

	Brighton Area Schools		
Location:	BAS Video Conference	Project Number:	18-785
Project:	BAS 2019 Bond	Date:	7-6-20, 4:30 pm

- 1. Review meeting minutes dated 6/15/20, Committee meeting.
- 2. Geotechnical consultant update.
 - a. Geotech complete with exception of Scranton.
- 3. Document scanning.
- 4. Project scope
 - a. Phase 1,
 - i. Bidding results.
 - ii. Review and select alternates to proceed with.
 - iii. Hawkins and Sloan field improvement rebid(s)
 - iv. Sloan field drainage.
 - b. Phase 2,
 - i. STEAM Center, High School, on hold.
 - ii. Scranton Middle School, on hold
 - 1. Estimates of requested scope changes.
 - iii. High School Flooring. Contractor meeting.
 - iv. Cafeteria lighting.
 - c. Phase 4
 - i. STEAM Renovations, review workshops with District representatives
 - ii. Meeting minute review.
 - iii. District approval of "narrative / program".
- 5. General open discussion.

Action Items:

 Phase 4, Narrative/Program approval, schematics, and estimates for STEAM Renovations, deadline TBD.

Distribution: BAS Project Team



MEETING MINUTES

1021 West Baraga Avenue, Marquette, Michigan 49855 Phone (906) 228-4480 Fax (906) 228-7524

8571 W. Grand River Ave., Suite 600 Brighton, Michigan 48816 Phone: (810) 229-2701 Fax: (810) 229-6767

	Brighton Area Schools			
Location:	BAS Video Conference	Project Number:	18-785	
Project:	BAS 2019 Bond	Date:	6-15-20, 4:30 pm	

Present: Refer to attached.

Discussion: Purpose of meeting to discuss 2019 Bond scope.

- Reviewed and approved meeting minutes dated meeting minutes dated 6/1/20 Committee meeting, 6/2/20 Band/Flooring meeting and 6/3/20 Scranton mechanical meeting. Corrections noted.
- 2. Geotechnical complete with exception of Scranton.
- 3. Imaging contractor status.
 - a. No current date for scanning services. Estimate at \$1.00 per sheet, District to determine if allowable under Bond scope.
- 4. Phase 1, IDI to reduce the quantity of drinking fountain replacement and issue as addendum. Quantity shall be capped at (18) units spread over those schools previously indicated by the District.
- 5. Phase 2 STEAM, High School, Scranton Middle School estimate review.
 - a. STEAM Center, no current updates. Awaiting District direction on narrative.
 - b. High School Band Room discussed. Security of equipment is highest priority. Existing door and door hardware equipment to be reviewed. Potential card reader system to control student access into the band room instrument storage.
 - c. High School Flooring: District representatives, IDI and Tracy Taylor to meet with local flooring contractor to review scope and obtain pricing to complete test sample installation this summer.
 Four products will be installed over a 900 s.f. area at the building entry corridors.
 - d. Scranton Mechanical
 - i. Several items added that were at end of life (i.e. chillers). District to review and approved additional funding if appropriate.
 - ii. Boilers shall be competitively bid. Lochinvar shall be an approved manufacturer with Aerco as the basis of design.
 - iii. Alternates were discussed and requested by District to be examined:
 - 1. Equipment placed of roof at gymnasium.
 - 2. Relocated units onto roof at media center.

- 3. Replacement of pneumatic controls.
- iv. Cafeteria lighting examined. IDI shall review existing controls for simplification of system.
- e. Scranton locker replacement discussed.
 - i. Committee has elected not to have existing lockers relocated to Spencer and Hornung Elementary Schools. IDI presented layouts for each school indicating the location and number of lockers. This information along with unit prices shall be used to determine replacement if funds become available.
- 6. Phase 4, STEAM Center(s) elementary schools, intermediate schools and middle school.
 - a. Chris Turner presented an update of District progress.
 - b. Smaller groups/committees have been formed per building. They are currently gathering information and ideas. Looking to establish uniformity between grade levels.
- 7. Technology budget was discussed. There are no designated funds for the technology within the High School STEAM Center addition.

Distribution: BAS Project Team, refer to attached.

