



Chesapeake
VIRGINIA



COOPERATIVE STRATEGIES

COMPLETE FINANCIAL & DEMOGRAPHIC PLANNING FOR EDUCATION

City of Chesapeake
& Chesapeake Public
Schools
City Council &
School Board Update

November 7, 2019

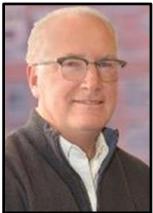
INTRODUCTIONS



Mr. David Sturtz, REFP, Partner, Cooperative Strategies



Mr. Michael Ross, AIA/REFP, President, HBA



Mr. Jack Hasten, AIA, Associate Principal, HBA

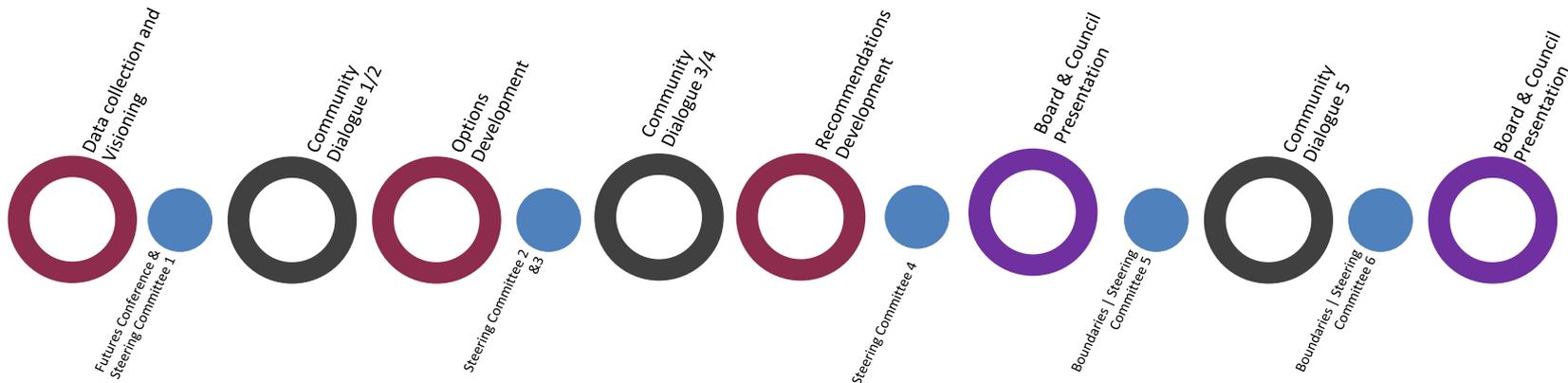


Mr. Matt Sachs, Associate Director, Cooperative Strategies

Collect & analyze data, vision, community feedback on planning priorities, & draft options (2019)

Refine options through community engagement & make FMP recommendations (Jan-May 2020)

Develop boundary plans to support the recommendations with community engagement (May-Dec 2020)





TIMELINE



2019

- **Data collection** (July-Sept) Facility condition, capacity, adequacy, and demographic assessment
- **Futures Conference** (Sept 25) Vision by CPS and community leaders for desired outcomes
- **Steering Committee 1** (Oct 24) Review facility & demographic data, help draft questionnaire Community Dialogue 1
- **Community Dialogues 1/2** (Nov 20 & 21) Provide feedback on implications of the data on developing facility options
- **Draft Options** (Dec 16-17) Create draft options for facility investment based on data and community feedback

2020

- **Steering Committee 2** (Jan 7) Review, comment on draft options
- **Steering Committee 3** (Jan 28) Finalize review of draft options
- **Community Dialogues 3/4** (Mar 11 & 12) Provide feedback on draft options
- **Draft Recommendations** (March 31-Apr 1) Refine options into the recommended Facilities Master Plan
- **Steering Committee 4** (May 13) Review, comment on the draft Facilities Master Plan report
- **Final Board & Council Presentation** (TBD) Present final FMP recommendations
- **Steering Committee 5** (TBD) Review boundary planning units & related attendance boundary data
- **Community Dialogue 5** (TBD) Provide feedback on draft boundary options
- **Steering Committee 6** (TBD) Review survey data, suggestion for how to finalize boundary options
- **Final Board & Council Presentation** (TBD) Present final Boundary recommendations

Note: The School Board and City Council will receive updates throughout the process.

FMP OUTCOMES

An executable plan for major capital investments in schools & supportive boundary adjustments

