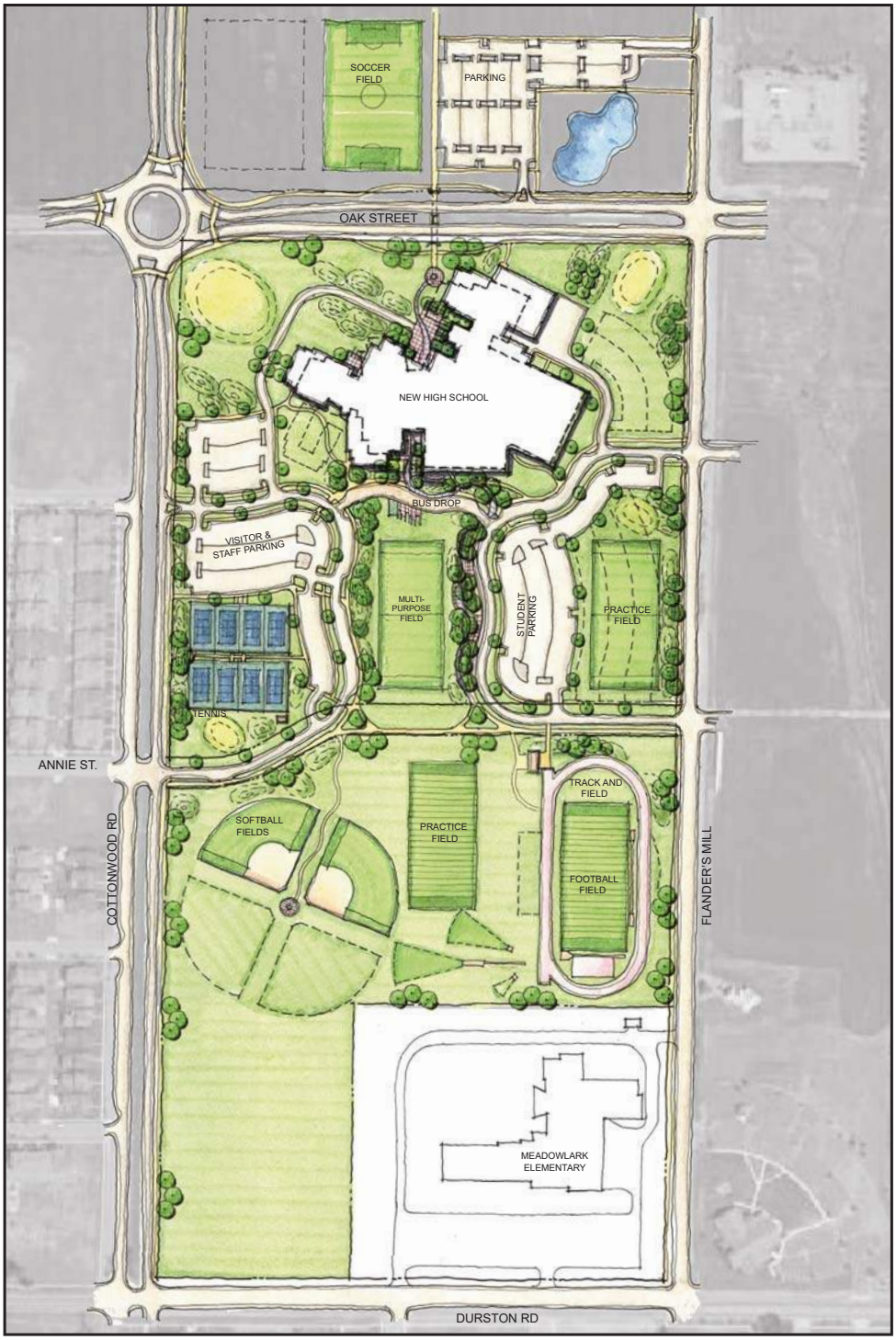


Educational Specifications

Bozeman High Schools

August 2017

TABLE OF CONTENTS

VOLUME 1 of 1

PAGE LEFT BLANK
INTENTIONALLY

EXECUTIVE SUMMARY

BOZEMAN NEW HIGH SCHOOL

EDUCATIONAL SPECIFICATIONS / PROGRAMMING

Educational Specifications serve as an overall guide in design and implementation of the physical structure in relationship to the curriculum and pedagogy of the school. In order to adequately prepare these guidelines the design team and Bozeman School representatives embarked upon a series of programming and conceptual design workshops, design sessions, staff meeting, and community gathering from September 2016 to July 2017.

This design process and planning process embarked upon uncovering all of the parameters of this transformation. What does a two-high school community look like, how will parity and equity be achieved, will identical programs be duplicated at both schools, and what is the condition of the existing high school facilities? This entire process sought a deep level of both school stakeholder and community, involvement engagement and support.

Guiding Principles were identified and used to evaluate decisions, ideas, and concept development. The primary vision goals were identified as flows in no priority order:

a. Culture – Calibrate Heritage & Cultural Vibrancy

b. District Operations – Connectedness & Responsible Stewards of Resources

c. Parity/Equity – Provide Opportunities to All Students

d. Programs – Flexible & Adaptive, Facilities that Support Evolving Programs

e. Student Development – Whole Student

f. Attention to Existing Bozeman High School

g. Community Collaboration

h. Keeping the Train on the Tracks – Great Education

i. Take Care of All Needs

Working with the premise of equipping all students with the best learning opportunities and chances for success, the programming committee developed a plan to build a second comprehensive high school and transform and update the existing high school facility. On February 10, 2017, the Board

received the High School Programming Committee's recommendation to construct a second high school and renovate Bozeman High School. This recommendation was approved by the Trustees on February 16, 2017 with the total cost of the project budgeted at $125,000,000. Bozeman Schools presented this plan to the voters and it was overwhelmingly approved. This report documents the interactive and collaborative process, visions, goals, preferred concepts, program of spaces, costs, discussions, explorations, and the culmination of information that ultimately to decisions made, the preferred plan and concepts.

In May, June, and July the design team met with over 20 high school program and user groups including the student council, dining services, and facilities to gain a better perspective on the educational programs, anticipated space needs, important adjacencies, curriculum, and their vision for the new high school. The team also toured their existing spaces to get a better understanding of their curriculums, course offerings and instructional practices. This information was recorded and translated into program specifications and space and adjacency diagrams. It is not surprising that at the first pass of developing the desired number of programmable space allocations that we were a little over 15%, 50,000 SF, higher than our pre-bond allocation. The summary tabulation totaled 355,057 SF, and we had budgeted for 304,000 SF. The process of working on reducing the square footage was a healthy one, it drove us to look for overlapping repetitive spaces, shared collaborative opportunities with better space utilization, and ways to turn non-assignable circulation and corridor space into places of social connections and informal learning. As we explore concept layouts we considered shared space usage, 21st century learning strategies, combined space utilization and found ways to bring the high school back into the range of 305,000 SF.

The enclosed program summary and detailed education specifications will show that the new high school is being designed with the following factors:

- ***Campus:*** 900 parking spaces, 300 of which will be constructed and shared on the city's property to the north. The city site will also contain the competition soccer field. The campus will include separate access lanes for bus and student drop-off, service drives, and separate parking areas for student, staff and visitors. Athletic components include running track and field, 3 practice fields, 8 tennis courts, and 2 softball fields. Future space for a stadium and 2 additional softball fields are observed.
- ***High School Size & Capacity:*** The school is being designed in both 2 and 3 story areas in order to keep the travel distances minimized, allow for good sight-lines, and realized compact cost efficiencies. The high school will be approximately 305,000 SF and house the targeted 1,500 student maximum functional capacity. There is a planned total of 72 total (TS) teaching stations x 26 students/TS x 80% utilization = 1,498 students. Future growth and planned building additions will allow for 1,800 student functional capacity. This addition

will include a Bridger Charter Academy component.

- **Commons (Town Square):** A commons model will be utilized for both the primary social community area and open seating for breakfast and lunch. Planned for one (1) lunch period a food court service model with multiple delivery points will be designed to best meet the demand, offer a variety of menu choices, and keep lines to a minimum.
- ***Admin / Student Services:*** Administration will be de-compartmentalized and distributed for best student access and the ability to adequately monitor the school. Student services will be conveniently located adjacent to or near the town square.
- ***Special Education / Resource:*** A ccollaborative teaching model reduced the number of dedicated classrooms. Specialized spaces that are comfortable, easily accessible are conveniently located and include CCCR/AAS, and TAPS/SEB.
- ***Visual Arts:*** Includes labs for both 2D and 3D art with indoor and outdoor kilns, and plenty of display spaces. Graphics, photography and metal/jewelry will be provided in the adjacent shared CTE labs.
- ***Music:*** Studios for band, orchestra and choir will be organized around a plaza and practice rooms. These spaces will be located adjacent to the performance hall stage.
- ***Performance Hall:*** The performance hall will house 750 seats with a stage sized for full music and drama performances. A separate drama classroom is being provided for their own practice space. The hall can be used for larger lecture and other academic functions.
- ***Athletics / Activities / Health:*** This area includes a primary competition gym with a minimum of 2,500 seat, and two full sized practice courts, two auxiliary gymnasiums that each include one full sized court with 200 spectator seats, and two practice side courts. This area also include fitness/weight, wrestling, and 6 locker rooms.
- ***Library:*** Easily accessible from both town square and the learning communities the library will be full of open and inviting technology enriched study and collaborative spaces.
- ***Career Technical Education:*** CTE will include labs, classrooms and spaces for; Family Consumer Science with culinary arts lab; Business, including DECA store; and Trades & Industry that includes metal, wood and auto shops, Architectural/engineering lab, graphic/photo lab, and supporting spaces and contained outside yard.
- ***Support:*** Ample room for storage, infrastructure, restrooms, maintenance, IT, exterior service and loading dock.

PAGE LEFT BLANK
INTENTIONALLY

GUIDING PRINCIPLES

- HERITAGE
- DIVERSITY
- ADAPTABILITY & FLEXIBILITY
- DISCOVERY & EXPLORATION
- COMMUNITY
- CROSS POLLINATION
- LEARNING STREET

