



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Community Unit School District #304

July 30, 2012





Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Table of Contents

Introduction

Geneva High School

Geneva Middle School North

Geneva Middle School South

Harrison Street Elementary School

Western Avenue Elementary School

Mill Creek Elementary School

Heartland Elementary School

Williamsburg Elementary School

Fabyan Elementary School

Coultrap Building

4th Street Administration Building

Transportation Building

Summary of Costs



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Introduction

This report analyzes the existing facilities and their related conditions. It takes a look at the next five years in which the highest priority needs will be addressed first. These priorities will be based on financial considerations such as cost and efficiencies, condition of existing facilities, code compliance, comfort and safety of our buildings. While it is difficult to imagine every possible scenario that our buildings face, I have compiled a comprehensive outlook of the present facilities based on current conditions. This report covers all buildings and grounds the District owns. It estimates the funding required to maintain our properties at an optimal teaching and learning environment. Projected costs by building are included in the Appendix. This 5-year Capital Improvement Plan is intended to provide the information needed to assist the District Board of Education and Administration with the decisions they will face with regard to future financial support of our buildings.

Respectfully Submitted,

Scott K. Ney
Interim Director of Facility Operations
Geneva Community School District #304



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Geneva High School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva High School Building Summary

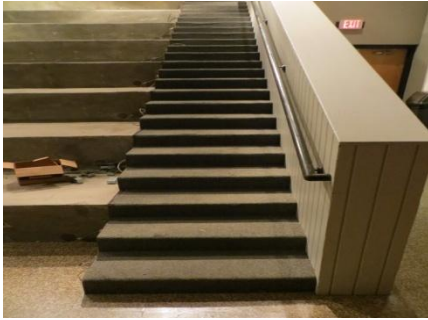
Originally built in 1958, the high school has undergone 4 major additions (1964, 1967, 1973, 2001). The building is 390,331 square feet built on 10 acres and has a capacity of 1,800 students. The Master Facilities Plan from 2005 called for the high school to be expanded and renovated. Due to economic conditions, the \$85+ million project was put on hold. The athletic area to the northwest encompasses 37 acres. It houses the athletic and P.E. fields for the high school. Burgess Field had a synthetic field installed this summer.

Several additional capital improvements are needed in the next five years that can't wait until the final build out of the high school. Improvements to the **HVAC system, parking lot and sidewalk replacements and repair, flooring and security** needs top the list. The **unit ventilators** serving the B hallway are oversized and have difficulty maintaining constant temperatures, especially in the cooling season, and cause excessive humidity and moisture problems. Properly sized units will deliver adequate fresh air to the space, and maintain better temperature, pressurization and humidity control. The **air handlers** that serve the library, Mack Olson Gym, both cafeteria units, kitchen, auditorium and weight room are all over 38 years old and are in need of updating. Since they all are housed inside the building, the shells of the units are in good condition. We recommend replacing the bearings, shafts and motors to improve reliability and efficiency. Any new equipment will be installed with new **DDC controls** to continue the conversion of the high school from pneumatic controls. **Flooring** has been a concern for several years. Existing carpet is at least 12 years old, and in some areas even older. The Fritz quartz tile that was installed in 2000 has not performed well. It is cracking throughout the building and has faded horribly. We are replacing small sections of flooring in phases due to budgeting restrictions. Last year, we replaced a small section in the health office area to test a new product, which performed very well. We are replacing another small section this summer in the commons areas. Finally, the **Burgess Parking Lot** and the **McKinley Parking Lot** are showing deep cracks throughout, and must be resurfaced this upcoming year.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva High School



Auditorium Carpeting

Replace worn and fraying carpeting



Unit Ventilator in B Hallway - 13

Oversized, cycles on/off frequently causing humidity and comfort issues.



Controls

Pneumatic to Digital conversion allowing for tighter control of temperature, setback features, alarming feature and computer based.



Secondary Pumps (8) – Add VFD

Variable Frequency Drives will greatly increase energy efficiency and lengthen the life of the pumps



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva High School



Flooring

Existing quartz tile is cracking and has faded. Creates trip hazards.



Burgess Parking Lot

Cracks and patches throughout.



