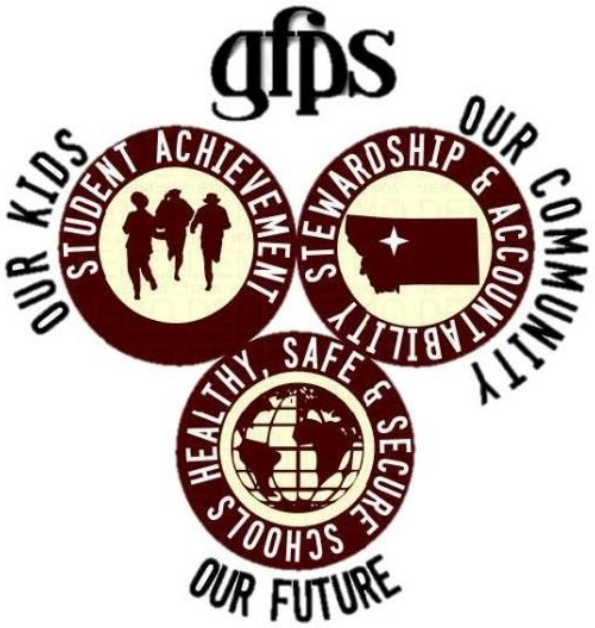

Facility Action Plan

Great Falls Public Schools

Board Approved: February 22, 2016

A conceptual plan to address aging buildings, safety and technology in Great Falls Public Schools. Publish date: April 4, 2016.

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FACILITY ISSUES DEFINED

BUILDING STATUS

Statement of Concern:

A major problem GFPS must address is the current and expected condition of the public's educational buildings. There are 1.9 million square feet of building space in 27 buildings. The buildings are aged and are in need of upgrades and repairs. Some of these needs are critical, meaning they must be done in the very near future, while others can be timed out beyond 20 years. Building systems have a total life expectancy. Many of those systems within the District's buildings have reached or are reaching the end of their life expectancies. Additionally, there is a need for additional multi-purpose space at C.M. Russell High School and shared community athletic spaces need to updated and maintained.

Age of buildings:

BUILDING	DATE BUILT	AGE	BUILDING	DATE BUILT	AGE
ROOSEVELT	1928	88	MORNINGSIDE	1960	56
GFHS	1931	85	RIVERVIEW	1960	56
WHITTIER	1938	78	SUNNYSIDE	1960	56
LOWELL	1939	77	VALLEY VIEW	1960	56
RUSSELL	1939	77	CHIEF JOSEPH	1962	54
PARIS GIBSON	1948	68	SACAJAWEA	1962	54
LINCOLN	1951	65	LOY	1963	53
LONGFELLOW	1952	64	WAREHOUSE	1964	52
WEST ELEMENTARY	1952	64	CMR	1965	51
LEWIS & CLARK	1953	63	MOUNTAIN VIEW	1970	46
EAST MIDDLE SCHOOL	1957	59	SKYLINE	1970	46
DOB	1959	57	NORTH MIDDLE SCHOOL	1970	46
DOB ANNEX	1959	57	BISON FIELDHOUSE	1979	37
MEADOW LARK	1960	56	GROUNDS SHOP	1989	27

TECHNOLOGY

Statement of Concern:

Over the last decade, GFPS has made significant investments in hardware, software, infrastructure, professional development, and support services. Currently, GFPS funds technology investments via a $225,000 perpetual annual technology levy, via E-rate and since the passage of the operational levy in 2014, $300,000 for software subscriptions. The costs of these investments continue to increase without the accompanying increases in funding. All of the GFPS buildings were built before the proliferation of technology. They are not equipped to handle the requirements of a technology rich environment that is currently required of schools.

Fast and reliable wifi is a concern in some schools. The construction of some schools is so dense that wifi solutions are challenging.

The age of the GFPS phone system is a concern. GFPS is tasked with finding a replacement communication system which will undoubtedly incur additional costs.

Video surveillance cameras are an important aspect of the school safety program. As more and more cameras are purchased and installed, there is a concern for the ongoing costs associated with future updates.

INCREASING ENROLLMENT

Statement of Concern:

For the last several years, GFPS and the community has held lots of conversations about enrollment. Of concern are the number of elementary classrooms where the number of students exceeds the accreditation standards for class size. The District will continue to monitor demographic information and to analyze enrollment data and trends. The projects in this plan do not specifically address overloaded classrooms, however some boundary adjustments may be possible given the increased student capacities in the proposed new buildings of Longfellow and Roosevelt.

2013-2016 COMMUNITY INVOLVEMENT:

Community Informational Meetings:

Wednesday, February 25 – 5:30-7:30 – CMR Auditorium
Monday, March 2 – 5:30–7:30 pm – Roosevelt gym
Tuesday, March 10 – 5:30–7:30 pm – Longfellow cafeteria
Wednesday, March 25 – 5:30-7:30 pm – GFH Auditorium

14 Board Work/Public Comment Sessions:

Monday, November 4, 2013, 5:00-8:00 – GFHS South Campus
Tuesday, December 2, 2014, 5:00-7:00 – Aspen
Wednesday, December 10, 2014, 4:30-6:30 – Aspen
Monday, January 5, 2015, 4:30-6:30 – Aspen
Monday, March 30, 2015, 5:30-7:30 – Aspen
Monday, May 11, 2015, 6:30-8:30 – Aspen
Monday, June 15, 2015, 5:30-7:30 – Aspen
Tuesday, July 14, 2015, 5:30-7:30 – Aspen
Tuesday, August 4, 2015, 5:30 -7:30 – Aspen
Monday, August 17, 2015, 5:30-7:30 – Aspen
Monday, August 31, 2015, 4:00-6:00 – Aspen
Monday, November 2, 2015, 5:00-8:00 – GFHS
Monday, December 21, 2015, 5:30-7:00 – Aspen
Tuesday, January 26, 2016, 5:30-7:30 – Aspen

OWNER'S REPRESENTATIVE/CONSULTANT

In order to ensure the viability and feasibility of the final concepts to address the facility needs and to ensure the reasonability of the cost estimates, an owner's representative was sought and subsequently hired.