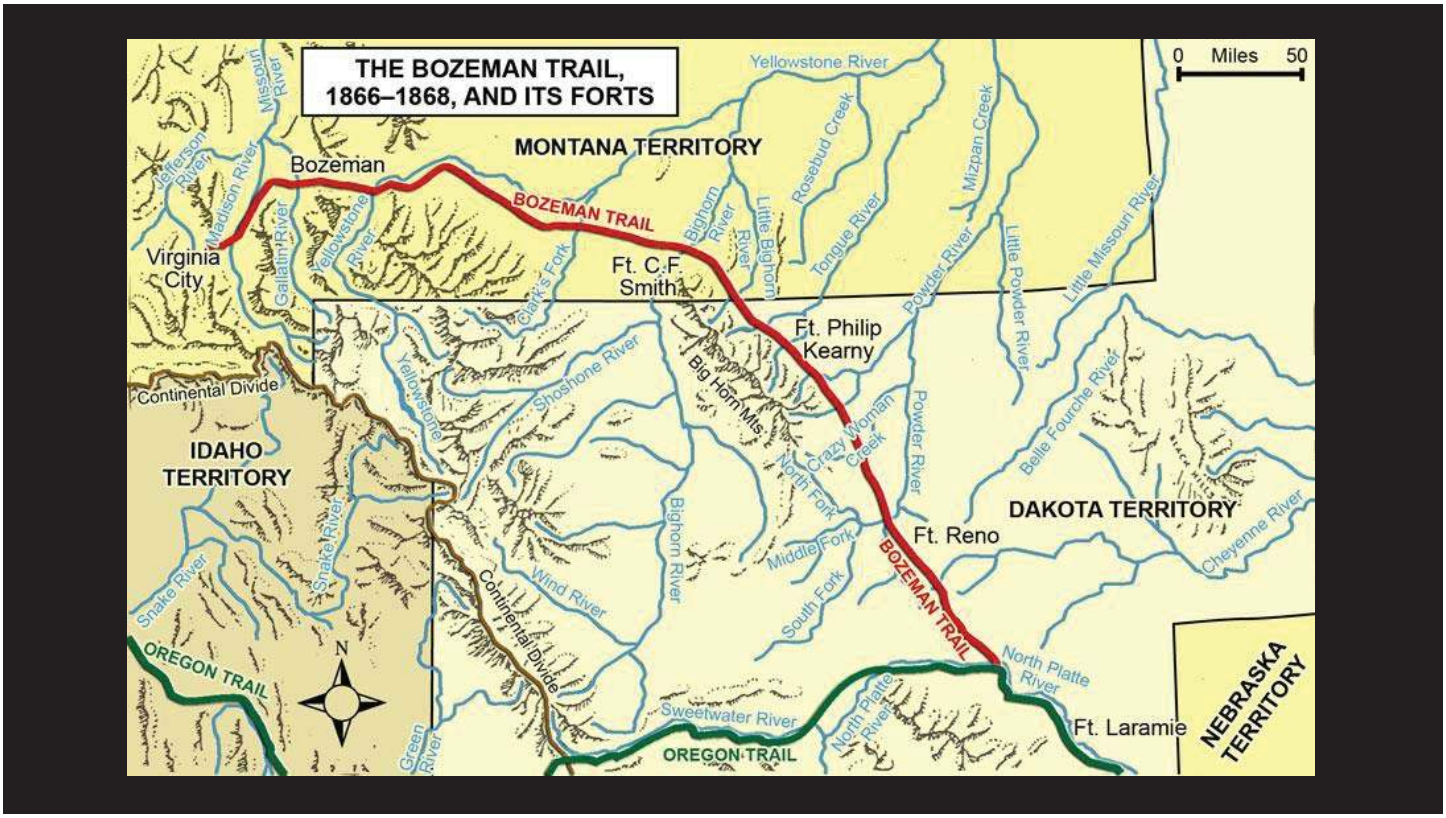
GUIDING PRINCIPLES

HERITAGE

GUIDING PRINCIPLES

GUIDING PRINCIPLES

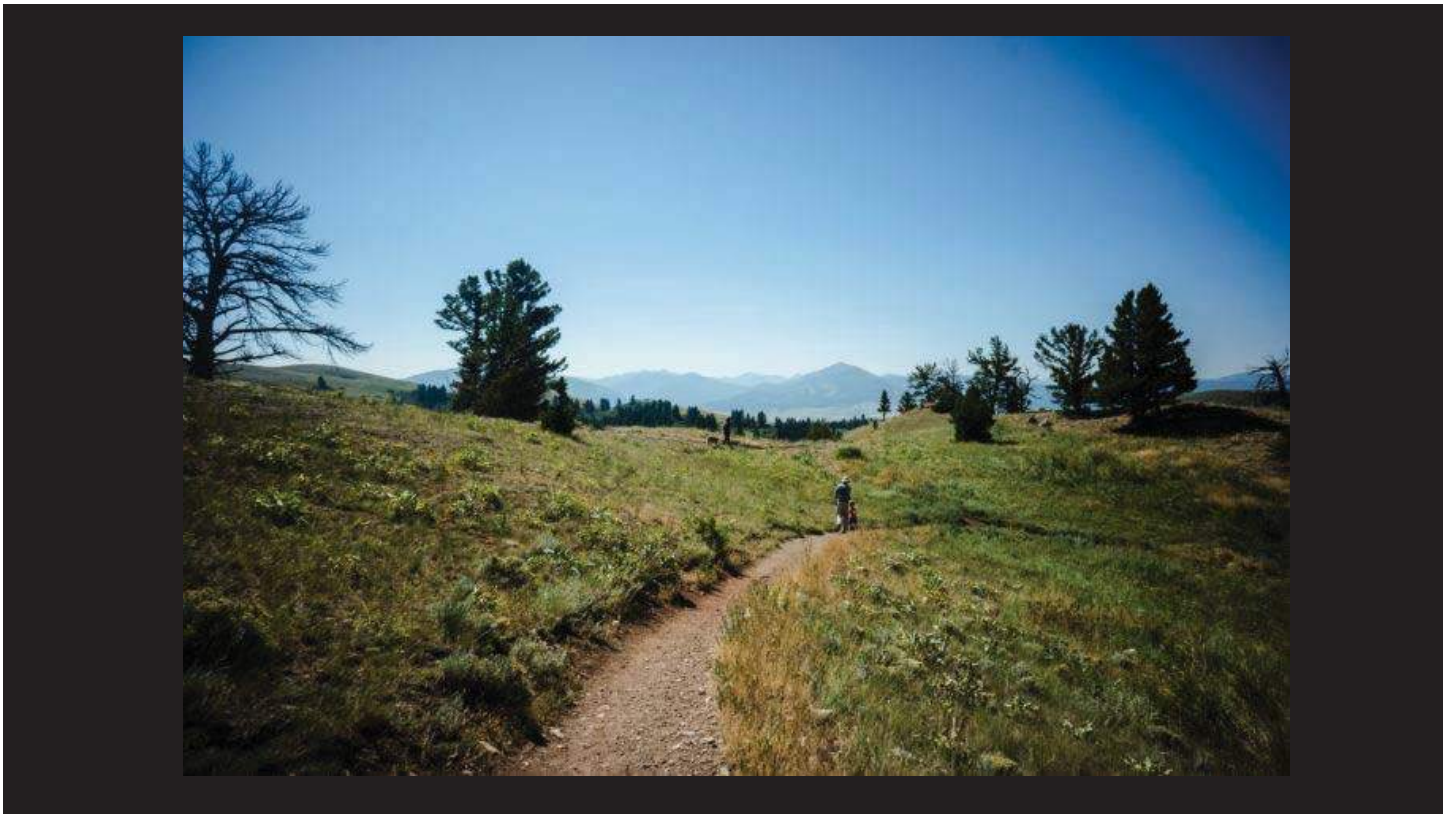
GUIDING PRINCIPLES



GUIDING PRINCIPLES

GUIDING PRINCIPLES

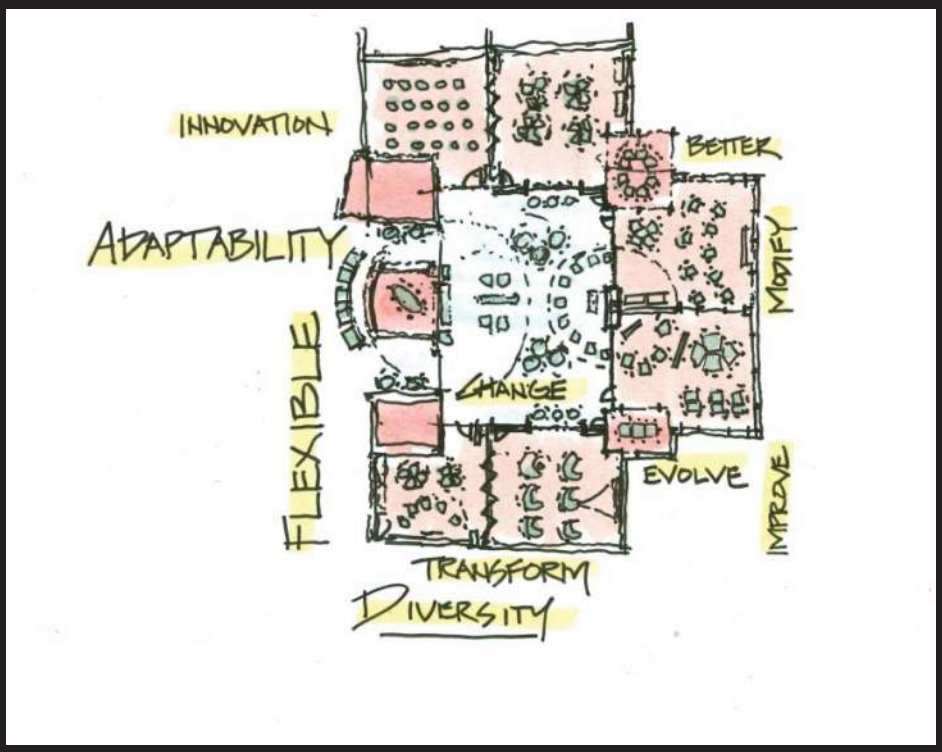
GUIDING PRINCIPLES



GUIDING PRINCIPLES

DIVERSITY

GUIDING PRINCIPLES

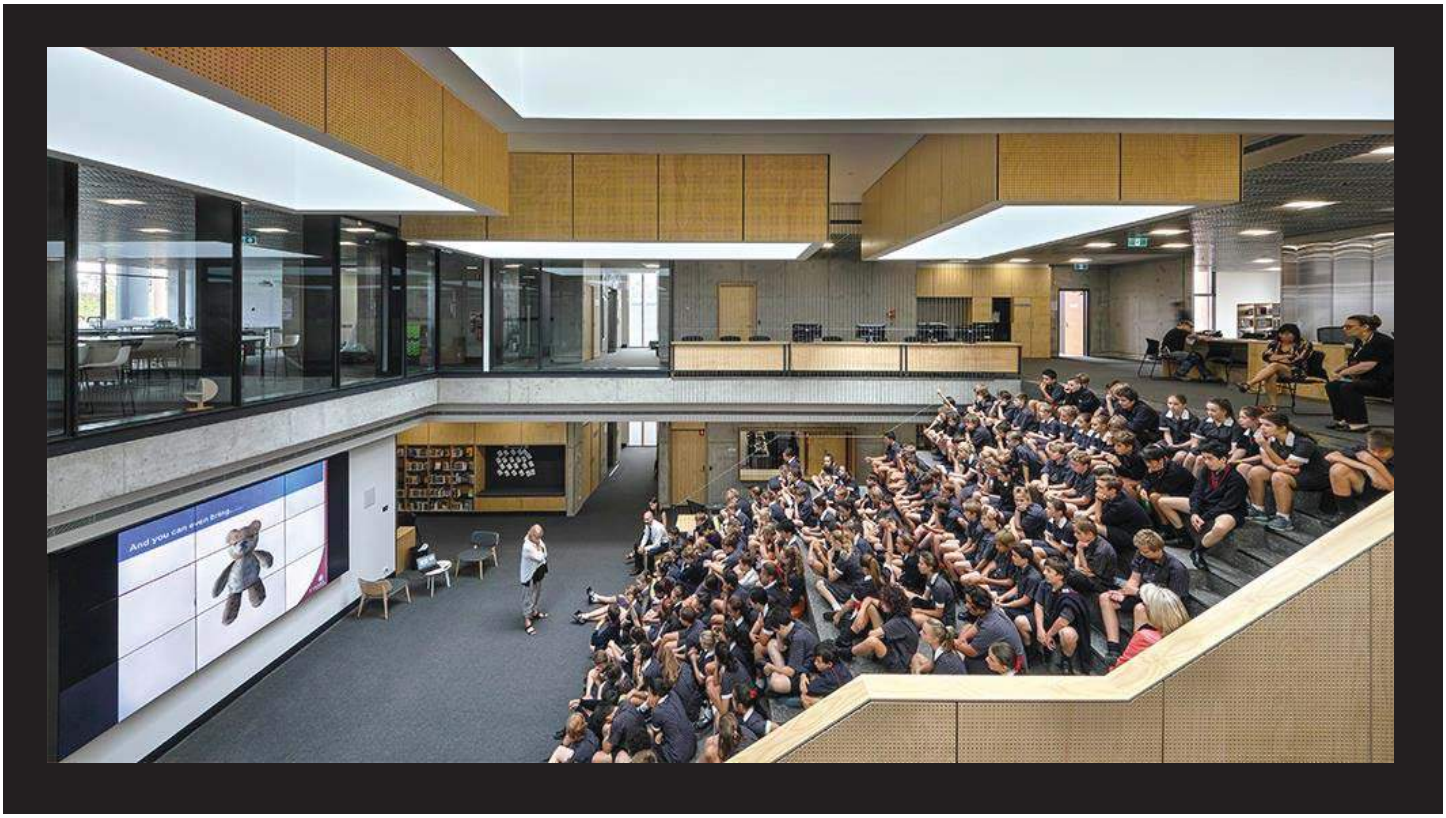


GUIDING PRINCIPLES

GUIDING PRINCIPLES

A view from The Cove

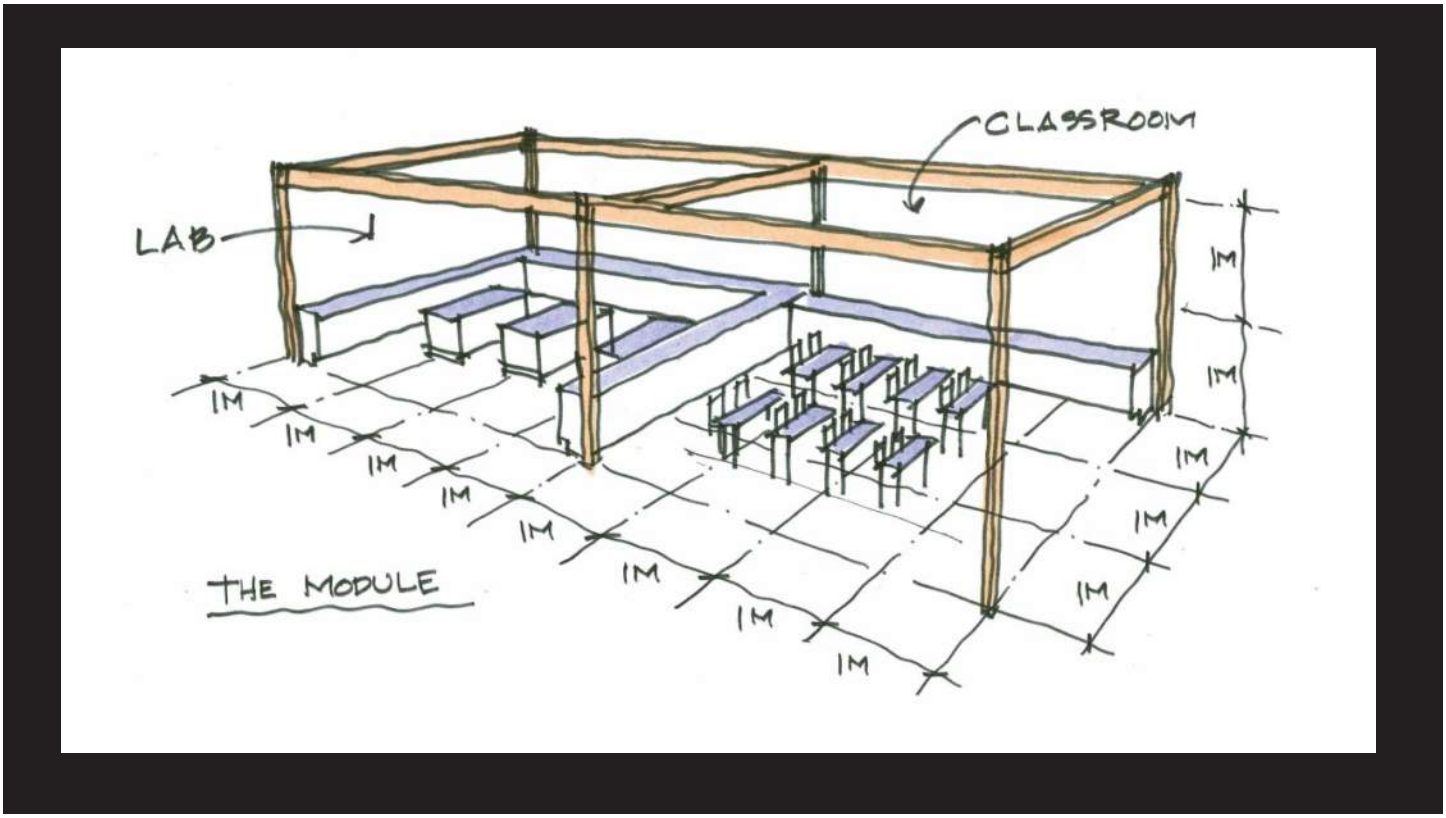
GUIDING PRINCIPLES



GUIDING PRINCIPLES

ADAPTABILITY & FLEXIBILITY

GUIDING PRINCIPLES



GUIDING PRINCIPLES

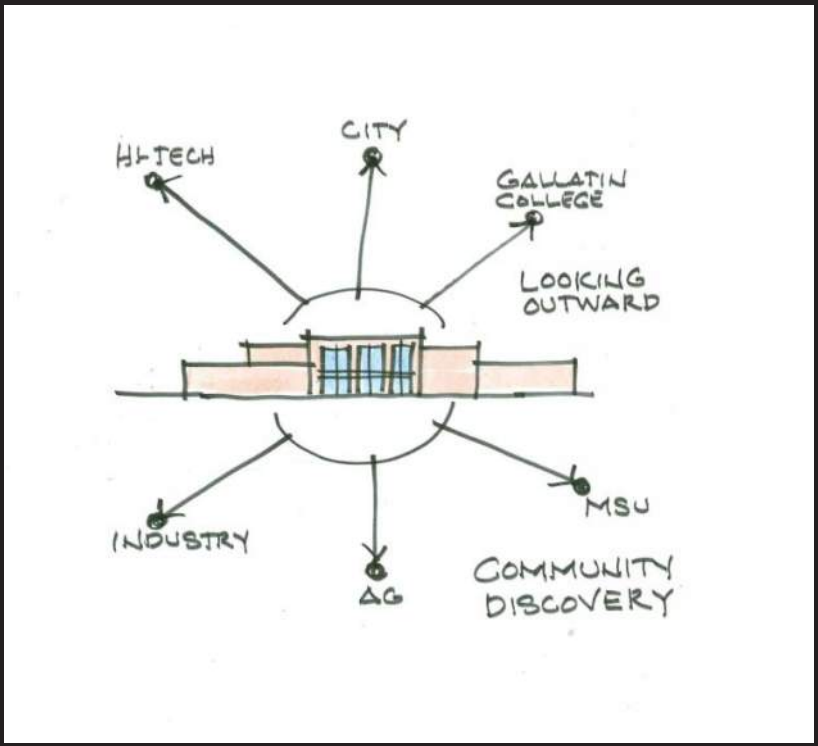
GUIDING PRINCIPLES

GUIDING PRINCIPLES

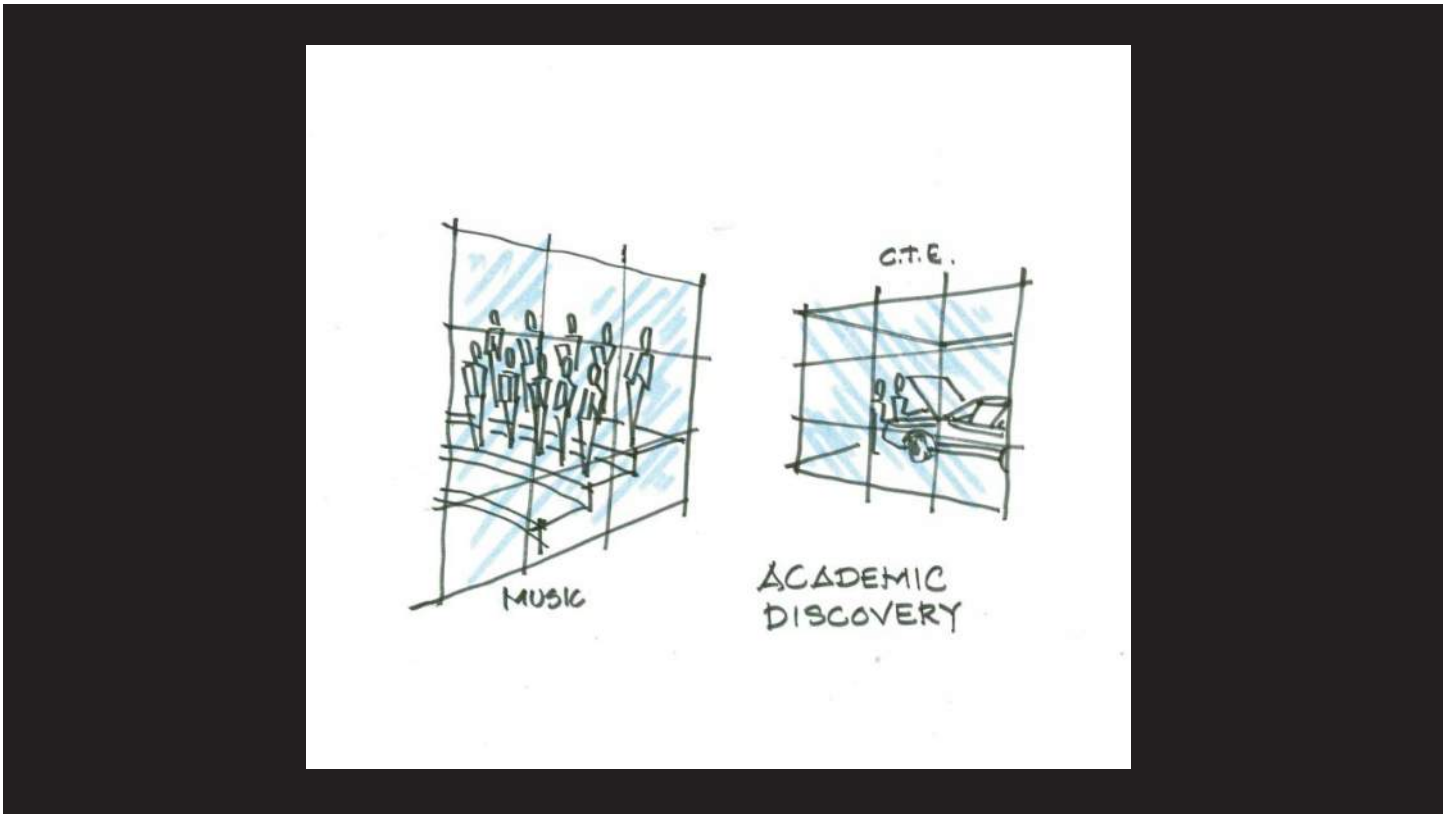
GUIDING PRINCIPLES

DISCOVERY & EXPLORATION

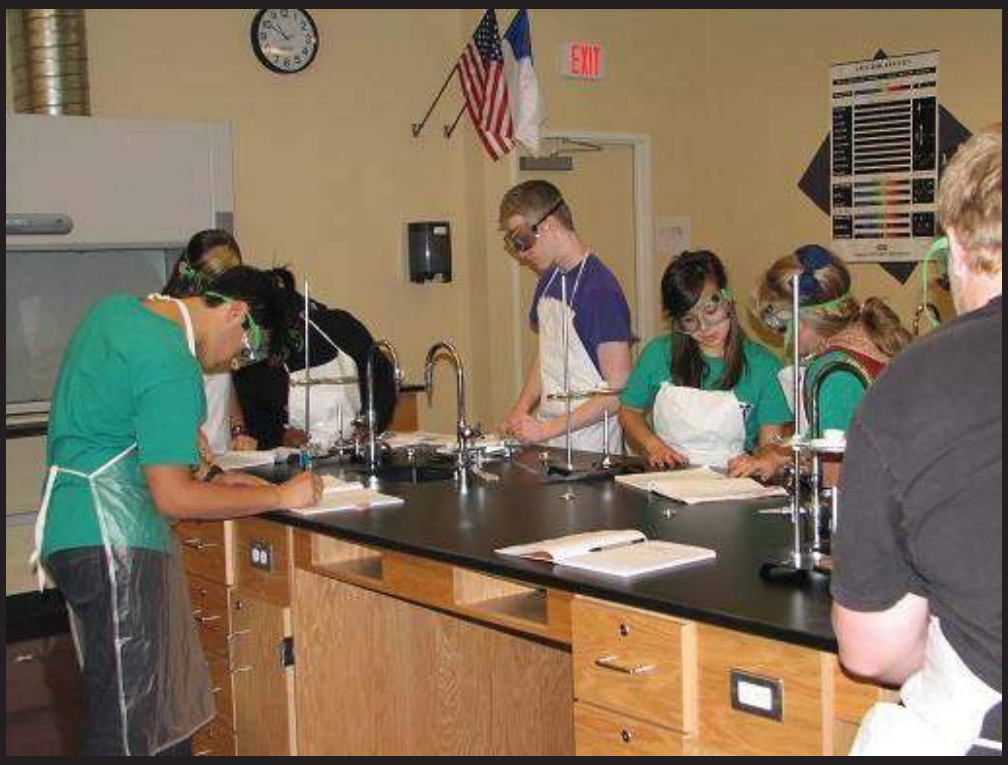
GUIDING PRINCIPLES



GUIDING PRINCIPLES

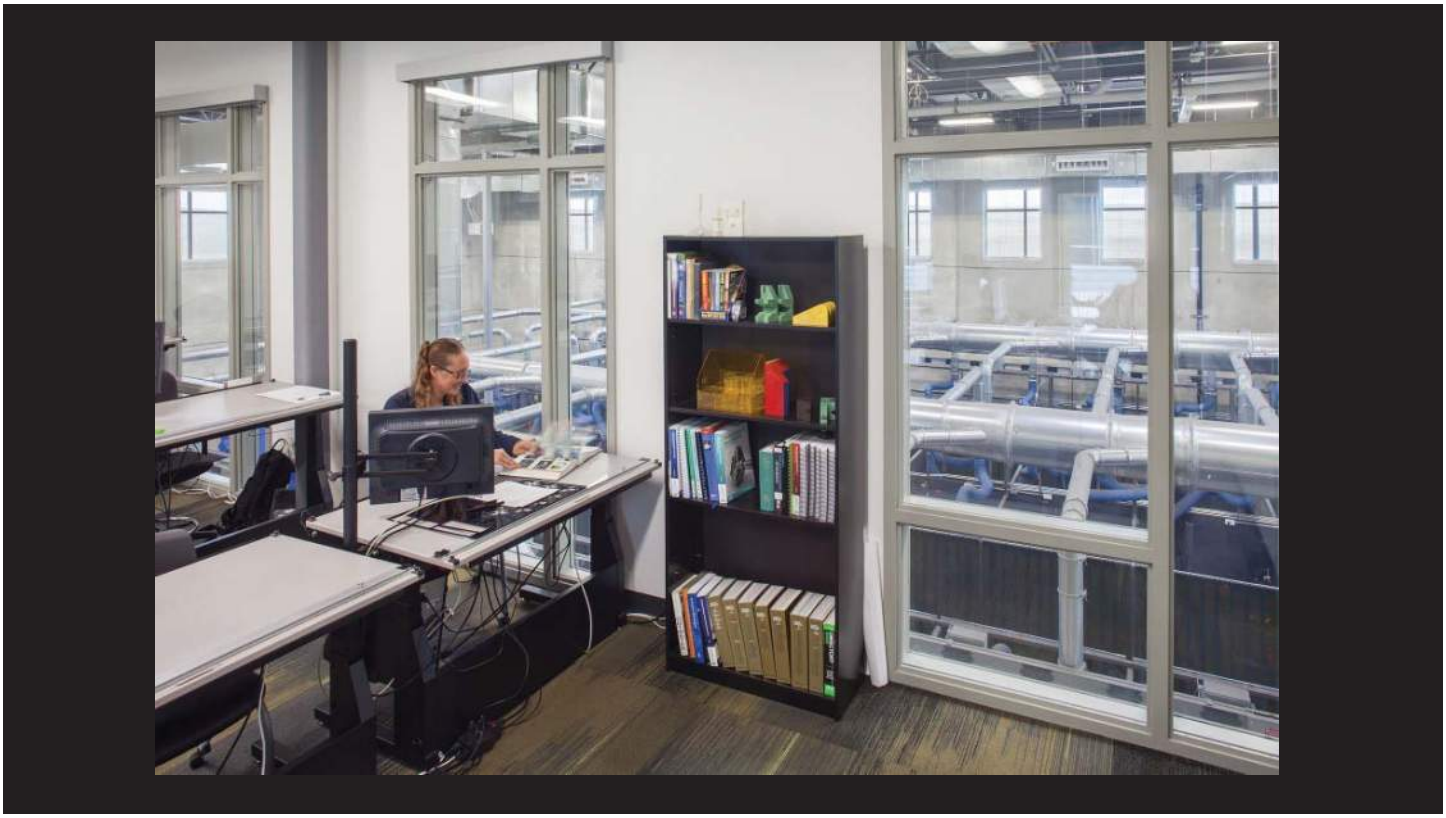


GUIDING PRINCIPLES



GUIDING PRINCIPLES

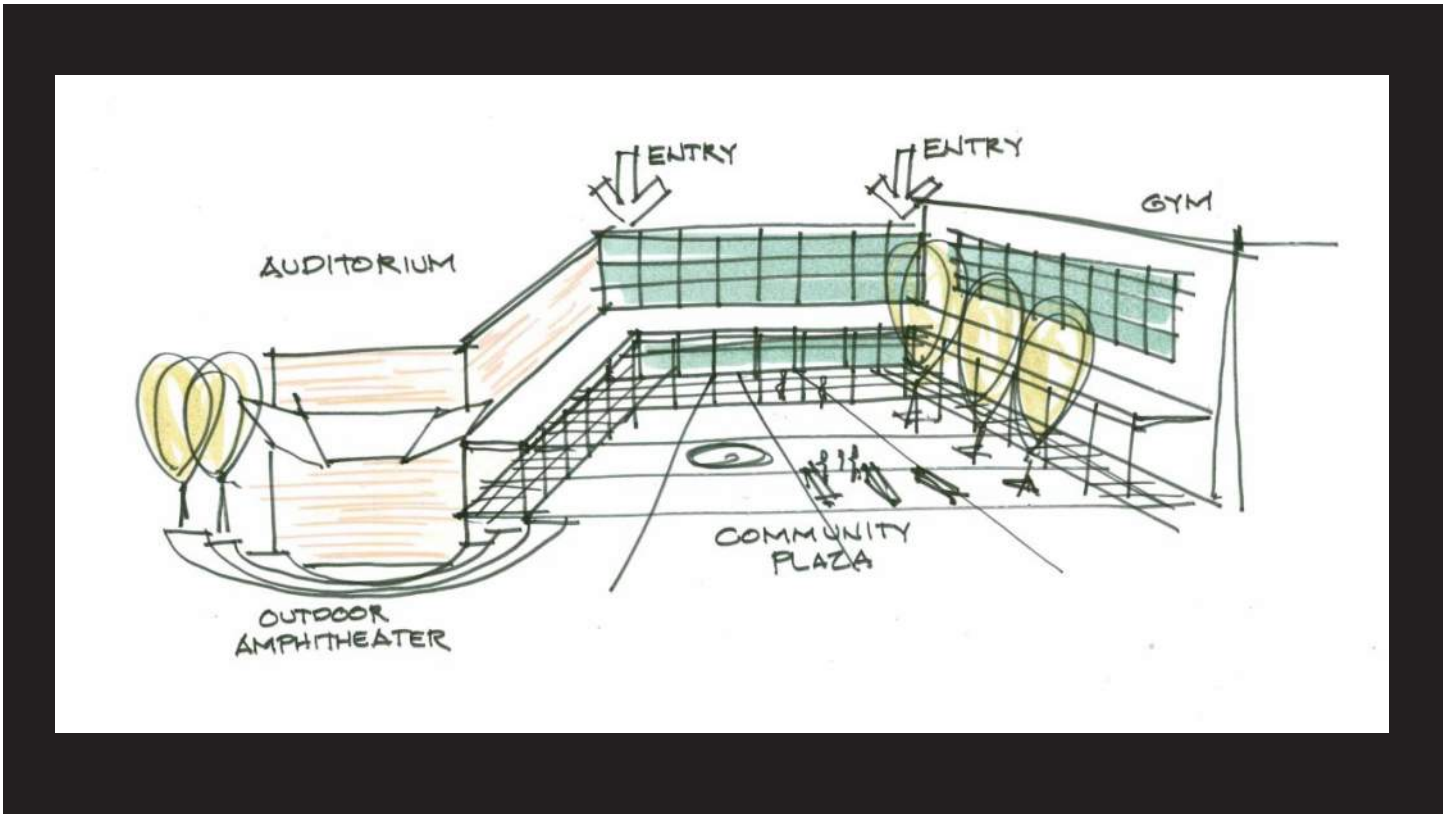
GUIDING PRINCIPLES



GUIDING PRINCIPLES

COMMUNITY

GUIDING PRINCIPLES



GUIDING PRINCIPLES

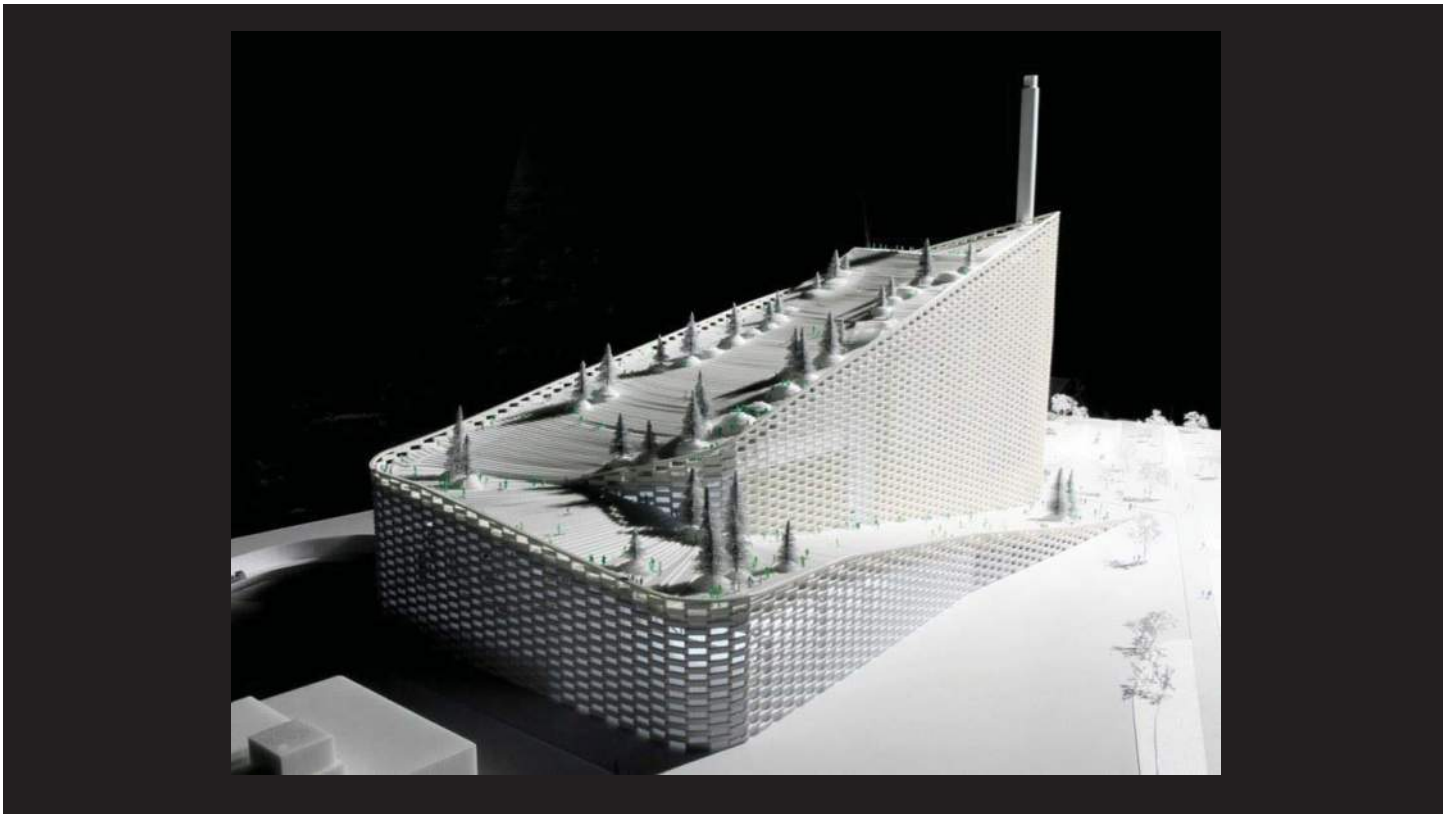
GUIDING PRINCIPLES

GUIDING PRINCIPLES

GUIDING PRINCIPLES

GUIDING PRINCIPLES

GUIDING PRINCIPLES



GUIDING PRINCIPLES

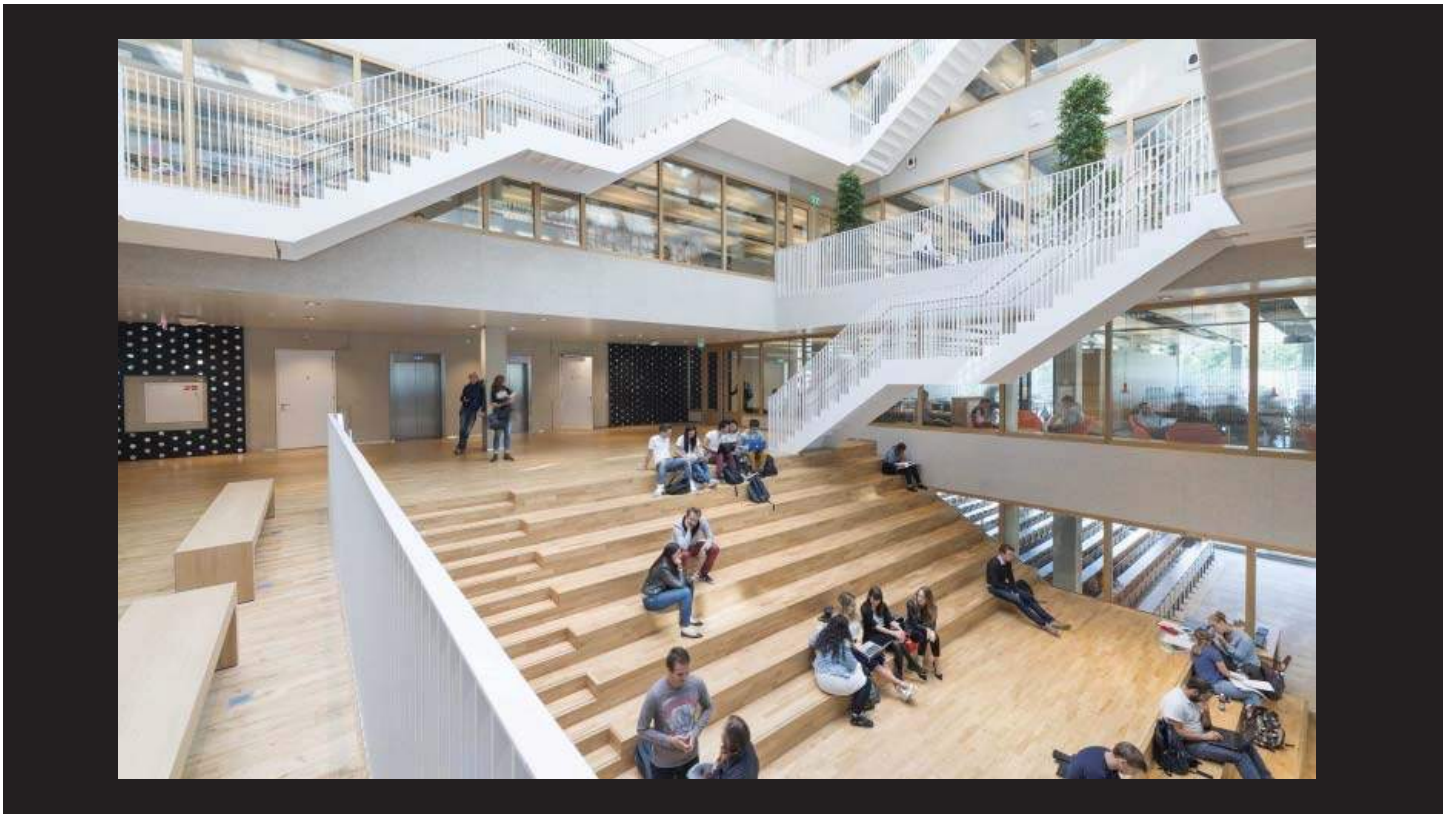
CROSS POLLINATION

GUIDING PRINCIPLES

GUIDING PRINCIPLES

GUIDING PRINCIPLES

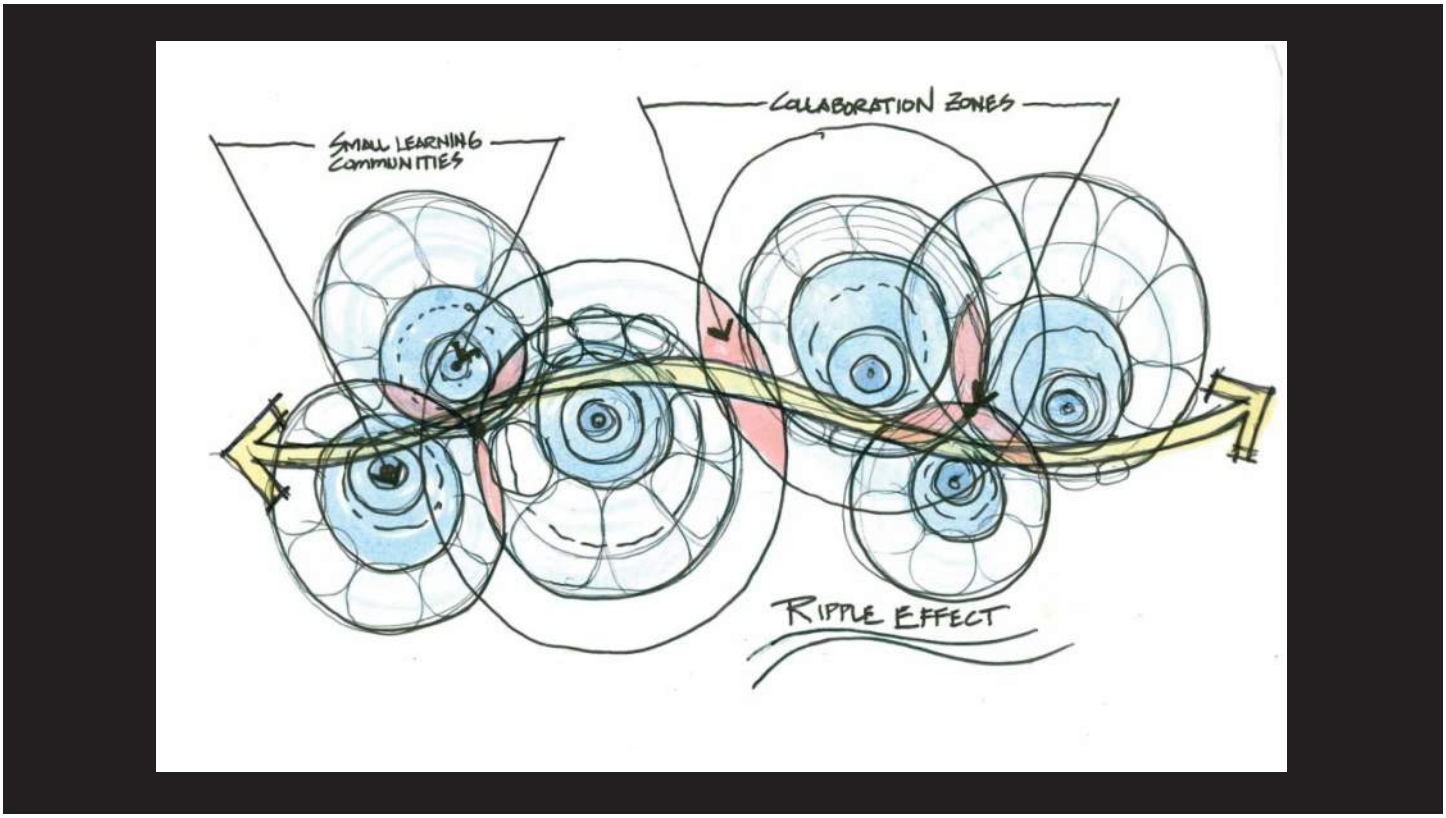
GUIDING PRINCIPLES



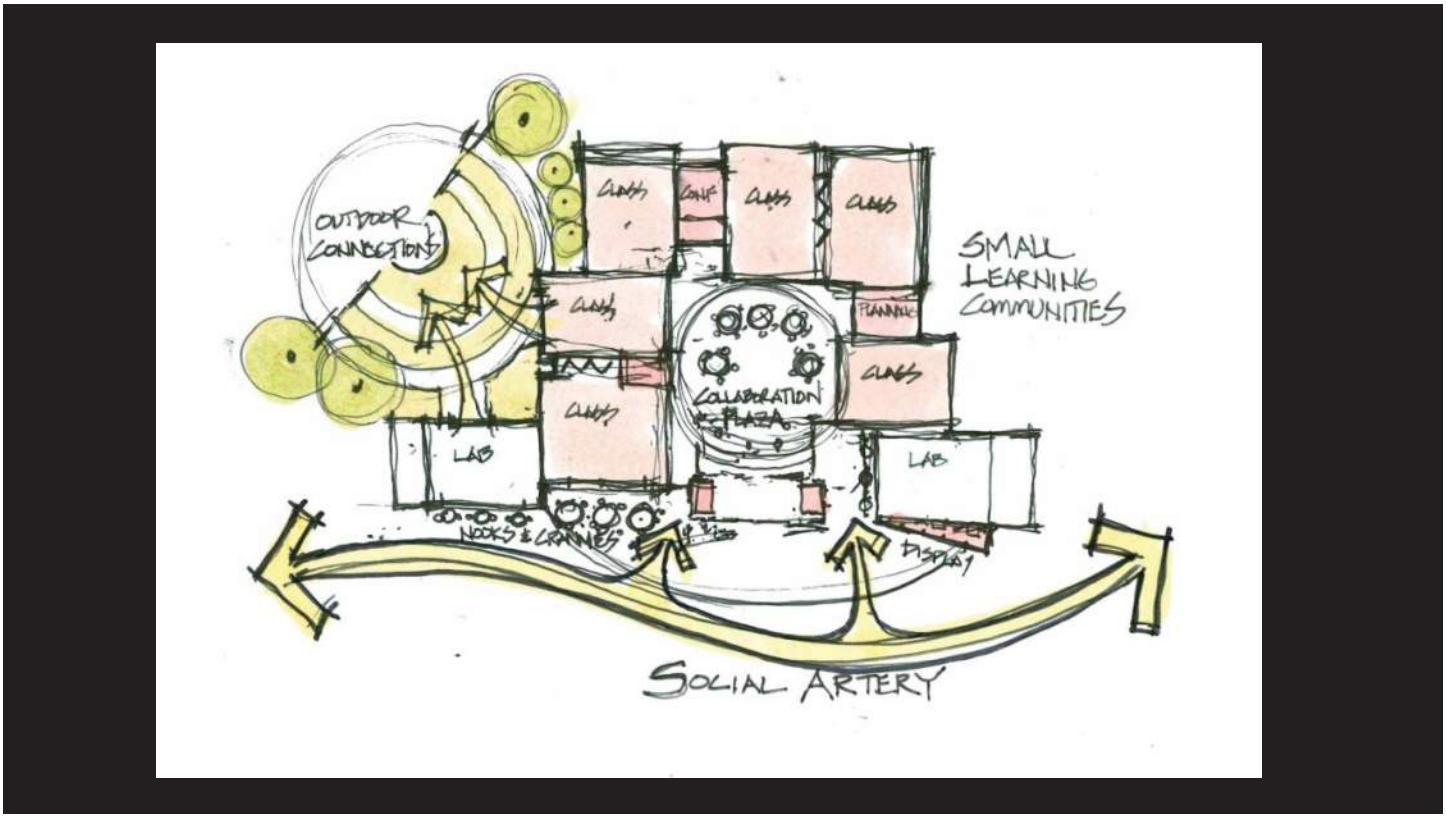
GUIDING PRINCIPLES

LEARNING STREET

GUIDING PRINCIPLES

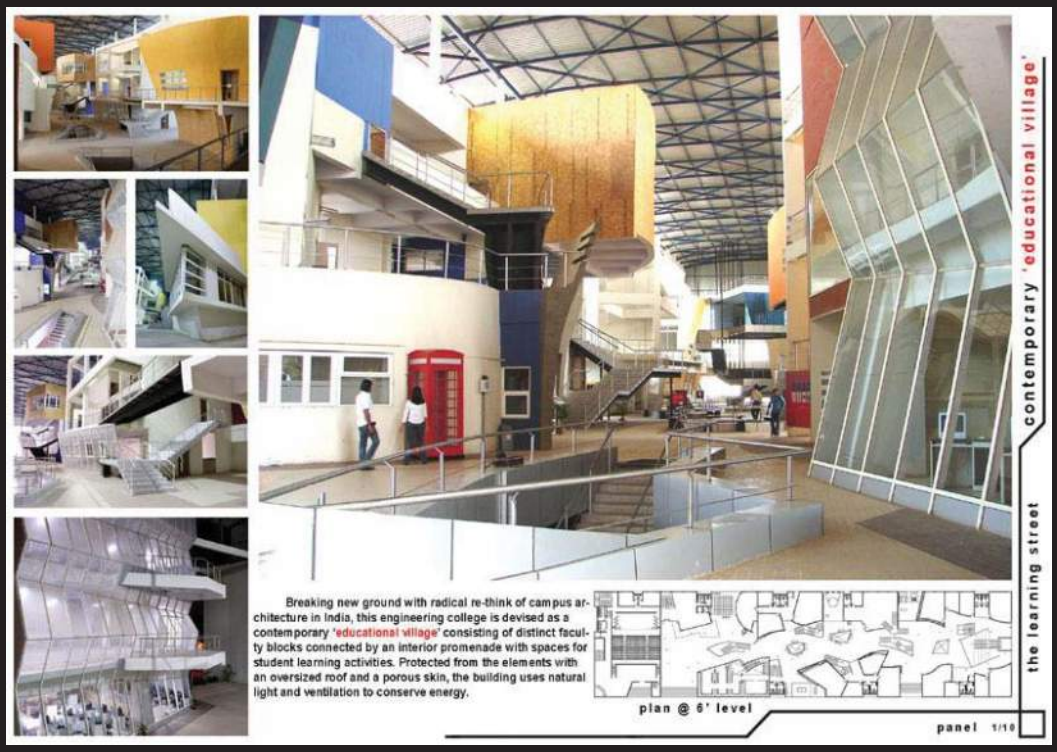


GUIDING PRINCIPLES



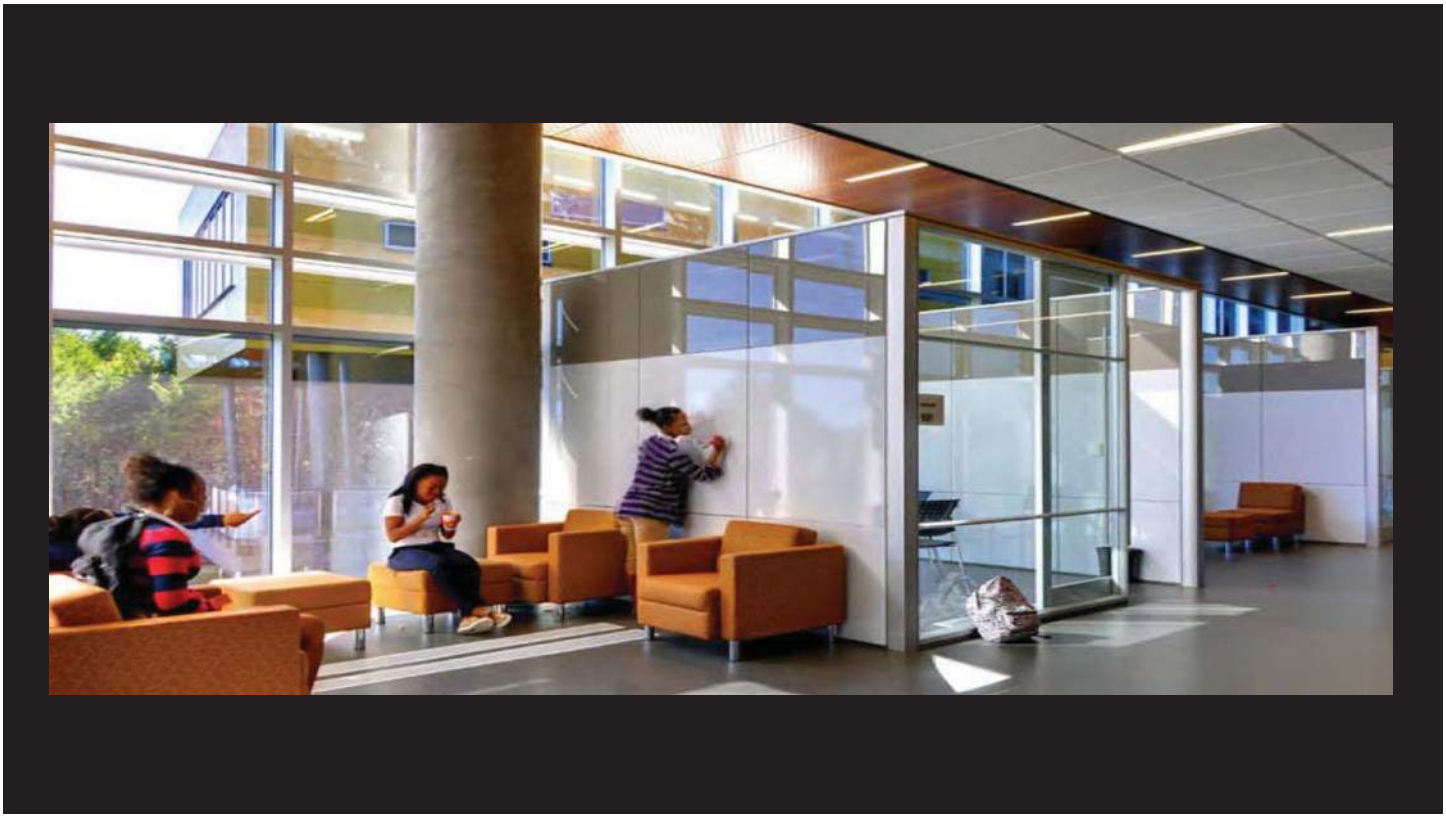
GUIDING PRINCIPLES

GUIDING PRINCIPLES



GUIDING PRINCIPLES

GUIDING PRINCIPLES



GUIDING PRINCIPLES

PAGE LEFT BLANK
INTENTIONALLY

NARRATIVE

ENHANCE LEARNING: A primary goal for the new Bozeman High School design is to offer parity in curriculum all the course offering to the existing Bozeman High, within a simplified, unified, collaborative learning environment layout.

- ***Learning Communities*** - It has been shown that students learn better and are more engaged in education when in smaller learning environments. In these smaller groups they can better collaborate and apply what they learn and get more personalized attention from their peers, mentors, and teachers. This is why the 1500 student Bozeman High School design will be divided into smaller learning communities. These communities are comprised of flexible curriculum areas, collaborative plazas, small group conference rooms, and teacher planning areas. These educational neighborhoods are reinforced through the active and applied learning programs and curriculums.
    - Flexible Curriculum Areas - The overall design layout lends itself to a variety of curriculum options and flexibilities. Each learning area has a variety of class, presentation, resource, and conference rooms. These can be arranged by department, program, or even cross-curriculum academies.
    - Collaboration Plazas – Classrooms and small meeting areas will open up into an collaboration areas. This flexible areas are places where multiple classes can combine on a group project, share resources, breakout spaces, and student projects can be presented or displayed.
    - Teacher Planning Rooms – Teacher planning areas areas promote sharing ideas, planning group projects, acquiring resources and collaborating on daily education topics. These planning areas are located at the center of each small learning community.

CIRCULATION & SECURITY: With the crisis of increased violence and crime in schools, security is paramount. Simplified building and circulation layouts can greatly improve monitoring and quick response of the school.

- ***Building Layout*** - The structure is ordered into two-stories with all building components radiating from the center entry and commons area. This very simple layout and circulation system is best for security, faculty monitoring, and way-finding.

- ***Security and Sightlines*** – A primary single entry point at the center of the facility will make for good monitoring of students and visitors from the adjacent administrative offices. From this center area faculty has a view of all primary corridors in the building from one position. Transparency and sightlines are the primary organizational principles used for the facility layout.

- ***Automated Lock-Downs*** - The facility can be automatically secured and divided into multiple safe areas by authorized staff.

- ***Security System*** – With the security camera system staff can monitor areas of the school and surrounding site from their personal computer. Card reader access, perimeter monitoring and a few other surprises work to keep this state-of-the-art facility safe and secure.

NARRATIVE

LIFE SAFETY: The building shall meet and exceed all current code requirements, and provides 100% ADA accessible access to all student and public areas. Some of the code strategies will utilize:

- ***Fire Walls*** - The non-combustible facility will be divided into separate buildings with 2-hr fire-resistive walls that are structurally independent from each other, extending from the main floor slab up to the roof. These walls greatly reduce the spread of fire and provide increased safety for the buildings occupants. Due to the sheer size of this structure the high school facility these fire wall breaks will also be used for building expansion, contraction and seismic movement.
- ***Fire Protection Devices*** – The High School will be fully fire sprinkled and have a complete coverage fire-smoke detection system. All detection components are monitored and can pinpoint the problem area for the Fire Department in the matter of seconds. Early detection saves lives by getting the occupants out of the structure faster.

NTERIOR ENVIRONMENT: Dynamic spaces, good indoor air quality, plenty of natural daylight, and sophisticated color palettes will make the facility a truly remarkable warm, inviting and comfortable learning environment.

- ***Town Center*** – Like a downtown community, the large centralized Student Commons is the most dynamic shared space in the school facility. This three-story area can be used for a multitude of activities such as food court, student services, lobby, concessions, presentations, dances and community gatherings. All streets lead to and from the town center
    - Food Court – Multiple restaurant style serving windows will offer students a wide selection of tasty, appealing, and healthy menu choices. The multiple windows will also facilitate quicker lunch service.
    - Student Spaces – There are a variety of student spaces and services within the center including alcoves, indoor and outdoor courts, stores, and career center that make this the favorite social hangout spot.
- ***Indoor Air Quality*** – The HVAC (Heating Ventilation Air Conditioning) system will be selected and designed to meet the stringent requirements of the ASHRAE Code Standards. This code compliance defines such parameters as the quantity of fresh outdoor air required per student. Recent research has emphasized the importance of oxygen levels in classrooms. When carbon dioxide levels rise in the afternoon test results typically go down. The new high school system ensures good clean filtrated air that provides the occupants comfortable and a healthy environment.
- ***Daylighting*** – The quality of natural daylight has long been recognized as key to productive work and learning environments. Recent studies conclude that there is a direct correlation between the amounts of daylight and student test results. This is why the design for the new Bozeman High School has utilized maximizing classrooms with exterior window exposures. Daylighting shelves have been installed to reflect daylight deeper into the rooms, as well as reduce glare. Windows will be appropriately sized and ceiling heights determined to open up and reflect the daylight exposure from

NARRATIVE

the window wall deep into the interior of each classroom.

- ***Acoustics*** – The educators are concerned with sound quality especially with the semi-open learning neighborhoods and the large open Commons area. A specialized acoustic consultant has been retained to help with the planning and design to minimize sound and noise impacts to the educational spaces. Some of the key implementations will be as follows:
  - Insulation and materials were selected to provide adequate sound proofing between rooms, reduce distractions, and enhance privacy.
  - The size, height and shape of the rooms were planned to best control sound reverberation inside rooms to limit overall noise levels, enhance performances, and ensure speech intelligibility.
  - Sound attenuators and other methods were used to control HVAC noise and vibration to minimize background noise levels and create a quiet environment for both teachers and students.

- ***Durable Finishes*** – Colors will be carefully selected and used to create sophisticated and timeless finishes that would promote the learning and maturity of the students. Natural earth tones and material selections reinforce the Bozeman region. Accent colors will be used to assist in way-finding and to give each learning neighborhood its own identity. School colors will be used in banners, logos, and colors within the athletic areas. Finish materials were selected for good durability, cleaning ability and maintenance.

TECHNOLOGY: Technology has been utilized to simulate the learning environment equal to or greater than the current market place and business world. The telecommunication system will be designed with a combination of cabling, fiber optic backbone, and a robust wireless system. The facility will also have a wide variety of network ports and AV capabilities to best facilitate education.

FUTURE GROWTH: The high school is masterplanned for growth and will be adaptable for the fast moving advances of the information age. Areas to the east and west have been identified for the future expansion of learning communities, activities, and electives that will facilitate an additional 300 students. This could also be used to bring a portion of the growing Bridger Charter Academy to the new high school. The facility ceilings will be easily accessible so that future advances in infrastructure can be easily implemented. The heating, plumbing and electrical infrastructure will be designed to handle future building expansion. The campus is being planned for future softball fields, stadium, and track lane expansion.

ENERGY CONSERVATION & SUSTAINABILITY: With increasing utility costs, good energy conservation and efficiency can mean thousands of dollars in savings each year. The new high school will be designed to a LEED Silver level, and will follow and register with the Collaboration for High Performance Schools.

NARRATIVE

DEVELOPMENT GOALS:

- ***Student Capacity*** - Targeted for a 1,500 Student Occupancy, with room to expand up to 1800 students in the future by adding another 3-story small learning community and additional activity and elective spaces. A portion of future learning community could house a Bridger Charter Academy program.
- ***High School Site***
  - Two way vehicular lanes and parking – asphalt with concrete curbs. Street/parking lighting.
  - Pedestrian – concrete. Bike racks to accommodate 90 bicycles. Lighting on main routes. Main routes accessible
  - Tunnel or at-grade crossing
  - Parking for 600 vehicles south of Oak. 300 cars north of Oak., and area for 300 future spaces as needed
  - Vehicle stacking lanes (pickup/dropoff)
  - Center drop loop – concrete
  - Service lanes – asphalt with concrete curb where needed
  - 3 Practice fields/ 1 soccer field (north of Oak)/ 1 football field – seeded grass. Grass soil may include 6" of field surface compost mix and 6" of field surface sand mix. Underground drainage system. Goal posts for football related.
  - 2 Softball fields – seeded grass outfield (see above), crushed granite infield, chain link fence surround (4' outfield transitioning to 15' ht. backstop) and concrete block dugouts. Underground drainage. Outfield fence at 200'.
  - Track – high end option = Mondo surface. Mid-range = ½" rubberized surface. Both on asphalt base with concrete curbs. Interior track areas at ends to receive the same material (ie. high jump and pole vault areas). 4' safety chain link fencing around track area. Equal-Quadrant track with slot and grate drainage system. 8 lanes with future expansion to 10 as needed.
  - Field events – fencing for discus, field sand for infield of shotput/long jump pits. Concrete throw pads for discus and shot. Concrete curb at long jump pits. Pole vault box. Seeded grass in outfield areas.
  - Tennis – high end = post tension concrete with standard concrete or asphalt as the other options. Color coated. Chain link fencing with gates. Fencing at 10'ht.
  - Other fencing – 6'-8' chain link fence surrounding entire area of use south of potential Annie Street. Fencing to include gates to restrict access.
  - Lighting – top priority is track area (stadium style) with second being one softball field and third tennis area
  - Courtyards – colored concrete surface with landscape elements (eg. waste receptacles, 3 flag poles, seating, enhanced landscaping) and lighting
  - Landscaping (all with irrigation)

NARRATIVE

- Lawn areas in fields and areas around fields. Lawn areas surrounding school. Potential seeded native grass areas in peripheral areas such as detention ponds and areas outside of fire/service lanes at school in those areas not surrounding potential tunnel/grade crossing.
- Lawn areas to be spray/rotor. Beds to be drip irrigation
- Enhanced areas at main entry(s) and potential learning street area to include beds
- Bio-swales and detention ponds along with other areas (not yet determined) that cannot be used for meaningful recreation areas – seeded grassland mix. Perhaps 15-30% of open space areas.
- Berms surrounding central green area and as buffer from exterior roadways. Use native fill from excavation of building and parking lots. Top with 12" of topsoil.
- Approximately 200 Trees (85% 1.5" deciduous, 15% 4'-6' conifer)
- Drought Tolerant/Native plants (outside of lawn areas)
- Water via (2) 35 gpm wells with domestic supply as makeup
- Weather based irrigation control system
- Potential Outdoor Storage/Built Areas
- Storage shed near track and field to house equipment
- Small shed near tennis
- Potential comfort station with ticketing/storage/concessions/restrooms

o ***High School Facility***

- 305,000 Gross Square Feet. This area equates to approximately 203 SF per student, which is in alignment with current high school facility and national standards.
- 8 learning communities each with teacher planning areas, collaboration breakout areas, small group conference rooms, display areas and lockers.
- 45 academic classrooms
- 9 science Labs, and 4 shared prep areas.
- The Commons, Town Center, will be surrounded by a variety of student services including administration, library, student store, etc. This area should have direct access into both the competition gym, performance hall, concessions, and food court (with multiple serving windows).
- Kitchen with multiple food court style service windows and necessary support spaces.
- Admin / Student Services: Administration will be de-compartmentalized and distributed for best student access and the ability to adequately monitor the school. Student services will be conveniently located adjacent to or near the town square.
- Special Education / Resource: A collaborative teaching model reduced the number of dedicated classrooms. Specialized spaces that are comfortable, easily accessible are conveniently located

NARRATIVE

and include CCCR/AAS, and TAPS/SEB.

- Visual Arts: Includes labs for both 2D and 3D art with indoor and outdoor kilns, and plenty of display spaces. Graphics, photography and metal/jewelry will be provided in the adjacent shared CTE labs.
- Music: Studios for band, orchestra and choir will be organized around a plaza and practice rooms. These spaces will be located adjacent to the performance hall stage.
- Performance Hall: The performance hall will house 750 seats with a stage sized for full music and drama performances. A separate drama classroom is being provided for their own practice space. The hall can be used for larger lecture and other academic functions. Acoustics in this area to be versatile for voice and music. The stage should be big enough for both drama and large music performances. Seating, stage control booth and AV tech areas will be accessible.
- Athletics / Activities / Health: This area includes a primary competition gym, two auxiliary gymnasiums, fitness/weight, wrestling, and 6 locker rooms.
- Competition Gymnasium - 2 PE Stations, 2500 main level seats with room for an additional future balcony seats. The floor can provide 1 tournament court, 2 full basketball side courts (with PE station divider curtain), or 3 volleyball side courts.
- Two Auxiliary Gymnasiums – Each with1 full court, 200 spectator seats, 2 smaller basketball side courts (with PE station divider curtain)
- Library: Easily accessible from both town square and the learning communities the library will be full of open and inviting technology enriched study and collaborative spaces.
- Career Technical Education: CTE will include labs, classrooms and spaces for; Family Consumer Science with culinary arts lab; Business, including DECA store; and Trades & Industry that includes metal, wood and auto shops, Architectural/engineering lab, graphic/photo lab, and supporting spaces and contained outside yard.
- Support: Ample room for storage, infrastructure, restrooms, maintenance, IT, exterior service and loading dock.

THE PREFERRED CONCEPT - SITE PLAN

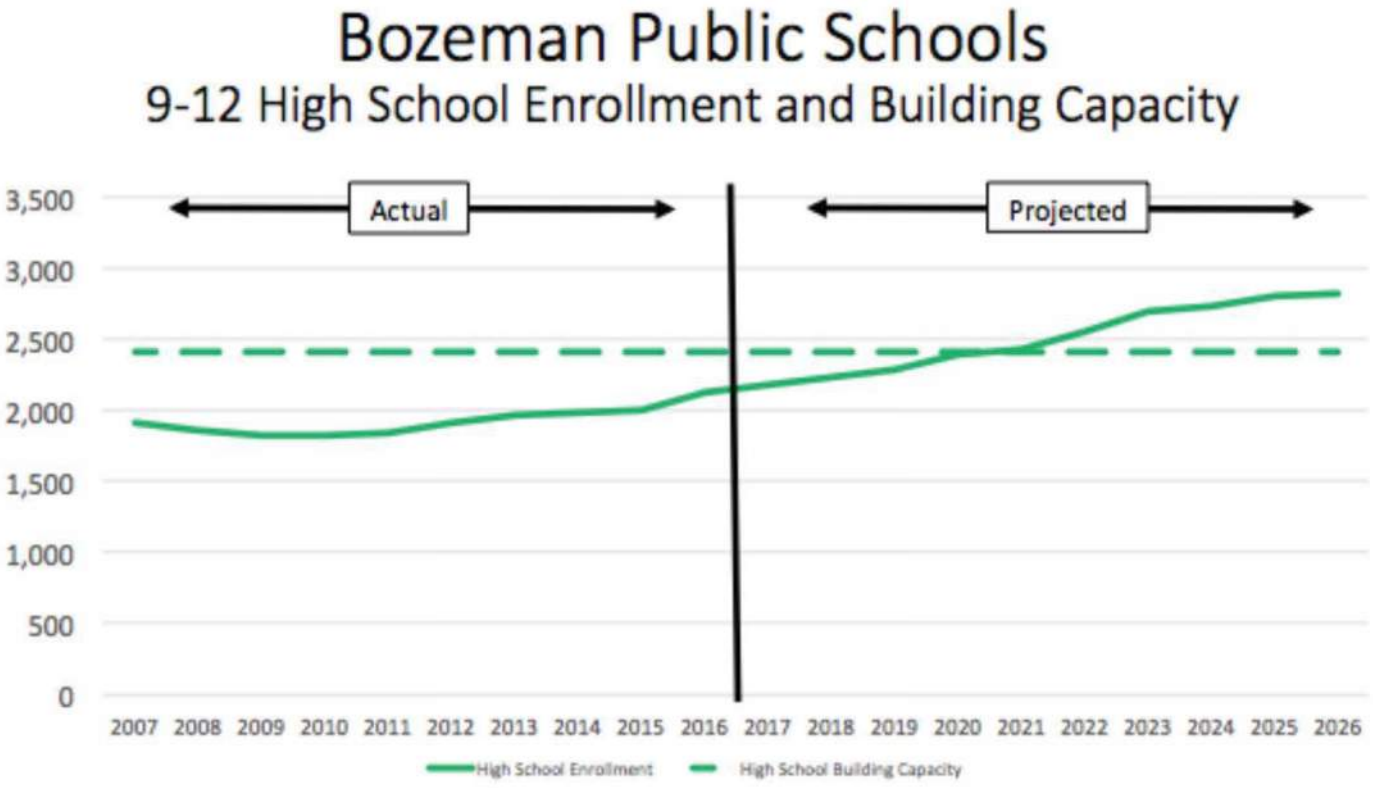
CONCEPTUAL SITE PLAN

NEW BOZEMAN HIGH SCHOOL- SOUTH FIELDS CONCEPT A
AUGUST 9, 2017

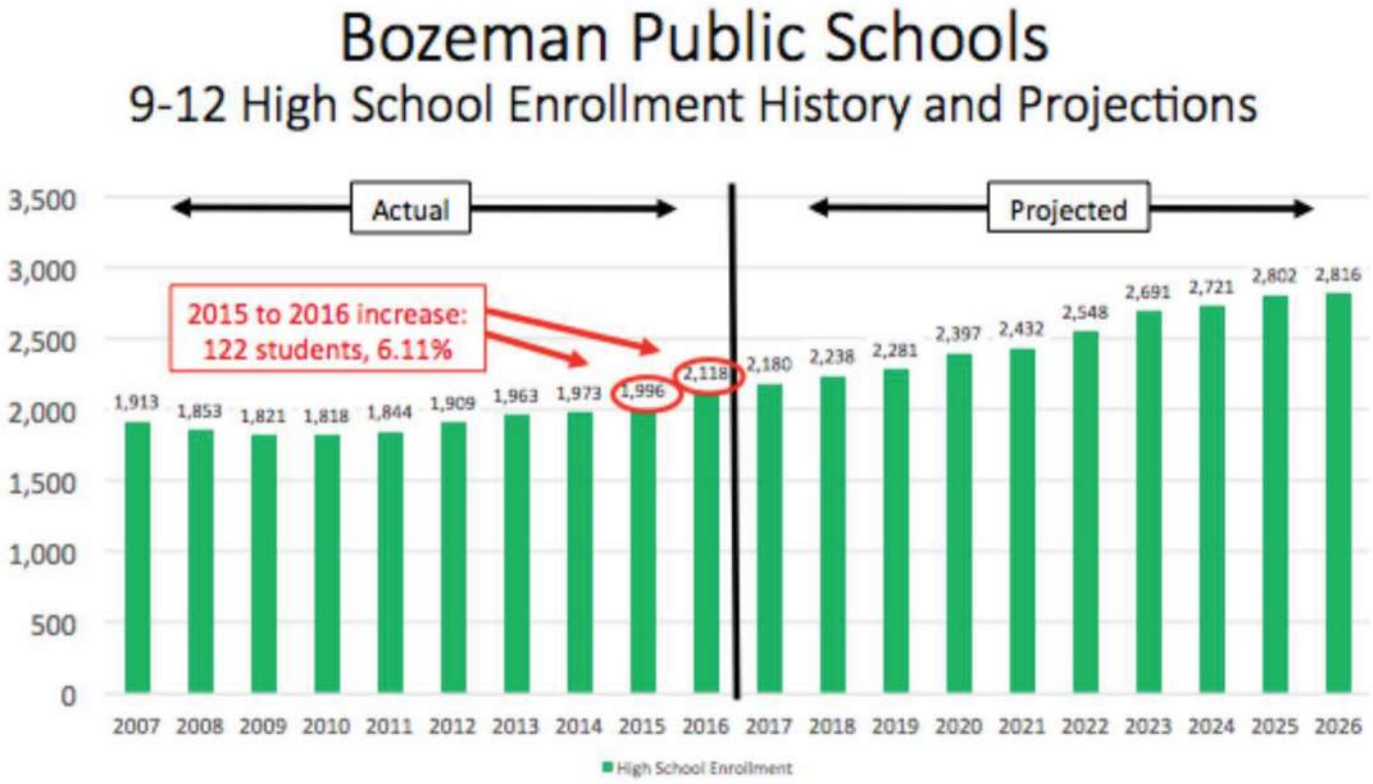
PAGE LEFT BLANK
INTENTIONALLY

THE PREFERRED CONCEPT - FLOOR PLANS

STUDENT ENROLLMENT & GROWTH



STUDENT ENROLLMENT & GROWTH



STATE COMPARISONS

SCENARIO ANALYSIS - MONTANA AA HIGH SCHOOL COMPARISON

	Billings Senior HS	Billings West HS	Billings Skyview HS	Bozeman HS	Butte HS	Kalispell Flathead HS	Kalispell Glacier HS	Great Falls CMR HS	Great Falls HS	Helena Capital HS	Helena HS	Missoula Big Sky HS	Missoula Hellgate HS	Missoula Sentinel HS
9-12 Enrollment	1717	1864	1489	1963	1260	1512	1294	1498	1484	1276	1582	1060	1205	1169
Graduation Rate	80.1%	83.1%	83.2%	86.3%	83.4%	87.9%	88.9%	86.8%	82.2%	89.7%	81.7%	86.1%	88.5%	92.0%
Student / Teacher Ratio	19:01	19:01	21:01	15:01	16:01	14:01	17:01	16:01	13:01	15:01	15:01	16:01	14:01	15:01
Free & Reduced Participation	31.6%	20.3%	25.1%	20.5%	33.4%	32.9%	32.8%	28.2%	48.4%	23.7%	27.6%	35.1%	28.4%	24.6%
Special Ed Participation	13.6%	10.7%	11.1%	10.0%	10.5%	8.5%	9.0%	7.3%	12.5%	9.5%	7.9%	16.2%	9.5%	13.1%
# of AP Classes Offered	7	6	5	13	7	0	12	6	6	8	8	3	6	10
# of IB Classes Offered	0	0	0	0	0	14	0	0	0	0	0	1	11	0
AP Participation Rate % of 12th graders who took min. (1) AP test	17%	19%	13%	59%	12%		32%	13%	7%	21%	28%	11%	24%	38%
AP Pass Rate % of exam takers scoring a 3 or higher	49%	72%	66%	84%	50%		72%	71%	76%	75%	75%	46%	83%	71%
IB Participation Rate						19%							18%	
IB Pass Rate						99%							96%	
IB Diploma						4.3%							3%	
ACT Composite Scores Juniors (2013-14)	20.5	21.2	20.4	23.0	20.5	20.3	20.0	20.5	19.9	20.4	20.8	19.2	21.7	21.1

DATA FROM THE 2014-15 STATE OF MONTANA GEMS

Source: A&E Architects

BOZEMAN PUBLIC SCHOOLS
HIGH SCHOOL PRE-BOND PLANNING

STATE COMPARISONS

MONTANA AA HIGH SCHOOL STANDARDS COMPARISON

	MONTANA MINIMUM	BILLINGS	BOZEMAN STANDARD	BOZEMAN HONORS	BUTTE	KALLISPELL STANDARD	KALLISPELL MERIT	GREAT FALLS	HELENA	MISSOULA
ENGLISH	4	4	4	4	4	4	4	4	4	4
MATH	2	2	3	4	3	3	3	3	3	3
SOCIAL STUDIES	2	3	3	3	2	2.5	3	3	3	2.5
SCIENCE	2	2	2	3	2	2	3	3	2	2
HEALTH/PE	1	1	2	2	2	1.5	1.5	2	2	2
ART (VISUAL/PERFORMING)	1	1	1	1	1	1	1	1	1	1
CAREER/TECHNICAL ED	1	1	1	1	1	1	1	1	1	1
WORLD LANGUAGE	-	-	-	2	-	-	2	-	-	-
OTHER SPECIFIED	-	-	1	1	-	1	1	0.5	-	-
ELECTIVES	7	7	6	4	5	6	4.5	5.5	7	8.5
TOTAL REQ FOR GRADUATION	20	21	23	25	20	22	24	23	23	24
CLASS PERIODS PER DAY	-	6	7	7	6	7	7	7	7	7

BOZEMAN PUBLIC SCHOOLS
HIGH SCHOOL PRE-BOND PLANNING

STATE COMPARISONS

MONTANA AA HIGH SCHOOL FACILITY COMPARISONS

	BILLINGS			BUTTE	KALISPELL		GREAT FALLS		HELENA		MISSOULA			BOZEMAN	BELGRADE
	SENIOR HS	WEST HS	SKYVIEW HS	HS	FLATHEAD	GLACIER	CMR	HS	CAPITAL	HS	BIG SKY HS	HELLGATE HS	SENTINEL HS	HS	HS
9-12 ENROLMENT	1,855	1,883	1,535	1,199	1,450	1,270	1,405	1,311	1,269	1,607	914	1,124	1,082	2,118	834
TOTAL SQUARE FEET	228,314*	227,614*	239,000*	216,990*	285,665*	242,665	301,673*	315,000	227,445	246,851	255,873*	245,694*	240,476*	417,094	205,271*
SQUARE FEET PER STUDENT	123	121	156	181	197	191	215	240	180	154	280	219	222	197	246
AUDITORIUM SEATING CAPACITY	625	950	634	840	794	600	771	1422	499	200	873	651	369	-	485
BLACK BOX THEATER	NO	NO	NO	NO	210	220	NO	NO	NO	NO	NO	NO	NO	-	NO
PE TEACHING SPACES (FULL SIZE GYM FLOORS)	2	2	2	3	2	2	1	2	1	2	4	4	4	4	2
TRACK FACILITY (# OF LANES)	DAYLIS 6/8	8		10	10	7	6,000	8/10 STEM	VIG. 8?	8	10	GRAVEL	10	10	10
SWIMMING POOL	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES *	NO
STADIUM	DAYLIS	NO	NO	5800	4000	NO	NO	YES	NO	NO	YES	NO	NO	YES	2500
FUNCTIONAL CAPACITY	1686	2000	1800	2000+	1800	1380	1533	1995			1500	1500	1500	2400	1200
COMPETITION GYM SEATING CAPACITY				4000	2178	2750			2410	2200	800	968	1200		5000

*DOESN'T INCLUDE CAREER CENTER

*MAIN BLDG

*WITH BOND 2 ADDITIONAL CLASSROOMS REPLACE AUXILIARY GYM

*WITH BOND ADD 6,000 STEM ADD 33,600 MULTI-PURPOSE

*WITH BOND ADD 33,600

*WITH BOND

*WITH BOND

*WITH BOND

*CITY OWNED

*WITH BOND (AREA INCLUDES THE EVENT CENTER)

BOZEMAN PUBLIC SCHOOLS
HIGH SCHOOL PRE-BOND PLANNING

STATE COMPARISONS

BOZEMAN HIGH SCHOOL - GRADUATION REQUIREMENTS:

Bozeman High School Diploma

- 4 units of English
- 3 units of math
- 2 units of science
- 3 units of social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
- 1 unit of fine arts
- 2 units of health enhancement
- 1 unit of career and technical education
- 1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
- 6 units elective
- 23 units will be required for graduation

Bozeman High School Honors Diploma

- 4 units of English
- 4 units of math to include Algebra II
- 3 units of science to include chemistry or physics
- 2 units in same world language
- 3 units in social studies to include one unit in Montana Studies/ Global Studies, one unit in U.S. History and one unit in U.S. Government
- 1 unit of fine arts
- 2 units of health enhancement
- 1 unit of career and technical education
- 1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
- 4 units elective
- 25 units will be required for graduation

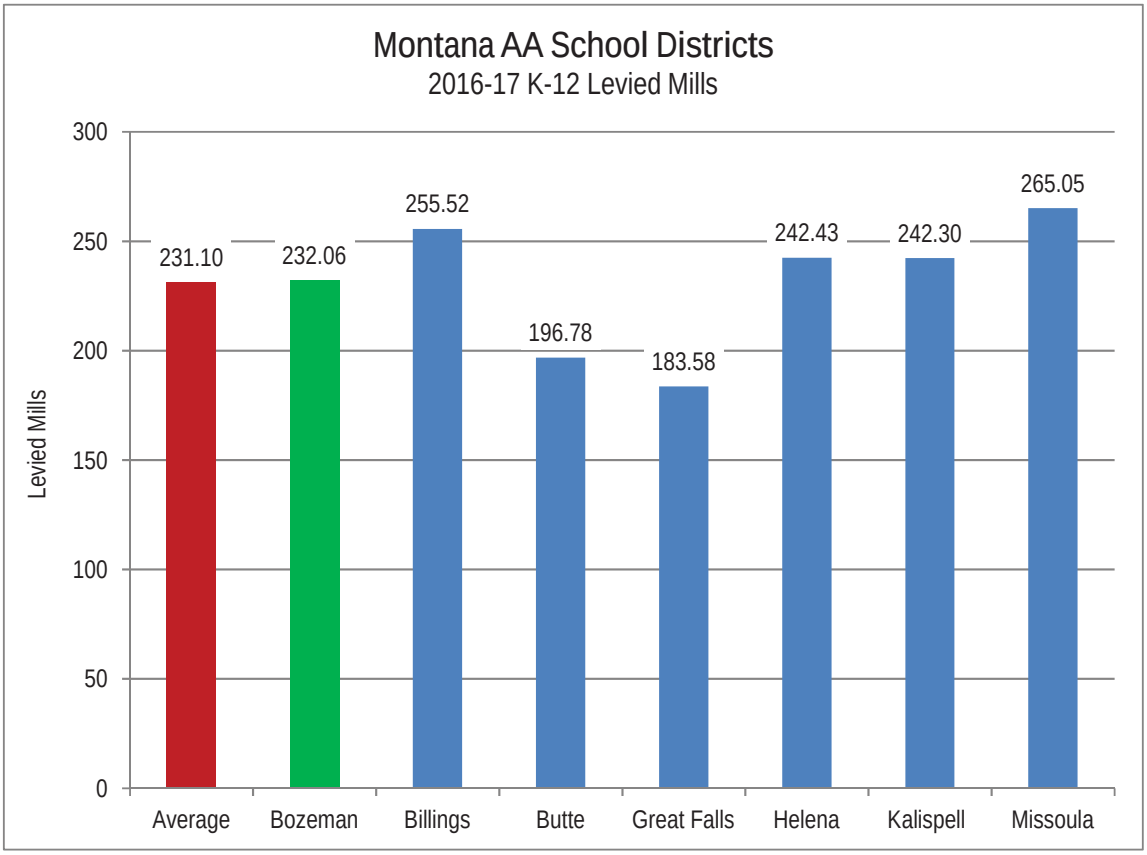
Class of 2016: Number of credits upon graduation

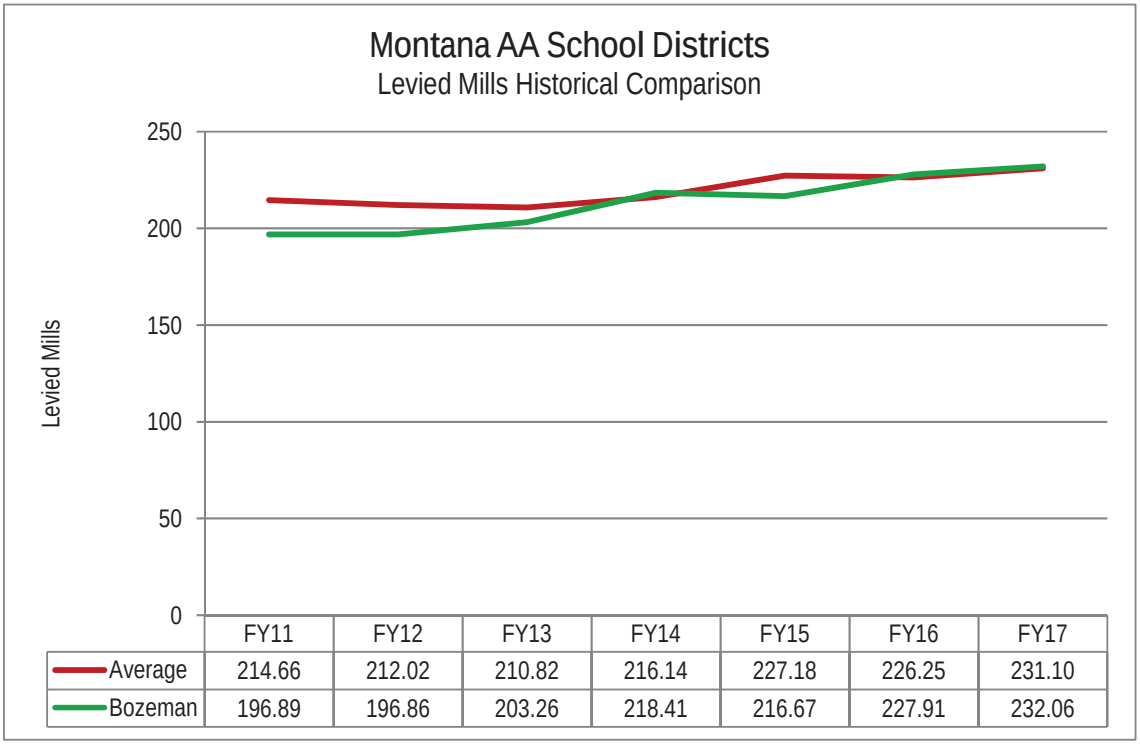
Bozeman High School Class of 2016 - 416 students

- BHS graduated 63 (15%) students with exactly 23 credits.
- Graduated 87 (21%) students with more than 23 credits, but less than 25 credits.
- BHS graduated 51 (12%) students with exactly 25 credits.
- Graduated 152 (37%) students with more than 25 credits, but less than 28 credits.
- BHS graduated 26 (6%) students with exactly 28 credits (7-period day all 4 years).
- Graduated 37 (9%) students with more than 28 credits.

