

## 6 SPRING ROAD ELEMENTARY

Spring Road Elementary provides a comprehensive program for Kindergarten and 1st through 5th grade students.

Office

**BUILDING AREA:** 50,738 sq. ft.

**STUDENT POPULATION:** 386 STUDENTS

**SITE SIZE:** 10.18 ACRES; 32% IMPERVIOUS SURFACE

**GRADES SERVED:** KINDERGARTEN, GRADES 1ST-5TH

**PARKING:** 89 STALLS (4 HANDICAP, 85 REGULAR)

**BUS QUANTITY:** 5 BUSES / 5 BUS ROUTES

## SPRING ROAD ELEMENTARY: BUILDING EVOLUTION

Spring Road Elementary was originally constructed in 1936. A gymnasium addition was added in 1954, a classroom addition in 1958, and a library addition in 1996.

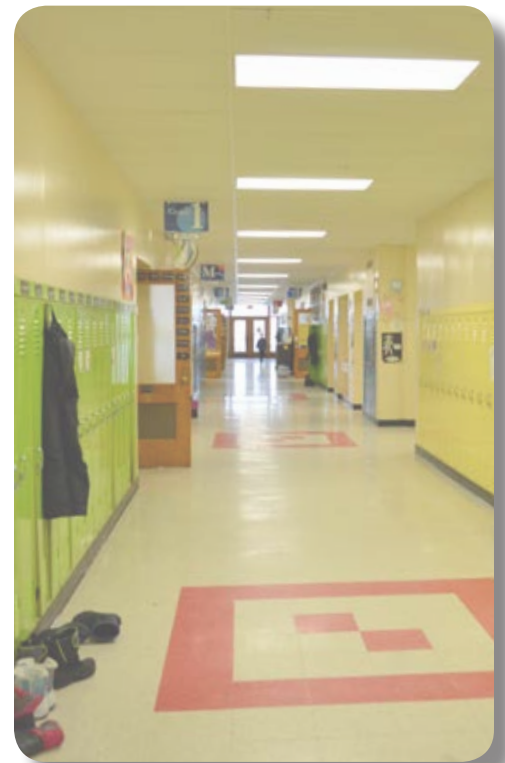
The following building evolution diagram outlines the additions made to the original building over time due primarily to student enrollment growth.



Spring Road Elementary Main Entrance & Main Office

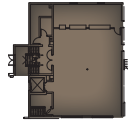


Spring Road Elementary Classroom

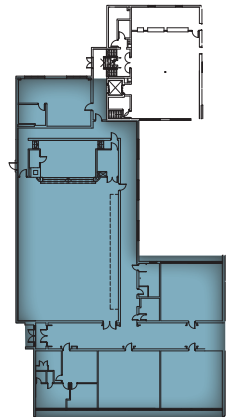


Spring Road Elementary Corridor

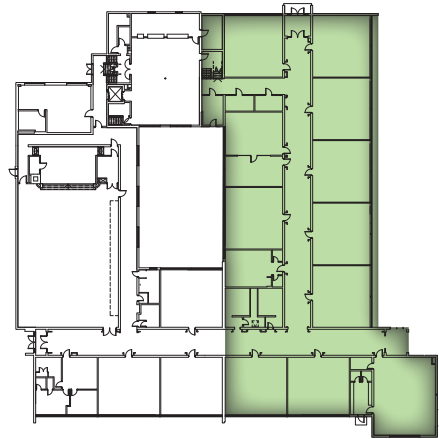
**SPRING ROAD ELEMENTARY: BUILDING EVOLUTION**



1936



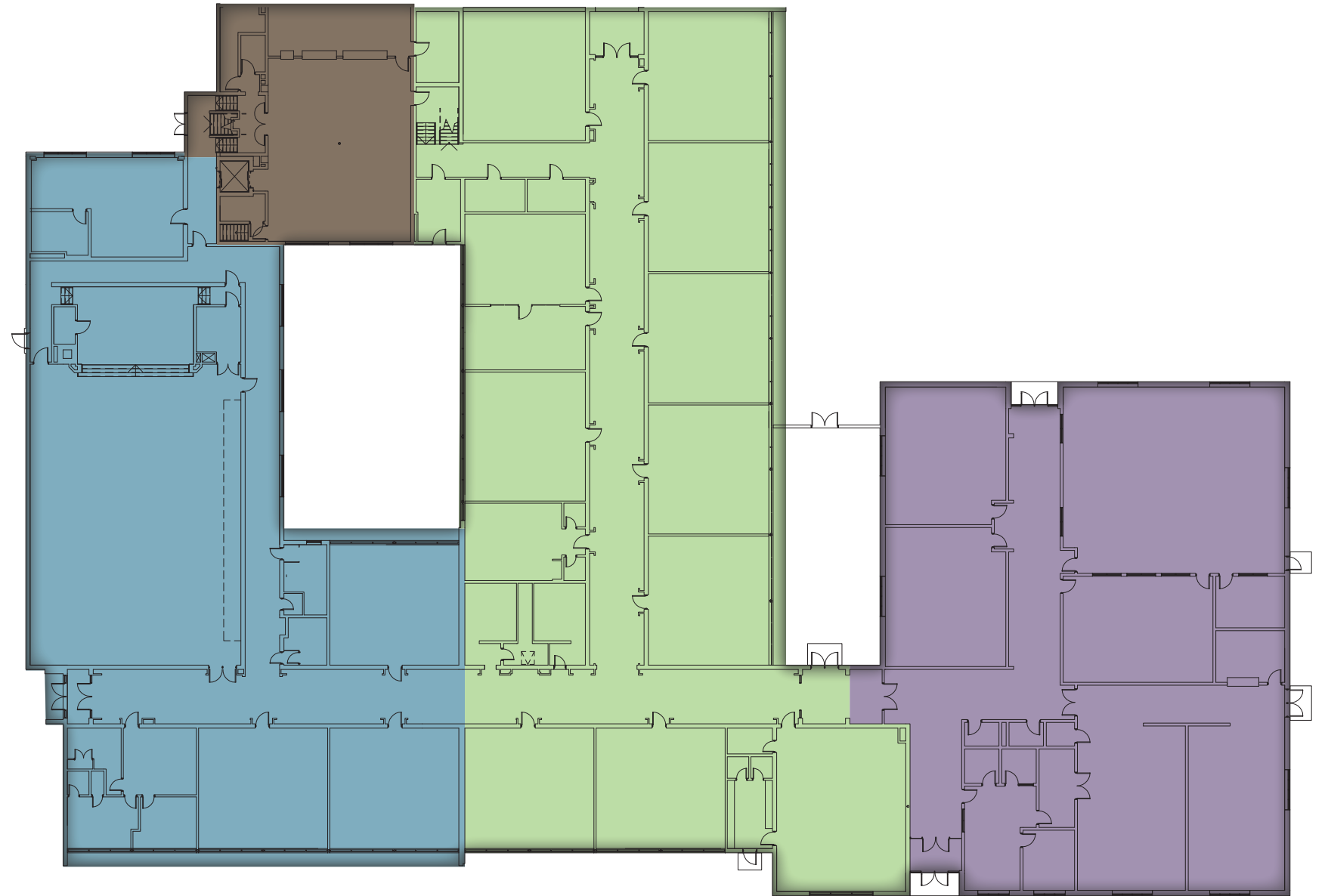
1954



1958



1996



- = 1936 - Original
- = 1954 - Gymnasium Addition
- = 1958 - Classroom Addition
- = 1996 - Library/Classroom Addition