New construction

Major & moderate
renovations

Grade
configuration
changes

Magnet or choice
program locations

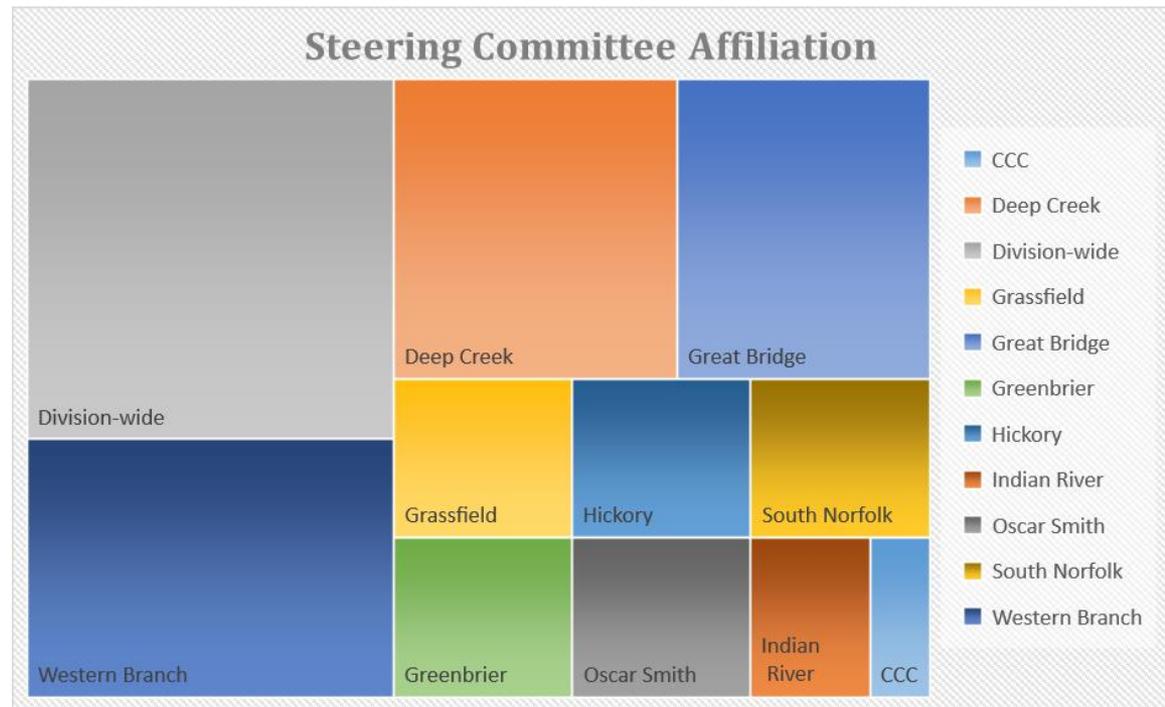
Major furniture,
fixtures &
equipment
procurement (FFE)

Boundary changes

Representation

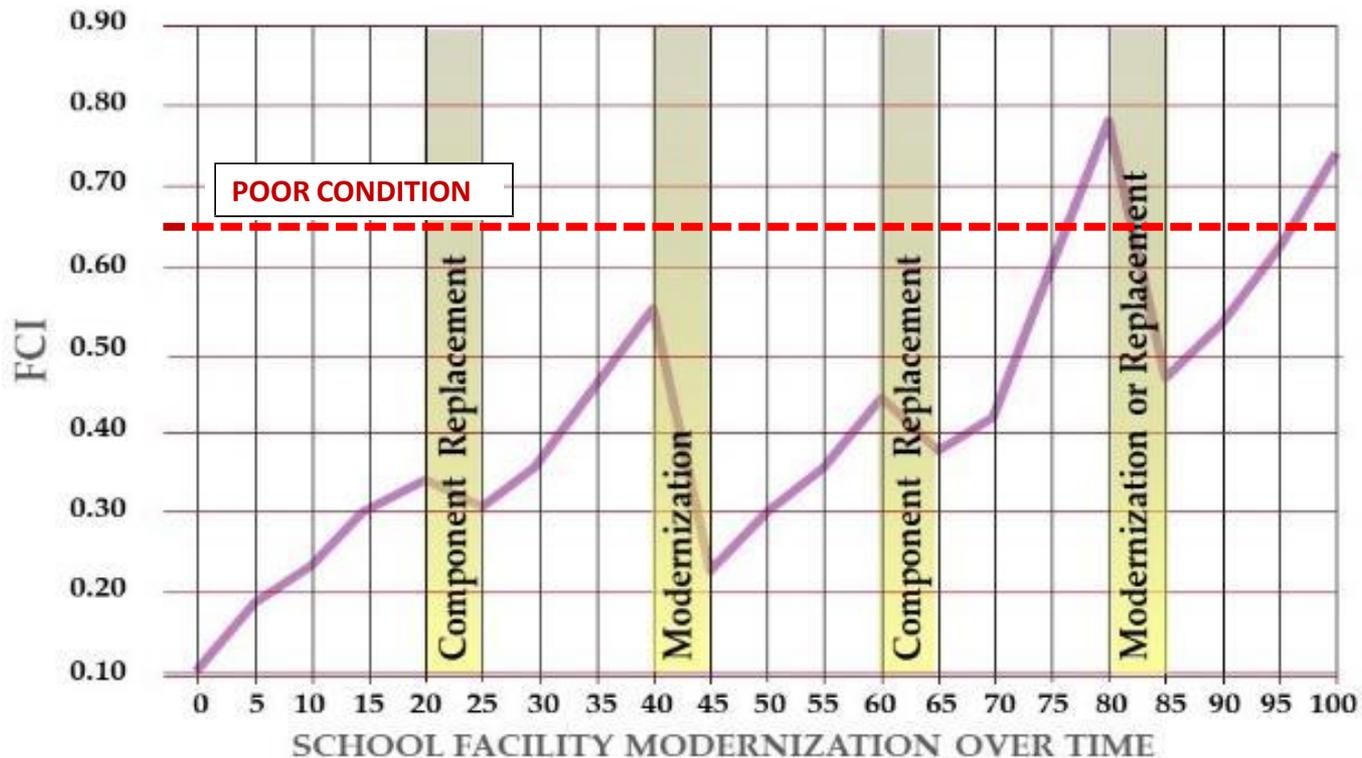
- 59 committee members
- 8 high school students
- 25 parents/citizens
- 18 CPS staff/administration
- 8 city/business representatives

