The Academy of Charter Schools

CAMPUS MASTER PLAN 2022-2023

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THE ACADEMY OF CHARTER SCHOOLS

ACKNOWLEDGEMENTS

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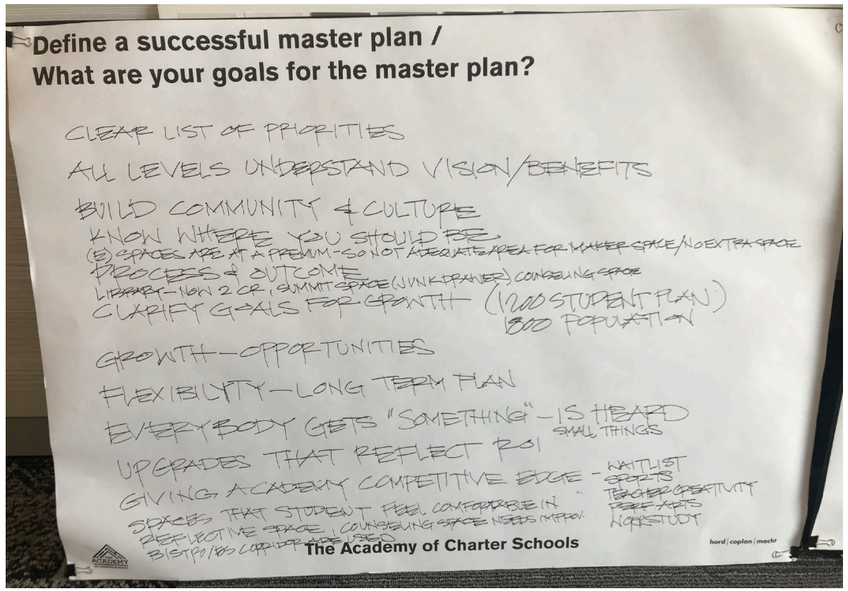
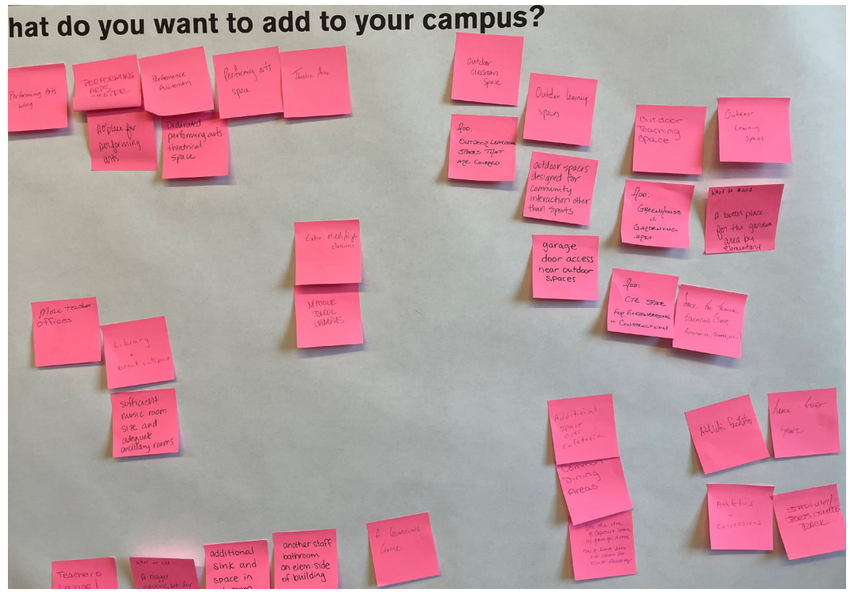
Timeline

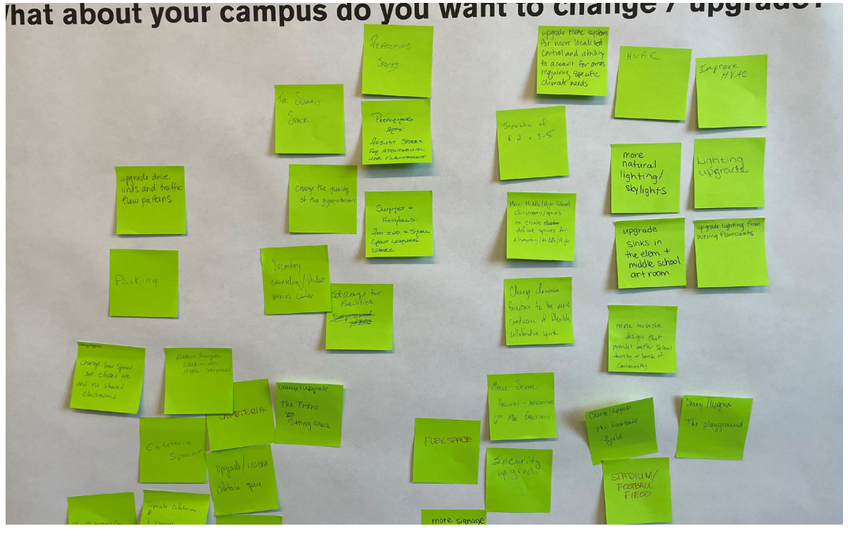
- April 2022: Initial Meeting
- June 2022: Meeting with administration and Assistant Principals
- May 2022: Meeting #1 with Futures Committee
- August 2022: Meeting #2 with Futures Committee
- Fall 2022 & Spring 2023: Identification of priority projects and cost estimating
- June 2023: Completion of Master Plan, cost estimating and Target Projects Booklet

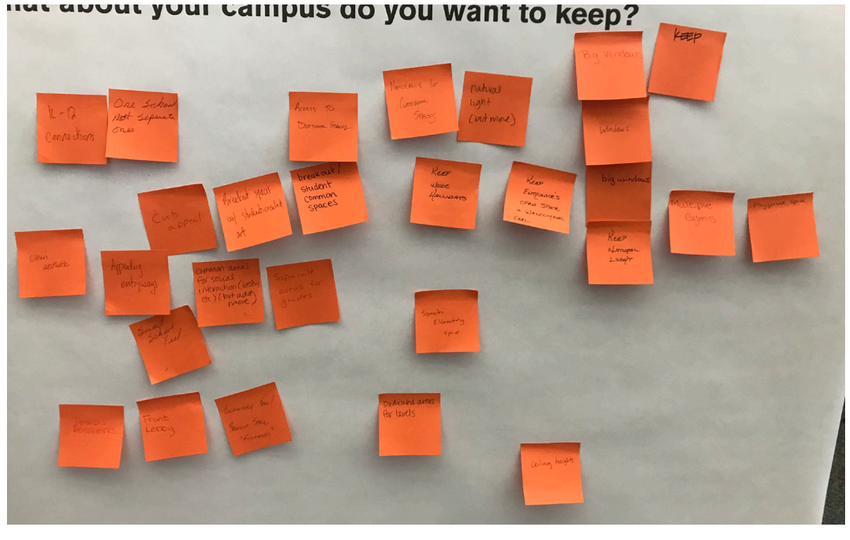
PHASE 01: LEARN

PRELIMINARY MEETINGS - GOALS AND PRIORITIES









PRELIMINARY MEETINGS - STAFF COMMENTS

Email Address	FACILITIES: How strong have your professional RELATIONSHIPS been with our facilities staff in 21-22?	FACILITIES: Overall, how would you rate the level of CUSTOMER SERVICE provided by facilities in 21-22?	Is there anything else you would like to share regarding the support from our FACILITIES staff this year?	HUMAN RESOURCES: How strong have your professional RELATIONSHIPS been with our HR staff in 21-22?	HUMAN RESOURCES: Overall, how would you rate the level of CUSTOMER SERVICE provided by HR in 21-22?	Is there anything else you would like to share regarding the support from our HUMAN RESOURCES staff this year?	TECH: How strong have your professional RELATIONSHIPS been with our tech staff in 21-22?	TECH: Overall, how would you rate the level of CUSTOMER SERVICE provided by tech in 21-22?	Is there anything else you would like to share regarding the support from our TECH staff this year?	FINANCE: How strong have your professional RELATIONSHIPS been with our finance staff in 21-22?	FINANCE: Overall, how would you rate the level of CUSTOMER SERVICE provided by finance in 21-22?	Is there anything else you would like to share regarding the support from our FINANCE staff this year?	In which area of our facility are you primarily based? e.g. Main/North Campus, Room Number, Area etc.	What do you like and want to keep about the current building and the space that you teach or work in now?	What do you dislike or what to change about the current building or the space you teach or work in now?	What types of spaces do you think are missing in the current building that you would like to see added to benefit the school and community?	What site elements would you like to see improved or added to the site that would benefit the school and community?	Is there any other feedback that you would like to share that will help guide the planning for the future improvements of the building and site?
david.martinez@theac	5	5		4	4		5	5		5	5		Main	I like the location	I'd like a more consistent and moderate temperature.	N/A	N/A	No
alissa.nichols@theaca	4	4					4	4					Main	I love my room :)	The temperature of the building	Dedicated resource room on the secondary side. More adult bathrooms with fans in them!	n/a	n/a
ranelle.throw@theaca	4	4		5	5		5	5		5	5		108					
cheryl.napoli@theaca	4	4		5	5		5	5		4	4		Main 223	It's great! Adding better working Promethean boards would be nice at some point if possible.	The carpet is really old (17 years) and getting pretty gross. I know that's expensive, but... it could use replacing at some point.	Extra staff bathrooms would be lovely!	n/a	n/a
valencia.seidel@theac	4	4	The classroom temperature was never consistent and at times, rooms were so hot-too hot to teach in. Other than that, my room was always cleaned and taken care of throughout the year.	5	5		5	5		5	5		Main Campus, 228				improving the heating and cooling in classrooms, more shade outside for the kids, a fence around the playground blacktop area	
martha.williams@thea	3	4		4	4		4	4		4	4		Main	It is good now	All is organized	An stage for the plays	Theater stage	
sarah.gramarossa@th	5	5	They have done an outstanding job, especially given the shortages and increased workload placed on them.	5	5		5	5	Nate is amazing to work with and always ready to help, collaborate, and fix things when needed!	5	5	Andrea and Mark are quick to respond and share information.	Main campus/Elem side	I like that elementary has the south end of the building near the playground. I like that elementary has the open/garden space area, foothills multipurpose room.	I would love more separation of the secondary/elementary side. I like being in a K-12 but I do feel that the levels/students require different needs and have different expectations so having separate spaces is necessary. In the last few years, it seems there has been a lack of separation. This concerns me with bathroom usage, elem kids seeing/hearing things that we would prefer they not be exposed to, etc. I also want the elem students/staff to feel comfortable using the spaces that we have. Currently, I know that many are not comfortable using the garden space area.	Honestly, we need more space. A larger cafeteria or another cafeteria altogether. I believe that secondary needs more classroom spaces as well. Having a proper auditorium or space for theater arts/music would be nice.	The bathrooms could use some work, updating, and options for nongender specific bathrooms. This seems lower priority but the rugs are kind of old and stained. One area I do think needs the most attention is the cafeteria. It feels like we have outgrown this space and could use some updating/modernizing, more space.	I am excited that we are in this phase and looking at making improvements, updates. Thanks!
kea.gutierrez@theaca	5	5	Elvin is the absolute best! Our school has never looked better and we appreciate him so much!	5	5	Ranelle and Barb are easy to work with and prompt with every response.	5	5	Love Nate! He is so great and on top of everything here at North Campus.	5	5		North Campus, Room 53		I would love to have more classroom painted in the near future. The walls are starting to look pretty rough. There are many spots in the hallways, where the colored paint is chipping.	Bathrooms in the first grade hallway!	More shade structures on the North playground.	
jen.rockefeller@theaca	5	5		2	2	This department doesn't feel very approachable or accessible. Don't really feeling comfortable or heard when reaching out with questions or concerns. I don't feel like I have anyone to turn to when I have questions or concerns.	4	4					North and Main kitchen		The north kitchen isn't adequate to prep and serve the amount of meals we serve each day.	A more practical storage area and fridge/freezer area at the north kitchen		
kristen.will@theacade	4	4	n/a	3	3	n/a	5	5		4	4		Traveling teacher	Our building is overall really well-kept.	While being a traveling teacher is not as hard on me, as a person who teaches fewer classes than most teachers, it is still really difficult. Traveling from classroom to classroom is incredibly exhausting. We are guests all day in other people's classes, which impacts our ability to establish a classroom environment that works for our content and teaching style. We're not able to be as prepared for activities that would get kids moving around the room. It limits our creativity. Sometimes, we arrive to class to find an entirely new seating arrangement, which impacts our entire day since we may not have been able to plan for a new seating chart so quickly. Sometimes, the room that we travel into has a teacher who doesn't honor our space (sometimes they don't even leave the room while we're teaching!) It's absolutely exhausting, and it's a burden that is shouldered almost entirely by the high school staff. It would be ideal if we could build enough classrooms so that no one has to travel into anyone else's room, and if that's not possible, to make the traveling load more equitable between high school and middle school teachers.	We absolutely need more secondary classrooms and a much bigger lunchroom.	I really, really miss our library.	
melanie.thao@theaca	4	4	Very easy to communicate needs with facilities	4	4		5	4	"Do it yourself" updates or installments were difficult to follow and led me to submitting another tech support work order. I would prefer to have the team just work on updates as needed. Tech Staff is very responsive to on demand needs!	4	4		Main Campus, Elementary 232	Everything in this classroom supports my role	Promethean board is not working - an updated working interactive board would be preferred. This room is also used for multiple interventionists so an addition of a small white board on the east wall would be useful for multiple teachers teaching at once.	More outdoor seating areas for the students and staff members to use around the school.	Perhaps turning the dirt parking lot into an actual lot for the community that would help with the dismissal process. Expanding roads to have multiple lanes. Maybe having one specific student drop-off lane and one parking lane to help with the traffic jams between parents of upper elementary and secondary students at the main campus.	
kayla.kimmett@theaca	5	5	Elvin is a rockstar!! Not only does he help with the small things but he builds relationships with the kids too. My class loves him. He is quick to respond to work orders and always does a great job.	3	3	HR assistant needs to be trained in more areas so when head of HR is out, they can help too.	5	5		5	5		North Campus	I like the building space and my classroom.	Copiers that don't break down.	n/a	n/a	I thought the Kona Ice Truck was a great way to community build! A few more visits from sweet food trucks for the kids and families would be awesome.
kristen.perales@theac	3	3		3	4		4	4		2	3		Main Campus in 4 different classrooms		It would be fantastic to teach in one classroom instead of 4.	I would love to see a library, maybe because it was such an integral part of my childhood and I am a nostalgic child of the 80s. It makes me sad that we don't have a full library or media center.	Having taught at a tech stem school, I find the classroom display tech to be lacking compared to other schools. The Promethean boards are very cumbersome and outdated. There are some fantastic Smart Boards that work beautifully with all programs and are much more interactive. I feel like this would be a really great update to our school in the future.	It would be great to see more classrooms added, somehow, if we continue to grow.
angela.serna@theaca	5	5	Mike and Babs are both super friendly and a joy to work with.	5	5		5	5	Nate and his team have been wonderful and regardless of how overwhelmed they are, they've always been extremely professional.	5	5		Main Campus		The current counseling space is loud from the noise in the summit and lack of appropriate supervision.	A separate area for counseling. With the current state of the summit, it's not appropriate for parents/prospective parents to walk through the area. Students that are needing a counselor for social/emotional concerns aren't getting the privacy they should.		
veronica.kelson@thea	5	5	Elvin is super awesome	5	5		5	5	Nate has been very supportive and helpful. Suzie has also jumped in to support.	5	5	Thank you for finally giving us awesome raises!	North Campus, room 44		switching to chromebooks in the lab, more wifi	more outdoor tables and benches		
philip.gasser@theaca	5	5	While facilities has been stretched thin all year, they have done a remarkable job.	4	4	I had minimal interactions with HR this year.	5	5	Tech has been fantastic! They really stepped up their ticket times and their handling of the chromebook chaos.				Main room 129	I like my room, however I would like to see the floors cleaned/swept more often next year.		Outdoor gathering spaces	An increase in the number of desks/chairs available to students.	
andrea.foust@theaca	5	5		5	5		5	5		5	5		Main		Heating and cooling	Additional Library space	Additional parking	
shawna.daniels@thea	5	5	I believe the facilities staff work very hard at their job and sometimes are spread very thin. They always try to be available when they are needed and it is very much appreciated.	4	4		5	5		5	5		Main, front office	I like that I have my own little corner or space to work in and that it is limited (usually) to interruptions from students/ staff. It feels secure.	The door that we have up front; if at all possible in the future, could get a split door. One that can open on the top, while having the bottom half still closed. That way we can get rid of the ridiculous table up front. ;-)	Maybe an actual theatre for the theatre dept., but I know that's a long shot.	If the school were able to add on more classrooms on the secondary side, maybe we could get some diversified classes added to attract more students/families. Classes that other school are able to offer, that we can't; because of lack of room.	
theresa.torrez@theaca	5	5	We have an amazing facilities staff that gets pulled in every direction. And they always get to all needs requested.	3	3	I feel Ranelle is very approachable and helpful. I know she is willing to help any time I have questions. I don't feel I can go to our HR manager. This stems from an interaction where my confidential meeting did not remain confidential so I do not trust I can go to her without fear of what I say getting to others.	5	5	Nate is amazing. He is always willing to help no matter how simple my request is and he never makes me feel bad when it is my error. I haven't had much interaction with Suzie but the times I have spoken to her she was always nice.	4	4	Sonya is amazing. She is very informative and helpful. I haven't had much interaction with Andrea this year but I've always felt I could ask her questions and get answers.	Main Campus Bistro	I love the concept of the Bistro.	I like the idea of the tall tables however the chairs break easier and become unsafe to sit on so I would like to see all short tables instead. The flooring is not suitable for a place we encourage students to eat in. When things spill it gets stuck in the carpet and is difficult to clean up. The display cases currently belong to music and art however they aren't kept up with. The shelves get visibly dusty, there are currently posters still up in the windows that advertise the spring play and because only those departments have the keys they are still up. Having access to those cases would be helpful so I can help keep them clean and up to date if needed.		The East parking lot!! It is filled with potholes and as a parent of a driver that spends money on those vehicles it would be nice that they didn't have so many pot holes to drive through so they don't ruin their vehicles. The playground for elementary has been the same playground set since my kids were in elementary and they are in 11th and 9th grades. A new, updated playground would be great for them. And possible removing the woodchips and putting the rubber playground mat down. This will also help with the pipes in the building since so many of the facilities calls is due to wood chips and rocks in the sinks/ toilets. A new football/ soccer field with possible turf. The current one is filled with holes that is a safety concern when they are running at fast speeds during their practice/ games. And if we get a new field adding a track around it for the new track and field we are trying to add. My BIG want is a second cafeteria. Use one for elementary and one for secondary.	I love this school and it is in really good shape still but fresh paint throughout the whole building is needed.
devon.direnzo@theaca	3	2		4	4		5	5		4	4		Main, 233	- A trend toward using every available space for a specific purpose (example: Garden Area no longer wasted space, but a space for students and projects)	- HVAC system - I'd like the temp of my classroom to be consistent - I'd like more space on the secondary side for secondary students so this side is mostly "sacred space" for Elem. kids BUT, I also think it's good for the Elem kids to see what secondary is doing so... maybe there's a way to do both? It seems like secondary has more garden area space then elementary at the moment		More usable outdoor spaces - for example, have a shade structure and tables so there is more than one area/space for more than one class - A school/level garden area (with raised beds and such) would be super cool - Get rid of the woodchips - maybe replace with recycled rubber?	
carly.wofford@theacademyk12.org				5	5		5	5		5	5		Clinics	I like the size of the clinic at Main. I also like that there is a bathroom attatched.	North Campus clinic is a little small, and doesn't have enough room for storage. I also don't like that it is directly visible from the front door. For HIPPA reasons, it should be blocked from the front.	Better space for the counseling department at main. There needs to be a space where students can have a break from the day for a few minutes where they feel safe.	Overall improvements to bathrooms, hallways, paint, flooring mostly at main campus. More updated cafeteria at main campus	Please improve drive-line accessibility and flow.
mackenzie.hervey@th	4	4	All requests have been completed in a timely manner.	4	4		5	4		4	4		Main Campus Rm 231	I like the number of available outlets and storage space.	It tends to get really hot in the afternoon and where my desk can go is limited.	A library		
brandi.muncy@theaca	4	4		4	4		5	5	Always ready and willing to help.				Room 183-main campus		I would like my promethean board centered on the wall its on.		Grass area for elementary students.	
janelle.nagar@theaca	4	4		4	4		4	4		4	4		main		Temperature regulation - it is either freezing or boiling	Maybe a community garden or outdoor walking trail that students could help maintain	Cafeteria / Bistro should be using less plastic and non-recyclable materials - move to compostable single-use forks / spoons and bowls. More of a school-wide program focused on recycling	
timothy.fifer@theacade	3	4	Overall, I have felt pleased with our facilities staff and have been able to receive everything I have needed from a facilities standpoint.	4	4	Our HR Staff has been very responsive to meeting my needs this year.	4	5	Our Tech Staff has been very accommodating and supportive to me and the WBL Program this year.	4	4		Main Campus: Elementary/Garden Hallway	I like that the WBL programming is centralized there and we have the space and resources needed to care for our students and programming there.	I would like to organize the space better.	I think our school would benefit from better individual and small group learning areas. Reorganizing our counseling and Summit area would be helpful for students and staff.	Improved individual, small group and large group instructional spaces within The Summit and Garden Area would benefit K-12 learning.	Being creative and open minded about the space we have available to us will be important.
nathan.keller@theaca	5	5	Amazed at how well they have kept this place in a year of destructive kids and low staff.	5	5	Again. A very trying year, Barb and Ranelle did great.				5	5	Sonya has been a staple for me this year. I could not have finished out the year as i did without her support. Andrea is a rock as always.	Main, 195	195 could use a paint job.	The Chiller. Boy do I want that fixed or replaced.		A rework of the summit to a more usable space.	
drew.fitzgerald@theac	4	5		3	4		5	5		4	5		Main Rm 214	I love my windows. My room is a nice size.	The Middle School students don't have enough space to talk to their friends in the upstairs hallway so they are constantly blocking traffic in that hallway.	I still think a redesign of the downstairs secondary bathroom would be huge for the students since it has very limited capacity. Move the sinks out to entryway like it is upstairs and add stalls/urinals.	A few more classrooms to reduce traveling teachers, a real auditorium	
erin.flinn@theacademy	3	4		4	4		5	5		4	4		Main Campus Classroom 181	My classroom space	The carpet and the building temperature, it would be great if the building was a more consistent temperature year-round. When it is hot out, the building is freezing and when it is cold out the building is very hot.	A school library! A space for indoor recess.	The student desks.	
adam.ruhnke@theaca	5	5	None.	5	5	None.	5	5	None.	5	5	I rated these at a 5 more out of assumption. I have had little dealings with the department personally, but I have neither heard or seen anything that would give me any impression that they are not doing a great job.	Main Campus, Rm. #192, High School Mathematics	Everything seems to be working very well.	Nothing. Everything works ok.	None. I think the school has everything that it needs.	A larger building to accommodate our current students and future growth would be good, but I understand that is not a reasonable request.	None.
ryan.waldau@theacad	4	5	Support has been very professional this year. Much better than just a few years ago. If there is anything we can do to help support facilities staff, they should let us know.	4	4	Overall I believe we got what we needed.	5	5	Nathan has been a life saver this year and his team of high school experts are so polite and knowledgeable about the tasks that are asked of them. Tech requests have been quickly handled.	5	5		Main campus, room 185, technology lab.	The space is great for students. They feel comfortable and my space creates a curiosity of a range of topics. Thank you for the aquaponics area. It has encouraged the middle school and high school staff to want to follow that same path. It makes our school a little more special.	In my classroom, we need more storage cabinets. It looks a bit cluttered. The aquaponics area could use a fresh restart next year with a cleaner teared system and more plants. Next year it will look cleaner and should be more impressive with more engineering examples.	The hills next to the playground should be utilized for kids to be able to sit on with stone seating and grass. Or, we could create a nature trail that weaves back and forth with places to stop with interesting plants, sculptures, etc much like the walking space at the Butterfly museum. We could shovel out some flat pathways to be ADA compliant and add fast-growing trees for shade. The dirt parking lot is a mess. We really should pave it with sidewalks going around the outside of all the traffic for student safety during drop-off and pick-up. In the elementary gym, could we paint the folding doors with silver screen paint and get a good projector for PD and school presentations? Lockers of 6th-grade students in the hallway next to the cafeteria.	We could use some real bleachers and lights for the football field. Also, a scoreboard could be handy. A giant gazebo or shelter structure with picnic tables just south of the football field for events. If we are going with bigger ideas, the school could use an auditorium for assemblies and performing arts.	I want to help. If the future meetings are open to the staff, I would like to help out.
lauren.calvin@theaca	5	4		4	4		3	3	We need to find solutions to the Chromebook issues. It is causing many headaches in the classroom. I know that we are sticking with the one-to-one protocol, but teachers really need to have more chargers and extenders to accommodate uncharged Chromebooks. It is unrealistic to expect middle schoolers to charge or remember a charger (as sad as that may be). I am spending large quantities of time just trying to solve this problem, which is taking away from important instructional time.	4	4		Main Campus, 173		The constant hot rooms is getting really frustrating. While I know this is no one person's fault, it makes it incredibly difficult for teachers to teach AND students to be able to learn, especially in the afternoon. Just yesterday, I nearly passed out and felt nauseous because it was so ridiculously hot in my room. My students had red faces, which is unsafe and would upset families if they knew how bad it was. Please stop bringing us fans as a band aid and try and find a more permanent solution. Also, we have GOT to figure out a way to separate sixth grade from elementary. It is actually causing frustrations between staff members as the elementary teachers get very upset with our students and the noise level. It puts us in a really hard spot.			
monica.ringenberg@th	4	4					3	4					Main - Elementary	Playground space - both equipment and ball courts. 3rd grade with bathrooms. Water fillers.	Hallway bathrooms don't seem adequate - updates and capacity would help. Another teacher bathroom too.	Quiet workspaces for small groups - sometimes schools have 2-4 computers in these areas. More bathrooms. I like the zen den idea, but it could use a new location with more openness and some emotional regulation tools.	A security review to see if there are updates such as gates/cameras/motion detectors... that would keep us more safe. A grassy area outside. Perhaps a walking path around the school.	My priorities would be safety/security, inclusive social-emotional environments, and small-group work spaces.