Brighton Area Schools, 2019 Bond

BAS Project Team	Attendir
	6/15/202

Attending
6/15/2020

Name	Position	Phone	Email	6/15/20
Brighton Area Schools				1
125 South Church Street, Brig	hton, MI 48116		810-299-4000	
Dr. Greg Gray	Superintendent	517-376-0133	grayg@brightonk12.com	X
Mike Engelter	Asst. Superintendent	248-444-0719	engelterm@brightonk12.com	х
Sharon Irvine	Asst. Superintendent	734-678-8517	irvines@brightonk12.com	х
Scott Jacobs	Dir. Of Operations	810-499-3355	jacobss@brightonk12.com	Х
Chris Turner	Dir. Of Technology	517-575-8610	turnerc@brightonk12.com	х
Nick Casteel	Tech Support Services		casteej@brightonk12.com	х
John Thompson	Dir. Of Athletics	810-223-1613	thompsj@brightonk12.com	Х
Andy Burchfield	Board Member		burchfielda@brightonk12.com	
Bill Trombley	Board Member	810-360-9916	trombleyw@brightonk12.com	Х
Ken Stahl	Board Member	810-599-0561	stahlk@brightonk12.com	х
Intermeted Designed Inc.				
Integrated Designs Inc.	to COO Drighton MI 4911C		810 220 2701	
8571 W. Grand River Ave., Su	Arabitost	910 500 4914	810-229-2701	V
	Architect	810-599-4814	scott@intdesigns.com	X
Andy Adams	Architectural Design	906-361-4637	andy@intdesigns.com	X
Chad Parknurst	Mechanical Design	618-799-8078	<u>chad@intdesigns.com</u>	Х
1021 W. Baraga Avenue, Mar	quette, MI 49855		906-228-4480	_
Andrew Mansfield	Civil Engineer	810-610-0081	andrewm@intdesigns.com	Х
Brian Kudej	Civil Engineer	906-360-1798	brian@intdesigns.com	
Nathan Clish	Structural Design	906-204-4068	nate@intdesigns.com	
Phil Neimi	Structural Engineer	906-250-4013	phil@intdesigns.com	
Steve Boettcher	Mechanical Engineer	906-236-3627	steve@intdesigns.com	
Adam Manty	Electrical Design	906-236-3625	adam@intdesigns.com	
Tom Heiskanen	Electrical Design	906-362-3632	tom@intdesigns.com	
Shannon Finnila	Project Coordinator	906-250-4866	shannon@intdesigns.com	
Linhout Associates				
10465 Citation Drive. Brighton	n. MI 48116		810-227-5668	
Peit Lindhout	Architect	810-599-6082	pwl@lindhout.com	•
losh Hendershot	Architect		ilh@lindhout.com	х
Jason McIntyre	Architect	810-227-5668	dim@lindhout.com	Х
_2				
T ⁻ Designs Inc.				
10511 Citation Dr Suite 200, E	Brighton, MI 48116		248-486-9249	-
Tracy Taylor	Interiors / Furniture	248-444-8180	tracy@t2designsinc.com	Х
Johanna Luke	Designer	248-697-4388	johannal@t2designsinc.com	Х
Barton Malow Company				
26500 American Drive, South	field, MI 48034		248-436-5000	
Paul Twigg	Technology Consultant	248-672-9634	paul.twigg@bartonmalow.com	
Brian Jessie	Technology Consultant		brian.jessie@bartonmalow.com	х
Clark Construction Co.				
2660 Superior Court, Auburn	Hills, MI 48326		248-286-1000	
3535 Moores River Drive, Lan	sing MI 48911		517-372-0940	
Gary Steller	Construction Mgr.	517-881-9198	gsteller@clarkcc.com	X
Stephanie Coolidge	Project Manager	517-927-2426	scoollidge@clarkcc.com	х
Jackie Ikeoha	Project Engineer	-	jikeoha@clarkcc.com	х
Paul Bemis		248-808-5080	pbemis@clarkcc.com	
Contracting Resources				
8273 Grand River Avenue Su	ite 150. Brighton MI 48116		810-229-4320	
lim Barnas	Construction Mar	248-514-0107	ibarnas@contractingresources.pet	
Michael Barnas	Project Superintendent	270 317 313/	Jamase contracting courcesnet	
Brad Barnard	Project Superintendent			
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Phase 2

Repsonse to recent questions regarding schematic design, requested alternates and scope adds to the Scranton Middle School Project

Item	Estimate of probable cost (add)	
Glycol water drain-down and replacement with 30% propylene	\$30,000.00	scope add
Two chiller replacement	\$180,000.00	scope add
Exhaust fan replacement	\$22,500.00	scope add
Insulate all hydronic pipe elbows as this work was not included in previous		
work	\$2,995.00	scope add
Replacing gym suspended indoor air handling units (qty. 5) look into relocating		price does not remove any cost from
units to the roof for easier maintenance	\$230,889.28	requested alternate base scope. Clark estimate 6/26
Replacing the media center variable air volume boxes (qty. 4) look into		
replacing with a single rooftop unit for easier maintenance	included in above	requested alternate
Replace the existing remaining pneumatic actuators with electric	\$40,000.00	Building would be all electric
Replace the existing pneumatic acuators with pneumatic	\$6,000.00	
Item	Budget	
Well House: In lieu of replacing ten (10) new well tanks provide 2 well heads		design and cost has not been
with variable frequency drives	\$20,000.00	2021 scope of work confirmed

6/30/2020



MEETING NOTES:

Project:	BHS STEAM
Project No.:	T2 20530
Date:	06.24.2020
Location:	Virtual
Attendees:	Matt Jourden, BHS Gavin Johnson, BHS Greg Gray, BAS Chris Turner, BAS Liz Mosher, BAS Bill Trombley, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss the furniture needs for the BHS STEAM center.

The goal was to gain a better understanding of how the spaces will be used in order to provide the best recommendations for furnishings to support the functions within the spaces.

General:

- 1. An overview was presented of the space, this included
 - a. Images of furniture examples for flexible seating, instructional seating & desks, and technology stations.
 - b. Sample classroom layouts that promote thinking space, making space, sharing space, project work, discussion, and group work were presented.
 - c. Preliminary types of furniture and layouts were presented for each of the spaces. These were for discussion purposes as a starting point to think about all of the possibilities.
 - d. Architectural finishes were reviewed.
- 2. Where it makes sense based on function, we will make furniture selections that are consistent with other furnishings used throughout the school. This includes the manufacturer, style, & color of chairs, tables, etc.
- 3. Furniture suggestions that were presented, focused on flexibility to be easily moved and reconfigured to accommodate varying uses. It was agreed that this was a good direction.



- 4. Use and needs for the lower level furniture are not fully defined at this time. The group would like to wait (if the schedule allows) until the construction has started so that they can better visualize the space before making decisions on what furniture is needed for the lower level.
- 5. T2 & Lindhout Assoc. will develop interior 3D images to help the group better visualize the spaces.
- 6. Finishes
 - a. All flooring on the first floor will be concrete. Polished concrete if it fits within the budget.
 - b. The flex space and engineering lab on the second floor will be a hybrid flooring material (a material that looks and feels similar to carpet but performs like a hard surface). The maker space will have concrete floors. It was asked if the hybrid could be changed to concrete it could but polished concrete would cost more and not provide any added acoustical value. It was decided to stay with the proposed hybrid flooring.
- 7. Schedule:
 - a. Construction is expected to be complete by August 2021.
 - b. Furniture orders will need to be placed by April 2021.
 - c. Final decisions need to be made on furniture by February 2021.
- 8. Engineering Lab
 - a. T2 & Lindhout to work directly with Matt Jourden regarding layouts and needs.
 - b. Computer stations
 - i. Prefer long rectangular work surfaces for visibility of students' monitors.
 - ii. Outlets are needed at desktops
 - iii. Monitor arms for 1 large (32") or 1 small (21") monitors may be of value. T2 to get a couple of samples that they can test out in the classroom in 2020/2021.
 - iv. Space is needed for 35 computers
 - v. All computers will be at desk height. At least one must be height adjustable to be ADA accessible.
 - vi. Teaching station should be height adjustable.
 - vii. If budget allows, all computer desks could be height adjustable.
- 9. Maker space
 - a. Work tables & benches are needed for the machines to sit on.
 - b. Surfaces at north end could be height adjustable.
 - c. The center island and drill press at walls do not need to be height adjustable. They should be fixed at standing height.
 - d. All equipment will fit on a standard countertop. Could be butcher block type material.
 - e. 12 tall stools are needed throughout the space.