At the August 31, 2015 Board meeting, the Board requested that a Request For Qualifications (RFQ) be created to solicit the help of a firm or individual to help the district manage all aspects of planning, design, and construction of the Facilities Plan. At the September 14, 2015 Board meeting, the Board approved advertising a Request for Qualifications for an Owner's Facility Planning/Construction Representative. Applications were due October 2, 2015. On October 13, 2015, the interview committee selected Hulteng CCM, Inc. as the top candidate to serve as the Owner's Facility Planning/Construction Representative.

Hulteng CCM, Inc. was established solely for the purpose of providing construction consulting services to a wide range of clients and which consists of: Owners' Representatives, project management, construction management, construction cost consulting, construction project scheduling, and expert witness work including trial testimony and litigation support. Current and past clients include: Billings Public Schools, Glasgow School District #1A, Billings Catholic Schools, Lame Deer School, Yellowstone County, the State of Montana, the State of Wyoming, numerous individuals, corporations and law firms.

The following Hulteng team members working with GFPS are:

- Shane Swandal, Principal-in-charge
- Eric Hulteng, Principal
- Andy Becker, Senior Project Manager
- William "BJ" Williams, Project Manager
- Ken Elliott, Project Manager (special emphasis in hazardous materials)

In order to evaluate cost proposals, fees, budgets, and change orders, Hulteng has in-house estimating capabilities with qualified estimators in their office. They conduct side-by-side comparative cost estimates with both the contractors and consultants, and have in-depth meetings to discuss findings and assessments. Using these proven processes, Hulteng made adjustments to the cost estimates originally set forth by GFPS. The cost estimates included in this plan have been adjusted accordingly.

K-8 FACILITY ISSUES ADDRESSED

1. Upgrade Infrastructure in All K-8 Buildings (except Longfellow and Roosevelt)

PROJECT PURPOSE(S):

- Address infrastructure upgrades depending on the needs of the schools

PROJECT OVERVIEW: These high priority infrastructure items have been identified in order to address the challenges presented by aging buildings:

K-6:

Chief Joseph
Lockdown Warning Lights
*Mechanical System Upgrade
Gym Foundation Repair & Remodel
Foundation Repair & Stabilization

Lewis & Clark
*Mechanical System Upgrade
Domestic Water Piping Upgrade

Lincoln
*Mechanical System Upgrade
ADA Compliant Lift Install

Loy
*Mechanical System Upgrade
Manual Excavation of Tunnels
Parking/Bus/Traffic Safety Improvements
Electrical Upgrades

Meadowlark
*Mechanical System Upgrade
Parking/Traffic Safety Improvements

Morningside
Electrical Upgrade
Temperature Control Upgrade
Water Main Line Replacement
Foundation Repair & Stabilization

Mountain View
Conversion of Storage to Education Space

Riverview
*Mechanical System Upgrade

Sacajawea
*Mechanical System Upgrade

Sunnyside
*Mechanical System Upgrade
Electrical Upgrade

West
*Mechanical System Upgrade
Exterior Auditorium Stair Replacement

Valley View
*Mechanical System Upgrade

Whittier
*Mechanical System Upgrade
Elevator Installation
Foundation Repair & Stabilization

7-8:

East Middle School
*Mechanical System Upgrade
Fire Alarm System Replacement
Roof Repair
Partial Window Replacement

North Middle School
Fire Alarm System Replacement
Fire Suppression System Upgrade
Exterior Door Replacement
*Mechanical System Upgrade
Partial Roof Replacement
Foundation Repair & Stabilization
Remodeling Due to Foundation Repair

***Mechanical System Upgrade** includes:

- Boiler replacement
- Air handling equipment upgrades
- Heating, ventilation, and air controls upgrades
- Related equipment upgrades

PROJECT RATIONALE: The public indicated that a concerted effort is needed to address the infrastructural needs of every building. Each school's projects are summarized below:

- Chief Joseph: This building has major structural and foundation issues caused by settling. The mechanical (HVAC) system needs to be updated. The pneumatic controls have major problems and will be replaced by a digital system. The installation of lockdown warning lights will make for safer communications.
- Lewis and Clark: The mechanical (HVAC) system needs to be updated to digital controls to provide for better energy efficiency which will result in energy savings and the steam system needs repair. Some of the domestic water piping needs to be replaced.
- Lincoln: The two boilers are original to the building and are far past life expectancy. There is currently a lift in the building, but it doesn't serve the kindergarten wing. Another ADA (Americans with Disabilities Act) compliant lift is necessary for accessibility.
- Loy: The existing boiler is nearing end of life. Parking lot revisions provide a safer environment for parents, students, and buses. The school's electrical system requires a new distribution panel to supply the needed circuits for the addition and expansion of computer labs, IDFs, and other technology endeavors. The steam and condensate lines as well as other infrastructure items need to be excavated as they are under soil deposited by flooding and are corroding very rapidly.
- Meadow Lark: The existing boiler is nearing end of life. Parking lot upgrade will solve water run-off issues while providing safer drop off and pick up of students along with additional parking.
- Morningside: The mechanical (HVAC) system needs to be updated to digital controls to provide for better energy efficiency which will result in energy savings. Walls are in need of repair due to settling. The school's electrical system requires a new distribution panel to supply the needed circuits for the expansion of technology and infrastructure. The water line continues to have breaks which necessitate a new water line.
- Mountain View: A large and mostly unused space will be converted into an instructional/classroom space to increase the functional capacity.
- Riverview: The boilers which are original to the building will be end of life in the next few years. The mechanical (HVAC) system needs to be updated to digital controls to provide for better energy efficiency which will result in energy savings.
- Sacajawea: The boilers which are original to the building will be end of life in the next few years.
- Sunnyside: The boilers which are original to the building will be end of life in the next few years. The school's electrical system requires a new distribution panel to supply the needed circuits for the expansion of technology and infrastructure.
- West: The boilers, which are original to the building, need to have the tubes replaced. The mechanical (HVAC) system needs to be updated to digital controls to provide for better energy efficiency which will result in energy savings. The stairs leading to the auditorium and used as the entrance/exit to the buses are steep, cracking and not handicap accessible and will be replaced.
- Valley View: The boilers which are original to the building will be end of life in the next few years.
- Whittier: The boilers will need to be replaced in the next few years. To meet the Americans with Disabilities Act (ADA), an elevator needs to be installed. Settling floors need to be repaired and leveled.
- East: Boilers will need to be replaced. A shop electrical upgrade is recommended for student safety. The Fire Alarm System is at its end of life. Major work needs to be done to valves & piping which will pay back in energy savings. Hallway emergency strobes need to be installed to provide a safe environment for handicapped students including students who attend classes from the Montana School for the Deaf and Blind. Windows need to be replaced which will provide for energy savings.
- North: Boilers are original to the building and are nearing end of life. The main walkway & doors are in need of replacement. The Fire Alarm system is nearing end of life. Roof repair will keep water out of the building. Strobe lights need to be installed in high noise classrooms, which include shop and music, for notification purposes. The building has faced substantial foundation shifting which causes the need for stabilization and repair.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Work will need to be spread out over time to allow for the least amount of disruption to educational programming during the school year.
- The identified projects for the bond levy do not include any and all work to be done. Ongoing repair and maintenance from current budgets are assumed.
- The identified projects are those identified to be completed within a 5-year timeframe. There are other infrastructure needs and requirements beyond the 5 years.
- Scope of work will require passage of a bond levy.