THE ACADEMY OF CHARTER SCHOOLS

MASTER PLAN **GUIDING PRINCIPLES**

1. Clear list of priorities
2. Flexibility for future needs and growth
3. Build community and culture of school
4. Improvements that could generate income
5. Give The Academy a competitive edge
6. All stakeholders buy into vision and benefits
7. Everyone gets “something”

MASTER PLAN **PRIORITIES**

- **Upgrade** existing facility (furniture, flooring replacements, lighting, mechanical equipment replacement, improved wayfinding, paint colors, technology, site upgrades including minor grade adjustments for drainage)

- **New** performing arts building or addition

- **Create** more learning space (addition of secondary (MS/HS) classrooms) & the ability to combine middle school

- **Re-purpose** existing spaces
  - Additional cafeteria
  - Better flex space & small group for ES, MS and HS
  - Better proximity of grades levels
  - Staff bathroom in ES
  - Space for technical education/CTE
  - Counseling closer to HS/MS and improved corridor entry

- **Site Improvements**

EXISTING CONDITIONS + SITE ANALYSIS

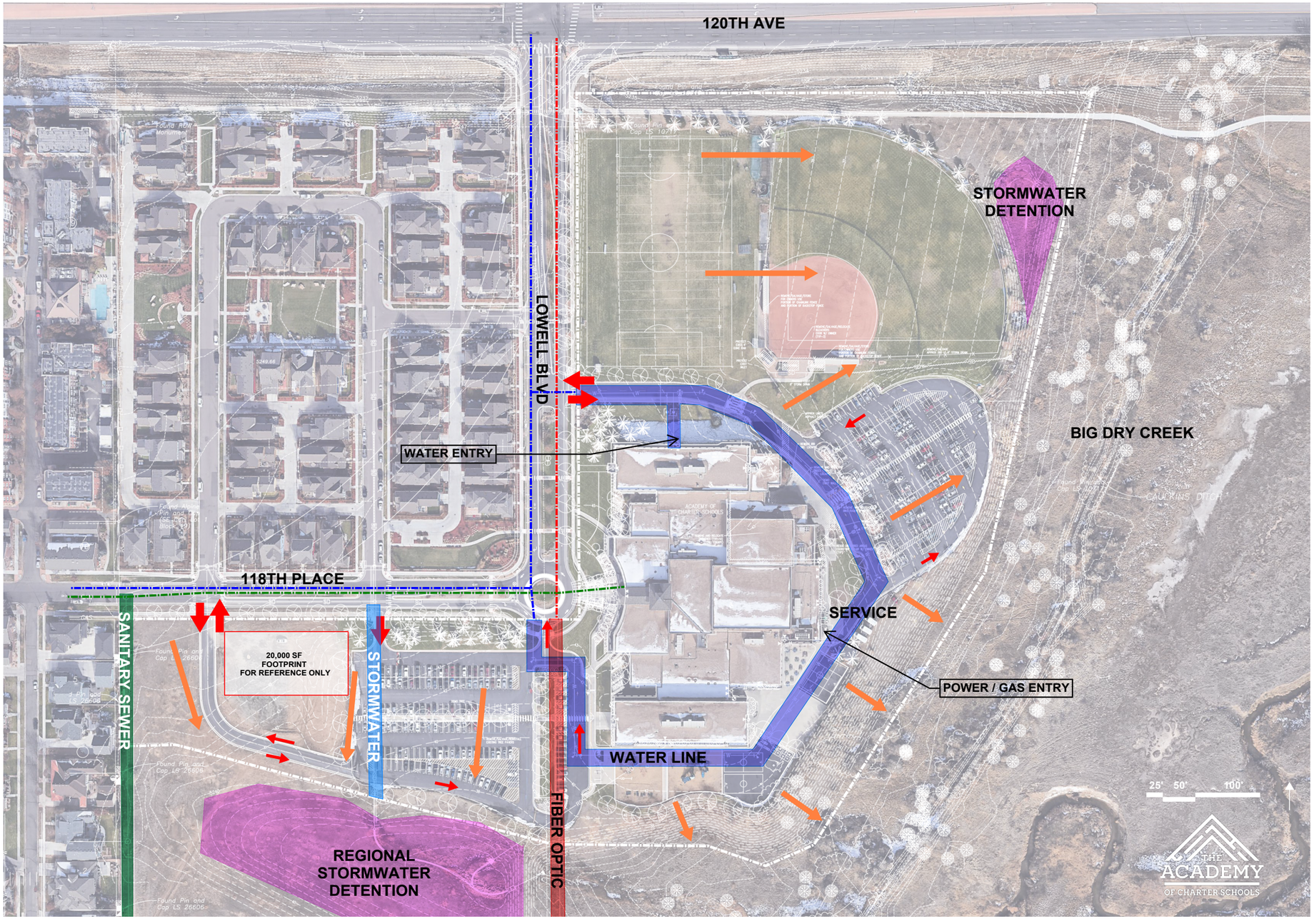
Current site, looking towards baseball field

Current site, looking east to existing building

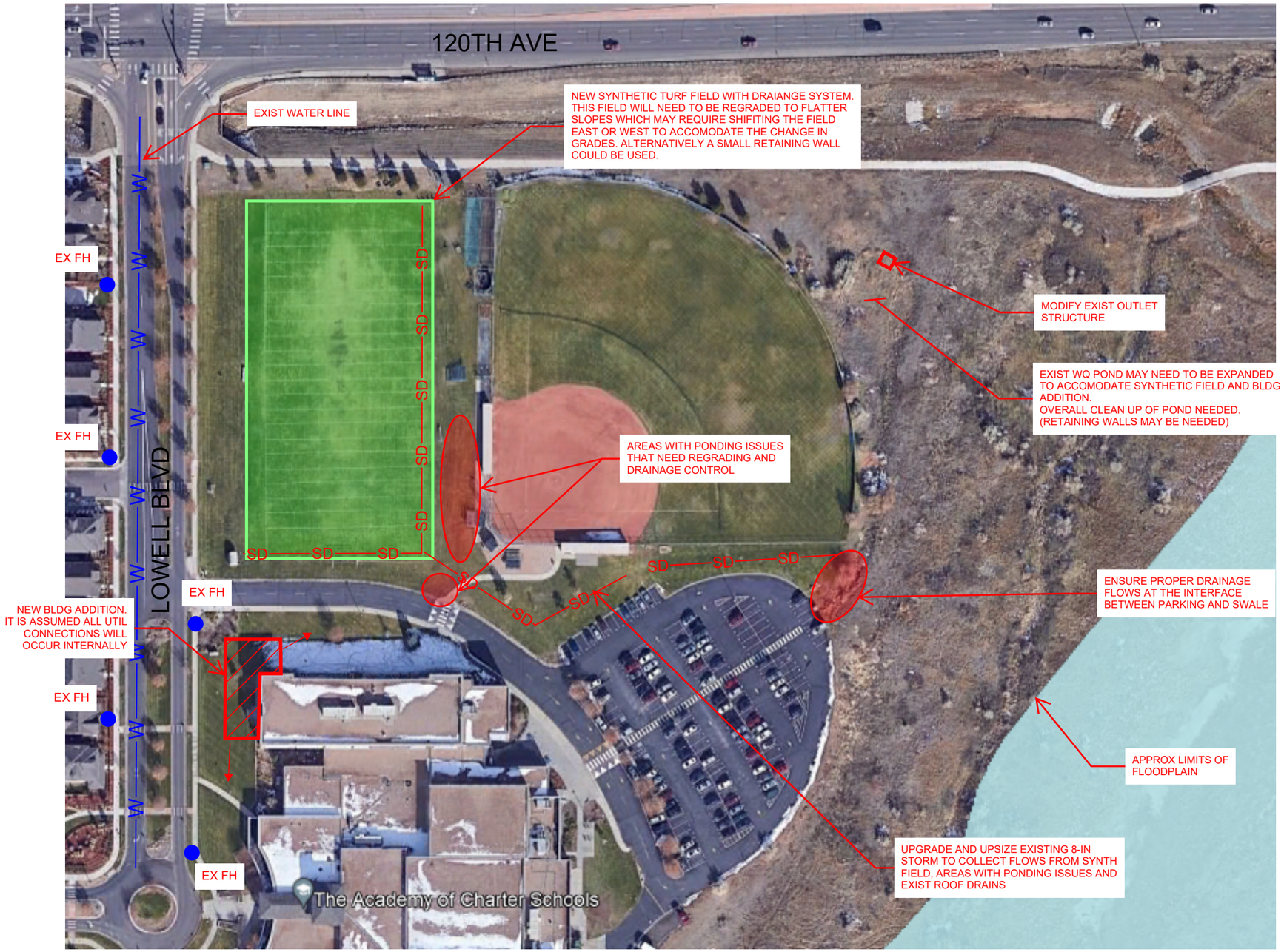
Current site, looking south from 118th

Current site, looking north along playgrounds

SITE ANALYSIS - OVERALL SITE



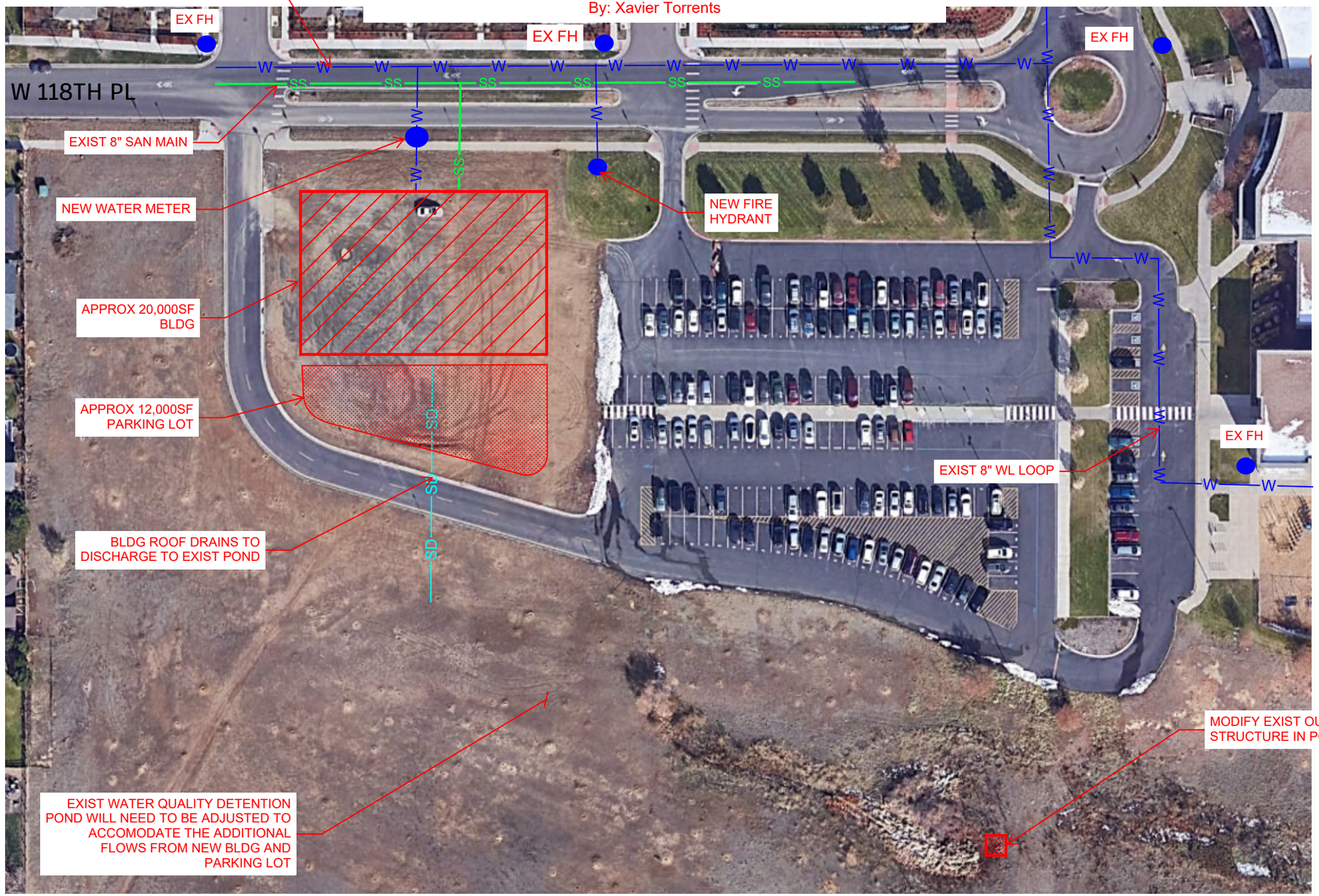
SITE ANALYSIS - EAST OF LOWELL



SITE ANALYSIS - SOUTH OF 118TH PLACE

MASTER PLAN - THE ACADEMY OF CHARTER SCHOOLS

Date: 7/8/2022 / JVA Job No. 3616c
By: Xavier Torrents



SITE ANALYSIS

IMPROVEMENTS SOUTH OF 118TH PL

A new building as well as a new parking lot are being proposed south of 118th Pl.

Utilities

- There is an existing 12-in water main on the north side of W 118th PL that we could tie into
  - This assumes a new water meter would be needed
  - We anticipate needing at least 1 fire hydrant on the south side of 118th Pl, maybe two.
  - Alternatively, we could bring domestic water from the main building assuming the existing meter has sufficient capacity for the new building. Mechanical to confirm this option.
    - Pros: No need for new water meter
    - Cons: Long run (480-ft approx.) of pipe based on the building location as shown in the exhibit.
- There is an existing 8in sanitary main also on the north side of W 118th Pl
- Both connections to these utilities would require cutting through the median of W 118th Pl.

Drainage

- There is an existing regional water quality and detention pond to the south of the existing parking lot where the proposed improvements would drain to.
  - This regional pond is located within City's open space property because it also provides detention for the Kinglet development north of 118th Pl.
  - This pond was oversized to over detain for the portion of the site draining towards the pond to the northeast since it only provides water quality due to its proximity to Big Dry Creek.
- The current drainage report does not seem to account for any future development west of the existing school parking lot.
  - Therefore, the existing pond may require to be increased to accommodate the additional flows from new improvements.
  - Detailed calculations are needed to confirm the previous point and pond capacity.
  - Existing pond appears to have room to grow, and its expansion should be feasible.
  - Existing outlet structure should also be modified accordingly.
  - NOTE: Given the size of the existing pond, the proposed improvements may have a small increase in the pond volume and the required adjustments could be minimal.

IMPROVEMENTS EAST OF LOWELL

A new building addition as well as a new synthetic turf field are proposed on this area of the site.

Utilities

- It is assumed that the proposed new building addition will have all its utilities connected inside the building, including domestic water, sanitary and roof drains.

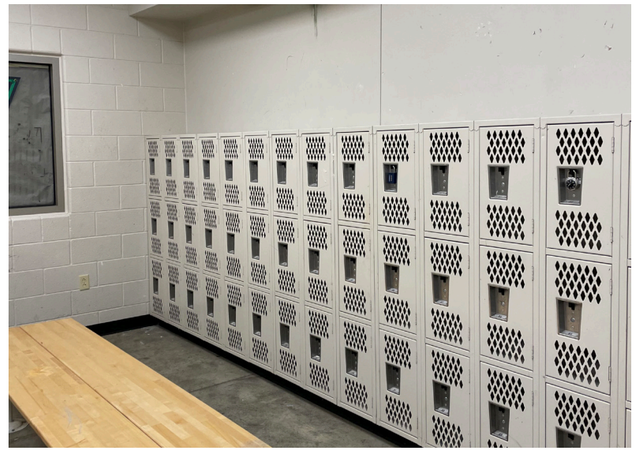
Drainage

- The proposed building addition is located at a high point of the drainage map. Therefore, runoff north of the building will reach the pond to the northeast and flows from the west of the building and south of the new addition will reach the most southern pond.
- Synthetic Turf Field
  - This will require the field to be regraded to flatter slopes between 0.5%-1.0%. The current field appears to have an approximate 2% cross-slope. This would require some space near the field to accommodate the new grades. Depending on the field size it may require shifting the field's location further to the east.
  - A proposed 8-in perforated storm pipe would be needed at least along the east side of the synthetic field. This pipe would be then routed to the existing pond to the northeast.
- There appear to be two areas with drainage issues where runoff ponds after regular storm events. These are located west of the north dugout and near the crosswalk at the drive. JVA recommends regrading these two areas as needed and providing any additional storm infrastructure as needed to resolve the issue.
- There is an existing 8-in storm pipe that collects one of the building roof drains as well as drainage from behind the north dugout that will need to be upsized to accommodate the new flows from the synthetic field.
- Drainage issues are apparent at the existing curb cut located at the east end of the parking lot where runoff enters the swale leading up to the pond. Maintenance of this area will be needed as well as modifications to the curb cut to ensure proper drainage.
- Pond Modifications
  - All these proposed improvements will increase the imperviousness of the area draining to the existing water quality pond. Therefore, it is very likely that the pond will need to be expanded as well as the outlet structure to accommodate these improvements.
  - The pond is probably due for maintenance, and this would be a good time to do so. JVA can provide direction on how to do such maintenance.

MASTER PLAN BUILDING EVALUATION

Existing corridor

Existing toilet room



Existing locker rooms

Existing exterior building

Existing classroom flooring

Existing roof

MASTER PLAN BUILDING EVALUATION - ELECTRICAL

PURPOSE OF THE EXISTING CONDITION ASSESSMENT

AE Design (AED), visited the Academy of Charter Schools main campus. The following report is an assessment, conducted as visual observation of the electrical systems withing the building on June 1, June 23 and June 29, 2022. Only partial existing drawings were available at the time of observation. The following information is based on best information available.

The building is approximately 145,000 sf.

This report documents the existing electrical systems based on the initial observation and the general conditions of that existing equipment.

APPLICABLE CODES AND STANDARDS

- 2021 International Building Code “IBC”
- 2021 International Fire Code “IFC”
- 2021 International Energy Conservation Code “IECC”
- 2020 National Electrical Code “NEC” (NFPA 70)
- ANSI/TIA/EIA-607, TIA grounding and bonding standard for commercial buildings.
- ICC/ANSI A117.1 Accessibility / 2010 ADA Standards for Accessible Design.
- Illuminating Engineering Society of North America (IESNA) Guidelines and Publications including the Lighting Handbook 10th Edition.

ELECTRICAL EXISTING CONDITIONS AND RECOMMENDATIONS

A. Electrical Service and Distribution

a. Condition:

i. The existing electrical service is located on the east side, toward the south end of the building.

ii. The utility transformer is marked with a handwritten label of 1000 KVA 277/480V,3-phase

iii. There are (2) utility meters on the exterior of the building:

1. AT&T Mobility – Xcel Energy #89-730-141
2. Building Meter – Xcel Energy #59-960-944

iv. The AT&T Mobility meter appears to be connected to a transformer, a 200A manual transfer switch and a small emergency gen set (120/240V, 1-phase, 3-wire, 3W).

v. The 277/480V service then enters the building underground to the Main Electrical Room. The Main Switchboard (MSB) is inside the Main Electrical Room. It is a 4-section Cutler Hammer PowerLine Switchboard, 1600A, 480/277V 3PH 4Wire, NEMA 1. The date on the equipment is indicated as October 20, 2004. It appears to be in good working order.

vi. Among other panels and mechanical equipment, the MSB also feeds a 120/208V, 3-ph Distribution Switchboard (DSB) via a 300 KVA transformer. DSB is Cutler Hammer PowerLine Switchboard, 1200A, 120/208V 3PH, 4Wire, NEMA 1. The date on the equipment is October 14, 2004. This equipment is also located in the Main Electrical Room. It appears to be in good working order.

vii. Distribution Panels were also observed in electrical and storage rooms throughout the building. The school’s electrician indicated that most have some spare capacity and are in good working order.

b. Photos of Existing Conditions:

Utility Transformer

Exterior Gear

Main Electrical Room

B. General Power

a. Condition:

i. General power was observed throughout the building. Most devices are in good working condition. Tamper-resistant receptacles were not observed. Faceplates are ivory and show some signs of wear.

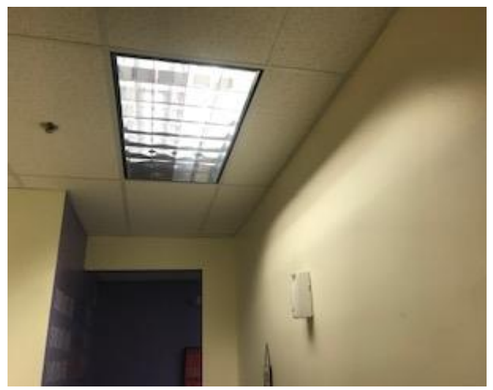
b. Recommendation:
   i. Replace existing devices with TR (tamper-resistant). Consider replacing faceplate, wherever finishes are updated.

C. General Lighting and Controls

a. Condition: Existing lighting was observed throughout the building.
   i. Most fixtures are fluorescent. Over time, as lamps have started to burn out, they have been replaced with new LED lamps.
      1. Suspended linears were observed in the classrooms with T8 lamps. Classrooms are well lit, with mostly indirect lighting.
      2. Recessed 2x4 floursecent troffers with louvers were observed in corridor and commons areas.
      3. Large decorative suspended fixtures were observed in the stairwells. It was noted on site that these fixtures are difficult to keep clean.
      4. High bay fixtures were observed in the Gymnasium.
      5. Wall-pack with integral LED sources were observed on the exterior of the building.
      6. Pole-mounted fixtures were observed in the Parking lot. These fixture were originally HID sources, but have been retrofitted with LED replacement lamps.
   ii. CCT for back-of-house spaces is 4000 – 4100K and CCT for front-of-house spaces is 3500K.
   iii. Lighting Controls are primarily timeclock control for exterior lighting and switching for interior controls. A relay panel was observed in the Main Electrical Room for control of the Gym lights.