McKinley Parking Lot

Deep cracks throughout.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Geneva Middle School North



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School North

Building Summary

Originally opened in 2006, Geneva Middle School North was patterned after Geneva Middle School South and built to account for the growth the District was experiencing and alleviate the overcrowding occurring at South. The school is a 2-story building with a small basement area for mechanical equipment. It is constructed of non-combustible building materials including masonry bearing walls, steel framing and pre-cast concrete. The total building consists of 198,000 square feet and is built on the 65-acre site shared with Middle School South. It has a student capacity of 1,100.

Barring unforeseen conditions, only a few items need to be addressed in the next five (5) years. One is converting the communication protocol of the **Direct Digital Controls** system from Lon to Bacnet. Another area needing modification is in **the IT server area**. The A/C for the server room is oversized for the heat load and continually cycles on and off, causing a condensation issue for that room and premature equipment failure. It is recommended a smaller tonnage system be installed in conjunction with the current system and if the server size increases as well as the heat load, the existing system will be there to handle the load. Additionally, **the LMC air handling unit** is undersized for cooling when the outside air temperature is above 80 degrees. The airflow needs to be increased and can be done without replacing the entire air handling unit by re-sheaving the pulleys on the shaft, adding 4-6 more VAV boxes with reheat coils and controls. Currently there are no **security cameras** in the building. We will look to add cameras in strategic areas. **Door #3** needs a sidewalk installed to the fire lane. Also, the **sidewalk** connecting North to South needs to be expanded for the movement of students between buildings. Finally, areas of the **parking lot** and **track** need resurfacing.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School North



Lon Controller

Lon controls throughout the building

Outdated and costly to repair

Doesn't communicate with the rest of the District's controls' communication protocol



IT Server A/C

Oversized for heat load of space. Cycles on and off continually causing condensation issues and premature equipment failure.



LMC

AHU is undersized for space. Only 2 VAV boxes serving the space.

Recommend increasing the capacity of the AHU and adding 4-6 VAV boxes with controls to increase comfort and control humidity



Parking Lot

Multiple deep cracks. Seal coating and crack filling was done this summer to extend life of parking lot. Resurfacing may be required within 5 years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School North



Track – installed in 2005

Track resurfacing is normally required every 8-10 years. Excessive wear spots are apparent.



Door #3 – Sidewalk Expansion

Expand sidewalk from Door #3 to connect to the fire lane.



Sidewalk Expansion

Expand sidewalk between both middle schools to allow more room for students traveling between buildings.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Geneva Middle School South



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School South Building Summary

Constructed in 1993 and opened in 1994, Geneva Middle School South has undergone three (3) additions. Cafeteria expansion, additional classroom space, a third gymnasium and the Friendship Station Pre-School were added. The building is a 2-story building with a small basement area for mechanical equipment. It is constructed of non-combustible building materials including masonry bearing walls, steel framing and pre-cast concrete. The total building now consists of 246,253 square feet and is built on the 65-acre site shared with Middle School North. It has a student capacity of 1,281, including Friendship Station.

The referendum construction project of 2007-09 brought needed attention to several areas including ADA and building code requirements, roof replacement, security, and HVAC repairs. All carpet was replaced during the project. Technology improvements such as cabling, wireless access points and projectors were added. A key fob system and AI phone video entry system were added. The library furniture and shelving were replaced. The interior spaces were re-numbered and new signage for each space was added.

Looking forward there are a few areas that need addressing. The **track** is in need of resurfacing this year. The **mechanical heating** system for the classroom VAV system is missing numerous hot water reheat coils and piping from the original construction of the building. Maintaining comfort in these classroom spaces becomes extremely difficult in both the heating and cooling seasons. The missing reheat coils cause the spaces to overcool with the air handling unit supplying 55-degree discharge air into the space for proper ventilation. Additional heat is only provided through the occupants, lights, other electrical devices such as computers, or by raising the discharge air temperature from the air handler for ventilation which then overheats other areas of the building. To resolve this deficiency, a new hot water distribution system needs to be installed to each space where reheat coils were not installed. New VAV boxes with reheat coils will be installed to the hot water system, with new digital controls added. The existing **temperature control** system is outdated and costly to repair. It is scheduled to be converted to the ASHRAE standard Bacnet control. The **three (3) boilers** need to be re-piped for redundancy and energy efficiency with three-way valves and a new **hot water make-up air unit** replacing the gas-fired one for efficiency and freeze protection. The **three (3) secondary hot water pumps, two (2) secondary hot water pumps and eight (8) circulation pumps** are original and are in need of replacing. Two **air handlers** equipped with **direct expansion (DX) cooling** are in need of cooling upgrades. It is proposed to add a **chiller** for efficiency and reliability, replacing old, inefficient and noisy roof-top DX units. The **1500 gallon water heater** is original to the building, and is at the end of its life cycle in a commercial application. Within the next five years, we need to properly size a new water heater and purchase a high efficiency model for optimal savings. Currently there are no **security cameras** in the building. We will look to add cameras in strategic areas. The **main entrance sidewalks** show cracking and repairs are needed. Finally, areas of the **parking lot** need resurfacing.