**SPRING ROAD ELEMENTARY: EXISTING SITE PLAN**



SITE PLAN  
not to scale

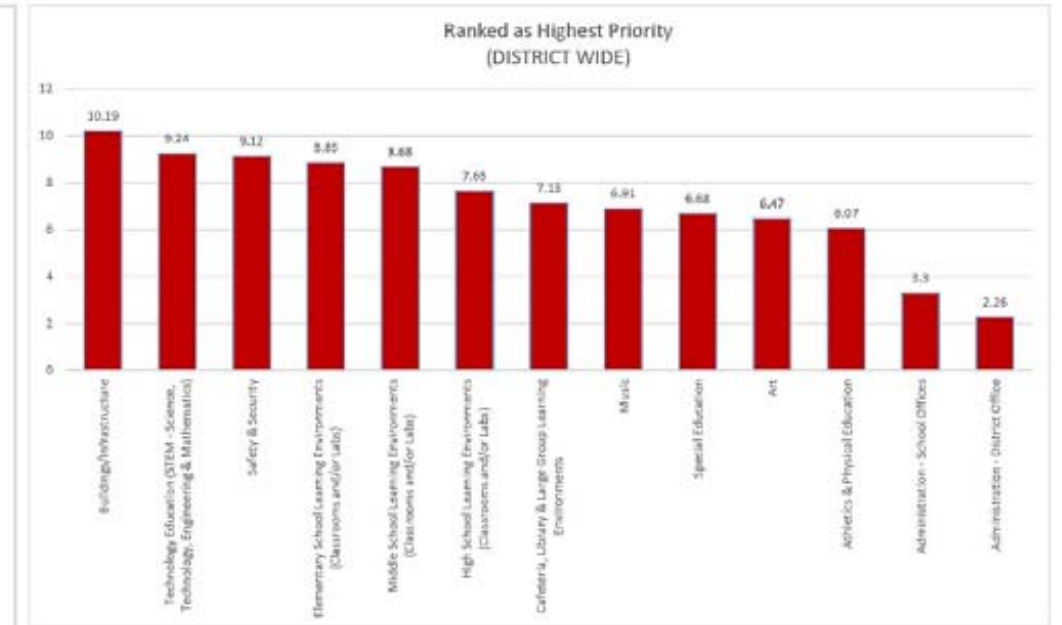
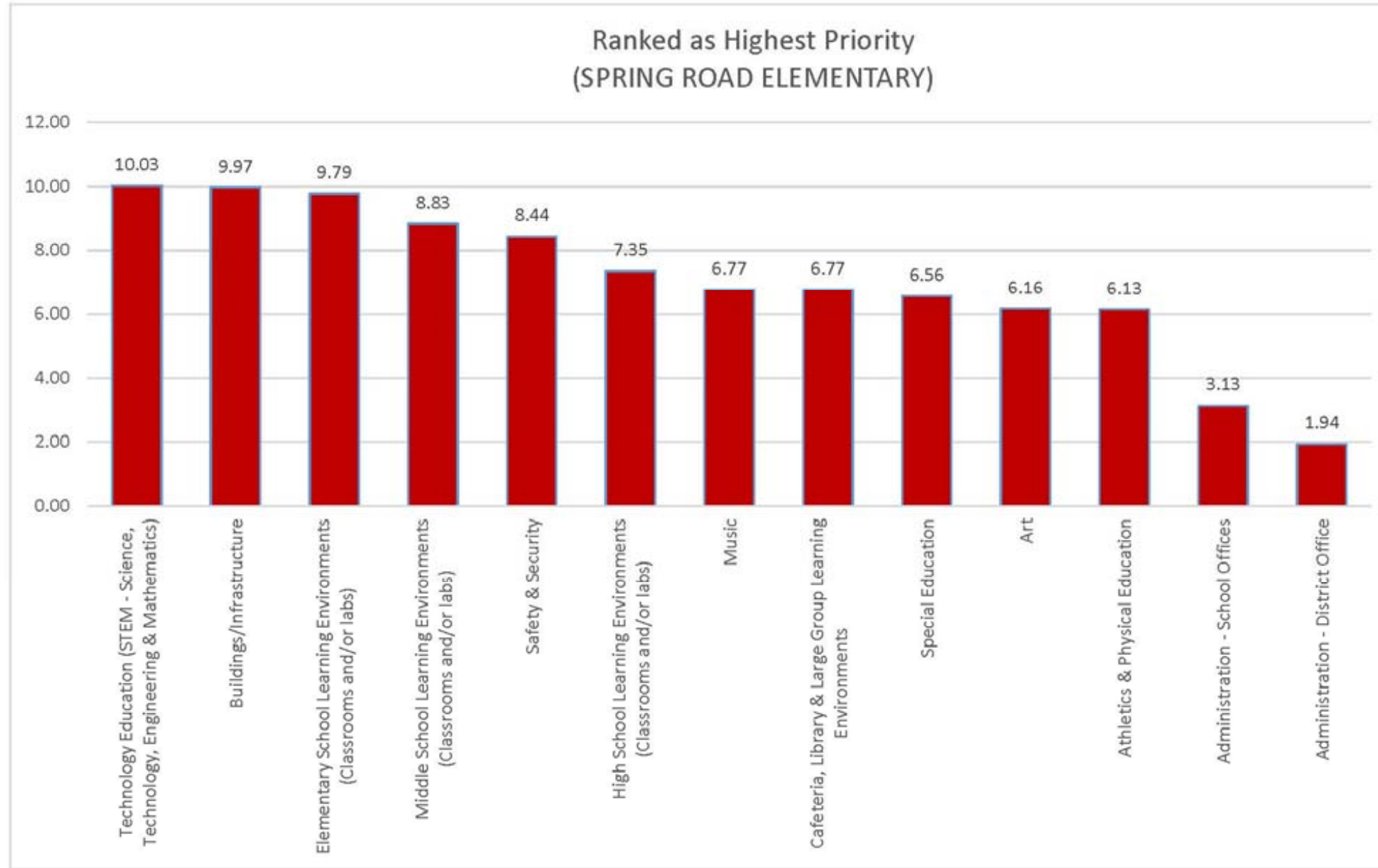
**SPRING ROAD ELEMENTARY: EXISTING FLOOR PLAN**



**FIRST FLOOR PLAN**  
not to scale



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# SPRING ROAD ELEMENTARY: SUMMARY OF STAFF SURVEY FEEDBACK

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The following is a summary of potential improvements at Spring Road Elementary. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by staff. The following information was obtained from staff survey responses and numerous meetings and listening sessions held by district leadership and Bray Architects with the objective of casting a broad net to try and gather as much feedback regarding needs as possible.

## 1. Academic & Educational Improvements:

### CLASSROOMS

Undersized

- (2) dedicated Kindergarten classrooms desired
- Permanent, sound-proof walls desired
- Variety of flexible/movable furniture desired
- Additional outlets and charging stations desired
- Additional storage space and shelving for materials, supplies and classroom libraries
- Upgrade/replace existing fluorescent lighting
- Sinks provided for each classroom desired
- Comfortable carpeted area in the classroom for reading/presentations
- Sound system/audio enhancement within the classroom desired
- Smartboards in each classroom desired

### SCIENCE

- Shared maker space desired for innovative/creative student projects and activities, STEM, etc.

### CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION

- Small group instruction spaces desired
- Large group instruction/multi-purpose space desired
  - Can accommodate indoor recess space and team activities for at least (1) grade level or more
  - Stage desired; existing stage is used as a book room
  - Space for music performances and school assemblies desired
  - Space for after-school activities desired (Y-Care, Suzuki Program, Foreign Language Classes, Music rehearsal space, etc.)

### MUSIC

- Sound-proof practice and music rooms desired
- Dedicated music classroom desired

### LIBRARY

- Additional outlets and charging stations desired

### CAFETERIA

- Undersized; larger space to allow for larger group sizes and less/longer lunch periods desired
- Larger server space desired

### GYMNASIUM

- Projector desired
- Control of daylight/windows desired

### SPECIAL ED.

- Undersized; additional space desired for sensory, therapy, and learning areas
- Centrally located, accessible to all classrooms desired to avoid isolation within the building
- Dedicated classroom/space for OT/PT/Hearing Impaired Teacher desired
- Bathroom with an adjustable height sink desired
- Soundproof walls/spaces desired
- Variety of flexible/movable furniture desired
- Additional computers/I-Pads desired
- Smartboard or ceiling-mounted projector desired
- Equipment for indoor recess and "brain breaks" desired – treadmill, stationary bike, etc.

### HEALTH ROOM

- Dedicated space to accommodate an on-site nurse

### INSTRUCTIONAL SUPPORT SPACES

- Dedicated office/space for Guidance Counselor desired
- Dedicated office/space for School Psychologist desired

### STORAGE

- Remove mini lockers and hooks and replace with cubbies at the Kindergarten level

## 2. Facility & Site Improvements:

### TECHNOLOGY

- One-to-one I-Pads for K-2
- Wall-mounted T.V./VCR/DVD players in the classrooms
- Microphone system
- Improved WiFi capabilities
- Updated/new PA system desired
- Smartboard

### INFRASTRUCTURE

- Windows
  - Leaking water from windows creates slipping hazard
  - Old and drafty; more efficient and operable windows desired; some broken glass in windows
  - Bus exhaust filters into the classroom as reported by staff
  - Adequate screens on windows to allow for windows to be opened
  - Upgrade/replace blinds
- Doors
  - New/updated doors desired; some existing doors can not be locked

### BUILDING SYSTEMS

- HVAC
  - Adequate ventilation in the bathrooms and changing area desired
  - Adequate ventilation/fans in the classroom desired
  - Adequate heating in the gymnasium desired
  - Adequate heating/cooling in the music room desired

### SITE

- Improved paving at the playground area desired
- Accessible playground/equipment desired with smoother surface (not pea gravel)

### MISCELLANEOUS

- Bathrooms
  - Additional student bathrooms desired
- Adequate/updated water fill stations and drinking fountains desired; higher quality drinking water desired

# SPRING ROAD ELEMENTARY: SUMMARY OF STAFF INTERVIEW FEEDBACK

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The following is a summary of potential improvements at Spring Road Elementary. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by staff. The following information was obtained from staff interviews and numerous meetings and listening sessions held by district leadership and Bray Architects with the objective of casting a broad net to try and gather as much feedback regarding needs as possible.

## 1. Academic & Educational Improvements:

### CLASSROOMS

- Undersized
- (2) dedicated Kindergarten classrooms desired
- Permanent, sound-proof walls desired
- Variety of flexible/movable furniture desired
- Additional outlets and charging stations desired
- Additional storage space and shelving for materials, supplies and classroom libraries

### CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION

- Small group instruction spaces desired
- Large group instruction/multi-purpose space desired
  - Can accommodate indoor recess space and team activities for at least (1) grade level or more
  - Stage desired; existing stage is used as a book room

### MUSIC

- Sound-proof practice and music rooms desired
- Dedicated music classroom desired

### LIBRARY

- Additional flexible maker space desired
- Flexible/movable furniture desired

### CAFETERIA

- Undersized; larger space to allow for larger group sizes and less/longer lunch periods desired
- Music/sound system desired

### ART

- Adequate storage for materials and project storage desired
- Dedicated kiln room

### MAIN OFFICE

- Dedicated conference room desired
- Staff work room within office
- Staff lounge is undersized; ideal if centrally located
- Dedicated offices for psychologist and guidance counselor

### GYMNASIUM

- Screen and projector desired
- Additional PE storage space desired
- Utilize stage space for performances; currently a book room

### SPECIAL ED.

- Undersized; additional space desired for sensory, therapy, and learning areas
- Dedicated classroom/space for OT/PT/Hearing Impaired Teacher desired
- Variety of flexible/movable furniture desired
- Changing rooms desired
- Two classrooms needed for Cross-Categorical

### HEALTH ROOM

- Dedicated space to accommodate an on-site nurse
- Adjacent to reception; ability to monitor by assistant

### INSTRUCTIONAL SUPPORT SPACES

- Dedicated office/space for Guidance Counselor desired
- Dedicated office/space for School Psychologist desired

### STORAGE

- Dedicated book room desired

## 2. Facility & Site Improvements:

### TECHNOLOGY

- One-to-one I-Pads for K-2

### SITE

- Improved building entry, parent pick-up/drop-off, bus pick-up/drop-off sequence

### MISCELLANEOUS

- Bathrooms
  - Additional student bathrooms desired
  - Unisex toilets within kindergarten classrooms desired

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# SPRING ROAD ELEMENTARY: NEEDS ASSESSMENT

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The following is a summary of potential improvements at Spring Road Elementary. This is not intended to be a comprehensive list. The following information was obtained through notations made by Bray Architects at extensive tours of the building and grounds, as well as needs identified by school maintenance personnel.