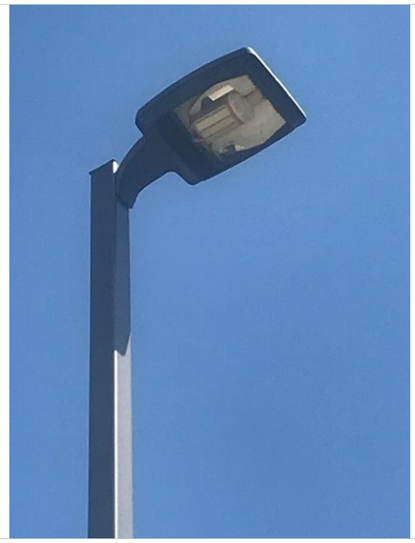
b. Photos of Existing Conditions:

Classroom Linears



2x4 Troffer with Louvers

Decorative Suspended Fixtures



Exterior Pole Lights

c. Recommendations:
   i. It is recommended that:
      1. classroom fluorescent fixtures continue to be re-lamped with LED lamps for energy savings.
      2. Consider replacing fluorescent 2x4 troffers with new LED fixtures. Fixtures will last longer and provide better illumination than existing louvered fixtures with new lamps.
      3. Consider replacing fluorescent downlights with new LED fixtures. Fixtures will last longer and provide better illumination that existing downlights with new lamps.
      4. Maintain existing exterior lighting, unless the staff members identify any areas where coverage or light levels should be improved.
   ii. Lighting controls will need to be fully replaced, with new automatic controls to meet Energy Code requirements, in any spaces with fixtures are replaced or relocated.

D. Emergency/Egress Lighting

a. Condition: Existing egress lighting appeared to be accomplished primarily with emergency lighting units and integral battery backup.
b. Recommendation: At a minimum, emergency lighting should be tested and any fixtures that have failed, should be replaced.

E. Fire Alarm System

a. Condition: The building has an existing fire alarm system – Notifier. The FAA (fire alarm annunciator) is located in the Vestibule and the FACP (fire alarm control panel) is located in one of the administrative offices. The existing system is not equipped with voice-evacuation, which is currently required by the State of Colorado.

b. Recommendation: It is anticipated a new Fire alarm system will be required with voice evacuation system. This is anticipated to include a new FACP to replace the existing, new speaker/strobe devices throughout the facility in accordance with NFPA spacing requirements, a smoke detector above the FACP and a pull station located at the FACP. New graphic maps at the annunciator and FACP are anticipated to be provided. This is anticipated to be a completely new system.

F. Lightning Protection Risk Assessment

a. The roof was not accessed during the initial site walk, but it is our understanding that there is not an existing lightning protection system.

TECHNOLOGY EXISTING CONDITIONS AND RECOMMENDATIONS

A. Telecommunications – Building Network Cabling

a. Existing Conditions
   - **i.** There are existing Telecommunication Rooms (MDF/IDFs) with full buildout of racks, ladder rack, wire-management and wall mounting ability.
   - **ii.** The structured cabling is a mix of generations with the large portion observed being comprised of CATEGORY 5E rated cable.
   - **iii.** The observed patch panels are modular.
   - **iv.** There are multiple locations where room furniture and/or use are not in optimal proximity to available outlets.

b. Recommendations
   - **i.** Racks, wire-management, penetrations, ladder rack and other associated infrastructure are functional and in-line with long-term use.
   - **ii.** Depending on changes to other systems, it may be necessary/recommended to add rack units to the specific locations (i.e., adding racking space where needed in specific IT rooms).
   - **iii.** It is recommended to upgrade the buildings cabling to CATEGORY 6 and CATEGORY 6A rated cable. CAT6 would be provided at all outlets and devices with the exception of Wireless Access Points (WAPs) and other specialty equipment where CAT6A is recommended. The upgrade would include new patch cables, horizontal cabling, j-hooks, RJ-45 jacks, surface mount boxes (Biscuit Jacks), and faceplates.
     1. The associated faceplates may be upgraded but aren't required in all locations.
     2. New cabling may reuse existing conduits, j-hooks, slings, cable tray, and penetrations as required. New infrastructure requirements are expected to be minimal for new cabling.
   - **iv.** The existing patch panels observed are modular and do not need replacement. Any CAT5E rated (non-modular) patch panels will require replacement.
   - **v.** It is recommended to evaluate outlet locations based on room functionality and furniture design.
     1. Room-by-room review would be required during design phase of new construction.
     2. Changes would require additional conduit and backbox locations. There may be net new changes to the number of network cables required in rooms/building.

B. Low Voltage – Paging System

a. Existing Conditions
   - **i.** System is functional and currently operational. System includes analog-based speakers and headend amplification components.
   - **ii.** Interaction at remote locations is observed to be through wall mounted phones and ceiling mounted speakers.
   - **iii.** All system components are previous generation.
   - **iv.** System installed in 2008.

b. Recommendations
   - **i.** System is near its end-of-life with most components incompatible with newer technology.
   - **ii.** It is recommended to replace system with new headend components.
     1. Cabling and speakers are subject to further review and may be able to be reused based on design of new system.
     2. New system should be IP based, zoned, and designed for 2-way communication via distributed intercoms.

C. Low Voltage – Audio Visual Systems - Classrooms

a. Existing Conditions
   - **i.** Classrooms are outfitted with 'Promethean' interactive white boards and integrated projector.
   - **ii.** There is no observable audio-enhancement.

b. Recommendations
   - **i.** Maintenance of 'Promethean' system is subject to ability to update/replace the integrated control unit. This is noted to be problematic. It is recommended that a new audio visual system be deployed to each classroom.
   - **ii.** New system should include display or projection system.
   - **iii.** New system should include audio enhancement through ceiling mounted speakers and integrated microphone (lapel type or similar) for presenter.
   - **iv.** Remote viewing and interaction for distance learning capabilities should be reviewed based on school's policies. Additional media capabilities may be required for distance learning.

D. Low Voltage – Audio Visual Systems - Gym/Stage

a. Existing Conditions
   - **i.** System functionality was not observed.
   - **ii.** Pathways, cabling, sound board, mounted speakers, and general components were observed and are functional.
   - **iii.** Current use of components involves mobile cart with projection and control capabilities, along with unmounted speakers, that tie into mounted speakers, existing screen, and sound control.

b. Recommendations
   - **i.** Improvement of system would include updating of system components and review of presentation abilities. Inclusions to upgrade system are as follows:
     1. New speakers mounted throughout gym/stage area.
     2. New lighting mounted in gym/stage area.
     3. New sound board.
     4. Mounted projector and updated projection screen.

E. Low Voltage – Clock/Bell System

a. Existing Conditions
   - **i.** Wireless atomic-based central clock system with clocks of different types distributed throughout building.

ii. Observed clocks require batteries for operation.

b. Recommendations

i. It is recommended to replace clocks as needed. Full system upgrade is not required.

F. Low Voltage – Cellular Service

a. Existing Conditions

i. There is average to below average cell phone service in most of the building. Some areas have minimal to no coverage.

ii. There is not a building wide Cellular DAS system observed in the building.

1. Notably, this is **not** the 'Emergency DAS' system. Review of the 'Emergency DAS' system was not in the scope of the Technology system review.

b. Recommendations

i. Cell phone coverage is a 'nice-to-have' in many cases. To leverage it for life-safety or general communications incurs the need to ensure all staff has certain cell phone capabilities. This could be an added expense that is infeasible or a simple work-flow issue.

ii. The addition of the system does provide another channel of communication in the building, specifically for making external calls in an emergency situation for both staff and student, so this could be a system to be reviewed further.

iii. Our recommendation is to discuss the cost and benefits further. This is a system that can be applied during general construction or as a future project. It is not a life-safety or required system but may be beneficial.

G. Security – Access Control System (ACS)

a. Existing Conditions

i. Current system is non-centralized with integrated lock-sets located at miscellaneous door locations.

ii. Credential information or past activity is only accessible through local interaction at each location via remote device wired to door for upload/download.

iii. There is not integration of system with other security systems.

iv. There is no 3rd party or offsite oversight of system.

1. Staff has mobile/email alerts only.

v. There are Intercoms, Door Releases, and proper egress requirements at entrance vestibules based on recent renovations.

1. System is functional, installation method has made penetrations and cabling visible. Solution is acceptable to client.

b. Recommendations

i. A centralized and integrated access control system is recommended. The new system would provide monitoring and/or control of all entry locations into and within the building.

ii. System would be integrated with video surveillance and intrusion detection systems through a single interface and control platform.

iii. New components would include credential readers, position switches, position sensors, control panels, software integration and associated door hardware components. Upgrade of doors may be required.

H. Security – Video Surveillance System (VSS)

a. Existing Conditions

i. Current surveillance is based on multiple camera types and coaxial based cabling.

ii. Camera interface is based on digital video recorders (DVRs) distributed throughout building. Locations are inconsistent both in locations and installation methods.

iii. System is not integrated with other security systems.

b. Recommendations

i. It is recommended to remove and replace all existing cameras and DVR equipment with IP based cameras and an NVR platform.

ii. System should be integrated with access control and intrusion detection systems through a single interface and platform.

iii. New components would include the addition of network cabling and network switches, along with new IP cameras and NVR units.

I. Security – Intrusion Detection System (IDS)

a. Existing Conditions

i. Current system is has offsite monitoring through Security Central. It is a Honeywell based system. Fire and IDS (burglar) are integrated into one another.

b. Recommendations

i. Honeywell can be integrated into many ACS and VSS, but Security Central will not monitor all systems. Need to determine if new ACS and VSS can be integrated with IDS and if Security Central will maintain monitoring.

ii. It is recommended to ensure the IDS, ACS, and VSS may integrate together. Updates to the existing IDS can be expected, at minimal to update hardware.

1. Further upgrades may be required based on who will be monitoring the systems and which ACS and VSS are chosen.

MASTER PLAN BUILDING EVALUATION - MECHANICAL

Mechanical Assessment Report

Envision Mechanical Engineers, Inc. received a request from Hord-Coplan-Macht to perform a brief study of the existing building's mechanical, plumbing and fire sprinkler systems at Academy of Charter school located at 11800 Lowell Blvd in Westminster. Prior to the walk a CDE report was provided to the team with a list of problematic areas within the building. Existing building floor plans were also provided to the team for review of the existing systems. The original building was constructed in 2005 with an addition put on in 2009.

Executive Summary

The heating ventilation and air conditioning (HVAC) system consists of eight (8) rooftop mounted air handling units that utilize dual service heating and cooling coils that were included as part of the original construction. The rooftop unit supporting the administration area utilizes direct expansion cooling only with no heating section. Three (3) gas fired heating rooftop units with direct expansion cooling were installed as part of the 2009 building addition at the northeast side of the building. Heating for the original portion of the building is accomplished through two (2) cast iron boilers with power burners and in-line boiler circulation pumps. These boilers were recently replaced. Cooling for the original portion of the building is accomplished through an air-cooled chiller located on the roof above the boiler room. The chiller is original to the building and should be replaced. Two (2) dual service, base-mounted pumps are located within the boiler room that circulate heating water or chilled water to the air handling units and duct mounted coils throughout the building. These pumps are original to the building and should be replaced.

The HVAC system for the original building utilizes a two-pipe changeover system where both heating and chilled water are circulated through the same set of pipes. The change-over coils within the rooftop equipment temper the air leaving the rooftop units and duct-mounted coils trim the air temperature to satisfy individual space requirements through temperature sensors within each space or zone being conditioned. This system historically allows for occupant discomfort during changeover seasons where heating in the morning and cooling in the afternoon are desired. Change-over can occur only after the system piping and equipment have cooled or warmed to a degree where the change-over will not damage system components. The changeover may occur automatically, or manually based on the set up of the system and control capability. To overcome the issues typically found in this type of system, major rooftop equipment changes are required including adding additional coils along with possibly an additional set of hydronic pipes and pump(s).

Roof mounted exhaust fans serve the restrooms, locker rooms, science room and kitchen. There were no reported issues during the assessment walk and no work is needed or recommended other than standard maintenance.

Miscellaneous equipment located throughout the building include hot/chilled water unit heaters and hot/chilled water cabinet unit heaters. These pieces of equipment are located at vestibules, equipment rooms, and the water service entry. No issues were identified as part of the assessment and no work is needed or recommended other than standard maintenance.

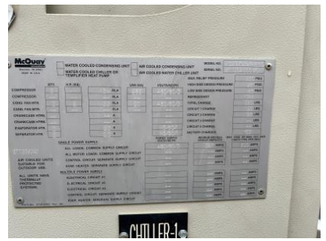
The plumbing facilities within the building are operating as intended. Water heating appliances for the main building have recently been replaced. The water heater supporting the kitchen is nearing its serviceable life and should be replaced. Other plumbing items should be considered as the system ages and are outlined in the text below.

The building has been provided with automatic fire sprinkler coverage throughout and is operating as intended.

Findings Documentation/ Back-up

Central Cooling:

- The chiller is a McQuay AGD-195C 166-ton chiller. The chiller was installed in 2005. The recommend service life for an air-cooled chiller per ASHREA is 20 to 25 years. The school has reported multiple cooling issues in different areas of the building. During the site walk, the school was having service done to the chiller. It is recommended that the chiller be replaced, and a cooling system load be completed on the building that is being served by the chiller to determine if the chiller is sized for the correct capacity. The cost for replacing the chiller will be approximately $250,000. Utilizing the Xcel Energy rebate program may offer some cost reduction assistance.



Central Heating:

- The boilers are Peerless cast iron units, each with a maximum input rating of 3,978 mbh. These boilers were put into service within the last 3 years. These boilers should have a remaining serviceable life of approximately 25 to 30 years.

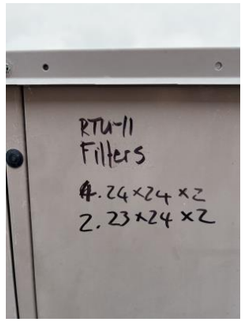
MASTER PLAN BUILDING EVALUATION - MECHANICAL

- The existing system pumps are constant flow, sized for 560 GPM and 95ft of head. The pumps appear to be original to the building. P-2 has had the motor replaced. As part of the below outlined scope; it is recommended that flows be taken at the system pumps to confirm the pump system is operating at full capacity. As the pumps are nearing the end of their serviceable life, replacement of the pumps should be considered with pumps incorporating variable frequency drives allowing for energy savings. The cost for pump replacement is approximately $40,000.

- The hydronic piping material is a combination of copper and steel. There were no reported issues with the piping within the building.

Air Handling:

- There have been reported heating and cooling issue with the three (3) packaged rooftop units that were installed in 2009 with the addition. These units are 13 years old and are reported to be having issues maintaining space temperatures. It is recommended to replace all three units with similar capacity equipment.
  - RTU-10- serves the gym; 14,010 CFM, 35 Tons of cooling
  - RTU-11- serves the weight room and lockers; 5,360 CFM, 15 Tons
  - RTU-12- serves classroom addition; 5,960 CFM, 15 Tons
- The cost for replacing the 3 units with similar size equipment is approximately $295,000.



- During the walk, the administration area was reported as being too cold in both the summer and the winter. RTU-4 serving the administration area was recently replaced in the last 5 years. This unit is a DX cooling only unit. It is recommended that the unit serving the admin area be rebalanced to ensure proper airflow and mixed air temperatures to this area are as initially specified. All hot water coil flows should be measured to confirm that hot water is being distributed to the coils for the heating season. Coil strainers should be serviced to ensure no flow blockage exists.
- The remaining air handling units on the roof are reported to be operating as intended. A system balance as mentioned below should be completed to confirm air flow quantities and temperatures are within acceptable tolerances when compared against the original specifications.
- The school has reported several rooms that are not able to meet setpoint when in cooling mode. As above, coil strainers should be serviced to ensure no flow blockage exists.
  - Area A- Classrooms 208, 209, 212, 213, 214 and 215.
  - Area C- Classrooms 173, 175, 228 and 229.

EME suggests that balancing readings be taken for both the air and water side within the school and compared against the originally specified flows. After a balance report is completed rebalancing of areas within the school that are outside the initial specifications, can be completed. The cost for rebalancing of the building HVAC is approximately $70,000- $90,000.

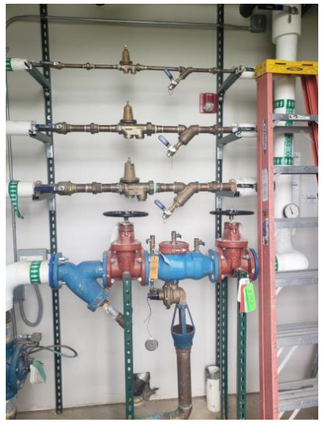
Temperature Controls:

- The existing temperature controls is a DDC system throughout the building. The control panel was recently upgraded to a JACE system. Tolan mechanical upgraded the system in the last 3 years. A new controls system is in place. Retro-commissioning is suggested for the building to confirm systems are running as designed for building efficiency and function. Specifically for the chiller and boiler two pipe system.

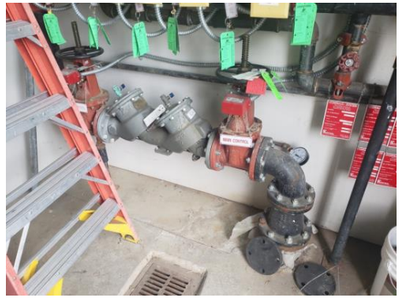
MASTER PLAN BUILDING EVALUATION - MECHANICAL

Utility Services:

- The domestic water service for the facility enters the building in the water entry room located and accessed through a single exterior door along the north wall of the building. A 3-inch domestic water service has been provided for the building. The domestic water meter is positioned within an exterior vault. The water service rises through the floor, where an emergency shut-off valve has been installed. The emergency valve is controlled through the main building reduced pressure principle backflow prevention device and is intended to close upon release of the backflow prevention device relief valve. The leads from the relief valve sensor are no longer connected to the valve and the valve is believed to be inoperable. No manual main building isolation valve has been installed. The backflow prevention device is a Zurn/Wilkins 3-inch device with the relief discharge piping extended to a floor sink. The emergency shut-off valve should be reconnected, or the valve should be removed and replaced with a manual isolation valve that will serve as the main building isolation valve. The cost for replacing the valve with a manual vale will be approximately $2,500.
- Water pressure entering the building was approximately 132 psig. A pressure reducing station has been installed to reduce the distribution pressure within the building to approximately 70 psig. No system deficiencies were reported by school staff. Serviceable life for the backflow prevention device and pressure reducing valves is approximately 15 years. It is recommended that the facility begin planning for the replacement of these components within the next 5 years with an approximate cost of $70,000.



- A 6-inch fire service enters the building in the same space as the domestic water service. The fire service has been provided with a 4-inch double check valve assembly for backflow prevention. Six (6) fire sprinkler zones have been provided to provide automatic fire sprinkler coverage throughout the building. Each zone has been provided with a zone control valve with integral tamper switch and flow switch as part of a standard test and drain configuration. The isolation valves at the backflow prevention device have also been provided with tamper switches. Facility staff reported no concerns with the roof drainage system. Serviceable life for the backflow prevention device is approximately 15 years. It is recommended that the facility begin planning for the replacement of this device within the next 5 years with an approximate cost of $10,000.



- The sanitary building drainage for the building exits along the west wall, just north of the main building entry. A 6-inch sanitary sewer service has been provided with 6-inch branch connections extending north and south within the building. No system flow deficiencies were reported by school staff. Sewer gas odors have been noticed in the locker rooms and the north and south classroom wings. From plan documentation, trap seal priming devices or barrier type trap seal protection does not appear to have been provided. Trap seal replenishment should be an on-going maintenance consideration to ensure the P-trap seal water is available to prevent sewer gas from escaping into occupied areas. We recommend that all general-purpose floor drains within toilet rooms and the locker room areas be provided with barrier type trap seal protection devices to limit trap seal loss through evaporation with an approximate cost of $3,500.
- The roof drainage system collects storm water from the roof through roof drains that are piped to the below floor storm drainage system. The below floor storm drain extends from the north wing and exits the building at the south wall through an 18-inch storm drain pipe. Overflow drainage is accomplished through a combination of parapet scuppers and overflow roof drains. Overflow roof drains where provided, discharge to the exterior of the building, approximately 12-inches above grade elevation. Facility staff reported no concerns with the roof drainage system.
- Natural gas is being supplied to the building through an Xcel gas meter and service, located along the south wall of the mechanical equipment room. The delivery pressure to the building is listed as 14-inch water column. A line pressure regulator has been provided for the piping extending to the kitchen equipment and science suite. All equipment located within the mechanical equipment room has been provided with 14-in water column gas pressure to the appliance inlet connection. Gas valve controls have been provided at the science suite, though it appears that the prep room has not been provided with individual control requiring one lab to be active while work is being performed within the prep room. Facility staff reported no concerns with the natural gas distribution system. Operation and use of the prep room natural gas outlet should be confirmed to coincide with occupancy and use of the adjacent lab space. If non-concurrent use is desired, a separate gas valve and gas valve control station should be provided to support the prep room only with an approximate cost of $7,500.

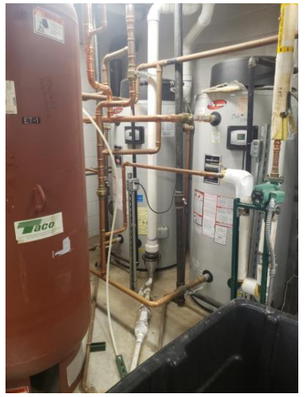
MASTER PLAN BUILDING EVALUATION - MECHANICAL

Plumbing Equipment and Fixtures:

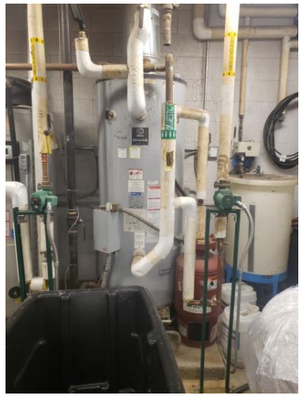
- The domestic hot water for the building is generated and stored in three (3) gas fired storage type water heating appliances. Two (2) of the storage heaters are dedicated to the building wide hot water distribution system. The remaining storage heater is dedicated to the kitchen area.

  The building water heaters were recently replaced and should have a serviceable life of approximately 15 years remaining. These units have a listed storage capacity of 119 gallons each and both units have an input rating of 499,999 btu/h. This system has an overall capacity to produce approximately 900 gallons of 140-degree F water per hour. The connection leading to the expansion tank supporting this system has been connected upstream of the system check valve, defeating the purpose of the expansion tank. This connection should be revised to occur downstream of the check valve, allowing for heated water to expand into the expansion tank with a cost of approximately $2,000.

  This system incorporates a master thermostatic mixing valve that is positioned on the adjacent wall, approximately 8’-0” above the floor, making it difficult to service. The master mixing valve is scheduled to temper the hot water delivered to the building down to 110 deg. F. Point of use mixing valves do not appear to have been provided at individual fixture connections. A single in-line circulation pump has been installed to circulate the system to maintain water temperature in the remote areas of the building. No automatic controls have been provided and the pumps appear to run continuously. The master mixing valve is believed to be original to the building and is at the end of serviceable life. Replacement of the master mixing valve should be anticipated within the next five years at an approximate cost of $10,000.



The water heater dedicated to the kitchen has an approximate storage capacity of 120 gallons with 500,000 btu/h natural gas input. Nameplate data indicates the unit can produce 485 gallons of 140-degree F water per hour. This system was manufactured in 2013 and should have a serviceable life of approximately 5 years remaining. A single in-line circulation pump has been installed to circulate the system to maintain water temperature in the remote areas of the building. No automatic controls have been provided and the pumps appear to run continuously. This water heater should be replaced with a high efficiency unit like those installed for the building system. The cost for replacement, including flue and combustion air revisions is approximately $60,000.

