

7 TAFT ELEMENTARY

Taft Elementary provides a comprehensive program for 4-Year-Old Kindergarten, Kindergarten, and 1st through 5th grade students.

BUILDING AREA: 36,445 sq. ft.
STUDENT POPULATION: 277 STUDENTS
SITE SIZE: 4.61 ACRES; 42% IMPERVIOUS SURFACE
GRADES SERVED: 4-YEAR-OLD KINDERGARTEN,
KINDERGARTEN, GRADES 1ST-5TH
PARKING: 35 STALLS (2 HANDICAP, 33 REGULAR)
BUS QUANTITY: 1 BUS / 1 BUS ROUTE

TAFT ELEMENTARY: BUILDING EVOLUTION

Taft Elementary was originally constructed in 1922. A gymnasium addition was constructed in 1924, and a classroom addition in 1969.

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



Taft Elementary Main Entrance

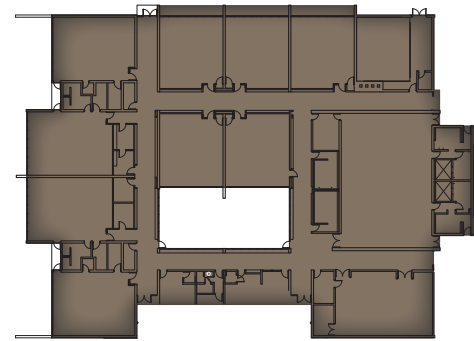


Taft Elementary Classroom

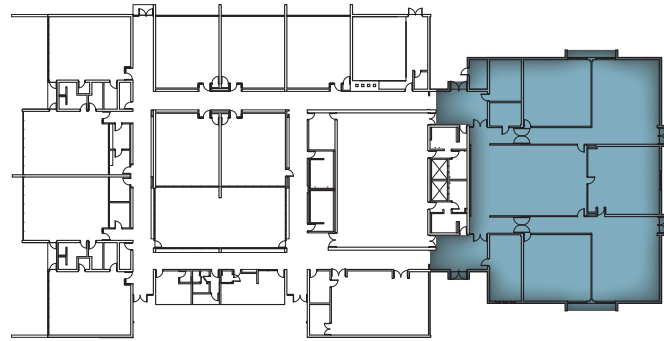


Taft Elementary Corridor

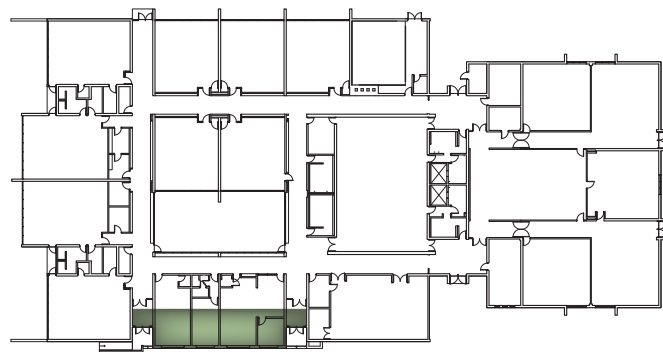