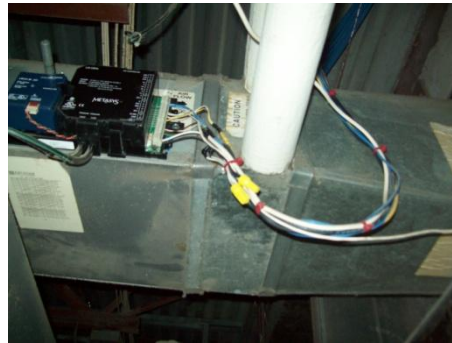
Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School South



Track – installed in 2005

Track resurfacing is normally required every 8-10 years. Excessive wear spots are showing through.



VAV Box

First Box-No Reheat coil and piping

Second Box-Reheat coil with supply/return hot water piping with controls

Provides control and comfort to classroom spaces with proper ventilation



Lon Controller

Lon controls throughout the building

Outdated and costly to repair



Parking Lot

Cracks filled and lot seal coated two years ago.

Partial patching seen on right picture.

Resurfacing needed this year.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Geneva Middle School South



Main Entrance Sidewalk Cracks

Repair concrete cracks and address heaving. This creates a safety issue.



Secondary Boiler Pump



Primary Boiler Pump

Primary and Secondary Boiler Pumps

Original to the building. Need replacing with energy efficient design and variable frequency drives for increased energy efficiency.



Domestic Hot Water Heater

Original 1500 gallon water heater has exceeded its life span of 10-15 years. Plan on replacing in the next 5 years with a more efficient and properly sized water heater.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Harrison Street Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Harrison Street Elementary School

Building Summary

Originally opened in 1928, Harrison Street Elementary School has seven (7) additions. It was completely renovated in 2009 to upgrade the HVAC, plumbing, lighting, ceilings, flooring including ceramic tile and carpet, toilet rooms, technology, sprinkler system addition, roof, windows, tuckpointing, concrete repairs and parking lot replacements, aesthetics and ADA requirements, complete with a new elevator and chair lift for the stage. All blackboards were replaced with whiteboards. The classrooms and library were outfitted with new furniture and bookcases. The entire building was repainted and several doors were replaced. A key fob system was added as well as an AI phone video entry system. The two playgrounds were combined and equipment replaced, and the kindergarten playground area was landscaped to be used as a teaching area and play area. The building sits on 10 acres, has 90,684 square feet of space and a capacity of 550 students.

The original building was constructed of non-combustible construction except for the roof which is wood framing. The original structure is two stories plus a basement, and the additions are all one story. All the additions were constructed of fire resistant construction, with masonry bearing walls. The building is equipped with a standby 80 kW natural gas emergency generator supplying power to emergency lighting and exit signs, fire alarm system, fob system, boilers, heating pumps, sump pumps and the new digital temperature control system.

The building is in excellent shape and only in need of a few **mechanical** upgrades. Many of the **15 cabinet unit heaters** are old and need replacing. Several **air handling units** should be either rebuilt or replaced including the library unit, the art room and the teacher's workroom/conference room area. The **radiant heat** in the glass hallway (kindergarten wing) should be replaced to provide proper heating to that space. Currently there are no **security cameras** in the building. We plan to add cameras in strategic areas. Finally, areas of the **parking lot** need crack filling and seal coating within the next five years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Harrison Street Elementary School



Cabinet Unit Heaters

15 units are over 35 years old.



Air Handling Unit

Typical of three. Needs rebuilding or possible replacement.

New motor, shaft, bearings and controls needed



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Western Avenue Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Western Avenue Elementary School

Building Summary

Built in 1964, Western Elementary School is a 62,832 square foot, one-story building built on 14.18 acres. It has undergone 2 additions and has a student capacity of 561. There is a small mechanical mezzanine located on the roof. The building was completely renovated over four years to upgrade the HVAC, plumbing, lighting, ceiling, flooring, toilet rooms, technology, sprinkler and fire alarm system, roof, concrete repairs, and ADA requirements including a new chair lift for the stage. All blackboards were replaced with whiteboards. The library received partial replacement of bookcases. The entire building was repainted and many doors were replaced. A key fob system was installed as well as an AI phone video entry system. The playground was replaced. The building was originally constructed with asbestos containing material and much of it was abated or encapsulated.