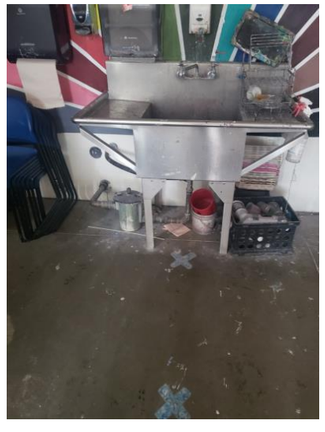


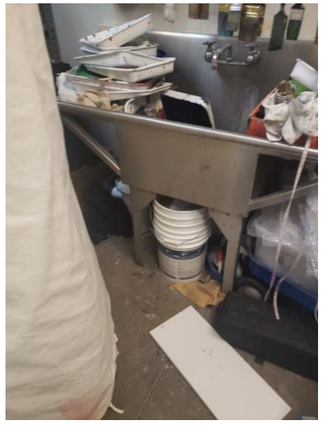
A water softener system has been installed and supports only the hot water for the building and kitchen. The softener was not originally included as part of the system and no documentation is available. All hot and cold-water piping supporting the water softener and water heating appliances should be reinsulated according to the latest International Energy Conservation Code requirements with an approximate cost of $3,000.

Facility staff indicated that hot water temperatures are inconsistent at fixture outlets. A review of the plan documentation indicates that the circulation loop connections vary in proximity to the final fixtures served. This may create excessive wait times for delivery of hot water to the fixture outlets. To overcome this issue, the circulation loops should be extended to within 2'-0" of the fixture supply connections or self-regulating heating cable should be installed on the hot water supply piping, not currently being circulated. This is not an urgent issue and should only be performed if major renovations are planned for the building, including toilet room finish and fixture upgrades.

- Art Classrooms:

  The art classroom has been provided with a single compartment sink and includes a solids interceptor on the drain line prior to discharging to the building drainage system. The interceptor installed is of limited capacity and should be serviced at least weekly as sink usage occurs. The Darkroom has been converted into what appears to be a scene shop for the stage. A single compartment sink has been provided in this space and has been fitted with a similar size solids interceptor.





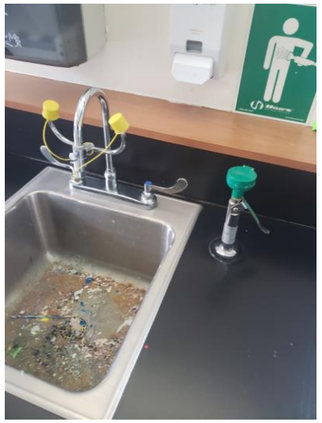
A trench drain has been installed to collect waste materials associated with pottery wheels or clay work surfaces. The trench drain grating did not appear to be heel-resistant and could allow for a trip hazard to exist. A hose bib has been installed adjacent to the sink allowing for washdown of the area and clearing of the trench when needed. New grating is recommended for the trench drain sections with an approximate cost of $1,000. A solids interceptor has been installed below the floor line and is accessible through a bolt-down cover. The bolt-down cover makes servicing the interceptor difficult and should be replaced with a keyed hatch with an approximate cost of $3,500.

- Science Lab Spaces:

  Science lab and science classroom sinks were all noted as being stainless steel. The sinks located within the chemistry classroom are showing signs of deterioration and should be replaced with an allowance of $2,000 per sink bowl.

State health code requires that emergency fixtures be provided where corrosive or irritating chemicals are used. The regulations stipulate that the devices must meet the requirements of ANSI Z358.1 and include an eye/face wash unit along with a drench shower unit. The deck mounted body spray appears to be compliant but is not considered a drench shower. The faucet mounted eyewash unit could not be confirmed as compliant with the ANSI criteria. Recommend that new emergency equipment be installed in all areas where corrosive or irritating chemicals are used, meeting the requirements of the State rules and regulations governing schools. The cost for incorporating this recommendation should be approximately $10,000 per space with three spaces impacted for a total of $30,000.

MASTER PLAN BUILDING EVALUATION - MECHANICAL

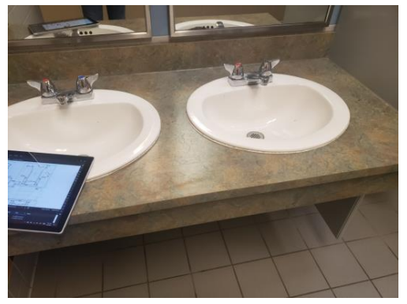


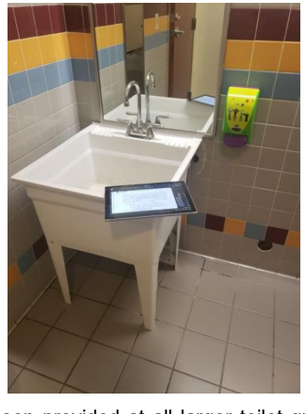
Where chemicals are being used, it is recommended that neutralization or dilution tanks be provided to protect the drainage system from corrosion caused by the disposal of materials that may damage the piping system. These devices would replace the standard P-traps currently installed. The cost for incorporating neutralization into the chemistry classroom and adjacent prep room would be approximately $12,000.

- Plumbing Fixtures:

  Plumbing fixtures throughout the facility are in good condition. Wall hung water closets have been provided at all the major toilet groups. Floor mounted water closets have been installed within staff toilet rooms and other areas where a single water closet has been installed. All flush valves are manual style. Closet bolts were exposed and bolt caps missing in several of the floor mounted locations.

Wall mounted and counter style lavatories have been provided in a majority of the toilet rooms. Manual faucets have been provided. Point of use mixing valves do not appear to be present. A single wall hung lavatory has been replaced with a utility sink in Toilet room 181A. The utility sink is not considered accessible.

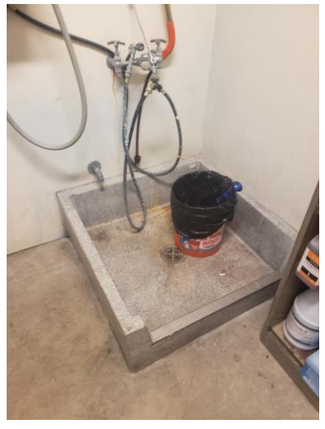




Wall hung urinals have been provided at all larger toilet groupings. Manual flush valves have been installed.

MASTER PLAN BUILDING EVALUATION - MECHANICAL

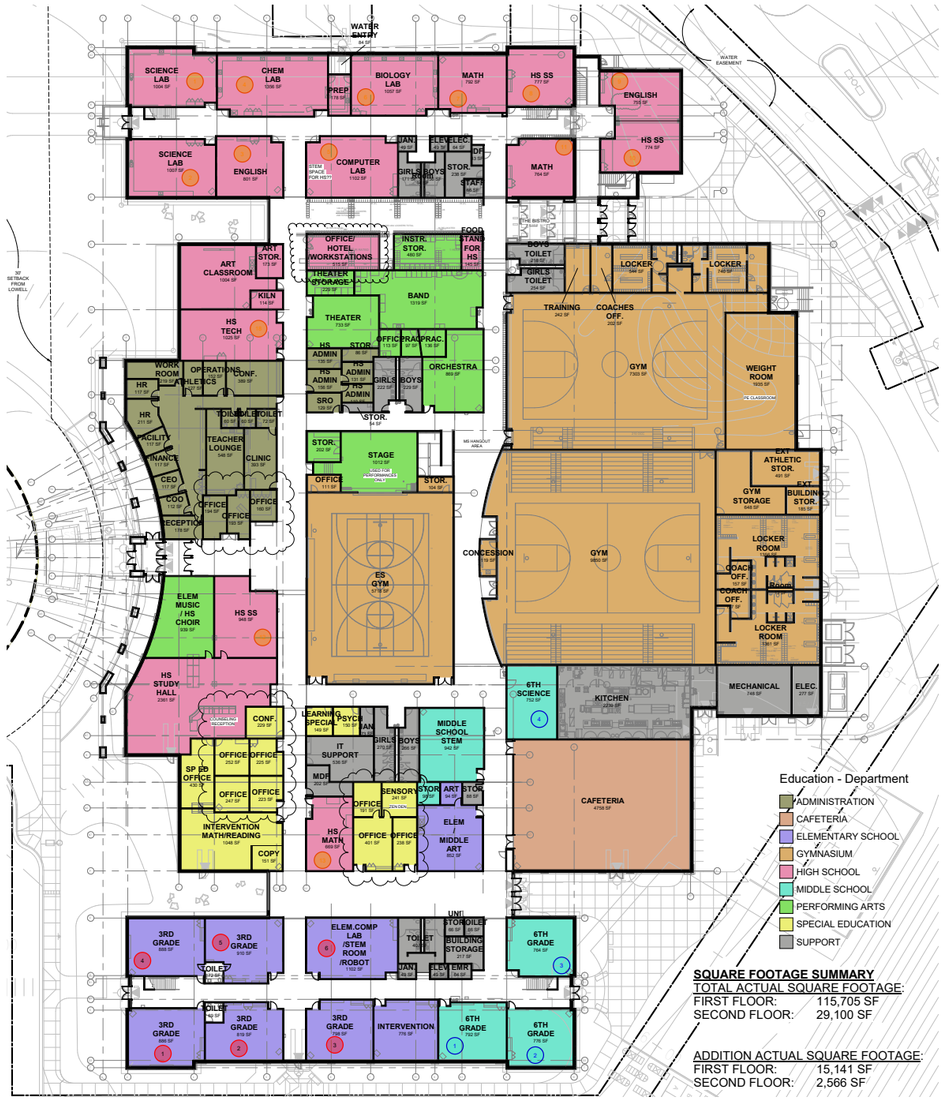
Mop service basins have been positioned around the building. Cleaning chemical dispensers where installed have been connected to the mop sink faucets with a controlled wye fitting. Mop sink faucets are provided with atmospheric vacuum breakers that are not approved for constant pressure applications. It is recommended that the controlled wye fitting be replaced with a diverting only wye fitting, requiring the faucet to be closed when water is not being used. This will eliminate possible contamination of the potable water system from the chemical tower as well as minimize the potential of cross over from the hot water distribution into the cold-water distribution system.



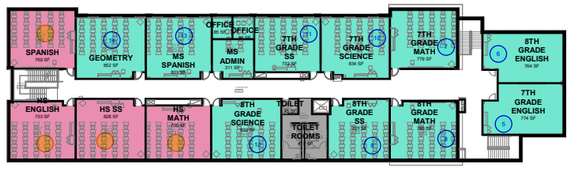
A combination of electric water coolers with bottle fillers and non-refrigerated drinking fountains have been provided throughout the facility. All these fixtures have been made unusable due to the on-going pandemic concerns. As code continues to stipulate the requirement for drinking fountains, elimination of these fixtures will not comply. The addition of bottle filling stations may be advisable. A typical bottle filling station along with wall and piping modifications necessary to comply with current code is approximately $5,000.

PHASE 02: COMPILE

EXISTING FACILITY REVIEW - BUILDING UTILIZATION & EDUCATIONAL NEEDS



FIRST FLOOR PLAN - Existing Building



SECOND FLOOR PLAN - Existing Building

ES ROOMS CURRENT: 15
ES ROOMS NEED: 15
(Three grades of 150 students/grade)
-SCIENCE
-STEM
-MUSIC
-ART

MS ROOMS CURRENT: 14
MS ROOMS NEED: 18
(Three grades of 150 students/grade)
- MS STEM
-Additional need includes (2) flex rooms

HS ROOMS CURRENT: 18
HS ROOMS NEED: 18
(Four grades of 150 students/grade)
- ART
- STUDY HALL
- BAND / ORCHESTRA / THEATER

EXISTING FACILITY REVIEW - BUILDING NEEDS

1 Furniture upgrade
2 Flooring carpet replacement
3 Signage & graphics for wayfinding and school pride
4 Paint refresh throughout building
5 Technology to upgrade promethium boards
6 Increase toilet capacity
7 Resurface stucco
8 North and south classroom wing slab movement

EXISTING FACILITY REVIEW - SITE NEEDS

1 Improve or replace existing playground equipment

2 Provide shade structures at playground and exterior area east of Cafeteria

3 Replace existing hard play surface and consider installing a small athletic turf area for play.

4 Repair drainage along the west side of the baseball field.

5 Resurface and re-stripe existing parking lots.

6 Repair grading and paving at elevated crosswalk at northeast parking lot drive.

7 Repair block site retaining wall on west side of building.

EXISTING FACILITY REVIEW - MECHANICAL AND ELECTRICAL NEEDS

1 Re-lamp Existing Light fixtures with LED lamps for energy savings and consider replacing 2x4 troffers with new LED fixtures for improved illumination. Replace lighting controls in any spaces where lights are replaced.

2 Upgrade building cabling to CAT 6 and CAT6A rated cable at all outlets and devices.

3 Intercom/phone is at the end of life with most components incompatible with new technology. Replace headend components.

4 New fire alarm with voice evacuation will need to be installed with building addition or major renovation.

5 Security access control, video surveillance and intrusion control systems should be integrated though a single interface and control platform.

`6 The existing air-cooled chiller is original to the building and should be replaced. Cooling system load should be completed to confirm chiller size/capacity.

7 Two pumps in the boiler room that circulate hot or cold water to the air handling units should be replaced with pumps having VFD for energy savings.

8 Three package rooftop units installed in 2009 are reported to have issues with maintaining space temperatures and should be replaced. These are RTU-10, 11 and 12.

9 Conduct retro-commissioning of mechanical system. Take balance readings for the mechanical system and compare to original flows. Rebalance system as needed for better space comfort.

10 Replace shut off valve for domestic water supply at backflow preventer.

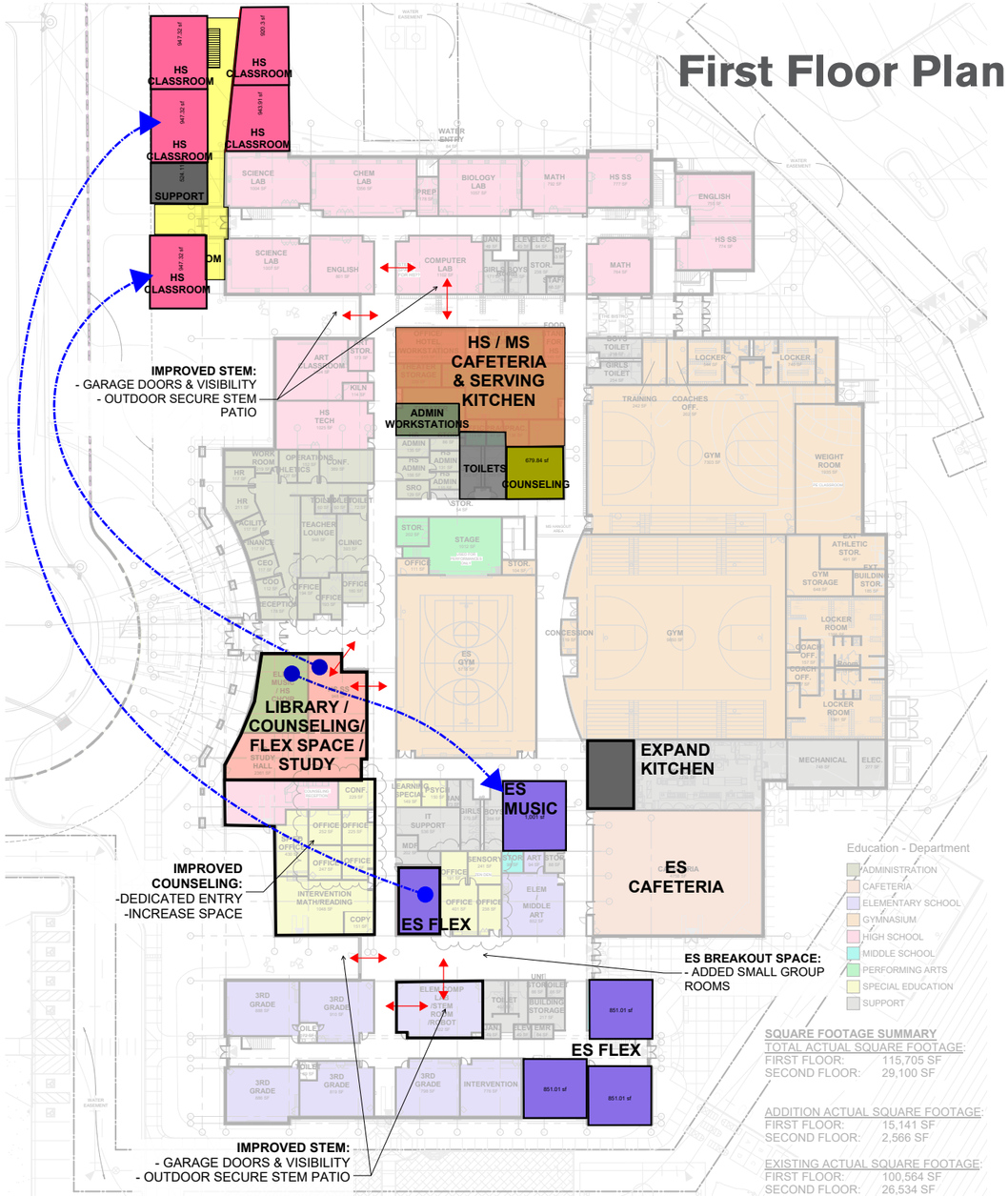
11 Replace deteriorated stainless-steel classroom sinks in Science classrooms. Install current code compliant eyewash and showers in science labs. Add acid neutralization systems to science labs.

12 Service/replace fume hood between science labs in prep room.

PHASE 03: DEVELOP

PRELIMINARY OPTION 01 - RENOVATION AND ADDITION

First Floor Plan



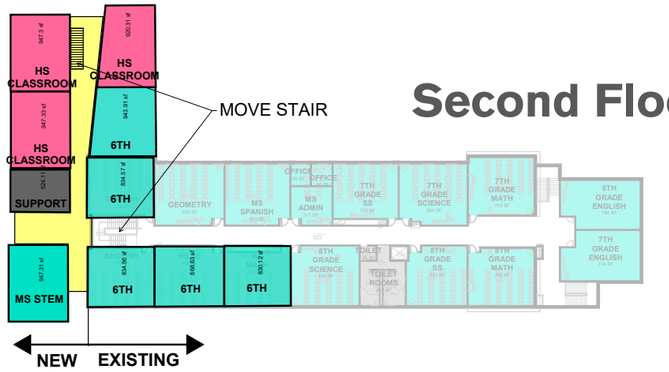
SQUARE FOOTAGE SUMMARY

TOTAL ACTUAL SQUARE FOOTAGE:
FIRST FLOOR: 115,705 SF
SECOND FLOOR: 29,100 SF

ADDITION ACTUAL SQUARE FOOTAGE:
FIRST FLOOR: 15,141 SF
SECOND FLOOR: 2,566 SF

EXISTING ACTUAL SQUARE FOOTAGE:
FIRST FLOOR: 100,564 SF
SECOND FLOOR: 26,534 SF

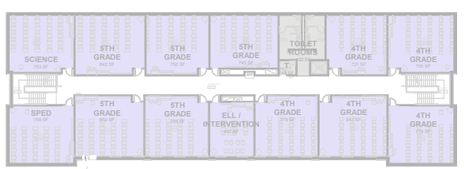
Second Floor Plan



ADMINISTRATION
CAFETERIA
ELEMENTARY SCHOOL
GYMNASIUM
HIGH SCHOOL
MIDDLE SCHOOL
PERFORMING ARTS
SPECIAL EDUCATION
SUPPORT

Notes:

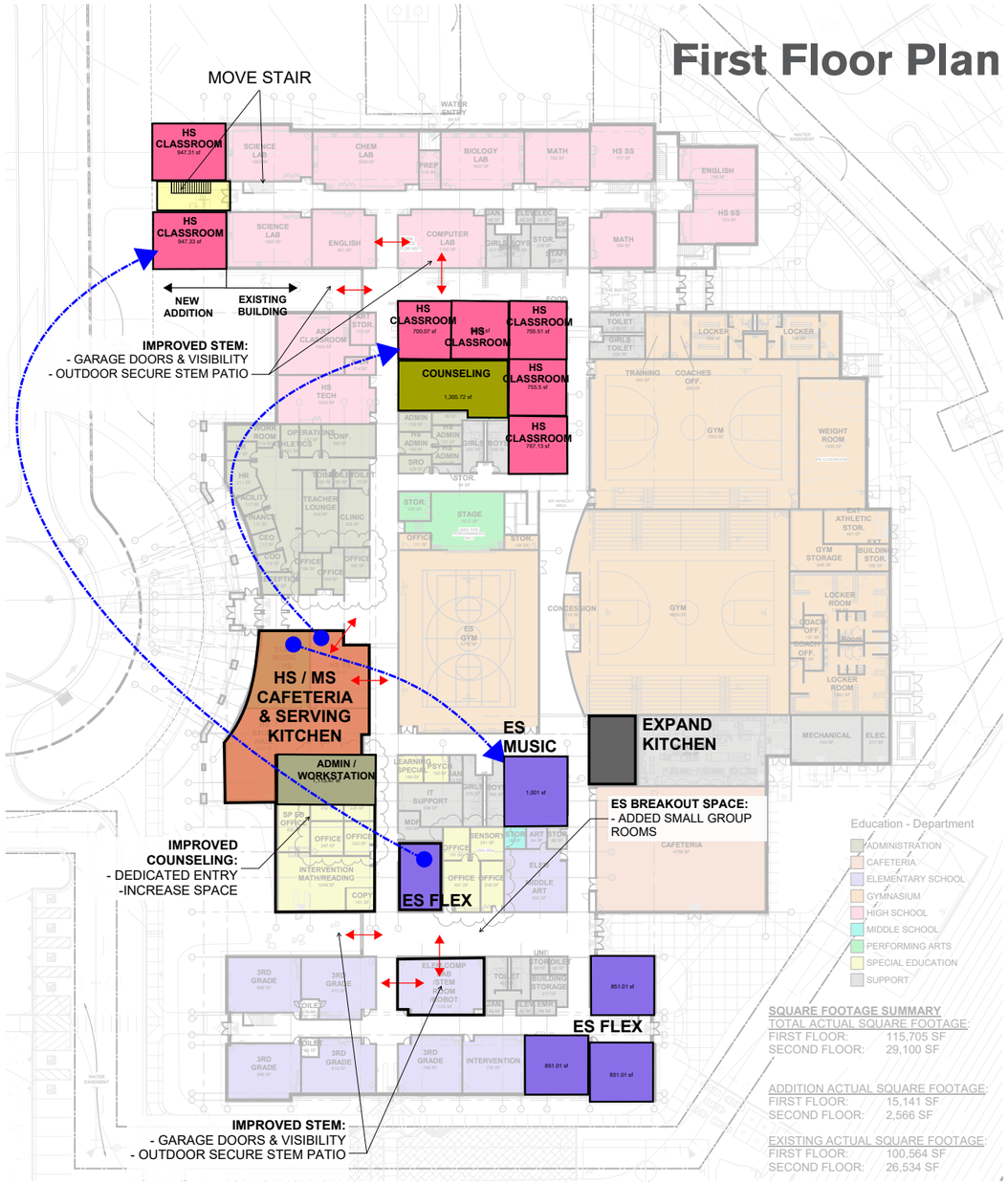
1. Combines Middle School
2. All new / renovated classrooms have natural daylight
3. (2) New HS Classrooms, (1) New MS classroom, (4) ES Flex rooms



