Crabtree, Rohrbaugh & Associates

WILSON
SCHOOL DISTRICT

FACILITY STUDY UPDATE

March 18, 2019

AGENDA

STUDY PROCESS

EDUCATIONAL PROGRAM & VISIONING

GUIDING PRINCIPLES

ENROLLMENT AND CAPACITY

FACILITY ASSESSMENTS

TIMELINE

STUDY PROCESS

STUDY PROCESS

STEP 1

Define Goals

- Educational Visioning
- Financial
- Guiding principles
- Indicators of quality
- Establish benchmarks

STEP 2

Information Gathering

- Building Capacity Analysis
- Enrollment Analysis
- Facility Assessments
- Utility cost history
- Current Use of Space
- Program
- Existing Documents

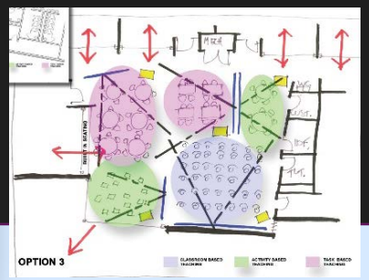
STEP 3

Analyze Data

- Space analysis
- Energy modeling
- Benchmarking
- Educational adequacy
- Program Compliance
- Right sizing the box

Board

STEP 4



Develop Options

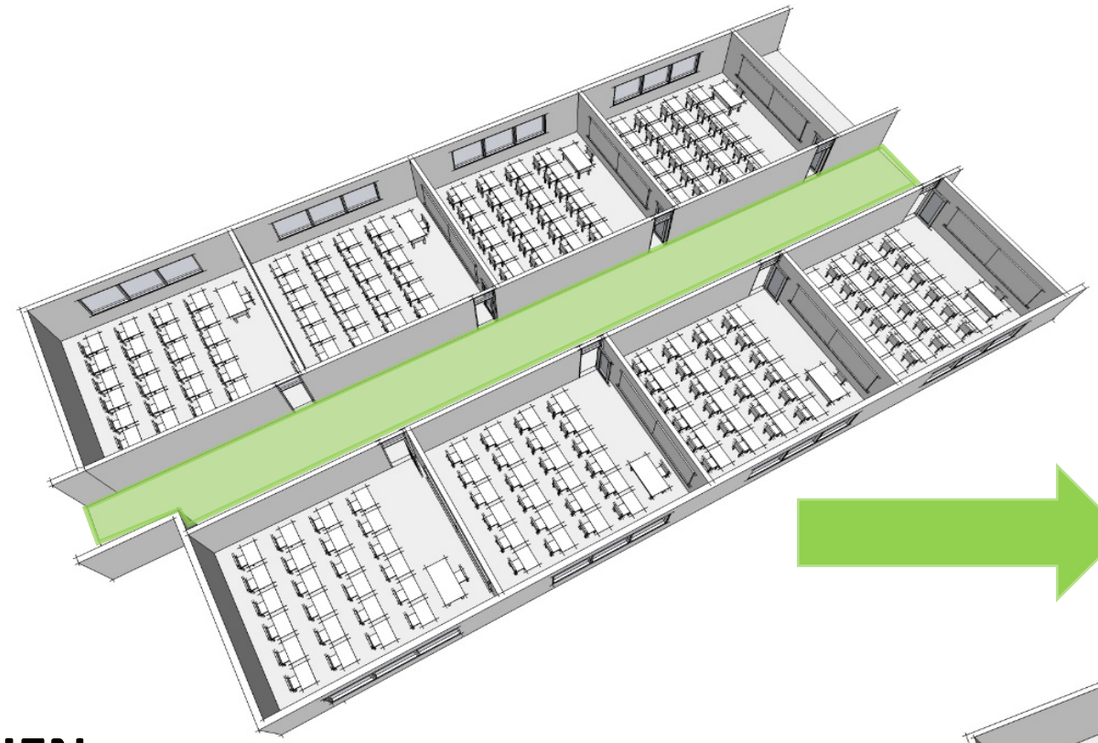
- Infrastructure improvements
- Educational improvements
- Community Use
- Cost Estimating
- Operational Savings
- Phasing
- Prioritize Projects