BOZEMAN PUBLIC SCHOOLS
HIGH SCHOOL PRE-BOND PLANNING

STATE COMPARISONS





	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Average	214.66	212.02	210.82	216.14	227.18	226.25	231.10
Bozeman	196.89	196.86	203.26	218.41	216.67	227.91	232.06

PROGRAM SUMMARY

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL PROGRAM

Updated: 08/07/17

NEW HIGH SCHOOL FACILITY - SUMMARY

Space	Programming Calculations		TS	Pre-Bond	Program Notes
Students Served		**1,500**		1,500	Targeted maximum capacity with 80% utilization
# of Teaching Stations		**72**		72	72 X 26 X 0.8 = 1,498 Students (1,500 targeted)
Gross Square Feet per Student		**203**		203	
Learning Communities (Classrooms & Labs)		**100,035**	**54**	100,178	98,090 SF OH State Standard (54 teaching stations)
Commons / Kitchen		**27,180**	**0**	30,360	35,390 SF OH State Standard (cafetorium model)
Admin / Student Services		**8,665**	**0**	7,950	8,490 SF OH State Standard
Special Education / Resource		**6,693**	**0**	6,305	6,550 SF OH State Standard
Visual Arts		**7,566**	**3**	6,656	6,100 SF OH State Standard
Music		**10,764**	**3**	10,387	11,860 SF OH State Standard
Performance Hall (Drama)		**13,644**	**1**	13,284	0 SF OH State Standard (cafetorium model)
Athletics / Activities / Health		**71,628**	**6**	71,598	42,930 SF OH State Standard (1 main gym, 1 court aux)
Library / Media Center		**10,075**	**0**	10,075	9,180 SF OH State Standard
Career Technical Education		**29,760**	**5**	28,275	17,760 SF OH State Standard (doesn't include shops)
Building Support		**18,941**	**0**	18,932	22,850 SF OH State Standard
	High School Total	**304,951**	**72**	304,000	259,200 SF OH State Standards (2017)

FUTURE GROWTH PLANNING

Students Served		**1,800**		1,800	Targeted maximum capacity with 80% utilization
# of Teaching Stations		**87**		87	87 X 26 X 0.8 = 1,810 Students (1,800 targeted)
Gross Square Feet per Student		**195**			
High School Total		**304,951**		304,000	
Future Addition		**46,306**		40,800	3 story addition adjacent to the learning communities, plus room for one story activities and drama additions.
	High School Total	**351,257**	**87**	344,800	

NEW HIGH SCHOOL CAMPUS

Street Improvements		**Yes**		Yes	
Separate Bus & Student Drop-off Zones		**Yes**		Yes	
Student/Staff/Public Parking Spaces		**900**	**ea**	900	300 of theses spaces to be at the north city fields
Bike Parking Spaces		**90**	**ea**	90	
8-Lane Running Track & Football Field		**1**	**ea**	1	Future 10-lane track & stadium expansion + comfort station
Artificial Turf Upgrade		**0**	**ea**	0	Desired, but not budgeted
Competition Soccer Field		**1**	**ea**	1	To be constructed at the new north city fields
Field Events		**1**	**ea**	1	Discus, shotput, long jump, pole vault (fenced)
Practice Fields		**3**	**ea**	3	
Softball Fields		**2**	**ea**	2	Provide space for 2 additional fields
Tennis Courts		**8**	**ea**	8	10' fence, plus small storage shed
Art Kiln / Storage Facility		**400**	**sf**	0	Easy defined additive alternate
Facilities Storage Building / Yard		**7,200**	**sf**	0	Easy additive alternate. Could include district IT center.
Track & Field Storage Facility		**500**	**sf**	500	Easy additive alternate. Could include district IT center.
CTE Shop Yard		**16,000**	**sf**	10000	Includes 400 sf metal foundry, covered storage, work areas
Loading Dock		**1**	**ea**	1	

PROGRAM SUMMARY

BOZEMAN PUBLIC SCHOOLS
PROPOSED NEW HIGH SCHOOL PROGRAM

PROGRAM DETAIL PER AREA

Space	Programming Calculations					TS	Pre-Bond	Program Notes
LEARNING COMMUNITIES								
Small Classrooms	0	@	700	=	**0**	**0**	5,600	24 students / classroom
Standard Classrooms	35	@	850	=	**29,750**	**35**	22,100	28 students / classroom
Combo Classroom	10	@	900	=	**9,000**	**10**	7,200	28 students / classroom (w/ folding partition)
Science Labs (Chemistry)	2	@	1,500	=	**3,000**	**2**	3,900	28 students / classroom
Science Labs (Biomed)	1	@	1,500	=	**1,500**	**1**	0	28 students / classroom
Science Labs (Physics)	1	@	1,500	=	**1,500**	**1**	3,900	28 students / classroom
Science Labs (Biology)	2	@	1,300	=	**2,600**	**2**	3,600	28 students / classroom
Science Labs (General)	3	@	1,200	=	**3,600**	**3**	3,600	28 students / classroom
Science Prep / Work	4	@	400	=	**1,600**	**0**	1,800	Two labs to share prep / work rooms
Teacher Work/Planning Areas	8	@	500	=	**4,000**		4,000	
Collaborative Plazas	8	@	1,600	=	**12,800**		14,400	
Small Group Conference Room	8	@	250	=	**2,000**		2,000	
Learning Community Storage	8	@	220	=	**1,760**		1,760	
Learning Community Display	8	@	80	=	**640**		0	
Learning Community Locker Alcoves	16	@	200	=	**3,200**		3,200	2-tier, 12"w x 15"d x 6'h vision lockers with combo locks 188 lockers per learning community = 1,504 total
Non-Assignable Increase	30%	@	76,950	=	**23,085**		23,118	
	Department Total				**100,035**	**54**	100,178	
COMMONS / KITCHEN								
Learning Street	600	@	12	=	**7,200**		11,250	Breakout areas, comfortable seating, study spaces
Commons Town Square	600	@	20	=	**12,000**		11,250	Tables for seating 600 students
Kitchen	1	@	1,000	=	**1,000**		1,500	
Dry Storage	1	@	1,200	=	**1,200**		400	
Walk-In Refrigerator	1	@	375	=	**375**		240	
Walk-In Freezer	1	@	375	=	**375**		160	
Office	1	@	100	=	**100**		100	
Staff Room	1	@	150	=	**150**		150	
Restroom	1	@	50	=	**50**		50	
Servery	0	@	2,750	=	**0**		0	Food court service, multiple windows, open seating
Concessions	1	@	200	=	**200**		200	
Non-Assignable Increase	20%	@	22,650	=	**4,530**		5,060	
	Department Total				**27,180**	**0**	30,360	

PROGRAM SUMMARY

ADMIN / STUDENT SERVICES										
MAIN OFFICE										
Waiting / Secretarial Office / Reception	1	@	600	=	**600**			800	
Admin Offices	4	@	150	=	**600**			600	Decentralized administration configuration
Admin Assistant	1	@	120	=	**120**			120	
Staff Break Room	1	@	280	=	**280**			280	
Staff Restrooms	2	@	60	=	**120**			120	
Work / Mail Room	1	@	240	=	**240**			240	
Large Conference	2	@	250	=	**500**			600	With folding partition between
Small Conference / Misc Rooms	2	@	150	=	**300**			300	
Secure Storage / Records	1	@	150	=	**150**			150	
Detention	1	@	300	=	**300**			300	
Storage	1	@	100	=	**100**			100	
Business / Attendance Office	1	@	275	=	**275**			275	
Admin Offices	1	@	150	=	**150**			150	
Counseling Plaza with Reception	1	@	300	=	**300**			400	
Counseling Offices	4	@	120	=	**480**			480	Reduced to 4 (1 counselor per 400 students)
Secure Storage	2	@	120	=	**240**			240	
Career Center Suite	1	@	500	=	**500**			600	
Counseling Classroom	0	@	850	=	**0**			0	Share with an adjacent general classroom
Offices (specialists, support, mentors, etc.)	4	@	120	=	**480**			0	Reduced to 4 from 8
Conference Room	1	@	250	=	**250**			250	
Health Center / Nurses Station	1	@	500	=	**500**			500	
Restrooms	3	@	60	=	**180**			120	
Non-Assignable Increase	30%	@	6,665	=	**2,000**			1,325	
	Department Total				**8,665**		**0**	7,950	
SPECIAL EDUCATION / RESOURCE										
Plaza / Resource Center	1	@	400	=	**400**			0	
Classrooms (CCCR/AAS, TAPS/SEB)	4	@	850	=	**3,400**			2,550	
Restrooms / Shower	2	@	100	=	**200**			200	
OT / PT Room	1	@	250	=	**250**			250	
Resource Center	0	@	850	=	**0**			850	Share with plaza above
Specialist Offices	1	@	400	=	**400**			400	Suite w/ private conf rooms
Smal private conference rooms	3	@	120	=	**360**			300	
Storage Rooms	2	@	150	=	**300**			300	
Non-Assignable Increase	30%	@	4,610	=	**1,383**			1,455	
	Department Total				**6,693**		**0**	6,305	
VISUAL ARTS										
Teacher Work/Planning Areas	1	@	250	=	**250**			250	Shared with CTE
Small Conference	1	@	120	=	**120**			120	
Art Labs (2D, 3D)	2	@	2,000	=	**4,000**		**2**	3,750	
Art Classroom (maker space)	1	@	850	=	**850**		**1**	400	Shared with CTE learning commuity
Art Storage	2	@	200	=	**400**			400	
Indoor - Kiln / Storage	1	@	200	=	**200**			200	
Outdoor - Kiln / Storage	0	@	500	=	**0**			0	Easy Additive Alternate (Separate Outdoor Facility)
Non-Assignable Increase	30%	@	5,820	=	**1,746**			1,536	
	Department Total				**7,566**		**3**	6,656	

PROGRAM SUMMARY

MUSIC									
	Teacher Work/Planning Areas	3	@	120	=	**360**		250	Reduced office size
	Small Conference	0	@	120	=	**0**		120	
	Music Studio (Band)	1	@	2,000	=	**2,000**	**1**	2,000	
	Music Studio (Orchestra)	1	@	2,000	=	**2,000**	**1**	2,000	
	Music Studio (Choir)	1	@	1,500	=	**1,500**	**1**	1,600	Reduced sf (could be back half of performance hall)
	Music Plaza	1	@	800	=	**800**		400	
	Small Practice Room	4	@	80	=	**320**		320	
	Large Practice Room	2	@	150	=	**300**		300	
	Ensemble Practice Room	1	@	250	=	**250**		250	
	Music Storage	3	@	250	=	**750**		750	
	Non-Assignable Increase	30%	@	8,280	=	**2,484**		2,397	
		Department Total				**10,764**	**3**	10,387	
PERFORMANCE HALL (DRAMA)									
	750 Seat Sloped Auditorium Seats	750	@	7.0	=	**5,250**	**1**	5,250	Could be split space w/ upper folding stadium seating
	Control Booth	1	@	150	=	**150**		150	
	Stage	1	@	2400	=	**2400**		2,400	
	Stage Storage	1	@	400	=	**400**		250	
	Stage Shop	1	@	400	=	**400**		600	Could be shared with the CTE wood shop
	Tickets / Sound Lobby	1	@	150	=	**150**		150	
	Dressing Restrooms	2	@	400	=	**800**		800	
	Small Dressing / Restrooms	2	@	60	=	**120**		120	
	Drama Costume Storage	1	@	200	=	**200**		150	
	Drama Classroom (Speech & Debate)	1	@	1500	=	**1500**		1,200	
	Non-Assignable Increase	20%	@	11,370	=	**2,274**		2,214	
		Department Total				**13,644**	**1**	13,284	

PROGRAM SUMMARY

ATHLETICS / ACTIVITIES / HEALTH									
Gymnasium - Competition 2,500 Seats	1	@	17,300	=	**17,300**	**2**	17,300	Main floor seats with end zone bleachers
Gymnasium Balcony - Add 1,000 Seats	0	@	4,800	=	**0**		0	Future 1,000 balcony seats w/ PE phased space
Auxiliary Gym - (2 Courts Each)	2	@	11,400	=	**22,800**	**4**	22,400	Primary court with bleacher seating for approx 200/gym
Wrestling Room (42'x42' matt size)	1	@	2,200	=	**2,200**		2,400	Future balcony seating
Fitness Center / Weight Room	1	@	3,600	=	**3,600**		3,600	Reduced size. Future balcony seating conversion
Team Locker Room	2	@	1,600	=	**3,200**		3,200	
PE Locker Rooms	4	@	1,200	=	**4,800**		4,000	
Small Locker Rooms	2	@	100	=	**200**		200	
PE Office	2	@	270	=	**540**		540	
Staff Lockers / Showers	2	@	200	=	**400**		400	
Officials Rooms	2	@	100	=	**200**		200	
Team Rooms	2	@	850	=	**1,700**		1,600	
Training Room	1	@	500	=	**500**		500	
Laundry	1	@	250	=	**250**		250	
AD Office	1	@	135	=	**135**		135	
Coaching Center	2	@	270	=	**540**		540	
Storage	6	@	200	=	**1,200**		800	
Health Enhancement Classrooms / Labs	0	@	850	=	**0**		1,600	See general classrooms
Entry Lobby	1	@	150	=	**150**		0	Secondary events entry was requested
Non-Assignable Increase	20%	@	59,565	=	**11,913**		11,933	
	Department Total				**71,628**	**6**	71,598	
LIBRARY / MEDIA CENTER								
Collaboration Area (stacks and social seating)	1	@	2,500	=	**2,500**		2,500	Adjacent to collaborative breakout space
Research Area (quiet seating and study)	1	@	2,250	=	**2,250**		2,250	
Small Study Rooms	4	@	150	=	**600**		600	
Large Study Rooms	3	@	200	=	**600**		500	
Library Work & Storage	1	@	600	=	**600**		600	
Writing Lab	1	@	900	=	**900**		1,000	
Circulation Area	1	@	300	=	**300**		300	
Non-Assignable Increase	30%	@	7,750	=	**2,325**		2,325	
	Department Total				**10,075**	**0**	10,075	Reduced to pre-bond area allocations
CAREER TECHNICAL EDUCATION								
Metal / Welding Lab	1	@	4,300	=	**4,300**		4,000	Area for art metal-smithing / jewelry
Woods / Construction Lab	1	@	3,500	=	**3,500**		4,000	Potential sharing with drama stage set
Auto / Engines Lab	1	@	3,500	=	**3,500**		4,000	
Classrooms	3	@	700	=	**2,100**	**3**	1,700	Shared with art & learning community for utilization
Arch/Eng Lab	1	@	1,400	=	**1,400**		1,500	
Storage	5	@	280	=	**1,400**		800	
Offices	5	@	100	=	**500**		400	
Exterior Courtyard and Storage Yard	1	@	16,000	=	**0**		0	Exterior storage yard not in calc. See outdoor spaces.
FCS Lab / Classroom (Culinary Arts)	1	@	1,750	=	**1,750**		1,500	What type of kitchen, size of room, and shared spaces
FCS Lab (Storage, Refrig, Freezer)	1	@	250	=	**250**		250	Reduced the sf from original programming session
FCS Classroom	1	@	850	=	**850**		0	Fashion, interiors, childhood development
Daycare	0	@	0	=	**0**		0	Not programmed
Photo / Graphics Lab	1	@	1,400	=	**1,400**		0	To include small dark room
Production Studio	1	@	600	=	**600**		600	Green screen, broadcasting and recording
Business Lab	1	@	1,350	=	**1,350**	**1**	2,400	28 students / classroom
Business Classroom	1	@	850	=	**850**	**1**	0	Could be a shared classroom
Conference Room	1	@	250	=	**250**		0	
Student Store (DECA)	1	@	500	=	**500**		400	
Store Storage	1	@	300	=	**300**		200	
Non-Assignable Increase	20%	@	24,800	=	**4,960**		6,525	
	Department Total				**29,760**	**5**	28,275	

PROGRAM SUMMARY

BUILDING SUPPORT									
Large Restrooms	12	@	250	=	**3,000**		3,000	
Small Restrooms	6	@	60	=	**360**		360	
IT Rooms	7	@	80	=	**560**		560	
IT Office	1	@	200	=	**200**		200	Reduce in size. Office to support 1-2 staff.
IT Storage Staging	0	@	900	=	**0**		0	See separate facilities facility
IT Computer Lab	0	@	1,350	=	**0**		0	See separate facilities facility
Receiving / Storage	1	@	800	=	**800**		800	
Maintenance Shop	1	@	800	=	**800**		800	
Office	1	@	150	=	**150**		150	
Break Room	1	@	300	=	**300**		300	
Custodial Storage	1	@	600	=	**600**		600	
Custodial Rooms	6	@	100	=	**600**		600	
Mech / Elec	4	@	1,800	=	**7,200**		7,200	
Outside Storage and Yard	0	@	5,000	=				See exterior facilites building
Loading Dock	0	@	1,500	=				Exterior loading dock not in interior sf calc
Non-Assignable Increase	30%	@	14,570	=	**4,371**		4,362	
	Department Total				**18,941**	**0**	18,932	
Total Non-Assignable Increase					**61,071**		62,250	
TOTAL GROSS BUILDING AREA	**203**	**sf/**	**Student**		**304,951**	**72**	304,000	
FUTURE ADDITION									
Small Classrooms	0	@	700	=	**0**		1,400	24 students / classroom
Standard Classrooms	9	@	850	=	**7,650**	**9**	7,650	28 students / classroom
Combo Classroom	3	@	900	=	**2,700**	**3**	1,800	28 students / classroom (w/ folding partition)
Labs (Science / Prep / Computer)	2	@	1,500	=	**3,000**	**2**	3,000	28 students / classroom
Teacher Work/Planning Areas	3	@	500	=	**1,500**		1,000	
Collaborative Breakout Spaces	3	@	1,800	=	**5,400**		3,700	One is to be the future Bridger Charter Academy commons
Small Group Conference Room	3	@	250	=	**750**		500	
Learning Community Storage	3	@	220	=	**660**		450	
Learning Community Lockers	3	@	200	=	**600**		800	
Learning Community Display	2	@	80	=	**160**		160	
Black Box Theatre (Allow for Future Space)	1	@	7,200	=	**7,200**	**1**	7,200	Create for future area near drama if desired
Activities/ Athletics 1,000 Balcony Seat Addition	1	@	7,800	=	**7,800**		4,800	Create for future area near activities
Non-Assignable Increase	30%	@	29,620	=	**8,886**		8,340	
	Department Total				**46,306**	**15**	40,800	3-Story Learning Community Addition
TOTAL FUTURE GROSS	**195**	**sf/**	**Student**		**351,257**	**87**	344,800	

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Math

ROOM / SUITE: Math Suite

OCCUPANCY: 30 students/class : 17 FTE

LEVEL: 2nd or 3rd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Classroom space required. If each student had a computer to use the Math Lab may not be required. Classrooms are currently shared with study hall use. Large hallways desired. Tables/chairs used in 1/4 of rooms, others use desks. No desire for block schedule.

ADJACENCIES & SHARED SPACES:

Near physics. Proximity to Science could work. None are critical connections. Math Lab to be centralized in school - doesn't have to be with math dep't.

FIXED EQUIPMENT FIXTURES & CABINETS:

Upper & Lower Cabinets(lockable). 9 LF
White boards w/ 1 sliding bd. -on all walls
10 LF of bookshelf with counter on top
wardrobe closet - lockable
cell phone caddy storage (bag to hang up)

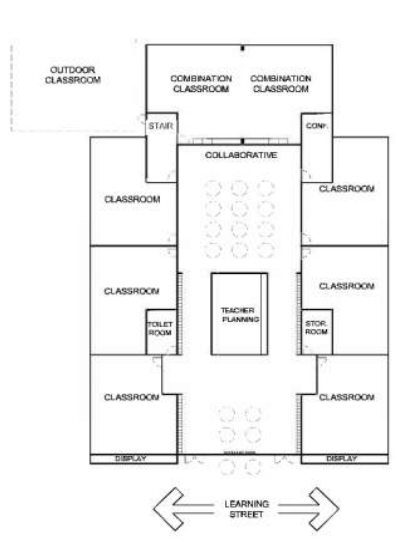
FURNITURE & MOBILE EQUIPMENT:

Computer carts

SURFACE FINISHES / ACOUSTICS:

Flooring - prefer hard surface
STC 50 rating
sun control shading

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Capture Camera -for teacher station
projectors with good sound system desired
dimmable lights - switch near teaching station
Receptacles on all walls - as many as possible

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Classroom standard
Sinks in rooms desired
operable windows desired

ROOM(S) / SUITE DETAILS:

Math Classrooms
Math Lab - (typ. 20 people in room)
Offices
Storage
Copy printer room
Conference room - with fridge & sink desired

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: World Language

ROOM / SUITE: Suites of 8 rooms

OCCUPANCY: 30 students/class

LEVEL: Any

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

9 teachers (7 fulltime, 3 part-time)
Latin, German, Spanish, French
No special software

ADJACENCIES & SHARED SPACES:

FCS with ProStart for regional cooking lessons , tastings, and demonstrations
Library
Writing Lab
Other portions of the liberal arts education

FIXED EQUIPMENT FIXTURES & CABINETS:

Standard classroom
Combination classrooms for team teaching
12' long x 7' tall storage cabinets
Multiple walls of magnetic white boards

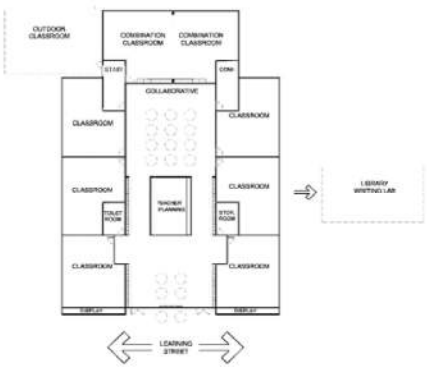
FURNITURE & MOBILE EQUIPMENT:

Per typical classroom
2-person movable tables for quick classroom setup and reconfiguration
Adjustable heights for standing, stool and sitting

SURFACE FINISHES / ACOUSTICS:

Need good sound attenuation between classrooms for video and audio language lessons

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
One teacher uses the interactive monitor
Interactive TV monitors and projectors
Adjustable lighting for varying classroom and presentation needs
Voice enhancement
Every student with a laptop
2 printers per department with 1-color copier

MECH. / PLUMB. / ENVIRONMENTAL:

Per standard classroom

ROOM(S) / SUITE DETAILS:

Classrooms - see program detail sheet
Teacher planning area w/sink

Store student and teacher books in both the classroom and teacher workrooms Book cases and lower cabinets in classrooms are used for this Prefer to have offices or shared conference area separate from book storage for teacher preparation and department meetings. Needs upper and lower cabinets and a sink.
Collaborative spaces outside their classrooms would be used for small groups or combined class activities. (similar to English Multi-Purpose)

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Social Studies

ROOM / SUITE: Suites of rooms

OCCUPANCY: 30 students/class

LEVEL:

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

7 AP classes in addition to required and electives
17 FTE

ADJACENCIES & SHARED SPACES:

English
Library
Writing Lab
Other portions of the liberal arts education

FIXED EQUIPMENT FIXTURES & CABINETS:

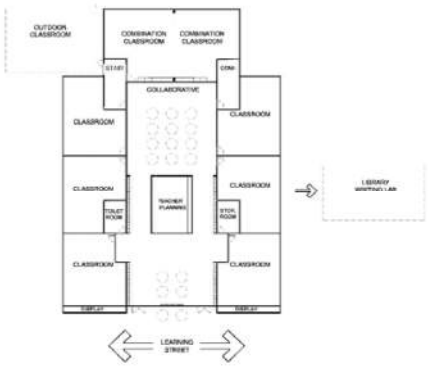
Standard classroom
Combination classrooms for team teaching

FURNITURE & MOBILE EQUIPMENT:

Per typical classroom
Separate desks for freshmen and sophomores
2-person desks for juniors and seniors
Adjustable heights for standing, stool and sitting
Moveable walls between more classrooms

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Interactive TV monitors and projectors
Adjustable lighting for varying classroom and presentation needs
Voice enhancement
Skype
Virtual Museum

MECH. / PLUMB. / ENVIRONMENTAL:

Per standard classroom

ROOM(S) / SUITE DETAILS:

Future combination classes could be AP English IV and Government
Interested in the idea of the Agora or "Community Living Room"
Teachers need areas for preparation and student meetings
Currently have a departmental workroom/breakroom. This is working for the group.
Outdoor classrooms in various configurations would support the program

Classrooms - see program detail sheet

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: English

ROOM / SUITE: Suites of Rooms

OCCUPANCY: 30 students/class

LEVEL:

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

23 teachers
Multi Purpose Room for Larger Groups (Example: Skype with an author for combined classrooms)
Outdoor classrooms
Outdoor amphitheater for reading Shakespearean plays.

ADJACENCIES & SHARED SPACES:

Social Studies
Library
Writing Lab
Other portions of the liberal arts education

FIXED EQUIPMENT FIXTURES & CABINETS:

Standard classroom
Junior English stores paperback books: 4-5 sets for 30 students or 150 books per classroom.
Base cabinets with doors work for this purpose.

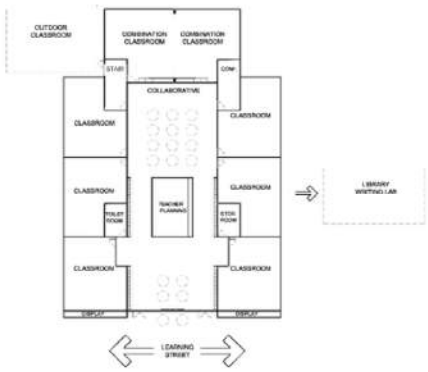
FURNITURE & MOBILE EQUIPMENT:

Per typical classroom
Separate desks for freshmen and sophomores
2-person desks for juniors and seniors
Adjustable heights for standing, stool and sitting
Moveable walls between more classrooms

SURFACE FINISHES / ACOUSTICS:

White boards with stationary and two sliding

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Interactive TV monitors and projectors
Adjustable lighting for varying classroom and presentation needs
Outdoor amphitheater with power and vocal enhancements

MECH. / PLUMB. / ENVIRONMENTAL:

Per standard classroom

ROOM(S) / SUITE DETAILS:

Future combination classes could be AP English IV and Government
Speech and debate start in their own classroom and expand into others for after school practice.
Currently rooms are teacher's offices. English workroom would be appreciated for grading and study.

Classrooms - see program detail sheet

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Science /Physics/Chemistry

ROOM / SUITE: Science Suite

OCCUPANCY: 32 students/class

LEVEL: Any

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

15 teachers (13.4 FTE)

ADJACENCIES & SHARED SPACES:

Health Sciences for shared classrooms
Physics
CTE

FIXED EQUIPMENT FIXTURES & CABINETS:

Chemistry lab tables with gas, sinks & power
Physics lab tables with sink & power
All surfaces to be chemically resistant resin.
Cabinets and storage per supplies list.

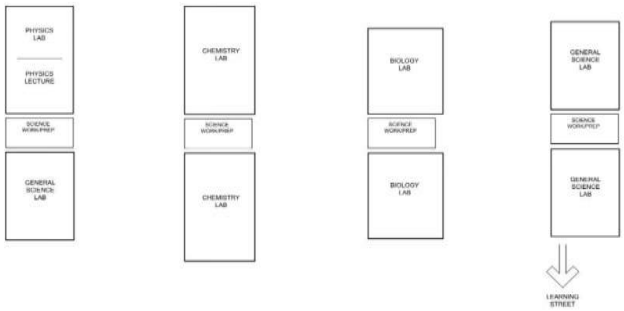
FURNITURE & MOBILE EQUIPMENT:

Physics/Biology
2-person movable tables for quick classroom setup and reconfiguration
Adjustable heights for standing, stool and sitting

SURFACE FINISHES / ACOUSTICS:

Same as other classrooms with the exception of the chemically resistant resin countertops.

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Physics needs AC and Ac to DC capability
Interactive TV monitors and projectors
Adjustable lighting for varying classroom and presentation needs
Voice enhancement
Every student with a laptop
2 printers per department with 1-color copier

MECH. / PLUMB. / ENVIRONMENTAL:

Per standard classroom
Chemistry classrooms have a hood.
Chemical storage/preparation area with mechanical needs to ventilate products in area.

ROOM(S) / SUITE DETAILS:

Chemistry rooms can be used for Health Sciences (CTE) and all other science (expect Physics and Biology)
The Chemistry and Physics configurations can work for study halls.
Chemistry classroom hood is for demonstration and preparation
Instructor desk are same between Chemistry and Physics with a standing section with sink, power (two kinds for Physics), gas (Chemistry) and oxygen (Chemistry) and a sitting section. Chemically resistant resin desk tops.
Collaborative spaces outside their classrooms would be used for small groups or combined class activities. (similar to English Multi-Purpose)

Labs /classrooms - see program detail sheet

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS

Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Kitchen

ROOM / SUITE: Suite

OCCUPANCY: 5.5 FTE, 1,500 Students

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

50% of food preparation is in the school cafeteria.
50% is in the district's kitchens.
Add locations for distribution of pre-ordered outside vendor's food
Add Barista station for sale and distribution of smoothies for students and coffee for staff
Breakfast service with two lunch seating's per day

ADJACENCIES & SHARED SPACES:

FCS Prostart Program
Receiving and loading dock
Main Facilities/Custodial Department

FIXED EQUIPMENT FIXTURES & CABINETS:

Kitchen to provide list of required equipment
12 - 1/2 height lockers (3' tall x1'x'1)

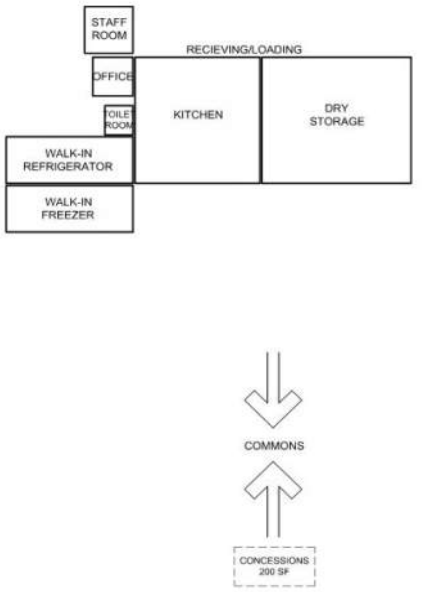
FURNITURE & MOBILE EQUIPMENT:

Cafeteria tables, chairs
Food Service prefers folding long tables with 8 per side so they can be rolled out of the way for cleaning.
Adding healthy vending machines to specific locations throughout the school.

SURFACE FINISHES / ACOUSTICS:

Per health and building code requirements

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Kitchen to provide list of required equipment
New vending machines will need to be hardwired for the internet for direct point of sale from
At serving line, 3-4 monitors that can be designed and changed to show daily food options

MECH. / PLUMB. / ENVIRONMENTAL:

Per health and building code requirements
Washer/Dryer

ROOM(S) / SUITE DETAILS:

Commons seating area
Learning street
Concessions
Kitchen
Walk-in Refrigerator
Walk-in Freezer
Office
Dry Storage
Toilets with lockers (potentially shared with Facilities/Custodial
Server/Point of Sale
Staff room
Server/Point of Sale

* Determined by district leadership for food court style setup with multiple lines for quick service

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Admin / Student Services

ROOM / SUITE: Admin. Suite

OCCUPANCY:

LEVEL: Ground - main entry

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Safety is paramount for new school. Prefer to spread admin out through out building. Separate main entry from athletics entry. SRO to be with the attendance office. Clubs/ community use of conference rooms occur.

ADJACENCIES & SHARED SPACES:

Adjacent to main entry(s). Pairing AP with student services is desired (proximity).

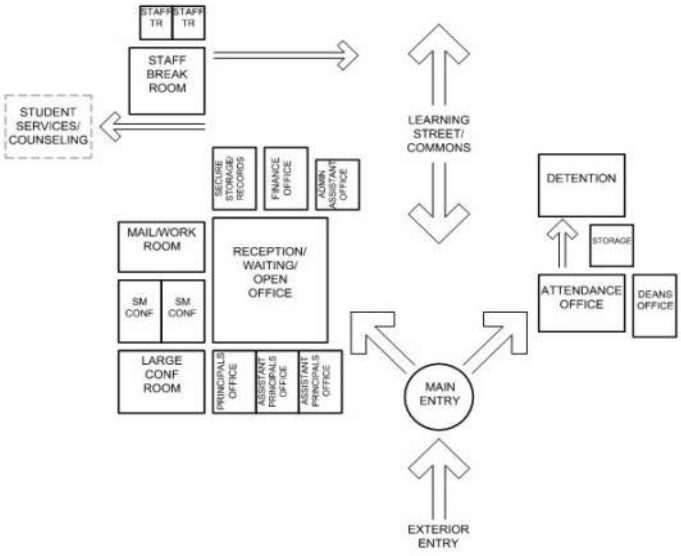
FIXED EQUIPMENT FIXTURES & CABINETS:

FURNITURE & MOBILE EQUIPMENT:

SURFACE FINISHES / ACOUSTICS:

STC 50 rating

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

MECH. / PLUMB. / ENVIRONMENTAL:

ROOM(S) / SUITE DETAILS:

Principal office
AP offices
Dean office - potentially
Student Resource Officers (SRO) office
Attendance/business office
Finance office
Waiting/office reception
Mail/workroom
Large conference rooms
Small conference rooms
Staff break room
Secure storage/ Records
Admin. Assistant
Staff restrooms
Health center / Nurse
Detention
Restrooms
Offices (specialists, support, mentors, etc.)

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Counseling / Student Services

ROOM / SUITE: Counseling Suite

OCCUPANCY:

LEVEL: 2nd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Semi private waiting area with a separate entrance from Admin. Area.

ADJACENCIES & SHARED SPACES:

Near Administration.

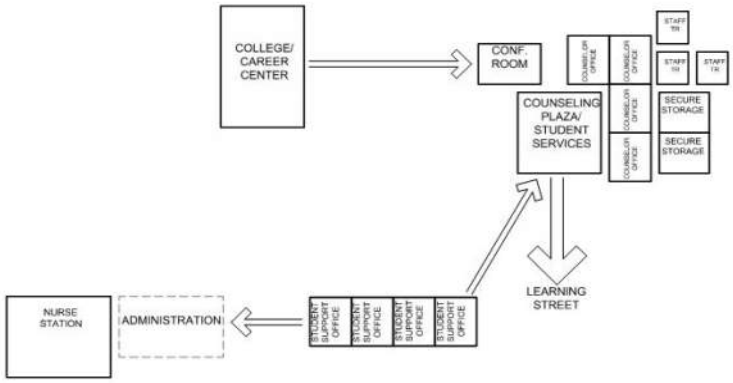
FIXED EQUIPMENT FIXTURES & CABINETS:

FURNITURE & MOBILE EQUIPMENT:

SURFACE FINISHES / ACOUSTICS:

STC 50 rating

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Edu. Standards

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Standards

ROOM(S) / SUITE DETAILS:

Counseling Plaza/ reception
Counceling Offices
Conference room (12-15 people) - could be shared
Classroom
Student Support Services: office
ALTA Care:offices near conf. room
Parent Liaison
Thrive/CAP mentor

A2X (5-7 students) - room with computers - separate entrance preferred at exterior
Data Specialist
Family/School Coordinator (homeless)
English Learners (EL)

Office supply/ storage room
Restrooms

College & Career Center suite

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Special Ed. Life Skills

ROOM / SUITE: Special Ed. Suite

OCCUPANCY: 10 FTE staff

LEVEL: Multiple floors

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Accessibility to students important. Provide a place for staff and students to come for support. Inclusive model of Special Ed used. Provide bathroom with a lift central to classrooms.

ADJACENCIES & SHARED SPACES:

Near Transportation outdoors. Proximity to Student Services/Counseling.

FIXED EQUIPMENT FIXTURES & CABINETS:

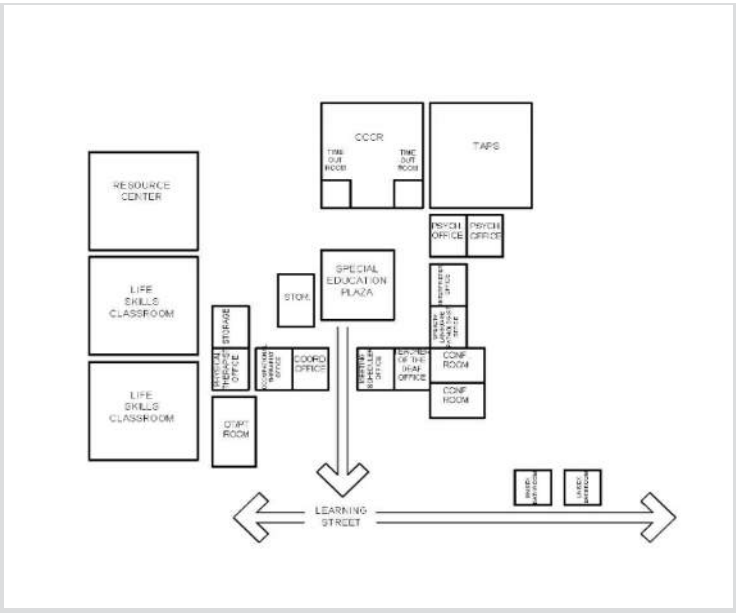
FURNITURE & MOBILE EQUIPMENT:

Tables and chairs

SURFACE FINISHES / ACOUSTICS:

STC 50 rating

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Edu. Standards

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Standards

ROOM(S) / SUITE DETAILS:

Special Ed Plaza
CCCR Classroom - flexible furniture
TAPS Classroom - computers & tables
Life Skills Classrooms - w/kitchen, wash/dry, bathroom
unisex bathrooms with lift
time out rooms - close to CCCR classrooms
Specialist offices/planning center :
Psychologist
Coordinator
Meeting Scheduler
Teacher of Deaf (TOD)
Speech/ Language pathologist (SLP)
Occupation Therapist (OT) / Physical Therapist (PT)
Interpreter

Small Conference Rooms
PT/OT storage rooms

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Art

ROOM / SUITE: Visual Arts suite

OCCUPANCY: 5 Staff : 22-30 students/class

LEVEL: Ground / varies

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

2D & 3D & Tech Labs. Cool Hang-outs. Passive collaboration. Shared space with transparency.

ADJACENCIES & SHARED SPACES:

CTE adjacency. Collaborate with other art classes. Outdoor connection (deliveries + courtyard desired). Graphics lab to combine with photo (includes screen print). Potential to share classroom/maker space with Business (green screen), CTE, and Art combined.

FIXED EQUIPMENT FIXTURES & CABINETS:

Electric Kiln - interior
Gas kiln - exterior w/storage desired
Wet & Dry Storage
Chemical (ceramic glaze) Storage
upper and lower cabinets in each room: X LF
Project storage cabinets (students)

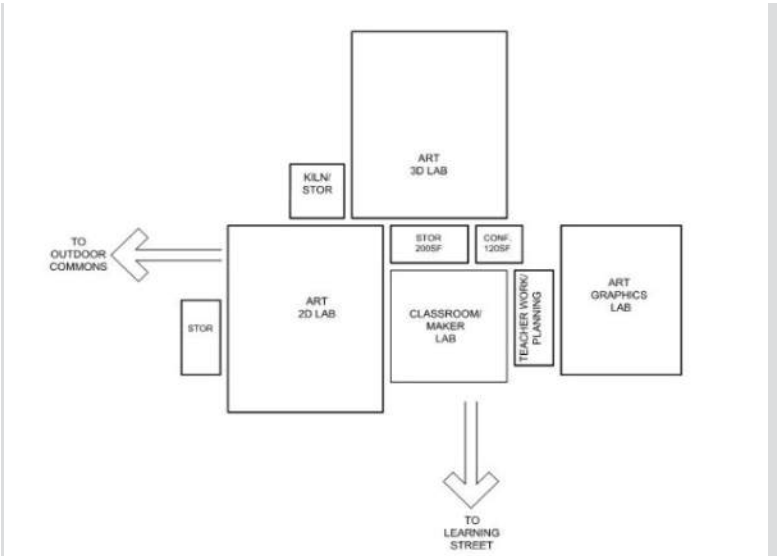
FURNITURE & MOBILE EQUIPMENT:

Square table w/stools (storage locker under
Easels
10 ceramic wheels
Laser cutter
Silk screen equipment - with graphics
limited power tools
Plotters/printer - graphics lab

SURFACE FINISHES / ACOUSTICS:

Ceramics - concrete floor (slope to drain)
Sliding tack board & Critique area
Whiteboards
STC 50 rating

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

HD monitors
Film/projections & Music in labs
Receptacles in Ceiling (retractable)
Large quantity of receptacles
220v outside

ROOM(S) / SUITE DETAILS:

Maker space classroom - shared
2D lab
3D lab
Graphics Tech Lab / Photo - see CTE program sheet
Storage - supplies
Teacher planning/ prep
Critique space - w/gallery component
small conference
Storage - student projects
indoor kiln / storage
outdoor kiln / storage (heated room desired)

MECH. / PLUMB. / ENVIRONMENTAL:

Additional Ventilation req's per room in suite
Sinks, Traps mandatory 1 ea. per classroom/lab
Spray booth - shared between labs

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Music
ROOM / SUITE: Suite
OCCUPANCY: 500-600 students / 5 staff
LEVEL: Ground
SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Acoustic performance. Volume of space. Line of sight.

ADJACENCIES & SHARED SPACES:

Adjacent to Performance Hall stage. Proximity to Drama. Good outdoor connection desired. Outdoor performance amphitheater requested

FIXED EQUIPMENT FIXTURES & CABINETS:

See additional sheets

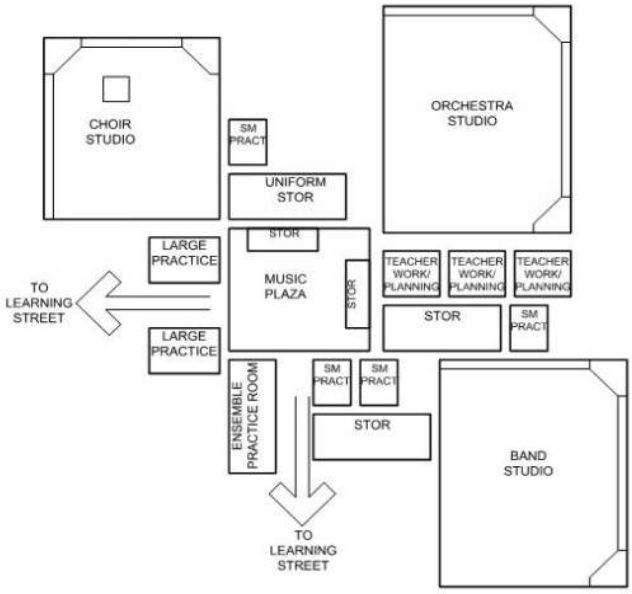
FURNITURE & MOBILE EQUIPMENT:

See additional sheets

SURFACE FINISHES / ACOUSTICS:

See additional sheets

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

See additional sheets

MECH. / PLUMB. / ENVIRONMENTAL:

See additional sheets

ROOM(S) / SUITE DETAILS:

Teacher Work/Planning area (prefer single offices)
Small Conference - shared room for staff
Music Studios (3) - (prefer size of current rooms)
Music Plaza
Small practice room (4)
Large practice room (2)
Ensemble practice room (1)
Music storage (3)

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Music

ROOM / SUITE: Plaza

OCCUPANCY:

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Multiuse space for collaboration, social, and includes adjacent practice rooms, uniforms, and instrument storage rooms.

ADJACENCIES & SHARED SPACES:

Adjacent to music studios, uniform and instrument storage, teacher planning area, and practice rooms.

FIXED EQUIPMENT FIXTURES & CABINETS:

Storage - instruments (band & orchestra)
Storage - equipment; x LF
Storage - uniforms (band 200 reg. + 160

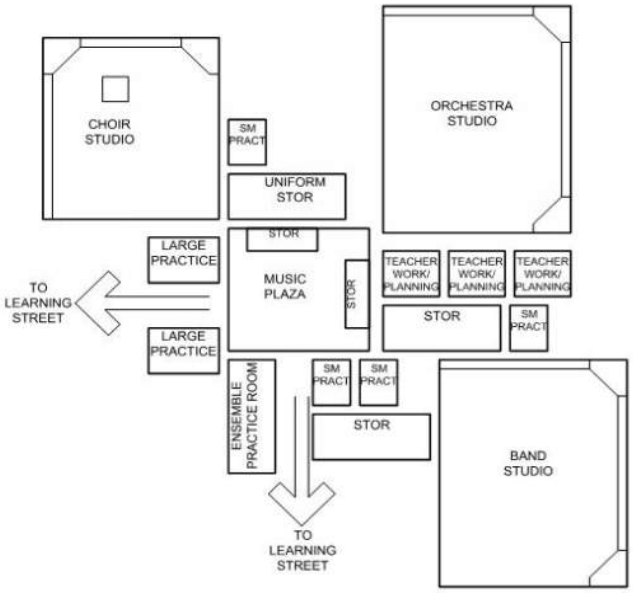
FURNITURE & MOBILE EQUIPMENT:

Storage - music library (13 file cabinets)

SURFACE FINISHES / ACOUSTICS:

Premanufactured practice modules -Lockable

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Educational standard

MECH. / PLUMB. / ENVIRONMENTAL:

Large sink (instrument cleaning)
Drinking Fountain/water bottle filler station

ROOM(S) / SUITE DETAILS:

Music Plaza
Small practice room (4)
Large practice room (2)
Ensemble practice room (1)
Music storage (3)

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Music

ROOM / SUITE: Studio: Band

OCCUPANCY: 50-75

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Acoustic performance. Volume of space. Line of sight.

ADJACENCIES & SHARED SPACES:

Adjacent to Music plaza. Adjacent practice rooms. Near teacher planning. Outdoor connection - practice field.

FIXED EQUIPMENT FIXTURES & CABINETS:

Storage - instruments, & equipment

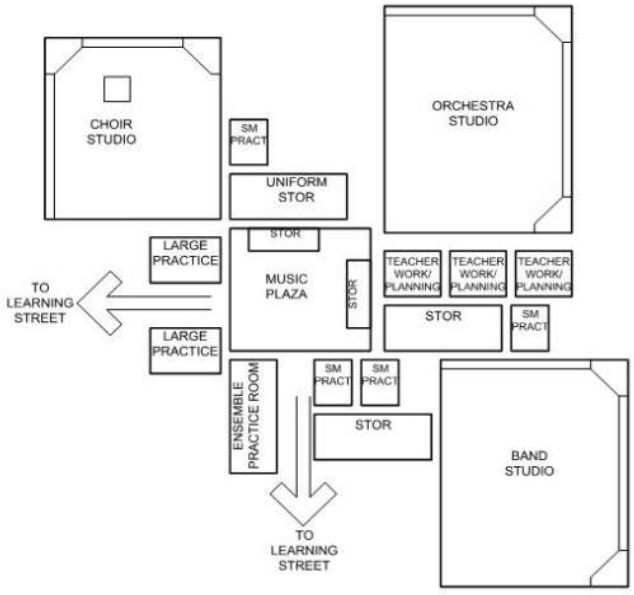
FURNITURE & MOBILE EQUIPMENT:

Storage - sheet music

SURFACE FINISHES / ACOUSTICS:

Premanufactured practice modules -Lockable STC 60 rating. Want sound absorption

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Recording/capture play back

MECH. / PLUMB. / ENVIRONMENTAL:

ROOM(S) / SUITE DETAILS:

Music Studio : Band
Storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Music
ROOM / SUITE: Studio: Orchestra
OCCUPANCY: 65
LEVEL: Ground
SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:
Acoustically attuned for orchestra performances. Volume of space, high ceilings. Line of sight for rooms, plaza, and practice rooms. Large doors for instruments. Acoustical separation between other music studios, plaza, and practices rooms.

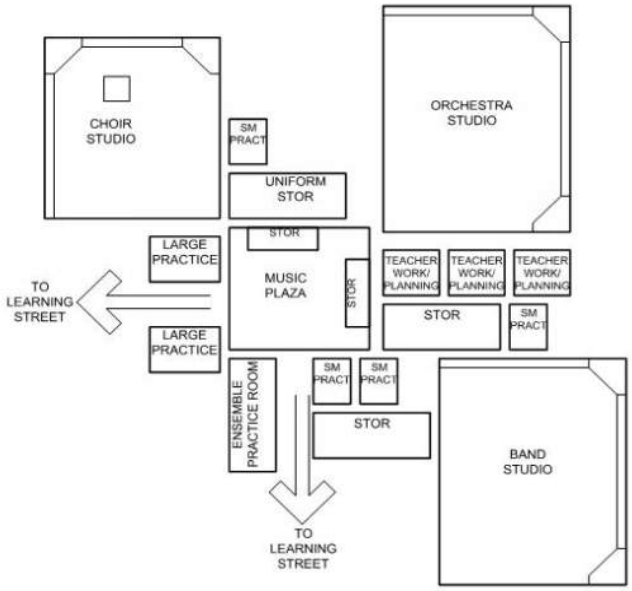
ADJACENCIES & SHARED SPACES:
Adjacent to Music plaza. Adjacent practice rooms. Near teacher planning. Direct access to outdoors.

FIXED EQUIPMENT FIXTURES & CABINETS:
Storage cabinets for instruments
White boards, tack strips

FURNITURE & MOBILE EQUIPMENT:
Mobile sheet music cabinet
Chairs, caddies, stands, podium

SURFACE FINISHES / ACOUSTICS:
Premanufactured practice modules - lockable
STC 60 rating between rooms.
Sound reverberation desired (hard surfaces)
Acoustically designed space for instruments

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:
Recording/capture play back
Multilevel switching
Projector / screen
Mics and speakers

MECH. / PLUMB. / ENVIRONMENTAL:
Drinking fountain / bottle filling station close by
Independent temperature control
Thermal comfort and conditioning for large group
Quiet low volume system for good acoustics

ROOM(S) / SUITE DETAILS:
Music Studio : Orchestra
Storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Music

ROOM / SUITE: Studio: Choir

OCCUPANCY: 60

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Acoustically attuned for vocal performances. Volume of space, high ceilings. Line of sight for rooms, plaza, and practice rooms. Large doors for equipment and piano. Acoustical separation between other music studios, plaza, and practices rooms.

ADJACENCIES & SHARED SPACES:

Adjacent to Music plaza. Adjacent practice rooms. Near teacher planning.

FIXED EQUIPMENT FIXTURES & CABINETS:

Storage cabinets for equipment
White boards, tack strips

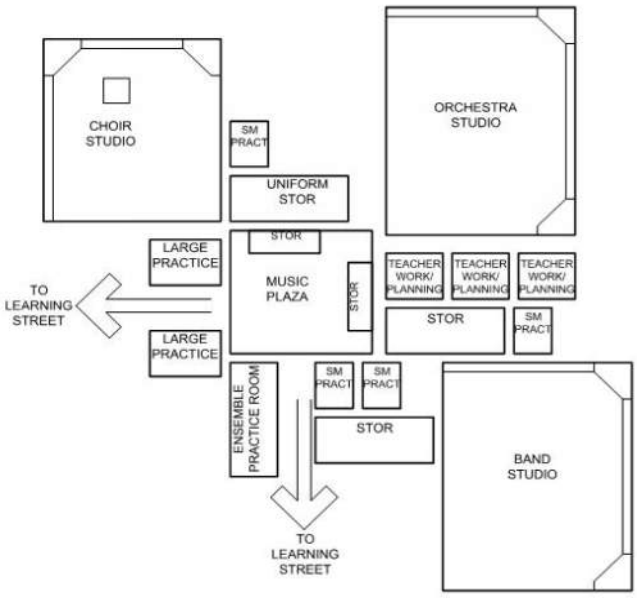
FURNITURE & MOBILE EQUIPMENT:

Chairs, caddies, stands, podium
Portable tiered risers (with wide steps for chairs)
Piano - baby grand

SURFACE FINISHES / ACOUSTICS:

Premanufactured practice modules -Lockable
STC 60 rating between rooms.
Sound reverberation desired (hard surfaces)
Acoustically designed space for vocals

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Recording/capture play back
Multilevel switching
Projector / screen
Mics and speakers

MECH. / PLUMB. / ENVIRONMENTAL:

Drinking fountain / bottle filling station close by
Independent temperature control
Thermal comfort and conditioning for large group
Quiet low volume system for good acoustics

ROOM(S) / SUITE DETAILS:

Music Studio: Choir
Storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Performance Hall

ROOM / SUITE: Performance Hall Suite

OCCUPANCY: 750 seats

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Acoustic performance is paramount. Stage space and aesthetics are also a priority. Out door amphitheater space desired (performance & lecture).

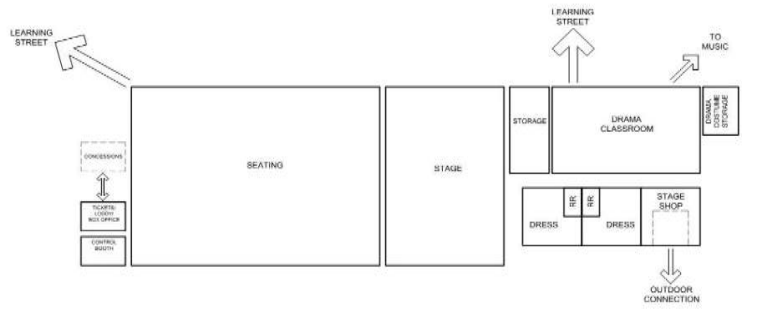
ADJACENCIES & SHARED SPACES:

Adjacent to Drama. Near Music. Adjacent entry lobby area. Outdoor connection desired. Functional space under the seats - desired.

FIXED EQUIPMENT FIXTURES & CABINETS:

Storage - equipment

PROGRAM DIAGRAM:



FURNITURE & MOBILE EQUIPMENT:

Tiered risers - from choir room
Piano - baby grand - from choir room

SURFACE FINISHES / ACOUSTICS:

STC 60 rating

ELEC. POWER / LIGHTING / AV/ IT:

Sound and Lighting booth - center of seating area

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. performance hall standard

ROOM(S) / SUITE DETAILS:

Stage
Seats - sloped
Sound & Light controll booth
(2) Dressing rooms
Box office/ Concessions
Lobby area
(2) small restrooms/dressing
Stage Storage
Stage shop

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Drama

ROOM / SUITE: Performance Hall Suite

OCCUPANCY: 30 students/ class max

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Drama classroom- (same size as the stage desired) used to mock up performances in room. Acoustics/sound and Lighting are critical.

ADJACENCIES & SHARED SPACES:

Proximity to English and Music Practice Rooms. Adjacent to Performance Hall, storage, dressing rooms, & shop.

FIXED EQUIPMENT FIXTURES & CABINETS:

LCD Projector and screen - In Drama Rm.

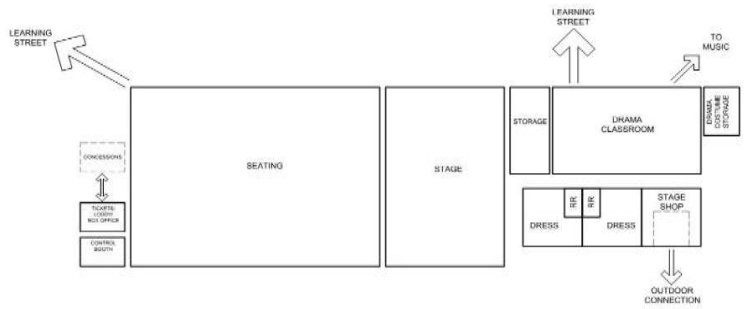
FURNITURE & MOBILE EQUIPMENT:

Whiteboard - portable/on casters for Drama Rm.

SURFACE FINISHES / ACOUSTICS:

Hard flooring surface - in Drama classroom
Concrete flooring - in stage shop
Mirrors - dressing rooms

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Sound & lights(portable) - in Drama Rm
Dimming capabilities
speakers and mics used in Drama Rm

MECH. / PLUMB. / ENVIRONMENTAL:

Sink - in each dressing room
Washer/dryer - drama storage

ROOM(S) / SUITE DETAILS:

Drama classroom (this can be used as Green Rm space)
Stage Storage (lockable): - costumes, props, script files, risers/platforms. App
Stage shop: w/wood storage, hand tools used with workbench
(2) Dressing rooms M&F: (for 20-25 people)
Costume storage

See performance hall program too

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Athletics

ROOM / SUITE: Gym Suite

OCCUPANCY: see other sheets

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

2500 capacity competition gym + 2 Auxiliary gyms. Accommodate assemblies, tournaments, BB, VB, Wrestling & PE functions. Back of house corridor between gyms desired.

ADJACENCIES & SHARED SPACES:

Adjacent to entry/lobby, concessions & Outdoor space. Balcony area for additional seating.

FIXED EQUIPMENT FIXTURES & CABINETS:

See additional sheets

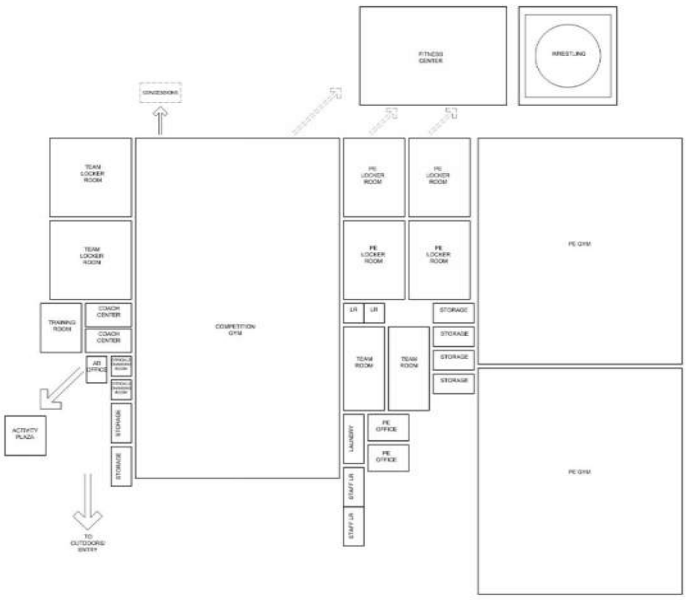
FURNITURE & MOBILE EQUIPMENT:

See additional sheets

SURFACE FINISHES / ACOUSTICS:

STC 55-60 rating (if sensitive acoustic adjacency)

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

See additional sheets

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Gym standard

ROOM(S) / SUITE DETAILS:

Competition Gym
Auxiliary Gyms
Weight & Fitness room
Wrestling practice room
Team locker rooms
PE locker rooms
Team rooms
Official changing rooms
Training room
Laundry
Gym Storage
Offices (2 per locker room in opposite corners)
Athletic Director Office
Coaching center (conf. room for film)
Gender neutral restroom/LR

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Athletics

ROOM / SUITE: Competition Gym

OCCUPANCY: 2500-3500 seats

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

2500 capacity competition gym. Assemblies, tourneyments, BB, VB, Wrestling & PE functions. Pep Band at endzone location.

ADJACENCIES & SHARED SPACES:

Adjacent to entry/lobby, concessions & Outdoor space. Near Locker rooms, training room.

FIXED EQUIPMENT FIXTURES & CABINETS:

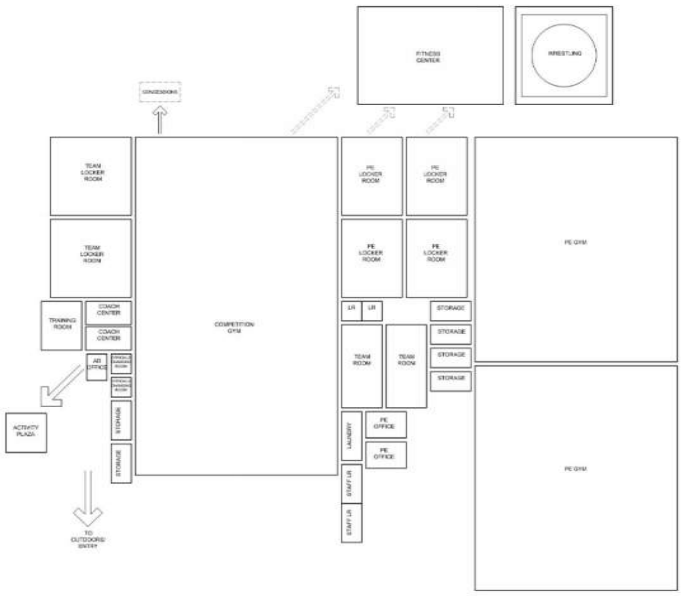
Bleachers
6 BB Hoops - retractable
Storage - equip. & Uniforms

FURNITURE & MOBILE EQUIPMENT:

Retractable curtains @ ea. Gym
VB standards

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Score board - low voltage
film/announcing Balcony
music/aux. - plug in iPad etc.