PROJECT COST ESTIMATES:

• K-6 excluding Longfellow and Roosevelt (13 buildings)	$7,304,681
• Middle Schools (2 buildings)	$5,418,370
TOTAL FOR K-8	**$12,723,051**

2. Replace Phone System

PROJECT PURPOSE(S):

- Replace 950 K-8 phones and the phone system that was originally purchased in 1998 with a modern Voice Over IP system

PROJECT OVERVIEW:

- Purchase and install a new Voice Over IP system that:
  - Ties in with the Microsoft Active Directory system
  - Has advanced Emergency-911 Notification Services
  - Is fault tolerant which allows it to remain operational during power failures

PROJECT RATIONALE:

- It makes sense to replace the 18-year old phone system because:
  - According to the industry, it reached its end-of-life in 2009.
  - The manufacturer is no longer in business and therefore parts to make repairs are no longer manufactured.
  - The District is running out of in-stock parts and parts that can be found on internet sites.
  - There are frequent outages leaving schools without phone communication while technicians piece it back together. This not only compromises parents' and others' abilities to communicate with the schools, it can also compromise communications required for safety and security purposes.
  - It is feared that a major failure of the current phone system could leave schools without communication for a significant period of time as the District explored options.
  - The Voice Over IP system is the most commonly used in modern organizations and is considered best practice.
  - This concern was first identified in 2008 at a cost of $1.2M. The cost has decreased.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Scope of work requires passage of a bond levy.

PROJECT COST ESTIMATES:

TOTAL FOR K-8	**$500,000**

3. Build a New School to Replace Roosevelt Elementary School

PROJECT PURPOSE(S):

- Construct a modern elementary school to replace an 88-year old building in a safer location at the current location of the Building and Grounds Headquarters at the old Lowell Elementary School, 3117 5th Ave. N. See map in Appendix B.

PROJECT OVERVIEW:

- Upgrade Russell Elementary (2615 Central Ave. W.) See map in Appendix C.
    - Renovation of ceilings, floor coverings, walls/doors finishes, lighting, etc.
    - Mechanical System Upgrade
    - Exhaust system
    - Exhaust system
    - New Construction 80' x 180' building
- Continue to accommodate technology work space at Russell Elementary
- Relocate the Buildings and Grounds (B&G) Department housed at Lowell (3117 5th Ave. N.) to Russell Elementary
- Relocate B&G located at the District Office Building (DOB) to Russell Elementary
- Relocate the Environmental Education Department from Lowell to Paris Gibson Education Center (PGEC)
- Demolish Lowell
- Construct a new school on the 5th Ave. N. property

PROJECT RATIONALE:

- It makes sense to build a replacement building for Roosevelt.
    - It is 88 years old and its infrastructure is suffering from age. A very conservative estimate of repairs that need to done in the next 10 years is over $1M with more anticipated to include major plumbing and structural fixes.
    - It is not a viable educational building for another 50 years.
    - The location of Roosevelt, surrounded by 3 heavily trafficked one-ways, is less than ideal. There are safety issues for students and parents due to the traffic.
    - Enrollment is projected to slightly increase and this northside neighborhood has affordable housing which leads to predictions that this will continue to be a family-oriented area.
    - Annual operational savings will occur because the building will include many modern energy saving measures.
- It makes sense to build the replacement building at Lowell.
    - The District already owns the property.
    - There will be no disruption of the educational school year as this location does not serve students on a regular basis.
    - Relocation of current departments and programs at Lowell is possible.
    - It is only 9 blocks between the two sites so it is still within the neighborhood.
- It makes sense to relocate all Buildings & Grounds departments to Russell Elementary.
    - Better coordination of efforts
    - The amount of space available is conducive to this department's needs.
- It makes sense to relocate Environmental Education at PGEC.
    - It is centrally located and has good bus access to drop off students for instruction
    - There is classroom space that is available with no need for modification

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Russell Elementary is not centrally located so there will be travel time from the westside to eastside. This can be mitigated by proper dispatching.
- Boundaries may need to be reviewed and there may be busing/transportation implications.
- Preschool opportunities should be considered.
- It will require the moving of programs and departments.
- Scope of work will require passage of a bond levy.

PROJECT COST ESTIMATES:

• Costs of Russell Elementary renovation & construction of building	$ 2,498,554
• Demolition of Lowell and construction of new school	$14,952,217
• Moving expenses – TBD	
TOTAL	**$17,450,771**

4. Build a New School to Replace Longfellow Elementary School

PROJECT PURPOSE(S):

- Construct a modern elementary school to replace a 64-year old building with considerable structural concerns. See map in Appendix D.

