



Belgrade School District

June 2018

Master Planning Document DRAFT

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Advisory Committee Members

Belgrade Public Schools and A&E Architects would like to thank all those who have participated in the Elementary District Master Planning process for the Belgrade School District. Appreciation is extended to all of the staff and community members who gave their time and energy while envisioning what creates and supports excellent learning environments for Belgrade Public School students. This process has been successful as a result of the valuable comments, feedback, time and hard work of many people.

Advisory Committee

Leland Stocker District Superintendent
Mark Halgren Curriculum Director
Dede Frothingham..... Special Education Director
Dawn Watkins..... Payroll & Benefits Supervisor
Matt Bunko..... IT Director
Scott Lilyquist Transportation Supervisor
Lori Degenhart Heck Quaw Principal
Barbara Frank Saddle Peak Principal
Mattheau Johnston..... Ridge View Prinicipal
Julie Mickolio Belgrade Middle School Principal
Paul Lamb Belgrade High School Principal
Steve Garvert..... Belgrade School Board Candidate
Renaë Mattimoe Belgrade School Board Candidate
Bryan Tate..... Owner’s Representative
Phil Weiss..... Ridge View First Grade Teacher
Lindsey Forsberg..... Saddle Peak Kindergarten Teacher
Annie Aschim Heck Quaw Kindergarten Teacher
Scott MacFarlane Facilites Director

Design Team

Dusty Eaton..... A&E Architects
Brad Doll A&E Architects
Jennifer Dunn..... A&E Architects

Purpose of the Committee

Description

The first meeting of the Advisory Committee began with an effort to clearly define the mission and the purpose of the committee. By the time the Advisory Committee was formed and first convened, Belgrade School District and the greater Belgrade community already had engaged a rich, values driven discussion about the future of elementary school education in our community. It was important to define the mission to ensure the Advisory Committee had a clear understanding both for why it existed, and to help define its deliverables to the school board. Thus the mission of the committee is as follows:

“The Advisory Committee will provide a recommendation to the school board regarding future facilities needs for elementary education programs”.

To align the mission with a purpose for the District, the Advisory Committee asked itself to answer a single fundamental question: “As a community, what do we want to look like when growth is realized and the student population between K-4 exceeds 1800 students?” The answer to that question would be found in a thorough exploration and discussion of community values, curriculum/program needs, student growth and development desires, and district operations requirements.

Committee Meeting Schedule

Belgrade Public Schools Masterplan Schedule

2018

March

Kickoff w/ Advisory Committee - B1

Location: tbd **28**
Time: 12:30PM - 3:00PM wednesday

- Introductions
- Review Project Schedule
- Advisory Committee mission
- **Group Exercise: "Hopes & Fears"**
- Select Scenarios Project Goals
- Develop Programming Guidelines

APRIL

School Board Meeting - A1

Location: tbd **9**
Time: tbd monday

- Committee Meeting Updates
- Project Status and Overview

Advisory Committee Workshop - B2

Location: tbd **11**
Time: 12:30PM - 3:00PM wednesday

- Review Group Exercise Results: "Hopes & Fears" & "Goals & Vision"
- Establish Scenarios
- Existing Elementary School utilization
- **Group Exercise: Exploring Masterplanning**
- Next Steps: Site Discussion, program discussion, case studies

Community Open House - C1

Location: tbd **11**
Time: 5:30PM - 7:00PM wednesday

- District Opportunities
- Public Forum and Listening Stations
- Existing Elementary School utilization

Advisory Committee Workshop - B3

Location: tbd **25**
Time: 12:30PM - 3:00PM wednesday

- Program Space Parameters - Size, Enrollment, Location
- Program Space List
- **Group Exercise: "Scenario Opportunities and Constraints"**
- Next Steps

MAY

Advisory Committee Workshop - B4

Location: tbd **9**
Time: 12:30PM - 3:00PM wednesday

- Finalize Program Space List
- Scenario Refinement
 - Enrollment
 - Staffing Costs
 - Operating Costs
 - Program Capacity
 - Site Development
- Next Steps

Community Open House - C2

Location: tbd **9**
Time: 1PM - 3:30PM wednesday

- Public Forum and Listening Stations
 - Program Opportunities
 - Site Schemes
 - Sustainability
 - Cost / Schedule

School Board Meeting - A1

Location: tbd **14**
Time: tbd monday

- Committee Meeting Updates
- Project Status and Overview

Advisory Committee Workshop - B5

Location: tbd **24**
Time: 12:30PM - 3:00PM thursday

- Finalize Program
- Finalize Scenario Recommendation
- Finalize Cost/Budget

JUNE

Advisory Committee Workshop - B6

Location: tbd **11**
Time: 12:30PM - 3:00PM monday

- Present Final Masterplan

School Board Meeting - A2

Location: tbd **11**
Time: tbd monday

- Committee Meeting Updates
- Project Status and Overview
- Recommend Masterplan to School Board

JULY

School Board Approval

Location: tbd **12**
Time: tbd thursday

- Bond Language Due

SEPTEMBER

Bond Election

Location: tbd **6**
Time: tbd thursday

- Vote!

GROUP KEY: A: SCHOOL BOARD MEETINGS B: ADVISORY COMMITTEE C: COMMUNITY D: TEACHER / STAFF



Committee Consensus Recommendation

Description

As the Advisory Committee approached completion of the planning and decision making timeline, the group successfully vetted multiple scenarios to accommodate future enrollment projections. The group decided that current and future capacity needs would need to be accommodated with an additional K-4 School and new K-4 School to replace Heck Quaw (Scenario 2), in addition to modifications to Saddle Peak and planning for a future Middle School.

Scenario 2:

PHASE 1:

Build 2 New (500 Student) Elementary Schools
 (1) Elementary School to Replace Heck-Quaw
 Build Adequate Commons/Cafeteria for Saddle Peak
 Master Plan Additional Site for Future Middle School

PHASE 2:

Build New (700 Student) Middle School (Date TBD)

BOND:

Purchase property for 2 Elementary Schools (10 Acres)
 Purchase property for future Middle School (15 Acres)
 Cost to Design and Build (2) New Elementary Schools
 Cost to Design and Renovate Saddle Peak Commons

Based on the demographic report that was provided, the committee weighed several options including re-organization of grade levels. It became abundantly clear through these various options that there was no clear advantage to re-organizing grade levels given the functional capacity of the existing middle school. However, there was general concern across the whole

committee regarding the potential size of the middle school as growth in Belgrade is realized and the Middle School grows. Because of this, it was unanimous across the committee that the school district needs to include the purchase of property for a future middle school as part of the bond for these projects to better prepare the pending growth as well as lessen the burden in the future.

The committee felt strongly that Heck-Quaw needed to be replaced to better satisfy the disparity across the elementary school educational experience. Containing one elementary school in two separate buildings poses several concerns to student and staff safety while creating educational setbacks and culture issues.

Through the facility assessment of each facility, there was wide concern regarding the commons/cafeeteria space within Saddle Peak Elementary School. The capacity of this space and functional operation has significant impact to class scheduling and affects educational opportunities for the students and staff. It is recommended that the school district include an addition/renovation to Saddle Peak to optimize this situation.

Through this process, the committee feels this is the right approach for Belgrade School District. This solution satisfies all of the immediate growth concerns and takes steps to remedy immediate educational challenges as well as plans for future needs at the middle school.