STEP 5

Recommendations

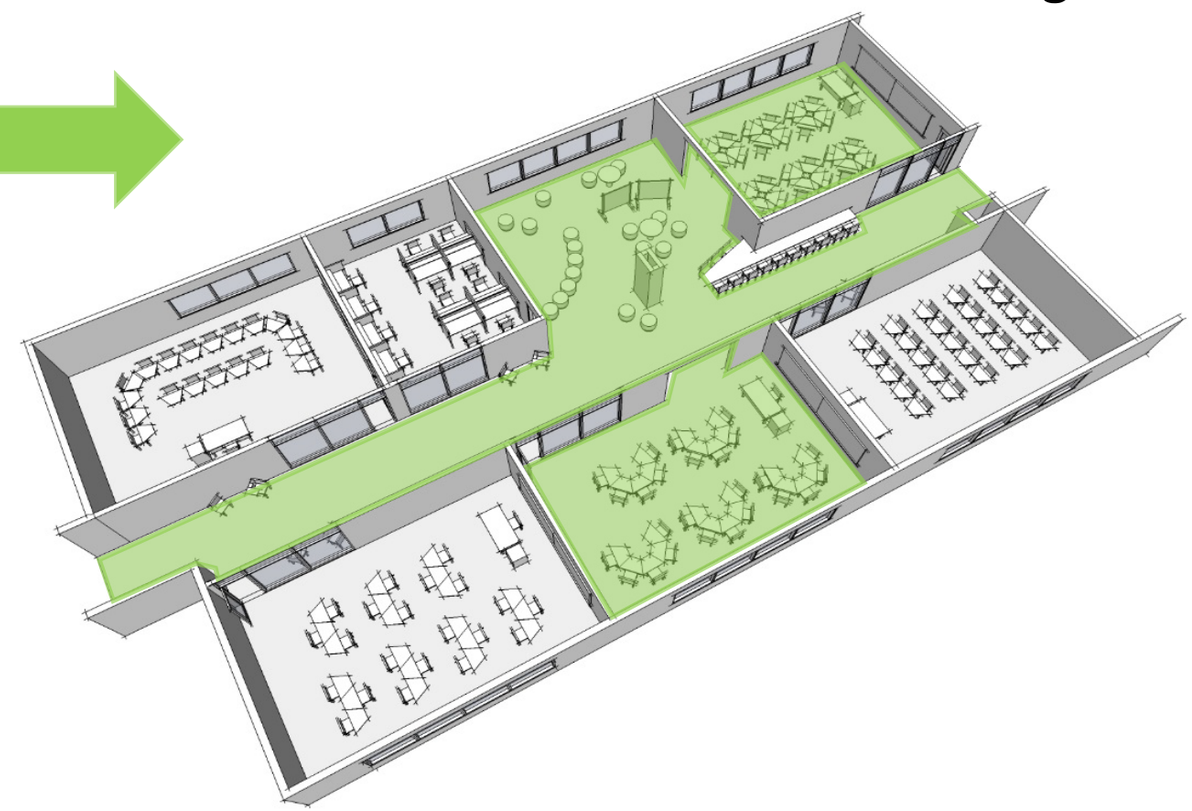
- Short and Long Term Planning
- Final report
- Option Selection

Board



NOW

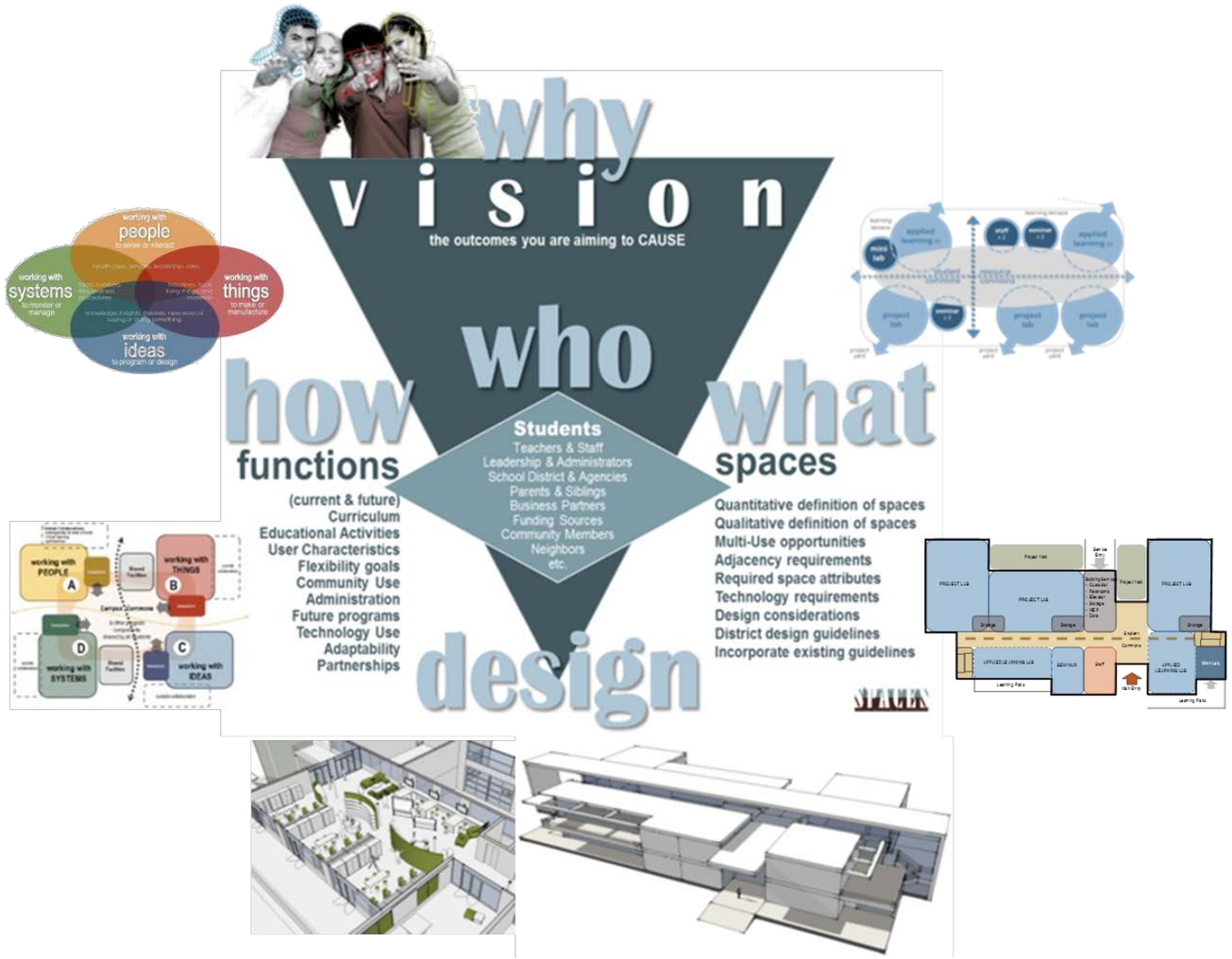
- Flexibility
- Flexible Spaces - Dynamic and Interactive
- Personalized Learning