- f. Workbenches must be industrial quality. Dirty lab will also need work benches. 4-6 of the work benches can be on casters.
- g. Flexibility is important.
- h. Power to be suspended overhead.
- i. Soldering table may be the only area that needs a task light.
- 10. BAS will plan to purchase all of the equipment.
- 11. Bill Trombley provided direction that this should be an award winning facility that is a showcase for other schools to model.
- 12. No furniture is needed in the existing health occs room, unless storage is needed. T2 & Lindhout to do a site visit.

Next Steps:

- 1. T2 to refine design concepts and recommendations based on feedback above.
- 2. T2 to get monitor arm samples

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>



MEETING NOTES:

Project:	Hawkins STEAM
Project No.:	T2 20530
Date:	06.26.2020
Location:	Hawkins Site Visit
Attendees:	Hawkins staff representatives Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Hawkins STEAM center. Through this meeting, the design team hopes to gain a better understanding of the goals of the spaces in order to provide the best design solutions for the school and district's needs.

General:

- 1. Need space for teachers to do 1 on 1 work with students
- 2. Need to keep visibility throughout the space (low shelves). Potentially add one more shelf in height.
- 3. Remove ceiling to express structural and mechanical.
- 4. It is helpful to have office space that is quiet
- 5. Discussion of how to use dead space on each side of circulation desk/office. T2 & Lindhout to look at relocating circulation desk & office and created a corridor for students to travel straight through. Partial walls to provide screen between corridor and media area. Provide glass for courtyard views a possibility.
- 6. Circulation desk can be smaller, needs visibility through entire space
- 7. Former computer lab/ now an enrichment lab
 - a. Similar in function to Spencer's AE lab
 - b. Possibly add a garage door between lab & media
 - c. Storage is needed, but with 28 kids there isn't room for it inside the room. Storage could be just outside of the room in the media area
 - d. Maker space could be located just outside of the enrichment lab
 - e. Exterior windows
 - f. Possibility for clear panel modification to existing large unit ventilator.
 - g. Wet area with sink & hard floor is wanted in southeast corner.



8. See attachment with images, comments, and links that the Hawkins staff provided.

Next Steps:

1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>

Hawkins STEAM Center/ Makerspace Discussions

IMPROVEMENTS FOR HAWKINS ELEMENTARY per BOND

- STEAM Classroom Renovations
- 4th Grade: Restrooms, Corridor Lockers, Cabinetry in Classrooms, Corridor Ceiling Tiles
- Bottle Filter Stations
- Classroom Dividers and Learning Lab
- Instructional Technology Devices, Educational Technology Equipment and Computers
- STEAM Equipment, Tables and Seating
- · Site work on Cloverleaf Baseball/Softball Facility

STEAM Center Wish list:

- 1. Paint/ Design Thinking signage
- 2. Bookshelves on wheels
- 3. Makerspace storage (on wheels) locks
- 4. Lots of storage for robots
- 5. Charging Stations or furniture with charging stations
- 6. Teacher testing nooks/ space reconfiguration of space with architect
- 7. Updated circulation desk and cupboards



- 8. Flow between STEAM Center and enrichment classroom laminate flooring in the Makerspace area
- 9. Flexible seating wobble stools
- 10. Redesign of space possible reading nooks and stage area



Concerns:

- 1. Heating along the walls of the library if shelves are moved to the perimeter of the room, how will that impact heating of space
- 2. Best way to utilize space in the long hallway outside of teacher workroom (storage, seating, display cases for student work?)
- 3. Building continuity: Reading tree? Video equipment, STEAM engineering challenge extension outside with <u>Imagination Playground</u>

Technology: TBD

- 1. Interactive tables?
- 2. Additional iPads
- 3. Robotics? 1 to 1?

Visual Inspirations





Other Library Inspirations: Dexter Ann Arbor



MEETING NOTES:

Project:	Hilton STEAM
Project No.:	T2 20530
Date:	06.26.2020
Location:	Hilton Site Visit
Attendees:	Hilton staff representatives Jeff Eisele, Hilton Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Hilton STEAM center. Through this meeting, the design team hopes to gain a better understanding of the goals of the spaces in order to provide the best design solutions for the school and district's needs.

General:

- 1. No changes to the offices at the perimeter
- 2. Courtney's office could be a small production studio with green screen, and collaboration space.
- 3. No need for enclosed glass spaces
- 4. Courtyard
 - a. Discussion of adding a door from the media directly out possibly replace window at stage with a door
 - b. Would like to add netting above courtyard to create a butterfly house
- 5. Stage
 - a. Area is used for instruction but it doesn't have to be a raised space
 - b. This area could work as maker space & instructional space could be relocated adjacent to main entrance
- 6. Maker space
 - a. Hard surface flooring required
 - b. New tables & seating needed
 - c. Space needed for 3D printer and large format printer
- 7. Circulation desk
 - a. Can be replaced and/or relocated
 - b. Size can be significantly reduced



- 8. General
 - a. Could use more book storage, preferably mobile to allow for reconfiguring for staff meetings
 - b. If budget permits, new shelving to replace teal shelving would be beneficial
 - c. Need rolling carts for robot storage
 - d. Lighting needs to be updated
 - e. Existing tables and chairs could be reused
 - f. Space needed for copier
 - g. Due to all of the drywall walls and ceilings in the space, an industrial theme may be difficult to achieve. A more natural/earthy theme may be another possibility.
 - h. Main entrance (in the corridor) to the space needs to be enhanced
 - i. Existing stage area could meet STEAM/Maker needs.
 - j. Overall layout with furniture could provide a "quiet" zone, "teaching" space, and "reading/collab" space.
- 9. Old computer lab
 - a. Currently used for storage and kindergarten activity room
 - b. How can the space be better utilized?
 - c. Adding glass to the wall adjoining the media area may open up the space and provide visibility between the two spaces.
 - d. This could be a maker space for K-4th
 - e. Possibly include play kitchen, large building blocks...