Goals & Visions: Overview

The Future of Education

In order to push the boundaries of the Advisory Committee, the team engaged the members in a series of discussions and exercises designed to envision an idealistic future for the Belgrade School District and Belgrade community itself. Through these discussions and activities, a framework developed, shaping the values, visions, and concerns for the future. These activities proved to be an essential tool, connecting the committee and generating thought-provoking discussions among the committee and community.



Exercise: Hopes and Fears

Planning for the Future

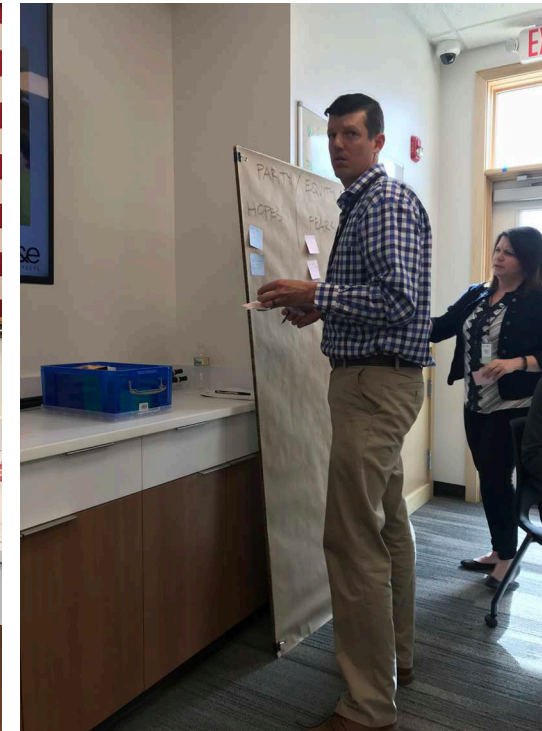
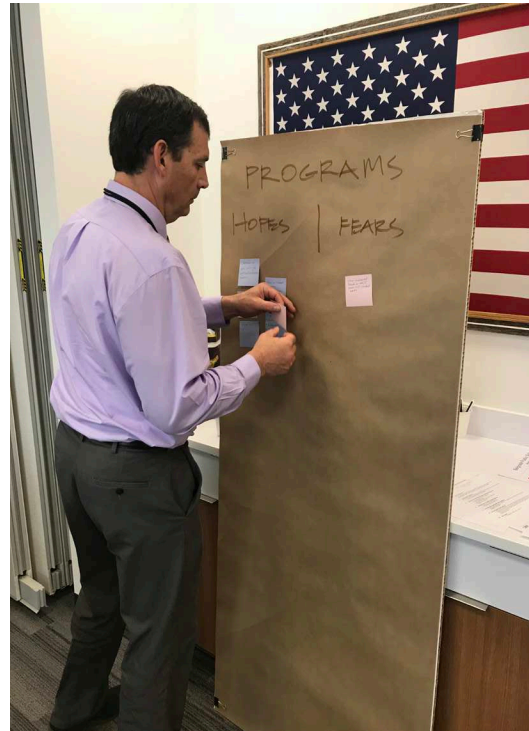
The early days of school programming can bring both excitement and apprehension. To address these feelings, the Advisory Committee engaged in a group activity called “Hopes and Fears”.

Five topics common in school design were posted as initial points of discussion: District Operations, Parity and Equity, Programs, Student Development, and Culture and Climate. Guided by the design team, the Advisory Committee discussed their hopes and fears surrounding these topics. As they talked, committee members wrote down their feelings on Post-It notes and affixed them to the topic boards. At the end of the exercise, a comprehensive documentation of the committee’s hopes and fears remained.

The purpose of this exercise was to find a common ground between those involved in planning the future of the Belgrade School District, as well as discover their concerns early as we start planning future discussions.

The following is a documentation of the Hopes and Fears discussed surrounding these points:

Parity / Equity	District Operations
Culture / Climate	Student Development
Programs	



DISTRICT OPERATIONS

HOPES

- Administration is awarded adequate funding and is able to assign funds where needed
- Funds are allocated to drive student success **(9 members)**
- Board will focus on student learning and supporting administrators and teachers **(5 members)**
- Equity in budgeting schools
- Be innovative rather than being last in the district to implement something
- Hope this process survives past May 8th, 2018 (board election day)
- Provide support, not road blocks
- Abandon Heck/Quaw
- Provide enough space to accommodate community use **(3 members)**
- Better transparency of financials and funding
- Tendency towards lower maintenance liability with modernity **(3 members)**

FEARS

- Decreased funding with dwindling budgets and levies not passing
- Levy/bonds not passing
- Will continue to focus on business and facilities to the exclusion of instruction **(5 members)**
- No money
- Retaliation when questions are asked or concerns are made/presented
- Administration makes choices that are fast and easy, but not best for district
- Students not at forefront of decisions

*(# members) at the end of statement indicates the number of advisory council members who saw this as a major hope or fear

PARITY/EQUITY

HOPES

- Each school has access to some technology across the board
- New school for Heck/Quaw **(10 members)**
- Building built in the community
- Will provide facilities that are similar and materials that are also equitable **(5 members)**
- Next school built in a community setting - not too close to the others **(2 members)**
- Equal opportunity at each elementary school
- Provide support, not road blocks
- Abandon Heck/Quaw
- Provide enough space to accommodate community use **(4 members)**
- Better transparency of financials and funding
- Tendency towards lower maintenance liability with modernity

FEARS

- Schools not close together or equitable
- Convenience will beat the best decision
- Equity in spending between schools
- Money will limit our ability to provide all we need
- New schools create negative views of other schools
- Elementary school will feel separate from rest of district **(1 member)**
- Nothing will improve for Heck/Quaw **(1 member)**

*(# members) at the end of statement indicates the number of advisory council members who saw this as a major hope or fear

PROGRAMS

HOPES

- All schools will be able to develop and follow standards-based instruction consistently
- Focus on student learning, rather than teaching programs **(5 members)**
- Continue to grow with great curriculum and elective choices
- Alternative school will gain a permanent location **(2 members)**
- Plenty of interior and exterior space with breakout, work, and multipurpose rooms as well as gym space **(6 members)**
- STEM in K - 4th grades **(2 members)**
- Capitalize on technology **(1 member)**
- Provide state of the art curriculum and professional development opportunities **(4 members)**
- Continued growth in STEM areas

FEARS

- Each school operates autonomously and creates inconsistencies within the district
- Resources go toward non-student centered ideas **(2 members)**
- Not enough money for the amount of programs we want in our schools
- Union involvement based on adult needs, rather than student needs
- Not enough resources will be dedicated to curriculum resources
- Time
- Lack of training in designated programs

*(# members) at the end of statement indicates the number of advisory council members who saw this as a major hope or fear

STUDENT DEVELOPMENT

HOPES

- Continue to have robust electives in middle school **(2 members)**
- Students first - make decisions based on student needs and opportunities
- Students should be first in all decisions
- Student-centered-oriented buildings
- Will work to meet the needs of all students
- Students remain priority #1 in regards to growth, well-being, as well as academics **(9 members)**
- Hope that this committee is able to develop a plan to support the growth of each student
- Students who are energized and excited to learn
- Provide better social/emotional learning **(1 member)**
- Give more opportunities for student choice and what is best for kids
- Standalone alternative school with a CTE focus, not just a credit recovery program **(2 members)**
- New facilities have extra field space, i.e. soccer field, softball complex, etc. **(3 members)**