THEN

- Assumes all teachers teach the same way
- Assumes all students learn the same way
- Fixed spaces -”Factory” Model
- Focus on standardized testing

EDUCATIONAL PROGRAM



EDUCATIONAL PROGRAM

SPACE CATEGORY	Net Area Sub-Total (sq. ft.)
1.0 9th GRADE LEARNING COMMUNITY	
1.01 Core Learning & Support	13,800
1.02 9th Grade Science	6,100
1.03 Student Commons	2,700
1.04 Staff Support	2,240
Sub-Total:	**24,840**
2.0 ARTS & HUMANITIES LC	
2.01 Core Learning & Support	12,100
2.02 Science	6,100
2.03 Student Commons	2,700
2.04 Staff Support	2,240
Sub-Total:	**23,140**
3.0 BUSINESS & COMMUNICATONS LC	
3.01 Core Learning & Support	12,100
3.02 Science	6,100
3.03 Business & Management	5,000
3.04 Student Commons	2,700
3.05 Staff Support	2,240
Sub-Total:	**28,140**
4.0 HEALTH & HUMAN SERVICES LC	
4.01 Core Learning & Support	12,100
4.02 Science	6,100
4.03 Applied Labs & Support	10,120
4.04 Student Commons	2,700
4.05 Staff Support	2,240
Sub-Total:	**33,260**
5.0 S.T.E.M. LEARNING COMMUNITY	
5.01 Core Learning & Support	12,100
5.02 Science	6,100
5.03 Tech Ed	5,200
5.04 CTC	15,600
5.05 Student Commons & Support	4,800
5.06 Staff Support	3,520
Sub-Total:	**47,320**
6.0 SPECIALTY PROGRAMS	
6.01 World Languages	10,700
6.02 Special Education	5,150
6.03 ELL Program	900
Sub-Total:	**16,750**

SPACE CATEGORY	Net Area Sub-Total (sq. ft.)
7.0 VISUAL & PERFORMING ARTS	
7.01 Visual Arts	4,800
7.02 Performing Arts: Music	7,600
7.03 Performing Arts: Theater	16,900
Sub-Total:	**29,300**
8.0 LIBRARY, LE & TECHNOLOGY	
8.01 Library/Media Resources	10,000
8.02 Learning Enrichment	3,600
8.03 TE/Media Communications	1,200
8.04 Technology Support	1,800
Sub-Total:	**16,600**
9.0 PHYS ED, HEALTH & ATHLETICS	
9.01 Physical Instruction	56,400
9.02 PE/Athletics: Support	19,800
9.03 PE/Athletics: Amenities	1,600
Sub-Total:	**77,800**
10.0 ADMIN & STUDENT SERVICES	
10.01 Administration	5,600
10.02 Student Services	3,450
10.03 Health Office	600
Sub-Total:	**9,650**
11.0 STUDENT COMMONS / DINING	
11.01 Dining Commons	16,900
11.02 Kitchen & Servery	7,500
Sub-Total:	**24,400**
12.0 BUILDING SERVICES	
12.01 Custodial Support	2,800
12.02 Building Services	2,000
Sub-Total:	**4,800**
13.0 DELTA PROGRAM	
13.01 Delta Program	12,200
13.02 Delta Support Spaces	1,800
Sub-Total:	**14,000**

PROCESS → RESULT

DEVELOP AN EDUCATIONAL PROGRAM THAT IS SUPPORTED BY THE BOARD

GUIDING PRINCIPLES

STAKEHOLDER GROUPS

DISTRICT ADMINISTRATION

we must be connected
collaboration is very important
our buildings should celebrate the arts
we must teach the whole child
embrace the maker movement
students should be critical thinkers

ELEMENTARY ADMINISTRATION

collaboration is key
blended learning
embrace the maker movement
teachers should be mentors
schools should be learning tools
specials should be at core of curriculum
critical thinking is key

STUDENTS

learning happens everywhere
smaller group / class size =in-depth learning
need more outdoor learning
hands on learning is better

PARENTS

learning happens outside of the classroom
differentiated learning is important
STEM is important
smaller is better
teaming is good

SCHOOL BOARD

Wilson SD should be model for teaching and learning
student safety is important
languages should be priority at elementary level
buildings should meet 21st Century learning needs
more collaborative learning spaces
buildings should connect students to nature
curb appeal is important

BUSINESS LEADERS

curb appeal is important
problem solving is important
foreign Language is important
the arts are important
Wilson SD plays a part in regional growth
embrace diversity

GUIDING PRINCIPLES

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SVASD should be model for teaching and learning
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GUIDING PRINCIPLES