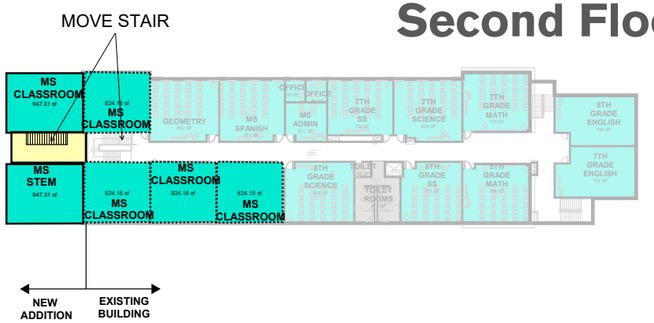
Total New Gross SF: 13,000-14,000SF

PRELIMINARY OPTION 02 - RENOVATION AND ADDITION

First Floor Plan



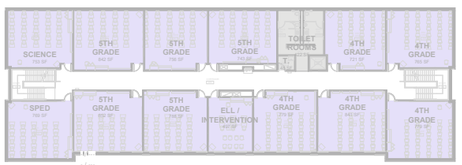
Second Floor Plan



ADMINISTRATION
CAFETERIA
ELEMENTARY SCHOOL
GYMNASIUM
HIGH SCHOOL
MIDDLE SCHOOL
PERFORMING ARTS
SPECIAL EDUCATION
SUPPORT

Notes:

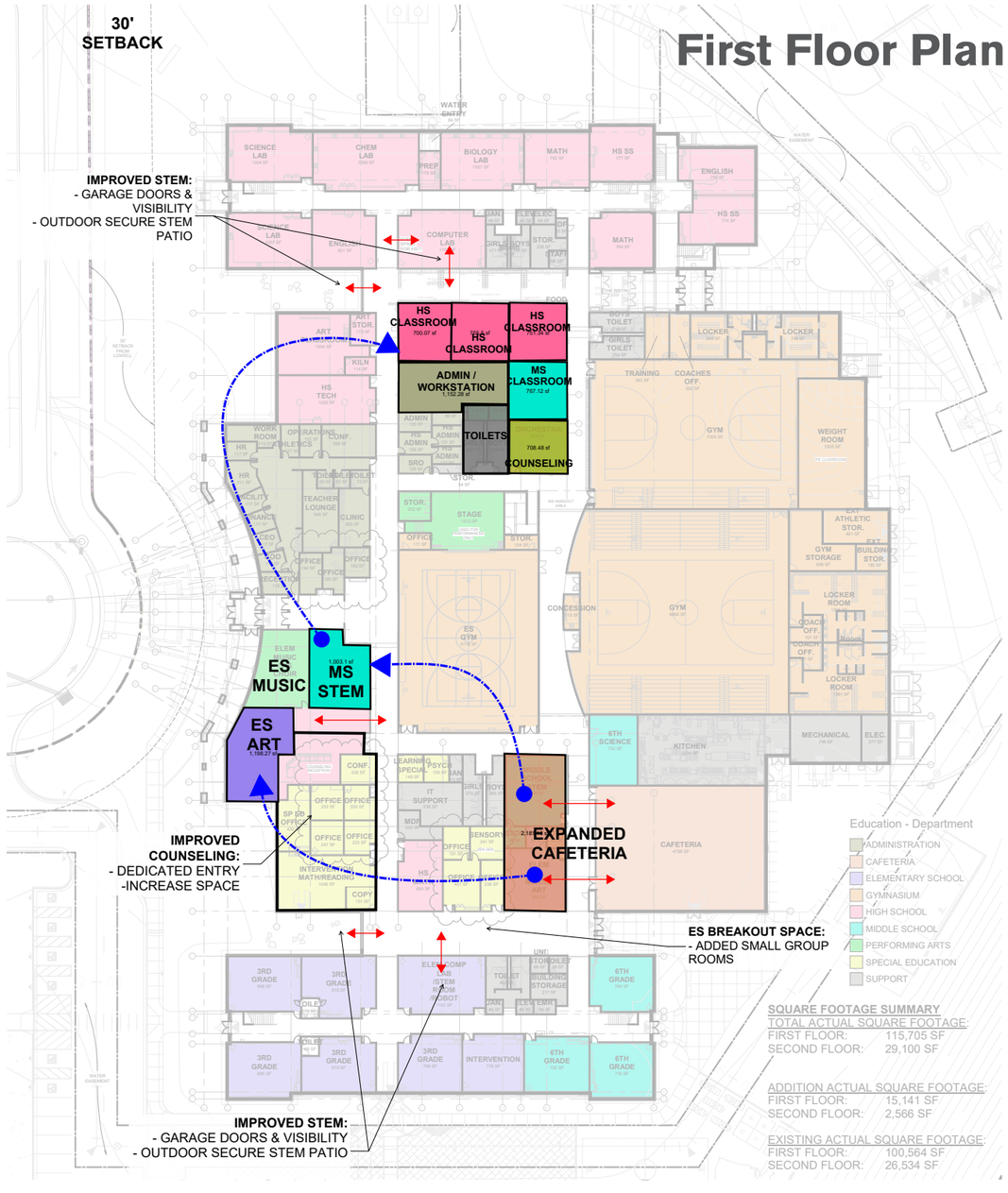
1. Dont build maximum classroom addition in phase 1
2. Combines Middle School
3. Classrooms without access to natural daylight
4. (1) New HS Classroom, (1) New MS classroom, (4) ES flex rooms



Total New Gross SF: 4,800-5,500 SF

PRELIMINARY OPTION 03 - RENOVATION AND ADDITION

First Floor Plan



- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
- HIGH SCHOOL
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

Education - Department
ADMINISTRATION
CAFETERIA
ELEMENTARY SCHOOL
GYMNASIUM
HIGH SCHOOL
MIDDLE SCHOOL
PERFORMING ARTS
SPECIAL EDUCATION
SUPPORT

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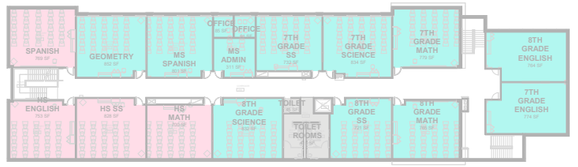
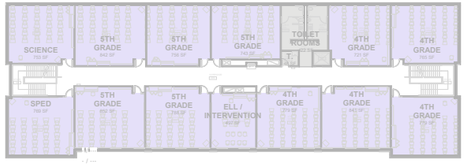
Second Floor Plan





Notes:

1. Dont build classroom addition in phase 1
2. Does not combine Middle School
3. Classrooms without access to natural daylight
4. (2) New HS Classrooms, (1) New MS classroom

BUILDING PROGRAM - COMMUNITY CENTER / PERFORMING ARTS

The Academy Performing Arts
Program DRAFT

	EXISTING						PROPOSED NEW						
	BUILDING AREA			STUDENT CAPACITY			BUILDING AREA			STUDENT CAPACITY			
	# OF RMS.	NET AREA	TOTAL AREA	# OF TS	# OF STUDENTS / TS	TOTAL # OF STUDENTS	# OF RMS.	NET AREA	TOTAL AREA	# OF TS	# OF STUDENTS / TS	TOTAL # OF STUDENTS	COMMENTS
Performing Arts													
Multi Purpose House with Moveable Seating							1 @	5000	5,000				Seating for 500. Flat floor.
Stage							1 @	2000	2,000				
Dressing Rooms							2 @	300	600				
Dressing Room Storage							1 @	100	100				
Dressing Room Toilets							2 @	75	150				
Theater Storage / Scene Shop							1 @	400	400				
Lobby							1 @	1500	1,500				
Instrumental Storage	1 @	480	480				1 @	500	500				
Band Classroom	1 @	1320	1,320				1 @	1400	1,400				
Theater Classroom	1 @	733	733				1 @	800	800				
Band Office	1 @	113	113				1 @	125	125				
Band Practice Room	2 @	97	194				2 @	100	200				
Orchestra	1 @	870	870				1 @	900	900				
Office							2 @	100	200				
Staff Toilet							1 @	75	75				
Custodial Closets							2 @	90	180				
Building Mechanical and Electrical							2 @	350	700				
Public Toilets							2 @	400	800				
Subtotal			**3,710 S.F.**	**0**	**TS**	**0**			**15,630 S.F.**	**0**	**TS**	**0**	
NET BUILDING AREA			**3,710 S.F.**	**0**	**TS**	**0**			**15,630 S.F.**	**0**	**TS**	**0**	
CIRCULATION AREA			-						4,376				
TOTAL GSF of BUILDING AREA			**- S.F.**	**Current Actual Gross**					**20,006 S.F.**				

19,000-21,000SF

THE ACADEMY OF CHARTER SCHOOLS

PHASE 04: REFINE

FINAL MASTER PLAN PRIORITIES

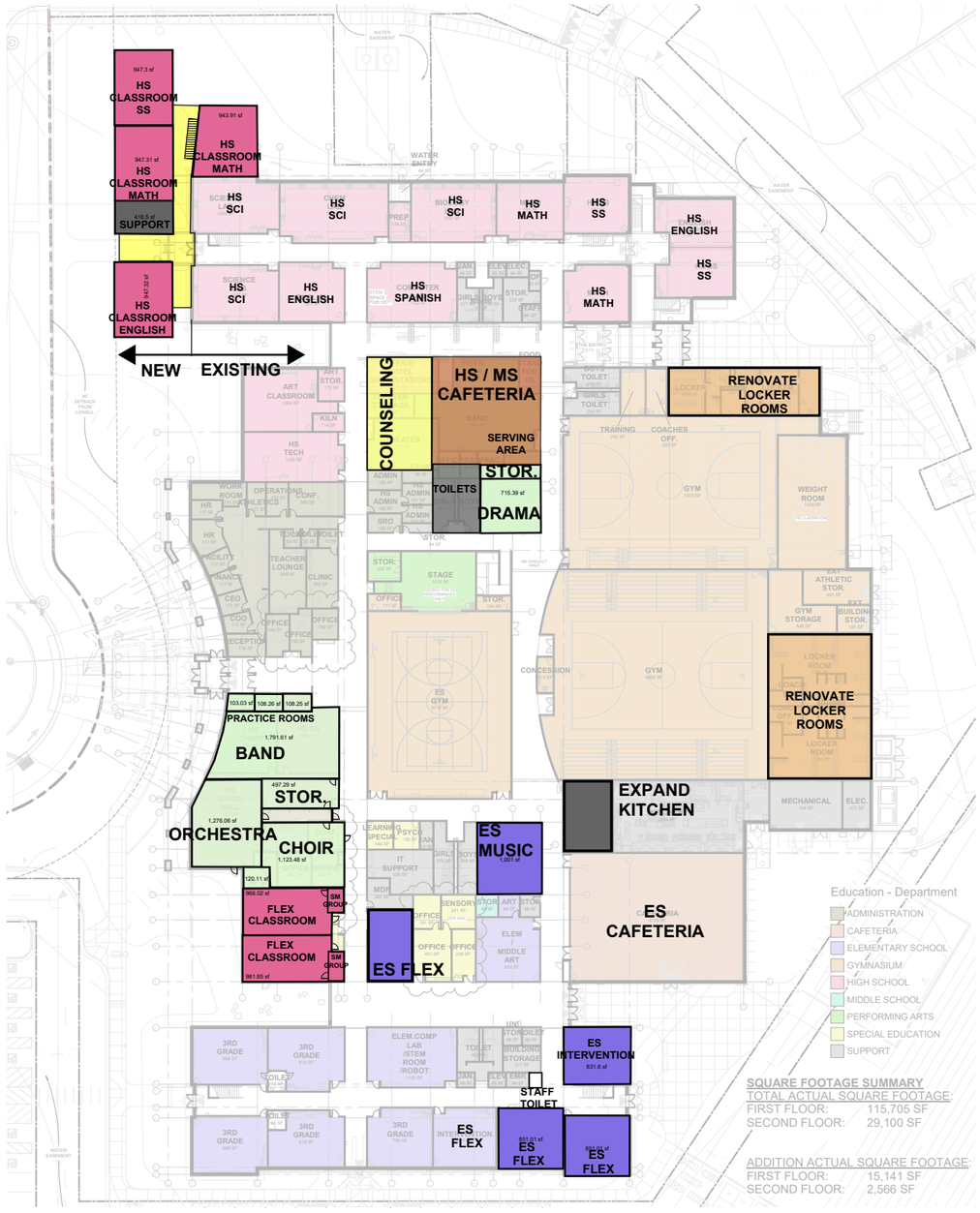
Current/Short Term Needs (1-4 Years)	**Medium Term Goals** (3-6 Years)	**Long Term Wishlist** (5-10+ Years)
HVAC Repair/Replacement • RTUs • Chiller Roof Repair MC Playground Replacement • Fence • Play Structure NC Playground Improvements • Artificial Turf • Blacktop MC Carpet Replacement MS/HS Classroom Furniture Phone Link Upgrade Sprinkler Repair Chromebook Purchases *Cross-Reference CDE Report*	Additional Classrooms (6-10) • HS Tech • Traveling Teachers • Middle School Hallway Secondary Cafeteria Performing Arts Classrooms Counseling/WBL Space Athletics Facility Upgrade Gender Neutral Bathrooms Locker Room Renovation Kitchen Expansion **Need to Prioritize**	Auditorium/Event Space Elementary Makerspace Secondary Makerspace Pre-K Expansion

SHORT TERM NEEDS

- Main Campus HVAC Repair/Replacement
  - Replace RTU 10, 11, 12
  - Replace existing air cooled chiller
- Main Campus Roof Replacement
- Main Campus Playground Replacement
  - 8’ Vinyl coated chain link fence around playground
  - Replace existing Play Structures
- North Campus Playground Improvements
  - Artificial Turf
  - Blacktop
- Main Campus Carpet Replacement in all rooms
- MS/HS Classroom Furniture Replace
- Main Campus upgrade cabling to CAT 6 and CAT6A rated cable at all outlets and devices & Upgrade phone headend equipment.
- Main Campus Sprinkler Repair
- Chromebook Purchases

MEDIUM TERM GOALS - RENOVATION AND ADDITION

FIRST FLOOR PLAN - Existing Building

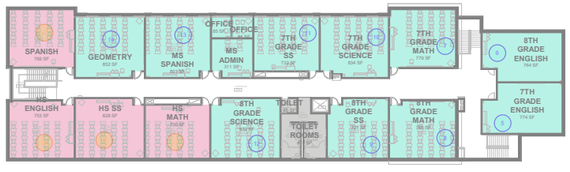


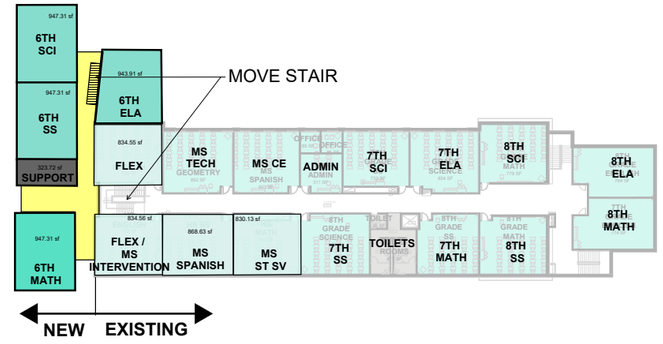
FIRST FLOOR PLAN - Final Master Plan

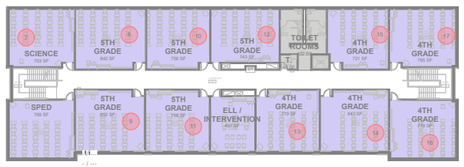
- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
- HIGH SCHOOL
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

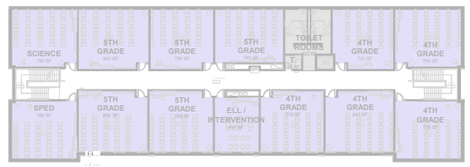
THE ACADEMY OF CHARTER SCHOOLS

MEDIUM TERM GOALS - RENOVATION AND ADDITION









- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
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- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

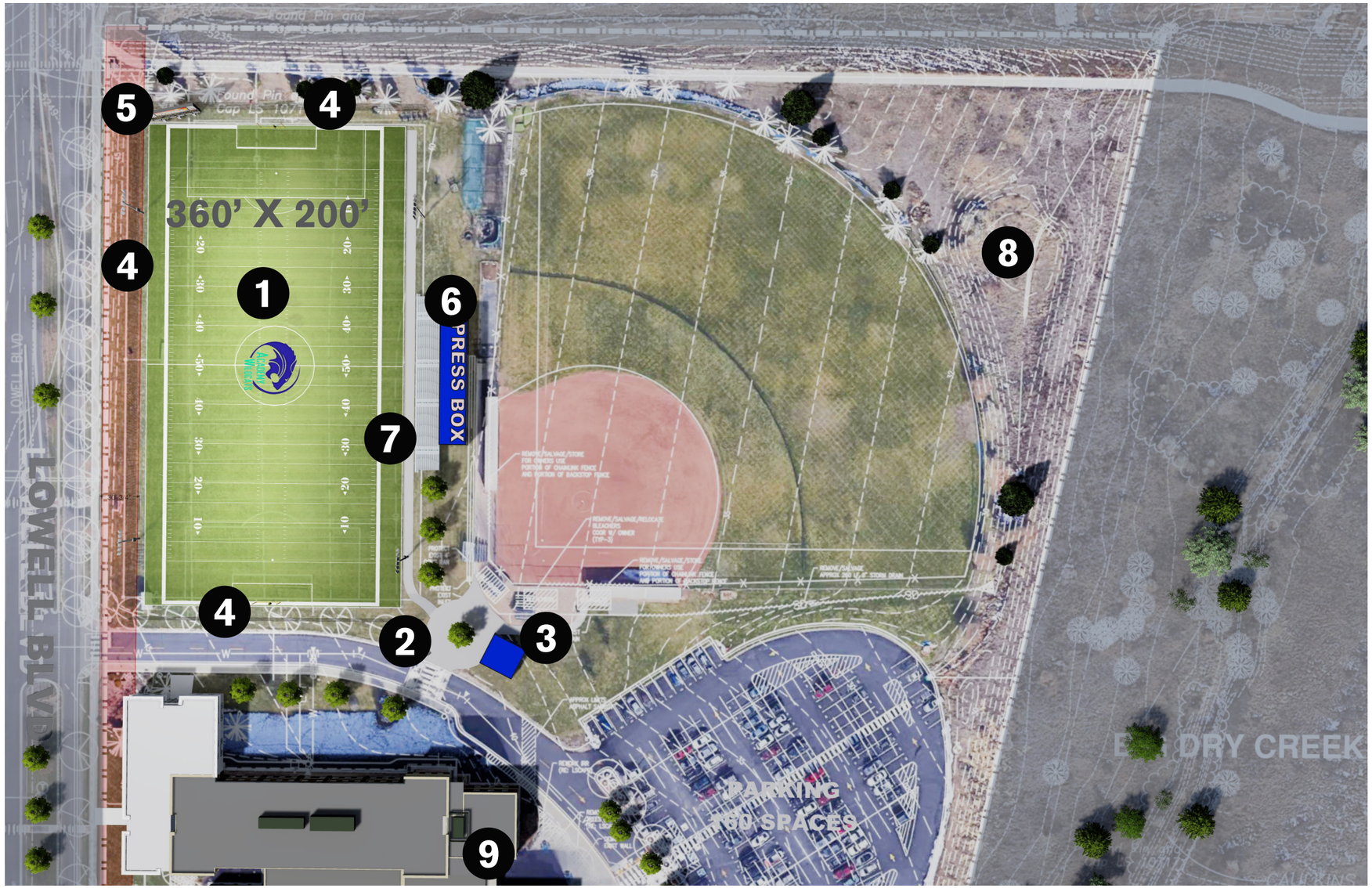
SECOND FLOOR PLAN - Existing Building

SECOND FLOOR PLAN - Final Master Plan

MEDIUM TERM GOALS - RENOVATION AND ADDITION - RENDERINGS

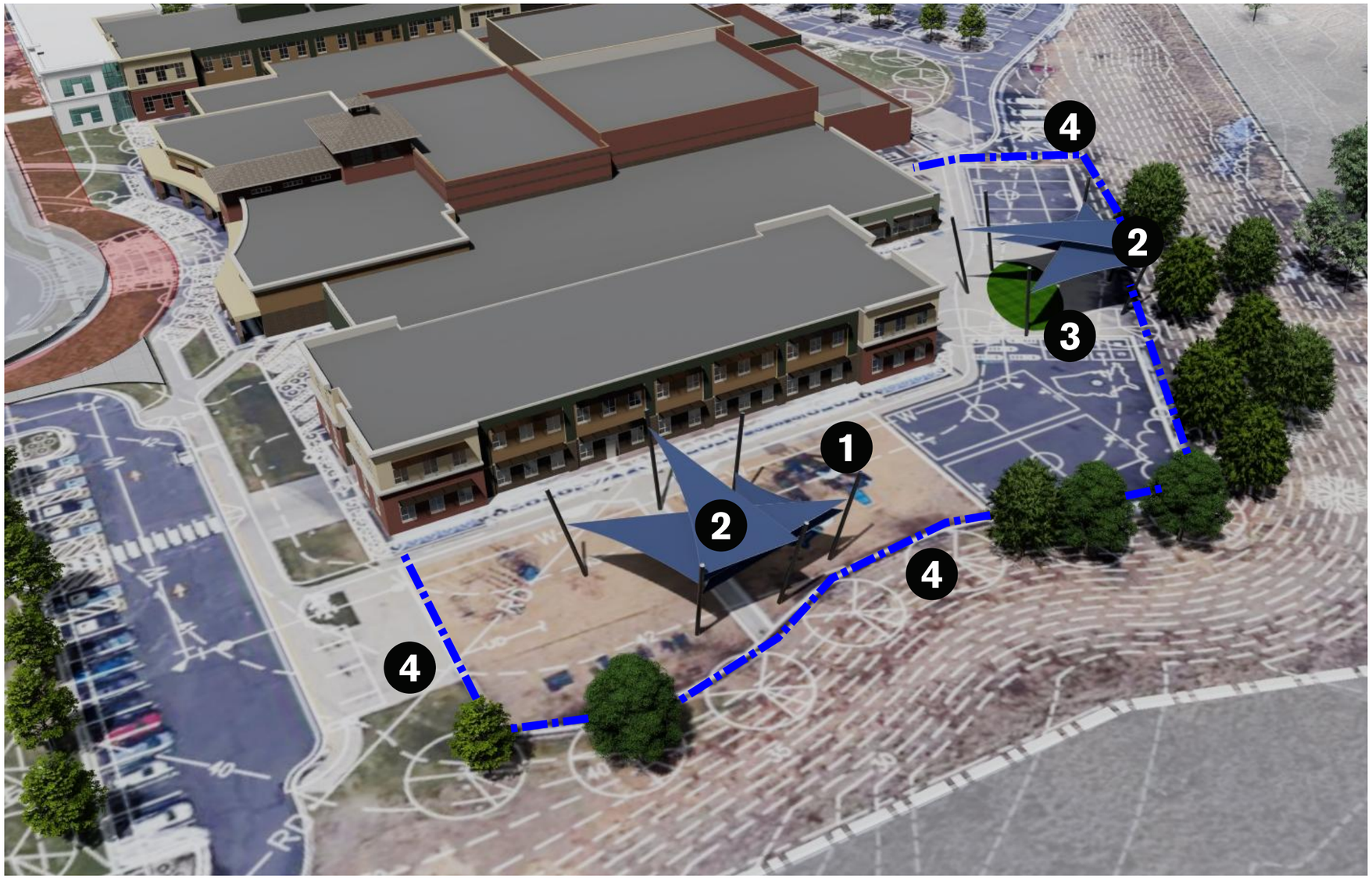
MEDIUM TERM GOALS SITE PLAN - ATHLETICS

1. Synthetic Turf Field, drainage, shock pad & crumb fill, regrade with retaining walls
2. New entry plaza
3. Concessions
4. 20-30’ tall netting
5. New scoreboard with branding to 120th
6. New press box
7. Bleacher seating for 600 spectators
8. Stormwater detention pond increase
9. Use existing toilets within 500’ of bleachers