## 1. Interior Infrastructure/Maintenance:

### WALLS

- a. Wall paneling in the Kitchen is dated and peeling away from the wall, causing remnants of wall material from behind the paneling to fall into the Kitchen area; this is a safety concern for contamination within an area where food is prepared
- b. Walls within the older section of the building have paint peeling off

### CEILING

- c. Ceiling tiles are dated, with some tiles stained/showing signs of water damage and many bowing, bending and separating from the ceiling grid; there are a mix of tile types throughout the building

### FLOORING

- d. No known large concerns with flooring, although some flooring is dated and/or cracked, especially in the older sections of the building
- e. Rubber flooring in the Gymnasium is dated and worn
- f. There is an area of flooring below the drinking fountain at the Cafeteria where the floor seems to be caving in where it meets the wall, and the vinyl floor tile appears to be rotting/disintegrating
- g. Terrazzo floors in the older part of the building are cracking, not level, and are a tripping hazard

### MISCELLANEOUS

- h. Lockers are dated, dented, rusting, and have paint chipping off; this is especially prevalent at the base of the lockers, as the lockers lack adequate ventilation or drainage and water gathers here from wet boots/clothing being stored within the locker
- i. Gymnasium bleachers are dated

## 2. Building Envelope:

### WALLS

- a. Exterior brick is crumbling/cracking, especially at building corner conditions, and there are some areas where tuckpointing is present

### WINDOWS

- b. Windows in the older section of the building are single-pane, drafty, and have issues with water leaking and paint peeling at the frame; some condensation/frost build up on window panes has been reported by staff
- c. Glass block windows are cracked, drafty, and many have adjacent single-pane windows that are also drafty and leak water
- d. Windows at the Cafeteria are relatively new and were installed as part of the recent summer renovation project

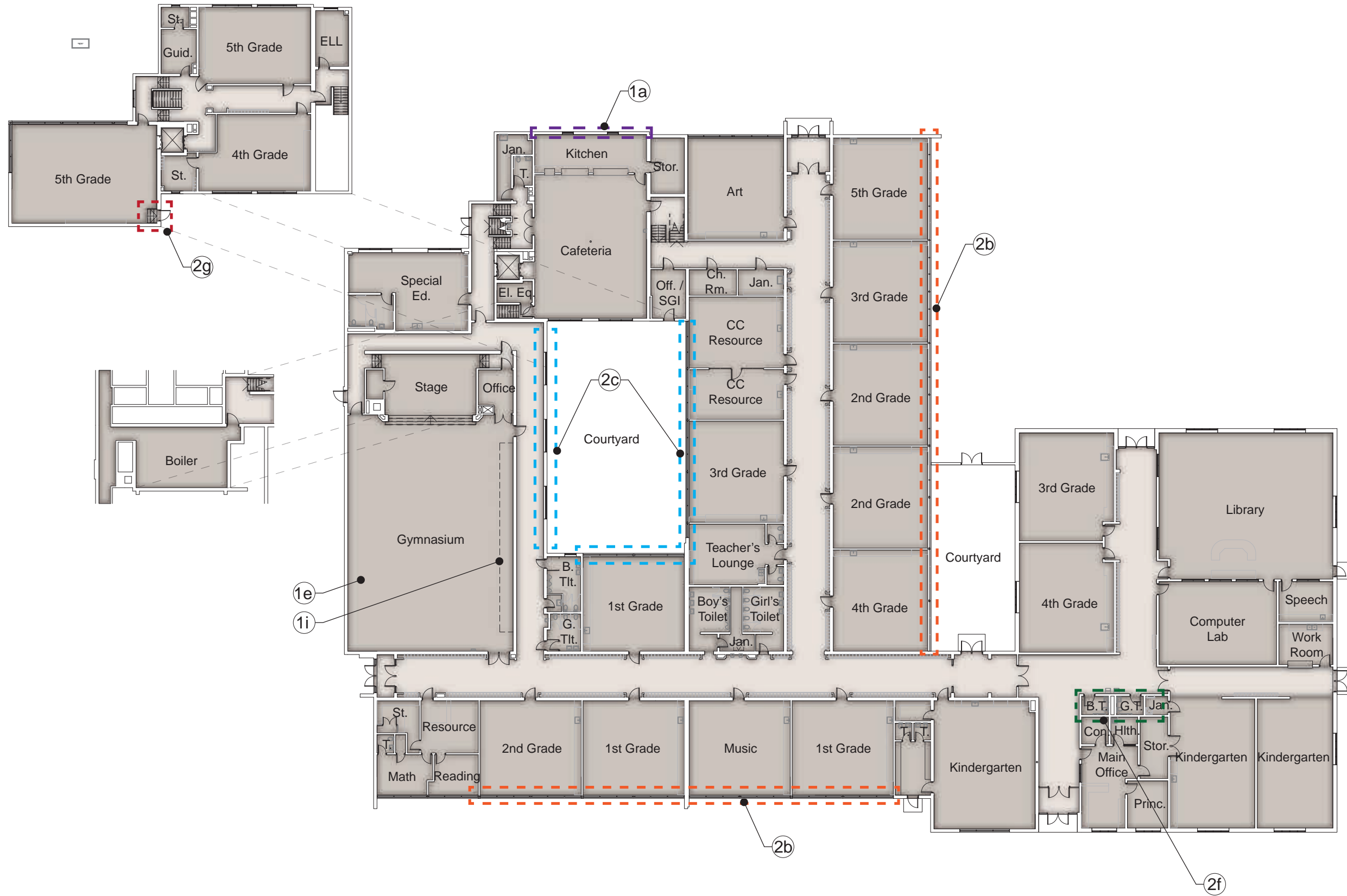
### DOORS

- e. Door #9 was reported by staff to have issues with water leaking into the building

### ROOFS

- f. Staff reported that water comes into the building near the Mechanical Room on the roof and leaks into the mechanical space and adjacent Men's Bathroom
- g. The old Library space in the older section of the building contains a door directly off the space that allows for roof access; the door does not require a key to be opened, and the roof lacks a parapet nor any railing/means of preventing someone from falling off the roof
- h. Paint is peeling at the underside of the roof canopy

**SPRING ROAD ELEMENTARY: NEEDS ASSESSMENT**



**FIRST FLOOR PLAN**  
not to scale

# SPRING ROAD ELEMENTARY: BUILDING SYSTEMS SUMMARY

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The following is summary of Plumbing, HVAC and Electrical needs. This is not intended to be a comprehensive list, but a summary of existing building system needs and possible recommendations as identified by the engineering team. Full engineers' reports are located later in this document.

## Plumbing:

- Water is supplied by a 4" water service which connects to the Municipal water system; new additions or major renovation would require a new larger water service.
- Water distribution piping is mostly copper tube and fittings with some galvanized pipe and fittings in the original building, appears to be in fair condition, and piping in the original building, 1954 addition and 1958 addition is at the end of its life expectancy; replacement of existing pipe and fittings with new type "L" copper tube and fittings is recommended.
- There is no sprinkler system; if a complete fire sprinkler system is desired, a new 6" water service is required.
- Sanitary waste flows by gravity out of the building and connects to the Municipal sanitary sewer system, and contains a mix of PVC and metal piping. Sanitary sewer systems in the original building, 1954 addition and 1958 addition are nearing the end of their life expectancy; inspection of the existing sewer located below the floor is recommended; replacement pending outcome of scope.
- The service kitchen has two sinks, a commercial dishwasher, and no grease interceptor. The small group instruction kitchenette has a double compartment sink with disposal.
- Classroom sinks do not have solids traps installed on the waste piping.
- Roof water is collected by internal roof drains and conductors which connect to the Municipal storm sewer system.
- Clearwater sump pumps are in fair to good condition and should be monitored and repaired/replaced as necessary.
- Storm sewer systems in the original building, 1954 addition, and 1958 addition are nearing the end of their life expectancy, and inspection of the existing sewer located below the floor is recommended; replacement pending outcome of scope.
- The domestic water heater was recently installed and is in good condition.
- Domestic water is not softened.

- Plumbing fixtures are a combination of various styles and ages, with most of the fixtures original to the building age they were installed and some of the fixtures having been replaced with newer water efficient and ADA compliant fixtures. Water closets, urinals, and lavatories should be replaced with new water conserving and ADA compliant fixtures, and older electric water coolers should be replaced with new ADA compliant fixtures with a bottle filler. Faucets on classroom sinks should be replaced with new ADA compliant faucets. Wall mount utility sinks are original to the building, are in fair condition, and should be replaced with floor mount mop basins.

## HVAC:

- Boiler plant was installed in 2004 and has two Smith Cast Iron steam boilers that are fired with natural gas, are in good condition, and have a life expectancy of 30 years; the boiler plant has some reserve capacity as indicated by owner. Continue preventative maintenance on the system; future additions or construction may require the addition of boiler capacity to serve the additional spaces.
- The heat exchanger and hot water pumps are part of the hot water circuit serving the 1996 addition, were installed in 1996, and are in fair condition. While the heat exchanger is nearing its estimated life expectancy of 24 years, the hot water pumps have exceeded their life expectancy of 10 years; plan to replace the aging heat exchanger and hot water pumps. The remainder of the building is served by the steam circuit, and insulation at most piping is of adequate thickness and in fair condition.
- Unit ventilators serving the 1954, 1958, and 1996 classrooms and cafeteria are original to the building and have exceeded their estimated life expectancy of 25 years. Plan for their replacement with hot water units, and convert all steam and condensate piping with hot water piping and hot water heat exchanger.
- Constant volume air handling unit serving the gymnasium is original to the building, has exceeded its estimated life expectancy of 30 years, and the steam coil has been disconnected due to leaking. Plan for its replacement with a hot water unit, and convert all steam and condensate piping with hot water piping; this unit shall be served by the new heat exchanger that serves the unit ventilators mentioned above. The constant volume air handling units serving the 1996 addition are in good condition and have a life expectancy of 30 years.
- Plan to serve the Paraprofessional room with a fan coil or unit ventilator to provide code required fresh air, as currently it is not receiving any outside air, and WI code requires that each occupied space be supplied with outside air.