STAKEHOLDER GROUPS

connected
collaboration
celebrate the arts
maker movement
critical thinkers

collaboration
blended learning
maker movement
mentors
learning tools
critical thinking

in-depth learning
outdoor learning
hands on learning

differentiated learning
STEM

model for teaching and learning
student safety
languages should be priority
21st Century learning
collaborative learning spaces
connect students to nature
curb appeal

curb appeal
problem solving
foreign Language
arts are important

VISIONING EXERCISE

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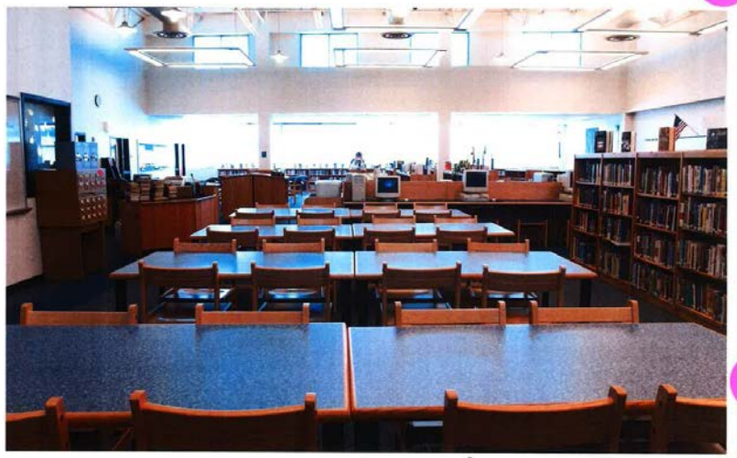
Visual Listening Exercise with Students and Faculty



- NO COLOR
- NO SOFT SEATING
- NO COMP. / TECH
- ORGANIZATION
- FLEXIBILITY

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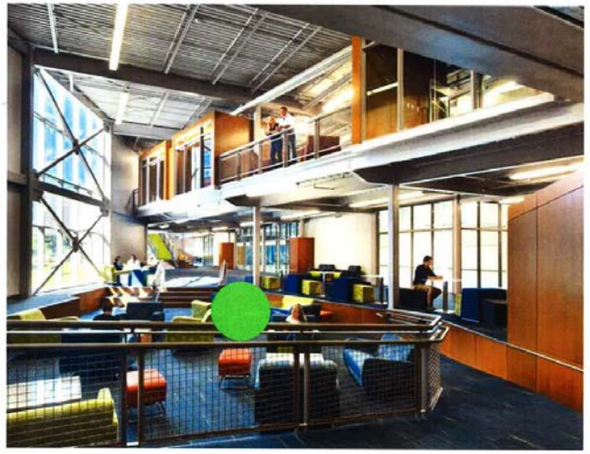
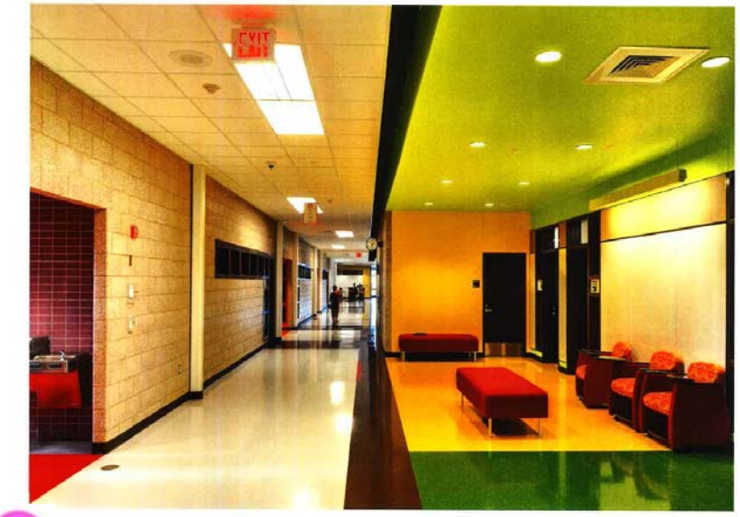