TAFT ELEMENTARY: BUILDING EVOLUTION



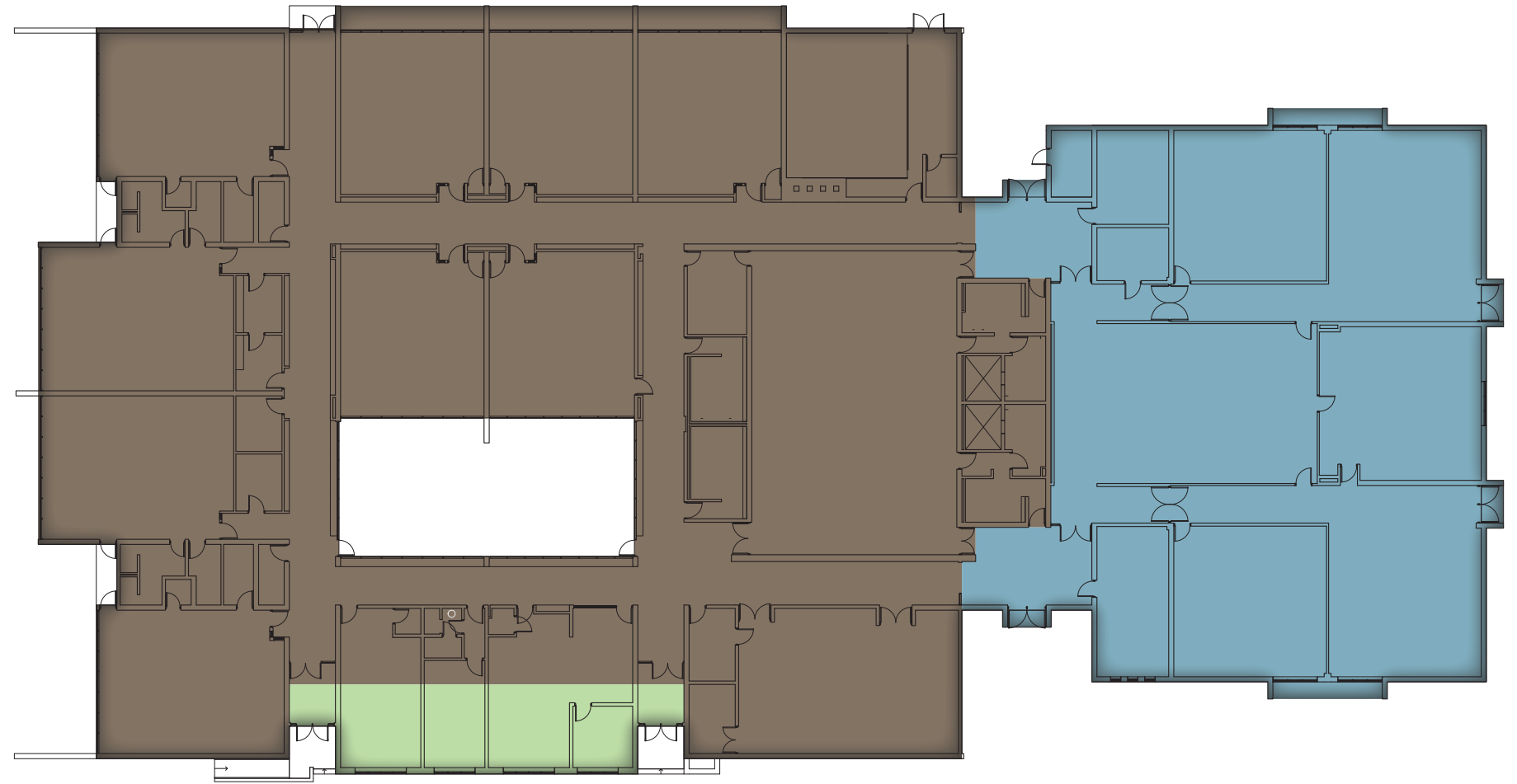
1922



1924



1969



■ = 1922 - Original

■ = 1924 - Gymnasium Addition

■ = 1969 - Classroom Addition

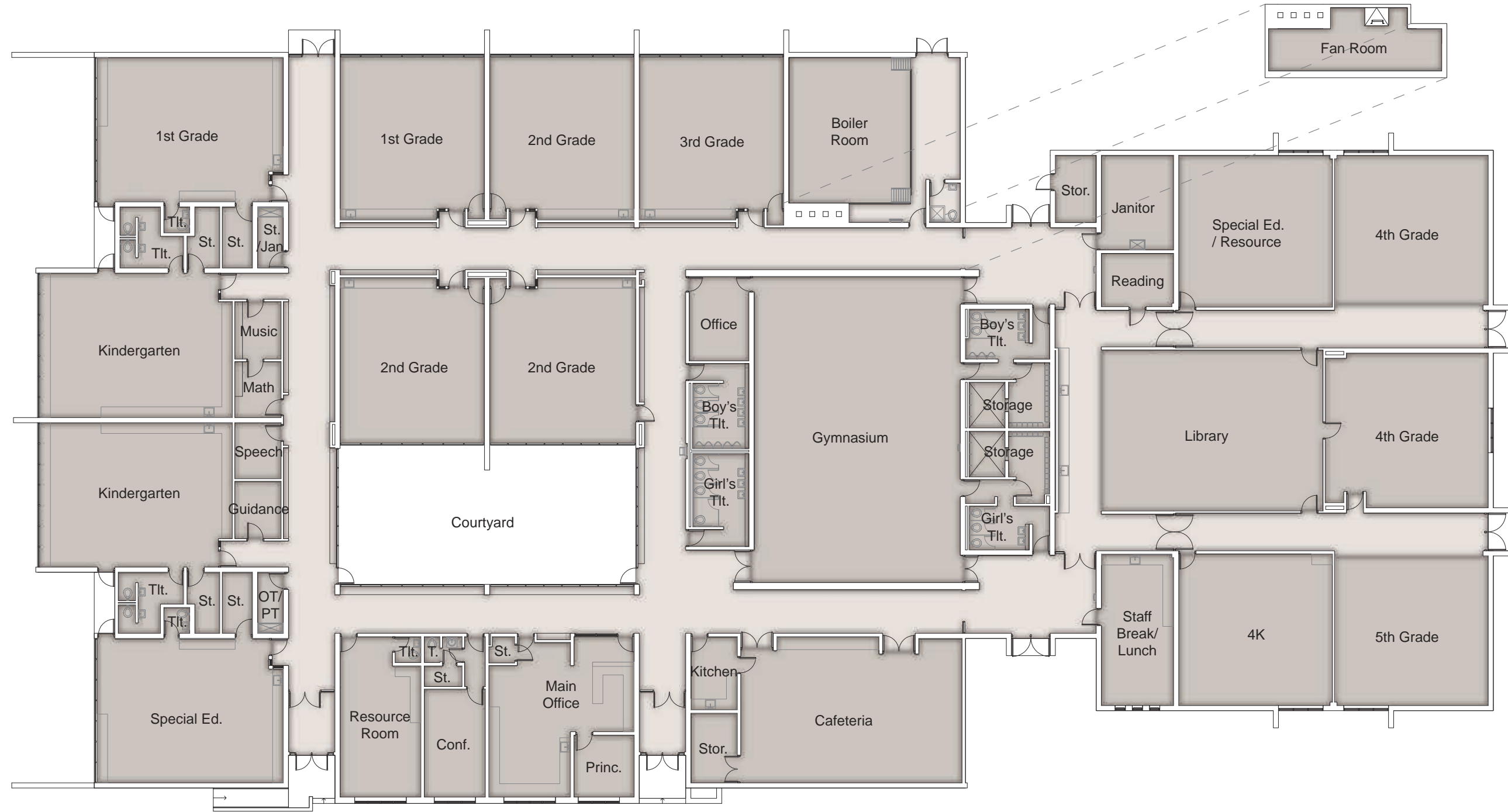


TAFT ELEMENTARY: EXISTING SITE PLAN



SITE PLAN
not to scale

Taft Elementary: EXISTING FLOOR PLAN



FIRST FLOOR PLAN
not to scale



TAFT ELEMENTARY: PARENT SURVEY FEEDBACK

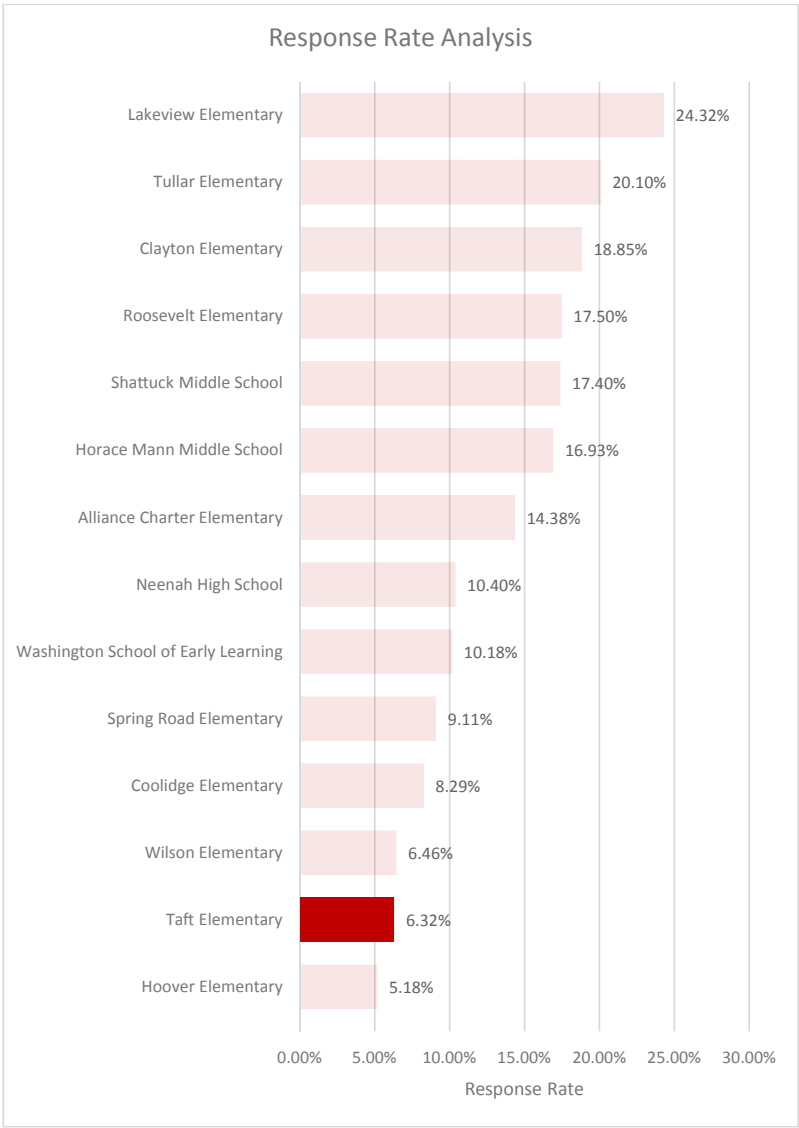
In February 2017, the District sent out a survey via email to all parents of students within the District with the focus on identifying and prioritizing needs at each school. Parents were asked to respond to a series of questions, as well as provide open-ended comments if desired.

The following information reflects feedback and response rate for Taft Elementary.