# SPRING ROAD ELEMENTARY: BUILDING SYSTEMS SUMMARY

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## HVAC (cont.):

- Plans should be made for the replacement of the restroom exhaust systems, as it is recommended that the amount of exhaust air be increased to aid in the removal of odors.
- With any renovation, plan to replace the door transfer grille relief system with a code approved system, as door transfer grilles are currently used to transfer relief air from the classrooms to the corridor, and current building code does not allow transfer air into a path of emergency egress.
- The building has a digital temperature control system that serves the offices, IMC and multi-purpose room, and the remainder of the building is served by a pneumatic control system. The pneumatic control system has limitations that result in comfort complaints and requires frequent calibration to maintain accuracy; continue to maintain and operate the system as long as the current mechanical equipment remains. When renovations to the existing equipment are made, a changeover to digital controls is strongly recommended.

## Electrical:

- There are 2 main electric services, one of which is nearing the end of its useful lifespan, while the other is relatively new and in good working condition. Consider replacement of both electric services with 1 electric service to minimize system complications, and provide surge suppression, as none exists for either system.
- Panelboards vary in age, with some nearing the end of their useful lifespan, and some having been replaced or added during the most recent service upgrade and are in good condition; vintage circuit breaker panelboards should be scheduled for replacement within the next 5-8 years.
- Utility service consists of a pole mounted transformers with an overhead electrical service.
- Provide a new emergency generator system if desired, as there is no emergency backup power available in the building.
- Ensure proper working clearances are maintained in front of all panelboards at all times by using safety tape to physically indicate clearances on floor/wall around panelboards.

- Much of interior lighting throughout the building consists of a variety of T8 fluorescent or incandescent light fixtures that range in age and are in good condition, while the gymnasium has high bay metal halide fixtures; replace fixtures with LED equivalents and provide dimming controls and occupancy sensors to maximize on energy savings.
- General lighting controls in rooms consist of toggle switches with no occupancy sensors or dual level lighting, most classrooms utilize split area zones, and corridors have toggle switches with no occupancy sensors. Provide corridors with occupancy sensors and remove light switches.
- Schedule exterior light fixtures with LED equivalents and control via existing timeclock/photocell controls.
- If new LED lighting is provided, emergency lighting should be provisioned through back up batteries to normal light fixtures through egress paths and rooms with an occupant load greater than 50 people. An alternative option would be to provide a new emergency generator system. Currently there are no provisions for emergency lighting, except for a handful of wall mounted battery packs throughout the facility that provide minimal, non-code compliant light levels.
- Replace existing 15A rated receptacles with 20A rated type and provide additional receptacles throughout working spaces as necessary, as there is currently a general lack of receptacles throughout the building.
- Shoretel IP based phone system is in good working condition; no recommendations.
- Data service is provided via fiber optic utility service, is in good working condition, and fiber optic wiring interconnects all schools to the main district network. While it is unknown if the facility has ceiling plenums, riser rated data cabling should be replaced with plenum rated cabling if there are plenums in the ceiling.
- Data cabling consists of a variety of Cat5e and Cat6 cabling, in plenum and riser rated varieties, and the 1 data rack has spare rack capacity for future needs. Data cabling at the data rack should be reinstalled in a clean workmanlike manner with proper labeling.
- Provide a UPS battery backup system to provide battery backup power to the data rack, as there are no provisions for backup power.

### Electrical (cont.):

- Keyless entry system is in good working condition; access controlled doors are controlled via electric strikes and card readers, there is 1 door with a magnetic door lock that has nuisance problems with staying unlocked, and none of the exterior doors have door position contacts. Provide door monitor contacts on all exterior doors to help monitor and control access to the facility, and replace the magnetic door locks with electric strikes to ensure doors remain locked during a power outage.
- Dukane intercom system and intercom speakers are nearing the end of their useful lifespan, while the bell schedule system is controlled via timeclock and has no reported issues. Schedule the existing intercom system for full replacement with a new IP-based intercom system, schedule speakers for replacement, and provide additional speakers in areas lacking coverage.
- CCTV system has 2 cameras, seems to be in good working condition, and the District plans to add about 15 more cameras to the system in the future; provide new cameras where additional coverage is necessary.
- Simplex fire alarm system is 10 years old and in good working condition, but lacking in notification coverage; provide additional fire alarm notification devices in areas where coverage is lacking.
- Add a security system to control and monitor access to the facility, as none exists.
- Replace existing clocks with a synchronized clock system such as a GPS wireless clock system.
- Building has a monitoring system to ensure boilers in the facility are operational.

# SPRING ROAD ELEMENTARY: SITE SUMMARY

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The following is a summary of potential improvements at Spring Road Elementary. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by Bray Architects and the engineering team. The following information was obtained through notations made by architects and engineers at extensive tours of the building and grounds, as well as needs identified by maintenance personnel.

## Site Improvements:

### AREA 1 - PARKING/ASPHALT PLAY AREA

- Distresses Present:
  - Thermal cracking
  - Surface weathering
  - Fatigue cracking due to base failure
  - Poor Drainage
- Recommended Repair:
  - Remove existing pavement and 12 inches of base and/or subgrade
  - Place 12 inches of base aggregate dense
  - Pave 4 inches of asphaltic pavement
  - Place storm sewer for the downspouts to tie-in
  - Grade the area to better flow towards the ditch
  - Pavement marking for parking lot

### AREA 1A - ALTERNATE HAMMERHEAD PARKING TURNAROUND

- Concerns:
  - No room for vehicles to easily turn around
- Recommended Repair:
  - Remove existing pavement and 12 inches of base and/or subgrade
  - Place 12 inches of base aggregate dense
  - 4 inches of asphaltic pavement
  - Hatch area indicating turn around

### AREA 2 - STAFF/VISITOR PARKING

- Distresses Present:
  - Fatigue cracking due to base failure
  - Thermal cracking
  - Surface weathering
  - Potholes
- Recommended Repair:
  - Remove existing pavement and 12 inches of base and/or subgrade
  - Place 12 inches of base aggregate dense
  - Pave 4 inches of asphaltic pavement
  - Grade the area for better drainage
  - Pavement marking for parking lot

### AREA 3 - WALKING PATH

- Distresses Present:
  - Current path is gravel
- Recommended Repair:
  - Upgrade to asphalt walk

## SITE CONCRETE

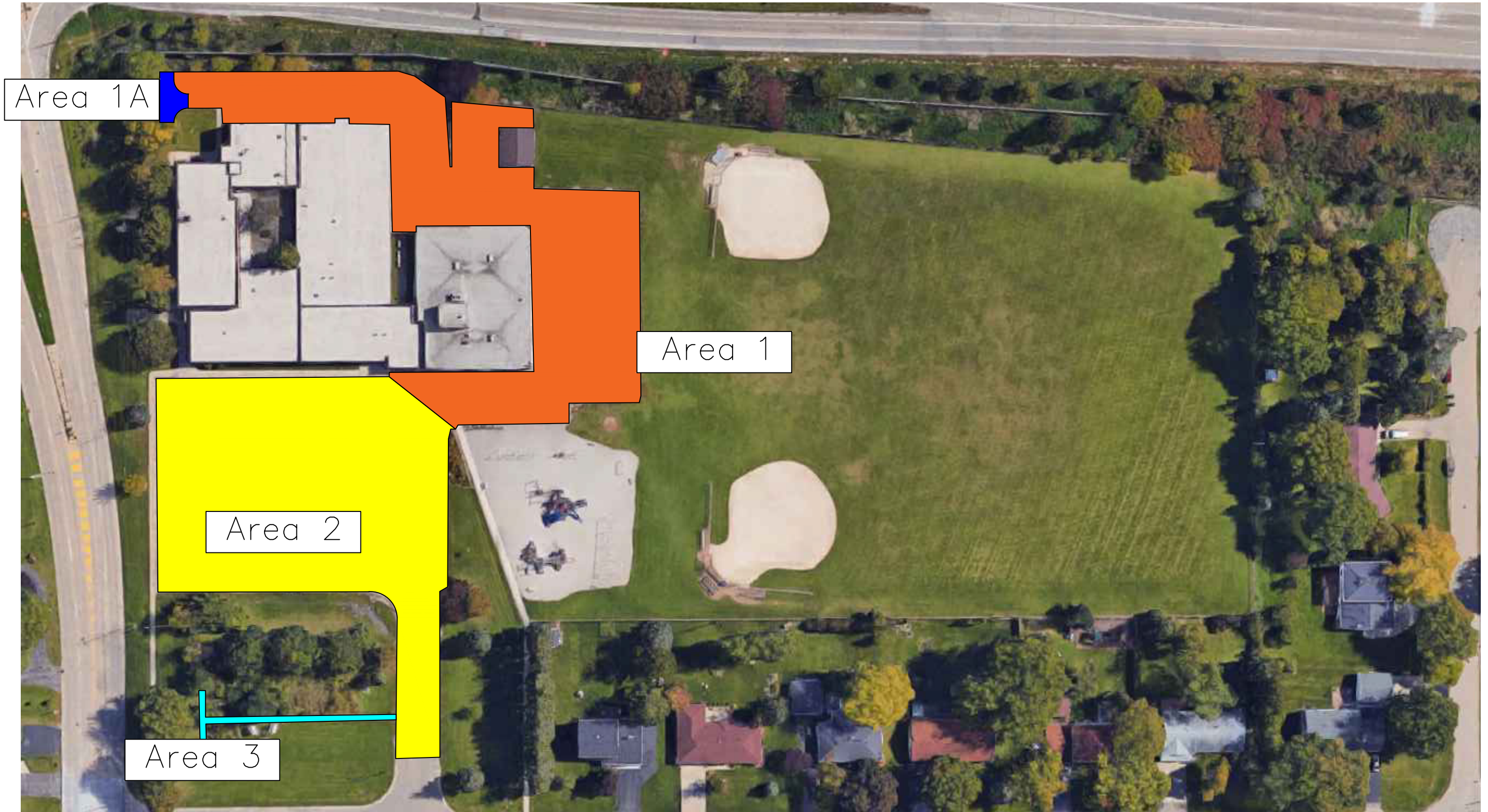
- Distresses Present:
  - Spalling at edges of sidewalk in areas
  - Large cracks in sidewalk that poses a tripping hazard
  - Section of curb damaged by plowing operations
- Recommended Repair:
  - Remove and replace the areas of sidewalk that have spalling or cracked
  - Remove and replace damaged section of curb
  - Add thickened edge walk to north side of staff/visitor parking lot