10. See attachment with images, comments, and links that the Hilton staff provided. **<u>Next Steps:</u>**

1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>

HiltonSTEAM Bond Imagination 2020

Who should be involved:

Principal, Media Specialist, Academic Enrichment Coach, Teachers (Jeff Eisele, Courtney Lauer, Kim Lewicki, Karleigh Sleeper, Pam Wikman)

Based on the District's Bond Documents:

https://www.brightonk12.com/site/handlers/filedownload.ashx?moduleinstanceid=120&dataid=2 8140&FileName=BAS-School-Campaign-Brochures.pdf

IMPROVEMENTS FOR HILTON ELEMENTARY

- STEAM Classroom Renovations
- STEAM Equipment, Tables/Seating
- Corridor Carpeting
- Mechanical and Plumbing Upgrades
- Replace Chiller
- Replace Boiler
- Bottle Filter Stations
- Media Room Lighting
- Instructional Technology Devices, Educational Technology Equipment and Computers
- Site Work
- Parking Lot repaving, Sidewalks and Site Lighting

Building Needs

- 1. Two kindergarten iPad carts (possibly 3)
- 2. iPads (not necessarily a cart) for upper grades

Building Wants

- 1. Extending our STEAM engineering challenges outside with <u>Imagination</u> <u>Playground</u>
- 2. Life size legos- Large Motor Room
- Creation Station on wheels with bins of different manipulatives that can be checked out by teachers. Similar to the big cart of fun in the gym but with STEAM activities. (Possibly 2 separate carts: Lower El and Upper El)
- Lower El Cart- 6-10 tubs of STEAM oriented materials that could be used during choice time in the classrooms. Teachers could have set times each week for "STEAM cart". <u>Example Cart</u>

STEAM Center

Theme- Reggio Emilia inspired

Children thrive in **environments** that are suited to their interests and developmental stages. In the **Reggio Emilia** approach, the **environment** is viewed as a place that is welcoming, authentic aesthetically pleasing, culturally representative of community, embraces nature and filled with purposeful materials.

STEAM Center Needs

- 1. Paint
- 2. Bookshelves on wheels
- 3. Makerspace storage on wheels locks
- 4. Charging Stations

STEAM Center Wants

- 1. Reading Tree See second page
- 2. Clouds on the ceiling-See second page
- 3. Charging Stations
- 4. Vinyl/Wood flooring in Makerspace area
- 5. Student Art Gallery
- 6. Courtyard Greenhouse, butterfly house (Science)
 - i. Door from the STEAM Center
 - ii. Glass roof put in the courtyard.



- 7. Media Art Production Room/Author Nook/ News Booth/Recording studio:Include ways students can publish work through video or software and engage with others, ideas as well as take action in areas important to them or connections to learning. Promote long-term/project based learning. Would be great if it could be sound-proof. TV/Digital screen on the wall to connect to view and collaborate together.
 - Devices (few ipads, computers) that stay in that area
 - TV Broadcasting-Media Production
 <u>https://mediaartscenter.org/youth-media-education/</u>
 - <u>https://thecurrent.educatorinnovator.org/resource/student-</u> <u>run-middle-school-broadcast-media-program</u>
 - Youtube Channel
 - Green screen
 - Pod-cast
 - Animation video production
 - Stop-motion animation
 - -<u>http://www.teenlibrariantoolbox.com/2015/12/tech-talk-hue-animation-studio/</u>
 - <u>https://stikbot.toys/videos/</u>

Alternative to media room- small stations/cubbies



Visual Inspirations











Entrance to the library

This is what I have done in the past.



Links to ideas and vendors:

Ann Arbor Bond Ideas - https://www.a2schools.org/Page/15284

Large Treeshttps://naturemaker.com/ https://treescapes.com/schools-libraries/ https://www.alibaba.com/product-detail/artificial-greenery-fiberglass-ficus-microcarpatrees_60394522641.html

Storage Rolling Carts https://smithsystem.com/lines/cascade/

Kiskos with headset- Student made book reviews



MEETING NOTES:

Project:	Hornung STEAM
Project No.:	T2 20530
Date:	06.25.2020
Location:	Hornung Site Visit
Attendees:	Tracie Richards, Hornung Jack Yates, Hornung Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Hornung STEAM center. Through this meeting, the design team hopes to gain a better understanding of how the spaces will be used in order to provide the best design solutions for the school and district's needs.

General:

- 1. They would like to add glass to the front (above book return counter) and sides or provide shelving at sides to reduce noise.
- 2. Enclosed glass rooms
 - a. Add glass rooms at the front (against the brick walls) on each side
 - b. One could be for maker space and the other to focus on Robotics.
 - c. Two sides perpendicular to the brick could be glass and front could be glass or mobile bookcases (depending on overall layout of space).
 - d. Each room to accommodate 6-8 students.
 - e. Provide peg board wall in each space.
 - f. Glassed overhead doors maybe an option for acoustic privacy & flexibility.
- 3. Tables & chairs should be sized for kids (not adult size). Chairs should not be on casters. Tables need a small amount of storage and can be on casters.
- 4. Expect seating for about 20 students at tables and 16 in flexible seating.
- 5. Shelving needs to be replaced. 4 shelves high. Some should be mobile.
- 6. Prefer to keep the stage and the artwork mural. Mural is on canvas that could be removed during construction if contractor is not able to adequately protect the mural while on the wall. Projector screen above the stage should be removed.
- 7. They like the idea of a tree with seating underneath. This could be a common them in all of the elementaries.