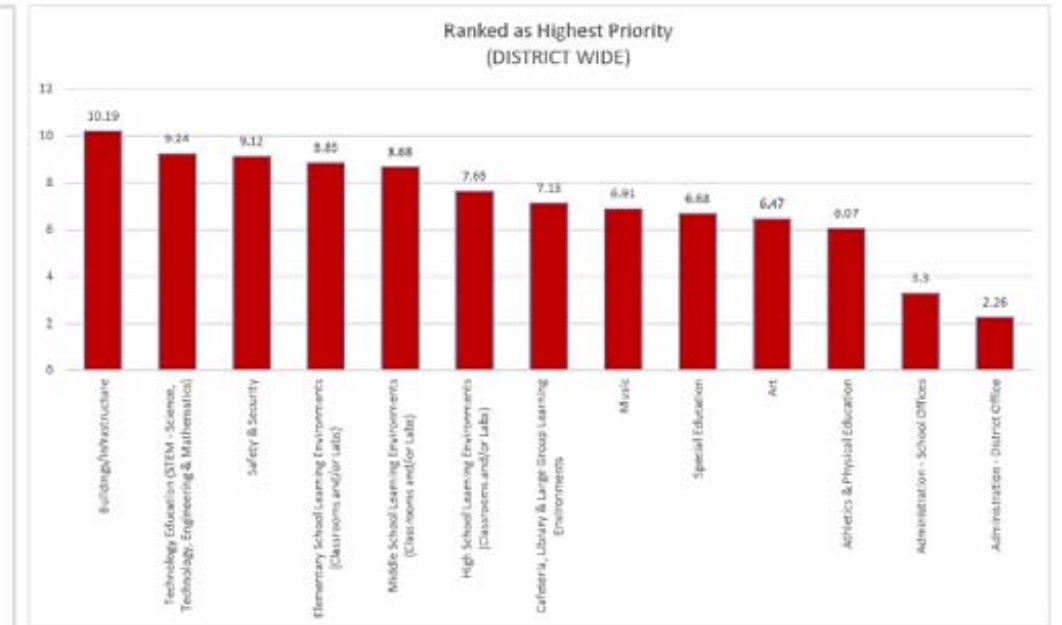
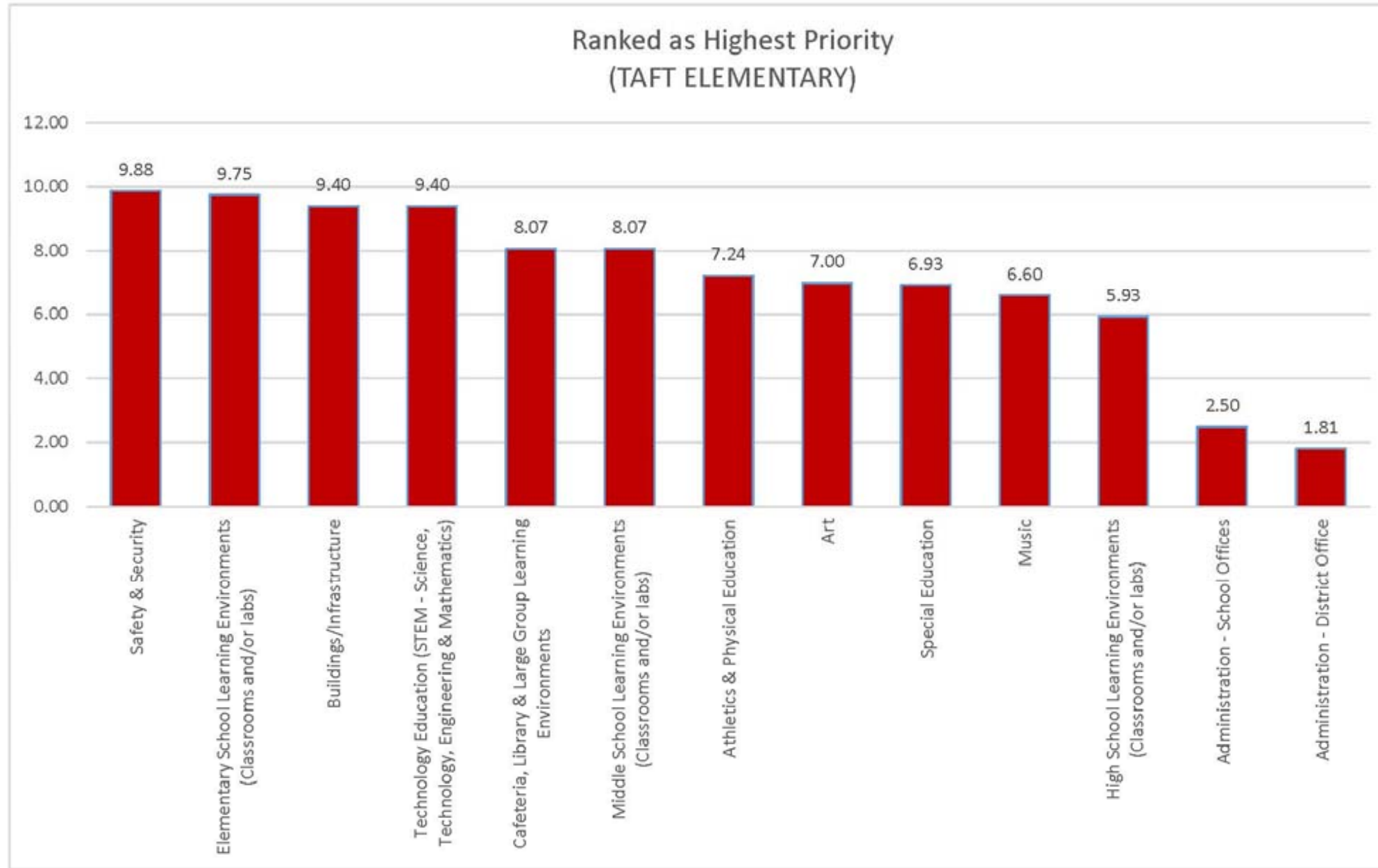
TOTAL PARENTS TO RECEIVE SURVEY: 269
TOTAL NUMBER OF RESPONSES: 17

RESPONSE RATE: 6.32%

- ADDITIONAL NOTES
- Taft Elementary had the second lowest response rate in the District
 - Taft Elementary accounts for 2.97% of all parent survey feedback



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TAFT ELEMENTARY: SUMMARY OF STAFF SURVEY FEEDBACK

The following is a summary of potential improvements at Taft 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
- More enclosed classroom space desired, with doors to control sound (especially at 4th and 5th grade classrooms)
- Pod/house configuration of classrooms desired to better support curriculum
- Additional storage space and shelving for materials, supplies and classroom libraries
- Sinks provided for each classroom desired
- Additional outlets, phone jacks, etc. desired
- Sound system/audio enhancement within the classroom desired

CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION

- Large and small group instruction/multi-purpose spaces desired; existing space is too small
 - Variety of flexible/movable/modular furniture desired that allows for sitting/gathering areas
- Dedicated computer lab desired
- Small group instruction spaces desired, some dedicated for SLP, Reading and Math Support
- Collaborative spaces desired for teachers to work, discuss, etc.

MUSIC

- Dedicated classroom desired; currently Music is on a cart

ART

- Dedicated classroom desired; currently Art utilizes the cafeteria space
- Appropriate furniture to support art programs desired
- Sinks desired
- Additional storage space and shelving for materials and supplies desired
- 3D printer technology is desired

LIBRARY

- Undersized; larger work area desired
- Enclosed space desired that supports noise reduction/control
- Media/technology integration desired
 - Computer lab, lap-tops, etc.

CAFETERIA

- Undersized; larger space desired

GYMNASIUM

- Undersized
- Additional storage desired for P.E. equipment
- Update doors/ locks; teachers/ students get locked out easy/ potential for door to close on a student, resulting in injury.

SPECIAL ED.

- Dedicated sensory and cool-down rooms/space desired
- Additional storage space idesired

SCIENCE

- Additional science rooms/labs desired (currently lacking (1) classroom for science)

2. Facility and Site Improvements:

TECHNOLOGY

- Projector
 - Desired for the gymnasium, and should include a screen and set up similar to that of Hoover Elementary; to be used for assemblies, P.E. classes, and family movie nights
- New/updated P.A./Sound system desired
- Improved WiFi capabilities
- Document camera(s)
- Lap-top/tablet technology for all students desired

INFRASTRUCTURE

- Windows
 - Old and drafty; more efficient and operable windows desired
 - Adequate screens/blinds on windows to allow for windows to be opened
- Doors
 - Locks on all doors need repair
 - Add doors to rooms currently without (4th/5th grade level classrooms)
- Finishes - Flooring, ceiling, etc.
 - Removal of carpet in classrooms; much of existing carpeting has an unpleasant odor due to water damage/improper air flow
 - Replace ceiling tiles that are cracked/warped
 - Newly/painted walls desired, especially in the classrooms

BUILDING SYSTEMS

- Lighting
 - Updated, energy efficient lighting desired
- Fire Alarm System
 - Updated fire alarm system desired that is audible throughout the building, especially in the gymnasium
- Security System
 - Additional security cameras desired at handicap accessible areas and at all entrances
- HVAC
 - Air conditioning desired
 - Consistent temperatures/heating/cooling throughout the building desired
 - Improved air quality desired
 - Loud equipment is distracting for students/staff

SITE

- Improved handicap accessibility desired
 - At the entrance to the building, where currently the curb at the entrance to the handicap ramp is 1" high
 - Handicap accessible push-buttons and/or capabilities to open the main entrance doors from remote access in the main office
- Improved paving/resurfacing at the playground area desired; current condition is a safety concern
- New playground surface desired
- Improved paving/resurfacing of parking lot desired
- Site security updates desired (fencing, gates, etc.)