PROJECT OVERVIEW:

- Relocate and transport Longfellow students to Roosevelt Elementary once Roosevelt students have moved to their new school
- Demolish current building
- Construct a new school on the same block of land where Longfellow is currently located (1101 6th Ave. S.)

PROJECT RATIONALE:

- It makes sense to build a replacement building for Longfellow.
  - It is 64 years old and its infrastructure is suffering from age and from structural issues caused by an unstable foundation. A very conservative estimate of repairs that need completed in the next 10 years is over $2.3M with little confidence that the repairs will fix the foundational issues.
  - It is not a viable educational building for another 50 years.
  - The location of Longfellow is strategic. It serves a low-income neighborhood and is easily accessible on foot or by public transportation. It serves as a "community center" for this neighborhood.
  - Enrollment is projected to increase and this southside neighborhood has low-income housing which leads to predictions that this will continue to be a family-oriented area.
- It makes sense to build the replacement building on its current site.
  - The District already owns the property.
  - Modern engineering can solve the foundational issues that exist.
  - With the right design, an even better community center concept could be built.
  - Annual operational savings will occur because the building will include many modern energy saving measures.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Timing would require the relocation of the entire student body to a different location while the new school is built. There is not enough lot space to build and have school in the current building.
    - Option: Relocate to the current Roosevelt school once that student body has been moved to its new school.
    - Transportation will be an issue during this phase.
- Boundaries may need to be reviewed.
- Headstart and preschool opportunities should be considered.
- Scope of work will require passage of a bond levy.

PROJECT COST ESTIMATES:

• Demolition of Longfellow and construction of new school	$15,233,211
• Moving expenses	Existing Resources
TOTAL	**$15,233,211**

9-12 FACILITY ISSUES ADDRESSED

5. Replace Phone System

PROJECT PURPOSE(S):

- Replace 450 high school phones and the phone system that was originally purchased in 1998 with a modern Voice Over IP system

PROJECT OVERVIEW:

- Purchase and install a new Voice Over IP system that:
  - Ties in with the Microsoft Active Directory system
  - Has advanced Emergency-911 Notification Services
  - Is fault tolerant which allows it to remain operational during power failures

PROJECT RATIONALE:

- It makes sense to replace the 18-year old phone system because:
  - According to the industry, it reached its end-of-life in 2009.
  - The manufacturer is no longer in business and therefore parts to make repairs are no longer manufactured.
  - The District is running out of in-stock parts and parts that can be found on internet sites.
  - There are frequent outages leaving schools without phone communication while technicians piece it back together. This not only compromises parents' and others' abilities to communicate with the schools, it can also compromise communications required for safety and security purposes.
  - It is feared that a major failure of the current phone system could leave schools without communication for a significant period of time as the District explored options.
  - The Voice Over IP system is the most commonly used in modern organizations and is considered best practice.
  - This concern was first identified in 2008 at a cost of $1.2M. The cost has decreased.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Scope of work requires passage of a bond levy.

PROJECT COST ESTIMATES:

TOTAL FOR 9-12	**$250,000**

6. Upgrade Memorial Stadium

PROJECT PURPOSE(S):

- Address the need for upgrades and repairs to District athletic facilities

PROJECT OVERVIEW:

- Install artificial turf on Memorial field
- Resurface the Memorial Stadium track

PROJECT RATIONALE:

- Artificial turf offers:
  - Lower maintenance costs for mowing, watering and field preparation
  - No pesticides or fertilizers
  - Fewer injuries
  - Water savings
  - Increased playing time and field access
  - Eliminates the need for periodic "Crowning" of natural field surface (expensive)
  - Eliminates the need for total replacement of the failing irrigation system
- It makes sense that the Memorial track would be resurfaced at the same time that the field is being renovated due to the extensive nature of that construction.
- The track needs to be periodically resurfaced due to:
  - The heavy use and wear over time
  - Freezing and thawing effects the subsurface and overcoat layers

PROJECT IMPACTS AND/OR CONSEQUENCES:

- The timing of the construction of Memorial Field would be crucial for football season. If the construction began as soon as the spring track season ended, the field would be complete for the fall football season.
- If artificial turf is not installed, the surface needs to be crowned in the near future which is expensive. Without turf, the entire irrigation system needs to be replaced in the very near future as well.
- The proposed upgrades will provide improved opportunities for both high schools and extended access by the community for Memorial Field use.
- The proposed projects can be partially paid for by reserve funds that the district is currently holding. However, the remaining costs will require passage of a bond levy.

PROJECT COST ESTIMATES AND PROPOSED FUNDING SOURCES:

Area	**Cost**
Artificial turf Memorial Stadium	$800,000
Track upgrades at Memorial Stadium	$225,000
Total	**$1,025,000**

Sources of Funding:

Existing Athletic Reserve Funds: **$320,000**
Bond Levy: **$705,000**

Total **$705,000**

7. Upgrade Paris Gibson Education Center Infrastructure

PROJECT PURPOSE(S):

- Address the infrastructure, safety and accessibility needs of a 68-year old building

PROJECT OVERVIEW:

- Partial Roof Replacement
- *Mechanical System Upgrade
- Window Replacement in Cafeteria and Library
- Installation of an Elevator, Elevator Shaft and Enclosure, and Stair Lifts
- Plumbing Upgrades
- Cafeteria Furnishing Upgrade

PROJECT RATIONALE: As PGEC is 68 years old, it is time to attend to several infrastructural concerns:

- There are major roof repairs needed to keep water and mold out of the building.
- The burner needs to be replaced in one of the boilers.
- The mechanical (HVAC) system needs to be updated to digital controls to provide for better energy efficiency which will result in energy savings.
- The heating and plumbing piping, drains, vents, and fittings are corroded to such an extent that most can no longer be feasibly repaired, but must be replaced.
- Windows need to be replaced which will provide for energy savings.
- To meet the Americans for Disabilities Act (ADA), an elevator and stair lift need to be installed.
- The tables in the cafeteria are heavily used by the district for events and are at end-of-life and therefore need to be replaced.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Safety and security issues during construction
- Maintaining an instructional environment during construction
- Upgrades and renovations are expensive and sometimes uncover unknowns
- Scope of work requires passage of a bond levy