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Gym standard

ROOM(S) / SUITE DETAILS:

Competition Gym
PE stations - back folding bleachers to gain court space
Gym Balcony
Team locker room
PE locker room
small locker rooms
PE office
Staff lockers/ showers
officials rooms
training room
laundry
AD office
Coaching Center
Storage
entry / lobby

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Athletics

ROOM / SUITE: Auxiliary Gyms

OCCUPANCY:

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

2 auxiliary gyms. Tournaments, BB, VB, Wrestling & PE functions.

ADJACENCIES & SHARED SPACES:

Adjacent to entry/lobby, concessions & Outdoor space. Next to PE locker rooms. Proximity to the Weight & Fitness room.

FIXED EQUIPMENT FIXTURES & CABINETS:

Bleachers - spectator
BB Hoops - retractable
Storage - equipment

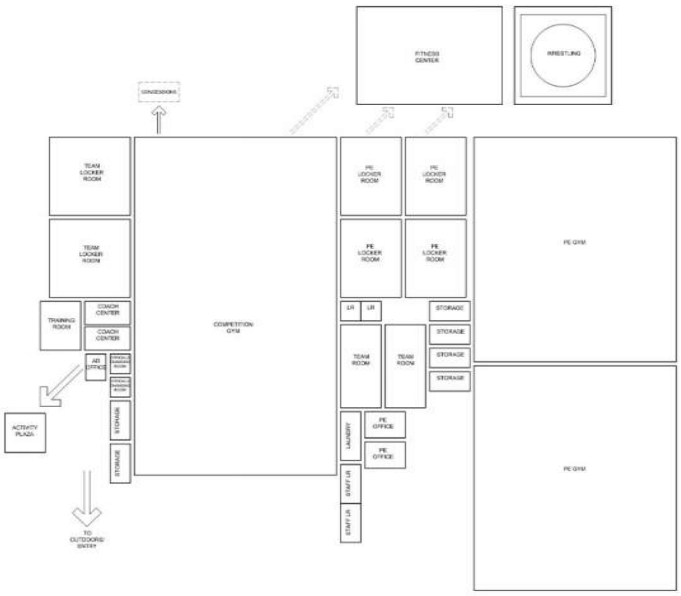
FURNITURE & MOBILE EQUIPMENT:

Retractable curtains @ ea. Gym
VB standards
Wrestling mat storage - competition mat

SURFACE FINISHES / ACOUSTICS:

White board w/out tray in aux. gyms

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Score board - low voltage
music/aux. - plug in iPad etc.

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Gym standard

ROOM(S) / SUITE DETAILS:

(2) Auxiliary Gyms

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Athletics

ROOM / SUITE: Weight & Fitness

OCCUPANCY:

LEVEL: 2nd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Multi use room.

ADJACENCIES & SHARED SPACES:

Proximity to locker rooms. Adjacent gyms.

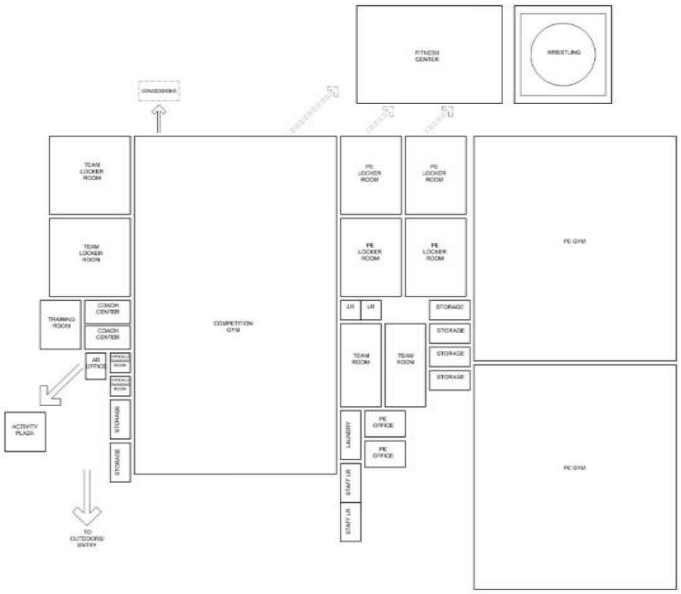
FIXED EQUIPMENT FIXTURES & CABINETS:

FURNITURE & MOBILE EQUIPMENT:

Free weights
machines

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

music/aux. - plug in iPad etc.

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Gym standard

ROOM(S) / SUITE DETAILS:

Weight & Fitness room
lockable bike/ fitness machine area

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Athletics

ROOM / SUITE: Wrestling practice room

OCCUPANCY:

LEVEL: 2nd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Wrestling practice room. Mats remain in room.

ADJACENCIES & SHARED SPACES:

Proximity to locker rooms. Adjacent indoor track above gyms.

FIXED EQUIPMENT FIXTURES & CABINETS:

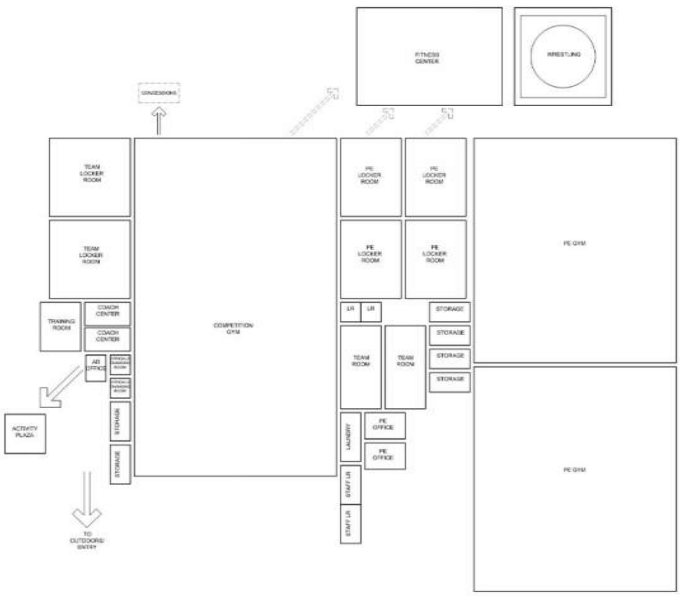
Floor mat

FURNITURE & MOBILE EQUIPMENT:

wrestling matts

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

music/aux. - plug in iPad etc.

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Gym standard

ROOM(S) / SUITE DETAILS:

Wrestling practice room
scale / weigh in area
storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Health Enhancement

ROOM / SUITE: Classrooms

OCCUPANCY: 30 students/class

LEVEL: 2nd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

3 Classroom spaces - could be shared with others.

ADJACENCIES & SHARED SPACES:

Proximity to gym space, & weight/fitness.

FIXED EQUIPMENT FIXTURES & CABINETS:

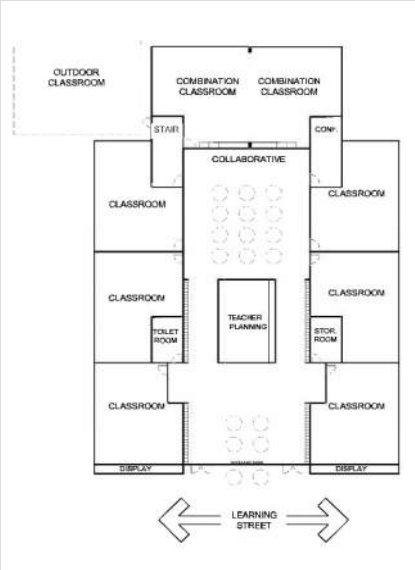
Wardrobe storage cabinets. Lockable. 20 LF
Upper & lower cabinet storage. 6 LF
white board

FURNITURE & MOBILE EQUIPMENT:

SURFACE FINISHES / ACOUSTICS:

Athletic flooring desired in 1 classroom
STC 50 rating

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Projector

MECH. / PLUMB. / ENVIRONMENTAL:

Edu. Classroom standard

ROOM(S) / SUITE DETAILS:

Classroom space
storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

]

NEW HIGH SCHOOL FACILITY

PROGRAM: Library

ROOM / SUITE: Library Suite

OCCUPANCY:

LEVEL: Learning Street

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Goal to be the hub and center of the school
Currently a location for evening meetings
Would like to be a location for a student-run Barista stand

ADJACENCIES & SHARED SPACES:

Writing Lab
Learning Street
English
Social Studies
World Languages
Bathrooms (Evening Meetings)

FIXED EQUIPMENT FIXTURES & CABINETS:

Lockable storage for staff's personal items, computers, camera checkout, to/video equipment
Low shelving that is easily reconfigured. No tall shelving that needs to be bolted to the floor.
Librarians to provide a list of other items.

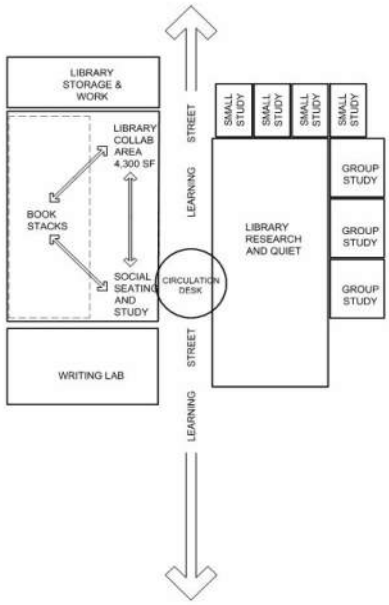
FURNITURE & MOBILE EQUIPMENT:

Rolling tables and equipment for book processing
Mobile circulation desk is key to the flexibility of the space. Do not like the stationary desk.
Quiet areas with moveable furniture.
Group areas with a variety of configurations
Bistro tables with glass tops for collaboration

SURFACE FINISHES / ACOUSTICS:

White boards for group collaboration
Separation between quiet areas and collaboration
Study rooms with glass windows for collaboration

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Interactive TV monitors in a variety of locations for group collaboration
Power everywhere, even in the floors.
Collaboration is limited based on current location of the outlets.
Network support for phones
Lots of controllable daylighting.
Many ways to artificially light the space with controls

MECH. / PLUMB. / ENVIRONMENTAL:

Good Zoning for HVAC
Work Room/Storage Room with sink for processing and cleaning books.

ROOM(S) / SUITE DETAILS:

Collaboration area
Research area
Small study rooms
Large study rooms
Library Work & Storage
Writing lab
Circulation area

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: CTE suite Classrooms

ROOM / SUITE: CTE suite

OCCUPANCY: 18-25 students/class : 6 FTE curren

LEVEL: Ground & 2nd -classrooms

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

CTE programs offer opportunities for hands-on training and college credit for course work. Includes: Auto, Metals, Woods, Engineering/Arch Graphics, & Photo. Line of sight in all rooms is critical. Acoustics & Exhaust systems, and security of tools also important. CTE can have 2nd floor classrooms

ADJACENCIES & SHARED SPACES:

Outdoor connection. Adjacency to art, business, bio med, culinary… or other electives desired. Loading dock adjacent desired. Loading Dock and outside work areas ProStart, Auto, Woods and Metals Labs. Programs have direct association with Art.

FIXED EQUIPMENT FIXTURES & CABINETS:

See additional sheets
White board, projector - standard classroom

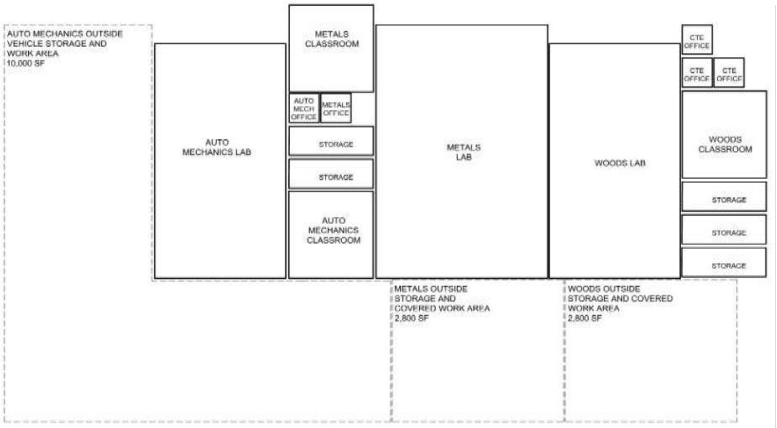
FURNITURE & MOBILE EQUIPMENT:

See additional sheets
Movable tables & chairs - in classrooms

SURFACE FINISHES / ACOUSTICS:

STC 50 rating
Concrete floors - shops & classrooms

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

See additional sheets

MECH. / PLUMB. / ENVIRONMENTAL:

See additional sheets

ROOM(S) / SUITE DETAILS:

Classrooms - could be shared. Prefer double doors
Auto
Metals/ welding lab
Woods
Engineering/ Arch Graphics
Photography (w/silk screening)
Storage
Offices - second floor
Outdoor courtyard Storage / yard
FCS - prostart lab, storage, classroom, daycare
Photo / Graphics Lab
Production studio
Business lab
Business classroom
Conference room
Student store (DECA)
Store storage

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Metals

ROOM / SUITE: CTE suite

OCCUPANCY: 18-22 students/class

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Line of site critical in shop. Metals prepares students for work in the industries of : Building Design and Construction, Oil and Gas, Agriculture, Auto and Machinery Mechanics and others. Welding shares its space with the adult education night program from Gallatin College (David Cohenour, Instructor).

ADJACENCIES & SHARED SPACES:

Outdoor connection - deliveries/materials. Near other CTE program elements.

FIXED EQUIPMENT FIXTURES & CABINETS:

Metal locker - student project/tool storage
Lab: Per Instructor's List

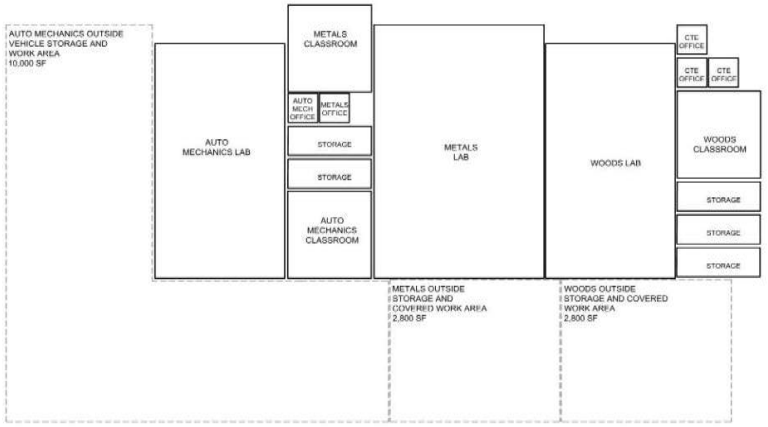
FURNITURE & MOBILE EQUIPMENT:

overhead electric crane system
Lab: Per Instructor's List
Classroom: Mobile furniture

SURFACE FINISHES / ACOUSTICS:

STC 55-60 rating (if sensitive adjacency)
Sealed concrete floors

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

windows desired
Overhead power on reels
video surveillance desired

MECH. / PLUMB. / ENVIRONMENTAL:

HVAC flexibility with equipment in room
Exhaust hoods at eqpt

ROOM(S) / SUITE DETAILS:

Metals shop
Storage room - lockable
Segregated area for machining equipment
outdoor tank farm area /material storage
Forge area w/exhaust hood - in exterior area
classroom
Office

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Woods

ROOM / SUITE: CTE suite

OCCUPANCY: 18-22 students/class

LEVEL: Ground/Second

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Line of site and wall space is critical in wood shop. Students develop small to large wood working projects from furniture to building construction. Overhead door required for deliveries and movement of materials and projects.

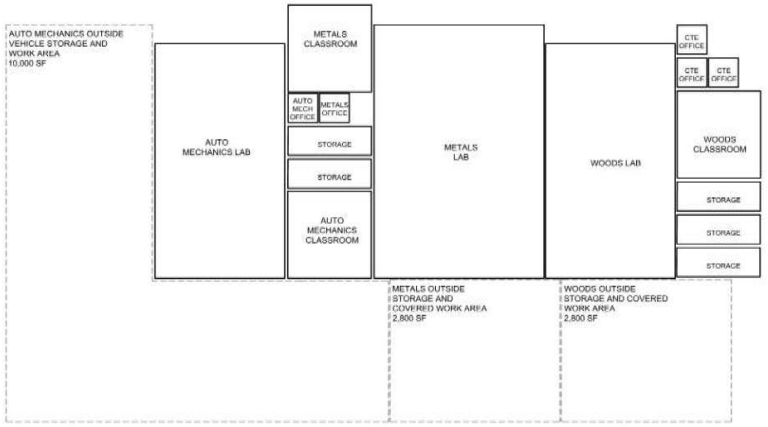
ADJACENCIES & SHARED SPACES:

Outdoor connection - deliveries/materials. Near other CTE program elements.

FIXED EQUIPMENT FIXTURES & CABINETS:

Wall space is critical for tool storage and equipment use.
Project storage lockers or storage room required

PROGRAM DIAGRAM:



FURNITURE & MOBILE EQUIPMENT:

SURFACE FINISHES / ACOUSTICS:

STC 55-60 rating (if sensitive adjacency)
Sealed concrete floors

ELEC. POWER / LIGHTING / AV/ IT:

Overhead power on reels
Windows desired
video surveillance desired
Appropriate and uniform power supply with overhe

ROOM(S) / SUITE DETAILS:

Wood shop
Wood storage room
Project storage area
office - windows to shop space
Classroom - windows to shop space - could be on second floor

MECH. / PLUMB. / ENVIRONMENTAL:

HVAC flexibility with equipment in room
Dust removal system

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Auto

ROOM / SUITE: CTE suite

OCCUPANCY: 18-22 students/class

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Line of site critical in shop. Work on small engines to diesel trucks. Fenced outdoor work area needed. Overhead door required for deliveries and movement of materials and projects.

ADJACENCIES & SHARED SPACES:

Outdoor connection for work space and storage. Desire to be away from Gym & Parking. Near other CTE program elements.

FIXED EQUIPMENT FIXTURES & CABINETS:

Lab: Per Instructor's future list
Provide fenced outdoor area for secure auto and

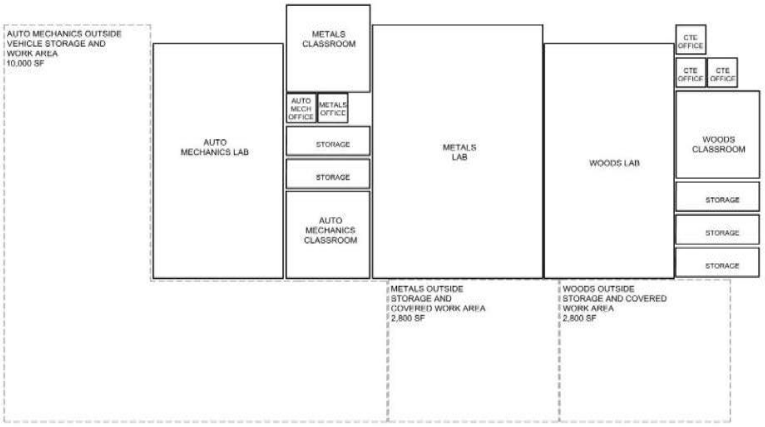
FURNITURE & MOBILE EQUIPMENT:

6 vehicle lifts
Pit for Dyno Jet lift - motorcycle & Vehicle
movable benches - in shop
Student lockers - project/tool storage
Overhead engine crane hoist
Lab: Per Instructor's future list

SURFACE FINISHES / ACOUSTICS:

STC 55-60 rating (if sensitive adjacency)
Sealed concrete floors
At least one overhead door fro large diesel truck

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Overhead power on reels
Appropriate and uniform power supply with overhe

MECH. / PLUMB. / ENVIRONMENTAL:

HVAC flexibility with equipment in room

ROOM(S) / SUITE DETAILS:

Auto Lab - prefer to match exist SF
Covered outdoor space - 10 parking spots
Tool storage room - lockable
Small engines area
Diesel work area
Classroom
Office

Current shop can have 6 vehicles in it at a time.
For parking, program has:
5 shop vehicles
20 total exterior
10 "dead"
10 "live" double

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Engineering & Arch. Graphics

ROOM / SUITE: CTE Suite

OCCUPANCY: 18-22 students/class

LEVEL: Ground / second

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Line of site critical in shop - window from 2nd floor office could be ok. Double entry doors to space desired. 3-D printers and laser cutters used with in the classroom/lab space. If Arch/Eng. Is located on the second floor, a freight or service elevator will be required for equipment delivery

ADJACENCIES & SHARED SPACES:

Outdoor connection. Near other CTE program elements.

FIXED EQUIPMENT FIXTURES & CABINETS:

Large and small student project storage
Instructor storage
Student benches similar to those in Art (Suggestion to use these in Interior/Fashion Design)

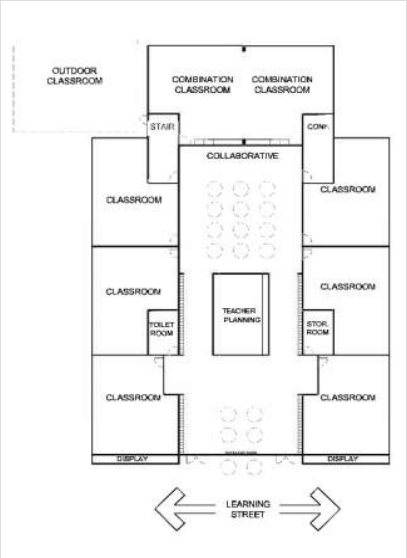
FURNITURE & MOBILE EQUIPMENT:

Tables w/computers
Lab: Specific to Arch/Eng. Graphics
Classroom: Moveable classroom furniture

SURFACE FINISHES / ACOUSTICS:

STC 55-60 rating (if sensitive adjacency)

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Windows desired
laser cutters & 3D modeling eqpt
computers in room
Lab: Appropriate and uniform power supply with ov

MECH. / PLUMB. / ENVIRONMENTAL:

HVAC flexibility with equipment in room
air conditioning desired
Connection for laser cutter eqpt. exhaust

ROOM(S) / SUITE DETAILS:

Engineering & Architectural Graphics lab
Project storage area
Maker space area - benchtop power tools (drill press, band saw, sander)
Storage
Office

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: FCS

ROOM / SUITE: FCS/CTE suite

OCCUPANCY:

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Recruit Students into program's courses
Prepare students for futures in the local economy
Collaborate with the professional school kitchen, Business and other CTE curriculum centers

ADJACENCIES & SHARED SPACES:

Kitchen
Loading Dock
Photography
Green Screen
Art
Business
Health Sciences

FIXED EQUIPMENT FIXTURES & CABINETS:

Storage for Interior Design and Fashion Design materials
Permanent studio tables similar to Art tables with large counter tops and under counter storage

Permanent counter space for sewing machines

FURNITURE & MOBILE EQUIPMENT:

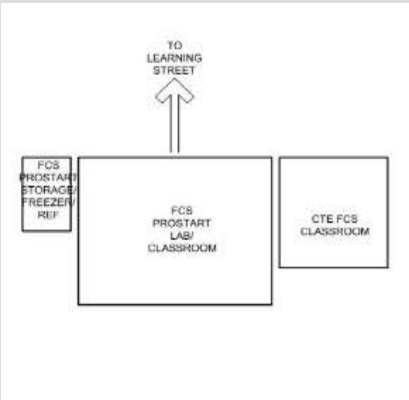
Rolling counter height, stainless steel classroom desks to be used in the shared classroom

Stools for both classrooms
Moving partitions between classrooms similar to the collaborative classrooms for Social Studies/English

SURFACE FINISHES / ACOUSTICS:

Stainless steel for any horizontal surfaces where ProStart students will be working.

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Voice enhancement
Monitors in kitchen area and classrooms
Professional kitchen equipment
Variable lighting control for tasks, overall lecture, and food preparation lighting.
Natural lighting required for interior and fashion design.

MECH. / PLUMB. / ENVIRONMENTAL:

Professional kitchen equipment
3-compartment sink

ROOM(S) / SUITE DETAILS:

FCS
- ProStart Laboratory
- Walk-in Freezer and Refrigerator
- Classroom
- Storage
- Interior/Fashion Design Studio

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Child Care

ROOM / SUITE: FCS/CTE suite

OCCUPANCY:

LEVEL: Ground with rest of FCS

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Interior Design students have an opportunity to earn college credit for coursework

Good storage and display for all tools, supplies and projects
Display in main "Learning Street" as a recruitment tool

ADJACENCIES & SHARED SPACES:

Business
Health Sciences
Art
ProStart
Hawk's Next or similar

FIXED EQUIPMENT FIXTURES & CABINETS:

Standard classroom
See attached equipment list

FURNITURE & MOBILE EQUIPMENT:

See Instructor's list

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:

ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Outlets in layout areas and on studio tables.

MECH. / PLUMB. / ENVIRONMENTAL:

Per list of equipment

ROOM(S) / SUITE DETAILS:

Child Care doesn't need a specific classroom to support the in-school education process. They do, however, need to be associated with an operating child care program where students can gain experience. Direct adjacency to Health Sciences would benefit the program.

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Interior/Fashion Design

ROOM / SUITE: FCS/CTE suite

OCCUPANCY:

LEVEL: Ground with rest of FCS

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Interior Design students have an opportunity to earn college credit for coursework

Good storage and display for all tools, supplies and projects
Display in main "Learning Street" as a recruitment tool

ADJACENCIES & SHARED SPACES:

Business
Arch/Eng.
Art

FIXED EQUIPMENT FIXTURES & CABINETS:

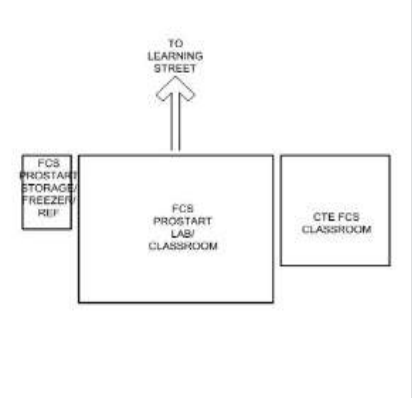
Enclosed cabinets and open shelving for material storage
Student storage and counters
Layout space for pattern and design creation
Layout space for Interior Design boards
Permanent location for sewing machines
White boards

FURNITURE & MOBILE EQUIPMENT:

See Instructor's list

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Outlets in layout areas and on studio tables.

MECH. / PLUMB. / ENVIRONMENTAL:

Per list of equipment

ROOM(S) / SUITE DETAILS:

See CTE Suite

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: ProStart (Culinary Arts)

ROOM / SUITE: FCS/CTE suite

OCCUPANCY:

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:
Placement of students into the hospitality businesses in the surrounding community
Work with School District's Kitchen staff within the school to identify opportunities for students.

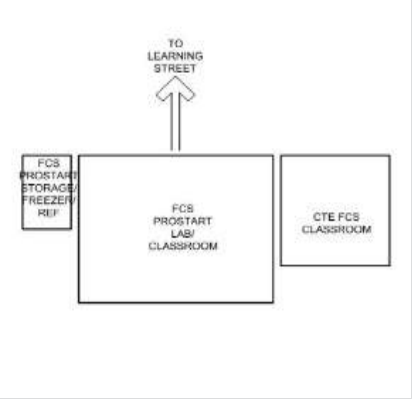
ADJACENCIES & SHARED SPACES:
Loading Dock
Kitchen
Business
Health Sciences
Other FCS Programming

FIXED EQUIPMENT FIXTURES & CABINETS:
No overhead "Island" cabinets
Professional kitchen standards
White boards

FURNITURE & MOBILE EQUIPMENT:
Mobile stainless steel preparation counters in both the shared classroom and ProStart Kitchens

SURFACE FINISHES / ACOUSTICS:
Stainless steel countertops
Instructors request not to be below the gym/wrestling rooms.

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:
Monitors for projection
Multiple outlets for both electric powered kitchen equipment and student/teacher devices.

MECH. / PLUMB. / ENVIRONMENTAL:
Per appliances selected and purchased
Per health department standards

ROOM(S) / SUITE DETAILS:
See instructor's provided list for equipment
ProStart sharing a classroom between the other programs in FCS is possible with an eye toward selecting furnishings based on the ability for them to be sanitized.
See FCS program also

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Health Sciences /Bio Med

ROOM / SUITE: CTE Suite

OCCUPANCY: 25 students/class

LEVEL: Ground with rest of FCS

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Program prepares students to work as CNAs and gives basis for medical technical positions such as EMT.
Goal to add an EMT certification program

ADJACENCIES & SHARED SPACES:

CTE Learning community
Chemistry and other sciences

FIXED EQUIPMENT FIXTURES & CABINETS:

Can use the same setup as the Chemistry Labs.
Need a sink for dissections.
Need a separate office/preparation/storage space from the classroom and from Chemistry
Can use storage shelving similar to and in large

PROGRAM DIAGRAM:

FURNITURE & MOBILE EQUIPMENT:

See Instructor's list

SURFACE FINISHES / ACOUSTICS:

ELEC. POWER / LIGHTING / AV/ IT:

Similar to all classrooms
Outlets in layout areas and on studio tables.
Each student has their own laptop
Same as Chemistry - monitors with good white board components. White board length is 12'+12'+6'. Magnetic white boards are preferred. Otherwise, need additional tack surfaces.

ROOM(S) / SUITE DETAILS:

See Learning Community Labs for Programmed space accounting
Classrooms have the same counters with sinks and stools as chemistry
Separate prep and storage area for supplies and prep sink. Materials and machines list is coming from the instructor
Classrooms have the same storage as chemistry
Additional Program: EMT Certificate. Currently, a Chemistry classroom is the need. Instructor is verifying the potential need for ambulance bay.
Verification from school and department is required. If not identified in the current programming, future planning for an identified location of a demonstration vehicle is suggested.

MECH. / PLUMB. / ENVIRONMENTAL:

Per list of equipment
Standard for a Science Classroom

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Photography / Graphics

ROOM / SUITE: CTE Suite

OCCUPANCY: 18-22 students/class

LEVEL: 2nd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Photography instructs students on graphic design, silk screening, studio photography, traditional photography and dark room skills. Line of sight is critical.

ADJACENCIES & SHARED SPACES:

Outdoor connection. Adjacent Green Screen (Dual purpose with studio photography and Hawk TV). Near other CTE program elements. Combine with Graphics lab

FIXED EQUIPMENT FIXTURES & CABINETS:

Dark closets for rolling film
Storage for camera checkout
U-shaped counter with a length long enough for the instructor to see all student screens at once.

Dark room door
Area for product photography

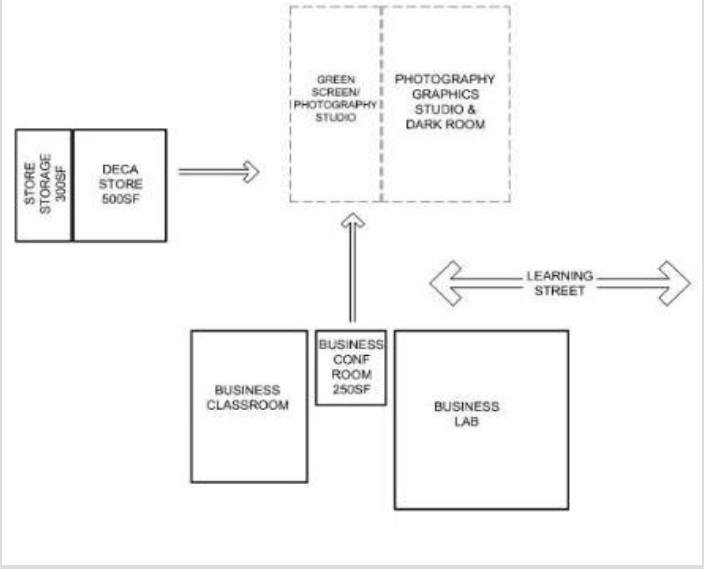
FURNITURE & MOBILE EQUIPMENT:

More hanging display locations
Dark room equipment
Screen printing equipment

SURFACE FINISHES / ACOUSTICS:

STC 50 rating
High ceilings desired

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Graphic computers/classroom (controlled daylighti

Dark room (no daylighting)
Studio (controlled lighting)

MECH. / PLUMB. / ENVIRONMENTAL:

Exhaust system in darkroom
Sink and area designed to develop film

ROOM(S) / SUITE DETAILS:

Photo room / graphics lab
Storage - equipment - to check in /out for students use
Darkroom - with are for rolling film, sink
Studio photo shoot area - people and products
Silk Screening area (wet)
Computer area (dry)

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Business

ROOM / SUITE: CTE suite

OCCUPANCY: 20-22 students/class

LEVEL: 2nd or 3rd floor

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

DECA store desired expand and be on ground floor - could have kiosk for this too. Computer carts used in 2 classrooms, other is dedicated Lab layout. Flexible furniture desired. Connection between classrooms for staff. Natural light desired. Different display cases in hallway - current ones don't work.

ADJACENCIES & SHARED SPACES:

Adjacent to photography/art, CTE & FCS.

FIXED EQUIPMENT FIXTURES & CABINETS:

Upper & Lower Cabinets(lockable). 9 LF
White boards - Magnetic
DECA: Counter tops, rolling overhead door
Good size hallway display cases
Conference room: Counter and cabinets with sink, Keurig

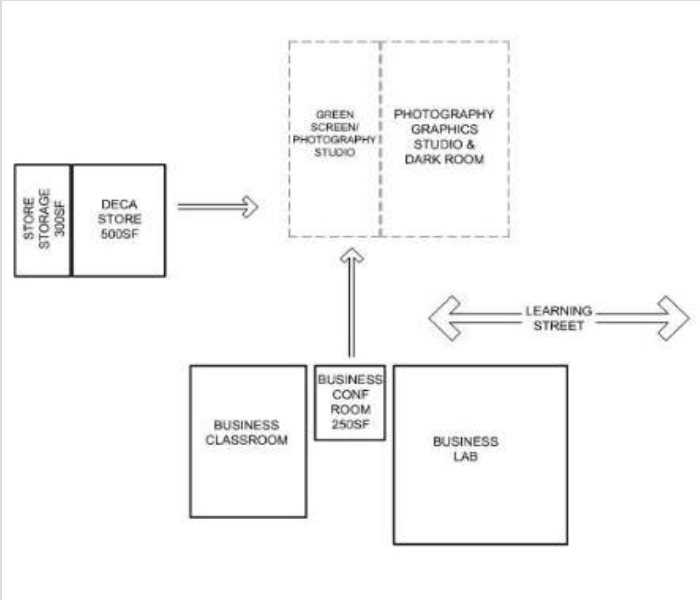
FURNITURE & MOBILE EQUIPMENT:

flexible furniture - classrooms
computer carts
Green Screen: Gather list from instructor
DECA: POS, Commercial Coffee Maker, beverage coolers, snack display
Conference room: Conference table and chairs, casual professional office seating for interviews

SURFACE FINISHES / ACOUSTICS:

STC 50 rating
Green Screen needs good acoustic separation for interviewing and recording
Conference room is a professional area when community business people meet with students.

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Data - in DECA store space
Flexibility in receptacles (floor outlets) - voice enhancement in classrooms
Conference room: Monitor and recording area

MECH. / PLUMB. / ENVIRONMENTAL:

Sink in conf. room space & DECA store

ROOM(S) / SUITE DETAILS:

Classrooms
Computer labs
Green screen room. 3-5 students typ.
DECA (student store) - concession type items + apparel
DECA Storage
Storage
Conference room - students meet community members here

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

]

NEW HIGH SCHOOL FACILITY

PROGRAM: Custodial /Facilities

ROOM / SUITE: Suite and Satellite Closets

OCCUPANCY: varies

LEVEL: Ground

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Locations for just in time servicing of school and storage of supplies
5 day staff. 12 evening staff.
Service daytime and evening events efficiently
Informal' eyes on the school

ADJACENCIES & SHARED SPACES:

Kitchen
Shipping/Receiving
Loading Dock
Building Exterior

FIXED EQUIPMENT FIXTURES & CABINETS:

See room/suite details

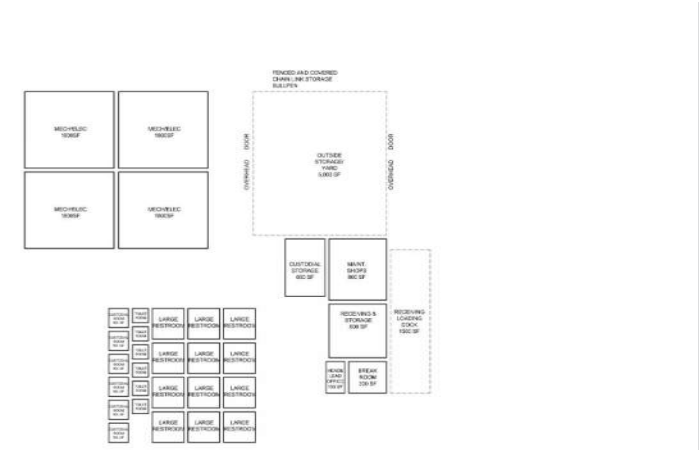
FURNITURE & MOBILE EQUIPMENT:

See room/suite details

SURFACE FINISHES / ACOUSTICS:

See room/suite details

PROGRAM DIAGRAM:



Remote Custodial closets
1 per 24 classrooms large enough for 2 custodial carts (20"x60"), chemical supply, tool storage, floor machine (confirm with Facilities), mops/floor sink, limited paper products
1 closet at CTE with 1 custodial cart and other items common to the 2-custodian closet
1 closet at Gyms, Locker Rooms, Auditorium with 2 custodial carts and other items common to the 2-custodian closet
1 closet at Kitchen with 1 custodial cart and other items common to the 2-custodian closet

ELEC. POWER / LIGHTING / AV/ IT:

See room/suite details

MECH. / PLUMB. / ENVIRONMENTAL:

See room/suite details

ROOM(S) / SUITE DETAILS:

Main Custodial:
Shipping and Receiving
Repair shops including HVAC
Storage for tools, parts and limited supplies
- Floor sink
- Stainless steel, 2-compartment sink with drain boards on each side for wet and dry items

Breakroom for 17
- Residential microwave, coffee maker, microwave, sink
- Computer and printer for time sheets

Office for head and lead with computer
Men's toilet with lockers
Women's toilet with lockers

Outside Equipment Storage
No direct connection between building and storage. Can share a wall
Fenced and covered bullpen with 6' wide gate. Man door from building
Office for lead and a computer
Overhead doors at opposite sides of building with man door for entry

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: IT/Computer

ROOM / SUITE:

OCCUPANCY: 10 FTE

LEVEL: Ground floor through all floors

SQUARE FEET: See Program Detail Sheets

AREA DESCRIPTION & GOALS:

Network closets for classroom pods and at each end of each floor.
No GPON
Housing for school-owned notepads, laptops and computers
Charter is internet provider
Cisco at 920 at ea. school

ADJACENCIES & SHARED SPACES:

Network area close to the elevator
Library storage
Need a closet close to the Green Screen room to offer support to both CTE.
Gymnasium same type of shared closet as Loading Dock

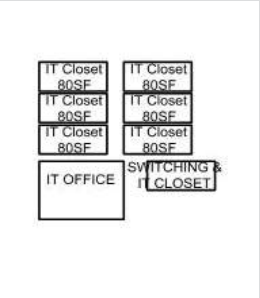
FIXED EQUIPMENT FIXTURES & CABINETS:

Racks per closet: 2-two post, 2-four post
Phone system in closet
Moveable racks
Cabinets and storage per supplies list.

FURNITURE & MOBILE EQUIPMENT:

SURFACE FINISHES / ACOUSTICS:

PROGRAM DIAGRAM:



ELEC. POWER / LIGHTING / AV/ IT:

Backup generator
220 coming into rooms vs 120
Interactive monitors as needed per classroom
Charging carts per classroom
Fiber backbone from school to school
Wireless access point in every classroom
12 strands fiber per building

ROOM(S) / SUITE DETAILS:

If this is the location for the computer department, a space the size of two classrooms may be required for storage and processing of computers.
Currently in Willson. Future decision.
There will need to be a workspace in the school. This may be a storage or workroom close to the library.
Include Brad's e-mail

MECH. / PLUMB. / ENVIRONMENTAL:

Per equipment in each room

EDUCATIONAL SPEC. DETAIL

BOZEMAN PUBLIC SCHOOLS
NEW HIGH SCHOOL ED SPECS
Updated: 08/07/17

NEW HIGH SCHOOL FACILITY

PROGRAM: Student Council
ROOM / SUITE: n/a
OCCUPANCY: 10-12 students
LEVEL: n/a
SQUARE FEET: n/a

AREA DESCRIPTION & GOALS:

n/a

ADJACENCIES & SHARED SPACES:

n/a

FIXED EQUIPMENT FIXTURES & CABINETS:

n/a

FURNITURE & MOBILE EQUIPMENT:

n/a

SURFACE FINISHES / ACOUSTICS:

n/a

PROGRAM DIAGRAM:

Interview with student council students. Desire for Outdoor learning areas, larger classrooms to spread out for group work, natural light/windows, temperature control, additional places to eat like new cafeteria, more water bottle filling stations, more parking, auditorium space, gym space for all classes, parody of art classes, more music practice modules, lockers in central location of school (less travel to get to), school card reader for cafeteria/food (so students don't need to carry cash), vending machines with healthy options, bus transportation for zero period, Teacher performance reviews, textbook storage in classroom to reduce locker use, gym locker storage for students.

ELEC. POWER / LIGHTING / AV/ IT:

n/a

MECH. / PLUMB. / ENVIRONMENTAL:

n/a

ROOM(S) / SUITE DETAILS:

PAGE LEFT BLANK
INTENTIONALLY

PROGRAM COMMITTEE CLARIFICATION

Background - from CTA

At the end of the school year, the design team (CTA) met with over 20 high school program and user groups including the student council, dining services, and facilities to gain a better perspective on the educational programs, anticipated space needs, important adjacencies, curriculum, and their vision for the new high school. We also toured their existing spaces. This information was recorded and translated into program specifications and space and adjacency diagrams. It is not surprising that at the first pass of developing the desired number of space allocations that we are a little over 15%, 50,000 SF, higher than our pre-bond allocation. The summary tabulation totaled 355,057 SF, and we budgeted for 304,000 SF.

Suggestions / Questions

The following suggestions and questions were posed by CTA as possible ways to reduce total square feet from 355K to 304K

Question / Suggestion from CTA:

#1 Learning Communities: For the targeted 1,500 student maximum functional capacity we projected 72 total (TS) teaching stations x 26 students/TS x 80% utilization = 1,498 students. We had a request for 77 total teaching stations, which allows for approximately 1,600 students. This suggests there is an opportunity for a potential reduction of 3-5 classrooms.

Response from BSD7:

We believe that we should plan and program for 1500 students, which may mean a of total teaching stations. We have discussed a couple of possible reductions in Family / Consumer Science and Business. (Please see question #10)

We also believe there could be reduction in science labs - based on what we have seen in the schematics. Here is what we currently have for 2200 students. (We believe there could be fewer for only 1500 students.)

Current science room set up for 2200 students, we would need less for 1500 students.

- 3 biology rooms that are combined labs/classrooms
- 1 physics lab that is combined lab/classroom
- 2 chemistry labs
- 1 biomed lab
- 1 lab used by chem and biomed
- 2 standard rooms used by biomed and chem
- 3 physical science rooms with lab benches on the sides
- We currently have 13 rooms used for science and biomed

PROGRAM COMMITTEE CLARIFICATION

#2 Commons / Kitchen: With (1) lunch period for 1,200, 1,500 and potentially 1,800 future students, how will lunch be served and distributed to best meet the demand, offer good menu choices, keep lines to a minimum, and promote students health and wellness? What will be prepared on-site, and what will be received from the central kitchen? Can food be accessed throughout the day, and where can food and beverage be consumed. Will there be a servery cafeteria, food court, or multiple point delivery method? The answer and direction to these questions will dictate kitchen and dining size and placement.

BSD7 Response:

We should look at a food court style food service with multiple delivery points with thoughtful flow to assist service to hundreds of students in a short amount of time. This seems doable with a Town Square model that was presented with the radial design.

The current design at the BSD7 north cafeteria is adequate for the new school (with minor mods) Traffic flow, service speed and kitchen space will perform well with a student body of 1500-1800 students or more using one lunch period.

The actual dining area will require 600 seats minimum (about 250 more than the north cafe) and the addition of some sort of traffic control to avoid 'building in' high operating costs.

Overall, we would recommend a food court style with a central kitchen with multiple access points and points of sale. Also - we would like a more open seating atmosphere than our current cafeteria.

BHS was designed for two lunch periods for about 2000 students. It is felt that the design would work fine for 1500 students with one lunch period with a few tweaks. The design is critical to reduce long term labor costs.

We do need a dedicated office space for the kitchen supervisor.

#3 Admin / Student Services: Is a dedicated counseling classroom needed? Can offices be shared, or arranged in a suite with a couple of private conference rooms?

BSD7 Response:

There is no need for dedicated classrooms to deliver the counseling curriculum. It would be nice to have this, but not necessary.

PROGRAM COMMITTEE CLARIFICATION

As for offices, with the frequency of private one-on-one meetings that counselors hold with students (and often parents), I do think that individual offices are necessary. One larger conference room for the counselors would also be put to good use.

In general, small, private offices are preferable to shared office space. We can "right-size" the number of offices necessary for 1500 students vs. 2200. Fewer counselors and fewer administrative staff with 1500 students. (MT Accrd requires 1 counselor for every 400 students and 1 administrator for every 500 students.)

#4 Special Education / Resource: Confirm the number of classrooms, sizes, and offices needed. Will district specialists need individual offices and room in the new high school, or can we utilize a few shared small conference spaces and flexible offices?

BSD7 Response:

- Collab teaching model reduces need for dedicated special education rooms.
- Case managers (included under specialists) can share office suite, if there are flexible confidential spaces for services and assessments.
- Minimum of 2 standard classroom spaces for CCCR/AAS
- 2 standard classroom spaces for TAPS/SEB learning
- Line items for Plaza, Resource Center and Specialists Offices (shared suite) would be integrated.
- Square footage could be reduced with access to nearby informal learning spaces

#5 Visual Arts: Could the Arts and CTE share makerspaces, collaboration spaces, and share learning community amenities. Will there be a metals/jewelry program? Is there a need for both an indoor and outdoor kiln?

We believe that the CTE Woods lab could be shared with the Drama department for set building. There will need to be adequate storage (either indoor or outdoor) dedicated for Drama sets and hopefully there will be some thought in adjacencies between woods / drama / and the stage/auditorium.

We are hearing that it is very difficult for CTE metals to be shared with jewelry lab due to the differences in types of metals. Not sure if this is true. We are meeting with Art teachers on July 27.

There is a need for an electric kiln and a gas kiln. We believe the gas kiln has to be located outside - but the enclosure

PROGRAM COMMITTEE CLARIFICATION

does not have to be as large as the current kiln enclosure.

(We will have more info on this question after July 27)

#6 Music: Could band and orchestra share an instrument studio? Can the size of the choir room be reduced? Or could the choir hold classes on the performance hall stage?

I believe Band and Orchestra could share instrument storage space, however the types of storage may be different based on different instruments. Also, orchestra instruments generally are more sensitive to hot and cold tempuratures, vs. band instruments.

Choir can be reduced to 1500 sq ft (ohio standard)

We believe it will be difficult to hold the choir classes on the performance hall stage as it would mean other groups could not use the stage. Perhaps a model that incorporates a separation of space so that the performance auditorium could be subdivided into small spaces. But music wants to maintain acoustics in the auditorium as well.

One possibility might be to have the back half of the auditorium with steeply raked seating - that could potentially serve as a choir room and leave the stage open for flexible use if the partition were suitably soundproof.

#7 Performance Hall: Could the performance hall be divided into two teaching stations? Could the stage shop and CTE woodshop be the same shared space?

BSD7 Response

We understood that we may have the ability to partition the auditorium; however, we believe it's important that the stage aspect is always available for use as a performance/presentation space (especially now that the black box is not included). However, we also don't want to lose any acoustics by creating an auditorium that can be divided.

We believe that the CTE Woods lab could be shared with the Drama department for set building. There will need to be adequate storage (either indoor or outdoor) dedicated for Drama sets and hopefully there will be some thought in adjacencies between woods / drama / and the stage/auditorium.

#8 Athletics / Activities / Health: Does the competition gymnasium need to hold 2,500 or 3,500 seats? Could the gymna-

PROGRAM COMMITTEE CLARIFICATION

sium balcony with rear folding bleaches double for the wrestling room and fitness areas? Do the auxiliary gymnasiums need to have two full size courts, or can they be sized with one full court and two practice courts / PE stations? Do each of the auxiliary gyms need to seat 300 spectators each?

BSD7 Response

A 2500 seat gym would suffice (several "AA" gyms are in this size range). If we went with a gym with a balcony, I would recommend going with bleachers that fold to the front, creating a wall towards the gym. Although noise can be an issue, this does create a better multi-use space for weight training, wrestling, cheerleading, etc.

The planning committee working on the athletics did want a 2500 gym without a balcony with a stand alone weight room and stand alone wrestling room built in to the plan.

It is necessary to have ONE full sized high school courts in the auxiliary gyms as these gyms will be used frequently for practices, games, and off season games and tournaments. It is not as import of the PE classes, but it will be quite important for sports. One full sized court and two practice courts / PE stations for each auxiliary gym. Seating in the 200-300 range is important for these gyms again because many, many sub varsity games will be played on these courts (as well as off season tournament games).

#9 Library: There were no questions or suggestions related to the Library area. However, there needs to be an overall reduction of about 2000 SF. One thought is the writing center. Could it be incorporated into another area of the library?

BSD7 Response:

With today's technology (i.e. laptop carts, 1:1 devices, etc.) that the need for a dedicated writing center is really up for debate. If we did decide that it was needed, a quiet, yet versatile and flexible area incorporated into the library may be a solution (compromise).

Overall we believe we could reduce the size of the Library space. It appears that it is way over the pre-bond number (14K vs. 10K.) With Libraries changing to accommodate less stacks of books and more collaboration, we believe we could reduce the overall sq ft allocated to the Library. Less space for stacks.

#10 Career Technical Education: What programs are desired for CTE? Is there a need for three large shops areas for dedicated programs, or is there a flexible program arrangement that could share two adaptable shop areas? Confirm the desire for photography, interior/fashion design programs and spaces. What is the proper number of labs and classrooms needed to support a 1,500 student business program? Will there be duplicate programs at both high schools, or distinctly separate programs and investments? Will there be a childhood development and daycare program?

PROGRAM COMMITTEE CLARIFICATION

BSD7 Response:

Family and Consumer Science:

1 Culinary Arts lab and 1 standard teaching classroom

We would like to see a Culinary Arts lab, possibly 1500-2000 sq ft. Storage is important as well as spots for freezer and fridge. It would be great to have some elements of a commercial kitchen for the prostart program, but perhaps this could be co-located with the Food Service program so that this space could be shared. Another option may be to co-locate the commercial kitchen with DECA and/or co-locate with the concessions stand near the main gym. Belgrade HS has a shared commercial kitchen space with their concessions stand.

FCS also need one dedicated (standard) classroom space for fashion design and/or child development classes. There is no need for a daycare program or space.

Business:

1 large lab space and one standard teaching classroom

The need is one large (1200-1500) lab space and one standard size classroom. A small conference room is important as well as a spot for the DECA store, with adjacencies to the business classrooms. There is also a need for green screen / production room, but this can be shared with photo and/or graphic design program.

Trades and Industry:
The following spaces were negotiated with the department. Together these spaces add to about 17K square feet which is closer to the pre-bond goal. Bob F. attended the meeting and may be able to answer specific questions.

- Metals Shop: 4300
- Woods: 3500
- Auto: 3500
- Architecture / Engineering: 1400
- Photo: 1200 + green screen / production room
- Dark room (closet size) incorporated within the Photo room
- Storage: 5 @ 280 = 1400
- Offices: 5 @ 80 = 400 (offices could be shared suite as long as there is visibility to all shops.)
- Outside areas:

PROGRAM COMMITTEE CLARIFICATION

- Metals foundry (400 sq ft),
- Cold storage for metals, woods, auto
- Covered, outdoor work areas for woods and auto

#11 Support: Does IT require district offices and functions within the new high school? Does facility services require a district office / shop facility or spaces in the new high school? Do we want to allow for the space, infrastructure and investment of a loading dock at the new high school?

BSD7 Response:

Having an IT storage/staging area is ideal, but not 100% necessary. An IT office would be important to have - a dedicated space for IT staff. Probably 1-2 staff.

Facilities services does need office space. We are considering moving to a model with one facilities supervisor at each high school so we will need supervisor office space in addition to custodial storage areas in various parts of the building.