- 8. Existing Lego wall needs to be relocated within the space.
- 9. Additional power is needed in the large open area.
- 10. They would like to have the (4) corridor doors removed at the exterior corners of the space.
- 11. Circulation Desk
 - a. Needs to be replaced and can be smaller
 - b. Space for one person to sit
 - c. Storage needed in various sized drawers and 2 drawers for files.
 - d. Like images of circular desk with bookshelves on exterior of desk
 - e. 28" high desk height is best
 - f. Would like to keep an open counter near the book return for sorting books.
- 12. Ideas for a green/growing wall. Possibly incorporated onto brick wall in corridor or in outside area/ greenhouse.
- 13. Outdoor classroom/ courtyard/ greenhouse
 - a. How can the space just outside the STEAM center best be utilized?
 - b. Can it be enclosed?
 - c. Could a standalone greenhouse be added?
 - d. Existing tables & benches can be removed and don't need to be salvaged.
 - e. Looking for ideas of how best to use this space.
 - f. Pictures of plants on sidewalk?
 - g. Capturing some of the roof water a possibility.
- 14. Need new STEAM signage change Media to Math
- 15. Lighting needs to be refreshed to create a brighter space
- 16. Remove existing ceiling tile and leave exposed ceiling if feasible
- 17. See attachment with images, comments, and links that the Hornung staff provided.

Next Steps:

1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>

Hornung STEAM Bond Imagination 2020

Who should be involved:

Principal, Media Specialist, Academic Enrichment Coach?, PTO President?

Based on the District's Bond Documents:

https://www.brightonk12.com/site/handlers/filedownload.ashx?moduleinstanceid=120&dataid=2 8140&FileName=BAS-School-Campaign-Brochures.pdf

IMPROVEMENTS FOR HORNUNG ELEMENTARY

- STEAM Renovations
- STEAM Equipment, Tables/Seating
- Bottle Filter Stations
- Instructional Technology Devices, Educational Technology Equipment and Computers
- Landscaping at the Three Main Entries

Library/STEAM Center Construction Ideas:

Midland: <u>https://www.mlive.com/news/saginaw/2017/10/midland_celebrates_new_stem_sc.html</u> Ann Arbor: <u>https://www.a2schools.org/Page/15284</u>

- Glass wall (bullet proof?) enclosing the front of the Library from the hallway, but not blocking out the natural light.
- Storage cabinets from the tops of the bookcases to the ceiling of the outer perimeter of the Library to create more of a hallway passing through the outsides of the Library and blocking out some of the passing noise.
- Re-designing the space to include a MakerLab area with tables (glassed in to keep the Library more of an open space).
- Tile specific area for Design studio/makerspace
- Shifting of shelves to make the space more productive.

Purchase Ideas:

- Imagination Playground <u>http://www.imaginationplayground.com/</u>
- 1 to 1 robotics
- Flexible furniture <u>https://schoolhouseproducts.com/ca/,</u> <u>https://www.demcointeriors.com/tag/flexible-furniture/</u>
- Charging station tables <u>https://www.digitaltrends.com/mobile/best-usb-charging-stations/</u>
- Getting Smart: <u>https://www.gettingsmart.com/2017/11/the-case-for-school-makerspaces-according-to-those-who-use-them/</u>
- Collaborative tables
- Tree/bookshelf in the middle with sky painted ceiling <u>https://bcpslis.pbworks.com/w/file/fetch/108101705/MSDE_draftfacilityguidelinesLMC_D</u> <u>ec2015.pdf</u>

• Roving storage for Makerspace activities

Storage Ideas:

- Create storage spaces above the bookshelves to ceilings creates more of a hallway that blocks out noise.
- Makerspace Storage large lockable cabinets, supply cabinets
- Roving storage for Makerspace activities
- Charging stations
- Tables w/charging stations
- Rolling carts
- https://smithsystem.com/lines/cascade/



Image Ideas:



Design Concept Ideas:

https://bcpslis.pbworks.com/w/file/fetch/108101705/MSDE draftfacilityguidelinesLMC Dec2015.





MEETING NOTES:

Project:	Maltby STEAM
Project No.:	T2 20530
Date:	06.25.2020
Location:	Matlby Site Visit
Attendees:	Maltby staff representatives Scott Brenner, Maltby Dan Aten, Maltby Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Maltby STEAM center. Through this meeting, the design team hopes to gain a better understanding of the goals of the spaces in order to provide the best design solutions for the school and district's needs.

General:

- 1. The STEAM center supports approximately 880 students.
- 2. Existing media center
 - a. 2/3 of the space should be allocated for books/media
 - b. 1/3 should be allocated to STEAM functions
 - c. Enclose as needed. Whitenoise a possibility.
 - d. Offices on the perimeter need to remain as offices unless they can be moved to the upper gym
 - e. Remove ceiling tile and leave ceilings exposed if feasible.
 - f. Additional power needed throughout the space for maximum flexibility
 - g. White board walls are needed
 - h. Staff indicated a desire for STEAM programming to be located along the eastern side of the existing media center.
 - i. Should include a "wet" area.
 - ii. Potential to remove and/or re-purpose the existing storage room & 3 existing offices along the eastern wall.
 - iii. Should include a maker space (storage, couple 3D printers, hard floor, Lego wall)



- iv. Should include collaboration space (mobile benches, flexible arrangements).
- v. Project shelves are needed.
- vi. Storage is needed, white boards could be integrated into the storage
- i. All desktop computers will be replaced with chromebooks. Individual computer stations will not be needed.
- j. Mobile bookcases are needed
- k. The quantity of books is expected to remain about the same
- I. Shelving is needed to store students' projects.
- m. New shelving, seating, tables, etc. needed in remain 2/3rd's of the media center.
- n. Circulation desk
 - i. Space is needed for 2 people to work at desk
- 3. Lower level has (4) spaces needing modifications to better meet Maltby's STEAM programming needs.
- 4. Lab 1
 - a. Renovated in last bond
 - b. Would like exposed ceiling if feasible or new ceiling tile is needed
 - c. All or half of the room should have hard surface flooring
 - d. Existing power outlets along the walls work well
 - e. Exiting furniture works well
 - f. Rolling shelves needed for student project storage
 - g. This lab could be duplicated in labs 2 & 3
 - h. Wet space (sink) at one wall if possible
 - i. Need Lego wall
- 5. Upper level labs to be collaborative teaching & maker space
- 6. Lower level labs to be science and maker space
- 7. Lego walls are needed in both maker spaces
- 8. Science labs need water, 4-8 sinks at perimeter (not at islands in center of room), no shallow sinks
- 9. Existing computer lab
 - a. After touring the space it was suggested that this space could accommodate the world language program and the existing world language space would accommodate a lab with very few changes.
 - b. Eliminate wall between classroom and storage/office to the south to enlarge the classroom.
 - c. Eliminate the wall between the classroom and kitchenette area.
 - d. If world language lab, windows would not need to be added to the corridor
 - e. Keep a sink in the storage room
- 10. Existing world language lab
 - a. Could become science lab