FEARS

- Not all aspects are considered when creating new schools and some students suffer
- 5th - 8th grades will become too large in size and students will, in turn, become numbers rather than names
- Students will get mired down with test scores
- Focus will be on adults rather than on students
- Won't support students with mental health issues adequately
- Student growth will come second to space issues **(2 members)**
- In race for space, social spaces for kids will be cut and converted
- Arts and humanities programs get phased out

*(# members) at the end of statement indicates the number of advisory council members who saw this as a major hope or fear

CULTURE AND CLIMATE

HOPES

- Hope that a new school promotes a positive staff climate
- Maintain a link to the past
- Not a large school - hoping for a community school
- Continue to maintain small town feel
- Collaborations and support across schools within the community **(8 members)**
- Commercial tax base growth
- Small town neighborhood schools
- Community can believe in what the district is trying to accomplish and trusts them **(7 members)**
- Thinking about students in all decisions **(2 members)**

FEARS

- Some community members and educators fear change and will refuse to move forward
- Successful launch into class AA school community **(2 members)**
- Becoming too much like Bozeman - not connected to school
- Community will be in denial about growth
- Schools will be too large
- Lose the intimate community feel

*(# members) at the end of statement indicates the number of advisory council members who saw this as a major hope or fear

Guiding Principles

A Guiding Hand

The information gathered from the “Hopes and Fears” group exercise established the first guiding principles. The committee broke into small groups to discuss, refine and set goals for the guiding principles presented to them. Over the course of the planning process, the committee continued to refine the guiding principles, while using them to inform and guide the decision-making process.

The Principles:

District Operations: Create a network of community-centered campuses across Belgrade that lead the region in innovative and cost-effective facility management. Review of total cost of ownership, including first costs and operating costs, will be the starting point for all design and sustainability decisions.

Programs: Provide facilities that inspire innovation and perpetuate the historical success of Belgrade’s diverse curriculum and elective offerings. The facilities need to be flexible and adaptable over time to support shifts in programs, best practices in teaching and learning, technology, and student growth.

Parity/Equity: Ensure that facilities provide equal opportunities to all students and teachers across the Belgrade community. Facilities should instill pride and a consistent identity throughout the district.

Student Development: Provide facilities that support the diverse individual needs of each student and inspire life-long learning. Create a welcoming and inclusive environment where all students, staff, and parents feel a strong sense of belonging.

Culture/Climate: Create a unique, community-focused, sense of place where the history of Belgrade is recognized and respected, but its next generation is defined by innovative educational space for the 21st Century. Facilities should encourage students to understand the past, but seek to define the future.

DISTRICT OPERATIONS

Guiding Principle

Create a network of community-centered campuses across Belgrade that **lead the region in innovative and cost-effective facility management**. Review of the total cost of ownership, including first costs and operating and maintenance costs, will be the starting point for all design and sustainability decisions.

Goals

- Provide an innovative environment for all K-12 programs
- Prepare students for jobs of the future by creating facilities which support and encourage innovation
- Present facilities that expand and extend learning beyond the status quo
- Utilize technology to create a personalized learning experience



PROGRAMS

Guiding Principle

Provide facilities that **inspire innovation and perpetuate the historical success of Belgrade's diverse curriculum** and elective offerings. The facilities need to be flexible and adaptable over time to support shifts in programs, best practices in teaching and learning, technology, and student growth.

Goals

- Provide an innovative environment for all K-12 programs
- Prepare students for jobs of the future by creating facilities which support and encourage innovation
- Present facilities that expand and extend learning yond the status quo
- Utilize technology create a personalized learning experience

PARITY | EQUITY

Guiding Principle

Ensure that facilities provide **equal opportunities to all students and teachers** across the Belgrade community. Facilities should instill pride and a consistent identity throughout the District.

Goals

- Provide equal education in all schools
- Provide equitable access to technology, including upgrades as well as innovation
- Equitable facilities across the district, including either a full scale remodel or replacement of Heck-Quaw Elementary
- Create a long-range, preventative maintenance plan
- Unify current district branding; create a strong “Panther” identity
- Instill student pride and community support
- Improve staff retention



STUDENT DEVELOPMENT

Guiding Principle

Provide facilities that support the diverse individual needs of each student and inspire life-long learning. Create a welcoming and inclusive environment where **all students, staff, and parents feel a strong sense of belonging.**

Goals

- Students need to continuously be the primary focus and behind all district decisions
- Continue to offer robust electives in all schools
- Address space for alternative learners
- Promote flexibility within classroom space, such as moveable walls and cabinets
- Give students opportunities to choose learning spaces inside the classroom environment
- Additional/breakout spaces in each school to be utilized for diverse learning settings
- Provide adequate common spaces for student and community gathering
- Provide a welcoming environment to families and students alike
- Include space for services utilized by students outside the classroom; i.e. mental health, OT/PT, etc.

CULTURE | CLIMATE

Guiding Principle

Create a unique, community-focused, sense of place where **the history of Belgrade is recognized and respected**, but its next generation is defined by innovative educational space for the 21st Century. Facilities should encourage students to understand the past, but seek to define the future.

Goals

- Impart job ready skills and create well-rounded individuals that seek to become lifelong learners
- Community centered schools that reflect Belgrade's rich history
- Walkable neighborhood schools
- Build upon and enrich community pride



Existing Facility Assessments

What We Know

As a part of any master plan process, it is important to start with the known commodities within the district. For this reason, the design team toured each school with each principal to gain insight regarding the positive attributes of each school as well as the current challenges. In addition, the team utilized this assessment to understand how each classroom is used programmatically or educationally.

To better understand the impacts of potential student population growth, the team and committee need to understand the functional capacity of each school, ie, the capacity at which the school is able to operate without impacting educational goals and standards. As a part of this analysis that leads into the various scenarios, functional capacities were established to better understand how much growth each school could endure before the growth begins to impact the educational environment of each school.

Functional capacities are established by calculating 90% of OPI Class Size limits multiplied by the number of teaching stations in each school. Because OPI Class Size limits vary between grade levels, this was calculated based on existing grade alignments per elementary school. For the middle school, this is taken a step further by calculating the utilization rate for each classroom on top of the functional capacity to accommodate for teacher preparation periods. Because Belgrade Middle School is a 7 period school and teachers teach 6 out of the 7 periods, a utilization rate of 85% was utilized to determine the final functional capacity for the middle school.

