, 2018, with presentation of the following items:

- What is Master Planning
- Core Values
- Existing Facility Assessments
- Demographics Summary
- Global Campus Concepts
  – Consolidated vs. Distributed
- Building Blocks

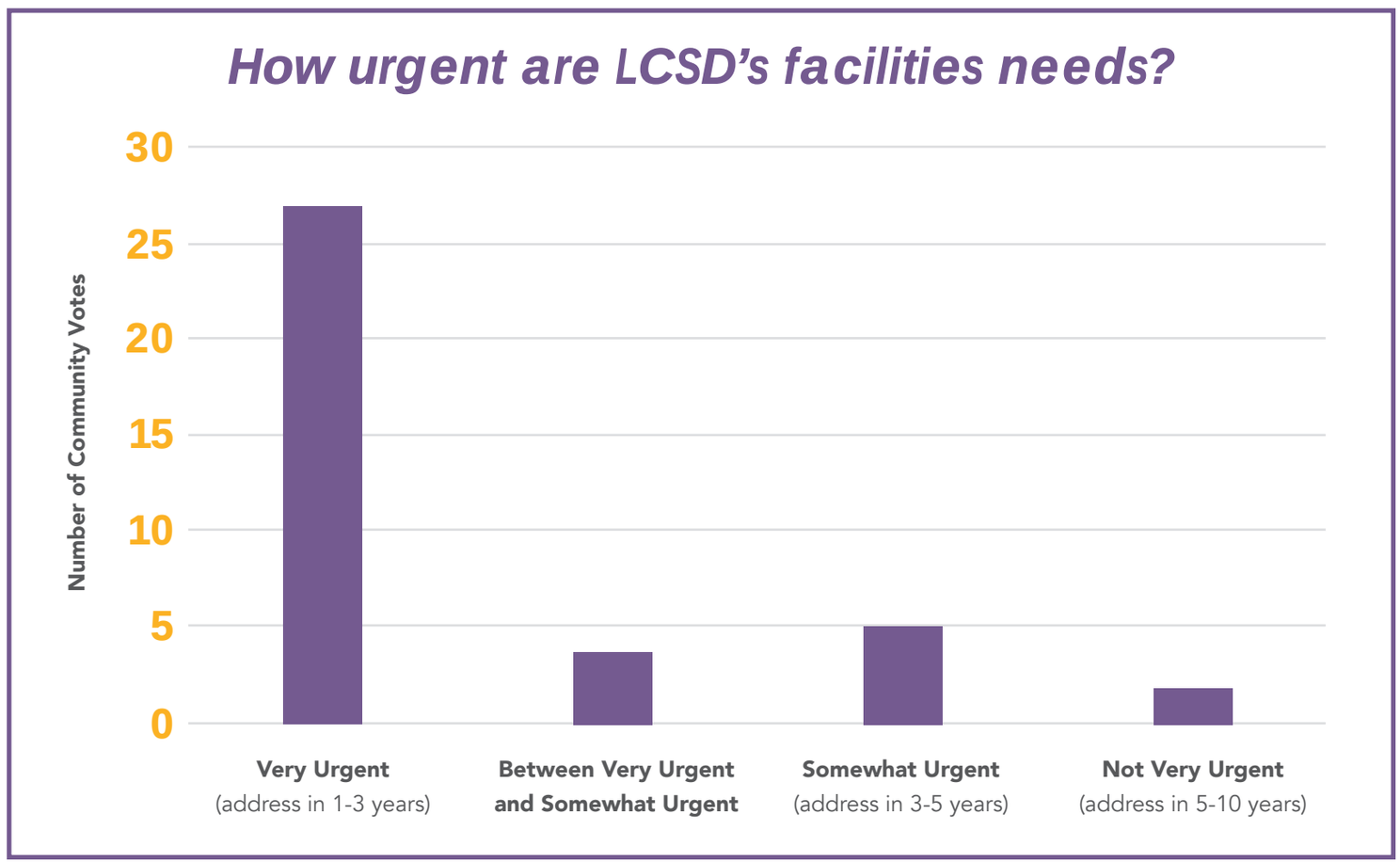
After presentation of the information was complete, the community was asked to do the same ranking exercise on the Building Blocks that was done by the Visioning Team. While the first two items mirrored the input from the Visioning Team, the remainder of items ranked somewhat differently.