- b. Existing appliances and cabinetry could remain and would suite science lab programming
- c. Potential for modifying existing countertops tbd
- d. Existing hard surface flooring could remain
- e. Add mobile furniture, white board & Lego wall
- 11. Lab 3
 - a. Could become a maker space
 - b. Needs all hard surface flooring
 - c. Remove existing ceiling and provide exposed ceiling if feasible
 - d. Existing folding partition wall to remain; look at options to resurface with marker boards, tackable, etc.
 - e. Need space for chrome book cart storage
 - f. Need shelves for student project storage
 - g. Provide ample power throughout the space but remove existing power poles
 - h. Provide carpet on east side & hard surface flooring on west side
 - i. A green house could be provided outside of this room's exterior entrance or the existing green house could be refreshed to be useable
- 12. Existing greenhouse improvements
 - a. Secondary to other listed STEAM needs.
 - b. Better access off main corridor is needed,
- 13. See attachment with images, comments, and links that the Maltby staff provided. **Next Steps:**
 - 1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>

Maltby 2020 Bond questions, input, discussion topics

Staff meeting notes:

- Questions about full time tech person
- Technology needs (see that google doc, link below) Input for Technology Committee Mtg
- Furniture needs specific to classrooms
- Lab space/sinks
- STEAM room. Where? For what teachers/programs?
- Updated cupboards and sinks for rooms that have not been updated (huge issue!)
- New classroom desks and chairs

Library Ideas

- Flexible furniture <u>https://schoolhouseproducts.com/ca/</u>, <u>https://www.demcointeriors.com/tag/flexible-furniture/</u>
- Collaborative tables <u>https://schoolhouseproducts.com/ca/</u>, <u>https://www.demcointeriors.com/tag/flexible-furniture/</u>
- Charging station tables <u>https://www.digitaltrends.com/mobile/best-usb-charging-stations/</u>
- Remove study carrels --streamline computer area
- iPad cart or laptop cart for use in the library
- Cricut machine https://leftbraincraftbrain.com/cricut-maker-your-new-favorite-makerspace-tool/

Design Concept ideas



















To consider if integrating STEAM into library space

- Re-designing the space to include a MakerLab area with tables
- Shifting of shelves to make the space more productive.
- Tile specific area for Design studio/makerspace
- Rolling carts
 <u>https://smithsystem.com/lines/cascade/</u>



 Get Smart
 https://www.gettingsmart.com/2017/11/the
 - case - for - school

 makerspaces
 - according
 - to - those - who - use - them/

Possible STEAM centers

- 3D printing station
- Green screen
- Pod-cast station

- Stop-motion animation
 - -<u>http://www.teenlibrariantoolbox.com/2015/12/tech-talk-hue-animation-studio/</u>
 - <u>https://stikbot.toys/videos/</u>
- Robots
- Design studio
- Coding
- Outdoor space?

Ann Arbor Steam school

Elementary Media Center https://docs.google.com/document/d/1ToXTXnWh - t3Q0flFqbKtDyGvJZsqcnHxf2Af_R56yMl/edit?usp=sharing Not detailed description of Makerspace week --- I'll contact ES to see if I can more detailed STEAM curriculum - April

Elementary STEAM resources



MEETING NOTES:

Project:	Scranton STEAM
Project No.:	T2 20530
Date:	06.25.2020
Location:	Scranton Site Visit
Attendees:	Scranton staff representatives Jennifer Hiller, Scranton Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Scranton STEAM center. Through this meeting, the design team hopes to gain a better understanding of the goals of the spaces in order to provide the best design solutions for the school and district's needs.

General:

- 1. Classrooms behind media center
 - a. Both rooms were previously computer labs
 - b. They need to be more user friendly for STEAM
 - c. It would be best to have a window between the 2 classrooms so the teacher can monitor both rooms
 - d. Overhead projectors would need to be relocated or replaced with flat screens
 - e. Classroom on the west side
 - i. needs hard surface flooring. Maybe hard surface running through both classrooms if possible.
 - ii. could storage room be vented for power tools such as sanders, jigsaw, etc.
 - iii. lots of storage needed, both fixed and mobile
 - iv. need tables that students can cut on
 - v. marker boards and student storage is also needed at tables
 - vi. student project storage needed
 - vii. ample outlets needed
 - viii. sinks are needed
 - ix. will be considered the wet/dirty lab.



- f. Classroom on the east side
 - i. will be the clean side
 - ii. needs flexible furniture, hard surface flooring may not be needed
- g. Overall a span of 80-100' is needed of hard surface flooring
- 2. Main media center
 - a. Expand storage room off west lab
 - b. Discussed moving high density storage room to another location; however, that is probably cost prohibitive.
 - c. Circulation desk could be smaller and moved in front of current IT room
 - d. IT room could be reduced in size by dividing the space into two rooms; cabinetry behind the circulation desk could be incorporated into the the new space; an office for the media specialist could be created in this new space; a window and book drop could be added to the existing wall.
 - e. Current office could become a small group collaboration room
 - f. Add glass partitions to create two smaller separate rooms at the main entrance
 - g. Small office on SW corner of media center could have a green screen for students
 - h. Quantity of shelving is adequate but it would be helpful to have more mobile shelving
- 3. Ms. Tulley classroom
 - a. Exiting folding room divider can be removed
 - b. Mobile tables and chairs are needed
 - c. Additional power is needed. It could drop from ceiling.
- 4. Furniture for the front office (2 workstations) should be included in this project scope
- 5. See attachment with images, comments, and links that the Scranton staff provided.

Next Steps:

1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>



Brighton Area Schools 2019 Bond Planning Meeting June 16, 2020

Scranton: Patrick Borg, Peter Fahlgren, Meg Foley, Kara Fribley, Jennifer Hiller, Chris Turner

- I. Space
 - O Supplies
 - O Possible addition to courtyard outside cafeteria?