The original building was constructed of cavity wall construction consisting of block and brick, with 1" cavity insulation. The additions were constructed of similar cavity walls. The windows are uniform throughout the building consisting of fixed panels with 1" insulated glass, fixed panels glazed with an aluminum insulating panel and a small operating hopper sash. The exterior brick is in good condition. The building is equipped with a 60KW natural gas emergency generator supplying power to the emergency lighting and exit signs, the key fob system and the new digital temperature control system.

The building is in excellent shape and only in need of a few **mechanical** and **parking lot** improvements. Several **Cabinet Unit Heaters** are old and in need of replacing. The **gym AHU** is aging and needs to be rebuilt with a new motor, bearings and shaft. The **chiller** or the **condensing unit** for the chiller needs to be replaced. The **parking lot** was seal coated and cracks filled two years ago but will need resurfacing in the next five years. There is no **fire lane** around the back of the building. We propose installing a blacktop fire lane stretching along the east side of the building that would assist in the snow removal of the student line-up area on the playground area on the northeast side of the building. Currently there are no **security cameras** in the building. We plan to add cameras in strategic areas.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Western Avenue Elementary School



Cabinet Unit Heaters

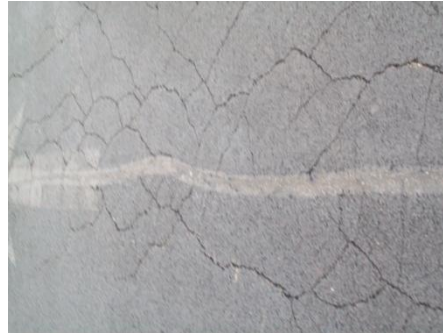
9 units are over 20 years old.

Blowers are failing.



Chiller

23 year old Chiller is inefficient and repairs are becoming more frequent.



Parking Lot

Multiple deep cracks. Resurfacing will be required in the next five years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Mill Creek Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Mill Creek Elementary School

Building Summary

Originally built in 1995, this 92,015 square foot building is built on 17.6 acres. It has a student capacity of 564. A 28,775 square foot addition was added in 2006, providing a five classroom wing, music and band wing, a second wood floor gym and much needed storage. The building was partly renovated during the last referendum construction project. The foundation settling issue was addressed as was the leaking problem in the 2006 addition. Code related issues like fire rated doors, emergency lighting and drainage issues were also addressed. The building temperature control system was upgraded to digital and several mechanical issues were addressed. A key fob system and AI Phone video entry system were installed.

The building is a split-level design. It was constructed of non-combustible materials. The interior structure is columns and beams and exterior masonry bearing wall construction. Roofs are steel joists with steel trusses.

Overall, Mill Creek is in excellent condition and only in need of a couple of mechanical upgrades. The **mechanical cooling** for the office area is currently served off a large air handling unit that also serves the main classroom wing. Since most of the cooling season occurs when the students are on summer break, cooling the office space is costly and inefficient. We propose adding a separate, small air handling unit to serve the office area and re-ducting the office area off of the main classroom area. The **temperature controls** should be converted to the ASHRAE Standard Bacnet controls and the outdated and costly Lon Controls removed. The **VFD's** on the air handling units are old and obsolete and repair costs are increasing. **Primary and Secondary Boiler Pumps** are original to the building. They are in need of upgrading with variable frequency drives for optimal efficiency and energy savings. The **Work Room HVAC System** is original to the building. A new condensing unit and evaporator coil need to be replaced to the air handling unit. The unit is nearing the end of its life cycle and will need to be replaced within the next five years. Currently there are no **security cameras** in the building. We plan to add cameras in strategic areas. **Concrete sidewalk** are cracking and spalling and repairs are needed. Finally, areas of the **parking lot** need crack filling, seal coating or resurfacing in the next five years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Mill Creek Elementary School



Air Handling Unit

Inefficient. Serves the office and classroom wing.

Separate with a small AHU to serve Office to lower energy use and increase comfort control.