A small multi use loading dock similar to what we have at most other schools would be important.

PAGE LEFT BLANK
INTENTIONALLY

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

The following document is intended to be a running record of agendas and activities for the High School Programming Committee which started to meet in August, 2016. The committee is using the consensus process to lead discussion. You will see references to several consensus activities (grounding, best/worst outcomes, etc.)

The High School Programming Committee held 10 meetings:
August 22, 2016
September 8, 2016
September 20, 2016
October 11, 2016
October 27, 2016
November 9, 2016
December 1, 2016
January 12, 2017
January 31, 2017
February 7, 3017

August 22, 2016
Agenda:

- Grounding: name, relationship to the issue, expectations for the day
- Explanation of Committee
  - Purpose: Make a recommendation to the Board regarding program needs that will impact facility requirements at both HS facilities
  - Timeline:
    - Short term: Sept 16 - January 17
    - Long term: Sept 16 - April 2020
  - Group makeup: Representative from each department, administration, community members, representatives from the Board of Trustees
- Explanation of the consensus process
- Review of last year's work of the Advisory committee *(See HS Programming packet #1)*
  - Board of Trustees agenda item from June 2016.
  - Majority consensus recommendation from the HS Advisory Document
  - Scenario Analysis: AA High School Comparison, timelines and costs.
- Small Group work
  - Best and worst outcomes of the work of the committee
  - What is the scope of the work that needs to be completed?
  - What is the role of subcommittees?
  - What decisions impact facility? Which do not?
- Closing consensus question: What did you learn today? What are your expectations for this process? How do you feel about today?

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

Interim Homework:
The committee coordinators compiled the "scope of work" lists from the first meeting. From these lists the following general themes emerged as important topics:

- Bridger,
- course offerings / programs,
- extracurricular / co-curricular,
- Graduation requirements
- School Schedule (daily schedule, not calendar)

These general themes were emailed to committee members with the following question: As you consider the five general themes, what questions do you have regarding any parameters or limits you may need to know to be able to start discussions on these themes?

Questions were emailed to the committee coordinators and compiled for the next meeting.

September 8, 2016
Agenda:

1. Grounding: introduce yourself, your relationship to the issue and how you feel about being here today.
2. Read collective statements (A compilation of best and worst outcomes, which was handed out at the meeting.)
    - The following questions were asked at the first meeting: What would be the worst outcome of not addressing program needs that will affect the new facility? What would be the best outcome of addressing program needs that will affect the new facility?
    - Worst outcomes: going around the circle, read the worst outcome statements
    - Best outcome: going around the circle, read the best outcome statements
3. Review of the committee purpose
    - Review the final recommendation approved by the Board in June. (See packet #1, page 1)
    - Review the initial scope and plan for Fall of 2016, which was presented to the Board in June. (See packet #1, page 3)
    - Review role of the department representatives (share info with their department for feedback as we progress through the committee)
    - Discuss committee membership
4. Consensus around committee membership: The committee spent considerable time discussing the makeup of the committee and reached majority consensus around the following members: administration, 1 representative from each curriculum department, three parents, four members from the Board, representation from the rural schools, and two high school students. It was agreed that the new committee members would be invited to participate on Sept 20.
    - Student representation agreement: Two high school students will serve on the programming committee. They will represent focus groups from grades 6-12.

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

The focus groups will represent a cross-section of the student body. The two student representatives will only attend meetings for a portion of the agenda, where their input is needed.

5. Review total timeline: (See HS programming packet #2, page 1)
6. Questions for discussion, most generated from the committee, some added by administration. Rob and Steve presented information on these discussion questions. The information generated more questions and discussions.
    - What was the expectation from the Board of Trustees when they approved the process (on June 13) to move forward with high school futures planning?
    - What is an accredited school in MT?
    - What about graduation requirements, impacts on facility?
    - What about school schedule, does it need to be discussed now? How can it help us with the transition process?
    - How will we decide who goes where (Transition committee)
    - Will kids be able to go back and forth during the day? Will kids be able to transfer schools based on academic programs? What are the implications with MHSA and/or FTE?
    - What are community expectations related to the next steps?
        - Location
        - Sustainability (green buildings)
        - Programming
        - Extra-curricular
        - Collaboration with city
        - Facilities
        - Participation
        - Auditorium(s)
    - What are the costs (both operational and construction) and limits?
    - Are we going to duplicate everything? Are there other models to consider?
    - Vision for the new school / program?
    - Decisions to be made (Board, Admin, School, Committee).
    - Other questions?
7. Review process for developing the committee scope & gain consensus around the scope of work to be done by the committee
    - The committee coordinators explained how the five general themes were identified. In the last committee meeting, the group brainstormed lists around the scope of work. In the interim, the lists were categorized and prioritized between items that were within the scope and items that were outside the scope. The final list was presented to the committee as page 2-4 of the HS packet #2.
    - Consensus around the scope of work: Based on previous work as well as the discussion around the questions from agenda item #6, consensus was reached on the following items to define the scope of work:
        - Bridger,

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

- course offerings / programs,
- extracurricular / co-curricular,
- Graduation requirements
- School Schedule (daily schedule, not calendar)

- Discussion of work plan and subcommittees:
  - It was recommended by Rob that the committee follow a logical work plan for the next steps.
    1. Graduation requirements significantly impact several items, so it was believed that should be the first topic for discussion and should involve the large committee rather than a subcommittee.
    2. School schedule and course offerings are intertwined and should be discussed after graduation requirements. These items could be a large committee discussion or possible subcommittee work.
    3. Extracurricular and co-curricular as well as Bridger could be discussed in a subcommittee with a recommendation brought back to the large committee.
  - Work plan will be further developed with the inclusion of new committee members on Sept 20.

8. Review graduation requirements and begin discussion:
   - Discussion about review and/or validation of current requirements:
     - With the notion of community expectations and costs associated with adding staff, it was proposed by the administration that it would not be a good idea to recommend a reduction of graduation requirements and equally difficult to create additional requirements.
     - The discussion turned to how we could tweak current requirements to meet the needs of students, both current and future.
     - We also discussed the idea of limiting the current discussion to those tweaks that had a direct impact on facility design, with the understanding that additional changes may be discussed after we get past the bond.
   - Vision and guiding principles
     - The following two documents were presented to the committee as possible items for consideration when discussing changes to the graduation requirements
       1. Guiding Principles (See page 5 of the HS programming packet #2)
       2. BSD7 College and Career Readiness Framework (Linked HERE).
     - Based on these two documents the committee broke into smaller groups to begin a brainstorming session around current graduation requirements.
   - In cross-disciplinary groups the committee brainstormed and reported out on the following two questions. (The committee responses have been documented and will be part of HS packet #3 for the next committee meeting.)
     - What about the current HS graduation requirements help us achieve our vision?

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

- What about the current HS graduation requirements would you change to help us achieve our vision?

September 20, 2016
Agenda:

1. 8am - 9am: Recap of previous meetings & discussion for new committee members.
    a. Timeline
    b. Board of Trustees approval
    c. HS Programming Committee: membership, scope of work
    d. Frequently asked questions
    e. Project management triangle
2. Introduction
    a. Grounding
    b. Greeting Circle
    c. Best & Worst outcomes (Packet #3, Page 2-5)
    d. Explanation of committee including representation, purpose and scope of work (Packet #3, page 1)
3. Discussion on Graduation requirements
    a. Reminder about District Vision. (Packet #3, page 7)
    b. Review statements and brainstorm about current graduation requirements
        i. What about our current HS grad requirements help us achieve our vision? (Packet #3, page 8-9)
        ii. What about our current HS grad requirements would you change to help us achieve our vision? (Packet #3, Page 10-11)
    c. Small group consensus
        i. What are 5-7 suggestions that you just heard or perhaps didn't hear, but that you feel very strongly about that are very important to your group for changing our graduation requirements to help us achieve our vision?
        ii. Each group created a list of top 5 to 7. Then we compiled each list and reorganized the suggestions into the following categories:
            1. Tech Credit
                a. Eliminate tech credit
                b. Redistribute tech credit*
                c. Change tech credit to STEAM*
                d. Remove outdated tech credit - retain current credit requirement*
                e. Remove the tech credit
            2. Diploma
                a. 1 diploma, 24 credits, honors recognition (TBD)*
                b. Reevaluate honors diploma*
                c. Recognition of specialist study/career pathways*

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

   d. One diploma with recognized alternative college and career pathways*
   e. Keeping a high total required amount of credits
   f. Redefine honors diploma based on GPA and depth of coursework *
   g. One diploma with distinctions/pathways, 24 credits required (honors, GPA, Community Service, STEM, Literacy) *
   h. Add honors endorsement based on GPA and type of courses taken such as AP or advanced courses
   i. Create a recognized alternative pathway to graduation in web or IT or coding with minimum of .5 credits for all students *
   j. Incorporate a way to allow more elective credits*
   k. Increase flexibility/opportunity to take electives credits *
   l. Change as little as possible *
3. Community Service
   a. Community service requirement
   b. Incorporate community service
   c. Community service included in civics class
   d. Require community service as a component of existing coursework - not adding a credit
   e. Explore community service
   f. Add/explore community service club/activity for credit
4. Language / Global awareness
   a. World language for honors recognition *
   b. Add foreign language requirement
   c. Include a minimum of 1 year of global awareness credit: world language, current events, IEFA, asia/africa
   d. Require year of world language (coding can count as a world language.) *
5. New or Additional Requirements
   a. Create a recognized alternative pathway to graduation in web or IT or coding with minimum of .5 credits for all students
   b. Replace tech credit with a real-world credit that encompases finandial literacy, digitial citizenship, and social/emotional wellness. *
   c. Add/require online credit to be taught by BSD7 employee *
   d. Explore the options to exposing all students to a positive online learning course *
   e. Consider life skills/financial literacy requirement *

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

f. Add .5 financial literacy to replace part of existing tech credit

iii. Then we asked each group to identify which suggested changes had an impact on facility design or facility costs. *The items which have a direct impact on facility design/costs.

d. Large Group Consensus around some changes to graduation requirements: Based on the small group discussions regarding potential changes to the graduation requirements we moved into a large group consensus process around the following topics:

i. As it appeared that "community service" had no significant impact on facility design/costs, we agreed to move this item to a later discussion.

ii. Among all groups it seemed that there was agreement that "tech credit" needed to be reviewed and possibly changed.

1. Some history on the tech credit was given to the group.
2. The courses which count for tech credit were explained and discussed. (Packet #3, page 12)

iii. A proposal was made for a change to the tech credit. The initial proposal did not receive consensus. After discussion and a few amendments the group reached consensus on the following proposal: *It is recommended that the Tech Credit be dropped from the graduation requirements for both the general and honors diploma. It is further recommended that this graduation requirement be replaced with the "flex credit" which could be fulfilled with an extra credit of fine arts, vocational (CTE) or world language.*

iv. Next the discussion shifted to number of credits and types of diplomas. A description of the diploma requirements can be found in Packet #2, pg8.

1. The following proposal was made: It is recommended that the basic diploma requirements remain at 23 credits with the requirements as specified currently in policy #2410. It is also recommended that the honors diploma requirements remain at 25 credits with the requirements as specified currently in policy #2410. It is further recommended that several new diploma "pathways" be established at the 25 credit level. For example a STEM, Fine Arts, CTE, and/or Humanities Diploma.
2. The group discussed the following data related to what students currently have when they graduate:
   a. BHS Class of 2016 (416 students)
      i. BHS graduated 63 students with exactly 23 credits.
      ii. Graduated 87 students with more than 23 credits, but less than 25 credits.
      iii. BHS graduated 51 students with exactly 25 credits.

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

iv. Graduated 152 students with more than 25 credits, but less than 28 credits.
v. BHS graduated 26 students with exactly 28 credits (7-period day all 4 years).
vi. Graduated 37 students with more than 28 credits.

b. In 2016, BHS graduated 96 students with fewer than 24 credits.

3. No consensus was reached. It was mentioned that perhaps the number of credits required (23,24,25) may not have an impact on facility design/costs. It was agreed this would be a question we would ask the architect.

4. Closure: What did you learn and how do you feel?

October 11, 2016
AGENDA

8 - 10am:

1. Grounding in large group (Robbye and Mike)

2. Handouts: (Rob will bring these to the meeting and go over the contents)
   a. Curriculum guide
   b. Master Schedule Sem 1, Sem 2
   c. HS Programming Packet #4

3. Recap & Consensus: What we did at the last meeting, where we ended. (Rob will lead, most info in packet #4)
   a. List of suggestions for the graduation discussion
   b. Reminder of consensus on the tech credit, next steps
   c. Discussion about how to implement this change in the tech credit (process with the Board and policy)
   d. Opportunity to celebrate the progress & discuss how this decision (tech credit) needed to happen before we discussed electives / course offerings
   e. Discussion about the 23,24,25 proposed consensus & impact on facility
   f. Discussion about pathway diploma plans and impacts on facility
   g. Discussion about the on-line credit and facility costs
   h. What we heard from the architects about these issues
   i. Perhaps **consensus** on a "parking lot" for items that can be discussed post-bond.

4. Next Steps:
   a. Review list questions from architects (need to knows)
   b. Plan: Bridger, electives / course offerings, extracurricular facility needs
   c. Parking lot: school schedule, graduation requirement changes

COMMITTEE PROCESS & AGENDAS

Bozeman School District

High School Programming Committee Agendas (August 2016 - February 2017)

10am - 2pm:

Split into 2 groups
Elective group will stay in Library
Bridger group will go to Board Room

1- Bridger Group (need current courses, historical numbers, vision) - all core teachers, Vicki, Rob, Andy, Katie, Jerry, Karen Filipovich, Aimee S., Becca K. Robbye split up Board members between two groups

Plan for the subgroup: (Rob to explain)
- Opener for consideration - Video: Beyond Measure
- Current state of the program and future potential
- Unknowns and decisions: size, location, need, future
- Best and Worst outcomes

Overview of current Bridger structure (Rob, Tami, Andy to lead)
- What is current state?
- What is potential future for Bridger
- What does the Charter status mean?
- Separate program vs. separate school designation?
- Community and board expectations regarding the program?
- Details: Numbers, course offerings, how students get in, how students progress through the program

Worst and Best Outcomes:
- Given our current state (of the Bridger program) as well as considering the potential future of the program, what would be the worst outcome of not considering Bridger in the planning of the new facility?
- Given our current state (of the Bridger program) as well as considering the potential future of the program, what would be the best outcome of considering Bridger in the planning of the new facility?

Consensus / decisions that need to be made
- Consensus 1: What is the ideal program size? Considering the mission and vision, both currently and in the future, what is the ideal program size (in terms of enrollment?)
- Consensus 2: What are the facility requirements of the Bridger program? Creation of document(s) that would specify to the architect what is needed for facility design.
- Consensus 3: Location - At which facility(ies) will the Bridger program be available?

2- Elective Group (need current courses, historical numbers, vision) - all elective teachers, Kevin, Marilyn, Erica, Laura Roe, Leah K. , Collin W. Mike split up Board members between two groups
Worst and Best Outcomes:

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

Given our current curriculum and CTE, World Languages, Music, & Visual Arts offerings as weil as looking at our “crystal ball” into the future of these programs what would be the worst outcome of not addressing elective needs that will affect the new facility?
Given our current curriculum and CTE, World Languages, Music, & Visual Arts offerings as weil as looking at our “crystal ball” into the future of these programs what would be the best outcome of addressing elective needs that will affect the new facility?

Option 1: Introductory/Exploratory classes at both schools and then the capstones at one or the other (Amy Washtak)
Clarifying questions
Option 2: All of a specific pathway at one school or the other
Clarifying questions
Option 3: Other Options?
Clarifying questions

Consensus #0: Are we in favor of the philosophy and implementation of a capstone model?
Consensus #1: Which of these options will serve all of our students the best?

Consensus #2: If Capstone is the best option, should we have a Capstone Class/Project for every elective areas? Just CTE or should this include other elective areas?

Consensus #3: What should that look like given the two facilities? (i.e. which program will be in which school?)

Begin work session (Consensus #0 is yes). Creation of document(s) that would specify to the architect what is needed for facility design.

Present documents
Consensus on documents

Consensus on having capstones in every elective area
What does that mean?
What does it look like?

2:30pm: REGROUP in Library to report out about progress and discuss next steps

3:30pm Closure in large group

October 27, 2016
Agenda

COMMITTEE PROCESS & AGENDAS

Bozeman School District

High School Programming Committee Agendas (August 2016 - February 2017)

Breakout Groups for afternoon of October 27th starting at 10 a.m. in Willson Library, probably a follow-up a meeting Nov. 9th. Corey Johnson from CTA and Steve Johnson will float between groups.

Extracurricular: Jerry will contact	Co-Curricular: Auditorium(s), black box theater, including types locations, Dance, Drama, Art Gallery, any other co-curricular facility needs	Academic Organization: How should the academic program be organized?
1. Kevin Conwell 2. Jerry Reisig 3. Katie Laslovich 4. Glenn Bradbury 5. Wes Holmquist 6. Mike Cole 7. Dennis Watkins 8. Mike Waterman 9. Randy Van Dyke 10. Keith O'Reilly OK 11. Steve Roderick, 11/9 OK 12. Lyndi Seidensticker-Miles 13. Erika Cannon 11/9 OK 14. William McCallum OK 15. Doug Neil OK 16. Jim Polich 17. Darrell Schliem 11/9 OK 18. LeeAnn Burk	1. Marilyn King 2. Andrew Loftus 3. Andy Maheras 4. Steve Merriman 5. Heidi Robinson 6. Colin Wright- student 7. Beth Pfaff 8. Karen Filipovich 9. Mike Hillaneus 10. Parents (2) a. Amy Yovich ~~b. April Bennett??~~ 11. Speech & Debate- D. Budt 12. Stacie McKiernan 13. Charlotte Colliver 14. Sukha Worob	1. Rob Watson 2. Erica Schnee 3. Aimee Sanderson 4. Kerri Cobb 5. Walker Asserson 6. Vicki Wittman 7. Tami O'Neill 8. Amy Washtak 9. Penney Willey 10. Britta Hanks 11. Rebecca Kruse - student 12. Robbye Hamburgh 13. Leah Kreitinger 14. Laura Roe 15. Burce Grubbs

Set Limits:

-Both need practice facilities but need to have conversation about high quality competition venues at one.

-Not looking for a performing arts center but rather teaching spaces (auditorium).

Basic Agenda for Oct 27:

8-10 Original HS Programming group - consensus on two items from last meeting

A. Brief grounding: Name, how do you feel about process so far?

B. Bridger consensus

a. Best/Worst Outcomes (rob to bring copies)

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

   b. Consensus proposal: In planning future HS facilities, it is recommended that the Bridger Program be co-located at one of the HS sites, with the intention that students from both schools would have access to the program. (The exact location TBD with input from the architectural consultants.) Rather than a separate structure, it is recommended that the Bridger facility be integrated within or attached to one of the HS facilities, with the understanding that there is a need for some level of autonomy within the program. In addition, it is recommended that the facility be designed to serve the needs of up to 10% of the total 9-12 population with the option to offer both core and elective coursework as needed. It is also recommended that the facility be designed based on research and best practices related to meeting the continually changing needs of those students who flourish under a different learning model. It is hoped that the structure at both schools would be flexible enough to adapt to the continued growth of the Bridger Program, which could mean that the program may split in the future and be offered at both schools.
   c. Clarifying questions, consensus?

C. Elective Consensus
   a. Best/worst outcomes (Rob to bring copies)
   b. Consensus proposal: Build facilities that will support entry level classes in all current elective programs with the flexibility and capacity to grow/evolve into program completion.
   c. Clarifying questions, consensus?

D. Parking Lot
   a. School Schedule
   b. AP vs. IB

E. Review list of Questions from the Architects: (Rob will bring)

10- 4 Three groups - add additional members (Extracurricular, Co-Curricular, Academic Org.)

A. Start with whole group in Library (Rob to provide background)
   a. Timeline
   b. Scope of discussions
   c. Needs of program should drive facility design, within reason
   d. Next steps (Architect first draft, back to committee, eventually to Board)
   e. Limits in terms of time and costs
      i. Consider that parity does not necessarily mean that each facility will have exactly the same types of facilities
      ii. Consider the entire program and how program needs can be met with perhaps different types of facilities at each location.

B. Split into three smaller groups:
   a. Extra curricular to stay in Library
   b. Co curricular to go to Board Room

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

c. Academic Organization to Room 217B

C. Questions to consider in smaller groups
   a. What is the worst outcome of not planning for (Extracurricular , Co-curricular) program needs and how they impact the facility design?
   b. What would be the best outcome of planning for program needs?
   c. What is the current state of the program?
   d. What is the potential future state of the program?
   e. What are the needs of the program? How do these needs impact facility design?

Agenda - Extracurricular

Question from architects: Athletic programs, structures, playfields, parking and site amenities have access and area requirements. Will the stadium be shared, and what athletic elements are needed at both campuses? Types and number of fields, structures, and if they are needed at the onset, or in the future as funding is available.

1. Grounding - name, how connected to issue, how you feel about being here
2. Divide into smaller groups - answer same questions:
   a. Keep in mind: Both need **practice facilities** but need to have conversation about high quality **competition** venues at one not both. No intent to build a swimming pool at H.S. #2. Keep in mind development of city fields (soccer & lacrosse). And parking . . . .
   b. What are the needs of our program and how do we design facilities to meet these needs:
      i. Stadium?
      ii. Gyms?
      iii. Tennis?
      iv. Fields (soccer, softball, football)?
      v. Track?
      vi. Swimming?
      vii. Storage, Restrooms, Concessions, Locker rooms

3. Come to consensus.

Agenda - Co-curricular

Marilyn King
*Andrew Loftus
Andy Maheras
*Steve Merriman
Heidi Robinson
Colin Wright- student
Beth Pfaff
Mike Hillaneus
Parents (2)
*Amy Yovich
April Bennett??
Speech & Debate- D. Budt

COMMITTEE PROCESS & AGENDAS

Bozeman School District

High School Programming Committee Agendas (August 2016 - February 2017)

Stacie McKiernan
*Charlotte Colliver

1. Grounding - state your name, how you are connected with this issue, and how you're feeling
2. What is the worst outcome of not planning for (Co-curricular) program needs and how they impact the facility design?
3. What would be the best outcome of planning for program needs?
4. Group into Visual Art and Performing Arts Groups (Visual Arts: Beth Pfaff and Andy Maharas, Marilyn

Speech/Debate/Drama: Dave, Heidi, Stacie, April
Performing Arts: Andrew Loftus, Charlotte Colliver, Steve Merriman, Mike Hillaneus, Colin Wright, Amy Yovich

   a. Develop list of facilities needs for programs (Visual Arts & Perf Arts)
      i. Instructional *and* storage
   b. Assess how well the BHS/Willson facilities meet needs in 4a

Each working group presents to large group; opportunity to ask questions

5. Andrew discusses some parameters - 600/BBT/Lecture???
6. Introduce and bring the new visual arts teacher on board.
7. Corey discusses shared space, current research and the questions he would like us to answer.

How will the Performing Arts be handled at each campus and in collaboration with the existing community auditorium at Willson?
Split in to two groups and answer each question and report out

(1) What elements are needed at both campuses?
(2) What will public performances look like in the new high school, the existing high school and The Willson?
(3) If a Cafetorium space were considered at one of the sites, what elements would be required for it to be an effective performance space?

Gather into the whole group, and attempt consensus for 1 - 3.

Then….
If we can't do everything, what is the next level?

Cafetorium?

7. Develop a list of questions for architect

5. What are the audience size break points for copyrighted/rented shows?
6. Parking considerations?

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

Agenda - Academics - Futures

Question to be answered: How should both high schools be organized/re-organized (i.e. traditional 9-12, departmental, freshman house, career academies, STEM program, small learning communities, project-based learning, community-business internships/mentorship programs, student guided work stations, etc.)?

A. Grounding:
    a. Name
    b. Relationship to the issue
    c. What are your expectations for our 9-12 academic program?
B. Brainstorm
    a. What is the current state of the organization of our academic program?
    b. What is the potential future of the organization of academic programs?
C. Brainstorm (Perhaps a K/W/L chart)
    a. Considering what you have learned about schools of the future, what are some possible academic organizational models?
        i. AP vs IB
        ii. Career Pathways
        iii. STEM or some other focus area
        iv. Traditional Department organization
        v. Small Learning Communities
        vi. Project - based learning
        vii. Others
    b. How does this organization model impact school design?
    c. What are potential pros and cons of each model for students?
    d. What are potential pros and cons of each model for staff?
    e. What other information would be important to learn about each model?
D. Best and worst outcomes: (Not sure if we need to do this.)
    a. What would be the worst outcome of not planning for academic program needs?
    b. What would be the best outcome of planning for academic program needs?
E. Other topics for discussion if time allows:
    a. School Schedule
    b. School Lunch

Agenda
November 9, 2016

8am - Noon: Subcommittee groups, Extra-curricular (Library), Co-Curricular (Boardroom), Academic Organization (Room 217B)
Noon-12:45: Lunch in Libary

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

12:45 - 3pm: Core (original planning) group meets in Library. (Rob will be gone 1-2pm)
Representative from co-curricular group reports out, clarifying questions
Representative from extra-curricular group reports out, clarifying questions
Representative from academic organization group reports out, clarifying questions
Consensus question after each group: Are we "ok" with sending this information to the architects to allow them to begin the planning process and cost estimates?
3pm: Review Q/A from Architects, Next Steps (Dec 1), Closure Circle

Agenda (Nov 9) Academic Organization Group, Room 217B
8am - Noon

A. Grounding: Name, relationship to the issue, expectations for the day
B. Recap of what we did at the last meeting for new members
C. Best/Worst Outcome Statements (Rob will bring copies)
D. Why do we need to discuss now? (Rob will give the Science example)
E. K / W / L Chart
    a. What did you learn in the interim about each of the models:
        i. AP vs. IB
        ii. School within a school (multiplex)
        iii. Career Pathways
        iv. Small Learning Communities
        v. Traditional Department Structure
        vi. Cross-curricular structure (PBL)
        vii. Freshman Academy
        viii. Revision of the senior year
F. Decisions and feedback needed.
    a. How should schools be organized?
    b. Feedback on school schedule:
        i. Lunch schedule
        ii. 7 period, 8 period, block, other?
    c. What do open (shared spaces) look like?
    d. Shared spaces like atrium and/or cafeteria, what would you like to see?
    e. If departmentalized structure, what spaces should be considered? (ie: department work rooms, shared office space, lab vs. classroom spaces)
    f. What "flexible-use" spaces should be considered?
    g. What about "break-out" spaces? Or Student guided work stations?
    h. Feedback on computer labs?
    i. Feedback on Library spaces?
    j. Feedback on "maker" spaces?
    k. Other?
G. Reporting out to the larger group?
H. Closure

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

December 1, 2016
Agenda

8:15 - 8:45 (All times tentative)

1. Grounding #1: introduce yourself, what are your expectations for the day, how do you feel about being here? (Robbye and Mike)

8:45 - 9:15

2. Welcome and overview for the day (Rob)
    a. Goals for the day: Clarify our hopes / guiding principles, information about preliminary cost estimates, consensus around next steps
    b. Intro activity, rotating stations, next steps
    c. Website and Public Information Session on Dec 8
    d. Timeline: Where we have been and where we are going.
    e. Introduction of activity: Clarifying Best/Worst/Guiding Principles
    f. Grouping (create new groups based on groups from last meeting)

9:30 - 10:20

3. Best/Worst and Guiding Principles Discussion/Activity (Kevin, Robbye, Marilyn to lead)
    a. Three groups; should be cross-curricular
    b. Handouts: Best / Worst / Guiding Principles
    c. Task: Review the best/worst and guiding principles to identify critical themes that could be used for decision making.
        i. Each group will analyze the handouts (starting with Worst Outcomes). Goal will be to integrate the best/worst with the guiding principles.
        ii. One idea would be to individually identify 5 to 10 best and worst items that are important to you, then classify those into the guiding principles.
        iii. Some thought questions: Where do the best/worst overlap with the guiding principles? Are there best/worst ideas that are not evident in the guiding principles? Are there best/worst ideas that appear to conflict with the guiding principles? What are the common themes that emerge and are important to the group?
        iv. Group should come to consensus around 3 to 5 themes that seem to emerge from these documents as “critical themes” that should be areas of focus in our decision making process moving forward. These 3-5 critical themes or statements should be recorded on flip chart.

10:20 - 10:30 Reconvene in the large group, report out.

10:30 - 11:00

4. Introduction to the Preliminary Cost Estimates Activity (Rob)
    a. Honoring the work of the group
    b. Reminder of the task: What do you need to accommodate or deliver your educational program?
    c. Preliminary Cost Estimates, likely to change before Board approves in March

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

d. Process - we are early in the process and we have time to discuss before we have to make a final recommendation to Board
e. Reminder of best/worst and how they relate to the final recommendation
f. What we are doing has never been done before in Bozeman. Glacier example, Hyalite 68K (4 - 5 elementary schools)
g. Split this discussion into two projects: New HS, Renewed HS
h. Project summary 143.8M, 98.3M, 45.5M (Show Pie Chart)
i. You will see some maps, design concepts: KEEP IN MIND, these are preliminary, no decisions have been made yet. Don't get too focused on the little things.
j. When you get into the room, before the presentation starts, please have each person in your group introduce themselves and explain their role. (With the exception of Steve and Mike's station.)
k. Explanation of stations: Station A: New School, Station B: Renewed School, Station C: Tax Impact and Bonding process

Station rotation to start at 11:15am

5. Small group information sessions, each group will rotate through three stations, 30 minutes per station
    a. Station A (Board Room): Explanation of the preliminary cost estimate for the new high school, Opportunity to ask clarifying questions.
    b. Station B (Room 217B): Explanation of the preliminary cost estimate for work to be done at the existing HS. Opportunity to ask clarifying questions.
    c. Station C (Library): Explanation of the Tax Impact, including discussion about bonds, bond rating, history of bonds, and if possible, other large school bonds that have recently passed in MT.

Rotation Schedule and Lunch
11:15 - 11:45 Group 1 - Station A (Board Room), Group 2 - Station B (Room 217B), Group 3 - Station C (Library)
11:45 - 12:30 Lunch for all in Library
12:45 - 1:15 Group 1 - Station B (Room 217B), Group 2 - Station C (Library), Group 3 - Station A (Board Room)
1:20 - 1:50 Group 1 - Station C (Library), Group 2 - Station A (Board Room), Group 3 - Station B (Room 217B)

2pm Reconvene as Large Group in Library

6. Grounding #2 (Rob)
    a. What did you learn?
    b. How do you feel about what you learned?
    c. What are your expectations moving forward?
7. Clarifying questions regarding anything you learned today?
8. Consensus (Rob)
    a. What are the next steps for this group?

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

b. What further information do you need?
c. Given that we will need to make a final recommendation to the Board in early March, your thoughts on what that should look like? (one number, options?)

9. Wrap up: (Rob)
   a. Rob to talk about public meeting on Dec 8 and solicit help from the committee.
   b. Hold the Dates: January 5 and January 12

January 12, 2017
AGENDA

8-8:45am

A. Welcome and Grounding
   a. Grounding (Robbye and Mike)
   b. Welcome and purpose for the day (Rob)

8:45-9am

B. Recap of December (Rob)
   a. Public Information Sessions and Feedback
      i. Information graphics (Rob will use website)
   b. Guiding Principles Version 2.0 (read & ask for feedback, Rob will bring copies)

9-9:30am

C. Defining a Comprehensive High School Education 2020 (Rob)
   a. Individual brainstorm / Need for a local definition (Notecards, silent reflection, share out)
   b. State of MT Accredited HS Program
   c. Bozeman School District program requirements
   d. Bozeman School District Framework: Comprehensive High School

BREAK: (9:30 - 9:45am)

D. Information presentation and Consensus. (Mike, Rob, Steve)

9:45-10:15am

   a. "The need for options"
      i. Board of Trustees - timeline(Rob)
      ii. Enrollment projections K-8 plus future buildings(Mike, Steve)
      iii. Future bond issues facing our district, when things are paid off (Rob, Mike, Steve)
      iv. Enrollment projections 9-12, transition plan, capacity 2020 (Rob)
      v. Property Tax structure and the 2017 legislature - Local Option Tax(Steve)

10:15-11am

   b. Consensus (Rob)
      i. Questions: What will the recommendation from this committee look like? Will there be some flexibility in the recommendation? If we present several options to the Board, what should be part of those options, what

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

are the components of each option? Should there be pros/cons? Should we develop contingencies or caveats for options?

ii. Consensus: "When the committee is ready to make a formal recommendation to the BOT it will be structured in the following way…"
iii. If time allows we could break into groups for best and worst outcomes around this question before consensus discussion.
iv. If the committee cannot reach consensus on this question, we will still move forward and present the options.

11 - 11:30am

E. Presentation of the Options & small group consensus regarding pros/cons
   a. Expert groups (Rob to explain)
      i. Goal: Each person in the group will have a thorough understanding the components of their option and be prepared to explain their option and answer questions on the option for which they have been assigned. (please don't allow discuss other options now, focus on your option)
      ii. Group Leaders (Opt A: Corey, Opt B: Mike, Opt C: Rob, Opt D: Steve)
      iii. Group Leader will explain basic concept and general theme of the option (see general theme paragraphs at the end of this agenda).
      iv. Using the options handout, Group Leader will detail each part of the option: New HS, Existing HS, Stadium
      v. Group Leader will ask for clarifying questions.
      vi. Group members will take notes and ask questions. They will be expected to be an "expert" on this option when we break into our next groups.

LUNCH 11:30 - Noon

Noon - 1:30pm

   b. Collaboration groups (Rob to explain)
      i. Reset groups based on number on card (Rob)
      ii. Group Leaders: Marilyn (Ace,2) Kevin (3,4) Robbye (5,6) Erica (7,8) Katie (9,10)
      iii. Goal: Each group will now contain "experts" that can explain each option and answer questions about each option. The goal of the collaboration group is to review each option and develop (through consensus) pros/cons and caveats for each option.
      iv. Focus on the four options, don't add or subtract anything from any option based on pros/cons discussion.
      v. Small group consensus:
         1. Present each option, clarifying questions
         2. Discuss pros/cons, develop consensus around 3-5 pros / cons
         3. Discuss caveats: (Example, Option B will only work with the understanding that we go back to voters in 2026 and ask for $ to renovate the existing BHS.)

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

vi. Record on Flip Chart, Options A,B,C,D: pros, cons, caveats
vii. Be ready to present to large group at 1:15pm
viii. Thought question for group: How would you like to present the pros/cons in the recommendation?

BREAK 1:30 - 1:45pm

1:45 - 2:15pm

c. Other options to explore and for future consideration
   i. Reset groups (Rob) (2 groups of 20)
   ii. Appoint a facilitator
   iii. Are there other options to consider? Or are they just variations on the current 4 options?
   iv. Group discussion
      1. Discuss other options
      2. Define the "general theme" of the option
      3. Define basics components of the option for further exploration
   v. Record other options on Flip Charts
   vi. Report out to large group

d. Possible consensus on the four options
   i. If there are no further options to explore.
   ii. If group is ready to finalize the four options as the recommendation to board.
   iii. If there are other options to explore, we will get cost estimates and bring those options back to the committee on January 31.

2:15 - 3pm

F. Closure
   a. Next Steps (Rob)
   b. Next meeting date: January 31
   c. What did you learn and how do you feel? (Mike and Robbye)

Option Antelope
Concept: Contains all the elements as proposed by the HS Programming Committee to achieve comprehensive program requirements with the construction of new facility and a renovation to the existing facility. Cost estimate is 144M.

Option Badger
Concept: Phased approach to construction. Phase 1: Seek voter approval to construct the new facility proposed in Option A, but with targeted square footage and cost reductions. No major changes to existing facility during Phase 1. Phase 2: When enrollments allow and existing debt

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

is repaid, seek additional voter approval to renovate the existing facility. Phase 1 cost estimate: 93M

Option Cougar
Concept: Construct the new facility similar to proposed Option A with some reductions in shared/common spaces. Provide more teaching spaces to increase the capacity of the new facility to 1700. At the existing facility there has been significant renovation to north classroom building. The capacity of the north classroom building is 1300. Option C would remove the older sections of the existing high school, leaving the total capacity at 1300, with the understanding that new classrooms would be constructed at the existing facility in the future, perhaps as other bonds are retired. Cost Estimate: 110M

Option Dragonfly
Concept: Using all projects as proposed in Option A, reduce the overall total square footage and total cost by removing some components of each project: new facility, existing facility and stadium. Cost Estimate: 123M

January 31, 2017
AGENDA

8:10 - 8:30
- A. Grounding (Robbye and Mike)

8:30 - 8:45
- B. Follow Up Information from Last Meeting
  - a. Tax Impact of Each Option (Mike)
  - b. Feedback from public information session: January 30

8:45 - 9:30
- C. Exploration of the 115-125M Range
  - a. Board Discussion - January 23, present questions that were given to Board (Rob)
  - b. Best / Worst Outcomes (Robbye and Mike)
    - i. Split into 6 groups, using center of the circle exercise, central office, building admin, core teachers, elective teachers, parents, school board
    - ii. Given the guidance from the Board regarding the price range ($115-125M) what is the worst possible outcome of a recommendation from this committee in this price range?
    - iii. Given the guidance from the Board regarding the price range ($115-125M) what is the best possible outcome a recommendation from this committee in this price range?
  - c. Report out to larger group

9:30 - 10
- D. Shared Spaces discussion (Andrew, Marilyn & Kevin)

COMMITTEE PROCESS & AGENDAS

Bozeman School District
High School Programming Committee Agendas (August 2016 - February 2017)

a. Large circle, remind group of the speaker / listener process
b. Andrew, Marilyn & Kevin will present information regarding each of the items below and ask for a listener and clarifying questions
    i. Auditoriums (Why are they needed? What are they used for? What is the difference between the Willson and what we are proposing? How can it be designed as a flexible space? What is the ideal size? Other info?)
    ii. Black Box Theaters (What are they? Are they flexible? What can they be used for? How do they complement auditorium? What are they used for? Other info?)
    iii. Gymnasium spaces
        1. Large gym: Design? Upper decks? What about tournaments? What is the difference between 2500 and 3500 in terms of design?
        2. Small gyms: How many teaching spaces are needed? What are they used for? How do the number of gym spaces impact practice schedule?
    iv. Stadium and Fields
        1. Artificial turf at Stadium (Why is it important? What are the benefits both for teams and HE and other school use? What does it do to the design of stadium and track? How does it impact injuries? What about the health concerns about the filler?)
        2. Artificial turf at New School (Where? Why is it important? How much additional cost beyond grass field?)
        3. Stadium (What is wrong with the current bleachers? What about current locker room spaces? What is wrong with current bathroom and concessions? What is stadium used for? Just football and Track?)

10 - 1:30pm (With Lunch break at 11:30)

E. Creation of a "Best-Of option in the range of $115-125M
    a. Other Options that were suggested and explored (Rob)
        i. Option E, renovate E and not build new classroom building
        ii. Transform BHS into a MS, would work under Option B or C
        iii. Modified Option C: Add back some common spaces at new school
        iv. Modified Option D: One (larger auditorium) at new school, finish stadium at existing
        v. Modified Option C: Build 750 seat auditorium at new school, black box at existing
        vi. Increase Utilization rate - any option
    b. Split into 3 groups by combining the 6 groups from best/worst activity.
    c. Goal: Develop a few options for the $115-125M price range
        i. Reach group consensus around 1 or 2 options
        ii. Develop basic concept for the option
            1. Include size based on enrollment capacity

COMMITTEE PROCESS & AGENDAS

Bozeman School District

High School Programming Committee Agendas (August 2016 - February 2017)

2. basic components, what is in, what is out

iii. Define 3-5 reasons to give to Board in support of this option

iv. Provide prioritized list of "add-back" items in case there is money to add to your "best-of" option

d. Report out to larger group

e. Reach large group consensus around 1-3 options to recommend to Board

i. If more than 1 option, develop priority

ii. Prioritized list of "add-backs."

1:30 - 2:30

F. Next Steps:

a. Review timeline and other potential meetings

b. Brainstorm: What to include in the recommendation? How to present the recommendation?

c. Parking Lot items - do we need to add anything to our parking lot?

2:30 - 3pm

G. Closure:

a. What did you learn and how do you feel?

Tuesday, February 7, 2017
4-6pm: Berg Library, BHS
TENTATIVE AGENDA

A. Review Worst/Best Outcome Statements for the 115-125M Price Range
B. Review the option statements that came from the sub committees
C. Review the details of Option Z, the consensus option developed by the committee at the last meeting.
D. Ask for consensus on the recommendation to go to the Board
E. Discuss a list of "add-backs" to give to Board. May or may not be prioritized.
F. Discuss rationale (3-5 reasons) in support of Option Z.
G. Discuss the structure of the recommendation and process / timeline for Board meetings
H. Assuming Board approval, discuss next steps and parking lot items
I. Closure

Parking Lot: (To be discussed at a later time)

- Graduation Requirements
  - 23,24,vs. 25 Credits
  - Pathway Diplomas
  - Community Service component
  - Other requirements of the Honors diploma (GPA, Courses, etc…)
  - Requirement of an on-line credit

SCOPE OF WORK

High School Programming Committee

Representation: teachers from each curriculum area, HS administration, District administration, K8 feeder school rep, Board of Trustees, parents, students, architects, middle school rep

Scope of Work:

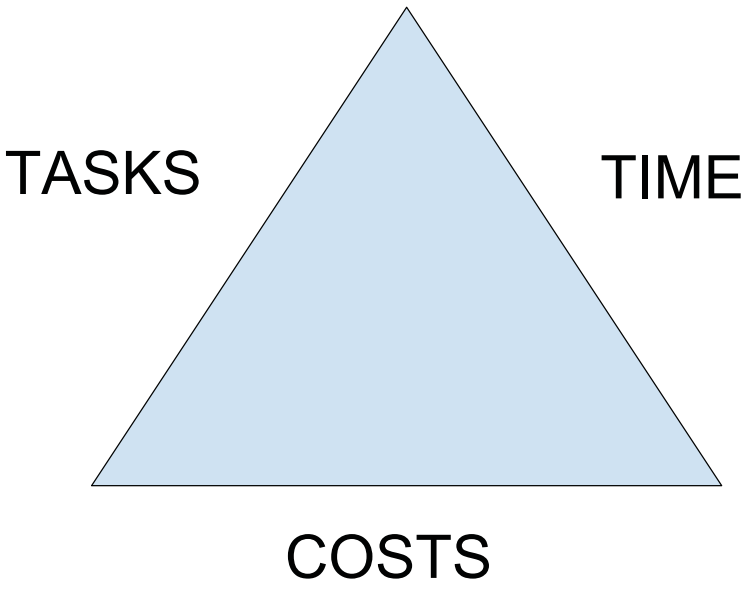
Topics for Discussion: The Bridger program, graduation requirements, school schedule, curriculum offerings, extracurricular programs, co-curricular programs

Discussion/Decisions: this committee will discuss educational program and define decisions that will impact facility design and costs.

Timeline: Prebond decisions completed by January/February 2017

SCOPE OF WORK

The Project Management Triangle



SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
August 2016
Guiding Principles

Guiding Principles

Established by the HS Advisory Committee which convened in the 2015/16 school year.

The information gathered from the "Hopes and Fears" and "Key Word" group exercises 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:

- **Culture/Climate**: Develop and maintain facilities that support the historical successes of the BSD community, and that provide a supportive setting for cultural vibrancy and the natural evolution of the BSD vision, mission, and values.

- **District Operations**: Create a sustainable network of campuses that best serve all Bozeman School District community and enhance the District's ability to satisfy its mission while being responsible stewards of community resources.

- **Programs:** Provide facilities that are flexible and adaptable in supporting quality programs that are adaptable over time to shifts in best practices in teaching and learning, technology and growth, and curriculum models.

- **Student Development:** Create facilities that support development of the whole student, including personal, academic, social, and emotional development.

    - **Parity/Equity:** Ensure that the facilities play a supportive role in the BSD's commitment to provide breadth and depth of opportunities to all students and to be a resource to the BSD community.

PAGE LEFT BLANK
INTENTIONALLY

SCOPE OF WORK

Bozeman School District
HS Programming Committee
December 1, 2016
Guiding Principles: Version 2.0

TASK: The HS Programming Committee (committee) was presented with the "Guiding Principles" established by the HS Advisory Committee in 2015/16 school year. In addition, the committee was presented with Best/Worst outcome statements created in August 2016. In subgroups, the committee discussed the following: Where do the best/worst overlap with the guiding principles? Are there best/worst ideas that are not evident in the guiding principles? Are there best/worst ideas that appear to conflict with the guiding principles? What are the common themes that emerge and are important to the group?

The following statements resulted from each subgroup:
Subgroup 1 statement:
Facilities are efficiently designed and equipped to optimize resources, both now and in the future, promoting all students' success while maintaining a tradition of programming excellence and inspiring community support.

Subgroup 2 themes:
1. Design facilities to make the best use of available funds and to be a resource that responds to the needs of the community.
2. Provide quality well-rounded education with comparable opportunities academically and in activity programs in support of all students.
3. Develop facilities and programs that provide adaptability, flexibility, and innovation as we continue to grow.
4. Create a culture and learning environment where all students, staff and community thrive.
5. Foster community confidence as we strive to create parity and pride in both schools.

Subgroup 3: Guiding Principles:
- Culture/Climate - Develop and maintain facilities that support the historical successes of the BSD community, and that provide a supportive, *connected, proud, welcome* setting for cultural vibrancy and the natural evolution, *growth and innovation* of the BSD vision, mission, and values.
- District Operations - Create a sustainable network of campuses that best serve all Bozeman School District community and enhance the District's' ability to satisfy its mission while being responsible stewards of community resources.
- Programs - Provide facilities that are flexible and adaptable in supporting quality programs that are adaptable over time to shifts in best practices in teaching, learning, technology and growth, and curriculum models.

SCOPE OF WORK

Bozeman School District
HS Programming Committee
December 1, 2016
Guiding Principles: Version 2.0

- Student Development - Create facilities that support development of the whole student; including personal, academic, social, emotional and *physical* development. *Facilities should support the individual student's sense of pride, place and belonging.*
- Parity/Equity - Ensure that the facilities play a supportive role in BSD commitment to provide breadth and depth of opportunities to all students and to be a resource to the BSD community.
- *Vision - Continuous thought and vision of changes in educational delivery models and facility/infrastructure, to allow the best educational opportunities for the students of our community.*

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
August 2016
Programming Committee Description and Timeline

A. Committee Representation: teachers from each curriculum area, high school administration, district administration, K8 feeder school representative, Board of Trustees, parents, students, architects, middle school representative. (As needed, ad-hoc committee members with expertise in specific areas will be invited to provide specific knowledge to guide the committee.)
B. Scope of Work:
    a. Topics for Discussion: The Bridger program, graduation requirements, school schedule, curriculum offerings, extracurricular programs, co-curricular programs, academic organization
    b. Discussion/Decisions: this committee will discuss educational program and define decisions that will impact facility design and costs.
C. Timeline: The programming committee will meet approximately 6-8 times between August 2016 through January 2017. Recommendations that have a direct impact on facility design and costs will be given to the Board of Trustees no later than February 2017.
D. Topics outside the scope of this committee:
    a. Budget Committee: Planning for the increased operational costs once the both facilities are open. (Not yet started)
    b. Transition Committee: (Not yet started)
        i. Develop recommendation for enrollment boundaries, policies and procedures.
        ii. Develop transition plan for school opening in Fall 2020 to include grade levels involved and initial school activities to be offered, etc.
        iii. In collaboration with negotiated agreements with certified and classified staff, discuss the staffing process for all facilities involved.

PAGE LEFT BLANK
INTENTIONALLY

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
September 2016
Best/Worst Outcomes

HIGH SCHOOL PROGRAMMING

BEST OUTCOMES:

We have a Clear vision, and a solid plan with a Best use of funds. We Optimize our options and solutions so that there is Fairness in terms of money and resources. Decisions are Proactive not reactive. The Plan moving forward that is thoughtful and organized to ease transition.

There will be Informed decisions by voters and buy-in and The Bond will pass. People will have a clear sense of what we are doing and why, which will lead to the bond passing. Successful project for the long term is developed.

Facility is planned appropriately to support programs and There is Parity between schools. Funding for facility needs are well planned and met and there are Mutually supportive faculties. The Program will drive facility decisions and there will be Equality. The District will Be able to grow if we plan ahead properly.

People (all stakeholders) feel good and secure in the change. Community feels connected to and supports both schools and there is Community satisfaction. All stakeholders feel well informed and able to make decisions in the interest of kids.

Everyone's voice is heard and addressed. Community trust goes up; Community anxiety goes down. There is a Clear vision of the future for our school: staff, students, and community. The District provides the Highest number of opportunities for students, families and community.

We Maintain a high-level of academics. Students receive a Well-rounded education and extra-curriculars. All students are accounted for. We Help staff adjust to change and create a Sense of security for staff and students.

There is a Lack of chaos. If needs are met we can focus on education and Make a unique and meaningful High School experience for students. Students have excellent and similar opportunities and Kids get a well rounded education.

Staff and students know their future and Facilities are adequate, flexible, and meet needs of teachers and students. There is more time for staff and facility plan. A smooth transition is noted by all. Course needs are met. Activity needs are met.

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
September 2016
Best/Worst Outcomes

Students have many choices and Students are college and career ready. We Maintain quality education and improve on it; Meeting needs of students, staff, and community. There is Great and equal pride in both schools and All student needs are met.

There is a Continuation of an overall excellence of a BHS education. Personal growth will occur and we have the Most possibility for innovation. We Address current weak areas and increase student engagement.

This becomes a real opportunity to be innovative and make both schools excellent places for students. There is Balance between the two schools and Teachers keep their jobs. There are Continued diverse elective options for all students and Students are able to make decisions that fit their needs.

Teachers will Meet the needs of various sub groups / special needs students and gifted. Students and staff feel good about the school where they LEARN and WORK and Students are involved in the classes / activities that they need and want.

All students and staff have access to a positive working and learning environment that fits their needs.

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
September 2016
Best/Worst Outcomes

HIGH SCHOOL PROGRAMMNG

WORST OUTCOMES:

There is No vision for the future. We Miss opportunities to adapt our system to meet the needs of all students and we are Unable to service needs of students, families, and community.

Materials, space, resources are not thought out which could lead to lack of success. Graduation requirements are affected – lack of plan means kids don't get diploma. This Affects graduation and retention rate.

Facilities are not adequate for student/teacher needs. There is Not a good long term solution. There's Not enough to go around whether it's money, facilities or staff. We experience the Inability to properly plan facilities before construction, resulting in Not having enough resources (if we don't plan properly).

The District will have to Build more or renovate sooner than expected. Important programs do not have initial facilities and we have an Educational unusable facility. We Overbuild or under build and there is a negative impact on student education.

We Diminish quality of education for some and Students lose opportunities. The Quality of education suffers and Students will lose opportunities. Student needs suffer and Kids missing the opportunity for the same or better quality education they currently have.

We Create a have/have not scenario. We experience a Have/have not scenario (like Kalispell). We End up with a have/have not scenario.

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
September 2016
Best/Worst Outcomes

There is a Decrease in student engagement and Students aspirations are crushed. There are FTE issues and Students needs are not met. Students lose opportunities. Kids deciding programs are so mis-planned they choose not to participate.

We do Not ~~having~~ have a place for everyone. Anarchy ensures. People feel Hurt/insensitive – no one would feel as they had a voice. The Facility will drive program and the Education quality diminishes.

The students and staff experience a Negative climate due to lack of organization. There is Confusion. We experience Job losses and a Lack of staffing to meet needs. There is a Splitting of staff. Programs/Electives/Staff are cut. There is Teacher frustration and Staff does not feel supported. We Create animosity amongst staff. We fail by Not taking into account programs and staff. There is Poor facility design and Unequal funding. There are Negative school competition/comparisons and an Unhealthy rivalry between student bodies.

There will be Inequality of schools and Inequality of facilities. We will have Split equality of schools and an Imbalance between the two schools. Community will feel like the schools are not equal and will place labels on them as “have/have not” or “old/new.”

We ~~Wasting~~ waste money. There will be Public backlash if we don’t plan properly. There is No public buy-in to process and the Misuse of public trust, leads to fallout, political or financially. There is a Loss of community trust resulting in a Divided community. The Community feels we failed them and will questions the need for future bond issues.

Community apprehension escalates. Community trust decreases. Taxpayers/parents/staff will be frustrated.

There is Increased chance of mill failing and The Bond would fail. There is Chaos. There is Chaos. There is Chaos.

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
September 2016
Best/Worst Outcomes

Scope of our Committee:

Decisions to be made…

What have you heard? Or what questions are on your mind?