MISCELLANEOUS

- Additional storage space for student belongings desired (lockers, hooks, etc.)
- Outdoor workspaces/classrooms desired
- Bathrooms
 - Updated bathrooms desired
- Improved building entry, parent pick-up/drop-off, and bus pick-up/drop-off sequence desired

TAFT ELEMENTARY: SUMMARY OF STAFF INTERVIEW FEEDBACK

The following is a summary of potential improvements at Taft 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
- More enclosed classroom space desired, with doors to control sound (especially at 4th and 5th grade classrooms)
- Sound system/audio enhancement within the classroom desired
- Ability to dim lighting desired

CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION

- Large and small group instruction/multi-purpose spaces desired; existing space is too small
 - Variety of flexible/movable/modular furniture desired that allows for sitting/gathering areas
- Dedicated computer lab desired
- Small group instruction spaces desired

MUSIC

- Dedicated classroom desired; currently Music is on a cart
- Sound/noise is a concern; sound proofing and acoustics desired
- Dedicated instrument storage desired; students currently transport

ART

- Dedicated classroom with kiln desired; currently Art utilizes the cafeteria space
- Appropriate furniture to support art programs desired
- Sinks desired
- Additional storage space and shelving for materials and supplies desired

LIBRARY

- Undersized; larger work area desired
- Enclosed space desired that supports noise reduction/control
- Media/technology integration desired
 - Computer lab, lap-tops, etc.

CAFETERIA & KITCHEN

- Undersized; larger space desired
- Two lunch periods with 150 students desired; currently three with 105 students
- Noise reduction/acoustics desired
- Cafeteria is utilized throughout the day by lunch, music, and art
- Kitchen and servery are undersized; not enough space to prep

GYMNASIUM

- Undersized
- Additional storage desired for P.E. equipment
- Additional seating desired for assemblies
- Outside group utilize the space; Zumba, PTO, basketball practice

SPECIAL ED.

- Classrooms are undersized
- Dedicated sensory/cool down rooms desired
- More centrally located classrooms desired
- Cardio/activity room desired
- Dedicated spaces for ELL and OT/PT
- Changing rooms and restrooms desired

MAIN OFFICE

- Dedicated health room with restroom desired
- Flexible/hotel office desired; allows for privacy
- Dedicated waiting area desired
- Dedicated in school suspension rooms desired
- Flexible SGI room desired
- Safe and secure entry sequence that requires entrance into the main office/reception prior to being released into the main building desired

STAFF SUPPORT

- Dedicated separate staff break and work rooms

2. Facility and Site Improvements:

TECHNOLOGY

- New/updated P.A./Sound system desired

INFRASTRUCTURE

- Doors
 - Locks on all doors need repair
 - Add doors to rooms currently without (4th/5th grade level classrooms)
 - Exterior doors get stuck; hard for students to get in and out of the building

BUILDING SYSTEMS

- Lighting
 - Ability to dim lights desired
- Security System
 - Additional security cameras desired at handicap accessible areas and at all entrances

SITE

- Improved handicap accessibility desired
 - At the entrance to the building, where currently the curb at the entrance to the handicap ramp is 1" high
 - Handicap accessible push-buttons and/or capabilities to open the main entrance doors from remote access in the main office
- Site security updates desired (fencing, gates, etc.)
- Improved building entry, parent pick-up/drop-off, and bus pick-up/drop-off sequence desired
- Better use of courtyard; outdoor classroom, yoga, science

MISCELLANEOUS

- Additional storage space for student belongings desired (lockers, hooks, etc.)
- Outdoor workspaces/classrooms desired
- Bathrooms
 - Updated bathrooms desired
 - Additional staff bathrooms desired

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TAFT ELEMENTARY: NEEDS ASSESSMENT

The following is a summary of potential improvements at Taft 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:

CEILING

- a. 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
- b. There are multiple areas of ceiling tile which appear to have been patched/filled in at one point in time; staff indicated these might be areas where skylights were removed/enclosed

FLOORING

- c. Much of flooring is stained, worn, cracking and in need of repair
- d. Staff indicated areas of potential asbestos tile throughout the building

ROOFS

- e. The underside of overhangs are stained, cracking and have paint peeling

2. Building Envelope:

WALLS

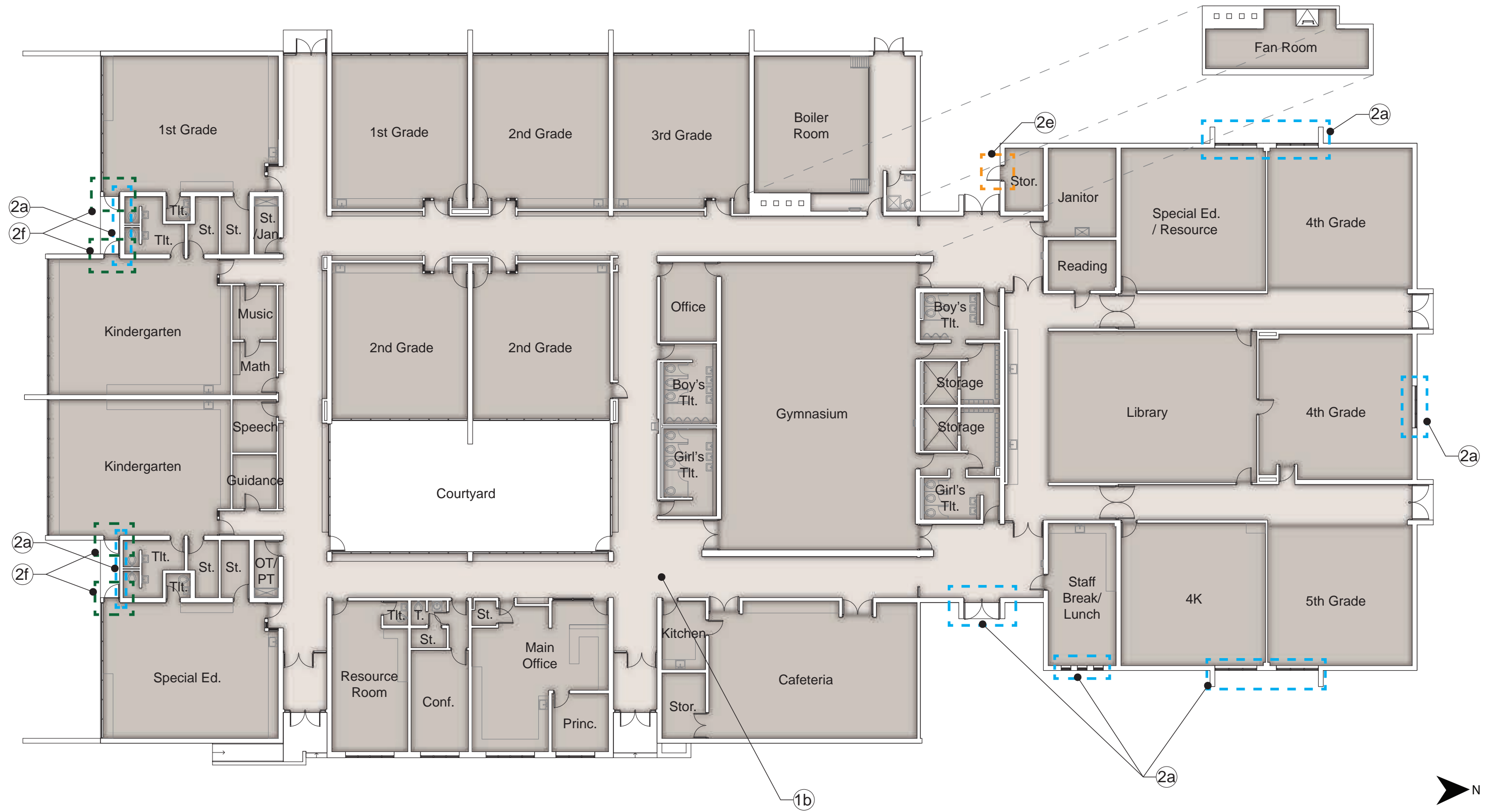
- a. There are multiple areas of discoloration and staining present on the exterior of the building, possibly due to water damage; this is especially present above windows and doors
- b. Some areas of the exterior wall show cracking/crumbling, especially at the foundation wall
- c. Many of the unit vents are damaged and rusting

