HUTTEBALL +OREMUS architecture

GRANITE FALLS SCHOOL DISTRICT

FACILITY ASSESSMENT

Spring 2021

2021 FACILITY ASSESSMENT

for the

GRANITE FALLS SCHOOL DISTRICT

Spring 2021

Compiled by:

HUTTEBALL +OREMUS architecture

TABLE OF CONTENTS

Facilities Assessment Report
Granite Falls School District
May 14, 2021

EXECUTIVE SUMMARY

At the request of Granite Falls School District, Hutteball + Oremus Architecture, Inc. has reviewed available information related to the district's existing facilities and presents the following information to assist the district with determining a priority of needs to support sustained performance of their district facilities. This review and subsequent writing of this report was performed from March 2021 to May 2021. The basis of our recommendations and further supporting detail can be found in the main body of the enclosed Facilities Assessment Report.

Our review encompassed all of the districts facilities but concentrated mainly on the educational facilities of Monte Cristo Elementary, Mountain Way Elementary, Granite Falls Middle School, Granite Falls High School, and the Crossroads High School / Adminisration Building. The Pop Rogers building, portables district-wide, and the outlying sports support structures such as the dugouts, grandstands and tennis courts were only briefly reviewed and, similarly, determined not to be of the same priority as the educational buildings.

Throughout the entire district we observed facilities that have been well maintained but, due to age, the infrastructure and systems of some of your buildings are nearing the end of their useful life. The predominate items observed relate to building envelopes that are surpassing their intended life, and a number of programmatic items that the district may wish to upgrade.

The items identified in the Facility Assessment Report are too extensive to be accomplished all at once. It is strongly recommended that the District implement a 10-year Capital Facilities Master Plan focused on preservation of the district's building assets and improvement of the physical learning environments for the students.

A master plan will help the district in establishing timelines and sequences for logical implementation of facility improvements, establish a baseline for an efficient district-wide approach, and help guide continued assessment of priorities. In some cases it will lead to deferral of smaller isolated upgrades until a more extensive project can be implemented resulting in a financially efficient approach.

KEY ISSUES

The key issues that arose from our report were:

- **Building Envelope Deterioration:** The building envelope (the exterior shell of a building including the roofing and siding) of many facilties are showing signs that they are nearing the end of their useful life. Ongoing water infiltration has the potential to decrease the lifespan of your facilities at an accelerated rate. Therefore, it is in our opinion that fixing the building envelope of your buildings to ensure weather-tightness should be as high a priority as budget will allow, and is reflected in these recommendations. Specifically the following areas are of greatest concern:

- Granite Falls Middle School: Replace the roofing and all associated flashings/terminations. Investigate water intrusion at stucco, fiber cement siding, and CMU block to ascertain cause and determine best plan for remediation. Repair or replace damaged areas of stucco siding.
- Crossroads High School / Administration Building: Replace the roofing and all associated flashings/terminations. Investigate water intrusion at stucco and fiber cement siding to ascertain cause and determine best plan for remediation. Paint wood siding.
- Granite Falls High School: Replace built-up roofing. Investigate fiber cement siding to ascertain cause of peeling paint and determine best plan for remediation. Patch holes and paint fiber cement siding to protect from UV damage.
- Monte Cristo Elementary: Replace roofing & paint cedar siding.
- Mountain Way Elementary: Replace roofing.

- **Elementary Capacity**: A high level analysis of the permanent functional capacity at your elementary facilities indicates that your target class size has been exceeded at Mountain Way Elementary. Additionally, OPSI projects enrollment to continue to increase at the elementary school level in Granite Falls School District over the next 5 years. We recommend further investigation to assess options to address overcrowding at the elementary level.
- **Clean Buildings Bill**: In 2019 the Washington State legislature adopted House Bill 1257, aimed at reducing greenhouse gas emissions from Washington's commercial building sector. School buildings over 50,000 sf will be required to report compliance with the standard to the Department of Commerce along with documentation demonstrating energy use. When looking at the districts facilities, it appears that the current compliance deadlines may apply:
  - June 1, 2027 - Buildings between 90,000 and 220,000 square feet.
    - Granite Falls High School (122,718 sf)
  - June 1, 2028 - Buildings between 50,000 and 90,000 square feet.
    - Granite Falls Middle School (63,091 sf)
      Note: the multipurpose building and STEAM building fall below the square footage threshold
    - Crossroad High School / Administration Bulding (57,434 sf)

  Buildings failing to meet the energy intensity targets may be subject to fines. To supplement this architectural analysis and to assist in planning for HB 1257 compliance, we recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a master plan for replacement of aging systems, and to provide insight into potential energy-saving measures.

We are pleased to present this information to you and look forward to your questions, thoughts, and observations.

Sincerely,

Katie Pond
Principal

INTRODUCTION + OVERVIEW

Hutteball + Oremus Architecture was commissioned by the Granite Falls School District to evaluate the existing conditions of all school district facilities. The purpose of this review was to assess the condition of the existing facility based on an evaluation of existing finishes, facility operating systems, building code issues, and ADA deficiencies.

This work was accomplished by review of available building drawings, non-destructive visual inspection of the existing facility, and discussions with Deon Freeman, Facilities & Operations Supervisor. No observation of concealed spaces or demolition test investigations were conducted.

This facility assessment reports the current condition of the Granite Falls School District facilities relative to current codes, building systems and materials, and the ability of the site and building to accommodate program.

The report that follows is a 'snap shot in time.' It should be used to generate a long-term master plan by which the district can proceed with rehabilitation, modernization, and implementation of program updates that are required for the continuing function of their facilities.

The intent of this report is to document the existing conditions and identify possible areas or aspects of the building and its systems that may require repair, modernization, or replacement. Some of the items identified within the report may require further evaluation and study to obtain full parameters of the scope of work and its benefits.

This report is divided into 8 sections.

- **SECTION 1: Introduction + Overview** - this section provides a brief overview of the facilities, as well as an explanation of the methodology of investigation. At the conclusion of the section resides the final prioritized list of recommendations.
- **SECTION 2: Monte Cristo Elementary School** - This section outlines the findings and recommendations as they relate to Monte Cristo Elementary.
- **SECTION 3: Mountain Way Elementary School** - This section outlines the findings and recommendations as they relate to Mountain Way Elementary.
- **SECTION 4: Granite Falls Middle School** - This section outlines the findings and recommendations as they relate to the middle school building, multipurpose building, STEAM building, and related sports fields.
- **SECTION 5: Granite Falls High School** - This section outlines the findings and recommendations as they relate to the high school building, greenhouse and related sports fields.
- **SECTION 6: Crossroads High School / Administration Building** - This section outlines the findings and recommendations as they relate to Crossroads High School / District Administration Building.
- **SECTION 7: Pop Rogers Building -** This section outlines the findings and recommendations as they relate to the Pop Rogers Building.
- **APPENDIX**

METHODOLOGY

This facility assessment identifies numerous items that would provide substantial rehabilitation of the existing facilities, correct code deficiencies and upgrade program requirements to allow for an extension of 20-30 years to the district facilities.

To assist the district with prioritization of the recommendations, the major items listed in the reports were assigned to one of the following five categories - listed in order of priority: safety (S), legal/code, life cycle replacement / repair (R), program (P), and energy savings (E).

Once categorized, each item was provided with a degree of importance.

- Degree 1: An issue requiring immediate correction.
- Degree 2: Deficiency in need of improvement/replacement or preventive maintenance.
- Degree 3: Future planning/program issue or short-term cost recovery (less than 10-years).

	Category				
Degree	(S) SAFETY	(L) LEGAL / CODE	(R) LIFE CYCLE REPLACEMENT/ REPAIR	(P) PROGRAM	(E) ENERGY SAVINGS
1	S1	L1	R1	P1	E1
2	-	-	R2	P2	E2
3	-	-	R3	P3	E3

Based on this methodology, each recommended item was prioritized based on the matrix shown above. Any item that receives an S1 is of highest priority, followed by an L1, then R1, P1, E1, R2, P2, E2, etc.

PRIORITIZED DISTRICT-WIDE SUMMARY OF RECOMMENDATIONS

The following prioritized list of recommended improvements is described in more detail in the following sections of the facility assessment. The list has further been separated into two categories: maintenance and modernization + improvements, in order to facilitate long-range planning and scheduling.

Ongoing water infiltration has the potential to decrease the lifespan of your facilities at an accelerated rate. Therefore it is in our opinion that fixing the building envelope of your buildings to ensure weather-tightness should be as high a priority as budget will allow, and is reflected in these recommendations.

MAINTENANCE

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
S1.1	*Monitor concrete paving 'lip' at main entry.*		X				
S1.2	*Replace damaged junction box covers at building exterior.*		X				
S1.3	*Replace broken light switch plate at girls restroom in multipurpose building.*			X			
S1.4	*Verify that the commons display case is equipped with safety glass.*			X			
S1.5	*Secure upper casework at special education classroom.*				X		
S1.6	*Cover exposed junction box at entrance to Tiger Stadium booster area.*				X		
S1.7	*Secure handrail at stairs in administration wing.*					X	

L1.1	*Replace missing door hardware at entry door.*	X					
L1.2	*Replace missing section of guardrails at middle school grandstand to provide fall protection to spectators.*			X			

R1.1	*Cedar siding is showing signs of weathering and should be prepped & painted to prolong serviceable life.*	X					
R1.2	*Roofing & all associated transitions and flashings should be carefully monitored over the next 3-5 years as it is reaching the end of its expected serviceable life.*	X	X				
R1.3	*Engage a structural engineer to do a full assessment of all peeler poles. Repair / replace peeler pole columns as necessary.*	X	X				
R1.4	*Evaluate building flashing, perimeter transitions, and stucco cladding system to determine cause of water intrusion and determine method for correction.*			X			

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
R1.5	*Investigate extent of clerestory window damage at multipurpose building.*			X			
R1.6	*Middle school roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*			X			
R1.7	*Multipurpose building roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*			X			
R1.8	*Replace missing cages at emergency lights and exit signs at middle school gymnasium.*			X			
R1.9	*Contact Hufcor to adjust operation of STEAM building operable partition panels prior to warranty expiration.*			X			
R1.10	*Replace walk-in freezer at multipurpose building.*			X			
R1.11	*Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*				X		
R1.12	*Secure loose vinyl wall covering seams.*				X		
R1.13	*Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*					X	
R1.14	*Correct water intrusion at main stairwell windows.*					X	
R1.15	*Inspect and repair broken seals at windows over bridge.*					X	
R1.16	*Replace window in office of room 202, Human Resources / Payroll & Benefits.*					X	
R1.17	*Perform repairs and restoration to built up roofing & expansion joint over the 2001 addition at the Crossroads / Administration building.*					X	
R1.18	*BUR over the administration & gymnasium of the Crossroads / Administration building, including flashings, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*					X	
R1.19	*Determine cause of weakening adhesive at glue on 12x12 acoustical tile in gymnasium, and re-secure tiles.*					X	
R1.20	*Continue to correct leaks in piping above ceiling.*					X	
R1.21	*Repair broken ceiling suspension system at Portable P4, and replace damaged ceiling tiles.*					X	

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
R1.22	*Secure exterior light fixture near entry door to Portable P4 and plug hole in siding.*					X	
R2.1	*Assess boilers to determine when replacement is necessary.*	X					
R2.2	*Portable siding is showing signs of weathering and should be prepped & painted to prolong serviceable life.*	X	X	X		X	
R2.3	*Areas of the fascia are showing signs of weathering and should be prepped & painted to prolong serviceable life.*		X				
R2.4	*Carefully monitor cracking in VCT. Replace or patch if tile begins to break loose.*		X			X	
R2.5	*Caulk restroom tile at corner cracks.*			X			
R2.6	*Consult with manufacturer regarding best practices for repairing damage and prolonging life of tennis courts.*				X		
R2.7	*Repair expansion joints at courtyard concrete paving.*				X		
R2.8	*Fiber cement siding should be re-painted to prolong life.*				X		
R2.9	*Caulk vertical butt joints at fiber cement siding.*				X		
R2.10	*Patch holes in fiber cement siding.*				X		
R2.11	*Clear debris from rear translucent panel canopy.*				X		
R2.12	*Built-up roofing should be carefully monitored over the next 3-5 years as areas are approaching the end of their serviceable life.*				X		
R2.13	*Re-secure acoustical wall panels at music practice room.*				X		
R2.14	*Repair or replace squeaky ballast in computer lab B204.*				X		
R2.15	*Repair or replace occupancy sensor at high school registrar's office.*				X		
R2.16	*Remove rust from lavatories and toilets at Tiger Stadium per manufacturer guidelines, and assess cleaning products to ensure they are compatible with Type 304 stainless steel.*				X		
R2.17	*Wood siding at Crossroads / Admin building is showing signs of weathering and should be prepped & painted to prolong serviceable life.*					X	
R3.1	*Monitor efflorescence at service yard enclosure.*	X			X		
R3.2	*Re-secure downspout sleeves at base of all downspouts.*	X					
R3.3	*Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*	X	X	X		X	
R3.4	*Monitor asphalt surfaces for deterioration.*		X	X	X		X

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
R3.5	*Monitor efflorescence at entry walls.*		X				
R3.6	*Refresh paint at exterior hollow metal doors.*		X				
R3.7	*Carefully monitor bubbling in VCT at middle school and multipurpose building. Replace or patch if tile begins to break loose.*			X			
R3.8	*Monitor depressions in ceramic tile at the middle school for degradation.*			X			
R3.9	*Continue yearly routine maintenance of pressure washing bleachers prior to start of the athletic season.*			X	X		
R3.10	*Replace damaged curbs as they become a nuisance.*				X		
R3.11	*Monitor nesting birds at library volume. Repair / replace perimeter seals at roof deck as necessary to secure space.*				X		
R3.12	*Clean and repaint translucent panel framing to extend the life of the structure.*				X		
R3.13	*Monitor VCT cracking for degradation.*				X		
R3.14	*Continue yearly routine maintenance of pressure washing tennis court prior to start of the athletic season.*				X		
R3.15	*Replace trash cans with permanent vehicular bollards if vandalism continues.*				X		
R3.16	*Consider adding lock to Tiger Stadium press box balcony door to secure space during off-hours.*				X		

P1.1	*Secure casework countertop at classroom A218.*				X		
P1.2	*Upgrade supports, or re-distribute load at library workroom countertop.*				X		

MODERNIZATION + IMPROVEMENTS

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
S1.1	*Replace door lock cylinders district-wide.*	X	X	X	X	X	X
S1.2	*Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*	X	X	X		X	X
S1.3	*Remove interior horizontal mini blinds at the quiet room.*		X				
S1.4	*Install anti-slip tape on roof-access ladder rungs.*			X	X		
S1.5	*Pare down equipment in the manufacturing lab so that operational clearances can be met.*				X		
S1.6	*Immediately cease use of the manufacturing lab mezzanine for student instruction.*				X		
S1.7	*Restrict access to the mezzanine and use of the ships ladder to adult personnel only.*				X		
S1.8	*Add non-slip tape to stair treads at Tiger Stadium press box.*				X		
S1.9	*Install non-slip tape at stairs in administration wing.*					X	
S1.10	*Install transition strip at flooring entry door to portable classroom P1.*					X	
L1.1	*Correct handrails at ramp to middle school commons.*			X			
L1.2	*Consult with your copier manufacturer about the ventilation requirements of your equipment in your district copy center (Classroom A132)*				X		
L1.3	*Install ADA compliant signage at entrances to restrooms on Concession / Restroom building.*				X		
L1.4	*Assess door hardware across the administration building to ensure all doors are equipped with accessible door hardware.*					X	
L1.5	*Kiln should be located within a securely locked, dedicated, fire-rated space with ample exhaust.*					X	
R1.1	*Engage a mechanical and electrical engineer to provide a full facility assessment.*	X	X	X	X	X	X
R1.2	*Replace damaged restroom partitions in middle school and multipurpose building with durable solid phenolic, overhead-braced partitions.*			X			
R1.3	*Remove rust, clean and repaint all exposed steel at middle school grandstand.*			X			
R1.4	*Assess and replace exterior window seals building wide.*				X		
R1.5	*Re-paint exterior hollow metal doors and install joint sealant at jambs.*				X		

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
R1.6	*Repair or replace light fixtures at the high school auditorium.*				X		
R1.7	*Continue lighting upgrades at main gym, wrestling room and weight room.*				X		
R2.1	*Contact manufacturer for repair recommendations regarding the middle school track surface.*			X			
R2.2	*Replace wood light poles with aluminum.*			X			
R2.3	*Replace failed fridge and freezer at middle school concession stand.*			X			
R2.4	*Consider a renovation project to refresh the finishes, lighting and equipment of the gymnasium.*					X	
R2.5	*Replace doors at Pop Rogers Building.*						X
R3.1	*Consider a future project to replace all original carpet and re-striping the gym flooring.*	X	X				
R3.2	*Monitor plastic laminate faced doors for degradation and replace when function is called into question.*	X	X	X			
R3.3	*Consider replacing all elementary casework and finishes as part of a larger renovation project.*	X	X				
R3.4	*Consider replacing all furniture and lunchroom tables.*		X				
R3.5	*Consider replacing all furniture and lunchroom tables.*		X				
R3.6	*Consider a future project to replace all carpet at Granite Falls Middle School.*			X			
R3.7	*Consider replacing middle school casework as part of a larger renovation project.*			X			
R3.8	*Consider replacing all furniture.*			X		X	
R3.9	*Replace rusting restroom mirrors.*			X	X		
R3.10	*Replace operable partition support structure at middle school commons.*			X			
R3.11	*Consider refreshing all restroom finishes in multipurpose building as part of a larger renovation project.*			X			
R3.12	*Replace MDF wainscot in locker rooms.*				X		
R3.13	*Replace toilet partitions at boys locker room.*				X		
R3.14	*Monitor interior doors at gymnasium storage and replace when function is called into question.*				X		
R3.15	*Install door stop at boys locker room door.*				X		
R3.16	*Investigate to determine what the PV array above the high school's A-wing is powering.*				X		

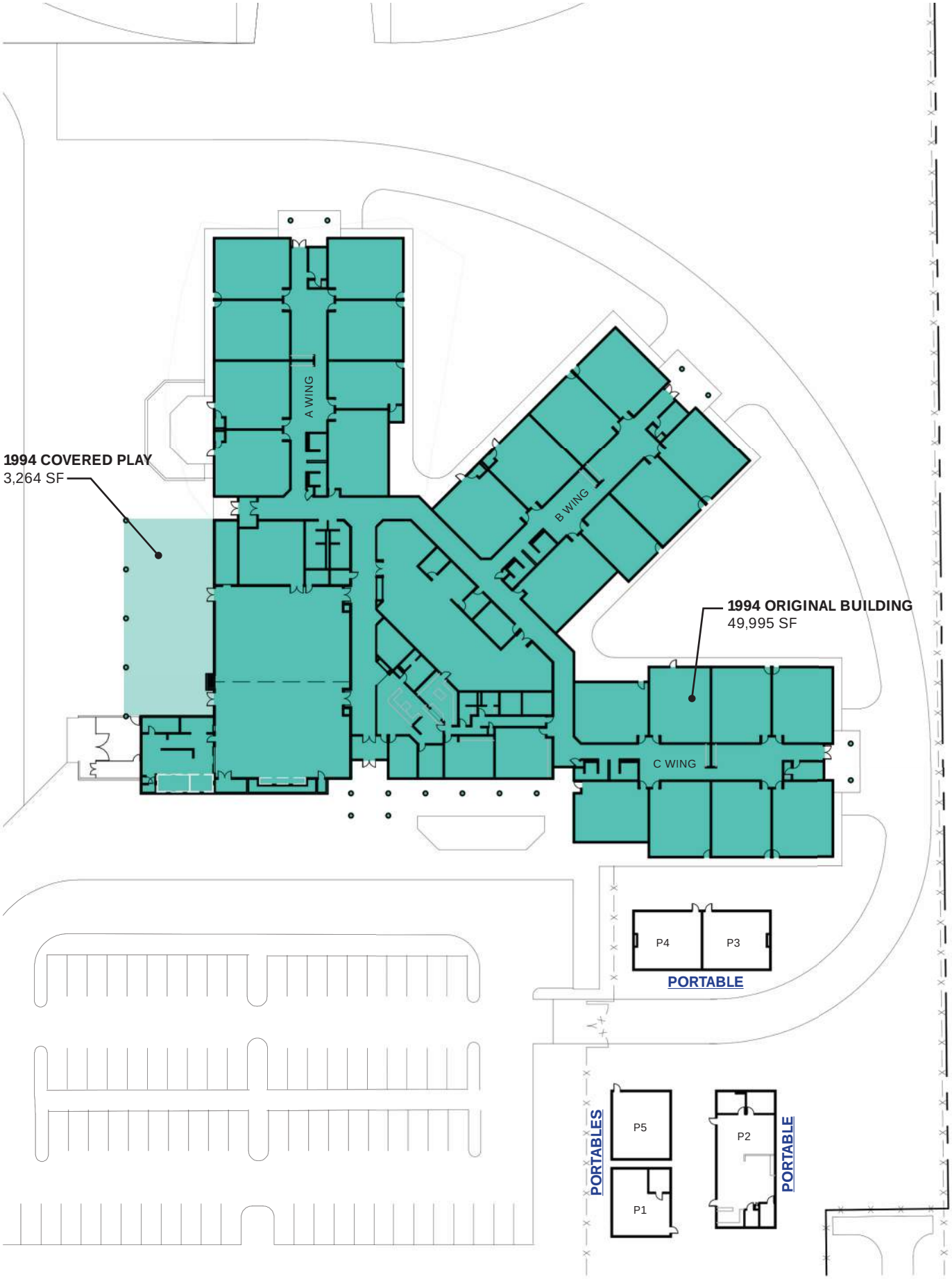
		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
R3.17	*Contact manufacturer for repair recommendations regarding the Tiger Stadium track surface.*				X		
R3.18	*Contact manufacturer for repair recommendations of burnt patches in the synthetic turf football field at Tiger Stadium.*				X		
R3.19	*Consider spreading grass seed at exposed dirt areas near Tiger Stadium entry.*				X		
R3.20	*Consider replacing all carpet as part of a future renovation project.*					X	
R3.21	*Replace sheet vinyl at nurse's restroom as part of a future renovation project.*					X	
R3.22	*Consider replacement of finishes throughout the administration wing as part of a future renovation project.*					X	
R3.23	*Consider replacement of casework throughout the administration wing that is worn and showing its age.*					X	
R3.24	*Replace carpet at Portable P4 if space will be utilized for instructional purposes.*					X	
R3.25	*Monitor welcome ramp system at portables, and replace before it poses a trip hazard.*					X	
R3.26	*Install splash blocks at all portable building downspouts as necessary to direct water flow away from building.*					X	
R3.27	*Replace flooring at Portable P3 with a product suitable for program needs.*					X	
R3.28	*Replace carpet in technology area as part of a future flooring project.*						X

P1.1	*Consider options to address overcrowding at the Elementary School level.*	X	X				
P1.2	*Nurse's area at the middle school should be evaluated to determine whether it is meeting program and accessibility needs.*			X			
P1.3	*Consider a future renovation project to upgrade the family & consumer science classroom to support a culinary arts curriculum.*				X		
P1.4	*Evaluate needs of the baseball program to determine whether to renovate the wrestling room to be suitable for indoor batting practice, or move to a detached structure.*				X		
P1.5	*Evaluate need for group versus individual shower stalls in the high school locker rooms.*				X		

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
P1.6	*Equity in classroom technology should be established.*				X		
P1.7	*Conduct a full programmatic review of the locker rooms to determine how the space could be more efficiently used.*					X	
P1.8	*Nurse's area should be evaluated to determine whether it is meeting program and accessibility needs.*					X	
P1.9	*Modify exterior door threshold to allow for smooth operation of loading / unloading food pallets at Food Bank storage room.*						X
P2.1	*Assess outdoor play equipment to ensure it is appropriate for grade levels served.*	X	X				
P2.2	*Assess need for a more permanent fencing solution at preschool play area.*	X					
P2.3	*Ensure each science classroom is equipped with an ADA accessible sink.*			X			
P2.4	*Reconfigure middle school student store to provide equal student access.*			X			
P2.5	*Evaluate acoustics of the student academic locker area at the middle school to determine whether acoustical treatments could benefit the space.*			X			
P2.6	*Investigate middle school commons restroom to determine how to provide an ADA accessible restroom.*			X			
P2.7	*Evaluate the extent of need for locker room facilities at the middle school in order to optimize the space.*			X			
P2.8	*Evaluate the need for a weight room at the middle school.*			X			
P2.9	*Re-configure student store to provide equal student access and address current program needs.*				X		
P2.10	*Consider a future renovation project to replace science casework as necessary.*				X		
P2.11	*Replace missing shower rod at mens coach's changing room.*				X		
P2.12	*Consider renovating underutilized satellite workrooms to create flexible instructional space to accommodate current teaching models, such as small group activities or personalized learning.*				X		
P2.13	*Re-configure student store to provide equal student access and address current program needs.*				X		
P2.14	*Consider a future CTE addition to provide more program space.*				X		
P2.15	*Evaluate program needs to determine most efficient use of prior drying room in boys locker room.*				X		

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
P2.16	*Install resilient athletic flooring at Crossroads High School weight room.*					X	
P3.1	*Replace standard drinking fountains will bottle filling stations.*	X	X	X	X	X	
P3.2	*Preschool classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*	X					
P3.3	*Pre-Kindergarten and Kindergarten classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*		X				
P3.4	*Install a one-hour wall membrane to replace the fire shutter at the administration mailboxes.*		X				
P3.5	*Cover basketball court and replace baskeball hoops.*						
P3.6	*Consider replacement of the middle school's grass football field with synthetic turf field.*			X			
P3.7	*Evaluate the extent of district need for a middle school baseball field to determine if field can be optimized.*			X			
P3.8	*The middle school lacks flexible and adaptable instructional space to accommodate current teaching models. There are no flexible shared learning spaces for small group activities or personalized learning in the main middle school building.*			X			
P3.9	*Consider a future project to replace all horizontal mini blinds with new blinds or roller shades.*				X		
P3.10	*Consider a future renovation project to upgrade the art classroom.*				X		
P3.11	*Evaluate program needs for upgraded sports laundry equipment.*				X		
P3.12	*Consider replacement of grass soccer field with a synthetic turf field.*				X		
P3.13	*Remove non-ADA compliant sinks at conference rooms, or replace with an ADA-compliant unit.*					X	
P3.14	*Conduct a full programmatic review of the administration wing, including any necessary AV, power and technology upgrades.*					X	
P3.15	*Conduct a programmatic review of space used by the technology department to determine how the building could be more efficiently used.*						X

		Monte Cristo ES	Mountain Way ES	GFMS	GFHS	CHS / Admin	Pop Rogers
E1.1	*Replacing single pane exterior windows will improve the buildings thermal performance.*			X		X	X
E2.1	*As part of a major re-siding and re-roofing project, consider investigating and adding thermal insulation to the pre-2001 Crossroads / Administration building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*					X	
E3.1	*Consider a larger renovation project which could add thermal insulation to the Pop Rogers building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*						X


1994 COVERED PLAY
3,264 SF
A WING
B WING
1994 ORIGINAL BUILDING
49,995 SF
C WING
P4
P3
PORTABLE
PORTABLES
P5
P1
P2
PORTABLE

MONTE CRISTO ELEMENTARY SCHOOL

GENERAL BUILDING DESCRIPTION

Monte Cristo is a one-story building constructed in 1994 based on the prototype plans for Mountain Way Elementary with minor modifications, such as a change in corridor width. The building is on the same 26 acre campus as Granite Falls High School, and the district's maintenance building.

Originally designed to accommodate grades K-6, the building currently houses 418 students in grades 3-6, as well as supporting an Early Childhood Education and Assistance Program (ECEAP) for preschool aged students. The building design is comprised of three almost identical classroom wings fanning out from central core facilities including administration, library, gym, and other support spaces.

ARCHITECTURAL ANALYSIS

SITE

Vehicular and pedestrian traffic enters the site off 100th St NE / Burn Road. There is a separate bus loop for loading and unloading. The bus loop appears to be adequately sized to accommodate efficient drop-off and pick up of the student population of the elementary school. Pedestrian and vehicular access is in good condition and clearly defined. No deficiencies or concerns were noted.

Parking consists of 86 standard parking spaces and four accessible stalls. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus. A paved emergency access surrounds the entire building.

Landscaping is minimal throughout the campus, but well maintained. Grass play areas are located to the north of the school. These playfields are shared with the high school.

Overall the school site is in good condition and no apparent deficiencies were observed.

STRUCTURE

The school is a single story wood framed building of Type V 1-hour construction. The foundation consists of conventional reinforced concrete strip footings with a 4" slab-on-grade. The roof is open web TJL roof joists with plywood sheathing and asphalt shingles. The lateral force resisting system consists of a flexible wood diaphragm that transfers lateral load to the perimeter, reinforced masonry and plywood sheathed wood stud bearing walls. The reinforced masonry and plywood sheathed wood stud bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

No signs of structural distress, structural deterioration or differential settlement were observed. The building appears to be in good structural repair.