- SOFT SEATING
- OPEN SPACE
- COLORS
- STUDY HALL

16

- NO PRIVACY
- NOT DESIGNED FOR FURNITURE

10



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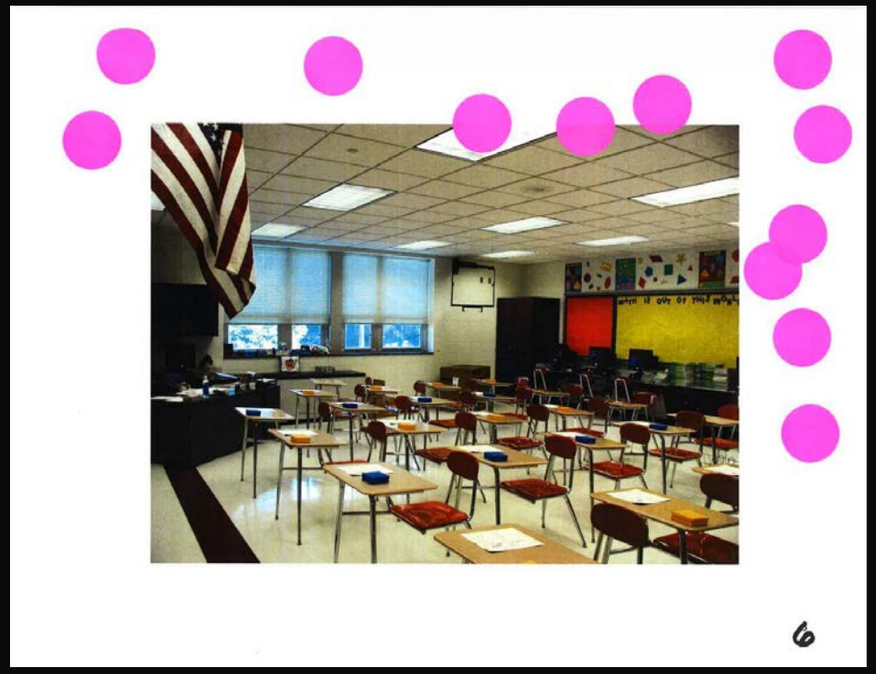
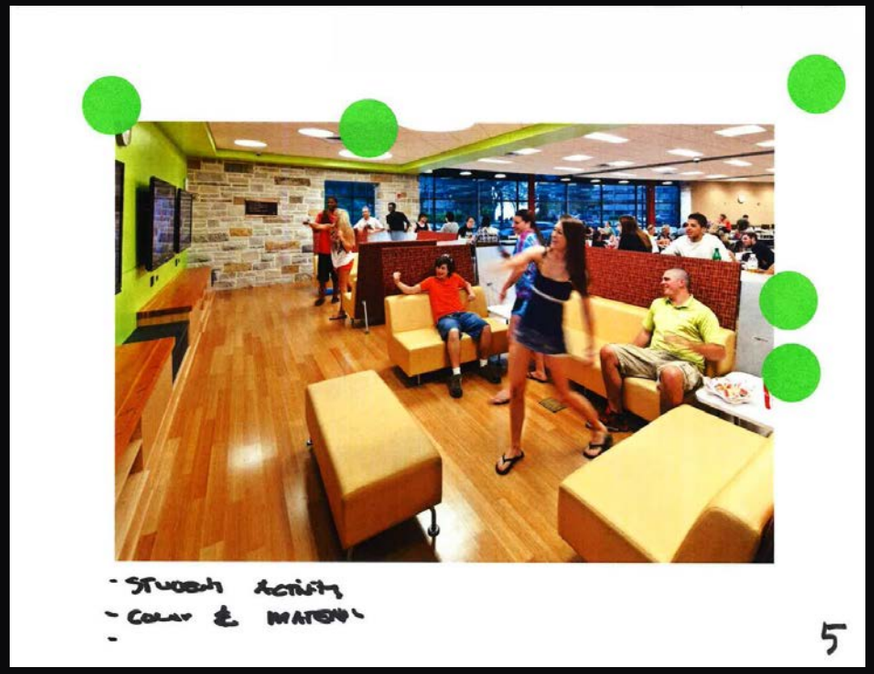
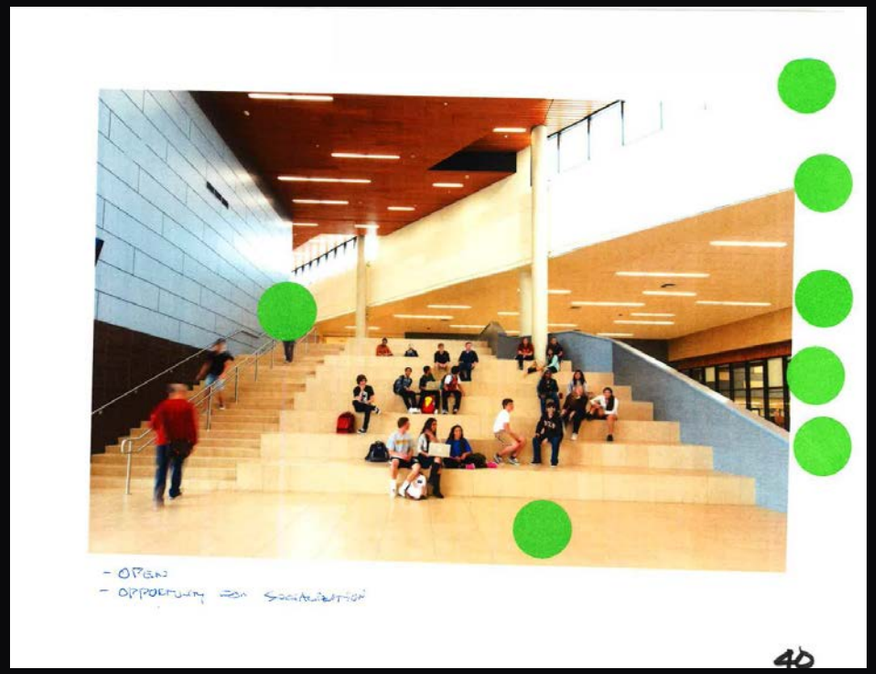
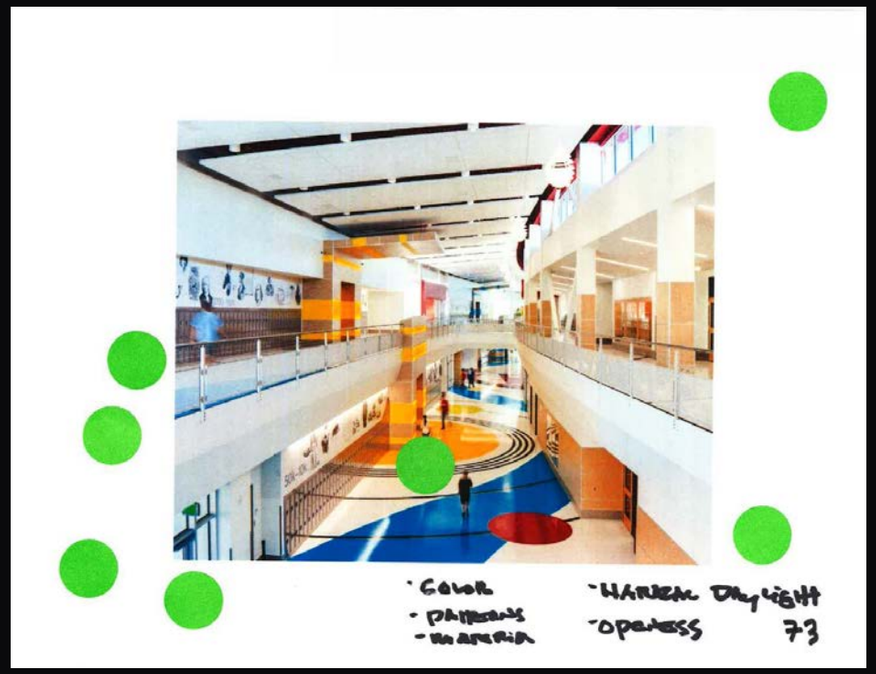
VISIONING EXERCISE

