



DISTRICT-WIDE FACILITIES STUDY PRESENTATION

JUNE 25, 2018



KCBA – *Architecture/Interior Design/Structural Eng.*



Lehigh Valley Engineering – *MEP Engineering*



Barry Isett & Associates – *Civil Engineering*



Corsi Associates – *Kitchen Consulting*



FutureThink – *Demographics & Enrollment Consulting*



FOCUS

This study entailed a review of existing conditions, delivery of educational programs, and enrollment projections (Phase 1) to produce a series of long-term upgrade and/or reconfiguration options (Phase 2). The following buildings and campuses were included in this process:

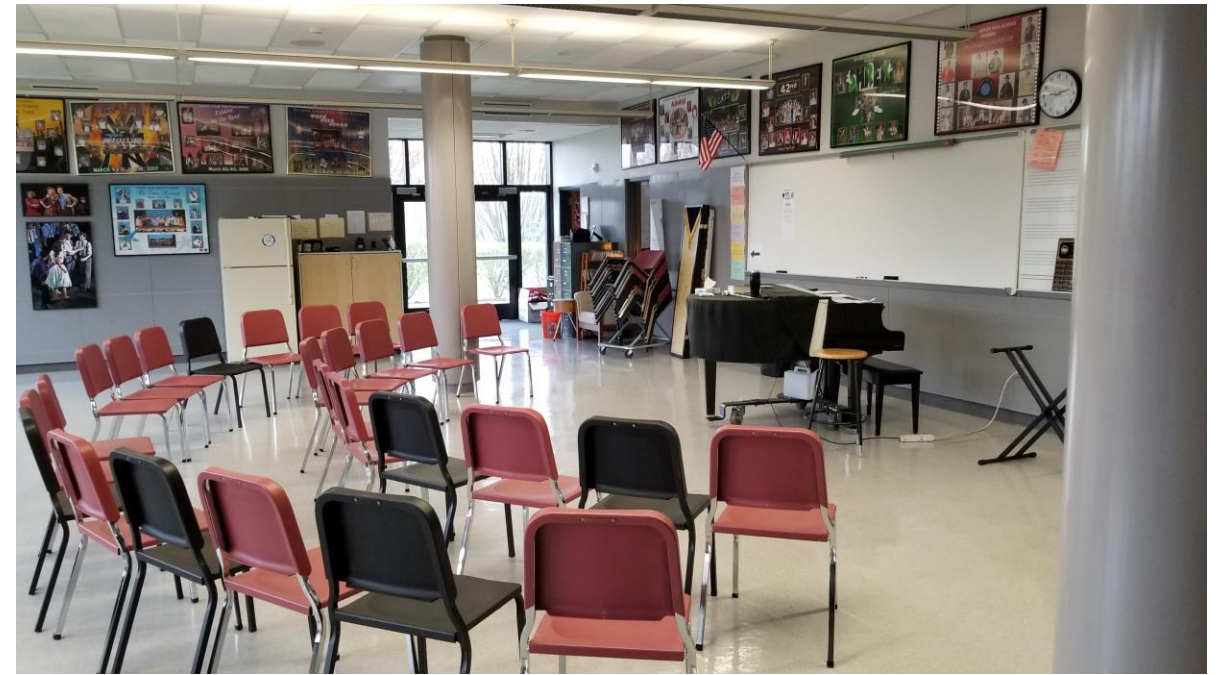
- Hopewell Elementary School
- Liberty Bell Elementary School
- J.P. Liberati Intermediate School
- Southern Lehigh Middle School
- Southern Lehigh High School



PHASE 1: DATA COLLECTION - DELIVERABLES

Research was conducted to produce the following:

- Enrollment Study
- Existing Conditions Analysis
- Analysis of Program-Related Needs
- Itemized Maintenance Matrix



SOCIAL



ACADEMIC



FLEXIBILITY



TECHNOLOGY



CHARACTER



EDUCATIONAL



OPERATIONAL

SECURITY



EMOTIONAL



PHYSICAL



BUDGET
EFFICIENCY



SUSTAINABILITY



ENROLLMENT STUDY



PROCESS

10-year enrollment projections for SLSD were developed through an analysis of the following data:

- Live birth data
- Historical enrollment
- Charter school enrollment
- Non-public school enrollment
- Community demographics
- Housing information