Area	Count
CCC	1
Deep Creek	9
Division-wide	14
Grassfield	3
Great Bridge	8
Greenbrier	3
Hickory	3
Indian River	2
Oscar Smith	3
South Norfolk	3
Western Branch	10



FACILITIES CONDITION ASSESSMENTS

FCI - Facility Condition Index: A numeric score between 0 and 1 which quantifies the condition of a site/ building facility or group of building facilities on the same site. $FCI = \text{Sum of all [SCIs} \times \text{relative value of each system or component as a percentage of the total value of the facility]}$. As with the SCI, 0 = new and 1.0 = exceeded useful life. This score allows us to compare the condition of facilities against other facilities in a school division and also against the average or median FCI conditions for the school division.





FCI & CAPITAL RENEWAL BUDGETING



School Name	Gross Building Area [SF]	Age of Original Building	FCI	Replace	Renovate	Estimated Cost of Capital Renewal Replacements by Priority				Capital Renewals
						Current Capital Replacement Value 2020 \$\$\$	Current Capital Renewal Value 2020 \$\$\$	Priority 1 Estimated Cost of Capital Renewals [SCI > .9] 2020\$\$\$	Priority 2 Estimated Cost of Capital Renewals [.9 > SCI > .8] 2020 \$\$\$	
Crestwood MS	121,459	68	0.7137	\$ 49,476,863	\$ 34,169,017	\$ 5,568,092	\$ 2,748,722	\$ 3,737,676	\$ 18,295,720	\$ 30,350,209
Chesapeake Career Center	69,785	53	0.7098	\$ 24,701,166	\$ 16,632,319	\$ 2,576,797	\$ 6,016,326	\$ 1,100,667	\$ 11,140,228	\$ 20,834,018
Crestwood IS	95,958	57	0.6954	\$ 33,965,386	\$ 22,870,303	\$ 4,171,961	\$ 1,699,524	\$ 2,532,097	\$ 6,872,044	\$ 18,275,626
Chesapeake Alternative School	39,657	64	0.6844	\$ 14,037,030	\$ 9,451,714	\$ -	\$ 3,972,757	\$ 1,560,112	\$ 3,821,060	\$ 9,353,929
Truitt IS	53,703	91	0.6835	\$ 19,008,766	\$ 12,799,390	\$ 51,104	\$ 268,610	\$ 4,384,745	\$ 4,014,929	\$ 9,329,479
G. W. Carver IS	85,615	69	0.6820	\$ 30,304,368	\$ 20,405,188	\$ 150,977	\$ 44,629	\$ 7,719,378	\$ 5,881,054	\$ 15,996,038
Rena B. Wright PS	65,552	49	0.6804	\$ 23,202,849	\$ 15,623,441	\$ 2,140,791	\$ 3,352,583	\$ 1,167,276	\$ 7,421,377	\$ 14,186,029
Indian River MS	120,259	56	0.6701	\$ 48,988,037	\$ 33,114,432	\$ 2,116,748	\$ -	\$ 5,291,111	\$ 8,974,118	\$ 22,581,977
Deep Creek Central ES	68,513	65	0.6632	\$ 24,250,928	\$ 16,319,150	\$ 1,800,000	\$ 3,058,150	\$ 3,352,079	\$ 3,833,932	\$ 12,051,233
Portlock PS	71,711	56	0.6465	\$ 25,382,800	\$ 17,091,350	\$ 783,563	\$ 137,955	\$ 2,851,082	\$ 12,500,976	\$ 16,320,575
Western Branch MS	140,675	56	0.6155	\$ 50,045,886	\$ 39,574,190	\$ 3,977,241	\$ -	\$ 7,427,555	\$ 10,760,534	\$ 22,165,330
Southeastern ES	79,789	68	0.6081	\$ 28,211,197	\$ 19,016,009	\$ 3,074,251	\$ 209,377	\$ 2,380,718	\$ 3,326,854	\$ 8,991,200
Deep Creek MS	122,714	64	0.5902	\$ 49,988,000	\$ 34,522,076	\$ 2,719,015	\$ -	\$ 10,573,937	\$ 6,765,631	\$ 20,058,584
Great Bridge IS	77,867	29	0.5938	\$ 27,561,879	\$ 18,558,556	\$ -	\$ 9,252,481	\$ 1,517,946	\$ 3,234,879	\$ 14,005,306
Thurgood Marshall ES	77,832	24	0.5900	\$ 27,549,490	\$ 18,550,214	\$ 958,272	\$ 4,797,598	\$ 3,354,457	\$ 5,526,444	\$ 14,636,771
Greenbrier IS	77,867	28	0.5856	\$ 27,561,879	\$ 18,558,556	\$ -	\$ 6,137,945	\$ 2,449,186	\$ 6,328,853	\$ 14,915,984
Camelot ES	96,515	45	0.5794	\$ 34,162,543	\$ 23,003,057	\$ 2,018,969	\$ 1,808,036	\$ 8,970,918	\$ 1,822,744	\$ 14,620,668
Great Bridge HS	262,264	37	0.5793	\$ 120,837,590	\$ 85,025,059	\$ 6,377,437	\$ 1,046,516	\$ 35,008,982	\$ 524,118	\$ 42,957,054
Hickory ES	63,589	97	0.5759	\$ 22,508,024	\$ 15,155,586	\$ 590,144	\$ 848,388	\$ 511,178	\$ 7,413,625	\$ 9,363,336
Butts Road IS	77,867	28	0.5675	\$ 27,561,879	\$ 18,558,556	\$ -	\$ 5,569,964	\$ 4,071,990	\$ 3,815,652	\$ 13,457,606
Sums for All 47 School Facilities	5,941,427	SF	0.5284	\$ 2,403,334,574	\$ 1,657,603,517	\$ 83,422,241	\$ 112,573,286	\$ 219,693,115	\$ 289,338,966	\$ 705,027,609
			AVG FCI		x 2.25%	(note 1)				
					\$ 37,296,079	(in 2020 \$\$\$ - Should be escalated 5% per year for construction cost inflation)				