WINDOWS

- d. Aluminum windows are believed to be original to the building, are dated and have problems with drafts

DOORS

- e. Many of the exterior doors are original to the building, aged, rusting, and are worn and damaged by dents and salt exposure; some of these doors have large gaps in the frame that allow for drafts
- f. Wood exterior doors are peeling and missing hardware



FIRST FLOOR PLAN
not to scale

TAFT ELEMENTARY: BUILDING SYSTEMS SUMMARY

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 two water meters each with 1 1/2" water service which both connect to the Municipal water system; new additions or major renovation would require a new larger water service.
- Water distribution piping is a mix of black iron and copper, appears to be in fair condition, and piping in the original building and 1969 addition is at the end of their 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. Sanitary sewer systems in the original building, 1969 addition and 1957 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.
- Prep kitchen has a 2-compartment sink and disposal, but no interior grease interceptor.
- 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.
- The clearwater sump pump is in fair to good condition and should be monitored and repaired/replaced as necessary.
- Replacing the cover to the interior grease interceptor with a new cover with a manway opening so the entire cover does not have to be removed for cleaning is recommended.
- Art room sinks should have solids traps added to waste piping.
- Storm sewer systems in the original building and 1969 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 system was recently installed and is in good condition.
- There is no water softening system in the building.

- 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.

HVAC:

- Hot water boiler plant was installed in 1955, has some reserve capacity, and has two Kewanee hot water boilers that are fired with natural gas, are in fair condition, and have exceeded their estimated life expectancy. Four base mounted pumps are original and have exceeded their estimated life expectancy, and insulation at most piping appears to be of adequate thickness. Owner indicated there are no current concerns with the heating supply system. Continue preventative maintenance on the system, and plan to replace the aging Kewanee boilers and base mounted pumps; any future additions or construction will most likely require the addition of boiler capacity to serve the additional spaces.
- Unit ventilators in the classrooms are original to the building and have exceeded their life expectancy of 25 years; plan for their eventual replacement.
- Constant volume air handling units serving the gymnasium, library and cafeteria are original and have exceeded their estimated life expectancy; plan for their eventual replacement.
- Packaged constant volume rooftop unit serving the offices has hot water booster coils installed in the ductwork to provide individual room temperature.
- 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.
- With the exception of the office area, the building has a pneumatic control temperature 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:

- Main electric service is nearing the end of its useful lifespan and does not have capacity for any future loads. Schedule the service for replacement within the next 5-8 years and provide surge suppression, as none exists.
- Panelboards vary in age, with some nearing the end of their useful lifespan, and some having been replaced or added within the last 10 years and are in good condition; vintage circuit breaker panelboards should be scheduled for replacement within the next 5-8 years.
- Utility service consists of 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. Replace existing receptacles within 6'-0" of plumbing fixtures with GFI protected type.
- 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.
- Provide a UPS battery backup system to provide battery backup power to the data rack, as there are no provisions for backup power.
- Keyless entry system is in good working condition; access controlled doors are controlled via electric strikes and card readers, 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.
- Dukane intercom system is nearing the end of its useful lifespan and does not have the capacity to cover the entire school, intercom speakers are nearing the end of their useful lifespan, and staff reported faulty call-in switches getting stuck in the "call" position. 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 18 more cameras to the system in the future; provide new cameras where additional coverage is necessary.

Electrical (cont.):

- A rudimentary fire alarm system consists of local pull stations and alarm horns, is not monitored, and lacks proper coverage in most areas of the building; replacement with a fire alarm system meeting today's standards is highly recommended, as the existing building is not sprinklered.
- 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.
- Update the sound system in the gymnasium with new sound inputs that match today's standards; the current gymnasium sound system is no longer used due to sound input not being compatible with today's technology.

TAFT ELEMENTARY: SITE SUMMARY

The following is a summary of potential improvements at Taft 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 - ASPHALT PLAY AREA

- Distresses Present:
 - Block cracking (base failure)
 - Surface weathering
 - Depressions due to base settling
- Recommended Repair:
 - Remove existing pavement and 12 inches of base and/or subgrade
 - Place 12 inches of base aggregate dense
 - Pave 3 inches of asphaltic pavement
 - Paint all pavement markings for a parking lot

AREA 2 - STUDENT DROP-OFF/VISITOR PARKING

- Distresses Present:
 - Block cracking (base failure)
 - Surface weathering
 - Depressions due to base settling
 - 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
 - Paint all pavement markings for a parking lot

AREA 3 - STAFF PARKING

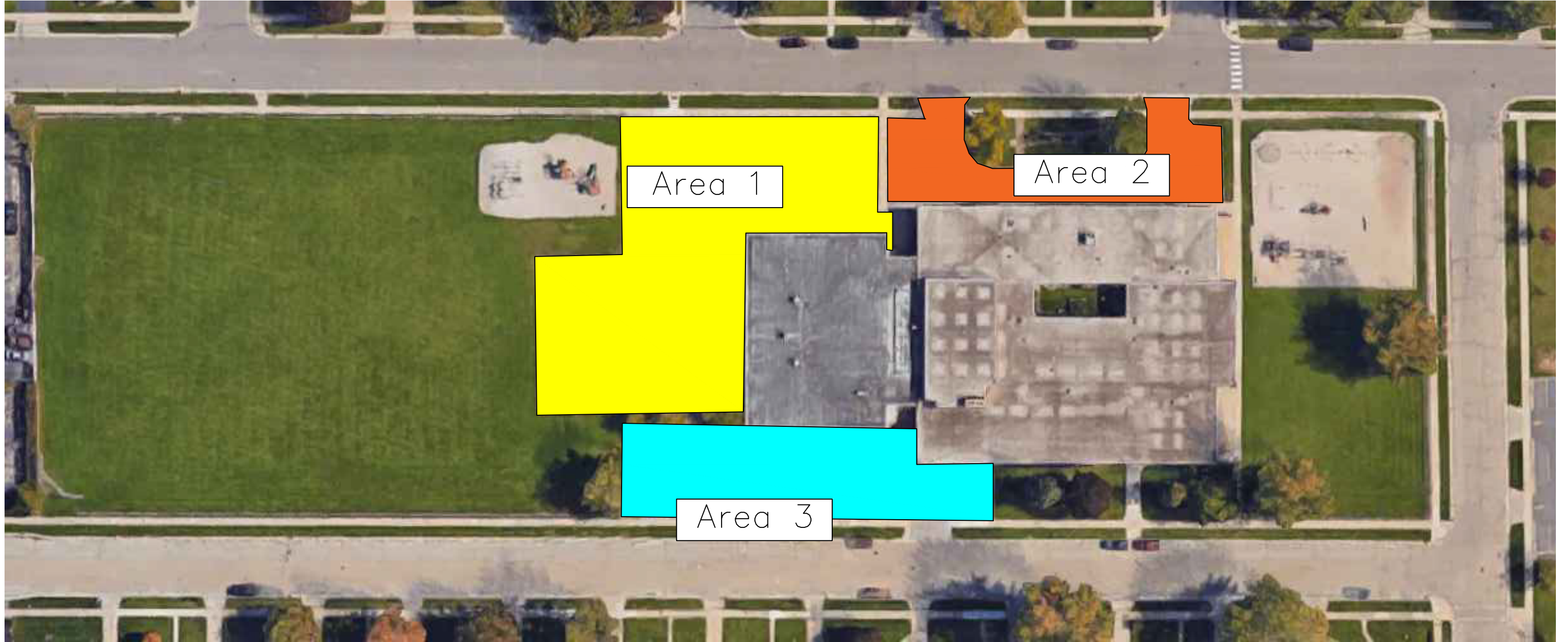
- Distresses Present:
 - Fatigue cracking due to base failure
 - Surface weathering
 - Thermal cracking
 - Depressions due to base settling
 - Potholes
- Recommended Repair:
 - Remove existing pavement and 12 inches of base and/or subgrade
 - Place 12 inches of base aggregate dense
 - Pave 4 inches of asphaltic pavement
 - Paint all pavement markings for a parking lot