HISTORICAL ENROLLMENT

Southern Lehigh School District Historical Enrollment

Grade	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
K	175	172	179	168	167	194	164	167	180	181
1	211	207	194	207	200	197	226	181	209	217
2	225	222	219	217	211	213	210	235	202	210
3	225	234	223	226	231	225	222	213	253	200
4	246	234	244	233	231	243	232	233	231	270
5	231	258	240	246	244	242	248	236	236	237
6	226	236	265	246	259	255	238	265	251	248
7	262	242	243	270	261	255	266	249	272	259
8	243	263	250	247	267	262	253	273	256	277
9	258	256	281	257	261	276	262	273	276	272
10	269	251	248	289	246	263	284	261	275	289
11	254	275	259	255	276	247	263	290	260	283
12	257	247	256	261	261	282	244	262	276	263
K - 12 Total	3,082	3,097	3,101	3,122	3,115	3,154	3,112	3,138	3,177	3,206

Source: Southern Lehigh School District

5-YEAR AGE AND INCOME PROJECTIONS

Southern Lehigh School District	2017 Estimates	2022 Projections	Change 2017-22	Change 2017-22 (%)
Total Population	22,531	23,530	999	4.4%
Age 0-4	999	1,021	22	2.2%
Age 5-9	1,339	1,287	-52	-3.9%
Age 10-14	1,527	1,523	-4	-0.3%
Age 15-18	1,283	1,321	38	3.0%
Total Age 0-18	5,148	5,152	4	0.1%
Median Age	43.9	44.7	0.8	1.8%

Southern Lehigh School District	2017 Estimates	2022 Projections	Change 2017-22	Change 2017-22 (%)
Median Household Income	\$88,402	\$96,120	\$7,718	8.7%
Average Household Income	\$117,898	\$131,501	\$13,603	11.5%
Average Family Size	3.08	3.09	0.01	0.3%
Total Family Households	6,013	6,253	240	4.0%

10-YEAR PROJECTIONS – HIGH LEVEL – DISTRICT-WIDE

Southern Lehigh School District Projected Enrollment - High

Grade	2017-18 Actual	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	181	187	219	205	214	206	208	210	213	215	217
1	217	214	221	259	242	252	243	246	248	251	254
2	210	228	225	232	272	254	265	256	258	261	264
3	200	216	234	231	238	280	261	272	262	265	268
4	270	212	228	248	244	252	296	276	288	278	281
5	237	276	216	233	253	250	258	302	282	295	284
6	248	249	290	227	245	266	262	270	317	296	309
7	259	257	258	300	235	254	276	272	280	329	307
8	277	263	261	262	305	239	258	280	276	285	334
9	272	294	279	277	278	324	254	274	297	293	302
10	289	277	299	284	282	283	330	258	278	302	298
11	283	297	284	307	292	290	290	338	265	286	310
12	263	281	295	283	305	290	288	289	336	264	284
K - 12 Total	3,206	3,251	3,309	3,348	3,405	3,440	3,489	3,543	3,600	3,620	3,712