BUILDING ENVELOPE

Siding consists of brick veneer up to approximately 7'-6" with horizontal beveled cedar siding above. Siding is generally in good condition, but signs of weathering are apparent on the painted cedar siding. Siding should be prepped and re-painted to prolong life.

Minor signs of efflorescence were visible at the brick walls of the service yard enclosure. While in this location efflorescence itself isn't dangerous, it is a sign of moisture intrusion. The enclosure should be monitored for signs of structural degradation due to moisture infiltration.

Roofing typically consists of asphalt composition shingles on a 3:12 slope, with two small areas of built up roof (BUR). Roofing was replaced in 2002, which places it approximately 80% through its expected serviceable life. No active roof leaks were reported. Roofing should be monitored to determine when replacement is warranted. Through-wall flashing was observed to have slipped at the high wall above the covered play roof. Condition should be corrected at time of re-roofing, and all transitions and flashings inspected.

The windows are aluminum with integral window blinds at the exterior. Exterior doors and frames are painted hollow metal. Exterior doors were recently repainted, and are in good condition. A door lock cylinder replacement district-wide is recommended to ensure building security.

Painted metal downspouts are connected to continuous sheet metal gutters. The storm drainage receiver sleeve at the base of multiple downspouts around the classroom wings were observed to have slipped. Sleeves should be secured to the base of downspout to ensure efficient drainage.

16" diameter peeler pole columns support canopies around the building. Multiple instances of rot was observed at the bases of the peeler poles where the wood has wicked water. Peeler poles appear to be nearing the end of their useful life. It is likely that by the time the rot has been removed, there will not be enough structural integrity in the peeler pole to allow it to remain. Further investigation is highly recommended to determine best course of action for each column; however, we anticipate it will likely be more expensive to repair and keep the poles than to replace with something new.

> *Cedar siding is showing signs of weathering and should be prepped and painted to prolong serviceable life.*
> *Monitor efflorescence at service yard enclosure.*
> *Roofing & all associated transitions and flashings should be carefully monitored over the next 3-5 years as it is reaching the end of its expected serviceable life.*
> *Replace door lock cylinders district-wide.*
> *Re-secure downspout sleeves at base of all downspouts.*
> *Engage a structural engineer to do a full assessment of all peeler poles. Repair / replace peeler pole columns as necessary.*

^ *Degradation visible at wood peeler pole columns.*

^ *High wall over the covered play area showing weathering at cedar siding and slipped piece of through-wall flashing.*

^ *Secure sleeve to base of downspouts.*

THERMAL ENVELOPE

The school is insulated with R-19 batt insulation at the exterior walls, and R-19 batt insulation at the roof. All windows are insulated double pane aluminum providing adequate thermal performance. The thermal envelope of this building is appropriate for the age of the facility and should continue to perform efficiently.

BUILDING ACCESSIBILITY

No significant accessibility issues were observed.

INTERIOR FINISHES & EQUIPMENT

Interior finishes typically consist of vinyl composition tile (VCT) and carpet flooring, painted gypsum walls, ceramic tile walls and floors in the restrooms, exterior hollow metal doors and frames, interior plastic laminate faced doors set in hollow metal frames and suspended acoustical ceilings.

FLOORS

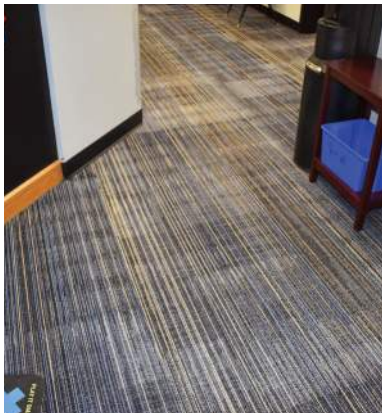
Slab on grade is in good condition, with minimal signs of cracking or wear. Interior flooring typically consists of carpet and VCT flooring, and ceramic tile floors in the restrooms.

Carpet was replaced in the administration area and library in 2020, and is in excellent condition. Carpet in the classrooms appear original to the building (27 years old) and is in fair condition, although signs of wear and staining exist. Consider replacing all remaining original carpet as part of a future flooring project.

VCT appears original to the building is generally in good condition, with few exceptions. The area near the entrance to the main mechanical room bore the brunt of the water damage from the leak in 2020. Area should be carefully monitored and tiles replaced if further deterioration is observed.

Ceramic tiles are aging appropriately. No concerns were noted.

Gym resilient flooring original to the building and is worn, but serviceable. Consider re-striping the gymnasium court lines as part of a future flooring project.



Newly installed carpet at administration and library.

VCT damage at mechanical room entry door.

Resilient flooring at gymnasium.

> *Consider a future project to replace all original carpet and re-stripe the gym flooring at Monte Cristo Elementary.*

INTERIOR WALLS & FINISHES

Walls are generally painted gypsum board with exposed masonry in some areas. Lack of protective covering at the classrooms and corridors means that minor scuffs, tears, and dings are apparent where exposed gypsum occurs.

Restrooms have ceramic tile wainscot that is generally in good condition and aging appropriately. No concerns were noted.

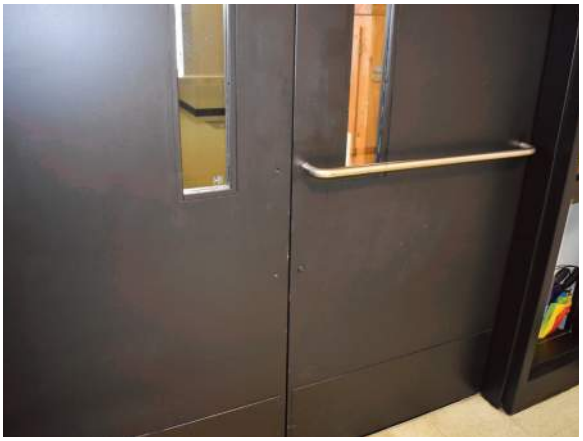
INTERIOR WINDOWS AND DOORS

Generally, the interior doors and window are in good condition, with few exceptions. One entry door was missing door hardware. It was reported that this door hardware has become obsolete and is no longer manufactured. The team recommends reaching out to a door hardware specialist to determine a suitable replacement.

Our team observed instances of wired glass relites in this facility. In recent years we have noted that district risk management assessments are beginning to encourage the replacement of these panels when and where feasible.

Interior doors are generally faced with plastic laminate, which is beginning to crack, de-laminate and break away. Monitor degradation and replace door when function is called into question.

> *Replace missing door hardware at entry door.*
> *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*
> *Monitor plastic laminate faced doors for degradation and replace when function is called into question.*



^ *Missing door hardware at entry door.*

^ *Plastic laminate facing at interior door is beginning to show signs of age.*

CEILINGS

The acoustical panel ceiling is generally in fair condition across the building. Staining was observed on tiles across the building due to leaking fittings when the boiler was recently turned off for repair. If fresh staining continues to occur the area should be studied to determine the cause of the water damage.

> *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*

FIXED FURNISHINGS

Casework and finishes throughout the building are worn in a fashion appropriate to their age but are due to be refreshed.

> *Consider replacing all elementary casework and finishes as part of a larger renovation project.*

EQUIPMENT + MOVABLE FURNISHINGS

The operable partition and telescoping stage at the gymnasium is inspected and maintained yearly, and in good condition. No concerns were noted.

While originally built to support grades K-6, Monte Cristo Elementary has specialized to house grades 3-6, and ECEAP. The outdoor play equipment should be assessed and replaced as required to support safe play for these age levels.

> *Assess outdoor play equipment to ensure it is appropriate for grade levels served.*

GENERAL OBSERVATIONS

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

Preschool classes are being held in a standard sized classroom. Current educational standard is to provide larger sized classrooms for this grade level.

Overcrowding was reported to be a problem at the elementary level. Please see "*Permanent Functional Capacity Assessment*" on page 28 for our findings.

> *Replace standard drinking fountains will bottle filling stations.*
> *Preschool classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*

MECHANICAL / ELECTRICAL

Heating is provided by three gas fired hot water boilers. Circulating pumps distribute hot water to heating coils at the air handling units. The domestic hot water system is served by a gas fired water heater. The 2015 Study & Survey indicates the boilers are due for replacement.

We recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a masterplan for replacement of aging systems, and to provide insight into potential energy-saving measures.

> *Assess boilers to determine when replacement is necessary.*
> *Engage a mechanical and electrical engineer to provide a full facility assessment.*

MODULAR CLASSROOM BUILDINGS

Monte Cristo Elementary operates with 5 modular classrooms in 4 portable buildings. All portable buildings across the district are reportedly planned to be re-roofed in the summer of 2021.

PORTABLE P1 - Currently contains a preschool class. A quarter of the room is walled off with semi-temporary walls to create an office not associated with the preschool program. Consider moving this office to another location to provide more room for the preschool program.

PORTABLE P2 - Currently contains a preschool class in a double-sized space.

PORTABLE P3 / P4 - Currently houses a speech program in P3 and the OT/PT program in P4.

PORTABLE P5 - Currently houses the Health classroom.

Portable P3/P4 appears to be a newer addition and the siding is in fair shape, but would benefit from a fresh coat of paint to extend the serviceable life of the siding and skirting.

The remaining three portables are older and are showing signs of aging siding and roofing. The skirting has been replaced around portable P5, but has not been painted. All siding and skirting should be cleaned, repaired, and painted to extend the serviceable life.

Wood fence structure surrounding the preschool play area has been supplemented with orange plastic mesh safety barrier fence. Assess need for a more permanent fencing solution.

> *Portable siding is showing signs of weathering and should be prepped and painted to prolong serviceable life.*
> *Assess need for a more permanent fencing solution at preschool play area.*

^ *Semi-temporary office located in Portable P1*

^ *Visible weathering of the siding at Portable P5*

^ *Safety barrier fencing over wood fence structure.*

SUMMARY OF FINDINGS: MONTE CRISTO ELEMENTARY

SAFETY

S1 *Replace door lock cylinders district-wide.*

S1 *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

LEGAL/CODE

L1 *Replace missing door hardware at entry door.*

LIFE CYCLE REPLACEMENT / REPAIR

R1 *Cedar siding is showing signs of weathering and should be prepped and painted to prolong serviceable life.*

R1 *Roofing & all associated transitions and flashings should be carefully monitored over the next 3-5 years as it is reaching the end of its expected serviceable life.*

R1 *Engage a structural engineer to do a full assessment of all peeler poles. Repair / replace peeler pole columns as necessary.*

R1 *Engage a mechanical and electrical engineer to provide a full facility assessment.*

R2 *Assess boilers to determine when replacement is necessary.*

R2 *Portable siding is showing signs of weathering and should be prepped and painted to prolong serviceable life.*

R3 *Monitor efflorescence at service yard enclosure.*

R3 *Re-secure downspout sleeves at base of all downspouts.*

R3 *Consider a future project to replace all original carpet and re-striping the gym flooring.*

R3 *Monitor plastic laminate faced doors for degradation and replace when function is called into question.*

R3 *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*

R3 *Consider replacing all elementary casework and finishes as part of a larger renovation project.*

PROGRAM

P1 *Consider options to address overcrowding at the Elementary School level.*

P2 *Assess outdoor play equipment to ensure it is appropriate for grade levels served.*

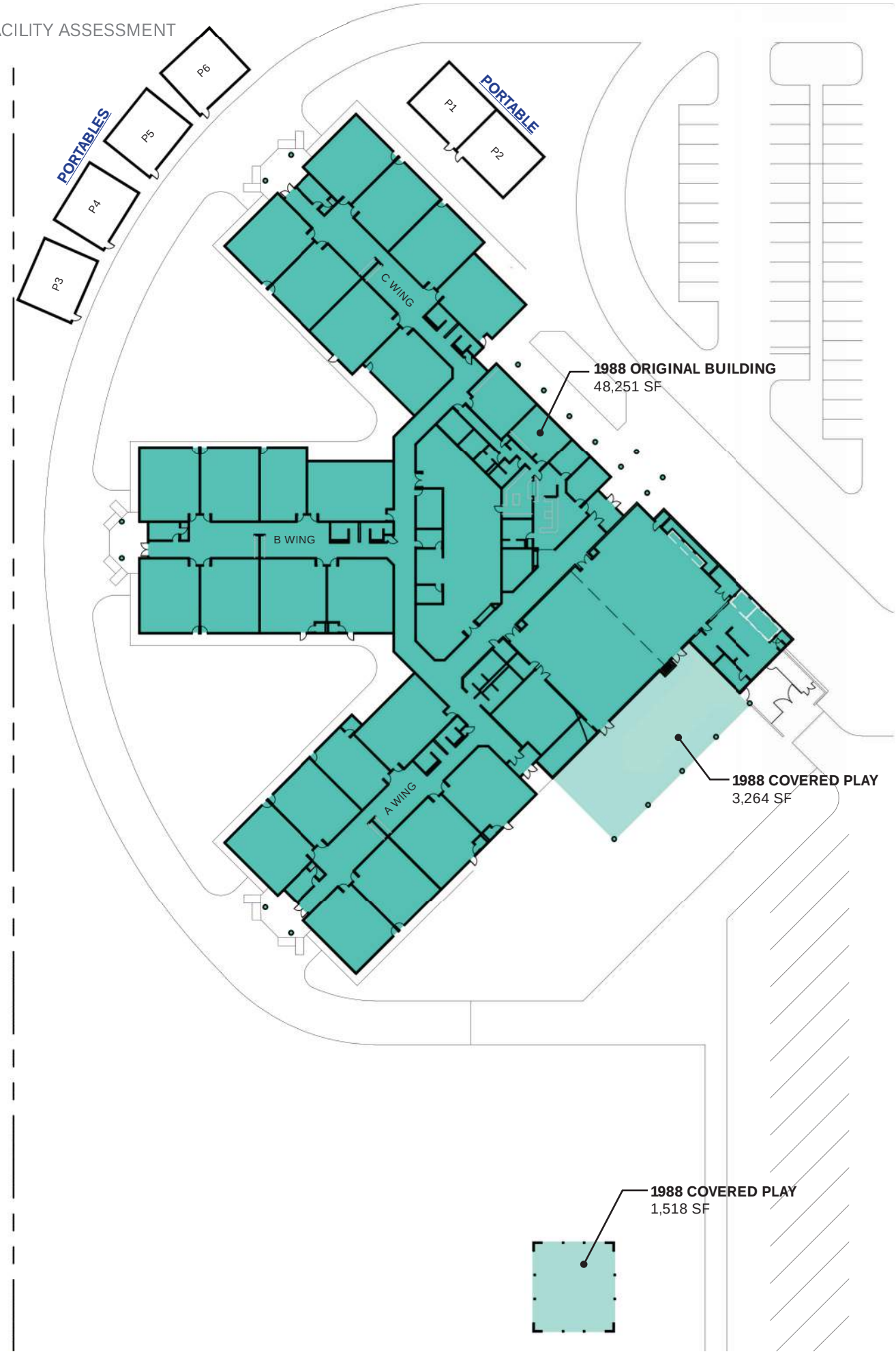
P2 *Assess need for a more permanent fencing solution at preschool play area.*

P3 *Replace standard drinking fountains will bottle filling stations.*

P3 *Preschool classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*

ENERGY SAVINGS

None noted.


PORTABLES
P6
P5
P4
P3
PORTABLE
P1
P2
C WING
B WING
A WING
1988 ORIGINAL BUILDING
48,251 SF
1988 COVERED PLAY
3,264 SF
1988 COVERED PLAY
1,518 SF

MOUNTAIN WAY ELEMENTARY SCHOOL

GENERAL BUILDING DESCRIPTION

Mountain Way is a one-story building constructed in 1988. Originally designed to accommodate grades K-3, the building currently supports 511 students in grades PK-2. The building design is comprised of three almost identical classroom wings fanning out from central core facilities including administration, library, gym, and other support spaces.

ARCHITECTURAL ANALYSIS

SITE

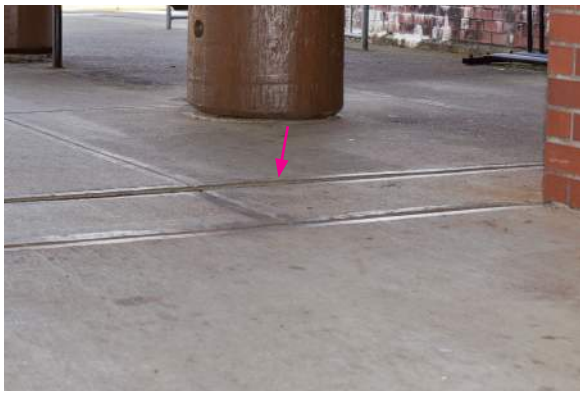
Vehicular and pedestrian traffic enters the site off North Granite Ave. There is a separate bus loop for loading and unloading. The bus loop appears to be adequately sized to accommodate efficient drop-off and pick up of the student population of the elementary school. Pedestrian and vehicular access is in good condition and clearly defined. No deficiencies or concerns were noted.

The asphalt is in fair condition with instances of minor cracking and spalling which will continue to deteriorate at an accelerated rate. Concrete paving is generally in good condition. One area of paving directly outside the main entry was observed to be slightly raised. Carefully monitor condition to ensure it does not become a trip hazard, or exceed ADA thresholds (1/4") for a change in level without edge treatment.

Parking consists of 62 standard parking spaces and two accessible stalls. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus. A paved emergency access surrounds the entire building.

Landscaping is minimal throughout the campus, but well maintained. Grass play areas are located to the south of the school. An additional freestanding covered play area is located on the playfield adjacent to the school.

> Monitor asphalt surfaces for deterioration.
> Monitor concrete paving 'lip' at main entry.



Raised lip in concrete paving at main entry.

Ramping system to covered playshed.

STRUCTURE

The school is a single story wood framed building of Type V 1-hour construction. The foundation consists of conventional reinforced concrete strip footings with a 4" slab-on-grade. The roof is open web TJL roof joists with plywood sheathing and asphalt shingles. The lateral force resisting system consists of a flexible wood diaphragm that transfers lateral load to the perimeter, reinforced masonry and plywood sheathed wood stud bearing walls. The reinforced masonry and plywood sheathed wood stud bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

No signs of structural distress, structural deterioration or differential settlement were observed. The building appears to be in good structural repair.

BUILDING ENVELOPE

Siding consists of brick veneer up to approximately 7'-6", with horizontal beveled cedar siding above. Siding is generally in good condition, but signs of weathering is apparent at some areas of the fascia. Where weather is occurring, fascia should be prepped and re-painted to prolong life.

Efflorescence is visible at the brick walls at the entrance to the building. While in this location efflorescence itself isn't dangerous, it is a sign of moisture intrusion. The wall should be monitored for signs of structural degradation due to moisture infiltration.

Roofing typically consists of asphalt composition shingles on a 3:12 slope, with two small areas of built up roofing (BUR). Roofing was replaced in 2002, which places it approximately 80% through its expected serviceable life. No active roof leaks were reported. Roofing should be monitored to determine when replacement is warranted.

The windows are aluminum with integral window blinds at the exterior. Exterior doors and frames are painted hollow metal, and are due for paint to be refreshed on the interior. A door lock cylinder replacement district-wide is recommended to ensure building security.

16" diameter peeler pole columns support canopies around the building. Multiple instances of rot was observed at the bases of the peeler poles where the wood has wicked water. Peeler poles appear to

Efflorescence at entry wall

Checking and rot apparent at multiple peeler pole locations.

be nearing the end of their useful life. It is likely that by the time the rot has been removed, there will not be enough structural integrity in the peeler pole to allow it to remain. Further investigation is highly recommended to determine best course of action for each column; however, we anticipate it will likely be more expensive to repair and keep the poles than to replace with something new.

> *Areas of the fascia are showing signs of weathering and should be prepped and painted to prolong serviceable life.*
> *Monitor efflorescence at entry walls.*
> *Roofing & all associated transitions and flashings should be carefully monitored over the next 3-5 years as it is reaching the end of its expected serviceable life.*
> *Refresh paint at exterior hollow metal doors.*
> *Replace door lock cylinders district-wide.*
> *Engage a structural engineer to do a full assessment of all peeler poles. Repair / replace peeler pole columns as necessary.*

THERMAL ENVELOPE

The school is insulated with R-19 batt insulation at the exterior walls, and R-19 batt insulation at the roof. All windows are insulated double pane aluminum providing adequate thermal performance. The thermal envelope of this building is appropriate for the age of the facility and should continue to perform efficiently.

BUILDING ACCESSIBILITY

No significant accessibility issues were observed.

INTERIOR FINISHES & EQUIPMENT

Interior finishes typically consist of vinyl composition tile (VCT) and carpet flooring, painted gypsum walls, ceramic tile walls and floors in the restrooms, exterior hollow metal doors and frames, interior plastic laminate faced doors set in hollow metal frames and suspended acoustical ceilings.

FLOORS

Slab on grade is in good condition, with minimal signs of cracking or wear. Interior flooring typically consist of carpet and VCT flooring, and ceramic tile floors in the restrooms.

Carpet in the classrooms appears original to the building (33 years old) and is in fair condition, although signs of wear and staining exist. Consider replacing all original carpet as part of a future flooring project.

VCT appears original to the building is generally in good condition, with few exceptions. Areas of pronounced cracking should be carefully monitored and tiles replaced if further deterioration is observed.

Ceramic tiles are aging appropriately. No concerns were noted.

Gym resilient flooring is original to the building and is worn, but serviceable. Consider re-striping the gymnasium court lines as part of a future flooring project.

> *Consider a future project to replace all original carpet and re-stripe the gym flooring at Mountain Way Elementary.*

> *Carefully monitor cracking in VCT. Replace or patch if tile begins to break loose.*

INTERIOR WALLS & FINISHES

Walls are generally painted gypsum board with exposed masonry in some areas. Lack of protective covering at the classrooms and corridors means that minor scuffs, tears, and dings are apparent where exposed gypsum occurs.

Restrooms have ceramic tile wainscot that is generally in good condition and aging appropriately. No concerns were noted.

INTERIOR WINDOWS AND DOORS

Generally, the interior doors and window are in good condition, with few exceptions. Interior doors are generally faced with plastic laminate, which is beginning to crack, de-laminate and break away. Monitor degradation and replace door when function is called into question.

Our team observed instances of wired glass relites in this facility. In recent years we have noted that district risk management assessments are beginning to encourage the replacement of these panels when and where feasible.

The team recommends removing the interior horizontal mini blinds from the relite at the quiet room, for student safety.

> *Monitor plastic laminate faced doors for degradation and replace when function is called into question.*
> *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*
> *Remove interior horizontal mini blinds at the quiet room.*

CEILINGS

The acoustical panel ceiling is generally in fair condition across the building. Staining was observed on tiles across the building due to leaking fire sprinkler pipe victaulic fittings. Repairs were underway. If fresh staining continues to occur the area should be studied to determine the cause of the water damage.

^ *Pronounced cracking in VCT at corridor.*

^ *Wear and rips in the operable divider curtain at the gymnasium*

^ *The plastic laminate finish is peeling away from the interior doors.*

> *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*

FIXED FURNISHINGS

Casework and finishes throughout the building are worn in a fashion appropriate to their age but are due to be refreshed. Some handles are missing. Furniture and lunchroom tables are aging, and due for replacement.

> *Consider replacing all elementary casework and finishes as part of a larger renovation project.*
> *Consider replacing all furniture and lunchroom tables.*

EQUIPMENT + MOVABLE FURNISHINGS

The telescoping stage at the gymnasium is inspected and maintained yearly, and in good condition. The gymnasium divider curtain is worn and in need of replacement.

While originally built to support grades K-3, Mountain Way Elementary has specialized to house grades PK-2, and ECEAP. The outdoor play equipment should be assessed and replaced as required to support safe play for these age levels.

> *Replace gym divider curtain at Mountain Way Elementary.*
> *Assess outdoor play equipment to ensure it is appropriate for grade levels served.*

GENERAL OBSERVATIONS

It was reported that the school wishes to enclose the school administration mailboxes in order to remove the fire shutters at the workroom. When this school was constructed the UBC required 1-hour rated corridors, and the mailboxes are located within one such wall, necessitating the fire shutters.

In order to remove the fire shutter, the district will need to erect a one-hour wall membrane based on UL Design U 301. This membrane consists of two layers of 5/8" type X gypsum board directly applied to framing or furring. Specific requirements apply to both the amount and type of fasteners, as well as joint spacing between drywall sheets.

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

Pre-Kindergarten and Kindergarten classes are being held in a standard sized classroom. Current educational standard is to provide larger sized classrooms for this grade level.

The 2015 Study & Survey indicates that the Mountain Way Elementary readerboard is due for refurbishment.

> *Install a one-hour wall membrane to replace the fire shutter at the administration mailboxes.*
> *Replace standard drinking fountains will bottle filling stations.*
> *Pre-Kindergarten and Kindergarten classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*
> *Refurbish readerboard.*

PERMANENT FUNCTIONAL CAPACITY ASSESSMENT

Currently OSPI reports that 511 students attend Mountain Way Elementary in Pre-Kindergarten through 2nd grade.

At Monte Cristo Elementary, 418 students are reported to be enrolled in grades 3-6. It is also understood that the school supports an additional ECEAP preschool program in two classrooms within the building.

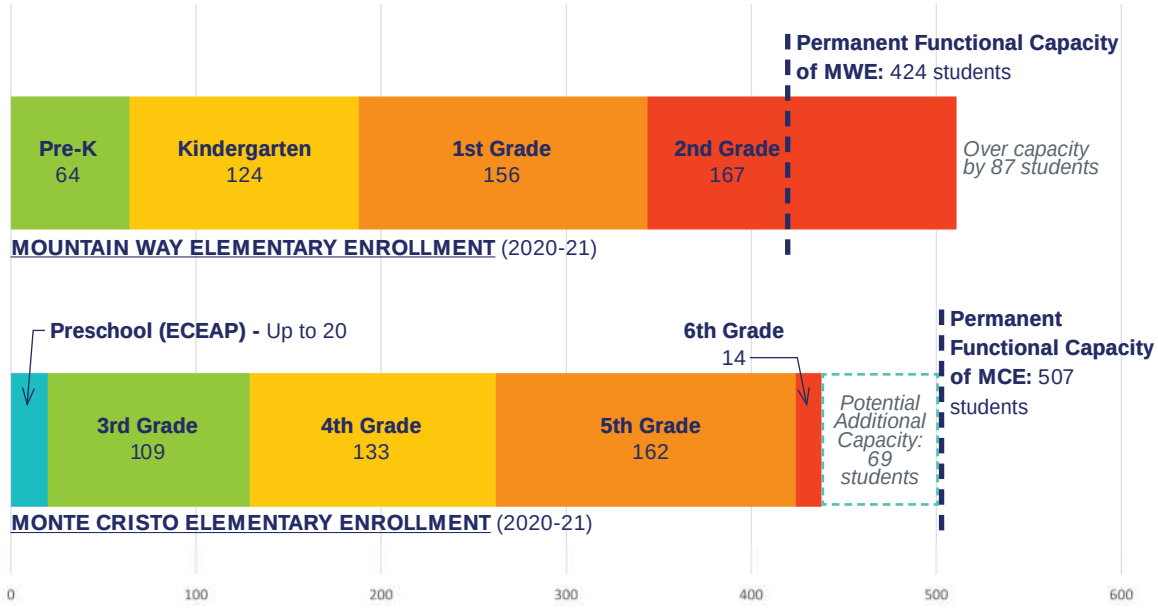
Under typical (non-COVID) operations, the permanent functional school capacity of the two elementary schools can be described as follows based on the current reported use of available classrooms. Target class size is based on the staffing goal outlined in Section 8.7.4 - *K-5 Classrooms* and Section 8.7.7 - *Special Education Employees' Workload* of the 2018-2021 Collective Bargaining Agreement between the Granite Falls School District and the Granite Falls School Association.

MOUNTAIN WAY ELEMENTARY:

Grade	# of Rooms	Target Class Size	Student Capacity
PK-2	20	20	400
Self-Contained Sp Ed	2	12	24
Total Classrooms:	**22***		
Total Permanent Functional School Capacity:			**424**
Current Enrollment (October 2020):			**511 Head Count**

** Mountain Way Elementary was built with 24 general classrooms, however, two classrooms are currently being used as a Resource Room and for Speech. Additionally, the campus has 6 portable classrooms which currently house 2 general classrooms, OT/PT, the Psychologist, and general storage.*

By this quick analysis, Mountain Way Elementary is overcapacity by 87 students, which necessitates an average class size of 25 to 26 students.



MONTE CRISTO ELEMENTARY:

Grade	# of Rooms	Target Class Size	Student Capacity
Preschool (ECEAP)	2	10	20
3	6	20	120
4-6	13	27	351
Self-Contained Sp Ed	3	12	36
Total Classrooms:	**24***		
Total Permanent Functional School Capacity (Grades 3-6):			**507**
Current Enrollment (October 2020):			**418 Head Count**

** In addition to 24 general classrooms Monte Cristo Elementary has 5 portable classrooms which currently house 2 Preschool classes, OT/PT, a Health class, and Speech.*

While the two elementary schools are identical in classroom makeup, Mountain Way Elementary supports younger grade levels, which have a lower target class size of 20 students, decreasing the overall permanent functional capacity of the building.