Community Ranking - in order of priority



THE COMMUNITY'S VIEW (cont.)

Following the Community Ranking Exercise, audience members were asked to provide feedback on how urgent they perceive LCSD's facilities needs to be. Questions regarding urgency were pinned up around the room with an invitation for community members to leave their feedback via sticky note.



THE COMMUNITY'S VIEW (cont.)

Questions regarding suggestions for reuse of existing building and campus concepts, were pinned up around the room with an invitation for community members to leave their feedback via sticky note. Attendees suggested many possibilities for the reuse of school buildings, including:

- Youth or senior center
- Rec center
- Affordable or employee housing
- Non-profit or small business office space

Attendees were asked to respond to the notion of a consolidated campus, where all schools would generally be located in the same area (i.e. within ½ mile of 6th and McWethy). The majority of respondents to this question favored consolidation as a concept for reasons such as efficiency and the development of a PK-12 school community. Others expressed concern with issues such as safety and traffic flow with all schools in one area. Several respondents said they thought cost effectiveness should drive the decision about the placement of any new school buildings.

community attendees favored a consolidated campus for reason of efficiency... and, that cost effectiveness should also drive the decisions.

The Little Red Schoolhouse and Barn. 1902

PRIORITIES

With the work of the Visioning Team, and feedback from the community, the decision was made that the top three priorities to be addressed in the short term would be the provision of a new PK-2 facility, renovated 3rd through 6th facility, and Federico Field upgrades. Each of these will be describe in more detail in the following sections.

NEW PK-2

The ranking of the building blocks, both within the Visioning Team and the Community, provided the clarity needed on what the first phase of the Strategic Plan would be – the creation of new PK-2 learning spaces. In collaboration with the Executive Team, the Director of Early Childhood Programs, and the Principal of West Park ES, a building program for this facility was developed. This program needed to be built to support potential future addition of grades 3-5 or 3-6 classrooms, appropriate gym space, and 21st century learning environments. This resulted in an overall facility square footage of approximately 63,000 s.f. See Appendix C for detailed program information.

Understanding that two campus concepts on the table and the desire of the majority to have a consolidated campus, the team completed two separate test fits for this facility. Acknowledging that cost effectiveness was a primary concern by both the Visioning Team and the community, pricing was completed for each site in order to understand best compatibility with bonding capacity of the District alongside potential BEST grant funds. Both fell into a similar price range; while the new site has deforestation and earthwork requirements, the site is smaller than the West Park Site.

(cont. next page)

PRIORITIES
(cont.)

LAKE COUNTY SCHOOL DISTRICT

New Pre K-2 Elementary School Space Program

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
1.0 ADMINISTRATION AREA - SHARED						
ADMIN. RECEPTION / WAITING				1	300	300
SECRETARIAL OFFICE AREA				1	300	300
FACULTY PROF. DEVELOPMENT ROOM				1	0	0
CONFERENCE ROOM				1	250	250
FAMILY RESOURCE AREA				1	400	400
HEALTH OFFICE				1	120	120
NURSE / CLINIC				1	350	350
NURSE RESTROOM				1	110	110
ADMIN. WORKROOM / MAIL				1	300	300
ADMIN. LOUNGE				1	200	200
MAIL AREA				1	100	100
STAFF RESTROOMS				2	55	110
ADMIN. STORAGE				1	300	300
RECORD / CONFIDENTIAL STORAGE				1	100	100
						2940
ADMINISTRATION AREA - ELEMENTARY						
PRINCIPAL OFFICE				1	150	150
DEAN OFFICE				2	150	300
COUNSELOR OFFICE				1	150	150
						600
ADMINISTRATION AREA - PRE-K						
DIRECTORS OFFICE				1	150	150
BUSINESS CARE DIRECTOR OFFICE				1	120	120
CHILD CARE DIRECTOR OFFICE				1	120	120
DIRECTOR OF EDUCATION OFFICE				1	120	120
						510
1.0 ADMINISTRATION AREA TOTAL	0		0			4050