Lon Controller - Lon controls throughout the building

Outdated and costly to repair

Doesn't communicate with the rest of the District's Controls communication protocol



Variable Frequency Drive (VFD)

Needs replacing in the next 5 years.



Parking Lot

Multiple deep cracks. Seal coating and crack filling was done last summer to extend life of parking lot. Resurfacing may be required within 5 years



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Mill Creek Elementary School



Primary and Secondary Boiler Pumps

Original to the building. Need replacing with energy efficient design and variable frequency drives for increased energy efficiency.



Work Room HVAC System

Original to the building. Work room condensing unit and evaporator coil are nearing the end of life cycle and will need to be replaced within the next five years



Sidewalk

Repair or replace sidewalk cracks.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Heartland Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Heartland Elementary School

Building Summary

Built in 2002, this 77,447 square foot building sits on 11 acres. It has a student capacity of 550. The building is generally a copy of Mill Creek Elementary School. The building is a split level design, constructed of non-combustible materials. The interior structure is columns and beams and the exterior is masonry bearing wall construction. The roofs are steel joists and trusses. The building is equipped with a standby 100 kW natural gas generator supplying power to emergency lighting and exit signs, fire alarm system, fob system, intercom system, heating pumps, sump pumps, and the digital temperature control system.

The building is in excellent shape and there are only a couple of deficiencies that need to be addressed. The two **Chilled Water Pumps** need Variable Frequency Drives. This will greatly increase energy efficiency and lengthen the life of the pumps. The **parking lot** and **concrete sidewalks** are in poor shape and will need repairs or replacement. Currently there are no **security cameras** in the building. We plan to add cameras in strategic areas.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Heartland Elementary School



Parking Lot

Multiple deep cracks. Cracks filled and seal coated last summer. Will need major patching or replacement. Has a drainage issue as well.



Sidewalks

Repair sidewalk cracks.



Chilled Water Pumps (2) – Add VFD

Variable Frequency Drives will greatly increase energy efficiency and lengthen the life of the pumps.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Williamsburg Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Williamsburg Elementary School

Building Summary

Built in 2008, this 104,000 square foot building is built on 14 acres. It has a student capacity of 550. This state of the art building is built with non-combustible building materials. The HVAC and lighting systems are energy efficient. The entire parking lot was crack filled and seal coated this summer. With the addition of security cameras, this building is in excellent shape and needs no improvements in the next 5 years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Fabyan Elementary School



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Fabyan Elementary School

Building Summary

Built in 2009, this 104,000 square foot building sits on 11 acres. It has a student capacity of 550. This state of the art building is built with non-combustible building materials. The HVAC and lighting systems are energy efficient. The building is in excellent shape except for a couple of items. The **Terrazzo floor tile** is in need of repair or replacement. The tile is cracking because it did not properly bond to the floor. The district received money from a performance bond of \$138,000 to repair all flooring issues. The **parking lot** and **concrete sidewalks** are starting to show cracks, and these areas will need attention within the next five years. Currently there are no **security cameras** in the building. We plan to add cameras in strategic areas.

Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Fabyan Elementary School



Floor Tile

Terrazzo tile repair/replacement. Tile did not properly bond to the floor and is cracking.



Sidewalks

Repair sidewalk cracks or replace if needed.



Parking Lot

Several areas starting to show cracking. Crack filling and seal coating will be needed within the next five years.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Coultrap Building



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building Building Summary

Built in 1923, Coultrap has been the home of the high school, middle school and most recently an elementary school. It now sits vacant, used for Board of Education meetings, overflow high school sports in the large gym and occasional use by the Park District. Five (5) additions have been built throughout the years with the last in 1973.

The original 1923 building was constructed of non-combustible materials except for the roof, which is wood. The subsequent additions were constructed of fire resistant materials. The original building was three stories. The additions are one and two stories, with a partial basement and two courtyards. The building sits on 6.9 acres and is 78,400 square feet.

Exterior:

The **exterior** was originally constructed of solid masonry bearing walls with face brick. The additions are masonry cavity walls with face brick on the exterior and concrete block on the interior. The exterior brick is generally in good condition. Some areas need to be **tuckpointed**, especially in the courtyard area to the south, where water has infiltrated into a classroom causing deteriorating plaster. The plaster fascias in the 1968 and 1974 additions show signs of wear and are in need of repair.