Source: FutureThink

10-YEAR PROJECTIONS – HIGH LEVEL – BY GRADE GROUP

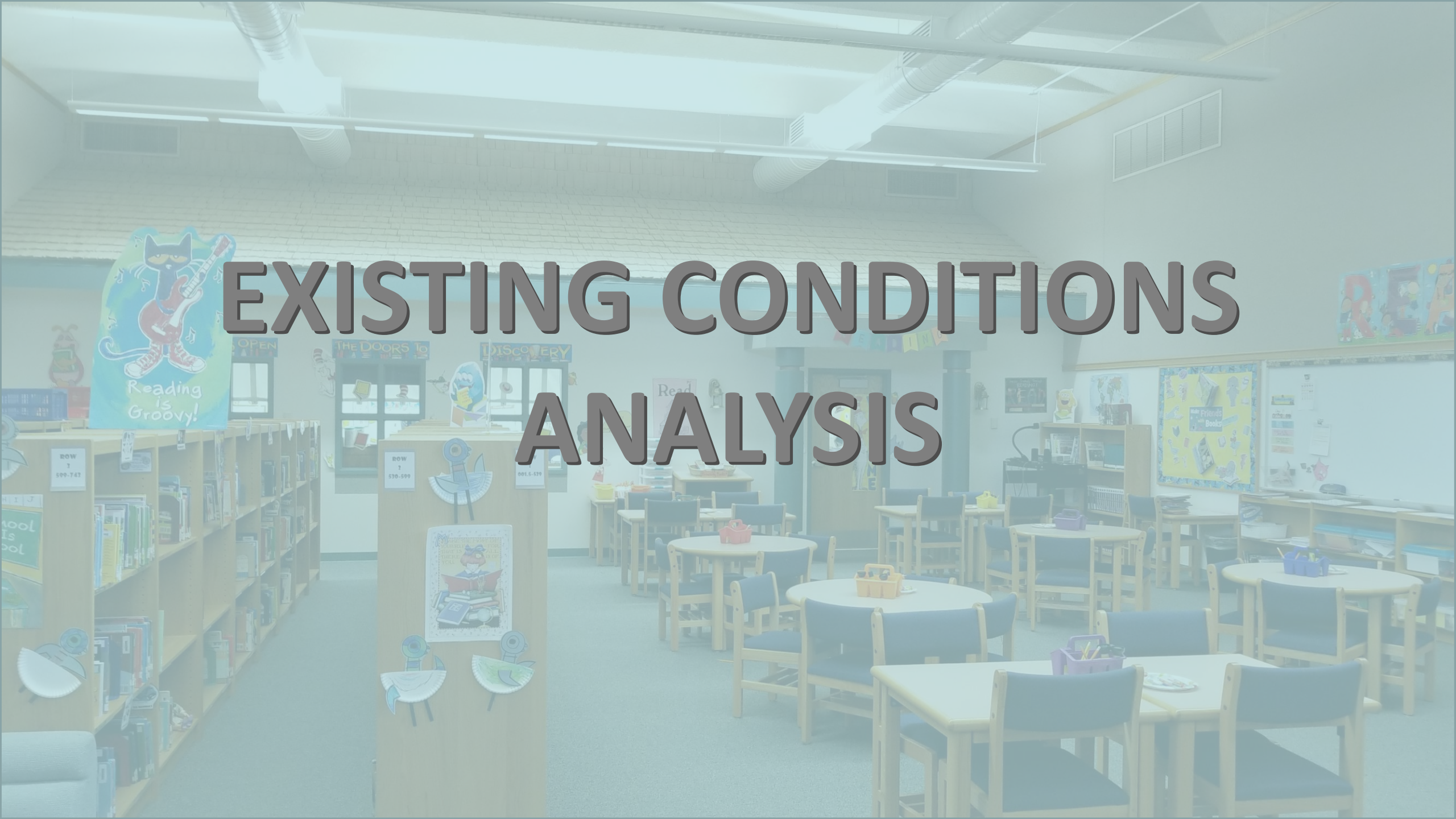
**Southern Lehigh School District
Projected Enrollment by Grade Group - High**

Grade	2017-18 Actual	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K - 3	808	845	899	927	966	992	977	984	981	992	1,003
4 - 6	755	737	734	708	742	768	816	848	887	869	874
7 - 8	536	520	519	562	540	493	534	552	556	614	641
9 - 12	1,107	1,149	1,157	1,151	1,157	1,187	1,162	1,159	1,176	1,145	1,194
K - 12 Total	3,206	3,251	3,309	3,348	3,405	3,440	3,489	3,543	3,600	3,620	3,712

Source: FutureThink



EXISTING CONDITIONS ANALYSIS



PROCESS

An architectural/engineering analysis of each building and campus was conducted that evaluated the following:

- Overall functionality
- General condition
- Building systems
- Code compliance
- Energy efficiency
- Security protocols



Southern Lehigh School District
Existing Facilities Report – High School
5800 Main Street #1, Center Valley, PA 18034



High School Entrance

History:

Southern Lehigh High School was built in 1954. Major additions and renovations occurred in 1974, 1988, and in 2003.

Building Statistics:

Size of Building: approximately 193,000 sf (two stories with basement level)

Building Footprint: approximately 176,000 sf

Size of Site: approximately 57.2 acres

Grades:

The school currently educates students in 9th through 12th grades. As of the 2016-2017 school year, PDE reported that the school houses 1074 students (272 in 9th grade, 270 in 10th grade, 255 in 11th, and 277 in 12th grade).

Site:

The existing accessible route from bus drop off location to student entrance requires a student to travel over 475 feet further than students who climb the stairs to the entrance. This route is not clearly visible from the majority of the bus stalls and forces students with disabilities to travel along back of house portions of the building including a loading dock and air handling equipment.

The existing concrete stairs and brick masonry site walls at the bus drop off entrance are failing. The existing handrails do not meet current code requirements and connections to stairs are not stable.