note 1: The Industry Standard for budgeting of Public School Capital Renewal Replacements is between 2% and 2.5% of Total Current Capital Renewal Value per year. This factor assumes that Capital Renewal Replacements have not been significantly deferred.



EDUCATIONAL ADEQUACY ASSESSMENTS



EDUCATIONAL ADEQUACY ASSESSEMENT SUMMARY

School: Crestwood MS Appraisal Date 3/17/2016

Principal Appraiser Michael Ward Jack Hasten

	Possible Points	Total Points Earned	Percent	Rating	
1	Site	200	98	49%	Poor
2	Interior Environment	200	86	43%	Poor
3	Entrances & Lobbies	100	45	45%	Poor
4	Administration	100	32	32%	Poor
5	Library / Media Center	100	60	60%	Borderline
6	General 6-8 Classrooms	300	132	44%	Poor
7	Special Education	100	39	39%	Poor
8	Science Labs	100	43	43%	Poor
9	Exploratory Tech Ed	100	60	60%	Borderline
10	Family & Consumer Science	100	48	48%	Poor
11	Exploratory Computer / Business	100	59	59%	Borderline
12	Art	100	44	44%	Poor
13	Music	100	54	54%	Borderline
14	PE / Team Indoor Sports	100	42	42%	Poor
15	Large Assembly	100	18	18%	Inadequate
16	Teacher Planning	100	34	34%	Poor
17	Cafeteria / Food Service	100	52	52%	Borderline
TOTAL SCORE		2,100	946	45%	Poor

90-100%	Excellent
70-89%	Satisfactory
50-69%	Borderline
30-49%	Poor
1-29%	Inadequate



TOTAL CONDITION INDEX



School Facility	Gross Building Area	Average Building Age [Weighted by SF]	Building Facility Condition Index [BFCI]	Campus Facility Condition Index [CFCI]	Educational Adequacy Index [EAI]	Educational Adequacy Factor [EAF] = [2 - EAI]	Total Condition Index [TCI] = [CFCI x EAF]
Chesapeake Career Center	69,785	51	0.6799	0.7058	36%	1.64	1.1646
Crestwood Middle	121,459	65	0.6600	0.7137	45%	1.55	1.1059
Chesapeake Alternative School	39,657	63	0.6887	0.6714	44%	1.56	1.0654
Indian River Middle	120,259	54	0.6155	0.6701	44%	1.56	1.0431
Crestwood Intermediate	95,958	56	0.6210	0.6954	52%	1.48	1.0278
Western Branch Middle	140,675	59	0.5686	0.6141	40%	1.60	0.9800
G. W. Carver Intermediate	85,015	61	0.6218	0.6820	58%	1.42	0.9678
Deep Creek Central Elementary	68,513	45	0.6143	0.6632	54%	1.46	0.9670
Rena B. Wright Primary	71,552	43	0.6352	0.6804	59%	1.41	0.9617
Deep Creek Middle	122,114	51	0.5654	0.5982	41%	1.59	0.9492
Portlock Primary	71,721	44	0.6094	0.6465	56%	1.44	0.9297
Southeastern Elementary	79,789	48	0.5289	0.6081	48%	1.52	0.9249
Truitt Intermediate	53,703	85	0.6803	0.6835	68%	1.32	0.9011
Great Bridge High	262,264	33	0.5318	0.5793	46%	1.54	0.8894
Thurgood Marshall Elementary	77,832	23	0.5555	0.5870	49%	1.51	0.8839
Great Bridge Intermediate	77,867	28	0.5863	0.5938	54%	1.46	0.8671
Greenbrier Intermediate	77,867	27	0.5717	0.5856	54%	1.46	0.8544
Western Branch Intermediate	83,166	42	0.4989	0.5628	49%	1.51	0.8481
Camelot Elementary	96,515	35	0.5354	0.5794	54%	1.46	0.8460
Norfolk Highlands Primary	46,899	41	0.5472	0.5591	50%	1.50	0.8386