## FENCE NEAR PLAYGROUND

- Distresses Present:
  - Rusted
  - Bent in some locations
- Recommended Repair:
  - Replace fence

## ADDITIONAL NOTES

- Some playground equipment is dated, especially the swings; basketball hoops are dated and rusted
- No dumpster enclosure exists



SITE PLAN  
not to scale

# SPRING ROAD ELEMENTARY: ADA ACCESSIBILITY ASSESSMENT

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The following is an analysis of Spring Road Elementary in regards to meeting building code requirements under the Americans with Disability Act (ADA) and regulated by the American National Standard (ANSI) Accessible and Usable Buildings and Facilities. This is not intended to be a comprehensive list, but an analysis as identified by Bray Architects and engineers gathered through extensive tours and assessment of the existing building facility.

## 1. Building Entrance:

There is at least (1) accessible route of travel. Entry at grade level or ramps with slope no greater than 1:12, and has 5'-0" long landings every 30'-0".

1a. The building has multiple accessible entrances at this level that meet the above criteria.

## 2. ADA Parking:

Designated/marked ADA stalls are located near the entrance of the building and have 5'-0" access aisles between stalls ( 502.4.1; 502.4.2).

2a. The site contains marked ADA stalls located near the nearest accessible entrance.

## 3. Ramps & Lifts:

There is at least (1) accessible route to each floor level. Changes in level greater than 1/2" in height shall be ramped (303); ramps have a slope no greater than 1:12 and have 5'-0" long landings every 30'-0" (405.2).

3a. There are areas of limited accessibility where the building does not meet the criteria for accessibility standards.

## 4. Railings:

Handrails shall be provided on both sides of stairs and ramps, except for aisle stairs and ramps, which may be provided with a handrail either at the side or within the aisle width (505.2). Ramp runs with a rise greater than 6 inches shall have handrails (405.8).

Ramp handrails shall extend horizontally above the landing 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run.

Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs, except for handrails in aisles serving seating (505.3).

At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight (505.10.2).

At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight (505.10.3).

4a. There are handrails that do not meet the above criteria for accessibility standards.

## 5. Maneuvering, Thresholds, & Push/Pull:

On the pull side, a minimum clearance of 18" is required parallel to the doorway. On the push side, a minimum of 12" is required parallel to the doorway (404.2.3.1). Distance between two hinged or pivoted doors in series shall be 48" minimum plus the width of any door swinging into the space (404.2.5). Doors have a minimum 32" wide clearance. Maneuvering clearances on either side of the door are a minimum of 60" from the pull side and 48" from the push side.

Thresholds at doorways shall be maximum 1/2" high otherwise a ramp is required (303.2; 303.3).

5a. There are areas where the requirements for push/pull do not meet the above criteria for accessibility standards.

5b. There are areas where the requirements for maneuvering meets the above criteria for accessibility standards.

5c. There are areas where the requirements for thresholds do not meet the above criteria for accessibility standards.

## 6. Door Hardware & Panic Hardware:

Doors have open, lever-styled hardware (no round/knob hardware) (404.2.6). Egress doors have panic hardware.

6a. There are doors that do not meet the above criteria for accessibility standards

## 7. Restrooms:

Public restrooms have at least 5'-0" clearance space for a wheelchair to turn around, at least (1) ADA accessible stall (sized 60" min. depth x 56" min. width, for wall-mounted stalls, and 59" min. depth for floor-mounted stalls) with 5'-0" clearance (604.3.1), and at least (1) sink at a 34" maximum height (606.3). The compartment door clearance between the door side of the compartment and any obstruction shall be 42" minimum. Compartment doors shall not swing into the required minimum area of the compartment (604.9.3)

There is at least (1) unisex restroom per floor level, and unisex restrooms have at least 5'-0" clearance space for a wheelchair to turn around, as well as a sink/counter-top height at a maximum of 34".

Mirrors located above the sink or counter shall have the bottom edge at a maximum height of 40" above the floor. Mirrors not located above a sink or counter shall have a bottom edge at a maximum height of 35" above the floor (603.3).

Fixed stall grab bars shall be 42" minimum in length located 12" maximum from the rear wall. Vertical fixed grab bars shall be 18" minimum in length, the bottom edge of the bar shall be 39" to 41" above the floor, and 39" to 41" from the rear wall (604.5.1). Rear fixed grab bars shall be 36" minimum in length and extend 12" from the centerline of the toilet. Rear grab bars shall be 24" minimum in length centered from where wall space doesn't permit 36" grab bar (604.5.2).

Bottom edge of urinals shall be 17" maximum above the floor (604.10.4).

ADA showers shall be 36" by 36" minimum with an entry of 36" by 48" minimum. A 36" minimum depth shall be provided adjacent to the open face of the compartment (608.2.1). A roll in shower shall be 60" x 30" minimum with a 60" minimum opening adjacent to the stall (608.2.2). A seat shall be 24" minimum to 36" maximum in length shall be provided at the entry side of the compartment (608.2.3).

Horizontal shower grab bars shall be provided across the control wall and on the back wall to a point 18" from the control wall (608.3.1.1). Vertical shower grab bars shall be 18" minimum in length on the control wall and 3" minimum to 6" maximum above the horizontal grab bar and 4" maximum inward from the front edge of the shower (608.3.1.2).

7a. There are restrooms that do not meet the above criteria for accessibility standards.

## 8. Drinking Fountains & Protruding Objects:

At least (1) fountain has a clear foot space of at least 30" x 48" in front and has a spout height at a maximum of 36" off the ground. Children's fountain spout shall be 30" maximum above the floor. Wheelchair fountain spout shall be 36" maximum and standing 38" to 43" above the floor (602.4).

Objects more than 27" and not more than 80" above the floor shall protrude 4" maximum into the circulation path (307.2). Objects shall not reduce clear width required for accessible routes (307.5). Guardrails or other barriers shall be provided where object protrusion is beyond the limits allowed, and where the vertical clearance is less than 80 inches above the floor. The leading edge of such guardrail or barrier shall be 27 inches maximum above the floor (307.4).

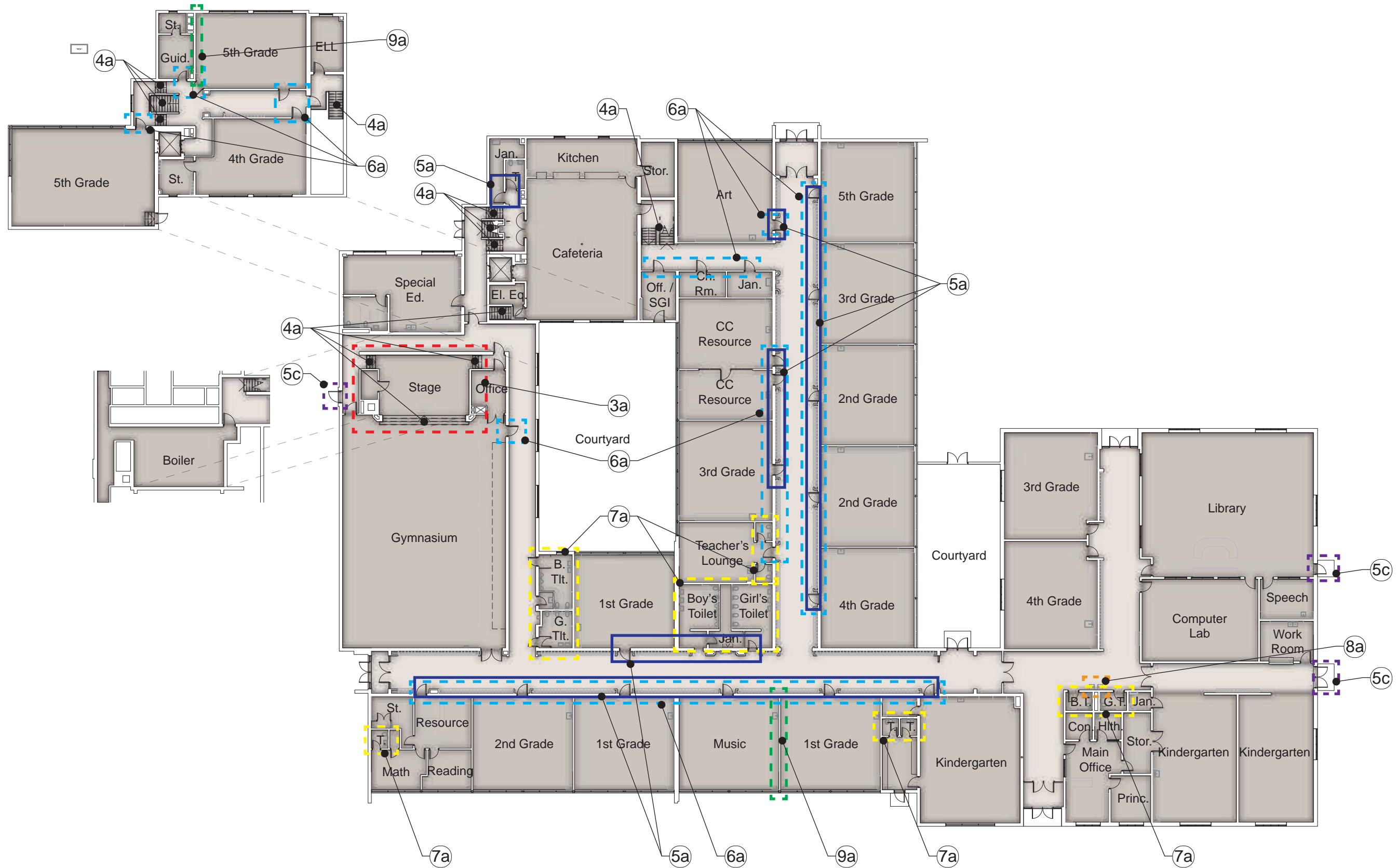
8a. Drinking fountains do not meet the above criteria for meeting accessibility standards.