OPSI projects enrollment to continue to increase at the elementary school level in Granite Falls School District over the next 5 years with an additional 91 K-6 students by 2026. OSPI's Enrollment Projection (Report 1049) can be found in the appendix of this document.

This high-level analysis of the functional capacity of the district's elementary schools suggests a current and persistent capacity problem. Further investigation is recommended to assess options to address overcrowding at the elementary level.

> Consider options to address overcrowding at the Elementary School level.

MECHANICAL / ELECTRICAL

Heating at Mountain Way Elementary is provided by gas fired hot water boilers. Circulating pumps distribute hot water to heating coils at the air handling units. The pump couplings were replaced in February 2020. The domestic hot water system is served by a gas fired water heater.

Junction covers were observed to be damaged at the school entry and attached covered play area. Due to the sharp edges these covers should be replaced immediately.

The 2015 Study & Survey indicates that various aspects of the HVAC, lighting, and intercom system are at the end of their serviceable life, and due for replacement. We recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a masterplan for replacement of aging systems, and to provide insight into potential energy-saving measures.

Damaged junction box cover at attached covered play area.

> *Replace damaged junction box covers at building exterior.*
> *Engage a mechanical and electrical engineer to provide a full facility assessment.*

MODULAR CLASSROOM BUILDINGS

Mountain Way Elementary operates with 4 modular classrooms in 3 portable buildings. All portable buildings across the district are reportedly planned to be re-roofed in the summer of 2021.

PORTABLE P1 / P2 - Currently houses the OT/PT program in P1, and the school psychologist in P2.

PORTABLE P3 - Currently operates as building storage.

PORTABLE P4 - Currently operates as custodial storage.

PORTABLE P5 - Moved to the site in 2021, this portable is planned to be used as a general classroom. Carpet should be replaced.

PORTABLE P6 - Moved to the site in 2021, this portable is planned to be used as a general classroom. Carpet should be replaced.

All siding and skirting should be cleaned, repaired, and painted as necessary to extend the serviceable life.

> *Prep and paint portable building skirting and siding as necessary to prolong serviceable life.*

SUMMARY OF FINDINGS: MOUNTAIN WAY ELEMENTARY

SAFETY

- **S1** *Monitor concrete paving 'lip' at main entry.*
- **S1** *Remove interior horizontal mini blinds at the quiet room.*
- **S1** *Replace damaged junction box covers at building exterior.*
- **S1** *Replace door lock cylinders district-wide.*
- **S1** *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

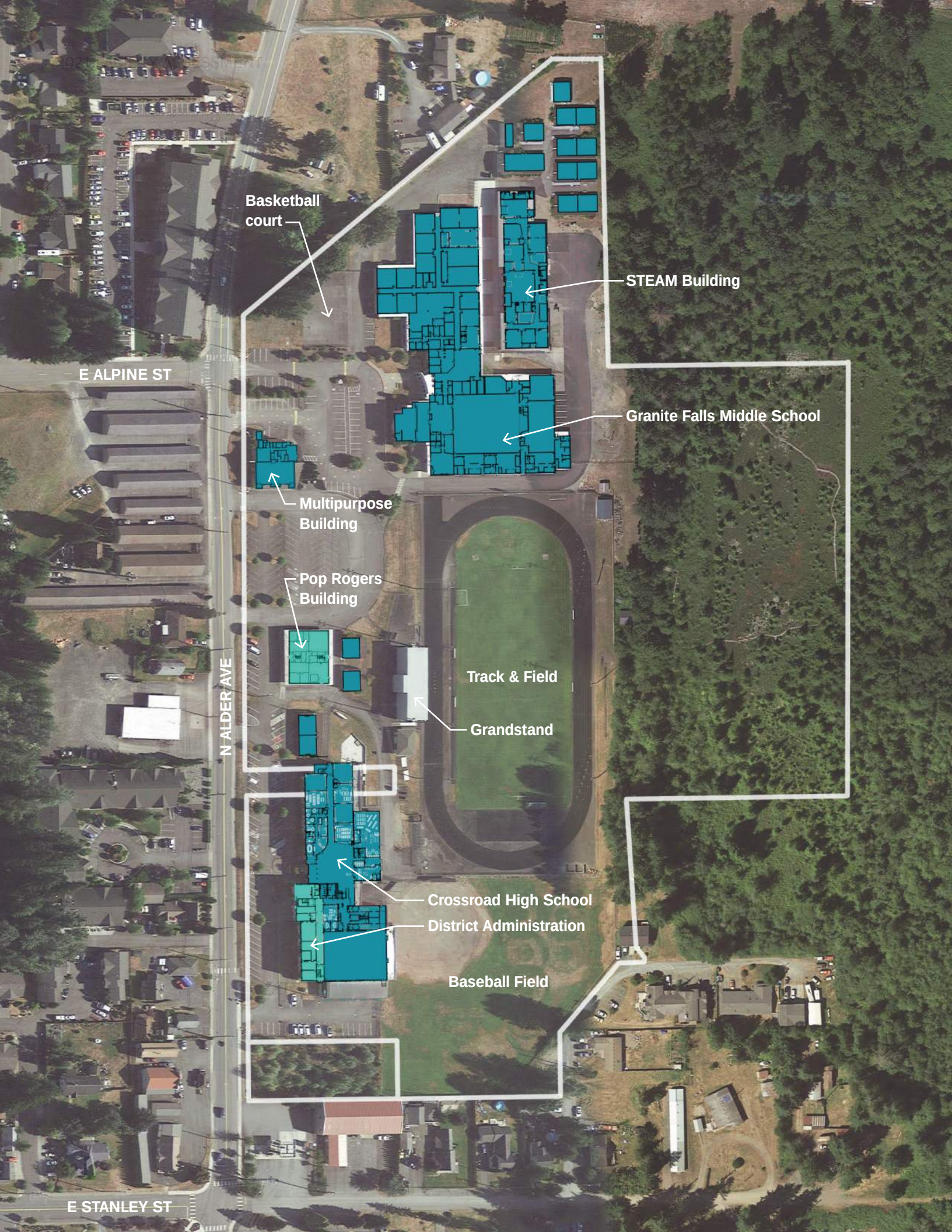
LIFE CYCLE REPLACEMENT / REPAIR

- **R1** *Roofing & all associated transitions and flashings should be carefully monitored over the next 3-5 years as it is reaching the end of its expected serviceable life.*
- **R1** *Engage a structural engineer to do a full assessment of all peeler poles. Repair / replace peeler pole columns as necessary.*
- **R1** *Engage a mechanical and electrical engineer to provide a full facility assessment.*
- **R2** *Areas of the fascia are showing signs of weathering and should be prepped and painted to prolong serviceable life.*
- **R2** *Carefully monitor cracking in VCT. Replace or patch if tile begins to break loose.*
- **R2** *Prep & paint portable building skirting & siding as necessary to prolong serviceable life.*
- **R3** *Monitor asphalt surfaces for deterioration.*
- **R3** *Monitor efflorescence at entry walls.*
- **R3** *Refresh paint at exterior hollow metal doors.*
- **R3** *Consider a future project to replace all original carpet and re-striping the gym flooring.*
- **R3** *Monitor plastic laminate faced doors for degradation and replace when function is called into question.*
- **R3** *Replace gym divider curtain at Mountain Way Elementary.*
- **R3** *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*
- **R3** *Consider replacing all elementary casework and finishes as part of a larger renovation project.*
- **R3** *Consider replacing all furniture and lunchroom tables.*
- **R3** *Refurbish readerboard.*

PROGRAM

- **P1** *Consider options to address overcrowding at the Elementary School level.*
- **P2** *Assess outdoor play equipment to ensure it is appropriate for grade levels served.*
- **P3** *Install a one-hour wall membrane to replace the fire shutter at the admin mailboxes.*
- **P3** *Replace standard drinking fountains will bottle filling stations.*
- **P3** *Pre-Kindergarten and Kindergarten classes are being held in standard sized classrooms. Educational standard is to provide a larger sized classroom for this grade level.*

LEGAL/CODE *and* **ENERGY SAVINGS** **-** *None noted.*


Basketball court
STEAM Building
E ALPINE ST
Granite Falls Middle School
Multipurpose Building
Pop Rogers Building
N ALDER AVE
Track & Field
Grandstand
Crossroad High School
District Administration
Baseball Field
E STANLEY ST

GRANITE FALLS MIDDLE SCHOOL

GENERAL BUILDING DESCRIPTION

Granite Falls Middle School consists of three one-story buildings: a main instructional building, a STEAM building, and a multipurpose building. The main middle school building and the STEAM building are connected by a covered walkway. The multipurpose building is located adjacent to N Alder Ave, across the parking lot. An additional 8 modular buildings provide additional classrooms, storage, and restroom facilities to support the campus.

ARCHITECTURAL ANALYSIS

SITE

The middle school shares a 24.5 acre campus with the Crossroads High School / Administration building. Vehicular and pedestrian traffic enter the site from North Alder Ave. Bus and vehicular traffic are separated. Parent drop-off occurs directly in front of the school, while the bus drop-off occurs directly to the south between the Middle School and Crossroads High School.

The asphalt is in fair condition with instances of minor cracking and spalling which will continue to deteriorate at an accelerated rate. Concrete paving is generally in good condition. An emergency access route almost surrounds the building.

Parking consists of 52 standard parking spaces and one accessible stall directly adjacent to the middle school. A second standard stall is marked as accessible, but does not have a designated loading/unloading zone, and therefore was not designated 'accessible' in this count. An additional 52 standard and four accessible stalls are located in the center of the bus loop shared with Crossroads High School. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus.

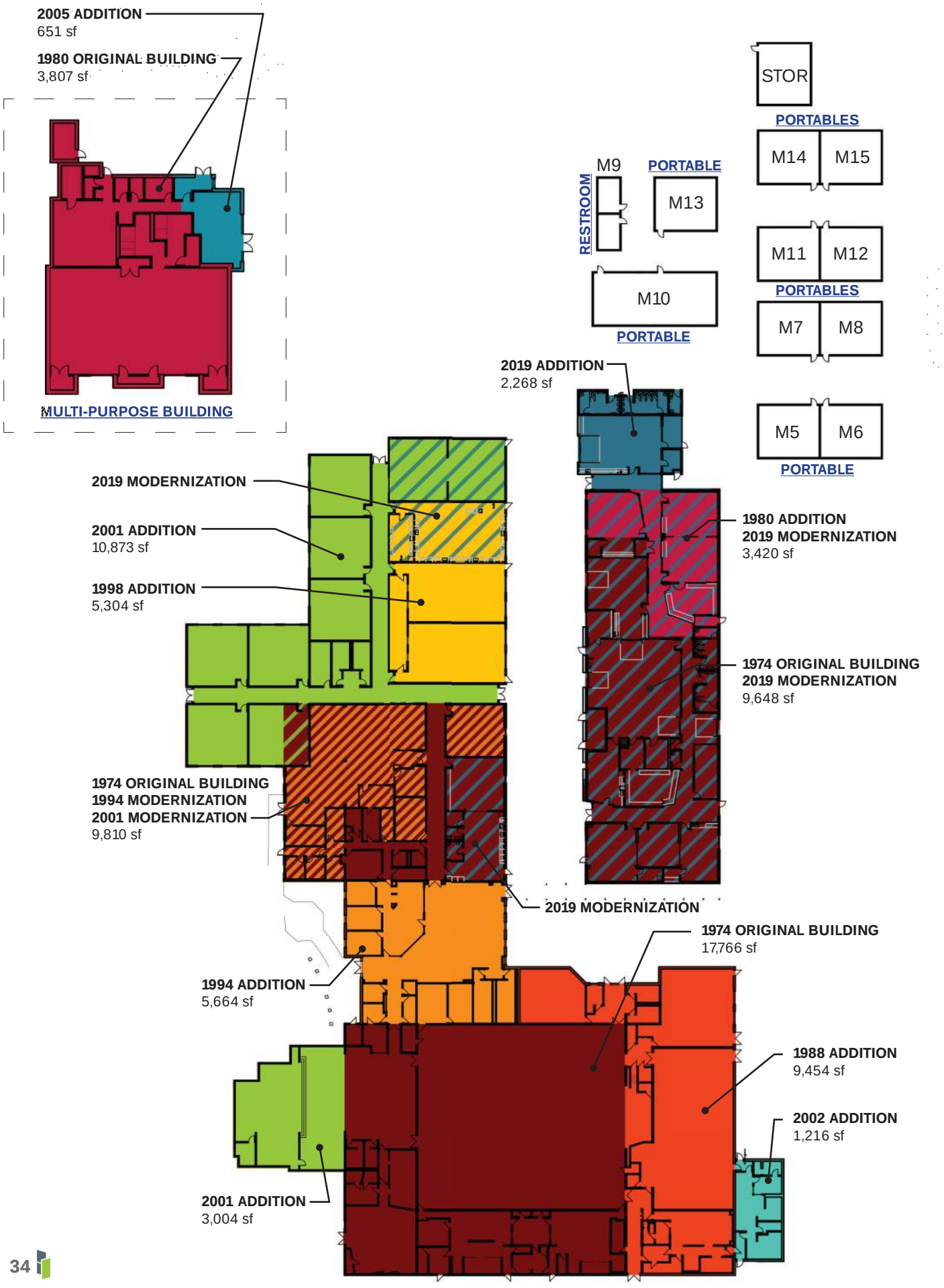
Landscaping is minimal throughout the campus, but well maintained. A full track and field as well as a baseball field are located to the south of the middle school and to the east of the Crossroads High School / Administration building. A semi-enclosed basketball court is located to the west of the middle school building. Consider covering the basketball court & replacing the hoops to increase usability.

> Monitor asphalt surfaces for deterioration.
> Cover basketball court and replace basketball hoops.

STRUCTURE

1974 ORIGINAL BUILDING

The original building is a single-story wood building with reinforced masonry walls. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade at the administration area, and a 3 1/2" slab-on-grade at the gymnasium area. The roof framing over the administration area consists of low-slope 22" TJI joists with 3/4" plywood sheeting. The roof structure over the gymnasium is a long span steel joist system with a wood deck. The roof over the locker rooms is constructed of glu-lam beams and one layer of 2x T&G wood decking perpendicular to the beams and


2005 ADDITION
651 sf
1980 ORIGINAL BUILDING
3,807 sf
MULTI-PURPOSE BUILDING
STOR
PORTABLES
M14
M15
M9
PORTABLE
RESTROOM
M13
M11
M12
PORTABLES
M10
PORTABLE
M7
M8
2019 ADDITION
2,268 sf
M5
M6
PORTABLE
2019 MODERNIZATION
2001 ADDITION
10,873 sf
1998 ADDITION
5,304 sf
1980 ADDITION
2019 MODERNIZATION
3,420 sf
1974 ORIGINAL BUILDING
2019 MODERNIZATION
9,648 sf
1974 ORIGINAL BUILDING
1994 MODERNIZATION
2001 MODERNIZATION
9,810 sf
2019 MODERNIZATION
1974 ORIGINAL BUILDING
17,766 sf
1994 ADDITION
5,664 sf
1988 ADDITION
9,454 sf
2002 ADDITION
1,216 sf
2001 ADDITION
3,004 sf

additional layer of plywood sheathing at the locker rooms. The buildings are single story structures with a flexible wood diaphragms that transfers lateral load to the perimeter reinforced masonry and concrete bearing walls. The reinforced masonry and concrete bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

1988 ADDITION

The addition is a single-story wood building with reinforced masonry walls. The conventional reinforced foundation with concrete strip footings supports a 3 1/2" slab-on-grade. The roof structure is of steel joist construction. The building is a single story structure with a flexible wood diaphragm that transfers lateral load to the perimeter, reinforced masonry and concrete bearing walls. The reinforced masonry and concrete bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

1994 ADDITION

The addition is a single-story wood building with wood-framed walls. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade. The roof framing over the administration area consists of low-slope 22" TJI joists with 3/4" plywood sheathing. The lateral force resisting system consists of wood panel sheathed walls throughout.

1998 ADDITION

The addition is a single-story wood building with wood-framed walls. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade. The roof framing over the administration area consists of low-slope TJI joists with plywood sheathing. The lateral force resisting system consists of wood panel sheathed walls throughout.

2001 ADDITION

The addition is a single-story wood building with wood-framed walls. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade. The building has a low pitched TJI joists with plywood sheathing and large overhangs except at the choral addition where parapet walls were constructed. The lateral force resisting system consists of wood panel sheathed walls throughout.

Granite Falls Middle School entrance, with 2001 choral addition visible in blue volume.

Granite Falls Middle School entry - 1994, 1974 and 2001 construction intersection.

2002 ADDITION

The addition is a slab on grade single story building with load bearing concrete masonry walls. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade. The building has a low pitched steel truss framed metal roof with metal decking. The building is a single story structure with a steel diaphragm that transfers lateral load to the masonry load bearing walls. The masonry bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

1974 ORIGINAL STEAM BUILDING + 1980 ADDITION

The STEAM building is all one-story with varying roof slopes and elevations. The original construction has a straight sheathed roof, glu-lam beams and concrete masonry unit (CMU) walls. The 1980 addition has plywood sheathing, 2x8 joists, glu-lam beams and CMU walls.

The STEAM building foundation consists of continuous strip footings below the structural masonry walls. The floor is a 4 1/2" slab-on-grade.

The masonry walls and the flexible timber diaphragms act as the primary elements of the lateral-load-resisting system. Earthquake-induced inertial forces occur within the diaphragms and perimeter walls perpendicular to the earthquake direction. The diaphragms collect and then transfer the forces to the perimeter masonry shear walls parallel to the earthquake motions. The walls transfer forces directly to the concrete strip footings. In turn, the forces on the footings are resisted by friction and bearing pressure against the surrounding soils.

During the 2019 addition to the STEAM building, seismic improvements were made to the existing structure including:

- Adding new plywood and nailing at the roof diaphragm
- Strengthening the 1980's clerestory with additional blocking and strapping
- Adding in-plane diaphragm connection to masonry walls with steel plates or angles and epoxy grouted bolts
- Adding out-of-plane wall bracing consisting of timber blocking, light-gage clips and epoxy grouted bolts parallel to glu-lam beam framing and non-load bearing masonry partition walls
- Strengthening the out-of-plane wall connection of the masonry walls to the glu-lam beams with metal straps and epoxy grouted bolts

STEAM building at courtyard side.

STEAM building at courtyard side.

2019 STEAM ADDITION

The 2019 addition is a single-story wood building with wood-framed walls. The conventional reinforced foundation with concrete strip footings supports a 5" slab-on-grade. The building has a low pitched glu-lam beams with plywood sheathing. The lateral force resisting system consists of wood panel sheathed walls throughout.

1980 ORIGINAL MULTIPURPOSE BUILDING + 2005 ADDITION

The multipurpose building is a single story slab on grade building with fluted split face reinforced concrete block walls. The original building has a moderately pitched wood framed roof with wood trusses at 4 feet on center, and plywood sheathing. The 2005 addition has 2x12 roof framing at 1 foot or two feet on center with plywood sheathing. The exterior canopy is supported by tube steel framing. The conventional reinforced foundation with concrete strip footings supports a 4" slab-on-grade. The building is a single story structure with a flexible wood diaphragm that transfers lateral load to the perimeter reinforced masonry bearing walls. The reinforced masonry bearing walls act-as seismic load resisting shear walls and transfer the load to the foundation.

BUILDING ENVELOPE

MIDDLE SCHOOL SIDING

The exterior of the middle school is a combination of painted reinforced masonry or concrete, fiber cement panels, and stucco. According to the 2001 contract documents the stucco cladding assembly includes 7/8" stucco over building paper on 1/2" plywood sheathing. A multitude of cracks were observed in the south wall of the 2001 choral addition, as well as an adjacent wall of the original 1974 building which may indicate systematic failure of the system.

Further signs of water intrusion were visible at the masonry columns and some exterior masonry walls of the facility. Water intrusion has the potential to decrease the lifespan of the facility at an accelerated rate. Therefore it is in our opinion that fixing the building envelope to ensure weather-tightness should be as high a priority as budget will allow. Further investigation of the entire building envelope (siding and roofing) should be undertaken by a building envelope specialist to determine best course of action for remediation.

Large area of stucco is missing on south wall.

Visible cracking in stucco siding at south wall.

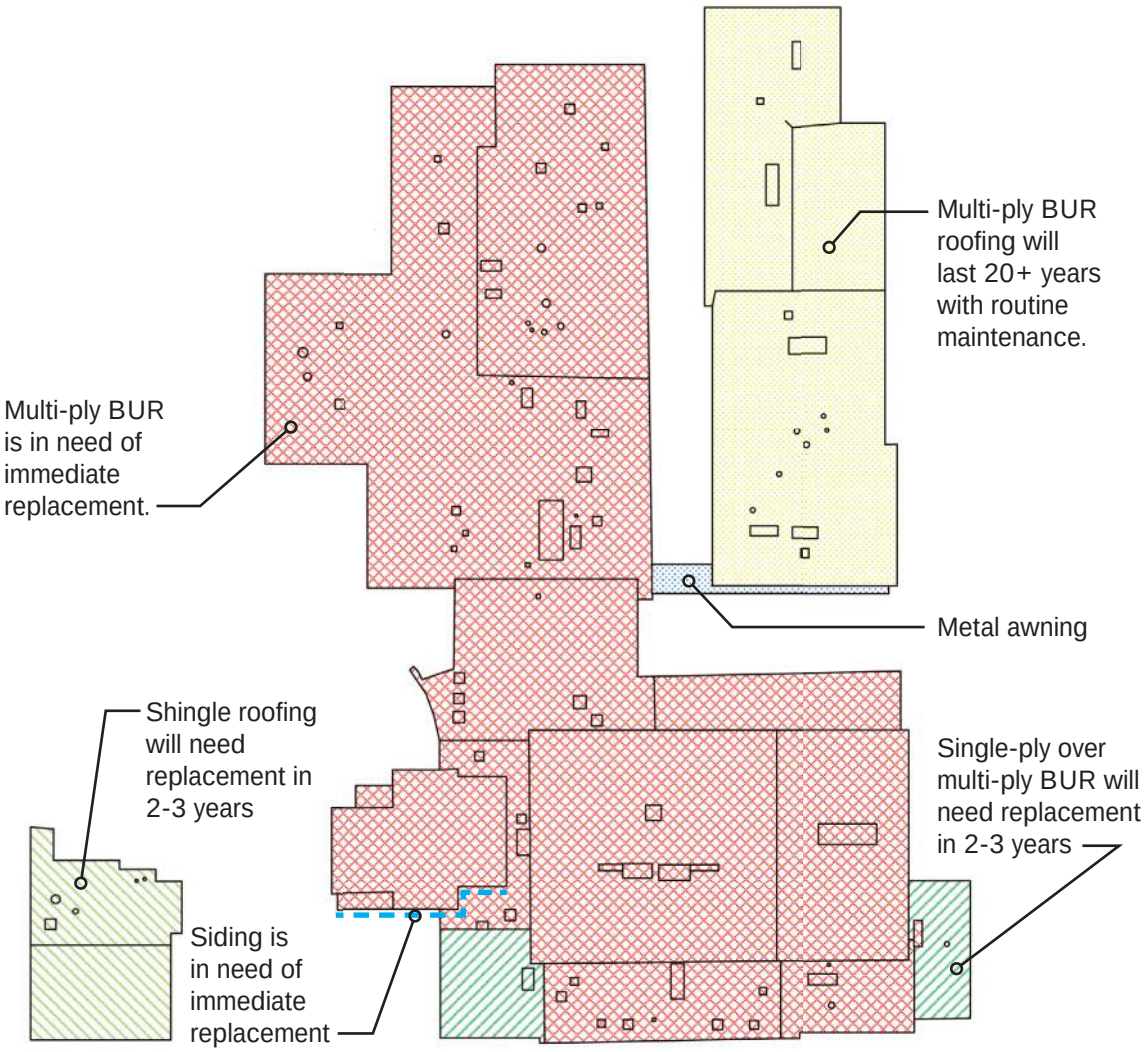
Water intrusion at masonry entry columns.

Exterior glazing is typically aluminum windows from a variety of vintages. Windows across the facility are missing handles, caulked shut, or have damaged screens. Exterior doors and frames are painted hollow metal. A door lock cylinder replacement district-wide is recommended to ensure building security.

> *Evaluate building flashing, perimeter transitions, and stucco cladding system to determine cause of water intrusion and determine method for correction.*
> *Replace door lock cylinders district-wide.*

STEAM BUILDING SIDING

The exterior of the STEAM building is a combination of painted masonry and metal siding. All siding and window systems are aging well, and in good condition. No concerns were noted.



Granite Falls Middle School roof plan graphic from 2020 Garland Company roofing report.

MULTIPURPOSE BUILDING SIDING

The multipurpose building has painted fluted split face reinforced concrete block walls. Debris and moss build-up was observed at areas where gutters and downspouts have continually overflowed. Rust was observed at clerestory windows during a roof inspection by the Garland Company. Further investigation should be undertaken to determine extent of damage.

> *Investigate extent of clerestory window damage at multipurpose building.*

ROOFING

The Garland Company was asked to evaluate the condition of the roofs of the middle school in December of 2020. The roofing recommendations found below have been summarized from their report. Their full study can be found included in the appendix of this report.

MIDDLE SCHOOL ROOFING

The middle school roofing consists of a low pitched wood framed roof with modified bitumen or built up roof material and large overhangs, except at the choral addition where parapet walls were constructed.

The multi-ply built up roof spanning the vast majority of the middle school is in poor condition, and has reached the end of its useful life. Two areas of the middle school roof were overlayed with single ply, which is also in poor condition. Painted downspouts are connected to continuous sheet metal gutters. Areas of the wood fascia were observed to be deteriorated, especially around the gym volume. Many patches and repairs to the roofing are apparent showing a dedicated maintenance effort, but the roof is due for a full replacement, including new fascias, gutters and downspouts.

It is recommended that anti-slip tape be installed on all roof-access ladder treads.

> *Middle school roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*
> *Install anti-slip tape on roof-access ladder treads.*

Deterioration at the fascia.

Deterioration at the fascia.

Install anti-slip tape at roof-access ladder treads.

STEAM BUILDING ROOFING

The roofing at the STEAM building consists of a low pitched wood framed roof with built up roof material. All roofing was replaced during the 2019 modernization and addition project and no concerns were noted.

MULTIPURPOSE BUILDING ROOFING

The roofing at the multipurpose building consists of a moderately pitched wood framed roof with asphalt shingles. As the shingles have aged, active leaks have become a persistent problem - including one that drains into the light fixture in the staff restroom. Moss and debris have built-up on the north facing roof.

> *Multipurpose building roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*

THERMAL ENVELOPE

The middle school is insulated with R-19 or R-21 batt insulation at the wood framed exterior walls, and R-30 batt insulation and R-21 rigid insulation at the roof. Most windows are insulated double pane aluminum providing adequate thermal performance; however, a few single glazed aluminum windows remain and should be replaced with double glazing.

The STEAM building is insulated with R-30 batt insulation at the exterior 2x6 walls, R-13 batt insulation where exterior CMU walls are furred out, and R-30 rigid insulation at the roof. The thermal envelope of this building is appropriate and should continue to perform efficiently.

Drawings for the multipurpose building were not available for confirmation of thermal envelope.

> *Replace single pane exterior windows at the middle school to improve the buildings thermal performance.*

Standing water in the light fixture at the staff restroom.

Handrail is missing at the left side of the ramp to the commons. Handrail is deformed and should be re-secured or replaced at right side of ramp.

BUILDING ACCESSIBILITY

One side of the handrail on the ramp leading to the student commons is missing, and should be replaced. Remaining handrail on the opposite side has been malformed due to abuse and should be re-secured, if feasible, or replaced.

All areas of the student store are not ADA accessible, due to a step in grade level change. As part of a future renovation project, consider reconfiguring the student store to provide equal student access and re-assessing program needs.

While science rooms 104 and 105 are equipped with a student work station at ADA height, the integral sink is not considered ADA accessible. A future renovation should consider installing an ADA accessible sink for equal access.

The restroom public facilities in closest proximity to the student commons are marked as an ADA restroom, however it did not appear to meet accessibility standards during our visit with regards to floor clearances and grab bar installation. Further investigation is necessary to determine if this space can be adapted to be truly ADA accessible.

> *Correct handrails at ramp to middle school commons.*
> *Reconfigure middle school student store to provide equal student access.*
> *Ensure each science classroom is equipped with an ADA accessible sink.*
> *Investigate middle school commons restroom to determine how to provide an ADA accessible restroom.*

INTERIOR CONSTRUCTION

Interior finishes typically consist of carpet and vinyl composition tile (VCT), painted gypsum walls, painted CMU walls, ceramic tile walls and floors in the restrooms, exterior hollow metal doors and frames, interior plastic laminate faced doors set in hollow metal frames and suspended acoustical ceilings.

ADA height student work station at science classrooms 104 and 105.

Restroom does not appear to meet accessibility standards with regards to floor clearances and grab bar installation.