SITE CONCRETE

- Distresses Present:
 - Spalling at edges of sidewalk in areas
 - Large cracks in sidewalk that poses a tripping hazard
 - One area of sidewalk is sloped towards the building, preventing proper drainage
 - Curb & gutter is cracked with pieces missing
 - Large cracks in concrete in front of the bike racks
- Recommended Repair:
 - Remove and replace the areas of sidewalk that have spalling or cracked
 - Remove and replace section of sidewalk that is sloped towards the building
 - Remove and replace cracked curb & gutter

ADDITIONAL NOTES

- Staff reported that the courtyard often floods and ices over in winter, although staff reported no concerns with water getting into the building at this area
- Playground equipment appears to be newer, but basketball hoops are dated and rusting
- Parking on site is limited, especially for visitors



SITE PLAN
not to scale

TAFT ELEMENTARY: ADA ACCESSIBILITY ASSESSMENT

The following is an analysis of Taft 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.
- 1b. The building's main entrance does not meet the above criteria for accessibility standards.

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 meets 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 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).

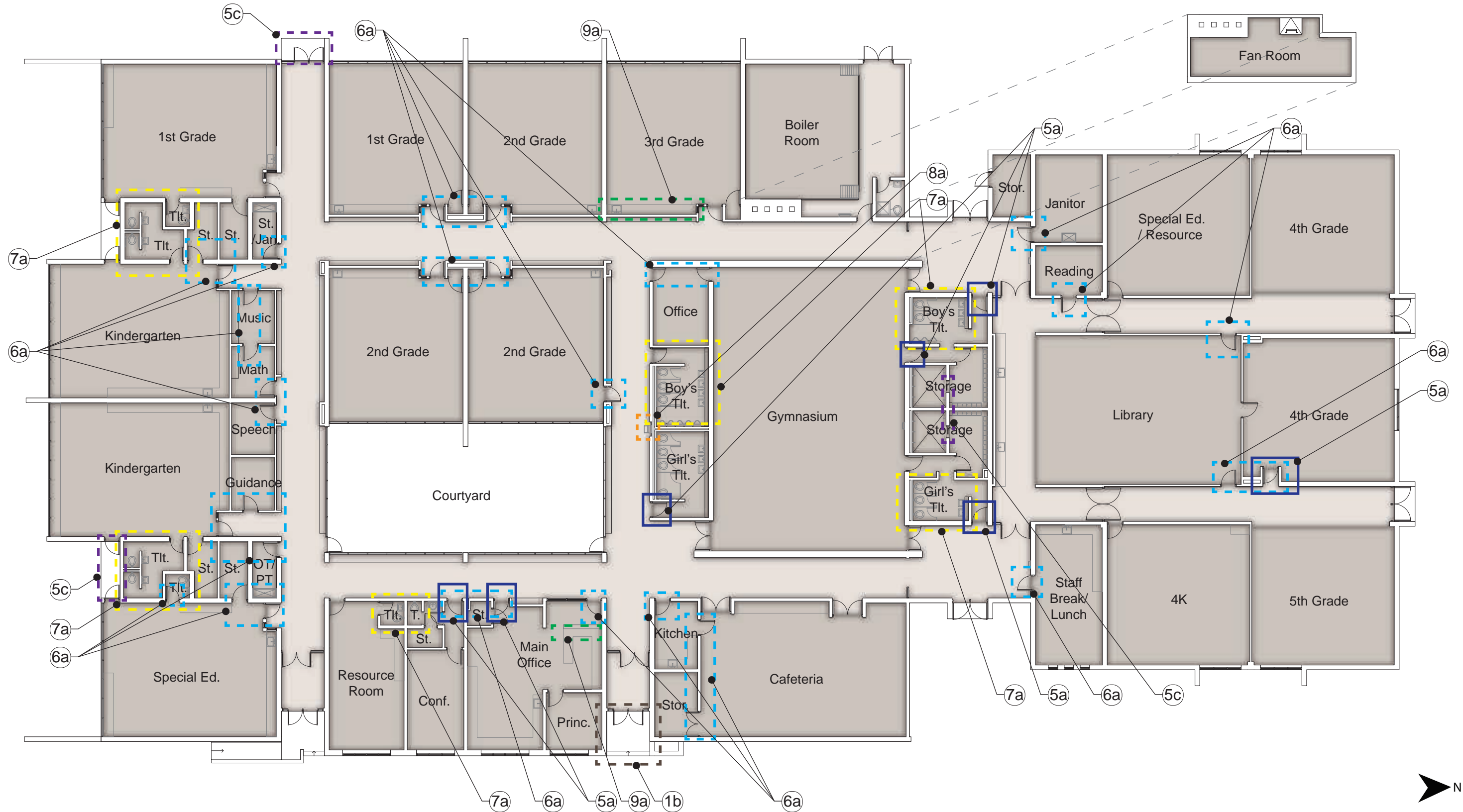
Objects more than 27" and not more than 80" above the floor shall protrude 4" maximum into the circulation path (307.2). Objects shall not reduce clear width required for accessible routes (307.5). Guardrails or other barriers shall be provided where object protrusion is beyond the limits allowed, and 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.



FIRST FLOOR PLAN
not to scale

TAFT ELEMENTARY: ROOF PLAN

Roof Timeline

-  = (1) Installer Walsdorf, Modified BUR, Installation 1995, 22 years old, Warranty Expires 2015
-  = (2) Installer Manville, Modified BUR, Installation 1995, 22 years old, Warranty Expires 2015
-  = (3) Installer Manville, Modified BUR, Installation 1995, 22 years old, Warranty Expires 2015
-  = (4) Installer Manville, Modified BUR, Installation 1995, 22 years old, Warranty Expires 2015
-  = (5) Installer Unknown, Modified BUR, Installation 1995, 22 years old, Warranty Unknown



ROOF PLAN
not to scale

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TAFT ELEMENTARY: EXTERIOR DOOR ANALYSIS

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



① ALUMINUM DOORS & ALUMINUM STOREFRONT



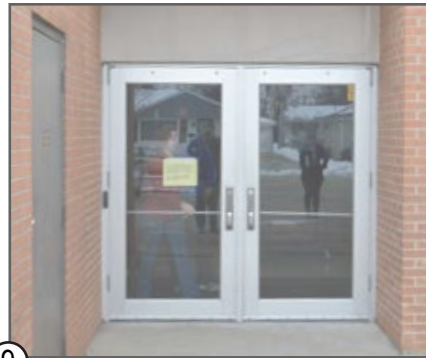
⑤ WOOD DOOR & HOLLOW METAL FRAME



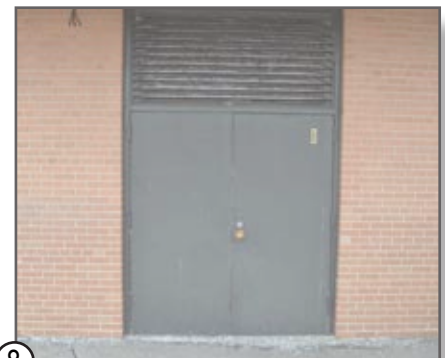
⑦ ALUMINUM DOORS & ALUMINUM WITHIN HOLLOW METAL FRAME