## 9. Casework, Transaction Counters, & Counters with Sinks:

Counter-tops have a maximum 34" height, and transaction counters have an accessible portion that is at a maximum 34" height for wheelchair accessibility (606.3). Counters and work surfaces for children's use shall be 26" minimum and 30" maximum above the floor (902.4.2).

9a. There are counter-tops that do not meet the above criteria for meeting accessibility standards.

**SPRING ROAD ELEMENTARY: ADA ACCESSIBILITY ASSESSMENT**



**FIRST FLOOR PLAN**  
not to scale

**SPRING ROAD ELEMENTARY: ROOF PLAN**

**Roof Timeline**

- = (1) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (1a) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (1b) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (2) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (3) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (4) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (4a) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (4b) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (5) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (5a) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (5b) Installer Garland, Modified BUR, Installation 2014, 3 years old, Warranty Expires 2044
- = (6) Installer Derbigum, Modified BUR, Installation 1996, 21 years old, Warranty Expires 2016
- = (7) Installer Unknown, Modified BUR, Installation 1996, 21 years old, Warranty Unknown



ROOF PLAN  
not to scale



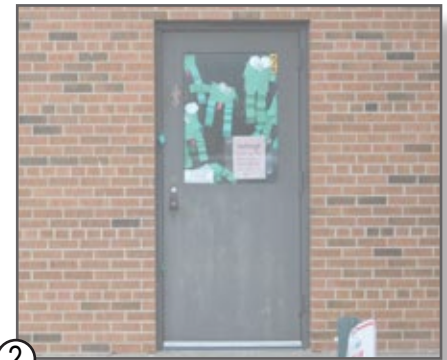
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# SPRING ROAD ELEMENTARY: EXTERIOR DOOR ANALYSIS

No.	Door Type	Frame Type
1	Aluminum	Aluminum Storefront
2	Hollow Metal	Hollow Metal
3	Wood	Wood
4	Wood	Wood
5	Aluminum	Wood
6	Aluminum	Aluminum Storefront
6B	Hollow Metal	Hollow Metal
7	Hollow Metal	Hollow Metal
7B	Hollow Metal	Hollow Metal
8	Aluminum	Aluminum Storefront
9	Hollow Metal	Hollow Metal
10	Hollow Metal	Hollow Metal
11	Hollow Metal	Hollow Metal



① ALUMINUM DOORS & ALUMINUM STOREFRONT



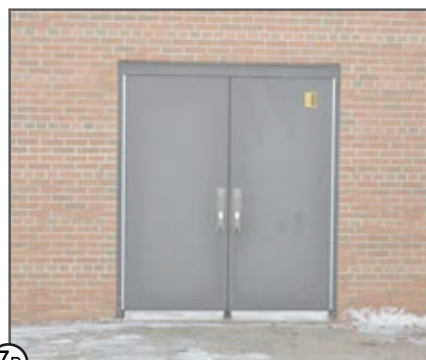
② HOLLOW METAL DOOR & HOLLOW METAL FRAME



③ WOOD DOORS & WOOD FRAME



⑧ ALUMINUM DOORS & ALUMINUM STOREFRONT

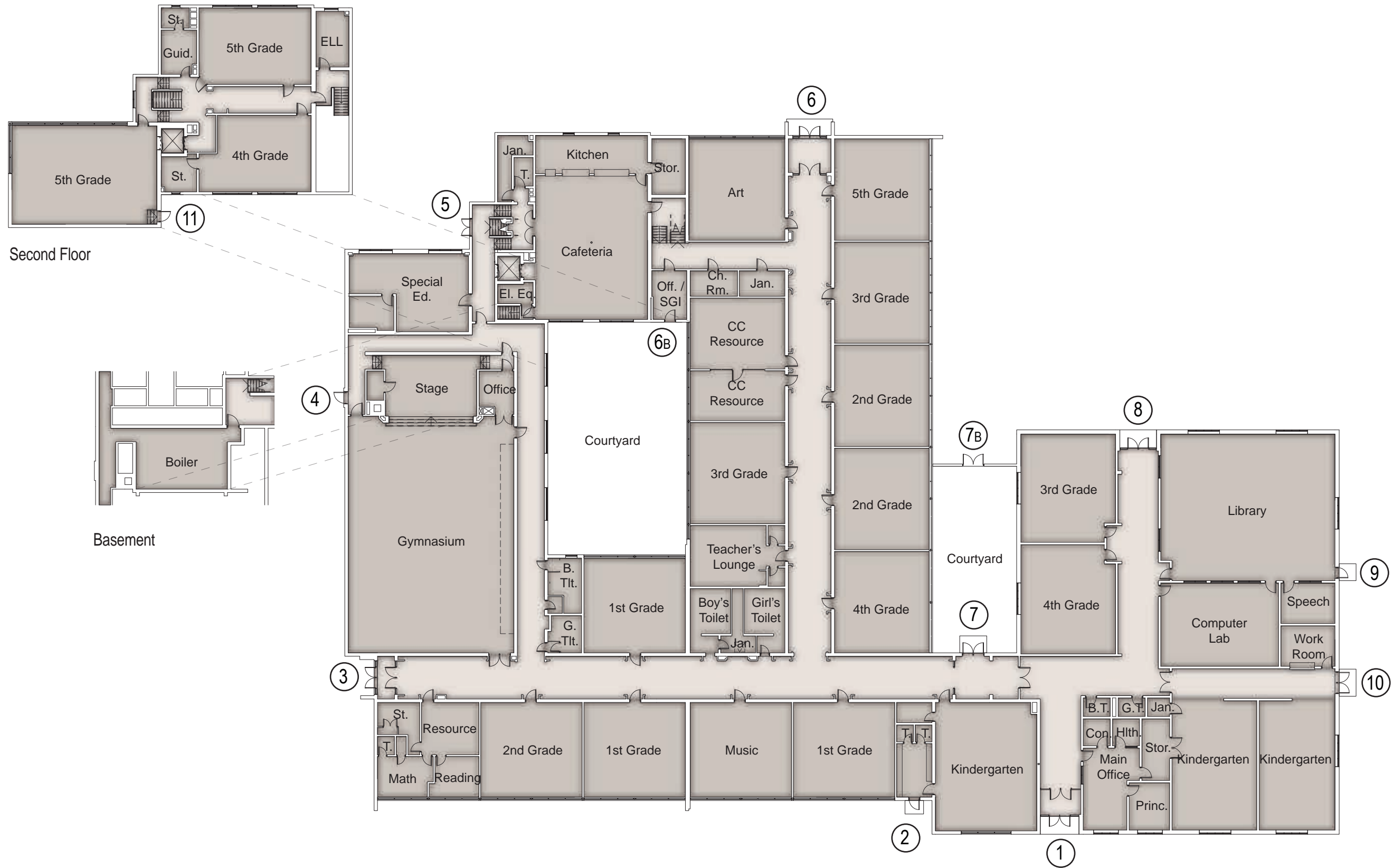


⑦B HOLLOW METAL DOORS & HOLLOW METAL FRAME



⑥ ALUMINUM DOORS & ALUMINUM STOREFRONT

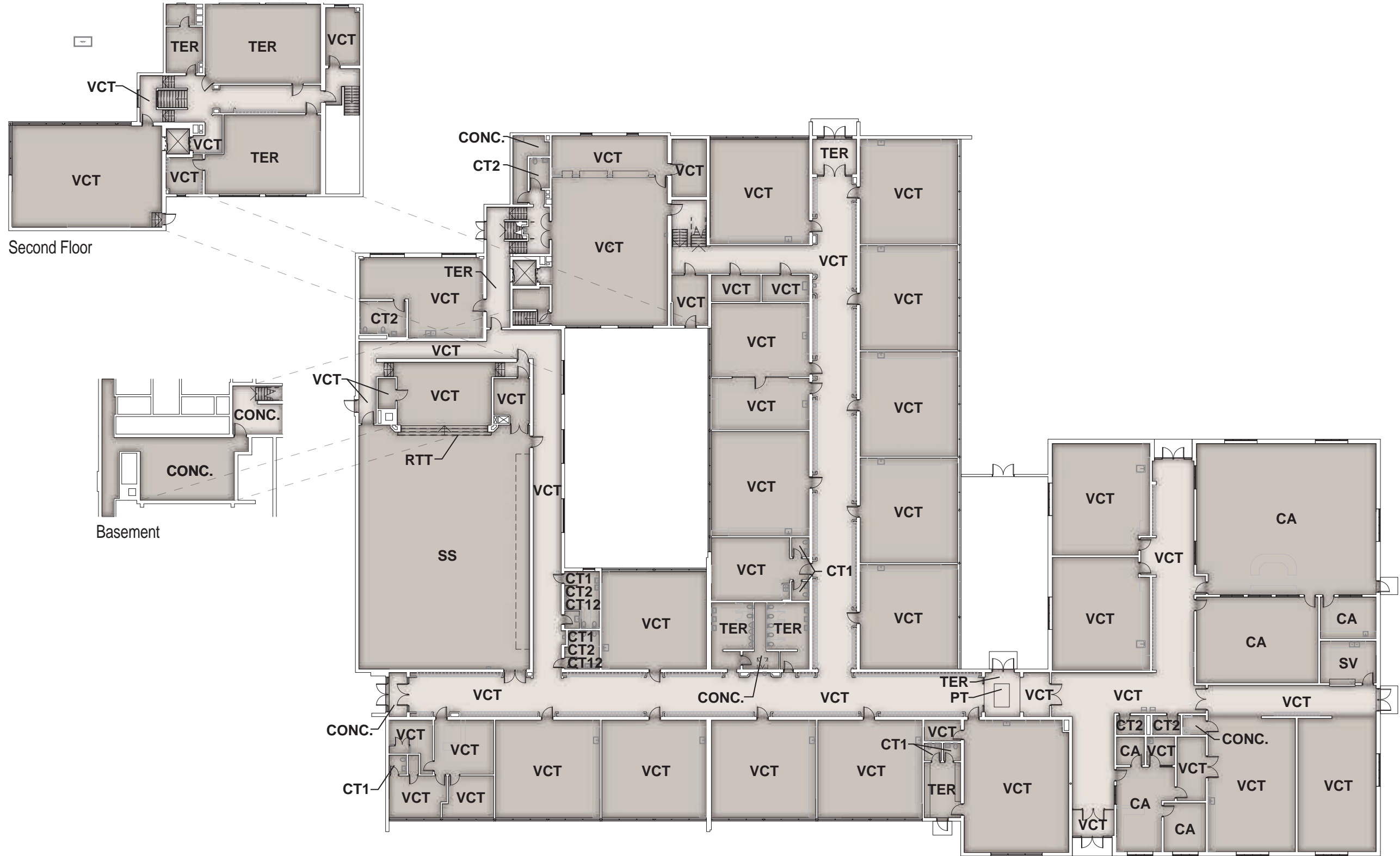
**SPRING ROAD ELEMENTARY: EXTERIOR DOOR ANALYSIS**