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
2.0 STUDENT COMMONS / CAFETERIA						
CAFETERIA / COMMUNITY CENTER				1	2000	2000
CHAIR & TABLE STORAGE				1	300	300
KITCHEN / FOOD PREPARATION				1	800	800
SERVING STATIONS				1	200	200
DISH WASH AREA				1	100	100
COOLER - WALK IN				1	200	200
FREEZER - WALK IN				1	200	200
DRY STORAGE				1	250	250
LAUNDRY				1	65	65
RESTROOM / LOCKERS				1	55	55
2.0 STUDENT COMMONS AREA TOTALS	0		0			4170

(cont. next page)

PRIORITIES
(cont.)

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
3.0 ACADEMIC INSTRUCTION						
PRE-SCHOOL CLASSROOM	6	16	96	6	800	4800
PRE-SCHOOL SMALL GROUP				2	200	400
PRE-SCHOOL RESTROOM				5	35	175
PRE-SCHOOL ADA TOILET/ CHANGING				2	95	190
PRE-SCHOOL INTERIOR STORAGE				6	100	600
PRE-SCHOOL EXTERIOR STORAGE				1	150	150
PRE-SCHOOL LAUNDRY				1	20	20
KINDERGARTEN CLASSROOM	3	20	60	3	800	2400
KINDERGARTEN RESTROOMS				3	60	180
KINDERGARTEN STORAGE				3	50	150
1ST GRADE CLASSROOMS	3	20	60	3	800	2400
2ND GRADE CLASSROOMS\	3	20	60	3	800	2400
FLEX CLASSROOMS	1	20	20	1	800	800
SMALL GROUP STUDY				3	250	750
TEAM CENTER				3	400	1200
FACULTY COLLABORATION CENTER				3	250	750
FACULTY RESTROOMS				3	60	180
ELEMENTARY STORAGE				3	150	450
STUDENT TOILETS				6	200	1200
SPECIAL EDUCATION CLASSROOM	2	8	16	2	400	800
SENSORY ROOM				1	200	200
SPECIAL ED RESTROOM/ CHANGING ROOM				1	120	120
SPEECH THERAPY				1	120	120
SPECIAL ED SPECIALIST				1	200	200
3.0 ACADEMIC INSTRUCTION TOTALS	18		312			20635

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
4.0 ACADEMIC SUPPORT						
GYMNASIUM / MULTI-PURPOSE	1	20	20	1	7265	7265
GYMNASIUM STORAGE				1	300	300
CHAIR STORAGE				1	300	300
GYMNASIUM OFFICE				1	150	150
MUSIC CLASSROOM (vocal & instrumental)	1	20	20	1	1200	1200
MUSIC STORAGE				1	200	200
ART CLASSROOM	1	20	20	1	1000	1000
ART STORAGE / KILN ROOM				1	200	200
MEDIA CENTER				1	2000	2000
MEDIA CENTER OFFICE				1	150	150
TINKER LAB				1	600	600
MEDIA CENTER STORAGE				1	200	200
4.0 ACADEMIC SUPPORT TOTALS	3		60			13565

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
5.0 BUILDING SUPPORT						
MECHANICAL ROOM				1	350	350
ELECTRICAL ROOM				1	180	180
MDF ROOM				1	150	150
IDF ROOM				2	80	160
5.0 BUILDING SUPPORT TOTALS	0		0			840