⑩ HOLLOW METAL DOORS & HOLLOW METAL FRAME

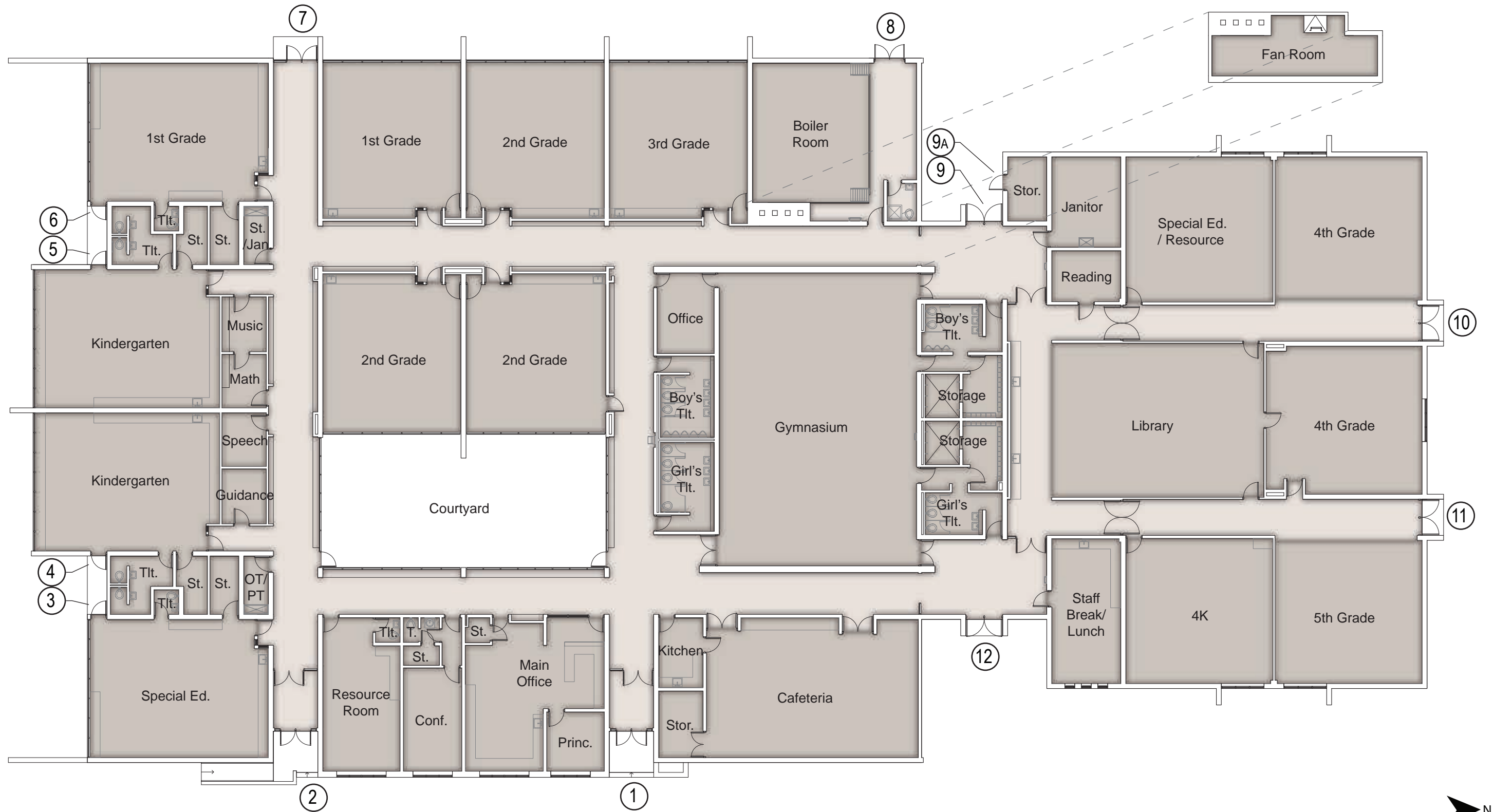


⑨ ALUMINUM DOORS & ALUMINUM FRAME



⑧ HOLLOW METAL DOORS & HOLLOW METAL FRAME

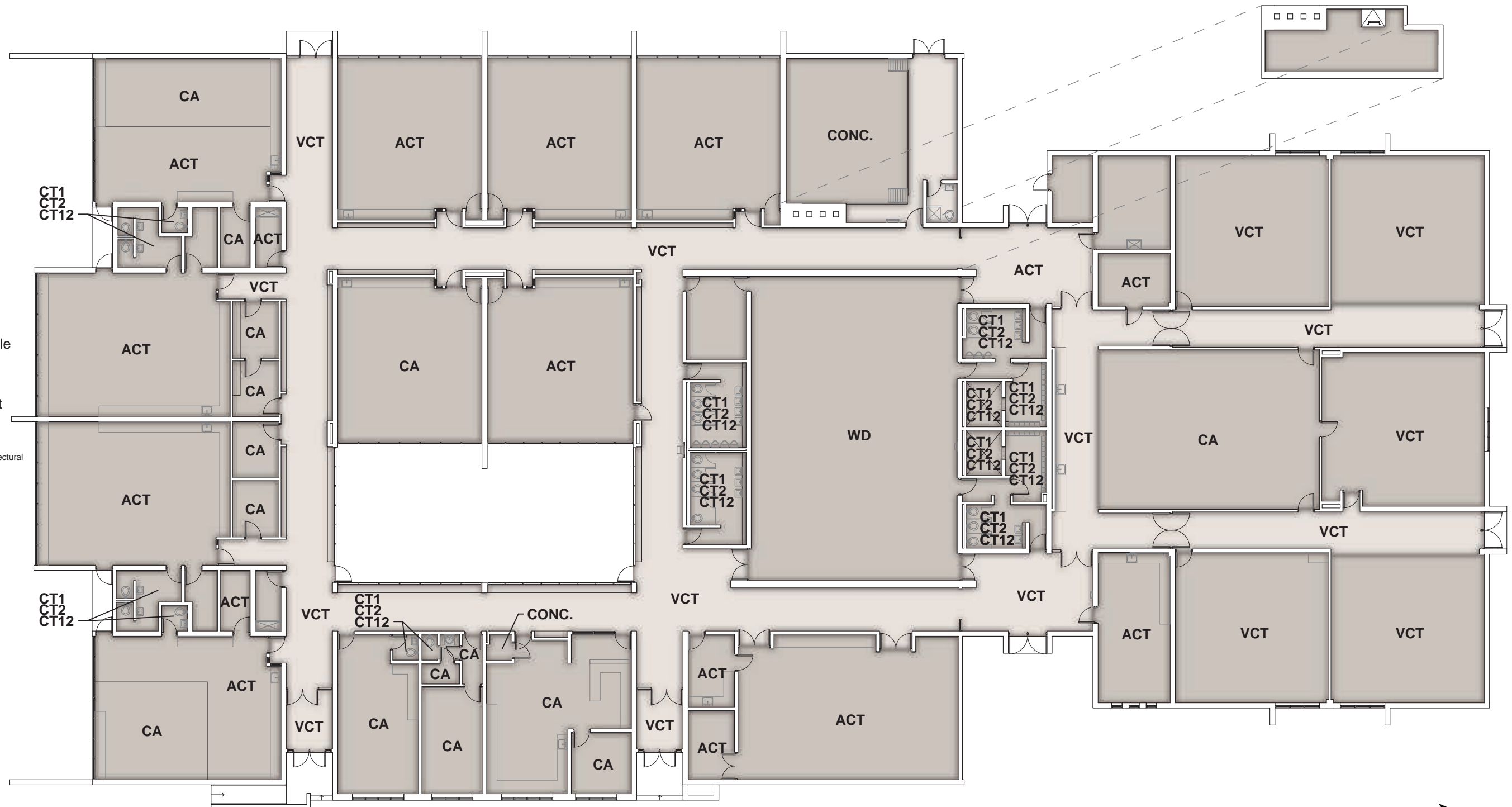
Taft Elementary: EXTERIOR DOOR ANALYSIS



TAFT 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

TAFT 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 1955 with additions completed in 1969 and 1995.