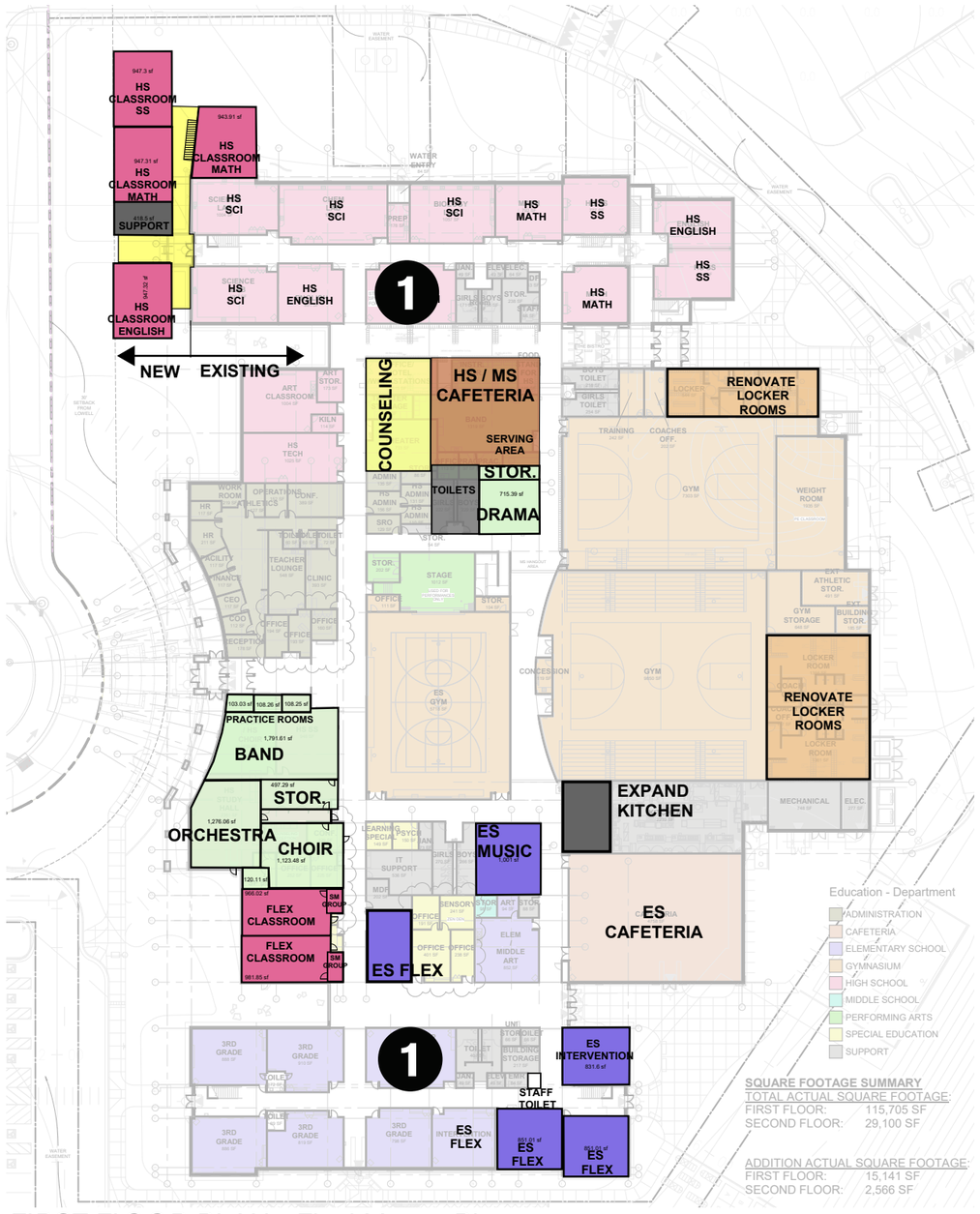


MEDIUM TERM GOALS SITE PLAN - PLAYGROUNDS

1. New and upgraded play equipment (see short term needs)
2. Shade structures. Fixed or fabric
3. Artificial Turf Play Area
4. Continuous fence around perimeter of playground (see short term needs)



LONG TERM GOALS - RENOVATION AND ADDITION



FIRST FLOOR PLAN - Final Master Plan

1 Expand existing elementary and secondary STEM rooms. Provide openings from STEM rooms to corridor / breakout spaces and add small group spaces.

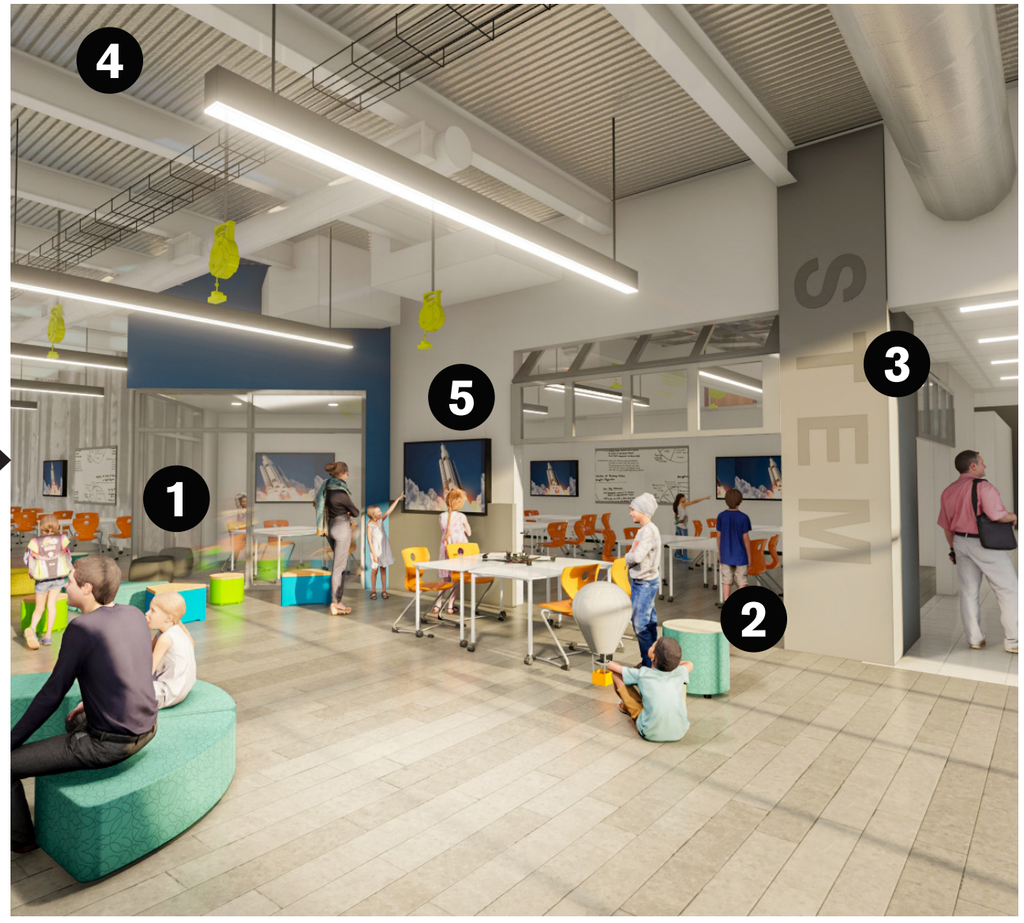
Note: See medium term goals for all other addition and renovation scope.

- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
- HIGH SCHOOL
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

LONG TERM GOALS - RENOVATION AND ADDITION

Existing Elementary Breakout

Potential Elementary Breakout



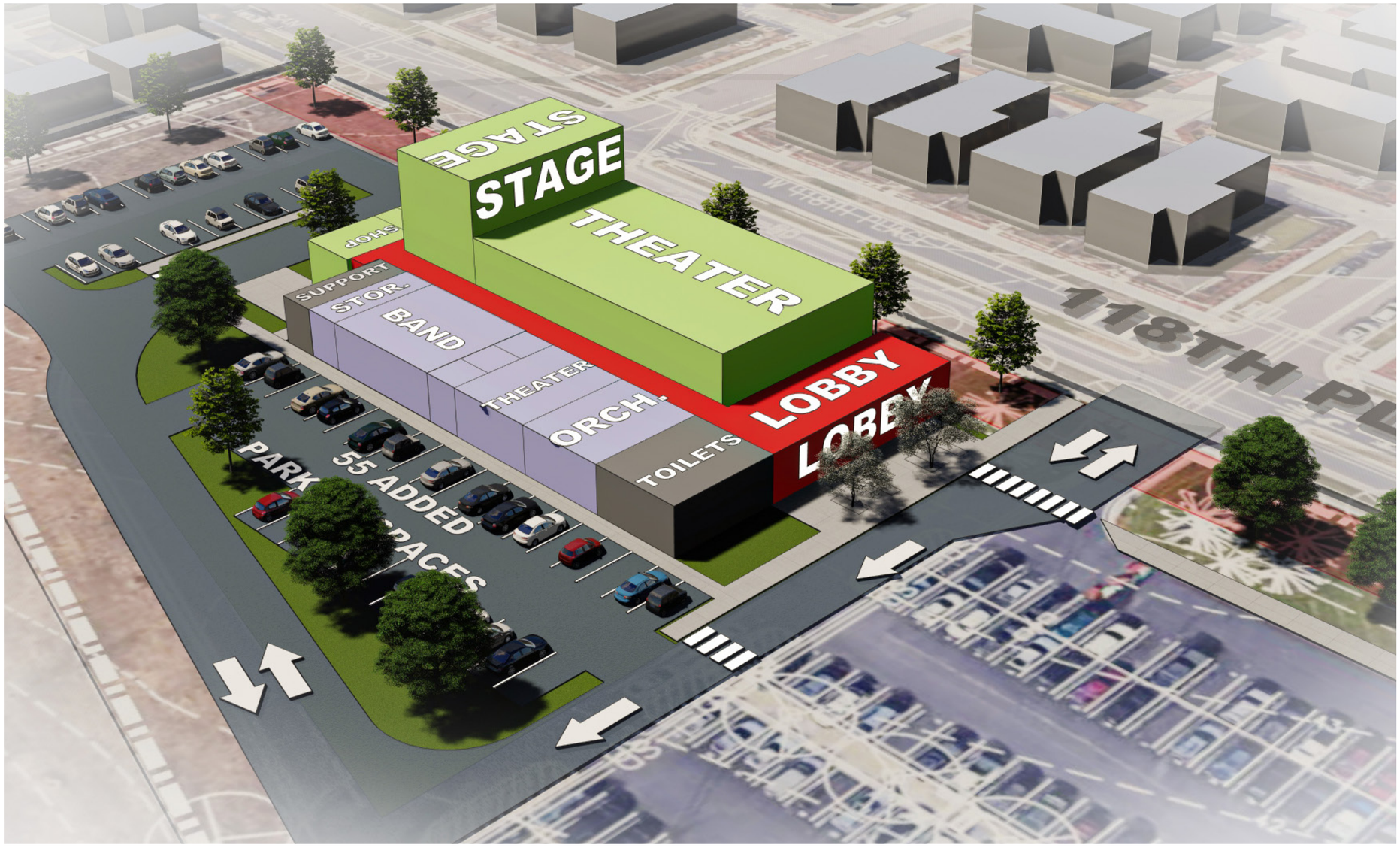
1. Small Group Rooms
2. Moveable walls
3. Graphics
4. Open and bright ceilings
5. Technology integration

THE ACADEMY OF CHARTER SCHOOLS

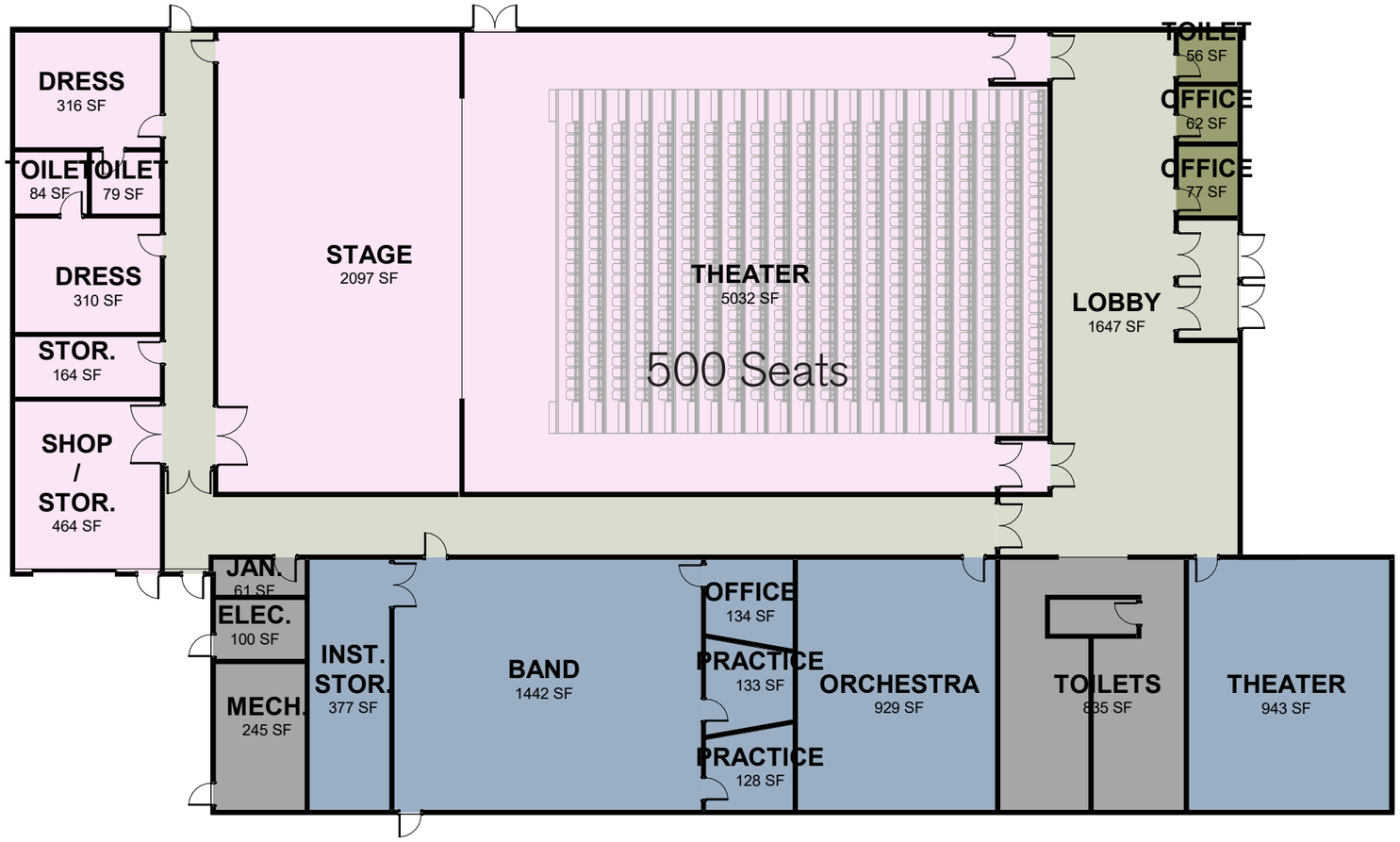
LONG TERM GOALS - COMMUNITY CENTER SITE PLAN

1. New pedestrian connection
2. Plaza / Main Entry
3. Loading area
4. Added IN lane, full movement
5. Increased stormwater detention pond
6. Existing parking net add of 40 spaces
7. New water meter / tap and sanitary connection

LONG TERM GOALS - COMMUNITY CENTER 3D BIRDS EYE VIEW



LONG TERM GOALS - COMMUNITY CENTER FLOOR PLAN



Education - Department

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- SUPPORT
- THEATER

The Academy of Charter Schools

CAMPUS MASTER PLAN 2022-2023

TARGET PROJECTS

THE ACADEMY OF CHARTER SCHOOLS

JHL CONSTRUCTORS

hord | coplan | macht

TABLE OF CONTENTS

SUMMARY

This document serves as a supplement to the comprehensive Master Plan, which provides a broader overview of the Master Plan process, comprehensive list of projects & options that were explored, community feedback and site and building analysis. The following pages are intended to provide a roadmap and guide of target projects that have emerged as priority needs during the Master Plan process. Each project is broken down into limited scope, target scope and fundraising extension scope levels, providing a manageable framework that can be adapted to financial and fundraising conditions. Furthermore, this document includes budgetary costs for each project and scope level.

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- Xavi Torrents, JVA Civil Engineer
- Adele Willson, Hord Coplan Macht
- Kara Aylesworth, Hord Coplan Macht
- Josh Francis Hord Coplan Macht

Target Projects

	Project	Limited Scope	Target Scope	Fundraising Extensions
	Instructional Projects			
Target Project Classroom Addition	**Classroom Addition**	4 Classrooms	8 Classrooms	12 Classrooms
Target Project Existing Building Renovation	**Performing Arts Renov.**	Renovate Summit for Music Classrooms	-Renovate Summit for Music Classrooms -Renovate Counseling Offices & Foothills for Classrooms	-Upgrade Music Classroom Furniture -Upgrade Music Classroom Acoustics
	High School Offices	Renovate Current Band Room for Classrooms & Offices	-Renovate Entire Block for Admin, Counseling, & PWR Offices -Update Theater Classroom	-
	High School Cafeteria	-	Create Separate High School Cafeteria	-
	Athletics Projects			
Target Project Athletics	**Athletics Fields**	Install Turf Football/Soccer Field	-Install Turf Football/Soccer Field -Install Lights -Repair Draining Issues Across Football, Soccer, & Baseball Fields	-Scoreboard -Concessions -Netting/Fencing -Press Box -Bleachers -Bathrooms
	Mechanical & Life Safety Projects			
Target Project Essential Updates	**Essential Updates**	-Address Facilities Needs Reactively -Complete Proactive Replacements When Possible	Prioritize ongoing facilities needs according to urgency and fund updates gradually over time in that order through annual budgeting	BEST Grant Application: -HVAC -Electrical -Fire Safety -Roof

THE ACADEMY OF CHARTER SCHOOLS

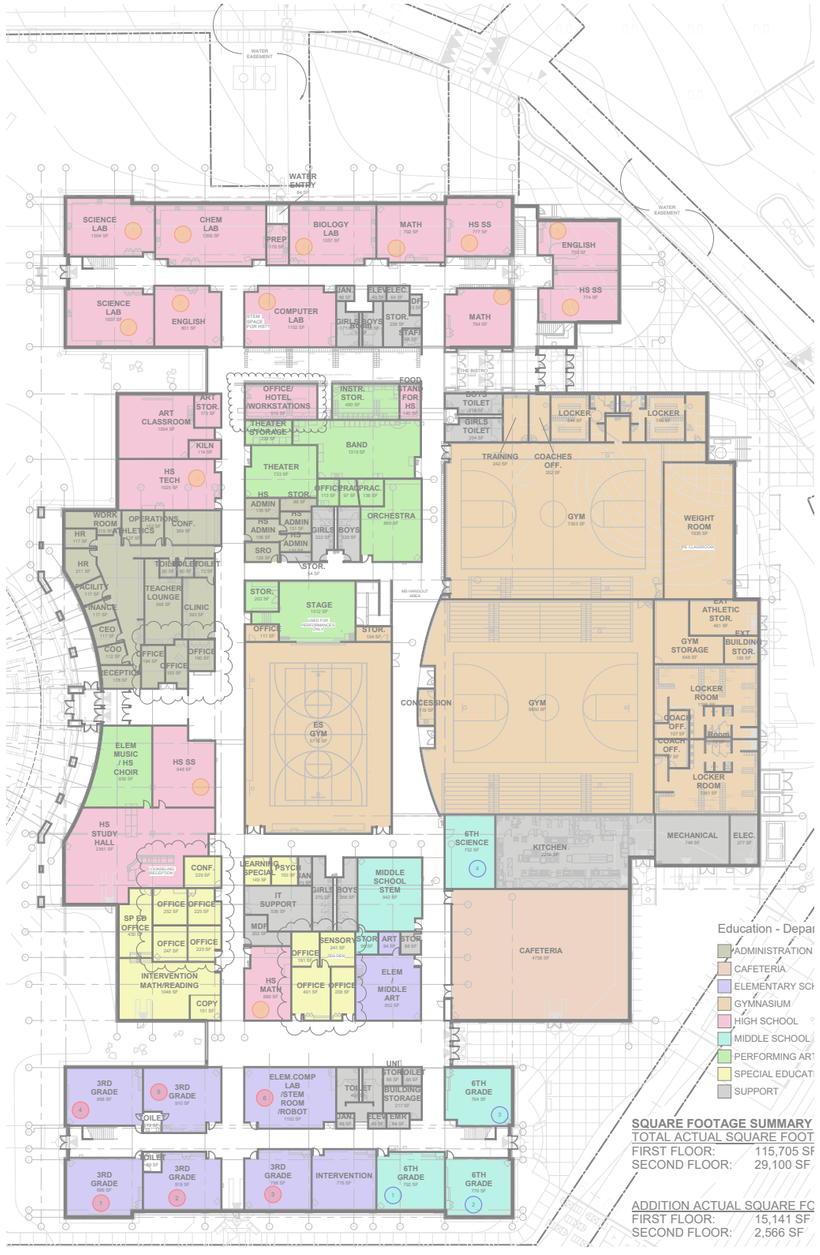

GOLDEN STATE
WARRIORS

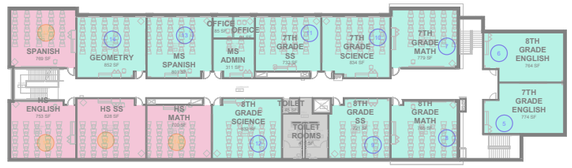
Classroom Addition

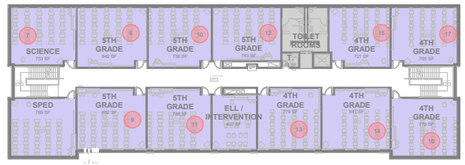
PROJECT

Project	Limited Scope	Target Scope	Fundraising Extensions
Classroom Addition	4 Classrooms	8 Classrooms	12 Classrooms