- What is the name of the new school?
- What are the colors?
- New mascot
- Boundaries
- Demo of existing building
- One stadium or two
- Auditorium
- Where will Wendy's go?
- Feeder schools - where will they go?
- Community accessibility
- Swimming pool?
- Open or closed campus
- Land share with meadowlark
- Staff - where they go
- Programs: duplication

Decisions group does not need to make:

1. Decide how to divide staff
2. Staff specifics
3. Boundaries
4. Mascot / Colors
5. Validity of programs (worth/value)
6. Boundaries / Feeder Schools
7. Transition in 2020 (What launch looks like)
8. Open vs. closed campus
9. Who the admin team will be
10. Open enrollment vs. closed enrollment

SCOPE OF WORK

Bozeman School District
HS2 Programming Committee
Fall 2016
Parking Lot Discussions and Decisions

As the HS Programming Committee proceeded with discussions in the Fall of 2016, it was decided early that we needed to have a place to keep ideas and topics for future discussions. While important, these topics do not have a direct impact on facility design and costs - therefore could happen at a later time. (Post Bond discussions.)

NOTE: This list is not complete. Items will be added as we progress through the Pre-bond discussions.

1. School schedule: 7 period, block, variation on traditional schedule, lunch
2. Graduation Requirements
    a. 23, 24, 25 credits
    b. Types of Diplomas
    c. Pathway Diplomas
    d. Community service requirement
    e. New requirements for the Honors Diploma (GPA, types of courses taken)
    f. Online credit requirement
3. Staff collaboration after the split
4. Program Info - Ex: Advanced Placement vs. International Baccalaureate programs
5. Exact course offerings at each facility
6. Transition process
7. School Boundaries
8. School names and mascots

GRADUATION REQUIREMENTS

High School Programming
Bozeman School District
January 2017
Comprehensive High School Education - 2020

Thought Questions:

- What is a comprehensive high school education in 2020?
- What should it include?
- What components of a comprehensive education have a direct impact on facility design and construction costs?

Background:

The BSD7 has engaged a committee in the planning process for future high schools. The committee includes teacher representatives from each curricular area as well as community and Board members. Given the various high school programs, we have asked the committee to consider both current and new facility and determine what will be needed to operate our high school programs in 2020, which is the target year for the new high school to be open.

As the committee progresses in their work, the term "comprehensive high school" has been used many times. Through discussion and community feedback, it has become apparent that this term has many different meanings, based on context and personal experience. For example - does comprehensive mean just academics, or does it also include extra and co-curricular programs?

According to Philip Gates (*Re-evaluating courses for the comprehensive high school),* there is no universally accepted definition for a comprehensive high school. "The state legislature, local school board, and regional colleges and universities have mandated certain courses to be taught to all students. These have become required courses. Typically they have included core subject courses…"

As many of the components of a comprehensive high school education will have a direct impact on facility design and costs, it is important to clarify the BSD7 vision in this area. The purpose of this document is to clarify and define the components of a comprehensive high school education for Bozeman.

State and Local Policy:

Accreditation Standards

Montana Standards provide some guidance in the area of minimum offerings for accreditation:

Administrative Rules of Montana - 10.55.904 Basic Education Program Offerings: High School

(1) The basic education program, aligned to the program area standards, for grades 9 through

GRADUATION REQUIREMENTS

12 shall be at least 20 units of coursework that enable all students to meet the content standards and content-specific grade-level learning progressions.
(2) Instruction in reading literacy and writing literacy shall be incorporated into all required and elective program areas as required in the Montana Common Core Standards, ARM Title 10, chapter 53.
(3) Minimum offerings shall include at least the following:
(a) 4 units of English language arts;
(b) 3 units of mathematics;
(c) 3 units of science;
(d) 3 units of social studies;
(e) 2 units of career and technical education;
(f) 2 units of arts;
(g) 1 unit of health enhancement;
(h) 2 units of world languages; and
(i) 2 units of electives.

Bozeman School District Standards

The Montana Accreditation Standards provide the minimum or baseline requirements needed for an accredited high school in Montana. At the local level, school districts and locally elected trustees determine the outcomes of the academic program by setting their own graduation requirements. Our District outlines minimum requirements for graduation in Policy 2410. Early in our process, the committee reviewed and verified our current graduation requirements.

Bozeman High School Diploma
4 units of English
3 units of math
2 units of science
3 units of social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of career and technical education
1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
6 units elective
23 units will be required for graduation

Bozeman High School Honors Diploma
4 units of English
4 units of math to include Algebra II
3 units of science to include chemistry or physics
2 units in same world language

GRADUATION REQUIREMENTS

3 units in social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of career and technical education
1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
4 units elective
25 units will be required for graduation

Other Data Related to Graduation Requirements

Number of credits achieved by our graduates

Based current graduation requirements and the 2-diploma option, the committee asked for information related to the number of credits achieved by our graduates. This data helps define the comprehensive nature of our program and what students are actually accomplishing within our program.

Bozeman High School Class of 2016 - 416 students

- BHS graduated 63 (15%) students with exactly 23 credits.
- Graduated 87 (21%) students with more than 23 credits, but less than 25 credits.
- BHS graduated 51 (12%) students with exactly 25 credits.
- Graduated 152 (37%) students with more than 25 credits, but less than 28 credits.
- BHS graduated 26 (6%) students with exactly 28 credits (7-period day all 4 years).
- Graduated 37 (9%) students with more than 28 credits.

AA Comparisons

Through analysis, it is clear that many school districts go above and beyond the minimum requirements set by the state. The administration has done some analysis to determine how Bozeman School District requirements compare with other AA schools in our state. The chart on the next page shows the comparisons.

GRADUATION REQUIREMENTS

	Montana Minimum	Billings	Bozeman Standard	Bozeman Honors	Butte	Kalispell Standard	Kalispell Merit	Great Falls	Helena	Missoula
English	4	4	4	4	4	4	4	4	4	4
Math	2	2	3	4	3	3	3	3	3	3
Social Studies	2	3	3	3	2	2.5	3	3	3	2.5
Science	2	2	2	3	2	2	3	3	2	2
Health / PE	1	1	2	2	2	1.5	1.5	2	2	2
Art (Visual / Performing)	1	1	1	1	1	1	1	1	1	1
Career / Technical Ed	1	1	1	1	1	1	1	1	1	1
World Language	-	-	-	2	-	-	2	-	-	-
Other Specified	-	-	1	1	-	1	1	0.5	-	-
Electives	7	7	6	4	5	6	4.5	5.5	7	8.5
Total Req for Graduation	**20**	**21**	**23**	**25**	**20**	**22**	**24**	**23**	**23**	**24**
Class periods per day	-	6	7	7	6	7	7	7	7	7

Montana University System Requirements

Admission requirements

Graduation from a high school accredited by the state accrediting agency or a passing score on an approved high school equivalency exam such as HiSET or GED. Students who complete their secondary education through home schooling or at unaccredited secondary schools may be admitted as long as they have satisfactorily performed on the ACT or SAT test.

GRADUATION REQUIREMENTS

Academic Requirements:

- A 2.5 cumulative grade-point average (on a 4.0 scale), OR
- ACT Composite score of 22, OR
- SAT Combined Critical Reading/Mathematics/Writing score of 1540 (prior to March, 2016), OR
- SAT Total Score of 1120 (after March 2016), OR
- Rank in the upper half of the graduating class

AND

Successful completion of a College Preparatory Curriculum. Non-resident applicants who have not completed the college preparatory requirements stated below may satisfy the requirements by providing evidence that they have completed a similar college preparatory program required by their home state:

- Four years of English: courses should emphasize the development of written and oral communication skills and literature.
- Three years of Mathematics: courses should include algebra I, geometry, and algebra II (or the sequential content equivalent of these courses). Students are encouraged to take a math course in their senior year.
- Three years of Social Studies: courses should include one year of global studies (such as world history or world geography), American history, government, economics, Indian history, psychology, sociology, or other third-year courses.
- Two years of Laboratory Science: one year should be earth science, biology, chemistry, or physics, and the other year can be one of the above sciences or another approved college preparatory science.
- Two years of elective courses: foreign language (preferably two years), computer science, visual and performing arts, or approved vocational education units.

Components of a Comprehensive High School Education - Bozeman School District
Using guidance from state, local, and university requirements, BSD7 has defined the following as components of a comprehensive high school education. Beyond academic requirements are other extra-curricular and co-curricular activities which help define a comprehensive experience for a student in Bozeman.

Component	Intended Outcome	What it looks like in BSD7
English		4 credits required for graduation

GRADUATION REQUIREMENTS

Math		4 credits including Alg 2 for honors 3 credits for standard diploma
Social Studies		
Science		
Health Enhancement	Students learn the health-related benefits of regular physical activity and the skills to maintain a healthy lifestyle.	
Arts - Visual		
Arts: Performance - Dance / Theater	The Performing Arts Department offers a variety of elective courses that are designed to meet the needs, interests, and proficiencies of all levels of students.	Electives in Dance and Theater Production meet the fine arts graduation requirement. Co-curricular opportunities:
Arts: Performance - Music	The Performing Arts Department offers a variety of elective courses that are designed to meet the needs, interests, and proficiencies of all levels of students.	
CTE: Business		
CTE: Engineering		
CTE: Family & Consumer Science		
CTE: Health Sciences		
CTE: Trades & Industry	Career and technical education is a curriculum designed to inform students how technological systems and their associated careers integrate into the modern workplace and our fast-paced society. Students are asked to apply knowledge and creative thinking to design and create solutions to relevant, real world problems.	
World Language	Students will gain proficiency in three modes of communication: interpersonal, interpretive and presentational. Students also learn to understand the structure and patterns of language and strengthen literacy tasks.	

GRADUATION REQUIREMENTS

Specialized Programs		
Advanced Placement		
Dual Credit		
Charter Program		
Counseling & Guidance		
Extracurricular Activities: MHSA Sanctioned		
Extracurricular Activities: School Clubs		

GRADUATION REQUIREMENTS

TITLE:	REVISED POLICY #2410, HIGH SCHOOL GRADUATION REQUIREMENTS, 1ST READING
CATEGORY:	DISCUSSION AND REPORTS
ORIGINATED BY:	Rob Watson, Superintendent
OTHERS INVOLVED:	Kevin Conwell, BHS Principal; Marilyn King, Deputy Superintendent Instruction; High School Programming Committee
DATA EXPANSION:	Revised Policy 2410, Page 3 of the Bozeman High School Curriculum Guide; Page 34 of Chapter 55
COST/FUND:	N/A

IMPLEMENTATION ACTION: Elementary and High School District DISCUSSION
November 14, 2016

DISCUSSION:

1. The technology credit was added as a graduation requirement many years ago when the use of technology was just beginning to be part of classroom instruction. Specific courses were deemed appropriate to earn a 'technology credit.' This list was revised by the high school from time to time. Technology is now ubiquitous in all courses, and the concept of a 'technology credit' is no longer necessary.
2. The High School Programming Committee in one of its initial meetings discussed this topic. This committee reached a consensus and recommendation for change in policy comes from this consensus agreement.
   It is recommended that the Tech Credit be dropped from the graduation requirements for both the general and honors diploma. It is further recommended that this graduation requirement be replaced with the "flex credit" which could be fulfilled with an extra credit of fine arts, vocational (CTE) or world language.
3. There is no specific requirement in the Montana accreditation standards for a technology credit as part of minimum graduation requirements.
4. Currently, the majority of students fulfill the technology credit requirement with an extra year of career and technical education or an extra year of fine arts.
5. This revision will provide more flexibility to high school students in completing their requirements for graduation.
6. When changing graduation requirements, current policy language provides the Board with authority to make the change effective for the next incoming 9th grade class or effective for all students when the proposed change will not have a negative impact on students already in grades 9-12. After discussion with high school administration and counseling staff, we do not believe this change will have a negative impact on students currently in grades 9-12.
7. This revision and additions support Goal Area #1 of the Long Range Strategic Plan: Academic Performance: Each student meets or exceeds the high academic standards necessary for college and career readiness.

GRADUATION REQUIREMENTS

Bozeman School District
HS Programming Committee
September 20, 2016
Discussion on Changes to Graduation Requirements

Consensus Decision Made:

It is recommended that the Tech Credit be dropped from the graduation requirements for both the general and honors diploma. It is further recommended that this graduation requirement be replaced with the "flex credit" which could be fulfilled with an extra credit of fine arts, vocational (CTE) or world language.

This recommendation will be given to the Board of Trustees in November 2016 for a potential change to the Graduation Requirements to take effect in the 2017/18 school year.

"Parking Lot" Decisions regarding changes to Graduation Requirements:
These decisions will require a more detailed discussion, but have no direct impact on facility design or costs and therefore will be discussed post-bond.

Potential changes to Graduation Requirements

- 23, 24, 25 credits
- Types of Diplomas
- Pathway Diplomas
- Community service requirement
- New requirements for the Honors Diploma (GPA, types of courses taken)
- Online credit requirement

PAGE LEFT BLANK
INTENTIONALLY

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
Graduation Requirement Suggestions Gathered from HS Program Comm focus groups

Tech Credit

- Eliminate tech credit
- Redistribute tech credit *
- Change tech credit to STEAM *
- Remove outdated tech credit - retain current credit requirement *
- Remove the tech credit

Diploma

- 1 diploma, 24 credits, honors recognition (TBD) *
- Reevaluate honors diploma *
- Recognition of specialist study/career pathways *
- One diploma with recognized alternative college and career pathways *
- Keeping a high total required amount of credits
- Redefine honors diploma based on GPA and depth of coursework *
- One diploma with distinctions/pathways, 24 credits required (honors, GPA, Community Service, STEM, Literacy) *
- Add honors endorsement based on GPA and type of courses taken such as AP or advanced courses
- Create a recognized alternative pathway to graduation in web or IT or coding with minimum of .5 credits for all students *
- Incorporate a way to allow more elective credits *
- Increase flexibility/opportunity to take electives credits *
- Change as little as possible *

Community Service

- Community service requirement
- Incorporate community service
- Community service included in civics class
- Require community service as a component of existing coursework - not adding a credit
- Explore community service
- Add/explore community service club/activity for credit

Language / global awareness

- World language for honors recognition *
- Add foreign language requirement
- Include a minimum of 1 year of global awareness credit: world language, current events, IEFA, asia/africa
- Require year of world language (coding can count as a world language.) *

New or Additional Requirements

- Create a recognized alternative pathway to graduation in web or IT or coding with minimum of .5 credits for all students
- Replace tech credit with a real-world credit that encompases finandial literacy, digitial citizenship, and social/emotional wellness *
- Add/require online credit to be taught by BSD7 employee *
- Explore the options to exposing all students to a positive online learning course *
- Consider life skills/financial literacy requirement *
- Add .5 financial literacy to replace part of existing tech credit

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
Graduation Requirement Suggestions Gathered from HS Program Comm focus groups

*Signifies a decision that has the potential to impact facility design/costs

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
Bozeman High School - Graduation Requirements:

Bozeman High School Diploma

4 units of English
3 units of math
2 units of science
3 units of social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of career and technical education
1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
6 units elective
23 units will be required for graduation

Bozeman High School Honors Diploma

4 units of English
4 units of math to include Algebra II
3 units of science to include chemistry or physics
2 units in same world language
3 units in social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of career and technical education
1 unit of flex credit (To be defined as fine arts, career and technical education or world language)
4 units elective
25 units will be required for graduation

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
Bozeman High School - Graduation Requirements:

Class of 2016: Number of credits upon graduation:

Bozeman High School Class of 2016 - 416 students

- BHS graduated 63 (15%) students with exactly 23 credits.
- Graduated 87 (21%) students with more than 23 credits, but less than 25 credits.
- BHS graduated 51 (12%) students with exactly 25 credits.
- Graduated 152 (37%) students with more than 25 credits, but less than 28 credits.
- BHS graduated 26 (6%) students with exactly 28 credits (7-period day all 4 years).
- Graduated 37 (9%) students with more than 28 credits.
- In 2016, BHS graduated 96 students with fewer than 24 credits.

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
State of MT Accrediation and Grad Requirements

#1 What is the minimum program that must be offered to be considered an accredited high school in MT?

10.55.904 Basic Education Program Offerings: High School
(1) The basic education program, aligned to the program area standards, for grades 9 through 12 shall be at least 20 units of coursework that enable all students to meet the content standards and content-specific grade-level learning progressions.
(2) Instruction in reading literacy and writing literacy shall be incorporated into all required and elective program areas as required in the Montana Common Core Standards, ARM Title 10, chapter 53.
(3) Minimum offerings shall include at least the following:
(a) 4 units of English language arts;
(b) 3 units of mathematics;
(c) 3 units of science;
(d) 3 units of social studies;
(e) 2 units of career and technical education;
(f) 2 units of arts;
(g) 1 unit of health enhancement;
(h) 2 units of world languages; and
(i) 2 units of electives.

(History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 1989 MAR p. 342, Eff. 7/1/89; AMD, 1998 MAR p. 2707, Eff. 10/9/98; AMD, 2000 MAR p. 3340, Eff. 12/8/00; AMD, 2012 MAR p. 2042, Eff. 7/1/13.)

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
State of MT Accrediation and Grad Requirements

#2 What are the minimum graduation requirements for any accredited high school in MT?

10.55.905 Graduation Requirements
(1) As a minimum, a school district's requirements for graduation shall include a total of 20 units of study that enable all students to meet the content standards and content-specific grade-level
learning progressions.
(2) In order to meet the content and performance standards, the following 13 units shall be part of the 20 units required for all students to graduate:
(a) 4 units of English language arts;
(b) 2 units of mathematics;
(c) 2 units of social studies;
(d) 2 units of science;
(e) 1 unit of health enhancement, with 1/2 unit each year for two years;
(f) 1 unit of arts; and
(g) 1 unit of career and technical education.
(3) Units of credit earned in any Montana high school accredited by the Board of Public Education shall be accepted by all Montana high schools.
(4) In accordance with the policies of the local board of trustees, students may be graduated from high school with less than four years enrollment.

(History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 1989 MAR p. 342, Eff. 7/1/89; AMD, 1998 MAR p. 2707, Eff. 10/9/98; AMD,2000 MAR p. 3340, Eff. 12/8/00; AMD, 2012 MAR p. 2042, Eff. 7/1/13.)

GRADUATION REQUIREMENTS

Bozeman School District
HS2 Programming Committee
September 2016
State of MT Accrediation and Grad Requirements

#3 What are the graduation requirements for Bozeman School District?

BSD7 Board Policy #2410
Bozeman High School Diploma
4 units of English
3 units of math
2 units of science
3 units of social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of vocational education
1 unit of technology education
6 units elective
23 units will be required for graduation

Bozeman High School Honors Diploma
4 units of English
4 units of math to include Algebra II
3 units of science to include chemistry or physics
2 units in one foreign language
3 units in social studies to include one unit in Montana Studies/Global Studies, one unit in U.S. History and one unit in U.S. Government
1 unit of fine arts
2 units of health enhancement
1 unit of vocational education
1 unit of technology education
4 units elective
25 units will be required for graduation

PAGE LEFT BLANK
INTENTIONALLY

PROGRAMS: ACADEMIC

Bozeman School District
HS2 Programming Committee
November 9, 2016
Subgroup: Academic Organization

Guiding Question:
How should both high schools be organized/re-organized (ie: traditional 9-12, departmental, freshman house, career academies, STEM program, small learning communities, project-based learning, community-business internships/mentorship programs, student guided work stations)?

Topics for discussion:

- Academic organization (SEE K/W/L Chart for types of organizations)
  - AP vs. IB (parking lot)
  - School within a school (multiplex)
  - Career Pathways
  - Small Learning communities
  - Traditional department structure
  - Cross-curricular structure
  - Freshman academy
  - Revision of the senior year
- School Schedule (specifically lunch)
- Shared spaces: atrium, cafeteria, library
- Flexible use spaces: breakout spaces, outdoor classrooms
- Staff shared spaces
- Computer labs
- Other

Group Consensus Statement:
For now and during the transition to 2 schools, we value our department structure. We believe this structure is critical for curriculum development and community culture.

However, we also recognize and value that preparing students for the future means providing opportunities for collaboration and learning in multi-disciplines. We would like to see a building design that encourages both staff and student collaboration. Also a design that fosters a sense of community within and among curricular areas.

We believe this can be accomplished by designing flexible facilities that include common spaces that are welcoming and support both small and large group collaboration. We believe collaboration can be enhanced with purposeful design of shared spaces like Library, cafeteria, atriums, court yards, and breakout spaces.

Guiding Principles from the Discussion:

PROGRAMS: ACADEMIC

Bozeman School District
HS2 Programming Committee
November 9, 2016
Subgroup: Academic Organization

- Opportunities for faculty to be close together (less sprawl)
- Flexible use spaces
- Collaboration within the department a priority
- School size is important and can help reduce need for academies, houses
- Central space is important - central connector
- Collaboration space within each department for students and staff
- Like the “radial design” or spoke/hub
- A common area like the library can serve as the hub
- We need to address our own philosophy around common areas (procedures of how they are used.)
- Central space for collaboration and various needs
- Perhaps the option to have “pods” with flexibility of changing organizational structure in the future
- Intradepartment and cross-curricular are both important.
- Community space for students to gather is important for sense of belonging
- Interdisciplinary learning is important as the “real world” does not operate in a departmentalized structure. We need to have options for flexible spaces as more cross-curricular learning happens
- At the existing HS, can we do something different with the open court yard?
- Centralized resources are important for staff

Miscellaneous discussion topics and ideas:

- Computer labs: While there was no consensus to move towards a 1-1 environment, that could be a possibility in the future. Therefore we need to have multiple access points both in classrooms and in common spaces. Opportunities for power and plug into larger monitors. Group discussed computer labs and would like to see more flexibility like “Computers on Wheels.” Carts that can be taken anywhere and staff resources that may go with the cart. Roving labs. There was also a discussion about flexible furniture that allows for collaboration and tech integration.
- Library: We know that the exact design will be hashed out more, later with more staff input. Today, the group wanted to see some of the following design elements: more light, open environment with flexibility for groups to meet, flexible walls to create meeting space, technology space with printers, acoustics are important, flexible furniture
- Lunch: Feedback from this group was overwhelming for staying with the option of the 1-lunch schedule. They really valued the opportunity for students to meet with clubs and the opportunity for student-staff meetings. Also, staff collaboration opportunities with the

PROGRAMS: ACADEMIC

Bozeman School District
HS2 Programming Committee
November 9, 2016
Subgroup: Academic Organization

1-lunch schedule. They understood that this will mean an open commons area with more of a “food-court” feel to the lunch program, rather than a separate cafeteria.

PAGE LEFT BLANK
INTENTIONALLY

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 27, 2016
Best Outcomes, Academic Organization

What would be the best outcome of changing our current academic organizational structure?

A thoughtful plan is supported & implemented maximizing opportunities for students and staff. **It will** Increase learning opportunities, engagement & excitement. Change facilitates to students/staff/community needs/wants. **It** Increases innovation opportunities **and will** Increase student options for furthering study or exploration. **Students will be** excited to learn at the high school and take advantage of a variety of opportunities. **They will** feel more invested in learning & their education **and** see High School as opportunity to grow. **There will be** More opportunities for more students **and can** Meets more students at their learning styles. **Then** Students feel confident in their current & future educational environments **plus** Students are given more opportunities for excellence beyond academics. Students see the cross curricular connections & relevance. **On the other hand,** Staff feel inspired & supported to invest in their students & classes **and** Students get what they need to become well-rounded, engaged global citizens. Stakeholders are proud of the academic structure & its outcomes.

Community & staff are excited about new model. Students feel safe & at home, Students and staff feel more connected **and there is a** Sense of belonging for students & staff. New structure increases opportunities for students. We set the example for schools in Montana **and** We become an example/model for other schools/community. **Our** Graduation rates rise, Dropout and bullying rates fall (x2), Student engagement and motivation increases **and we** Create a more positive school culture **thus** School culture improvement. Community is proud of both high schools (x2). **We are** Using resources more efficiently & effectively. Both schools tie for “Best School in the State”. Students, staff & community become flexible & embrace change with a CAN-DO-ATTITUDE

Purpose for change is clearly communicated resulting in community support. Changes have student/staff/community buy in & support (x2). **It will** Strengthen existing programs **with** New, innovative ideas **and** Forward thinking. **The** Implementation of best practices system wide Supports life-long learning & intrinsic motivation. Collaboration within and between departments as well as different groups of students **can** Bring school closer/collaboration explodes!

If we CAPITALIZES on a variety of learning opportunities (online, community, place-based, service-learning) **it will produce** Real world connections with collaboration & communication skills **and** More real-world and community partnerships. Implementing changes, if done well, can ease the transition to 2 high schools. We do not lose FTE or courses. Changes create opportunity for deeper learning and high engagement with community. **A** Program that can evolve and change with local/national/global workforce needs, Increase post-secondary

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 27, 2016
Best Outcomes, Academic Organization

success, Increase engagement & relevance, Increase pathway awareness & option **and** Increase interdisciplinary opportunities and collaboration. **These** Changes promote & improve mental health (for all). **INVIGORATING!**

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 2016
Types of Academic Organization K/W/L Chart

Academic Organization: What do you Know? What do you Want to know? What have you Learned?

Organization Model	What do you Know? (Details of how they are organized Benefits and challenges? Possible outcomes?)	What do you Want to know about this model? Questions to answer?	What have you Learned about this organization model? (To be completed as homework.)
#1 Advanced Placement vs. International Baccalaureate			
#2 Career Pathways			
#3 Small Learning Communities, Academies, or Houses			
#4 School within a school (STEM or other)			

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 2016
Types of Academic Organization K/W/L Chart

#5 Traditional Department Structure			
Model	What do you Know?	What do you Want to know?	What have you Learned?
#6 Cross-curricular structure (Project-based learning)			
#7 Freshman Academy			
#8 Revision of the senior year (Jumpstart aka 2 + 2 programs)			
#9			

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 2016
Types of Academic Organization K/W/L Chart

#10			
#11			

PROGRAMS: ACADEMIC

[Type here]

Bozeman School District
HS2 Programming Committee
October 27, 2016
Subgroup (Academic Organization)

What would be the worst outcome of changing our current academic organizational structure?

We change and it doesn't work for our students and staff. Some of our students would get lost in the transition **or** Students don't have a place where they belong. **We may** Displace students who have a niche. Kids feel forced into a "home"/place **and** Damaging school culture/connectedness **will occur**. **Their** Safe havens may go away. **By** Not meeting students at their level (under or over whelmed) and Students don't get courses they need and want, Students get into pathways and can't change. Students don't get a well-rounded education. **With** Students not gaining skills or knowledge necessary for post-secondary plan, Students are not college and career ready or ready for a global competitive world **and we may experience** Lower graduation rates and increased drop outs. Less retention of students.

It isn't well planned so teachers are unhappy and students don't get what they need. **We not only risk to** Fragment staff, **but** No teacher buy-in, Not all staff buy in to the change. **We may note** Increased burn out in teachers/staff **as** Teachers resist changes. Changes create anxiety and animosity **And possibly** Losing excellent teachers who can't embrace restructuring. **With** Leadership overextended **and** No buy-in from staff/students, Certain staff leaders leave and the program fails. Teachers feel isolated and alone. **Our** Loss of programs = loss of staff. **Therefore we do not want to** Change for only change's sake.

It pushes up our operational cost beyond capacity. **Our** Financial resources spread too thin **and this** Change is underfunded or improperly implemented and it flops.

If our Purpose is not clearly communicated **we see** Community frustration. Change appears haphazard. **With** Less engagement and innovation, **It** May affect communication among departments. **Our** Departments don't have opportunity to collaborate **and our** Loss of depth of programs/content = loss of student exploration opportunities. Losing "student-focus" and moving to program development **will result. With** Loss of high quality programming **as** Quality of existing courses decreases, Courses may lose rigor **and we will be** Losing flexibility in models that are already working. **By** Taking too much time (years) to implement effectively **Or if we** Spend a lot of time planning but nothing changes **and** Not tracking results/seeing what is most effective for our unique community, **the result will be** We put a lot of time and energy into a change and it yields no positive benefit. **It will lead to** Uncertainty for community, parents, students and staff **with** Fear & resistance & sabotage. **But the absolute worst case scenario is that** If it doesn't work, we go back to how it used to be which isn't terrible anyway.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
November 9, 2016
Co-Curricular Consensus Statements

Q1: What elements are needed at both campuses?

The building of a black box theatre at both high schools and a larger "acoustically designed" instructional and performance space at each, which also includes art gallery/exhibition space as well.

- Black box - 250 max (catwalk, no fly space)
    - Hands on work experience spaces (fulfills curricular requirements)
- Performance = 750 max. (no fly space)
- Colocation / adjacency to instruction space, storage, changing rooms, bathrooms, and scene shop
- Secure space for public access, yet secure for art protection
- Commons area that can offer concessions/ may include DECA

Q2: What will public performance look like in the new high school, the existing high school, and the Willson?

Public performances are located at multiple venues and are used for multiple needs (daily instruction, rehearsal/practice, clubs, evening events and performances) by all K-12 and public.

- Big productions (Holiday Gala, musicals, HNL, etc.) are held at Willson (capacity up to 1,000)
- New and Renewed high schools: school based black box productions and performances (black box capacity = 250 max.; performance space = 750 max.)

Q3: If a Cafetorium were considered at one for the sites, what elements would be required for it to be an effective performance space?

While we support the idea of multiple use spaces, a Cafetorium would NOT meet the performance needs of the high schools.

We do support multi-use spaces such as mini commons, thoroughfares/market space areas, incorporating atrium/gallery/exhibit spaces. Please discuss these as part of the design planning.

Q4: If we can't do everything, what is the next level down?

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
November 9, 2016
Co-Curricular Consensus Statements

One multi use acoustically sound performance space (500-750 capacity) and foyer with secure gallery/exhibition space, plus an adjacent state of the art theatre classroom to meet curricular needs at both high schools.

Rough Estimates:
BB (250) = 2.5 M Black box: has lighting, catwalk system, set production, seating up to 250.

500 seat = 3.5 - 4 M
750 seat = 5 M

State of the art drama classroom: larger than typical classroom, small stage with reduced lighting and sound capabilities; close to performance stage, set/scene production and storage in between classroom/rehearsal space and final performance space.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Co-Curricular Best/Worst Outcomes – Elective Group

WORST OUTCOMES:
The District Won't attract and retain dynamic teachers because of limited opportunities. People (staff & students) don't want to be there (**District/high school) and we have** Difficulties hiring and retaining teachers who also conduct co-curricular activities. **There will be** Competition and conflict (Staff and students) **and** Unhappy teachers and students.

Music will take up all existing funds for the program needs. Programs **are** pushed into spaces designed for other uses **and** Current program needs are met in a sub-optimum way. Facilities sharing decreases program integrity. Co-curricular activities lack facilities.

~~Not having~~ **We lack** a multi-user or flexible design that can support all students needs. **Design is** Not focused on (a) specific group(s). Initial design does not take future additions into consideration. **We** Design~~ing~~ an auditorium that we can't build and ending with something nobody can use.

There is No connection between classroom and real-world application and relevance. Specialized rooms (e.g. DECA, student paper, computer labs, theater storage, bookshelves and cabinets are non-existent). **There is** Incompatibility between curricular and extracurricular opportunities.

We won't be competitive with other high schools in the state. **There exists a** Lack of vision to do things differently. Lack of parity/equity between schools **and** Competition for space causes animosity and hard feelings. **There is a** Lack of vision for innovation **and** We don't have appropriate spaces for students to learn and experience. **We have** Crowding and congestion. Congestion and low accessibility.

Not enough flexibility to allow for multipurpose spaces and growth **and** Design does not provide appropriate spaces for specialized learning environment. **An** Arts vs. tech school rivalry (-) **will exist. Inability to agree will result in the** Delay **of** plan and/or building process. We must retrofit later and end up with inferior facilities and high additional costs. Money is unavailable **and things are** Too expensive to operate and maintain. **We** Don't learn from prior mistakes and fall into poor planning. **Things are** Unsafe.

Community and school connections diminish **and** Community **is** disappointed /angry -- initial bond doesn't pass. People will not work together to support each other's programs for the good of all students, including BCA.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Co-Curricular Best/Worst Outcomes – Elective Group

We end up having to return to voters for more money **and** Future bonds for retrofit and additions don't pass. **There is** Animosity **and** Community frustration.

Lack of forethought and planning prevents students from having depth of enrichment by reducing involvement in programs **and** ~~That~~ we end up losing our current depths and breadth of offerings. Co-curricular activities housed in inadequate space **and** Co-curricular programs will remain compartmentalized. ~~That~~ **P**rograms feel/are diminished. Programs will die. We end up in a poor "make do" scenario, which creates poor implementation and fidelity to the program.

Uneven programs will lead to division of high schools. We do it "right" with one school and not the other. Flourishing programs will die. BSD **students are** not career and college ready.
The District will marginalize co-curricular in the name of cost effectiveness. Quality suffers.

Students will not have rich opportunities to engage in co-curricular activities. Student's interests and passions will have "must stop here" component. Student engagement and creativity decreases.
Students have minimum options for co-curricular activities and opportunities are limited.

Students will miss out on important growing and learning opportunities **and there will be** Missed opportunities for students. Student engagement suffers **because** Students are not able to branch out, embrace or express their interests. Students don't have the best environment for learning. Students leave high school with no idea of next step **and** Students are not college and career ready. ~~Include~~ **There is** likelihood students will want to boundary jump. Students will find "not-so-good" ways to spend out of school time.

Dynamic teachers are unable to provide rich experiences. **We have** Chaos/Confusion. We lose students due to lack of "place" for their possessions and interests. Students drop out. **The** Community is enraged.

BEST OUTCOMES:
We are able to Attract and retain teachers because of dynamic co-curricular programs. Teachers have opportunity to teach the way they want **and we** Attract even more strong and dynamic teachers. Staff enjoy …….

Planning for programs shows the voters that the District is willing to support the programs **and** All co-curricular programs are supported. **Students receive** Hands on technical experience.

We retain the quality co-curricular/programs we currently have in a smaller setting with room to grow.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Co-Curricular Best/Worst Outcomes – Elective Group

School pride in course offerings and building. Co-curricular programs are able to grow **and** We set the bar for mutually supportive and complementary programming. Personalized educational needs are met.

Safe learning environment**s exist. We have** Adequate space for students to learn, grow, and excel!**The** Facilit**ies** support and enhance co-curricular activities. **We** Have spaces usable for multiple co-curricular. Flexi**ble** space that can meet necessary specific needs of a variety of programs **and** Facility designed for multiple uses.

Space is not an issue, money is not a problem. We have appropriate spaces to accommodate innovation and growth. Innovative learning environments ~~that~~ also address aesthetic needs of the occupants.
Sharing spaces is embraced and supported by all. **We have** Schools that are safe for extroverts and introverts.

Facility needs meet the demands of present and future co-curricular programs. Facilities can adapt and handle future needs. Facility will be innovated with best technology, storage, and multi use.
We have A facility that meets all needs **and** Teaching and learning spaces meet the needs.

We have Great facilities with great programs. **The District is** Designing facilities with students and staff in mind, not the desires of the community. **Our** Auditorium(s) allow(s) for creative and wide range use. (S/D, Ted Talks, STEM, Sr Pres.)

Our Bozeman Community embraces our solution for both sites and continues to support district needs.
The Community **is** happy -- Bond passes.

Voters might be willing to approve operational budget if programs have optimal space. All parties will come together to support the good of all students. **Our** Community is more involved in school.
Community is proud that our District values the critical co-curricular aspect of the high school experience **and the** Community is pleased and proud. **We are** Fiscally responsible **and provide** More opportunities.

Our Community supports future needs. **There is** Expansion of cultural and intellectual expression in our community. Opportunity for rich exploration and experience beyond classroom **exists**.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Co-Curricular Best/Worst Outcomes – Elective Group

Students are inspired to learn and make career choices **and** Student will have ample opportunity to find life long interests. Students are given plenty of opportunities to pursue their passions and think about life after high school **and** Students graduate well equipped for whatever comes next.

There is Increased student involvement in co-curricular programs offers bridge to future community involvement. e.g. Hawk TV to local broadcasting/production. **We are** Able to expand student involvement within co-curricular activities providing the place to belong and "be" at both high schools.

There is Better morale (Staff and Students). Students will be proud of their school. Students will have opportunities to try a variety of options in an appropriate learning environment **and there are** Expanded opportunities for student involvement.

BSD becomes **THE** innovative leader in education. Students and staff are engaged in their courses.
Students have robust opportunities **and** Student engagement increases academic success (gets 'em there!).
Students will be able to discover their passions **and** Students flourish in the real world.

All students participate **because** Students have a variety of options regarding curriculum and activities. **There is** Independent school pride and sense of identity. Student/staff connection **exist. We have** Retention of students and staff **and** Students and staff highly engaged. Students are excited about their high school experience **and** Students will be engaged and successful in school and in life. Students will leave high school with plans for a life long career.

We achieve practical proposal that meets/exceeds our expectations. Facilities are efficient, cost effective, and beautiful. Community loves and supports H.S. system. **We have** 100% attendance and graduation rate**s**! Students **are** eager and able to participate. People are happy.

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
November 9 2016
Co-Curricular Group Questions

What elements are necessary for both spaces?

- Auditorium with fly space
- Whatever configuration is the same at both schools
- Black Box Theatre
- Performance venue for music with seating for 500-750 people and exhibition space
- Black Box Theatre that has a maximum of 250 person seating
- Performance space in proximity to Fine Arts Classes is accessible to all equipment that moves in and out of space
- Exhibition space that functions as a gallery
- Acoustically designed performance space that is available for co-cross-curricular use that seats at least 500-750 students and includes an exhibition space
- Storage space for instruments, etc.
- Storage space for theatre
- Black Box Theatre with classroom at both schools -- capacity 200-250 max -- shared use/Socratic teaching -- fly loft/catwalk -- scene shop/workspace
- Theatre to be used as a hands-on classroom -- used during the day for instruction -- after school performances for lots of different groups -- a shared space in which students can truly exercise their skills -- e.g. technical skills, music technology
- "Main Street" concept -- a thoroughfare where 3D Art is placed
- Lobby/Atrium for display -- accessibility at all times -- security
- Auditorium / Multi use space
- Music Hall for 500 (⅓ - ½) -- multi use
- When used after hours limit access to rest of building
- Movable walls that would provide flexibility of space
- Changing rooms, bathrooms, and storage
- Co-location at both schools (of performing arts)
- Near cafeteria/commons
- Adjacency/proximity to workspace/classrooms

PROGRAMS: CO-CURRICULAR

Bozeman School District
HS2 Programming Committee
November 9 2016
Co-Curricular Group Questions

What will public performance look like in the new High School, the renewed High School, and the Willson?

- Theatre/Auditorium with Fly Space (Willson size)
- Acoustic Co-Curricular spaces with storage -- smaller space 500-750- seats
- Need Black Box Theatre at both schools
- Whatever configuration, same at both schools (equitability)
- Both schools need exhibition space that functions as a gallery -- gallery at renewed school; exhibition space(s) at new school
- Lots of performances at all venues
- Performances are on school district property
- **A.** Willson -- Middle and Elementary Schools -- Large Scale; **B.** Renewed HS -- Black Box and Music Auditorium that both high schools could utilize; **C.** New HS -- Black Box and Theatre with Fly Loft
- Some auditorium/music space in both schools in addition to Black Box at each school. Both schools have some type of gallery/atrium display
- Interdisciplinary shows, plays, talent shows at all venues
- Common space/flexible space for spontaneous events and a communication method
- Daytime instruction and presentations; After school practices and clubs; Evening events and performances -- On-Site (Each HS Facility)
- DECA Store nearby
- K-8 -- Use all venues as appropriate
- Atrium -- Social space, display space, used to take some pressure off of lunch -- Consider safety and security

PROGRAMS: EXTRA-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Extra-curricular Facility Needs,Consensus Statements

New School	Existing School
3 gyms • 2 BB/2VB courts each (6 total BB/VB) • One large competition gym, with curtains, that could host seat entire student body and host tournaments, possibly to include endzone seating • Two smaller practice gyms/sub-varsity competition with curtains and seating. • Lots of Storage for activities/HE equipment OR 2 gyms • 3 BB/3 VB courts each (6 total BB/VB) with curtains and seating	Keep 3 gyms • 4 BB courts/6 BB courts total • Improve HVAC system • New bleachers/handrails • Update media box/filming areas • Possibly expand North Gym?
Wrestling Room with storage	Wrestling Room with storage
Multi-purpose Exercise Room	Multi-purpose Exercise room
Weight Room	Weight Room
Training Room	Training Room
Team Meeting/Film Room	Add Team Meeting/Film Room (old gallery?)
6 locker rooms - • same square footage for boys/girls • 4 competitive • 2 auxiliary gym #1 • 2 auxiliary gym #2 • **Athletic locker room**	6 locker rooms • Renovate locker rooms on south campus?
Official/faculty locker rooms	Official/faculty locker rooms
Laundry Room	Laundry Room
Concessions	Add concessions

PROGRAMS: EXTRA-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Extra-curricular Facility Needs,Consensus Statements

Athletic Offices	Athletic Offices?

CONSENSUS reached:
Outdoor Facility/Stadium (FB/Track/Band**)**: We recommend a complete reconstruction of Van Winkle Stadium to create an activities facility to include an artificial turf field, a 10-lane track, concessions, and adequate locker room and storage areas. Additionally, a 10-lane track and multi-purpose activity fields, to include turf and adequate storage, and with the capacity to evolve with student growth, should be built at the new facility.

Soccer fields: We recommend maintaining at least one competition field, with seating and lights, to be utilized by both schools, and ensuring that at least three soccer/multi-purpose practice fields (70 yds x 110 yds minimum) are available, on site or nearby, at both high school campuses with the capacity (infrastructure) to evolve with student growth. Additionally, we recommend continuing discussions with the city regarding partnering together for future, flexible use of community fields to be built north of the 2nd high school campus.

> ***Ideally, we would like one soccer/multi-purpose field, at the new location, to include lights for future competitions.

Tennis: We recommend that 8 tennis courts be built at the new high school.

Softball: We recommend building two softball fields at the new high school.

Swimming: Continue to maximize the use of the Swim Center and continue conversations with the city and MSU regarding pool availability and use. At this time, there are no plans to construct a pool at the new or existing site.

Indoor Facility:
New Indoor Facility: We recommend that the new indoor facility contain flexible, multi-purpose gyms to include six basketball courts and six volleyball courts. One gym should be a large competition gym, capable of seating a minimum of 2500 and up to 3500 spectators. Smaller auxiliary gym(s) should be built to include full-size basketball courts, volleyball courts, and seating for spectators. Adequate storage should be built in for both Health Enhancement courses and specific extra-curricular activities. The new indoor facility should also include a stand alone Wrestling Room (can accommodate at least two 42x42 wrestling mats with space for exercise equipment) with storage, Training Room, Weight Room, Multi-purpose Exercise Room, Laundry Room, Team Meeting/Film Room, Athletic Offices for coaches, and a

PROGRAMS: EXTRA-CURRICULAR

Bozeman School District
HS2 Programming Committee
October 27, 2016
Extra-curricular Facility Needs,Consensus Statements

Concessions area. Additionally, locker rooms should be built to accommodate both Health Enhancement classes, athletes and transgender students.

Existing Indoor Facility: At the existing school, the south gym should be renovated to improve the HVAC system, install new bleachers and handrails, update media box/filming areas, as well as build a concessions area, athletic offices for coaches, and a team meeting/film area. Additionally, renovations may include expanding the current north gym and consider relocating and upgrading the weight room.

Estimated Costs (Rough)
Stadium reconstruction $3.5 million
Turf - $250,000
Track - $1/1.25 million
8 tennis courts - $500,000
softball fields - ?

PROGRAMS: EXTRA-CURRICULAR

[Type here]

Bozeman School District
HS2 Programming Committee
October 27, 2016
Extra-curricular Facility Needs – Need to Learn

Need to Learn:

- Capacity of South Gym -1,978 people
- Dimensions of Wrestling Mats - 42'x42'
- Seating Capacity to host Divisional BB tournaments - 3500 for "AA" gym capacity
- Media Considerations/needs
- Future Goals for Swim Center
- What is the cost of building and maintaining a 25 foot, 6-8 lane swimming pool? Operational costs are the biggest concerns (would come from general fund) - $3 million to build, $300,000 (general fund = 5 teachers) to maintain yearly (not including staffing)
- Community's perception on swimming units included in the HE curriculum and future pool needs.
- If we build a pool, will the city step in and staff it/run it?
- How much do we pay to use the Swim Center - $54,845 for the 2016-17 school year
- Meet with HE department (Wes) and athletic coaches/staff (Jerry), specifically Tennis, Softball, and Soccer
- MSU pool - District Office will investigate this possibility further
- 2nd level floor necessary in gym when seating more than 2500.

PROGRAMS: ELECTIVES

[Type here]

Bozeman School District
HS2 Programming Committee
October 11, 2016
Best and Worst Outcomes - Elective Group

WORST OUTCOMES: Electives

Given our current curriculum and CTE, World Languages, Music, & Visual Arts offerings as well as looking at our "crystal ball" into the future of these programs what would be the **worst outcome** of not addressing elective needs that will affect the new facility?

~~Having~~ **We have** undersized CTE facilities at the new building. One school has all the good stuff. One school offers "better" electives. **There is** Disparity and **an** image problem. Neither facility has adequate resources (FTE/$, etc.) to do a good job. **We** Create schools without parity in offerings. **The** Building is adequate but we can't maintain equal elective opportunities operationally. We wouldn't have spaces for all electives that we would want to keep or offer. **We would be** Too traditional - not forward-thinking, with no flexibility or space. More money is needed to finalize the building. **There is** No parity between schools -- unequal facilities **and we** End up with inadequate spaces. **There is** No flexibility for the future **and** We don't plan spaces for student requests in the future. No opportunity for innovation or change resulting in **a** need to retrofit buildings to accommodate in the future. Facilities cannot sustain rich elective offerings.

FTE lost **and there is** Animosity between public/school/faculty/admin. **There is a** FTE domino **and** Teachers lose their jobs and are frustrated. **We** Lose quality staff members**.** Elective teachers are frustrated and **are** unable to effectively facilitate courses. Space limits creation of new programs. **There is a** Loss of collegiality between departments (school culture).

Graduation rates may be affected **and there is** ~~Leads to~~ rivalry between the two schools**. We** Get stuck doing things the old way because it's what we know.

We choose the wrong electives to move forward. **There are** No capstone classes for students**;** Lacking capstone classes for students. **There are** A lot of intro classes -- lots of breadth, no depth. Too many choices can be problematic for scheduling. We can't keep all of our current electives. Electives are divvied up piecemeal and students have no defined pathway. Capstone courses are not allowed to succeed and thrive because of enrollment numbers. By the time it is all said and done, the students only get the opportunity for introductory-level courses. Schools are inequitable **and there are** Accreditation concerns. **We become** A world without art, takes over the world technology rules.

PROGRAMS: ELECTIVES

[Type here]

Bozeman School District
HS2 Programming Committee
October 11, 2016
Best and Worst Outcomes - Elective Group

A Lack of parity creates division in the community. Disparity in non-core offerings divides the greater Bozeman community. **The District** Loses public trust because taxpayer dollars are not used responsibly. Bozeman standards go down **and there is** Community disappointment.

We would Lose the depth of the electives (advanced classes) **and there would be** No opportunity for growth -- Department growth as well as individual student growth. Students **would be** unable to pursue dreams/goals **and** Students can't find their niche. We would lose important opportunities for our students **and** Students are not prepared for careers. Options don't prepare for post-secondary or provide exploratory opportunities **and** Students lose educational opportunities. Students think/feel like future options are dictated by the school they attend. The electives offered do not support college & career readiness **and** Students lose opportunities they now have. **There would be** Decreased opportunities in areas of interest **and** Less opportunities for students. If **we** don't address need, **we are** spread too thin -- loss of jobs and programs. Students are at a disadvantage heading to college or to the workforce **and there are** Fewer opportunities for students **and there are** Students missing out on opportunities. Students **are** not able to explore, experience classes they might not have ever taken **and** Students disengage from **the** school community because there are few/no non-core interests to encourage participation in their large high school community. Advanced levels of electives are not offered **and** Students are limited in their choices. Elementary students don't get same opportunities that older siblings got **and** Students drop out because they are unable to engage in their passion. Students don't get a well-rounded education. We underbuild/plan for student requests. **There is** Reduced student engagement **and** Creativity is diminished. Students lose their home or community.

BEST OUTCOMES: Electives

Given our current curriculum and CTE, World Languages, Music, & Visual Arts offerings as well as looking at our "crystal ball" into the future of these programs what would be the **best outcome** of addressing elective needs that will affect the new facility?

All students will get to follow their elective interests. Students find their safe place and area of study where they can excel. Opportunities or perceived opportunities increase **and** Students are inspired. **There are** Opportunities for depth as well as breadth. Students' education is competitive nationally and internationally. All students have access to rigorous relevant pathways that prepare them to be college and career ready **and there is** Breadth and depth of offerings that appeal to students and prepare for college and career. All students have the

PROGRAMS: ELECTIVES

[Type here]

Bozeman School District
HS2 Programming Committee
October 11, 2016
Best and Worst Outcomes - Elective Group

opportunity to follow their passion **and** Access to depth and breadth of electives promotes a strong educational experience. Students at both schools can take any current electives **and there are** Rich opportunities for all students. Electives are able to expand to future needs of students **and** Electives continue to enrich students and address their needs. Students will be able to experience upper level elective offerings **and** Neither student body or staff feels slighted. Students can take exploratory, intermediate, and advanced courses **and** We lose no students due to lack of diverse offerings. We create a system for innovation to meet evolving needs of students. All students discover their passion and are college and career ready (CCR). **The educational program** Prepares all students; even those that are not college bound. Opportunities and choices are maintained for all students. Electives run smoothly and students are proud of their work/commitment. Schools work together to meet students' needs **and there are** Many dual credit elective opportunities. Students feel a sense of belonging, community or home. The whole child is enriched. Graduation rates soar. The student experience is at the core of all of our decisions. Innovation and collaboration at both schools produce well rounded students whose depth and breadth of experience saves society

Teachers are able to maintain quality programs at both buildings and work together at both schools. Happy teachers -- happy students. Teachers are happy. FTE **is** gained, not lost **and** All teachers embrace flexibility in "out of the box-open mindedness" in thinking.

Facilities meet needs of programs. The facility will allow for easy program innovation and growth. We create parity between school facilities and programs. We plan for the future needs and innovations in electives **and there is** Fluidity between two high schools enabling elective opportunity, creating greater cooperation/collaboration between two schools. Facilities allow for increased number of students in capstone courses. We create collegiality and communication between schools instead of competition. Money is not a concern, space is not an issue. Both schools are able to offer the same programs. We create a scheduling and programming structure that allows for breadth of opportunities while allowing for depth and growth. Existing programs are allowed to flourish. We plan for collaboration in building facilities (i.e., sculpture & woods). We realize the current growth mindset while planning for the future. No infrastructure changes are needed during the useful life of the buildings **because we planned for** Innovation and flexibility. Facilities are flexible and adapt to changing needs. **There is** Flexible space for flexible electives **and** Flexible space with forward-thinking infrastructure. We have great spaces for all of our electives **and the** Same offerings at both schools. Flexible space with forward-thinking infrastructure **exists.** Facilities allow for elective programs to evolve. **There is** Building parity **and** Parity between schools. **A** Healthy balance of intro and capstone classes

PROGRAMS: ELECTIVES

[Type here]

Bozeman School District
HS2 Programming Committee
October 11, 2016
Best and Worst Outcomes - Elective Group

exists and Programs can be completed. Opportunities remain for collaboration **and** We become the model for other schools in a similar position

There may be differences but the community views both schools favorably. Parity between schools = offerings - students have rich choices for electives. **We** Create rivalry in electives (vs. sports) requiring district to maintain quality and innovation to serve both schools (healthy competition). Parity between schools exists for families. **Our** Community is happy with both schools and their programs **and the** Community sees parity in programming. **There is** Collaboration between schools and community partners is equitable. The community is proud, engaged, and partnered with the district. **There is** Community pride in both schools **and** Bonds/ relationships / communities / culture are strengthened.

We achieved consensus on the following statement:

Build facility footprints that will accommodate classes in all current elective offerings with the flexibility and capacity to grow/evolve into program completion when budget and enrollment allow.

Facilities Needs

Metal Shop / Metalsmithing

Wood Shop / Sculpture Lab

Auto Shop

Photo/Graphic Design / Green Screen/Broadcasting > Storage & Outlets

Engineering

Culinary Arts Teaching Kitchen

Ceramics - Kiln Room - Outdoor Kiln Space & Storage

Art Classroom = Ventilation, Storage & Sinks (for Multiple Types of Student Work and Supplies), Spray Booth

PROGRAMS: ELECTIVES

[Type here]

Bozeman School District
HS2 Programming Committee
October 11, 2016
Best and Worst Outcomes - Elective Group

Storage Room for Art Supplies

Health Science -- Can share with Science -- Storage, 1 Lab Room with Safety Equipment, 1 Regular Classroom with Storage and Safety

School Store

Band, Orchestra, & Choir Rooms -- Large (Acoustic) Guitar Classes, Soundproof Modules, Storage

Auditorium(s)

PROGRAMS: ELECTIVES

[Type here]

Bozeman School district
HS2 Programming Committee
Oct 11, 2016
Subcommittee - Electives
Consensus statement and list of needs

We achieved consensus on the following statement:

Build facility footprints that will accommodate classes in all current elective offerings with the flexibility and capacity to grow/evolve into program completion when budget and enrollment allow.