The existing concrete sidewalks at the bus drop off entrance is uneven and presents a trip hazard. The



Inappropriate Accessible Route



Failing site walls and stairs

Southern Lehigh School District
Existing Facilities Report – High School
5800 Main Street #1, Center Valley, PA 18034



Cracked and sloped concrete walkway to bus loading area



Concrete stair sections & asphalt landings/walks without railings



Failing brick site wall



Uneven sidewalk at main entrance

higher positioned pads have been ground down to limit the height change, but is still not ADA compliant and may present a tripping hazard. Concrete and asphalt walkways along the East and North façade are cracking, spalling and heaving. A large asphalt area on the northeastern side of the building contains several cracks with weeds and partially exposed brick border.

Concrete sidewalks have settled lower than the adjoining concrete pads at exterior entrances creating Accessibility non-compliance issues.

Concrete stairs at loading dock have failed, exposing embedded sleeve for handrail post.

Significant driveway and parking improvements were constructed with the classroom wing in 2002, and the bituminous pavements are currently in good condition. Some cracks were observed in the service area.

The ground surrounding the catch basin in the southern lawn area between the buildings has settled below the top of grate.

The School District has indicated that additional parking for student cars is needed.

Issues to consider:

HS.S.01 A new ADA compliant ramp should be built in a more convenient, equitable and dignified location. It might be possible to reduce the extraneous length of the accessible route by 350 feet.

HS.S.02 The concrete stairs, Brick site walls and stair railings should be rebuilt to current standards properly detailed to avoid water intrusion related failures.

HS.S.03 The section of sidewalk where movement has occurred should be replaced with new concrete

LIBERTY BELL ELEMENTARY SCHOOL



Age: Built 1963; Expanded 1999

Grades: K to 3

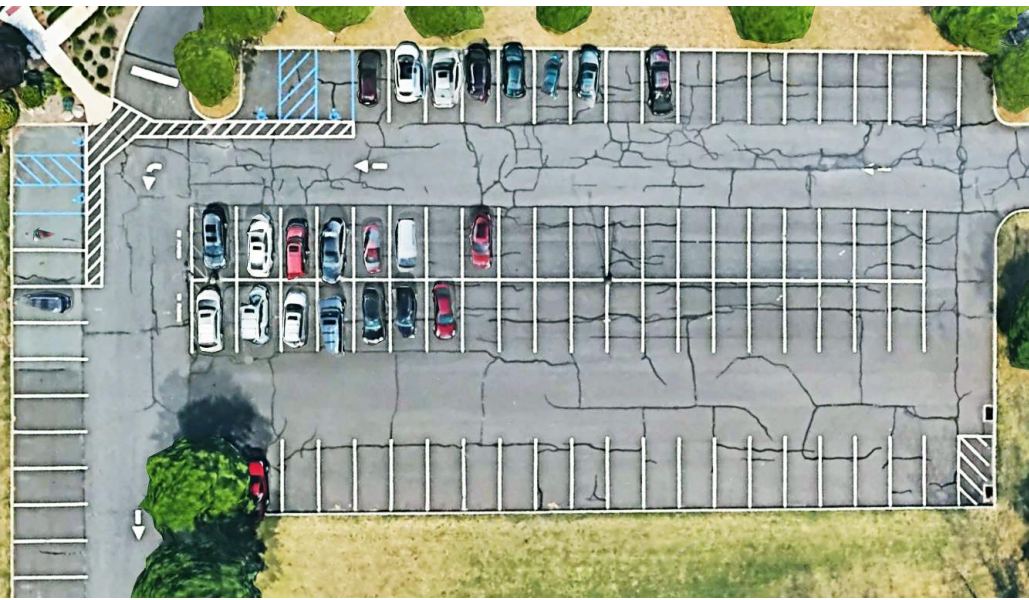
Current Enrollment: 411

Size: 60,400 SF on approx. 23 acres

Overall Condition: Satisfactory with some systems, equipment and materials in poor condition.