A. STEAM ROOM (PLTW/TECH ED) Needs

- 1. Maintain wall, but install glass transparency between<u>https://i.pinimg.com/564x/4f/d4/58/4fd458d694523529fa22c2</u> <u>a42fo7cbe7.jpg</u>
 - a) Blinds in windows ability to close off room when needed for a different use like testing
 - b) Ability to slide open some of the windows so teacher can monitor and speak w/ students in both parts)
 - c) ¹/₂ or ³/₄ wall w/ windows on top
 - d) Maintain at least 1 door between rooms inside room
 - e) Maintain separate hallway access into both rooms
- 2. Dry and wet spaces
 - a) No carpet in wet/messy room. Tile or concrete
- 3. Venting Power tools, wood dust, wood burning, etc.
 - a) Can we expand the storage room to add space for venting and power tools
- 4. Seating/Work Stations Need for both parts of room
 - a) Tables that allow for cutting work, ability to hold up boards
 - b) Easily movable for flexible seating
 - c) Tall tables that students can work at standing or sitting (stools)
 - d) Smaller designated table/work space for hot glue guns<u>https://www.interiorconcepts.com/wp-</u> content/uploads/2013/09/STEM-Lab-Furniture-Interior-Concepts-Trumbull-2.jpg
- 5. Sink in wet/messy room
- 6. Access to outdoors for demos, testing
- 7. Testing space on floor for projects (not carpet)
- 8. Storage, storage, storage
 - a) Shelves or cubbies for student projects (big & small, odd sizes, taller than normal book shelves)
 <u>https://www.worthingtondirect.com/storage-furniture/cascade-series-mobile-tote-tray-mega-tower-by-smith-system.htm</u> (These may be too small, need a little more height in each drawer, but general idea for smaller student projects)



https://legatkingscottcom.files.wordpress.com/2017/04/stemlab-opened-wall-112.jpg?w=2560 (left wall)

- b) Storage for Class materials (currently 4 tall cabinets)
- c) Team kits (Robotics 56 kits currently)
- d) Storage in tables? https://www.performanceservices.com/uploads/i/current/edgew_ood-middle-school-stem-lab.jpg https://i.pinimg.com/originals/ce/68/49/ce684999e86e186e0f54 https://i.pinimg.com/originals/ce/68/49/ce684999e86e186e0f54 https://i.pinimg.com/originals/ce/68/49/ce684999e86e186e0f54 https://i.pinimg.com/564x/a4/43/f5/a443f55d80d4eef34ee3bfba_6dda4f04.jpg https://fhai.com/wp-content/uploads/2019/11/Urbana-HS-VoAg-Lab.jpg
- e) Could repurpose teacher closet space in Lab #2
- 9. Lockable room/area for power tool use (could this be the current class book storage room? Blow a hole in the wall from the STEAM rooms)
- 10. Charging Area for Automation/Robotics batteries
- 11. Outlets throughout room (charge batteries, hot glue guns, etc.)
- 12. Projection & white boards for teaching in both rooms
- 13. High ceiling to allow for project testing (hot air balloons)
- 14. Printer
- 15. Interactive gear wall https://i.pinimg.com/564x/6b/f3/ea/6bf3ea83d17bd07d62a390c83f52a7 c9.jpg
- B. Media Center Needs/Project Based Flexible Space Needs
 - Create "work" rooms in front corners build glass walled rooms for small group work
 - Reclaim library classroom (Tulley's room)
 - Create Multi Media space (Tulley's room?)
 - Build walls in telecom room to make better use of the remaining space. Use for storage room (extremely hot temperature-wise)
 - Remove counters/sink etc to make better use of space in Telecom room
 - Add moveable wall into large conference room so space can be broken in 2 work areas
 - Remove at least one counter from Large Conference Room to better utilize space

II. Issues

- O Space constraints
- O Possible second floor for media center to allow for venting and STEAM rooms
- O View as 3 different spaces: Media Center, STEAM Classrooms (PLTW, Tech Ed), Flexible STEAM/Multi Media room available for check-out
- O Regular classroom space available elsewhere in the building for Kacey Tulley's classroom
- O Ventilation code/requirements for power tools



O No water source in current STEM rooms



MEETING NOTES:

Proi	ect [.]	Snencer	STEAM
FIU	eci.	Spencer	SIEAW

- Project No.: T2 20530
- Date: 06.26.2020

Location: Spencer Site Visit

Attendees: Margaret Adams, Spencer Gilian McColgan, Spencer Bill Renner, Spencer Chris Turner, BAS Nick Casteel, BAS Brian Jesse, Barton Malow Jason McIntyre, Lindhout Assoc. Tracy Taylor, t2 designs

The purpose of this meeting was to discuss goals and objectives for the Spencer STEAM center. Through this meeting, the design team hopes to gain a better understanding of the goals of the spaces in order to provide the best design solutions for the school and district's needs.

General:

- 1. Media area
 - a. Existing bookcases were new with last bond. Quantity may reduce slightly
 - b. Like the same tree with seats under it for reading as Hornung
 - c. New tables & chairs are needed; chairs should stack, no casters
 - d. Chair sizes to match 3rd & 4th grade chair sizes from last bond
 - e. Need tables with chairs for 30 and flex seating for 16
 - f. Stage demo more info on existing in-floor central vacuum system needed
 - 1. Demo existing wall to the north. Replace with glass and/or overhead door to open the space to courtyard beyond.
 - 2. New screen with articulating arm to accommodate larger gatherings.
 - g. One "maker" pod on the east side of & adjacent to the media center desk.
 - i. Hard floor.
 - ii. Wall storage
 - iii. Glassed-in.
- 2. AE room



- a. New tables & chairs needed
- b. Prefer tables in varying heights from 12" high to 28" high
- c. Power outlets needed outside the room for charging carts
- d. Remove power poles and change to ceiling drops for power
- e. Provide wall for STEAM storage & pegboard wall
- f. Replace existing open shelves with adjustable height shelves, overall counter height is good
- g. Need counter space the length of the room for students to store their projects
- h. Ok to have carpet on the floor
- i. Prefer most storage to be open (no doors) so it is easy to see
- j. Existing white board could be replaced with an interactive board and a smaller marker board
- k. A green/living wall is desired. Could be in this room or part of outdoor classroom
- 3. Outside
 - a. Would like an outdoor classroom
 - b. Stand alone igloo is another idea for outdoor classroom
 - c. Existing area outside building has plants and ponds for kids now.
 - d. Living/green wall could be outside
- 4. See attachment with images, comments, and links that the Spencer staff provided.