The original **roof** was constructed with single-ply membrane roofing with rigid insulation on wood decking on wood rafters and steel beams. The additions are single-ply membrane roofing with rigid insulation on steel decking on steel joists and beams. Most of the roof is in good condition. Regular maintenance will prolong the life of the good roof. According to the life-safety report of 2005, approximately 20% of the roof needs replacing. We are experiencing leaks in these areas, including the cafeteria area.

The **windows** are anodized aluminum with both sliding and hopper operating portions with single pane glass. The sliding windows in the original 1923 building are old and inefficient. The 1968 and 1974 additions are original single pane and are not efficient.

The surrounding concrete **sidewalks** show cracking and spalling and repairs are needed. The **parking lot** to the northeast was patched and seal coated last summer, but will need to be resurfaced in the next five (5) years.

Interior:

The original construction consists of cast in place concrete columns and beams. The **interior** walls are plaster with some minor cracking that could be patched and painted. The additions consist of exposed concrete block (CMU) with some face brick. The walls are also plaster and show some minor cracking that could be patched and painted.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building

The original building has terrazzo **floors** for the corridors and stairways and are in good condition. The bathrooms have terrazzo or ceramic tile and are in good condition. The big gym has a wood floor and the small gym has a synthetic sports flooring system. Both are in good condition. Carpet or vinyl tile (VCT) covers the classrooms. Much of the tile is in poor condition and should be replaced or covered with carpet. Some of the VCT covers vinyl asbestos tile (VAT), 16,500 square feet of it. The District keeps a watchful eye on the asbestos tile and it is examined at the required 6-month and 3-year inspections by a qualified contractor. On-going removal is required as the existing tile degrades.

The **ceiling** is mostly 2x4 lay-in panels and has begun to sag due to humidity. It generally needs to be replaced. The best time to do this will be when lights are replaced, plumbing is replaced and a sprinkler system is installed.

The **doors** and the operating hardware are not ADA compliant and some are not properly fire-rated and need to be addressed.

The **toilets** are generally in bad condition. In the 1923 building many do not meet code due to their location (ADA). The other toilet rooms are old and in need of renovation. This would be done with the plumbing replacement.

Mechanical, Electrical, Plumbing and Fire Protection

The **ventilation** system includes both unit ventilators and constant volume air handling units. The unit ventilators are grandfathered under the old fresh air codes of 5 CFM per occupant. In many classrooms, a path of relief air is not provided which causes over pressurization. This limits the introduction of fresh air into the space resulting in hot or cold conditions. The unit ventilators are in fair condition and have recently been PM'd, cleaned and filters changed, and in some cases motors replaced. The air handling units are old and in need of repair or replacement. These units are served by a two-pipe system which allows for only heating or cooling at one time. The pneumatic control system has many leaks which makes it difficult to maintain proper temperature control.

The **heating** for the building is provided from the adjacent steam boiler plant that also serves the high school. The steam is fed to a heat exchanger in the basement, which produces hot water that is pumped throughout the building to the unit ventilators, air handling units, and to cabinet heaters and radiators. In the receiving room and the elevator equipment room, the hot water piping is routed above electrical equipment. This is a violation of the electric code and could cause a problem should the piping leak, which has happened in many places.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building

Cooling is provided by chillers and condensing units. The chillers are located in the basement mechanical room with the gas-fired water heaters. It is a code violation to have gas-fired equipment in the same room as refrigerant, due to the combustibility of the refrigerant. The IT servers are currently not air conditioned, potentially causing poor performance of the IT equipment. The roof-mounted direct expansion (DX) units that serve the air handlers are in poor condition and need to be replaced.

The refrigerant lines have many leaks and there are at least two circuits that are empty of refrigerant, and three compressors are not in operating condition. In addition to the costly line repairs, the R-22 refrigerant is not being produced domestically anymore and is expensive to purchase to replenish.

The building's **domestic water system** is galvanized steel piping. There are many leaks that have been repaired with clamps and the scale build up has reduced pressure and flow availability and the entire system needs to be replaced. The water fountains throughout the building are not ADA compliant.

The building's **electrical** distribution is sufficient for the current size of the building, but some of the system is very old and needs to be replaced. The building does have a 20 kW emergency generator that supplies the emergency lights and exit signs. The **lighting** fixtures are old, inefficient T-12 lamps with 30+ year old magnetic ballasts, probably contain PCB's, posing an environmental hazard. The entire lighting system should be replaced with efficient T-8 lamps with electronic ballasts. The exit signs are incandescent and should be replaced with LED type lights. These are more reliable, last up to 25 years and use much less electricity.