DEPARTMENT PROGRAM	Pre K-2 School Program : 3 Track 350 Students					
	# OF T.S.	STUDENTS / T.S.	TOTAL # STUDENTS	# OF ROOMS	NET AREA	TOTAL AREA
SUMMARY OF SPACE REQUIREMENTS						
TOTAL ASSIGNABLE AREA			43,260			
SUPPORT AREAS - (26% Gross Factor)			15,199			
(corridors, public restrooms, custodial, locker areas, walls, & stairways)						
TOTAL GROSS AREA			**58,459**			
TOTAL # OF TEACHING STATIONS (T.S.)		21				
TOTAL # OF STUDENTS:		372				
TOTAL # OF STUDENTS-85% UTILIZATION		316				
AREA / STUDENT		157				

PRIORITIES
(cont.)

A

Option A:

New Undeveloped Site – North of LCIS
(Consolidated Campus Concept)

Construction Cost: $35M to $40M

Opportunities: follows consolidated campus concept, keeps construction from occupied school

Challenges: extremely sloped and wooded site, predominantly north facing frontage, doesn't allow for best solar access, potential need to provide deceleration lane on McWethy due to it being a CDOT route, may require a traffic light, not much space for site circulation separation, high impact to neighbors

PRIORITIES
(cont.)

B

Option B:

West Park ES Site (Distributed Campus Concept)

Construction Cost: $35M to $40M

Opportunities: previously developed site, larger site, reutilizes existing playground, optimal solar access, adequate space to provide site circulation separation

Challenges: doesn't allow consolidated campus, construction next to occupied school

PRIORITIES (cont.)

Although the desire to consolidate the districts facilities into one distinct area of the town was a favored outcome, The challenges of the Option A site were viewed as a major negative. Challenges that would be too costly to overcome and didn't support the number one goal of the community and school district: Safe and Secure sites and facilities. The wooded site (Option A) adjacent to LCIS posed challenges with traffic volumes along McWethy, a north facing sloping site creating impacts of ice and snow, a completely wooded site that would need to be cleared, and a site that would need to be largely flattened to support safe parking and pedestrian access.

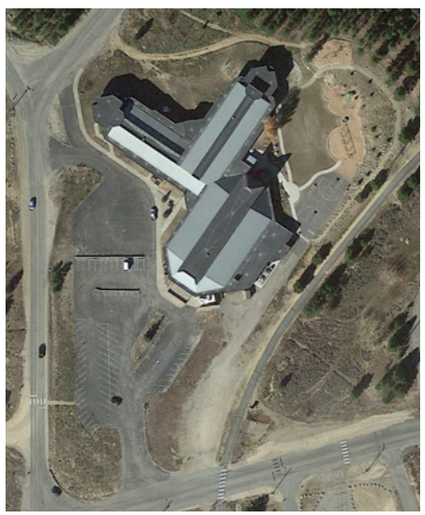
After review with the Lake County School Board, Executive Team, and Visioning Team, the unanimous decision was made to move forward with **Option B** – a new facility on the existing West Park Elementary School site. It was determined that in keeping both the West Park and LCIS sites as school sites, alongside LCHS, the District would have the facility space needed to flex with future growth, resulting ultimately in:

- West Park Elementary School – grades PK-5 or PK-6
- LCIS – grades 6-8 or 7-8
- LCHS – grades 9-12

See Appendix C for more detailed construction cost estimate information for this option.

PRIORITIES
(cont.)

IMPROVEMENTS TO LCIS FOR GRADES 3-6



As new 3-6 Learning Spaces were ranked 2nd by both the Visioning Team and the community, addressing the deficiencies in Lake County Intermediate School became another priority for study. The District has identified the following items as possible corrective scope in order to improve the safety and security of the building as well as maintain infrastructure items to keep it functional. Diagrams depicting this scope can be found in the Appendix, and includes:

- Interior hardware and door replacement
- Exterior door and door hardware replacement, including door contact system
- New bell and PA system
- Exterior stair and railing repair and replacement
- Interior stair guardrail and handrail replacement
- Magnetic lock security between school and pool
- New secure entry vestibule and Administration area modifications

Note: pricing for these items were captured in the cost estimates accompanying the facility assessment.