PROJECT COST ESTIMATES:

TOTAL	**$3,352,560**

***Mechanical System Upgrade** includes:

- Boiler replacement
- Air handling equipment upgrades
- Heating, ventilation, and air controls upgrades
- Related equipment upgrades

C.M. Russell High School Concepts

8. Upgrade CMR Infrastructure

PROJECT PURPOSE(S):

- Address the infrastructure, safety and technology needs of a 51-year old building

PROJECT OVERVIEW:

- Fire Alarm System Replacement
- *Mechanical System Upgrade
- Plumbing Upgrade
- Foundation Repair & Stabilization
- Elevator Repair
- Perimeter Sidewalk Repair
- Partial Locker & Bleacher Replacement
- Window Panel Replacement

PROJECT RATIONALE: In 2015 CMR celebrated its 50th birthday and it is time to upgrade.

- It makes sense to upgrade mechanical (HVAC), plumbing and water main to ensure:
  - A comfortable learning environment
  - Efficient and cost effective ways of heating the buildings
  - Water and toilets are available to building inhabitants
- It makes sense to upgrade the fire alarm system to bring the building up to current safety expectations
- It makes sense to fix foundation and cement/sidewalk issues to repair current problems and prevent further issues associated with settlement.
- It makes sense to repair/replace the elevator to comply with ADA specifications. Future repairs will only become more costly
- The wear and tear on lockers is significant as students access them six to seven times per day.
- The upper sections of the bleachers are damaged and need replacing.
- The windows are original to the building and the plastic panels are cracking and need replaced.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Safety and security issues during construction
- Maintaining an instructional environment during construction
- Upgrades and renovations are expensive and sometimes uncover unknowns
- Scope of work requires passage of a bond levy

PROJECT COST ESTIMATES:

TOTAL	**$4,364,844**

***Mechanical System Upgrade** includes:

- Boiler replacement
- Air handling equipment upgrades
- Heating, ventilation, and air controls upgrades
- Related equipment upgrades

9. Construct CMR Multipurpose Space, Upgrade the Athletic Facilities and Add STEM Classrooms

PROJECT PURPOSE(S):

- Provide additional space for student activities and community access that are part of GFPS comprehensive educational programming
- Provide adequate classroom space for Science, Technology, Engineering & Math (STEM) education.

PROJECT OVERVIEW: See map in Appendix E.

- Construction of a two-story multipurpose space to include an athletic practice facility located adjacent to the current fieldhouse & connected to current gym for shared access to locker rooms, etc.
- Refurbish track and Pride Field
- Construct a 6,000 square foot addition to provide a minimum of two new classrooms for STEM education and to provide a secure connection between the main campus and the current Career and Technical Education (CTE) building.

PROJECT RATIONALE: In 2015, CMR celebrated its 50th birthday and it is time to upgrade.

- It makes sense to build a multi-purpose learning space because:
  - Gym practice space is minimal and in dire need (some teams practice at West and PGEC)
  - Three physical education classes are conducted at the same time in the same space
  - Visitor gathering area and concessions area inadequate
  - Inadequate wrestling practice area
  - In adequate/antiquated weight and workout facilities for AA competition
  - This need was identified in 1991 with no progress on a solution
- It makes sense to refurbish the track and Pride Field
  - Due to the proximity of the track & field to the anticipated multipurpose space construction, it is anticipated there will be some disruption to the surfaces so repair will need to be done anyway.
  - Pride Field is the site of all sub-varsity CMR football games and is the varsity practice field so it gets a lot of play and use.
  - Health enhancement classes also use it when the weather is nice but they are not able to use Pride Field in the spring due to the fragile nature of the grass.
  - The track has not seen a major renovation since being built in approximately 1968. Putting an all-weather surface on it will create a versatile environment for years to come.
  - Creating a level grade between the track and football field increases safety.
- It makes sense to add construct 6,000 new square feet of STEM classroom space
  - It allows for CMR students to have access to current best practices in STEM education in order to prepare them to be competitive in the workplace and college.
  - It allows for the security and safety of students and staff as they utilize an enclosed corridor between the main campus and the CTE building.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Safety and security issues during construction
- Maintaining an instructional environment during construction
- Comparability with other AA school environments

PROJECT COST ESTIMATES:

• Multi-purpose space and track/field upgrades	$5,452,200
• STEM Classrooms	$1,500,000
TOTAL	**$6,952,200**

Great Falls High School Revitalization Concepts

10. Upgrade GFHS Main Campus Infrastructure, Classrooms, Parking and Technology

PROJECT PURPOSE(S): See improve the educational environment and safety:

- Address infrastructure needs for mechanical, electrical, & plumbing operations
- Increase natural lighting through a window replacement project
- Create a 21st century learning environment.
- Address parking and access concerns.

PROJECT OVERVIEW:

- A new heating and ventilation system will be installed and commissioned.
- Replacement of electrical receptacles, circuits and breakers throughout the building.
- Replacement of pipes, sinks, toilets and water fountains throughout the building.
- Provide support and matching funds for community effort for new windows.
- Remodel classrooms in conjunction with the mechanical, electrical, plumbing and technology upgrades.
- Develop new parking areas.
- Upgrade the technological infrastructure for current and future bandwidth demands
  - Requires Fiber mainline in building and fiber peripheral to each class room
  - Central hub and switches with terminal locations to accommodate fiber in each classroom
  - Projection devices and flexible technology in classrooms for more versatility in teaching
- Install accessible and versatile wireless throughout the common spaces for student, faculty and visitor use for teaching and learning

PROJECT RATIONALE: As the public indicated that they preferred to upgrade GFHS instead of building a new high school, the scope of the work is large but necessary.