FLOORS

Slab on grade is in good condition, with minimal signs of cracking or wear. Interior flooring typically consist of carpet and VCT flooring, and ceramic tile floors in the restrooms.

Carpet in the administration is in fair condition, although signs of wear and staining exist. Rubber base is peeling away in multiple locations. Consider replacing all remaining original carpet as part of a future flooring project.

VCT in the classrooms is generally in good condition, with few exceptions. Bubbling was observed in the VCT at classroom 114, which typically indicates moisture trapped between the slab and the tile. Continue to monitor condition to ensure it does not worsen.

Restroom tile is cracking at the floor-to-wall and corner seams in select areas across the facility. Caulk corners to prevent water intrusion and degradation of the tile. At the student restroom central to the classroom wing multiple area of depressed tile were visible, potentially due to settlement in the mortar bed. Continue to monitor depressions to ensure condition does not worsen.

During our visit, we learned that the custodial staff has been hand-cleaning the Mondo rubber tile flooring at new science room & life skills classroom, for fear of damaging the material. We were able to confirm with the manufacturer that Mondo rubber floor tiles can be maintained using a floor scrubber under low pressure, so long as the floor scrubber does not have an abrasive pad.

> *Consider a future project to replace all carpet at Granite Falls Middle School.*
> *Carefully monitor bubbling in VCT. Replace or patch if tile begins to break loose.*
> *Caulk restroom tile at corner cracks.*
> *Monitor depressions in ceramic tile at the middle school for degradation.*

INTERIOR WALLS

Walls are generally painted gypsum board or painted CMU. Classroom corridors have painted MDF wainscot in good condition. Where lack of protective covering occurs scuffs, tears, and dings are apparent, but minor due to continual maintenance and re-painting.

Depressions in ceramic floor tile at restroom.

Tile is cracking at corner seams.

De-laminating interior door.

INTERIOR WINDOWS AND DOORS

Generally, the interior doors and window are in good condition, with few exceptions. Interior doors are generally faced with plastic laminate, which is beginning to crack, de-laminate and break away. Monitor degradation and replace door when function is called into question

Our team observed instances of wired glass relites in this facility. In recent years we have noted that district risk management assessments are beginning to encourage the replacement of these panels when and where feasible.

> *Monitor middle school interior doors for degradation and replace when function is called into question.*
> *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

CEILINGS

Suspended acoustical ceiling tiles are worn, and stained in places but it is apparent that they have been replaced as feasible. The gym has 12” x 12” glue on tiles.

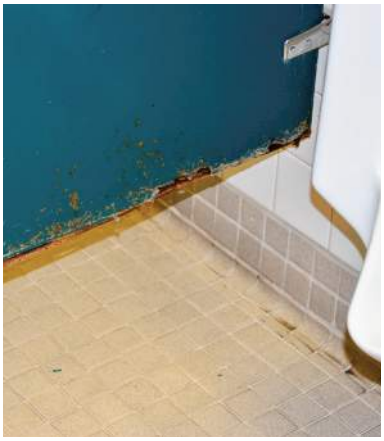
> *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*

FIXED FURNISHINGS

Casework and finishes throughout the building are worn in a fashion appropriate to their age. The casework throughout the administration area, and in the two older science rooms have received the most abuse, and would benefit from being replaced in a future renovation project. Furniture throughout the building is worn and in need of replacement.

Student lockers in the corridors throughout the phases of construction are in good condition with only a few cases in need of repair. PE lockers in both girl’s and boy’s locker rooms are worn but appeared functional.

Student restroom partitions are typically rusting and dented in locations across the facility. Toilet partitions in the locker rooms at the ganged restrooms in the commons are plastic laminate. Consider



Rusting toilet partition at boys restroom in classroom wing.

Mirrors are starting to rust.

Plastic laminate toilet partitions at boys locker room.

replacing toilet partitions with a durable solid phenolic, overhead-braced partition. Student restroom mirrors are rusted in locations across the facility.

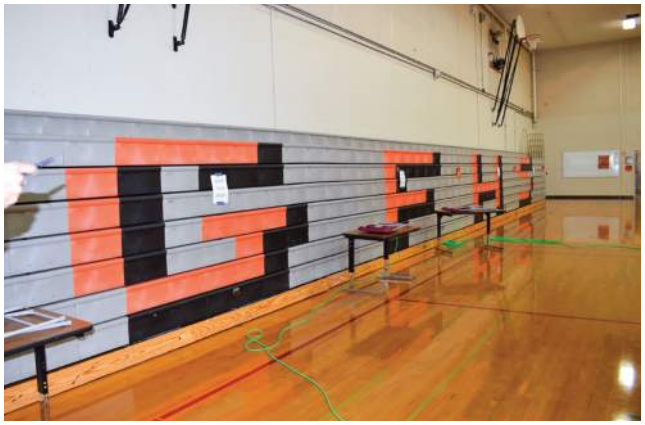
Verify that the trophy / display case in the Commons is equipped with safety glass, and replace if necessary.

> *Consider replacing middle school casework as part of a larger renovation project.*
> *Consider replacing all furniture.*
> *Replace rusted restroom mirrors.*
> *Replace damaged restroom partitions with durable solid phenolic, overhead-braced partitions.*
> *Verify that the commons display case is equipped with safety glass.*

EQUIPMENT + MOVABLE FURNISHINGS

The beam supporting the operable partition dividing the stage from the commons has sagged, rendering the operable partition non-functional. Due to its inability to function as a performance space, the stage has been turned over to custodial storage and offices, and the surround curtains were removed. If this teaching space is deemed necessary, consult with an engineer to replace the wood support beam with a steel beam.

Stage operable partition is no longer functional.



Bleachers in the middle school still read "GFHS".

Slipped seals at operable partitions in STEAM building.

Bubbling in VCT at Multipurpose Building.

Dented toilet partitions in the Multipurpose Building.

Replace protective cages over emergency lights and exit signs in the gymnasium that are broken are missing. The gymnasium bleachers show remnants of the facility's history as the district's high school in that they proclaim "GFHS TIGERS." Consider working with the bleacher manufacturer to re-string the bleacher seats on the GFHS side to read "GFMS."

> *Replace missing cages at emergency lights and exit signs at middle school gymnasium.*
> *Replace operable partition support structure at middle school commons.*

STEAM BUILDING

Flooring typically consist of polished concrete, slip-resistant sheet vinyl in the culinary lab, and carpet in the large group room. Interior finishes consist of painted CMU and gypsum board walls, fiber resin panels in the restrooms, exterior hollow metal doors and frames, interior wood doors set in hollow metal frames and either suspended acoustical ceilings or exposed structure with acoustical board.

Newly renovated in 2019, this facility is generally in excellent condition. The operable partition seals appear to be slipping, and should be re-secured to ensure continued smooth operation. As these partitions are under a 5 year warranty, we recommend contacting Hufcor within the year to correct the problem.

> *Contact Hufcor to adjust operation of STEAM building operable partition panels prior to warranty expiration.*

MULTIPURPOSE BUILDING

Interior finishes typically consist of VCT and concrete floors, painted gypsum walls or CMU walls, ceramic tile walls and floors in the restrooms, hollow metal doors and frames, and painted gypsum board ceilings with glued acoustical tile. The interior is characterized by a high sloped ceiling with clerestory windows facing north.

The walk-in freezer has reached the end of its serviceable life, and should be replaced.

Bubbling was observed in the VCT at the multipurpose room addition, which typically indicates moisture trapped between the slab and the tile. Continue to monitor condition to ensure it does not worsen.

Student restrooms fixtures and finishes are worn and showing their age. Student restroom partitions are typically rusting and dented. Consider replacing toilet partitions with a durable solid phenolic, overhead-braced partition. Light switch plate at women's restroom is cracked and pieces missing.

> *Replace walk-in freezer at multipurpose building.*
> *Carefully monitor bubbling in VCT at multipurpose building. Replace or patch if tile begins to break loose.*
> *Consider refreshing all restroom finishes in multipurpose building as part of a larger renovation project.*
> *Replace damaged restroom partitions in multipurpose building with durable solid phenolic, overhead-braced partitions.*
> *Replace broken light switch plate at girls restroom in multipurpose building.*

GENERAL OBSERVATIONS

The Nurses area moved to an area of the administration that could provide more space; however, the current cot room is not equipped with running water, nor does it have a private restroom which can present problems with student supervision and service. Nurse's area should be evaluated to determine whether it is meeting program and accessibility needs.

As this facility used to function as the district's high school the locker rooms are above and beyond what is typically needed programmatically for a middle school. A full programmatic review of the locker room area is recommended as part of a future building renovation. It is apparent that reconfiguration of spaces as part of a building tenant improvement project will provide a more efficient use of space and improve the programmatic needs of the users. If locker rooms continue to be used, assess need for locker and bench replacement.

Due to program changes the former weight room has been renovated to become a classroom. If the school desires to re-instate a weight room further investigation is needed to determine which space would be most appropriate for renovation, and to select finishes (flooring, wall mirrors, etc.) appropriate for the program.

This school lacks flexible and adaptable instructional space to accommodate current teaching models. There are no flexible shared learning spaces for small group activities or personalized learning.

Acoustics in the student academic locker area are extremely lively. Further investigation of acoustics and possible mitigation with engineered acoustical panels could improve the function of this space.

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

> *Nurse's area at the middle school should be evaluated to determine whether it is meeting program and accessibility needs.*
> *Evaluate the extent of need for locker room facilities at the middle school in order to optimize the space.*
> *Evaluate the need for a weight room at the middle school.*
> *The middle school lacks flexible and adaptable instructional space to accommodate current teaching models. There are no flexible shared learning spaces for small group activities or personalized learning in the main middle school building.*
> *Evaluate acoustics of the student academic locker area at the middle school to determine whether acoustical treatments could benefit the space.*
> *Replace standard drinking fountains will bottle filling stations.*

MECHANICAL / ELECTRICAL

The 2015 Study & Survey indicates that various aspects of the HVAC and fire alarm systems are at the end of their serviceable life, and due for replacement. The mechanical and electrical systems are reported to be in fair condition, but some HVAC units are reported to be a continual issue. We recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a masterplan for replacement of aging systems, and to provide insight into potential energy-saving measures.

> *Engage a mechanical and electrical engineer to provide a full facility assessment.*

MODULAR CLASSROOM BUILDINGS

All portables are scheduled to be re-roofing in summer of 2021. All siding and skirting should be cleaned, repaired, and painted as necessary to extend the serviceable life.

> *Prep and paint portable building skirting and siding as necessary to prolong serviceable life.*

PORTABLE M5 - Currently contains a history class. Recently received new carpet.

PORTABLE M6 - Currently houses approximately (8) professionals from Compass Health. Vinyl wall covering is peeling at walls.

PORTABLE M7- Currently contains an English class. Vinyl wall covering is peeling at walls.

PORTABLE M8 - Currently vacant.

PORTABLE M9 (RESTROOM) - Generally in good condition, with minor rust at toilet partitions.

PORTABLE M10 - One half is used for building storage, and the other to support recording for a digital media class. This portable is plumbed, and has a toilet and laundry facility.

PORTABLE M11 - Currently used for building storage.

PORTABLE M12 - Currently used for building storage.

PORTABLE M13 - Currently used for building storage.

PORTABLE M14 - Used for a daycare facility approximately (1) day a week.

PORTABLE M15 - Currently used for building storage.

SURPLUS STORAGE PORTABLE - Currently used for building storage.

FIELDS COMPLEX

GRANDSTAND

We recommend giving all exposed metal structure a thorough cleaning and repainting to extend the life of the structure. Replace missing section of guardrails at the front of the grandstand to provide fall protection. Continue the yearly routine maintenance of pressure washing all bleachers prior to the start of the athletic season.

> *Continue yearly routine maintenance of pressure washing bleachers prior to start of the athletic season.*
> *Remove rust, clean and repaint all exposed steel at middle school grandstand.*
> *Replace missing section of guardrails at middle school grandstand to provide fall protection to spectators.*

TRACK & FIELD

The middle school track has been well maintained; however, areas of bubbling were observed. We recommend consulting the warranty of the track, and contacting the manufacturer for repair recommendations.

The existing field is natural grass, and was observed to be extremely wet at the northern end. Many school districts are now replacing natural grass fields with synthetic fields to reduce maintenance and irrigation costs while benefiting from the increased amount and type of usage the field can accommodate with the synthetic turf surface. The district may want to consider replacement of the grass football field with an under-drained synthetic turf system to reduce maintenance and irrigation costs.

Replace wood light poles with aluminum. Scoreboard and PA system are reported to be unreliable and in need of replacement.

> *Contact manufacturer for repair recommendations regarding the middle school track surface.*
> *Consider replacement of the middle school's grass football field with synthetic turf field.*

^ *Middle school grandstand. Dashed line showing location of missing guardrail.*

^ *Missing section of guardrail at middle school grandstand.*

> *Replace wood light poles with aluminum.*
> *Replace scoreboard and PA system.*

CONCESSIONS BULDING

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

Replace failed fridge and freezer.

> *Replace standard drinking fountains will bottle filling stations.*
> *Replace failed fridge and freezer at middle school concession stand.*

BASEBALL FIELD

Since the high school has moved to a new campus, the baseball field and associated batting cage appears to be underutilized. We recommend assessing program needs district wide to determine if field can be optimized.

> *Evaluate the extent of district need for a middle school baseball field to determine if field can be optimized.*

SUMMARY OF FINDINGS: GRANITE FALLS MIDDLE SCHOOL

SAFETY

S1 *Replace door lock cylinders district-wide.*

S1 *Install anti-slip tape on roof-access ladder treads.*

S1 *Replace broken light switch plate at girls restroom in multipurpose building.*

S1 *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

S1 *Verify that the commons display case is equipped with safety glass.*

LEGAL/CODE

L1 *Correct handrails at ramp to middle school commons.*

L1 *Replace missing section of guardrails at middle school grandstand to provide fall protection to spectators.*

LIFE CYCLE REPLACEMENT / REPAIR

R1 *Evaluate building flashing, perimeter transitions, and stucco cladding system to determine cause of water intrusion and determine method for correction.*

R1 *Investigate extent of clerestory window damage at multipurpose building.*

R1 *Middle school roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*

R1 *Multipurpose building roofing, including fascia, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*

R1 *Replace missing cages at emergency lights and exit signs at middle school gymnasium.*

R1 *Contact Hufcor to adjust operation of STEAM building operable partition panels prior to warranty expiration.*

R1 *Replace walk-in freezer at multipurpose building.*

R1 *Engage a mechanical and electrical engineer to provide a full facility assessment.*

R2 *Caulk restroom tile at corner cracks.*

R2 *Replace damaged restroom partitions in middle school and multipurpose building with durable solid phenolic, overhead-braced partitions.*

R2 *Prep and paint portable building skirting and siding as necessary to prolong serviceable life.*

R2 *Remove rust, clean and repaint all exposed steel at middle school grandstand.*

R2 *Contact manufacturer for repair recommendations regarding the middle school track surface.*

R2 *Replace wood light poles with aluminum.*

R2 *Replace failed fridge and freezer at middle school concession stand.*

R3 *Monitor asphalt surfaces for deterioration.*

R3 *Consider a future project to replace all carpet at Granite Falls Middle School.*

R3 *Carefully monitor bubbling in VCT at middle school and multipurpose building. Replace or patch if tile begins to break loose.*

R3 *Monitor depressions in ceramic tile at the middle school for degradation.*

R3 *Monitor middle school interior doors for degradation and replace when function is called into question.*

R3 *Continue to monitor staining of ceiling tiles, and replaced damaged tiles as feasible.*

R3 *Consider replacing middle school casework as part of a larger renovation project.*

R3 *Consider replacing all furniture.*

R3 *Replace rusted restroom mirrors at middle school.*

R3 *Replace operable partition support structure at middle school commons.*

R3 *Consider refreshing all restroom finishes in multipurpose building as part of a larger renovation project.*

R3 *Continue yearly routine maintenance of pressure washing bleachers prior to start of the athletic season.*

PROGRAM

P1 *Nurse's area at the middle school should be evaluated to determine whether it is meeting program and accessibility needs.*

P2 *Ensure each science classroom is equipped with an ADA accessible sink.*

P2 *Reconfigure middle school student store to provide equal student access.*

P2 *Evaluate acoustics of the student academic locker area at the middle school to determine whether acoustical treatments could benefit the space.*

P2 *Investigate middle school commons restroom to determine how to provide an ADA accessible restroom.*

P2 *Evaluate the extent of need for locker room facilities at the middle school in order to optimize the space.*

P2 *Evaluate the need for a weight room at the middle school.*

P3 *Cover basketball court & replace basketball hoops.*

P3 *Consider replacement of the middle school's grass football field with synthetic turf field.*

P3 *Evaluate the extent of district need for a middle school baseball field to determine if field can be optimized.*

P3 *The middle school lacks flexible and adaptable instructional space to accommodate current teaching models. There are no flexible shared learning spaces for small group activities or personalized learning in the main middle school building.*

P3 *Replace standard drinking fountains will bottle filling stations.*

ENERGY SAVINGS

E1 *Replacing single pane exterior windows will improve the buildings thermal performance.*


Tiger Stadium Press box
Tiger Stadium
Tiger Stadium Grandstand
Concessions & Restrooms
Granite Falls High School
Greenhouse
Field #1: JV Baseball
Field #2: Varsity Baseball
Field #3: Varsity Softball
Field #6: JV Soccer
Field #5
Field #4: JV Softball
Tennis Courts
Monte Cristo Elementary
Grounds Building
Maintenance Building
Bus Barn

GRANITE FALLS HIGH SCHOOL

GENERAL BUILDING DESCRIPTION

The original two-story high school building was constructed in 2007. The building is on the same 26 acre campus as Monte Cristo Elementary, and the district's maintenance building. In 2016 the district added a concessions building to their track & field, and in 2018 Tiger Stadium was completed with a full grandstand and support building below.

This is the district's newest facility and has been well maintained.

ARCHITECTURAL ANALYSIS

SITE

Vehicular and pedestrian traffic enters the site off 100th St NE / Burn Road. There is a separate bus loop for loading and unloading. The bus loop appears to be adequately sized to accommodate efficient drop-off and pick up of the student population of the high school. Pedestrian and vehicular access is in good condition and clearly defined. No deficiencies or concerns were noted.

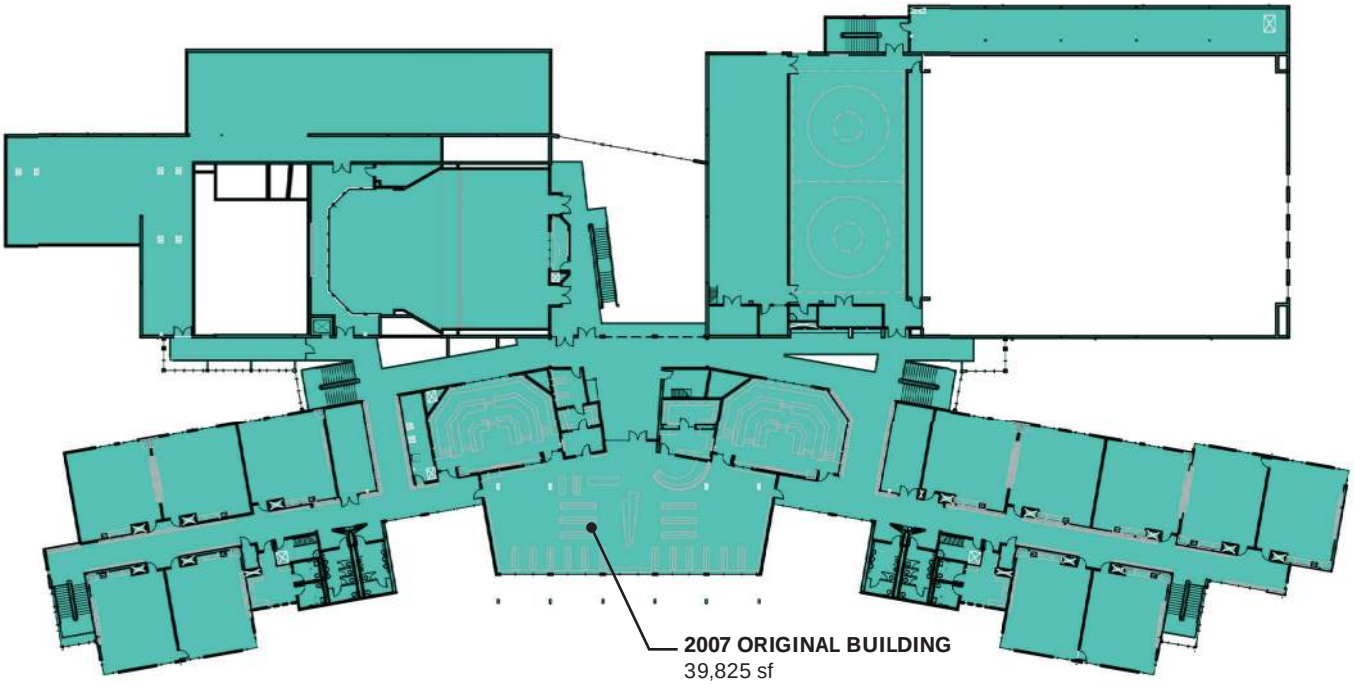
Parking consists of 423 standard parking spaces and 11 accessible stalls spread across the campus. During events, an additional 90 stalls Monte Cristo Elementary School are used for overflow. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus. A paved emergency access surrounds the entire building.

The asphalt is in fair condition with minor instances of cracking asphalt due to tree roots. Concrete curbs are cracked and crumbling in a few places and should be replaced as their condition worsens.

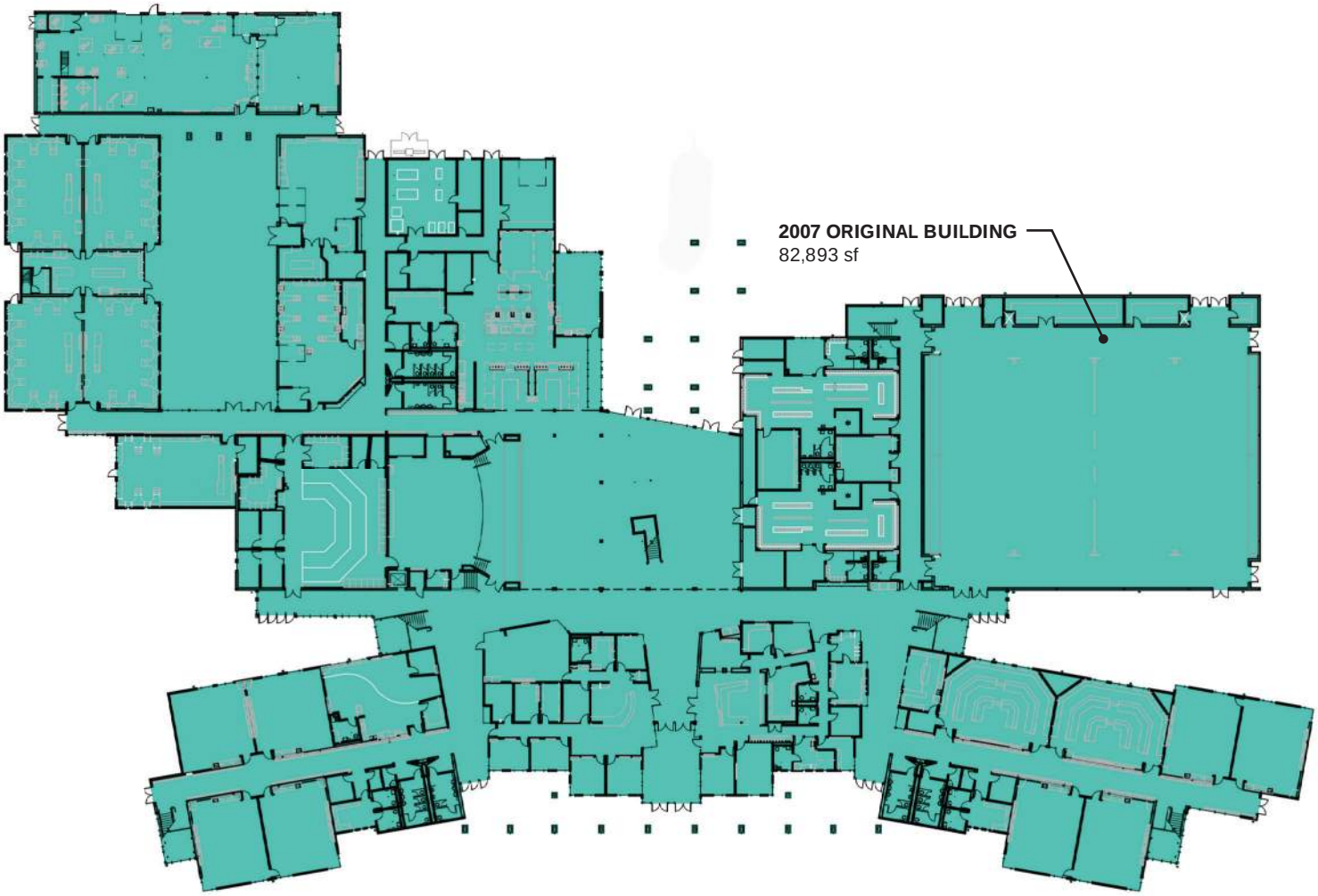
Landscaping is minimal throughout the campus, but well maintained. Sports fields are located to the north of the school. These fields are shared with the Monte Cristo Elementary School. Despite the district's efforts to restrict vehicular access around the school after hours using the vehicular gates, students have been known to drive across the landscaping. The district has placed heavy trash cans to use as bollards, but if vandalism persists, consider a more permanent solution.

Cracks in asphalt, presumably due to root growth.

Trash cans being used as vehicular bollards at the southwest corner of the high school.



SECOND FLOOR



FIRST FLOOR

The sealant at expansion joints in the rear courtyard has deteriorated and is missing entirely in many locations next to the building. When not sealed, these concrete expansion joints become an area where dirt and debris can collect, and water can run under slab causing heaving, cracking, and displacement in the concrete. All joints should be cleared of debris and aged sealant, and re-sealed.

> Monitor root damage at asphalt.
> Replace damaged curbs as they become a nuisance.
> Replace trash cans with permanent vehicular bollards if vandalism continues.
> Repair expansion joints at courtyard concrete paving.

STRUCTURE

2007 ORIGINAL BUILDING

The original high school building consists of a two-story classroom wing to the south separated from the northern half of the facility by a central circulation spine. The gymnasium wing is located in to the northeast, with a second-story auxiliary gym space located above the locker rooms. The commons resides at the center of the facility, with the auditorium and science/CTE wing to the northwest.

The high school building structure is steel framed structure. The conventional strip and spread footings support a 4" slab-on-grade. The roof framing consists of 1 1/2" metal deck over open web steel joists and trusses for long spans, and structural steel wide flange beams for shorter spans. Wide flange beams and tube steel columns support the roof joists and trusses. The structure is laterally braced for wind and seismic loads by a system of floor and roof diaphragms supported by steel braced frames concealed within interior and exterior walls.

2016 CONCESSIONS / RESTROOM BUILDING

In 2016 the concessions / restroom building was added at the south west end of the high school's track and field. The structure is a one-story building built of concrete masonry units (CMU). The conventional strip footings support a 4" slab-on-grade. The roof framing consists of wood trusses with plywood sheathing.

^ *Sealant has deteriorated, or is missing at expansion joints along the face of building.*

^ *Sealant has deteriorated, or is missing at expansion joints along the face of building and across the plaza.*

2016 TICKET BOOTH

As part of the Concession / Restroom building project, two ticket booths were added adjacent to the high school's track and field entry. The structure consists of two small CMU structures connected by a common roof. The conventional strip footings support a 4" slab-on-grade. The roof framing consists of wide flange beams supporting 1 1/2" metal decking.

2018 TIGER STADIUM

In 2018 the final element of Tiger Stadium was completed, the grandstand. Aluminum bleachers sit above a CMU support building below. The support building foundation consists of conventional strip footings that support a 4" slab-on-grade. Roof framing consists of wood joists with plywood sheathing.

The grandstand framing bears on concrete plinths and foundations. The grandstand roof consists of metal roofing supported by the grandstand awning. The support building has an independent three-ply SBS modified bitumen membrane roof system.

BUILDING ENVELOPE

HIGH SCHOOL SIDING

The high school is clad in cementitious siding board, metal siding and CMU veneer. Fiber cement lap siding appears to be in fair condition; however, a few concerns were noted. In general, deterioration of the finish can be observed due to UV exposure. Fiber cement siding should be re-painted to pro-long life.

Wherever the fiber cement siding butts horizontally against the CMU veneer, the paint has flaked and fallen away. This could be due to snow sitting on the cast stone caps, or a sign that water is getting back behind the siding, traveling down the wall and setting at the CMU wall cap, unable to exit the wall cavity. Further investigation should be undertaken to determine extents of water intrusion and determine mitigation options.

Vertical butt joints in fiber cement lap siding periodically need to be re-caulked to maintain the seal over the life of the building, and to prevent moisture from getting into the wall cavity. Caulk joints with a permanently flexible caulk compatible with siding product. Do not nail vertical joints, as material will be unable to expand & contract as temperatures fluctuate, and cause the siding to crack.