In addition to those items listed above, the following items were also identified as immediate needs for the facility:

- Plumbing and sewer replacement
- Provision of mechanical controls system
- Emergency generator replacement

PRIORITIES
(cont.)

FEDERICO FIELD UPGRADES

Federico Field, situated south of the high school, is a track and field with concrete and metal bleachers, a wooden press box, and scattered storage sheds. This was constructed sometime after the original high school, and officially named Federico Field in 2009 after coach and teacher Cosmo "Coke" Federico.

The field has long been in need of repair. The bleachers pose a safety hazard, the press box does not meet code, the asphalt on the track is crumbled, and the grass play area is very uneven. Drainage of the track and field is an ongoing issue, especially with drainage shed from the high school site to the north. Because of these issues, the football teams play on the community field to the west of the high school and the track team does not have a proper facility in which to train for or host a meet. Due to the urgency of the existing hazards of the facility, the Visioning Team recommended that improvements to this area – or relocation of the facility - be considered part of Phase 2 in the Strategic Plan.

While the current facility location is a prime location due to its proximity to the high school, there are inherent challenges in providing upgrades to the field in its current location. The primary challenge is that it may be a former cemetery. Alternate options to reconstructing on the existing site were discussed as a team and will be further developed as more information is gained.

OVERALL PROPOSED PHASING PLAN

The remainder of phasing for the Master Plan was reviewed by the teams, taking into account the building block rankings, global campus concepts, perceived need, and funding realities. The following phasing is a result of this discussion, and represents a 10 year strategic plan for Lake County School District facilities.

10-YEAR STRATEGIC PLAN FOR LAKE COUNTY SCHOOL DISTRICT

Phase 1: years 2019-2022

- New PK-2 Facility at West Park site | Funding Strategy: application for BEST Grant and matching Bond pursuit in Fall of 2019
- LCIS Renovation | Funding Strategy: application for BEST Grant and match provided from District reserves or a 2019 Bond pursuit

Phase 2: timeline TBD

- Federico Field Renovation

Phase 3: years 2023-2029

- Addition on PK-2 facility at West Park to transform to PK-5 or PK-6
- Comprehensive renovation to LCIS to transform into facility that can flex to accommodate student population growth in any grade
- New Transportation Building
- New Auxiliary Gym at LCHS
- Relocation of District Offices into renovated existing facility square footage (LCIS potential) and resulting decommissioning of Pitts Elementary School

Lake County School District
2019 MASTER PLAN

continues next page >

CONCLUSION

XVII.

CONCLUSION

As noted in the beginning of this document, Lake County School District recognizes that their facilities are aging, and in some cases programmatically inefficient; maintenance concerns are continually being deferred and the facilities inhibit delivery of some of the educational programs they desire. It is because of these issues that is was critical to undertake a District Wide Master Plan.

The Master Planning process was a lengthy process that analyzed existing facility conditions, demographic and enrollment forecasts, and educational adequacy as well as included collaborative work with the District, the School Board, the Visioning Team, and community members. All of this resulted in a roadmap for the future needs of Lake County School District that is based on research and actual information that comprehensively addresses the vision, goals, and core values set forth by all of these groups.

The plan is a phased approach that serves to provide a step by step guide to the future facility upgrades and implementation. Lake County School District administration, staff, students, and the Lake County community can be proud of the effort given by many individuals to ensure that this plan is balanced, equitable, student focused, and adaptable.

lake county school district administration, staff, students, and the leadville community can be proud... of this roadmap to address future needs

View looking East
down Harrison Avenue

Lake County School District

Learning Beyond Walls

2019 MASTER PLAN