LIBERTY BELL ELEMENTARY SCHOOL



Identified Issues:

- Driveway/parking in poor condition
- Roofing due for replacement
- Accessibility
- Remove carpet
- Mechanical, electrical and plumbing replacement



HOPEWELL ELEMENTARY SCHOOL



Age: Built 2016

Grades: K to 3

Current Enrollment: 397

Size: 58,540 SF on approx. 27 acres

Overall Condition: Excellent



HOPEWELL ELEMENTARY SCHOOL



Identified Issues:

- High efficiency gas boiler
- Backflow preventer

JOSEPH P. LIBERATI INTERMEDIATE SCHOOL



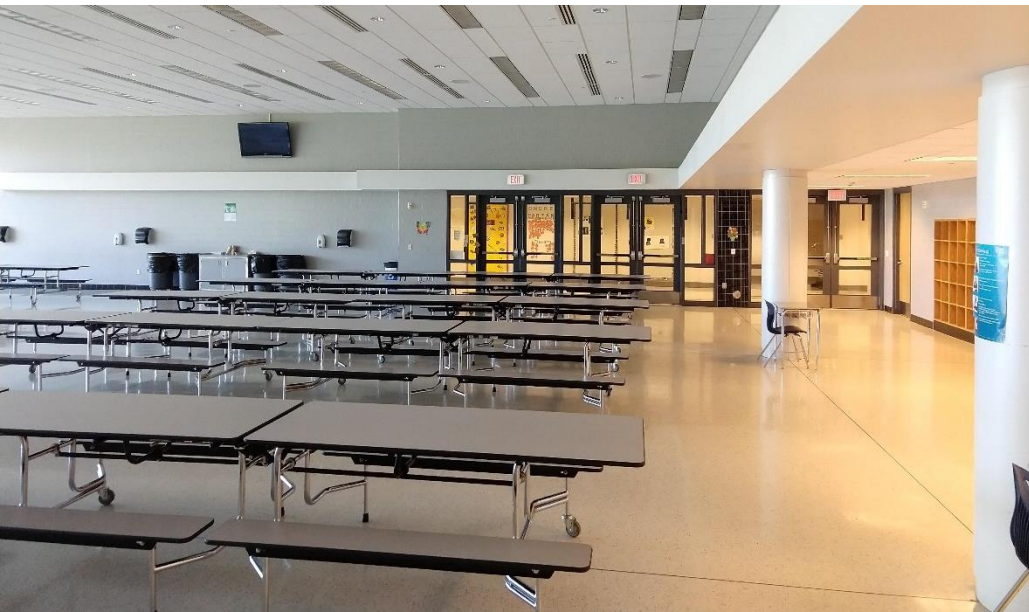
Age: Built 2009

Grades: 4 to 6

Current Enrollment: 755

Size: 132,000 SF on approx. 21 acres

Overall Condition: Good



JOSEPH P. LIBERATI INTERMEDIATE SCHOOL



Identified Issues:

- Site circulation maintenance
- Acoustics in gym
- High efficiency boilers



SOUTHERN LEHIGH MIDDLE SCHOOL



Age: Built 1966; several renovation projects (most recent was 1998)

Grades: 7 and 8

Current Enrollment: 536

Size: 121,600 SF on approx. 20 acres

Overall Condition: Poor



SOUTHERN LEHIGH MIDDLE SCHOOL



Identified Issues:

- Site circulation maintenance
- Accessibility
- HVAC controls, dehumidification & efficiency improvements
- Additional electric needed in classrooms
- Stage systems

SOUTHERN LEHIGH HIGH SCHOOL



Age: Built 1955; several renovation projects (most recent was 2003)

Grades: 9 to 12

Current Enrollment: 1,107

Size: 193,000 SF on approx. 57.2 acres

Overall Condition: Satisfactory/Poor



SOUTHERN LEHIGH HIGH SCHOOL



Identified Issues:

- Exterior circulation condition
- Roof replacement
- Accessibility
- Old materials and equipment
- Mechanical system upgrades

STADIUM



Identified Issues:

- Turf field
- Track replacement
- Bleachers – code/accessibility
- Field House



DISTRICT ADMINISTRATION OFFICE



Age: Built 1924, renovated 1992

Overall Condition: Poor

Identified Issues:

- Age of material and systems
- Air/water leakage in building envelope
- HVAC system





**ANALYSIS OF
PROGRAM-RELATED
NEEDS**

PROCESS

Research was conducted via interviews with administrators and faculty as well as three community workshops to collect data related to:

- School capacity
- Operational needs
- Security protocols
- Academics
- Arts
- Athletics



DISTRICT-WIDE PROGRAM NEEDS

- Full day Kindergarten
- Performing Arts Center
- Aquatics Center
- Ballfield improvements
- Field House

LIBERTY BELL ELEMENTARY SCHOOL

Identified Issues:

- Full Day Kindergarten
- Secure vestibule
- Lacks small group instruction spaces
- Conference space
- Science Lab
- Site circulation/parking