Some small holes were observed in the siding at the rear courtyard, presumably caused by student vandalism. Holes should be patched using a cement product made of an acrylic mortar compound.

Metal siding is in good condition. Evidence of birds can be found around the building, most concentrated around the library volume and the service yard. At the library volume birds pecked through the closure strips and began nesting within the flutes of the roof structure, and entering the library interior. District maintenance staff have closed the points of entry with a combination of metal mesh and spray foam. Continue to monitor area for further signs of nesting birds.

CMU veneer is in good condition. Minor signs of efflorescence were visible at the CMU walls of the service yard enclosure. While in this location efflorescence itself isn't dangerous, it is a sign of moisture intrusion. The enclosure should be monitored for signs of structural degradation due to moisture infiltration.

Debris build up on rear translucent panel canopy.

Crack at exterior wall of Classroom B219.

Peeling paint at fiber cement siding indicates moisture intrusion at fiber cement termination.

Small holes in fiber cement siding.

Butt joints at fiber cement siding should be periodically re-caulked.

The main entry and commons canopy consists of exposed steel framing a translucent panel canopy system. While translucent panels are resistant to staining, debris should be cleared from translucent panels. We recommend giving all exposed metal structure a thorough cleaning and repainting to extend the life of the structure.

Exterior glazing is aluminum windows or aluminum storefront doors and frames. Louvers are generally in good condition, with minor damage from thrown balls. Maintenance reports multiple instances of leaking windows, due to lack of seals at exterior windows. Windows are being re-sealed and repaired as problems occur, but replacement / installation of window and door sealant should be addressed building-wide. Some windows are missing handles, and blinds are showing signs of age. As function is called into question consider a future project to replace horizontal blinds in kind, or replace with roller window shades.

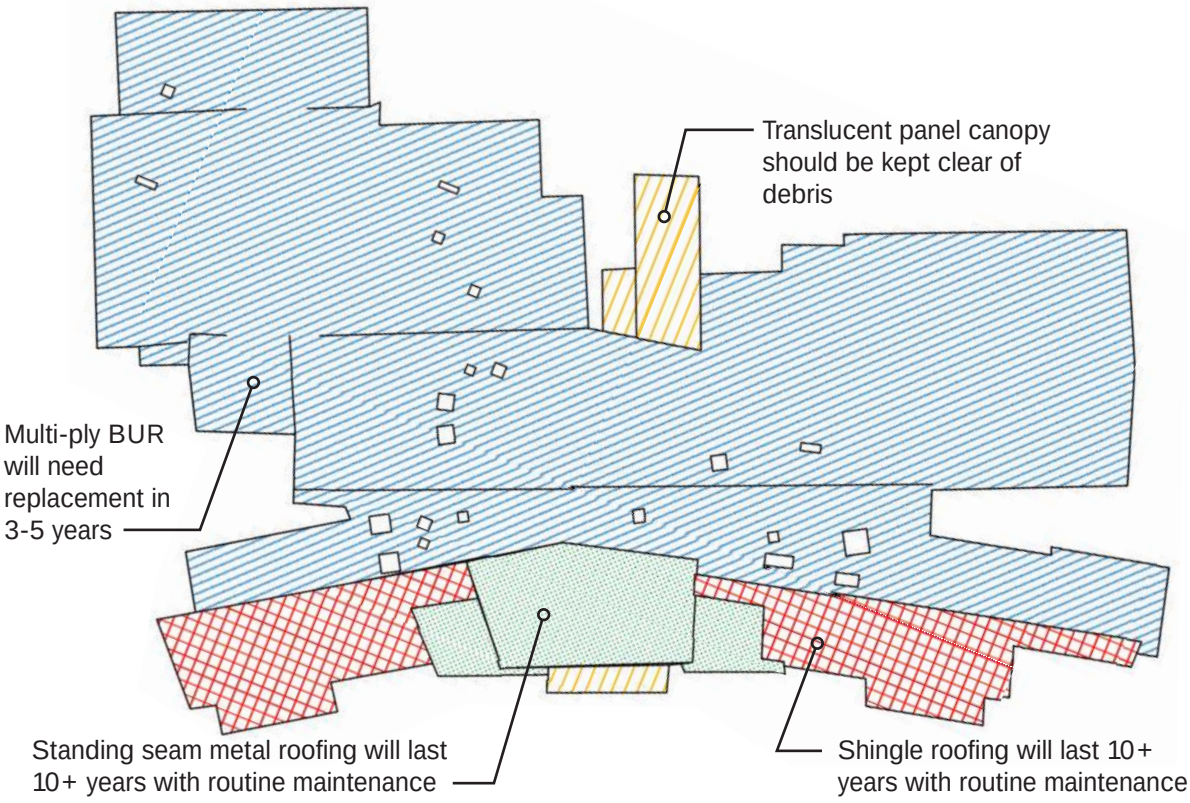
Exterior doors are hollow metal and extremely worn from weather exposure to the point where the paint has become powdery. Exterior doors should be re-painted, and joint-sealant installed at jambs to prolong life. A door lock cylinder replacement district-wide is recommended to ensure building security.

Monitor cracking in exterior wall at classroom B219. Further investigation should be conducted if condition worsens.

> *Fiber cement siding should be re-painted to prolong life.*
> *Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*
> *Caulk vertical butt joints at fiber cement siding.*
> *Patch holes in fiber cement siding.*
> *Monitor nesting birds at library volume. Repair / replace perimeter seals at roof deck as necessary to secure space.*
> *Monitor efflorescence at service yard enclosure.*
> *Clear debris from rear translucent panel canopy.*
> *Clean and repaint translucent panel framing to extend the life of the structure.*
> *Assess and replace exterior window seals building wide.*
> *Consider a future project to replace all mini blinds with new blinds or roller shades.*
> *Re-paint exterior hollow metal doors and install joint sealant at jambs.*
> *Replace door lock cylinders district-wide.*

ROOFING

The Garland Company was asked to evaluate the condition of the roofs of the middle school in December of 2020. The roofing recommendations found below have been summarized from their report. Their full study can be found included in the appendix of this report.



Granite Falls High School roof plan graphic from 2020 Garland Company roofing report.

All roofing was installed at time of original construction and is 14 years old. The asphalt composition shingles and metal standing seam roofing are in good condition, and expected to last another 10+ years with routine maintenance. The low-slope multi-ply BUR is beginning to show signs of age, and should be closely monitored over the next 3-5 years, as it is showing signs of nearing the end of its useful life.

> *Built-up roofing should be carefully monitored over the next 3-5 years as areas are approaching the end of their serviceable life.*

THERMAL ENVELOPE

The high school is insulated with R-19 batt insulation at the exterior walls, and R-30 rigid insulation at the roof. All windows are insulated double pane aluminum providing adequate thermal performance. The thermal envelope of this building is appropriate and should continue to perform efficiently.

BUILDING ACCESSIBILITY

No major concerns were observed regarding building accessibility; however, a few minor items were observed.

The range in the special education classroom is not an ADA model. At time of replacement, consider purchasing an ADA accessible model with front controls, and lockout feature.

The student store is an extremely tight space, and areas behind the counter are not ADA accessible, due to clearances between casework. Additionally, the concern was brought up that the space cannot be supervised from the adjacent classroom. As part of a future renovation project, consider reconfiguring the student store to provide equal student access and re-assess current program needs.

> *Re-configure student store to provide equal student access and address current program needs.*

INTERIOR CONSTRUCTION

Interior finishes typically consist of vinyl composition tile (VCT) and carpet flooring, painted gypsum walls, ceramic tile walls and floors in the restrooms, exterior hollow metal doors and frames, interior wood doors set in hollow metal frames and suspended acoustical ceilings.

Student store.

Student store.

FLOORS

Slab on grade is in good condition, with minimal signs of cracking or wear. Interior flooring typically consist of carpet and VCT flooring, and ceramic tile floors in the restrooms. The VCT tile has minor cracking in a few areas. This separation is not posing a trip hazard but should be monitored to ensure it does not continue to deteriorate.

The acrylic resin flooring is cracking in many areas across the facility, including restrooms and the locker rooms. Due to extent of the cracking, we recommend two options for replacement:

- Consult with a manufacturer to determine whether a new poured resin flooring could be installed over the top of the existing flooring surface.
- Consult with Altro to determine whether their Altro Aquarius safety sheet vinyl flooring product with fully welded seams and integral cove base can be installed over the existing acrylic resin floor.

> Monitor VCT cracking for degradation.
> Replace acrylic resin flooring at restrooms and locker rooms.

INTERIOR WALLS

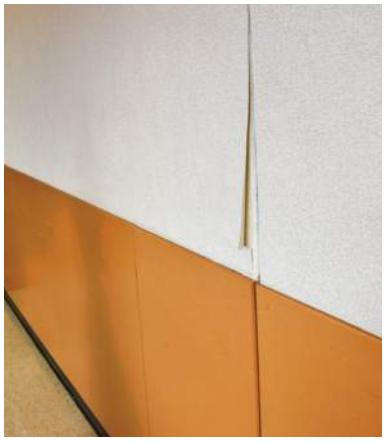
Interior wall finishes are generally painted gypsum wallboard, MDF wainscoting, and vinyl wall covering. In general, where walls are not covered with protective wainscot minor scuffs, tears, and dings are apparent, but still in good condition with few exceptions. The vinyl wall covering is starting to peel at major seams. Seams should be re-secured to prolong the life of the product.

MDF wainscot in corridors has scuffs and scratches. Maintenance has applied oil to lessen the impact of the scuffed areas. MDF wainscot at locker rooms is bubbling and de-laminating in some areas due to moisture. Replacement options for the MDF include fiber resin panels, veneer plaster or ceramic tile.

> Secure loose vinyl wall covering seams.
> Replace MDF wainscot in locker rooms

Cracking at floor-to-wall seam in acrylic resin flooring.

Cracking in flooring, and wainscot water damage.



Minor scuffing and scratches at typical wainscot.

INTERIOR WINDOWS AND DOORS

Interior doors are typically wood with solid core, and are in good condition with few exceptions. A door stop is missing at the entrance to the boys locker room, and the storage room doors at the gymnasium have seen particular abuse.

> *Monitor interior doors at gymnasium storage, and replace when function is called into question.*
> *Install door stop at boys locker room door.*

CEILINGS

Ceilings are typically suspended acoustical tile and are in good condition.

FIXED FURNISHINGS

Casework throughout the facility is generally in good condition with minor exceptions. Chipping in the plastic laminate was observed at the main administration desk, and at the library circulation desk. One piece of upper casework in the special education classroom was sagging, and should be re-secured. The countertop in classroom A218 is sagging, and should be re-secured. Library workroom countertop was under an extreme load, but this may have been a unique situation due to COVID.

The casework science labs and particularly in the agricultural science classroom (A161) were showing signs of abuse, with missing drawer pulls and casework faces. Consider a future renovation project that would re-assess program needs and replace the casework as necessary in science rooms.

Lockers in both girls and boys locker rooms are in good condition. All partitions in the boys restrooms were in the process of being replaced with phenolic, overhead braced due to abuse. Boy's locker room partitions would also benefit from replacement. Student restroom mirrors are rusted in locations across the facility.

> *Secure upper casework at special education classroom.*
> *Secure casework countertop at classroom A218.*
> *Upgrade supports, and/or re-distribute load at library workroom countertop.*

^ *Library workroom countertop.*

^ *Science casework with missing drawer fronts and drawer hardware.*

^ *Mirror rust at restroom.*

> *Consider a future renovation project to replace science casework as necessary.*
> *Replace toilet partitions at boys locker room.*
> *Replace rusting restroom mirrors.*

EQUIPMENT + MOVABLE FURNISHINGS

The bleachers, basketball hoops, mat lift and divider curtain at the gymnasium are inspected and maintained yearly, and in good condition. No concerns were noted.

The shower rod at the mens coach's changing room is missing, and has been replaced with a temporary tension rod. Replace with a permanent shower rod and curtain.

It is recommended that anti-slip tape be installed on all metal roof-access ladder rungs.

Ceiling tiles and acoustical wall panels are showing significant abuse at the practice room in the band room. Re-secure or replace acoustical panels, and replace damaged ceiling tiles as necessary.

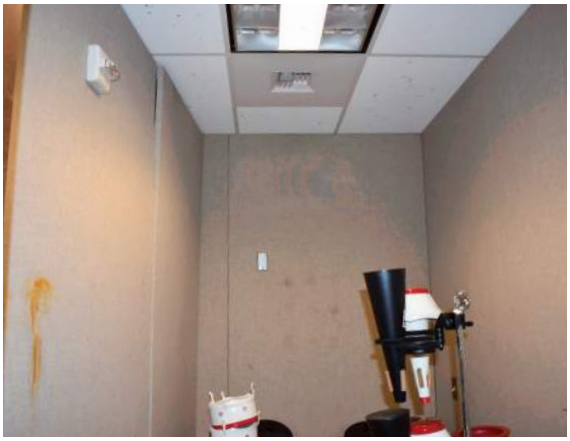
> *Replace missing shower rod at mens coach's changing room.*
> *Install anti-slip tape on roof-access ladder rungs.*
> *Re-secure acoustical wall panels at music practice room.*

GENERAL OBSERVATIONS

GENERAL INSTRUCTION

This school lacks flexible and adaptable instructional space to accommodate current teaching models. There are no flexible learning spaces for small group activities or personalized learning. Satellite staff workrooms are located in each classroom wing, and reported to be underutilized and generally used for overflow storage. Consider program options to renovate space to become flexible learning spaces in addition to supporting staff needs.

Some classrooms are equipped with interactive display boards or video monitors, while others are using projectors. Consider a building-wide technology upgrade to provide equity in classroom technology.



Damage at ceiling and acoustical wall panels in practice room.

Manufacturing lab with partial mezzanine above accessed by ships ladder.

In the past, we have avoided placing copiers in locations that did not have dedicated and robust exhaust, due to potential indoor air quality concerns from ozone, solvents and other odors. We suggest conferring with your copier manufacturer to ensure that the ventilation needs of your district copy center are served by the HVAC equipment in classroom A132.

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

> *Consider renovating underutilized satellite workrooms to create flexible instructional space to accommodate current teaching models, such as small group activities or personalized learning.*
> *Equity in classroom technology should be established.*
> *Consult with your copier manufacturer about the ventilation requirements of your equipment in your district copy center (Classroom A132).*
> *Replace standard drinking fountains will bottle filling stations.*

CTE & ART SPACES

A minor renovation is reported to be planned at the family & consumer science classroom (D124), which aims replace the current ranges & lower one bank of casework to provide an ADA accessible student work station. Consider a larger future renovation project to assess program needs and upgrade the space to support a culinary arts curriculum.

Consider a future renovation of the art room (D131) that would install additional sinks to support program needs, and optimize the art office and storage room.

As previously mentioned, the student store is an extremely tight space, and areas behind the counter are not ADA accessible. Additionally, the concern was brought up that the space cannot be supervised from the adjacent classroom, and that the space is not operating efficiently to serve the needs of today's student body. As part of a future renovation project, consider reconfiguring the student store to provide equal student access and re-assess current program needs.

During our visit the manufacturing lab (D134) it was observed to be extremely crowded, and required operation clearances between machinery were unable to be met. In addition, the mezzanine storage space located above the main classroom had been converted into instructional space. By Code, a mezzanine is a small intermediate level between the floor and ceiling intended to house or gain access to mechanical equipment, and to be accessed only by personnel for maintenance or repair of said equipment. These strict requirements allow access to be obtained using a space-efficient steep ships ladder that does not meet the stringent accessibility requirements that the rest of the school facility is held to, such as elevator access to all levels of the school.

It is our recommendation that equipment in the manufacturing lab be pared down so that operation clearances can be met, and that use of the mezzanine space for instruction is ceased immediately. Restrict access to the mezzanine and use of the ships ladder to adult personnel only. Consider a future addition project to provide more instructional area for the CTE program, such as was planned at time of original construction.

> *Consider a future renovation project to upgrade the family & consumer science classroom to support a culinary arts curriculum.*
> *Consider a future renovation project to upgrade the art classroom.*

> *Re-configure student store to provide equal student access and address current program needs.*
> *Pare down equipment in the manufacturing lab that operational clearances can be met.*
> *Cease use of the manufacturing lab mezzanine for student instruction immediately.*
> *Restrict access to the mezzanine and use of the ships ladder to adult personnel only.*
> *Consider a future CTE addition to provide more program space.*

ATHLETICS & LOCKER ROOMS

The wrestling room is being used for indoor batting practice. Due to the activity, the space has seen significant abuse. Options for optimization of this space include the following:

- If indoor batting practice will continue in this space, we recommend removing all wall mirrors that remain behind the removable wall pads on the west wall, and installing permanent wall pads in their place. Remove marker boards and install additional wall pads to provide continuous protection up to at least 6'-0". Install a hard-panel material such as MDF above the wall pads where the exposed gypsum board has been damaged by balls.
- Build a detached outdoor structure to protect and house the batting cages. Renovate the wrestling room to repair ball damage, and provide a flexible athletics space.

The group showers in the boys and girls locker rooms are not used by the students and should be evaluated during the next renovation to determine whether this space could be better utilized, or if single-occupant shower stalls would be more suited to the program.

The drying room at the boys locker room is no longer used, and as such the space is under utilized. Evaluate needs of the program to determine if the space would be better served for other needs, such as a conference room or staging room.

Sports laundry is reported to use the residential washer & dryer in the family & consumer science classroom or in the training room. Evaluate the need for upgraded sports laundry equipment.

> *Evaluate needs of the baseball program to determine whether to renovate the wrestling room to be suitable for indoor batting practice, or move to a detached structure.*
> *Evaluate need for group versus individual shower stalls in the high school locker rooms.*
> *Evaluate program needs to determine most efficient use of prior drying room in boys locker room.*
> *Evaluate program needs for upgraded sports laundry equipment.*

Wrestling room turned indoor batting cages.

Remove markerboard and install additional wall pads where exposed gypsum occurs at wrestling room.

MECHANICAL / ELECTRICAL

The mechanical and electrical systems are reported to be in good condition, with approximately half the school's water heaters having been replaced since 2017, and pumps are being replaced as they reach the end of their serviceable life. We recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a masterplan for replacement of aging systems, and to provide insight into potential energy-saving measures.

As the lighting in the auditorium warms up the damper buzzes at a level very disruptive to any performance or instruction. We suggest prioritizing the repair or replacement of these fixtures so this space can continue to serve the district and community.

Lighting upgrades are underway in the gymnasium which will greatly improve the light output across the main gym. We recommend continuing replacement of bulbs in the wresting and weight room for similar effect.

Investigate squeaky ballast at room Computer Lab B204, and replace if necessary. Replace or repair mis-functioning occupancy sensor at registrar's office. Investigate what the PV array on the roof of the A-wing classrooms is powering.

> Engage a mechanical and electrical engineer to provide a full facility assessment.
> Repair or replace light fixtures at the high school auditorium.
> Continue lighting upgrades at main gym, wrestling room and weight room.
> Repair or replace squeaky ballast in computer lab B204.
> Repair or replace occupancy sensor at high school registrar's office.
> Investigate to determine what the PV array above the high school's A-wing is powering.

GREENHOUSE

Greenhouse is original to the construction of the school, and is in good condition. A new furnace was installed in 2020, and the lights were upgraded to LED in 2021. No concerns were noted.

BUS BARN

The bus barn portable is scheduled to be re-roofing in summer of 2021. No further concerns were noted.

Granite Falls High School greenhouse.

The inverter for the PV array above the A-wing classrooms is located in the satellite workroom on the first floor.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Tennis Courts
Monte Cristo Elementary
Grounds Building
Maintenance Building
Bus Barn

MILLER SPORTS COMPLEX

TIGER STADIUM TURF FIELD

The high school track was originally constructed in 2007 and has been well maintained. However, areas of bubbling and disintegration of the track surface was observed. We recommend contacting the manufacturer for repair or replacement recommendations.

Burnt patches in the football field were observed, reported to have been the result of non-sanctioned fireworks. Additionally, the district reported that maintenance of the field and proper distribution of the granules was hard to maintain. We recommend contacting the manufacturer regarding patching the damaged areas, and for further discussion and training on maintenance of the field.

> *Contact manufacturer for repair recommendations regarding the Tiger Stadium track surface.*
> *Contact manufacturer for repair recommendations of burnt patches in the synthetic turf football field at Tiger Stadium.*

TIGER STADIUM GRANDSTAND & SUPPORT BUILDING

The grandstand and support building underneath were completed in 2018 and are in excellent condition. Continue the yearly routine maintenance of pressure washing bleachers prior to the start of the athletic season.

The lavatories and toilets at the support building were observed to be rusting. Both lavatories and toilets are Type 304 stainless steel, which is highly resistant to corrosion but can be susceptible when exposed to certain chemicals. When this has been observed in the past it usually indicated the use of a cleaning agent that is not compatible with stainless steel with the usual culprits being dilute acids, bleach, lye's (lime from the ballfield foul lines) and Trisodium phosphate. The discoloration and surface damage may have been accelerated as an unintended consequence of rigorous COVID protocols and the use of bleach (sodium hypochlorite) or something similar.

After cleaning the stainless steel fixtures in a manner in accordance with manufacturer recommendations, the rust stains should not return if cleaning procedures are followed with a Type 304 stainless steel compatible product.

Firework damage to turf field at Tiger Stadium.

Surface rust at stainless steel sinks.

Cracking at tennis courts.

Cover exposed junction box at entrance to booster area. Consider spreading grass seed or hydro-seeding areas of exposed dirt at stadium entry.

> *Continue yearly routine maintenance of pressure washing Tiger Stadium bleachers prior to start of the athletic season.*
> *Remove rust from lavatories and toilets at Tiger Stadium per manufacturer guidelines, and assess cleaning products to ensure they are compatible with Type 304 stainless steel.*
> *Cover exposed junction box at entrance to Tiger Stadium booster area.*
> *Consider spreading grass seed at exposed dirt areas near Tiger Stadium entry.*

TIGER STADIUM TICKET BOOTH

The stadium ticket booths were observed to be in good condition, with no concerns noted.

TIGER STADIUM PRESS BOX

The press box was observed to be in good condition, with no major concerns noted. Consider adding non-slip tape to stair treads. Consider adding a lock to the video balcony door to secure the space during off-hours.

> *Add non-slip tape to stair treads at Tiger Stadium press box.*
> *Consider adding lock to Tiger Stadium press box balcony door to secure space during off-hours.*

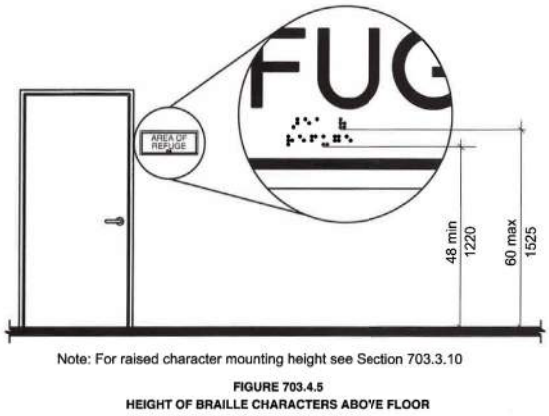
CONCESSIONS / RESTROOM BUILDING

The concessions and restroom building stands at the south end of the field. The facility was completed in 2016 and is in excellent condition.

All public restrooms are required to have ADA compliant signs, that must be posted outside the restroom entrance, on the latch side of the door. The sign must have tactile characters which are located a minimum of 48" and a maximum of 60" above the finished ground surface. We recommend installing tactile ADA restroom signs at the mens, womens, and family restroom entry doors.

> *Move ADA compliant signage at entrances to restrooms on Concession / Restroom building from face of door to latch side of door.*

^ *Install ADA compliant signage at entrances to restrooms.*



^ *Install signage per the ICC A117.1-2017 Standard for Accessible and Usable Buildings & Faciltiies, Section 703.*

BASEBALL FIELDS (FIELD #1 & #2) + SOFTBALL FIELDS (FIELD #3, #4 & #5)

The baseball and softball fields were observed to be in good condition, with no concerns noted.

SOCCER FIELD (FIELD #6)

The soccer field is natural grass, and tends to be soft and wet. Many school districts are now replacing natural grass fields with synthetic fields to reduce maintenance and irrigation costs while benefiting from the increased amount and type of usage the field can accommodate with the synthetic turf surface. The district may want to consider replacement of their soccer field with an under-drained synthetic turf system to reduce maintenance and irrigation costs.

> *Consider replacement of grass soccer field with a synthetic turf field.*

TENNIS COURTS

Continue the yearly maintenance of pressure washing the tennis courts prior to the start of the athletic season. Court is showing pronounced signs of cracking, and could benefit from resurfacing.