- It makes sense to upgrade mechanical (HVAC), electricity and plumbing to ensure:
  - A comfortable learning environment
  - Efficient and cost effective ways of heating the buildings
  - Adequate electrical infrastructure for modern technology and electrical needs
  - Water and toilets are available to building inhabitants
- It makes sense to replace the windows because:
  - Natural light creates a better learning environment
  - They improve the outside aesthetics of the building
  - There is community support of this project
- It makes sense to remodel classrooms as the mechanical (HVAC), electrical, plumbing and technology upgrades happen:
  - Access to these items will necessitate some destruction of current walls, cabinets, etc.
  - This will modernize classrooms and make them viable for years to come
- It makes sense to establish additional parking because:
  - The availability of parking is inadequate
  - Special event parking is especially problematic
  - Will increase the safety of students, staff, neighbors and visitors
- It makes sense to upgrade the GFHS technological footprint because:
  - Original building construction has posed major hurdles and restrictions to current upgrades
  - To do so during major reconstruction of classroom and common space makes sense

- A (fiber) backbone to support technology into the foreseeable future of the high school will pay off in the long run
- Flexible access to technology will drive versatility of instruction
- Students are engaged when teachers plan effective use of integrated technology and when technology is available "on demand" for students and instructors

PROJECT IMPACTS AND/OR CONSEQUENCES:

- As GFHS is on the Historical Register, historical preservation will need to be evaluated and considered for all projects
- Work will need to be phased to ensure the least amount of disruption during the school year
- As work is done in the Main Campus, classrooms will be relocated to the new classroom spaces created in the CTE/Hub construction which will be completed first.
- To do all projects, will need other sources of funding. For example, window replacement via private donations is assumed. This plan assumes there will be private donations for some projects.
- Parking upgrades may need to utilize current green spaces
- Parking upgrades may require a need to secure additional land
- Scope of work requires passage of a bond levy

PROJECT COST ESTIMATES:

TOTAL **$20,758,574**

11. Upgrade GFHS Career & Technical Education (CTE) Facilities, Lunch/Dining Areas, and Building Entrances; Add STEM and CTE Classrooms

PROJECT PURPOSE(S): Upgrade and expand Career and Technical Education (CTE) learning spaces

- New construction of a "hub" area:
  - To allow for expanded classrooms for CTE and Science, Technology, Engineering and Math (STEM)
  - For modern lunch/dining facilities and student gathering areas
  - For obvious and accessible access to the Main Campus, Fieldhouse and South Campus
  - For indoor and efficient traffic flow within and between the two campuses

PROJECT OVERVIEW:

Construction of a new Career and Technical Education (CTE)/Hub facility to be located between the current Main Campus, CTE building and South Campus. See conceptual drawing in Appendix F.

PROJECT RATIONALE:

- It makes sense to remodel and expand the CTE facility in conjunction with construction of a hub because:
  - Current building space is inadequate for current program needs, i.e welding and metals manufacturing, construction technology program, etc.
  - The current facility does not allow for flexibility of programmatic changes as workforce training demands change
  - There is inadequate project and material storage space
  - There is inadequate classroom space
  - The CTE program can be effectively integrated with the STEM programs when in proximal space.

- It makes sense to build a hub between the two buildings because:
  - STEM classroom space and school operations can be located in the hub, freeing up areas in the existing building for enlargement of classrooms and enhancement of current learning space on the Main Campus.
  - It provides for new dining and gathering spaces with the hopes of keeping students on campus during lunch. This generation of students enjoy casual gathering places that are woefully lacking on both campuses. Having this kind of space will create a more positive school climate.
  - It provides for an obvious, attractive and accessible entrance to both campuses. Currently, guests to the Fieldhouse and to the school often cannot determine where to enter. Handicap accessibility is very awkward and limited. It would also allow for a single and efficient point of entrance for emergency responders which is currently lacking.
  - It addresses student and public foot traffic flow. By creating indoor traffic flow within and between the two campuses, safety concerns are addressed. Currently, the passage between the two buildings from November through March can be treacherous at times due to the slope, northside shading and the propensity for ice accumulation. These safety concerns would be eliminated. It would also allow for less congested hallways & more consistent adult supervision.
  - It enhances safety and security during a situations that require lockdown procedures. Currently, there is a vulnerability during these times as students pass in the open air between the buildings. As all travel would be indoors, students can be better protected.
  - The hub would be constructed before the Main Campus revitalization project begins. Once completed, students and staff would be temporarily located in the new hub classrooms on a rotating basis as the revitalization takes place. This eliminates the need for off-site locations and related expenses.

PROJECT IMPACTS AND/OR CONSEQUENCES:

- Historical preservation will need to be evaluated and considered for all projects
- Work will need to be phased to ensure the least amount of disruption during the school year
- As work is done in the Main Campus, classrooms will be relocated to the new classroom spaces created in the CTE/Hub construction which will be completed first.
- Scope of work requires passage of a bond levy

PROJECT COST ESTIMATES:

TOTAL	**$16,568,574**

SUMMARY OF PROJECTS:

K-8 FACILITY ISSUES ADDRESSED

1. Upgrade Infrastructure in All K-8 Buildings **$12,723,051**
2. Build a New School to Replace Roosevelt Elementary **$17,450,771**
3. Build a New School to Replace Longfellow Elementary **$15,233,211**
4. Replace Phone System **$ 500,000**

SUBTOTAL K-8 **$45,907,033**

9-12 FACILITY ISSUES ADDRESSED

1. Replace Phone System **$ 250,000**
2. Upgrade Memorial Stadium **$ 705,000**
3. Upgrade Paris Gibson Education Center Infrastructure **$ 3,352,560**
4. Upgrade CMR Infrastructure **$ 4,364,844**
5. Construct CMR Multipurpose Space, Upgrade the Track/Field and Add STEM Classrooms **$ 6,952,200**
6. Upgrade GFHS Main Campus Infrastructure, Classrooms, Parking and Technology **$20,758,574**
7. Upgrade GFHS Career & Technical Education (CTE) Facilities, Lunch/Dining Areas, and Building Entrances; Add STEM and CTE Classrooms **$16,568,574**