**SPRING ROAD ELEMENTARY: FLOORING ANALYSIS**

- ACT - 9x9 (Asbestos)
- ACT1 - 12x12 (Asbestos)
- ACT2 - 6x6 (Asbestos)
- CA - Carpet Broadloom
- CAT - Carpet Tile
- CT1 - 1x1 Ceramic Tile
- CT2 - 2x2 Ceramic Tile
- CT12 - 1x2 Ceramic Tile
- CTH - Hex Ceramic Tile
- CONC. - Concrete
- PT - 8x8 Paver Tile
- PT1 - 6x6 Paver Tile
- PT2 - 3x3 Paver Tile
- PT3 - 3x6 Paver Tile
- RT - Rubber Tile
- RTT - Rubber Tile Tread
- SS - Seamless Synthetic
- SV - Sheet Vinyl
- TER - Terrazzo Tile
- TER1 - 12x12 Terrazzo Tile
- VCT - 12x12
- WD - Wood
- WDP - 4x4 Wood Parquet
- WM - Walk-off Mat

\* Flooring Types Identified by Gries Architectural Group



FIRST FLOOR PLAN  
not to scale

# SPRING ROAD ELEMENTARY: ENGINEER REPORT - PLUMBING

## **Plumbing System Review:**

The following report is the result of a site visit by Leslie Fry of Muermann Engineering, LLC that occurred in January 19, 2017. Site observations and interviews with staff were used in the preparation of this report.

The original building was built in 1936 with additions completed in 1954, 1958, and 1996.

## **Domestic Water**

### Observations

- A. Water is supplied to the building by what appears to be 4" water service which connects to the Municipal water system. There is a water meter located in the building. The water service is at its limit and could not support any future additions.
- B. The majority of the water distribution piping in the building appears to be copper tube and fittings with some galvanized pipe and fittings in the original building. The water distribution piping appears to be in fair condition.
- C. The building has no sprinkler system.



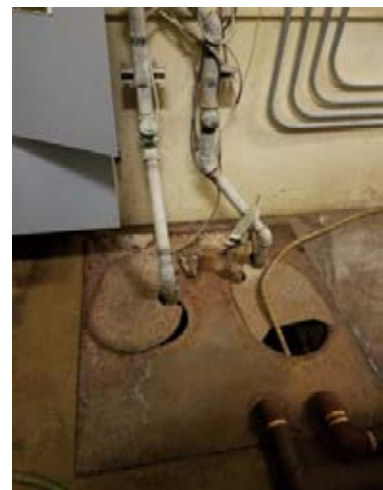
### Recommendations

- A. The water distribution piping in the original building, 1954 and 1958 additions are at the end of their life expectancy. We would recommend replacing the existing pipe and fittings with new type "L" copper tube and fittings.
- B. If there are any new additions or major remodeling planned, a new larger water service will need to be provided.
- C. If a complete fire sprinkler system is preferred for the building, a new 6" water service will need to be provided.

## **Sanitary and Storm Piping**

### Observations

- A. The sanitary waste from the building flows by gravity out the building and connects to the Municipal sanitary sewer system.
- B. The sanitary waste is a mix of pvc and metal piping.
- C. The building has a service kitchen with a two sinks and commercial dishwasher. There is no interior grease interceptor.
- D. The building has a small group instruction kitchenette with double compartment sink with disposal.
- E. The classroom sinks do not have solids traps installed on the waste piping.
- F. The building has both internal roof drains and conductors which flow by gravity out the building and connect to the Municipal storm sewer system.
- G. There are clearwater sump pumps located in the basement level for removing groundwater. The sump systems appear to be in fair to good condition.



# SPRING ROAD ELEMENTARY: ENGINEER REPORT - PLUMBING

## Recommendations

- A. The sanitary sewer system in the original building, 1954 and 1958 additions are nearing the end of their life expectancy. We would recommend the existing sewer located below the floor be inspected with a camera and may need to be replaced, pending outcome of scope.
- B. The storm sewer system in the original building, 1954 and 1958 additions are nearing the end of their life expectancy. We would recommend the existing sewer located below the floor be inspected with a camera and may need to be replaced, pending outcome of scope.
- C. The existing clearwater sump pumps should be monitored and repaired or replaced as necessary.

## Plumbing Equipment

### Observations

- A. The building has one domestic water heater that was recently installed and is in good condition.
- B. The domestic water is not softened.

## Plumbing Fixtures

### Observations

- A. The existing plumbing fixtures in the building are a combination of various styles and ages. Most of the fixtures are original to the building age they were installed. Some of the fixtures have been replaced with newer water efficient and ADA compliant fixtures.
- B. The water closets are floor set with flush valves. They do not appear to be water conserving or ADA compliant. The fixtures are old and in fair condition.
- C. The urinals in the building are floor set with flush tank mount. The fixtures with the flush tank are not water conserving. The fixtures are old and are in fair condition.
- D. The lavatories in the building are wall hung with multiple styles of faucets. Some lavatories have multiple styles of faucets. They do not appear to be water conserving or ADA compliant and are in fair condition.
- E. The drinking fountains in the building are either wall hung electric water coolers or wall mount electric water. The fixtures are in good condition.
- F. The classroom sinks are vitreous china or stainless steel single bowl drop-in sinks with gooseneck faucet and separate drinking fountain. The fixtures are not ADA compliant and are in fair condition.
- G. The utility sinks are wall mount and original to the building. They are in fair condition.



## Recommendations



## SPRING ROAD ELEMENTARY: ENGINEER REPORT - PLUMBING

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- A. The water closets should be replaced with new water conserving and ADA compliant fixtures.
- B. The urinals should be replaced with new water conserving and ADA compliant fixtures.
- C. The lavatories should be replaced with new water conserving and ADA compliant fixtures.
- D. The older electric water coolers should be replaced with new ADA compliant fixtures with a bottle filler.
- E. The faucets on the classroom sinks should be replaced with new ADA compliant faucets.
- F. Replace wall mount utility sinks with floor mount mop basins.



## HVAC SYSTEM

The following report is the result of a site visit by Jason Testin of Fredericksen Engineering that occurred on January 19, 2017. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report.

The original building was constructed in 1936, with additions being constructed in 1954, 1958 and 1996.

### 1.1 Heating System

#### A. Existing Data

1. The boiler plant, installed in 2004, consists of two Smith Cast Iron steam boilers each fired with natural gas. Each boiler has a capacity of 3,000,000 btu.
2. There are two heating circuits that serve the building; a steam circuit and a hot water circuit. A heat exchanger on the steam side is used to transfer heat to the hot water circuit.
3. The hot water circuit serves the 1996 addition. An inline pump (and a stand-by pump) pumps hot water throughout the 1996 addition.
4. The remainder of the building is served by the steam circuit.

#### B. Observations

1. According to information obtained by the Owner, the boiler plant has some reserve capacity at this point. Both boilers are needed during the coldest weather but only one boiler can heat the building during most of the heating season
2. The Smith boilers are in good condition. The estimated life expectancy of cast iron boilers is 30 years.
3. The heat exchanger and hot water pumps were installed in 1996 and are in fair condition. The heat exchanger is nearing the estimated life expectancy of 24 years. The hot water pumps have exceeded the estimated life expectancy of 10 years.
4. Insulation at most piping is of adequate thickness and in fair condition.

#### C. Recommendations

1. Continue preventative maintenance on the system.
2. Plans should be made to replace the aging heat exchanger and hot water pumps.
3. Any future additions or construction may require the addition of boiler capacity to serve the additional spaces.

### 1.2 Ventilation and Air Conditioning Systems

#### A. Existing Data

1. There are two systems that provide ventilation for the facility. The two systems are classroom unit ventilators, and constant volume air handling systems.
2. The 1954, 1958 and 1996 classrooms and cafeteria are ventilated using classroom unit ventilators. Unit ventilators house a fan, heating coil, fresh air damper, return air damper and controls in a single cabinet mounted in the classroom. Steam and condensate are piped to each unit ventilator.
3. The gym is served by a constant volume air handling unit. Constant volume systems consist of a central supply fan, which contains a steam heating coil, fresh





air damper and return air damper. A room thermostat is used to control the temperature of the air supplied to the space.