Next Steps:

1. T2 & Lindhout to evaluate information gathered and develop a preliminary design concept that can be used for budgeting purposes.

Please contact Tracy Taylor with any changes or corrections. 248-486-9249 ext. 100, Email <u>tracy@t2designsinc.com</u>

Spencer STEAM Bond Imagination 2020

Who should be involved:

Principal, Media Specialist, Academic Enrichment Coach

Based on the District's Bond Documents:

https://www.brightonk12.com/site/handlers/filedownload.ashx?moduleinstanceid=120&dataid=2 8140&FileName=BAS-School-Campaign-Brochures.pdf

IMPROVEMENTS FOR SPENCER ELEMENTARY

- STEAM Renovations
- STEAM Equipment, Tables/Seating
- Instructional Technology Devices, Educational Technology Equipment and Computers
- Bottle Filter Stations
- Parking Lot Repaving

Library/STEAM Center Construction Ideas:

Midland: <u>https://www.mlive.com/news/saginaw/2017/10/midland_celebrates_new_stem_sc.html</u> Ann Arbor: <u>https://www.a2schools.org/Page/15284</u>

- Glass wall (bullet proof?) enclosing the front of the Library from the hallway, but not blocking out the natural light ??
- Re-designing the space to include a MakerLab area with tables
- Shifting of shelves to make the space more productive.
- Open up the stage (remove wall and/or stage completely)
- Tile specific area for Design studio/makerspace
- GREEN SCREEN painted wall or portable screen
- https://www.gettingsmart.com/2016/11/take-a-tour-of-our-schools-makerspace/
- https://www.interiorconcepts.com/tips-for-designing-a-successful-stem-lab/

Purchase Ideas:

- Imagination Playground http://www.imaginationplayground.com/
- 1 to 1 robotics
- Flexible furniture <u>https://schoolhouseproducts.com/ca/</u>, <u>https://www.demcointeriors.com/tag/flexible-furniture/</u>
- Charging station tables <u>https://www.digitaltrends.com/mobile/best-usb-charging-stations/</u>
- Getting Smart: <u>https://www.gettingsmart.com/2017/11/the-case-for-school-makerspaces-according-to-those-who-use-them/</u>
- Collaborative tables

- Tree/bookshelf
 <u>https://bcpslis.pbworks.com/w/file/fetch/108101705/MSDE_draftfacilityguidelinesLMC_D</u>
 <u>ec2015.pdf</u>
- Roving storage for Makerspace activities
- Green screen (painted wall or purchased screen)

Storage Ideas:

- Create storage spaces above the bookshelves
- Makerspace Storage large lockable cabinets, supply cabinets
- Roving storage for Makerspace activities
- Charging stations
- Tables w/charging stations

Image Ideas:





Rolling carts

https://smithsystem.com/lines/cascade/



Imagination Playground http://www.imaginationplayground.com/product/index.html



Design Concept Ideas:

https://bcpslis.pbworks.com/w/file/fetch/108101705/MSDE_draftfacilityguidelinesLMC_Dec2015. pdf





https://www.teq.com/evospaces/



https://smithsystem.com/furniture/diamond-open-front-desk/





















https://www.interiorconcepts.com/products/school-furniture/media-center-furniture/



Possible additional STEAM centers

- 3D printing station
- Multiple media Displays for library and AE room
- iPads for STEAM and AE
- Adjustable tables
- Laptops for designing
- Green screen
- Greenhouse our outdoor classroom out the back door; take down the wall on the stage into the back hall (and stage)
- Pod-cast station
- Stop-motion animation
 - -<u>http://www.teenlibrariantoolbox.com/2015/12/tech-talk-hue-animation-studio/</u>

• <u>https://stikbot.toys/videos/</u>

Outdoor classroom

http://www.solardome.co.uk/dome-range/glasshouses/



https://www.designonvine.com/outdoor-classroom-ideas.html/outdoor-classroom-ideas-eigp



https://apexshelters.co.uk/wp-content/uploads/2011/07/OUTDOOR-CLASSROOM-schoo-2.jpg



Design Studio Ideas:

• Peg Board Wall - with storage rods for wrapping paper, hooks for ribbon + tape, baskets for string







Students can use

• Adjustable tables - see above for collaborative space or I like the height options here



• More supply storage - similar to how it is displayed currently I like how the students can see all supplies, but could look more professional



• Visible Paper/Fabric storage -



- Vertical Farming Wall -
- Extra material storage/PLTW unit storage- clear bins with shelving

Garage doors from Midland



Folding Glass Door

This overhead folding door is designed to automatically close in an emergency. It has special glass to prevent fire from spreading from one section of the building to another. The motor, pulleys and cables raise and lower the door through a system of counterweights. The door weighs about 1 ton (2,000 pounds).



Brighton Area Schools 2019 Bond Planning Meeting June 16, 2020

Spencer: Margaret Adams, Gillian McColgan, Bill Renner, Chris Turner

I. Space Ideas

- A. Presentation
 - 1. Displays around the library and AE room
 - 2. Controls that allow simultaneous presentations on all screens

B. Construction

- 1. Remove wall near stage area that would lead into the hallway
- 2. Create an outdoor learning area through doors behind the stage (leading into playground)
- 3. Adding outlets outside AE room to be used as a charging station for carts
- 4. Remove wall into teacher's workroom
- 5. Removal of electrical posts in AE room

C. Furniture

- 1. New tables for the media center that can configure into smaller groups ie. larger circle table into smaller circle tables for group work.
- 2. Adjustable tables that can be raised and lowered depending on the classes visiting.

Working document of ideas

https://docs.google.com/document/d/1eMpxND9vZ8wZy4CUBHYq2AXwPLPablSDqnotbpCL5 cA/edit