Visual Listening Exercise with Students and Faculty



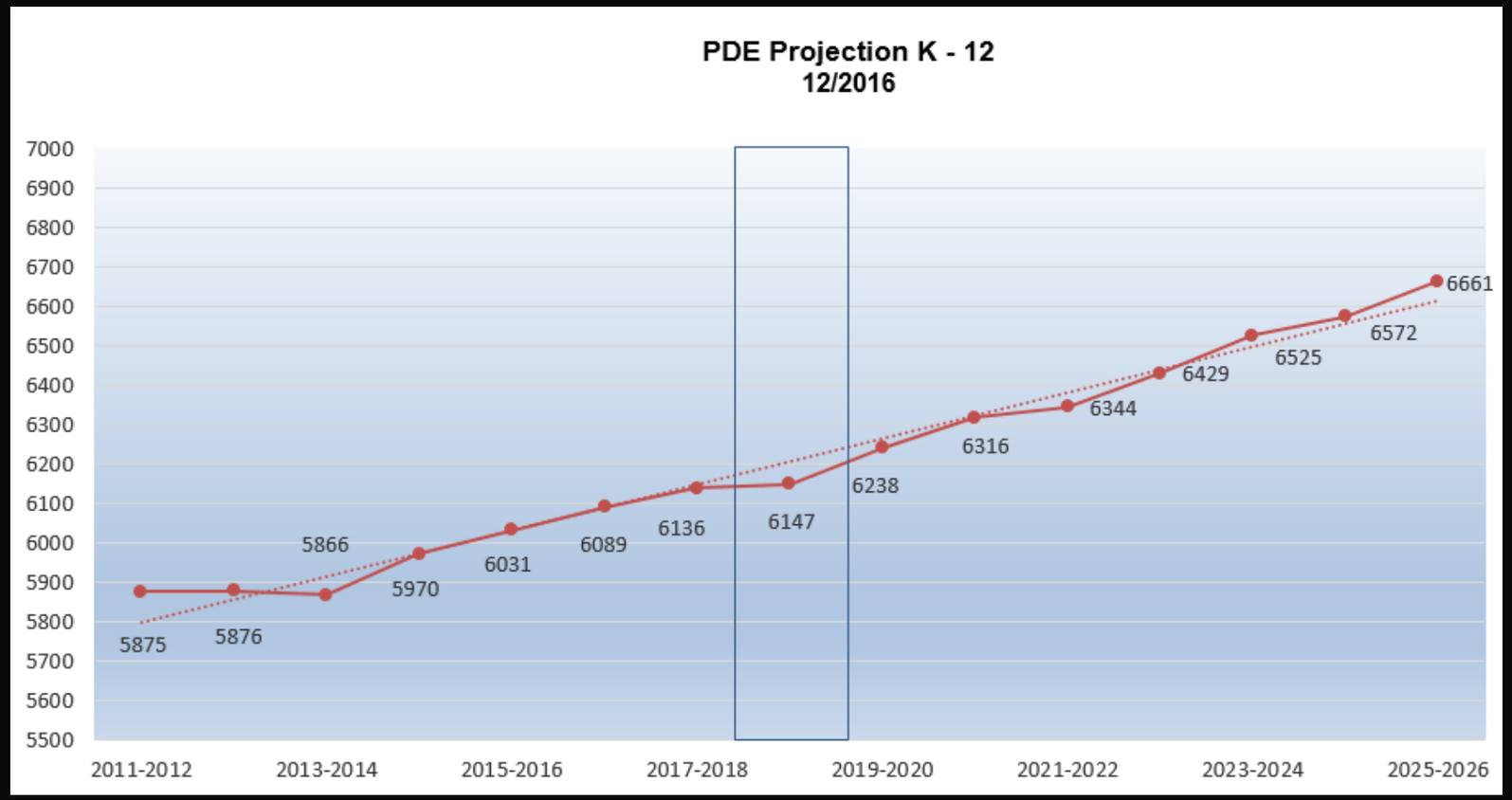






ENROLLMENT ANALYSIS

Source: PA Department of Education
12/2016
Wilson School District



What are the different methods of projecting enrollment?

What are the trends within the district?

What is a reliable projection?

CAPACITY ANALYSIS

How many students can each building accommodate?

Is there adequate space for support programs?

Are collaborative learning spaces planned?

Do we have room to grow and offer new programs?

What is the recommended utilization rate for each building?