Heck-Quaw Elementary

What We Know

Current Enrollment: 472

Pre-K:	33 Students; 2 classes
Kindergarten:	97 Students; 6 classes
First Grade:	91 Students; 5 classes
Second Grade:	82 Students; 4 classes
Third Grade:	92 Students; 4 classes
Fourth Grade:	97 Students; 4 classes

Functional Capacity: 507 (Influenced by space within Quaw)

Building Size:

Gross Area:	66,847 SF
Area per Student:	145 SF
Teaching Stations:	26
5 SPED Resource Title 1 Rooms	

Positive Attributes:

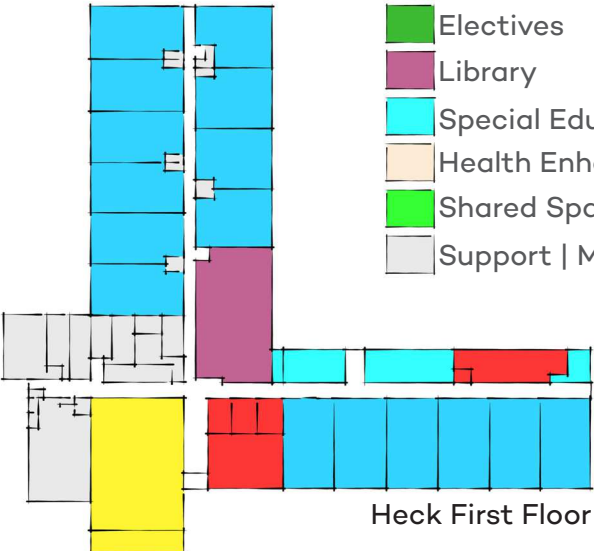
- Historic building with character (Quaw)
- Includes Pre-School
- High Community Use

Current Challenges:

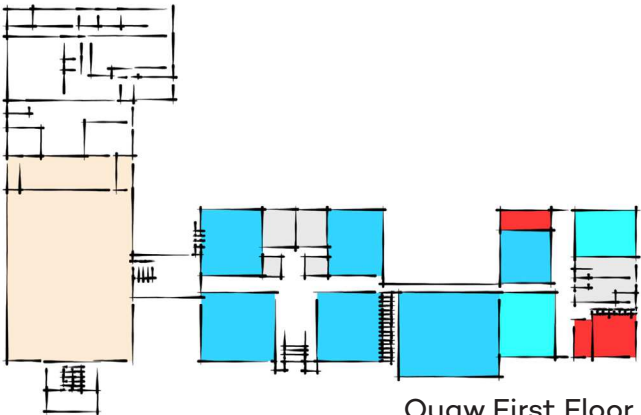
- Major safety issue with two buildings across a busy street
- Lost instruction time due to crossing the street for classes
- Schools are outdated: no controlled acces or ADA accessibility
- Lack of access to technology
- No dedicated band room (5th Grade integration would need)
- No breakout/multi-purpose spaces
- Inadequate administrative areas
- Playgrounds are not large enough
- Nearing Functional Capacity

Floor Plans

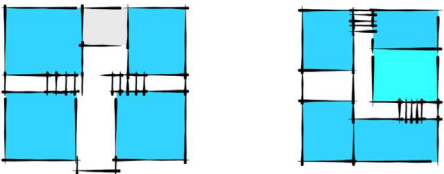
- Classroom
- Administration
- Commons
- Electives
- Library
- Special Education
- Health Enhancement
- Shared Spaces
- Support | Mechanical



Heck First Floor



Quaw First Floor



Quaw Second Floor

Ridge View Elementary

What We Know

Current Enrollment: 481

Kindergarten:	93 Students; 5 classes
First Grade:	97 Students; 5 classes
Second Grade:	104 Students; 5 classes
Third Grade:	95 Students; 4 classes
Fourth Grade:	86 Students; 4 classes

Functional Capacity: 472

Building Size:

Gross Area:	72,463 SF
Area per Student:	150 SF
Teaching Stations:	26
4 SPED Resource Title 1 Rooms	

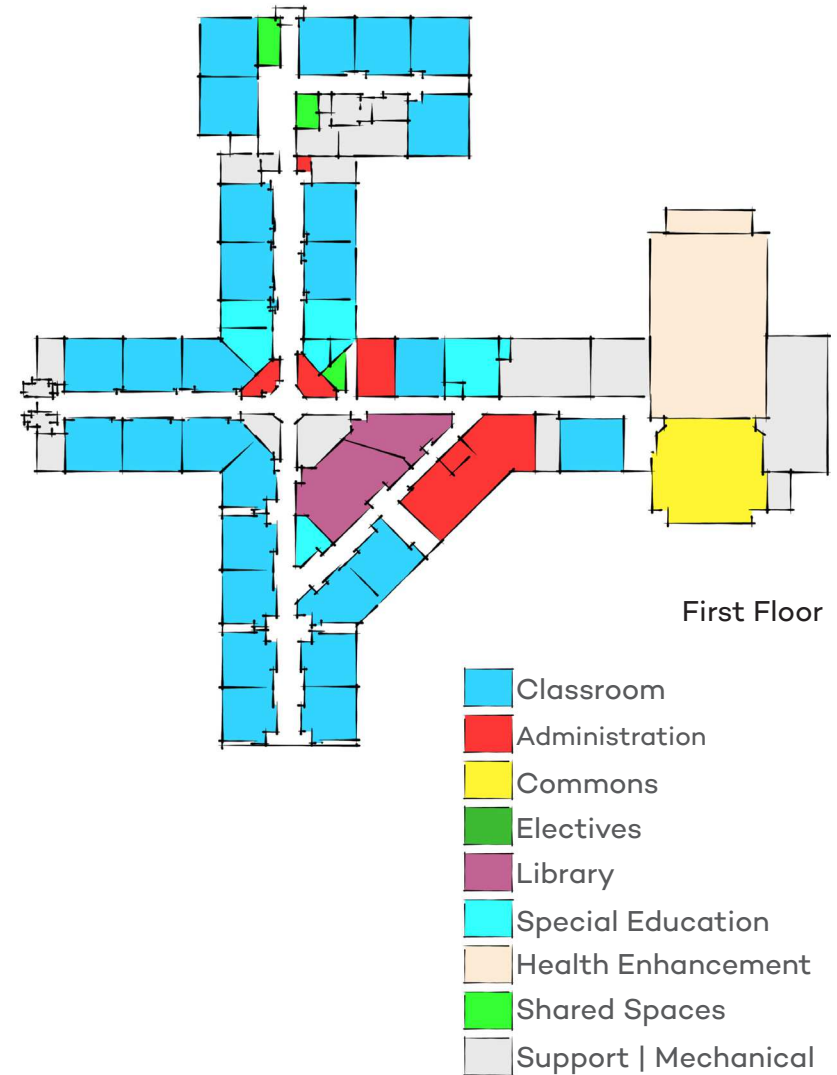
Positive Attributes:

- Recent remodel solved immediate challenges
- Large playground and site area
- Site allows for two parent drop-off areas
- High community use

Current Challenges:

- Second Grade is over OPI class limits at all classes
- No dedicated band room (5th grade integration would need)
- Lack of access to technology
- Relationship of cafeteria|commons to playground is challenging
- Current enrollment is over Functional Capacity

Floor Plans



First Floor

Saddle Peak Elementary

What We Know

Current Enrollment: 465

Kindergarten:	79 Students; 5 classes
First Grade:	98 Students; 5 classes
Second Grade:	89 Students; 5 classes
Third Grade:	92 Students; 4 classes
Fourth Grade:	107 Students; 4 classes
(Includes Life Skills Education)	

Functional Capacity: 461

Building Size:

Gross Area:	59,473 SF
Area per Student:	127 SF
Teaching Stations:	24
2 SPED Resource Title 1 Rooms	

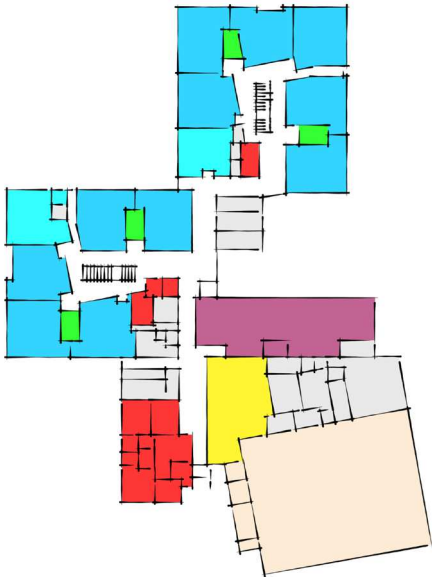
Positive Attributes:

- Advanced opportunities for teaching with technology
- Teachers can loop/stay with student for two years
- High community Use

Current Challenges:

- Currently sending students to Heck-Quaw to avoid OPI class size restrictions
- Poor cafeteria size and layout
- Break-out spaces have been repurposed
- Safety concern for kids crossing bus lane to get to school
- No dedicated band room (5th Grade integration would need)
- Lack of access to individual technology
- Inadequate administrative space
- Current enrollment is over Functional Capacity

Floor Plans



First Floor



Second Floor

- Classroom
- Administration
- Commons
- Electives
- Library
- Special Education
- Health Enhancement
- Shared Spaces
- Support | Mechanical

Belgrade Middle School

What We Know

Current Enrollment: 1083

Fifth Grade:	279 Students
Sixth Grade:	282 Students
Seventh Grade:	253 Students
Eighth Grade:	262 Students

Functional Capacity: 1446

Building Size:

Gross Area:	151,095 SF
Area per Student:	129 SF
Teaching Stations:	66
8 SPED Resource Title 1 Rooms	

Positive Attributes:

- Robust elective programs and STEM programs
- Good separation between younger and older classes
- Good class sizes (approx. 25 students per class)
- Students enjoy library and common spaces
- High community use
- Room to grow into Functional Capacity

Current Challenges:

- Largest middle school in state - concern for functional capacity and sheer size of student body
- No orchestra room
- Gyms do not accommodate school needs

Floor Plans



District Site Analysis

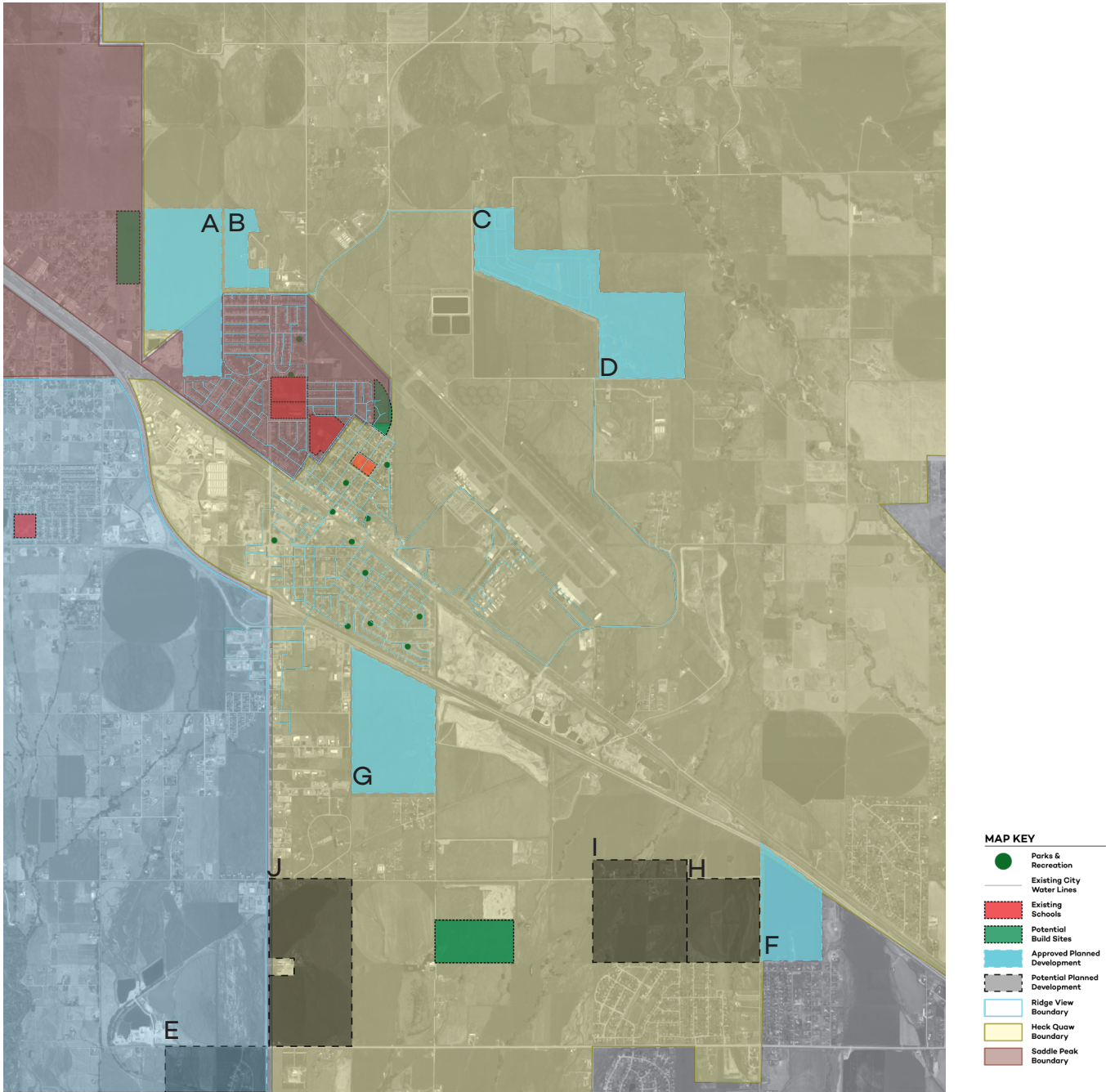
Asset Mapping Exercise

Crucial to any master plan is an understanding of where the growth is occurring, where it may occur, and where possible solutions may be located to alleviate major impacts to the district. As a part of this master plan, the design team met with the City of Belgrade planning department to understand future impacts to the Belgrade School District. From this meeting, the City of Belgrade was able to identify planned residential developments that are currently under construction, planned residential developments currently in the permitting phase, as well as planned residential developments currently in the planning phase.

The City of Belgrade was also able to communicate rumored planned developments within city limits or within school district limits that have not been turned in to the planning department but have a high probability of occurring.

This information was presented to the committee to help them further understand potential impacts to the school district. From this information, the committee utilized an exercise to locate local assets that could influence the educational environment for current and future schools. The goal of this exercise is to help determine where to locate potential schools in the future.

As a result, the committee felt that the best location for the elementary school to replace Heck-Quaw would be north west of Saddle Peak near the two approved subdivisions noted as A and B on the following map. Elementary #4 was recommended to be located south of Interstate 90 adjacent to Alaska Rd near the potential development noted as J. The committee felt that this was also a great potential location for the future middle school.