4. The 1996 IMC, Multi-purpose room and offices are served by constant volume hot water booster coil reheat systems. A booster coil system utilizes a constant volume air handling unit and adds heating coils to the ductwork to provide individual room temperature control by heating the air supplied to the space through use of the booster coil.

## **B. Observations**

1. The unit ventilators are original to the building (1954, 1958 and 1996) and have exceeded the estimated life expectancy of 25 years.
2. The constant volume air handling unit serving the gym is original to the building (1958) and has exceeded the estimated life expectancy of 30 years. The steam coil has been disconnected due to it leaking. As a result, the space has trouble meeting the room setpoint.
3. The constant volume air handling units serving the 1996 addition are in good condition. The estimated life expectancy for air handling units is 30 years.
4. Door transfer grilles are currently utilized to transfer relief air from the classrooms to the corridor.
5. Currently, the Paraprofessional room is not receiving any outside air. Wisconsin code requires that each occupied space be supplied with outside air.
6. It was noted during the walkthrough that many of the restrooms do not have adequate exhaust to remove odors.

## **C. Recommendations**

1. Plans should be made for the replacement of the aging unit ventilators. At the time of replacement, it is recommended that the units be converted to hot water. All steam and condensate piping will be replaced with hot water piping. A hot water heat exchanger shall be installed to supply hot water to all new units.
2. Plans should be made for the replacement of the aging constant volume air handling unit serving the gym. At the time of replacement, it is recommended that the unit be converted to how water. All steam and condensate piping will be replaced with hot water piping. The unit shall be served by the new heat exchanger that serves the unit ventilators mentioned above.
3. Plans should be made to serve the Paraprofessional room with a fan coil or unit ventilator to provide the code required fresh air.
4. Plans should be made for the replacement of the restroom exhaust systems. It is recommended that the amount of exhaust air be increased to aid in the removal of odors.
5. With any remodel or renovation, plans should be made to replace the door transfer grille relief system with a code approved system. The current building code does not allow transfer air into a path of emergency egress.

### **1.3 Control Systems**

#### **A. Existing Data**

1. A digital temperature control system serves the offices, IMC and Multi-Purpose room. The remainder of the building is served by a pneumatic control system.

### **B. Observations**

1. The limitations of the pneumatic system do result in comfort complaints. Pneumatic systems require frequent calibration to maintain accuracy. The newer digital controls are more accurate and more flexible. In addition, the industry has made such a complete changeover to digital controls that it is becoming difficult to find good pneumatic service technicians.

### **C. Recommendations**

1. Continue to maintain and operate the pneumatic control system as long as the current mechanical equipment remains. When any renovations to the existing equipment are made, a changeover to digital controls is strongly recommended.



# SPRING ROAD ELEMENTARY: ENGINEER REPORT - ELECTRICAL

## Electrical System Review:

The following report is the result of a site visit by Daniel Cedeno of Muermann Engineering, LLC that occurred on January 19, 2017. Site observations, existing plan review and interviews with staff were all used in the preparation of this report. The facility was built in 1936, with additions occurring in 1954, 1958, and 1996.

## Electric Service

### Observations

- A. The facility has 2 electric services, the first being a 600A 120/240V 1-phase, 3-wire service and the 2<sup>nd</sup> service being 400A 120/208V 3-phase 4-wire service. The 600A service is nearing the end of its useful lifespan, while the 400A service is relatively new and in good working condition. There is no surge suppression provision on either of the main electric services.
- B. The electric panelboards throughout the facility vary in age between old circuit breaker panelboards that are nearing the end of their useful lifespan, and some panelboards that were replaced or added during the most recent service upgrade that are in good working condition.
- C. Utility service to the building consists of pole mounted transformers across the street with an overhead electric service terminating at 2 separate exterior wall mounted CT cabinets.
- D. There is no emergency backup power available in the building.



Single Phase Electric Service



Three Phase Electric Service



Older Panelboards

### Recommendations

- A. The main electric services should be considered to be replaced with (1) electric service to minimize system complications.
- B. Provide surge suppression to prevent equipment damage in the building during power surges.
- C. Vintage circuit breaker panelboards should be scheduled for replacement within the next 5-8 years.
- D. A possible recommendation is to provide a new emergency generator system to provide backup power and emergency lighting to the building during electric outages.
- E. Ensure proper working clearances are maintained in front of all panelboards at all times. Working clearance area may not be used for storage. Recommendations include using industrial vinyl safety tape to physically indicate clearance on floor/wall around panelboards.

## Light Fixtures & Controls

### Observations

- A. Much of the interior lighting throughout the facility consists of a variety of T8 fluorescent or incandescent light fixtures, including recessed, surface, and pendant mounted varieties. The fixtures range in age but all are in good working condition.
- B. The gymnasium uses high bay metal halide fixtures to provide general lighting in the space.



Gymnasium Lighting



- C. General lighting controls in rooms consist of toggle switches with no occupancy sensors. Most classrooms utilize dual level lighting controls.
- D. Corridor lighting controls consist of local toggle switches with no occupancy sensors. Staff indicated they prefer to turn off the corridor lighting circuit breakers to minimize efforts.
- E. There are no provisions for emergency lighting, except for a handful of wall mounted battery packs throughout the facility that provide minimal, non-code compliant light levels.
- F. Exterior lighting consists of a variety of high pressure sodium wall packs. There does not seem to be a standard style as there are over 3 different varieties of wall pack throughout the facility.
- G. Exterior lighting is controlled via a combination of photocell and time clock controls.



Classroom Lighting



Incandescent Exterior Light

## Recommendations

- A. Recommendations to interior lighting include replacing fixtures with LED equivalents, providing dimming controls and occupancy sensors to maximize on energy savings.
- B. Schedule existing exterior light fixtures with LED equivalents and control via existing timeclock/photocell controls.
- C. Corridors should be provided with occupancy sensors and light switches removed to automatically control the lighting and maximize on energy savings.
- D. If new LED lighting is provided, it is recommended that emergency lighting be provisioned through back up batteries integral to the normal light fixtures through egress paths and rooms with an occupant load greater than 50 persons. Alternatively, providing a new emergency generator system would be an alternative option to battery backup.

## Wiring Devices

### Observations

- A. Most receptacles throughout the facility are 15A rated.
- B. There was a general lack of receptacles throughout the facility. Facility staff indicated they have problems finding available receptacles often. Some classrooms only have 2 receptacles in the whole room.

### Recommendations

- A. Recommendations include replacing existing 15A rated receptacles with 20A rated type.
- B. Provide additional receptacles throughout working spaces as necessary to meet needs of space.



## Phone System

### Observations

- A. The facility has a Shoretel IP based phone system that is in good working condition.

### Recommendations

- A. No recommendations at this time.



IP Telephone

## Data System

### Observations

- A. Data service is provided via fiber optic utility service. The system seems to be in good working condition.
- B. Fiber optic wiring interconnects all of the schools to the main district network.
- C. General data cabling consists of a variety of Cat5e and Cat6 cabling, both in plenum and riser rated varieties.
- D. The school has (1) data rack, which has spare rack capacity for future needs. Data cabling management at the rack is run in a disorganized fashion with no labeling. There are also no provisions for backup power.



Data Rack

### Recommendations

- A. It was unknown at the time of the site visit if the facility has ceiling plenums, but if there are plenums in the ceiling spaces, the riser rated data cabling should be replaced with plenum rated cabling.
- B. Data cabling at the data rack should be reinstalled in a clean workmanlike manner. Proper labeling of data cabling should also be considered to facilitate cable management and traceability.
- C. A possible recommendation is to provide a UPS battery backup system to provide backup power to the data rack in the event of power loss.

## Keyless Entry System

### Observations

- A. The building has a keyless entry system that is in good working condition.
- B. Access controlled doors are controlled via electric strikes and card readers. There is 1 door with a magnetic door lock that has nuisance problems with staying unlocked.
- C. None of the exterior doors have door position contacts to monitor if doors are shut or left open.



Card Reader & Electric Strike

### Recommendations

- A. It is recommended to provide door monitor contacts on all exterior doors to help monitor and control access to the facility at all times.



- B. Recommendations include replacing the magnetic door locks with electric strikes to ensure doors remain locked during a power outage.

## Intercom System

### Observations

- A. The building has a vintage Dukane intercom system that is nearing the end of its useful lifespan.
- B. Intercom speakers throughout are nearing the end of their useful lifespan.
- C. The bell schedule system is controlled via a timeclock. Staff reported no issues with system.

### Recommendations

- A. The existing intercom system should be scheduled for full replacement with a new IP-based intercom system. Existing speakers should be scheduled for replacement in addition to providing additional speakers in areas lacking coverage.

## CCTV System

### Observations

- A. The building has a CCTV system consisting of 2 cameras throughout the facility. The system seems to be in good working condition. The district plans to add about 15 more cameras to the system in the future.

### Recommendations

- A. Provide new CCTV cameras where additional coverage is necessary.

## Fire Alarm System

### Observations

- A. The building has a Simplex fire alarm system that is about 10 years old and is in good working condition.
- B. The system is monitored and dials out to the fire department during a fire alarm event.
- C. Notification coverage is lacking by today's standards.
- D. Corridors with open cubby storage should be protected with smoke detectors per today's standards.

### Recommendations

- A. A possible recommendation would be to provide additional fire alarm notification devices in areas where coverage is lacking.

## Other Low Voltage Systems

### Observations

- A. The building does not have a security system.



Existing Intercom Head-End



Bell Schedule Timeclock



CCTV Camera



Fire Alarm Control Panel

## SPRING ROAD ELEMENTARY: ENGINEER REPORT - ELECTRICAL

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- B. The building has a monitoring system to ensure the boilers in the facility are operational. The system is programmed to dial facility management in the event of a boiler failure.
- C. The building does not have a synchronized clock system.

### Recommendations

- A. Other possible recommendations include adding a security system to control and monitor access to the facility.
- B. Replacing the existing clocks with a synchronized clock system such as a GPS wireless clock system may be a recommended upgrade to minimize labor efforts required when updating clocks during daylight savings time changes.