HISTORICAL ENROLLMENT



Grade	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
PK	239	256	218	214	217	212	224	212	256	274
K	2,448	2,485	2,448	2,612	2,470	2,454	2,426	2,387	2,545	2,504
1	2,765	2,772	2,808	2,847	2,968	2,782	2,794	2,834	2,774	2,930
2	2,748	2,717	2,752	2,790	2,876	2,959	2,853	2,908	2,870	2,806
3	2,751	2,770	2,751	2,817	2,808	2,885	2,990	2,885	2,961	2,958
4	2,892	2,753	2,874	2,844	2,911	2,823	2,988	3,006	2,928	2,988
5	2,929	2,940	2,867	2,951	2,881	2,961	2,893	3,026	3,072	2,998
6	3,038	3,029	3,054	2,973	3,034	2,953	3,080	3,029	3,152	3,214
7	3,051	3,018	3,054	3,098	3,066	3,065	3,063	3,213	3,114	3,260
8	3,174	3,161	3,102	3,074	3,153	3,091	3,111	3,143	3,213	3,172
9	3,670	3,521	3,410	3,376	3,372	3,537	3,476	3,433	3,566	3,601
10	3,424	3,371	3,329	3,344	3,397	3,423	3,513	3,428	3,378	3,413
11	2,997	2,996	2,957	2,943	2,837	2,855	2,932	3,040	2,998	2,967
12	2,996	3,082	2,999	2,933	2,899	2,812	2,864	2,886	2,965	2,967
K - 12 Total	38,883	38,615	38,405	38,602	38,672	38,600	38,983	39,218	39,536	39,778
Grand Total	39,122	38,871	38,623	38,816	38,889	38,812	39,207	39,430	39,792	40,052

DRAFT



PROJECTED ENROLLMENT



Grade	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
PK	274	274	274	274	274	274	274	274	274	274
K	2,690	2,719	2,611	2,644	2,658	2,658	2,658	2,658	2,658	2,658
1	2,882	3,103	3,144	3,019	3,058	3,075	3,075	3,075	3,075	3,075
2	3,008	2,959	3,180	3,235	3,102	3,143	3,159	3,159	3,159	3,159
3	2,881	3,086	3,028	3,260	3,326	3,183	3,234	3,250	3,250	3,250
4	2,995	2,917	3,134	3,071	3,308	3,381	3,238	3,291	3,302	3,302
5	3,058	3,062	2,988	3,209	3,148	3,390	3,468	3,320	3,378	3,392
6	3,104	3,172	3,175	3,101	3,333	3,267	3,523	3,605	3,447	3,512
7	3,323	3,212	3,283	3,286	3,215	3,453	3,389	3,648	3,740	3,576
8	3,321	3,385	3,275	3,353	3,350	3,283	3,520	3,462	3,724	3,821
9	3,567	3,730	3,803	3,682	3,758	3,763	3,680	3,944	3,887	4,173
10	3,534	3,503	3,660	3,732	3,611	3,694	3,698	3,622	3,879	3,825
11	3,027	3,123	3,087	3,241	3,303	3,195	3,272	3,278	3,224	3,460
12	2,937	3,000	3,096	3,056	3,210	3,276	3,171	3,251	3,254	3,203
K - 12 Total	40,327	40,971	41,464	41,889	42,380	42,761	43,085	43,563	43,977	44,406
Grand Total	40,602	41,246	41,739	42,164	42,655	43,036	43,360	43,838	44,252	44,681