> *Continue yearly routine maintenance of pressure washing tennis court prior to start of the athletic season.*
> *Consult with manufacturer regarding best practices for repairing damage and prolonging life of tennis courts.*

SUMMARY OF FINDINGS: GRANITE FALLS HIGH SCHOOL

SAFETY

S1 *Secure upper casework at special education classroom.*

S1 *Install anti-slip tape on roof-access ladder rungs.*

S1 *Replace door lock cylinders district-wide.*

S1 *Pare down equipment in the manufacturing lab so that operational clearances can be met.*

S1 *Immediately cease use of the manufacturing lab mezzanine for student instruction.*

S1 *Restrict access to the mezzanine and use of the ships ladder to adult personnel only.*

S1 *Cover exposed junction box at entrance to Tiger Stadium booster area.*

S1 *Add non-slip tape to stair treads at Tiger Stadium press box.*

LEGAL/CODE

L1 *Consult with your copier manufacturer about the ventilation requirements of your equipment in your district copy center (Classroom A132)*

L1 *Move ADA compliant signage at entrances to restrooms on Concession / Restroom building from face of door to latch side of door.*

LIFE CYCLE REPLACEMENT / REPAIR

R1 *Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*

R1 *Assess and replace exterior window seals building wide.*

R1 *Re-paint exterior hollow metal doors and install joint sealant at jambs.*

R1 *Replace acrylic resin flooring at restrooms and locker rooms.*

R1 *Secure loose vinyl wall covering seams.*

R1 *Engage a mechanical and electrical engineer to provide a full facility assessment.*

R1 *Repair or replace light fixtures at the high school auditorium.*

R1 *Continue lighting upgrades at main gym, wrestling room and weight room.*

R2 *Consult with manufacturer regarding best practices for repairing damage and prolonging life of tennis courts.*

R2 *Repair expansion joints at courtyard concrete paving.*

R2 *Fiber cement siding should be re-painted to prolong life.*

R2 *Caulk vertical butt joints at fiber cement siding.*

R2 *Patch holes in fiber cement siding.*

R2 *Clear debris from rear translucent panel canopy.*

R2 *Built-up roofing should be carefully monitored over the next 3-5 years as areas are approaching the end of their serviceable life.*

R2 *Replace MDF wainscot in locker rooms.*

R2 *Replace toilet partitions at boys locker room.*

R2 *Replace rusting restroom mirrors.*

R2 *Re-secure acoustical wall panels at music practice room.*

R2 *Repair or replace squeaky ballast in computer lab B204.*

R2 *Repair or replace occupancy sensor at high school registrar's office.*

R2 *Remove rust from lavatories and toilets at Tiger Stadium per manufacturer guidelines, and assess cleaning products to ensure they are compatible with Type 304 stainless steel.*

R3 *Monitor root damage at asphalt.*

R3 *Replace damaged curbs as they become a nuisance.*

R3 *Monitor nesting birds at library volume. Repair / replace perimeter seals at roof deck as necessary to secure space.*

R3 *Monitor efflorescence at service yard enclosure.*

R3 *Clean and repaint translucent panel framing to extend the life of the structure.*

R3 *Monitor VCT cracking for degradation.*

R3 *Monitor interior doors at gymnasium storage and replace when function is called into question.*

R3 *Install door stop at boys locker room door.*

R3 *Investigate to determine what the PV array above the high school's A-wing is powering.*

R3 *Contact manufacturer for repair recommendations regarding the Tiger Stadium track surface.*

R3 *Contact manufacturer for repair recommendations of burnt patches in the synthetic turf football field at Tiger Stadium.*

R3 *Continue yearly routine maintenance of pressure washing Tiger Stadium bleachers prior to start of the athletic season.*

R3 *Consider spreading grass seed at exposed dirt areas near Tiger Stadium entry.*

R3 *Continue yearly routine maintenance of pressure washing tennis court prior to start of the athletic season.*

PROGRAM

P1 *Secure casework countertop at classroom A218.*

P1 *Upgrade supports, or re-distribute load at library workroom countertop.*

P1 *Consider a future renovation project to upgrade the family & consumer science classroom to support a culinary arts curriculum.*

P1 *Evaluate needs of the baseball program to determine whether to renovate the wrestling room to be suitable for indoor batting practice, or move to a detached structure.*

P1 *Evaluate need for group versus individual shower stalls in the high school locker rooms.*

P1 *Equity in classroom technology should be established.*

P2 *Re-configure student store to provide equal student access and address current program needs.*

P2 *Consider a future renovation project to replace science casework as necessary.*

P2 *Replace missing shower rod at mens coach's changing room.*

P2 *Consider renovating underutilized satellite workrooms to create flexible instructional space to accommodate current teaching models, such as small group activities or personalized learning.*

P2 *Re-configure student store to provide equal student access and address current program needs.*

P2 *Consider a future CTE addition to provide more program space.*

P2 *Evaluate program needs to determine most efficient use of prior drying room in boys locker room.*

P3 *Replace trash cans with permanent vehicular bollards if vandalism continues.*

P3 *Consider a future project to replace all horizontal mini blinds with new blinds or roller shades.*

P3 *Replace standard drinking fountains will bottle filling stations.*

P3 *Consider a future renovation project to upgrade the art classroom.*

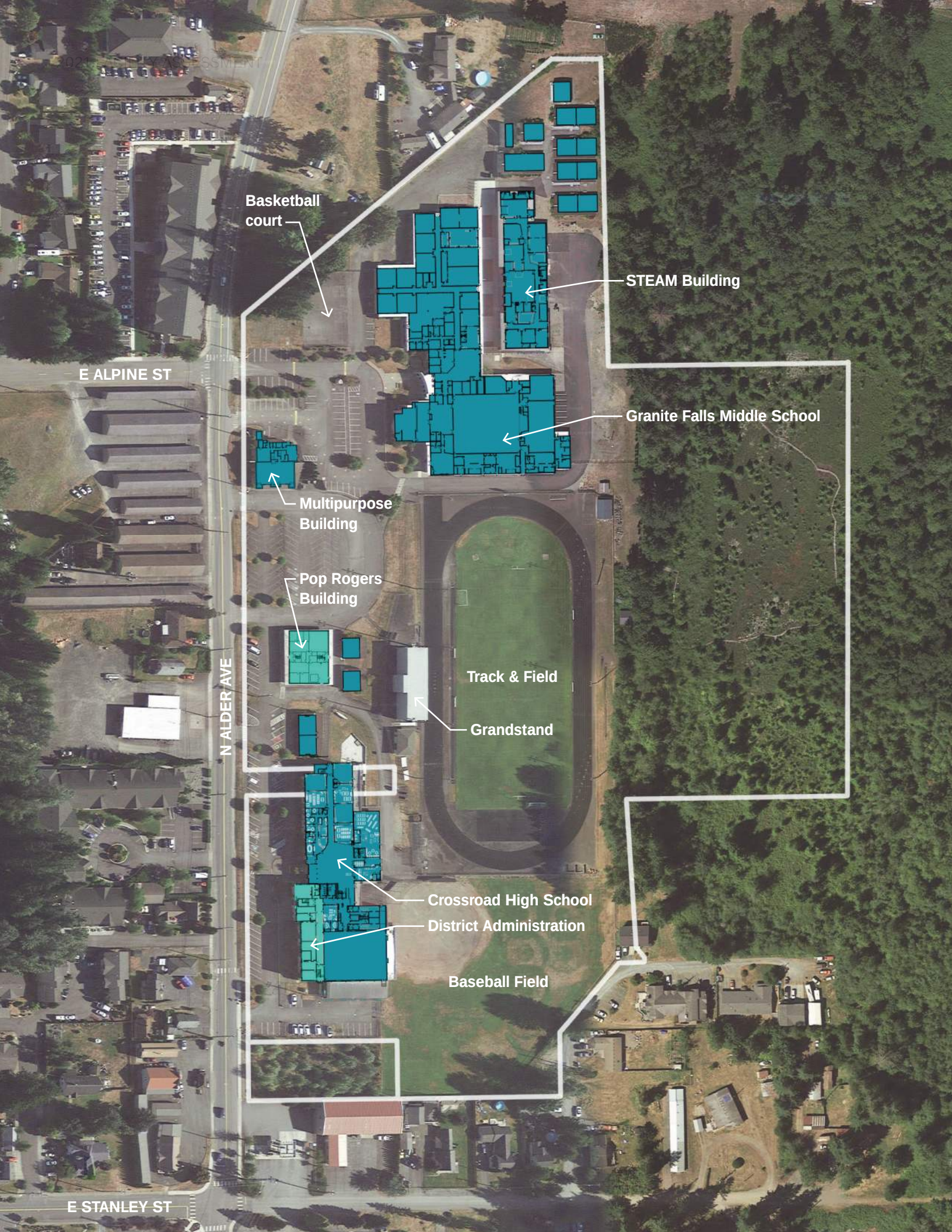
P3 *Evaluate program needs for upgraded sports laundry equipment.*

P3 *Consider adding lock to Tiger Stadium press box balcony door to secure space during off-hours.*

P3 *Consider replacement of grass soccer field with a synthetic turf field.*

ENERGY SAVINGS

None noted.


Basketball court
STEAM Building
E ALPINE ST
Granite Falls Middle School
Multipurpose Building
Pop Rogers Building
N ALDER AVE
Track & Field
Grandstand
Crossroad High School
District Administration
Baseball Field
E STANLEY ST

CROSSROADS HIGH SCHOOL / ADMIN BUILDING

GENERAL BUILDING DESCRIPTION

Crossroads High School and the Granite Falls School District Administration share a two-story building on the same campus as Granite Falls Middle School. The district administration occupy the classrooms-turned-offices in the southwestern portion of the building, while Crossroads High School occupies the northern half plus the gymnasium and locker rooms, including the adjacent portables and greenhouse.

ARCHITECTURAL ANALYSIS

SITE

The Crossroads High School / Administration Building shares a 24.5 acre campus with the Middle School. Vehicular and pedestrian traffic enter the site from North Alder Ave. Bus and vehicular traffic are separated. Parent drop-off occurs directly in front of the school, while the bus drop-off occurs directly to the north between the Middle School and Crossroads High School.

All sidewalks and pedestrian routes are in good condition. An emergency access route almost surrounds the building.

Parking consists of 69 standard parking spaces and four accessible stalls. An additional 52 standard and four accessible stalls are located in the center of the bus loop shared with Granite Falls Middle School, and another eight are located directly adjacent to the Pop Rogers building. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus. All sidewalks and pedestrian routes are in good condition and appear to accommodate accessibility requirements throughout the campus.

Landscaping is minimal throughout the campus, but well maintained.

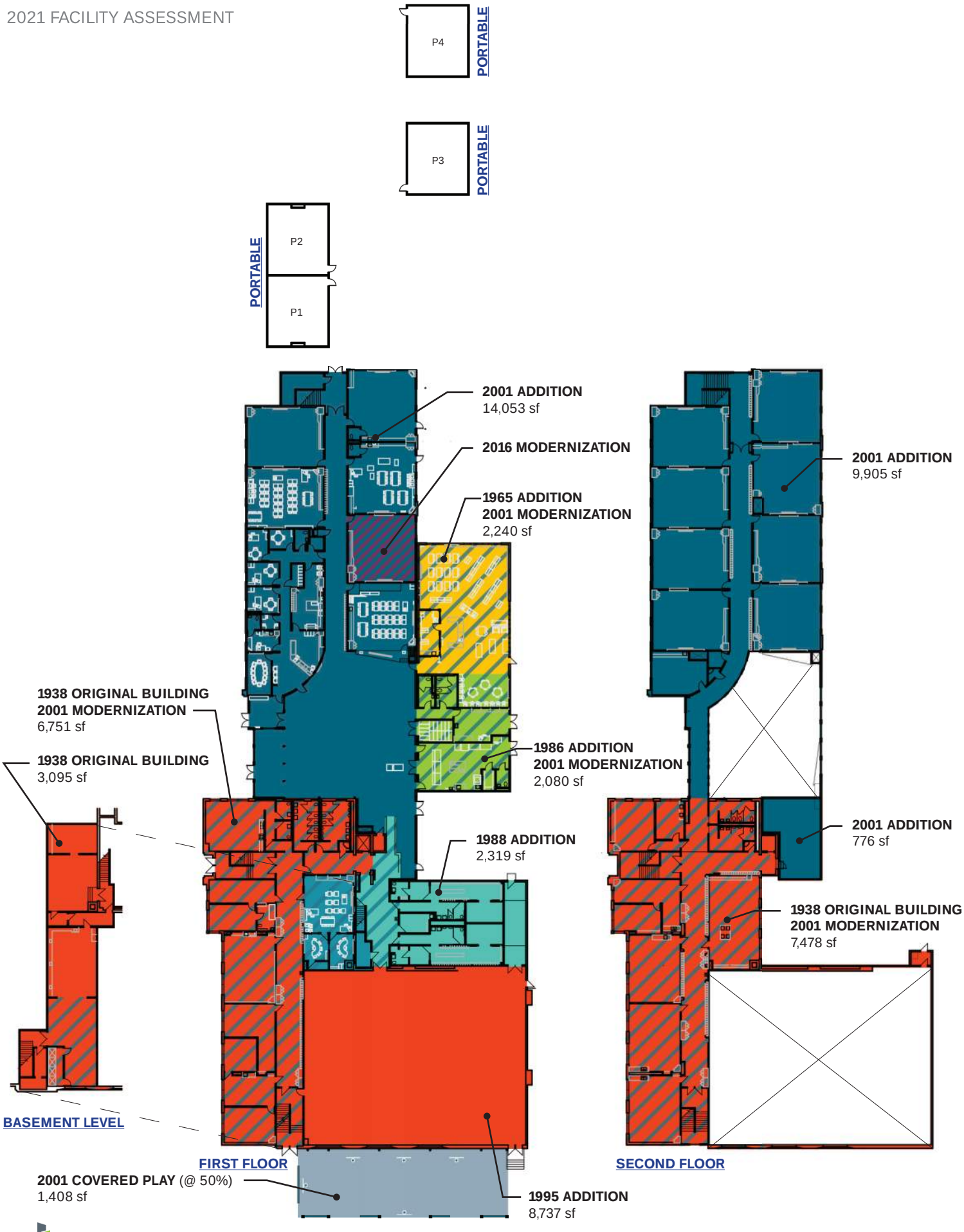
Overall the school site is in good condition and no apparent deficiencies were observed.

STRUCTURE

1938 ORIGINAL BUILDING & 1995 ADDITION

The southwestern portion of the building is a two story structure with a partial basement. In 1995 the gymnasium was expanded and remodeled. The building has concrete exterior walls and a concrete core with concrete floors at the corridors. Wood structure spans between these two platforms and forms the roof structure. Classrooms have wood floor structure, which exists over a very minimal crawl space on the first floor.

Typical roof framing consists of 2x wood joists spanning between concrete bearing walls with perpendicular wood decking. Above the gym the 2x wood joist span between heavy timber purlins which bear on steel trusses with perpendicular wood decking. The two-story building has flexible wood floor/roof diaphragms with wood decking. The flexible wood diaphragms transfer load to the reinforced concrete bearing walls. The concrete bearing walls act as shear walls transferring seismic forces to the foundation.


P4
PORTABLE
P3
PORTABLE
P2
P1
PORTABLE
2001 ADDITION
14,053 sf
2016 MODERNIZATION
1965 ADDITION
2001 MODERNIZATION
2,240 sf
2001 ADDITION
9,905 sf
1938 ORIGINAL BUILDING
2001 MODERNIZATION
6,751 sf
1938 ORIGINAL BUILDING
3,095 sf
1986 ADDITION
2001 MODERNIZATION
2,080 sf
2001 ADDITION
776 sf
1988 ADDITION
2,319 sf
1938 ORIGINAL BUILDING
2001 MODERNIZATION
7,478 sf
BASEMENT LEVEL
FIRST FLOOR
SECOND FLOOR
2001 COVERED PLAY (@ 50%)
1,408 sf
1995 ADDITION
8,737 sf

1965 & 1986 ADDITION

The library & kitchen volume was constructed in two separate building programs with the north half constructed in 1965, and the south half built with volunteer labor in 1986. The building is a one story wood framed structure with a low pitched built up roof and large overhangs around the entire building. The conventional reinforced concrete perimeter strip footings support a 4" slab-on-grade. Typical roof framing consists of glu-lam beams with wood decking perpendicular to the beams. The building is a single story structure with a flexible wood diaphragm that transfers lateral load to the perimeter, giant-brick masonry bearing walls. The giant-brick masonry bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

1988 ADDITION

The 1988 locker room addition has wood framed walls, a concrete slab on grade, and open web steel roof joists with steel decking. The elevator portion of this addition has CMU walls.

2001 ADDITION

A classroom, administration and commons addition, constructed on the site of the former elementary school & former covered play, was added in 2001 that tied the original building and library building together into a single structure.

The building is two story slab on grade with wood frame bearing walls on three sides and a interior furred load bearing masonry wall on the street side to insulate against the traffic noise. Roof and floor framing is a combination of TJL and TJI joists spanning from the exterior walls across load bearing corridor walls. The second floor structure is plywood with ¾” gypcrete overlay. The building is a two story structure with a flexible wood diaphragm that transfers lateral load to the perpendicular, plywood sheathed bearing walls and the load bearing masonry wall. The masonry and plywood sheathed bearing walls act as seismic load resisting shear walls and transfer the load to the foundation.

A covered play shed was added to the south side of the original building. It has a TJI roof structure with a plywood deck. Glu-lam beams on steel columns support the roof.

BUILDING ENVELOPE

SIDING

The exterior of building is a combination of painted reinforced masonry or concrete, fiber cement board, and stucco. Significant cracking was observed throughout the stucco siding including a significant horizontal crack at the south face of the gym volume. Further signs of water intrusion were visible at the fiber cement siding, as widespread degradation and peeling of paint was visible along most horizontal flashing on the north and east elevations, in addition to further degradation wherever the fiber cement siding touches the surrounding concrete or asphalt. Significant water damage was observed on the interior wall directly adjacent to the elevator on the second floor.

Further investigation should be undertaken to determine extents of water intrusion and determine mitigation options, as level of the damage to the fiber cement siding and the cracking in the stucco siding may indicate systematic failure of the systems.

The wood siding at 1965/1986 addition is extremely weathered, and should be prepped and repainted to prolong life.

Most exterior windows were replaced in 2001 with insulated glazing; however, the windows at the stairwells and in the 1965/1986 addition are single pane and should be replaced with double glazing.

Water intrusion at the windows in the main stairwells was observed to have been a continual issue, and should be corrected as soon as financially feasible.

The seals at one exterior window at the second floor 'bridge' over the commons was observed to have come loose, causing the glazing in the frame to be loose. Inspect all bridge windows and repair broken seals.

The exterior window in office at room 202, Human Resources / Payroll & Benefits is rusting and sweating. The seals have deteriorated, and window should be replaced.

A door lock cylinder replacement district-wide is recommended to ensure building security.

> *Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*
> *Wood siding at Crossroads / Admin building is showing signs of weathering and should be prepped and painted to prolong serviceable life.*
> *Replace all remaining single pane exterior windows.*
> *Correct water intrusion at main stairwell windows.*
> *Inspect and repair broken seals at windows over bridge.*
> *Replace window in office of room 202, Human Resources / Payroll & Benefits.*
> *Replace door lock cylinders district-wide.*

ROOFING

The Garland Company was asked to evaluate the condition of the roofs of the Crossroads High School / Administration building in December of 2020. The roofing recommendations found on the following page have been summarized from their report. Their full study can be found included in the appendix of this report.

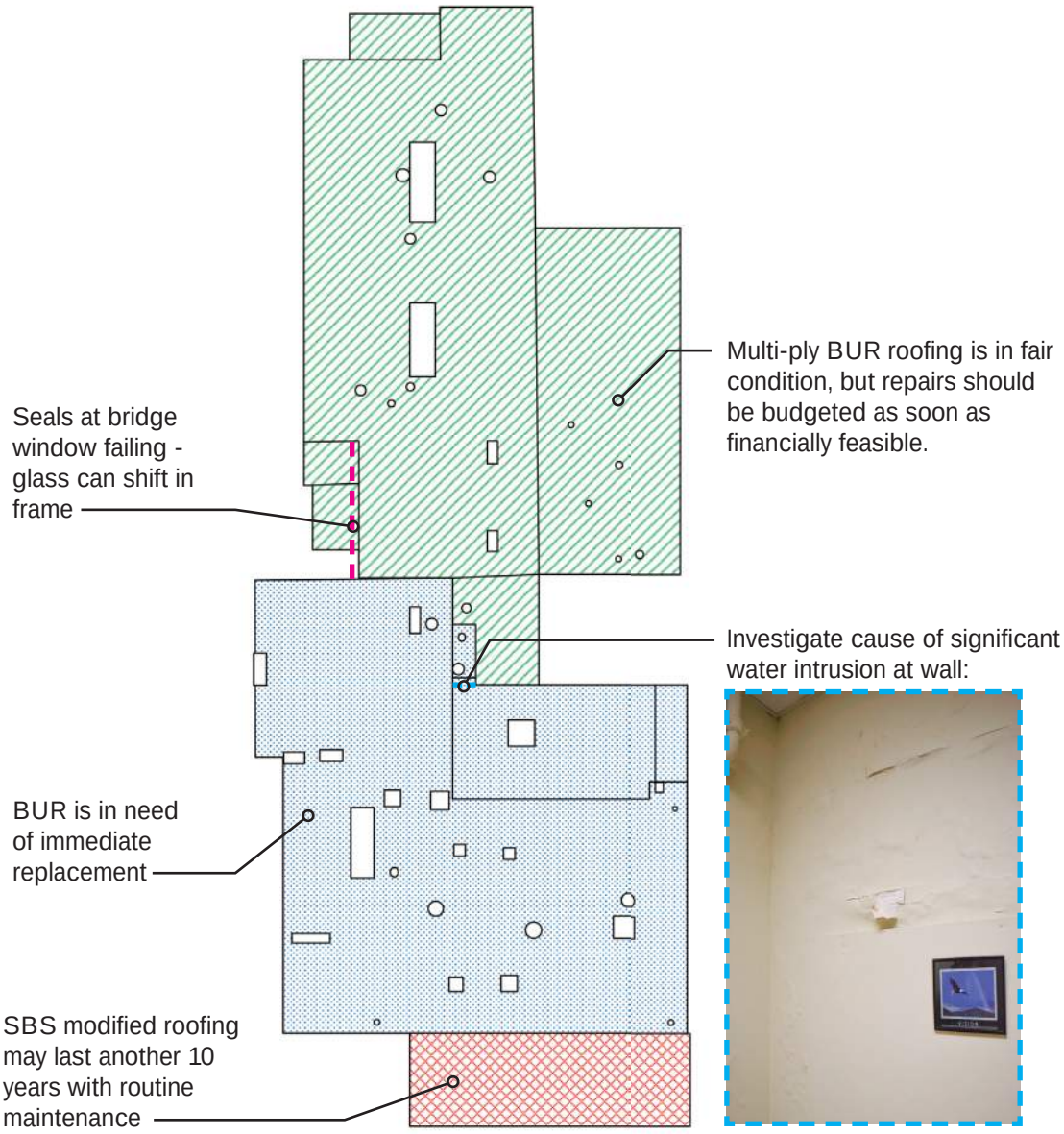
The Crossroads High School / Administration Building roofing consists of a low pitched wood framed roof with built up roof (BUR) material of various vintages. The BUR at the 2001 addition is in fair

Damage to fiber cement panels at the Crossroads / Administration building.

Significant cracking in stucco at south side of the gymnasium.

condition, but is 20 years old and needs some attention to allow the system continue to perform, including restoration of the EPDM expansion joint between the addition and original construction.

The multi-ply built up roof spanning the administration area and gymnasium was installed in 1995 and is in poor condition, having reached the end of its useful life. Signs of long-term water intrusion at the gym volume were observed. Painted downspouts are connected to continuous sheet metal gutters. Many patches and repairs to the roofing are apparent showing a dedicated maintenance effort, but the roof is due for a full replacement, including new flashing, gutters, and downspouts.



Crossroads High School / Administration Building roof plan graphic from 2020 Garland Company roofing report.

Water intrusion has the potential to decrease the lifespan of the facility at an accelerated rate. Therefore it is in our opinion that fixing the building envelope to ensure weather-tightness should be as high a priority as budget will allow. Further investigation of the entire building envelope (siding and roofing) should be undertaken by a building envelope specialist to determine best course of action for remediation.

> *Perform repairs and restoration to built up roofing & expansion joint over the 2001 addition at the Crossroads / Administration building.*
> *BUR over the administration and gymnasium of the Crossroads / Administration building, including flashings, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*

THERMAL ENVELOPE

Drawings for the pre-2001 Crossroads / Administration building were not available for confirmation of thermal envelope. Most single pane windows were replaced with insulated double pane aluminum windows in 2001.

The 2001 addition is insulated with R-19 batt insulation at the exterior walls, and R-30 rigid insulation at the roof. Windows are insulated double pane aluminum providing adequate thermal performance. The thermal envelope of this portion of the building is appropriate and should continue to perform efficiently.

> *Replace all remaining single pane exterior windows.*
> *As part of a major re-siding and re-roofing project, consider investigating and adding thermal insulation to the pre-2001 Crossroads / Administration building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*

BUILDING ACCESSIBILITY

Basic accessibility needs are met with an elevator to the second floor. The original entrance has been supplemented with clear signage to direct visitors towards the accessible path.

Elements of the handrail at the stair are pulling apart and should be re-aligned and secured. Additionally the entire handrail is loose at the second floor and should be secured. It is recommended

^ *Recommend non-slip tape at administration stairs.*

^ *Secure handrail at administration stairs.*

^ *Re-align and secure elements of handrail at administration stair.*

that non-slip tape be applied at each step of the stairs in the administration wing.

The sinks at conference rooms Pilchuck and Glacier Peak are not ADA accessible, in that they do not allow for a forward approach with approved toe and knee clearances. If these sinks are not used daily, we suggest removing them. If desired for operation, consider replacing the sinks in a future renovation project with an ADA accessible unit.

During our assessment it was observed that not all door hardware meets ADA accessibility standards. Current best practice encourages all operable parts to be usable with one hand, and not require tight grasping, pinching, twisting of the wrist, or more than 5 pounds of force. Door hardware across the facility should be assessed to ensure universal access to all occupants.

> *Secure handrail at stairs in administration wing.*
> *Install non-slip tape at stairs in administration wing.*
> *Remove non-ADA compliant sinks at conference rooms, or replace with an ADA-compliant unit.*
> *Assess door hardware across the administration building to ensure all doors are equipped with accessible door hardware.*

INTERIOR CONSTRUCTION

Interior finishes typically consist of vinyl composition tikle (VCT) and carpet flooring, painted gypsum walls, ceramic tile walls and floors in the restrooms, exterior hollow metal doors and frames, interior wood doors set in hollow metal frames and suspended acoustical ceilings.

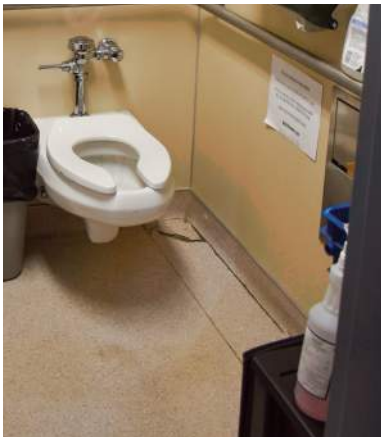
FLOORS

Floors in the original 1938 wing are VCT in the corridors and hardwood covered with carpet in most of the classrooms. Later additions are a combination of carpet, VCT and sheet vinyl. Science room 106 has Mondo rubber tile flooring in good condition.

Carpet was replaced in many locations in the 2001 addition, but is now 20 years old and in fair condition, with signs of wear and staining. Consider replacing carpet as part of a future flooring project.

Cracking in VCT at second floor.

Missing VCT at second floor expansion joint.



Pronounced cracking in sheet vinyl at nurse's restroom.

The VCT tile has cracked, and portions are missing in a few areas. This separation is not posing a trip hazard but should be monitored to ensure it does not continue to deteriorate. VCT is bubbling at transition line between carpet and tile in classrooms 110 & 108.

Pronounced cracking was observed at the floor-to-wall transition in the sheet vinyl at the nurse's restroom. Flooring should be replaced in a future renovation project.

> *Consider replacing all carpet as part of a future renovation project.*
> *Monitor VCT cracking for degradation building-wide.*
> *Replace sheet vinyl at nurse's restroom as part of a future renovation project.*

INTERIOR WALLS

Walls are generally painted gypsum board with exposed masonry in some areas. Lack of protective covering at the classrooms and corridors means that minor scuffs, tears, and dings are apparent where exposed gypsum occurs. Student restrooms have ceramic tile wainscot that is generally in good condition and aging appropriately. Staff restrooms have plastic laminate wainscot that is generally in good condition. No concerns were noted.

INTERIOR WINDOWS AND DOORS

Our team observed instances of wired glass relites in this facility. In recent years we have noted that district risk management assessments are beginning to encourage the replacement of these panels when and where feasible.

> *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

CEILINGS

Lay-in acoustical ceilings have been added in the original 1938 building, hung below the original plaster ceilings. In the subsequent additions ceilings are a combination of suspended acoustical tile and gypsum board.

Acoustical tile detaching and falling from gym ceiling.

Missing HVAC grilles and broken lighting at gym.

Defunct scoreboard, and water damage to wall and acoustical wall panels at gym.

Ceiling tiles are worn, and stained in places from on-going leaks. The gym has 12" x 12" glue on tiles that are falling off the substrate. Further investigation is need to determine cause of weakening adhesive, and to correct the issue.

> *Continue to replace worn and stain ceiling tiles throughout the building.*
> *Determine cause of weakening adhesive at 12x12 acoustical tile in gymnasium, and re-secure tiles.*

FIXED FURNISHINGS

Casework across the building is a mix of vintages, with some of plywood construction that is original to the 1938 building and heavily worn. In some cases, the casework was designed for past uses that are no longer relevant and may have an impact on the flexible use of these spaces. Consider a larger renovation project that assesses current program needs and replaces aging casework.

> *Consider replacement of finishes throughout the administration wing as part of a future renovation project.*
> *Consider replacement of casework throughout the administration wing that is worn and showing its age.*

EQUIPMENT + MOVABLE FURNISHINGS

The operable partition at the platform is worn, but functional.

The gymnasium has seen significant abuse, and would benefit from being refreshed. Grilles are missing from the HVAC ducting in the ceiling, and cages are broken missing from emergency exit signage and lighting. Damage from a previous roof leak is visible in the wall and acoustical wall panels. Acoustical wall panels are sagging and torn around the space. Scoreboard is reported to be unreliable and replacement parts are difficult to procure. Remnants of this facility serving as the district's middle school are visible in the lettering on the gym floor.

Furniture throughout the building is worn and in need of replacement.

> *Consider a renovation project to refresh the finishes, lighting and equipment of the gymnasium.*
> *Consider replacing all furniture.*

GENERAL OBSERVATIONS

CROSSROADS HIGH SCHOOL

A full programmatic review of the locker room area is recommended as part of a future building renovation. These spaces are not in high demand as full-time locker rooms, and the area should be investigated to determine the most efficient use of space and improve the programmatic needs of the users. The boys locker room was reported to be used as needed for showers tied to the athletic program. The girls locker room is used to support the McKinney-Vinto program. The majority of the lockers are in poor condition.

The kiln is located in a storage room under an emergency egress stair. The kiln should be removed from under the stair, and located within a securely locked, dedicated, fire-rated space with ample exhaust.

The nurse currently utilizes a space that is not large enough house a cot, and does not have a private office for conferencing needs. The nurse's area should be evaluated to determine whether it is meeting program and accessibility needs.

If classroom 107 continues to be used as a weight room, consider installing a resilient athletic flooring product that can provide a level of shock absorption.

As older drinking fountain models fail, and if requested by school administration, replace standard spout drinking fountains with bottle filling stations.

> *Conduct a full programmatic review of the locker rooms to determine how the space could be more efficiently used.*
> *Kiln should be located within a securely locked, dedicated, fire-rated space with ample exhaust.*
> *Nurse's area should be evaluated to determine whether it is meeting program and accessibility needs.*
> *Install resilient athletic flooring at Crossroads High School weight room.*
> *Replace standard drinking fountains will bottle filling stations.*

ADMINISTRATION

A full programmatic review is recommended as part of a future building renovation to investigate more efficient uses of space and improve the programmatic needs of the users. At this time, it would be appropriate to assess the desire of the district upgrade building finishes for a more polished appearance in their board room and district office spaces.

> *Conduct a full programmatic review of the administration wing, including any necessary AV, power and technology upgrades.*

MECHANICAL / ELECTRICAL

The 2015 Study & Survey indicates that various aspects of the HVAC, intercom, and fire alarm systems are at the end of their serviceable life, and due for replacement. In addition the basement sump pump has known maintenance problems. We recommend engaging a mechanical and electrical engineer to evaluate the condition of your building systems in order to generate a masterplan for replacement of aging systems, and to provide insight into potential energy-saving measures.

Known leaking is occurring in the actuator piping in the second floor of the administration wing, and repairs were underway to correct the problem. An additional known leak in classroom 209 was being investigated.

> *Engage a mechanical and electrical engineer to provide a full facility assessment.*
> *Continue to correct leaks in piping above ceiling.*

GREENHOUSE

Two greenhouses are located to the east of the school, with the newest installed in 2021. No concerns were noted.