Existing

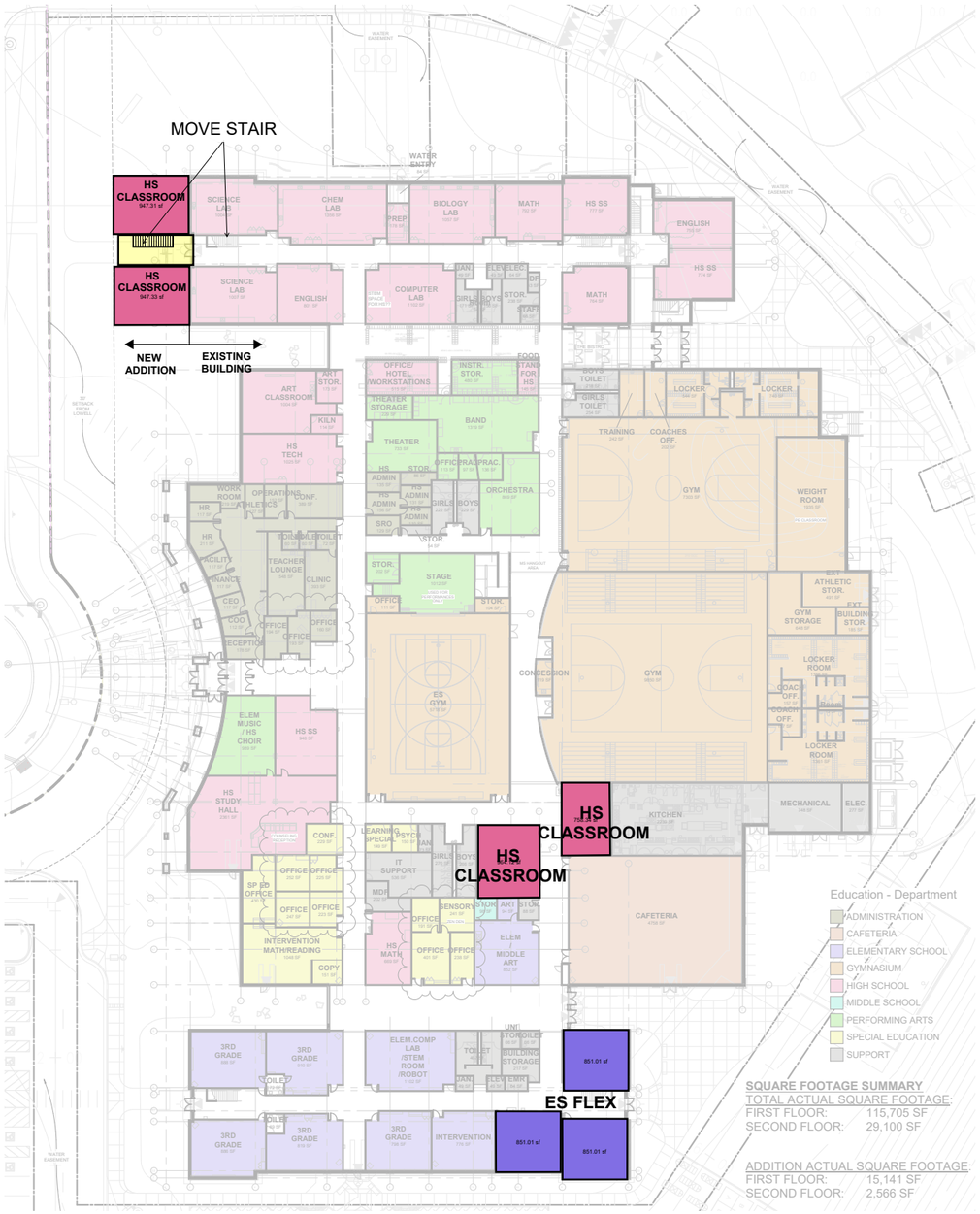


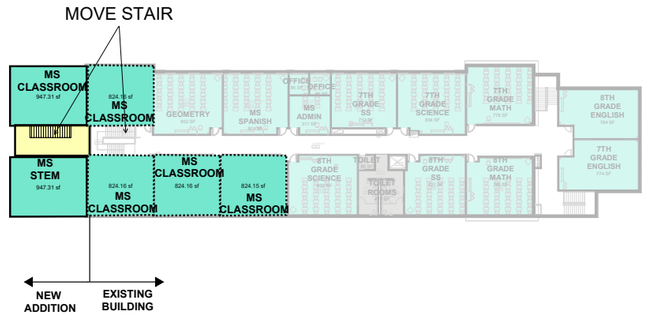


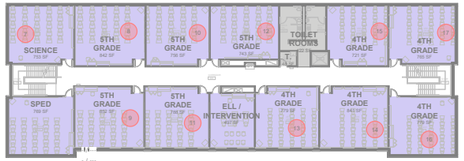


- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
- HIGH SCHOOL
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

Limited Scope (Four Classroom Addition)







ADMINISTRATION
CAFETERIA
ELEMENTARY SCHOOL
GYMNASIUM
HIGH SCHOOL
MIDDLE SCHOOL
PERFORMING ARTS
SPECIAL EDUCATION
SUPPORT

THE ACADEMY OF CHARTER SCHOOLS

Limited Scope Costs

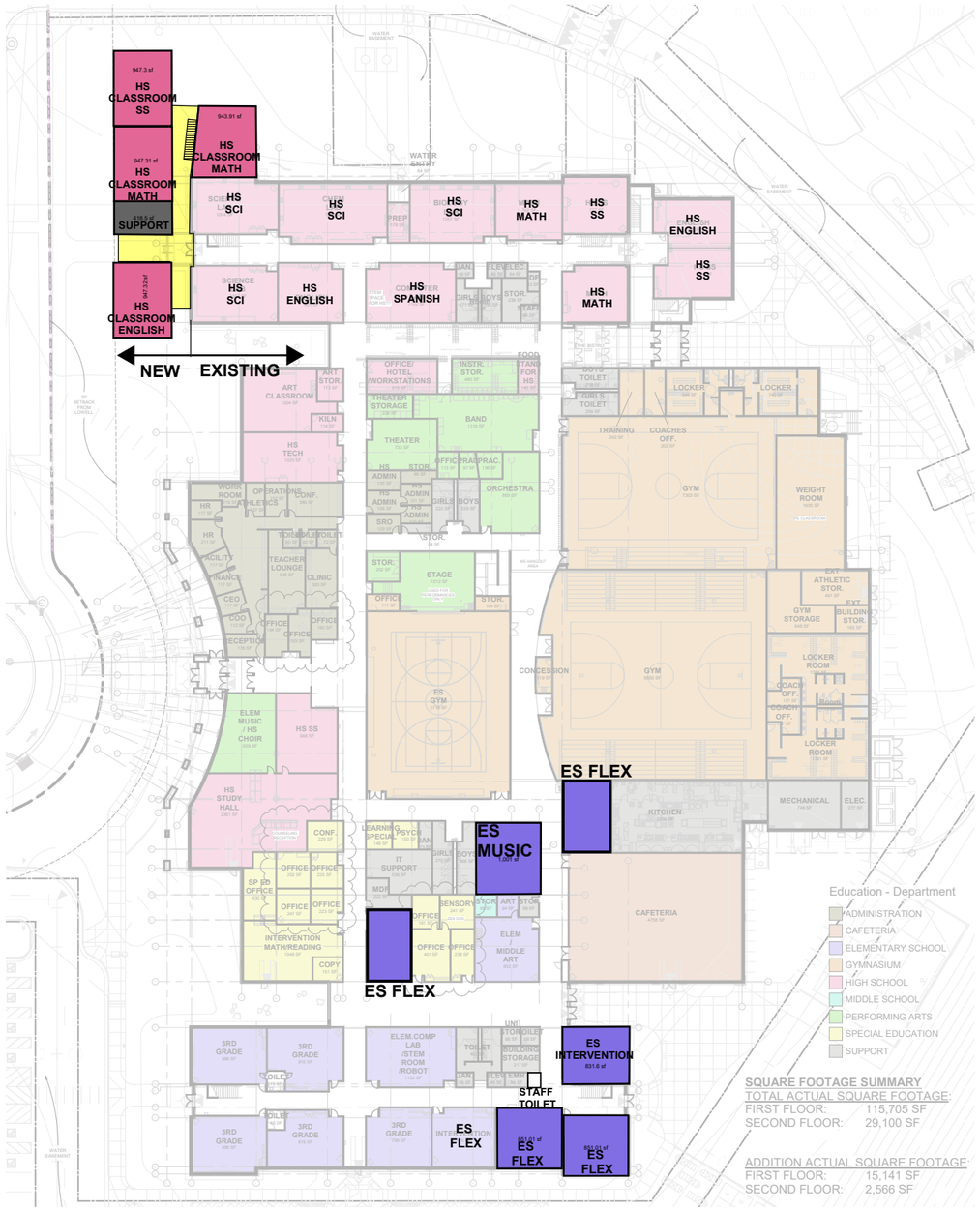
The Academy of Charter Schools

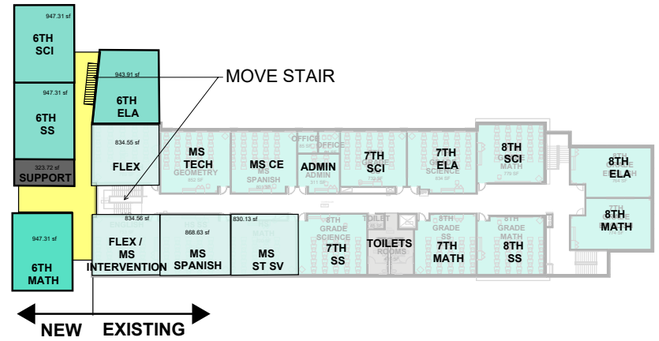
Summary of Costs - 4 Classroom Addition

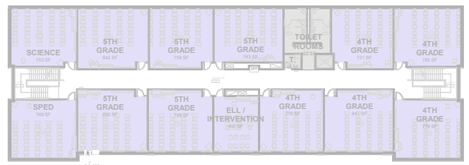
				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	General Conditions	5	mo	$49,000	$65,000	$245,000	$325,000
2	Classroom Addition (4 Classrooms)	6900	sf	$495	$550	$3,415,500	$3,795,000
3	Classroom Addition - Site Work	1	ls	$125,000	$150,000	$125,000	$150,000
Sub Total						**$3,785,500**	**$4,270,000**

	Indirect Costs			Low Range Total	High Range Total
1	Owners Rep	1	ls	$0	$0
2	Design Fee's	8.00%		$302,840	$341,600
3	Soft Costs	15.00%		$567,825	$640,500
4	Owners Contingency	5.00%		$232,808	$262,605
5	Escalation	10.00%		$465,617	$525,210
Sub Total				**$1,569,090**	**$1,769,915**
			Total	**$5,354,590**	**$6,039,915**

Target Scope (Eight Classroom Addition)







- ADMINISTRATION
- CAFETERIA
- ELEMENTARY SCHOOL
- GYMNASIUM
- HIGH SCHOOL
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

Target Scope Costs

JHL CONSTRUCTORS

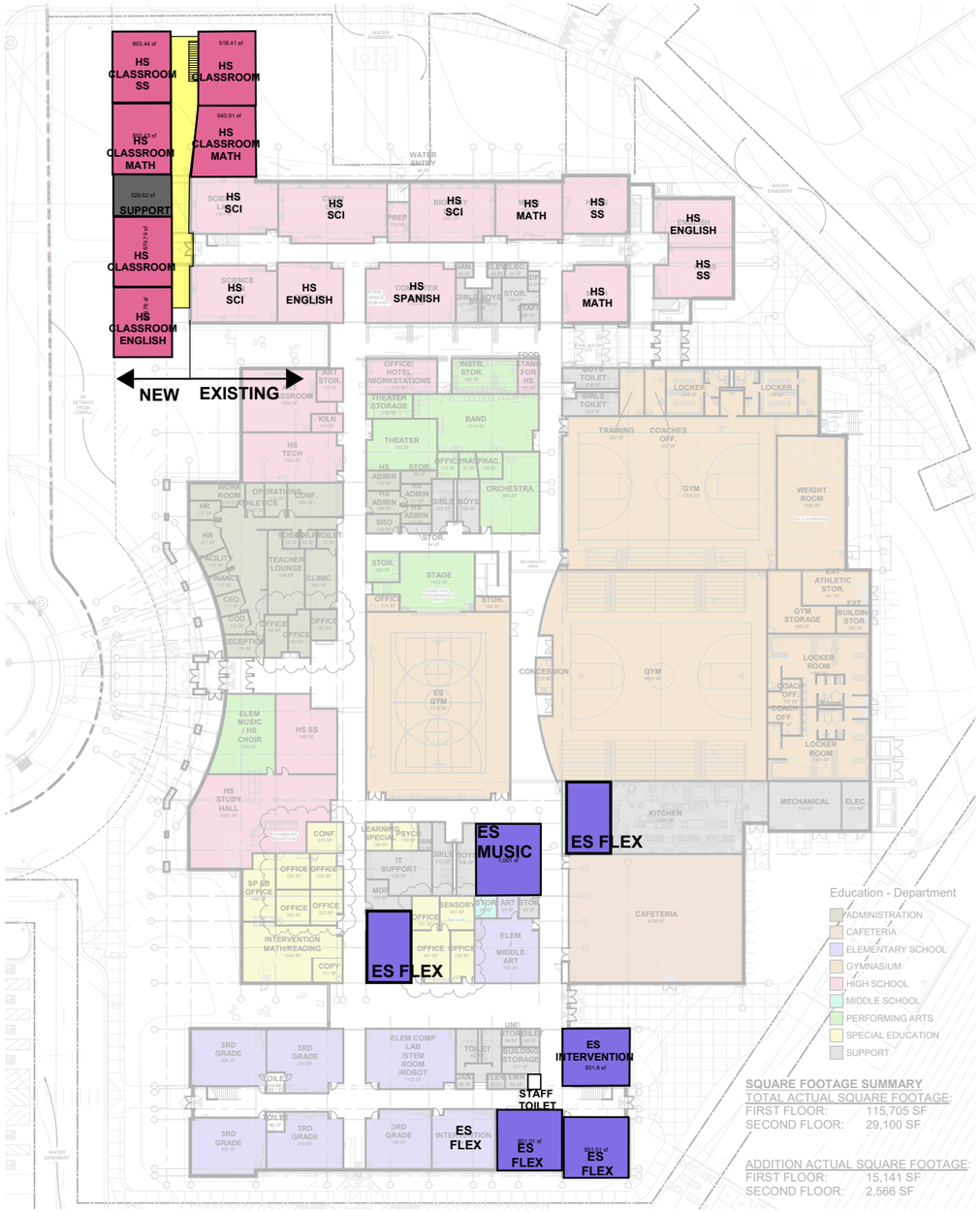
The Academy of Charter Schools

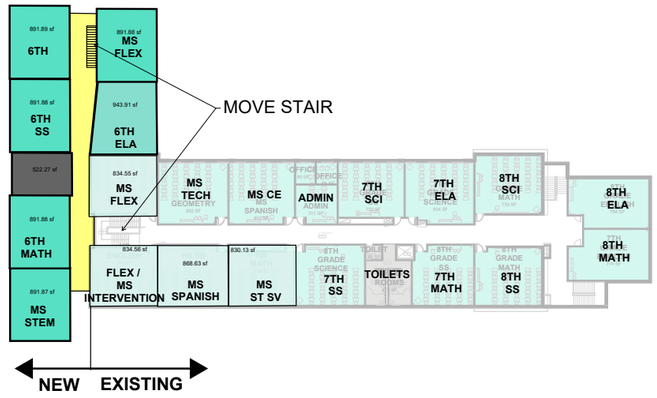
Summary of Costs - 8 Classroom Addition

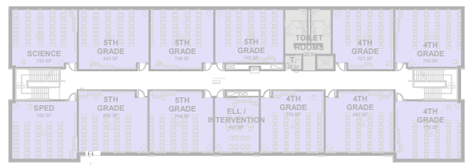
				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	General Conditions	7	mo	$49,000	$65,000	$343,000	$455,000
2	Classroom Addition (8 Classrooms)	11200	sf	$495	$550	$5,544,000	$6,160,000
3	Classroom Addition - Site Work	1	ls	$125,000	$150,000	$125,000	$150,000
Sub Total						**$6,012,000**	**$6,765,000**

	Indirect Costs			Low Range Total	High Range Total
1	Owners Rep	1	ls	$0	$0
2	Design Fee's	8.00%		$480,960	$541,200
3	Soft Costs	15.00%		$901,800	$1,014,750
4	Owners Contingency	5.00%		$369,738	$416,048
5	Escalation	10.00%		$739,476	$832,095
Sub Total				**$2,491,974**	**$2,804,093**
			Total	**$8,503,974**	**$9,569,093**

Extension Scope (12 Classroom Addition)







- ADMINISTRATION
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- MIDDLE SCHOOL
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- SPECIAL EDUCATION
- SUPPORT

THE ACADEMY OF CHARTER SCHOOLS

Extension Scope Costs

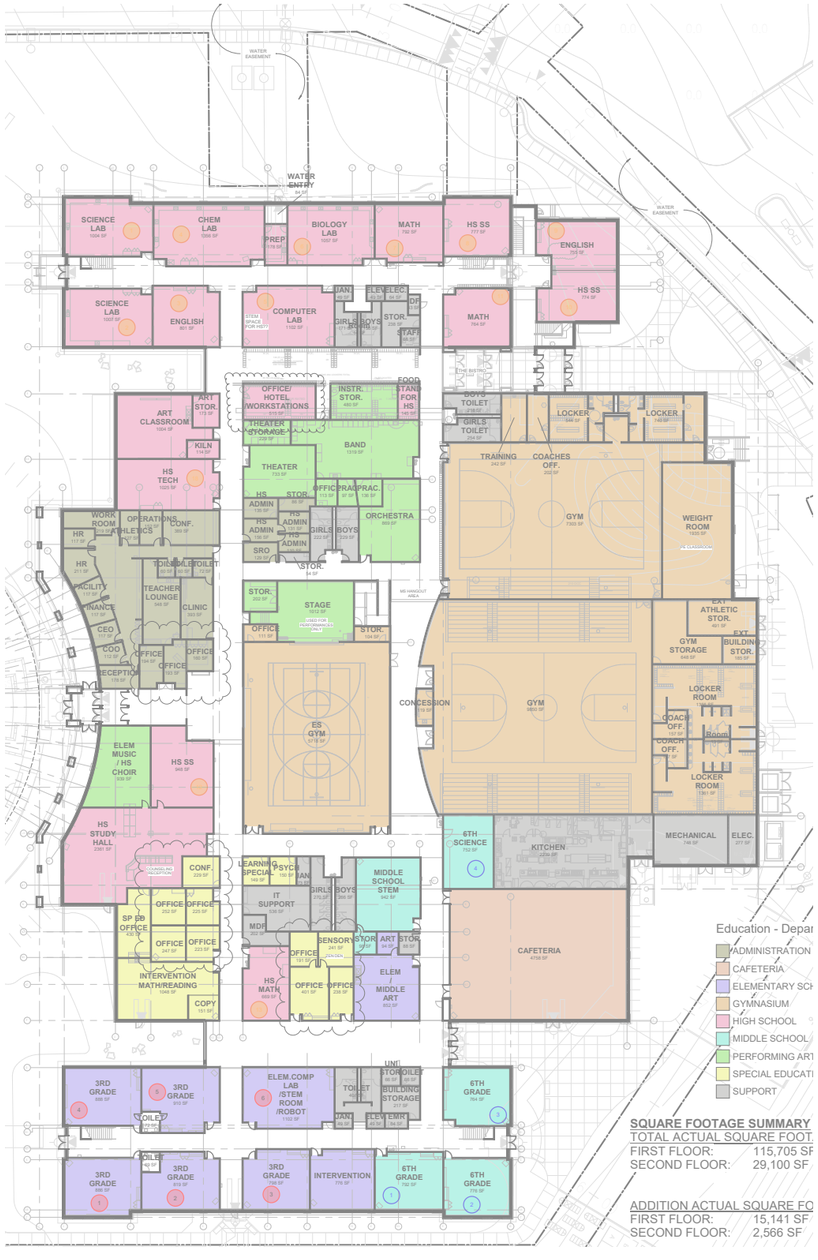
The Academy of Charter Schools

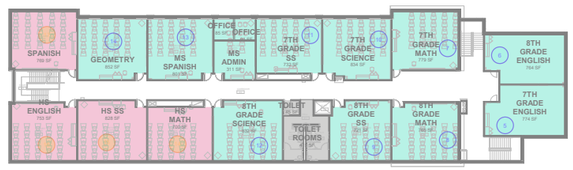
Summary of Costs - 12 Classroom Addition							
				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	General Conditions	8	mo	$49,000	$65,000	$392,000	$520,000
2	Classroom Addition (12 Classrooms)	16000	sf	$495	$550	$7,920,000	$8,800,000
3	Classroom Addition - Site Work	1	ls	$125,000	$150,000	$125,000	$150,000
Sub Total						**$8,437,000**	**$9,470,000**
	Indirect Costs					Low Range Total	High Range Total
1	Owners Rep	1	ls			$0	$0
2	Design Fee's	8.00%				$674,960	$757,600
3	Soft Costs	15.00%				$1,265,550	$1,420,500
4	Owners Contingency	5.00%				$518,876	$582,405
5	Escalation	10.00%				$1,037,751	$1,164,810
Sub Total						**$3,497,137**	**$3,925,315**
					Total	**$11,934,137**	**$13,395,315**

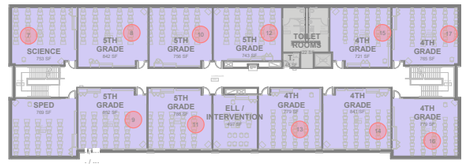
Existing Building Renovation PROJECT

Project	Limited Scope	Target Scope	Fundraising Extensions
Performing Arts Renov.	Renovate Summit for Music Classrooms	-Renovate Summit for Music Classrooms -Renovate Counseling Offices & Foothills for Classrooms	-Upgrade Music Classroom Furniture -Upgrade Music Classroom Acoustics
High School Offices	Renovate Current Band Room for Classrooms & Offices	-Renovate Entire Block for Admin, Counseling, & PWR Offices -Update Theater Classroom	-
High School Cafeteria	-	Create Separate High School Cafeteria	-

Existing







- ADMINISTRATION
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- MIDDLE SCHOOL
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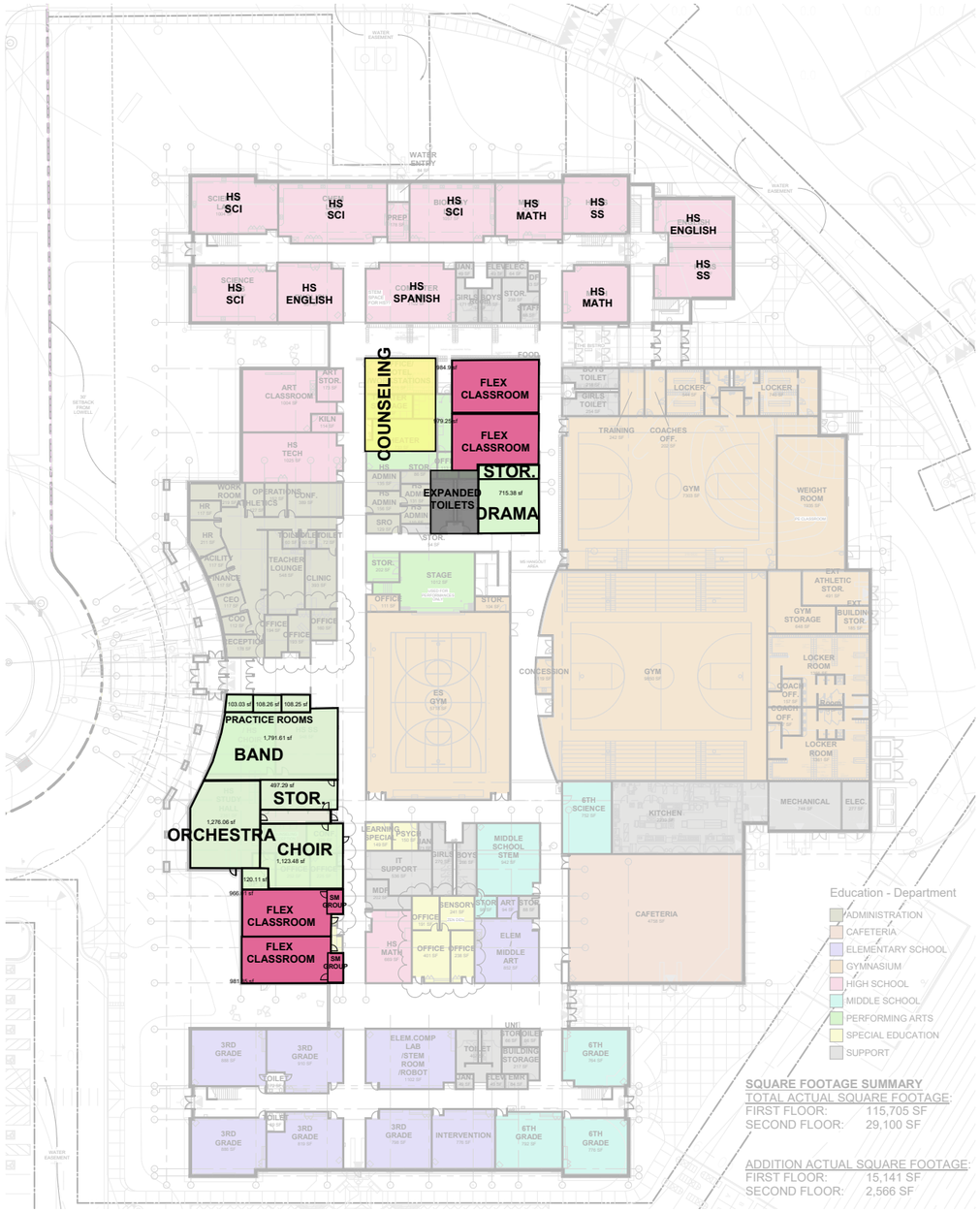
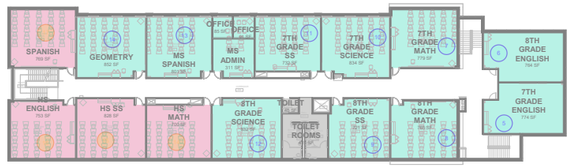
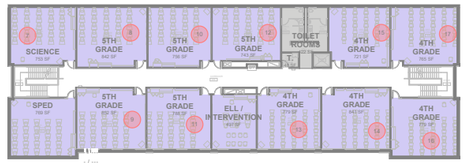
- SUPPORT