DRAFT

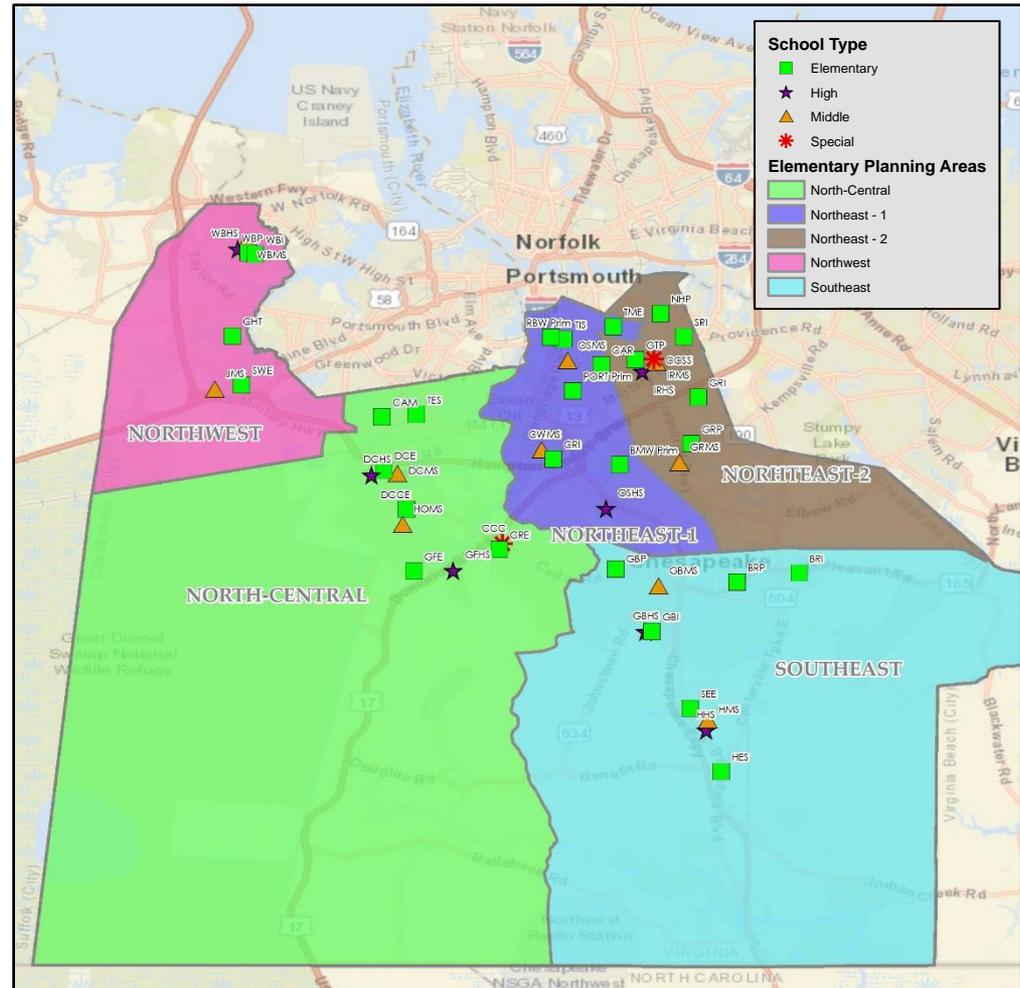
DIVISION-WIDE

Grade Level	CIP Capacity	2018-19 Enrollment	2018-19 Utilization	2023-24 Projected Live-In Enrollment	2023-24 Projected Live-In Utilization	2028-29 Projected Live-In Enrollment	2028-29 Projected Live-In Utilization
Elementary	18,550	17,408	94%	18,857	102%	19,093	103%
Middle	10,425	9,609	92%	9,889	95%	10,899	105%
High	14,025	12,943	92%	13,869	99%	14,648	104%
Other	100	36	36%	-	-	-	-
Total	43,100	39,996	93%	42,615	99%	44,640	104%

- 93% utilization division-wide in 2018-19
- Projected to be at 99% utilization in 2023-24 and 104% utilization in 2028-29
- Capacity numbers based on those provided in the CPS Capital Improvement Plan (CIP)
 - Please note that these numbers may change annually based on program changes, grade level realignments, and/or special education needs

Facility Planning Units – based on grade configuration and geography

- When considering options for schools based on condition, educational program needs, enrollment and other relevant considerations, it is helpful to consider planning schools in small groups
- High Schools and Middle Schools will be considered each as separate planning units, meaning their collective enrollment, capacity and program goals will be considered together
- Elementary schools will be considered in smaller units informed by geography and high school boundaries (see map)





Chesapeake
VIRGINIA



COOPERATIVE STRATEGIES

COMPLETE FINANCIAL & DEMOGRAPHIC PLANNING FOR EDUCATION

City of Chesapeake
& Chesapeake Public
Schools
Futures Conference
Outcome

November 1, 2019



Deconstructing the industry model

Exercise 1

Deconstructing the industry model of education & creating an alternative

Small Group Exercise 1

- If the industrial model is not the appropriate model for our school operations today, then what would be an alternative model that would be more relevant?



Responses from the exercise are included on the following slide.



Source:
 Ken
 Robinson's
 "Changing
 Education
 al
 Paradigms
 "

Deconstructing the industry model of education & creating an alternative

Learning in Context

- Developing project based academic programs
 - Trade programs
 - STEM
 - CTE
- Integrating practical life skills and application
 - Financial literacy
 - Practical Scholar
- Teach and practice divergent thinking
- Integrate critical thinking
- Progressive creative learning
- Transition for flexibility and diversity
 - Flexible scheduling
 - Grading structure
 - Progression of learning

Facilities to Support Programs

- Providing collaborative spaces
- Transition facilities into “Open Floor Plan” model
 - Movable desks
 - Flexible furniture
 - Adequate space utilization
- Integrating state of the art technology throughout all facilities
- Providing safe facilities
 - Learning environment

Community Engagement

- Community outreach programs
- Educate parents and community on volume of trades
 - Including debts
- Provide more public and private partners