^ *Broken ceiling support system at Portable P4.*

^ *Secure exterior light fixture at Portable P4.*

MODULAR CLASSROOM BUILDINGS

All portables are scheduled to be re-roofing in summer of 2021. Install splash blocks at all down-spouts to direct the exiting water away from the buildings and prevent ice build-up along exit paths. All siding and skirting should be cleaned, repaired, and painted as necessary to extend the service-able life.

> *Install splash blocks at all portable building downspouts as necessary to direct water flow away from building.*
> *Prep and paint portable building skirting and siding as necessary to prolong serviceable life.*

PORTABLE P4 (ROOM 301) - Currently used for storage. Ceiling suspension system has broken, allowing the tiles to sag. Carpet is extremely worn, and should be replaced if needed for instructional purposes. Welcome Ramp system is beginning to sag, and should be replaced before it becomes a trip hazard. Re-secure exterior light fixture by entry door, and plug hole in siding.

> *Repair broken ceiling suspension system at Portable P4, and replace damaged ceiling tiles.*
> *Replace carpet at Portable P4 if space will be utilized for instructional purposes.*
> *Monitor welcome ramp system at portables, and replace before it poses a trip hazard.*
> *Secure exterior light fixture near entry door to Portable P4 and plug hole in siding.*

PORTABLE P3 (ROOM 302) - Currently serves as the art / music classroom for Crossroads High School. Carpet is worn and stained, and due for replacement.

> *Replace flooring at Portable P3 with a product suitable for program needs.*

PORTABLE P1 & P2 - A double portable that currently houses a yoga studio in P1, and a music room in P2. Consider installing a threshold transition strip at the door to classroom P1 to ease the edge of resilient flooring.

> *Install transition strip at flooring entry door to portable classroom P1.*

SUMMARY OF FINDINGS: CROSSROADS HIGH SCHOOL / ADMINISTRATION BUILDING

SAFETY

S1 *Secure handrail at stairs in administration wing.*

S1 *Install non-slip tape at stairs in administration wing.*

S1 *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

S1 *Replace door lock cylinders district-wide.*

S1 *Install transition strip at flooring entry door to portable classroom P1.*

LEGAL/CODE

L1 *Assess door hardware across the administration building to ensure all doors are equipped with accessible door hardware.*

L1 *Kiln should be located within a securely locked, dedicated, fire-rated space with ample exhaust.*

LIFE CYCLE REPLACEMENT / REPAIR

R1 *Evaluate building flashing, perimeter transitions, and cladding system to determine cause of water intrusion and determine method for correction.*

R1 *Correct water intrusion at main stairwell windows.*

R1 *Inspect and repair broken seals at windows over bridge.*

R1 *Replace window in office of room 202, Human Resources / Payroll & Benefits.*

R1 *Perform repairs and restoration to built up roofing & expansion joint over the 2001 addition at the Crossroads / Administration building.*

R1 *BUR over the administration and gymnasium of the Crossroads / Administration building, including flashings, gutters and downspouts, should be replaced as soon as financially feasible to prolong life expectancy of the facility.*

R1 *Determine cause of weakening adhesive at glue on 12x12 acoustical tile in gymnasium, and re-secure tiles.*

R1 *Engage a mechanical and electrical engineer to provide a full facility assessment.*

R1 *Continue to correct leaks in piping above ceiling.*

R1 *Repair broken ceiling suspension system at Portable P4, and replace damaged ceiling tiles.*

R1 *Secure exterior light fixture near entry door to Portable P4 and plug hole in siding.*

R2 *Wood siding at Crossroads / Admin building is showing signs of weathering and should be prepped and painted to prolong serviceable life.*

R2 *Consider a renovation project to refresh the finishes, lighting and equipment of the gymnasium.*

R2 *Prep and paint portable building skirting and siding as necessary to prolong serviceable life.*

R3 *Consider replacing all carpet as part of a future renovation project.*

R3 *Monitor VCT cracking for degradation building-wide.*

R3 *Replace sheet vinyl at nurse's restroom as part of a future renovation project.*

R3 *Continue to replace worn and stain ceiling tiles throughout the building.*

R3 *Consider replacing all furniture.*

R3 *Consider replacement of finishes throughout the administration wing as part of a future renovation project.*

R3 *Consider replacement of casework throughout the administration wing that is worn and showing its age.*

R3 *Replace carpet at Portable P4 if space will be utilized for instructional purposes.*

R3 *Monitor welcome ramp system at portables, and replace before it poses a trip hazard.*

R3 *Install splash blocks at all portable building downspouts as necessary to direct water flow away from building.*

R3 *Replace flooring at Portable P3 with a product suitable for program needs.*

PROGRAM

P1 *Conduct a full programmatic review of the locker rooms to determine how the space could be more efficiently used.*

P1 *Nurse's area should be evaluated to determine whether it is meeting program and accessibility needs.*

P2 *Install resilient athletic flooring at Crossroads High School weight room.*

P3 *Replace standard drinking fountains will bottle filling stations.*

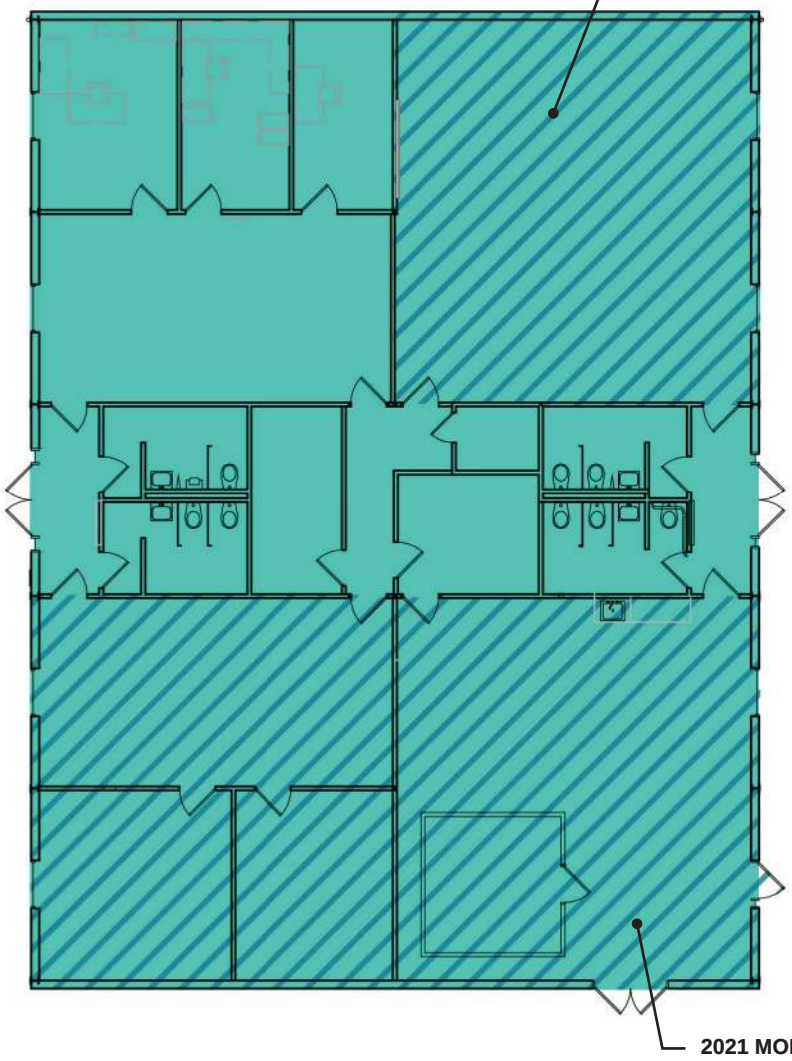
P3 *Remove non-ADA compliant sinks at conference rooms, or replace with an ADA-compliant unit.*

P3 *Conduct a full programmatic review of the administration wing, including any necessary AV, power and technology upgrades.*

ENERGY SAVINGS

E2 *Replace all remaining single pane exterior windows.*

E2 *As part of a major re-siding and re-roofing project, consider investigating and adding thermal insulation to the pre-2001 Crossroads / Administration building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*


1965 ORIGINAL BUILDING
4,934 sf
2021 MODERNIZATION

POP ROGERS BUILDING

GENERAL BUILDING DESCRIPTION

The Pop Rogers Building was dedicated to former teacher and Principal Elmer "Pop" Rogers in 1968 in honor of his commitment to the students and community of Granite Falls School District. The building currently houses the district's technology services in approximately a quarter of the building, and the Granite Falls Food Bank in the remaining portion of the building.

ARCHITECTURAL ANALYSIS

SITE

The Pop Rogers Building shares a 24.5 acre campus with the Middle School and the Crossroads High School / Administration Building. Vehicular and pedestrian traffic enter the site from N Alder Ave.

Parking consists of 8 dedicated parking spaces in front of the building, with additional overflow parking available Crossroads High School and Granite Falls Middle School as necessary. The asphalt surrounding the building is in fair condition with extensive cracking and spalling which will continue to deteriorate at an accelerated rate. Concrete paving is generally in good condition.

> *Monitor asphalt surfaces for deterioration.*

STRUCTURE

The original structure is a one-story building. The structure consists of concrete slab-on-grade floor construction, load-bearing exterior masonry walls, wood roof framing, and plywood roof decking.

BUILDING ENVELOPE

Siding consists of full height masonry in good condition. Roofing was recently replaced on the western side of the building with all new gutters and downspouts. Large single-pane windows occur in the eastern and western facades.

Exterior doors are typically hollow metal with hollow metal frames, with the exception of a new door that enters into the Food Bank storage room. We recommend modifying the threshold at the new exterior door with a heavy duty metal threshold that will allow smooth operation of pallet jacks for loading/unloading food products.

Doors are worn, and due for replacement. In addition, a door lock cylinder replacement district-wide is recommended to ensure building security.

> *Modify exterior door threshold to allow for smooth operation of loading / unloading food pallets at Food Bank storage room.*
> *Replace doors at Pop Rogers building.*
> *Replace door lock cylinders district-wide.*

THERMAL ENVELOPE

Drawings for the Pop Rogers building were not available for confirmation of thermal envelope. As walls are masonry, there is no wall insulation. Consider a future project to furr out all exterior walls and insulate per energy code. Roof insulation occurs above the plywood decking, and thickness is unknown but given the age it likely does not meet current energy code. Existing windows are single pane and should be replaced.

> *Consider a larger renovation project which could add thermal insulation to the Pop Rogers building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*
> *Replace all single pane exterior windows.*

BUILDING ACCESSIBILITY

Restrooms are located centrally to the building, but are not accessible and will require updating and enlarging to meet current accessibility guidelines.

> *Renovate at least one pair of the existing restrooms to provide an accessible restroom facility.*

INTERIOR CONSTRUCTION

The northwest corner and central core of the facility are occupied by the district's Technology department. Finishes in this area have has been well maintained but are showing their age. The remainder of the building was undergoing a minor tenant improvement in preparation of the Granite Falls Food Bank moving in. Walls had been patched and freshly painted, and flooring was being revised.

Carpet in the technology area is in fair condition, with signs of wear and staining. Replace carpet as part of a future flooring project.

Our team observed instances of wired glass relites in this facility. In recent years we have noted that district risk management assessments are beginning to encourage the replacement of these panels when and where feasible.

Modify exterior door threshold to allow for equipment to wheel in & out of space.

Renovation of south west quadrant underway.

> *Replace carpet in technology area as part of a future flooring project.*
> *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

GENERAL OBSERVATIONS

The space occupied by the technology department appeared crowded and lacking in storage. Consider a programmatic review of the space to determine whether more efficient use of space could be realized.

> *Conduct a programmatic review of space used by the technology department to determine how the building could be more efficiently used.*

SUMMARY OF FINDINGS: POP ROGERS BUILDING

SAFETY

S1 *Confer with district risk management to determine whether replacement of all wired glass relites should be considered.*

S1 *Replace door lock cylinders district-wide.*

LEGAL/CODE

None noted.

LIFE CYCLE REPLACEMENT / REPAIR

R2 *Replace doors at Pop Rogers Building.*

R2 *Replace carpet in technology area as part of a future flooring project.*

R3 *Monitor asphalt surfaces for deterioration.*

PROGRAM

P1 *Modify exterior door threshold to allow for smooth operation of loading / unloading food pallets at Food Bank storage room.*

P3 *Conduct a programmatic review of space used by the technology department to determine how the building could be more efficiently used.*

ENERGY SAVINGS

E3 *Replace all single pane exterior windows.*

E3 *Consider a larger renovation project which could add thermal insulation to the Pop Rogers building as necessary to improve thermal performance and decrease energy usage and annual operation costs.*

APPENDIX

Included in the appendix are the following reports:

- OSPI Enrollment Projections (Report 1049) for the Granite Falls School District
- Granite Falls School District Roofing Report prepared by the Garland Company

School Facilities and Organization

INFORMATION AND CONDITION OF SCHOOLS

Enrollment Projections (Report 1049)

GRANITE FALLS

	--- ACTUAL ENROLLMENTS ON OCTOBER 1st ---						AVERAGE %	--- PROJECTED ENROLLMENTS ---					
Grade	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**SURVIVAL**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Kindergarten	131	126	114	158	158	124		146	149	152	155	158	161
Grade 1	135	138	115	114	171	156	100.71%	125	147	150	153	156	159
Grade 2	135	139	136	123	116	167	101.57%	158	127	149	152	155	158
Grade 3	151	134	152	148	132	108	103.56%	173	164	132	154	157	161
Grade 4	120	159	136	151	158	134	102.87%	111	178	169	136	158	162
Grade 5	123	130	158	141	155	162	103.30%	138	115	184	175	140	163
Grade 6	159	119	130	169	148	157	101.99%	165	141	117	188	178	143
K-6 Sub-Total	954	945	941	1,004	1,038	1,008		1,016	1,021	1,053	1,113	1,102	1,107
Grade 7	140	160	124	141	175	164	105.52%	166	174	149	123	198	188
Grade 8	130	125	158	126	151	163	97.97%	161	163	170	146	121	194
7-8 Sub-Total	270	285	282	267	326	327		327	337	319	269	319	382
Grade 9	162	143	129	163	120	160	103.51%	169	167	169	176	151	125
Grade 10	150	169	144	129	167	128	102.82%	165	174	172	174	181	155
Grade 11	196	177	156	137	132	182	103.34%	132	171	180	178	180	187
Grade 12	207	274	169	153	154	213	121.42%	221	160	208	219	216	219
9-12 Sub-Total	715	763	598	582	573	683		687	672	729	747	728	686
DISTRICT K-12 TOTAL	1,939	1,993	1,821	1,853	1,937	2,018		2,030	2,030	2,101	2,129	2,149	2,175

Notes: Specific subtotaling on this report will be driven by District Grade spans.

Granite Falls School District Capital Planning W/Garland

Prepared By Marty McGarrigle
The Garland Company
206-550-5609
MMcGarrigle@GarlandInd.com

The Garland Company
3800 E. 91st Street
Cleveland, OH 44105

DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

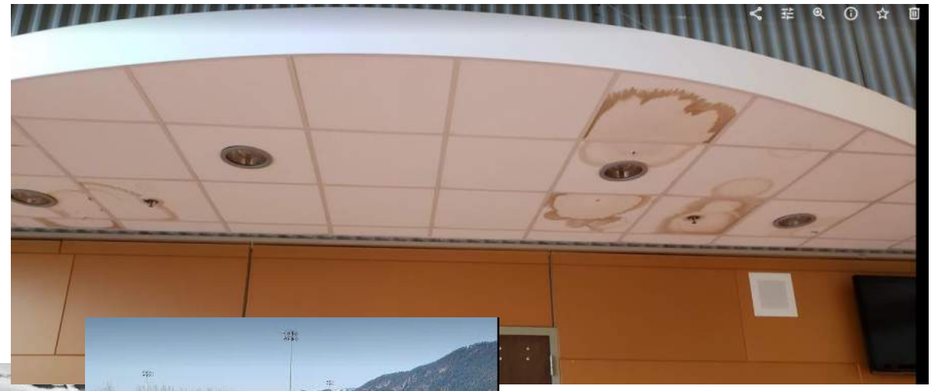
SHEET TITLE:

SHEET NO.

A-1

Leak Response Successes

- Granite Falls High School Expansion Joint
- Middle School Auxilary Gym and Collector box repairs
- Crossroads Gymnasium Drain and Downspout Repair



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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-2

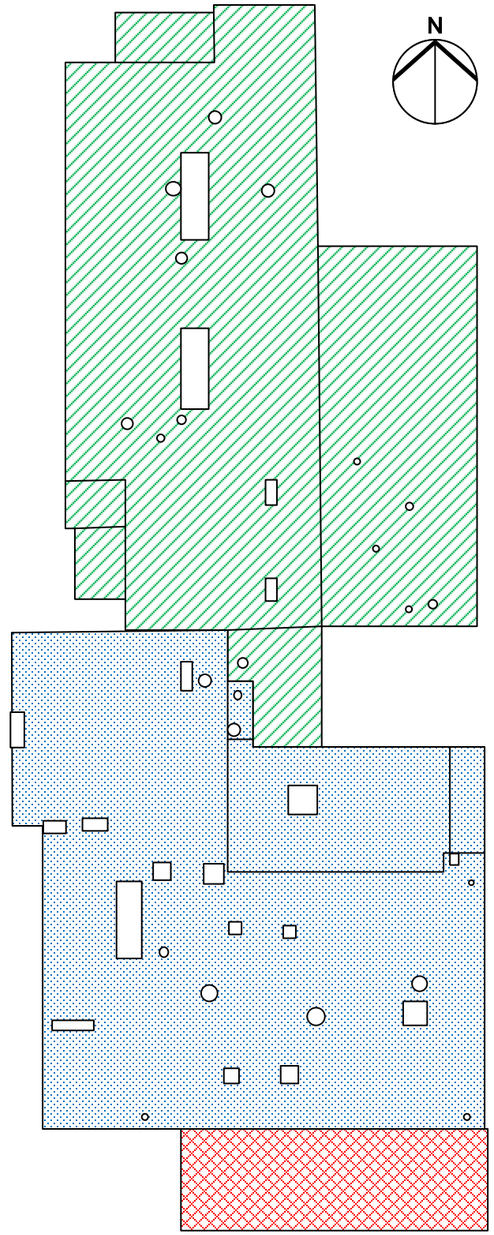
Granite Falls District Office and Crossroads Alternative School

Total Square Footage: 41,500

District Office Square Footage: 20,000
Core Sample:
- Wood Deck
- 2 inches of Polyiso insulation
- 1 inch Wood Fiberboard
- Multiply Built Up Roofing System
- Total R Value: Roughly 14

Crossroad Alternative Square Footage: 18,500
Core Sample:
- Wood Deck
- Multiply Built Up Roofing System
- 1 inch Wood Fiberboard
- Second Multiply Built Up Roofing System
- Total R value: Roughly 3
- Note: insulation was not found on this roof section

South Metal Awning Square Footage: 3,000



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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

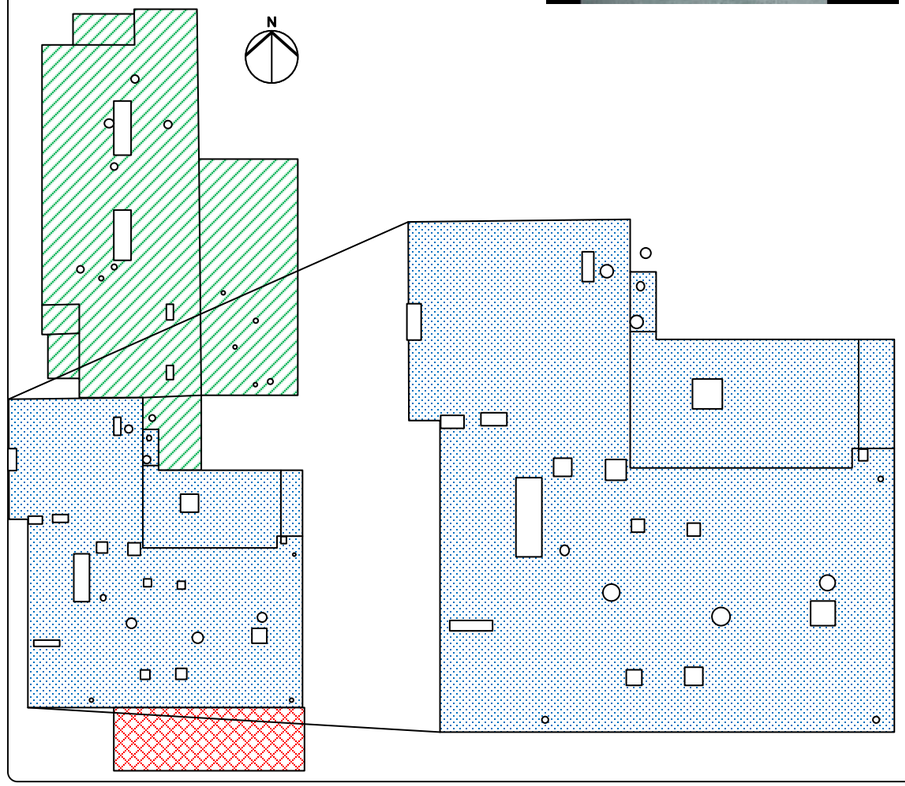
SHEET NO.

A-3

Granite Falls Crossroads Alternative School

Signs of long term water intrusion can be found right below the roof deck. This amount of exposure can lead to rotted decking and eventually major structural members. These issues bring a major cost increase to any roofing project, especially when the roof section is 40 feet in the air.

The roofing system on this section of the building is at the point of failure. I could hear the multi-ply membrane crunch under foot as I inspected the roof areas. The membrane's reinforcement scrim can often be seen in most of the crucial details and the drain sumps are literally "coming apart at the seams" as seen in the photo below. The coping details have been repaired over and over and are now missing fasteners, leaving openings in the cap. The existing curbing is low to the roof line, making a re-roofing project difficult. I'd like to not again that this roof section(at least the gymnsium) is not insulated.



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DIMENSIONS TO BE VERIFIED

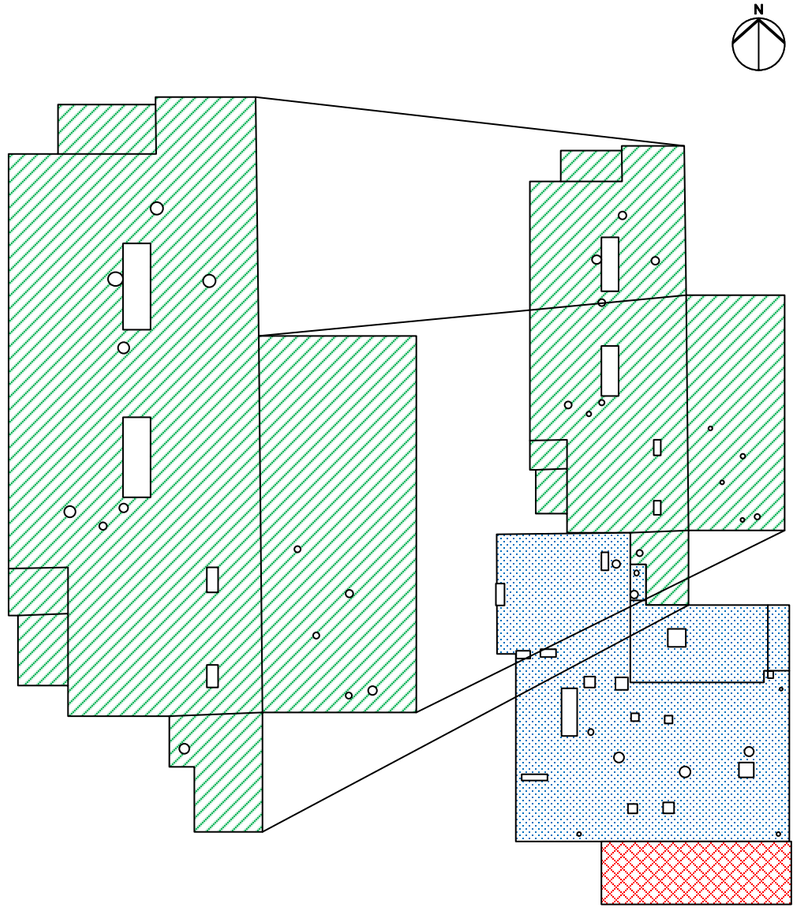
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-4

Granite Falls School District Office Low Slop Roof



Summary: The District Office has a multi-ply modified asphalt membrane with a granulized cap sheet. The system is well designed with a better insulation package, secondary drainage systems and a standing seam coping cap detail. It is also great to see that the roof's effective slope is built into the structure of the building.

The concerns I have are as follows:

- The granules that protect the asphalt cap sheet are beginning to wear away. Granules protect the waterproofing agents in the roofing plies from UV exposure and foot traffic.
- The EPDM expansion joint that separates the District Office from the original Alternative School is aging faster than the rest of the roofing system, as seen in the photo to the right. I recommend installing a metal cover over the 80 linear ft of expansion joint to protect the existing joint.
- Being that this system is well designed and not at the point of failure, I recommend budgeting for a restoration system before the system fails like other roof sections.

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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-5

Granite Falls Middle School

Total Square Footage: 95,500

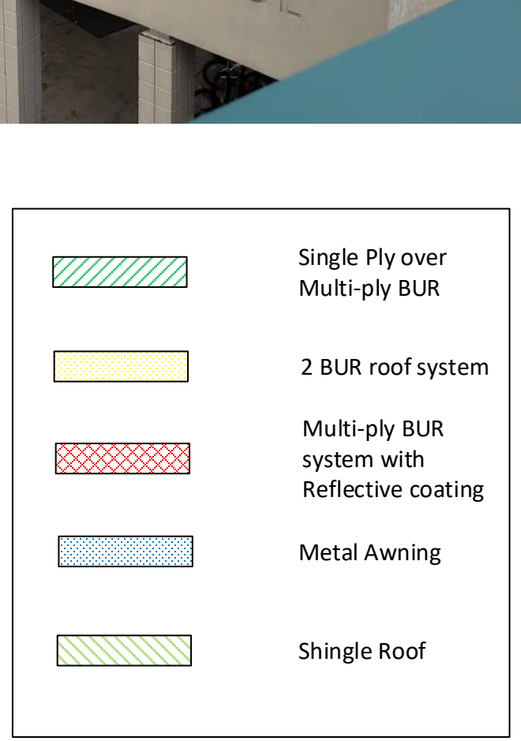
Main Campus Square Footage(without Single-ply): 66,000
Roof Assembly:
- Wood Deck
- 3 Inches of Poly-iso insulation
- 1 inch of wood fiberboard
- Multi-ply roofing membrane
- Reflective coating
- Total R Value: Roughly 20

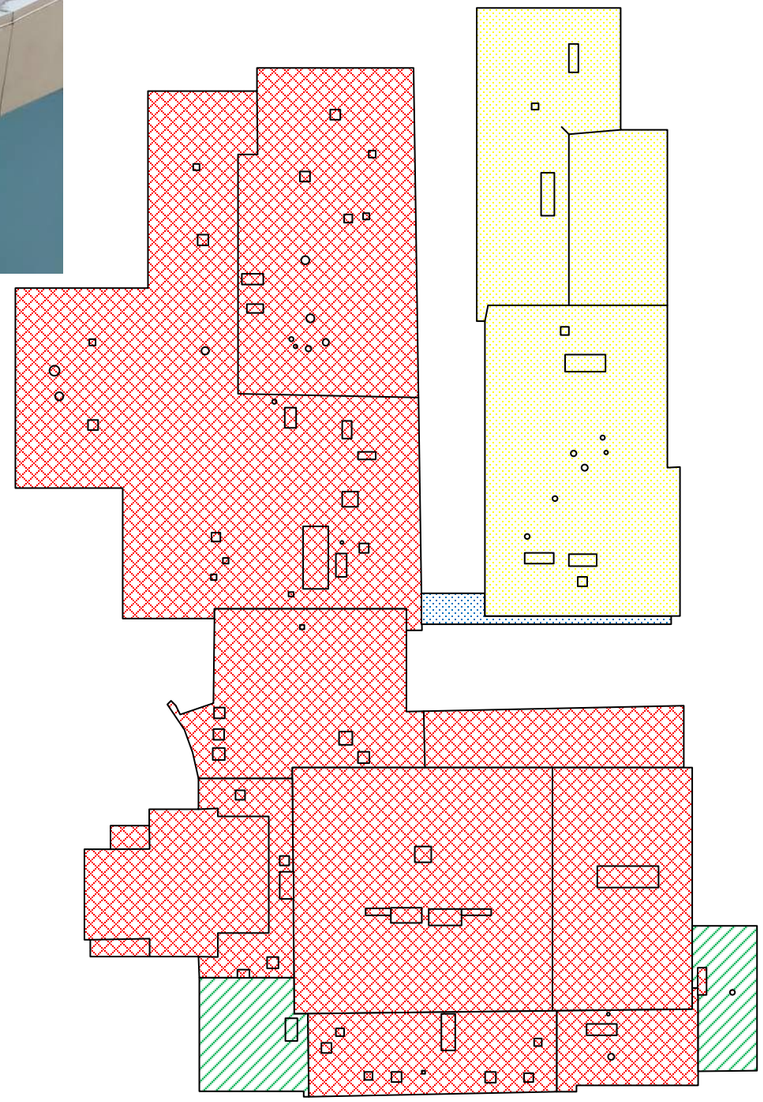
Single Ply Areas on Main campus: 4,500
Roof Assembly: Matches main campus with additional single ply retrofit

Cafeteria square footage: 5,500
Roof assembly: Wood deck with three tab composition

STEM Building Square Footage: 19,000
Roof assembly: Multi-ply roof system with Granulated cap sheet
Did not take core sample.