SUBTOTAL 9-12 **$52,951,752**

TOTAL **$98,858,785**

ESTIMATE OF PROPERTY TAX IMPACTS

On September 14, 2015, the GFPS Board of Trustees approved a Bond Underwriting Engagement Agreement with D.A. Davidson which allows D. A. Davidson to offer guidance in the area of bonds to GFPS. They have prepared the following preliminary estimate that indicates a cost of $68.74 on a $100,000 taxable valued home. See footnotes for estimate information:

D|A DAVIDSON
FIXED INCOME CAPITAL MARKETS
D.A. Davidson & Co. member SIPC

Feb-16

Great Falls Public Schools

Estimated MILL LEVY IMPACT ANALYSIS

General Obligation Tax-Exempt Bonds - 20 Year Term

Mill Levy Computation:	ESD	HSD
Principal Amount:	$45,907,033	$52,951,752
Estimated Annual Payment (1):	$3,453,119	$3,983,022
LESS: Estimated Annual State Aid for Debt Service (2):	$585,771	$333,842
EQUALS: Estimated Net Annual Debt Service:	$2,867,348	$3,649,180
DIVIDED BY: FY 2015/16 Mill Value:	$126,467.3	$129,195.5
EQUALS: Estimated Number of Mills Required:	22.67	28.25

Estimated Tax Increase for Individual Residential Taxpayer:

2015/16 Tax Year "ASSESSED VALUE" of Residential Property(3)	2015/16 Tax Year "TAXABLE VALUE" of Residential Property(3)	Estimated ANNUAL Tax (4)	Estimated ANNUAL Tax (4)
$25,000	$338	$7.65	$9.53
$50,000	$675	$15.30	$19.07
$75,000	$1,013	$22.96	$28.60
$100,000	$1,350	$30.61	$38.13
$150,000	$2,025	$45.91	$57.20
$200,000	$2,700	$61.22	$76.26
$250,000	$3,375	$76.52	$95.33
$300,000	$4,050	$91.82	$114.39

All property owners (including farming and ranching operations, commercial businesses, home owners etc...) should use the following formula to calculate the estimated tax impact of the Bond issue.

Taxable Value (From personal tax statement or column 3 above) X ("Mills/1000") = Estimated Annual Tax Impact.

footnotes:

(1) Based on estimated true interest cost rates with conservative sample rates of 4.25%.

(2) The estimated effects of State aid for debt service have been calculated using the current estimated eligibility for Great Falls Elem and HS Districts. The Office of Public Instruction's estimates are based 2015/16 variables (which change annually) and depend on appropriation by the Legislature for the biennium. As additional qualifying districts sell bonds, the amount of State aid for individual districts will decrease each year without an offsetting increase in the total amount appropriated by the State. THE AMOUNT, IF ANY, OF FUTURE BIENNIAL APPROPRIATIONS IS UNKNOWN.

(3) Based upon Class 4 residential property. To better calculate the estimated tax impact of the bond issue, property owners should look up their exact taxable value as shown on their personal tax statement and use the formula shown above in grey.

(4) Tax Impacts are based on property tax legislation adopted at the 2015 Legislative Session, which implemented the 2014 Department of Revenue reappraisal effective for the 2015/16 and 2016/17 tax years. Tax impact information varies every year depending on such factors as District Mill Value, State reimbursement (if any), method of calculating taxable valuation and actual debt service.

Appendix A: Glossary of Terms and Acronyms

AA The GFPS district classification based on the Montana High School's distinctions based on enrollment. GFPS is one of seven AA districts in Montana. The others are: Billings, Bozeman, Butte, Helena, Kalispell, and Missoula.

ADA The Americans with Disabilities Act, passed in 1990, is a wide-ranging civil rights law that is intended to protect against discrimination based on disability. It affords similar protections against discrimination to Americans with disabilities as the Civil Rights Act of 1964, which made discrimination based on race, religion, sex, national origin, and other characteristics illegal. The ADA also requires covered employers to provide reasonable accommodations to employees with disabilities, and imposes accessibility requirements on public accommodations.

B & G Buildings and Grounds; the GFPS department in charge of providing safe, clean and comfortable environments for our students, staff and community members.

Bond Election A bond is a debt obligation school districts may ask voters to approve. If approved through a ballot election, it allows the district to gain money from investors that can be used for capital spending projects such as new schools. The bond amount gained from investors is provided to the district in one payment but is paid back by taxpayers over time. Once the debt is paid off, the taxpayers no longer are taxed. In Montana, there are very specific laws that govern bond elections for school districts. They start here: http://leg.mt.gov/bills/mca/20/9/20-9-402.htm. Click on "Next Section" at the top. MCA 20-9-402 through MCA 20-9-446 governs bonding.

CCM Construction, Consulting, Management

CMR Charles M. Russell High School, 228 17th Ave. NW, Great Falls, MT

CTE Career and Technical Education includes rigorous and relevant coursework preparing students for a wide range of high-wage, high-skill, and high-demand careers. CTE combines core academic skills with employability skills and technical, job-specific skills in the following areas: Business, Computer Science, Health Science, Family Consumer Science, and Industrial Technology.

DOB District Offices Building-The administrative offices for GFPS located at 1100 4th St. S.

E-Rate The commonly used name for the Schools and Libraries Program of the Universal Service Fund. The program provides discounts to assist schools and libraries in the United States to obtain affordable telecommunications and Internet access. It is one of four support programs funded through a Universal Service fee charged to companies that provide interstate and/or international telecommunications services.

FTE Full Time Equivalent. Example: three people who work half time would combined have an FTE of 1.5

Functional Capacity Capacity is the number of students that can be reasonably accommodated by a school building and site taking into consideration physical, operational, and programmatic variables. The functional capacity is a ratio that considers curriculum and program offerings.

GFHS Great Falls High School, 1900 2nd Ave. S., Great Falls, MT

GFPS Great Falls Public Schools

HUB Term used to describe the proposed connector building to be built between Main Campus and South Campus at Great Falls High School.

HVAC Heating, ventilating, and air conditioning; synonymous with "mechanical systems"; is the technology of indoor environmental comfort. Its goal is to provide thermal comfort and acceptable indoor air quality. HVAC system design is a sub discipline of mechanical engineering, based on the principles of thermodynamics, fluid mechanics, and heat transfer.