HOPEWELL ELEMENTARY SCHOOL

Identified Issues:

- Too few small group instruction areas
- Cafeteria congestion
- Additional music room
- Storage

JOSEPH P. LIBERATI INTERMEDIATE SCHOOL



Identified Issues:

- Assembly space undersized
- Operational challenges in cafeteria
- Parking

SOUTHERN LEHIGH MIDDLE SCHOOL

Identified Issues:

- Specialty classrooms outdated & undersized
- Classrooms lacking natural light
- Secure vestibule
- Performance space
- Media center and STEM labs

SOUTHERN LEHIGH HIGH SCHOOL

Identified Issues:

- Secure vestibule / two entrances
- Performance space
- Additional curriculum spaces
- Music and Art space
- Auxiliary Gym

DISTRICT ADMINISTRATION OFFICES



Identified Issues:

- Insufficient space
- Conference Space
- Privacy
- Security
- Site circulation



ITEMIZED MAINTENANCE MATRIX

ITEM PRIORITY RANKING

At the conclusion of the research gathering process, deficient items were identified and ranked on the following scale:

1. Long term need to be addressed within a 5-10 year timeframe
2. Medium term need to be addressed within a 4-5 year timeframe
3. Short term need to be addressed within a 2-3 year timeframe
4. Immediate need to be corrected within the next 1-2 years
5. Critical need represents a safety concern and should be corrected as soon as possible

**Southern Lehigh School District
Physical Needs Matrix**

School	Category	Item #	Description	Priority	Cost	Comments
DW	PR	01	Construct a three-classroom addition at both Liberty Bell ES and Hopewell ES for expansion to full day Kindergarten.	4		Selection to be made between (3) options: DW.PR.01, DW.PR.02, DW.PR.03
DW	PR	02	Construct a Kindergarten center attached to one of the elementary schools. The addition would include 12 Kindergarten classrooms and three small group support rooms. The addition would result in three unassigned classrooms in each elementary school for future population growth.	4		Selection to be made between (3) options: DW.PR.01, DW.PR.02, DW.PR.03
DW	PR	03	Realign grades, moving third grade to the Intermediate school. With both elementary schools reduced to K-2 grades, first grade classrooms with dedicated toilet rooms can be reallocated for Kindergarten. An addition would not be needed at either elementary school, but additional space would be required at another building in the district to accommodate the grade re-alignment.	4		Selection to be made between (3) options: DW.PR.01, DW.PR.02, DW.PR.03
DW	PR	04	Construct additional intervention rooms at each school. These rooms should accommodate up to 12 students each.	4		

**Southern Lehigh School District
Physical Needs Matrix**

School	Category	Item #	Description	Priority	Cost	Comments
DW	PR	05	Construct a Performing Arts Center with assembly seating for 1,200 people with a large orchestra pit for 100 performers. Center to include a large stage with fly loft and wings, green rooms, changing rooms, toilet facilities, dance studio, keyboard lab, ensemble room, set design space, set storage space, costume storage and loading dock.	4		
DW	PR	06	Construct a district aquatic center.	3		
DW	PR	07	Construct a synthetic turf field.	4		
DW	PR	08	Rebuilt track at stadium with (8) lanes.	4		
DW	PR	09	Construct a Field House adjacent to the stadium.	4		
DW	PR	10	Renovate/rebuild stadium bleachers, increasing the capacity and providing full accessibility.	4		
DW	PR	11	Install bleachers at additional fields at the High School and Middle School.	2		
DW	PR	12	Construct a marching band practice area.	2		
DW	PR	13	Construct a rifle range.	1		
DW	PR	14	Maximize the size and flexibility in the design of all new classrooms and renovation of existing classrooms.	4		
LB	PR	01	Reconfigure main entrance and administration to create a secure vestibule.	5		
LB	PR	02	Construct public/adult toilet rooms near the main entrance.	3		
LB	PR	03	Replace the hardware on all doors to educational rooms with access control devices.	3		

NEXT STEPS

- Continue to evaluate findings to date
- Develop a range of long-term options
 - Renovation and/or expansion
 - Building/grade/boundary reconfiguration
 - New construction
- Present final report in September 2018



A group of children are gathered in a circle, some with their arms raised. Two children in the foreground wear green t-shirts with the text 'Familienzentrum' and a drawing of a house, sun, and people. The text 'THANK YOU!' is overlaid in the center.

THANK YOU!