STEM Awning/Walkway cover square footage: 1,000





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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-6

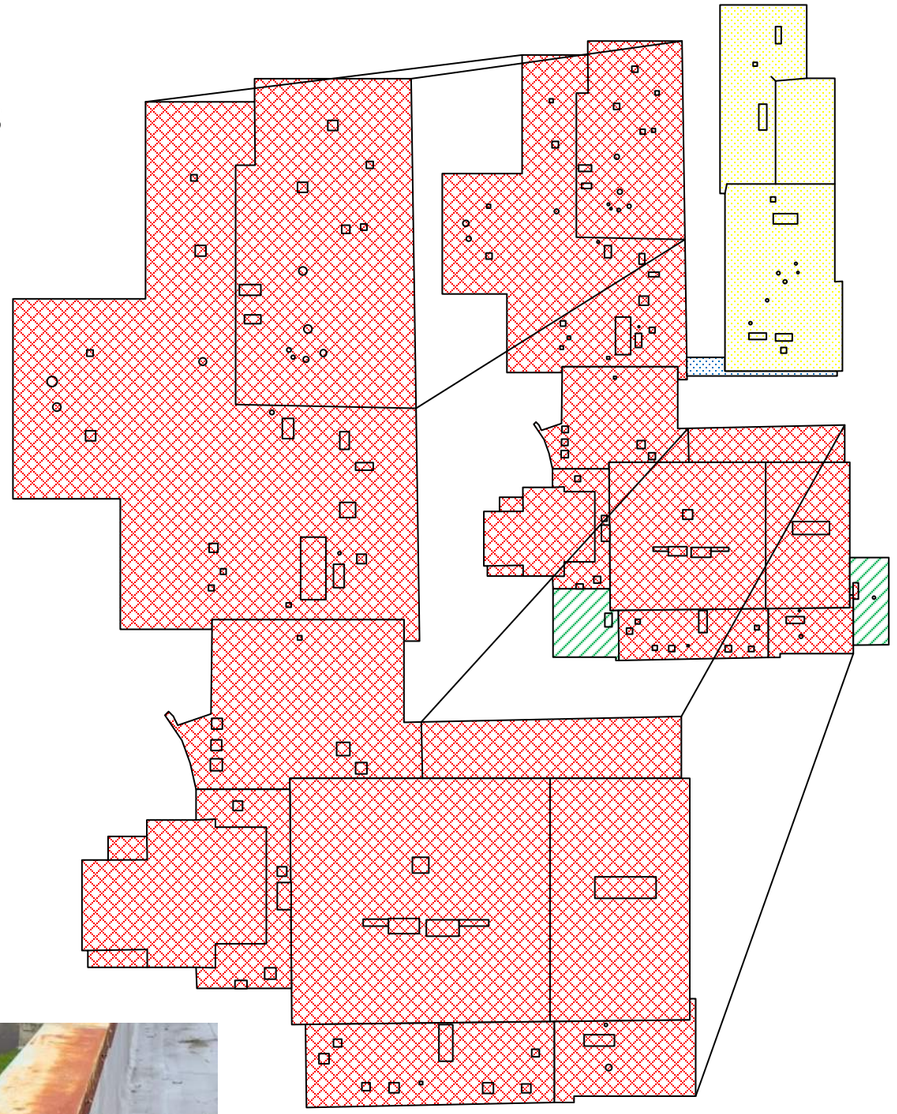
Granite Falls Middle School Main Campus
Roof Section

Summary:

The roofing system on this section of the building is at the point of failure. I could hear the multi-ply membrane crunch under foot as I inspected the roof areas.

Here are some of my other concerns:

- The membrane's reinforcement scrim can often be seen in most of the crucial details and the drain sumps are literally "coming apart at the seams".
- The coping details have been repaired over and over and are now missing fasteners, leaving openings in the cap.
- The existing curbing is low to the roof line, making a re-roofing project difficult.
- There were several HVAC units that were added after the original installation and were flashed with a completely different roofing material than the existing roof.



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DIMENSIONS TO BE VERIFIED

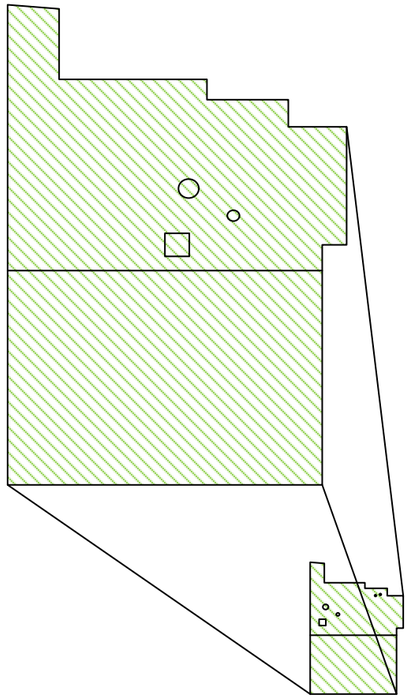
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

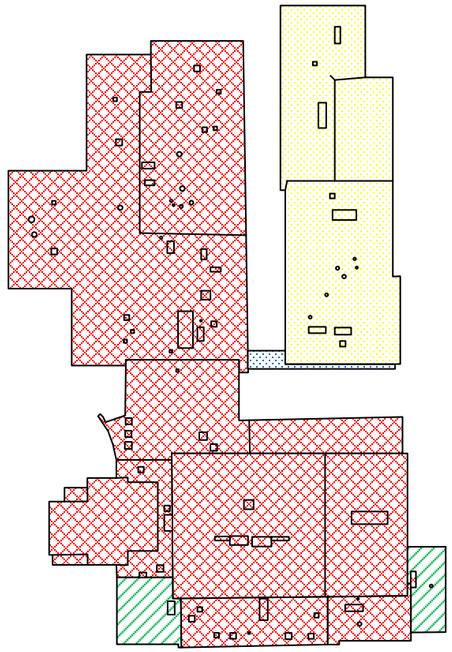
SHEET TITLE:

SHEET NO.

A-7

Granite Falls Middle School
Cafeteria Roof





Summary:

We are beginning to see active leaks pop up on the cafeteria roof. The aged composite shingles along with the commodity detailing is beginning to break down, allowing water to enter the envelope. Moss and other vegetation is beginning to build up on the shingles as well.

The other concern I found during my inspection is the the rusting metal framing around the windows at the peak of the roof.

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DIMENSIONS TO BE VERIFIED

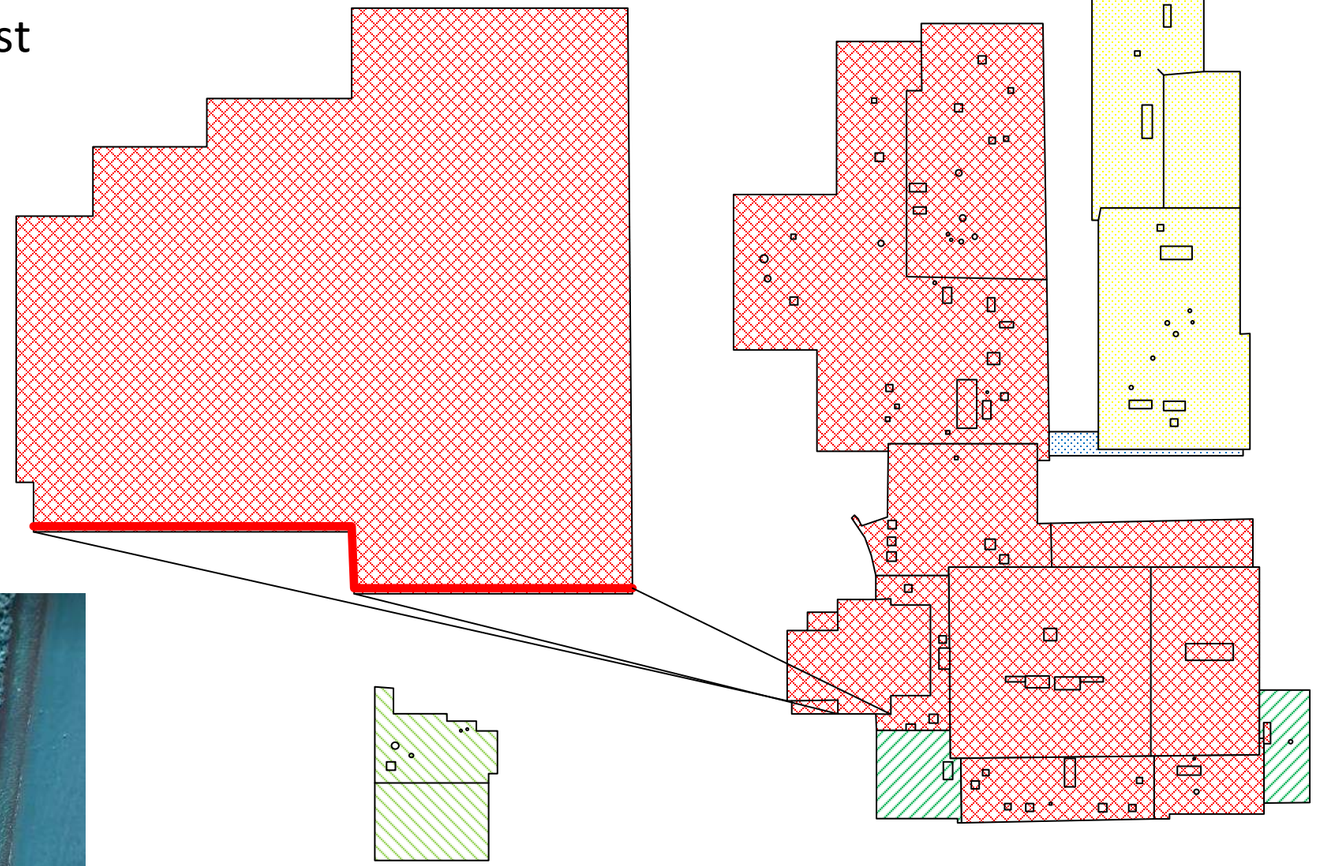
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-8

Stucco Wall at the Southwest Entrance of the School



The Stucco wall at the south-west entrance of the Middle School is deteriorating. Students have pulled a section of the wall away in one area, but the real concern is if this material falls on a student closer to the entrance. We recommend replacing the stucco or removing it and going back with Hardie panels to attempt to match the look.

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DIMENSIONS TO BE VERIFIED

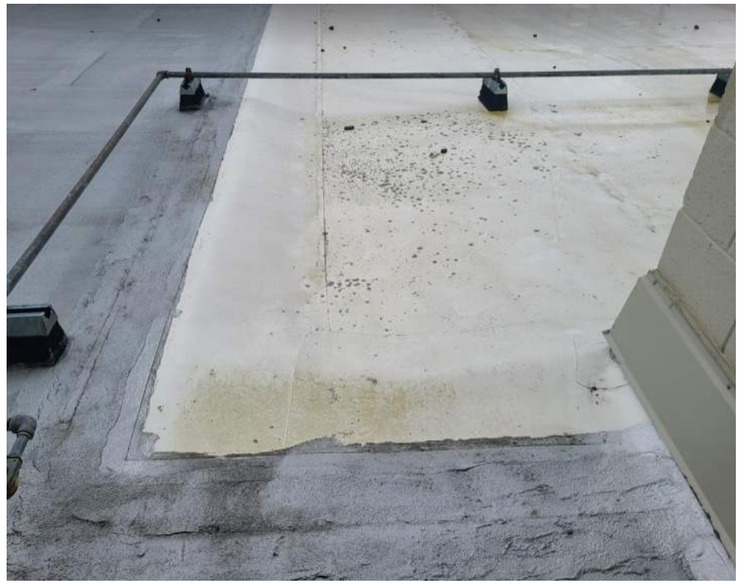
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-9

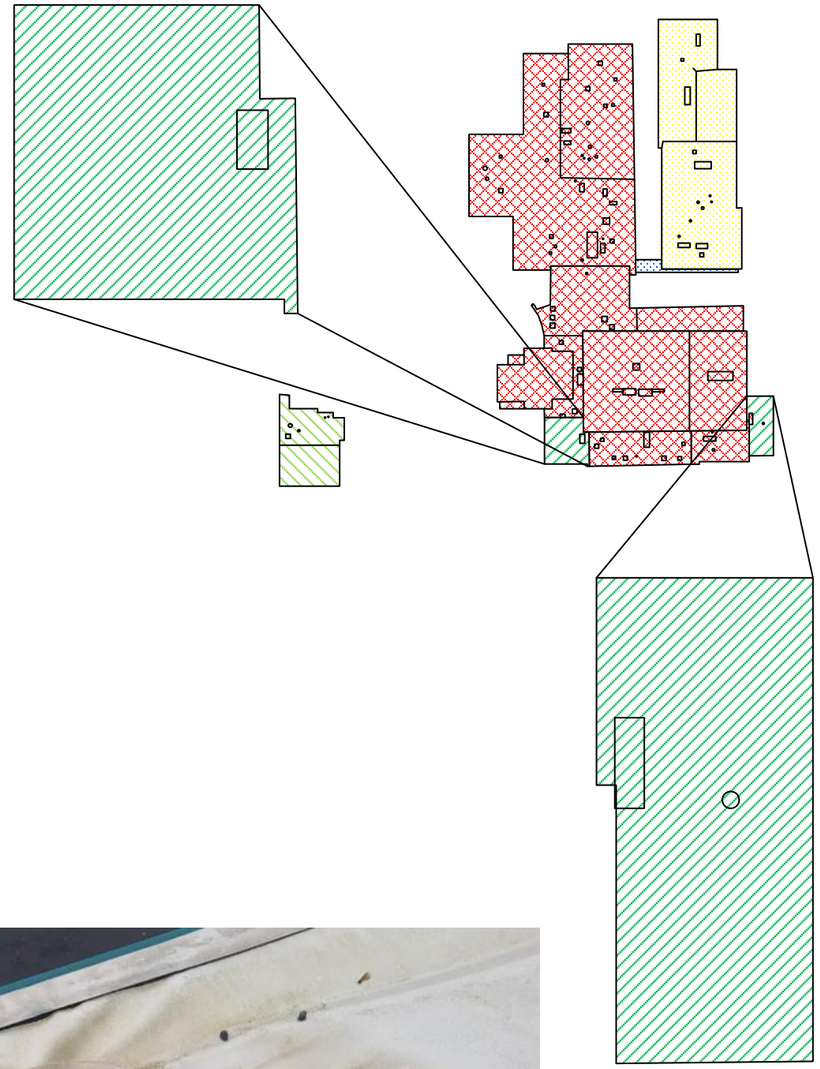
Granite Falls Middle School Single Ply Roof Sections



Summary:

There are two roof sections on the middle school that have been overlayed with a mechanically fastened singleply. In my inspection I found:

- The transition from BUR to singleply is an asphalt 3 course detail which is not conducive for long term performance
- We can see signs of the membrane stretching and contracting, putting extra stress on the system details.
- The perimeter flashings are falling apart and not ponding water is sitting below adhesion strip.



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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-10

Monte Cristo and Mountain Way Elementary

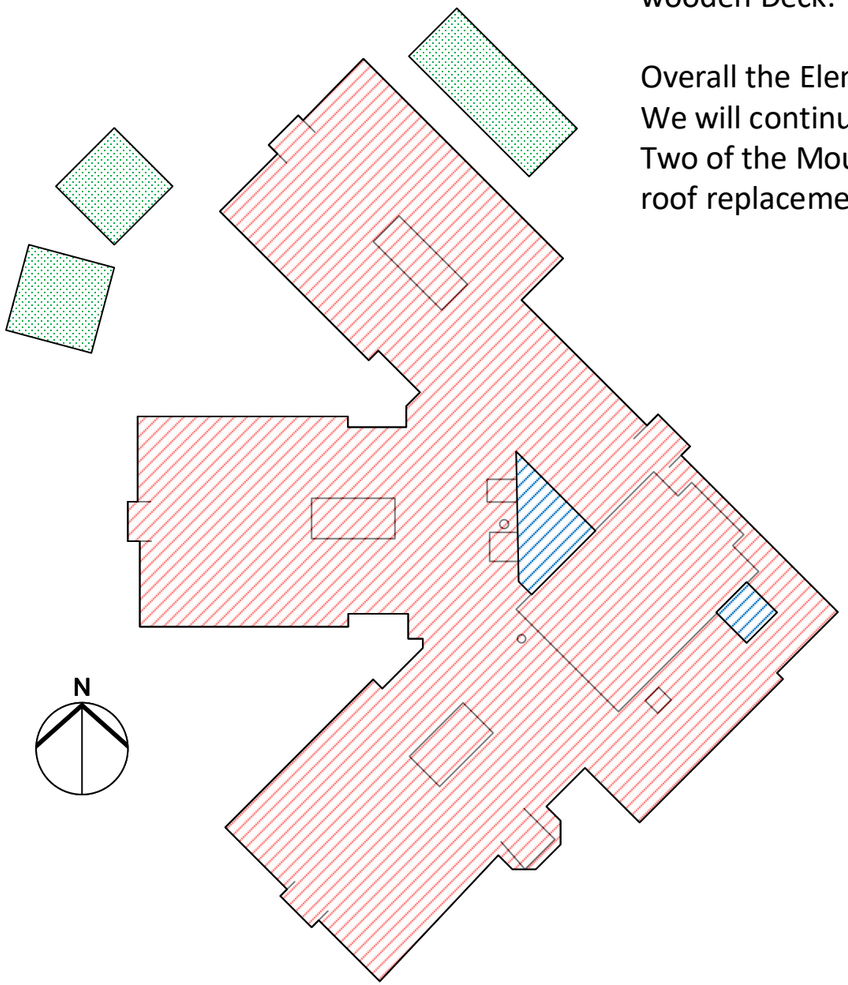
Summary:

Monte Cristo Elementary Square Footage: 60,000
Assembly: Architectural Shingles installed over a wooden Deck.

Mountain Way Elementary Square Footage: 60,000
Assembly: Architectural Shingles installed over a wooden Deck.

Overall the Elementary Schools are in fair condition. We will continue to inspect them on an annual basis. Two of the Mountain Way Portables were slated for a roof replacement lest year.

Mountain Way Elementary

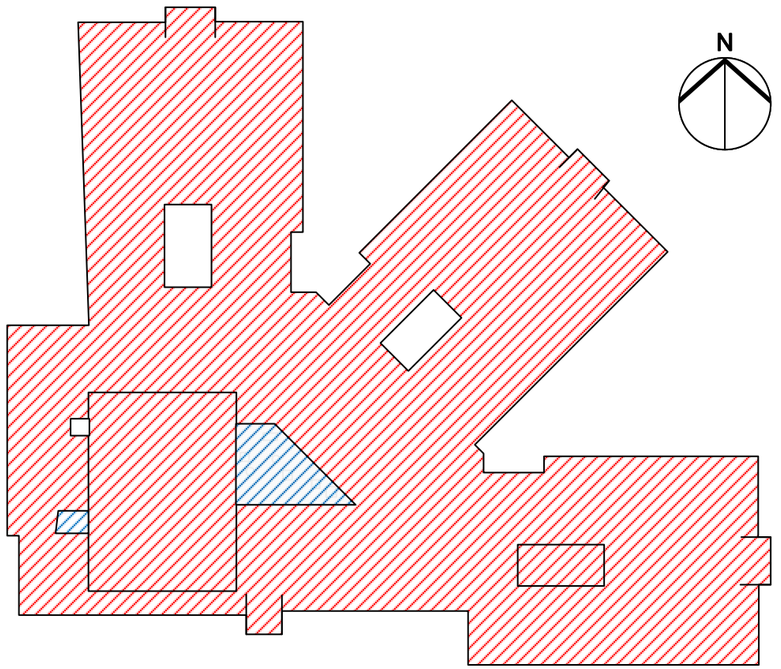


Low Slope Single Ply Roof

Three Tab Shingle

Portables With Shingle

Monte Cristo Elementary



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DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-11

Granite Falls High School

Total Square Footage: 108,500

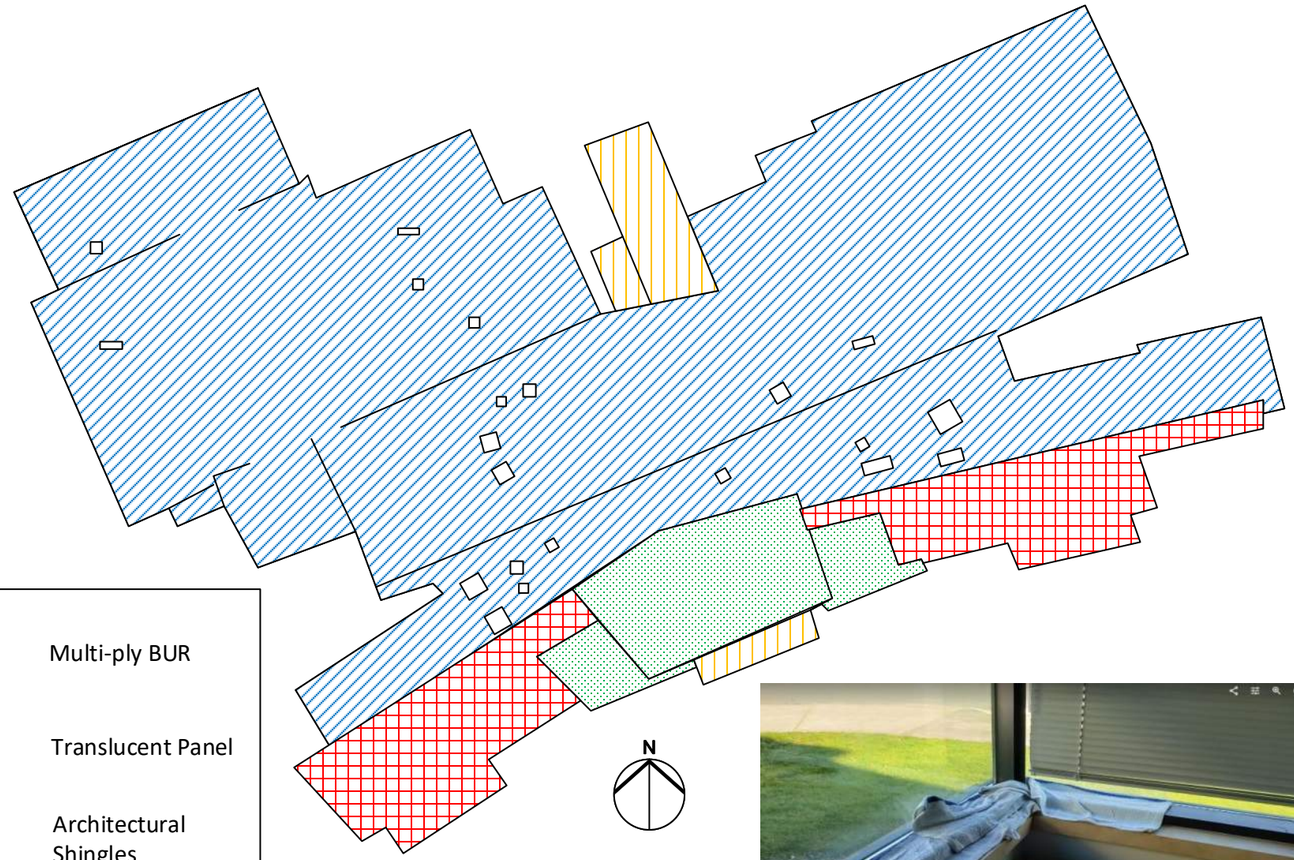
Architectural Shingle Roof: 14,300 sq. ft.

Standing Seam Metal Roof: 8,700 sq. ft.

Translucent Panel: 3,700 sq. ft.

Main Low Slope Roofing: 85,500 sq. ft.

Assembly: Core was not taken
- Metal Deck
- 4.5 Inches of poly-iso Insulation
- R value: roughly 25



- Multi-ply BUR
- Translucent Panel
- Architectural Shingles
- Standing Seam Metal

Summary:

The High School is roughly 10 years old and is already showing some signs of aging. The original low slope roof was completed with a commodity membrane and we have already had to address major defects. The other major concern that Deon and I have found is the masonry and windows around the campus. We have seen water intrusion in multiple classrooms.

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DIMENSIONS TO BE VERIFIED

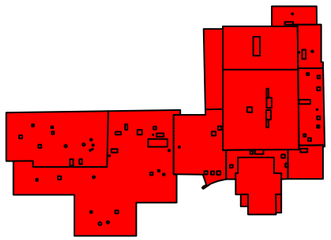
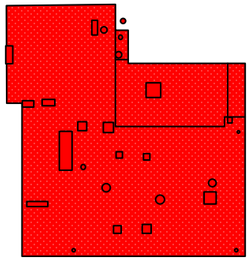
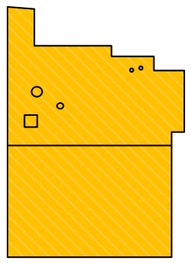
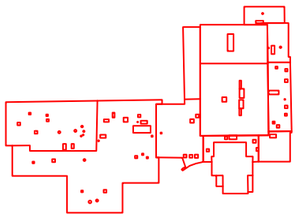
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-12

Waukesha County Communications Center Facility Plan

	Facility Roof Description	Square Footage	Current Roof Type	Budget Range **Good Option** System Type Warranty	Budget Range **Better Option** System Type Warranty	Budget Range **Best Option** System Type Warranty
	Granite Falls Middle School Main Campus Low Slope Roof	70,500	Multi-ply BUR with a reflective Bituminous coating	$683,145 - $964,440 Liquitec Restoration 10 Year Warranty	$1,519,000 - $1,772,000 2 Ply Torch Retrofit 30 Year NDL Warranty	$1,899,000 - $2,286,000 2 Ply Torch Tear Off 30 Year NDL Warranty
	Crossroads Alternative School Low Slope Roof	18,500	Multi-ply BUR with Reflective coating Original roof is also BUR	$179,265 - $253,080 Liquitec Restoration System 10 Year Warranty	Not available	$498,000 - $587,000 2 Ply Torch Tear-off 30 Year Garland NDL Warranty This option include Insulating area
	Granite Falls Middle School Cafeteria Roof	5,500	Architectural Shingles	Not Available	Not Available	This is a Full Shingle Replacement: $35,000 – $56,000 20-30 year Warranty
	Granite Falls Middle School Stucco Cladding	40,000	Stucco & CMU Block	Not Available	Not Available	Full Stucco and Masonry Restoration $330,000 - $455,000 10 Year Warranty

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3800 E. 91st Street
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DIMENSIONS TO BE VERIFIED

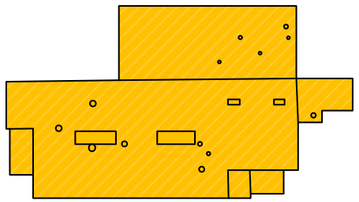
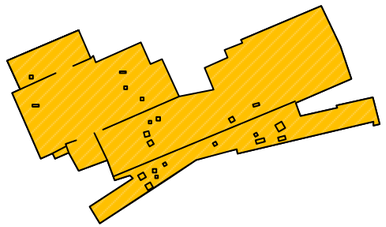
Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-13

Waukesha County Communications Center Facility Plan

	Facility Roof Description	Square Footage	Current Roof Type	Budget Range **Good Option** System Type Warranty	Budget Range **Better Option** System Type Warranty	Budget Range **Best Option** System Type Warranty
	Granite Falls District Office Low Slope Roof	20,000	Multi-ply BUR	$194,000 - $274,000 Liquitec Restoration 10 year Warranty	$430,000 – $503,000 2 ply torch Retrofit 30 year Garland NDL	$548,000 – $634,000 2 ply torch Tear-off 30 year Garland NDL
	Granite Falls High School Window Resealing and Masonry Restoration	TBD	Commercial Grade Panes and Splitfaced CMU block	TBD	TBD	TBD
	Granite Falls Middle School Low Slope BUR	85,500	Torchdown roofing system	Liquitec Restoration System $828,500 - $1,169,640 10 Year Warranty	2 ply Torch Retrofit $1,842,000 - $2,149,000 30 year NDL Warranty	2 Ply Torch tear-off $2,303,000 - $2,712,100 30 Year NDL Warranty

The Garland Company
3800 E. 91st Street
Cleveland, OH 44105

DIMENSIONS TO BE VERIFIED

Granite Falls School District
205 North Alder Ave,Granite Falls, WA 98252

SHEET TITLE:

SHEET NO.

A-14