The **Fire Alarm System** meets the current code and is in good condition. Additional audio/visual alarm devices are required to be installed in the corridors. There is no **sprinkler system** in the building, and one would need to be installed.

There is no **security system** in the building, and it is recommended that a key fob access control system be installed on several outside doors and an AI phone video entry system be installed at the front door for building access.

Minimal maintenance and repairs will be done until a decision is made by the Board of Education regarding the future of the Coultrap facility.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building



Roof – Several leaks throughout. Rubber membrane is beginning to fail, patches are coming apart.



Tuck Pointing – Much of the outside brickwork needs tuck pointing. Many cracks and disintegrating brick allow moisture in the building leading to crumbling plaster.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building



Crumbling Plaster

Due to moisture getting into the building

Tuck Pointing will alleviate this problem



Domestic Water Piping

Utilized pipe clamps to stop leaks throughout.



HVAC Piping

Air separator, heating valves and pipe showing signs of excessive rust.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Coultrap Building



Plumbing Drains

Pipes have become clogged and drains have been re-routed



Floor Tile

12" x 12" VCT over 9" x 9" Asbestos tile. Tile is cracking and the 9 x 9 is showing through. Will have to be encapsulated or remediated.



Sidewalk and Parking Lot

Sidewalks are in need of repair or replacement.

Parking lot is in need of patching or replacement. Was patched and seal coated last year.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012



Fourth Street Administration Building



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Fourth Street Administration Building

Building Summary

Built in 1916, this 28,400 square foot building has had 3 additions and sits on 1.7 acres. Fourth Street School began as an elementary building, housed the original Friendship Station pre-school, and now serves as the District's Administration Center. During the last referendum several upgrades to the building were made including IT server upgrades, some office modifications and the Intervention Coordinators office was added. The building is generally in good shape except for some aesthetic and security concerns. The **parking lot** will need to be replaced in the next 5 years. The **carpet** is coming apart at the seams and buckling in a few places. The heating system works well, but the **fan** is old and needs replacing, along with the **variable frequency drive (VFD)**, which hasn't worked for years. There is no emergency back-up generator for the building, although the server room is equipped with a standby emergency system that was recently installed. Currently there are no **security cameras** in the building. We will look to add cameras in strategic areas.



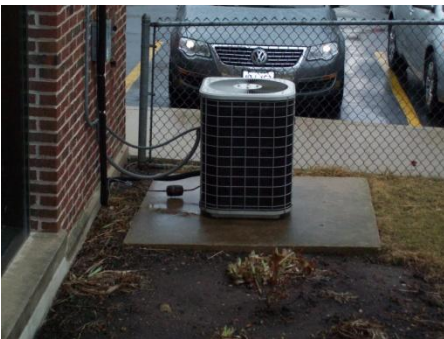
Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Fourth Street Administration Building



Parking Lot

Several areas need patching. The entire lot may need to be replaced within 5 years.



Typical Condensing Unit

The entire building is cooled with individual residential condensing units. Several are beginning to fail and most will need to be replaced in the next 5 years.



VFD and Fan for the Furnace

VFD doesn't work and fan for furnace is at least 35 years old.



Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Transportation Building





Geneva CUSD 304 5-yr Capital Improvement Plan 2012

Transportation Building Building Summary

The Keslinger Transportation Facility was opened in 2004. The 44,350 square foot building is constructed on 7.9 acres. This facility houses 46 of the District's buses, three bus service bays and the grounds shop for the western part of the District. The bus bays are not heated but are equipped with plug-ins for the heater core for cold weather starting. The service bays are heated. In addition, there are office and dispatch facilities as well as a large conference area for training and meetings. The building is equipped with a small kitchen area and restroom facilities for the staff and drivers.

The **office windows** are in need of screens and a window section to allow fresh air to be introduced into office spaces during milder conditions to save money on A/C costs. The **Parking Lot** was crack filled and seal coated last summer. The parking lot will need crack filling and seal coating within the next five years. Finally, security cameras will be installed in strategic locations.

Geneva CUSD 304 5-yr Capital Improvement Plan
2012

Transportation Building



Parking Lot

Several areas starting to show cracking. Crack filled and seal coated last summer. Crack filling and seal coating within the next five years.



Office Windows

Install screens and access through windows to introduce fresh air into office spaces during milder conditions to save money on A/C costs.