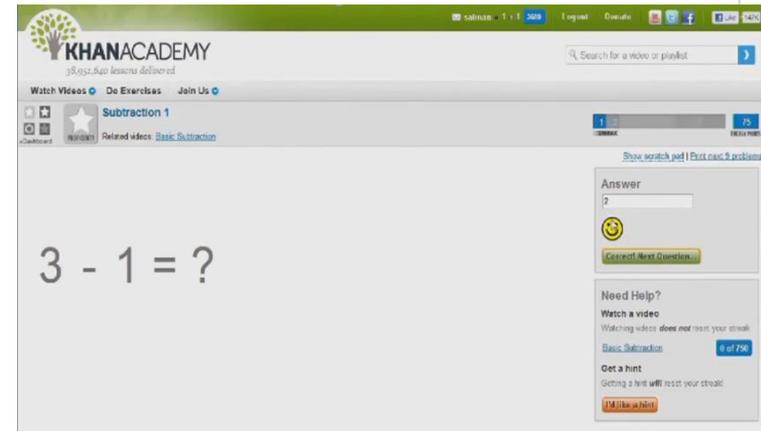
Thinking outside the clock

Exercise 2

Thinking outside the clock | mastery vs. time

Small Group Exercise

- If in the next 100 years, we figure out how to organize school for all students across the country so that learning is fixed and the time, when, where & with whom it takes to learn, variable, how should schools be designed to facilitate this approach to learning?
 - » Be as specific as you can regarding the types of learning spaces, how they are arranged, and the types of tools they have.



Source: Salman Khan, lecture, Standard Graduate School of Education, 2012

Responses from the exercise are included on the following slide.

Thinking outside the clock | mastery vs. time

Learning in Context

- Provide internship opportunities with working professionals
 - Trade opportunities
- Hybrid academic approaches
- Collaborative learning environment
 - “Coffee Shop”
- Integrate Flexible learning
 - Teachers role changes
- Upside down classroom
- Flexible schedules
 - Different start times
- Provide formal assessments
 - Real time knowledge assessments

Facilities to Support Programs

- Provide Scalable facilities
 - Flexible spaces
 - Movable walls
 - Open Spaces
 - Movable furniture
- Incorporate technological instruction tools
- Transition for collaborative furniture
- Integrate energy efficient facilities
- Open “feel” environment
 - Glass partitions
- “Four Seasons” classrooms
- Multi-use classrooms

Community Engagement

- Accessibility to rec center
- Providing after hour use of facilities
 - 24/7 users
- Utilizing outside community resources
- Mid-School utilization of facilities

The role of the teacher

Exercise 3

The role of the teacher | your most impactful classroom experience

Small Group Exercise

- Share a story of the most impactful class you have experienced as a teacher or a student
 - Create a common themes list on your flipchart
 - Write keywords that define the role of the teacher in the examples you provided
 - Large group – compare, summarize common themes
- Space design should be prioritized to facilitate the types of experiences you describe

Responses from the exercise are included on the following slide.



Source: Derek Muller, Veritasium, "This will revolutionize education"

The role of the teacher | your most impactful classroom experience

Learning in Context

- ❑ Personalize the learning
 - Make it meaningful to students
 - Keep student engagement
- ❑ Provide a fun learning environment
 - Engage in personality
 - Humor
- ❑ Hands on project experience
 - Practical experiences
 - Applied learning
 - Role playing
 - Music & Arts
 - Shop programs
 - Activity based learning
- ❑ Integrate experimental learning environments
 - Facilitator Vs Traditional teacher
 - Outside of traditional standards
 - No pressure for making an "A"
- ❑ Teachers providing compassion for students
- ❑ Provide students with motivation to learn
 - Inspire them to learn
- ❑ Compassion as a classroom
 - Allow for students to be passionate
 - Treat students with:
 - Love
 - Correct discipline
 - Personal attention
 - Treat all students as adults
 - Show students with respect
 - Provide a non-rigid environment for learning



► Exercise 3



The role of the teacher | your most impactful classroom experience

Facilities to Support Programs

- Provide scalable facilities
- Leveraging technology in the classroom

Community Engagement

- Provide environment for students to ask questions
- Inspire learning from community engagement
- Create an inspiring environment for community
- Provide opportunities for teachers to “get to know” their students

The third teacher

Exercise 4

Facilities as a third teacher | creating an ecology of learning

We shape our buildings:
therefore they shape us.

- Winston Churchill

Facilities as a third teacher | creating an ecology of learning

Small Group Exercise

- Based on your answers to:
 - Replacing the industrial model with something relevant to today
 - Flexing the approach to learning & fixing mastery
 - The essential role of the teacher
- Describe what you believe should be standards for all school environments. Your answers will help inform renovations that become prioritized in this FMP for existing schools while helping envision design for new schools.
 - **In other words, what should every student have access to in all CPS schools to provide equitable access to quality learning environments?**



Source: Trung Le, "The Third Teacher"

Responses from the exercise are included on the following slide.