Facilities Needs

Metal Shop / Metalsmithing

Wood Shop / Sculpture Lab

Auto Shop

Photo/Graphic Design / Green Screen/Broadcasting > Storage & Outlets

Engineering

Culinary Arts Teaching Kitchen

Ceramics - Kiln Room - Outdoor Kiln Space & Storage

Art Classroom = Ventilation, Storage & Sinks (for Multiple Types of Student Work and Supplies), Spray Booth

Storage Room for Art Supplies

Health Science -- Can share with Science -- Storage, 1 Lab Room with Safety Equipment, 1 Regular Classroom with Storage and Safety

School Store

Band, Orchestra, & Choir Rooms -- Large (Acoustic) Guitar Classes, Soundproof Modules, Storage

Auditorium(s)

PROGRAMS: BRIDGER CHARTER ACADEMY

Bozeman School District
HS2 Programming Committee
October 11, 2016
Consensus on Bridger Topic

Worst Outcomes:
Given our current Bridger structure and looking into the future of these programs what would be the Worst Outcome of not addressing Bridger needs that will affect the new facility?

We have no program for alternative kids **so** we wouldn't serve students whose academic survival depends on the program. Many kids would be left like they don't count. **We** miss **the** opportunity to help at risk **students so we have** more dropouts, more drop outs. **We** are short sighted for **our** changing population.

Based on renovation ideas, Bridger wouldn't have a physical place. **There is a** lack of place for learners who need a diff**erent** approach. **We** create **a** have/have-nots school attitude. Many kids would be left like they don't count. Kids may be separated from those they grew up with. **We have** lost opportunities for students who think differently **resulting in** Diminished Innovation from the students.

We wouldn't fulfill the schools' mission **of** All Students. The program **is** set up to fail. **We** lose the progress made to the program over the past many years **or** lose the program entirely.

We have a lack of an alt**ernative** program based on research **and** a Failure to think outside the box**. There is a** loss of all progress & work, taking us backward; **a** regression **which is** seen as a failure of the First Charter, **Resulting** in Marginalizing some students. We waste what we've worked hard to build.

More high school students fall through the cracks **and this** leads to more adverse outcomes. We have an increase Dropout Rate. We remove a good program that significantly helps students succeed **resulting in a** failure to meet the needs of a growing demographic in our community. **For** students that have needed it and will need it in the future, that environment will not succeed at the High School resulting in a potential loss of an area for innovators, both staff & students and potentially losing the kids who area thriving at BCA to dropout. Student**s** coming from adverse or alternative ed backgrounds not being serve & not having needs met.

In the community perception, the public schools can't serve all kids well. There is disruption in other classrooms **and** a Reestablishment of the perception of THOSE kids.

PROGRAMS: BRIDGER CHARTER ACADEMY

Bozeman School District
HS2 Programming Committee
October 11, 2016
Consensus on Bridger Topic

10% of the population will not have needs addressed **resulting in** losing support in community for those who are involved with & love BCA.
There are more discipline/behavior/legal infractions **and** fewer BZN children become productive and contributing adults. **This** eliminates competency based opportunity & lowers the ability to innovate **resulting** In more kids falling through cracks **and a** loss of Research Based educational opportunities **and a** loss of physical space.

An individual's worth & contribution to society is not recognized and developed **resulting in** more students who feel like they don't belong. We have a lack of opportunity for kids **and** an increased dropout rate of disenfranchisement.

Best Outcomes:
Given our current Bridger structure and looking into the future of these programs what would be the Best Outcome of addressing Bridger needs that will affect the new facility?

We Expand the delivery model, competency based or other that allows students to learn & succeed @ an optimum pace. **We** meet needs of at risk population. More kids succeed in school & life. More students succeed individually & academically. We would have A chance to be innovative and have a place for teachers to have a space/place for those who are embracing competency/students based teaching styles. We would have funding to provide a physical space on both campuses. **We** use the opportunity to design/plan a space to help facilitate student learning **where the** Facility **is** specifically designed to meet program needs based on research and best practices would include Bridger to provide equity and allow for optimal learning environment for all students. More kids feel at home in their backyard. We are Not using "leftover" space.

Students will feel like they belong & are appreciated for who they are. More students are exposed to an emotional & behavioral support system as a total part of their school day. **There are** more opportunities for more kids to find a "place." **BCA** provides a clear choice for any student to explore different ways of expanding their learning ability.

Innovations at BCA lead to further improved practices throughout both high schools. **There is** proof that a public school setting can be differentiated to meet different learning styles. There are Expanded program opportunities for diverse learners because we provide for an individualized learning plan **based on** Individualized growth models for all students. We provide an equal but

PROGRAMS: BRIDGER CHARTER ACADEMY

Bozeman School District
HS2 Programming Committee
October 11, 2016
Consensus on Bridger Topic

alternative to graduation. This alternative pathway to success supports individual needs. We have more student buy-in with choice when demonstrating proficiency. All students feel they have a place to learn. **We** Allow a pilot of CBE to see results long term. **BCA** Allows for smaller community that some need as well as diversity and innovations to overcome institutional hurdles.

There is an Opportunity to prove to the community that we can meet the needs of all students. **The** Community increases support of BCA and of the entire H**igh S**chool system. **We have** More successful students by Planning for actual Equality/Parity @ both schools resulting in a Higher rate of graduation & post secondary involvement plus fuller potential realized to Bozeman community.

We Create innovation for both schools Fostering more growth mindset**s** and future self for students. Two equal programs allowing students **to** move without barriers. Students & staff move between programs without barriers. Successful innovations can transition to all schools and students have opportunities to be engaged making a difference now. We may gain students from other high school.

There is a Greater sense of community at the High School following the Bridger model **which** Gives flexibility to traditional constraints. **We are** the Template for public charter innovations.

We have separate but equal programs. **We** give more opportunities for types of classes and close the knowing/doing gap for education. Standards based learning grows beyond charter program. **We** Become a model in state to open for opportunities for more kids.

`

Bridger Consensus:

In planning future HS facilities, it is recommended that the Bridger Program be co-located at one of the HS sites, with the intention that students from both schools would have access to the program. (The exact location TBD with input from the architectural consultants.) Rather than a separate structure, it is recommended that the Bridger facility be integrated within or attached to one of the HS facilities, with the understanding that there is a need for some level of autonomy within the program. In addition, it is recommended that the facility be designed to serve the needs of up to 10% of the total 9-12 population with the option to offer both core and elective coursework as needed. It is also recommended that the facility be designed based on research and best practices related to meeting the continually changing needs of those students who

PROGRAMS: BRIDGER CHARTER ACADEMY

Bozeman School District
HS2 Programming Committee
October 11, 2016
Consensus on Bridger Topic

flourish under a different learning model. It is hoped that the structure at both schools would be flexible enough to adapt to the continued growth of the Bridger Program, which could mean that the program may split in the future and be offered at both schools.

PROGRAMS: BRIDGER CHARTER ACADEMY

HS2 Programming Committee
Bridger Program Subcommittee
October 11, 2016
Consensus Statement

Bridger Consensus:

To start, we would like to see the Bridger Program will remain at the existing HS with the potential that it could be expanded to the new high school if program grows to 10% of total 9-12 population.

In planning future HS facilities, it is recommended that the Bridger Program be co-located at one of the HS sites, with the intention that students from both schools would have access to the program. (The exact location TBD with input from the architectural consultants.) Rather than a separate structure, it is recommended that the Bridger facility be integrated within or attached to one of the HS facilities, with the understanding that there is a need for some level of autonomy within the program. In addition, it is recommended that the facility be designed to serve the needs of up to 10% of the total 9-12 population with the option to offer both core and elective coursework as needed. It is also recommended that the facility be designed based on research and best practices related to meeting the continually changing needs of those students who flourish under a different learning model. It is hoped that the structure at both schools would be flexible enough to adapt to the continued growth of the Bridger Program, which could mean that the program may split in the future and be offered at both schools.

PAGE LEFT BLANK
INTENTIONALLY

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2016
TENTATIVE Agenda:

8:10 - 8:30
- A. Grounding (Robbye and Mike)

8:30 - 8:45
- B. Follow Up Information from Last Meeting
  - a. Tax Impact of Each Option (Mike)
  - b. Feedback from public information session: January 30

8:45 - 9:30
- C. Exploration of the 115-125M Range
  - a. Board Discussion - January 23, present questions that were given to Board (Rob)
  - b. Best / Worst Outcomes (Robbye and Mike)
    - i. Split into 6 groups, using center of the circle exercise, central office, building admin, core teachers, elective teachers, parents, school board
    - ii. Given the guidance from the Board regarding the price range ($115-125M) what is the worst possible outcome of a recommendation from this committee in this price range?
    - iii. Given the guidance from the Board regarding the price range ($115-125M) what is the best possible outcome a recommendation from this committee in this price range?
  - c. Report out to larger group

9:30 - 10
- D. Shared Spaces discussion (Andrew, Marilyn & Kevin)
  - a. Large circle, remind group of the speaker / listener process
  - b. Andrew, Marilyn & Kevin will present information regarding each of the items below and ask for a listener and clarifying questions
    - i. Auditoriums (Why are they needed? What are they used for? What is the difference between the Willson and what we are proposing? How can it be designed as a flexible space? What is the ideal size? Other info?)
    - ii. Black Box Theaters (What are they? Are they flexible? What can they be used for? How do they complement auditorium? What are they used for? Other info?)
    - iii. Gymnasium spaces
      1. Large gym: Design? Upper decks? What about tournaments? What is the difference between 2500 and 3500 in terms of design?
      2. Small gyms: How many teaching spaces are needed? What are they used for? How do the number of gym spaces impact practice schedule?
    - iv. Stadium and Fields

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2016
TENTATIVE Agenda:

1. Artificial turf at Stadium (Why is it important? What are the benefits both for teams and HE and other school use? What does it do to the design of stadium and track? How does it impact injuries? What about the health concerns about the filler?)
2. Artificial turf at New School (Where? Why is it important? How much additional cost beyond grass field?)
3. Stadium (What is wrong with the current bleachers? What about current locker room spaces? What is wrong with current bathroom and concessions? What is stadium used for? Just football and Track?)

10 - 1:30pm (With Lunch break at 11:30)

E. Creation of a "Best-Of option in the range of $115-125M
   a. Other Options that were suggested and explored (Rob)
      i. Option E, renovate E and not build new classroom building
      ii. Transform BHS into a MS, would work under Option B or C
      iii. Modified Option C: Add back some common spaces at new school
      iv. Modified Option D: One (larger auditorium) at new school, finish stadium at existing
      v. Modified Option C: Build 750 seat auditorium at new school, black box at existing
      vi. Increase Utilization rate - any option
   b. Split into 3 groups by combining the 6 groups from best/worst activity.
   c. Goal: Develop a few options for the $115-125M price range
      i. Reach group consensus around 1 or 2 options
      ii. Develop basic concept for the option
         1. Include size based on enrollment capacity
         2. basic components, what is in, what is out
      iii. Define 3-5 reasons to give to Board in support of this option
      iv. Provide prioritized list of "add-back" items in case there is money to add to your "best-of" option
   d. Report out to larger group
   e. Reach large group consensus around 1-3 options to recommend to Board
      i. If more than 1 option, develop priority
      ii. Prioritized list of "add-backs."

1:30 - 2:30

F. Next Steps:
   a. Review timeline and other potential meetings
   b. Brainstorm: What to include in the recommendation? How to present the recommendation?

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2016
TENTATIVE Agenda:

c. Parking Lot items - do we need to add anything to our parking lot?

2:30 - 3pm

G. Closure:

a. What did you learn and how do you feel?

PAGE LEFT BLANK
INTENTIONALLY

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2017
Best Outcomes of the $115 - $125M Price range

Best Outcomes:
Given the guidance from the Board regarding the price range ($115-125M) what is the best possible outcome of a recommendation from this committee in this price range?

The Best Outcomes would be that the Bond passes & we achieve parity/equity with two great high schools. The lower cost of the bond increases the probability of the passage of the levy. All staff & students needs are served. All vested parties satisfied as bond passes & they feel well represented. Bond passes and all needs are met for two comprehensive high schools. Trustees are able to support recommendation, giving them flexibility for future options. Stretched taxpayers feel like they got a good bang for their buck. Plan maintains support of $144 in hopefuls. Successful election brings community together.

We have two comprehensive, new high schools built with actual & perceived parity that meet taxpayer, educator & student desires which prevents have/have not community split. It meets the needs of the vision without cutting corners.
We are able to meet facility/program needs providing equity and parity. Both schools have unity/equality & provide for growth in our community centers while maintaining high level of student opportunity/experience including opportunities for the future students succeed. All students & programs have access to resources to be successful with equitable facilities/opportunities for students. The schools provide equal opportunities for students

The community is satisfied with cuts made from the 144 mil. The Bond passes resulting in a lower tax burden and the operating levy is adequate and fiscally responsible. Bond passes with strong community support. We pass a bond that allows for student opportunities. We address the concerns of taxpayers. Stretched taxpayers feel like they got a good bang for their buck.
We have shown responsible use of taxpayer dollars and a great investment for community.
If $125 million passes, hopefully we are able to minimize exclusions from programming & facilities.

Tax burden is manageable. Tax burden is fiscally responsible and reasonable for all levels. Allows room for future bonds. Taxpayers don't feel overburdened. We address the concerns of taxpayers. Tax burden is manageable. Growth issues are resolved,

Community support is high now and in the future. Community understands costs associated w/this proposal & supported by passing the bond & levies.
Community feels heard with their input considered and trust enhanced.

Community is proud. Community, parents, students & educators are happy with results.
Community (parents, voters, school staff) overwhelmingly supports the recommendation.

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2017
Best Outcomes of the $115 - $125M Price range

Community supports our district more than ever before. Students get the best possible education. Our students have facilities where they can thrive. We're not settling but agree on what's best for everyone.

This proposal is easily explained & understood by all so bonds pass. We create parity and equity within a community mindset sharing is caring mentality. We pass a bond in line with the committee's vision. We pass a bond that allows for student opportunities. We're not settling but agree on what's best for everyone. Students get the best possible education. The community is convinced the money is well spent and none was spent on fluff. The plan Provides adequate facilities to grow & establish own identities

Every Department gets an adequate space including Flexible common spaces @ both facilities to support all programs. School is flexible enough to adapt to changing Educational needs

Educator support is high. All staff & students needs served.
High school facilities are the pride of the community and allow student learning to go to another level. Our educators apply creative & innovative teaching methods within flexible space we have. Program facilities are adequate for the populations they serve. We are Able to meet facility/program needs providing equity/parity.

Our students have facilities where they can thrive. Quality level of both schools is raised even higher. We still have upgrades to existing HS sticking w/plans to create two comprehensive high schools. Guiding principles are met. There is a Reasonable compromise among programs thus improving the "us vs them" feelings. All needs are met. Parity in programming is achieved.

Group creates a single proposal addressing all the needs of students & their program We compromise enough to get at least one of every needed facility request to share We communicate a clear, unified message to the community resulting in strong support for the bond

Community supports our district more than ever before. This proposal is easily explained & understood by all - bonds pass. We create parity and equity within a community mindset sharing is caring mentality. We pass a bond in line with the committee's vision. Every Department gets an adequate space. We pass a bond that allows for student opportunities. We're not settling but agree on what's best for everyone. Students get the best possible education. We address the concerns of taxpayers. Tax burden is manageable.

We plan with a vision to thoughtfully support students & community as a whole.
Solution embraced by community & staff. We have parity in facilities/programs with no cuts that cause division & unhealthy competition. We provide two schools that students can be proud of. .

BEST OF OPTIONS

[Type here]

Bozeman School District
HS2 Programming Committee
January 31, 2017
Best Outcomes of the $115 - $125M Price range

Facilities are created to not have to rely on promises made by outside organizations. We have excitement for both schools' outcomes and the community takes pride in both facilities. Community appreciates the work of the committee and overall trust is improved
All needs are met at a cheaper price and Everyone in the community is happy with the work of the committee and we have overwhelming support from the community.

We build two comprehensive high schools that meet the needs of students as identified in our guiding principles. Classrooms are designed to meet current and future technological needs. Student success is up compared to now.

We have a Good design with creative solutions to give students in Bozeman every opportunity to succeed in the 21st century! We are still addressing most of our vision.

Facility is NEVER too small. Public request for energy efficient facilities is honored. Facility allows vision to reach fruition. Students in each school think the other school is the place to be! No REGRETS!

PAGE LEFT BLANK
INTENTIONALLY

BEST OF OPTIONS

Bozeman School District
HS2 Programming Committee
January 31, 2017
Subcommittee Consensus Options:

Committee A: Facilitated by Marilyn, Todd & Corey

- Start with Option D = $123M
- Increase auditorium at both sites to 750 seats (+1.4M)
- Add back the auxiliary gym at new site (+3.7M)
- Reduce recommended site improvement at the existing HS
    - Prioritize Bus/Student drop off on the west side of school
    - Reduce some of the recommended improvements to stadium, turf, parking, locker rooms, concessions (-3.1M), exact reductions to be determined by Board/Admin.
- Total Net Bond = $125M
- Rationale
    - Prioritizes teaching and instruction
    - Prioritizes daily use spaces
    - 2nd Auxiliary gym at new facility is needed for instructional and extracurricular space.
    - Auditoriums would be difficult to renovate later if only built with 500 Seats
    - Recommending reduction to the site improvements at existing site to decrease overall budget for other priorities like auxiliary gym and larger auditoriums.
- Why $125M rather than $115M?
    - Building costs are as low as they will ever be
    - Interest rates are low right now

Committee B: Facilitated by Kevin and Steve

Option 1: Do the new school right, Use parameters of Option A with some modifications.

- For the new school
    - 3500 Seat main gym
    - 2 Auxiliary gyms
    - 750 seat auditorium
    - Take off black box, add a drama classroom
    - Take off turf on practice field
    - Add block of classrooms to increase capacity to 1700
- For the existing school
    - 750 seat auditorium
    - Take off black box, add a drama classroom
    - Complete the stadium renovations, including field turf
    - Complete most of the site renovations except do not build the proposed parking lot to the north of the senior lot.
    - Demo B,C,D,E,J - but do not build classroom building
    - Do not build the commons / new entrance on the west side of building

BEST OF OPTIONS

Bozeman School District
HS2 Programming Committee
January 31, 2017
Subcommittee Consensus Options:

- Total capacity at existing school would be 1300
- Total Net Bond = $121M

Option 2: Build new classroom building at existing school

- Same parameters of Option 1, but add the classroom building at the existing high school site rather than at the new school.
- Shell out the stadium but don't complete full stadium renovation.
- Capacity of new school would be 1500, capacity of existing would be 1500
- Total Net Bond = $125

Rationale

- Fits price range
- Meets all programming needs
- Maximizes new build
- Addresses needs of existing building
- Maximizes energy efficiency
- Community oriented plans

Add Backs:

- Black Box Theaters
- Turf at new school

Committee C: Facilitated by Mike W., Robbye, Roger Davis

- Two schools of equal enrollment / capacity (1500)
- Auditorium at each school
  - 750 seat capacity
  - Both auditoriums include catwalk
- Drama classroom at each school
- No black box theater at either school
- 80% utilization rate and collaboration / prep space
- New School
  - 2500 Seat Main Gym
  - 2 Auxiliary gyms
- Existing School
  - Bleacher renovation, shell out only
  - Turf field with safe filler
  - No changes to shot/discus field (no new parking lot north of senior lot)
  - Remodel E Wing, no new classroom building
  - Reduce the new commons (west side of school) entrance to 10K sq ft
- Total Net Bond = $125M

Rationale

BEST OF OPTIONS

Bozeman School District
HS2 Programming Committee
January 31, 2017
Subcommittee Consensus Options:

- 21st Century Design
- Equity and Parity
- Comprehensive design within price range established by Board
- Flexible utilization of spaces
- Allows for future growth
- Addresses teacher, student, academic, community, co-curricular, extracurricular
- Equitable reductions from Option A.

BEST OF OPTIONS

Bozeman School District
Guidance for the HS Programming Committee
January 2017
Board Discussion

1. What is the Board's thoughts on community support for the 144M?
2. What is the Board's thoughts on community support for splitting the bonds, Phase 1 now and Phase 2 in 2026?
3. In terms of price range, what do you think the community would support?
4. Where does the committee work end and the Board work begin?
5. What would the Board like to see included in the recommendation (package) from the committee?
6. Does the Board want options? Prioritized list? Other?
7. What further questions do you want the committee to discuss?

An example of guidance that would move us forward:
Given a price range that we believe the community would support, the committee could focus on a "Best-Of" option or options that fit into that price range.

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Kick-off The Project
MEETING DATE:	May, 8, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Roger Davis, Langlas Associates (RD) Bill Langlas, Langlas Associates (BL) Ira Couture, Langlas Associates (IC) Kyle Scarr, TD&H (KS) Cody, Croskey TD&H (CC) Corey Johnson, CTA (CJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. The primary and backup contacts for each team are as follows:
    a. Bozeman Public Schools (BPS) – Todd Swinehart, Steve Johnson
    b. Langlas & Associates (L&A) – Roger Davis, Ira Couture
    c. CTA (CTA) – Bob Franzen, Nathan Helfrich
2. Proposed project phases / bid packages are as follows:
    a. Off-Site Civil
    b. On-Site Civil
    c. Core and Shell
    d. Interior Improvements
3. Near-term project events
    a. The BPS Building Committee will continue to represent the school district in this project.
    b. Completing a detailed building program is the next step in the development of the project.
        i. TS is to identify the stakeholders for programming interviews.
        ii. CTA is to assemble lists of programming questions to be distributed to the stake holders prior to the programming interviews.
        iii. The 2016-17 school year ends June 10, 2017. Some stake holders may be difficult to reach after school has ended for the summer.
        iv. The program will aid in the development of the Education Specifications.
    c. TS will determine if tours of 21st century schools is desired.
    d. Annexation – the timing of annexing the property into the city could be delayed until needed to begin the city project review process.
    e. Anne Street – It is the BPS preference that Anne Street not bi-sect the new high school site.
        i. KS is to assemble data that supports the elimination of Anne Street.
        ii. KS is to verify that a bike and pedestrian path will need to remain.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

e. A barista is to be included in the food court.
f. The next meeting will include a discussion of what information is needed to make the project a success.
g. The BPS is looking for a turn-key project delivery and will most likely not self-perform any work.
h. The BPS will provide low-voltage equipment specifications to CTA.
i. CTA is to consider ground source heat pumps as an option for heating and cooling portions of the building. CTA is to identify costs and specifications for drilling test wells.
j. TS will contract the Commissioning agent for the project.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc:

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	May 15, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Corey Johnson, CTA (CJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. CTA distributed the following documents for discussion:
    a. Programming questionnaires for each department
    b. Weekly Progress Report dated May 15, 2017.
    c. Draft project schedule
2. Programming
    a. TS will send out an email to all department heads and stakeholders that are to be included in programming interviews to make them aware of the process and future correspondence with CTA.
    b. TS will provide CTA with a list of contacts and email addresses to schedule programming meetings. CTA will contact them directly and include TS and Kevin Conwell on all meeting invitations. They will attend when available.
    c. CTA will distribute questionnaires with the meeting invitations.
    d. TS will identify spaces to meet in.
    e. The programming meetings are to address the new high school only.
    f. Some department heads will be leaving the position at the end of this year (3 year rotation) with replacements starting in the fall. CTA is to try to meet with the outgoing department heads whenever possible.
    g. TS is to attempt to schedule the first Building Committee the week of May 29, 2017.
3. Week Progress Report
    a. This document will be included in each monthly Board Report.
    b. CTA is to present pros and cons of LEED Certification and other certifying agencies to the Board on June 12, 2017.
4. Professional Services Contract
    a. CTA will submit a draft copy of the State of Montana *Standard form of Agreement Between Owner and Architect/Engineer for Alternative Delivery Method* to TS for review and comment.
    b. BF is developing a fee proposal that will become an attachment to the contract. Services such as Theatrical Design will not be included until a scope has been defined for the Drama Classroom and Auditorium.

MEETING MINUTES

MEETING MINUTES (Continued)

c. Language stating that the BIM model will be turned over to the Bozeman Public Schools (BPS) for facility management use is to be included in the contract.
d. TS is to provide CTA with a Letter of Intent as an interim agreement until the contract is approved by the Board.

5. Miscellaneous
   a. BF is to schedule a meeting with Chris Saunders at the Bozeman Planning Department to kick-off the upcoming project. The current zoning requires internal landscaping. BPS is typically exempt from this requirement due to safety/security reasons.
   b. BF is to provide a matrix of which consultant CTA intends to retain for a specific scope of work. It will also include a similar list of consultants intended to be retained by BPS.
   c. CTA is to review Owner Insight software as a potential document management software for this project. A software that supports digital signatures or on line approvals is desired by TS.
   d. BF issued a copy of CTAs file structure for review and coordination with the BPS's file structure.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc:

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Kick-off The Project
MEETING DATE:	May, 22, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Roger Davis, Langlas Associates (RD) Kyle Scarr, TD&H (KS) Cody, Croskey TD&H (CC) Scott Wilson, CTA (SW) Corey Johnson, CTA (CJ) via phone Bob Franzen, CTA (BF)

1. Near-term project events
    a. The first Building Committee is to be scheduled for the end of May or early June.
    b. A detailed building program is the next step in the development of the project.
        i. TS has identified the stakeholders for programming interviews.
        ii. CTA has assembled lists of programming questions to be distributed to the stake holders prior to the programming interviews.
    c. TS will determine if tours of 21st century schools is desired. CJ is to identify possible schools to tour other than Glacier High which has already been toured by most of the committee. Spokane, Seattle, and Idaho areas were discussed.
    d. Anne Street – It is the BPS preference that Anne Street not bi-sect the new high school site.
        i. KS is to assemble data that supports the elimination of Anne Street. (In progress)
        ii. KS is to verify that a bike and pedestrian path will need to remain. (74' wide right-of-way currently exists)
        iii. KS has received a copy of the Cities current Transportation Master Plan.
    e. Round-about – The round-about for the intersection of Cottonwood and Oak is currently included in the City Transportation Master Plan. A right-of-way will need to be created for the land to the northwest and south west of the intersection. A portion of the land and at the northwest corner of the intersection will need to be annexed into the city. The School District will approach the owner to begin this process.
    f. A portion of the parking and a soccer field for the new high school will be located north of Oak Street. The School District is to meet with the City to begin these discussions/negotiations.
    g. Lift station- KS to assemble information required to determine the new schools impact. Data from the existing Bozeman High School will be used initially.
    h. CTA will schedule an informational meeting with The City Planning Department to discuss the Cities expectations.
    i. A web-based project document management software will be utilized for the project.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

i. LA recommended utilizing Bluebeam. TS is to review Bluebeam with RD.
ii. TS requested that the team look at Owner Insight.
iii. CTA recommends the design and construction modules of Submittal Exchange. BF is to obtain pricing

j. CTA will discuss the pros and cons of LEED certification to the Board at the June 12th meeting. TS informed us that the Board does not want to saddle future boards with having to uphold decisions of the current Board. Recertification for example.
k. The first full team kick-off meeting will include a budget discussion.
l. RD will set up the next budget by discipline and type of space.
m. TS will engage the commissioning agent early in the design process.
n. CS to forward the soils report for the site to RD.
o. CS is to review water rights for the site.
p. The pedestrian tunnel is to be sized to allow a puck-up truck to drive through.
q. CS is to provide proposed paving sections to RD.

2. Initial Schedule
   a. Programming May 24th, 25th, 26th, and 31st 2017.
   b. Programming completed mid-June 2017
   c. Construction Substantially Complete June 1, 2020.
   d. High School open for Classes August 2020.
   e. CTA is to develop an overall project schedule including cash flow.
   f. The cost of Special Inspections is to be identified.
   g. City permit and inspection fees are to be verified.
3. Regular Meetings
   a. The Building Committee will be requested to be engaged on a two to three week interval throughout the design process.
4. Miscellaneous
   a. CTA provided their file structure to TS for review and coordination with the BPS file structure.
   b. CTA is to consider ground source heat pumps as an option for heating and cooling portions of the building. CTA is to identify costs and specifications for drilling test wells.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Nathan Helfrich, CTA

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Wes Baumgartner
MEETING PURPOSE:	Site Activities Discussion
MEETING DATE:	June 1st, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Jerry Reisig, Bozeman Public Schools, Activities (JR) Patty Turner, Bozeman Public Schools, Activities (PT) Wes Baumgartner, CTA (WB) Bob Franzen, CTA (BF)

This discussion was for design of the new high school only.

1. Existing School (for reference to new HS design):
    a. Track doesn't function well due to proximity of bleachers and related lack of safety zone. Track storage is also lacking (JR/PT).
2. Track
    a. Mondo surface, similar to Butte, is desired for competition track surface whether at existing school or at new school (JR).
    b. CTA to look at surface/cost options. (TS) recommends a rubberized surface on top of asphalt base with concrete curbs.
    c. Desired configuration is a standard quad (100m straights with 100m turns). Long jump pits to be considered inside of track, opposite future home stands (JR).
    d. 6-8 lanes desired. Plan for 8 lanes (JR/PT).
    e. High jump/pole vault pits to be inside the curve ends of the track. Surface to be similar to track (JR/PT).
    f. Standard football field to be inside track field area. This field to be used for multiple events such as lacrosse and soccer (JR/PT). Standard sizes of these events may need to be altered to fit within the field area of a quad track (WB).
    g. An asphalt pathway around the track area is desired (JR/PT).
3. Field Events
    a. Discus and shot recommended location is west of the track and east of the softball fields, based upon the current configuration (JR/PT).
    b. Javelin recommended location is in the outfield or just south of future softball fields (JR/PT).
    c. CTA to put together standard field dimensions for placement and discussion.
4. Softball complex
    a. Per the plan, two fields will be constructed with an additional 2 considered future.
    b. The configuration was discussed. (JR/PT) expressed a desire to have the fields oriented with infield areas positioned together for central point of action.
    c. At least one of the fields should have a permanent outfield fence. Permanent fencing at both fields (initial phase) is the desire. Temporary fencing will be used if cost/function prohibits (JR/PT).

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

d. Infield fencing with dugouts is the standard (JR/PT). Dugouts to be fenced with entry away from home plate.
e. Desired infield material is crushed granite (JR).
f. (JR) would like the outfield fences to be 200'.

5. Tennis
   a. 8 courts in the configuration shown is desired (JR/PT/TS). Similar to existing HS.
   b. (TS) would like CTA to look into base material options including post-tension concrete (desired). Cost will be a factor.
   c. Color was not discussed.
   d. Proximity to parking is a plus (JR/PT).
6. Practice fields
   a. Seeded lawn (all grass areas to be seeded). Seed a year before use. Ideally 2019.
   b. Seeded areas to be free of rocks and properly leveled (JR).
   c. Drainage is important.
   d. Number shown on current plan is sufficient and may change based upon City Complex north of Oak Street.
7. Lighting
   a. Track/Football area is the top priority for lighting. 2nd is Softball with 3rd Tennis (JR/PT).
8. Other
   a. (JR) & (PT) expressed a need to have a comfort station near the activities area.
   b. This station should be centrally located. A location north of the softball complex was discussed as a possibility.
   c. Comfort station should include; ticket sales, concessions, event control, restrooms, and water access. Comfort station can be used for storage of carts. Concessions and ticket sales should be separated (JR/PT).
   d. Storage areas are needed. The largest need is for track and field events which should accommodate (1) pole vault pit, (2) high jump pits, hurdles, carts, etc. This should, ideally, be located near the track (JR/PT).
   e. (JR/PT) to send CTA desired dimensions of storage facility
   f. Tennis courts should include a small storage shed (JR/PT).
   g. The main HS building will also house significant storage.
   h. A fence is desired around the fields/events in the area south of the potential Annie Street. The comfort station should be used with fencing to control access. Multiple gates should be installed with control provided to regulate traffic for events (JR/PT). A 6' chain link fence was discussed. (JR) thought those at the track area might be taller. CTA will investigate.
   i. Basic landscaping was discussed such as berms for seating/screening and trees to help control glare from setting sun at the softball fields.
   j. Mower and lawn care equipment storage needs to be discussed.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc:

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	June 5, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Roger Davis, Langlas Associates (RD) Kyle Scarr, TD&H (KS) Cody, Croskey TD&H (CC) Matt Hubbard, BCE (MH) Jami Lorenz, BCE (JL) Nathan Helfrich, CTA (NH Bob Franzen, CTA (BF)

1. Near-term project events
    a. The first Building Committee is to be scheduled for June 6, 2017.
        i. Dr. Watson has requested that KS provide an update of civil items.
    b. A detailed building program is the next step in the development of the project.
        i. BF is to coordinate a meeting with the drama instructor to discuss the needs of the drama classroom.
    c. TS will determine if tours of 21st century schools is desired. CJ is to identify possible schools to tour other than Glacier High which has already been toured by most of the committee. Spokane, Seattle, and Idaho areas were discussed.
    d. Anne Street – It is the BPS preference that Anne Street not bi-sect the new high school site.
        i. KS assembled and presented the data that supports the elimination of Anne Street. This draft document will reviewed by the Building Committee.
        ii. KS identified that Annie Street is intended to be a Bike Boulevard per the Cities Transportation Master Plan
    e. Round-about – The round-about for the intersection of Cottonwood and Oak is currently included in the City Transportation Master Plan. A right-of-way will need to be created for the land to the northwest and south west of the intersection. A portion of the land and at the northwest corner of the intersection will need to be annexed into the city. The School District will approach the owner to begin this process. KS is to identify the extent of easements needed for the School District to use in their discussions with the land owners.
    f. Approximately 300 parking stalls or two parking lots and the competition soccer field for the new high school will be located north of Oak Street. The design team is to develop a concept plan at the south end of the Cities Sport Park site. The school district's maintenance equipment will not be stored north of Oak Street. The School District is to meet with the City to discuss/negotiate an agreement.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

g. Lift station- KS to assembled preliminary information identifying new schools impact on the existing sewer system. Data from the existing Bozeman High School was used. The data was provided to the cities engineering department for review.
h. CTA will schedule an informational meeting with The City Planning Department to discuss the Cities expectations. This meeting will take place on June 7, 9, or 14, 2017.
i. A web-based project document management software will be utilized for the project.
    i. LA recommended utilizing Bluebeam. TS is to review Bluebeam with RD.
    ii. TS requested that the team look at Owner Insight.
    iii. CTA recommends the design and construction modules of Submittal Exchange. The fee for using SE would be $29,995
j. CTA will discuss the pros and cons of LEED certification to the Board at the June 12th meeting.
k. RD will set up the next budget by discipline and type of space and distribute to the team. TS will provide break downs fo construction costs to RD for CJ and SAC projects.
l. TS will engage the commissioning agent early in the design process. The RFP has been sent to CTA and L&A for review.
m. KS to forward the soils report for the site to RD. KS will see what soils information is available for the south end of the Sports Park site. This will include proposed pavement sections.
n. KS is to review water rights for the site. In progress.
o. The pedestrian tunnel is to be sized to allow a ¼ ton pick-up truck to drive through.
p. KS is to provide proposed paving sections to RD.

2. Initial Schedule
    a. Programming May 24th, 25th, 26th, and 31st 2017. Completed
    b. Programming completed mid-June 2017
    c. If core and shell construction documents are issued for bid in mid-February 2018 separate earlier drawing issues for foundation and structure will not be required.
    d. Interior buildout contract documents are scheduled to be completed in June 2018. RD will bid those at the time of issue.
    e. Construction Substantially Complete June 1, 2020.
    f. High School open for Classes August 2020.
    g. CTA is to develop an overall project schedule including cash flow.
    h. The cost of Special Inspections is to be identified.
    i. City permit and inspection fees are to be verified.
    j. BF will set up a meeting with the Bob Risk and Cal to discuss the project submittal path.
3. Regular Meetings
    a. The Building Committee will be requested to be engaged on a three week interval throughout the design process (through the end of October 2017).
4. Miscellaneous
    a. CTA provided their file structure to TS for review and coordination with the BPS file structure.
    b. CTA is to consider ground source heat pumps as an option for heating and cooling portions of the building. CTA is to identify costs and specifications for drilling test wells for heat rejection/injection and for removing and replacing groundwater.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS
ATTACHMENTS
cc: Scott Wilson, CTA
Corey Johnson, CTA

MEETING MINUTES

234 East Babcock Street
Suite 3
Bozeman, MT 59715

TD&H Engineering

406.586.0277
tdhengineering.com

MEMORANDUM

Date:		**TDH Job No.:**	B16-100-021
To:	City of ozeman, E ing Dep t and Comm ssion		
From:	Kyle Sc rr, P.E.		
Subject:	Annie Street Improvements		

DRAFT

With the passing of the Bozeman School District (District) bond this May, the detailed design and layout of the proposed new Bozeman High School campus has been initiated. The location of this campus is uniquely located between three arterial streets (Oak Street, Cottonwood Road, and Durston Road) and adjacent to the Meadowlark Elementary School. A schematic layout of the campus is shown on Figure 1.

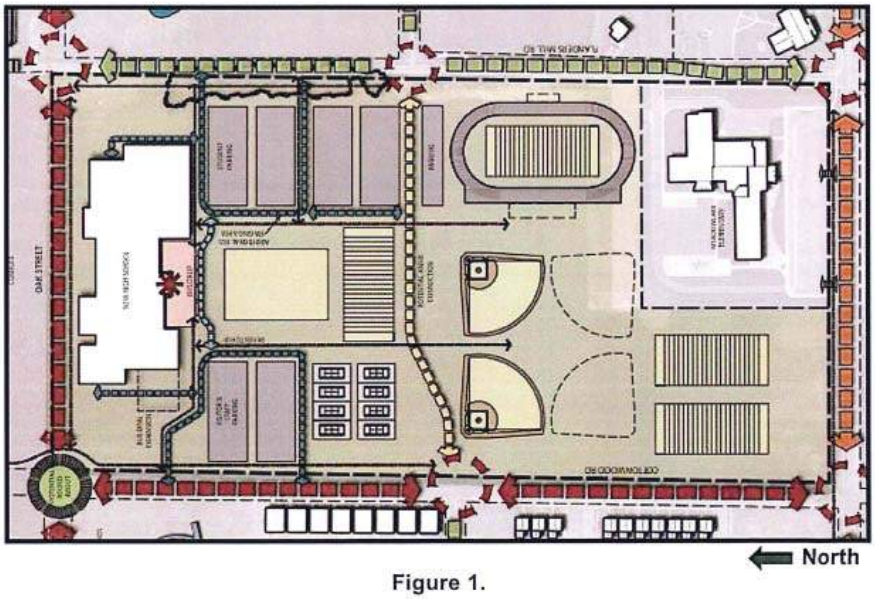


Figure 1.

MEETING MINUTES

The overall development plan of the campus has changed since the District originally purchased the southern 43 acres and constructed Meadowlark Elementary School in 2012. The original plan was to construct Meadowlark Elementary School in its current location and a new middle school to the west. When the southern portion of the campus was purchased, it was not anticipated that the District would also purchase the northern 32 acres nor was it anticipated that a new high school would be constructed to the north. As a result of this considerable change in the proposed campus development, the District would like to forgo building Annie Street from Flanders Mill Road to Cottonwood Road, effectively bisecting the campus.

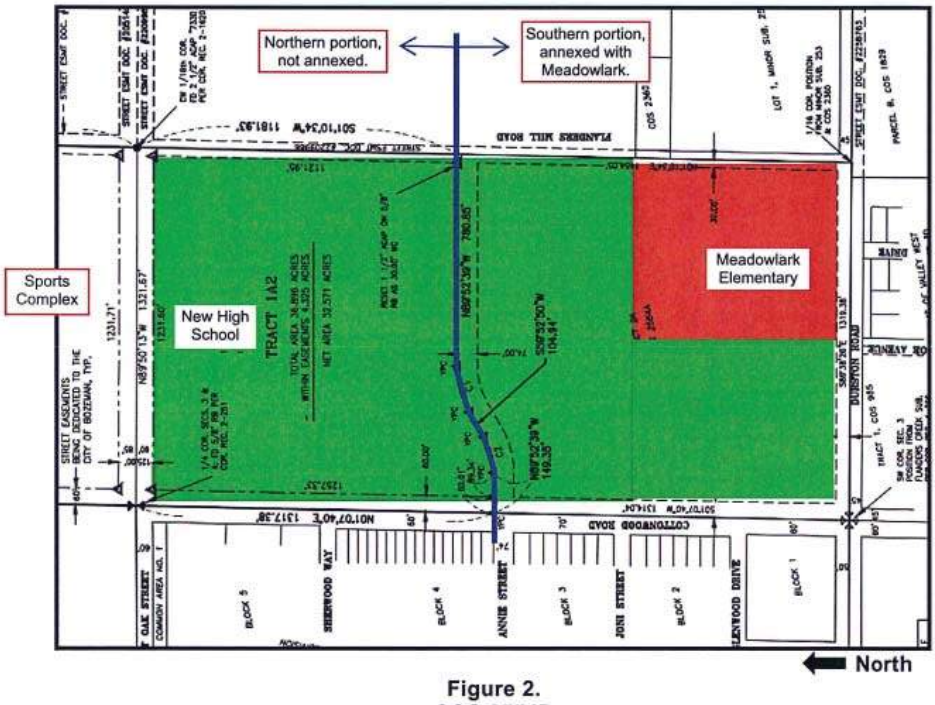
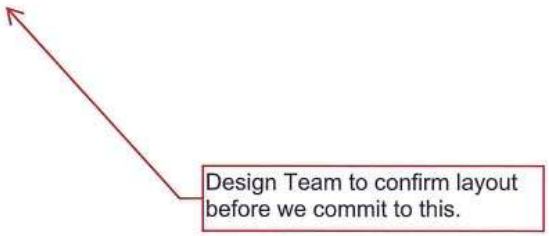


Figure 2.
COS 2554B

MEETING MINUTES

According to the recently adopted Bozeman Transportation Master Plan (TMP), Annie Street is planned as a local street and is further classified as a bike boulevard (See attached Figure 4.5 Bicycle Facility Recommendations and Figure 6.2 Visionary Active Transportation Network from the TMP). A bicycle boulevard is defined as "streets that are comfortable for most bicyclists to ride on due to low motorized traffic volumes and speeds." According to the TMP, these types of streets are specifically designed to reduce cut-through traffic. Additionally, local streets are meant to provide direct access to abutting lands and not cut-through traffic. It is the District's intent to keep this corridor's functionality as a bike and pedestrian travel way and meet the objectives of the TMP. Specifically, the following goals will be achieved.

1. Due to the size of the school campus, the intent of the bicycle boulevard can be reasonably met with an east/west pedestrian and bike path that connects from Cottonwood Road to Flanders Mill Road along the current Annie Street right-of-way alignment. This puts precedence on active transportation networks and non-motorized modes of transportation. The proposed pathway could be designed to accommodate emergency vehicles as well.
2. Having a break in Annie Street reinforces the bicycle boulevard concept and achieves the TMP goal of reducing cut-through traffic bicycle boulevards and local streets. Typical bicycle boulevard treatments include diverters that block through motorized vehicle traffic.
3. Direct access to abutting lands, or in this case the school campus, will be achieved through strategically placed access routes off Cottonwood Road and Flanders Mill Road that provide circulation for busses, students, teachers, and visitors. Access to the campus from Cottonwood Road and Flanders Mill Road will occur along the Annie Street right-of-way alignment, they just won't connect to each other.



MEETING MINUTES

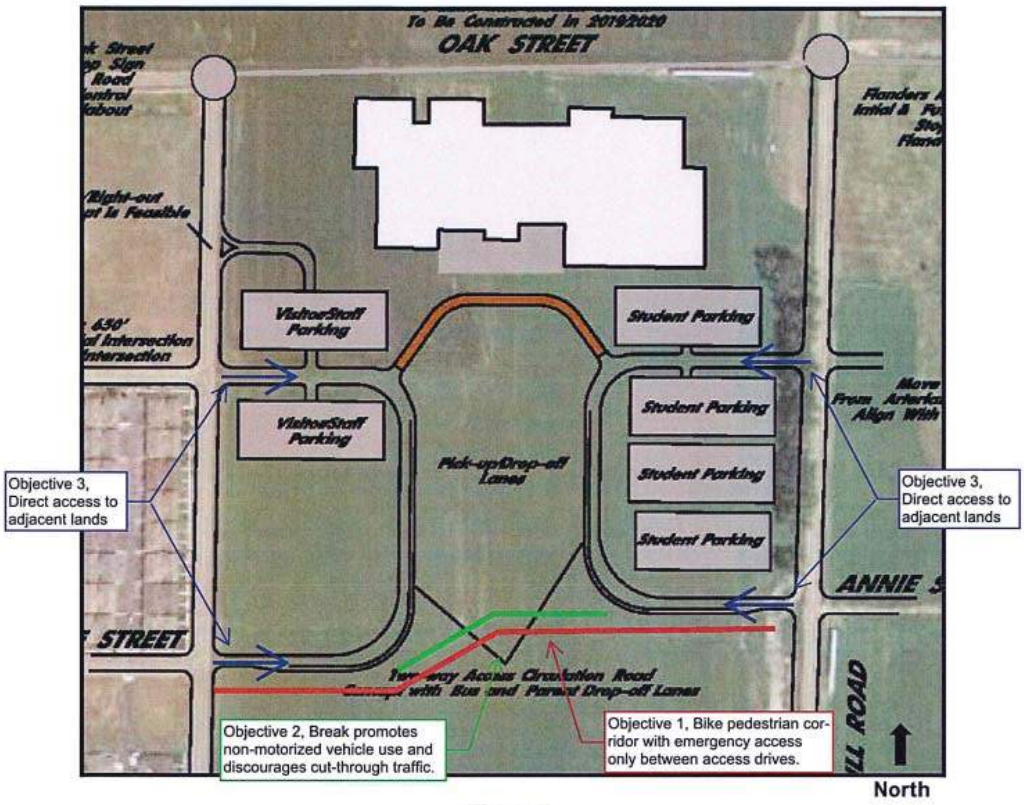


Figure 3.
TMP Objectives

If Annie Street is fully constructed between Cottonwood Road and Flanders Mill Road, the District has concerns with student safety. Several of the sports and play fields will be located south of the current Annie Street right-of-way. There will be considerable north/south pedestrian traffic across this right-of-way. The amount of pedestrian traffic will be even further intensified as a result of the proposed pedestrian tunnel connecting the campus with the Bozeman Sports Park complex north of Oak Street. Large scale events using both the Sport Park and District fields will generate additional pedestrian traffic across Annie Street. The majority of this pedestrian traffic will be elementary to high school aged students who may not be as cognizant of traffic when crossing streets or experienced in dealing with traffic, creating a potential for conflict.

While we understand the benefit of a grid transportation system, it is common for a double-A high school sized campus to interrupt local streets. We are fortunate at this site to have three arterial streets adjacent to the campus that can and should be used for through

TD&H Engineering | tdhengineering.com

MEETING MINUTES

traffic. Durston Road and Oak Street provide east/west connection while Cottonwood Road provides north/south connection. Vehicles wanting to cut through on Annie Street will be redirected south to Durston Road or north to Oak Street, which is preferred. According to the project Traffic Impact Study, which is attached, removing possible Annie Street link has minimal impact on the local transportation network (see page 29). The District feels the increase in student and pedestrian safety created by not completing a motorized vehicle link at Annie Street justifies the limited impact to the local motorized transportation network.

MEETING MINUTES

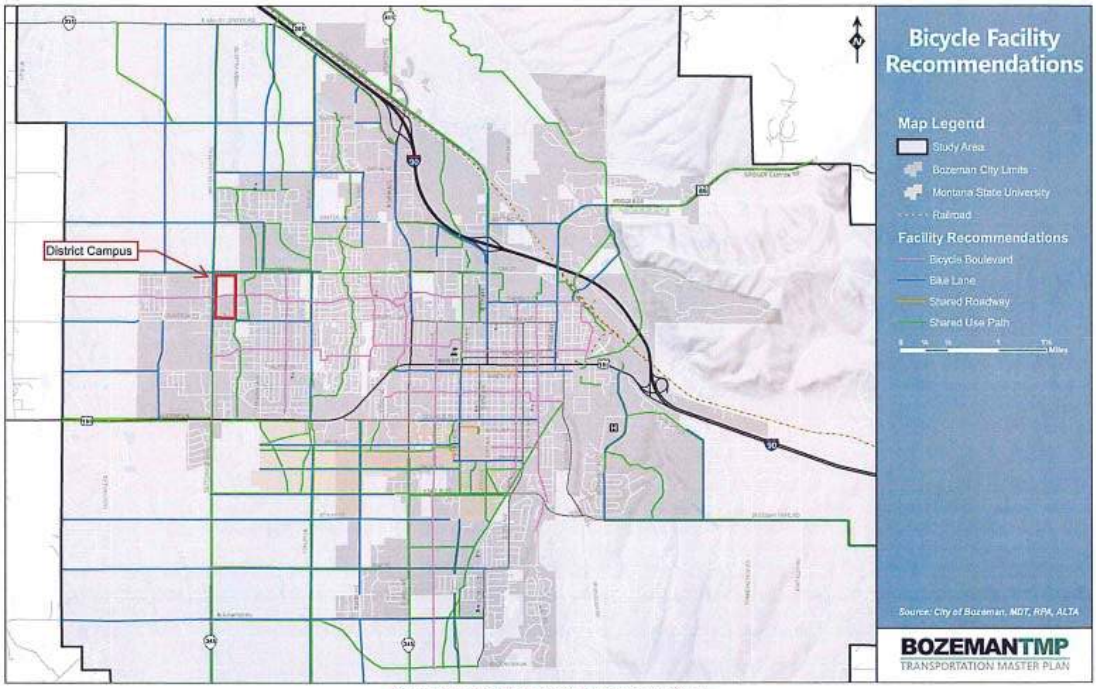


Figure 4.5: Bicycle Facility Recommendations

April 25, 2017 **109**

MEETING MINUTES

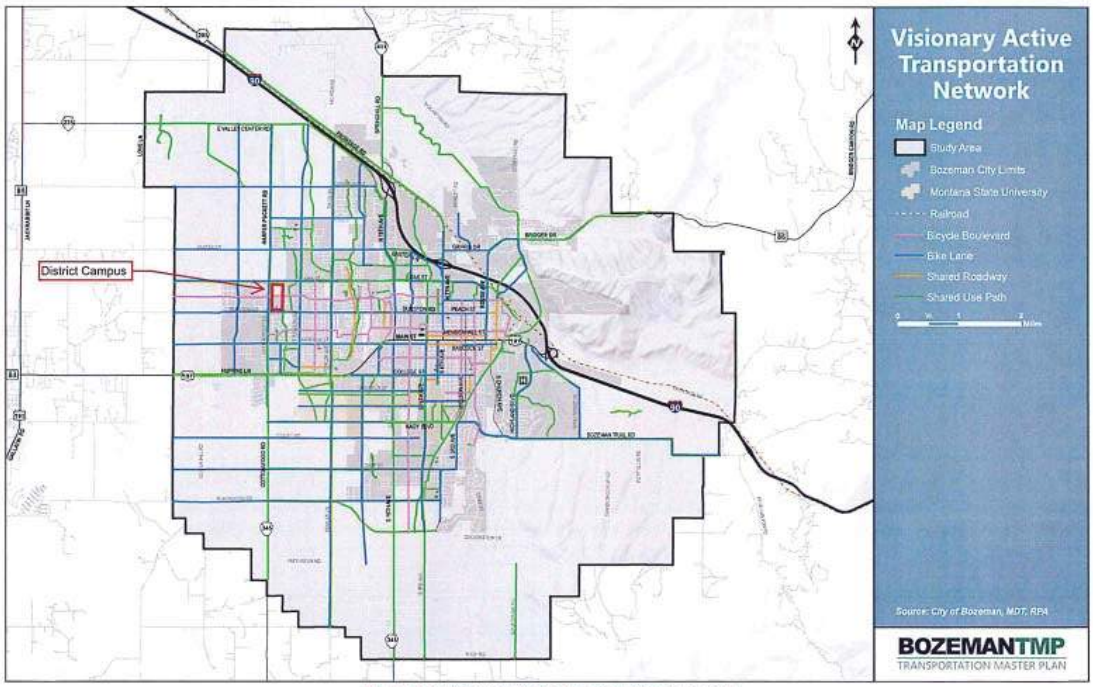
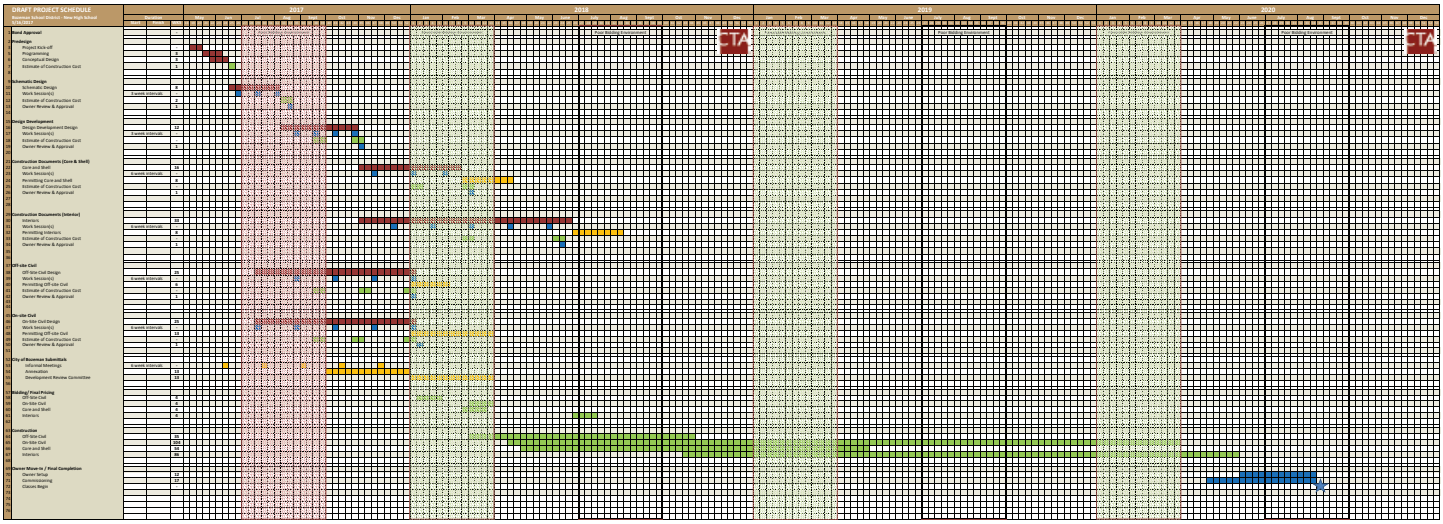


Figure 6.2: Visionary Active Transportation Network

MEETING MINUTES



MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	June 12, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Corey Johnson, CTA (CJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. Programming
    a. The result of the programming effort is approximately 15% over the pre-bond goal of 304,000 GSF. Increases are evident in all departments with Athletics and CTE representing the larger increases. The Building Committee and CTA will be looking for ways to take advantage of shared space opportunities and efficient reduction of space in order to meet the goal.
    b. CTA will be issuing a draft Programming document on June 16, 2017 for review and discussion at the next Building Committee meeting.
    c. Currently CTA has obtained all the programming information needed.
2. Design
    a. BF is to schedule a tour of the existing BDS#7 schools in with TS.
    b. The design team will strive to engage the Building Committee members throughout the design of the project. CTA will develop exercises to the committee members to encourage involvement.
3. Miscellaneous
    a. BF scheduled a meeting with Chris Saunders at the Bozeman Planning Department to kick-off the upcoming project on Wednesday, June 14, 2017. The goal is to identify the processes required to work through project issues such as closing Annie Street to vehicular traffic.
    b. BF is to provide comments to the Commissioning RFP to TS.
    c. TS is to provide a schedule of future board meetings to be incorporated in the project schedule.
    d. BF issued a copy of CTA's file structure for review and coordination with the BPS's file structure.
    e. BF is to create a spread sheet containing the file structure modified by TS and BF.
    f. BF is to schedule a meeting with Langlas & Associates and TS to review how we want up and set up and use BlueBeam as our file sharing tool.
    g. Kyle Scar and Wes Baumgartner will meet this week to develop initial layouts of the competition soccer filed and parking north of Oak Street.
    h. CTA will be presenting the sustainability slide show to the Board at a special board meeting tentatively at noon on Friday, June 30, 2017.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

4. Sustainability Presentation
    a. BF is to identify the number of LEED projects CTA registers per year, how many become certified and their construction values.
    b. BF is to email the sustainability presentation to TS for further review by staff.
5. Professional Services Contract
    a. CTA submitted a draft copy of the State of Montana *Standard form of Agreement Between Owner and Architect/Engineer for Alternative Delivery Method* to TS for review and comment.
    b. BF is to forward the industry standard fee benchmark graph to TS.
    c. CTA has offered to include all reimbursable expenses and 11 month warrantee walk-thru within the basic services fees presented.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Sky Cook, CTA
Kasey Wells, CTA

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Bozeman Planning Department Meeting 2
MEETING DATE:	June 14, 2017
ATTENDEES:	Todd Swinehart, BSD7 (TS) Chris Saunders, CoB (CS) Shawn Kohtz, CoB (SK) Kyle Scarr, TD&H (KS) Bob Franzen, CTA (BF)

Purpose: Discuss the new high school site and identify City of Bozeman (CoB) Planning and Engineering requirements.