Domestic Water

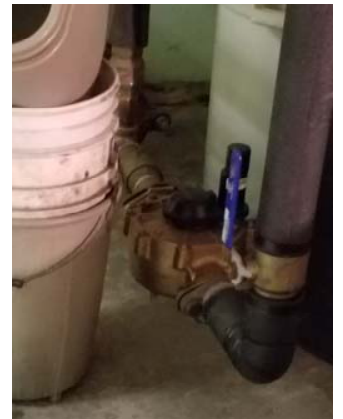
Observations

- A. Water is supplied to the building by two water meters that appears to be 1 ½" each. Both connect to the Municipal water system. The water services are at their limit and could not support any future additions.
- B. The majority of the water distribution piping in the building is a mix of black iron and copper. The water distribution piping appears to be in fair condition.
- C. The building has no fire sprinkler system.



Recommendations

- A. The water distribution piping in the original building and 1969 addition 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 and vent piping in the original building, 1969 addition are under slab and could not be identified. They are reported to have no challenges.
- C. The building has a prep kitchen with a 2-compartment sink and disposal. There is no interior interior grease interceptor.
- D. The classroom sinks do not have solids traps installed on the waste piping.
- E. The existing roof water is collected by internal roof drains and conductors which flow by gravity out the building and connect to the Municipal storm sewer system.
- F. There is one clearwater sump pump located in the Boiler Room. sump systems appear to be in fair to good condition.

Recommendations



- A. The sanitary sewer system in the original building and 1969 addition and 1957 addition 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. To make cleaning the interior grease interceptor easier, we would recommend replacing the cover with a new cover that has a manway opening so the entire cover does not have to be removed for cleaning.
- C. The existing art room sinks should have solids traps added to the waste piping.
- D. The storm sewer system in the original building and 1969 addition 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.
- E. The existing clearwater sump pumps should be monitored and repaired or replaced as necessary.

Plumbing Equipment

Observations

- A. The building has one domestic water system that was recently installed. It is in good condition.
- B. There is no water softening system in the building.

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 valves. The fixtures are old and are in fair condition.
- D. The lavatories in the building are a mix of drop in and wall mount fixtures with 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 mix of wall hung china drinking fountains and electric water coolers. They are not ADA compliant and are in fair condition.
- F. The classroom sinks are vitreous china single bowl sinks with various types of faucets and drinking fountains. The fixtures are not ADA compliant and are in fair condition.



Recommendations

- 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.



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 1955, with additions being constructed in 1969 and 1995.

1.1 Heating System

A. Existing Data

1. A hot water boiler plant serves the building. Installed in 1955, it consists of two Kewanee hot water boilers each fired with natural gas. Each boiler has a capacity of 1,750,000 btu.
2. The piping and pumping system consists of a two circuits, each with a primary pump and a stand-by pump. If the primary pump fails, the secondary (stand-by) pump will provide hot water circulation to the system.

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 Kewanee boilers are in fair condition. Both boilers have exceeded the estimated life expectancy.
3. The 4 base mounted pumps are original and have exceeded the estimated life expectancy.
4. Insulation at most piping appears to be of adequate thickness.
5. The Owner has indicated that there are no current concerns or issues with the heating supply system.

C. Recommendations

1. Continue preventative maintenance on the system.
2. Plans should be made to replace the aging Kewanee boilers and base mounted pumps.
3. Any future additions or construction will most likely 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 classrooms are ventilated using classroom unit ventilators. Unit ventilators house a fan, hot water heating coil, fresh air damper, return air damper and controls in a single cabinet mounted in the classroom. Hot water piping is run to each unit ventilator.
3. Large volume spaces such as the gym, library and cafeteria are served by individual constant volume air handling units. Constant volume systems consist of a central supply fan, which contains a hot water 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 offices are ventilated by a packaged constant volume rooftop unit. Packaged constant volume rooftop systems consist of a central supply fan, gas fired heating section, DX cooling section, fresh air damper and return air damper. Hot water booster coils are installed in the ductwork to provide individual room temperature control.

B. Observations

1. The unit ventilators are original to the building and have exceeded the estimated life expectancy of 25 years.
2. The constant volume air handling units serving the gym, library and cafeteria are original. The units have exceeded the estimated life expectancy of 30 years.
3. Door transfer grilles are currently utilized to transfer relief air from the classrooms to the corridor.

C. Recommendations

1. Plans should be made for the eventual replacement of the aging unit ventilators.
2. Plans should be made for the eventual replacement of the aging constant volume air handling units.
3. 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. With the exception of the office area, the control system is 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.

TAFT 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 1955, with additions occurring in 1969 and 1995.

Electric Service

Observations

- A. The facility has an 800-amp, 120/240V 1-phase 3 wire main electric service is nearing the end of its useful lifespan. The main switchboard does not have capacity for any future loads. There is no surge suppression provision on the main electric service.
- 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 within the last 10 years that are in good working condition.
- C. Utility service to the building consists of pole mounted transformers across the street with an underground electric service terminating at an interior wall mounted CT cabinet and electric meter.
- D. There is no emergency backup power available in the building.



Main Electric Service



Main Switchboard & Meter

Recommendations

- A. The main electric service is nearing the end of its useful lifespan and should be scheduled for replacement within the next 5-8 years.
- 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.



Old Panelboard

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.



TAFT ELEMENTARY: ENGINEER REPORT - ELECTRICAL

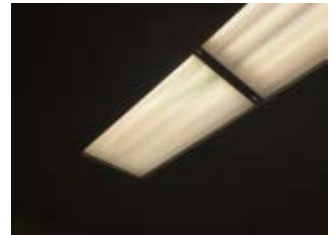
- B. The gymnasium uses high bay metal halide fixtures to provide general lighting in the space.
- C. General lighting controls in rooms consist of toggle switches with no occupancy sensors or dual level lighting. Most classrooms utilize split area zones to split lighting controls in room.
- D. Corridor 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 high pressure sodium wall packs.
- G. Exterior lighting is controlled via a combination of photocell and time clock controls.



Corridor Lighting



Gymnasium Lighting



Classroom Lighting

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 3 receptacles in the whole room.
- C. There are receptacles within 6 feet of plumbing fixtures that are not GFI protected..



Non-GFI Receptacle

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.



- C. Replace existing receptacles within 6' of plumbing fixtures with GFI protected type.

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.

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.



Data Outlet Box

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.
- C. None of the exterior doors have door position contacts to monitor if doors are shut or left open.



Keyless Entry 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.

Intercom System

Observations

- A. The building has a vintage Dukane intercom system that is nearing the end of its useful lifespan.
- B. The intercom system does not have the capacity to fully cover the entire school, various classrooms don't have speakers.
- C. Intercom speakers throughout are nearing the end of their useful lifespan.
- D. Issues reported by secretary with faulty call-in switches getting stuck on "call" position in some rooms.
- E. The bell schedule system is controlled via a timeclock. Staff reported no issues with system.



Existing Intercom Head-End

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.



Bell Schedule Timeclock

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 18 more cameras to the system in the future.



CCTV Camera

Recommendations

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

Other Low Voltage Systems

Observations

- A. The building has a rudimentary fire alarm system consisting of local pull stations and alarm horns. The system is not monitored and lacks proper coverage in most areas of the building.
- B. The building does not have a security system.
- C. 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.
- D. The building does not have a synchronized clock system.



Rudimentary Fire Alarm Devices

- E. The gymnasium sound system is no longer used due to sound input not being compatible with today's technology.
- F. Corridors with open cubby storage should be protected with smoke detectors per today's standards.

Recommendations

- A. It is highly recommended that the fire alarm system be replaced with a system meeting today's standards. The existing building is not sprinklered and any way to increase the occupant safety of the facility is highly recommended.
- B. Other possible recommendations include adding a security system to control and monitor access to the facility.
- C. 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.
- D. A possible recommendation is to update the sound system in the gymnasium with new sound inputs that match today's standards.