APPROVED PLANNED DEVELOPMENTS

- A: Prescott Properties
280 acres
0 completed units
1600 additional units
- B: Henson Subdivision
60 acres
0 completed units
311 additional units
- C: Ryan Glen
170 acres
200 completed units
157 additional units
- D: Meadow Lark Ranch
100 acres
170 completed units
200 additional units
- E: R Bar N Subdivision
200 acres
0 completed units
170 additional units
- F: Gallatin Heights
300 acres
150 completed units
150 additional units

POTENTIAL PLANNED DEVELOPMENTS

- G: Davis Property
250 acres
500 estimated units
- H: Tatarka Property
160 acres
200 estimated units
- I: Carter Property
160 acres
70 estimated units
- J: Dykstra Property
280 acres
300 estimated units

Capacity Scenarios

Method 1 and Method 2

As outlined in the Demographic Report, there were two methods explored and analyzed to determine enrollment projects over the next ten years. To summarize each method:

Method 1

The first method utilizes two models to estimate growth. The first utilizes historical data over the past 10 years to develop trends and predict an estimate of future students assuming the historical student growth rates will continue. The second utilizes Gallatin County birth rates and exponential regression modeling to estimate future kindergarten class sizes. With this data, estimates of future students are determined utilizing a Cohort Survival calculation.

Method 2

This method utilizes planned residential development known to the Belgrade Planning Department and calculates the number of school age children that may increase due to new housing development.

Please refer to the demographic study for further explanation of the process and information utilized in the capacity and scenario analysis to follow.

Both methods were used as a part of this master plan to provide ranges of solutions for the committee to consider. Method 1 generally has a lower rate of growth compared to Method 2. Overall, the committee felt like the growth facing Belgrade School District is closer to Method 2 and that the district should ultimately be proactive in paying attention to the growth presented in Method 2.

Capacity Scenario 1

Method 1

Method 1 - Scenario 1 would build one new 500 student elementary school to replace Heck-Quaw. In this scenario 5th Grade would remain within the Middle School grade alignment. The existing middle school would remain as is. This scenario was presented as a basis of information for the committee to compare the other scenarios as well as the current capacities at the elementary and middle schools.

This scenario would not satisfy the pending growth at the elementary. The middle school would be able to accommodate growth for about the next 10 years under this demographic method but would be reaching its limit.

For these reasons, the committee felt an additional elementary school was necessary to accommodate growth and planning for the middle school growth should begin as part of this process.

Method 1 - Scenario 1	Current Enrollment	Total Functional Capacity	10 Year Projected Growth
Elementary Schools (K-4)			
Saddle Peak	465	461	
Ridge View	475	472	
New Heck - Quaw	472	500	
Projected Growth			191
Sub-Total	1,412	1,432	1,603
	Variance / Available Future Growth		-171

Method 1 - Scenario 1	Current Enrollment	Total Capacity	10 Year Projected Growth
Middle School (5-8)			
Belgrade Middle School	1,083	1,446	
Projected Growth			257
Sub-Total	1,083	1,446	1,340
	Variance / Available Future Growth		106

Capacity Scenario 1

Method 2

Method 2 - Scenario 1 would build one new 500 student elementary school to replace Heck-Quaw. In this scenario 5th Grade would remain within the Middle School grade alignment. The existing middle school would remain as is. This scenario was presented as a basis of information for the committee to compare the other scenarios as well as the current capacities at the elementary and middle schools.

Much like Method 1 - Scenario 1, this scenario would not satisfy the pending growth at the elementary. The middle school would be able to accomodate growth for about the next 10 years under this demographic method but would be reaching it's limit.

For these reasons, the committee felt an additional elementary school was necessary to accommodate growth and planning for the middle school growth should begin as part of this process.

Method 2 - Scenario 1	Current Enrollment	Total Capacity	10 Year Projected Growth
Elementary Schools (K-4)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Projected Growth			396
Sub-Total	1412	1536	1808
Available Future Growth			-272

Method 2 - Scenario 1	Current Enrollment	Total Capacity	10 Year Projected Growth
Middle School (5-8)			
Belgrade Middle School	1083	1446	
Projected Growth			309
Sub-Total	1083	1446	1392
Available Future Growth			54

Capacity Scenario 2

Method 1

Method 1 - Scenario 2 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would remain within the Middle School grade alignment. The existing middle school would remain as is.

This scenario would satisfy the pending growth at the elementary level and would nicely distribute elementary schools student across 4 elementary schools. The schools would be able to grow into their functional capacities. The middle school would be able to accomodate growth for about the next 10 years under this demographic method but would be reaching it's limit.

The committee felt this solution was the right approach for the elementary district but worried about the size of the middle school even prior to reaching it's capacity. For this reason the committee felt it prudent to continue with this scenario and method with a proposed solution for the middle school growth.

Method 1 - Scenario 2	Current Enrollment	Total Functional Capacity	10 Year Projected Growth
Elementary Schools (K-4)			
Saddle Peak	465	461	
Ridge View	475	472	
New Heck - Quaw	472	500	
Elementary #4	0	500	
Projected Growth			191
Sub-Total	1,412	1,932	1,603
Available Future Growth			329

Method 1 - Scenario 2	Current Enrollment	Total Capacity	10 Year Projected Growth
Middle School (5-8)			
Belgrade Middle School	1,083	1,446	
Projected Growth			257
Sub-Total	1,083	1,446	1,340
Available Future Growth			106

Capacity Scenario 2

Method 2

Method 2 - Scenario 2 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would remain within the Middle School grade alignment. The existing middle school would remain as is.

Much like Method 1 - Scenario 2, this scenario would satisfy the pending growth at the elementary level and would nicely distribute elementary schools student across 4 elementary schools. The schools would be able to grow into their functional capacities. The middle school would be able to accommodate growth for about the next 10 years under this demographic method but would be reaching its limit.

Again, the committee felt this solution was the right approach for the elementary district but worried about the size of the middle school even prior to reaching its capacity. For this reason the committee felt it prudent to continue with this scenario and method with a proposed solution for the middle school growth.

Method 2 - Scenario 2	Current Enrollment	Total Capacity	10 Year Projected Growth
Elementary Schools (K-4)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Elementary #4	0	500	
Projected Growth			396
Sub-Total	1412	2036	1808
Available Future Growth			228

Method 2 - Scenario 2	Current Enrollment	Total Capacity	10 Year Projected Growth
Middle School (5-8)			
Belgrade Middle School	1083	1446	
Projected Growth			309
Sub-Total	1083	1446	1392
Available Future Growth			54

Capacity Scenario 3

Method 1

Method 1 - Scenario 3 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would be integrated with the new and existing elementary schools. The existing middle school would remain as is, as there was no real concern about reaching capacity.

In this method and scenario, we took the existing 5th grade enrollment and added it to the current elementary school (K-4) enrollment to establish the total enrollment for K-5 as it would look today. The committee could quickly determine that building only one additional school to accommodate growth would quickly put the district at the limit of capacity at the elementary level. The other deterrent of this would be the need to accommodate a band room in each of the existing elementary schools. This would either cost more to renovate or add an addition to or would decrease the functional capacity of the school by utilizing an existing classroom.

Because of the pressure this would quickly put on the district for an additional elementary school, the need for band room at each school, and the feeling that growth is happening faster than Method 1 suggests, the committee did not feel the need to explore this option any further.

Method 1 - Scenario 3	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Elementary Schools (K-5)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Elementary #4	0	500	
5th Grade Integration	279		
Projected Growth			256
Sub-Total	1,691	2,036	1,947
Available Future Growth			89

Method 1 - Scenario 3	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Middle School (6-8)			
Belgrade Middle School	804	1,446	
Projected Growth			193
Sub-Total	804	1,446	997
Available Future Growth			449

Capacity Scenario 3

Method 2

Method 2 - Scenario 3 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would be integrated with the new and existing elementary schools. The existing middle school would remain as is, as there was no real concern about reaching capacity.