FACILITY CONDITION ASSESSMENT

Crabtree, Rohrbaugh & Associates - Architects
401 East Winding Hill Road
Mechanicsburg, PA 17055
Maryland • Pennsylvania • Virginia • West Virginia

D R A F T

Wilson School District
Wilson High School

SCALE		DESCRIPTION	FCI %	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	91% - 100%	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	61% - 90%	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	31% - 60%	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	16% - 30%	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possi	0% - 15%	< 2 YRS.

FACILITY CONDITION INDEX (FCI) | Assessed DATE

Site		5	4	3	2	1	NA	Comments & Recommendations	ESTIMATED CONSTRUCTION COST Low	to	High
1	Perimeter Fencing & Gates						•	None on site.	$0.00	-	$0.00
2	Athletic Fields			•				Off-site football field, baseball field and tennis courts are in good condition	$0.00	-	$0.00
3	Athletic Field Structures, Scoreboards			•				Bleachers, scoreboard and conession stands are in good condition for their current use.	$0.00	-	$0.00
4	On-Site Sidewalks		•					Average wear for age.	$0.00	-	$0.00
5	Play Equipment						•	Play equipment adjacent to High Scho[illegible] responsibility of the township.	$0.00	-	$0.00
6	Paving			•				Existing paving i[illegible] ay need re-coated.	$0.00	-	$0.00
7	Striping, Markings, Speed Bumps			•				Stripes [illegible] few yea[illegible] ider restriping in a	$0.00	-	$0.00
8	Curbing							Average [illegible]	$0.00	-	$0.00
9	On-Site Signage		•					Clings on [illegible] ly installed and new; consider marquee or directional [illegible] ge.	$0.00	-	$0.00
10	Exterior Furniture, Bike Racks, Storage						•	Exterior elements in athletic areas only, refer to athletic field structures above	$0.00	-	$0.00
11	Retaining Walls, Site Walls						•	none	$0.00	-	$0.00
12	Freestanding Walkway Canopies						•	none	$0.00	-	$0.00
								Subtotal	$0.00	-	$0.00

EXAMPLE

Site Accessibility		5	4	3	2	1	NA		Low	to	High
1	Pedestrian Access - ADA & Safety			•				School is located in an urban setting. Crosswalks are to be clearly indicated and maintained.	$0.00	-	$0.00
2	Vehicular Access - Vehicles					•		All three functions occur around the same neighborhood streets throughout the day. An official loading area does not exist. Buses stack down the road.	$0.00	-	$0.00
3	Vehicular Access - Buses					•			$0.00	-	$0.00
4	Vehicular Access - Deliveries					•			$0.00	-	$0.00
5	Handicap Parking				•			handicap parking available; consider marking and signage to clearly indicate.	$0.00	-	$0.00

Evaluates and identifies building and site condition

Provides timeline for work

Provides preliminary recommendation

Assigns range of construction cost

EDUCATIONAL SUITABILITY ASSESSMENT

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401 East Winding Hill Road
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Maryland • Pennsylvania • Virginia • West Virginia

D R A F T

Wilson School District
Wilson High School

SCALE	DESCRIPTION
5	81% - 100% EXCELLENT
4	66% - 80% GOOD
3	51% - 65% AVERAGE
2	36% - 50% BELOW AVERAGE
1	20 - 35% UNSATISFACTORY

EDUCATIONAL SUITABILITY ASSESSMENT (ESA) | Assessed DATE

Site

55%	ESA Score	5	4	3	2	1	NA	Comments & Recommendations
1	Desirable separation of vehicular, bus and pedestrian				•			
2	Opportunities provided for outdoor learning			•				
3	Outdoor athletics and playfields adequate in size and configuration		•					
4	Building easily identified with appropriate signage and community wayfinding				•			

General Building Function

0%	ESA Score	5	4	3	2	1	NA	Comments & Recommendations
1	Interior circulation routes are wide enough to safely and effectively accommodate student movement							
2	Community use areas area arranged so that the school can allow night functions without full school access							
3	General appearance of the school evokes pride for the students and community							

Core Academics & Support

0%	ESA Score	5	4	3	2	1	NA	Comments & Recommendations
1	Pre-K and Kinder classrooms are adequately sized							
2	Pre-K and Kinder classrooms have appropriate support such as restrooms and storage							
3	Standard Classrooms are adequately sized							
4	Standard Classrooms have appropriate support such as storage							

- Establish Educational Adequacy Metric
  - 21st Century Learning
  - Parity / Equity
  - Deficiencies
- Review of all Education Spaces
- Documentation of ESA Score
- Basis for Educational Improvements

FACILITY ASSESSMENT EXAMPLE

Identify deficiencies:

Undersized spaces; cafeteria, gym

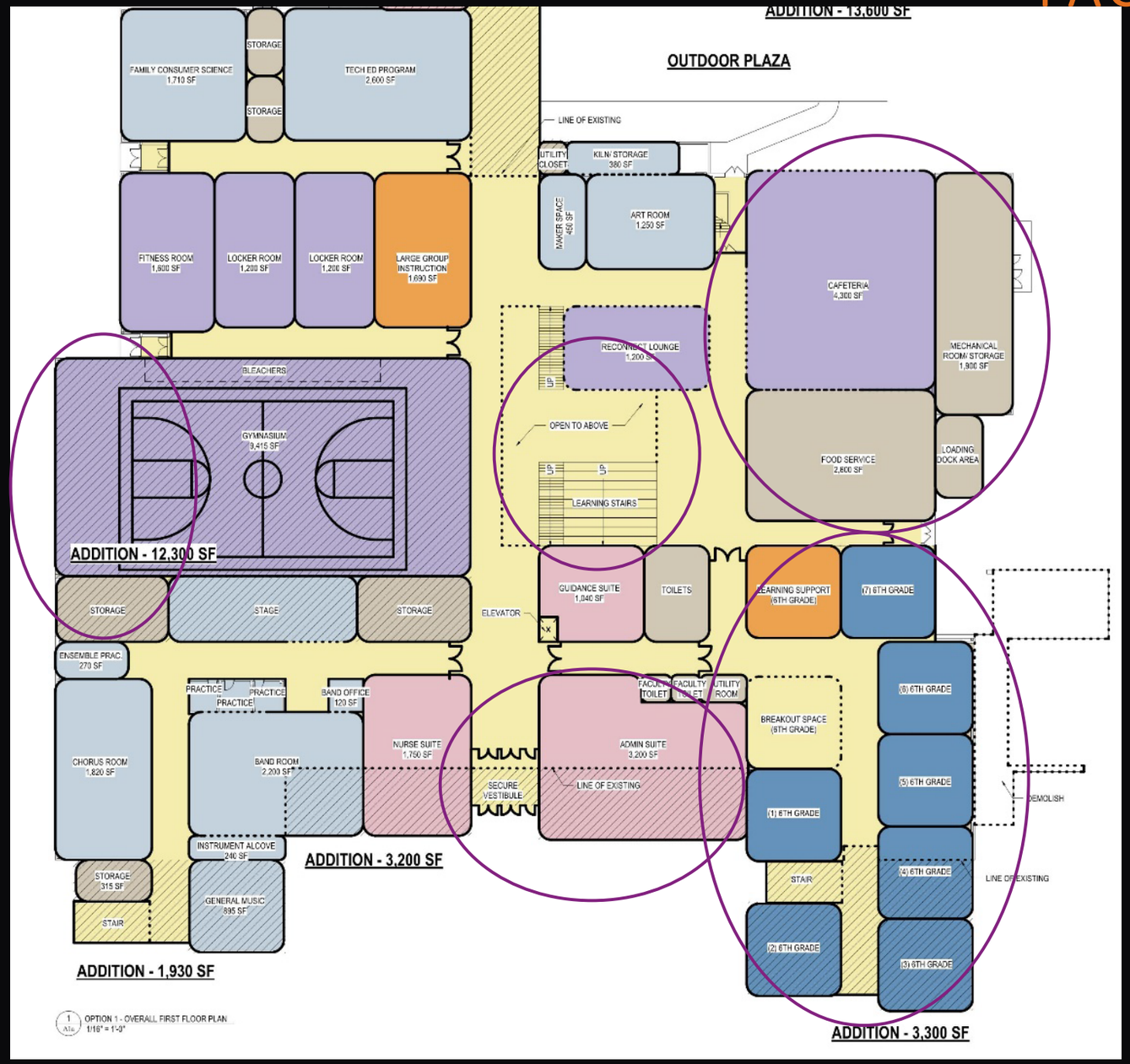
Security & administration location

Building organization/adjacencies

Internal spaces w/o natural daylight

No sense of place…maze

FACILITY ASSESSMENT EXAMPLE



Improvements:

Expand cafeteria & gym

Relocate administration

Building organization/adjacencies

Learning stair

Team teaching/grade organization

FACILITY ASSESSMENT COSTS

Comprehensive SCOPE VS.	Reduced SCOPE
Scope determines budget	Budget determines scope
EXAMPLES:	
Building reorganization	Maintain current organization
New Ed Program additions	Minor/ No new additions
Address ALL site work items	Prioritize LDP approval
Replace ALL: Interior finishes	Reduced replacement of finishes
Casework	Limited area
Bldg. Envelope	Prioritize by budget
Replace ALL Mechanical/Elec. Systems	Upgrade Mechanical Systems
4 Pipe System	2 Pipe or VAV System
Preferred ATC Controls	Basic ATC Controls
Fully Air Conditioned	Limited Air Conditioning
New Lighting Fixtures	Retrofit Existing Lighting
Lower Operating Costs	Higher Operating Costs

TIMELINE

WILSON SCHOOL DISTRICT

DRAFT

FACILITY STUDY PROCESS & OVERVIEW

2019

	Dec	Jan	Feb	Mar	Apr	May	Jun	July
Communication								
Assemble Administrative Team								
Establish routine meeting schedule								
Identify work session and board meeting dates								
Community engagement approach								
Budget expectations								
Planning & Development								
District provide floor plans with current use of space								
District provides input on Educational suitability assessment								
Educational Programming								
Visioning exercise with students, staff, admin etc.				TBD	TBD			
Discuss current model vs planned								
Develop planned educational program								
Discuss preferred utilization rates / thresholds								
Discuss limited vs comprehensive renovations approach								
Review enrollment information & establish planning number								
Analysis								
Perform Facility Condition Assessment								
Perform building capacity analysis								
Determine current utilization rates vs planned ed program								
Determine building deficiencies; infrastructure and program								
Preliminary operational savings analysis								
Recommendations								
Design concepts to address enrollment & planned ed program								
Costs to upgrade facility to current construction standards								
Costs to identify ed program deficiencies								
Preliminary schedule of projects; design & construction								
Discuss pros and cons of options								
Design & Regulatory Approvals								Design 8-11 months
Construction (depends upon size & scope)								Construction 12-24 months

Questions?

Crabtree, Rohrbaugh & Associates
www.cra-architects.com