► Exercise 4



Facilities as a third teacher | creating an ecology of learning

Learning in Context

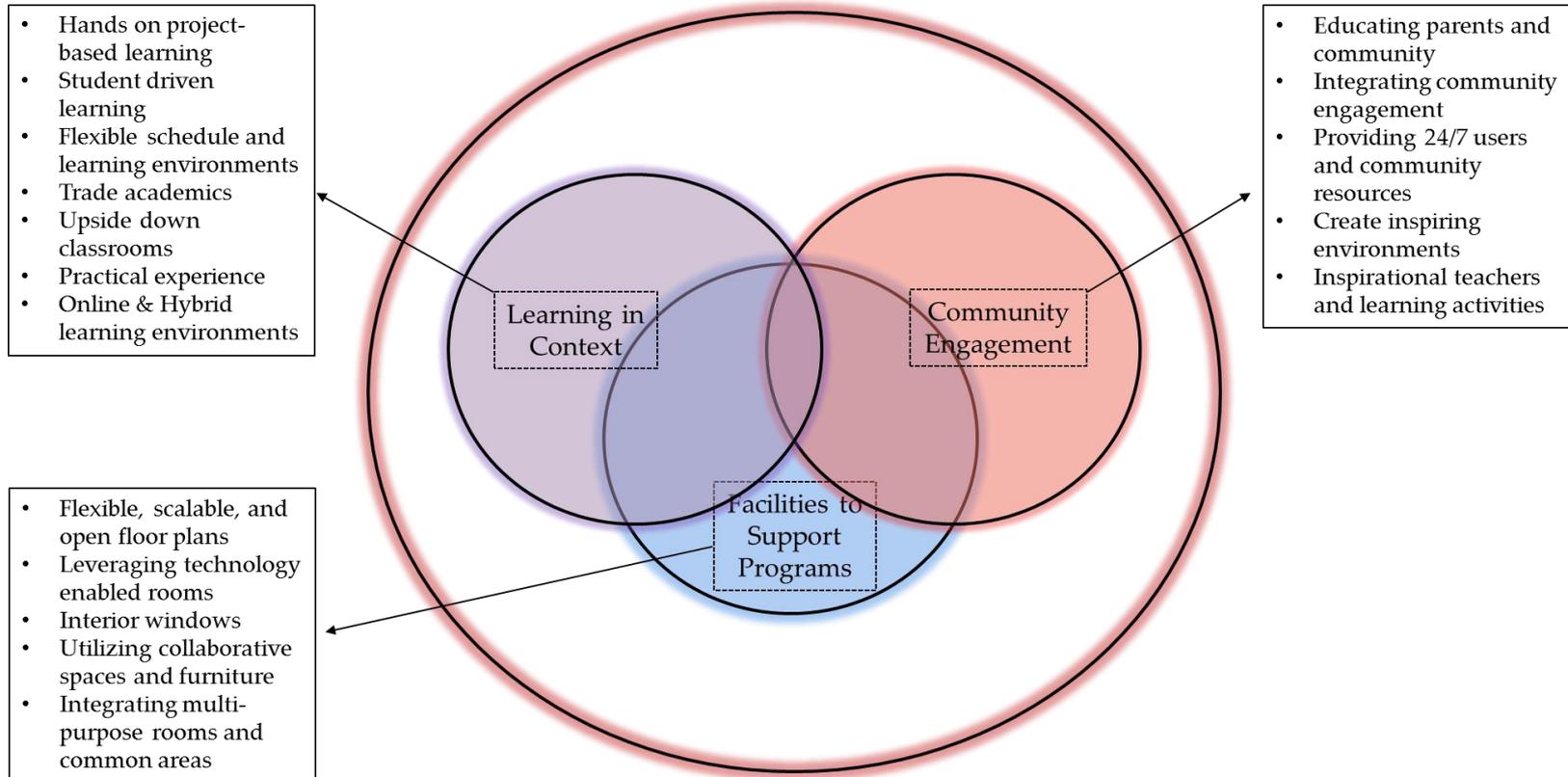
- Project based learning
- Provide active learning environment opportunities
- Increase IEP based learning
 - Not-time restricted
 - Mastery based
- Hybrid learning environment
 - Providing technology for “outside the classroom learning”
- Facilitator Vs Traditional Teacher

Facilities to Support Programs

- Provide flexible facilities
 - Flexible spaces
 - Movable walls
 - Open floor plan
 - Movable furniture
 - Reconfigurable furniture
 - Multi-use furnishing
- Convert facilities to include conversational environment
- Provide audible technology for visually impaired
- Transition to multi-use learning spaces
- Integrate technology enabled rooms
 - White board walls
 - Presentation and interactive panels
- Provide large presentation meeting spaces
- Provide opportunities to take classroom outside
- Integrate “Nodes” furniture
- Implement charging stations
- Integrate seating area bars

► Conclusion

Response Summary





Chesapeake
VIRGINIA



COOPERATIVE STRATEGIES

COMPLETE FINANCIAL & DEMOGRAPHIC PLANNING FOR EDUCATION

City of Chesapeake
& Chesapeake Public
Schools
Futures Conference

September 25, 2019



- 2 hours in length
 - 30 minute presentation
 - 15 minute individual survey
 - 1.25 hours small group discussion and report out
- Small group discussion will focus on group survey
- Steering committee members facilitate small group discussion (6-8 per table) and record responses

<http://www.dejongrichter.com/chesapeake/>

- Meeting Schedule
- Presentations
- Documents
 - Futures Conference Report
 - Enrollment Projections Report
 - Background Data
- Continually updated throughout the process

NEXT STEPS



Community Meetings Nov. 20 & 21

Options Work-Sessions Dec. 16 & 17

- Internal meetings with Cooperative Strategies and City / School Division project team

Steering Committee Meeting – Jan. 7

Joint City Council / School Board Meeting – Jan. 23



QUESTIONS