1. Annie Street – SK stated that the CoB would like Annie Street to continue through/bisect the new high school site. KS will set up a meeting to include the attendees of this meeting and add Rick Hixon and Craig Woolard to discuss this topic. The next step will be to request City Council to accept a variance.
2. Flanders Mill – The developer east of Flanders Mill will be making street improvements this summer. The new high school project will be responsible for all work west of the west curb.
3. Cottonwood - Proposed work between Durston and Babcock is in the 2018 CIP. Bob Murray will be the contact for this project.
4. Oak Street – The intersection of Oak and Flanders Mill has been designed.
5. Street Easements – Backfill slope easements will be required.
6. Utilities – Follow the master plan.
7. Lift station – The new lift station is scheduled to be constructed in 2018. The backbone connecting it to our site has not been scheduled. An upgrade to the existing may be considered. SK will provide data to KS for analysis of current capacity. Temporary lift stations are not permitted.
8. Storm Drainage – the proposed plan for storm drainage is to collect a portion of the site at the northwest corner of the site with an overflow pipe on the north side of Oak Street conducting it west to Baxter Creek.
9. Annexation – Annexation of the site north of Annie Street is anticipated to be straightforward.
10. Water rights – KS will contact Brian Hastings to discuss water rights for the site.

END OF MEETING MINUTES

The foregoing is the author's understanding of the contents of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten business days.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

CTA ARCHITECTS ENGINEERS

cc: Attendees
Scott Wilson, CTA

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	June 19, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Roger Davis, Langlas Associates (RD) Bill Langlas, Langlas Associates (BL) Kyle Scarr, TD&H (KS) Cody, Croskey TD&H (CC) Jami Lorenz, DCI+BCE (JL) Corey Johnson, CTA (CJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. Site Related Topics
    a. City of Bozeman (CoB) Meeting
        i. Annie Street – The CoB is committed to having Annie Street continue through the new high school site. TS authorized KS to set up a meeting with Chris Saunders, Shawn Kohtz, Rick Hixon and Craig Wollard to discuss the issue.
        ii. Bozeman Lift Station Capacity – The CoB has provided KS with the data it has on the current and pending capacity of the existing lift station. It may be close to full capacity. This topic will be included in the next meeting with CoB indicated above.
        iii. TS requested that the Draft memo, which includes the traffic study, be discussed with the Building Committee prior to issuing it to the CoB.
    b. Cottonwood/Oak Round-about – KS provided TS with information regarding the size and location of required easements. TS will follow up with the respective land owners.
    c. Water Rights – CTA is investigating water rights issues/opportunities with the new site. Once this has been completed it will be forwarded KS and TS. KS will proceed with further investigation as needed.
    d. Development North of Oak Street – CTA and TD&H are developing layouts for the proposed new soccer field and parking north of Oak Street. This planning is closely related to the pedestrian crossing layouts and will be included in the analysis. The team should be ready to meet on or before June 23, 2017. BF will schedule the meeting once the analysis has been completed.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

2. Building Committee Meeting
    a. Design Vision – CTA conducted a Visioning exercise with the committee to kick-off the design of the new school.
    b. Programming
        i. A draft programming document was issued on June 16, 2017 to the committee for review and discussion at the next meeting.
        ii. The current program is approximately 15% over the 304,000 sf goal.
        iii. The next Building Committee meeting is scheduled for June 30, 2017. The agenda will include the following topics: program reduction through identifying efficiencies, review initial building concepts, and soccer field & parking layouts.

3. Budget
    a. RD will prepare the first construction budget at the conclusion of the Programming phase.
    b. RD provided the initial pre-bond budget by discipline. These values will be the budgets for each discipline as team progresses through the design process.
    c. JL outlined initial concepts for structural systems. BF is to forward the draft programming document to JL.
        i. Gymnasium and auditorium – Structural steel roof systems bearing on CMU walls
        ii. Classrooms – Structural steel floors and roofs supported on steel columns with infill exterior wall systems
    d. The cost of Special Inspections is to be identified.
    e. City permit and inspection fees are to be verified.

4. Schedule
    a. Programming completed June 30, 2017
    b. Schematic Design completed in mid-August 2017
    c. Design Development completed early November 2017
    d. Off-site and On-site civil construction documents early January 2018
    e. Core and shell construction documents completed in mid-February 2018
    f. Interior buildout construction documents completed in June 2018.
    g. Construction Substantially Complete June 1, 2020.
    h. High School open for Classes August 2020.

5. Miscellaneous
    a. TS will determine if tours of 21st century schools are desired. CJ identified possible schools to tour near Spokane, Seattle, and Denver areas.
    b. Bluebeam will be used as the web-based project document management software. BF has provided TS with a draft of the proposed file structure. Once the file structure has been conformed BF will schedule a meeting with RD to learn how this will be supported by BlueBeam.
    c. CTA will discuss the pros and cons of Green Building rating systems and certification to the Board at the June 20, 2017 special board meeting.
    d. TS will engage the commissioning agent early in the design process. The RFP has been sent to CTA and L&A for review. Review comments will be provided after a direction regarding Green Building rating systems has been determined by the Board.
    e. BF will set up a meeting with the Bob Risk and Cal to discuss the project submittal path.
    f. CTA is to consider ground source heat pumps as an option for heating and cooling portions of the building. CTA is to identify costs and specifications for drilling test wells for heat rejection/injection and for removing and replacing groundwater.
    g. The next meeting is scheduled for 1:30p-2:30p July 3, 2017.

END OF MEETING MINUTES

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Attendees/Invitees
Scott Wilson, CTA

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	June 27, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. Regional High School Tours
    a. CTA is to provide a recommendation and notes on which schools should be visited to TS.
2. City of Bozeman Planning Meeting
    a. The next meeting with the City of Bozeman planners and engineers is scheduled for July 6, 2017 at 1:00pm.
3. Commissioning RFP
    a. BF provided comments and additional documents that could be incorporated into the commissioning RFP on June 23, 2017.
4. Sports Park (Soccer Field and Parking)
    a. TS reviewed initial site plans for various configurations of parking and a competition soccer field on the Sports Park property. Wes Baumgartner and Kyle Scar will present the options at the next Building Committee meeting.
5. Sustainability
    a. CTA is compiling estimated costs for various LEED credits.
    b. TS requested that CTA select several credits (those effected by location/region) and discuss them citing why they/how they apply to the project.
    c. The new high school project may not meet the minimum requirements for Water Efficiency Prerequisite – Outdoor Water Use Reduction due to the need to maintain the required playing fields. BF will investigate this further.
    d. CHPS – Collaborative High Performance Schools – BF is to send TS the link to the FHPS website that indicates review and verification costs.
    e. CTA has not been involved in certifying a CHPS project to date.
    f. Sustainability will be discussed at the next Board meeting tentatively scheduled for July 10, 2017.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

6. Programming
    a. CTA is to review the projects need for on-site storage where off-site storage could be constructed at a much lower cost.
7. Building Committee
    a. CTA is looking for programming direction on which educational programs are to be included at the new high school. This information will be need by July 19, 2017.
    b. Three building concepts will be presented. CTA would like to have a direction on which concept is to be developed for the next Building Committee meeting.
    c. The next Building Committee meeting is scheduled for July 19, 2017.
8. Professional Services Contract
    a. TS will review the proposal issued by CTA. Once the review has been completed a meeting with TS, Scott Wilson and BF will be arranged to conclude negotiations.
9. Mechanical Systems
    a. CTA will present several initial mechanical system options to TS on June 29, 2017. This will be the first of several meetings to determine the appropriate system for the new high school.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Attendees
Scott Wilson, CTA
Corey Johnson, CTA
CTA File

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Permitting the New Bozeman High School Project
MEETING DATE:	June 29, 2017
ATTENDEES:	Cal Doerksen CoB (CD) Todd Swinehart, BSD (TS) Bob Franzen, CTA (BF)

1. BF outlined the proposed path for developing permit packages for review by the City of Bozeman.
    a. Off-site Civil - January 2018 (street and utility improvements)
    b. On-site Civil - January 2018 (interior roadways, parking, sidewalks, playing fields, site lighting and landscape)
    c. Building Core & Shell - February 2018 (structural, envelope, major utility connections)
    d. Interior Improvements - June 2018 (interior architectural, finishes, mechanical, fire protection, plumbing, electrical)
2. The Building Core & Shell permit documents will be reviewed by EsGil. Review time is estimated at approximately 2 weeks.
3. CD will most likely review the Interior Improvements package.
4. CD would like to review the project once plans and elevations have been prepared.
5. BF is to schedule a meeting with TS, CD, Bob Risk, Jack Coburn, and Scott Mueller to finalize what level of information is to be included with each package.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Scott Wilson, CTA
CTA File

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Building Committee Meeting 2
MEETING DATE:	June 30, 2017
ATTENDEES:	Kevin Conwell, BHS (KC) Ken Gibson, Community Member (KG) Todd Swinehart, BSD7 (TS) Wendy Tage, Trustee (WT) Rob Watson, Superintendent (RW) Andy Willett, Board President (AW) Chuck Winn, CoBzn (CW) Roger Davis, LA (RD) Bill Langlas, LA (BL) Kyle Scarr, TD&H (KS) Jami Lorenz, BCE (JL) Scott Wilson, CTA (SW) Corey Johnson, CTA (CJ) Jim Beal, CTA (JB) Nathan Helfrich, CTA (NH) Wes Baumgartner, CTA (WB) Bob Franzen, CTA (BF)

Purpose: Review current programming status, conceptual design options, site design options and Oak Street pedestrian crossing options.

1. Programming
   a. CTA issued a draft programming document on June 16, 2017 for review by the Building Committee.
   b. The school district is to identify which programs will be offered at which high school. To date we have programmed all current classes for inclusion. The design team will need to be informed of which specific spaces will not be needed in the need building and which spaces will need a place holder for future construction. This pertains mainly to uniquely design spaces such as labs and CTE classrooms. This information is to be provided on or before July 19, 2017.
   c. The school district is to review the potential of adult education, Gallatin College and other community groups using the new high school. Other community users may include sports camps, local athletic organizations and clubs. This will inform the design on how the building may be secured for after school events.
   d. In addition to the questions provided on June 16, 2017 please add the following:

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

e. What type of food service distribution do we want: Servery – similar to the existing, Foodcourt - Single kitchen with 3-4 windows, or Multiple Offerings - Primary Kitchen, Soup/Sandwich Bar, Coffee Bar (Library)

2. Conceptual Design
   a. CTA developed and presented three conceptual design schemes for the new building and site. All concepts are anticipated to conform with Construction Type II A or B per the 2012 International Building Code.
   b. Radial
      i. Two-story building with a footprint of 206,511 square feet.
      ii. General Comments
         1. Liked having classrooms near CTE – provided exposure to CTE curriculum.
         2. Preferred a more direct access to the north parking and playing fields.
         3. Prefer to have the library stacked.
         4. Site plan reflected the angle of the gymnasium wing
         5. Consider a three story version of this concept
         6. Liked the single core/town center
         7. Contained public well
         8. Liked open central library
         9. Easily expanded
         10. Mid-priced to construct
         11. Consider placing spaces on the north side of the gymnasiums to break up the two story wall.
   c. Core
      i. Three-story building with a footprint of 154,259 square feet.
      ii. General comments
         1. All spaces have access to the center community space/town center.
         2. Appeared institutional
         3. Least expensive to construct
         4. Formal site design to play off of the building
         5. Liked the roof top green spaces
         6. Difficult to expand
   d. Array
      i. Two-story building with a footprint of 208,850 square feet.
      ii. General comments
         1. Liked Library as part of learning street
         2. Liked the combined service area for the kitchen and CTE
         3. Concern of congestion of students during class change
         4. Preferred to have the majority of classrooms facing south
         5. Would like to see a single commons/town center
         6. Good face to Oak Street
         7. Site plan is more park like/ informal
         8. Liked the separation of Music and auditorium from the classrooms
   e. CTA is to look at the following in the next version of the concepts:
      i. Combine the Array and Radial concepts
      ii. Two verses three story options
      iii. Consider fewer classrooms by CTE
      iv. Capitalize on southern exposures when possible
      v. Develop site plan to match new concept following the park like concept
      vi. Push the building to the north as much as reasonable
      vii. Try to leave a future site at the south end of the site off Durstin for future sale option.

MEETING MINUTES

MEETING MINUTES (Continued)

3. Site Design
    a. Crossing Oak Street
        i. KS presented three possibilities of crossing Oak Street
            1. Tunnel (below existing grade, partially below grade, and at grade)
            2. Grade crossing (least expensive to construct)
            3. Bridge crossing (most expensive to construct)
        ii. General Comments
            1. The below grade and partially below grade crossings would be below the water table and be less visible.
            2. The bridge would have very long ramps at each end.
            3. The at grade crossing would be considered a mid-block crossing that would require a signal. This is the leased preferred option by the traffic engineer.
        iii. CTA is to continue to develop the at grade tunnel crossing option.
    b. Annie Street
        i. TS, KS, and BF have scheduled a meeting with the City of Bozeman Planning and Engineering Departments on July 6, 2017 to discuss the need to have Annie Street bisect the high school campus. The City's current direction is to have Annie Street continue through the high school site.

4. Attachments
    a. Radial - site plan and floor plan
    b. Core - site plan and floor plan
    c. Array - site plan and floor plan
    d. Oak Crossing options

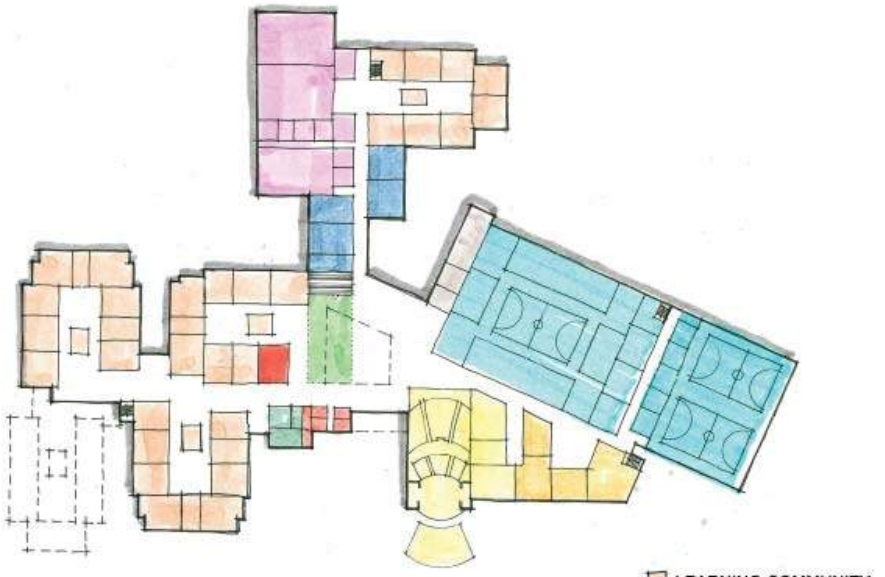
END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten calendar days.

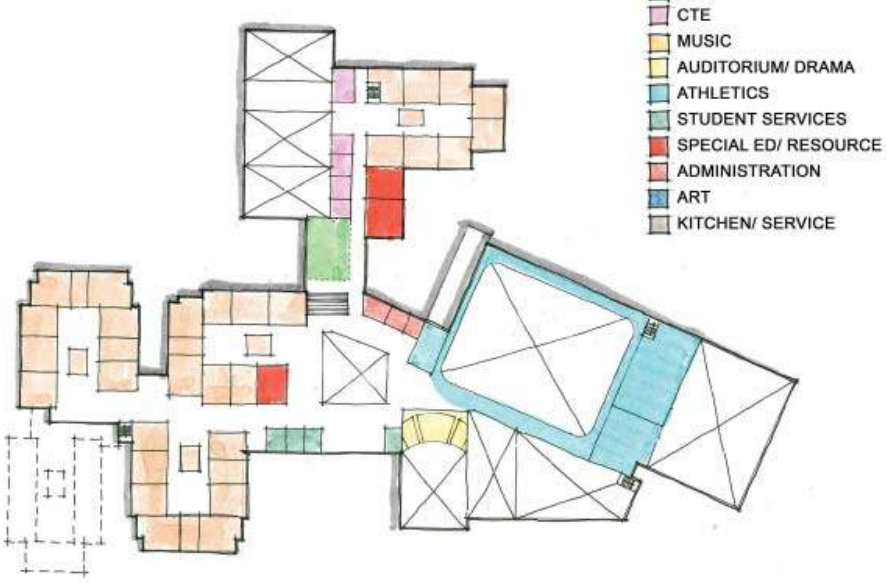
CTA ARCHITECTS ENGINEERS

cc: Attendees
Steve Johnson, BSD7
Kasey Wells, CTA

MEETING MINUTES



FIRST FLOOR PLAN



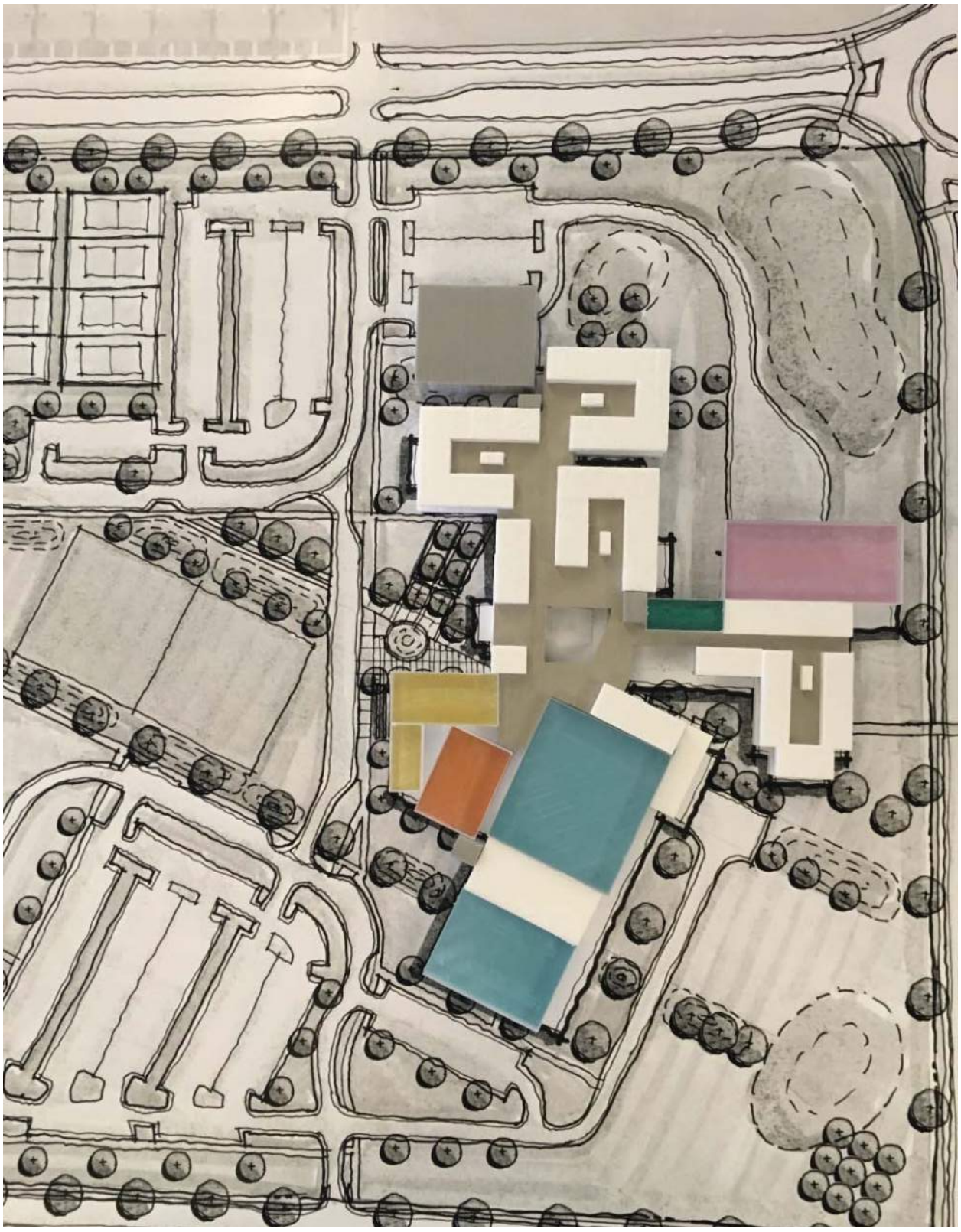
SECOND FLOOR PLAN

- LEARNING COMMUNITY
- LIBRARY
- CTE
- MUSIC
- AUDITORIUM/ DRAMA
- ATHLETICS
- STUDENT SERVICES
- SPECIAL ED/ RESOURCE
- ADMINISTRATION
- ART
- KITCHEN/ SERVICE

RADIAL CONCEPT

BOZEMAN HIGH SCHOOL
JUNE 30, 2017

MEETING MINUTES



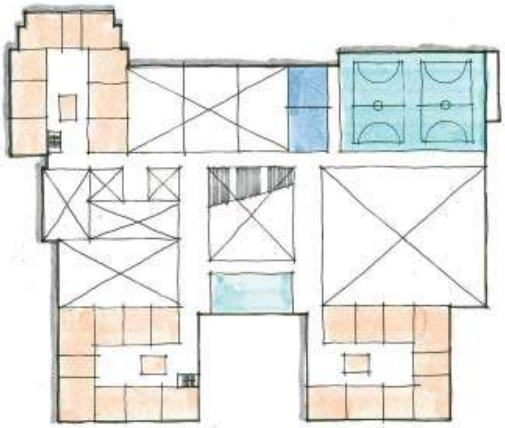
MEETING MINUTES

RADIAL CONCEPT

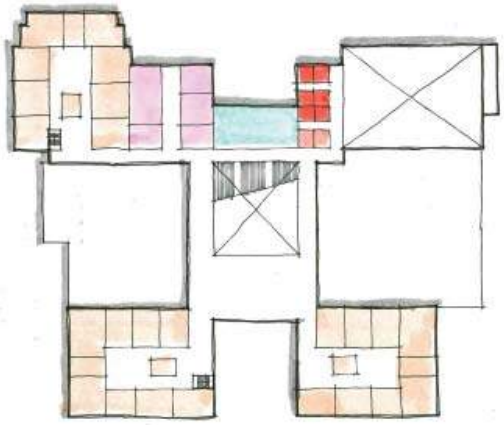
NEW BOZEMAN HIGH SCHOOL
JUNE 30, 2017

MEETING MINUTES

FIRST FLOOR PLAN



SECOND FLOOR PLAN



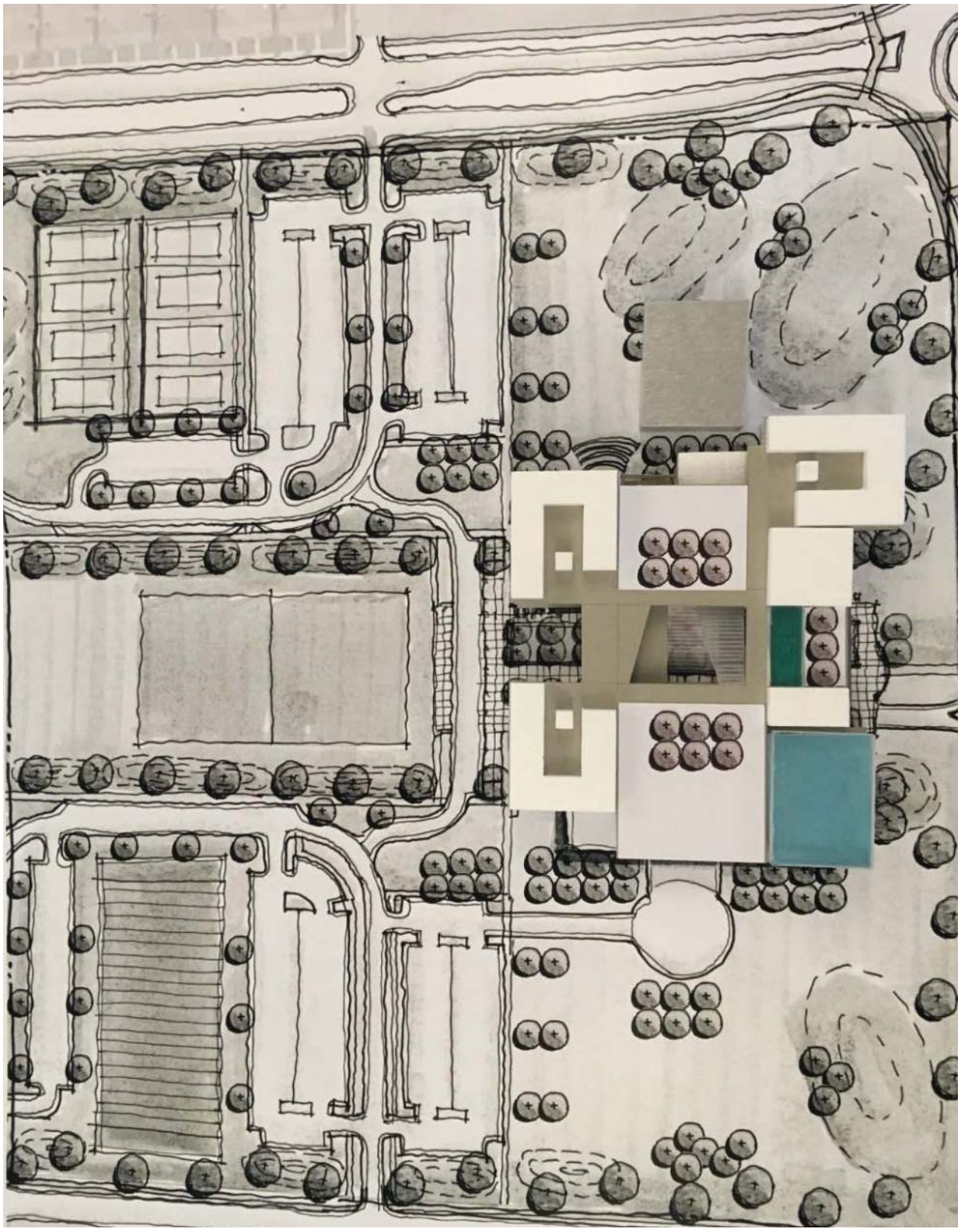
THIRD FLOOR PLAN

- LEARNING COMMUNITY
- LIBRARY
- CTE
- MUSIC
- AUDITORIUM/ DRAMA
- ATHLETICS
- STUDENT SERVICES
- SPECIAL ED/ RESOURCE
- ADMINISTRATION
- ART
- KITCHEN/ SERVICE

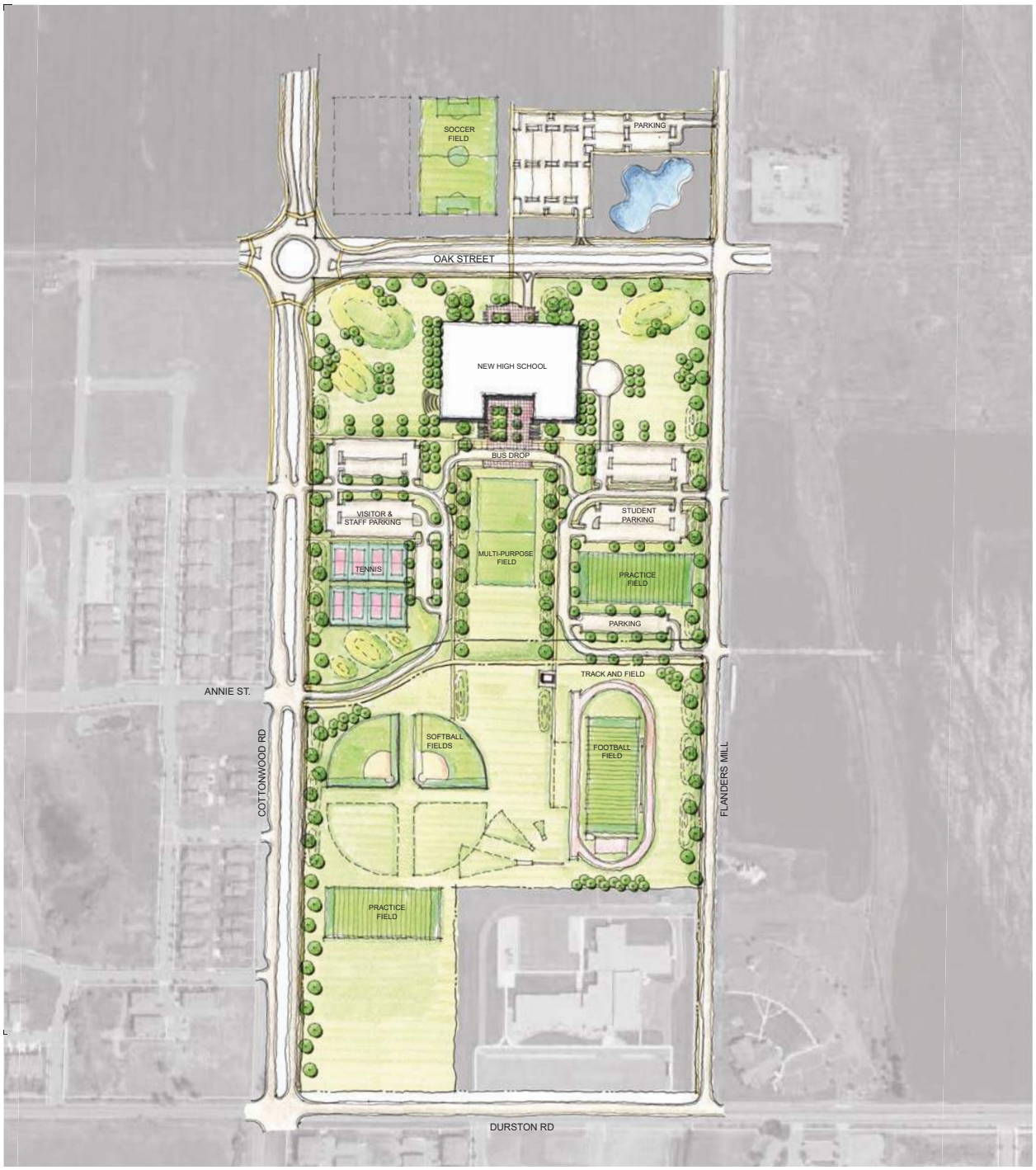
CORE CONCEPT

BOZEMAN HIGH SCHOOL
JUNE 30, 2017

MEETING MINUTES



MEETING MINUTES



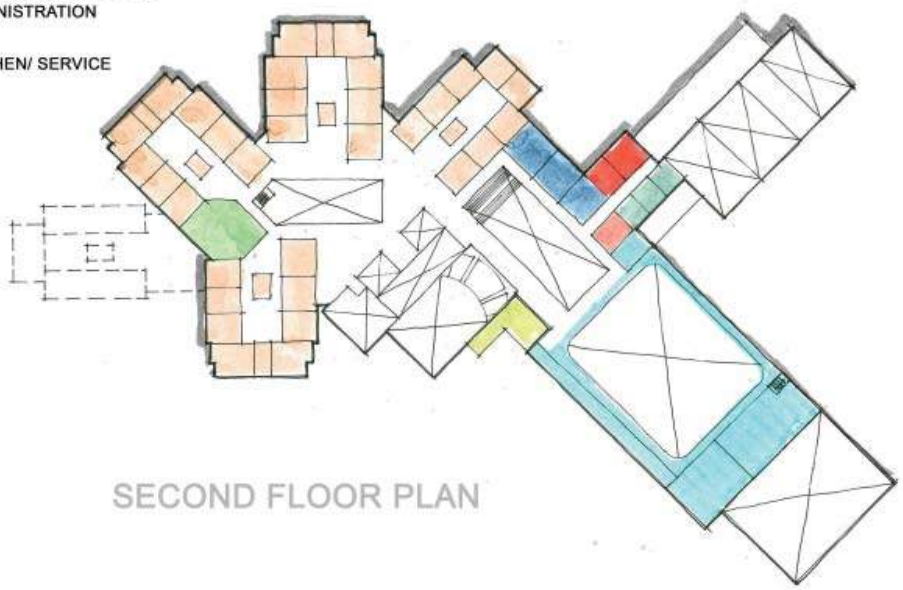
CORE CONCEPT

NEW BOZEMAN HIGH SCHOOL
JUNE 30, 2017

MEETING MINUTES

FIRST FLOOR PLAN

- LEARNING COMMUNITY
- LIBRARY
- CTE
- MUSIC
- AUDITORIUM/ DRAMA
- ATHLETICS
- STUDENT SERVICES
- SPECIAL ED/ RESOURCE
- ADMINISTRATION
- ART
- KITCHEN/ SERVICE



SECOND FLOOR PLAN

ARRAY CONCEPT

NEW BOZEMAN HIGH SCHOOL

JUNE 30, 2017

MEETING MINUTES

MEETING MINUTES

ARRAY CONCEPT

NEW BOZEMAN HIGH SCHOOL
JUNE 30, 2017

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	July 24, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Steve Johnson, Bozeman Public Schools (SJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. Regional High School Tours
    a. CTA is to provide a draft itinerary of recommended schools to be visited to in the Denver/Wyoming area to TS.
2. City of Bozeman Planning Meeting
    a. KS is to set up the next meeting with the City of Bozeman planners and engineers.
3. Commissioning RFP
    a. Proposals are due to TS on July 28, 2017. BF will participate in the selection process.
4. Sports Park (Soccer Field and Parking)
    a. Langlas and TD&H are to provide pricing for proposed layout.
5. Sustainability
    a. The new high school project may not meet the minimum requirements for LEED Water Efficiency Prerequisite – Outdoor Water Use Reduction due to the need to maintain the required playing fields. Approximately 4.5 acres (or 200,000sf) will not be allowed to be permanently irrigated.
    b. CHPS – Collaborative High Performance Schools – BF is to send TS a first pass at a CHPS scorecard.
6. Programming
    a. The School District is working on finalizing programmed square footages.
    b. BF requested equipment lists/specifications for all CTE and Fine Arts areas.
    c. CTA will present the Education specifications to the Board on August 14, 2017.
    d. CTA is looking for programming direction on which educational programs are to be included at the new high school. This information will be need by July 19, 2017.
7. Building Committee
    a. The three story option was approved at the last Building Committee meeting.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

b. The next Building Committee meeting is scheduled for August 9, 2017. CTA will present updated building and site plans.

8. Professional Services Contract
   a. Fee negotiations have been completed. The Board will vote to approve the fees at this evenings Board meeting.
   b. CTA provided a marked up State A&E contract to TS for review.
   c. CTA has received proposals from three Auditorium Consultants and will review then this week.
9. Mechanical Systems
   a. CTA will present the next round of mechanical system options and recommendations to TS on July 25, 2017.
   b. CTA will incorporate the comments from the Meeting held on July 25, 2017 into a brief presentation to the Board at the August 14th meeting.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Attendees
Scott Wilson, CTA
Corey Johnson, CTA
CTA File

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen, Alex Russell
MEETING PURPOSE:	Geo-Field, Co-Gen, PV, and HVAC Recommendations
MEETING DATE:	July 25, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Rich Parker, Bozeman Public Schools (RP) Steve Johnson, Bozeman Public Schools (SJ) Roger Davis, Langlas (RD) Bill Langlas, Langlas (BL) Bob Franzen, CTA (BF) Alex Russell, CTA (AR) Andy Moore, CTA (AM) Via Phone: Alan Bronec, CTA (AB) Raelynn Meissner, CTA (RM) Tim Johnson, CTA (TJ)

1. CTA distributed the following document for discussion:
    a. Bozeman High School Schematic Design Energy Study (Revised July 25, 2017)

2. Introduction
    a. AR recapped the discussion and follow-up from the June 29th meeting.
        i TS and RP requested that CTA provide more insight into the feasibility of Co-Gen and/or PV for the new high school. It was also requested that CTA investigate the possibility of tying Meadowlark Elementary into the new high school in a campus type configuration.

3. Co-Generation (Combined Heat and Power System (CHP))
    a. TJ discussed the basic concepts of a co-gen plant; natural gas in, electricity and heating water out.

MEETING MINUTES

b. TJ discussed the modeled thermal and electrical load profiles. A 550 kW co-gen plant would cover the building electrical load, but for a large portion of the year the thermal portion of the co-gen cannot be used. Due to turndown limits on the 550 kW plant, the overall system efficiency isn't as high as a smaller plant that can be utilized more hours of the year.
c. A 100 kW co-gen plant cannot cover the entire building electrical load, but it is more efficient because it can run 'full-out' which provides the best efficiency and payback.
d. The savings shown in the document do include modeled demand charge savings, but AB cautioned that if the co-gen plant goes down for even a small portion of time the building load can spike and the demand charge then becomes set, which means there are no demand savings for that billing period.
e. Bozeman High School (BHS) has a negotiated rate for natural gas. This is a floating price based on the market. For the energy model, 73 cents per Therm was used.
f. RP is going to verify the electrical rate for the high school. A secondary demand based rate of approximately 11 cents per kW was used. AM said that CTA had previously used this rate for work projects at Sacajawea Middle School and Willson School.
g. AB mentioned that the savings for the CHP does not include additional design fee for the system, but it does include 2 cents per kW for maintenance.
h. TJ informed the team that he updated the model's balance point based on better information and past experience. The balance point is the outdoor temperature when the building shifts from heating to cooling. Originally this was at 45 degrees F, but has been shifted to 55 deg F which CTA feels is much closer to actual conditions.

4. Meadowlark Integration
    a. AB discussed the two major configuration options: The single plant for the high school or integrate Meadowlark into a single system with a larger plant.
        i Central Plant integration with Meadowlark (figure 14)
            1 Added cost as the high school would need to own the pad mounted transformer and primary metering package.
                a This results in lower rates, but the school owns the transformer and the required high voltage gear.
                b The generator plant would be located next to the high school with additional voltage routed to Meadowlark.
        ii Figure 13 in the report incorrectly shows the routing. AM hand calculated a realistic route length and determined it to be 2,400' each way. The report used 2,000' each way.
        iii The integration for Meadowlark has a high first cost.
        iv The co-gen could operate in 'island mode' operation, however this is complicated with the required switch gear. This operation can be manual or automatic. If it's automatic, it requires load shed.
        v Natural Gas reciprocating engines have been the primary focus of the investigation. There are other options such as micro-turbines. Micro-turbines have lower maintenance, but higher first cost so they were deemed less viable.
        vi Reciprocating engines have regular oil changes. Every 2,000 hours the valves need adjustment. Every 3.5 years they require a complete overhaul.
        vii There are major maintenance items associated with co-gens. It's important that the client knows this before pursing this option.
        viii The Interconnection Agreement with NorthWestern Energy is complicated.
        ix Due to several of these items discussed, CTA's recommendation was that co-gen was not appropiate for this project. TS agreed.

MEETING MINUTES

- x CTA also recommended that due to the first cost and the complexity of the integration with Meadowlark, that the school not pursue this option. The project team agreed.

5. Photovoltaic Analysis (PV)
   a. AM discussed the findings from the PV analysis. The initial findings show that an automatic tracking PV system would have an approximate 13 year payback.
   b. AM contacted a couple entities including Tesla to determine feasibility of PV coupled with battery storage to reduce the electrical load demand. The cost he received for this option was 20 cents per kWh, as a maintained cost over the life of the system, which effectively removes the battery storage option.
   c. CTA's investigation focused on a PV array in the 50 kW size because this is the largest size NorthWestern Energy allows for a grid connected system. The advantage of a grid connected system is net metering.
   d. CTA analyzed three options for the array: Fixed, Manual Tracking, and Auto Tracking
      i Fixed Array
         1 Requires lots of space (approximately ¼ acre)
         2 16.7 year payback
      ii Manual Tracking
         1 Estimated four adjustments a year, which is fairly labor intensive
         2 Approximately ¼ acre
         3 16.3 year payback
      iii Automatic Tracking
         1 Requires a large mast
         2 Uses approximately 1/3 of the area of a fixed array.
         3 13.6 year payback
         4 AM estimates there is a $1,000/year in maintenance.
   e. TS inquired if we could go with a larger non-grid connected system. AM said it is a possibility.
   f. Another possibility that CTA will investigate is multiple 50 kW grid connected systems.
   g. The payback can be shaved down utilizing an equipment lease option where a 3rd party owns the equipment and sells the electricity to the school district.
   h. CTA is going to investigate potential NorthWestern Energy grants.
   i. RP is going to provide the annual football stadium consumption for CTA.
   j. AB mentioned that the net metering billing 'true-up' with NorthWestern Energy is on an annual basis.
   k. CTA recommends that the school district consider a PV system with automatic tracking. This could be incorporated at any time in the future or bid as an alternate.

6. Updates to the Energy Model
   a. TJ recapped the previous meeting discussion for the new attendees. CTA investigated both an open loop geo-field and a traditional heating and cooling plant utilizing natural gas condensing boilers and air cooled chillers.
      i Each of these options had terminal unit options consisting of 4-pipe fan coils and Active Beams.
   b. TJ went over the updates the energy model. These included higher efficiency for the water-to-water heat pump and yearly maintenance costs associated with the air cooled chillers. These changes brought the annual energy cost and life cycle cost of the geo-loop options closer to the traditional plant options.
   c. TJ used a $/sq foot cost typical of new school construction for the energy model.

MEETING MINUTES

d. Langlas provided a square foot budget of $19/sq foot for plumbing (including mechanical system piping) and $14/sq foot for HVAC. CTA said this was going to be tight, but should be feasible.
e. With the updates to the energy model life cycle cost and annual energy cost, CTA recommends that the school district proceed with the test well for the open loop geo-field. TS wants CTA to proceed.

7. HVAC Recommendations.
   a. RM discussed that two terminal systems have become strong favorites: Active Beams and Water Source VRF (WSVRF)
   b. Both options have great potential for integration into the geo-loop system.
   c. RM mentioned that no matter what system is selected, there will be areas that will utilize different types of HVAC systems resulting in a 'hybrid system'.
   d. Two strong advantages of WSVRF is the ability to share energy space to space without additional input at the plant level, and the ability to integrate directly with the well loop without supplemental heating or cooling. CTA feels that the WSVRF system provides the school with more flexibility.
   e. CTA recommended an open loop geo-field coupled with a WSVRF system.
   f. RP inquired if any consideration was given to in floor radiant.
   g. CTA explained that it was considered, but because of the high first cost and difficulty to cool it wasn't strongly considered.
   h. RD said part of the reason Meadowlark utilized in floor hydronic heating was because the elementary school kids spent a large portion of the time in direct contact with the floor, which is not the case at the high school. He also said that in-floor hydronic is not within the budget.
   i. RP said they've had three major refrigerant loss events at Hawthorne. CTA suggested laying the system out in such a way that a failure such as that would only result in a minor loss and not cripple the entire HVAC system.
   j. RP also suggested that the design incorporate thermal storage. The size of the tank required was the only concern suggested.
   k. TS asked why water source heat pumps weren't considered in greater detail. CTA's explanation was that it incorporated multiple compressors at the room level which could fail and the units are a noisier solution. For these reasons they focused on the other systems.
   l. RP would like to see floor mounted terminal units if possible. This will be discussed with the architectural group.
   m. RP said that if traditional heating and cooling plants were used, he prefers fluid coolers over air cooled chillers.
   n. No water rights purchased with the new high school property. They can have two 35 gpm irrigation wells for the site. The open loop geo-field would not require water rights.
   o. SJ would like to see the energy model document edited to a level that can be easily explained to non-technical audiences. This will be presented on August 14th at the school board meeting.

8. Action Items and Next Steps
   a. CTA will investigate NorthWestern Energy grants for PV.
   b. CTA will investigate the feasibility of multiple 50 kW PV grid connected systems.
   c. RP to provide the annual football stadium electrical data. He is also going to verify the electric rate for the high school.
   d. AR will edit the energy model report for presentation to the school board on August 14th.
   e. CTA is to proceed with the development of specifications for a test well on the site. Procurement will be through Langlas.

MEETING MINUTES

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

CTA ARCHITECTS ENGINEERS

cc: Todd Swinehart, Steve Johnson, Rich Parker, Roger Davis, CTA File

MEETING MINUTES

PIONEERING ENVIRONMENTS

MEETING MINUTES

PROJECT:	New Bozeman High School (BZNHS)
MEETING MINUTES RECORDED BY:	Bob Franzen
MEETING PURPOSE:	Project Coordination
MEETING DATE:	July 31, 2017
ATTENDEES:	Todd Swinehart, Bozeman Public Schools (TS) Steve Johnson, Bozeman Public Schools (SJ) Roger Davis, Langlas Associates (RD) Bill Langlas, Langlas Associates (BL) Cody, Croskey TD&H (CC) Jami Lorenz, DCI+BCE (JL) Corey Johnson, CTA (CJ) Nathan Helfrich, CTA (NH) Bob Franzen, CTA (BF)

1. Site Related Topics
    a. City of Bozeman (CoB)
        i. Annie Street – The school district is working through this issue with the CoB. Currently there is no tasks for the design team. TS informed the design team to proceed with the current the site design with Annie Street not bisecting the site.
        ii. Parking – TD&H and CTA are assembling parking data from national sources and local high schools to prepare a case for a variance from local zoning ordinances. The Motorcycle Safety Training group has requested that one of the parking lots have a 200'x300' uninterrupted paved area for the potential lease. CTA will see if this request can be accommodated.
        iii. Bozeman Lift Station Capacity – TD&H is to schedule a recurring meeting with the CoB Planning and Engineering Department to discuss this item.
        iv. Annexation – TS instructed TD&H to prepare the annexation documentation. The school district is to determine the date to issue to CoB.
        v. Sports Park Layouts – TS provided the CoB with several layout options for the south end of the Sports Park. Currently waiting for a response.
    b. Tunnel – The current tunnel design and additional fill estimated construction cost is $2.7M ($2M for fill plus $.7M for the tunnel). CTA and TD&H are to develop two tunnel options one at existing grade and one below grade. RD will price the two tunnel options and a grade level option incorporating a crossing signal. This information is to be assembled and discussed at the August 9, 2017 Building Committee meeting.

http://www.ctagroup.com E-mail: info@ctagroup.com

MEETING MINUTES

MEETING MINUTES (Continued)

2. Building Committee Meeting
    a. The agenda for the next Building Committee meeting scheduled for August 9, 2017 is as follows:
        i. Review the current building design.
        ii. Review the current site design
        iii. Oak Street crossing options and costs
        iv. Sustainability status
3. Programming
    a. CJ will review the programming information provided by Rob Watson and inform the team if additional information is required. This review is scheduled to be completed by August 1, 2017.
4. Budget
    a. RD requested that SD information be provided approximately 1 ½ weeks prior to the meeting to allow adequate time to develop pricing. Narratives can be provided as they are developed. (No need to wait for entire SD package to be completed)
    b. The construction costs of the roundabout and ½ of Oak Street are to be priced independent of the school project cost.
    c. The cost of Special Inspections is to be identified.
    d. City permit and inspection fees are to be verified.

5. Schedule
    a. Education Specifications and Mechanical system recommendations presented at the August 14, 2017 Board Meeting
    b. Schematic Design presented at the September 11, 2017 Board Meeting
    c. Design Development presented at the November 13, 2017 Board Meeting
    d. Off-site and On-site civil construction documents early January 2018
    e. Core and shell construction documents completed in mid-February 2018
    f. Interior buildout construction documents completed in June 2018.
    g. Construction Substantially Complete June 1, 2020.
    h. High School open for Classes August 2020.

6. Miscellaneous
    a. CJ will develop an itinerary for a proposed school tour in the greater Denver area. The tours would need to take place in late August when the schools are back in session and early enough for any information gained to be incorporated into the Schematic Design documents.
    b. Bluebeam will be used as the web-based project document management software. BF has provided TS with a draft of the proposed file structure. BF will forward the file structure to RD. RD will set up the structure in BlueBeam and will review the program with TS and BF.
    c. BF will attend a meeting with the school district and CHPS to review what they have to offer at 1:00pm August 1, 2017
    d. TS has received three proposals from commissioning agent. He is in the process of reviewing them.
    e. CC will confirm if meetings are to be set up with MTD.
    f. CTA will set up a meeting with the Police Department and SROs once the plan has been more developed.
    g. BF will set up a meeting with the Bob Risk and Cal to discuss the project submittal path.
    h. The next meeting is scheduled for 1:30p-2:30p August 15, 2017.

END OF MEETING MINUTES

The foregoing is the author's understanding of the content of this meeting. If the attendee's understanding differs from the above, please respond to the author within ten working days.

MEETING MINUTES

MEETING MINUTES (Continued)

CTA ARCHITECTS ENGINEERS

cc: Attendees/Invitees
Scott Wilson, CTA

PAGE LEFT BLANK
INTENTIONALLY


QUALITY
BOZEMAN
EDUCATION
TD&H
Engineering
bce
STRUCTURAL
JL
Langlas
& Associates
GENERAL CONTRACTOR
CTA