In this method and scenario, we took the existing 5th grade enrollment and added it to the current elementary school (K-4) enrollment to establish the total enrollment for K-5 as it would look today. The committee could quickly determine that building only one additional school to accommodate growth would not accommodate all of the projected growth for the next 10 years. The other deterrent of this would be the need to accommodate a band room in each of the existing elementary schools. This would either cost more to renovate or add an addition to or would decrease the functional capacity of the school by utilizing an existing classroom.

Because of the pressure this would quickly put on the district for an additional elementary school, the need for band room at each school, the committee did not feel the need to explore this option any further.

Method 2 - Scenario 3	Current Enrollment	Total Capacity	10 Year Projected Growth
Elementary Schools (K-5)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Elementary #4	0	500	
5th Grade Integration	279		
Projected Growth			473
Sub-Total	1691	2036	2164
Available Future Growth			-128

Method 2 - Scenario 3	Current Enrollment	Total Capacity	10 Year Projected Growth
Middle School (6-8)			
Belgrade Middle School	804	1446	
Projected Growth			232
Sub-Total	804	1446	1036
Available Future Growth			410

Capacity Scenario 4

Method 1

Method 1 - Scenario 4 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would remain integrated with the Middle School. A new 700 student middle school would also be built.

Because of the existing capacity of the existing middle school, there were not any real scenarios where that capacity was over it's limit prior to the 10 Year Projected Enrollment. However, there was general concern among the committee that a middle school of nearly 1400 students was too big and that it would need to be split at some point. In this scenario, the middle school would be split into two 700 student schools with the existing middle school having the capacity to expand or take on additional program from the district.

In this method the district would be over-building and would have plenty of space to grow into but is probably not a practical solution for the district if this demographic method was realized. For this reason, the committee felt that this Method and Scenario did not warrant any further exploration.

Method 1 - Scenario 4	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Elementary Schools (K-4)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Elementary #4	0	500	
Projected Growth			191
Sub-Total	1,412	2,036	1,603
Available Future Growth			433

Method 1 - Scenario 4	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Middle School (5-8)			
Belgrade Middle School	1,083	1,446	
Belgrade Middle School #2	0	700	
Projected Growth			257
Sub-Total	1,083	2,146	1,340
Available Future Growth			806

Capacity Scenario 4

Method 2

Method 2 - Scenario 4 would build two new 500 student elementary schools, one of which to replace Heck-Quaw. In this scenario 5th Grade would remain integrated with the Middle School. A new 700 student middle school would also be built.

Because of the existing capacity of the existing middle school, there were not any real scenarios where that capacity was over its limit prior to the 10 Year Projected Enrollment. However, there was general concern among the committee that a middle school of nearly 1400 students was too big and that it would need to be split at some point. In this scenario, the middle school would be split into two 700 student schools with the existing middle school having the capacity to expand or take on additional program from the district.

Because of the higher enrollment projections the elementary schools would have a lower capacity for growth. The committee did like spreading 1800 elementary students across 4 elementary schools equal to about 450 students per school. The committee felt this scenario was more realistic with the projections of growth and was worth studying further.

Method 2 - Scenario 4	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Elementary Schools (K-4)			
Saddle Peak	465	512	
Ridge View	475	524	
New Heck - Quaw	472	500	
Elementary #4	0	500	
Projected Growth			396
Sub-Total	1412	2036	1808
Available Future Growth			228

Method 2 - Scenario 4	Current Enrollment	Total Capacity	10 Year Projected Enrollment
Middle School (5-8)			
Belgrade Middle School	1083	1446	
Belgrade Middle School #2	0	700	
Projected Growth			309
Sub-Total	1083	2146	1392
Available Future Growth			754

Scenario Cost Analysis

Scenario 1

Building on the capacity scenarios, the committee was presented a cost analysis for the prominent scenarios to be compared. It should be noted that these cost analysis scenarios do not include the cost of purchasing land or off-site improvements that may be required due to unknown informations.

The first scenario assumes building two new 550 student elementary schools, one to replace Heck-Quaw. The committee felt it prudent to study the costs of a larger elementary school. Also included is the cost for improvements to Saddle Peak and Ridge View to accommodate STEM and Music to offer more flexibility to the district for the future.

The soft costs are figured as a percentage of all the projects and includes: FF&E, Commissioning, Technology upgrades, Architecture/ Engineering fees, and permit fees.

SCENARIO 1					
Building Costs	Students	SF/Student	Building Area	Cost/SF	Subtotal
Elementary #4	550	125	68,750	\$215.00	\$14,781,250.00
Elementary (Heck-Quaw)	550	125	68,750	\$215.00	\$14,781,250.00

Site Development Costs	Area (SF)		Area (SF)	Cost/SF	Subtotal
On-Site - Elementary #4			175,000	\$6.00	\$1,050,000.00
On-Site - Elementary (Heck-Quaw)			175,000	\$6.00	\$1,050,000.00

Sub-Total
\$31,662,500.00

School Addition Costs			Addition Area	Cost/SF	Subtotal
Saddle Peak (STEM, Music)			3,000	\$250.00	\$750,000.00
Ridge View (STEM, Music)			3,000	\$250.00	\$750,000.00

Sub-Total
\$1,500,000.00

Soft Costs	Percentage			Cost/SF	Subtotal
FF&E,Arch/Eng/Commission/Te ch	20%				\$6,632,500.00

Total
\$39,795,000.00

Scenario Cost Analysis

Scenario 2

Scenario 2 shows costs for building two 500 student elementary schools, one to replace Heck-Quaw. Also included is the cost for improvements to Saddle Peak for a new Commons/Cafeteria.

This scenario did not include any renovations or additions to Ridge View or Saddle Peak to accommodate Music or STEM.

Again, the soft costs are figured as a percentage of all the projects and included: FF&E, Commissioning, Technology upgrades, Architecture/Engineering fees, and permit fees.

SCENARIO 2					
Building Costs	Students	SF/Student	Building Area	Cost/SF	Subtotal
Elementary #4	500	125	62,500	\$215.00	\$13,437,500.00
Elementary (Heck-Quaw)	500	125	62,500	\$215.00	\$13,437,500.00
Site Development Costs	Area (SF)	Cost/SF			Subtotal
On-Site - Elementary #4	175,000	\$6.00			\$1,050,000.00
On-Site - Elementary (Heck-Quaw)	175,000	\$6.00			\$1,050,000.00
School Addition Costs	Area (SF)	Cost/SF			Subtotal
Saddle Peak Commons	5,000	\$250.00			\$1,250,000.00
Soft Costs	Percentage			Cost/SF	Subtotal
FF&E, Arch/Eng/Commission/Te ch	20%				\$5,795,000.00
Total					\$36,020,000.00

Scenario Cost Analysis

Scenario 3

Scenario 3 was a phased approach to the recommended solution of two new elementary schools. The thought here from the committee was that the district try to pass bonds in a sequential manner. The first phase would be to build Elementary School #4. Once that school was complete, Phase 2 would be to pass a new bond and build a new school to replace Heck-Quaw.

The rationale behind this was that it would be a smaller burden for the community to tackle a little bit at a time. For the Heck-Quaw Replacement, a 3% inflation factor has been applied to account for future cost increases.

Phase 3 of this approach would be to pass a bond and build middle school #2 with potential renovations to the existing middle school.