Limited Scope (Reconfigured Summit & Performing Arts)







- ADMINISTRATION
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- ELEMENTARY SCHOOL
- GYMNASIUM
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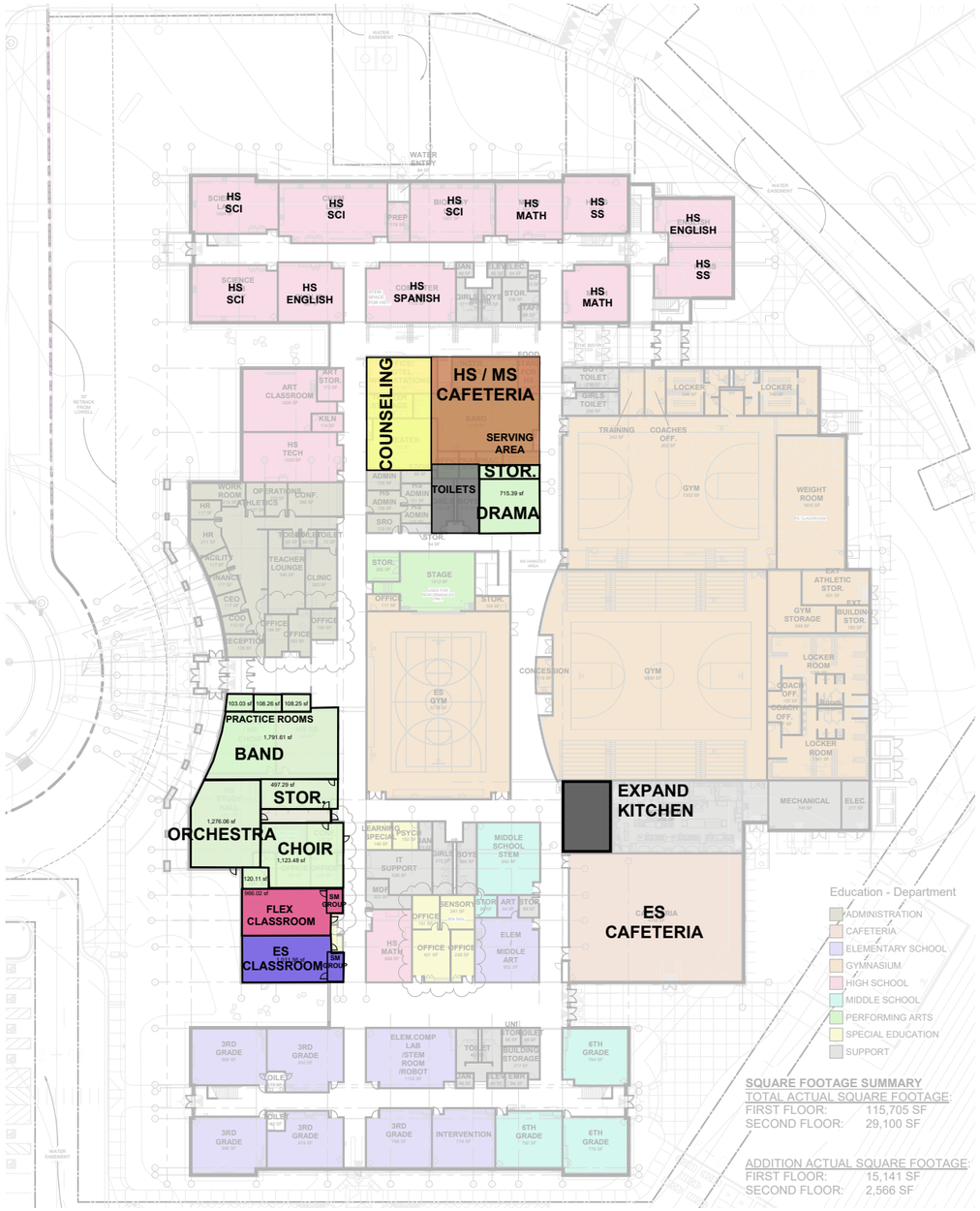
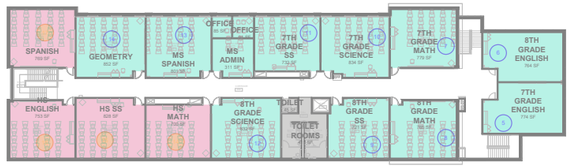
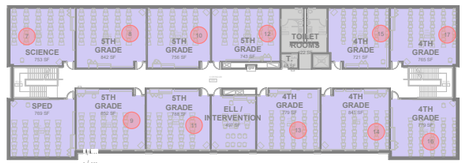
- MIDDLE SCHOOL
- PERFORMING ARTS
- SPECIAL EDUCATION
- SUPPORT

THE ACADEMY OF CHARTER SCHOOLS

Target Scope (New High School Cafeteria)







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- SUPPORT

Costs

JHL CONSTRUCTORS

The Academy of Charter Schools

Summary of Costs - Misc Projects

				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	General Conditions	4	mo	$49,000	$65,000	$196,000	$260,000
2	Secondary Cafeteria	2594	sf	$115	$150	$298,310	$389,100
3	Performance Arts Classrooms (Renovation)	6580	sf	$155	$200	$1,019,900	$1,316,000
4	Counseling/WBL Space	1650	sf	$125	$150	$206,250	$247,500
5	MS/HS Admin Office	1	ls	$0	$0	$0	$0
6	Locker Room renovations	1	ls	$361,500	$451,875	$361,500	$451,875
7	Kitchen Expansion (No Equipment)	1	ls	$35,000	$55,000	$35,000	$55,000
8	Kitchen Expansion (Equipment)	1	ls	$0	$0	$0	$0
Sub Total						**$2,116,960**	**$2,719,475**

	Indirect Costs			Low Range Total	High Range Total
1	Owners Rep	1	ls	$0	$0
2	Design Fee's	8.00%		$169,357	$217,558
3	Soft Costs	15.00%		$317,544	$407,921
4	Owners Contingency	5.00%		$130,193	$167,248
5	Escalation	10.00%		$260,386	$334,495
Sub Total				**$877,480**	**$1,127,222**
			Total	**$2,994,440**	**$3,846,697**

THE ACADEMY OF CHARTER SCHOOLS

Athletics PROJECT

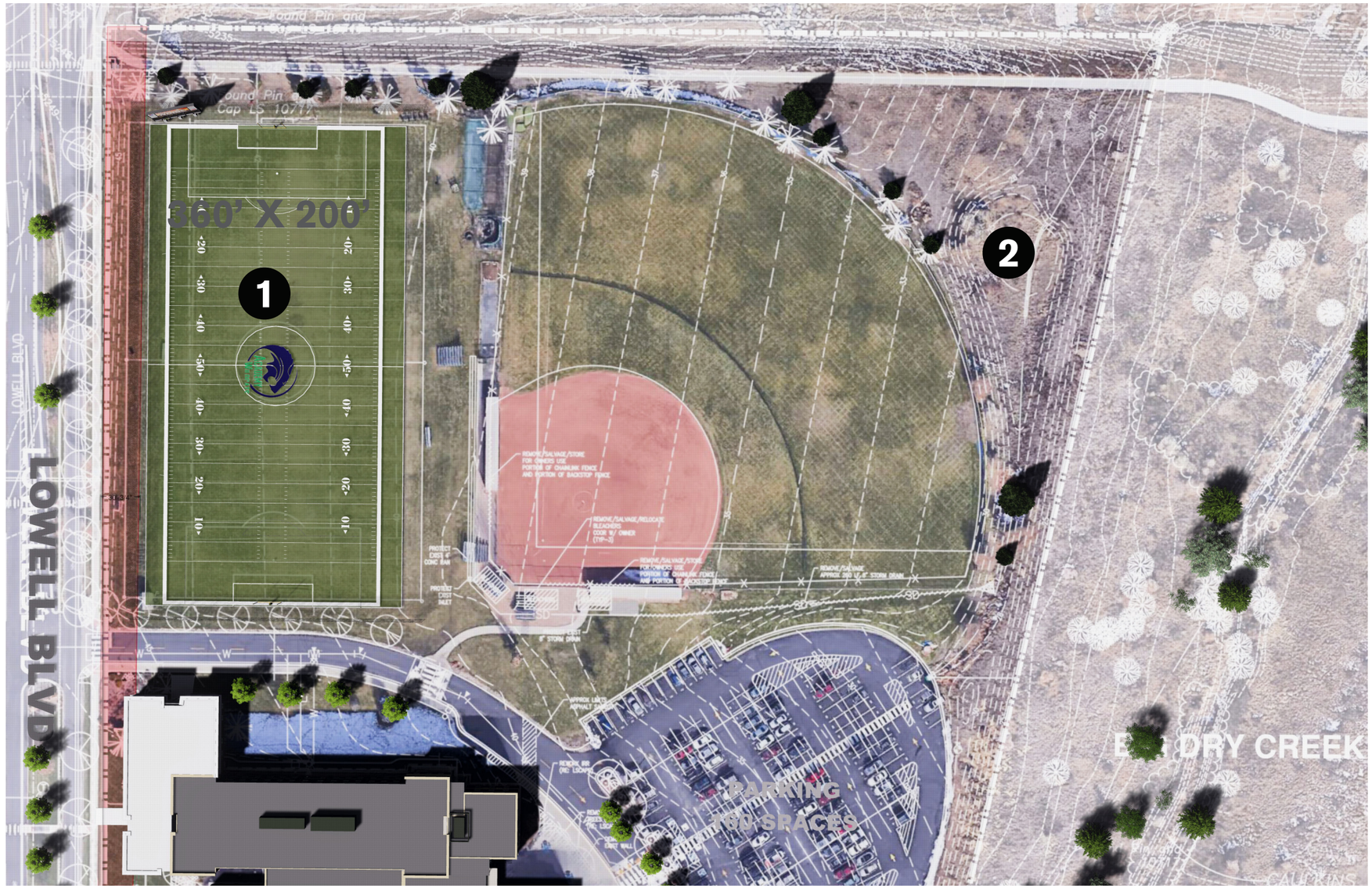
Project	Limited Scope	Target Scope	Fundraising Extensions
Athletics Fields	Install Turf Football/Soccer Field	-Install Turf Football/Soccer Field -Install Lights -Repair Draining Issues Across Football, Soccer, & Baseball Fields	-Scoreboard -Concessions -Netting/Fencing -Press Box -Bleachers -Bathrooms

Existing


Found Pin
Cap LS 10717
LOWELL BLVD
REMOVE/SALVAGE/STORE
FOR OWNERS USE
PORTION OF CHAINLINK FENCE
AND PORTION OF BACKSTOP FENCE
REMOVE/SALVAGE/RELOCATE
BLEACHERS
DOOR W/ OWNER
(TYP~3)
REMOVE/SALVAGE/STORE
FOR OWNERS USE
PORTION OF CHAINLINK FENCE
AND PORTION OF BACKSTOP FENCE
REMOVE/SALVAGE
APPROX 360 LF 6" STORM DRAIN
PROTECT
6" STORM DRAIN
APPROX LIMITS
ASPHALT

Limted Scope

1. Synthetic Turf Field, drainage, shock pad & crumb fill, regrade with retaining walls
2. Stormwater detention pond increase



THE ACADEMY OF CHARTER SCHOOLS

Limted Scope Costs

JHL CONSTRUCTORS

Exterior Improvements & Site - Limited Scope

The Academy of Charter Schools

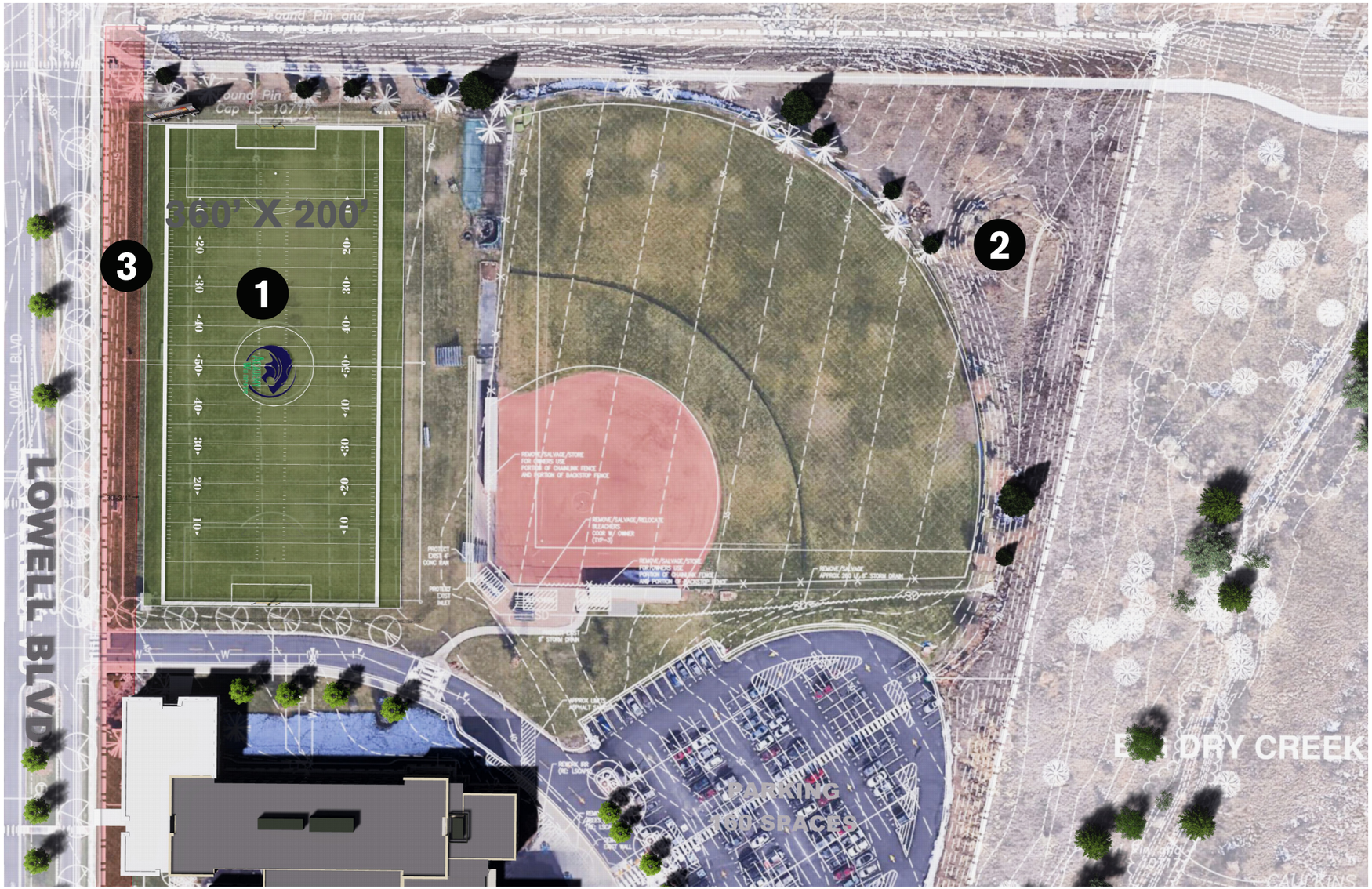
Summary of Costs

				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Synthetic Turf Field & Associated Site Work	1	ls	$1,334,400	$1,601,280	$1,334,400	$1,601,280
2	Storm Detention - Increase Size	1	ls	$65,000	$210,000	$65,000	$210,000
Sub Total						**$1,399,400**	**$1,811,280**

	Indirect Costs		Low Range Total	High Range Total
1	Design Fee's	8.00%	$111,952	$144,902
2	Soft Costs	5.00%	$69,970	$90,564
3	Owners Contingency	5.00%	$79,066	$102,337
4	Escalation	10.00%	$158,132	$204,675
Sub Total			**$419,120**	**$542,478**
Exterior Improvements & Site Total			**$1,818,520**	**$2,353,758**

Target Scope

1. Synthetic Turf Field, drainage, shock pad & crumb fill, regrade with retaining walls
2. Stormwater detention pond increase and drainage improvemnts
3. Field Lights



THE ACADEMY OF CHARTER SCHOOLS

Target Scope Costs

Exterior Improvements & Site - Target Scope

The Academy of Charter Schools

Summary of Costs

				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Synthetic Turf Field & Associated Site Work	1	ls	$1,334,400	$1,601,280	$1,334,400	$1,601,280
2	Storm Detention - Increase Size	1	ls	$65,000	$210,000	$65,000	$210,000
3	Repair Drainage @ Baseball Field	1	ls	$25,000	$50,000	$25,000	$50,000
Sub Total						**$1,424,400**	**$1,861,280**

	Indirect Costs		Low Range Total	High Range Total
1	Design Fee's	8.00%	$113,952	$148,902
2	Soft Costs	5.00%	$71,220	$93,064
3	Owners Contingency	5.00%	$80,479	$105,162
4	Escalation	10.00%	$160,957	$210,325
Sub Total			**$426,608**	**$557,453**
Exterior Improvements & Site Total			**$1,851,008**	**$2,418,733**

Extension Scope

1. Synthetic Turf Field, drainage, shock pad & crumb fill, regrade with retaining walls and field lighting
2. New entry plaza
3. Concessions
4. 20-30’ tall netting
5. New scoreboard with branding to 120th
6. New press box
7. Bleacher seating for 600 spectators
8. Stormwater detention pond increase and drainagae improvements
9. Use existing toilets within 500’ of bleachers

Extension Scope Costs

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Exterior Improvements & Site - Fundraising Extensions

The Academy of Charter Schools

Summary of Costs

				Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Concessions Building	1	ls	$575,950	$662,343	$575,950	$662,343
2	Athletic Netting (30' Tall)	1	ls	$51,800	$56,980	$51,800	$56,980
3	New Scoreboard (120th)	1	ls	$30,000	$60,000	$30,000	$60,000
4	New Press Box	1	ls	$475,000	$522,500	$475,000	$522,500
5	Bleacher Seating for 600*	600	ea	$225	$325	$135,000	$195,000
Sub Total						**$1,267,750**	**$1,496,823**

	Indirect Costs		Low Range Total	High Range Total
1	Design Fee's	8.00%	$101,420	$119,746
2	Soft Costs	5.00%	$63,388	$74,841
3	Owners Contingency	5.00%	$71,628	$84,570
4	Escalation	10.00%	$143,256	$169,141
Sub Total			**$379,691**	**$448,298**
Exterior Improvements & Site Total			**$1,647,441**	**$1,945,121**

Essential Update

PROJECT

Project	Limited Scope	Target Scope	Fundraising Extensions
Essential Updates	-Address Facilities Needs Reactively -Complete Proactive Replacements When Possible	Prioritize ongoing facilities needs according to urgency and fund updates gradually over time in that order through annual budgeting	BEST Grant Application: -HVAC -Electrical -Fire Safety -Roof

Costs

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BEST Grant Application

The Academy of Charter Schools

Summary of Costs

			Unit	Low Range Cost	High Range Unit Cost	Low Range Total	High Range Total
1	General Conditions	6	mo	$49,000	$65,000	$294,000	$390,000
2	HVAC Repair & Replacement*	1	ls	$1,140,200	$1,254,220	$1,140,200	$1,254,220
3	Electrical Upgrades*	1	ls	$1,507,098	$1,739,839	$1,507,098	$1,739,839
4	Fire Alarm Upgrade*	1	ls	$565,834	$641,278	$565,834	$641,278
5	Roof Replacement	1	ls	$2,142,400	$2,356,640	$2,142,400	$2,356,640
6	Replace Existing Carpet	1	ls	$582,500	$669,875	$582,500	$669,875
7	North Campus - Add Blacktop Play Area	1	ls	$20,000	$40,000	$20,000	$40,000
8	FF&E - Furniture Replacement (MS & HS. $$$/student)	1500	ea	$1,100	$2,100	$1,650,000	$3,150,000
Sub Total						**$7,902,031**	**$10,241,852**

	Indirect Costs		Low Range Total	High Range Total
1	Owners Rep	1 ls	$0	$0
2	Design Fee's	8.00%	$632,163	$819,348
3	Soft Costs	12.00%	$948,244	$1,229,022
4	Owners Contingency	5.00%	$474,122	$614,511
5	Escalation	10.00%	$948,244	$1,229,022
Sub Total			**$3,002,772**	**$3,891,904**

Total	**$10,904,803**	**$14,133,755**

*See attached sheets for additional cost breakdowns

JHL CONSTRUCTORS

Mechanical & Plumbing - Existing Facility

The Academy of Charter Schools

Summary of Costs

			Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Central Cooling - Chiller Replacement	1 ls	$350,000	$402,500	$350,000	$385,000
2	Central Heating - Replace System Pumps	1 ls	$47,000	$54,050	$47,000	$51,700
3	Air Handling - Replace RTU 10, RTU 11 & RTU 12	1 ls	$415,800	$478,170	$415,800	$457,380
4	Building - Rebalance Existing Mechanical System	1 ls	$106,200	$122,130	$106,200	$116,820
5	Water Service - Manual Isolation Valve	1 ls	$2,900	$3,335	$2,900	$3,190
6	Water Service - Emergency Shut of Valve	1 ls	$14,400	$16,560	$14,400	$15,840
7	Water Service - Pressure Reduction Station	1 ls	$80,600	$92,690	$80,600	$88,660
8	Water Service - Replace Fire Sprinkler Backflow System	1 ls	$13,200	$15,180	$13,200	$14,520
9	Sanitary - Install Barrier Trap Seal Protection (Floor Drains)	1 ls	$4,300	$4,945	$4,300	$4,730
10	Gas - Valve Control Station (Science Prep)	1 ls	$13,300	$15,295	$13,300	$14,630
11	Water Heaters -Relocate check Valve (Down Stream)	1 ls	$2,400	$2,760	$2,400	$2,640
12	Water Heaters - Replace Master Mixing Valve	1 ls	$11,600	$13,340	$11,600	$12,760
13	Kitchen Water Heater - Replacement	1 ls	$69,700	$80,155	$69,700	$76,670
14	Water Softener - Replace Insulation	1 ls	$3,600	$4,140	$3,600	$3,960
15	Art Room - New Grating & Replace Solids Interceptor Lid	1 ls	$5,200	$5,980	$5,200	$5,720
Mechanical & Plumbing Total					**$1,140,200**	**$1,254,220**

JHL CONSTRUCTORS

Electrical - Existing Facility

The Academy of Charter Schools

Summary of Costs

Electrical

			Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Upgrade existing Fire Alarm System	150889 sf	$3.75	$4.25	$565,834	$641,278
2	Upgrade Lighting Control System	1 ls	$641,500	$705,650	$641,500	$705,650
Sub Total					**$1,207,334**	**$1,346,928**

	Unit Pricing		Low Range Unit Cost	High Range Unit Cost	Low Range Total	High Range Total
1	Replace Existing EM Fixture	1 ea	$285	$314	$285	$314
2	Replace Existing Receptacles to Tamper Proof	300 ea	$150	$165	$45,000	$49,500
3	Upgrade Existing Fluorescent Fixture to LED	1313 ea	$625	$750	$820,313	$984,375
Sub Total					**$865,598**	**$1,034,189**

Electrical Total	**$2,072,931**	**$2,381,117**