IDF's The Intermediate Distribution Frame (IDF) is a central location where computer wiring from classrooms is combined and connected to network equipment. The network equipment in the IDF is then connected by either fiber optic cable or traditional computer wire to a main distribution point in the building. For example, an IDF might be located on each floor of a multi-floor building routing the cabling down the walls to a Main Distribution Frame (MDF) on the first floor. The MDF would contain cabling that would interconnect to a centrally located data center that could be several blocks or miles away.

IT Information Technology is the use of any computers, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data.

Montana Accreditation Standards Standards for School Accreditation as per 20-7-101 MCA: (1) Standards of accreditation for all schools shall be adopted by the board of public education upon the recommendations of the Superintendent of Public Instruction.
http://www.opi.mt.gov/Programs/SchoolPrograms/Accreditation/index.html

Refresh Schedule The schedule at which technology is replaced in the district. Currently, the district purchases two year old computers, use them for five years, and then the computers are replaced.

PGEC Paris Gibson Education Center, 2400 Central Ave., Great Falls, MT

STEM This acronym, an educational term used worldwide, refers to the academic disciplines of science, technology, engineering, and mathematics. The term is typically used when addressing education policy and curriculum choices in schools to improve competitiveness in science and technology development. It has implications for workforce development.

TBD To be determined

VOIP Voice Over Internet Protocol is basically a telephone connection over the Internet. The data is sent digitally, using the Internet instead of analog telephone lines. This allows people to talk to one another long-distance and around the world without having to pay long distance or international phone charges. This technology uses the same wiring and network equipment as computers which consolidate voice and data across the same network.

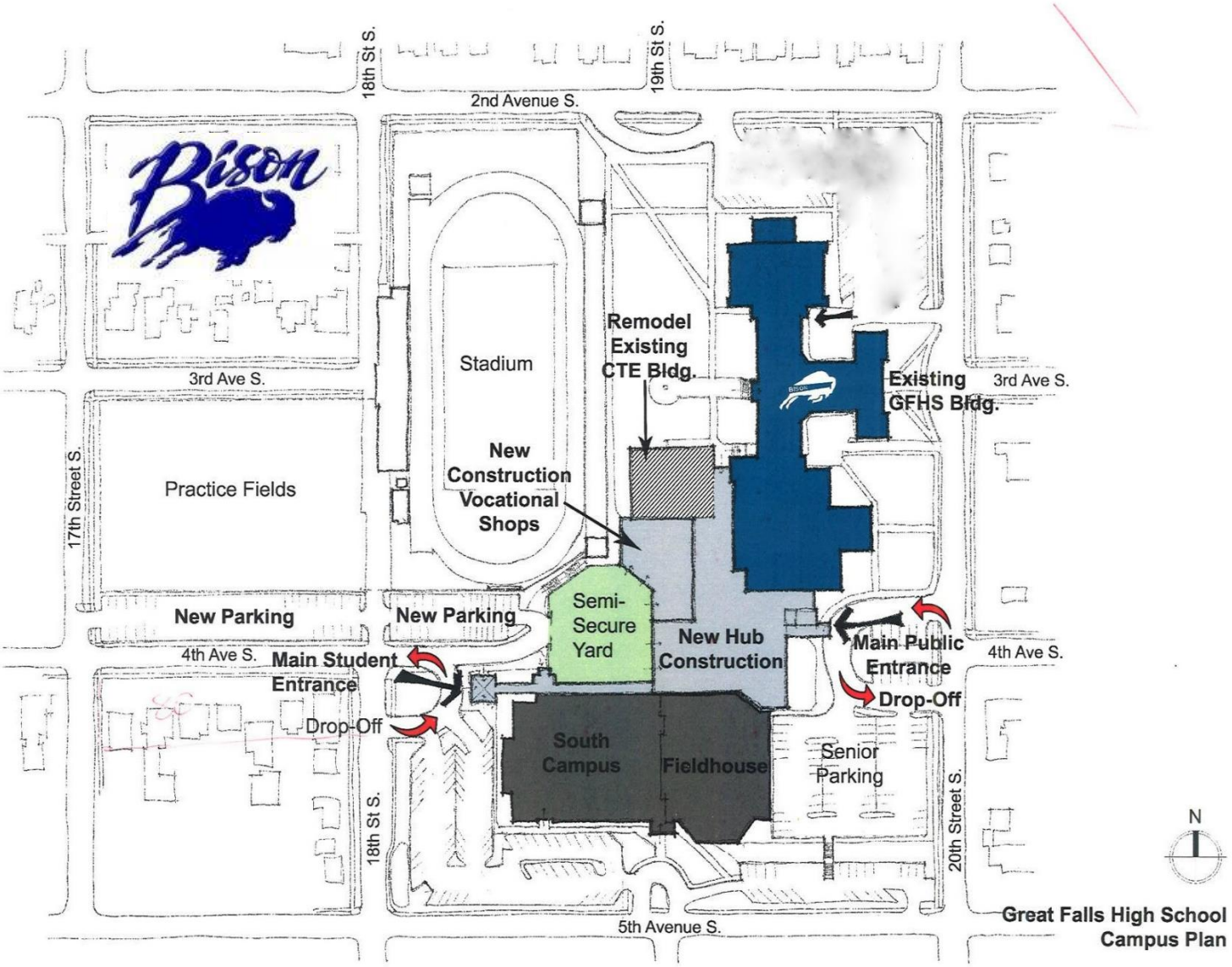
Appendix B: Roosevelt/Lowell Map

Appendix C: Russell Elementary Map

Appendix D: Longfellow Map

Appendix E: CMR Map

Appendix F: GFHS Conceptual Drawing



Appendix G: Photos

Photos are only a sampling and do not represent all concerns

OBSOLETE & INEFFICIENT BOILERS

PLUMBING ISSUES

LEAKING ROOFS

OBSOLETE SYSTEMS

INEFFICIENT AND DETERIORATED WINDOWS

FOUNDATION ISSUES