SCENARIO 3

Elementary #4					
Building Costs	Students	SF/Student	Building Area	Cost/SF	Subtotal
Elementary #4	550	125	68,750	\$215.00	\$14,781,250.00
Site Development Costs					
Area (SF)	Cost/SF				Subtotal
On-Site - Elementary #4	175,000	\$6.00			\$1,050,000.00
Soft Costs					
Percentage				Cost/SF	Subtotal
FF&E,Arch/Eng/Commission/Te ch	20%				\$3,166,250.00
Sub-Total					\$18,997,500.00

Elementary (Heck-Quaw Replacement)					
Building Costs	Students	SF/Student	Building Area	Cost/SF	Subtotal
Elementary (Heck-Quaw)	550	125	68,750	\$215.00	\$14,781,250.00
Site Development Costs					
Area (SF)	Cost/SF				Subtotal
On-Site - Elementary	175,000	\$6.00			\$1,050,000.00
Soft Costs					
Percentage				Cost/SF	Subtotal
FF&E,Arch/Eng/Commission/Te ch	20%				\$3,166,250.00
Sub-Total					\$18,997,500.00

Total w/ 3% Inflation	
2021	\$38,564,925.00
2022	\$39,134,850.00
2023	\$39,704,775.00
2024	\$40,274,700.00

Scenario Cost Analysis

Middle School

In all of the scenarios, it is prudent to begin planning for a new middle school and the committee felt the district should begin planning now even though the need may not be pressing.

Like the other cost scenario analysis, this cost analysis assumes cost for the new school, on-site improvements, and soft costs. Not included are the costs for property or offsite improvements.

The analysis shows a 3% inflation over the next 10 years for a new middle school.

At this time, the committee recommends the district purchase property for a future middle school.

New Middle School

Building Costs	Students	SF/Student	Building Area	Cost/SF	Subtotal
Middle School #2	700	165	115,500	\$215.00	\$24,832,500.00

Site Development Costs	Area (SF)	Cost/SF		Subtotal
On-Site - Elementary #4	325,000	\$6.00		\$1,950,000.00

Soft Costs	Percentage		Cost/SF	Subtotal
FF&E,Arch/Eng/Commission/Te ch	20%			\$5,356,500.00

Sub-Total
\$32,139,000.00

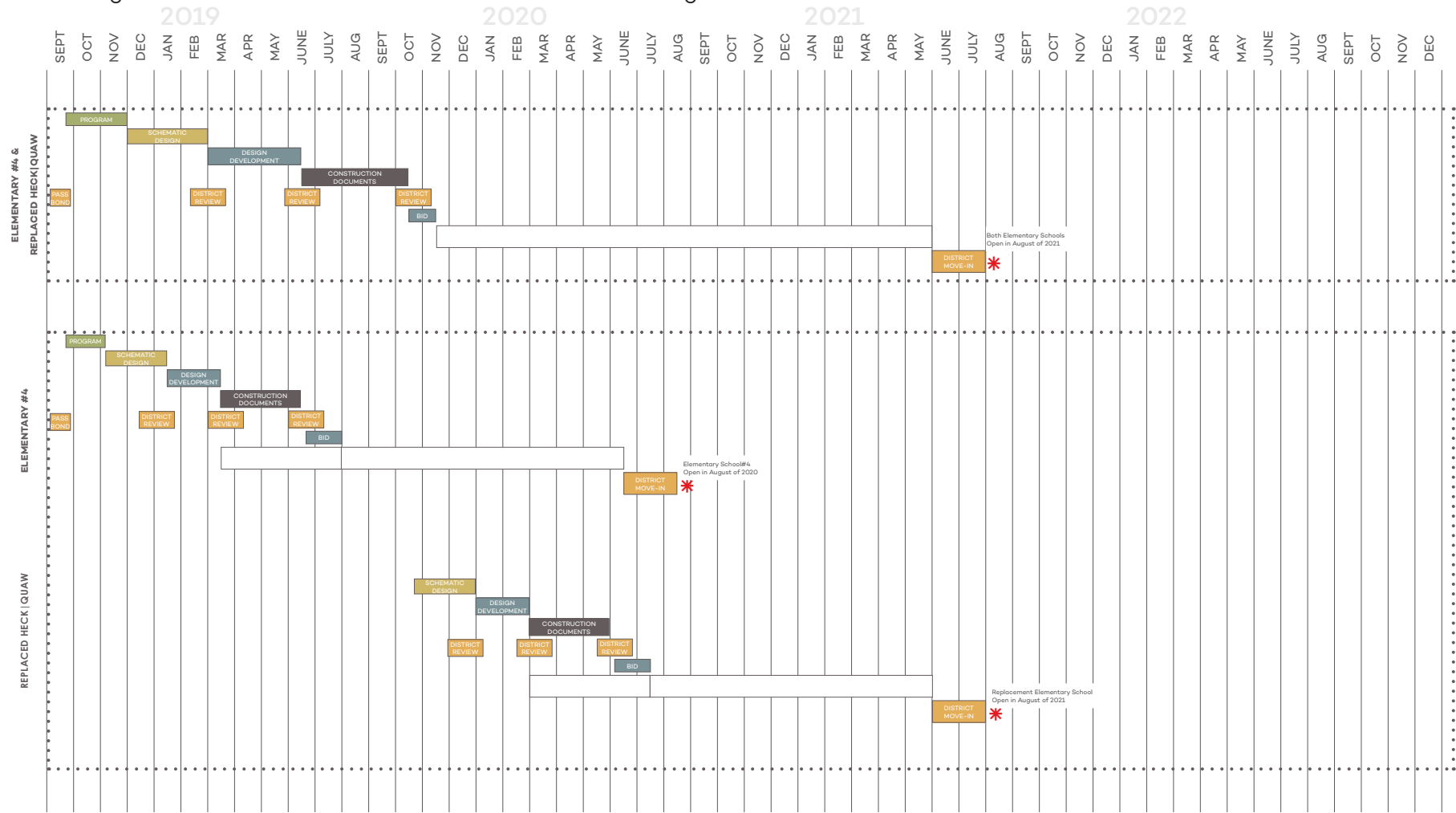
Total w/ 3% Inflation	
2021	\$33,103,170.00
2022	\$34,067,340.00
2023	\$35,031,510.00
2024	\$35,995,680.00
2025	\$36,959,850.00
2026	\$37,924,020.00
2027	\$38,888,190.00
2028	\$39,852,360.00

Scenario Schedule Analysis

Scenario 1 and 2

The schedules for Scenario 1 and Scenario 2 can be looked at a couple ways. Below are two different options. The first option would be to design and construct two new elementary schools to be open by Fall of 2021. The second option would be to sequentially design and build two new elementary schools, with the first school open in Fall of 2020 and the second in Fall of 2021.

The first option would give the district adequate time to plan, design, and construct a well thought out solution. There would be some efficiencies to designing the schools simultaneously. The second option would require design to start immediately after a bond is passed, as early as this fall, in order to have the first school open by Fall of 2020. Generally, the second option is a much faster design and has inherent risks associated with the timing.



Scenario Schedule Analysis

Scenario 3

Scenario 3, as outlined previously, would be a phased approach. After the initial bond is passed, design would need to begin in earnest to ensure completion by Fall of 2020. The district would need to decide when the best time would be to go out for the second bond, prior to completion of the first school or after the first school is complete.

There is also inherit risk in this approach as well. There was concern from the committee that the first bond might pass, but the second bond for the second elementary school might not. Because of this, the committee felt the best option was to pursue a bond for both schools at the same time.

